



Add Brain not Wires

User Manual

Version 1.2.22 SP12

by

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Introduction

This chapter gives a short overview about the functionalities of **myHomeControl**.

The chapter „[First Steps](#)“ introduces how to work with **myHomeControl**. This is done on the basis of an example.

What is myHomeControl

myHomeControl integrates building automation visualization and control tasks into one system.

User operation, indication, visualization and system functions are integrated. The application may be freely defined and is not restricted. No programming skills are needed, the application is defined with graphical symbols.

Application samples:

- | | |
|--------------------------------|---|
| Energy Saving | myHomeControl saves energy by turning off lights in case they are no longer needed, lowering rolling shutters during the night phase consequently and by lowering the heating temperature during absence of the inhabitants. |
| Presence Simulation: | myHomeControl closes the rolling shutters / sun blinds when it gets dark, is turning the light on and off in different rooms and when it gets morning the blinds are opened as usual. With this function in use, the house really will look “lived in” when you are away. |
| Sun blinds: | myHomeControl manages the position of the sunblind according to the weather and the altitude of the sun. The altitude of the sun is considered based on the daytime and date. |
| Scenes / Light control: | myHomeControl can be used to switch or dim individual lights or groups of lights automatically, based on the time of day, or the use that the room is being put to, or whether the house is in use or empty, or some external event (e.g. Intruder Alarm triggered).
myHomeControl operates as a scene-setting light control system. Scenes may be stored and recalled by a fingertip. The scenes include light control and sun blinds management. |
| Security / Monitoring: | myHomeControl monitors the doors, windows and lights. Before leaving the house at a glance check which window is open and where is the light still switched on. |
| Cameras: | myHomeControl supports most of the commonly used cameras (USB, IP). Live pictures may be embedded into the visualization. |
| Load Limitation: | myHomeControl monitors the power consumption level and controls the total load by turning off and on various electrical consumers in case there are constraints given by the power provider. |
| Daylight: | myHomeControl daylight switch knows the sunrise time and the sunset time. The calculation is based on date, time and the altitude of the sun. |
| Irrigation: | myHomeControl evaluates the timing to irrigate your plants or processes the irrigation process by itself. |
| Alarming: | myHomeControl may send out alarms using e-mail, SMS or phone calls. The alarm condition may be formed as desired e.g. if in case of absence a window is opened. |
| Remote Control: | myHomeControl may be remote controlled using the local network, the Internet or mobile phones. |

myHomeControl is free programmable. The programming is done graphically and doesn't request any programming skills.

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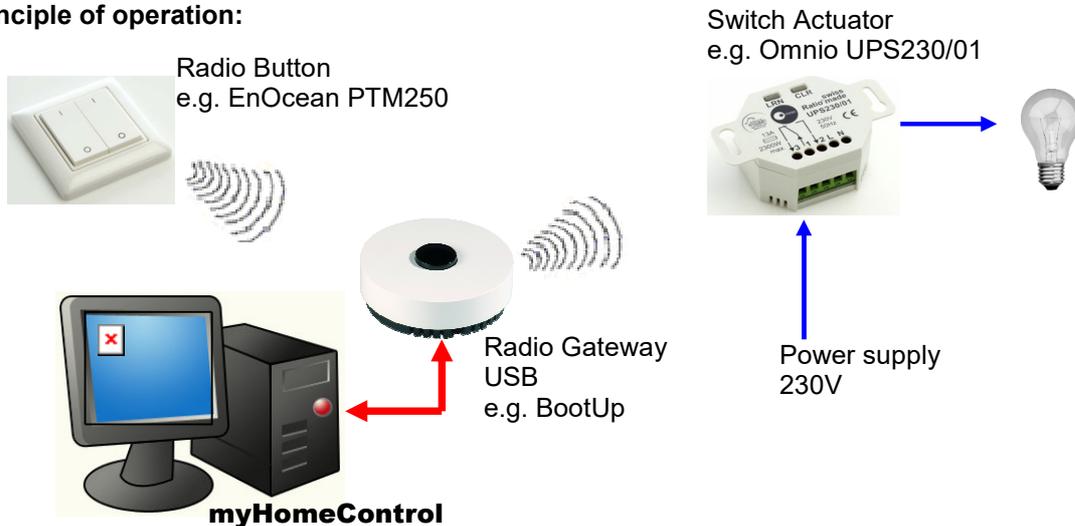
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First Steps

The following chapter leads through a simple example. This shows up how to operate **myHomeControl**.

Principle of operation:



The radio signals sent by the radio button will be received by the radio gateway. The gateway forwards received signals to the **myHomeControl** application. myHomeControl evaluates the signals and generates, corresponding to the control function new signals. The new signals will be forwarded to the radio gateway. The gateway sends them out as radio signals. The addressed switch actuator receives the radio signals and e.g. turns on a light.

Just to try the demo version skip the chapter „[Installation of the transceiver \(radio gateway\)](#)“ and proceed to chapter „[start myHomeControl](#)“.

Installation of the transceiver (radio gateway)

The transceiver receives and transmits EnOcean messages.

The transceiver is to connect to a serial port of a PC. If the PC is not equipped with a serial port, use a corresponding USB<->RS232 converter. Check the associated COM port number after installation of the USB converter using Start->Settings->Control Panel->System->Hardware->Device Manager.

Connect the transceiver to the power supply.

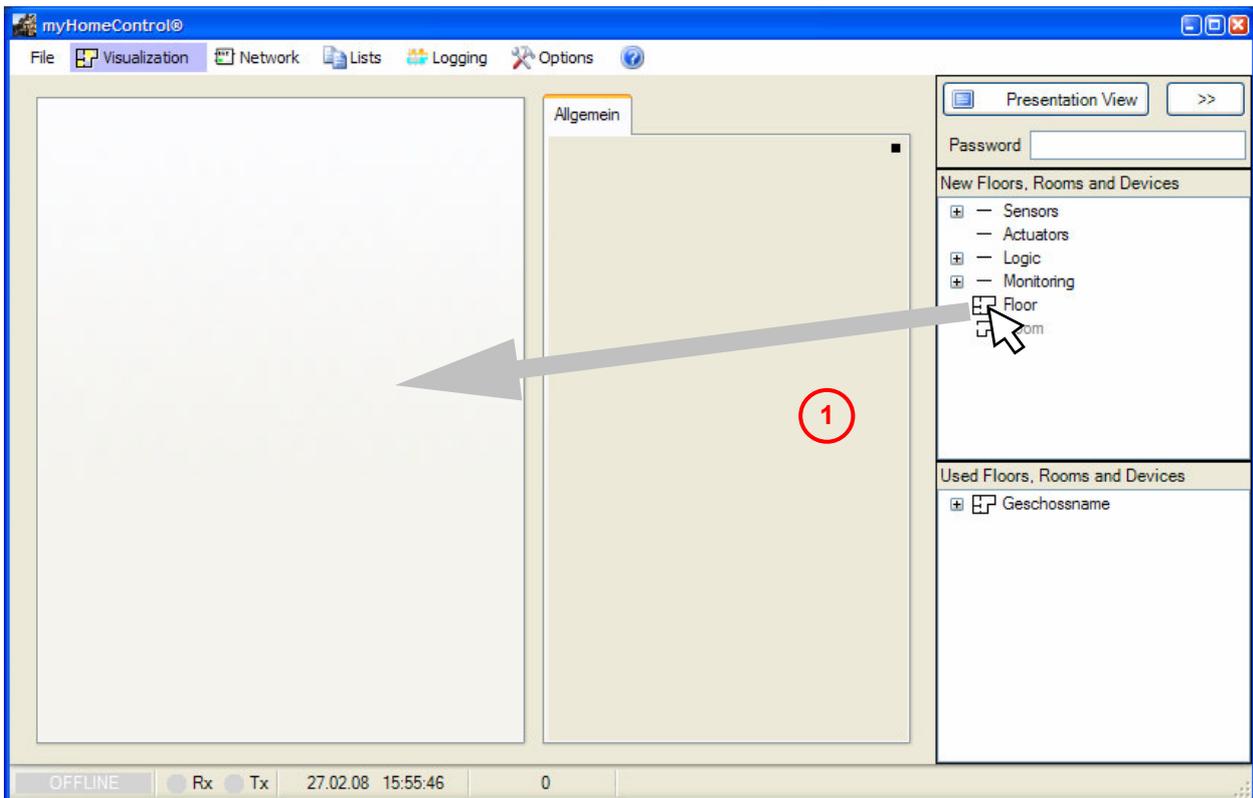
Remember to select the appropriate COM port number (as checked before) in the Settings menu of **myHomeControl** ([Options->Communication](#)).

Starting myHomeControl

Double clicking the  icon starts the **myHomeControl**-Application.

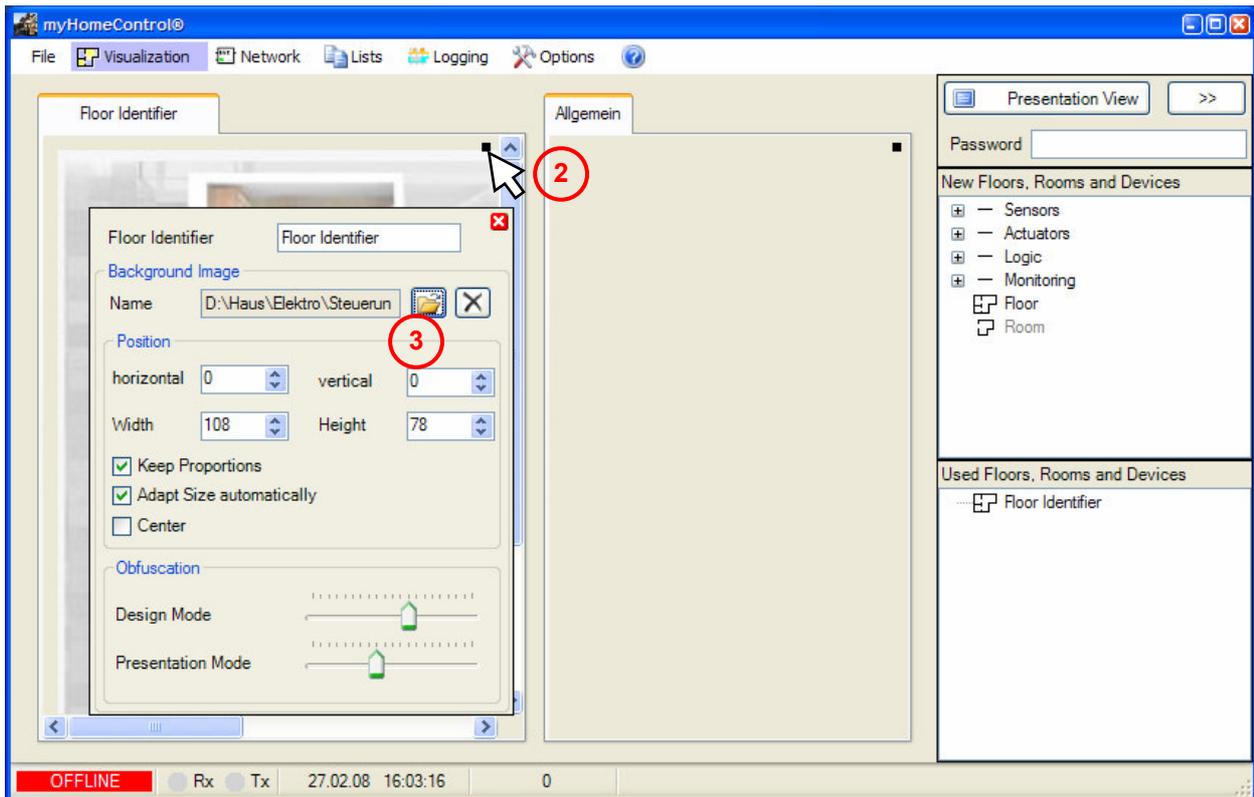
After the first installation **myHomeControl** presents as follows:

The Visualization ( Visualization) is selected and new devices (Visualization elements) can be inserted into the workspace areas. Acknowledge the request to open the help with “no”.



- ① First of all a floor has to be defined. Drag a floor from the tree view “new floors, rooms and devices” and drop it into the left workspace area (click the floor symbol with the left mouse button and move the mouse with the clicked mouse button to the left workspace area and release the mouse button there).

Next step shows how to place [Visualization Elements](#).

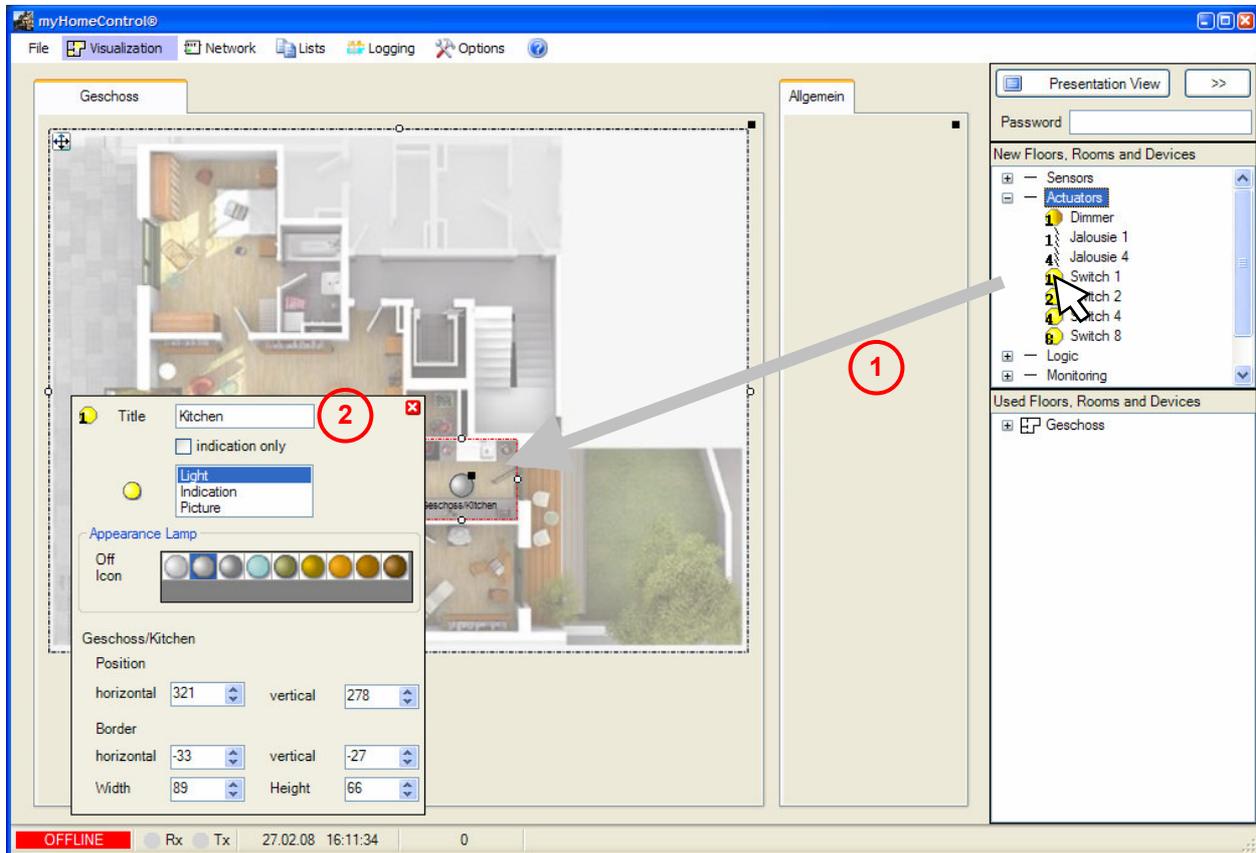


- ② To open the property dialog hover the mouse over the black rectangle. The property dialog will appear automatically and the properties of the floor can be set. A name for the floor can be entered in the field "Floor name", e.g. Ground Floor.
Hovering the mouse over the black rectangle to open the properties dialog by fits for all the different graphical objects.
- ③ By pressing the -Button a background picture can be loaded, e.g. a ground floor plan. Within the file open dialog navigate to the folder **DemoPics** and load 3D.jpg. The picture is shown in the left workspace area.

There is a floor available now and visualization elements can be inserted. Proceed to chapter [„Visualization elements“](#).

Visualization Elements

This chapter explains the placement of visualization elements for lights, blends and scenes in a floor plan. The visualization elements indicate the actual state of the lights and blends and enable the user to control the lights and blends with a fingertip.

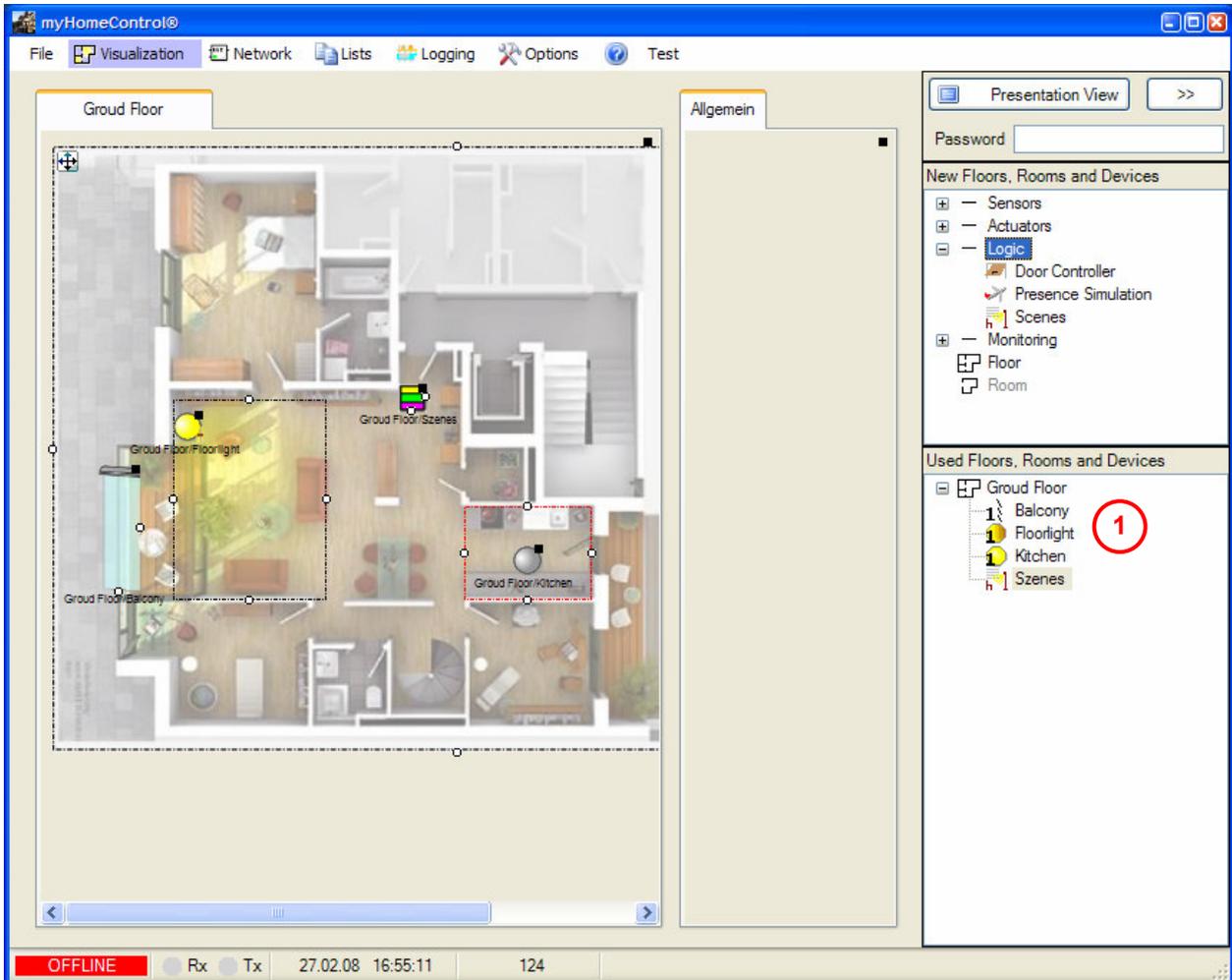


- ① A switch actuator, representing the lights in the kitchen can be dragged over the floor plan. Drop it at the corresponding location of the plan. A symbol for the light is now shown at this location. The border around the symbol shows the illumination area of the light. It can be adjusted by moving the corresponding adjustment dot . Clicking the light symbol switches on and off the lights.
- ② Rename the light now so that it can be recognized in a later step. To rename the light open the properties dialog by hovering the mouse over the black rectangle in the upper right corner of the light symbol. An appropriate name could be "Kitchen".

The next step explains how to configure [functions](#).

Drag in a dimmable light (Dimmer) in the left upper corner of the living room. Name it floor light. Drag in a blend and place it in front of the Window. Drag in a scene block and place it at the corner to the entrance door. For further hints to edit element refer to chapter The Design mode.

myHomeControl should look now as follows:



- ① The expanded tree view [used Floors, Rooms and Devices](#) shows what devices are already inserted into the project.

The first part of the configuration is done now. The next chapter describes how to interconnect control functionalities with the visualization elements.

Precede to chapter „[The first network](#)“.

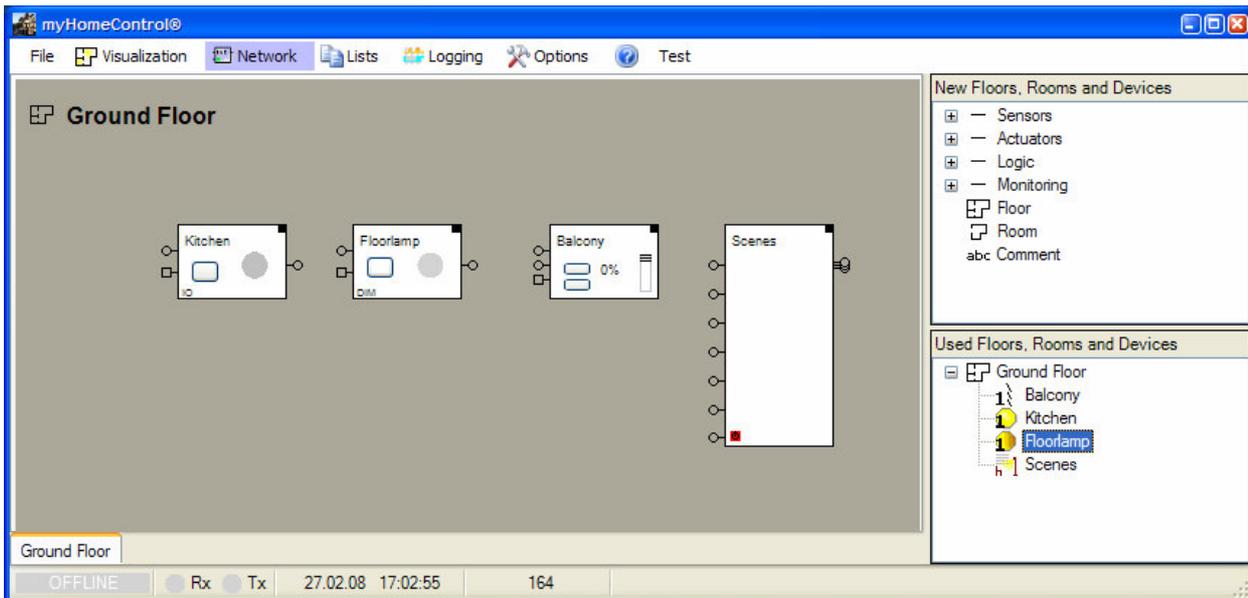
The first Network

This chapter explains how to create control functions. Control functions are created within the Network tab.

Change to the Network tab.

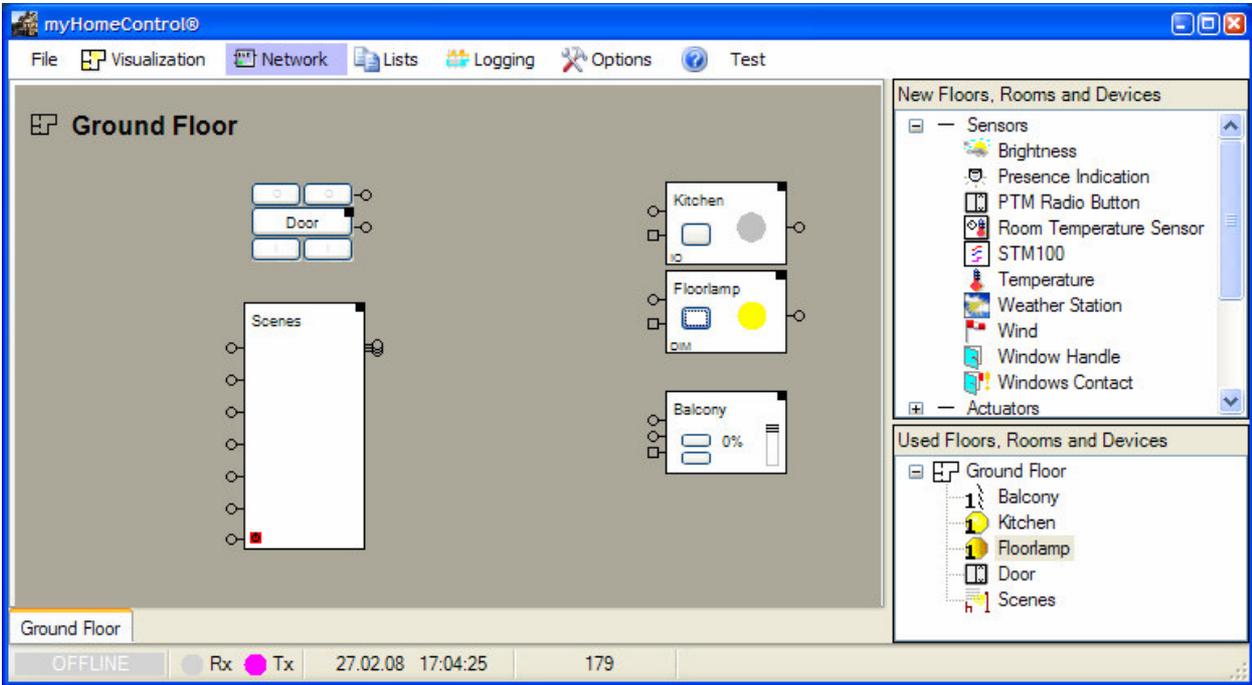
The Network tab is structured similarly to the visualization tab. On the right side of the screen the tree views “new floors, rooms and devices” and “used floors, rooms and devices” can be found. The amount of available devices is even larger then in the visualization tab. This is because some devices, especially logic blocks, inapplicable within the visualization tab.

During the configuration of the visualization myHomeControl inserted in the background corresponding blocks into the network area. The automatically created network looks as follows:



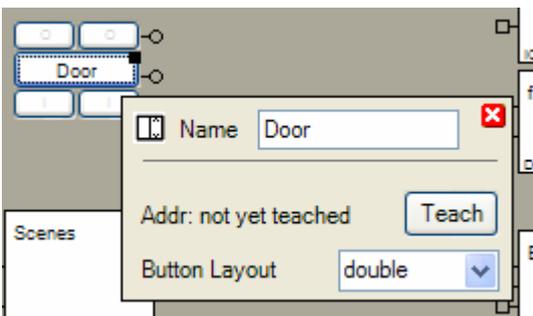
The first tree blocks from the left side represent the inserted actuators for lights and blends. The forth block handles the scenes functionalities.

Within the following steps the network will be extended to useful functions. Arrange the blocks as shown in the figure below. To move blocks move the mouse over the block, press the left mouse button and pull the block to the desired location. Please remark that blocks cannot be grabbed on their control elements (buttons), the PTM radio button-block has to be grabbed on the horizontal beam in the middle of the symbol.



First a PTM radio button-block should be inserted, which shall be used to switch the light on and off and drive the blend.

Drag a [PTM Radio Button](#) into the room. The PTM Radio Button-Block can be found in the tree view „[New Floors, Rooms and Devices](#)“ e.g. in the register “generic”. Click on the little cross left of [sensors](#) to expand the sensor list.



Configuration: set the button layout to „double“ and rename the [PTM Radio Button](#) „Door“. Hover the mouse over the black rectangle to open the [properties dialog](#) automatically.

To close the properties dialog click on the red button showing the white cross.

The PTM Radio button-block represents a real PTM radio button within **myHomeControl**. It evaluates the radio messages of the real PTM radio button and forwards corresponding commands to its output pin(s) . Blocks connected to these pins will receive the commands.

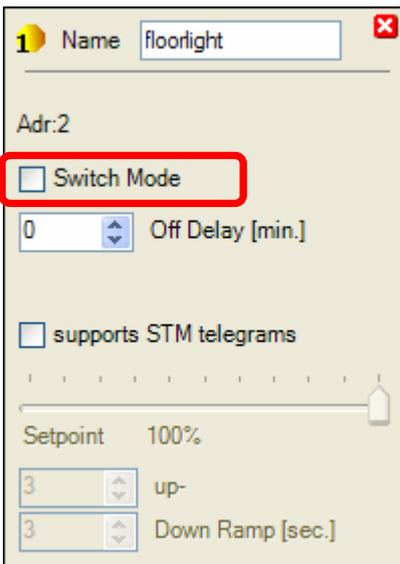
The upper pin corresponds to the left rocker, the lower one to the right rocker.

To prevent the light in the kitchen to stay switched on in case the user forgets to switch of the light, set an off delay of 120 minutes in the properties dialog of the [switch actuator-block](#). The light will be switched of automatically at least after 2 hours.

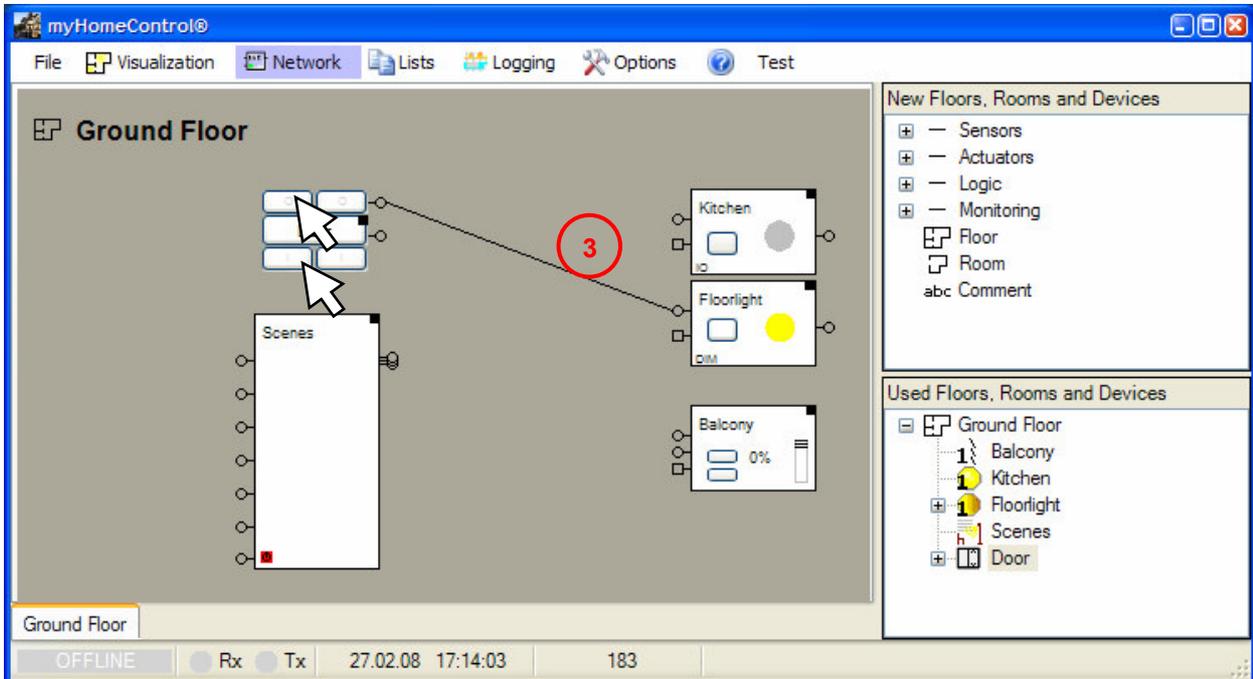


The switch actuator-block represents a real switch actuator within **myHomeControl**. It evaluates commands received from its preceding blocks. It generates radio message controlling the state of the corresponding real switch actuator.

To benefit of the scene functionality it is worth to configure the dimmer-block to act in the dimmer mode (instead of the switch mode, for details refer to [Dimmer](#)). Set up the floor light as shown in the figure below:

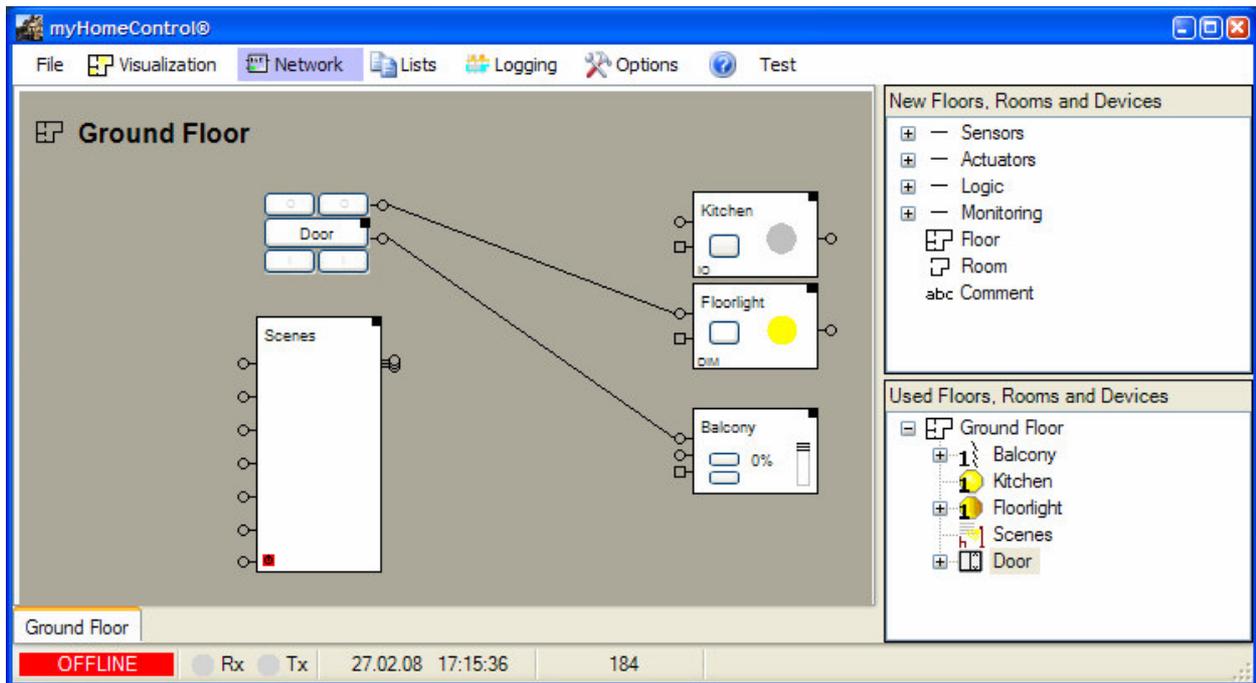


Next is to [connect](#) the [Output Pin](#) of the PTM Radio Button-block with the [Input Pin](#) of the switch actuator-block. Click first the output pin of the PTM Radio Button-block and then the input pin of the switch actuator-block. To disconnect click the pins in the similar way (first click on the output pin, then click the input pin).



- ③ The switch actuator-block will now react if buttons of the PTM radio button-block are clicked. It will change its state corresponding to the buttons clicked. This is the simulation feature provided by the networks. To [simulate](#) the network doesn't require any physical devices.

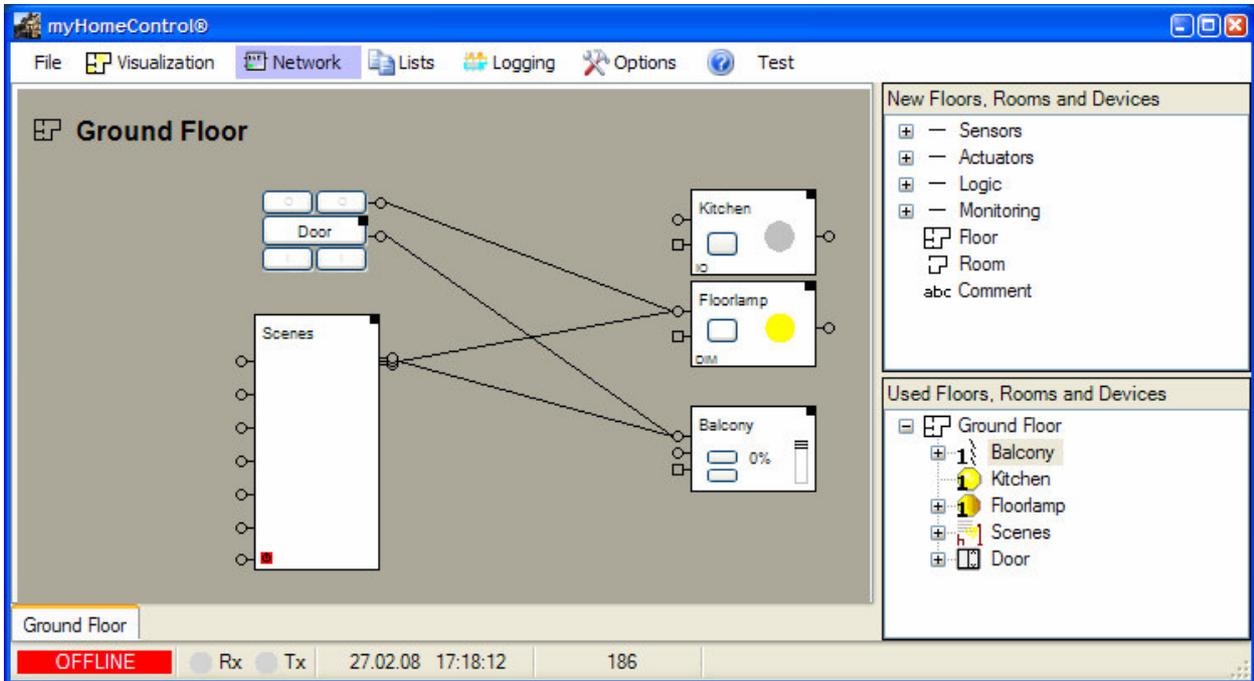
Connect the blend to the second output pin of the radio button-block.



The different input pins cause different reactions of the blend block. A detailed description can be found in chapter [Jalousie](#).

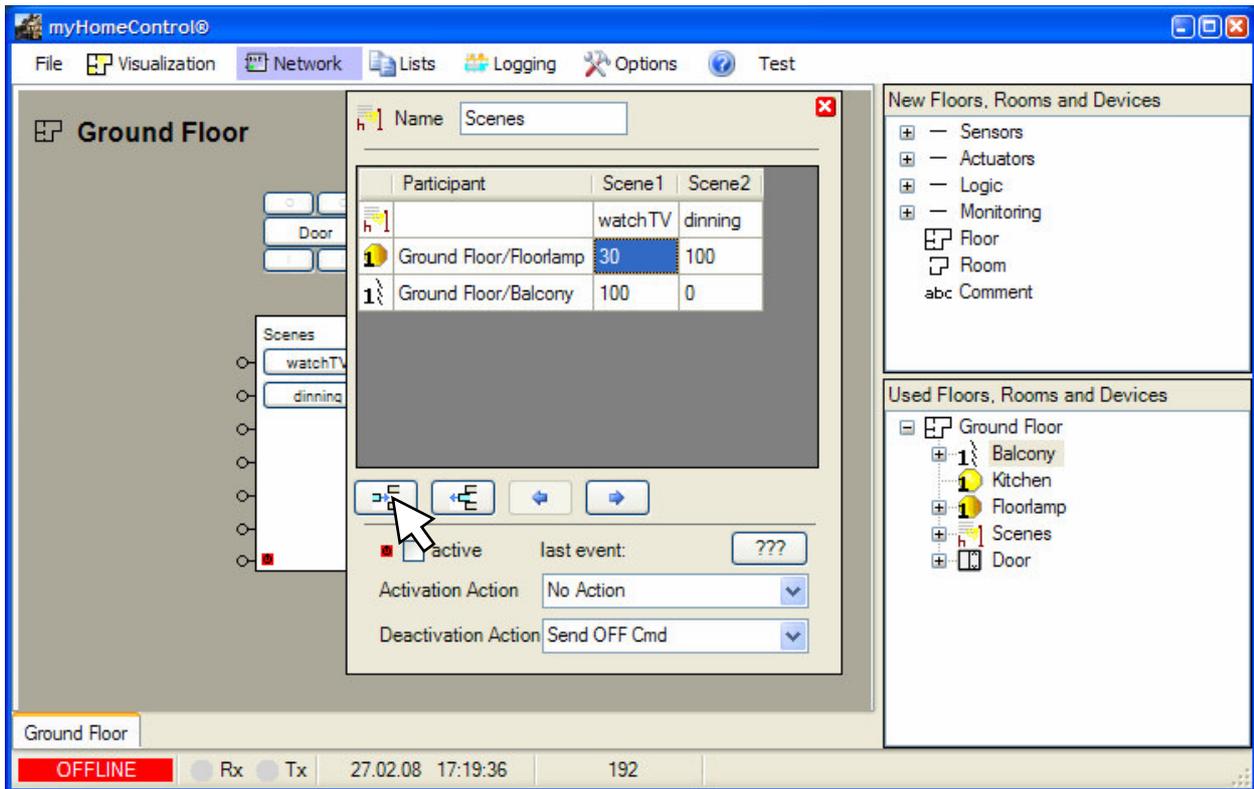
Within the next step it is shown how to build up scenes.

First connect all actuators participating the scenes to the scene block.



The scenes in the above example will control the floor lamp and the blend.

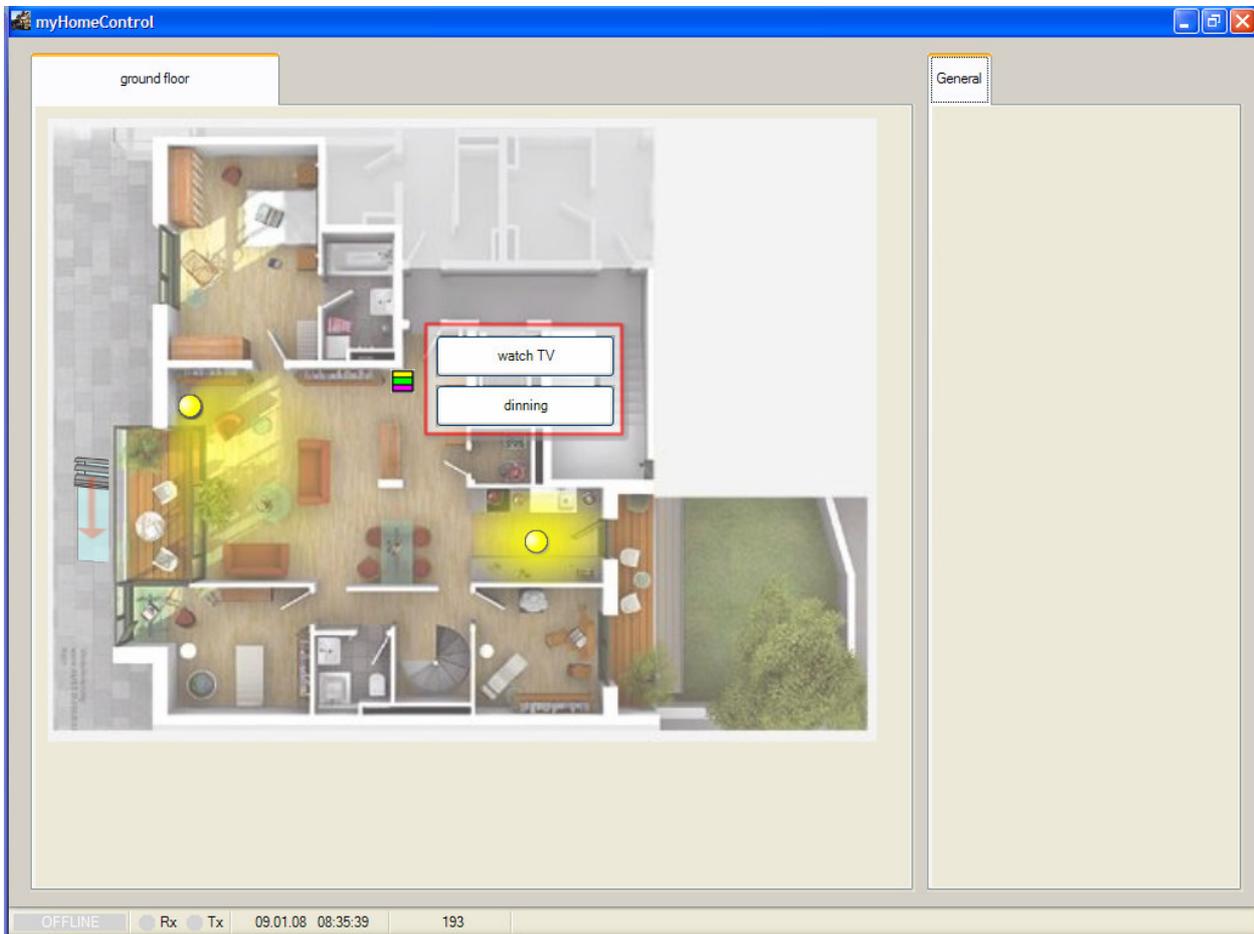
The next step defines the different scenes.



Clicking the +-button will create a new scene. With in the first row of the table (not the header) a name for the scene can be entered. This name will be used for the scene selection button of the corresponding visualization element as well. The scene block has been equipped now with a corresponding button. Clicking the buttons of the scene block can activate test wise scenes.

A value can be given for each scene participant within each scene. In case the scene will be activated, the given value will be sent to the participants and they adapt their states. Indeed it is not the usual way to give the values for the scenes manually. There is a teaching function for the scenes, but this will be expanded later or refer to [Scenes](#).

In the next step we will try to operate the defined configuration. Change to the Visualization register and activate the presentation mode by clicking the button .



Click or touch the symbol for the scenes . A control dialog pops up showing all the available scenes. Select one scene by clicking the corresponding button. The floor light and the blend change to there corresponding states.

Until now all operations have been processed virtual. No physical effect could be seen. To act on the real radio buttons and to control the real actuators, these objects have to be taught in. The next chapter describes the teaching process „[Teach in of EnOcean devices](#)„.

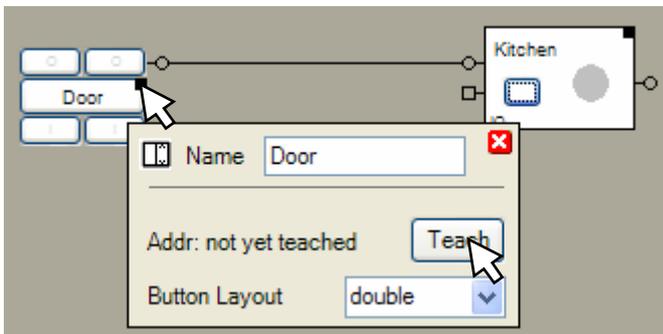
Teach in of EnOcean-devices

After connecting a transceiver and setting up the communication properties in the Options register, the EnOcean devices can be taught in.

The radio button – block “Door” represents a real radio button. To keep track of the button operations on the real radio button, the block have to be logically coupled to “its” real button. This is done by teaching in the address of the real radio button into the radio button block.

Vice versa the real actuators should react on there representing actuator blocks. The physical actuator for the light should process the commands sent by the switch actuator – block „Light“. Therefore the address of the switch actuator – block has to be taught in to the real actuator.

Teaching of a PTM radio button:



- ① Click the teach-button in the properties dialog of the radio button-block. The teach button starts blinking.
- ② Click now a button of the real PTM radio button. The teach button stops blinking now and the label beside the teach button shows the taught address.

Teach in of a switch actuator block:



- ① The switch actuator has to be connected to power. Press the „LRN“-Button on the switch actuator until it starts blinking. The switch actuator is now in teaching mode.



- ② Now click the button on the switch actuator block. The block sends a radio message, which will be received by the real switch actuator. The real switch actuator interrupts blinking to acknowledge the reception of the radio message.

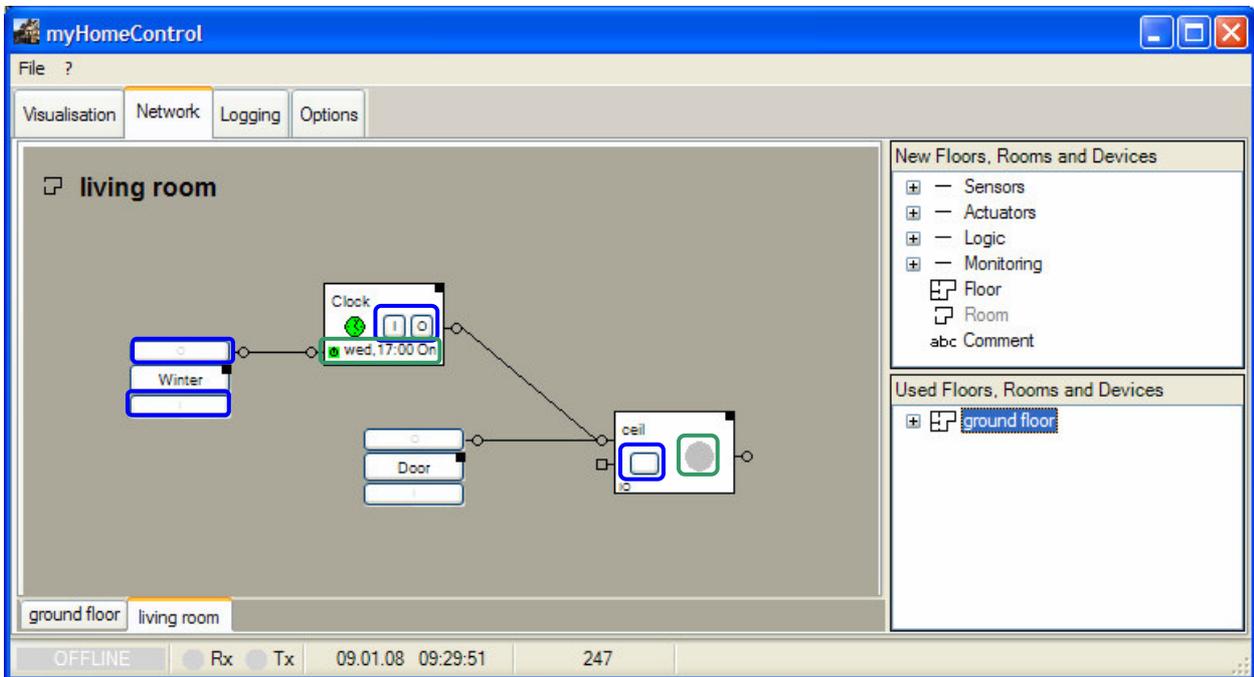
- ③ Press the „LRN“-Button once more and the switch actuator leaves the teach mode.

Whenever one of the buttons of the real PTM radio button will be pressed, the radio button-block “Door” indicates this by changing the color of the corresponding pad to blue. Simultaneously it forwards the command to the switch actuator block „Kitchen“. The switch actuator block “Kitchen” reacts to the command and sends out a radio signal commanding the real switch actuator to switch on or off the light.

This simple example shall show the mode of operation of **myHomeControl**. Beside the PTM radio switch and the switch actuator blocks there are lots of other useful blocks. The logic blocks form the real power of **myHomeControl**.

Simulation

Blocks, inserted into a floor or room, are immediately operational.

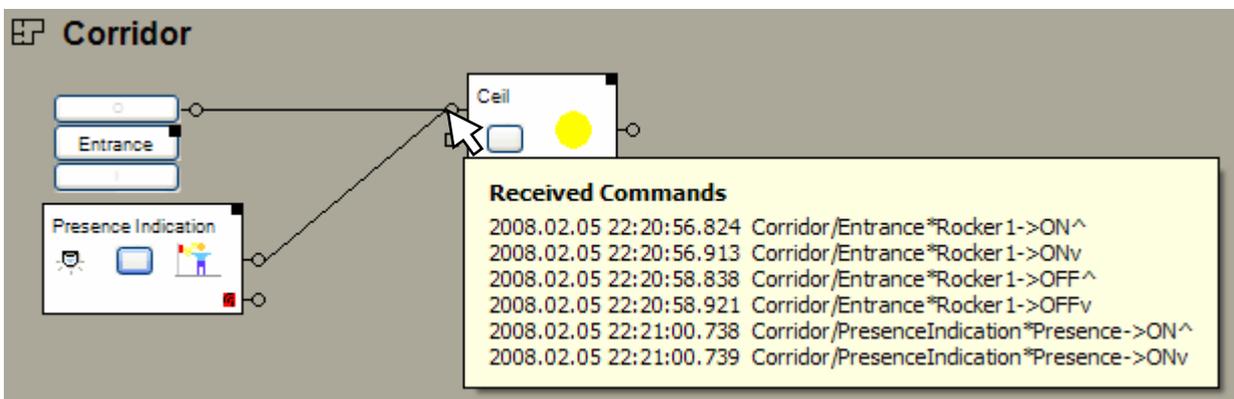


Each block provides **control-** and **visualization-** elements.

The control elements can be operated with the mouse. They command the blocks and trigger them to send commands to their [Output pins](#) or to send out radio messages in certain cases.

If a block receives a command on its [Input pin](#), it reacts corresponding to the command and sends in certain cases new commands to its own output pin(s).

By operating the control elements and by observing the visualization elements, different situations can be run through and tested. Hovering the mouse over an input pin of a network block will show a list of the last commands or signals the block received via this input.



Meaning of the lines:

<Date> <Time with milliseconds> <Floor or Room>/<Block name>*<Pin>-><Value>

Value:

With analogue Values, the shown figure represents the transmitted value, with commands:

- ON represents an ON-command without key press information
- OFF represents an OFF-command without key press information
- ONv an ON-key has been pressed
- ON^ an ON-key has been released
- OFFv an OFF-key has been pressed
- OFF^ an OFF-key has been released

The simulation can also be processed in offline mode. This means even if there is no transceiver connected or even if there are some of the EnOcean devices still missing.

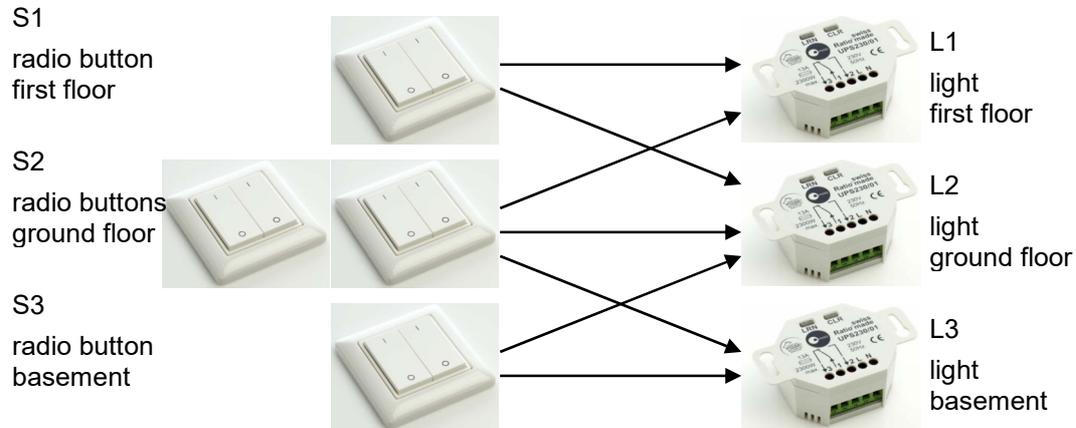
Without saying the simulation can be done also with connected transceiver and fully teached in devices. Probably this saves some “walking” during the set in operation phase.

Sometimes it might be useful to insert radio button blocks not teached to real radio buttons. These could be used as “virtual” buttons enabling part of the functionality e.g. the presence simulation. These buttons can be operated from the Visualization tab.

Operational reliability

Usually sensors, on which actuators have to react on, are teached directly to the actuators.

Example: Staircase

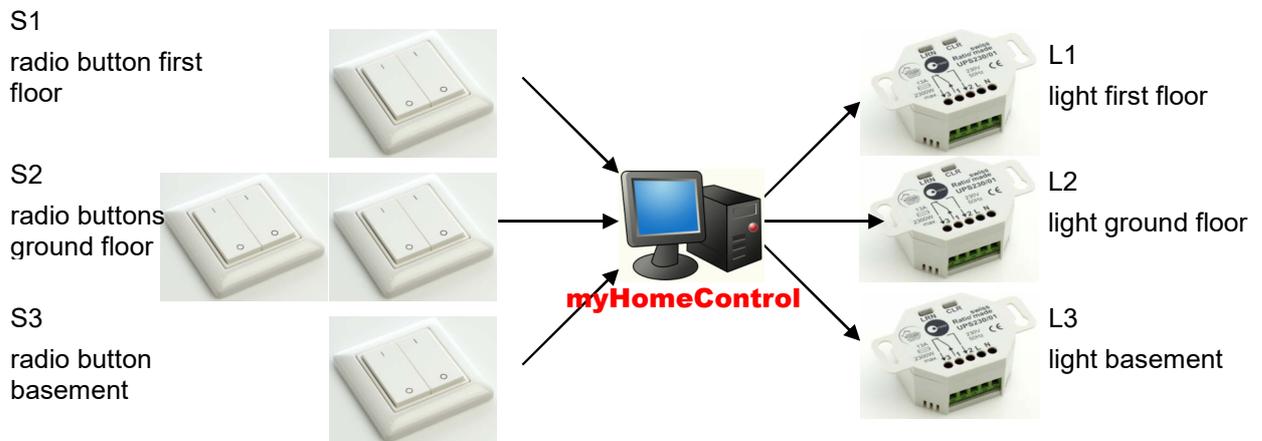


The figure above shows the conventional way of a staircase installation. The different radio buttons have to be teached multiple times in to different switch actuators. Each switch actuator has to be teached with all radio buttons it should react on.

The benefit of this solution is the complete independency on other components (e.g. PC with myHomeControl running on it). This solution is running as long as the actuators are feed with power.

Disadvantageous is the complex teach in process. Depending on the location of the actuator it is time-consuming to set them into teach mode. Whenever a “connection” should be modified, power outlets have to be disassembled or cabinets have to be cleared to set the actuators into the teach mode.

Solution with **myHomeControl**:



Benefits of this solution are:

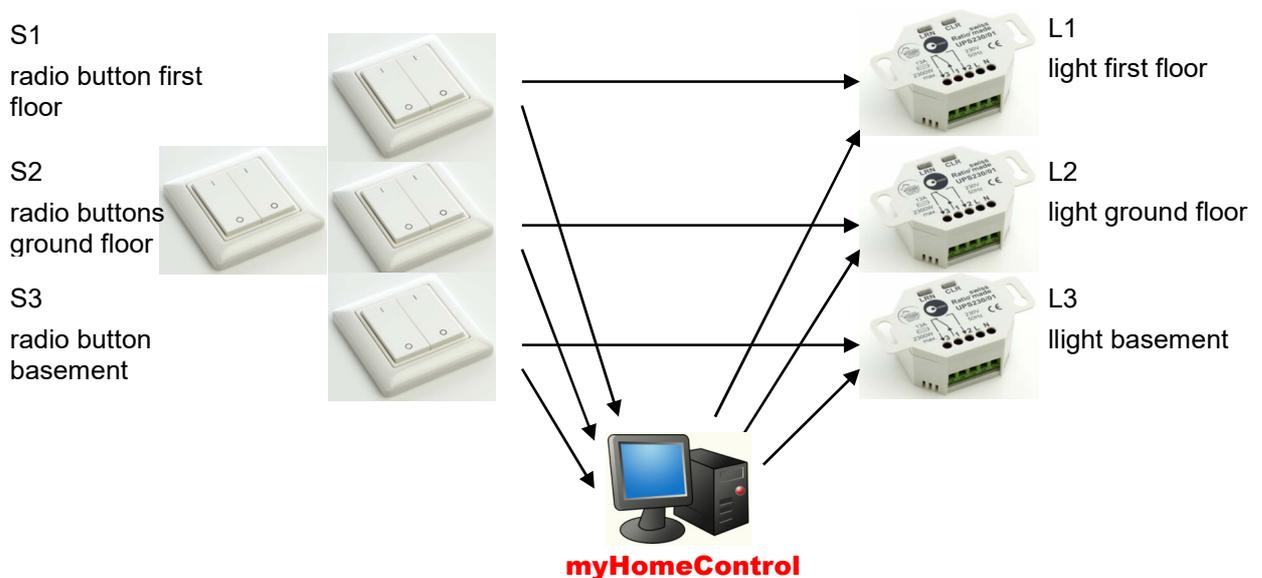
- It is very easy to modify “connections”. Just some clicks are required to change the relations between radio buttons and switch actuators within **myHomeControl**.
- Each light might be configured with an individual switch off delay to prevent permanent light if the user forgets to switch off the light. The delay can be set in the range of 1 Minute to several hours.
- All the other powerful features provided by **myHomeControl**.

Disadvantageous is the dependency on the PC.

If the PC crashes no light can be switched on anymore!

The combined solution:

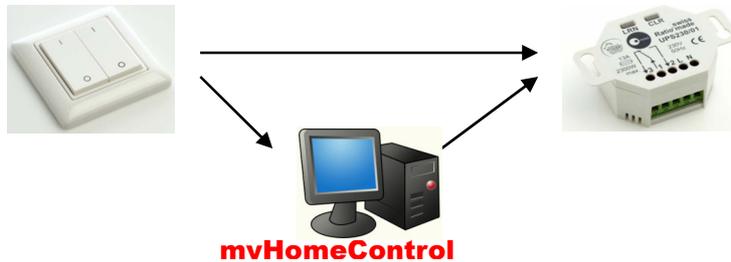
There is the opportunity to combine the both solution discussed above. This brings in the benefit of both solutions and softens the disadvantages.



Within the combined solution the elementary sensor→actuator relations have been taught directly into the actuators. All convenience and special functions will be processed by **myHomeControl**.

The actuator block is equipped with an observer input pin. This pin supports the combined solution.

Example: Light



The PTM radio button has been taught directly to the switch actuator.

Within **myHomeControl** a representing block has to be inserted for each radio button and switch actuator.

The [PTM radio button-block](#) has to be taught with the real radio button.

Then the real switch actuator has to be taught with the [switch actuator-block](#).



Finally the radio button-block has to be connected to the observer input pin (□) of the [switch actuator - block](#).

If a button of the radio button will be pressed, the switch actuator reacts directly to the radio message sent out by the radio button. This behaves totally independent of the PC and **myHomeControl**.

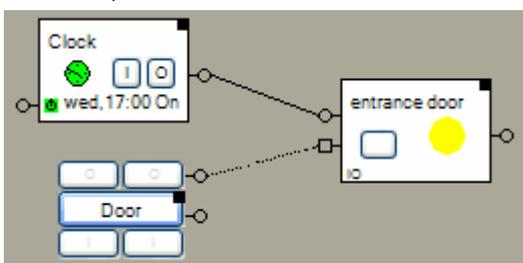
Simultaneously the radio button-block of **myHomeControl** receives the radio message as well and forwards the received command to the connected switch actuator-blocks (following the dotted line). Due to the fact that the switch actuator-block receives the command via the observer input pin, it doesn't generate an own radio message to the real switch actuator. It only updates its state and starts the switch off delay. If the switch off delay expires, it sends a corresponding radio message to the switch actuator and the switch actuator switches off the light.

This example shows how standard EnOcean functionality can be combined with convenience factions of **myHomeControl**.

Observer input:

(Refer to chapter [Operational reliability](#) to get an overview).

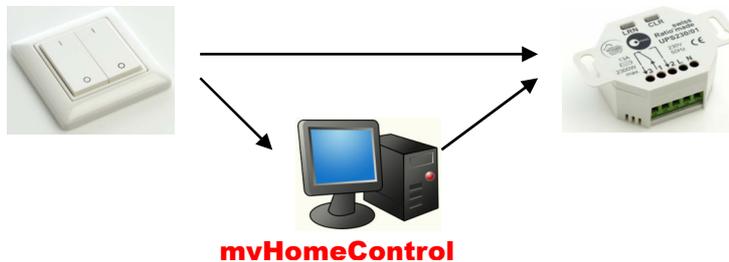
All actuator blocks provide an observer input pin. This pin has to be connected whenever a sensor is directly taught to an actuator. The regular input pins can be used in parallel (e.g. for convenience functions):



In the example on the left side the real PTM radio button has been taught directly to the real switch actuator. The switch actuator-block will not generate radio messages for those commands it receives from the PTM radio button-block. For the commands received from the clock it will send out corresponding radio messages to the real switch actuator.

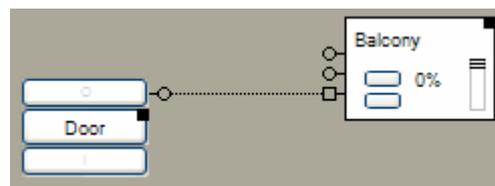
Example: Blend

A Venetian blend should be lowered for shading purposes. Therefore it should be lowered only to the half of the movement range. This is one of **myHomeControl** convenience functions.



The PTM radio button has been directly teached to the blend actuator.

Within **myHomeControl** a representing block has to be inserted for each radio button and blend actuator.



Connect the radio button-block with the observer input () of the des [blend actuator-block](#).

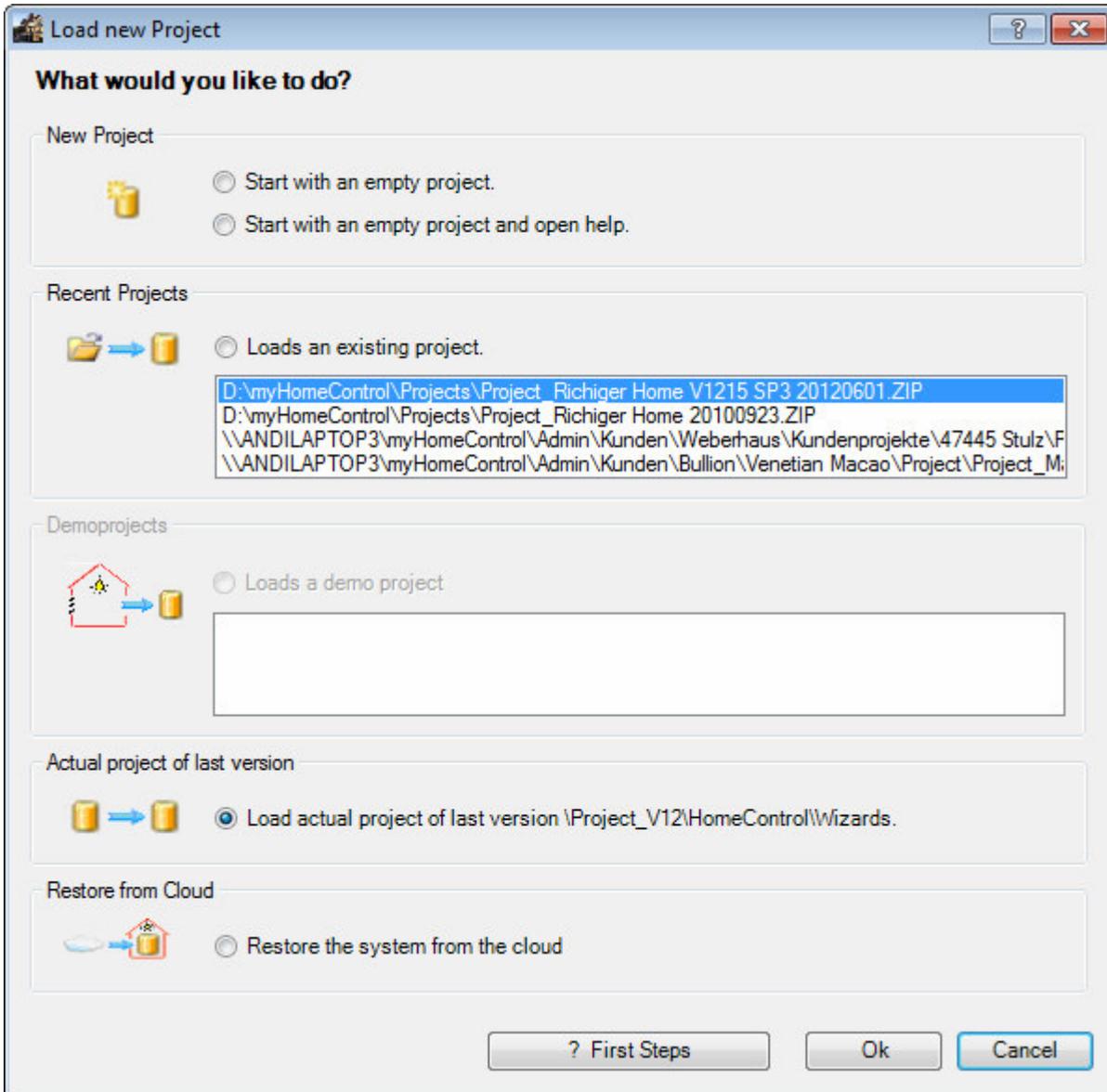
After pressing a radio button, the Jalousie actuator starts lowering the blend.

The radio button-block receives the radio message as well. It forwards the received command to the Jalousie actuator. The Jalousie actuator receives the command via its observer input pin. Therefore it doesn't generate a radio message to the real Jalousie actuator. It only adapts its state and starts the position interpolation. After expiration of the movement time, it sends out a radio message to the real Jalousie actuator to stop the lowering. Subsequently is sends the radio messages to adjust the blend.

In case of a crash of the PC running **myHomeControl** (defect or virus attack), the lowering of the blend will not be stopped by the PC anymore, but the blend is still fully operational directly by the radio button.

This means: the elementary functionality is still available even in case of a PC crash. The PC is just performing the convenience functions.

Start with empty project



This window appears if **myHomeControl®** starts up with an empty project. This is typically the case if **myHomeControl®** has been installed the first time or after the installation of an update version.

Choose one of the following options:



Start with an empty project

myHomeControl® starts with an empty project. Same happens if the cancel button has been pressed.

Start with an empty project and open help

myHomeControl® starts with an empty project. It opens the help as well and leads to the chapter “First Steps” which gives an introduction into **myHomeControl®**.



Load an existing project

myHomeControl® loads the selected project and restarts.



Load a demo project

myHomeControl® loads the selected demonstration project and restarts.



Load actual project of last version X.X

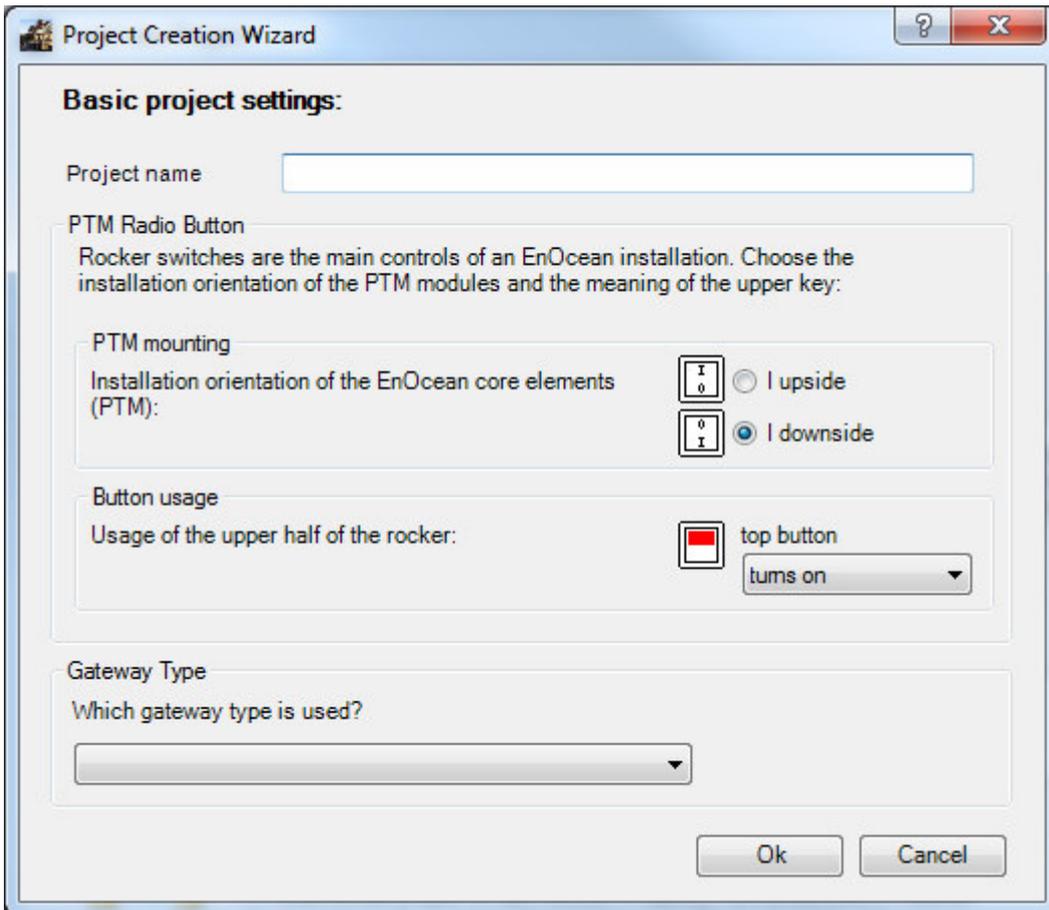
myHomeControl® copies the actual project from the folder of the old installation into the folder of the new installation, updates the project to the new version and restarts.



Restore the system form the cloud

If this option has been selected, then **myHomeControl®** will open a dialog to control the [recovery process](#).

Basic project settings



The project creation wizard guides you through the main settings of the project. These settings might be changed at a later stage. Changing PTM Radio Button settings may require to also adapt some of the network blocks. Therefore it is useful to carefully select these settings in advance.

Schematic system overview

myHomeControl® can be connected to various systems.
All systems can be interconnectd via myHomeControl®.



myHomeControl®

www.myHomeControl.ch

Add Brain Not Wires.



**enocean®
radio**

- lights
- shading
- heating
- sensors



Modbus

TCP & RTU

- heating
- ventilation
- e-meetering

CANopen

CAN/CANopen
Master & Slave

- heating/cooling
- ventilation
- smart meetering



cameras

- JPEG / MJPEG / RTSP
- ONVIF
- Doorstations



Bookingsystems

- BoockingExperts
- AIDA X

Miele

miele@home

- appliances:
coolers,fridges,
hobs, etc.



hue PERSONAL WIRELESS LIGHTING

- RGB
RGB-LEDs
dimmable lights



**amazon
alexa**

- Speach control

Works with
Apple HomeKit

- Lights, shading
- Heating, sensors



**WORLD
WEATHER
ONLINE**

- weatherforecast
for multiple days



iRTrans Infrared

- tv
- sound
- air conditions



- remote control



E.ch

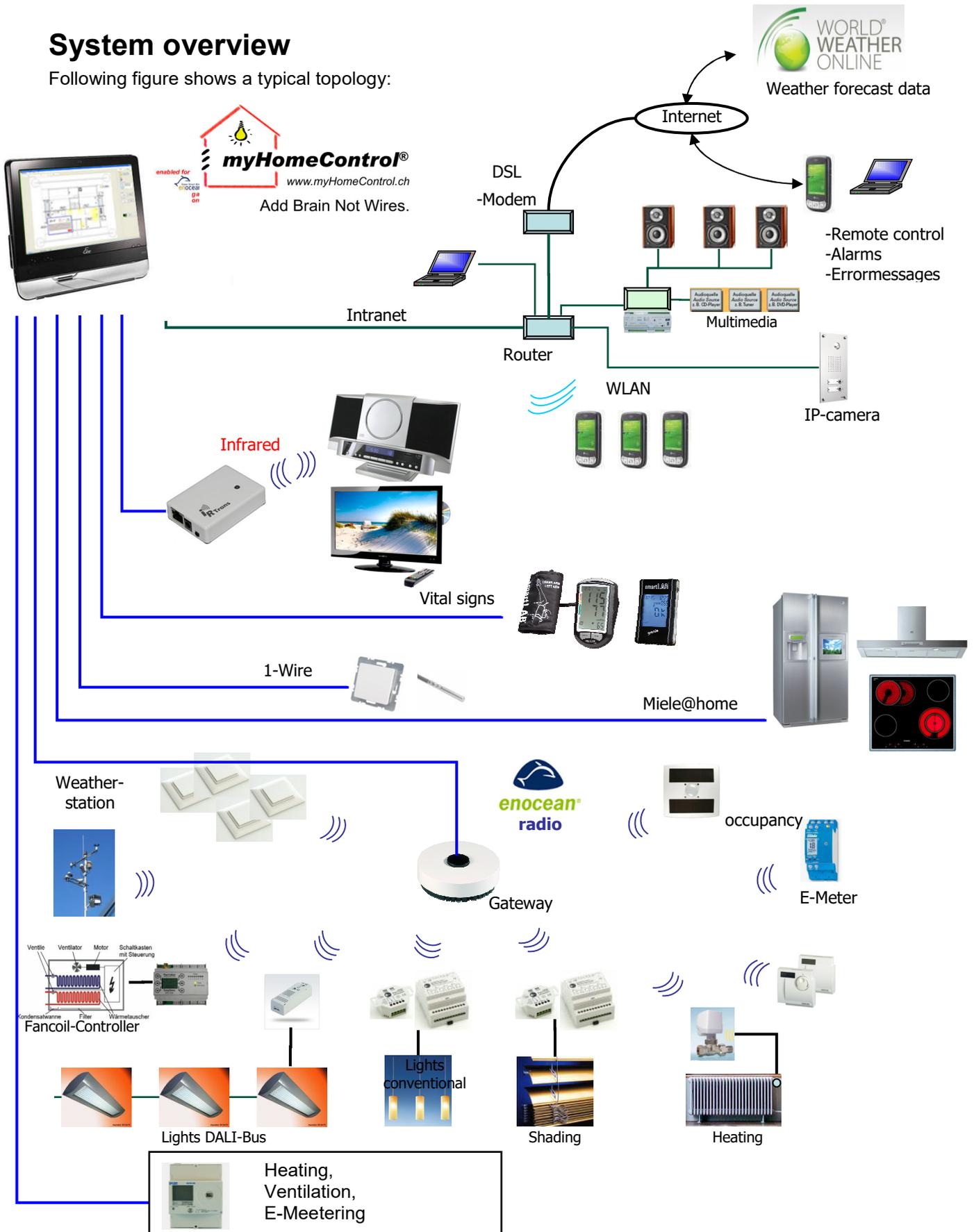
- weather stations



smartphone and
tablets used as
remotes.

System overview

Following figure shows a typical topology:



The topology shown above is extendable by additional EnOcean gateways as well as EnOcean repeats to best suite larger buildings.

Release Notes

The enhancements, bug fixes and the differences between the various versions of myHomeControl are documented in the release notes. The release notes can be downloaded from the web site www.myHomeControl.ch/download.

Security advice

The software must not be used in any relation with equipment that supports, directly or indirectly, human health or life or with applications that can result in danger for people, animals or real value.

System requirements

CPU: min. 1GHz

RAM: min. 512MB

Disk: min. 200MB free space

OS: Win7, Win8, Win10

myHomeControl® runs on ATOM-CPU based devices (e.g. ATOM N270).

Windows Settings

To optimize the appearance and the operate ability, windows should be configured as follows:

Display settings:

- DPI Settings:
XP: Control Panel/Display/Settings/Advanced -> set DPI to 96 ppi
Win7: Control Panel/Display/Set custom text size(DPI) -> 100% (96DPI)
- Font Size:
select normal font size
- ClearType:
XP: Control Panel/Display/Appearance/Effects -> activate ClearType
Win7: Control Panel/Display/Adjust ClearType text -> Turn on ClearType

Touch screen settings:

Often touch screen drivers emulate right mouse button clicks by touching the screen for a couple of seconds. This interferes with the operation modes for **myHomeControl®**. Therefore disable any right button emulation.

Typically this can be done as follows:

- XP: ??
Win7: Control Panel/Hardware and Sound/Tablet PC-Settings/others/ ... finger settings

Power options:

- Disable all power save features in case USB devices are used.
- Never put the computer to sleep.
- In case Wireless is used (e.g. CompactWEB), then disable power save features of the corresponding Wireless adapter.
- Never turn off hard disk. **myHomeControl®** periodically stores data to the database file. Continuously running hard disk have the best live time.

Regard chapter [PC Settings](#) as well.

PC Settings

Following settings have to be configured in the BIOS settings:

- The PC should restart automatically after power off.

Regard chapter [Windows Settings](#) as well.

Capability characteristics

Number of supported sensors:	unlimited, according license
Number of supported controllers/actuators:	unlimited (128 per gateway), according license
Supported gateway types:	USB, LAN (TCP/IP), RS232, RS485
Number of supported gateways:	unlimited, according license
Number of supported cameras:	unlimited, limitation given by type of used cameras and power of PC.
Motion detection:	individual for each camera (software)
Number of visualization elements:	2000
Number of timers:	unlimited
Number of logic functions:	unlimited
Number of arithmetic functions:	unlimited
Number of scene controllers:	unlimited
Sequences:	✓
SMS/Email:	✓
Presence simulation:	✓
Number of facades to be shaded automatically:	unlimited
Energy management functions:	Load management Temperature lowering Blind management
Audio:	✓
Weekly or yearly based timers:	✓
Automatic Irrigation:	✓
Obstruction alarm:	✓
SQL data base:	✓
XML file:	✓
Interfacing third party systems:	XML- file for data exchange SQL data base run third party applications ModbusTCP
Supported languages:	German, English, Dutch Italian, Portuguese, Russian
Remote access:	local net, Internet, mobile phone
WEB-Interface:	✓
- Cameras in WEB-Interface:	✓
Automatic bill of materials:	✓
Online help:	✓
Project design:	graphically
Project documentation:	✓

Design rules

TODO!

Lights:

Switch actuators

Dimmers

Shading:

Jalousie actuator

Heating:

Room Operating Panel

Valve actuator

Project organization

myHomeControl® stores the actual project within following 3 individual SQLite databases:

- Project.s3db: This database contains all project object such as visualization elements and blocks with there settings and states. It also contains all pictures.
- Logging.s3db: This database stores all events of the sensors e.g. rocker push button switches, temperatures, etc. It stores all state changes of the actuators as well.
- Weather.s3db: This database stores all data related to weather information.
- Trends.s3db: This database stores all data related to trends.

All state changes will be currently updated within the databases.

This open database structure enables an easy connection to other systems.

During startup **myHomeControl®** loads the project from these databases.

If the user is going to save the project, then **myHomeControl®** packs the current set of databases into a ZIP archive. The user is asked to name the archive and to select a location to store the archive.

In case a new project will be created, then the current set of databases will be overwritten by empty databases. Only one project is active at a time.

In case an existing project will be loaded, then **myHomeControl®** unpacks a ZIP archive selected by the user and overwrites the current databases by the ones taken form the archive.

Before the current set of databases is going to be overwritten **myHomeControl®** saves them to a backup archive.

Files and Folders

myHomeControl® stores the related files in following folders: English Windows installation *)

- Program files
C:\Program Files\BootUp GmbH\myHomeControl Vx.x nnnn\bin
- Application sample pictures
C:\Program Files\BootUp GmbH\myHomeControl Vx.x nnnn\DemoPics
- Application sample projects
C:\Program Files\BootUp GmbH\myHomeControl Vx.x nnnn\DemoProjects
- Text- und product resources
C:\Program Files\BootUp GmbH\myHomeControl Vx.x nnnn\Resources
- Data sheets
C:\Program Files\BootUp GmbH\myHomeControl Vx.x nnnn\Resources\DataSheets
- Drivers for devices and gateways
C:\Program Files\BootUp GmbH\myHomeControl Vx.x nnnn\Resources\Drivers
- Project databases (Project.s3db, Logging.s3db, Weather.s3db)
Backup archives (*.ZIP)
XP: C:\Documents and Settings\\AppData\BootUp GmbH\myHomeControl\x.x.x.x
Vista and younger: C:\Documents and Settings\\AppData\Roaming\BootUp GmbH\myHomeControl\x.x.x.x

The files in the sub folders "Program Files\BootUp GmbH\myHomeControl.." are part of the **myHomeControl®** installation and will be installed by the installer. These files will be removed in case of a uninstall.

The files located in the subfolder of "Documents and Settings" contain the project data. These files are user specific and will therefore not be touched by the uninstall or upgrade of **myHomeControl®**.

The storage location of the project files depends on the user logged in into the system. <USER> refers to the user actually logged in. Therefore different users may maintain there own project. Depending on the user actually logged in, **myHomeControl®** loads the corresponding project.

There is the opportunity to keep different version of **myHomeControl®** installed at the same time. Each version refers to version specific folders either for program files as well as for the project databases. x.x refers to the version.

*) The sub folders "Program Files" and "Documents and Settings" differ between different Windows installations especially between different languages.

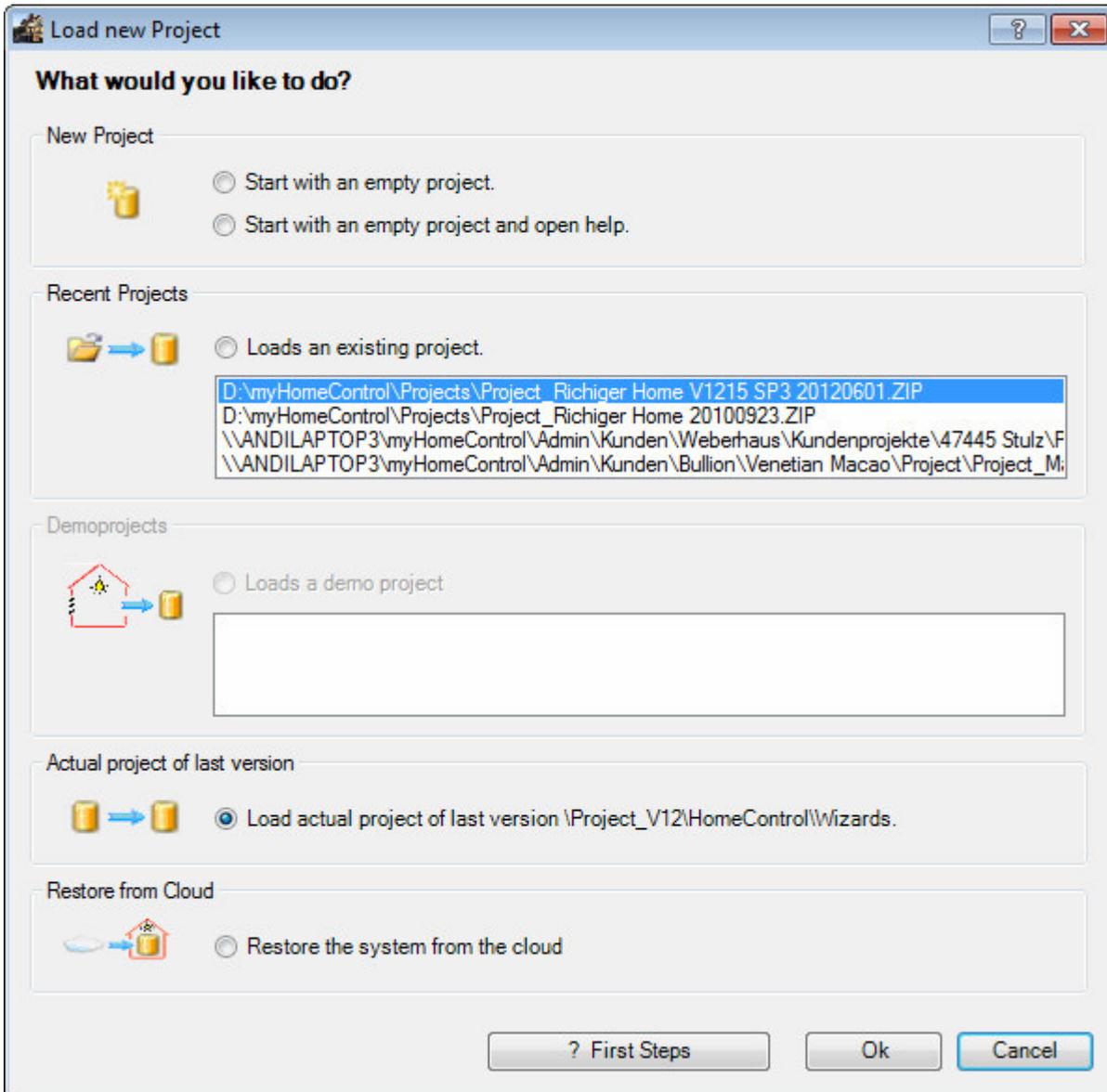
Refer to chapter Project organization.

System recovery

myHomeControl® provides the opportunity to store backup copies of the project into the cloud, by means of storing it to the server at boot up. The project gets stored as an encrypted archive and can not be read by third parties.

The purpose of the backup is to recover a broken system. Therefore install myHomeControl® on a new PC, version 1.2.16 SP3 or younger.

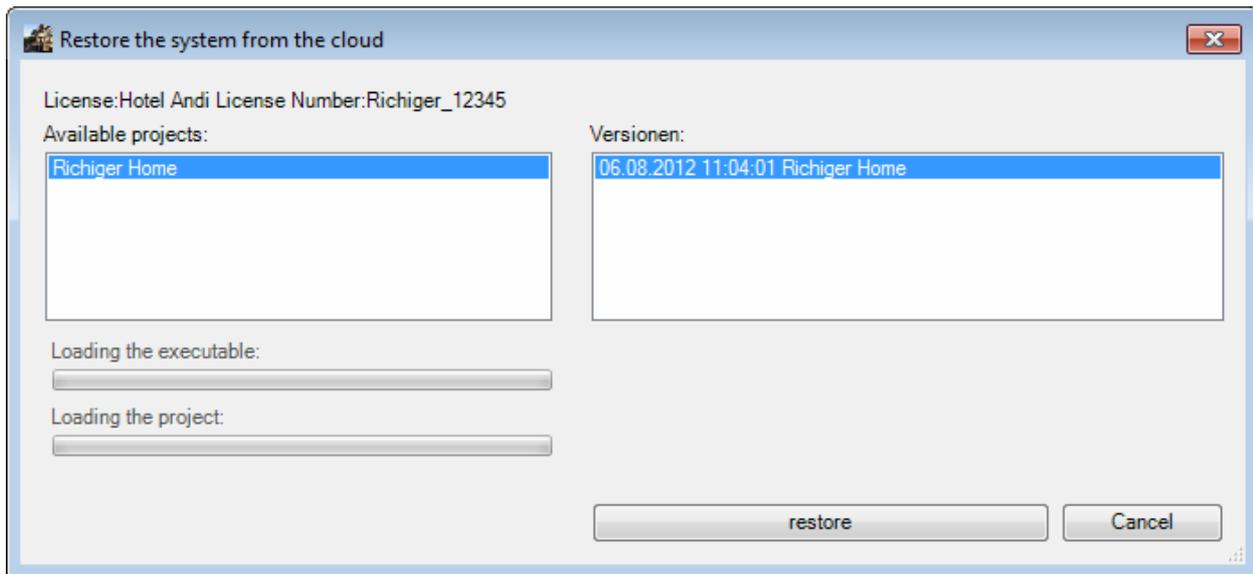
Start myHomeControl®. In case following dialog is not shown then select menu: File / new project



Select the last option and click the button "Ok".

Recovery from cloud is only possible if either the correct license dongle is plugged in or the corresponding license file is loaded. If there is no license dongle, most probably a license file must be used. Load the license file before opening the above dialog.

Following dialog is going to be shown:



The dialog list all projects, which have been stored with the connected license dongle, and there versions. The projects are stored in encrypted format and can only be recovered with the same license dongle then they have been saved.

Select the project in question and the requested version.

Click the button "restore" to start the recovery process. **myHomeControl®** is going to download the project and the corresponding version of **myHomeControl®** itself. The progress of the downloads is shown by progress bars. After downloading the installation process is started and the user is requested to answer the dialogs of the User Account Control and the installer.

To configure the "[automatic saving](#)" feature refer to the general settings.

Print

The print feature is available from operating systems version Windows Vista on.

Remote Control

Remote Control using a WEB-Browser

myHomeControl® provides a WEB interface. Any browser can be used to access the interface. Find details in chapter [CompactWEB](#).

Remote Control within the local area network (Client/Server)

In case myHomeControl® shall be operated from different computers e.g. within the same building, and the WEB interface doesn't suit the requests, then there is the opportunity to use VNC as RemoteDesktop. There are VNC-Clients for all kinds of platforms by means of Windows, IOS, Android, etc. They can be installed on any hardware device like PCs or tablets.

Remote Control via Internet

There are various opportunities to control myHomeControl remotely via the Internet.

- [CompactWEB](#)
- [TeamViewer](#)
- Remote Desktop

TeamViewer is the most recommended tool for the remote access. Therefore only [TeamViewer](#) will be described within this chapter. Refer to the Appendix E: WEB Remote Access for detail about Remote Desktop.

TeamViewer

Introduction

TeamViewer can be downloaded from www.TeamViewer.com. It is free for private applications. To operate TeamViewer no special settings required for the firewall as well as for modems/routers. TeamViewer works nearly in every net.

Installation

TeamViewer has to be installed as a service on the PC where myHomeControl runs. Therefore download the full version of TeamViewer and install it.

Start TeamViewer.

A ID will be shown which has to be entered later on, when a remote control connection shall be established.

Open Menu Extras/Options:

- check start of TeamViewer with Windows.
- Set a password
- check accept incoming LAN connections

Remote Control

There are two opportunities to access myHomeControl:

- either install TeamViewer on the PC
- or use the WEB service provided by the TeamViewer site

In case e.g. a laptop shall be used for remote control of myHomeControl on a regular basis, then it might be recommended to install TeamViewer on that computer. There is the opportunity to save the connection information (ID and the password) for simple and easy establishment of the connection.

In case a PC in an Internet-café shall be used for remote control or it is not allowed to install software on a PC, then use the WEB service. This requires a registration on www.TeamViewer.com. After the registration has been done, the connection data (ID, password) might be stored to establish the connection to myHomeControl easily.

After login the screen of myHomeControl is displayed within the browser window and all visualization elements can be operated.

To use TeamViewer for free, the local as well as the remote device must running an actual version of the TeamViewer software.

TeamViewer-Update

Use Menu ?/TeamViewer to bring the TeamViewer window in front. This window offers the opportunity to update the TeamViewer software in case an update is available.

Remote Control via Mobile Phone

myHomeControl might be operated via a Mobile Phone. Refer to chapter [Remote access via Internet using a WEB Browser or mobile phone](#).

Remote Control via Amazon Echo & Echo Dot (Alexa)

The Echo products offered by Amazon process speech recognition and can be used to control the **myHomeControl®** application. Refer to chapter [Settings / Amazon Alexa \(Echo\)](#).

Remote Control via Rest API

myHomeControl® provides a RestAPI. This interface might be used from the Internet.

Refer to chapter [Settings / RestAPI](#).

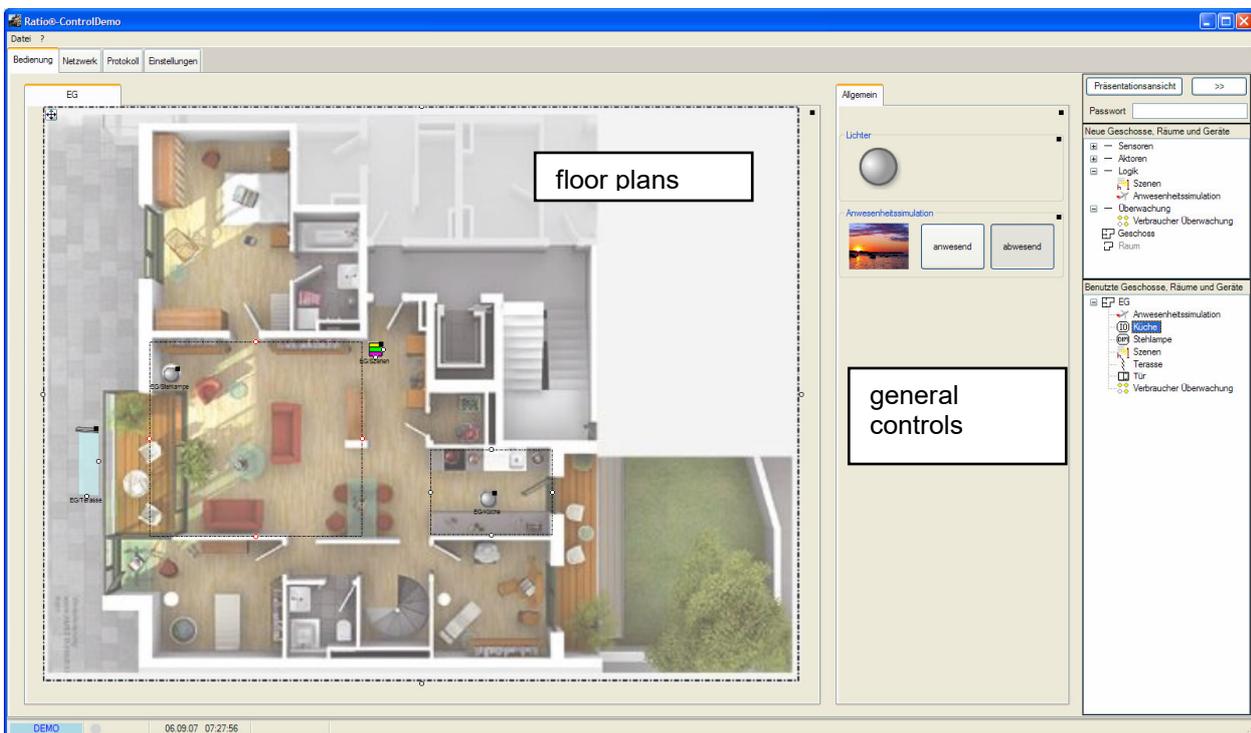
Operation/Visualization

The PC running **myHomeControl** can also be used for other purposes e.g. as mail server, as common diary or as music server for the whole family. If the screen is located close to the entrance or the phone each member of the family has easy access to **myHomeControl** and can check the actual situation.

myHomeControl is running in one window presenting the visualization screen. This screen can be configured to show floor plans containing visualization elements indicating the actual state of lights, blends, and temperature sensors and may more. The visualization elements also allow direct control of lights, blends and so on.

Example below:

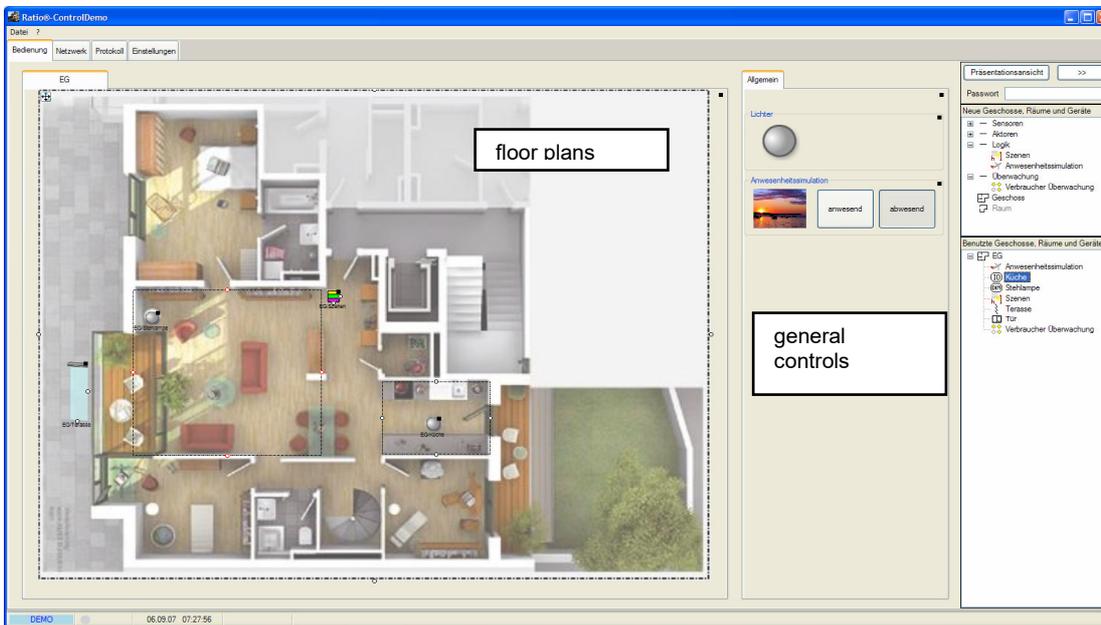
a light visualization element is showing the state of the light. It allows the user to switch on or off the light.



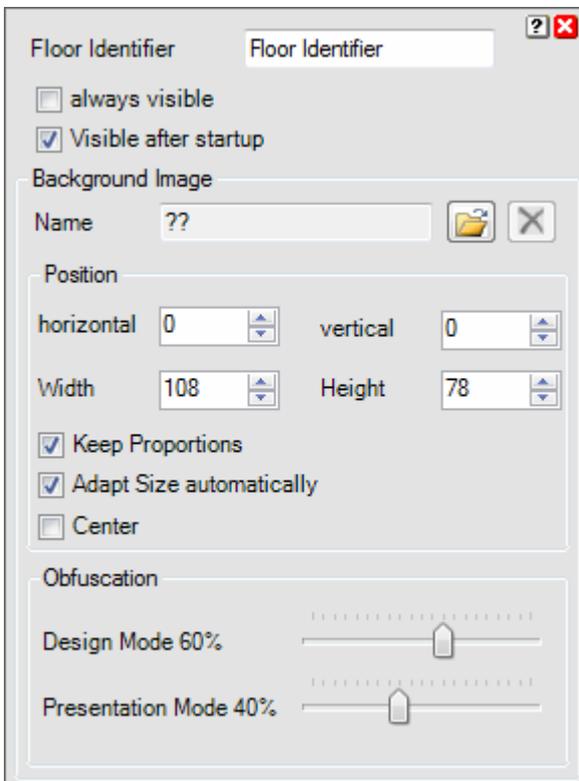
The visualization can be operated in two modes:

1. The design view this view is used to configure the visualization. The tree views “new floors, rooms and devices” and “used floors, rooms and devices” are shown on the right side of the screen. In this view floor plans and visualization elements can be inserted.
2. The presentation view this is the view for the inhabitants. The tree views are hidden in this view. Fingertips can control the visualization elements.

Floor plans



The left area of the screen is the workspace area to show floor plans. Several floor plans can be inserted. Therefore drag in a [floor symbol](#) out of the tree view “new floors, rooms and devices” and drop it on the left area. This creates a new floor tab. Equip the floor tab with a floor plan picture. To select a picture open the properties dialog (black rectangle or right mouse button - context menu) and click the open folder -button.



“**always visible**” avoids the tab to get hidden by a [link function](#).

“**Visible after startup**” sets the tab visible after starting the application (myHomeControl)

Background Image

Picking dots on the dotted border of the picture support locating and stretching of the picture as well.

← If checked will myHomeControl adapt the size of the picture to fit into the full screen.

A smoky cover of the background picture highlights the visualization elements. This is useful especially with background pictures containing strong colors.

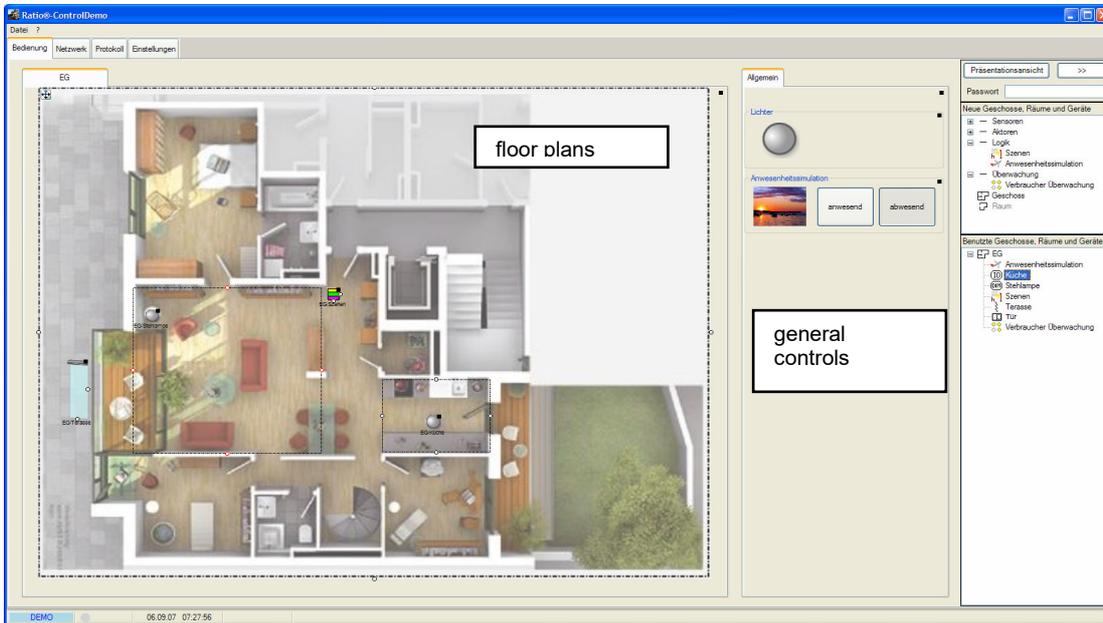
To place visualization elements on the floor plan drag them in from one of the tree views and drop them at the appropriate location on the floor plan.

Hints to create picture resources

Following hints shall help to achieve nice looking views:

1. Background pictures shall be graphically brushed up. The size in pixels should be adapted to the screen resolution of the target computer (PC running the visualization project). The resolution should be set to 70DPI. To modify the pictures it is best to use a graphic program e.g. corel draw or micrographics firefox.
2. Visualization elements can only be placed in the area of the background picture. Therefore there should be a border around the floor plan as a spare space to locate blinds and outside lights.
3. Few, smart colors give a nice look and lighten the visualization elements.
4. The size of the light symbols might be adapted in the main menu [Settings / Size of Symbols](#). An adoption might be necessary in case a project has been ported from one PC to an other with a different resolution.

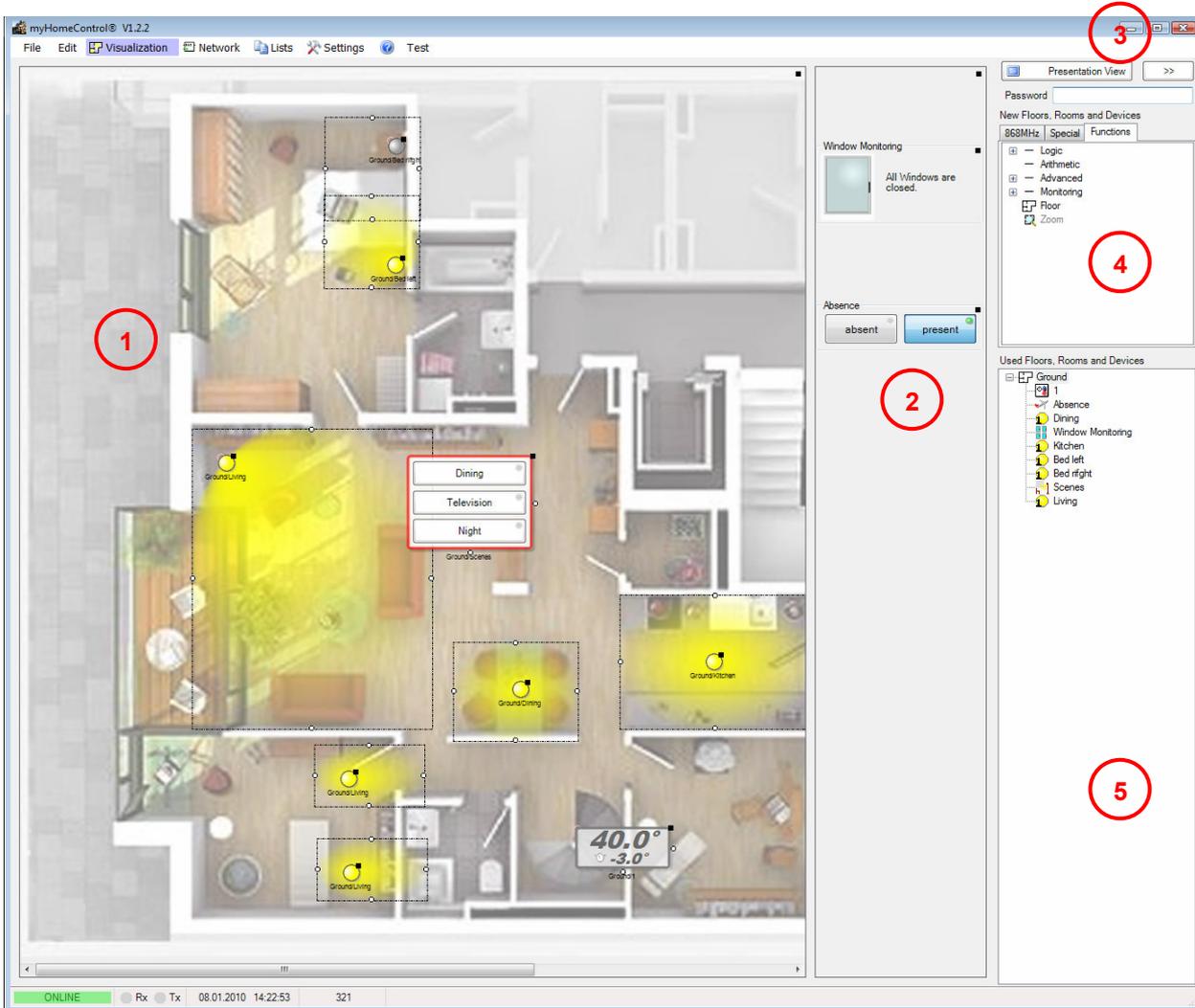
General Controls



Visualization elements for general control can be placed on the left side workspace, e.g. the visualization element for the presence simulation. Tabs organize this workspace area. You are free to define any new tabs. There is no relation to floors.

The Design mode

This mode is used to configure the Visualization. Within this mode the floors will be inserted and the visualization element can be placed. The tree views for new and used devices will be shown in this mode.



- ① Floor area. [Floors](#) have to be inserted in this area. A floor plan can be deposited on each floor (see floor [Property dialog](#)).
- ② [General controls](#) area. Certain visualization elements can be placed only in this area.
- ③ Switch over to [presentation view](#). A password can be given to prevent unauthorized users to return to the design view.
- ④ Tree view [New Floors, Rooms and Devices](#). This tree view provides new elements to be dragged in into the workspaces ①&②
- ⑤ Tree view of already [used Floors, Rooms and Devices](#). If there are e.g. two lights physically connected to the same switch actuator, then drag a switch actuator symbol from the tree view „new Floors, Rooms and Devices“ into the floor plan. This creates the visualization element for the first light. In the background a switch actuator block has been created by myHomeControl. This switch actuator can be seen now in the tree view “used Floors, Rooms and Devices”. The visualization element for the second light has to be dragged in from the tree view “used Floors, Rooms and Devices”.
There are now to visualization elements representing the same switch actuator. If you operate the actor by clicking on the visualization element, both visualization elements will change their state.

Insert visualization elements into the operational areas

Use the mouse to select an object from one of the trees and drag it into the floors area or the general controls area. Drop it at the appropriate location by releasing the mouse button.

Location, selection, alignment and arrangement of elements

Location

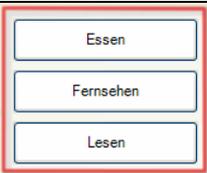
To locate a visualization element grab it with the mouse. Following rules have to be considered:



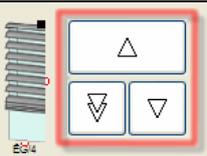
Light symbols have to be grabbed at the symbol itself.



Indication elements might be grabbed anywhere in there area.



Visualization element containing controls may only be grabbed at there border. Controls can not be grabbed.



Control dialog, popping up when the visualization element gets touched, must be grabbed at there border.

Selection

There is the opportunity to locate several visualization element in parallel. Therefore select first all visualization element of interest.

To select multiple visualization elements click them with the shift button pressed. Alternatively enclose them with the selection rectangle (Click the mouse in the background area and move it over the elements to be selected). All elements touched by the rectangle will be selected.

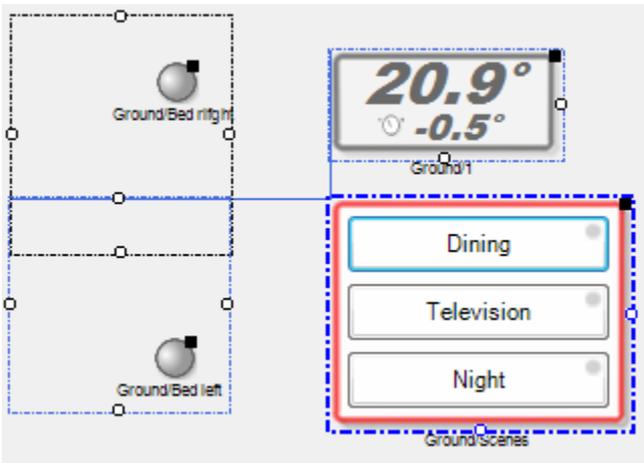
Selected visualization elements are shown with a fat, blue, dash dotted border.

To include and exclude single elements from a multi selection, click them with the shift button pressed.

Selected element may be moved with the arrow keys as well.

Align

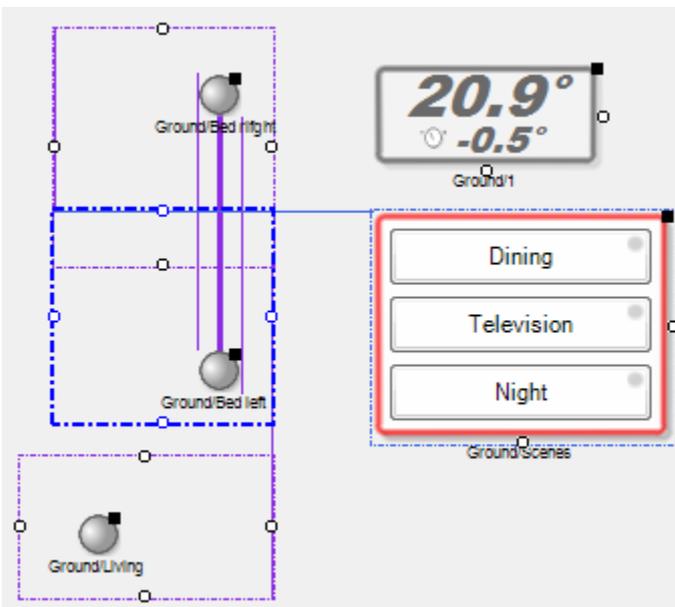
Aligned elements are highlighted by the editor in case they get selected:



The blue, dash dotted border frame indicates that scene block has been selected. It has been clicked by the mouse.

The various guide lines show to which of the other elements the scene block is aligned.

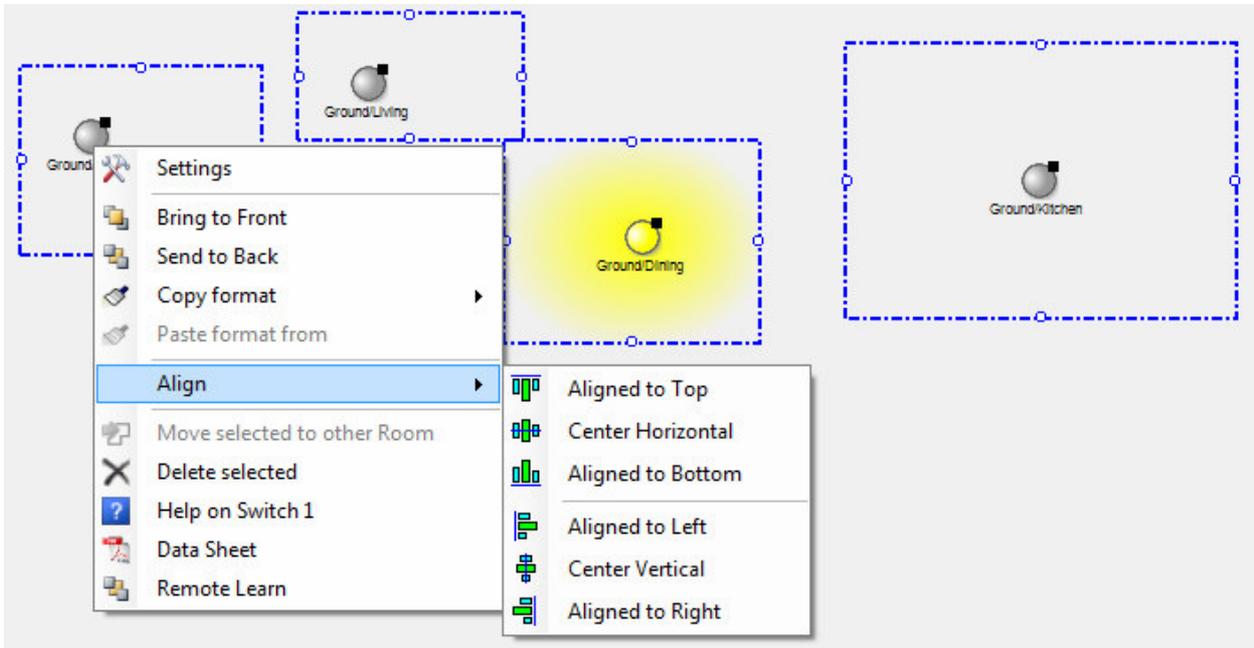
In this sample the vertical blue line indicates that the scene block is left aligned to the temperature element. The blue coloring of the selection frame of the temperature element indicates that the vertical guide line references the temperature element.



The violet lines indicate that the element is aligned to other elements of the same type. In this sample an other light element.

The fat line indicate the center alignment of the elements.

Selected element can be aligned using context menu functions. Therefore select all element to be aligned including the one which shall be used as the reference. Then click the right mouse button on the reference element and select the alignment operation you like.



Arrange

The menu „Arrange“ is used to arrange objects into rows, columns and grids. This feature automatically inserts the corresponding amount of objects.

Typical use case is to arrange a couple of light outlets of the same actuator into a column.

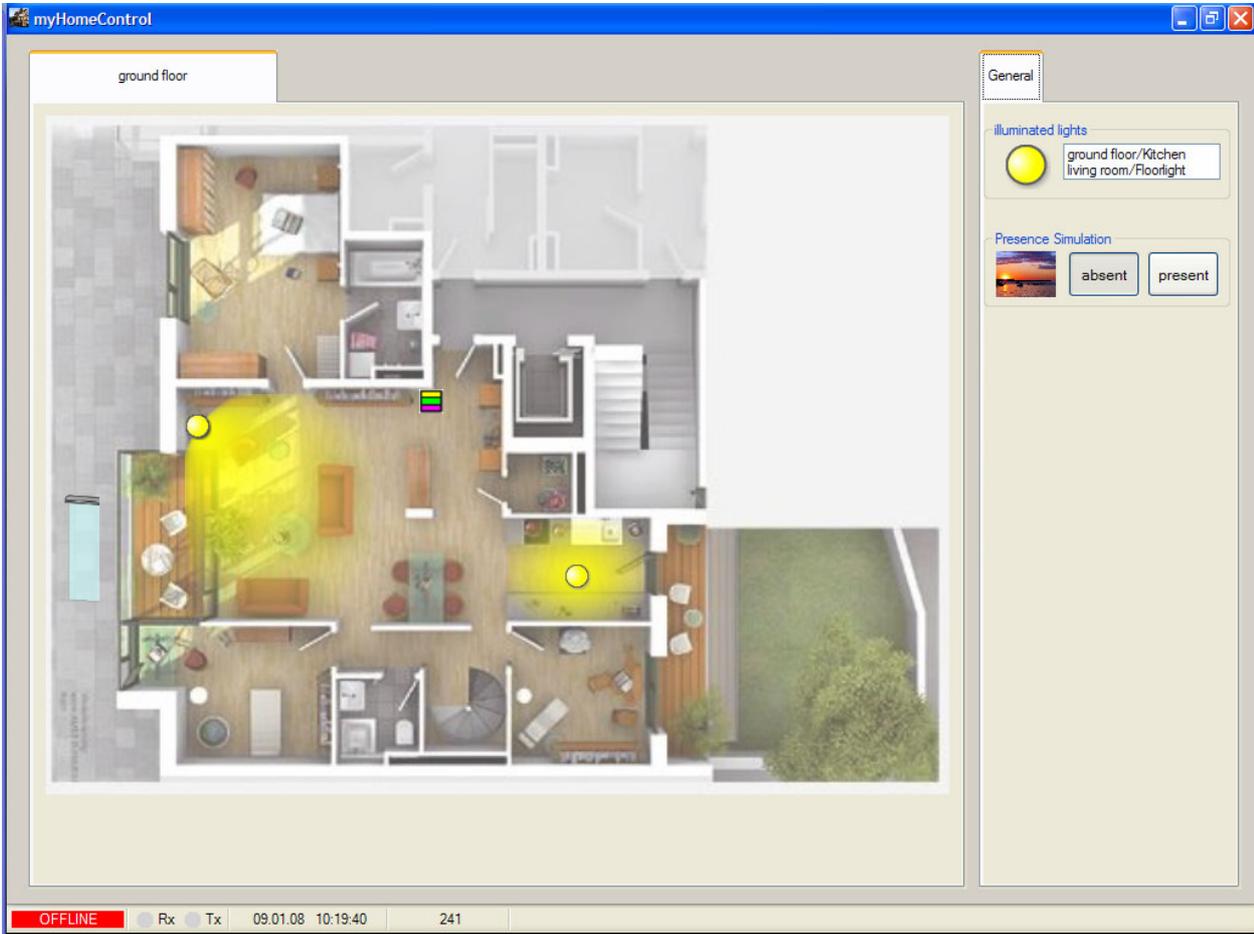
- row:
 - insert 1. object,
 - insert 2. object an align it horizontally to the first
 - select 1. object
 - select 2. object with right mouse button and pressed Ctrl-button
 - select menu „Arrange, select correct amount of outlets.

- column:
 - insert 1. object,
 - insert 2. object an align it vertically to the first
 - select 1. object
 - select 2. object with right mouse button and pressed Ctrl-button
 - select menu „Arrange, select correct amount of outlets.

- grid:
 - insert 1. object, locate it in one corner of the grid
 - insert 2. object locate it to the opposite corner
 - select 1. object
 - select 2. object with right mouse button and pressed Ctrl-button
 - select menu „Arrange, select correct amount of outlets.

The Presentation mode

The inhabitants use this mode. Within this mode a fingertip might control all [visualization elements](#).



To return to the [design mode](#) press the restore button.



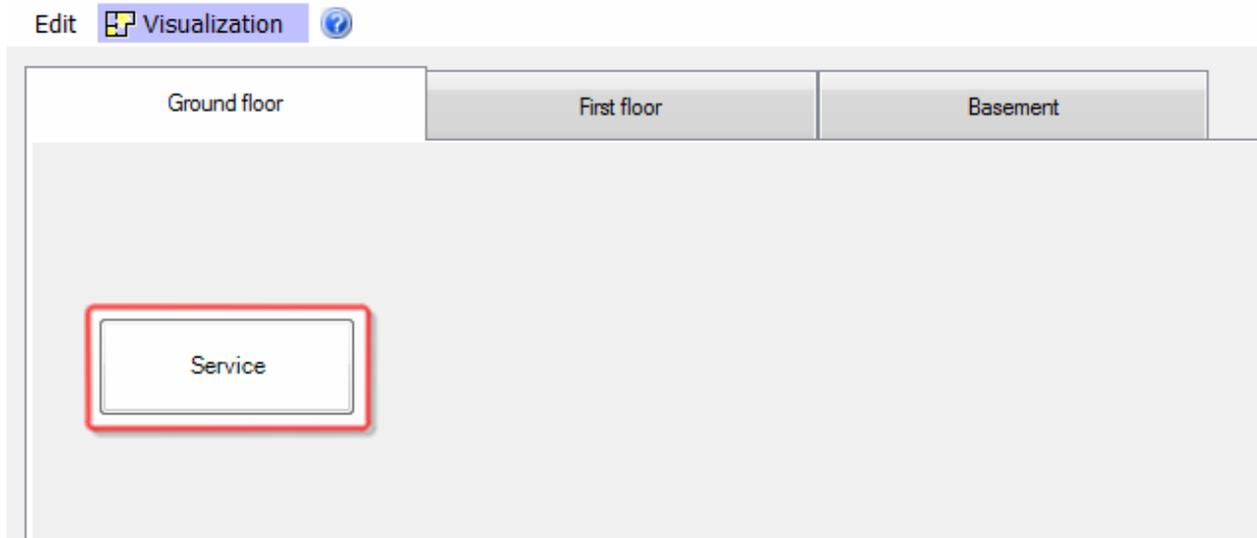
Automatic return to the main page

One of the floor tabs might be configured as the “main page”. If the user doesn’t interact with the system for a configurable period of time, then **myHomeControl®** returns to the “main page” automatically.

The return to the mainpage is only processed by the system if it is in presentation mode.

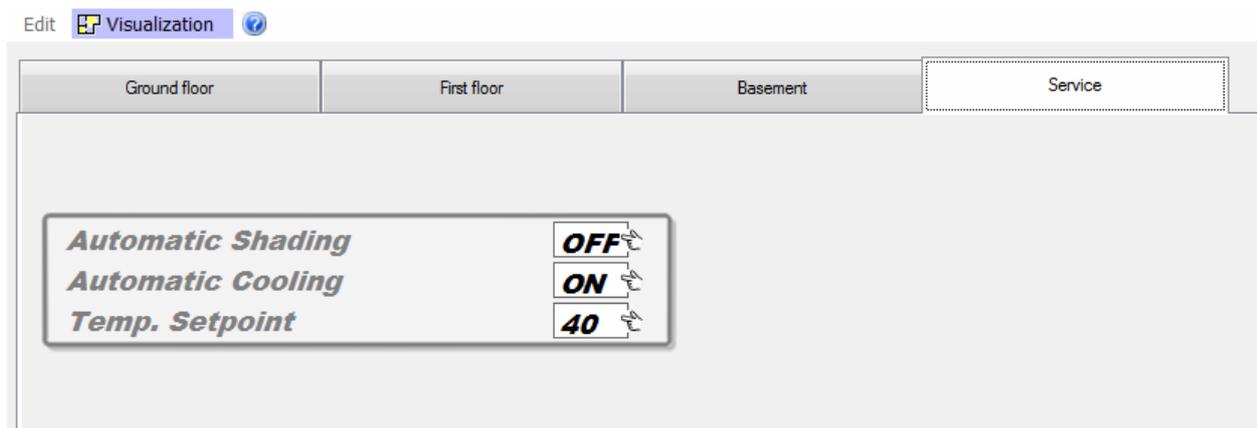
After the return to the “main page” only a configurable set of floor tabs is shown and can be selected by the user.

Sample:



The floor tab „Ground floor“ has been configured to be the main page (home). There is a [link object](#) located on this tab. It points to a hidden tab „Service“.

As soon as the link object gets clicked by the user, **myHomeControl®** shows and selects the tab „Service“ as shown below.



The link object is configured to show all tabs.

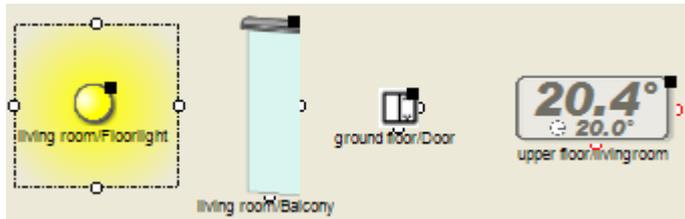
If the user stops interaction with the system the „return to main page“ delay starts. If the delay expires, then **myHomeControl®** automatically selects the tab configured as main page and hides all tabs which are not configured to be shown at this stage.

The configuration of the „return to main page“ feature is to be done in the [general settings menu](#).

Visualization elements

There are several visualization elements available to be placed either in the floor workspace area or in the general controls workspace area. These visualization elements represent sensors, actuators or even logical functions. The visualization element shows the actual state of the corresponding device. The visualization element also provides controlling of the corresponding device.

Examples of visualization elements:



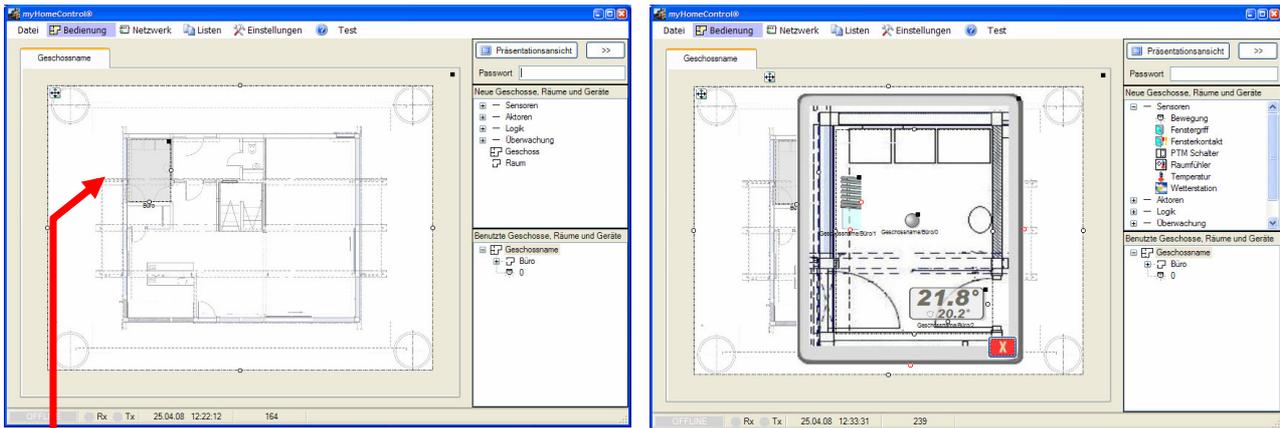
Typically the visualization element can be adapted to a certain situation in a floor plan. Therefore some visualization elements provide dedicated pick dots  to adjust the size or e.g. the illumination range. Additional adaptation options can be selected opening the [property dialog](#) of the visualization element.

Each of the visualization elements relates to a corresponding block in the network area. Within the network area the element will be interconnected with other functions.

Visualization Element Zoom

In case the rooms in a floor plan are too small to place visualization elements in it, then a Zoom visualization element might be used. This is usually the case, if a floor plan contains many rooms as e.g. in office buildings.

The Zoom visualization element represents e.g. a zoom of the room in the floor plan or another view of a room. This element can only be placed in the floor plan area.



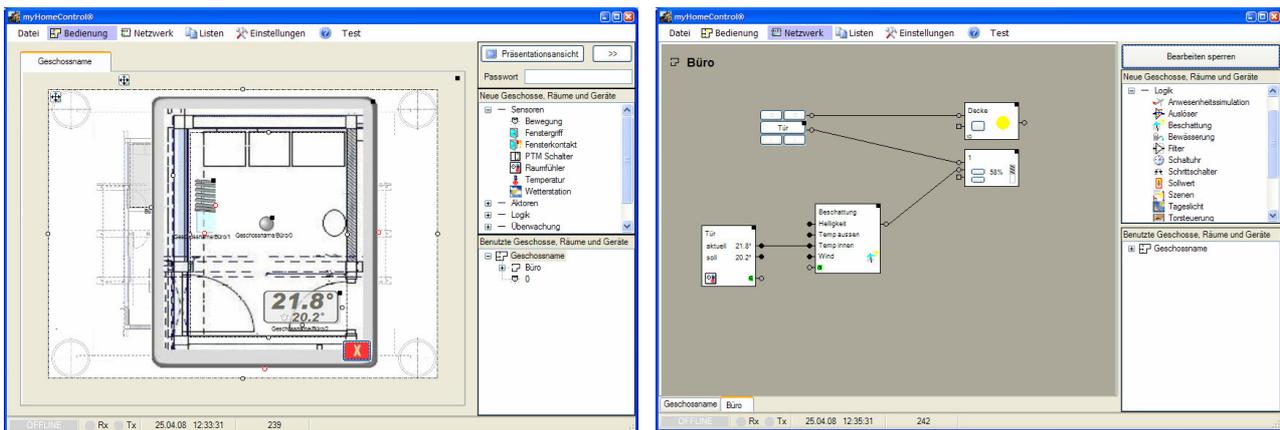
Click or touch the Zoom visualization element to zoom into the room. A new window opens. A detailed plan of the room can be loaded. Visualization elements for actuators and sensors can be placed on the room plan.

Depending on the chosen appearance of the Zoom visualization element, it will become fully transparent when changing to the presentation mode.

You are free to resize the room plan, to get enough space to insert additional visualization elements.

In case a Zoom visualization element has been dragged into a floor, the system allocates a corresponding room in the network area. This can be seen in the tree “Used Floors, Rooms and Devices”.

All visualization elements inserted into a Zoom visualization element, will be located in the corresponding room. They can be found in the network view as well.



A period of time can be configured for the zoom element to close it automatically if there is not interaction by the user. Refer to the settings of the zoom element.

Regard: automatic close will only be performed in case the system is in presentation mode.

Sensor Visualization Elements

Typically these visualization elements show the measured values of the sensor devices.

Visualization Element Brightness

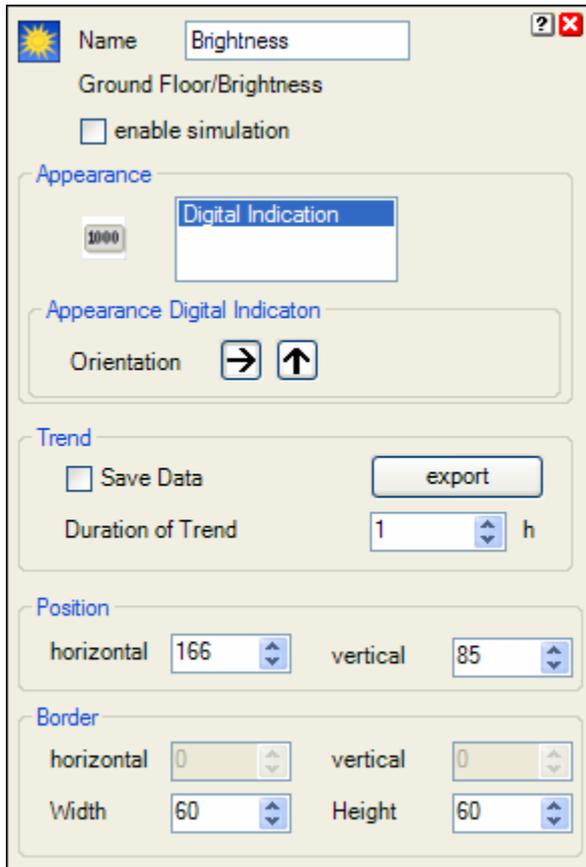
This visualization element represents a brightness sensor. Optionally it provides a trend-recording feature.

Refer to chapter [Brightness](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the presence indication sensor icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

There are **different appearances** available for this visualization element:



If simulation is enabled, the visualization element changes the state on each click.

List of the available appearances.

Appearance specific configuration items.

Configuration of the **trend** (see pictures below). For details refer to next paragraph.

Position of the visualization element within the floor plan.

Size of the element or border.

Trend

If "Save Data" has been activated, then the trend will be presented with the same data also after a startup of **myHomeControl**. But this requires some disk space in the project database. So in case disk space is very limited, this option should not be activated.

The export – button stores the logged trend values to a comma-separated file.



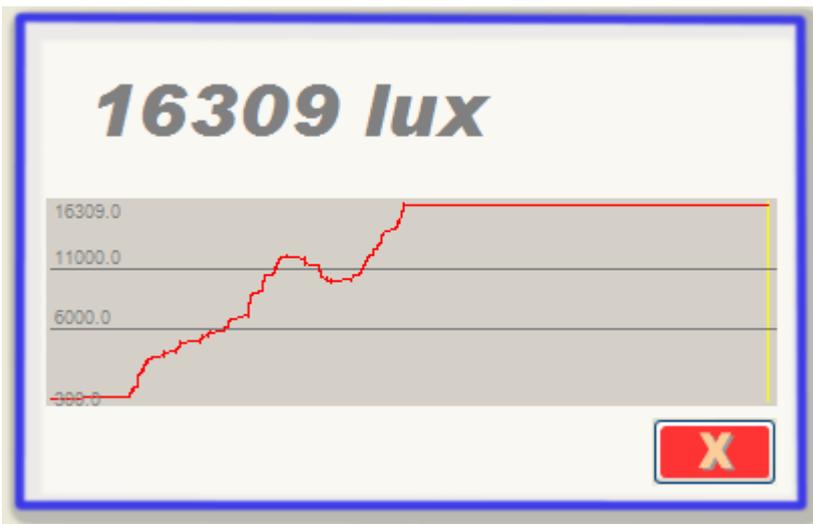
Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Additional information dialog



The actual brightness value will be recorded and presented in form of a trending diagram.

● Visualization Element Camera

This visualization element displays the pictures of a web cam.

Refer to chapter [Camera](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the window contact icon from the tree views “[New Floors, Rooms and Devices](#)” of “[Used Floors, Rooms and Devices](#)” into the floor plan area.

There are 2 different appearances available for this visualization element:

Camera:

This appearance displays the pictures of the web cam directly on the ground floor plan. The optional buttons will be shown within the picture frame.



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Picture:

This appearance shows a picture of your choice on the ground floor plan. A click on that picture opens a dialog showing the pictures of the camera. The optional buttons are located on the same dialog.



Dialog of the visualization element, which pops up in case the camera symbol has been touched.



Thumbnail:

This appearance displays the pictures of the web cam directly on the ground floor plan. . A click on that picture opens a dialog showing the pictures of the camera. The optional buttons are located on the same dialog.



Dialog of the visualization element, which pops up in case the camera symbol has been touched.



Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

1st Visualization Element Counter 1

This visualization element represents a counter sensor.

Refer to chapter [Counter 1](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the presence indication sensor icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Visualization Element Electric Meter

This visualization element represents an electric meter sensor.

Refer to chapter [Electric Meter](#) to find details about the network functionalities.

Regard the option to establish a connection to [Google PowerMeter](#).

Appearance in the floor plan area:

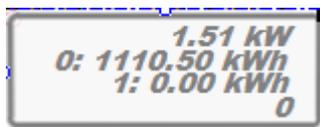
Drag in the presence indication sensor icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.



Indication without tariff information

Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



Indication with tariff information

- actual consumption/income
- Meter reading tariff 0
- Meter reading tariff 1
- Actual tariff

 Name

? X

[Geschossname/Solarpanel](#)

enable simulation

Appearance

1000

Digital Indication

Appearance Digital Indication

show name

Trend

Description of the Curve

Ertrag

Color of the Curve

Save Data

export

Duration of Trend

1

h

Position

horizontal

286

vertical

159

Border

horizontal

0

vertical

0

Width

174

Height

60

Settings of the visualization element

Shows the name of the block in the visualization element.

Description string of the trend graph.

Color of the trend graph.

Visualization Element Keycard Switch

This visualization element represents a Keycard Switch.

Refer to chapter [Keycard Switch](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the presence indication sensor icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

There are different appearances available:

Symbol:



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Picture:

There is the opportunity to define an individual image for each state (keycard removed, keycard inserted).

Visualization Element Leakage

This visualization element represents a Leakage sensor.

Refer to chapter [Leakage](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the presence indication sensor icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

There are different appearances available:

Symbol:



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Picture:

There is the opportunity to define an individual image for each state (leak proof, leaking, battery bad).

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element Meter

This visualization element represents an electric meter sensor.
 Refer to chapter [Meter](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the presence indication sensor icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.



Digital Indication

Place the symbol with the mouse at any location of the floor plan.
 Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

 Name

[Floor Identifier/SR-MI-HS](#)

enable simulation

Appearance


Digital Indication

Appearance Digital Indicator

show Name

Channel

Energy

Trend

Description of the Curve

Color of the Curve

Save Data

Duration of Trend

Position

horizontal vertical

Border

horizontal vertical

Width Height

Settings of the visualization element

Shows the name of the block in the visualization element.

Select channel to be shown by the visualization element.

Description string of the trend graph.

Color of the trend graph.

Visualization Element Presence Indication

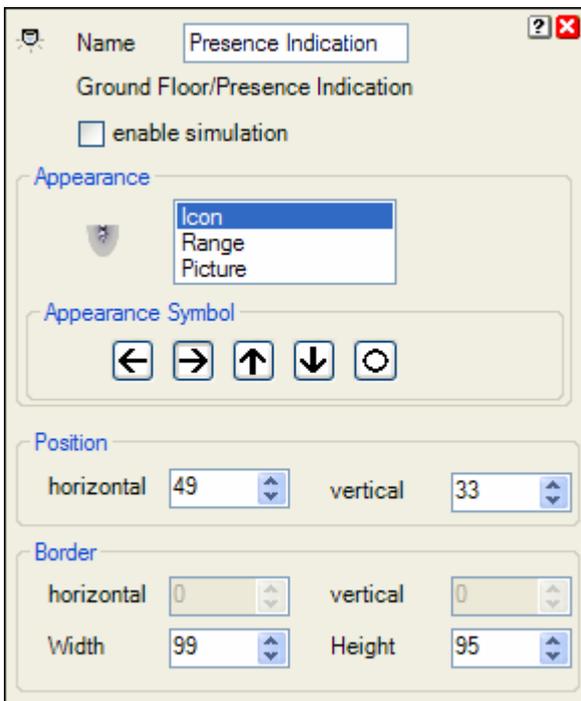
This visualization element represents the state of a presence indication sensor.

Refer to chapter [Presence Indication](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the presence indication sensor icon from the tree views “[New Floors, Rooms and Devices](#)” of “[Used Floors, Rooms and Devices](#)” into the floor plan area.

There are **different appearances** available for this visualization element:



If simulation is enabled, the visualization element changes the state on each click.

List of the available appearances.

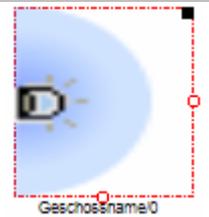
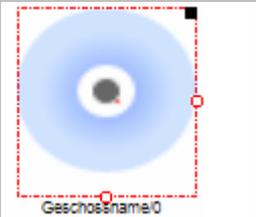
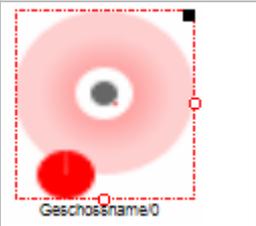
Appearance specific configuration items.

Position of the visualization element within the floor plan.

Size of the element or border.

wall mounted

ceiling mounted

		<p>The supervision area is free. Place the symbol with the mouse at any location of the floor plan. Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.</p>
		<p>The supervision area is occupied.</p>

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element PTM Radio Button

This visualization element represents one or more channels of PTM radio button. This enables the user to operate the PTM radio button on the screen.

This visualization element can be placed in either the floor plan area or the general controls area.

There are Appearances for the [floor plan area](#) and the [general controls area](#).

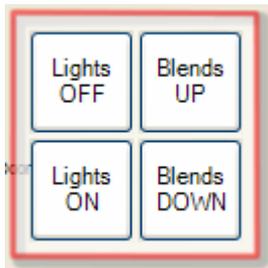
The chapter [PTM Radio Button](#) describes the network functionality in detail.

Appearance in the floor plan area:



In case of a finger tip on the visualization element a control dialog will be opened.

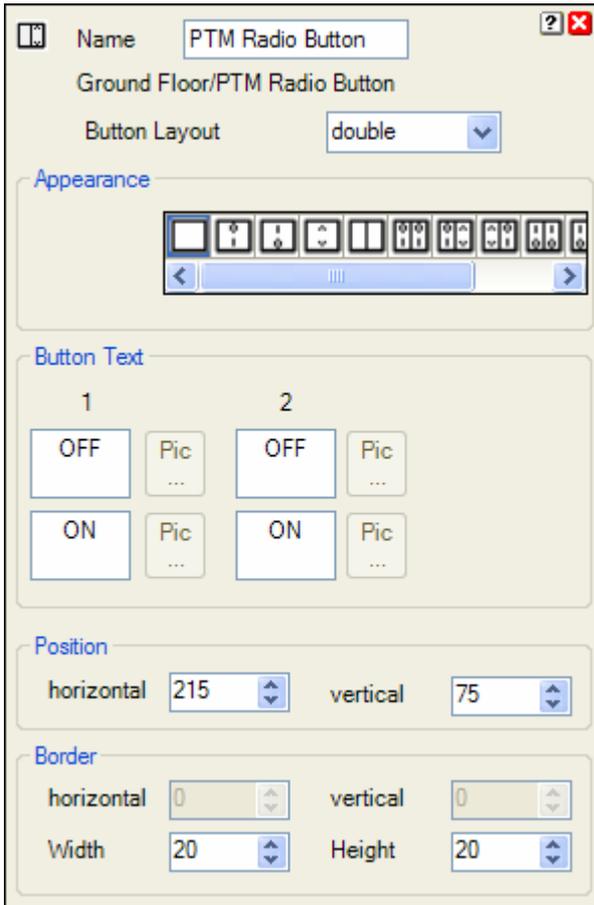
Within the design mode the visualization element has to be tipped for about 3 seconds until the control dialog appears. myHomeControl has to differentiate if the reason for the fingertip is to move the visualization element or to open the control dialog.



Control dialog

The number of shown buttons depends on the amount of channels defined in the PTM radio button block.

To name the buttons use the property dialog of the visualization element.



Property dialog

Select type of buttons

Select an appearance for the buttons

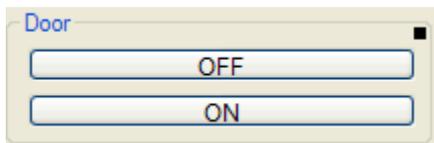
This dialog provides an input field for each button of the PTM radio button device. Type the name for the buttons into the corresponding input field.

It is also possible to load an image on a button, press the corresponding picture button.

Position of Visualization Element in the floor plan.

Appearance in the general controls area:

This visualization element only represents one channel of a PTM radio button device. Dragging and dropping the same PTM radio button from the tree view „used floors, room and devices“ can insert this visualization element several times. Each instance of the visualization element can be configured to represent a specific channel of the PTM radio button.



← The black rectangle opens the property dialog.

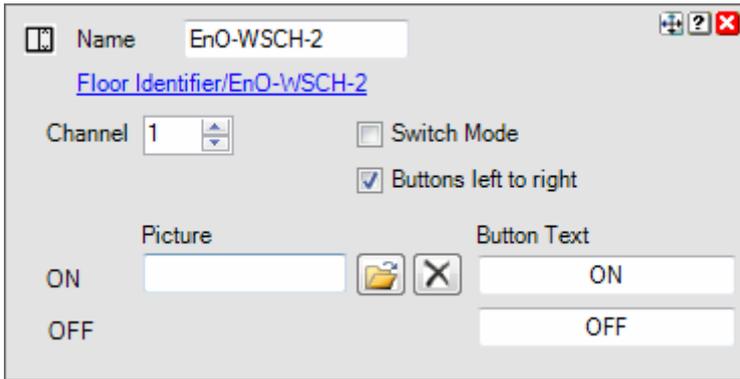
Property dialog

Channel

Defines which button pair is represented by this visualization element.

Switch mode

The visualization element stores the last key pressed and snaps in the corresponding button. This indicates which function has been activating last. In this mode also for OFF a picture can be assigned.



Button left to right

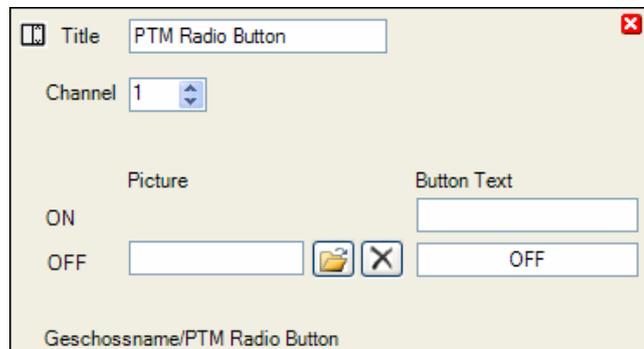
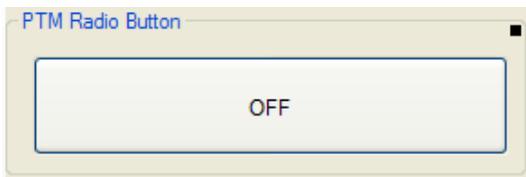
The buttons will be rearranged.

Button text

Naming of the buttons. Also a picture can be selected for each button. These pictures will be shown on the left side of the button.

Hiding Buttons

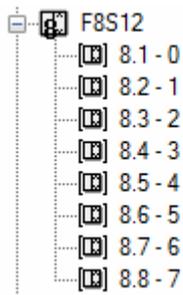
Either the ON or the OFF button might be hidden. Remove the Button Text and the picture to hide the corresponding button.



Visualization Element PTM Radio Button 8

This visualization element represents a 8 fold PTM Radio Button or a 8 fold wireless transmitter unit. This element is a combination of 8 [PTM Radio Button](#) elements.

When you drag in a PTM Radio Button 8 icon, a PTM Radio Button visualization element representing the first channel of the 8 fold sensor will be placed into the floor plan area. The other channels can be found in the three view [“Used Floors, Rooms and Devices”](#).



To insert the second channel into the floor plan, drag in the corresponding icon (8.2) from the tree view [“Used Floors, Rooms and Devices”](#).

Refer to chapter [PTM Radio Button 8](#) to find details about the network functionalities.

Visualization Element Radio Chair

This visualization element represents a chair indication its occupancy state by a radio signal. The visualization element indicates if a chair is occupied or free.

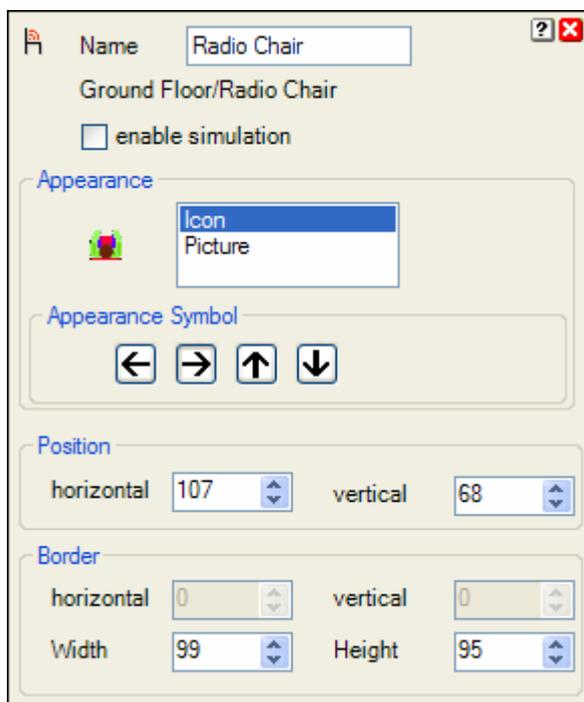
Refer to chapter [Radio Chair](#) to find details about the corresponding network functionalities.

Appearance in the floor plan area:

Drag in the RoomTemperatureControl from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)".

Touch the symbol with a fingertip to open the [additional information dialog](#). This dialog shows minimal and maximal temperature values and the trending of the temperature.

There are **different appearances** available for this visualization element:



If simulation is enabled, the visualization element changes the state on each click.

List of the available appearances.

Appearance specific configuration items.

Position of the visualization element within the floor plan.

Size of the element or border.

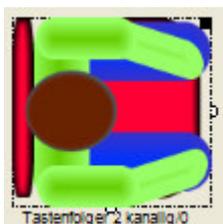
Icon:



The chair is free.

Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



The chair is occupied.

Picture:

There is the opportunity to define an individual image for each state (occupied, free).

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element Receive(analog)

This visualization element is used to show analogue signals of a controller.

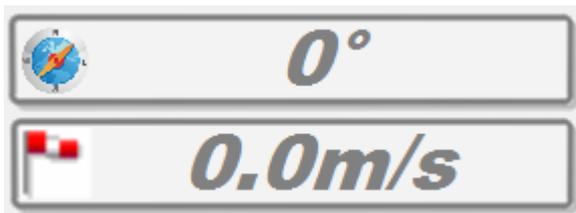
Refer to chapter [Receive\(analog\)](#) to find details about the network functionalities.

There are Appearances for the [floor plan area](#) and the [general controls area](#).

Appearance in the floor plan area:

Drag in the temperature sensor from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

Touch the symbol with a fingertip to open the [additional information dialog](#). This dialog shows minimal and maximal temperature values and the trending of the temperature.



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot and adapt it to the situation.

There are various signal types e.g. brightness, wind speed available. The signal type has to be selected in the settings of the corresponding network block.

Color of the Display:

There is a configuration option to configure the color of the text according the value. Following table defines the threshold values and the corresponding colors:

Threshold level	Color
<0	Cyan
0	Green
7	Orange
12	Red
	Red

The configured color is used for the text as long as the temperature value is between the threshold value in the same row and the threshold value on the next row.

In the sample shown on the left side a value of 6 would be written in green.

Appearance in the general controls area:

This element can not be placed in the general controls area.

Additional information dialog



The actual value will be recorded and presented in form of a trending diagram.

Also the minimal and the maximal value will be recorded. Press the button to reset the stored values.

Visualization Element Room Temperature Sensor

This visualization element represents a room temperature sensor unit. It shows the actual temperature measured by the unit. Depending on the configuration it also shows the set point setting and the selected operation mode of the unit. The visualization element records minima and maxim values as well as a trend.

There are Appearances for the [floor plan area](#) and the [general controls area](#).

Refer to chapter [RoomTemperatureControl](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the RoomTemperatureControl from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)".

Touch the symbol with a fingertip to open the [additional information dialog](#). This dialog shows minimal and maximal temperature values and the trending of the temperature.

Actual temperature



act. Temp. + Wheel position of the Set point adjustment



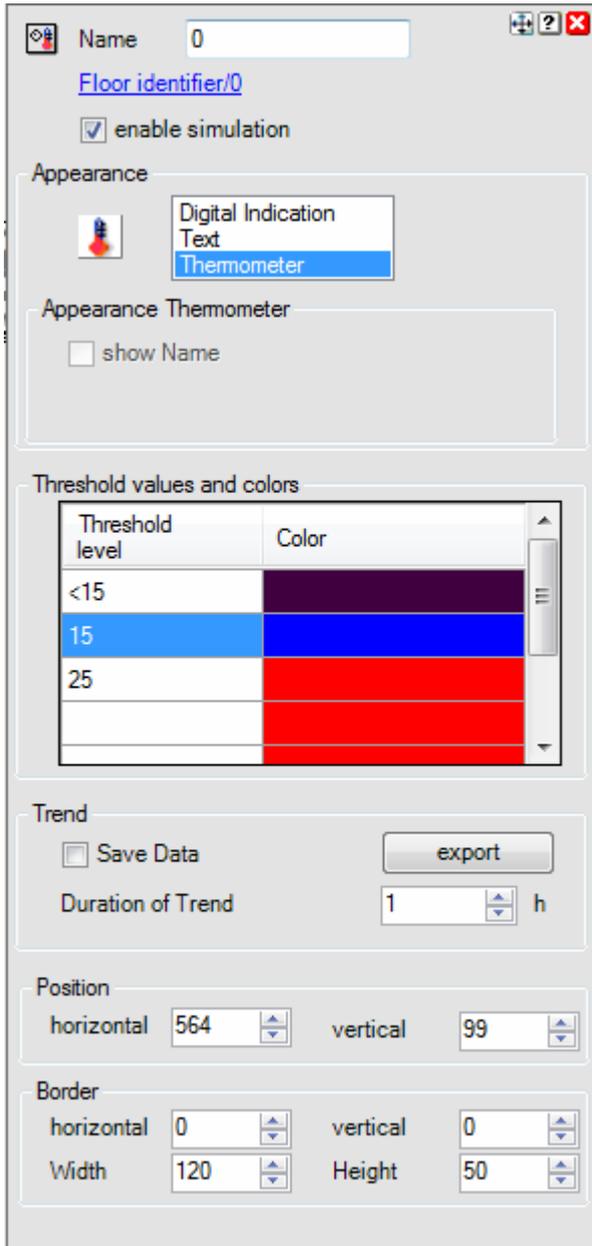
act. Temp. + Set point temp. + Heating mode



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Depending on the type of the RoomTemperatureControl-Unit additional information's will be shown.



Properties dialog

Simulation enables to enter values for the different signals even in the presentation mode. This is for demo or test purposes.

Configuration of the **trend** (see pictures below). For details refer to next paragraph.

Color of the Display:

There is a configuration option to configure the color of the text according the temperature value. Following table defines the threshold values and the corresponding colors:

Threshold level	Color
<0	Cyan
0	Green
7	Orange
12	Red

The configured color is used for the text as long as the temperature value is between the threshold value in the same row and the threshold value on the next row.

In the sample shown on the left side a temperature value of 6° would be written in green.

Trend

If "Save Data" has been activated, then the trend will be presented with the same data also after a startup of **myHomeControl**. But this requires some disk space in the project database. So in case disk space is very limited, this option should not be activated.

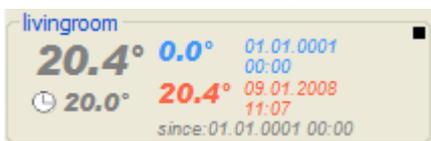
The export – button stores the logged trend values to a comma-separated file.

Appearance in the general controls area:



Place the symbol with the mouse at any location of the tab.
Depending on type of the RoomTemperatureControl and the property settings, different additional information's will be shown

Following supplementary information is available. The visualization of this information is configurable:

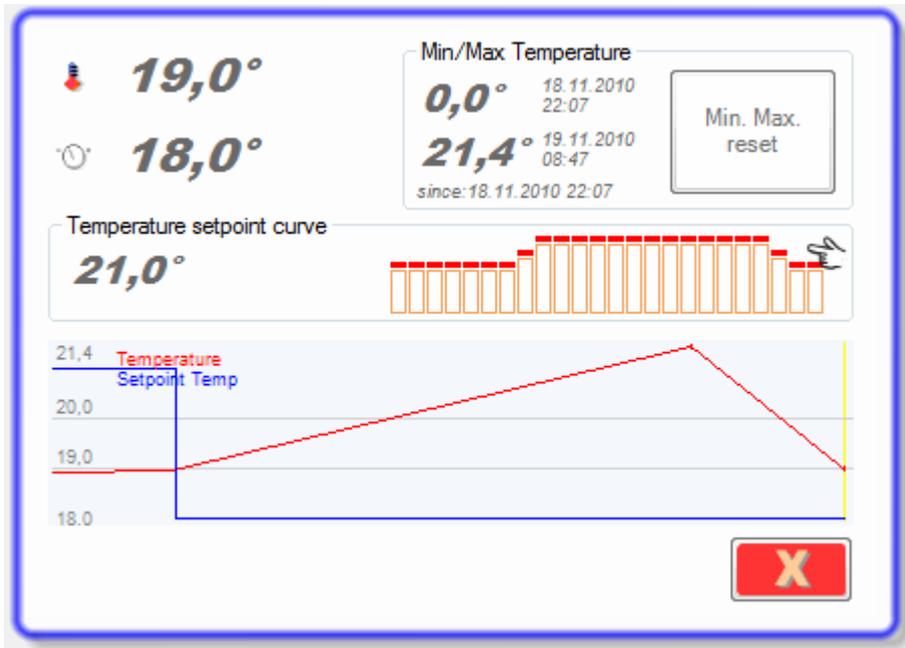


Minimal and maximal temperature



The temperature profile as trending diagram

Additional information dialog



The values on the left hand side shows the actual temperature and the temperature set point value used by the heating control. If the temperature reference curve (as shown in this sample) has been enabled, then the temperature set point is calculated by the reference set point (curve) and the set point offset (wheel at the physical sensor).

The actual temperature and the set point setting will be recorded and presented in form of a trending diagram.

Also the minimal and the maximal temperature will be recorded. Press the button to reset the stored values.

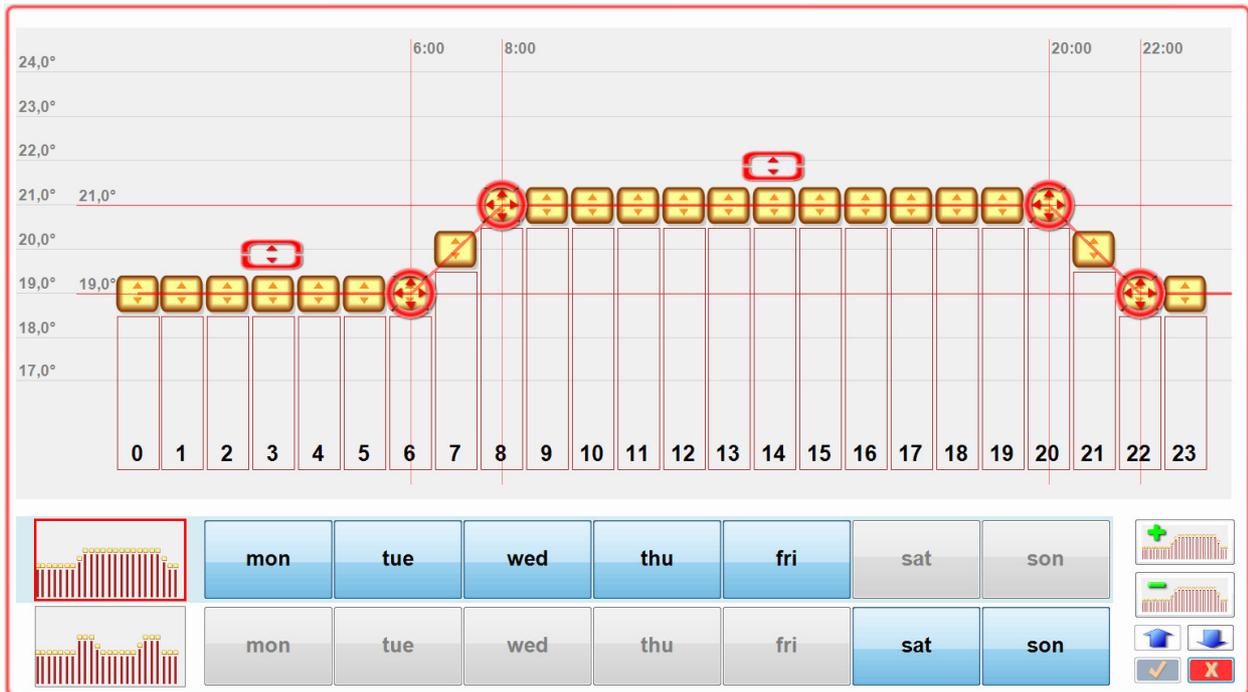
Temperature Reference Curve



The value shown within the temperature set point curve frame indicates the actual set point value retrieved from the curve.

The graph shows the progression of the reference curve used today.

Clicking the graph opens the editor for temperature reference curves:



This editor enables the user to adjust the curve(s) and tune the behavior of the heating.

The curves can be modified by dragging one of the red control pads or by dragging one of the yellow slider controls. By clicking the corresponding sectors of the red pads, fine tuning can be done.

In case a yellow slider is going to be dragged, automatically an additional red pad appears. To get rid of a superfluous pad adjust it in line with two other pads. Superfluous pads will be deleted by the editor automatically.

There is the opportunity to create up to 7 reference curves which can be assigned to individual days of the week.

The + button copies the selected curve and inserts the new curve directly after the selected curve.

The – button deletes the selected curve.

🔥 Visualization Element Smoke Detector

This visualization element represents a Smoke Detector device.

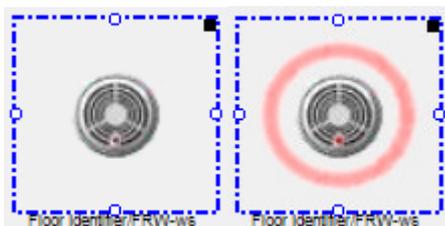
Refer to chapter [Smoke Detector](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the presence indication sensor icon from the tree views “[New Floors, Rooms and Devices](#)” of “[Used Floors, Rooms and Devices](#)” into the floor plan area.

There are different appearances available:

Symbol:



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Picture:

There is the opportunity to define an individual image for each state (Ok, Smoke Alarm).

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

📌 Visualization Element Temperature

This visualization element represents a temperature sensor. It shows the actually measured temperature. The visualization element records minima and maxim values as well as a (profile) trend.

There are Appearances for the [floor plan area](#) and the [general controls area](#).

Refer to chapter [Temperature](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the temperature sensor from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

Touch the symbol with a fingertip to open the [additional information dialog](#). This dialog shows minimal and maximal temperature values and the trending of the temperature.



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Color of the Display:

There is a configuration option to configure the color of the text according the temperature value. Following table defines the threshold values and the corresponding colors:

Threshold level	Color
<0	Cyan
0	Green
7	Orange
12	Red

The configured color is used for the text as long as the temperature value is between the threshold value in the same row and the threshold value on the next row.

In the sample shown on the left side a temperature value of 6° would be written in green.

Appearance in the general controls area:



Place the symbol with the mouse at any location of the tab.

Depending on type of the RoomTemperatureControl and the property settings, different additional information's will be shown

Following supplementary information is available. The visualization of this information is configurable:

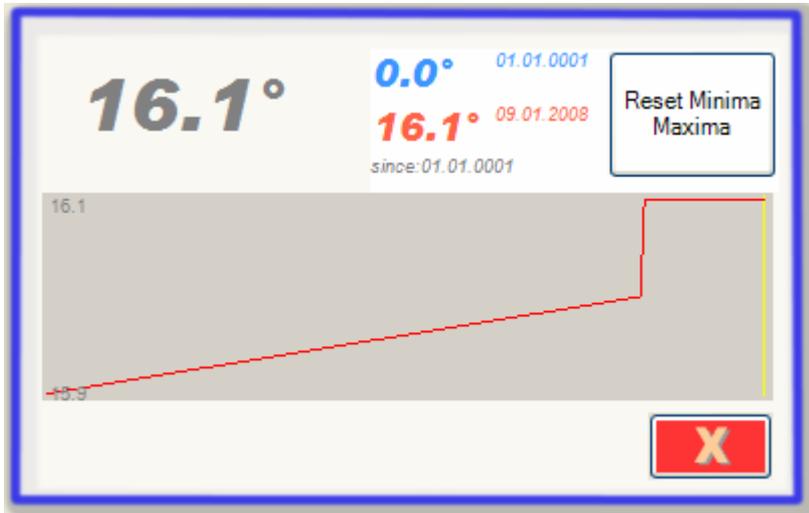


Minimal and maximal temperature



The temperature profile as trending diagram

Additional information dialog



The actual temperature will be recorded and presented in form of a trending diagram.

Also the minimal and the maximal temperature will be recorded. Press the button to reset the stored values.

Visualization Element Window Contact

This visualization element represents a window contact sensor.

Refer to chapter [Window Contact](#) to find details about the network functionalities.

The [Window Monitoring](#) informs about the state of all the windows.

Appearance in the floor plan area:

Drag in the window contact icon from the tree views “[New Floors, Rooms and Devices](#)” of “[Used Floors, Rooms and Devices](#)” into the floor plan area.

There are **different appearances** available for this visualization element:



If simulation is enabled, the visualization element changes the state on each click.

List of the available appearances.

Appearance specific configuration items.

Position of the visualization element within the floor plan.

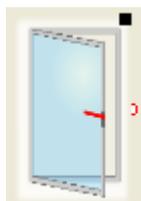
Size of the element or border.



The window is closed.

Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



The window is open.

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Application sample

Refer to [window monitoring](#).

 **Visualization Element Window Handle**

This visualization element represents a window handle sensor.

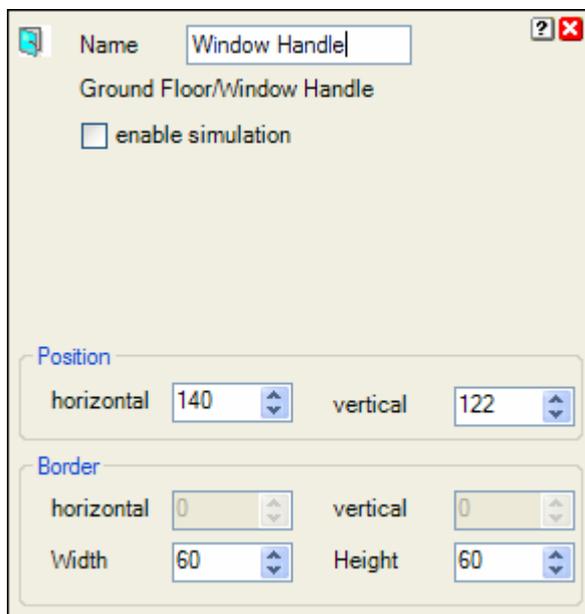
Refer to chapter [Window Handle](#) to find details about the network functionalities.

The [Window Monitoring](#) informs about the state of all the windows.

Appearance in the floor plan area:

Drag in the window handle icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

There are **different appearances** available for this visualization element:



If simulation is enabled, the visualization element changes the state on each click.

Position of the visualization element within the floor plan.

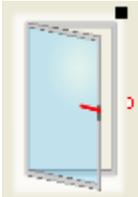
Size of the element or border.



The window is closed.

Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



The window is open.

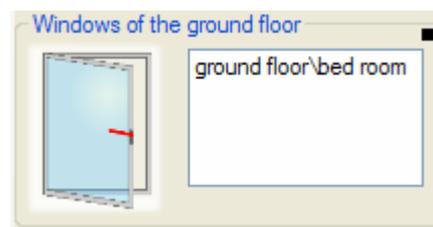


The window is tilt.

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Application sample:



The [window monitoring](#) provides status overview about all the windows.

Actuator Visualization Elements

These visualization elements show status of the corresponding actuator and allow its control.

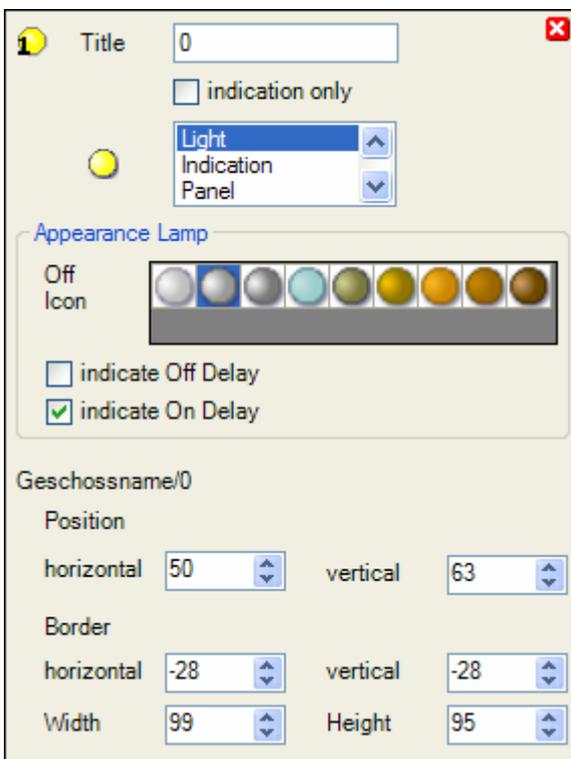
1 Visualization Element Dimmer

This visualization element represents a dimmer actuator.

Refer to chapter [Dimmer](#) to find details about the network functionalities.

Properties dialog:

There are **different appearances** available for this visualization element:



If **indication only** is checked, then the light cannot be switched on or off anymore from the visualization screen.

List of the available appearances.

Appearance specific configuration items.

Position of the visualization element within the floor plan.

Appearance in the floor plan area:

Drag in the dimmer icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.



Pick up the light at the light symbol to move it to any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

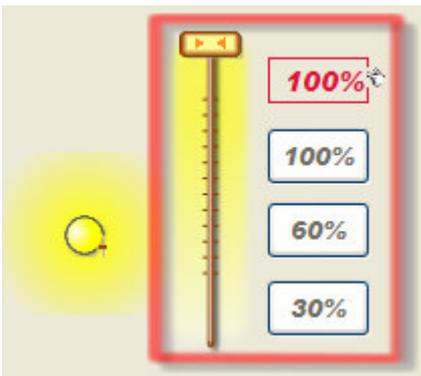


Turn on and off the light with a fingertip on the light symbol.

In case the dimmer doesn't operate in the switch mode (property setting in network view), a slider is available to adjust the light intensity. Reside on the symbol until the slider appears.

In the presentation mode the slider pops up immediately after tipping the finger on the light symbol.

Dimming actuators supporting the EEP 07-38-02 or any STM telegrams

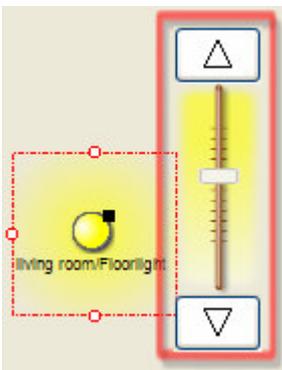


New generation dimmer actuators, supporting the STM protocol, the slider button might be used to adjust the light intensity.

Move the slider with the finger.

The red value indicates the actual intensity set point. Click on it to adjust it.

The tree buttons below the intensity indication are preset buttons. By clicking one of the buttons the corresponding intensity set point is sent to the dimming actuator. By keeping the button pressed for a while the button takes over the actual intensity set point and stores it. This is acknowledged by yellow coloring of the button.

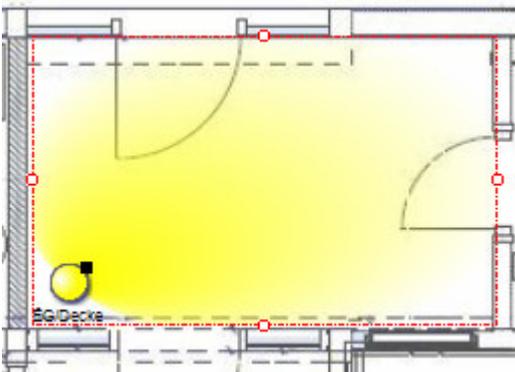


Dimming actuators NOT supporting the EEP 07-38-02 or any STM telegrams

These kind of dimming actuator only support a touch dim function. Therefore it is not possible to transmit a intensity value directly to the actuator.

The up and down buttons control the light intensity as the do with real PTM radio buttons.

Application sample



1 Visualization Element Dimmer 1REG

This visualization element represents a 1 fold dimmer actuator.

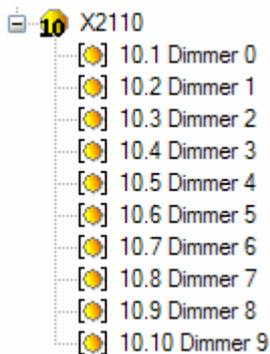
To insert the second channel into the floor plan, drag in the corresponding icon (10.2) from the tree view "[Used Floors, Rooms and Devices](#)".

Refer to chapter [Dimmer 1REG](#) to find details about the network functionalities.

10 Visualization Element Dimmer 10

This visualization element represents a 10 fold dimmer actuator. This actuator is a combination of 10 [single dimming actuators](#).

When you drag in a dimmer 10 icon, a dimmer 1 visualization element representing the first channel of the 10 fold dimming actuator will be placed into the floor plan area. The other channels can be found in the three view "[Used Floors, Rooms and Devices](#)".



To insert the second channel into the floor plan, drag in the corresponding icon (10.2) from the tree view "[Used Floors, Rooms and Devices](#)".

Refer to chapter [Dimmer 10](#) to find details about the network functionalities.

1\ Visualization Element Jalousie 1

This visualization element represents a jalousie actuator. It might be used for blinds and rolling shutters. The jalousie can be controlled using this visualization element.

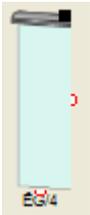
Refer to chapter [jalousie 1](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the jalousie 1 icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

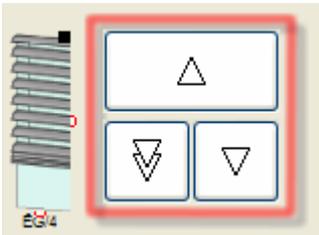
There are **different appearances** available for this visualization element:

Jalousie:



Pick up the light at the light symbol to move it to any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



Open the control dialog with a fingertip on the jalousie symbol. Press for at least 1 second if you are in the design mode.



A long tip on this button drives the jalousie to its upper end position. A second tip stops the movement. A short tip initiates the tip mode. Within this mode the jalousie runs as long as the button is pressed.

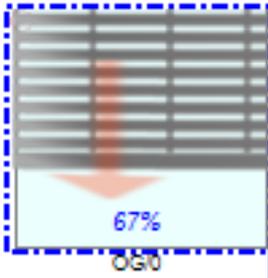


A long tip on this button drives the jalousie in its lower end position. A second tip stops the movement. A short tip initiates the tip mode. Within this mode the jalousie runs as long as the button is pressed.



A long tip on this button drives the jalousie to a configured middle position. After reaching this position the jalousie will be adjusted. Refer to [jalousie properties](#) in the network area.

Rolling Shutter:



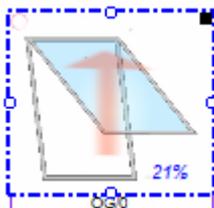
Sunblind:



The direction is configurable.
Downwards, upwards, to the left, to the right

Instead to the green-white striped drapery an image might be loaded.

Skylight



The orientation as well as the driving direction is configurable:

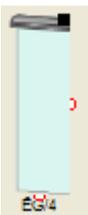
Orientations:

Downwards, upwards, to the left, to the right

Driving direction:

0%=closed, 100%=open or 0%=open,100%=closed

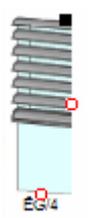
State indications



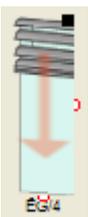
The jalousie is in its upper position



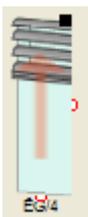
The jalousie is completely lowered.
This is the darkening position.



The jalousie is partly lowered.
This is the shading position.

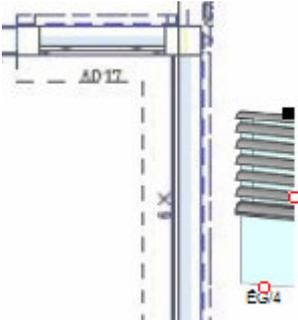


The jalousie is moving downwards.



The jalousie is moving upwards.

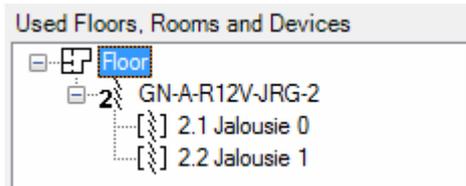
Application sample



2 Visualization Element Jalousie 2

This visualization element represents a double jalousie actuator. This actuator is a combination of 2 [single jalousie actuators](#).

When you drag in a jalousie 2 icon, a jalousie 1 visualization element representing the first channel of the quad jalousie actuator will be placed into the floor plan area. The other channels can be found in the three view "[Used Floors, Rooms and Devices](#)".



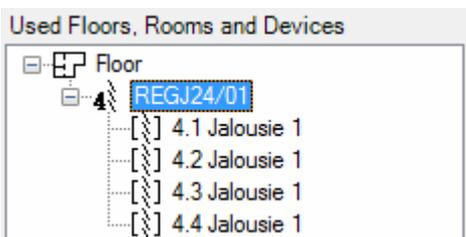
To insert the second channel into the floor plan, drag in the corresponding icon (2.2) from the tree view "[Used Floors, Rooms and Devices](#)".

Refer to chapter [Jalousie 2](#) to find details about the network functionalities.

4 Visualization Element Jalousie 4

This visualization element represents a quad jalousie actuator. This actuator is a combination of 4 [single jalousie actuators](#).

When you drag in a jalousie 4 icon, a jalousie 1 visualization element representing the first channel of the quad jalousie actuator will be placed into the floor plan area. The other channels can be found in the three view "[Used Floors, Rooms and Devices](#)".



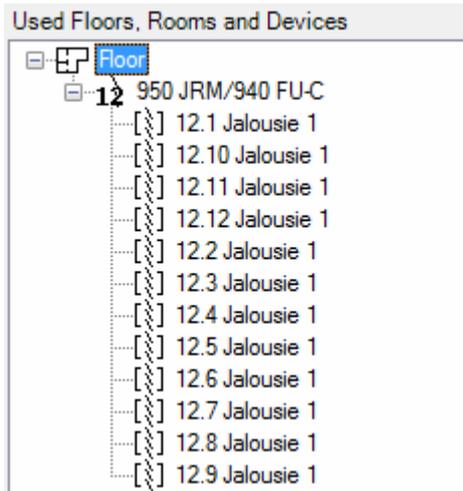
To insert the second channel into the floor plan, drag in the corresponding icon (4.2) from the tree view "[Used Floors, Rooms and Devices](#)".

Refer to chapter [Jalousie 4](#) to find details about the network functionalities.

12 Visualization Element Jalousie 12

This visualization element represents a quad jalousie actuator. This actuator is a combination of 12 [single jalousie actuators](#).

When you drag in a jalousie 12 icon, a jalousie 1 visualization element representing the first channel of the 12 fold jalousie actuator will be placed into the floor plan area. The other channels can be found in the three view "[Used Floors, Rooms and Devices](#)".



To insert the second channel into the floor plan, drag in the corresponding icon (12.2) from the tree view "[Used Floors, Rooms and Devices](#)".

Refer to chapter [Jalousie 12](#) to find details about the network functionalities.

Visualization Element RGB Dimmer

The visualization element RGB dimmer is used to visualize and control a RGB color mixer.

Refer to chapter [RGB Dimmer](#) to find details about the network functionalities.

Appearance in the floor plan area:



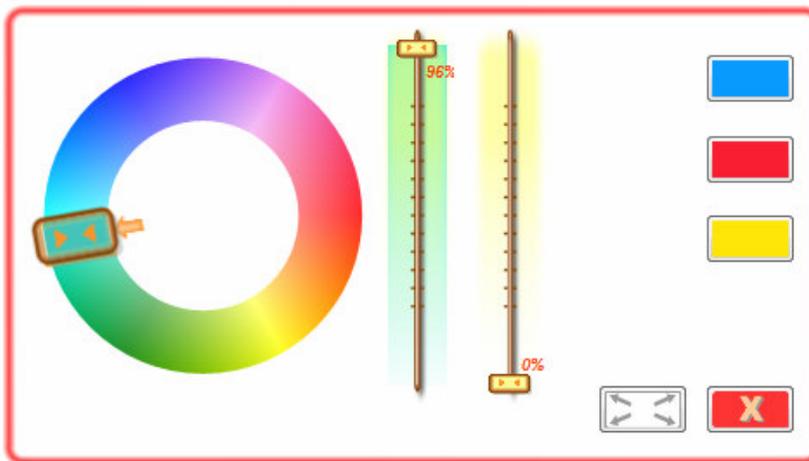
Light

Shows the color and the brightness values.



Panel

Shows the color and the brightness values



The color mixer dialog appears when the symbol in the floor plan area is touched.

Use the slider on the left to select the color. The vertical sliders control brightness of color and white.

The buttons on the right are used as quick selection.

If one of these buttons is pressed for a while, it will be reconfigured with the values of the actual color setting.

Appearance in the general controls area:

The visualization element can not be placed in this area.

1 Visualization Element Switch 1

This visualization element represents a single switch actuator. But it can be used to switch all kinds of electrical consumers e.g. fans, pumps,...

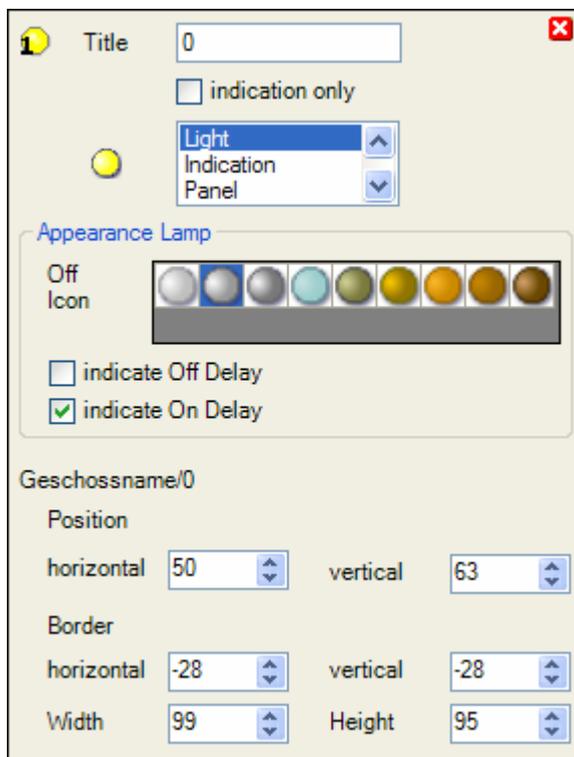
Refer to chapter [switch 1](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the switch 1 icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

Properties dialog:

There are **different appearances** available for this visualization element:



If **indication only** is checked, then the light cannot be switched on or off anymore from the visualization screen.

List of the available appearances.

Appearance specific configuration items.

Position of the visualization element within the floor plan.

Appearance Light (with illumination area):



Pick up the light at the light symbol to move it to any location of the floor plan.
Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



Turn on an off the light with a fingertip on the light symbol.



Switch actuator block is OFF and in state "Blocked" e.g. due to a [Load Limitation](#).

For details refer to [Network/Switch 1](#).



Switch actuator block is ON and in state "Blocked" e.g. due to a [Load Limitation](#).
Therefore the physical Switch actuator is turned OFF.

For details refer to [Network/Switch 1](#).

Appearance specific configuration:



Select an icon indicating the off state of the light.
The yellow icon will always indicate the on state.

Select if there shall be an indication if an on or off delay is in progress.

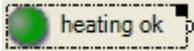
A dot in the lower left corner of the icon is indicating that a delay is in progress:



Appearance Indication (of states):



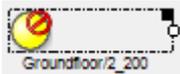
Chose an individual symbol for each state (on, off).
Give individual texts for each state.



This appearance supports the flashing mode. If flashing mode is activated, the color of the symbol will alternate between the ON-color and the OFF-color as long as the actuator block resides in the ON-state. This feature can be activated in the properties dialog of the element. Corresponding input filed will appear, if the appearance "Indication" has been selected.



Switch actuator block in state "Blocked". Refer to [Network/Switch 1](#) for details.



Appearance specific configuration:

Appearance Indication

On Icon: [Yellow circle] [Grey circle] [Light blue circle] [Dark blue circle] [Green circle] [Light green circle] [Red circle] [Dark red circle]

Text: [Text input field]

Off Icon: [Yellow circle] [Grey circle] [Light blue circle] [Dark blue circle] [Green circle] [Light green circle] [Red circle] [Dark red circle]

Text: [Text input field]

Flashing Interval [sec]: 1.0 [up/down arrows]

indicate Off Delay

indicate On Delay

Select an icon indicating the on state of the light.

Text shown in the on state.

Select an icon indicating the off state of the light.

Text shown in the off state.

Activates flashing in the on state and defines the interval.

Select if there shall be an indication if an on or off delay is in progress.

A dot in the lower left corner of the icon is indicating that a delay is in progress:



off delay



on delay

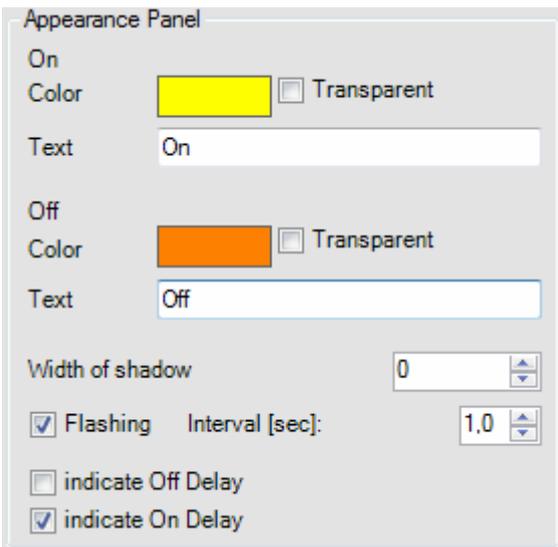
Appearance Panel:



Chose an individual symbol for each state (on, off).
Give individual texts for each state.

This appearance supports the flashing mode. If flashing mode is activated, the color of the symbol will alternate between the ON-color and the OFF-color as long as the actuator block resides in the ON-state. This feature can be activated in the properties dialog of the element. Corresponding input filed will appear, if the appearance "Indication" has been selected.

Appearance specific configuration:



Select an icon indicating the on state of the light.

Text shown in the on state.

Select an icon indicating the off state of the light.

Text shown in the off state.

Activates flashing in the on state and defines the interval.

Select if there shall be an indication if an on or off delay is in progress.

A dot in the lower left corner of the icon is indicating that a delay is in progress:



Appearance Pictures

There is the opportunity to define an individual image for each state (on, off). This appearance supports the flashing mode as well.

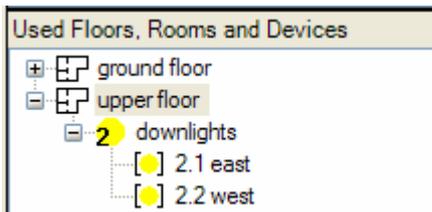
Appearance in the general controls area:

This visualization element can also be located in the general control area. In this case is only the appearance "Indication" available.

2 Visualization Element Switch 2

This visualization element represents a double switch actuator. This actuator is a combination of two [single switch actuators](#).

When you drag in a switch 2 icon, a switch 1 visualization element representing the first channel of the double switch actuator will be placed into the floor plan area. The other channel can be found in the three view "[Used Floors, Rooms and Devices](#)".



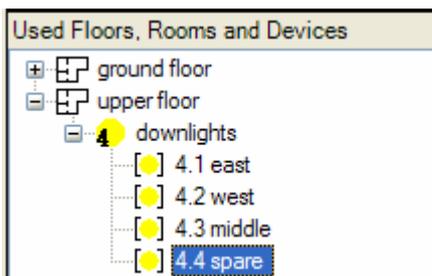
To insert the second channel into the floor plan, drag in the corresponding icon (2.2) from the tree view "[Used Floors, Rooms and Devices](#)".

Refer to chapter [switch 2](#) to find details about the network functionalities.

4 Visualization Element Switch 4

This visualization element represents a quad switch actuator. This actuator is a combination of four [single switch actuators](#).

When you drag in a switch 4 icon, a switch 1 visualization element representing the first channel of the double switch actuator will be placed into the floor plan area. The other channels can be found in the three view "[Used Floors, Rooms and Devices](#)".



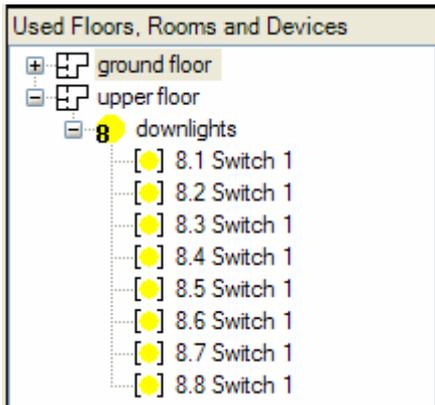
To insert the second channel into the floor plan, drag in the corresponding icon (4.2) from the tree view "[Used Floors, Rooms and Devices](#)".

Refer to chapter [switch 4](#) to find details about the network functionalities.

8 Visualization Element Switch 8

This visualization element represents an 8-times switch actuator. This actuator is a combination of 8 [single switch actuators](#).

When you drag in a switch 8 icon, a switch 1 visualization element representing the first channel of the double switch actuator will be placed into the floor plan area. The other channels can be found in the three view "[Used Floors, Rooms and Devices](#)".



To insert the second channel into the floor plan, drag in the corresponding icon (8.2) from the tree view “[Used Floors, Rooms and Devices](#)”.

Refer to chapter [switch 8](#) to find details about the network functionalities.

Visualization Element Valve 1

This visualization element represents a valve actuator.

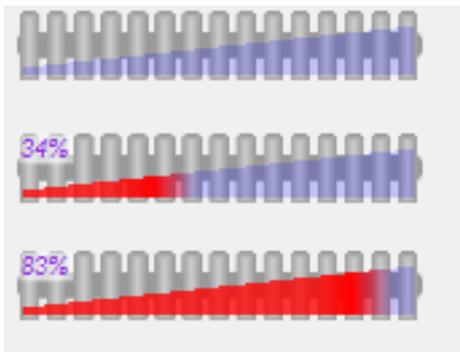
Refer to chapter [Valve 1](#) to find details about the network functionalities.

There are **different appearances** available for this visualization element:

Appearance in the floor plan area:

Drag in the dimmer icon from the tree views “[New Floors, Rooms and Devices](#)” of “[Used Floors, Rooms and Devices](#)” into the floor plan area.

Appearance **Radiator** is used with proportional valve actuators:



Pick up the light at the light symbol to move it to any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

The orientation of the radiator is to be configured in the settings of the visualization element.

Visualization Element White Color Dimmer

This visualization element is used to control warm / cold light LEDs.

Appearance in the floor plan area:

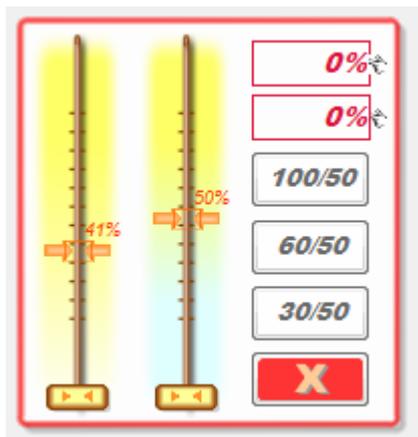


Pick up the light at the light symbol to move it to any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



Turn on and off the light with a fingertip on the light symbol.



Click the symbol to open the mixer dialog.

The left hand slider controls the brightness.

The right hand slider controls the color.

The buttons on the right side are favorites. They can be reprogrammed by a long button press.

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Refer to chapter [White color dimmer](#) to find details about the network functionalities.

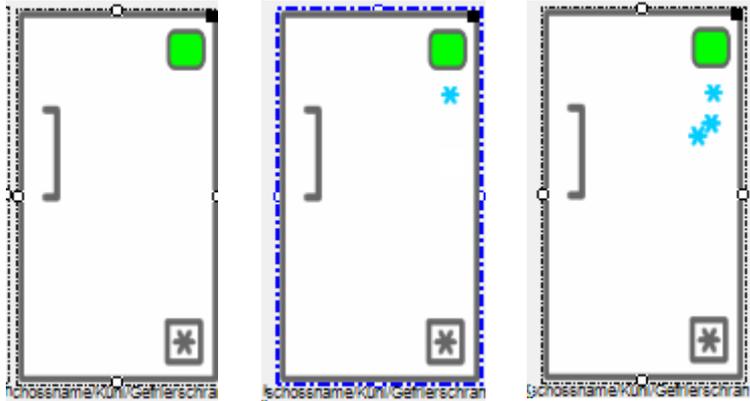
Appliance Visualization Elements

Visualization Element Fridge Freezer

This visualization element is used to visualize the operational state of a fridge freezer and to control the super cool and super freeze modes.

Refer to chapter [Fridge Freezer](#) to find details about the network functionalities.

Appearance in the floor plan area:



Normal

Super cool

Super cool+Super freeze

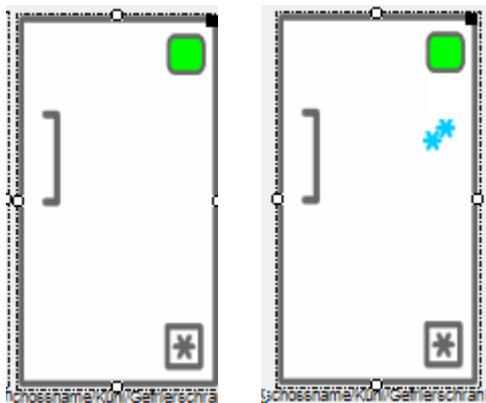
A click on the symbol opens the corresponding control dialog.

Visualization Element Freezer

This visualization element is used to visualize the operational state of a freezer and to control the super freeze mode.

Refer to chapter [Freezer](#) to find details about the network functionalities.

Appearance in the floor plan area:



Normal

Super freeze

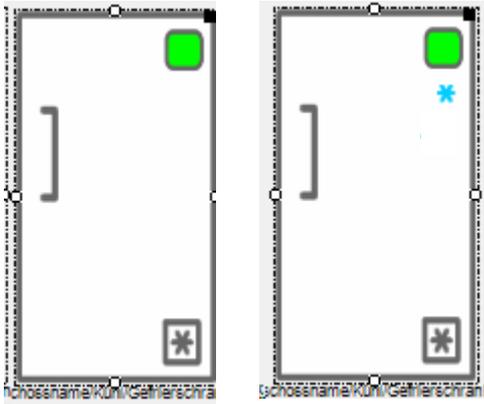
A click on the symbol opens the corresponding control dialog.

Visualization Element Refrigerator

This visualization element is used to visualize the operational state of a refrigerator and to control the super cool mode.

Refer to chapter [Refrigerator](#) to find details about the network functionalities.

Appearance in the floor plan area:



Normal

Super cool

A click on the symbol opens the corresponding control dialog.

Visualization Element Dish Washer

This visualization element is used to visualize the operational state of a dishwasher and to control the dishwasher.

Refer to chapter [Dishwasher](#) to find details about the network functionalities.

Appearance in the floor plan area:



Standby

Washing

Done

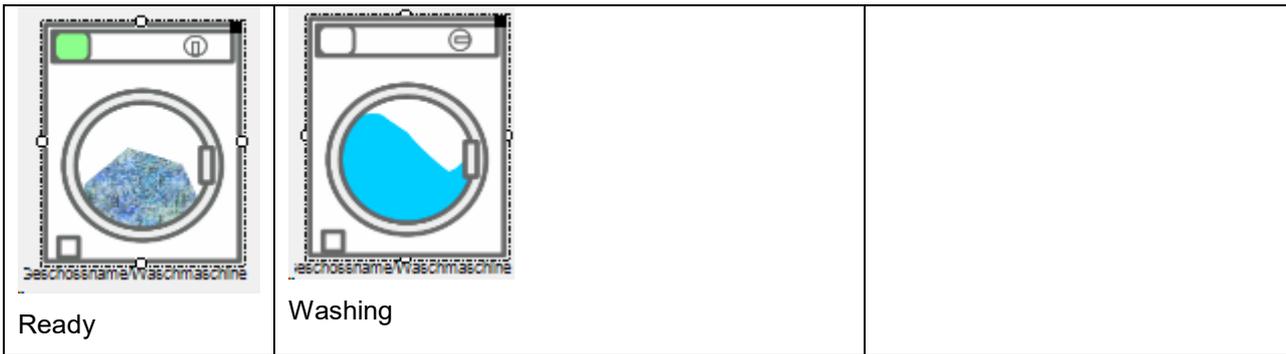
A click on the symbol opens the corresponding control dialog.

Visualization Element Washing Machine

This visualization element is used to visualize the operational state of a Washer and to control the washing machine.

Refer to chapter [Washing Machine](#) to find details about the network functionalities.

Appearance in the floor plan area:



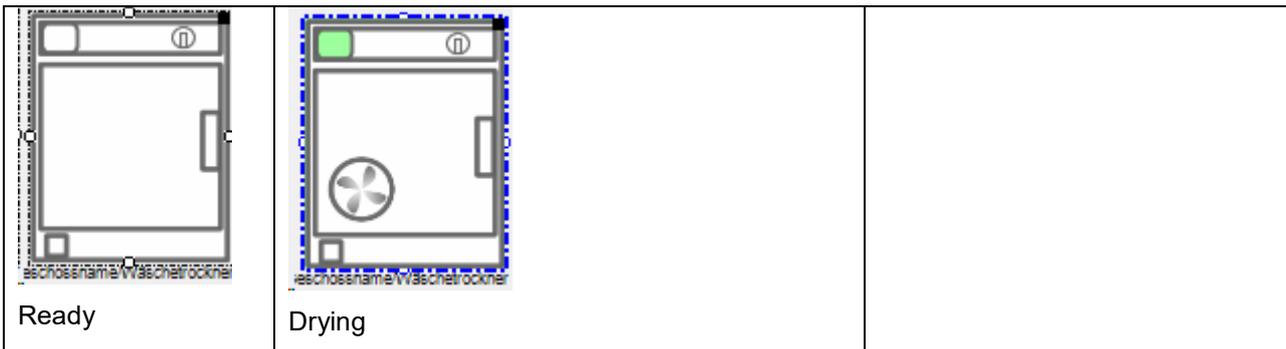
A click on the symbol opens the corresponding control dialog.

 **Visualization Element Tumble Dryer**

This visualization element is used to visualize the operational state of a tumble dryer and to control the tumble dryer.

Refer to chapter [Tumble Dryer](#) to find details about the network functionalities.

Appearance in the floor plan area:



A click on the symbol opens the corresponding control dialog.

Energy Management Visualization Elements

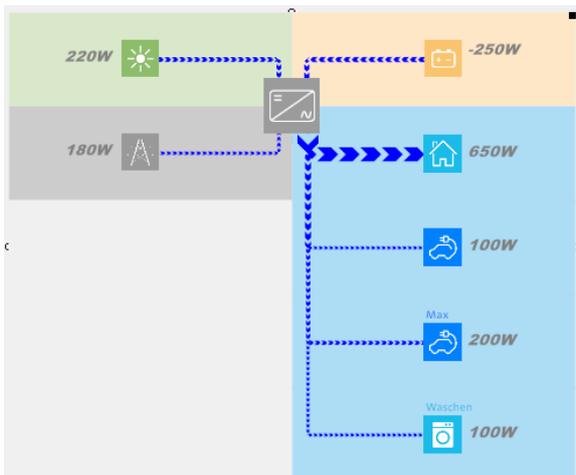
These visualization elements inform about the state of energy management functions and provide specific controls to operate them.

Visualization Element Energy Flow

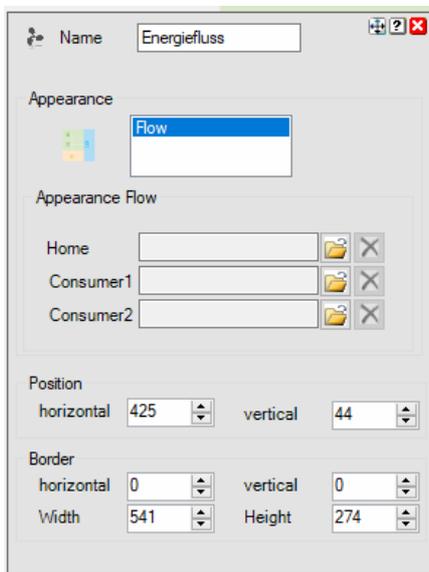
This visualization element shows the energy flows of the building.

Refer to chapter [Energy Flow](#) to find details about the network functionalities.

Appearance in the floor plan area:



The various branches can be shown/hidden in the configuration of the corresponding network block.



There is the opportunity to configure dedicated icons for these branches. Use pictures 100px x 100px

Appearance in the general controls area:

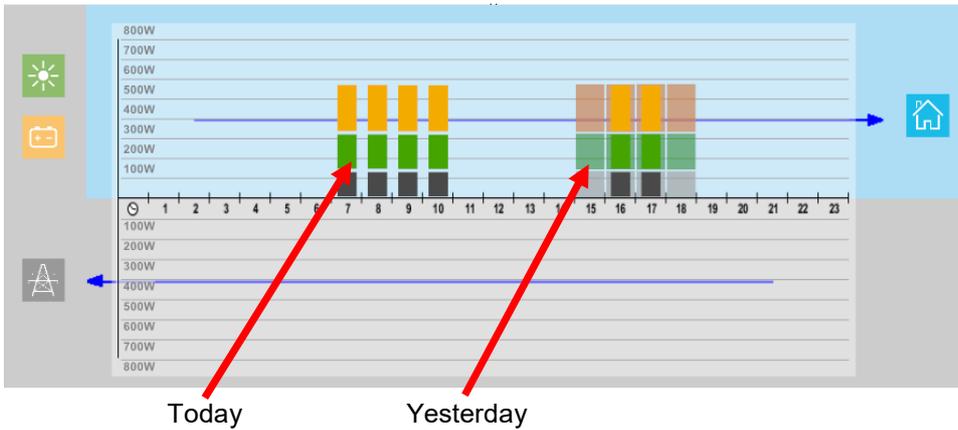
This visualization element cannot be placed in the general controls area.

Visualization Element Energy Logger

This visualization element shows the energy flows of the building.

Refer to chapter [Energy Logger](#) to find details about the network functionalities.

Appearance in the floor plan area:



Visualization Element Energy Manager

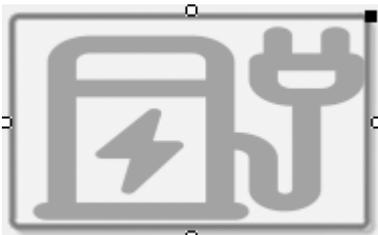
Visualization Element Charging Station

This visualization element shows the actual states of a car charging station.

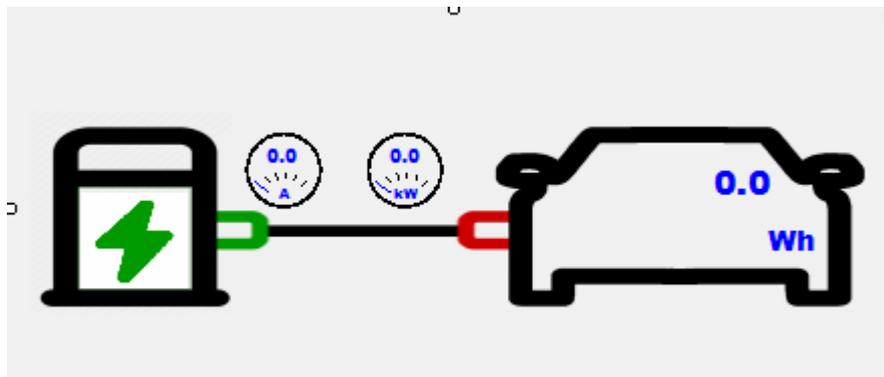
Refer to chapter [Charging Station](#) to find details about the network functionalities.

Appearance in the floor plan area:

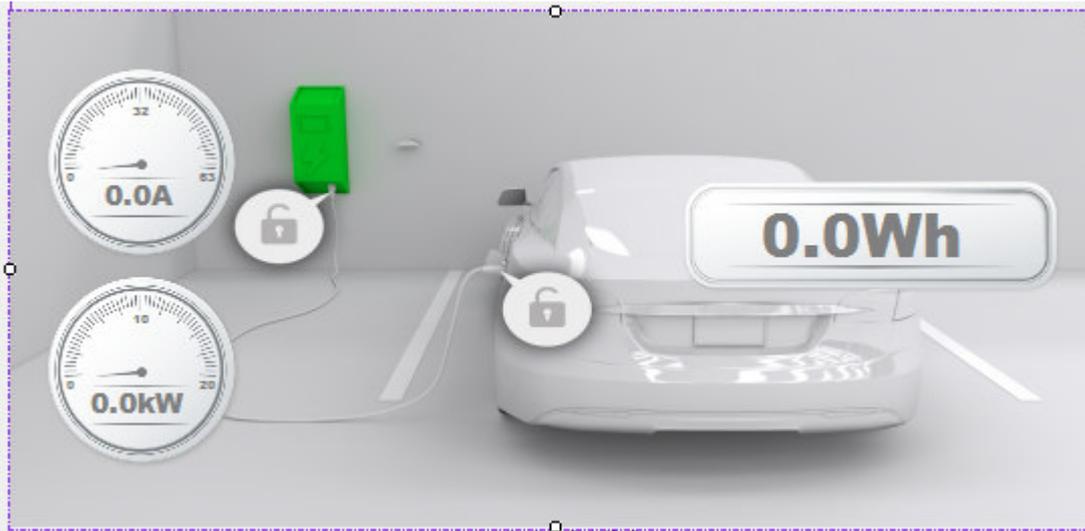
Compact



Detailed 1



Detailed 2



Visualization Element Excess Energy Charging

This visualization element shows the actual states of excess energy charging function which can be used in combination with a charging station for e-mobiles.

Refer to chapter [Excess Energy Charging](#) to find details about the network functionalities.

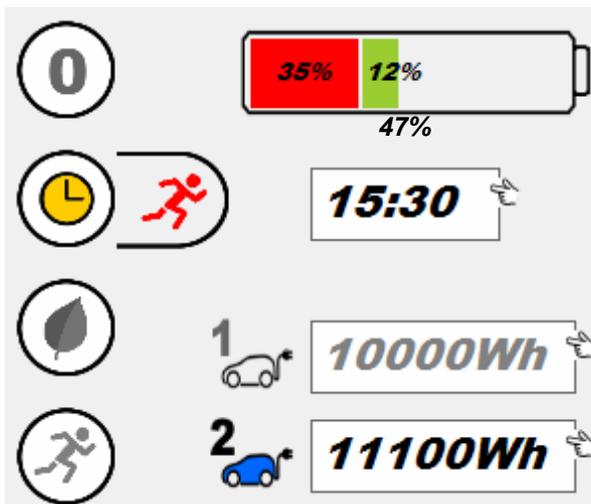
Appearance in the floor plan area:

Compact



- OFF: off
- ECO: Excess Energy Charging
- FAST: Fast Charging
- AUTO: Automatic Charging, first ECO then FAST.

Detailed 1



- Progress of charging, **FAST**, **ECO**
- Overall charging state
- Automatic ECO→FAST, End of charge
- Charging Target Car 1
- Charging Target Car 2, selected

Detailed 2

Function Visualization Elements

These visualization elements inform about the state of certain logic functions and provide specific controls to operate them.

Visualization Element Absence

This visualization element is directly coupled to the corresponding logic block of the network area. It enables activation and deactivation of the absence function. This function provides a presence simulation and a temperature lowermost for energy saving.

Refer to chapter [Absence](#) to find details about the network functionalities.

Appearance in the floor plan area:

This visualization element cannot be placed in the plan floor area.

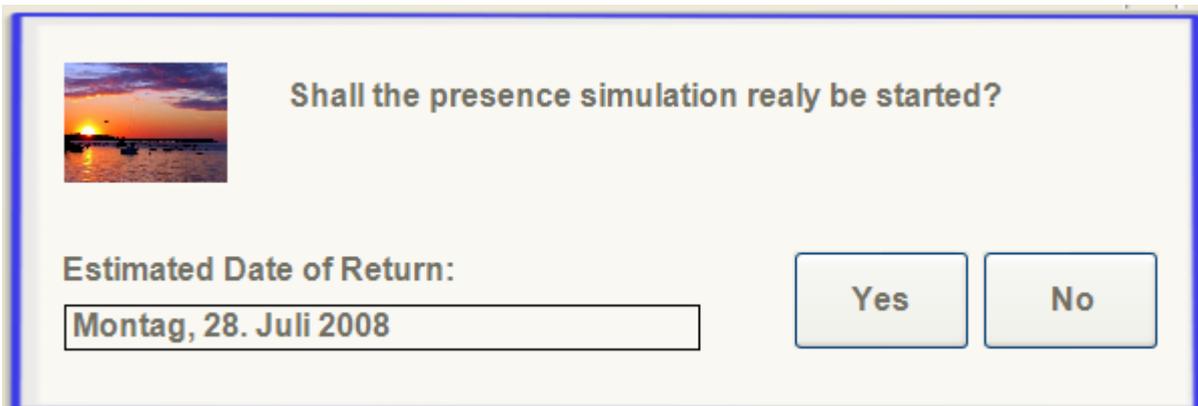
Appearance in the general controls area:



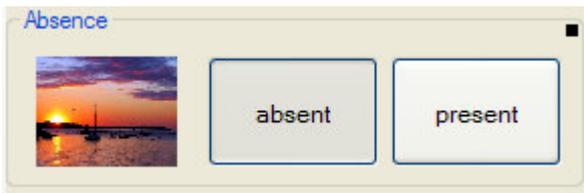
Actually some body is at home. The “present” button was last pressed. The engaged, gray button indicates present as actual state.

The presence simulation function is now in the deactivated state.

Pressing the absent button following dialog will pop up and request a confirmation to start the absence function.

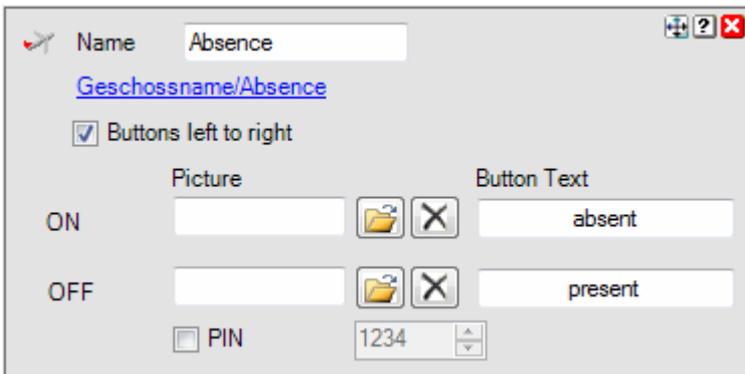


If an estimation for the date of return will be entered (which is optional), then the absence function might be able to lower the temperature set points for the different rooms for energy saving purposes.



All inhabitants logged out. Nobody is at home. The “absent” button has been pressed at last. The engaged gray button indicates this.

This example has been configured to show a corresponding picture to clarify the activated presence simulation function.



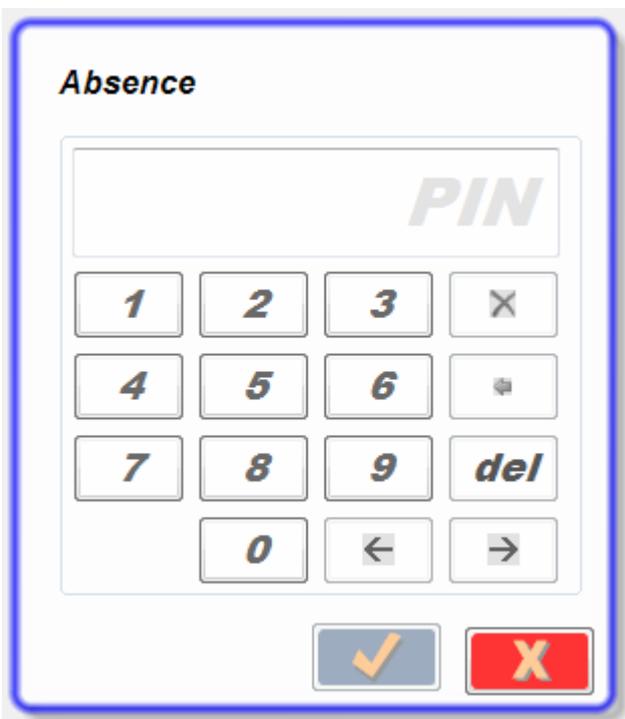
Properties dialog

Select if button should be arranged side by side or above each other.

ON activates the simulation function, OFF deactivates the function.

You are free to name the buttons and optionally insert a picture.

Check the PIN box to request a pincode. If PIN is checked, then the user will be requested to enter a pin code when he/she presses the “present” button. A dialog will pop up where the user must enter the pin code. This feature is useful in case security functions are attached to the absence function.



Visualization Element Alarm Controller

This visualization element is directly coupled to the corresponding logic block of the network area. It enables the user to operate the alarm central.

Refer to chapter [Alarm Controller](#) to find details about the network functionalities.

Appearance in the floor plan area:

This visualization element cannot be placed in the floor plan area area.

Appearance in the general controls area:



The symbol on the left side shows the actual operation mode of the alarm controller. Detailed information will be shown if the symbol is clicked.

The left button is used to arm or suspend the function according to the actual operation mode. If the button is clicked a control dialog is shown.

The right button is used to disarm the alarm controller.

Control dialog



The upper left symbol shows the actual operation mode of the alarm controller.

Right of the symbol are all sensor listed, which are not in the requested state.

The middle area of the dialog shows the history of the sensors.

<Time stamp> <Sensor> <Sensor event> <new operation mode of the alarm controller>

The left button is used to delete the history. It is only showed in case there are history entries available.

The button next to the cancel button is used to change the operation mode of the alarm controller. The button shows the symbol of the next operation mode according to the actual mode.

In case a PIN code has been configured in the network block, a dialog asking for the PIN is shown before arming or disarming.

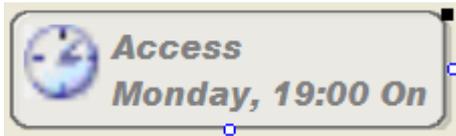
Visualization Element Clock

This visualization element is directly coupled to the corresponding logic block of the network area. It indicates the time of the next event released by the clock-block.

Refer to chapter [Clock](#) to find details about the network functionalities.

Appearance in the floor plan area:

Clock



The clock is active and indicates the time of the next event

Pick up the light at the light symbol to move it to any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



The clock is inactive

The clock block will not release any events.

Picture

There is also a representation showing a picture.

In case the visualization element has been touched a control dialog will pop up. The control dialog shows a [list of all configured events](#).

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

List of events

next event:
Monday, 19:00 On

Ein	Zeit	So	Mo	Di	Mi	Do	Fr	Sa
<input checked="" type="checkbox"/>	19:00	<input checked="" type="checkbox"/>						
<input type="checkbox"/>	21:00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	23:30	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Within this dialog events can be configured, removed or new events might be appended to the list.



These buttons move the selected event upwards or downwards.



These buttons add a new event beyond the selected event or remove the selected event.

A click on the time cell opens the time editor:



This button opens the dialog to import public holiday definitions.

❖❖ Visualization Element Consumer Monitoring

This visualization element indicates lights and other kinds of electrically consumers actually situated in the ON-state.

The shown names of lights or other consumers correspond to the names given in the network area.

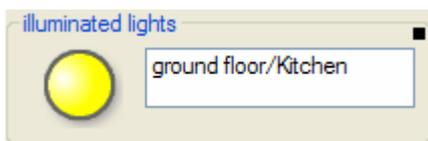
Appearance in the floor plan area:

This visualization element cannot be placed in the plan floor area.

Appearance in the general controls area:



All lights and other kinds of consumers are switched off.
The house can be left now without compunction.



The light in the kitchen is actually switched on!
All lights and other kinds of consumers actually situated in the ON-state will be listed in the white list box.
Inform yourself about the situation at a glance.
A click on the light symbol turns off all consumers listed, in case this feature has been enabled within the properties dialog.

Refer to chapter [Consumer Monitoring](#) to find details about the network functionalities.

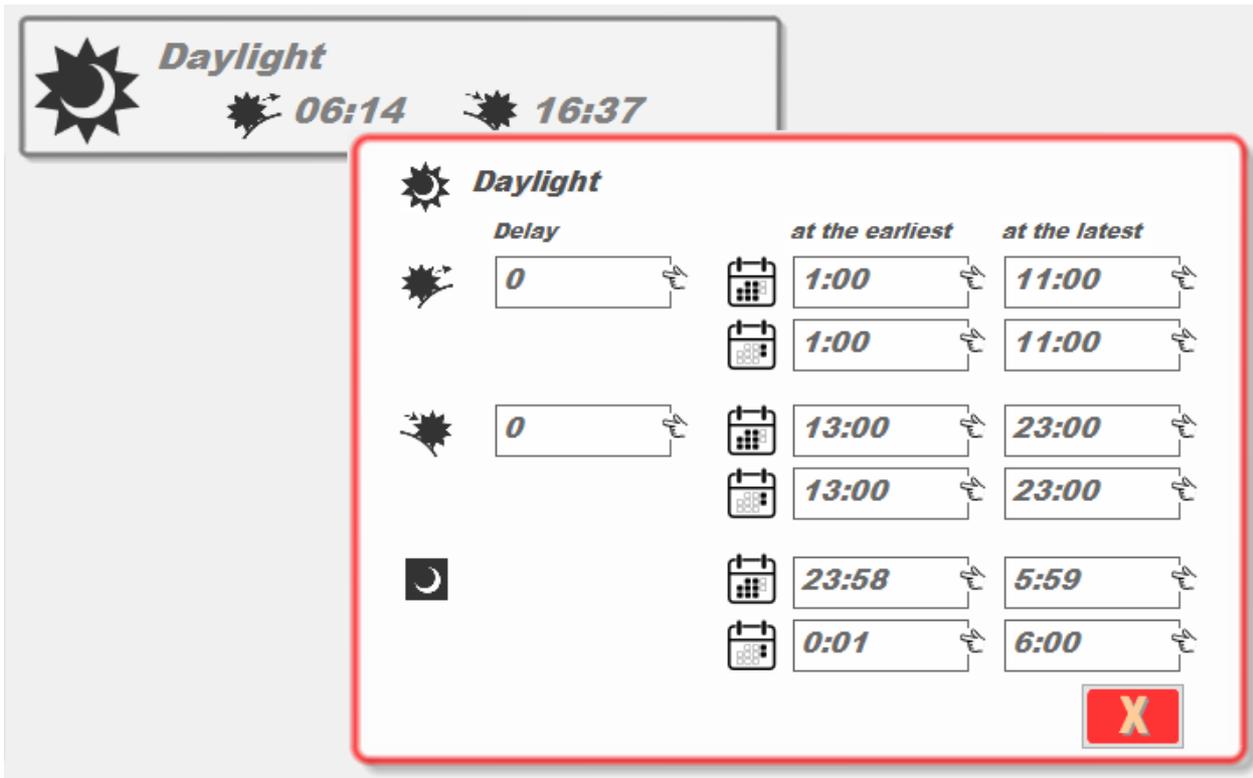
Visualization Element Day Light

This visualization enables the user to configure the off-peak times as well as the sleep phase.

Refer to chapter [Day Light](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the door controller icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.



Negative delays trigger the switching time before sunrise or sunset.

-  Sun Rise
-  Sunset
-  Sleep phase
-  Workingdays
-  Weekend

Appearance in the general controls area:

This visualization element cannot be placed in the plan floor area.

Visualization Element Design Mode

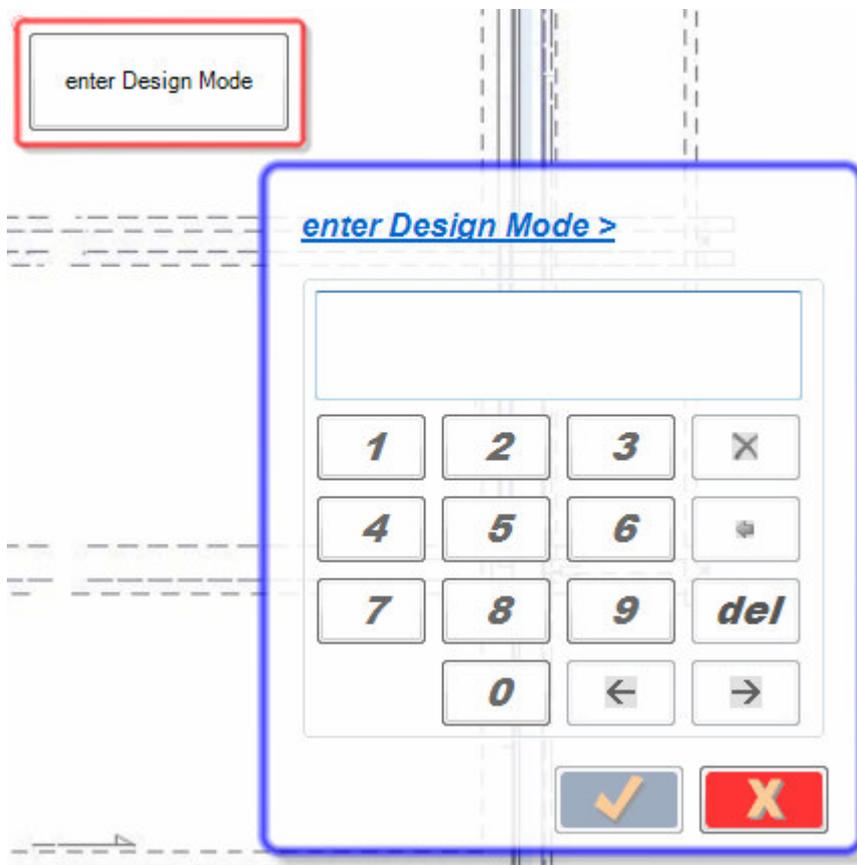
This visualization enables the user to enter the Design Mode. The usage of this element is required in case the presentation mode has been set to [“Full screen without menu bar”](#) in the general settings because there are no Window buttons available in this presentation mode.

To secure the return to the design mode a pin code request can be configured optionally in the properties dialog of the element.

Refer to chapter [Design Mode](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the door controller icon from the tree views [“New Floors, Rooms and Devices”](#) of [“Used Floors, Rooms and Devices”](#) into the floor plan area.



Appearance in the general controls area:

This visualization element cannot be placed in the plan floor area.

Visualization Element Display

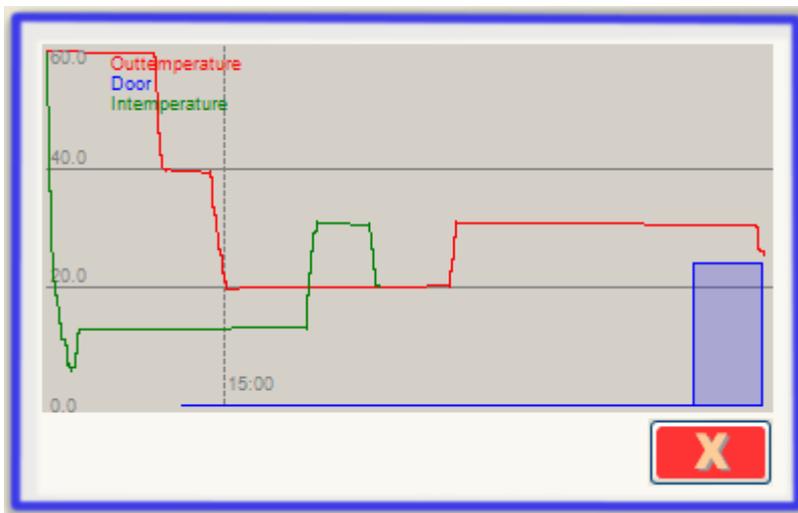
This visualization element displays the values of the signals connected to the corresponding network block. It provides trending opportunities for all these signals as well.

Refer to chapter [Display](#) to find details about the network functionalities.

Appearance in the floor plan area:



All the signals connected to the block in the network area are shown by this visualization element. The displayed names and units can be configured within the properties dialog of the network block.



The dialog with the trending pops up if the visualization element has been touched.

Configuration:

List of the available appearances.

Appearance specific configuration items.

Configuration of the **trend** (see pictures below). For details refer to next paragraph.

Position of the visualization element within the floor plan.

Size of the element or border.

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

List of events

next event:
Monday, 19:00 On

Ein	Zeit	So	Mo	Di	Mi	Do	Fr	Sa
<input checked="" type="checkbox"/>	19:00	<input checked="" type="checkbox"/>						
<input type="checkbox"/>	21:00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	23:30	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Navigation buttons: Up, Down, Add, Remove, Close (X)

Within this dialog events can be configured, removed or new events might be appended to the list.



These buttons move the selected event upwards or downwards.



These buttons add a new event beyond the selected event or remove the selected event.

A click on the time cell opens the time editor:

12:45

Navigation buttons: Left, Right, Cancel (X)

Keypad: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, Confirm (✓), Cancel (X)

Visualization Element Door Controller

This visualization element is directly coupled to the corresponding logic block of the network area. It visualizes the actual state of an automatic door e.g. a garage door. It also enables the user to control the door.

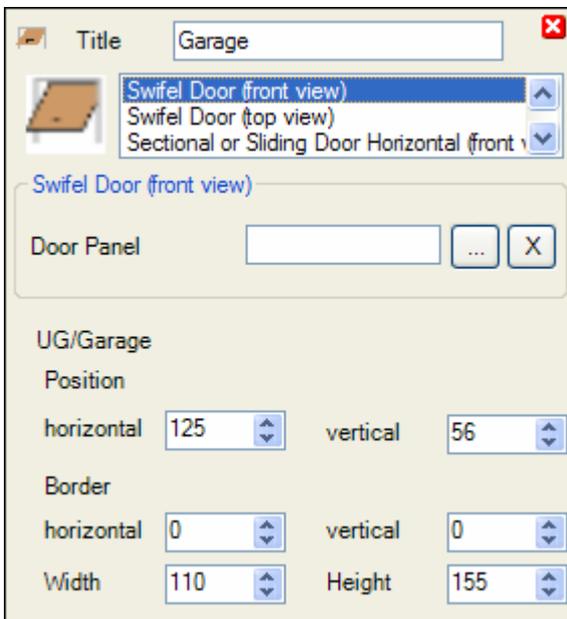
Refer to chapter [Door Controller](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the door controller icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

Properties dialog:

There are **different appearances** available for this visualization element:



List of the available appearances.

Depending on the chosen appearance, supplementary properties will be shown in this area. A picture might be selected as texture for the door.

Position of the visualization element within the floor plan

Swivel Door (frontal view)

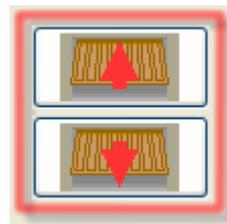
closed



open



Control dialog



Properties:

- Texture of Door

Swivel Door (top view, as in a floor plan)

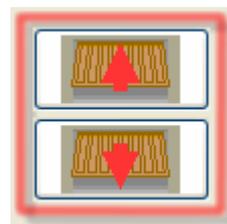
closed



open



Control dialog

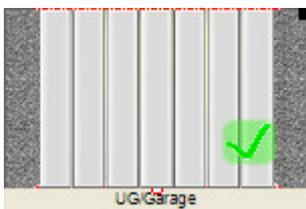


Properties:

- Texture of Door
- Direction of movement

Horizontal Sectional Door or Sliding Door (frontal view)

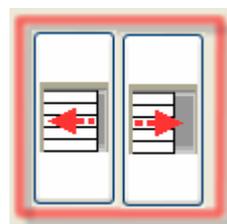
closed



open



Control dialog

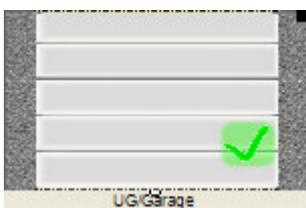


Properties:

- Texture of Door
- Direction of movement

Vertical Sectional Door or Roller Door (frontal view)

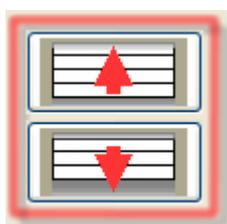
closed



open



Control dialog



Properties:

- Texture of Door
- Direction of movement

Vertical Sectional Door or Roller Door (top view, as in a floor plan)

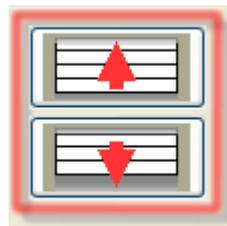
closed



open



Control dialog



Properties:

- Texture of Door
- Direction of movement

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element Email Settings

This visualization element enables the user to modify the receiver addresses of the emails sent by **myHomeControl®**.

Refer to chapter [Email Settings](#) to find details about the network functionalities.

Appearance in the floor plan area:



Appearance in the general controls area:

This visualization element cannot be placed in the plan floor area.

Visualization Element Fault Indication

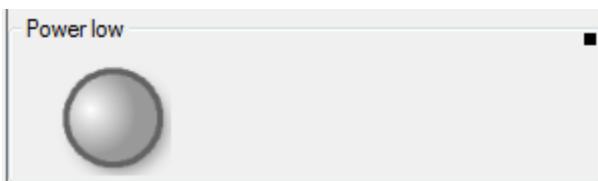
This visualization element indicates fault states and other kinds of errors of various objects. The shown names of the objects correspond to the names given in the network area.

Refer to chapter [Fault Indication](#) to find details about the network functionalities.

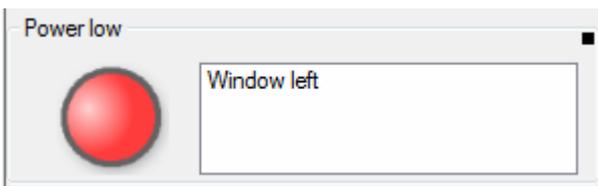
Appearance in the floor plan area:

This visualization element cannot be placed in the plan floor area.

Appearance in the general controls area:



There are no error of faults pending.



There is a window contact indicating a power low failure.

013h Visualization Element Hour Meter

This visualization element shows the counter value of a [hour meter block](#). The visualization element records minima and maxim values as well as a trend.

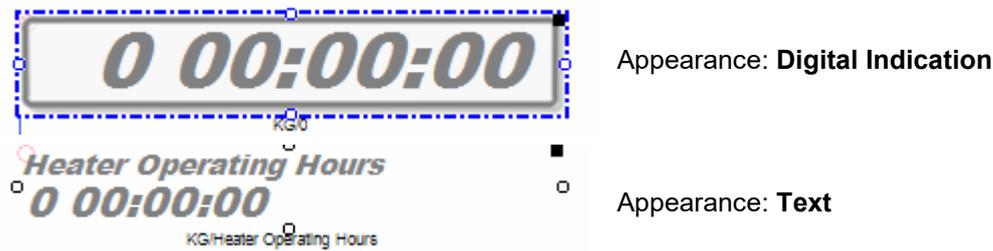
There are Appearances for the [floor plan area](#) and the [general controls area](#).

Refer to chapter [Hour Meter](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the temperature sensor from the tree views “[New Floors, Rooms and Devices](#)” of “[Used Floors, Rooms and Devices](#)” into the floor plan area.

Touch the symbol with a fingertip to open the [additional information dialog](#). This dialog shows minimal and maximal temperature values and the trending of the temperature.



Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Color of the Display:

There is a configuration option to configure the color of the text according the counter value. Following table defines the threshold values and the corresponding colors:

Threshold level	Color
<0.01:00:00	Green
0.01:00:00	Light Green
0.02:00:00	Yellow
0.12:00:00	Orange
1.00:00:00	Red

The configured color is used for the text as long as the counter value is between the threshold value in the same row and the threshold value on the next row.

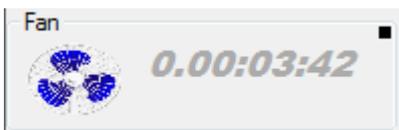
In the sample shown on the left side a counter value of 6 would be written in green.

Appearance in the general controls area:

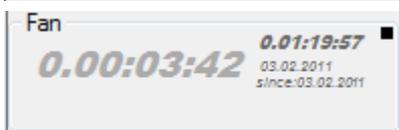


Place the symbol with the mouse at any location of the tab. Depending on type of the RoomTemperatureControl and the property settings, different additional information's will be shown

Following supplementary information is available. The visualization of this information is configurable:

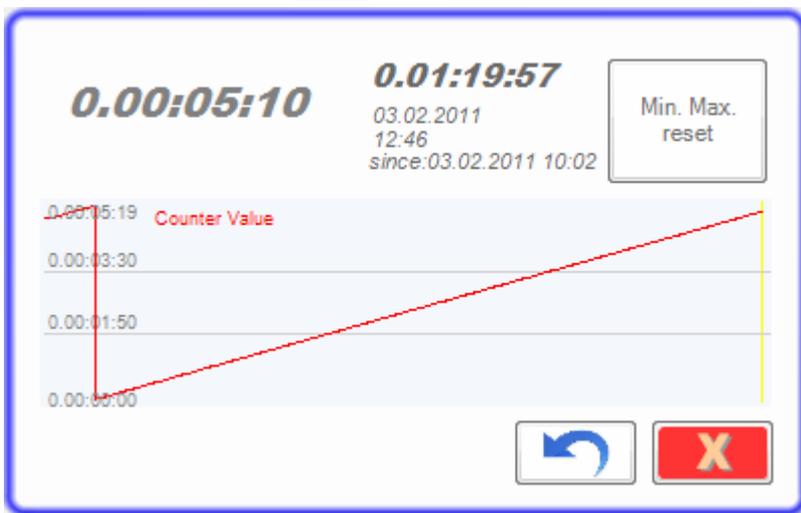


A picture



The minimal and maximal value

Additional information dialog



The actual counter value will be recorded and presented in form of a trending diagram.

Also the minimal and the maximal counter value will be recorded. Press the button to reset the stored values.



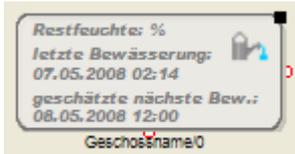
resets the counter value to 0.00:00:00.

Visualization Element Irrigation

This visualization element is directly coupled to the corresponding logic block of the network area. It indicates the residual humidity in the earth as well as the date and time of the last and the next irrigation cycle.

Refer to chapter [Irrigation](#) to find details about the network functionalities.

Appearance in the floor plan area:



The Irrigation function is enabled.

Pick up the light at the light symbol to move it to any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



The Irrigation function is disabled

The connected pumps will not be switched on. The estimation of the residual humidity goes on.

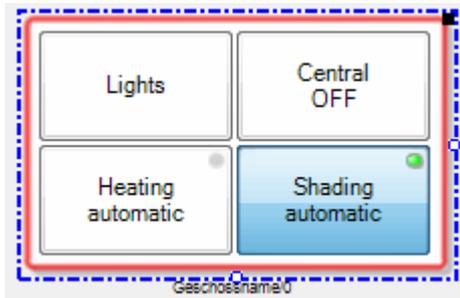
Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element Keypad

This function supports Keypads up to 20 buttons.

Application sample:



Individual text might be assigned to the different keys. The keys are configurable to latch. The small LEDs in the upper right corner of the key indicate the active latching mode. A bright LED indicate a latched key.

Refer to chapter [Keypad](#) to find details about the network functionalities.

Visualization Element Link

The link function enables the user to directly open floor tabs. This function behaves similar to a link in a WEB browser.

There are some additional functions:

- Authorization
A PIN code can be configured, which has to be entered by the user before jumping to the floor tab in question.
- Hiding and show floor tabs
The link function controls optionally the visibility of the floor tabs.

Links are normal functions, which are part of the project and listed in the project tree. They have there representation in the network as well as in the visualization. Multiple instances of a link element might be placed in floor tabs.

The configuration of a link element (target floor tab, Pin code, visibility) is valid for all instances of that particular link element!

Refer to chapter [Link](#) to find details about the network functionalities.

Configuration

Name

Ground/0

Appearance

Buttons
Transparent
Picture

Appearance Buttons

Button-text

Target tab

PIN

Visible tabs

visible	Tab
<input checked="" type="checkbox"/>	all tabs are visible
<input type="checkbox"/>	Basement
<input type="checkbox"/>	First
<input type="checkbox"/>	Ground

Position

horizontal vertical

Border

horizontal vertical

Width Height

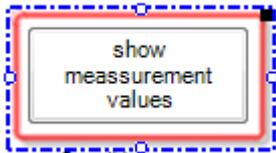
Select a target floor tab for the link.

Enable the PIN if PIN code shall be requested from the user before the target tab becomes visible.

List of all tab, which shall be visible after the link has been called. Those tabs configured as “always visible” will never be hidden by a link.

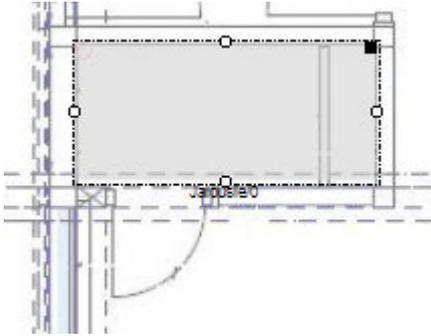
Appearance in the floor plan area:

Button



When clicking the button, the corresponding floor tab is going to be shown. The text on the button corresponds to the elements name.

Transparent



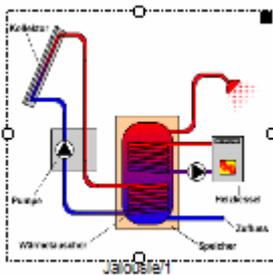
The link element is gray in edit mode. In presentation mode it becomes fully transparent and therefore invisible.

If the user clicks to the room containing the link element, the link is called and the corresponding floor tab is shown.

Sample: Utility room

A similar behavior can be reached using the zoom

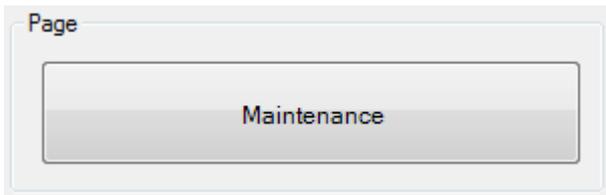
Picture



Clicking the picture calls the link.

Appearance in the general controls area:

Button



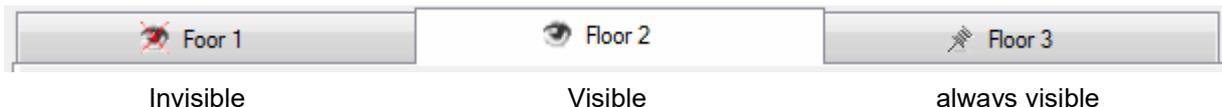
When clicking the button, the corresponding floor tab is going to be shown. The text on the button corresponds to the elements name.

Display in presentation mode:

All hidden floor tabs are not shown.

Display in edit mode:

All floor tabs are shown all the time. The hide state of the floor tabs is indicated by icons on the tab:



[Setting of the floor tab](#)

Visualization Element Load Limitation

The visualization element Load Limitation informs about the actual consumed load (e.g. power in kW). It also indicates if consumers have been blocked (turned off) to prevent overload.

A trend shows the consumption over the time.

Refer to chapter [Load Limitation](#) to find details about the network functionalities.

Appearance in the floor plan area:

This visualization element cannot be placed in the general controls area.

Appearance in the general controls area:



Power consumption level is below the limit. The consumption is shown as a trend:

- green: Power Limit
- blue: consumed power
- red: power consumed in case no consumer would have been blocked (turned off).



The actually consumed power is above the limit. Therefore the indication is red.

The overload situation doesn't actually conflict one of the defined conditions. Therefore none of the consumers has been blocked.



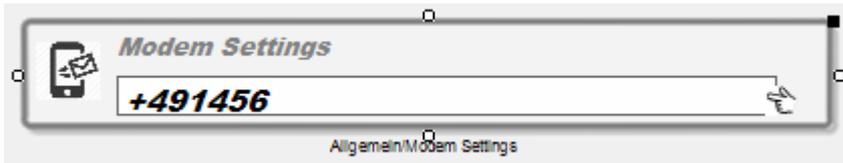
The actual power consumption is below the limit. But consumers have been blocked. Soon some consumers will be released (turned on again).

Visualization Element Modem Settings

This visualization element enables the user to modify the phone numbers where SMS are sent to by **myHomeControl®**.

Refer to chapter [Modem Settings](#) to find details about the network functionalities.

Appearance in the floor plan area:



Appearance in the general controls area:

This visualization element cannot be placed in the plan floor area.

Visualization Element Operator Screen

This visualization element reacts on operator events on the screen, e.g. change of active floor tab page. For instance the corresponding [network block](#) sends an ON command if the floor tab page gets selected by the operator.

Refer to chapter [Operator Screen](#) to find details about the network functionalities.

Appearance in the floor plan area:



This symbol is only shown in the design mode. In the presentation mode it will be.

Settings:

Following configurations are available:

Register has been selected:

The corresponding network block sends an ON command in case the operator selects the floor tab containing this visualization element. As soon as the floor tab becomes invisible, the network block sends an OFF command.

Design mode is active:

The corresponding network block sends an ON command in case the design mode has been entered. As soon as the presentation mode is active, the corresponding network block will send an OFF command.

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element PIN

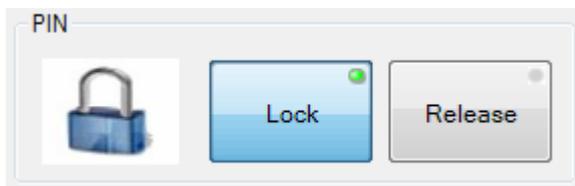
This visualization Element is used to operate the PIN function. The PIN function might be used to request the user to input PIN codes.

Refer to chapter [PIN](#) to find details about the network functionalities.

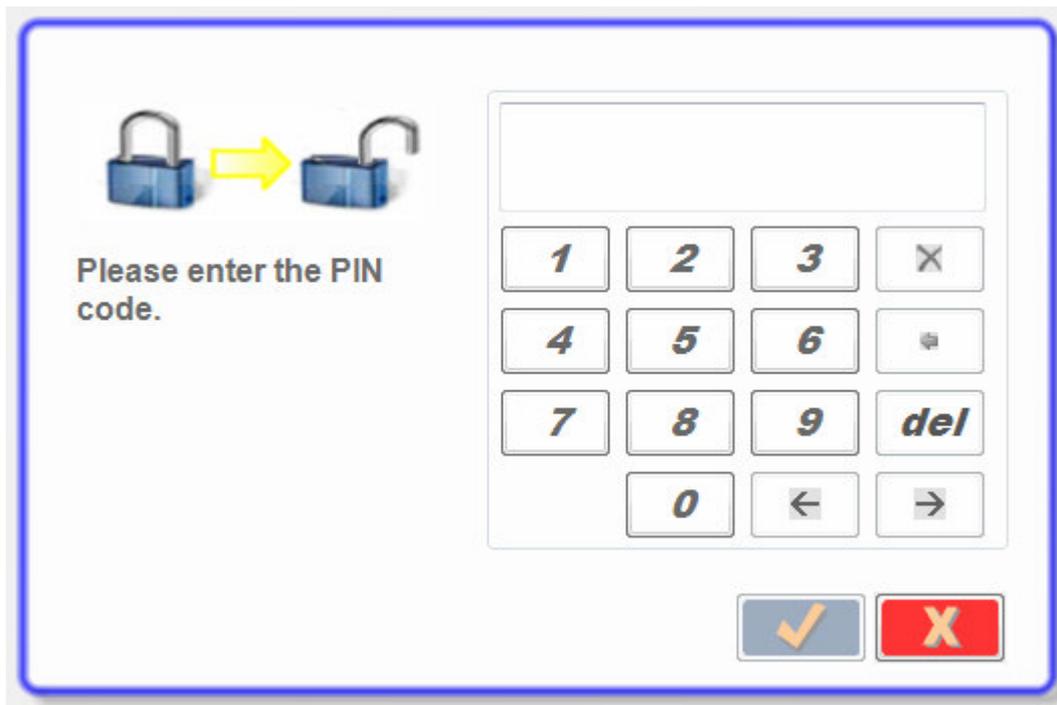
Appearance in the floor plan area:

This visualization element cannot be placed in the general controls area.

Appearance in the general controls area:



Following dialogue appears if the user is requested to enter the PIN code:



Visualization Element Pulse Counter

This visualization element shows the counter value of a [pulse counter block](#). The visualization element records minima and maxim values as well as a trend.

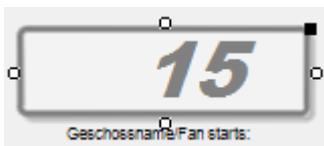
There are Appearances for the [floor plan area](#) and the [general controls area](#).

Refer to chapter [Pulse Counter](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the temperature sensor from the tree views “[New Floors, Rooms and Devices](#)” of “[Used Floors, Rooms and Devices](#)” into the floor plan area.

Touch the symbol with a fingertip to open the [additional information dialog](#). This dialog shows minimal and maximal temperature values and the trending of the temperature.



Appearance: **Digital Indication**



Appearance: **Text**

Place the symbol with the mouse at any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.

Color of the Display:

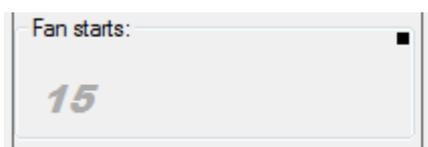
There is a configuration option to configure the color of the text according the counter value. Following table defines the threshold values and the corresponding colors:

Threshold level	Color
<0	Cyan
0	Green
7	Orange
12	Red

The configured color is used for the text as long as the counter value is between the threshold value in the same row and the threshold value on the next row.

In the sample shown on the left side a counter value of 6 would be written in green.

Appearance in the general controls area:



Place the symbol with the mouse at any location of the tab.

Depending on type of the RoomTemperatureControl and the property settings, different additional information's will be shown

Following supplementary information is available. The visualization of this information is configurable:



A picture



The minimal and maximal value

Additional information dialog



The actual counter value will be recorded and presented in form of a trending diagram.

Also the minimal and the maximal counter value will be recorded. Press the button to reset the stored values.



resets the counter value to 0.

Visualization Element Run

This visualization Element enables the user to start a windows application e.g. the internet explorer.

Refer to chapter [Run](#) to find details about the network functionalities.

Appearance in the floor plan area:



Appearance: Buttons

Press the button to start the application configured in the network block.

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element Scenes

This visualization element enables the user to activate stored scenes.

Refer to chapter [Modification of Scenes](#) to learn to modify scenes.

There are Appearances for the [floor plan area](#) and the [general controls area](#).

Refer to chapter [Scenes](#) to find details about the network functionalities.

Appearance in the floor plan area:



Open the control dialog of the scenes visualization element with a fingertip to activate a scene for your convenience.

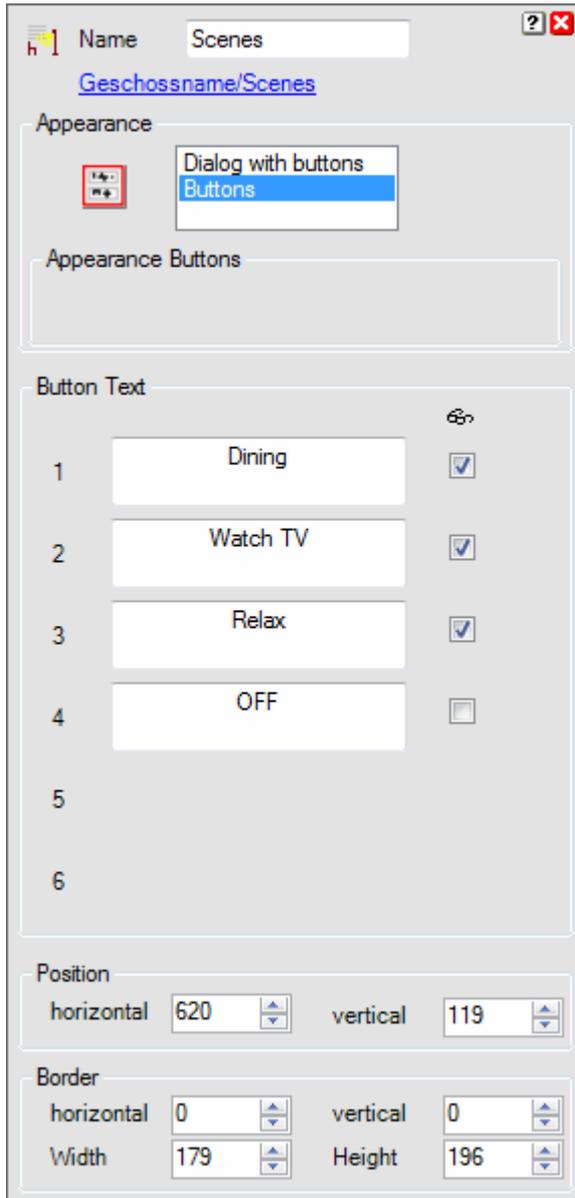
In the design mode you have to click the symbol for about 3 seconds until the control dialog will pop.



Control dialog

Activate the scene of your convenience with a fingertip on the corresponding button.

If you press the button for about 5 seconds the states of the scene participants will be read back by the scene controller and will be stored as new set point values of the scene (teaching).



Properties dialog

Independent of the scene names given in the networks you may name the scenes individually for the presentation view.

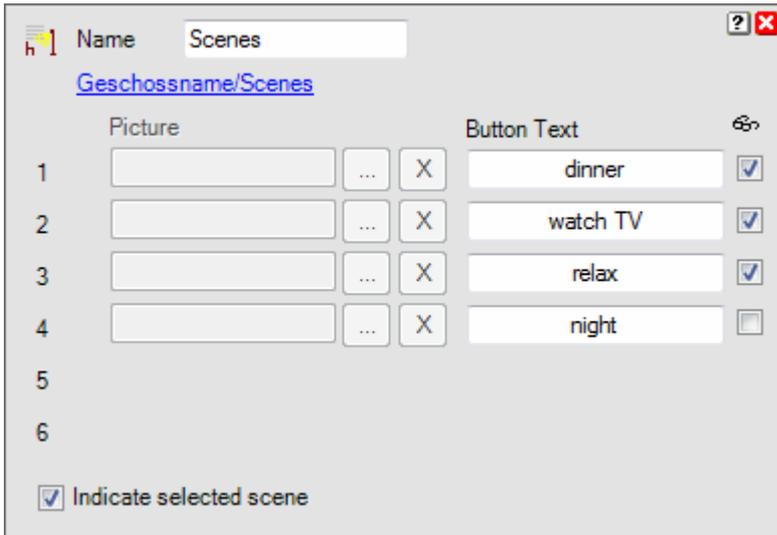
The checkboxes below the glasses symbol define if the corresponding scene button is visible. "Hidden" scenes are activated via the corresponding input pin of the [network block](#).

Appearance in the general controls area:



Activate the scene of your convenience with a fingertip on the corresponding button.

If you press the button for about 5 seconds the states of the scene participants will be read back by the scene controller and will be stored as new set point values of the scene (teaching).



Properties dialog

Independent of the scene names given in the networks you may name the scenes individually for the presentation view.

Alternatively a picture can be selected. This function is not yet available.

The checkboxes below the glasses icon control whether the corresponding scene button is visible or not. "Hidden" scenes are activated via the corresponding input pin of the [network block](#).

Modification of Scenes

A Scene consist of a set of set point values for scene participants. Many of the objects provided by **myHomeControl** might be addressed as scene participants. Typically these are switched lights, dimmed lights, blinds and others.

There are two opportunities to modify set point values of a scene and to assign participants to a scene:

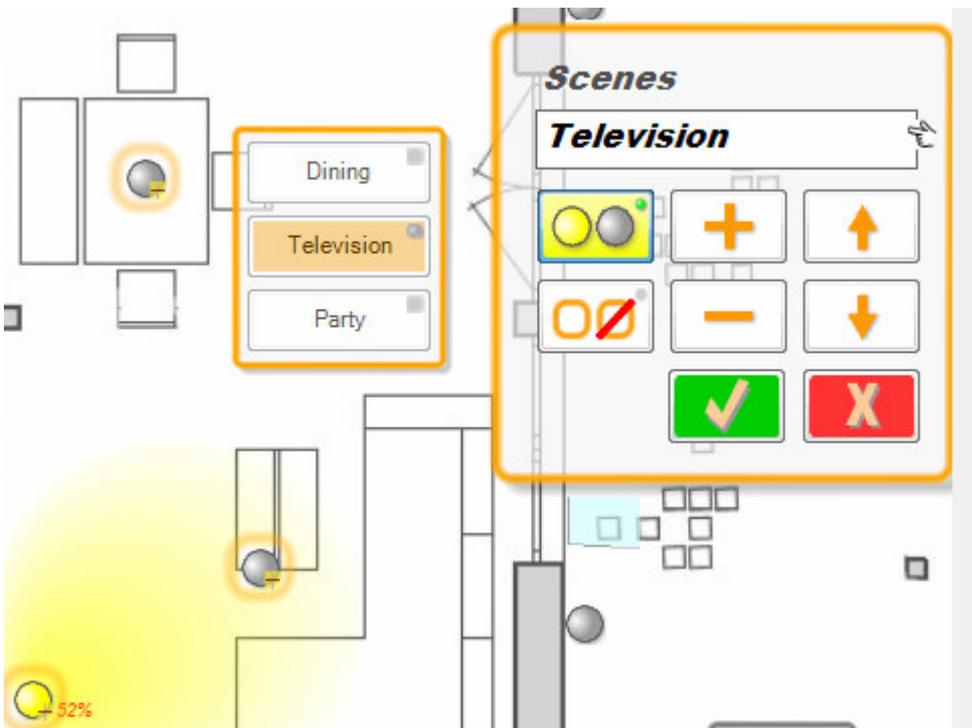
1. Setup the scenes and participants in network view during project development phase. Find details in network-chapter [Scenes](#).

2. Modification of scenes by the end user in the presentation mode:

This opportunity enables the end user to modify scenes on the floor plans within the presentation mode.

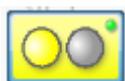
To modify a scene in presentation mode, press the scene button in question for a couple of seconds. The scene editor dialog appears and all scene participants are marked by an orange border.

The scene editor provides various features to modify a scene:



Scene editor for the scene "Television"

The scene editor operates in two modes. Following buttons select the modes:

**Change set point values**

If this mode is selected, then the set point values for the various scene participants can be modified. This is achieved by setting the object in question into the desired state by operating the object in the used way, e.g. to change the set point value for the brightness of a dimmed light, just press the symbol of the light until the slider appears and adjust the brightness level as used.

**Assign scene participants**

If this mode is selected participants might be detached from the scene as well as new objects can be assigned to a scene to become new participants. Every click on the object in question toggles between attached and detached.

**Create new scene**

This button creates an additional scene.

**Delete scene**

This button deletes the selected scene.

**Move up**

This button moves the selected scene on position up.

**Move down**

This button moves the selected scene on position down

**Accept**

This button accepts the modifications and closes the dialog.

**Cancel**

This button cancels the modifications and closes the dialog.

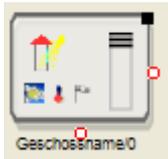
Visualization Element Shading

This visualization element is directly coupled to the corresponding logic block of the network area. It indicates the conditions controlling the shading. A click on the Visualization Element opens the control dialog for the shading conditions. This dialog provides input fields for the set points for brightness, wind speed and temperature.

Refer to chapter [shading](#) to find details about the network functionalities.

Appearance in the floor plan area:

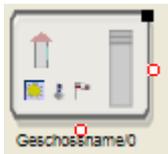
Tiny little icons indicate the shading conditions in the appearance “Conditions”.



Shading is active.

Pick up the light at the light symbol to move it to any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



Shading is inactive.

The connected Jalousies will not be lowered.

The shown icons indicate the actual states of the shading conditions. Shading will only be performed in case all conditions are fulfilled.

ok

not ok



Indicates if sunlight covers the window.



Indicates if brightness is above the brightness set point.



Indicates strong winds.



Indicates if temperatures are within the set point ranges.

Control Dialog:

Shading is connected to various conditions. Shading takes place only if all conditions are fulfilled.

A green check indicates a fulfilled condition, a red cross indicates that the condition is not fulfilled.

Within the control dialog of the shading function, the various threshold values for the conditions might be modified.

Shading East

	<i>actual</i>	<i>setpoint</i>	
	45000 lx	32000 lx	✓
	22.0°	21.0° <small>min.</small>	✓
		23.0° <small>max.</small>	
	Φ22.0°	20.0°	
		25.0°	
	1.0 m/s	2.5 m/s	✓
	01:00	23:00	✓
	8'28"	= 0'0"	✗

X

Click on a set point – input field to open the „calculator“ and to edit the set point value:

12.5

1	2	3	X
4	5	6	+
7	8	9	del
.	0	←	→
✓		✗	

Brightness / Rain

20000 lux
18000 lux
✓

Click the input field to edit the threshold value for the brightness.

11242 lux
20000 lux
✗

The actual brightness value is below the configured threshold value. Therefore this condition is not fulfilled.

In case of passing clouds the brightness might change regularly. To avoid multiple jalousie movements, the shading functions changes to an alternative evaluation mode of the brightness value. The alternative evaluation calculates the average of the brightness value over the last 2 hours and uses this value to evaluate the brightness condition. This mode is shown by following indication:

3% ☀
12000 lux
✗



The percent value means sunshine during the last hour. If the value is below 50% then the condition is not fulfilled, otherwise the condition is fulfilled.



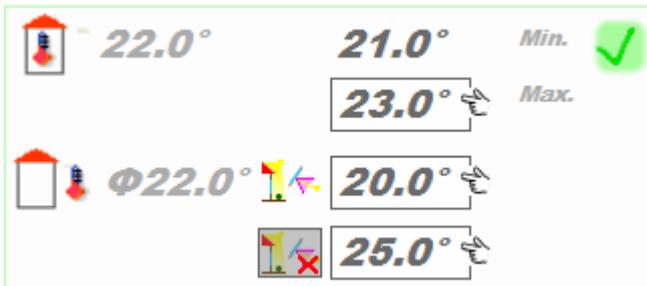
A rain sensor or a weather station as been connected to the shading function. Actually there is rain. Therefore this condition is not fulfilled.

Wind



Click the input field to edit the threshold value for the brightness.

Temperature



- Shading is suppressed In case the in temperature is below the minimum set point.
- Shading will be processed in case in temperature is above the maximum set point.
- In case the in temperature is between min. and max set point, then shading will be processed if the out temperature is above the out temp. set point.

-  **25.0°**  If the actual outdoor temperature is over the threshold value for completely shading, then shading takes place independent of the position of the sun.

Time frame



Start of frame end of frame

Only during the time frame shading takes place.

Blocking period



The blocking period is started after every command of the shading function. The blocking period avoids rapid up and down movements of the jalousie. Press the button to reset the blocking period.

Appearance in the general controls area:

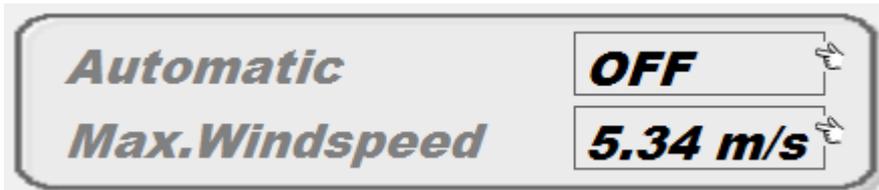
This visualization element cannot be placed in the general controls area.

Visualization Element Settings

This visualization Element shows a list of parameters and their values. It enables the user to modify the parameter values by finger tipping a value.

Refer to chapter [Settings](#) to find details about the network functionalities.

Appearance in the floor plan area:



Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element State

This visualization Element visualizes the actual state of the corresponding network block.

Refer to chapter [State](#) to find details about the network functionalities.

Appearance in the floor plan area:

State	File		
dry	D:\myHomeControl\Admin\Kund...		
wet	D:\myHomeControl\Admin\Kund...		
dehumidifying	D:\myHomeControl\Admin\Kund...		

An individual icon can be assigned to each of the states.

Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Visualization Element Velux interface

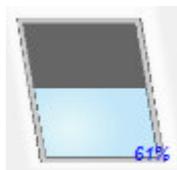
This visualization element represents a Velux window or Velux blind. The window or blind can be controlled by this element.

Refer to chapter [Velux interface](#) to find details about the network functionalities.

Appearance in the floor plan area:

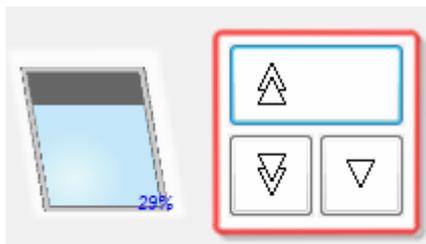
Drag in the dimmer icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

Blind



Pick up the light at the light symbol to move it to any location of the floor plan.

Change the size of the visualization element by pulling the adjustment dot  and adapt it to the situation.



Open the control dialog with a fingertip on the window symbol. Press for at least 1 second if you are in the design mode.



A long tip on this button drives the blind to its upper end position. A second tip stops the movement.

A short tip initiates the tip mode. Within this mode the blind runs as long as the button is pressed.



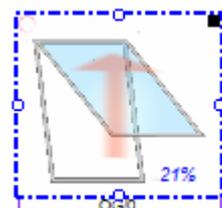
A long tip on this button drives the blind in its lower end position. A second tip stops the movement.

A short tip initiates the tip mode. Within this mode the blind runs as long as the button is pressed.



A long tip on this button drives the blind to a configured middle position. After reaching this position the blind will be adjusted. Refer to [blind properties](#) in the network area.

Window



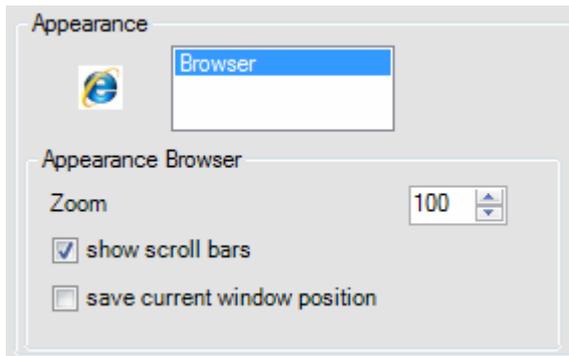
Visualization Element WebBrowser

This visualization Element visualizes the URL selected on the corresponding network block.

Refer to chapter [WebBrowser](#) to find details about the network functionalities.

Appearance in the floor plan area:

A browser window is shown on the floor plan. It can be configured as follows:



The **Zoom** value scales the content of the browser window to fit into the browser window.

Show scroll bars defines if scroll bars are shown to the user in presentation mode. This enables to scroll the browser content manually.

Save current window position defines if in presentation mode always the same section of the browser content is shown. If this option is checked, then no scroll bars are shown to the user and the content is automatically scrolled to the saved position. The position is saved when ever screen mode is changed from edit to presentation. In presentation mode scroll bars are shown to enable the adjustment of the browser content.

Visualization Element Window Monitoring

This visualization element indicates open or tilt windows.

The shown names of windows or doors correspond to the names given in the network area.

Appearance in the floor plan area:

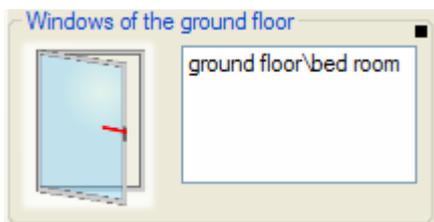
This visualization element cannot be placed in the plan floor area.

Appearance in the general controls area:



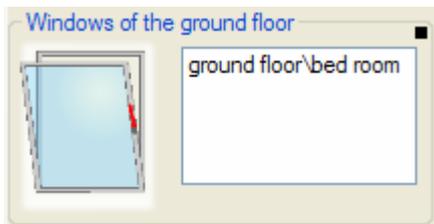
All windows or doors are closed.

The house can be left now without compunction.



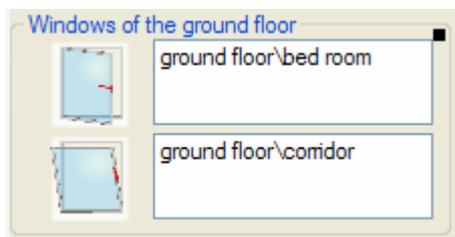
The French window to the balcony is open!
All other windows and doors are closed.

All open windows or doors will be listed in the white list box.



The French window to the balcony is tilt!
All other windows and doors are closed.

All tilt windows or doors will be listed in the white list box.



The open windows/doors and the tilt windows/doors will be listed separately.

Refer to chapter [Window monitoring](#) to find details about the network functionalities.

Special Visualization Elements

These visualization elements inform about the state of dedicated device types.

Visualization Element IR device

This visualization element is used to send infrared commands.

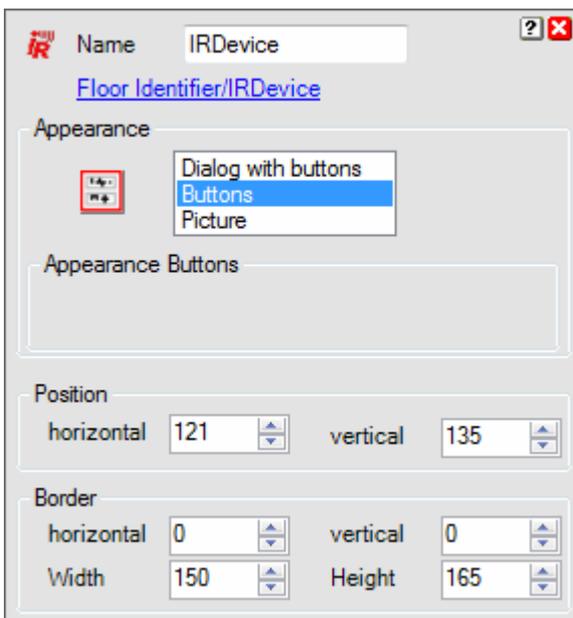
Refer to chapter [IR device](#) to find details about the network functionalities.

Appearance in the floor plan area:

Drag in the presence indication sensor icon from the tree views "[New Floors, Rooms and Devices](#)" of "[Used Floors, Rooms and Devices](#)" into the floor plan area.

There are **different appearances** available for this visualization element:

Only those commands, which are configured to be sent are shown!



List of the available appearances.

Appearance specific configuration items.

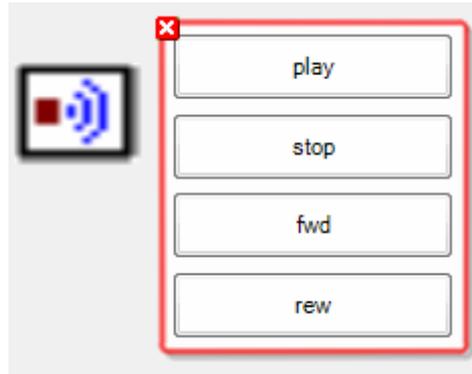
Position of the visualization element within the floor plan.

Size of the element or border.

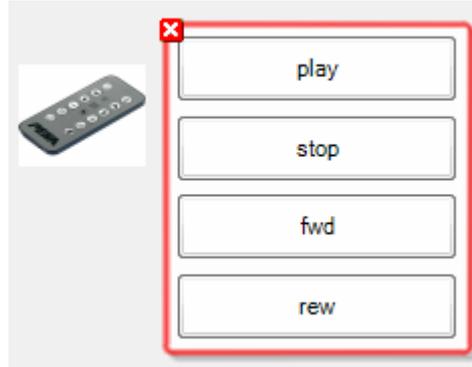
Appearance **Buttons**



Appearance **Dialog with buttons**



Appearance **Picture**



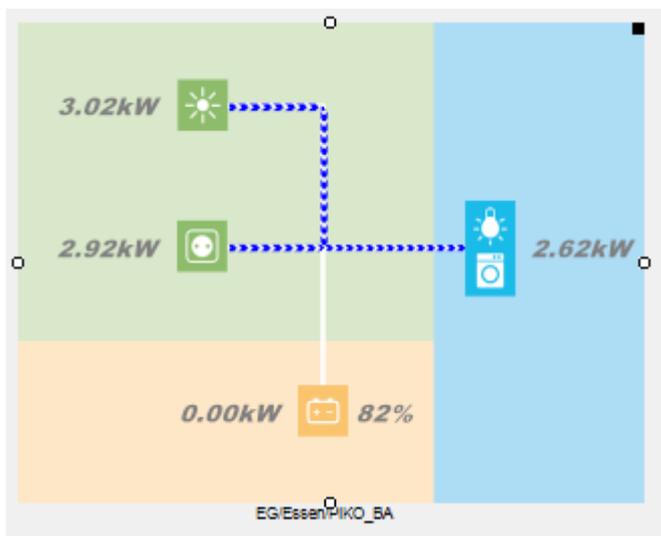
Appearance in the general controls area:



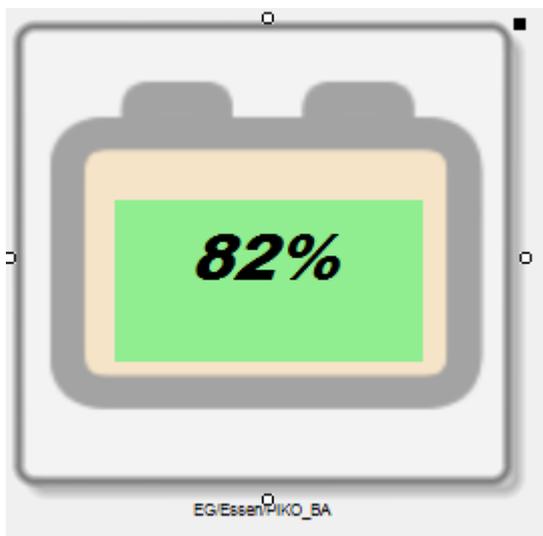
Visualization Element Kostal PIKO BA

The visualization element Kostal PIKO BA informs about the values of the main signals of the converter. Refer to chapter [Kostal PIKO BA](#) to find details about the network functionalities.

Appearance in the floor plan area:



Energy flow diagram



SOC

Visualization PhotovoltaicInverter

Refer to [Kostal PIKO BA](#)

Visualization Element Kostal PLENTICORE

Refer to [Kostal PIKO BA](#)

Visualization Element Sonos Media

This visualization element shows an item list of Sonos-favorites, play lists and radio stations. These items can be controlled by the corresponding network block. Up to 6 items are supported by the function.

This functions enable to start and stop items of the list. Refer to chapter [Sonos Media](#) for details of the corresponding network block.

Appearance in the floor plan area:



Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Selection of media

A click on the visualization element opens the control dialog shown below. The user can select media, zone and volume for each item:

Media	Zone	Volume	Control
Rock	Wohnzimmer	10	
Tuneln Sender/Radio Swiss Pop (Top 40/Pop)	Wohnzimmer	10	
Tuneln Sender/Radio Südostschweiz	Wohnzimmer	10	
Tuneln Sender/SRF 1 (Nachrichten)	Wohnzimmer	30	
Alarm	Wohnzimmer	100	

Visualization Element Sonos Zone

This visualization element is used to control a dedicated Sonos-zone. The user can start and stop the actual play, jump to next or last item, adjust volume.

Refer to chapter [Sonos Zone](#) for details of the corresponding network block.

Appearance in the floor plan area:

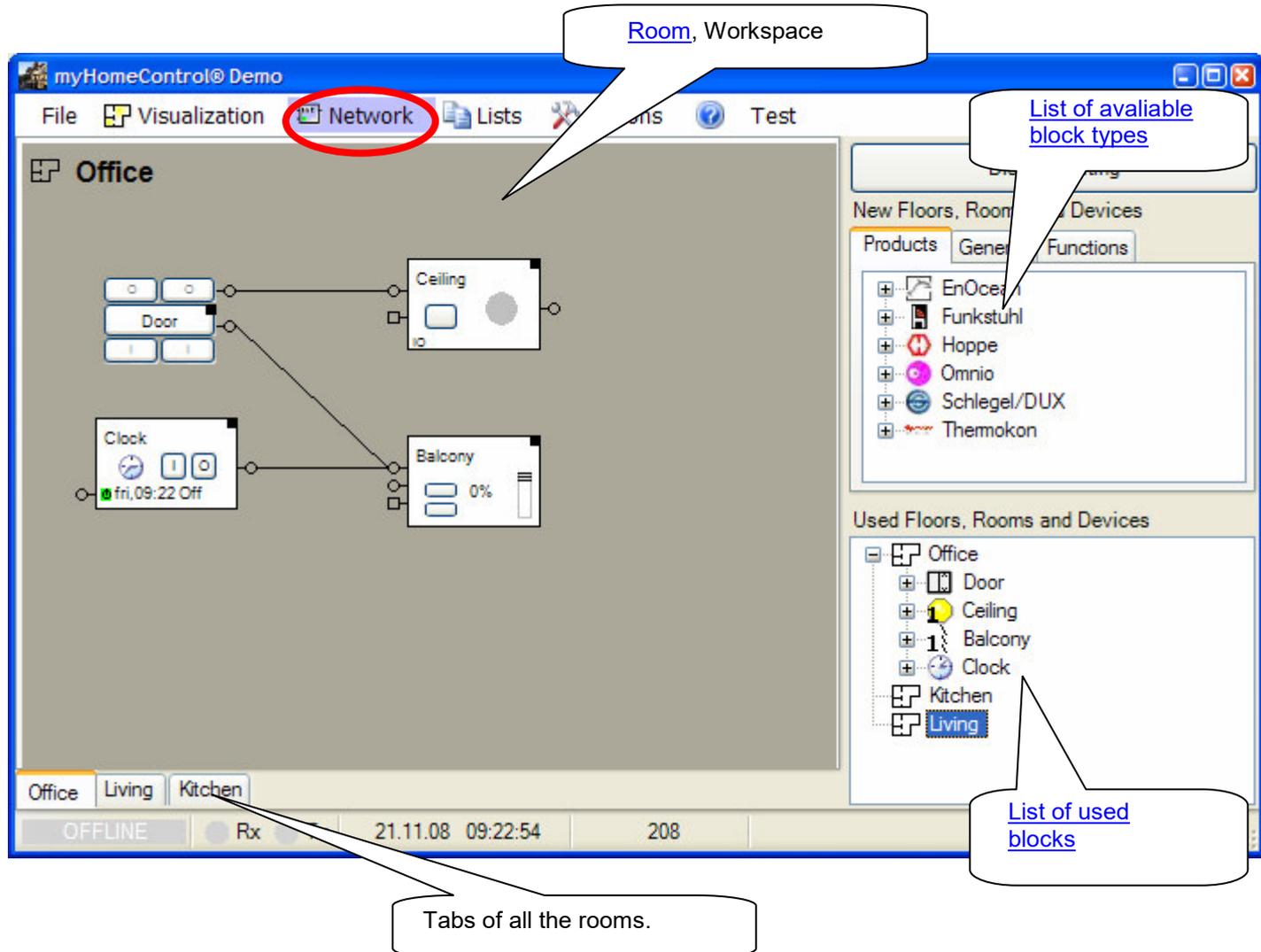


Appearance in the general controls area:

This visualization element cannot be placed in the general controls area.

Network

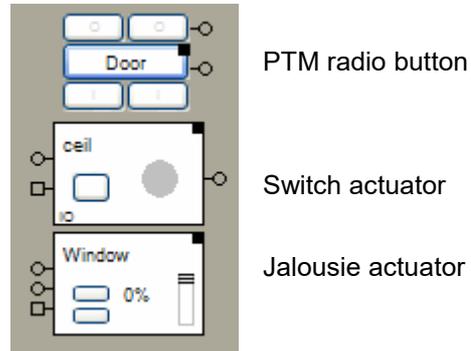
Select the Network-tab to enter the network area. Within the network area the devices will be interconnected and additional functionalities can be defined.



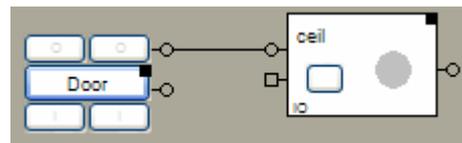
Introduction

The programming work is done by drag and drop of blocks representing sensor and actuator devices or convenience functions. And by interconnecting them with mouse clicks.

Blocks represent sensor or actuator devices or convenience functions.



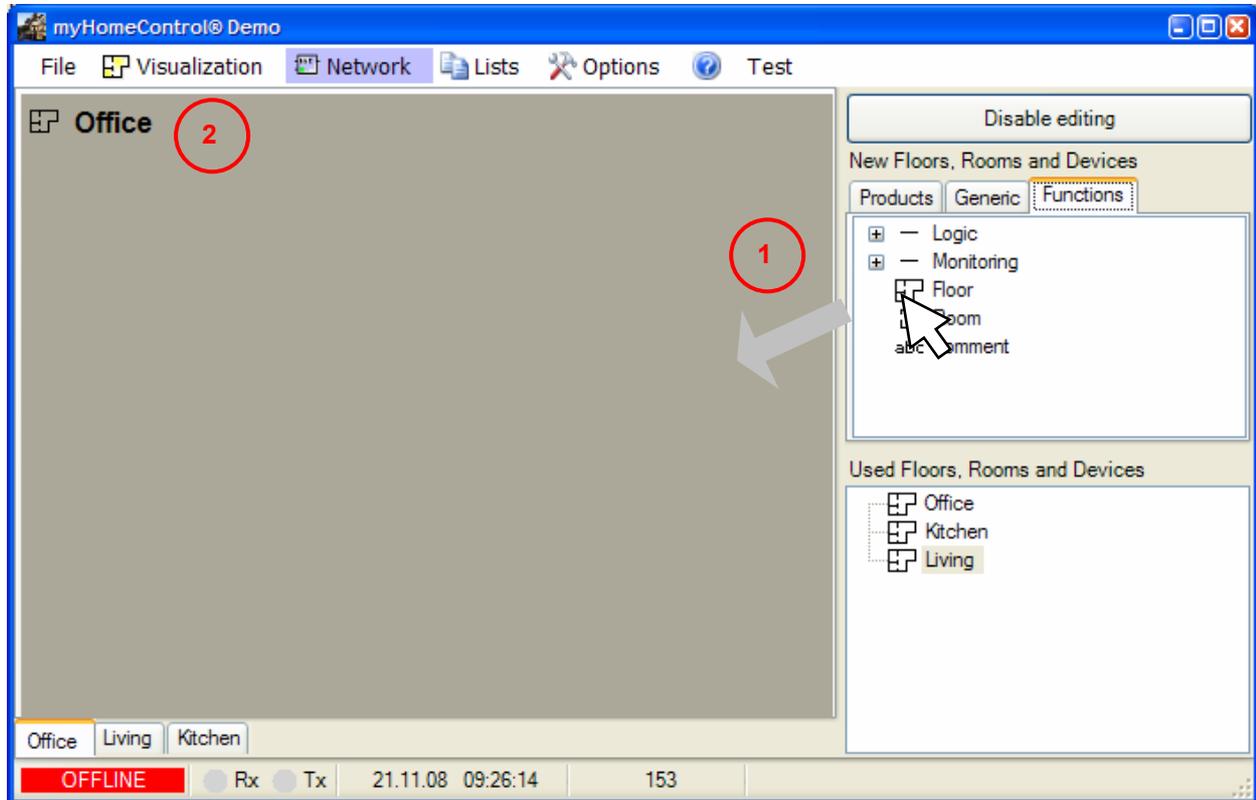
The **Connections** between the blocks forward commands and signals.



Floors and Rooms

Usually are sensor or actuator devices located in the rooms of a building. Rooms and Floors will be used as structuring utility within the project.

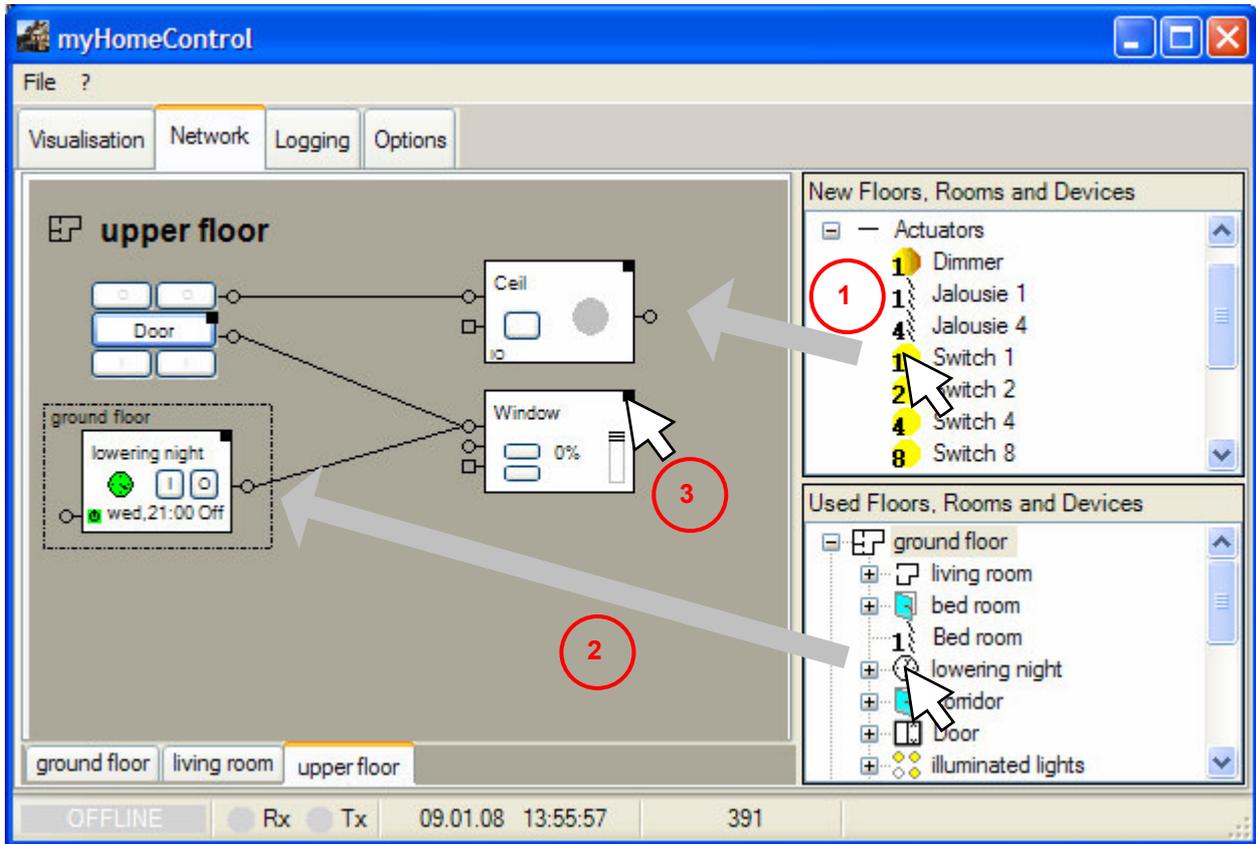
Floors and Rooms can be created within the network area.



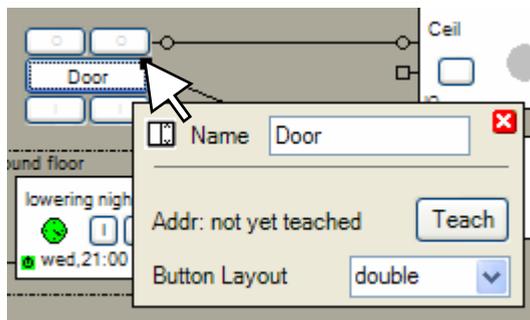
The Floors and Rooms serve as the workspace area to insert blocks and connect them.

- ① **Create a new floor** by dragging in a floor symbol from the tree view “new floors, rooms and devices” into the workspace area.
Create a new room by dragging in a room symbol from the tree view “new floors, rooms and devices” into the workspace area **of a floor**.
- ② **Rename** a floor or room by clicking on the name. A cursor will appear to edit the actual name.
Delete a Floor or Room by clicking the right mouse button somewhere in the free workspace area. The context menu pops up, click delete.

Handling Blocks



- ① **Create a new block** by dragging in the corresponding block symbol from the tree view “New Floors, Rooms and Devices” and drop it into the workspace area.
- ② **Insert an existing block from an other room** by dragging in the corresponding block symbol from the tree view “Used Floors, Rooms and Devices” and drop it into the workspace area. Radio signals are able to pass walls. There might be a PTM radio button located e.g. in the staircase providing the function “All Lights OFF”. The dotted border around the block indicates that the blocks origin location is in an other room.
- ③ **To setup a block** hover the mouse over the property symbol . The [Properties dialog](#) will pop up automatically.



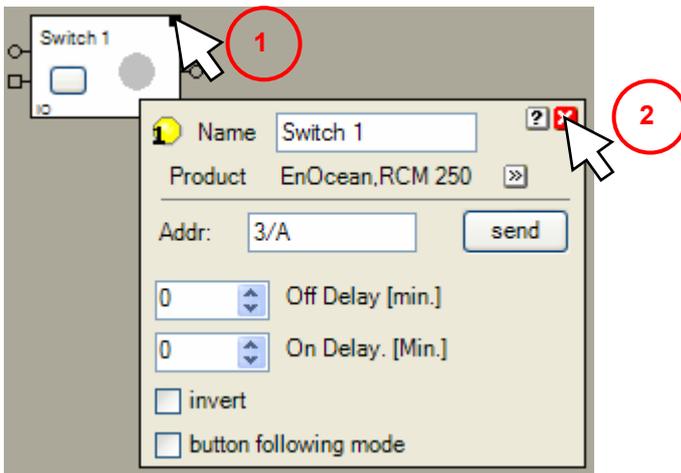
Delete a block via the context menu (right mouse button click on the block).
If you delete a block reference (block surrounded by a dotted line) the block will only be removed

from the actual room but still resides in its origin room. All connections to the blocks in the actual room will be removed.

[Connections](#), [Pins](#)

Properties of Blocks

All the blocks provide a properties dialog to setup the block. This is useful to adapt its behavior to the actual situation.



① Hover the mouse over the black rectangle, which is the property symbol, to open the properties dialog. The dialog will pop up automatically.

② **Close** the dialog by clicking on the exit button.

-  Opens the blocks help.
-  Opens the dialog to enter [device type and location information](#).
-  Closes the dialog.

Background coloring

In certain situations the background of the network block is colored:



means not licensed, this block will not be executed.



means not fully configured, no address has been assigned to this block or no sensor has been assigned to this block.

In case of virtual devices e.g. PTM Radio Buttons, the checkbox „virtual“ has to be checked in the address edit field. This removes the background coloring and conforms to the [configuration check function](#).

Pins

The blocks provide different types of pins for input and/or output signals:

	Command output	sends commands like ON and OFF.
	Signal output	sends an analogue value (64bit floating point values).
	Multiple output	sends individual values to the connected blocks.
	Command input	receives ON/OFF commands and triggers the blocks evaluation algorithm. In case of a logic block, the block might create new commands. In case of an actuator block, the block might send out some radio messages.
	Signal input	receives signals and triggers the blocks evaluation algorithm. This may case the generation of new commands.
	Observer command input	receives ON/OFF commands and triggers the evaluation loop. But the block will not generate any radio messages; it will only update its internal state. Refer to Operational reliability for further details.

[Connections](#), [Commands](#)

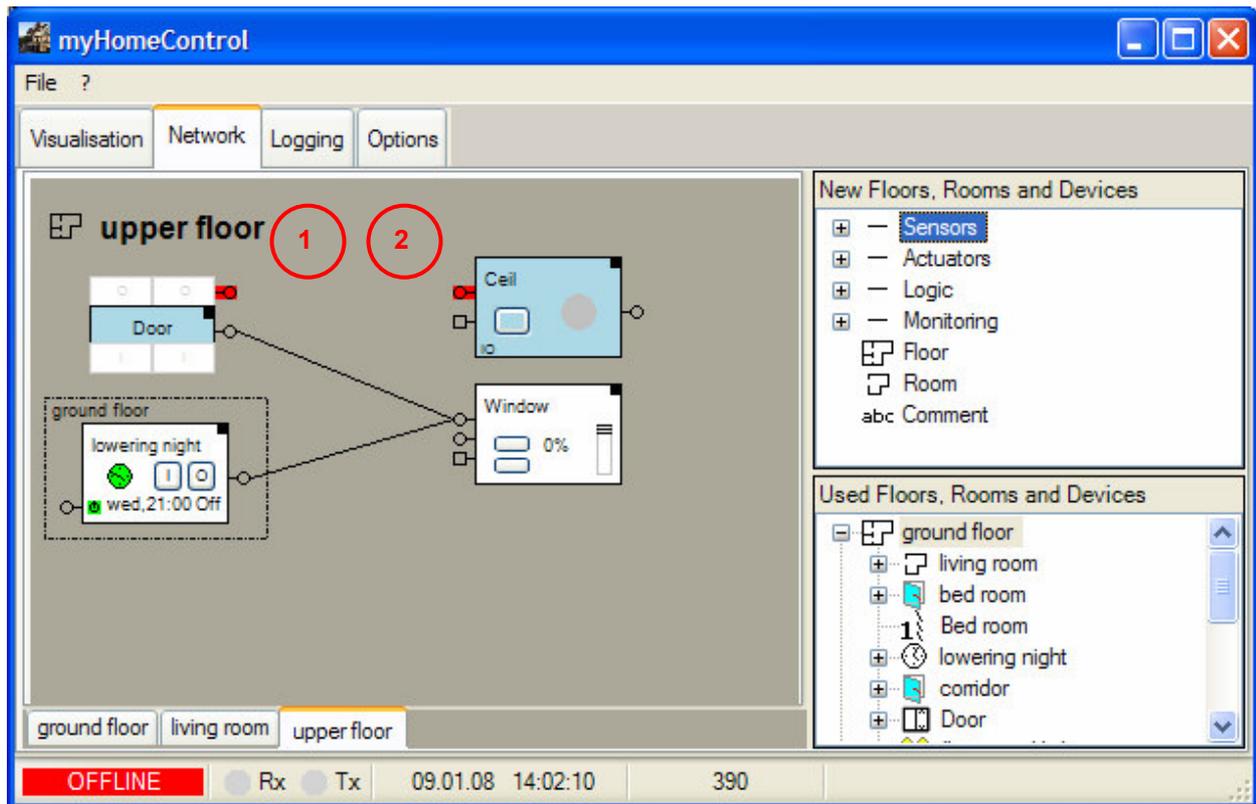
Connections

The connections between the blocks forward commands or signals from the predecessor block to the successor block (usually from the left to the right).

The connections connect the block using their [pins](#) (e.g. ).

Source pins are always located on the right side of the blocks. Sink pins are always located on the left side of the blocks. Data flows always from the source pin to the sink pin.

To create a connection **first** click the source pin, **then** click the sink pin. To delete a connection click the pins in the same order.



- ① **To create a connection**, click first the corresponding source pin. The pin will change its color to red.
Move the mouse to the corresponding sink pin. Whenever the mouse hovers over a compatible sink pin the pin will color red. Click the sink pin to terminate the connection process.

To leave the connection mode without defining a connection, just click somewhere in the empty workspace area.

- ② **To delete a connection** click first the source pin then the sink pin.

[Pins, Commands](#)

[List of all connections](#)

Right click a pin to open the context menu of the pin. The context menu provides functions as disconnect a single or all connections, [copy connection](#).

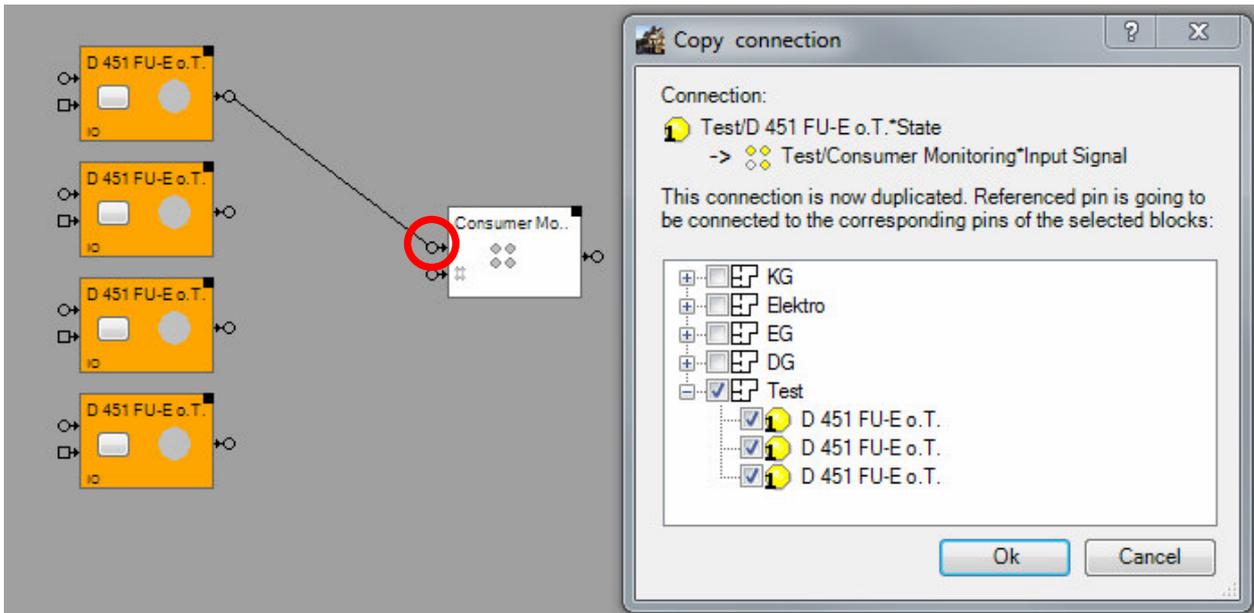
Copy connection

Purpose of this function is to connect a dedicated pin multiple blocks of the same type. Therefore an existing connection is copied to the blocks in question. This connection defines on one hand the type of the blocks and the pin to connect.

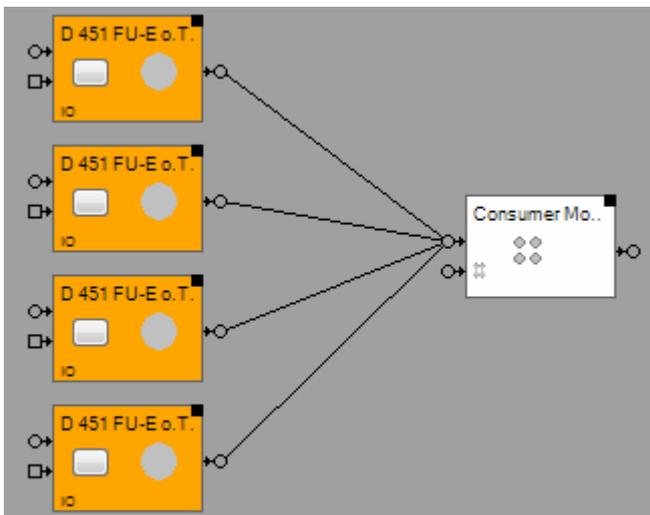
A right click on a pin will show up the corresponding context menu. After selecting the menu “Copy connection”, choose the connection to be copied. Then the “Copy connection” dialog will be shown. This dialog provides a list of blocks to be connected. Select the ones to be connected.

Sample:

The red marked pin has been right clicked and the menu “Copy connection” has been selected.



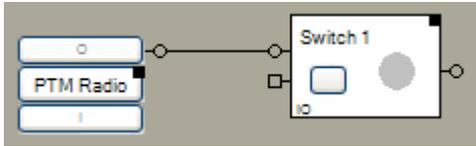
The connection between the topmost [switch actuator](#) block and the [consumer monitoring](#) block is going to be copied to the rest of the switch actuator blocks.



The dialog shows all blocks of the selected type which are not yet connected to the clicked pin. Press Ok to connect all blocks checked in the list.

Commands

Commands will be generated by blocks and forwarded through their [output pins](#). If there is a successor block connected to this output pin, then it receives the generated commands.



The [switching actuator block](#) receives the commands from the [PTM block](#) via the [connection](#).

 Forwards commands to the connected blocks.

There are following commands:

Commands carrying key press information („v+^“)

- **ONv** Indicates an I-key has been pressed.
- **ON^** Indicates an I-key has been released.
- **OFFv** Indicates an O-key has been pressed.
- **OFF^** Indicates an O-key has been released.
- **TOGGLEv** This command is generated by a [toggle block](#). It forces the consumer block to change its corresponding state.
It indicates that any key has been pressed.
- **TOGGLE^** Indicates any key has been released.

Commands without key press information

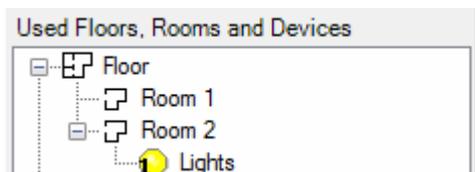
- **ON** Logic blocks e.g. Clock generate this kind of commands. This command doesn't carry any information about key press duration. The different block react on this kind of commands in an appropriate way e.g. a dimmer switches on or a jalousie runs to its end point.
- **OFF** See ON.
- **TOGGLE** This command is generated by a [toggle block](#) in case it receives an ON or OFF command.

Typically the v- + ^-command will be generated by button sensors.

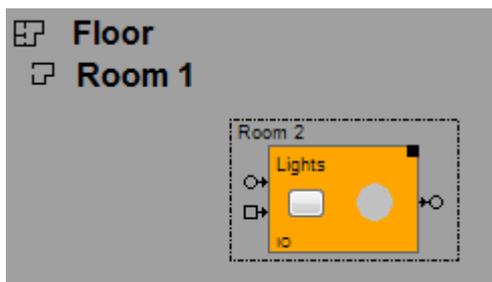
The commands without key press information are typically generated by logic blocks e.g. [Clock](#), [Day Light](#), etc. The reaction on this kind of commands is different from block to block. It is described in the block specific sections of this document.

Origin rooms and block references

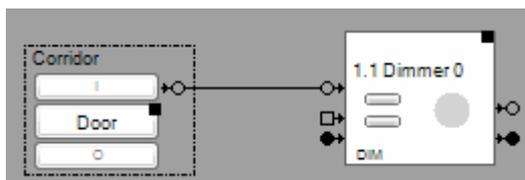
Each Block is located in its origin room. This is the [room](#) where the block is shown in the [project tree](#) on the right side.



A block can also be inserted in a network of another room than the origin room.



Blocks can be inserted in any network. Therefore drag a block from its origin room in the project tree into the open network on the left side. myHomeControl inserts a block reference within the network. A border around the block shows that this is a block reference, the origin room of the block is a different room than the one of the network.



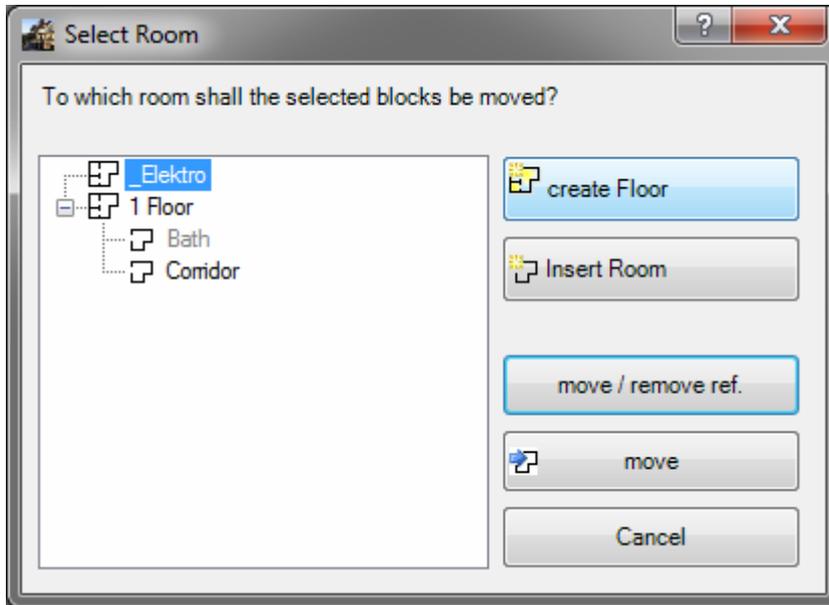
This is the way to [connect](#) Blocks of different rooms.

Refer to "Move blocks into other rooms".

Move blocks into other rooms

A block can be moved to an other room by the context menu of the block (right mouse click) or via drag&drop within the project tree.

Select Room

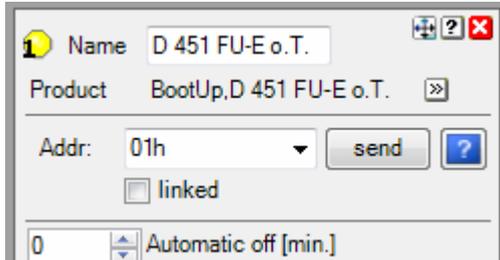


- | | |
|--------------------|---|
| Create Floor | Creates a new floor. |
| Inser Room | Inserts a new room into the selected floor. This button is only enabled if a floor has been selected in the left hand tree. |
| move / remove ref. | Moves the block into the selected floor/room and removes it from the actual room. |
| Move | Moves the block into the selected floor/room and creates a reference of the block in question within the actual room. |

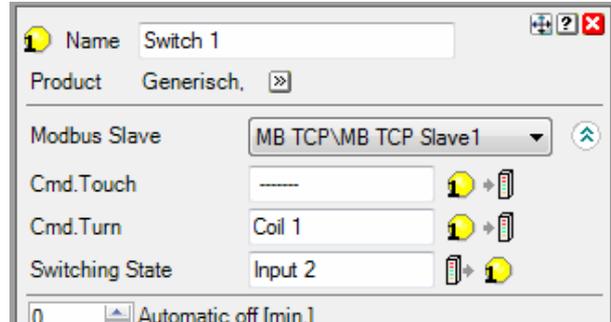
Physical Binding (Linking)

The linking between the network block and the physical device is defined either by a fix mapping or configurable functional channels.

The settings dialog of the network block, representing the physical device, shows a section containing the binding details.



Sample of a fix mapping



Sample of functional channels

Fix mapping

There are fixed mappings stored in **myHomeControl®** for some of the supported medias. In case fixed mapping is used, the binding is defined by a identification number e.g. EnOcean-Id. The fixed mapping defines the access to the various signals of the physical device.

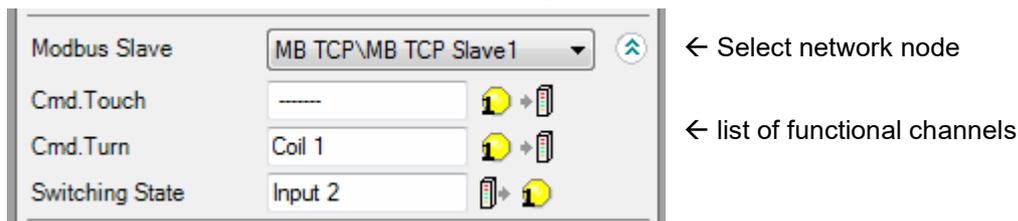
Mapping tables are typically available for following medias:

- EnOcean: EEPs
- 1-Wire

Functional channels

For some communication medias there are [fix mappings](#) available but for others there aren't. If there isn't a mapping defined, then the [settings dialog](#) of the network block will show a list of functional channels.

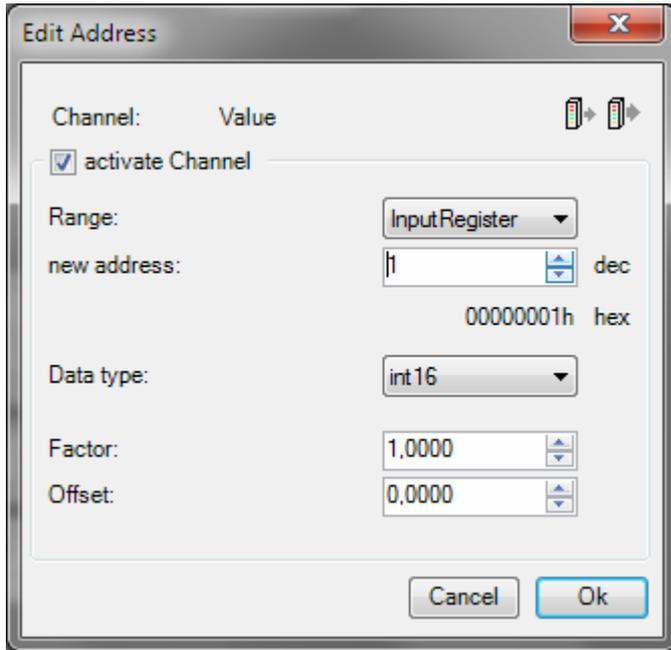
These channels are to be connected to the signals of the physical device by entering a e.g bus address.



The meaning of the individual functional channel is defined in the description of the network block.

Clicking the address field opens the configuration dialog of the functional channel. The opportunities for the configuration depend on the media.

Following picture shows a sample of a configuration dialog:



- ← Date flow direction from device to block
- ← some functional channels are activateable/deactivateable. Deactivated channels will not be considered by the block.
- ← Address selection
- ← Data type
- ← Scaling

Device type and location information

Supplementary information about the concrete product type the location of the device within the building, the labeling might be entered in this dialog.

Device type and location information

Name:

Product:

	Producer	Device type	Labeling	compatible	Data Sheet
<input type="checkbox"/>	Omnio	UPS230/01	Flush mounted switch actuator 1 Channel 230V,13A	<input checked="" type="checkbox"/>	Data Sheet
<input checked="" type="checkbox"/>	EnOcean	RCM 250	1 channel	<input checked="" type="checkbox"/>	Data Sheet
<input type="checkbox"/>	Omnio	UPS230/03	Flush mounted switch actuator 1 Channel 230V,13A	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	Funkstuhl	4511FU-E ST./KKF	Radio controlled outlet		Data Sheet
<input type="checkbox"/>	Funkstuhl	451FU-E m.Wi./KKF	Switching actuator with Wieland connectors	<input checked="" type="checkbox"/>	Data Sheet
<input type="checkbox"/>	Funkstuhl	451FU-E m.Wa./KKF	Switching actuator with Wago connectors	<input checked="" type="checkbox"/>	Data Sheet
<input type="checkbox"/>	Funkstuhl	FB-230_TF1e	Switching actuator Button Follower		

Identification:

Location:

Comment:

The column “compatible” indicates products, which are compatible to the selected product. Compatible means that the selected products might be replaced by one of the indicated ones. This is just a suggestion. Check the data sheets for details.

This information will be required by the device list. Refer to [List of all Devices](#).

PTM Radio

Name:

Product:

Addr:

Button Layout:

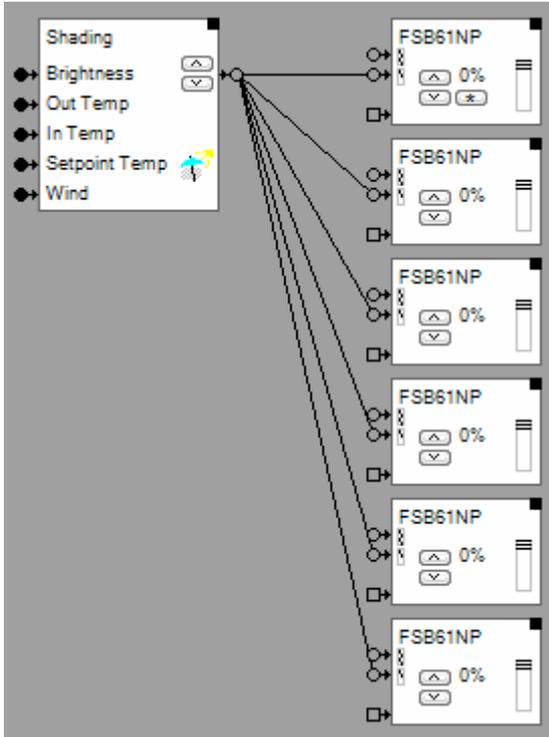
Access this dialog from the properties dialog of the sensor and actuator blocks by pressing the button .

Automatic Cascading

Control commands to actuator blocks, which send time critical radio commands to their physical actuators, are cascaded automatically.

Some media e.g. EnOcean radio gateways have limited bandwidth for transmission of radio telegrams. Therefore only a limited amount of messages can be transferred in a certain time frame.

Problem:



In the configuration shown on the left side, the shading block sends a command to lower the blinds to all jalousie actuator blocks at a certain point in time. Each of the jalousie actuator blocks sends out various radio messages to its linked physical jalousie actuator to command it into the shading position. A gateway transmits these radio messages. The gateway transmits message by message, which will take a while.

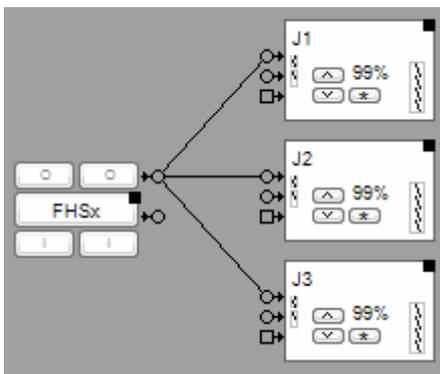
To position the blinds precisely, accurate timings are required for the transmission of the radio messages. The required accuracy can not be achieved by the system in case radio messages are jammed in the gateways transmit queue.

The cascading feature delays the transfer of commands between the blocks individually to avoid message jams in the transmit queue of the gateway. This feature schedules forwarding of commands to the succeeding blocks (e.g. shading block -> jalousie actuator block) in the way, that radio messages can be transmitted with accurate timings.

One effect of this feature is that the blinds will not be lowered synchronously. They start at individual points in time (cascading). The shading block schedules the start points in the way that never two jalousie actuator blocks are requested to send a radio message to there linked jalousie actuator at the same time.

The system detects automatically where cascading is required.

Exception:



There is no good solution to automatically cascade th situation shown on the left side. When the button is pressed, then the system should calculate all delay times. But at this stage it is not clear what the user intends to do (adjustment or command to the end position). If the system would cascade the commands then it might start a blind every 200ms.

If the user intends to adjust the blinds, then she/he will release the button after around 150..300ms. Most probably this will result in a collision with a delayed message.

Therefore the case shown on the left side will not be automatically cascaded by the system. Instead the messages are sent out as fast as possible. If there are only view jalousie actuator blocks connected to the PTM block, usually all messages are sent out before the user releases the button.

Disable Editing

This button locks some editing features as moving, connecting or disconnecting blocks. This feature is helpful in case block settings shall be changed with the finger on a touch screen.

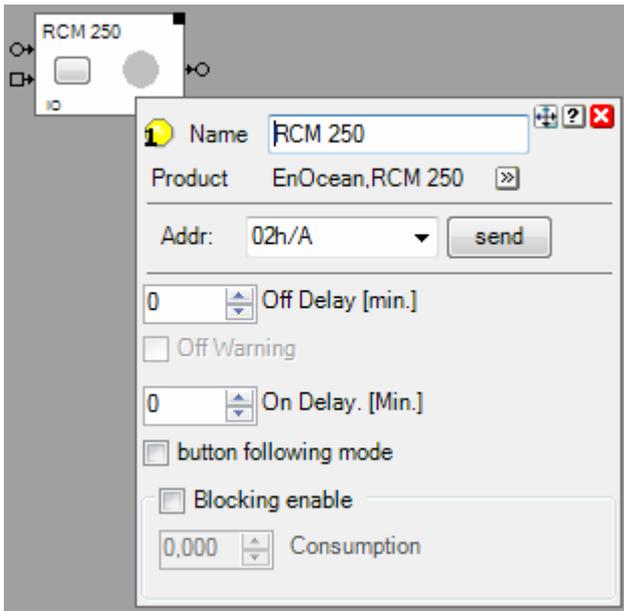
Clicking on a block directly opens the settings dialogue.

Send only LRN telegrams

This feature suppresses sending of all radio messages except Teach-in messages.

This feature is helpful in case actuators have to be linked (teach in). This button should be checked during any actuators are in teach in mode.

This feature avoids unexpected teach in of radio messages created by **myHomeControl**. Keep in mind that **myHomeControl** may send radio messages automatically at any point in time (e.g. created by a clock timer function, etc.).



Radio messages sent out by pressing the “send” button of the settings dialogues will be sent independent of the state of the “Send only LRM telegrams”. Radio messages send by the “send”-button are LRM-messages.

Do not send cyclic telegrams

This feature suppresses the sending of cyclic radio messages. Refer to setting “Transmission interval” of various actuator blocks.

This feature is helpful in case actuators have to be linked (teach in). This button should be checked during any actuators are in teach in mode.

This feature avoids unexpected teach in of radio messages created by **myHomeControl**. Keep in mind that **myHomeControl** may send radio messages automatically at any point in time (e.g. created by a clock timer function, etc.).

Actuators

Actuators receive radio messages and control lights, жалousies, valves, pumps or other electrical consumers. Actuator blocks represent physical actuators within **myHomeControl**.

The actuator blocks must be tached to the physical actuator to be able to control the actuator. Each actuator block has its own unique address.

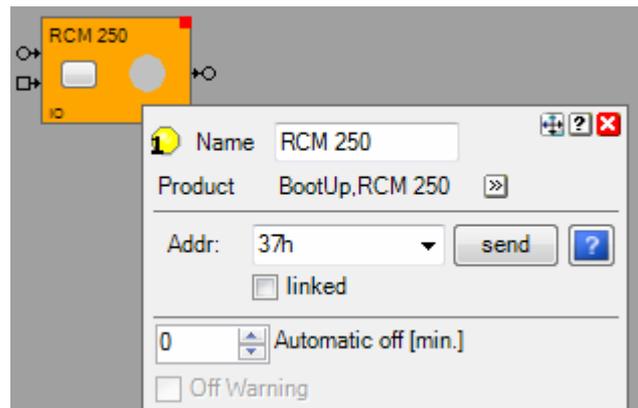
Teaching in (linking) an actuator block to a physical actuator device

Orange colored blocks indicate that they are not yet linked to physical devices. Following steps are required to teach in an actuator block to physical actuator:

1. Press the LRN-button at the physical actuator -> LED starts blinking
2. Press the "send"-button provided by the properties dialog of the block to send a teach in telegram to the actuator.

Once the send button has been pressed automatically the box "linked" is checked and the orange color is removed to indicated that the block has been teached in to the physical actuator.

The box *linked" might be checked or unchecked manually for documentation purposes. The only purpose of the box is to control the color of the block and to ease the teach in management.



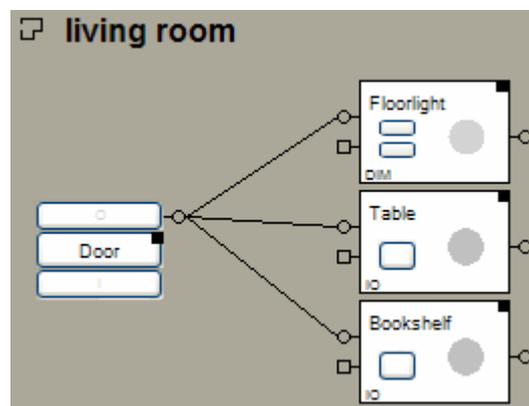
 shows a step by step teach in instruction in many cases.

Principally it is possible to teach one actuator block to several physical actuators. This is the usual way with EnOcean-Sensors, e.g. one PTM radio button shall control several switch actuators in parallel. But this solution would restrict the flexibility of **myHomeControl**. One strength of **myHomeControl** is the easiness to change the assignments between sensors and actuators. To keep this flexibility it is better to create one actuator block for each physical actuator device and to teach them 1:1.

Application sample:

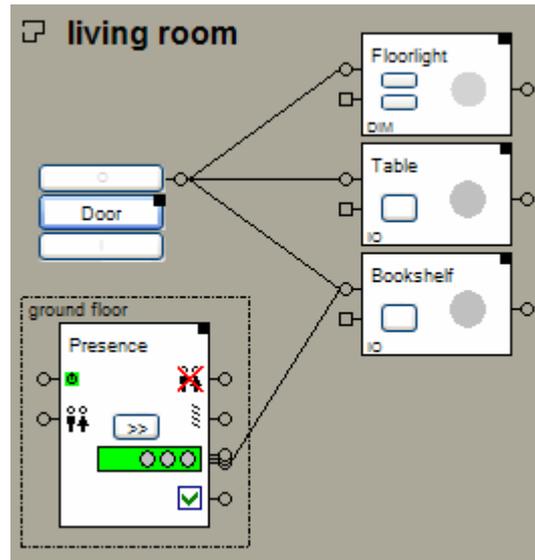
In the living room there is a down light above the table and a floor light in the area of the sofa. The illuminated bookshelf creates a good ambiance. The PTM radio switch at the entrance door should switch on these tree lights.

The corresponding network could look like this →



The dimly illumination of the bookshelf doesn't consume a lot of electricity. Therefore it is a candidate to be included into the circle of the lights activated by the [Presence Simulation](#).

The network can be modified with a few clicks without assembling actuators and teaching.

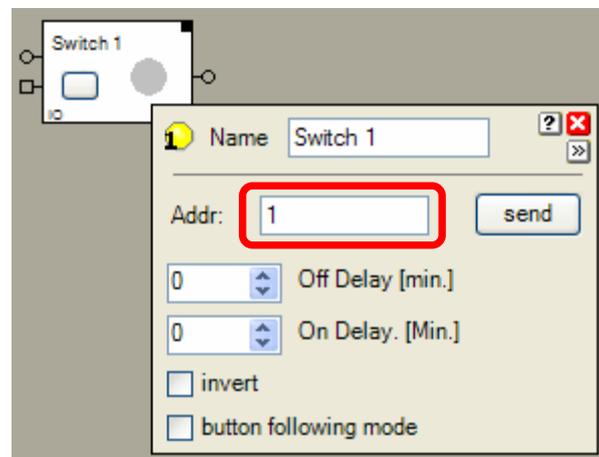


Manual actuator address assignment

► In the context of EnOcean addresses always means EnOcean Ids. The address value is always shown in hexadecimal representation.

myHomeControl assigns address to the actuator blocks automatically. In fact it only assigns an address offset. This offset will be added to the base address of the corresponding gateway to build the physical address, which will be sent to the actuator.

In case an already taught in address of an actuator shall be reused, the address offset might be assigned manually. Therefore click the box indicating the value of the address offset.

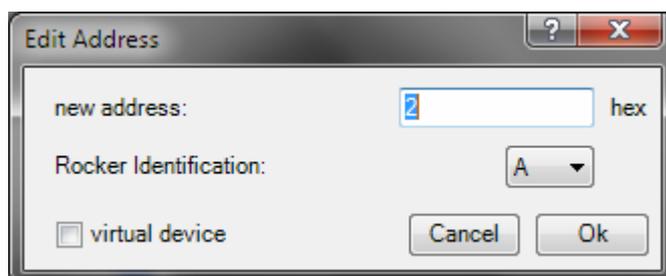


Subsequently following dialog will appear and the new address offset can be entered:

Actuator reacting on PTM telegrams

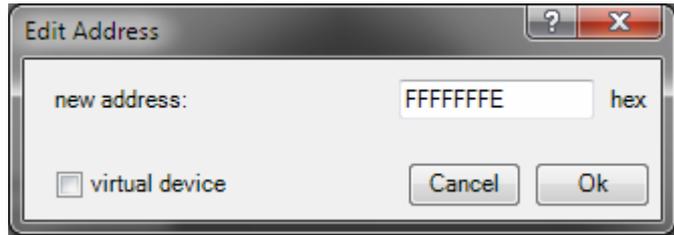
PTM telegrams contain beside the address also identification for a rocker (from left to right A..D).

Box "virtual device" see [Virtual Device](#).

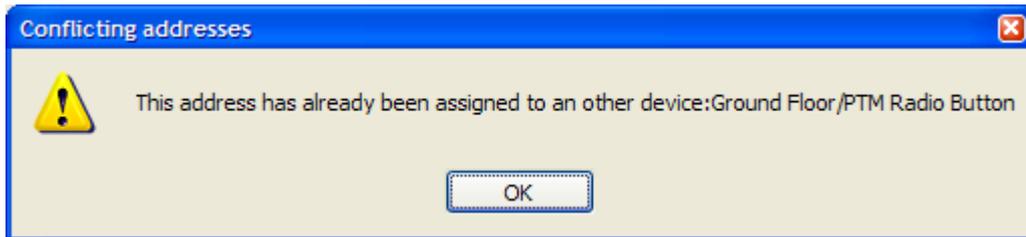


Actuator reacting on STM telegrams

Box “virtual device” see [Virtual Device](#).



The manual assignment of address offset may result in address conflicts. This happens in case an already assigned address offset will be given a second time.

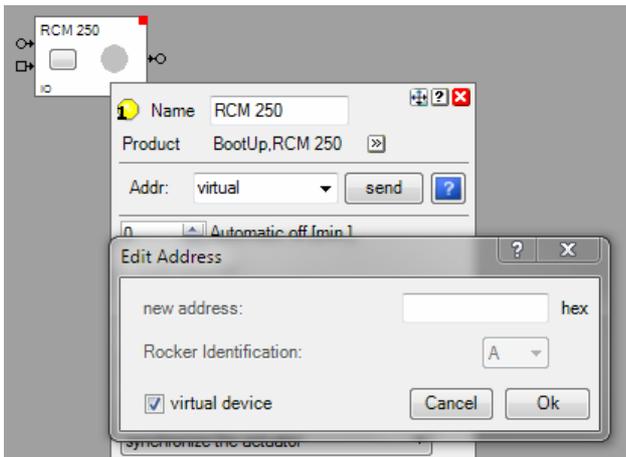


Enter an other address or change the address of the indicated device first.

There is also the opportunity to modify the addresses directly in the [list of all devices](#).

Virtual Devices

In certain cases it is useful to use a sensor or actuator block just as indication or storage location. In this case the address might be set to “virtual”. Virtual devices are excluded from the license calculation and therefore for free.



Floor assignment

To address the actuators, **myHomeControl** uses the base address of the gateway and enhances it with an actuator specific offset value. The offset value is shown in the address line of the actuator block.

In case multiple gateways are in operation, then it is the floor or the room where the actuator is located within the project, which defines the gateway to be used to transmit the radio message. For multifold actuators it is the **head element** which defines the location of the actuator and therefore defines which gateways is used for transmission.

There is a table on the configuration dialogue of the gateways where floors and rooms can be assigned to individual gateways.

1 Dimmer

This block represents a dimmer actuator.

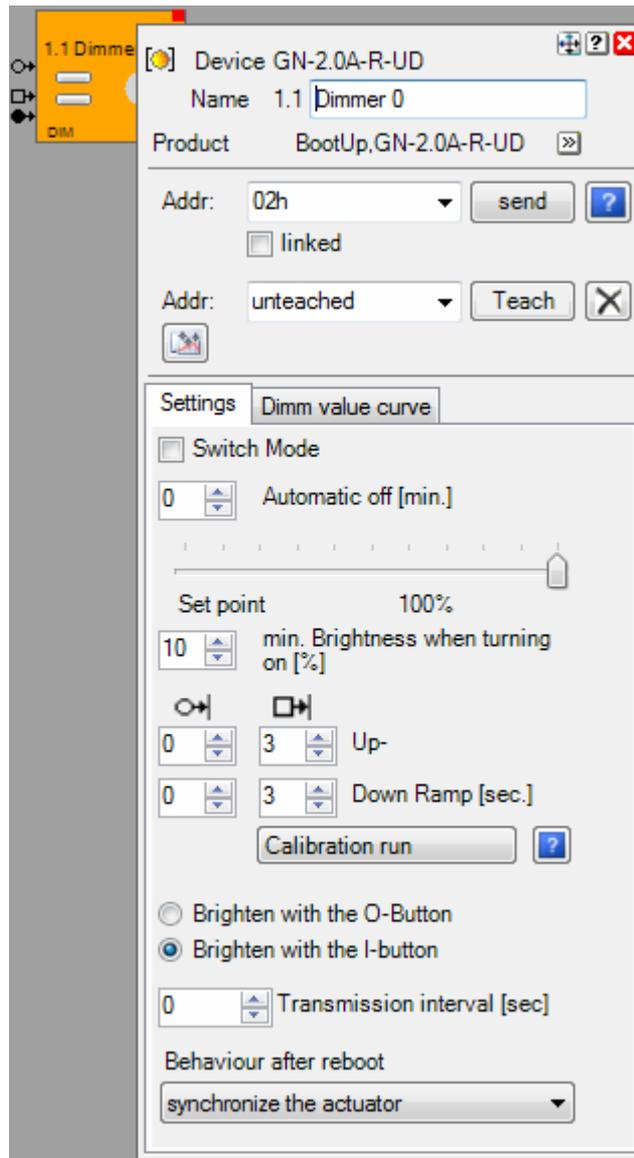
Function

This block generates radio messages to control a physical dimmer actuator. This block has to be [taught](#) to a real dimmer actuator.

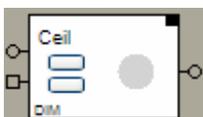
Command input →
 Observer input →
 Brightness input →

Dimmers supporting the Central Command ([EEP 07-38-02](#)) provide an input for the brightness (0-100%). 0% switches the light of.

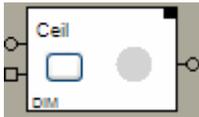
Dimmers not providing the central command will not show the input for the brightness.



The **Switch Mode** checkbox activates the switch mode. In this mode the dimmer acts as a switch (ON/OFF). It is not possible to dim the light any more via a connected PTM radio button. The light intensity has to be set via the properties dialog or in the visualization. This functionality eases the handling of the light.



Switch mode is deactivated. Dimming is enabled.



Switch mode is activated. Dimming is disabled.

In case the switch actuator block changes its state to ON, due to an ON-command on the command input or an ON-command on the observer input, it starts the switch **Off Delay** function if the switch off delay is set to a value greater than 0. The switch off delay function automatically switches the actuator off after the delay period.

The switch off delay function will be started even if the block receives an ON command over its [Observer Input](#).

The duration of the switch off delay has to be set in the [Properties dialog](#).

New generations of dimmer actuators support the central command ([EEP 07-38-02](#)) using STM-Telegrams. This enables the dim actuator block to send illumination intensity values to the dim actuator. This is very useful regarding scenes.

Adjust the light intensity with the **set point slider**.

Minimal brightness when turning on defines the minimal brightness value which is sent to the physical dimmer device in case light is turned on.

Up- and **down ramp** defines the time period of increasing the illumination intensity up to the set point and vice versa. This input fields are only available in case the dimmer supports the central command to send brightness values.

There are two types of ramps:

- This ramp times are used in case an ON or OFF command has been received via the command pin or in case the brightness has been changed by a scene.
- This ramp times are used in case the observer pin has received button press messages. These ramp times must be configured according to the ramp settings on the physical dimming actuator.

Calibration run see chapter [Calibration run dimming](#).

Brighten with the X-button defines with which of the buttons I or O turns on light or increases the brightness (dimming).

Transmission interval configures the retransmission feature. This feature sends the last command on a cyclic basis to synchronize the physical device in case of lost radio messages.

Behaviour after reboot defines what command is to be sent to the physical actuator in case of a restart of myHomeControl.

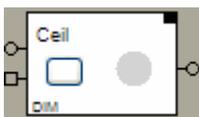
Dimm value curve refer to chapter [Dimm value curve](#)

Buttons

In case the switch mode is activated, only a large button is visible. This button switches the light ON and OFF. Switching ON the dimmer lights up to the predefined set point illumination intensity.

In case the switch mode is deactivated, two small buttons are visible. These buttons control the illumination intensity. They allow to dim up and down by “long” clicks and to switch on and off by short clicks. The upper button increases the light intensity the lower button decreases the light intensity.

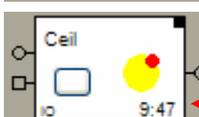
State indication



The actuator is in the OFF state. An OFF command has been sent through the output pin



The Actuator is in the ON state. An ON command has been sent through the output pin.



The Actuator is in the ON state; the switch off delay function is running.

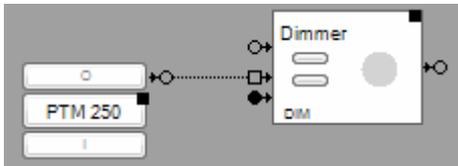
Indication of the remaining switch off delay time.

Find details about the corresponding visualization element in chapter [Visualization Element Dimmer](#).

Remarks to the observer input

This remark is valid for Dimmers supporting the central command (EEP 07-38-02).

Dim actuator with feedback

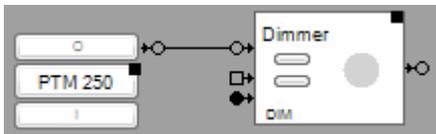


Recommended configuration

In this configuration the radio button has been directly teached to the dim actuator. The dim actuator block in **myHomeControl** observes the radio button to update its internal model. At the end of the dim process the model gets updated by the feedback signal of the dim actuator.

This is not very accurate and may result in a asynchronicity between the block and the dim actuator if the actor . Therefore this configuration is not recommended.

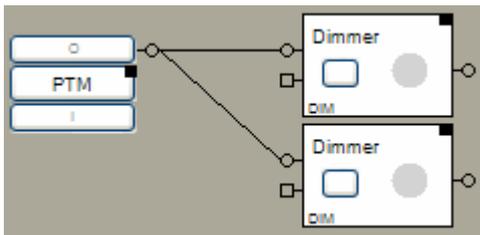
Dim actuator without feedback



Recommended configuration

In this configuration only the dim actuator block in **myHomeControl** controls the dim actuator. The touch-dim function is done by the block. The block sends corresponding dimming values to the dim actuator

Remark to parallel connection of multiple dimmers



The parallel connection, as shown in the picture beside, is not possible with all types of dimmer actuator devices!

The parallel connection is only recommended for dimmer types supporting the central command EEP 07-38-02 (transmission of brightness values, 0..100%).

Syntax of the scene values as they can be set within the properties dialog of the [scene block](#):

- «0» Dimming actuator will be switched **off**, in case the corresponding scene has been selected.
- «1»..«100» Dimming actuator will be switched **on** and will be dimmed to the corresponding %-brightness, in case the corresponding scene has been selected.
«100» means full brightness.
- «-» The state of the dimming actuator will not be changed, in case the corresponding scene has been selected.
- «P1»,
«P2»,
«P3» Retrieves the values of the preset buttons in the floor plan dialog of the dimmer.
- «#» Recreates the brightness value which was available before the call of the last scene.

Used EnOcean Profiles (EEP)

The EnOcean-Standard defines a couple of EnOcean Equipment Profiles (EEP) used for the interpretation of the radio telegram. Refer to [Appendix A](#) to get an overview on the profiles. This Block uses following profiles:

Configuration	EEP
Dimmers not supporting the central command (EEP 07-38-02)	

2 Rocker Switch	05-02-01: Light and Blind Control
4 Rocker Switch	05-03-01: Light and Blind Control
Omnio, Eltako, Jäger-Direkt, Unotec (DALI)	
	Similar to Central Command Dimming, but no support for ramps.
Dimmers supporting the central command (EEP 07-38-02)	
	07-38-02: Central Command Dimming

Additional application samples:

- Constant light control
- Universal controller: Thermokon SRC-ADO BCS

[Handling Blocks](#)

[Properties of Blocks](#)

Calibration run dimming

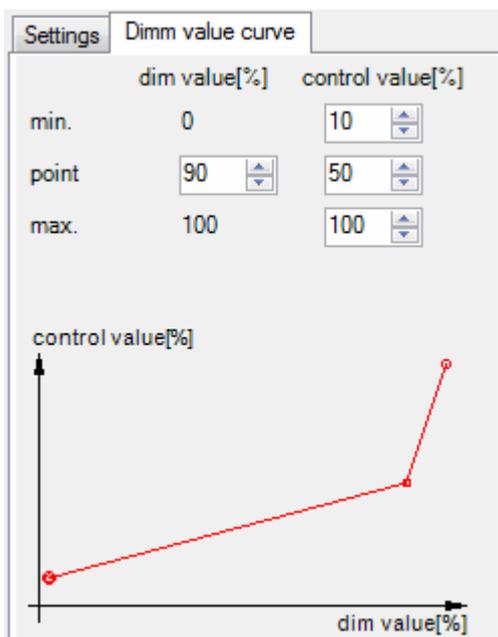
In case “slow” ramps for dimming have been configured on the physical dimming actuator, then also the ramp times for the observer input of the corresponding dimmer block have to be adjusted accordingly.

The callibration feature of the dimmer block is intended to ease the adjustment of the ramp times.

Follow the steps:

1. click the button “callibration run”
The light gets turned on to 100% and the button shows a bright lights symbol.
2. Now press the light switch (PTM rocker push button) an dimm the light down to 0%. Release the switch as soon as the light turns off.
3. **myHomeControl** calculates the duration of the button press and adjusts the ramp times accordingly.

Dimm value curve



The dimmactuator block uses the dimm value curve to calculate the control value, which is sent to the physical dimm actuator, from the dimm value.

By default the curve is set to 1:1. With this configuration the block sends the dimm value directly to the physical actuator.

The curves may ease the handling of certain lighthnig appliances.

Remark, that the curve will not be considered for manual dimmings. If dimming is done via radio buttons directly linked to the physical dimm actuator, then the actuator is contorlling the dimming process.

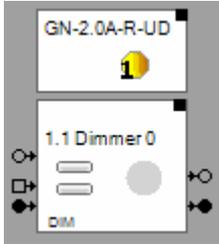
The dimm value curve is helpful in case of lighting controlled via scenes or any control logic.

1 Dimmer 1REG

This block represents a 1 channel dimming actuator.

It serves as a container for 1 [single channel dimming actuator blocks](#)(1).

The location(room) of the header element defines the gateway which is used to send out the radio messages to control the physical actuator. Refer to [Floor assignment](#).



← header element, representing the whole device.

← Represents the first channel.

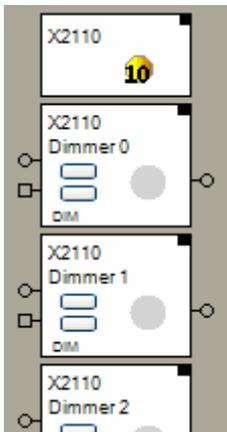
The “channel” block can be located individually in the workspace area. It is also possible to use them to individual rooms. The only restriction is that they cannot be deleted individually.

Find details about the corresponding visualization element in chapter [Visualization Element Dimmer 1REG](#).

10 Dimmer 10

This block represents a 10 channel dimming actuator e.g. of type (e.g. Verve X2110).

It serves as a container for 10 [single channel dimming actuator blocks](#)(1). Each channel of the 10 m fold dimming actuator acts like a single channel dimming actuator.



← Represents the whole device.

← Represents the first channel.

← Represents the second channel.

The “channel” block can be located individually in the workspace area. It is also possible to use them to individual rooms. The only restriction is that they cannot be deleted individually.

others ...

The location(room) of the header element defines the gateway which is used to send out the radio messages to control the physical actuator. Refer to [Floor assignment](#).

Find details about the corresponding visualization element in chapter [Visualization Element Dimmer 10](#).

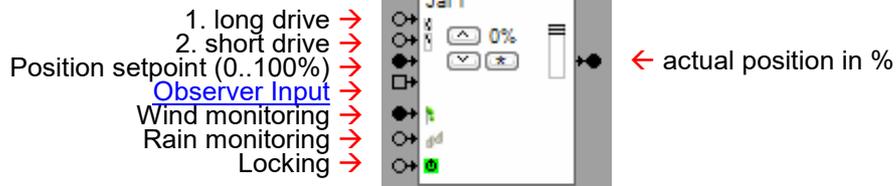
1. Jalousie 1

This block represents a jalousie-, sun blind- or roller shutter actuator.

Function

This block generates radio messages to control a physical jalousie actuator. This block has to be [teached](#) to a real jalousie actuator.

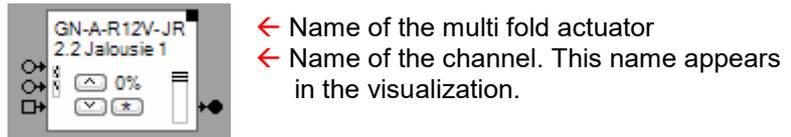
Single channel Blind Actuator

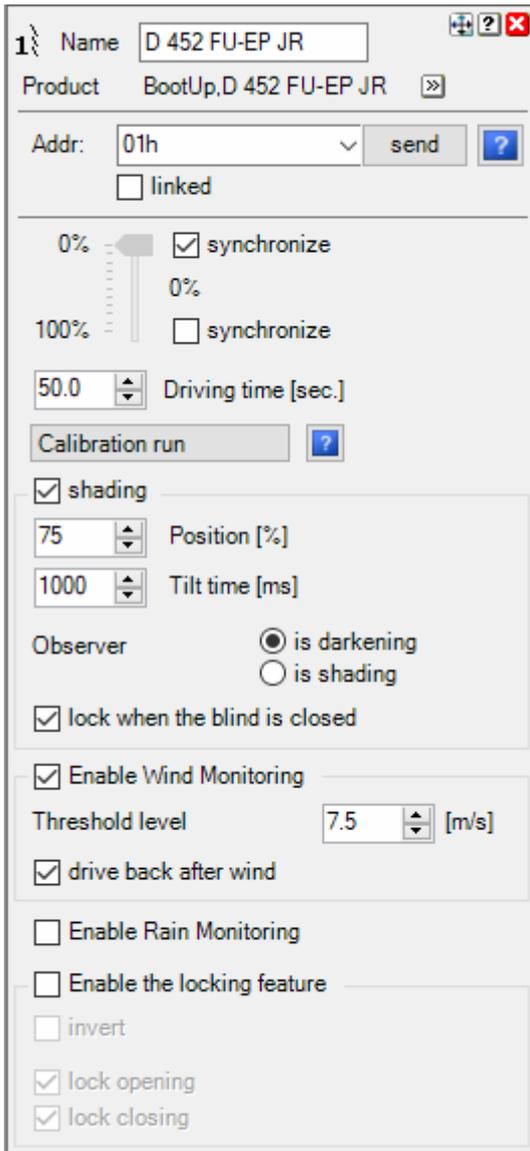


1. long drive
Command input initiating a drive to the darkening position.

2. short drive
Command input initiating a drive to the shading position.

One channel of a multi fold channel blind actuator





The position slider indicates the estimated position of the blind or jalousie.

The position of the jalousie indicated by the block is tracked based on driving durations. Therefore there is a certain probability that the estimated position becomes inaccurate. Each time the jalousie is moved to an end position there is an opportunity to synchronize the estimated position with the real position. Mhc enlarges the duration of the drive command for synchronization purposes. This assures that the jalousie reaches its end position. Check the corresponding **synchronize** to enable synchronization on that end position.

The jalousie provides two default positions:

Darkening position: The jalousie will be completely lowered. The end position is defined by the **darkening driving time**.

The button **Calibration Run** helps to evaluate the correct driving time.

Shading position: In this case the jalousie will be lowered to position in between and then it will be adjusted to let some sunlight pass the jalousie. The position in between is defined by the **Position[%]**. The adjustment is defined by the **tilt time**.

Depending on which input the block receives the command to move, the jalousie will be driven to the darkening or the shading position.

A **tilt time** value greater than 0 activates the adjustment of the jalousie when it reaches its shading position. The adjustment allows controlling the sunlight entering the room in the shading situation.

If **lock when the blind is closed** is checked, then the shading pin is deactivated in case the actual position is 100%. The block ignores all command received via the shading pin. Idea of this feature is to avoid openings of the blind if a child has its sleep during the day.

The radio buttons in the **Observer** area of the properties dialog define the behavior of the observer input. In case **“is shading”** has been activated, the block reacts on an observed start move command to the physical jalousie actuator by starting its position estimation and starting the shading driving time. After the shading driving time has expired, it generates a stop radio message and sends it to the physical jalousie actuator. Then, if required, the block generates the adjustment messages.

In case the jalousie was stopped somewhere in between and a new start was given, the residual driving time will be calculated depending on the estimated position of the jalousie.

In case of driving up, this means opening the jalousie, the driving time will be increased by a few seconds. This certifies that the jalousie reaches its upper end position. This compensates position estimation errors.

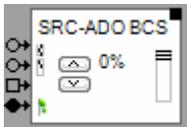
Wind monitoring feature:

Purpose of the wind monitoring feature is to raise the jalousies automatically in case of strong winds.

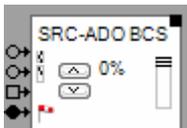
There is the opportunity to connect a wind signal of a weather station to the jalousie block. Therefore check the option **“Enable Wind Monitoring”**. An additional input pin is shown, where the weather station might be connected. The jalousie gets raised as soon as the strength of the wind increases the given threshold value for at least 30 seconds. In this case the jalousie block locks any lowering commands from the network and the visualization (Refer to pins 1. and 2.) as long as the strength of the wind is above the threshold level.

In case a rocker push button is directly linked to the blinds actuator, then the block registers any operations of the rocker push button via the observer input pin. If the jalousie has been lowered by this button, then the block automatically send a raise command after a short delay of 10 seconds.

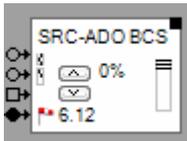
If the strength of the wind reduces below the threshold level the locked period starts for about 15 Minutes. During this locked period the jalousie might be operated manually or be scenes. The input pins 1 and 2 are locked during the locked period.



The strength of the wind is below the threshold level.



The strength of the wind is above the threshold level. The jalousies has been raised.



The strength of the wind is below the threshold level. But the blocking time is still running. The jalousie can be lowered earliest when the blocking time elapses.

Drive back after Wind enables the feature to drive the jalousie back to the origin position (position when the wind came up) after the wind has abated.

Windmonitoring feature of the jalousie block versus [the windmonitoring feature of the shading block](#):

Both features result nearly in the same. Following table shows the differences between the two features:

Windmonitoring of the Jalousie block	Windmonitoring of the Shading block
<ul style="list-style-type: none"> + All “lower” commands of the network are suppressed by the block - The threshold value can only be set in the settings dialog of the network block 	<ul style="list-style-type: none"> + The threshold value might be set by the user in the dialog of the visualization element of the block. - The command from the network are not suppressed by the jalousie block. This means, in case of a lowering command, the jalousie gets lowered. The shadow controller sends “raise” commands cyclically in case of strong winds. Therefore the jalousie gets raised after at least 5 minutes.

Rainmonitoring feature:

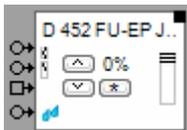
Purpose of the rain monitoring feature is to raise the jalousies automatically in case of rain.

There is the opportunity to connect a rain signal of a weather station to the jalousie block. Therefore check the option “Enable Rain Monitoring”. An additional input pin is shown, where the weather station might be connected. The jalousie gets raised as soon as it starts raining. In this case the jalousie block locks any lowering commands from the network and the visualization (Refer to pins 1. and 2.) If it stops raining for at least about 15 Minutes, then the block accepts command to drive down again.

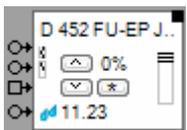
In case a rocker push button is directly linked to the blinds actuator, then the block registers any operations of the rocker push button via the observer input pin. If the jalousie has been lowered by this button, then the block automatically send a raise command after a short delay of 10 seconds.



There is no rain.



It is raining. The jalousies has been raised.

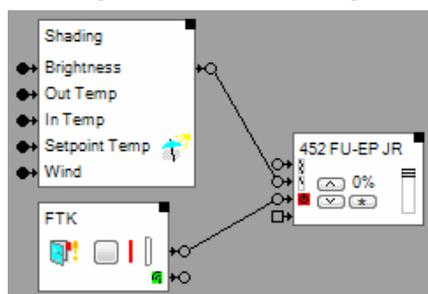


It doesn't rain. But the blocking time is still running. The jalousie can be lowered earliest when the blocking time elapses.

Locking feature:

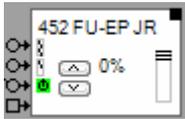
The locking feature shows an additional input pin. This pin might be used to lock the jalousie block via commands from the network. This prevents the jalousie block from driving the jalousie. This feature is useful to implement general motion locking in case of building maintenance e.g. window cleaning.

Sample:

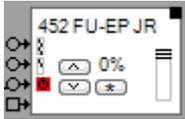


In case the door to the balcony is open, then the window contact locks the jalousie block, which prevents automatic jalousie movements.

The locking state of the jalousie block is shown as follows:



Jalousie is able to move



Jalousie is locked

Invert changes the “polarity” of the locking input pin.

lock opening defines if the jalousie must not drive up in case the jalousie is locked.

lock closing defines if the jalousie must not drive down in case the jalousie is locked.

Buttons

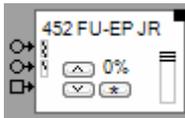
The left buttons behave in the same manner then the buttons of an eventually connected PTM radio button.

The upper button “^” raises the jalousie. A second short button click stops the movement.

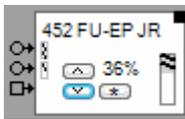
The lower button “v” lowers the jalousie. A second short button click stops the movement.

The lower button “*” drives the jalousie to the shading position. This button is only visible, if the driving time for shading is different then the driving time for darkening.

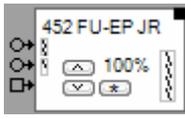
State indication



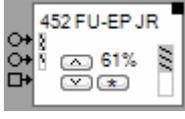
The jalousie is in its upper end position.



The jalousie is moving.



The jalousie is in its darkening position.



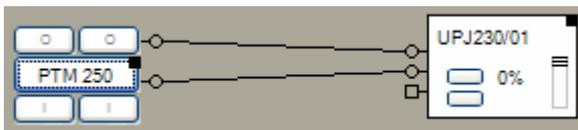
The jalousie is in its shading position.

Find details about the corresponding visualization element in chapter [Visualization Element Jalousie 1](#) .

Syntax of the scene values as they can be set within the properties dialog of the [scene block](#):

- «0» The jalousie will be driven to its upper end position, in case the corresponding scene has been selected.
- «1»..«99» The jalousie will driven to a position corresponding %-value, in case the corresponding scene has been selected.
«100» means lower end position.
- «>1»..«>99» The jalousie will driven to a position corresponding %-value, in case the actual position of the jalousie is below the scene value.
«100» means lower end position.
- «<1»..«<99» The jalousie will driven to a position corresponding %-value, in case the actual position of the jalousie is above the scene value.
«100» means lower end position.
- «100» The jalousie will be completely closed.
«100» means lower end position.
- «-» The state of the jalousie will not be changed, in case the corresponding scene has been selected.

Application samples



A long button press on the left rocker moves the jalousies into the lower end position.
A long button press on the I-button of the right rocker moves the jalousie to the shading position.

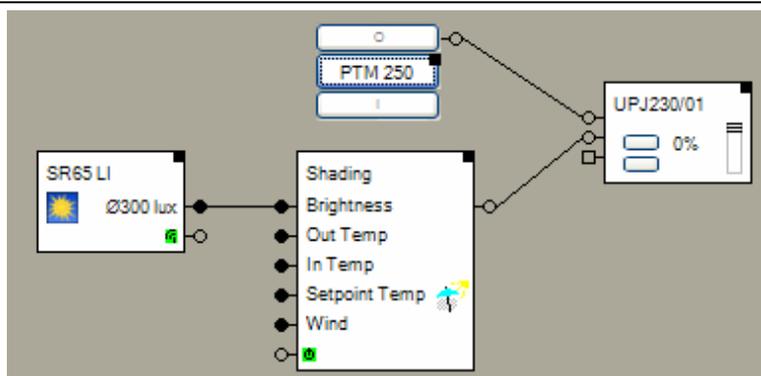
The [PTM rocker button switch](#) has been taughted directly to the jalousie actuator. Refer to [operational reliability](#).

In parallel the PTM button has also been taughted to myHomeControl and the jalousie actuator block to the jalousie actuator.

The connection line between the [output pin](#) of the PTM button and the [observer pin](#) of the jalousie actuator block informs myHomeControl, that the PTM button has been taughted to the physical actuator.

The jalousie actuator block is configured to interpret the commands of the PTM button as shading commands.

If the I-button of the PTM button has been pressed, then the jalousie actuator starts lowering the jalousie. Simultaneously the jalousie actuator block starts the emulation of the position of the jalousie. As soon as the jalousie reaches the shading position, the jalousie actuator block sends a stop command to the jalousie actuator and subsequently the adjustment commands.



The PTM button lowers the jalousie to is lower end position (darkening position)

The commands of the [shading block](#) lower the jalousie to a middle position (shading position).

Additional application samples:

- Automatic Shading
- Automatic Shading and time controlled blind movements

Used EnOcean Profiles (EEP)

The EnOcean-Standard defines a couple of EnOcean Equipment Profiles (EEP) used for the interpretation of the radio telegram. Refer to [Appendix A](#) to get an overview on the profiles. This Block uses following profiles:

Configuration	EEP
2 Rocker Switch	05-02-01: Light and Blind Control
4 Rocker Switch	05-03-01: Light and Blind Control

Device specific hints / Teach in

Eltako, FAB12	Settings: AUTO3, WA=0, RV=max
Eltako, FSB61NP-230	Settings: - GS4 - lower rotary control: Select a time which is longer then the blind or jalousie requires to run from one end to the other.
Eltako, FSB12 Eltako, FSB12 (39/10) OPUS, GN-A-R12V-JGR-2	Teach in myHomeControl: old devices Teach in: RV=10 for Channel1, RV=30 for Channel2; WA=LRN, AUTO3 Now press button "send" of the settings dialogue. Normal operation: RV=200, WA=0.1, AUTO3 Devices produced after (39/10) Teach in: RV=180 for Channel1, RV=200 for Channel2; WA=LRN, AUTO3 Now press button "send" of the settings dialogue. Normal operation: RV=200, WA=0.1, AUTO3 If observer input is used rocker push button has to be linked to the actuator as well: Rocker push buttons, which are directly taught to the actuator must be taught as direction switch. This is a prerequisite to use the observer input in myHomeControl. Teach in: RV=10 for Channel1, RV=30 for Channel2; WA=LRN, AUTO3 Now operate button of the rocker push button.

Normal operation: RV=200, WA=0.1, AUTO3

PEHA, 452 FU-EP JR

Select Function 1, select a running time larger than the real running time of the blind. Fine tuning might be done in myHomeControl (Settings dialog of the jalousie block).

[Handling Blocks](#)

[Properties of Blocks](#)

Physical binding

[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

Functional channels

Cmd.Up

This binary signal is written by the switch block to the slave. It is ON as long as the blind shall drive up.

In case the function channel „Driving Up“ is activated, then the block tracks the position of the blind according to the function channel „Driving Up“.

Cmd.Down

This binary signal is written by the switch block to the slave. It is ON as long as the blind shall drive down.

In case the function channel „Driving Down“ is activated, then the block tracks the position of the blind according to the function channel „Driving Down“.

Driving Up

This binary signal is read by the block from the slave. It is used to track the state of the block. This means, if the read signal is set, then the block drives its model of the blind up.

Driving Down

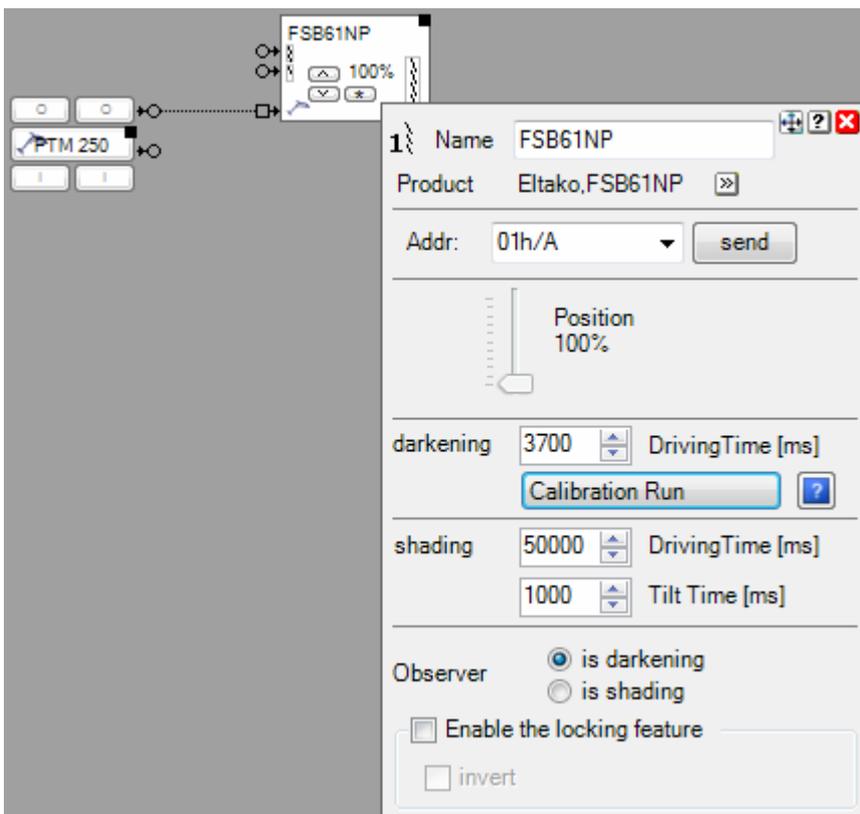
This binary signal is read by the block from the slave. It is used to track the state of the block. This means, if the read signal is set, then the block drives its model of the blind down.

Calibration run

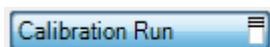
The driving time of the jalousies has to be evaluated manually. This procedure is supported by the calibration run function.

The idea of the calibration run function is to let the user drive the jalousie manually and the jalousie block observes the operation and measures the driving time automatically.

The user controls the jalousie with the local controls (rocker push button in the room) and drives it from the upper end position to the lower end position. A long button press down starts moving the jalousie. With a second button press, the user indicates that the jalousie has reached its lower end position. The jalousie block measures automatically the period in time used to drive the whole way down.

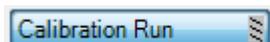


The button “Calibration Run” enables the time measurement.

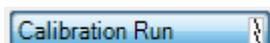


As soon as the button is checked, the calibration function evaluates the button presses received from the input pins of the block. If required the jalousie might be driven up to the upper end position first. This will not start the time measurement.

If the jalousie is commanded to drive down, the measurement starts. This is indicated by following symbol:



As soon as the jalousie has reached the lower end position, the user has to press the button of the rocker push button again to indicate that the jalousie is down. This stops the measurement of time and the block copies the measured time value into the input field accordingly. This is indicated by following symbol:

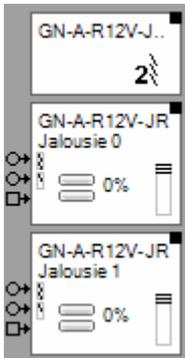


Now the Calibration Run button can be released. If the settings dialog is closed, then the Calibration Run button gets released automatically.

2x Jalousie 2

This block represents a 2 channel jalousie actuator).

It serves as a container for 2 [single channel-Jalousie actuator blocks](#)(1x). Each channel of the quad jalousie actuator acts like a single channel jalousie actuator.



← Represents the whole device.

← Represents the first channel.

← Represents the second channel.

The “channel” block can be located individually in the workspace area. It is also possible to use them to individual rooms. The only restriction is that they cannot be deleted individually.

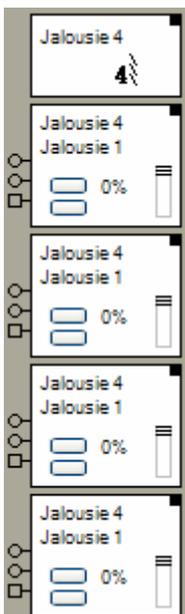
The location(room) of the header element defines the gateway which is used to send out the radio messages to control the physical actuator. Refer to [Floor assignment](#).

Find details about the corresponding visualization element in chapter [Visualization Element Jalousie 2](#).

4x Jalousie 4

This block represents a 4 channel jalousie actuator e.g. of type (e.g. REGJ24/01).

It serves as a container for 4 [single channel-Jalousie actuator blocks](#)(1x). Each channel of the quad jalousie actuator acts like a single channel jalousie actuator.



← Represents the whole device.

← Represents the first channel.

← Represents the second channel.

The “channel” block can be located individually in the workspace area. It is also possible to use them to individual rooms. The only restriction is that they cannot be deleted individually.

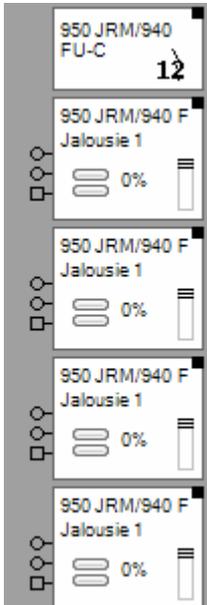
The location(room) of the header element defines the gateway which is used to send out the radio messages to control the physical actuator. Refer to [Floor assignment](#).

Find details about the corresponding visualization element in chapter [Visualization Element Jalousie 4](#).

12 Jalousie 12

This block represents a 12 channel jalousie actuator e.g. of type 950JRM from PEHA. This device has to be combined with a PHC Radio-Interface of type 940 FU-C from PEHA.

It serves as a container for 12 [single channel-Jalousie actuator blocks](#)(12). Each channel of the quad jalousie actuator acts like a single channel jalousie actuator.



← Represents the whole device.

← Represents the first channel.

← Represents the second channel.

The “channel” block can be located individually in the workspace area. It is also possible to use them to individual rooms. The only restriction is that they cannot be deleted individually.

and more ...

Settings:

On the PHC Radio-Interface 940 FU-C select address 01 on the dip switches.

All Jalousie 1 actuator blocks have to be taught to the 940 FU-C individually:

PHC Funk-Interface Channel	Jalusiemodul Motor Number	Jalusiemodul Output
00	M0	O1(up) / O0(down)
01	M1	O3(up) / O2(down)
02	M2	O5(up) / O4(down)
03	M3	O7(up) / O6(down)
04	M4	O9(up) / O8(down)
05	M5	O11(up) / O10(down)
06	M6	O13(up) / O12(down)
07	M7	O15(up) / O14(down)
08	M8	O17(up) / O16(down)
09	M9	O19(up) / O18(down)
10	M10	O21(up) / O20(down)
11	M11	O23(up) / O22(down)

Refer to the manual “PHC Compact Additional Information” for further details. To open this document, click right mouse button on the block representing the whole device, then click the datasheet menu.

The location(room) of the header element defines the gateway which is used to send out the radio messages to control the physical actuator. Refer to [Floor assignment](#).

Find details about the corresponding visualization element in chapter [Visualization Element Jalousie 12](#).

RCM120

This block transmits BS4 telegrams. It represents an actuator based on a RCM120 module.

This block is just for experimentation purposes!

The values shown by the block represent the byte-values transmitted by the BS4 telegram.

This block generates radio messages, which can be received by a RCM120 module. This block has to be [teached](#) to a real RCM120 module.

ATTENTION:

Regard that D3=0 is the indication to mark a telegram as a LRN telegram. Keep D3=1 in normal conditions.

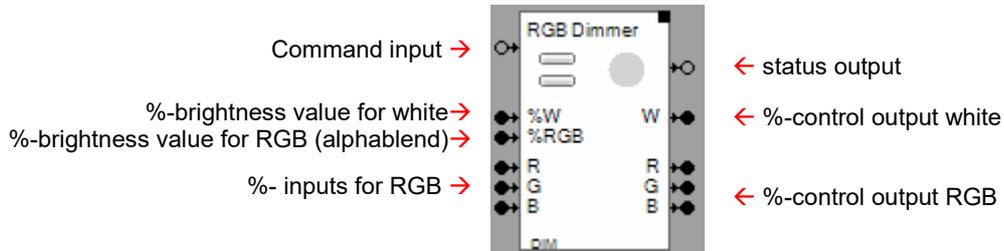
[Handling Blocks](#)

[Properties of Blocks](#)

RGB Dimmer

This block can be obtained from **Functions / Functions**.

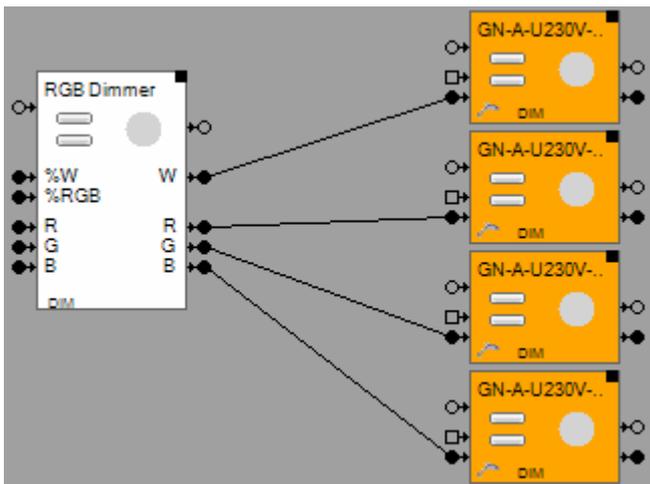
This block might be used to control 3-4 LED dimmer actuators (RGB + white). This block either represents a physical RGB dimmer actuator or a function to control individual physical dimmer actuators (individual channels). As dimmer actuator block it sends radio telegrams to the linked dimmer actuators, as function it controls connected dimmer blocks through its outputs.



Function

This block acts as a color mixer for RGB and RGB + white. Use the inputs R, G and B to select the color. The %-brightness value inputs control the brightness of the selected color. Valid values are 0%..100%.

Use the outputs to connect dimmer actuator blocks.



Configuration

In case the switch actuator block changes its state to ON, due to an ON-command on the command input or an ON-command on the observer input, it starts the switch **Off Delay** function if the switch off delay is set to a value greater then 0. The switch off delay function automatically switches the actuator off after the delay period.

The **ramp** defines the period in time to reach the given set points.

Syntax of the scene values as they can be set within the properties dialog of the [scene block](#):

- «30/100/10/20/30» White / brightness / red /green / blue
Dimming actuator will be switched **on** and will be dimmed to the corresponding %-brightness / color, in case the corresponding scene has been selected.
For all 5 field valid values are: «1»..«100».
- «0/0/10/20/30» Dimming actuator will be switched **off**, in case the corresponding scene has been selected. Brightness value = 0%
- «-» The state of the dimming actuator will not be changed, in case the corresponding scene has been selected.

- «P1», «P2», «P3» Retrieves the values of the preset buttons in the floor plan dialog of the dimmer.
 «#» Recreates the brightness value which was available before the call of the last scene.

Find details about the corresponding visualization element in chapter [Visualization Element RGB Dimmer](#).

Additional application samples:

-

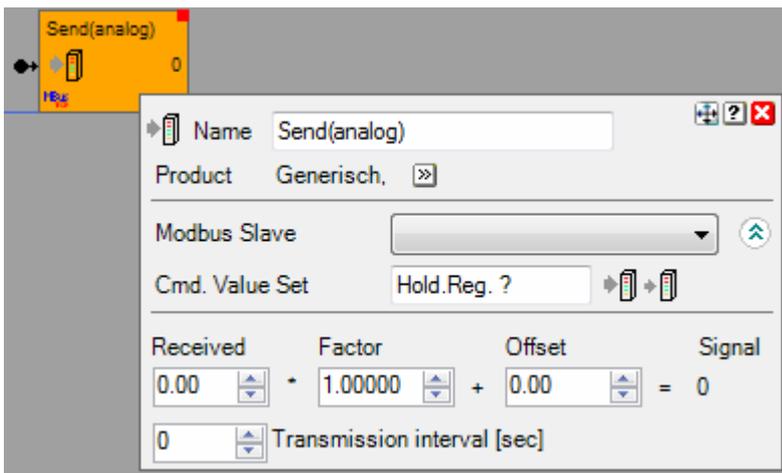
[Handling Blocks](#)

[Properties of Blocks](#)

Send(analog)

This block transmits the analog signal received on the input pin to a bus device.

This feature is only available in case a [license option Modbus TCP](#) or [license option Modbus RTU](#) or [license option PEHA PHC](#) has been bought.



Function

By default the block sends the signal value only to the bus in case of a change of the signal value.

Configuration

Received Shows the value received by the input pin. This Value can be modified for simulation purposes.

Factor/Offset Scaling of the value sent to the bus.

Signal Shows the value sent to the bus-

Transmission Interval

0: Value is only sent to the bus in case of a value change

>0: Value is sent to the bus periodically according this setting.

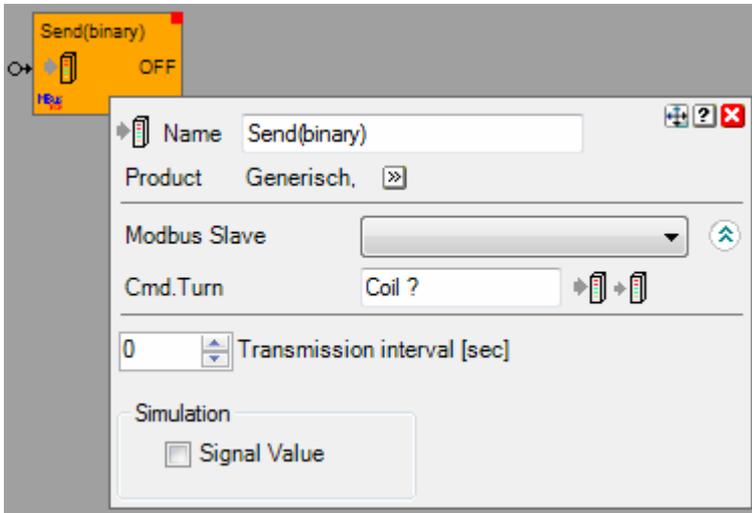
[Handling Blocks](#)

[Properties of Blocks](#)

Send(binary)

This block transmits the command signal received on the input pin to a bus device.

This feature is only available in case a [license option Modbus TCP](#) or [license option Modbus RTU](#) or [license option PEHA PHC](#) has been bought.



Function

By default the block sends the signal value only to the bus in case of a change of the signal value.

Configuration

Transmission Interval

- 0: Value is only sent to the bus in case of a value change
- >0: Value is sent to the bus periodically according this setting.

Simulation

Shows the command received via the input pin. The value can be modified for simulation purposes.

[Handling Blocks](#)

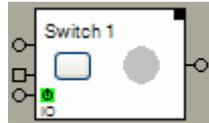
[Properties of Blocks](#)

1 Switch 1

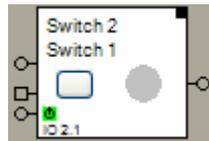
This block represents a single channel switch actuator.

This block will also be used to represent a channel of a multi fold switch actuator.

Single channel Switch Actuator



One channel of a multiple channel switch actuator.



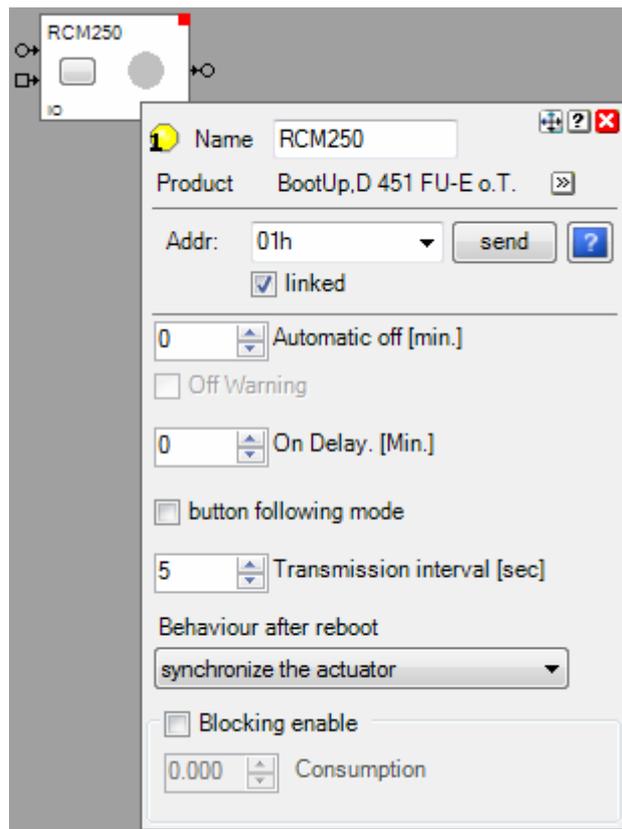
- ← Name of the multiple switch actuator
- ← Name of the channel. This name appears in the visualization.

Function

This block sends radio messages to a physical switch actuator device. This block has to be [teached](#) to a real switch actuator.

- Command input →
- [Observer input](#) →
- Blocking input →

The output pin indicates the actual state of the switching actuator. It can be connected to a [Consumer Monitoring Block](#).



In case the switch actuator block changes its state to ON, due to an ON-command on the command input or an ON-command on the observer input, it starts the switch off delay function if the switch **Off Delay** is set to a value greater than 0. The switch off delay function automatically switches the actuator off after the switch **Off Delay** period.

If the Off Warning has been activated, then the light gets turned off for 2 seconds 30 seconds before the OFF Delay expires. This warns the user that the lights is going to be turned off shortly. The user has the opportunity to press a I-Button to restart the Off Delay.

In case the switch actuator block changes its state to OFF and the **switch On Delay** is set to a value greater than 0, then it starts the switch on delay function. The switch on delay function prevents the actuator to switch on before the On Delay has been expired. In case the actuator block receives an ON-command before the on delay has been expired, then it stores the command and switches on automatically after the delay.

A double click on the ON-button of a connected PTM radio button, suppresses the switch off delay function. This means, if the switch actuator block receives a second ON command within 3 seconds, it will deactivate the switch off delay function. An example for this feature could be the light in the garage. Typically it should switch off at least after 20 minutes. But in case of doing some maintenance at the car, the light should not switch off automatically at all. Suppress the switch off delay function with a double click at the corresponding PTM radio button.



The switch off delay function will be started even if the block receives an ON command over its [Observer Input](#).

The duration of the switch off delay has to be set in the [Properties dialog](#).

Invert: (deprecated)

The Invert checkbox activates the invert feature. If the invert feature has been activated, the block sends in case it receives an ON command an OFF radio message to the physical actuator. And vice versa if it receives an OFF command, it sends an ON radio message to the actuator. The idea of this feature is to compensate wrong wiring.

- The feature **Invert** is not available any more in new projects (V1.2.9 and later). In older projects the option only appears for those actuator blocks where the option has been set before.

The **button follower** function is mostly used in combination with a PTM radio button. In case the button following mode has been activated, then the block will send an ON-command to the actuator at the time the button gets pressed and an OFF-command at the time the button gets released. This is independent if the ON or the OFF button is pressed. This function might be used also in combination with the invert feature. The [Observer Input](#) supports this function as well.

Blocking enable enables the blocking functionality of the switch actuator. This function is mainly used in context with the [Load Limitation](#) function. In case the Blocking has been enabled an additional pin appears This pin might be used to block the actuator. The input field Consumption becomes active as well.

Enter the estimated **Consumption** e.g. power consumption of the device controlled by the switch actuator. The input field Consumption is required in case the actuator is controlled by a [Load Limitation](#) function.

Transmission interval configures the retransmission feature. This feature sends the last command on a cyclic basis to synchronize the physical device in case of lost radio messages.

Behaviour after reboot defines what command is to be sent to the physical actuator in case of a restart of myHomeControl.

Blocking:

The switching actuator block might be controlled by a [Load Limitation](#). In this case the Load Limitation block has to be connected to the blocking input of the switch actuator block. The blocking input overrides the state of the switch actuator block. Behavior:

Command	State of the switch actuator block	State of the phys. switch actuator
	ON	ON
OFF at blocking input pin	ON-blocked	OFF
ON at blocking input pin	ON	ON

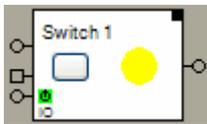
	OFF	OFF
OFF at blocking input pin	OFF-blocked	OFF
ON at blocking input pin	OFF	OFF
	OFF	OFF
OFF at blocking input pin	OFF-blocked	OFF
ON at command input pin	ON-blocked	OFF
ON at blocking input pin	ON	ON

The on- and off-delay functions operate accordingly.

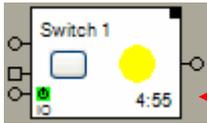
State indication



The actuator is in the OFF state. An OFF command has been sent through the output pin.

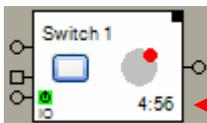


The actuator is in the ON state. An ON command has been sent through the output pin.



The actuator is in the ON state; the switch off delay function is running.

Indication of the remaining switch off delay time.



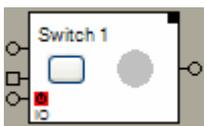
The actuator is in the OFF state. The actuator block has received an ON-command and awaits the end of the on delay period. After the period it automatically switches on the actuator.

Indication of the remaining switch off delay time.



Blocking-ON

The phys. switch actuator is turned off, the switch actuator block is in state ON. In case of unblocking the phys. actuator is going to be turned on.



Blocking-OFF

The phys. switch actuator and the switch actuator block are in state off. The phys. actuator will not be turned on in case the block receives an ON command.

Compare with the [Dimmer](#) as well.

Find details about the corresponding visualization element in chapter [Visualization element Switch Actuator 1](#).

Syntax of the scene values as they can be set within the properties dialog of the [scene block](#):

- «0» Switching actuator will be switched **off**, in case the corresponding scene has been selected.
- «1» Switching actuator will be switched **on**, in case the corresponding scene has been selected.
- «->» The state of the switching actuator will not be changed, in case the corresponding scene has been selected.

Used EnOcean Profiles (EEP)

The EnOcean-Standard defines a couple of EnOcean Equipment Profiles (EEP) used for the interpretation of the radio telegram. Refer to [Appendix A](#) to get an overview on the profiles. This Block uses following profiles:

Configuration	EEP
2 Rocker Switch	05-02-01: Light and Blind Control
4 Rocker Switch	05-03-01: Light and Blind Control

Supported Devices

[Appendix B](#) list the devices supported by this block.

Device specific hints / teach in

Funkstuhl, 4511FU-E ST/KKF	The switching actuator block has to be taught as a RockerButtonSwitch. Set slider to the middle position.
Funkstuhl, 451FU-E m.Wi./KKF	The switching actuator block has to be taught as a RockerButtonSwitch. Press LRN twice.
Funkstuhl, 451FU-E m.Wa./KKF	The switching actuator block has to be taught as a RockerButtonSwitch. Press LRN twice.
Eltako, FSR61NP FMS61NP	The switching actuator block has to be taught as a central On/Off.
Eltako, FAA12-12V FSA12-12V Jäger-Direkt, GN-A-R12V-SR4	<p>Teach in myHomeControl: The switching actuator block has to be taught as a central On/Off (Direction switch).</p> <p>Teach-in:</p> <ul style="list-style-type: none"> - set channel number at lower wheel - turn middle wheel to position LRN <p>To send the teach-in telegram do not use the send button of the properties dialog of the switch actuator block. Use the button on the surface of the block instead. Click the button once for ON. Turn middle wheel away from LRN and back. Click the button once for OFF.</p> <p>After teach-in:</p> <ul style="list-style-type: none"> - lower and middle wheel to position AUTO - upper wheel to position ES-RT <p>In case the actuator works in opposite state, check the Invert checkbox in the properties dialog of the block.</p> <p>If observer input is used rocker push button has to be linked to the actuator as well:</p> <p>Teach-in:</p> <ul style="list-style-type: none"> - set channel number at lower wheel - turn middle wheel to position LRN <p>Operate corresponding rocker of rocker push button. Turn middle wheel away from LRN and back. Operate other button of rocker. The actuator itself defines which button means on and which means off.</p> <p>After teach-in:</p> <ul style="list-style-type: none"> - lower and middle wheel to position AUTO - upper wheel to position ES-RT

Eltako,
FSR12-12V DC

Teach in myHomeControl:

The switching actuator block has to be taught as Direction switch.

This device always interprets the O-Button of a PTM-Rocker Switch as an ON command and the I-Button as an OFF command!

Teach-in:

- set channel number at lower wheel
- turn middle wheel to position LRN

To send the teach-in telegram do not use the send button of the properties dialog of the switch actuator block. Use the button on the surface of the block instead. Click the button once for ON. Turn middle wheel away from LRN and back. Click the button once for OFF.

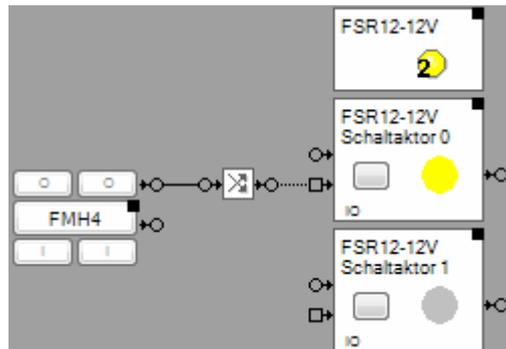
After teach-in:

- middle wheel to position AUTO
- upper wheel to position ES-RT

In case the actuator works in opposite state, check the Invert checkbox in the properties dialog of the block.

If observer input is used rocker push button has to be linked to the actuator as well:

Directly linked PTM rocker switches to the switch actuator und usage of the [observer input](#):



Because the device always interprets the O-button as an ON command, which is unusual to EnOcean devices, the signal has to be inverted as shown in the picture above.

Eltako,
FSR12-12V DC

Teach in myHomeControl:

The switching actuator block has to be taught as direction switch.

Teach-in:

- set switch actuator block in state OFF by clicking the button on its surface

usage as 2 separate channels

- select position 9 for channel 1 at upper wheel (10 for channel 2)

usage as 1 combined channel

- select position 5 at upper wheel

- turn lower wheel to position 2S
- turn middle wheel to position LRN

To send the teach-in telegram do not use the send button of the properties dialog of the switch actuator block. Use the button on the surface of the block instead. Click the button once for ON.

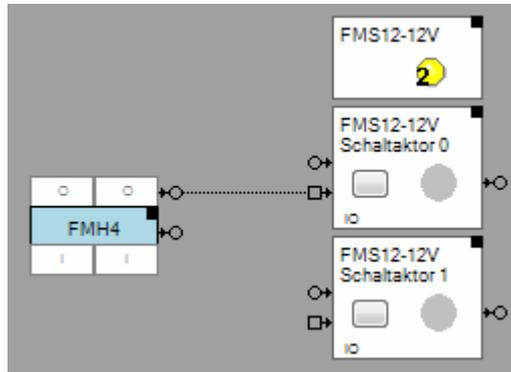
After teach-in:

- middle wheel to position AUTO

In case the actuator works in opposite state, check the Invert checkbox in the properties dialog of the block.

If observer input is used rocker push button has to be linked to the actuator as well:

Directly linked PTM rocker switches to the switch actuator und usage of the [observer input](#):



Attention:

During teach in of a PTM rocker switch to the switch actuator, the actuator stores the first pressed button as an ON command in depended if a O button or an I button has been pressed. If the switch actuator block react in opposite manner to the observer input, insert an inverter block between the PTM rocker switch block and the switch actuator block (as shown for FSR12-12V DC).

Teach-in:

usage as 2 separate channels

- select position 9 for channel 1 at upper wheel (10 for channel 2)

usage as 1 combined channel

- select position 5 at upper wheel

- turn lower wheel to position 2S

- turn middle wheel to position LRN

Now press the lower I-Button of the rocker push button.

After teach-in:

- middle wheel to position AUTO

Additional application samples:

- [Access to Home](#)
- [PTM230 Module](#)
- Constant light control
- Universal controller: Thermokon SRC-ADO BCS

[Handling Blocks](#)

[Properties of Blocks](#)

Physical binding

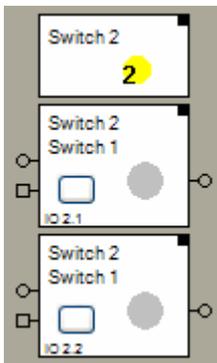
[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

Functional channels

- Cmd.Touch** This binary signal is written by the switch block to the slave. It is ON as long as the operator touches the corresponding visualization element (light symbol).
- Cmd.Turn** This binary signal is written by the switch block to the slave. It becomes ON in case the block tries to turn on. It becomes of in case the block tries to turn off. In case the function channel „Switching State“ is activated, then the block changes, after turning on, temporary to the state „ON“. If the function channel „Switching State“ doesn't follow the state, then the block changes its state back to the original state.
- Switching State** This binary signal is read by the block from the slave. It is used to track the state of the block. This means, if the read signal is set, then the block changes to the state „ON“. If it is reset, then the block changes to state „OFF“.

2 Switch 2

This block represents a double channel switch actuator. It serves as container for two [Single Channel Switch Actuator Blocks](#)(1). Each channel of the double switch actuator behaves like a single channel switch actuator.



- ← Represents the whole device.
- ← Represents the first channel.
- ← Represents the second channel.

The “channel” block can be located individually in the workspace area. It is also possible to use them to individual rooms. The only restriction is that they cannot be deleted individually.

The location(room) of the header element defines the gateway which is used to send out the radio messages to control the physical actuator. Refer to [Floor assignment](#).

Find details about the corresponding visualization element in chapter [Visualization element Switch Actuator 2](#).

4 Switch 4

This block represents a multiple switch actuator with 4 channels.

For details refer to [Switch Actuator 2](#).

Find details about the corresponding visualization element in chapter [Visualization Element Switch Actuator 4](#).

8 Switch 8

This block represents a multiple switch actuator with 8 channels.

For details refer to [Switch Actuator 2](#).

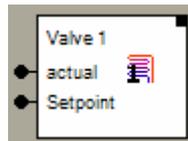
Find details about the corresponding visualization element in chapter [Visualization Element Switch Actuator 8](#).

Valve 1

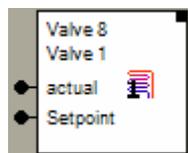
This block represents a single channel heating valve actuator typically used with radiators or floor headings.

This block will also be used to represent a channel of a multiple valve actuator.

Single channel valve actuator



One channel of a multiple channel valve actuator.

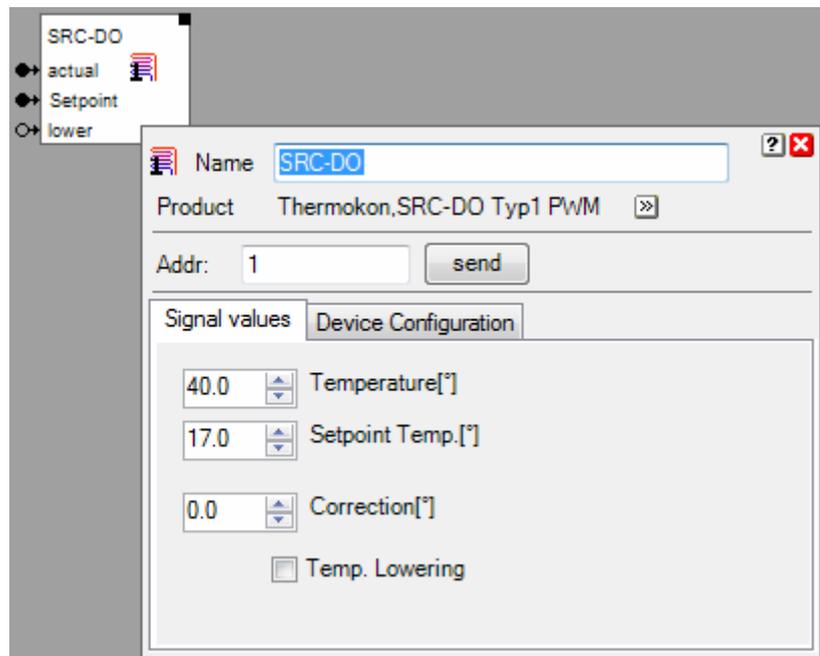


- ← Name of the multiple valve actuator
- ← Name of the channel. This name appears in the visualization.

Function

This block sends radio messages to a physical valve actuator device. This block has to be [teached](#) to a real valve actuator.

- Input for the actual temperature →
- Input for the set point temp. →
- Input for the lowering cmd →



The valve actuator block scales the received temperature values from the network and sends them as radio message to the valve actuator. The temperature control logic is processed by the valve actuator. The valve actuator block sends the calculated values every 30 minutes to the valve actuator to avoid the actuator to enter an alarm condition due to missing radio communication.

Properties dialog

Tab: Signal Values

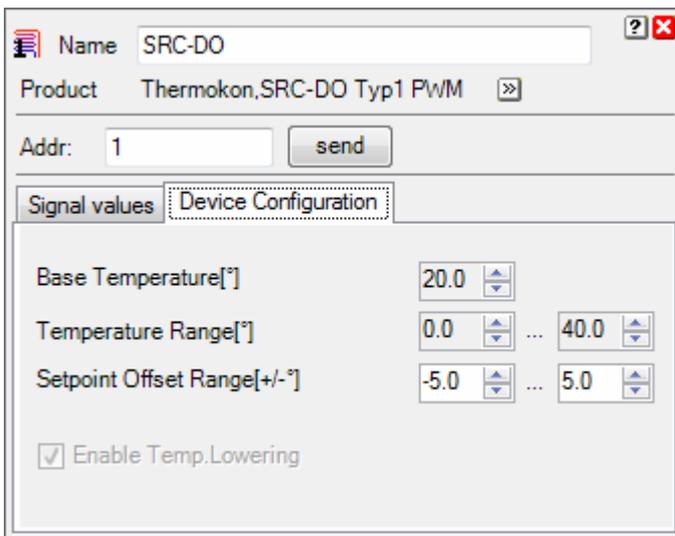
The **Correction** value can be used to adjust the actual temperature value to the set point value in case the controller has an offset error. If the set point value has been set to e.g. 20 degrees and the valve actuator controls the actual temperature to 21 degrees, then set the correction value to -1 degree.

Some valve controllers support a **temperature lowering** feature or a temperature lowering can be configured in the controller. For these types of controllers the valve actuator block provides an additional pin to control the temperature lowering.

ON command means lowering, OFF command means no lowering.

Tab: Device Configuration

Adjust following fields to the configuration values of the valve actuator. Default values are taken from **myHomeControls** product data base.

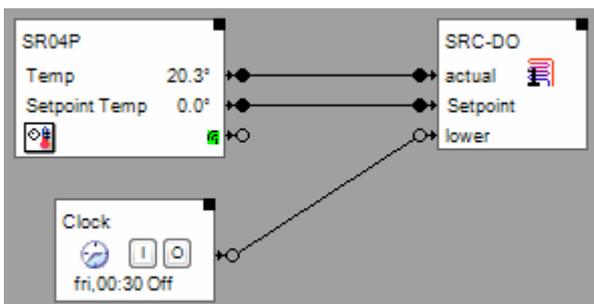


The valve actuators base the temperature control on a **base temperature**. The base temperature is either fix or can be adjusted by the user.

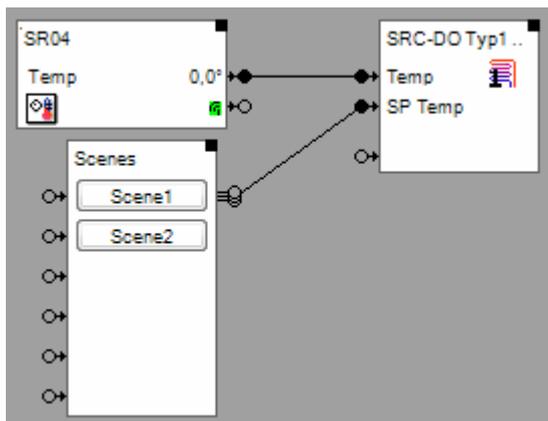
The **range for the temperature** is used by the block to scale the received actual temperature value into appropriate values for the valve actuator.

The various valve actuators interpret the set point value as an offset to the base temperature. Common values for the **set point offset range** are: +/-3°, +/-5°. Adjust these values to the values used by the valve actuator.

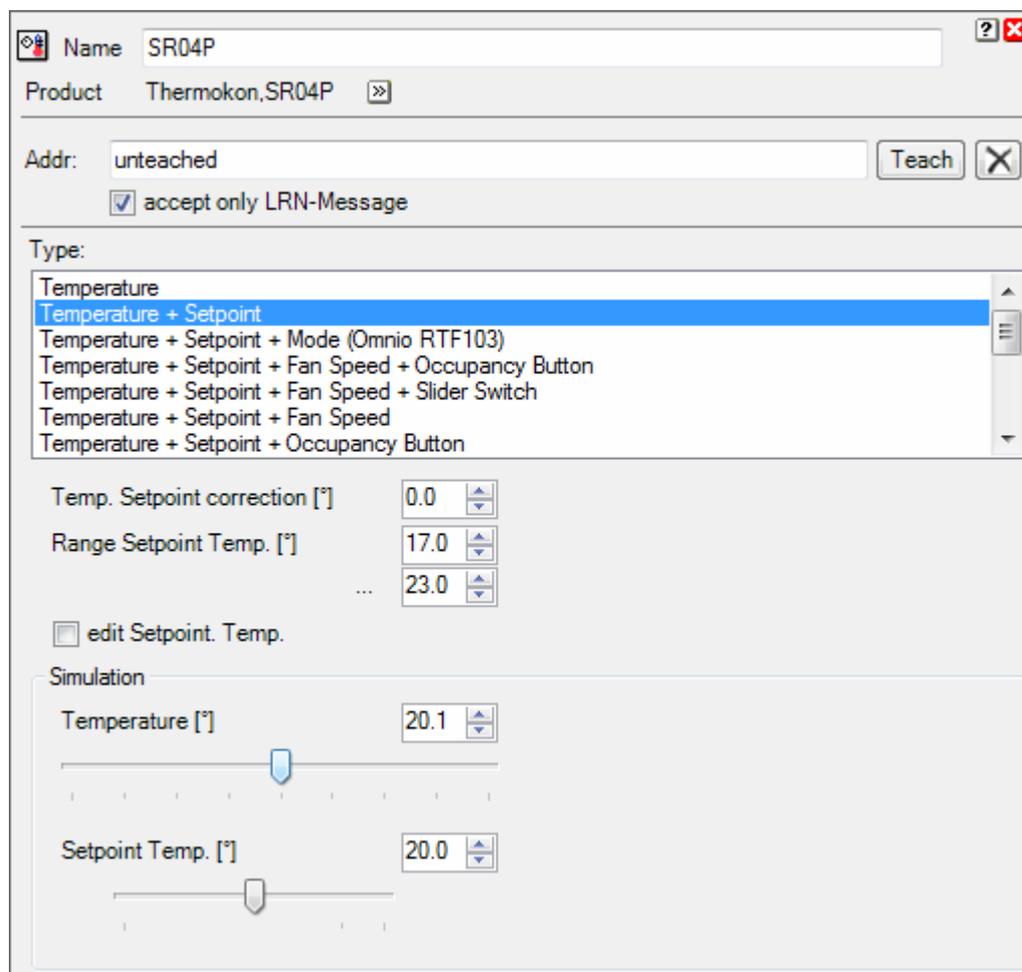
Application sample



The room operating panel has been teached to **myHomeControl** and the valve actuator block has been teached to the physical valve actuator.

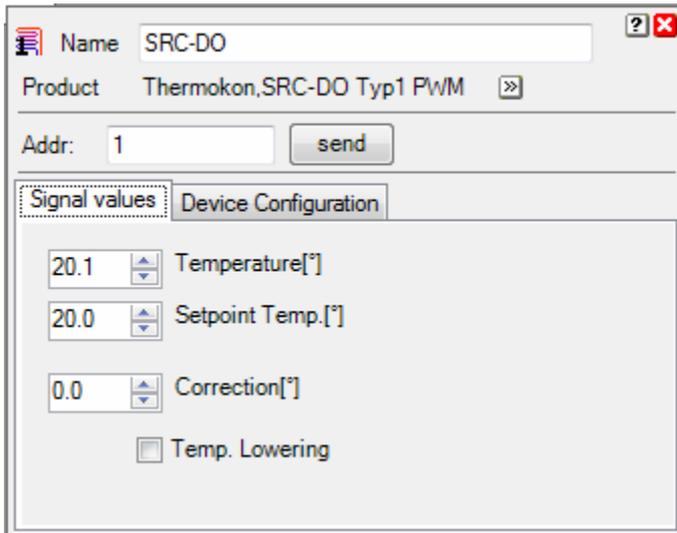


Setpoint temperature is controlled by scenes.



The range for the temperature set point has been selected in a small range of 17° to 23°. This allows smooth set point adjustment with the turning wheel on the room operation panel.

The set point value sent from room temperature sensor block to the valve actuator block is always an absolute temperature value.



The valve actuator block scales the temperature values received from the network into appropriate values for the valve actuator. Especially the absolute set point value is scaled to a relative value based on the base temperature.

Additional application samples:

- Interrupt heating in case a window has been opened
- Proportional Heating Valve from Kieback&Peter
- Universal controller: Thermokon SRC-ADO BCS

Used EnOcean Profiles (EEP)

The EnOcean standard defines a couple of EnOcean Equipment Profiles (EEP) for the radio telegrams. This block uses following EEPs to control the valve actuator/controller:

Manufacturer	Profile (EEP)
Omnio	Dedicated proprietary profiles
Thermokon	EEP 07-10-05 Set Point and Day/Night Control
Kieback&Peter	EEP 07-20-01 Heating Valve

Supported Devices

[Appendix B](#) gives an overview about the supported devices.

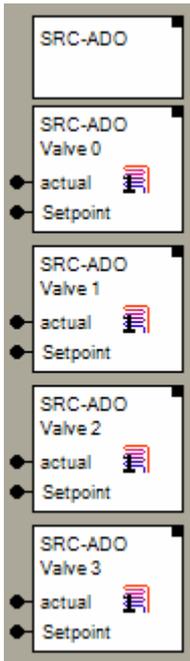
[Handling Blocks](#)

[Properties of Blocks](#)

Valve 4

This block represents a 4 channel valve actuator.

It serves as a container for 8 [single channel- valve actuator blocks](#) (). Each channel of the 4 valve actuator acts like a single channel valve actuator.



← Represents the whole device.

← Represents the first channel.

← Represents the second channel.

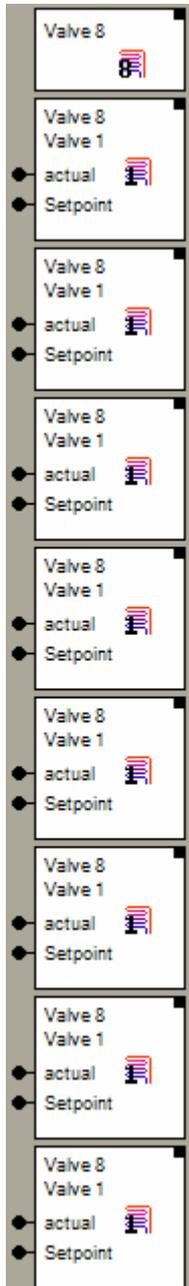
The “channel” block can be located individually in the workspace area. It is also possible to use them to individual rooms. The only restriction is that they cannot be deleted individually.

The location(room) of the header element defines the gateway which is used to send out the radio messages to control the physical actuator. Refer to [Floor assignment](#).

Valve 8

This block represents a 8 channel valve actuator e.g. of type (e.g. REGT24/01).

It serves as a container for 8 [single channel- valve actuator blocks](#) (). Each channel of the 8 valve actuator acts like a single channel valve actuator.



← Represents the whole device.

← Represents the first channel.

← Represents the second channel.

The “channel” block can be located individually in the workspace area. It is also possible to use them to individual rooms. The only restriction is that they cannot be deleted individually.

White color dimmer

This block can be obtained from Functions / Advanced.

This block is intended to be used in combination with two dimmer actuator blocks. Where the two colors of the LED are connected to the dimmactuators.



Function

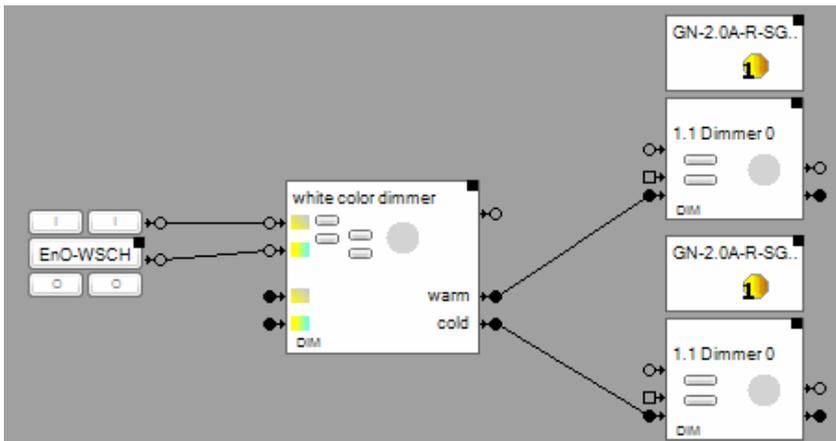
The block is a color mixer for white color LEDs.

The command inputs operate according to the touch dimm principle. The upper input controls the brightness, the lower one the color.

The % inputs can be used to control the brightness/color directly by an analog signal.

The status output sends ON or OFF commands according to the state of the block.

The % outputs are to be connected to the dimmer actuator blocks as shown below.



Configuration

If the **Switch Mode** checkbox is activated, then the dimmer can only be turned on and off via the command inputs (no dimming). This might be useful in case of constant light control.

If a value is given to the automatic off, then the dimmer turns off automatically after the specified period in time.

Minimal brightness when turning on defines the minimal brightness value which is sent to the physical dimmer device in case light is turned on.

The **ramp** defines the period in time to reach the given set points.

Hint:

If a ramp has been configured the block is going to send new setpoints to its outputs periodically. To get smooth, continuous change in brightness/color of the bulb ramps should be configured to the dimmer actuator blocks as well (5 seconds).

Dimm value curve refer to chapter [Dimm value curve](#)

Syntax of the scene values as they can be set within the properties dialog of the [scene block](#):

- «50 / 30» Brightness / Color
Dimming actuator will be switched **on** and will be dimmed to the corresponding %-brightness and color, in case the corresponding scene has been selected.
Color: 0% means cold color, 100% means warm color.

- «0/10» Dimming actuator will be switched **off**, in case the corresponding scene has been selected.
Brightness = 0%

- «-» The state of the dimming actuator will not be changed, in case the corresponding scene has been selected.

- «P1»,
«P2»,
«P3» Retrieves the values of the preset buttons in the floor plan dialog of the dimmer.

- «#» Recreates the brightness value which was available before the call of the last scene.

Find details about the corresponding visualization element in chapter [Visualization Element White color dimmer](#).

[Handling Blocks](#)

[Properties of Blocks](#)

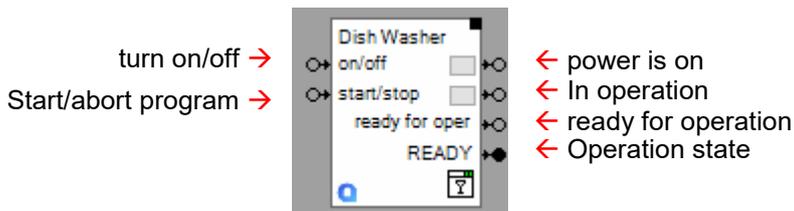
Appliances

Dish Washer

This block represents a dishwasher.

This block requires either the license option [@home bus](#) or [Home Connect](#).

This block can be obtained from Home Connect.



Function

This block is used to turn on/off the dishwasher and to start/abort a program.

Powered indicates that the device is turned on and a program is selected.

In operation indicates that the device is processing its function.

Ready for operation indicates that the program can be started

Operation states

Value		Description
0	INACTIVE	Turned off
1	STANDBY	Turned on but no program selected
2	READY	Turned on and a program is selected (ready to be started)
3	DELAYED_START	Started, but action is delayed
4	RUN	In operation
5	PAUSE	Paused
6	ACTION_REQUIRED	Manual action is required
7	FINISHED	Program terminated
8	ERROR	Failure
9	ABORTING	Program is aborting

Buttons

The upper button turns the device on or off. The lower button starts or aborts the selected program.

Properties

Select the physical device.

Find details about the corresponding visualization element in chapter [Visualization Element Dishwasher](#).

Application sample:

[Handling Blocks](#)

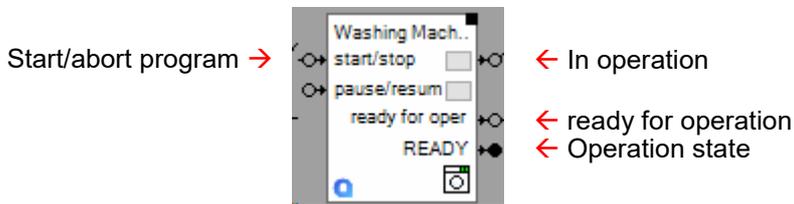
[Properties of Blocks](#)

Washing Machine

This block represents a washing machine.

This block requires either the license option [@home bus](#) or [Home Connect](#).

This block can be obtained from Home Connect.



Function

This block is used to start/abort a program of a washing machine.

Powered indicates that the device is turned on and a program is selected.

In operation indicates that the device is processing its function.

Ready for operation indicates that the program can be started

Operation states

Value		Description
0	INACTIVE	Turned off
1	STANDBY	Turned on but no program selected
2	READY	Turned on and a program is selected (ready to be started)
3	DELAYED_START	Started, but action is delayed
4	RUN	In operation
5	PAUSE	Paused
6	ACTION_REQUIRED	Manual action is required
7	FINISHED	Program terminated
8	ERROR	Failure
9	ABORTING	Program is aborting

Buttons

The button starts or aborts the selected program.

Properties

Select the physical device.

Find details about the corresponding visualization element in chapter [Visualization Element Washing Machine](#).

Application sample:

[Handling Blocks](#)

[Properties of Blocks](#)

Tumble Dryer

This block represents a tumble dryer.

This block requires either the license option [@home bus](#) or [Home Connect](#).
 This block can be obtained from Home Connect.



Function

This block is used to start/abort a program of a tumble dryer.

Powered indicates that the device is turned on and a program is selected.

In operation indicates that the device is processing its function.

Ready for operation indicates that the program can be started

Operation states

Value		Description
0	INACTIVE	Turned off
1	STANDBY	Turned on but no program selected
2	READY	Turned on and a program is selected (ready to be started)
3	DELAYED_START	Started, but action is delayed
4	RUN	In operation
5	PAUSE	Paused
6	ACTION_REQUIRED	Manual action is required
7	FINISHED	Program terminated
8	ERROR	Failure
9	ABORTING	Program is aborting

Buttons

The button starts or aborts the selected program.

Properties

Select the physical device.

Find details about the corresponding visualization element in chapter [Visualization Element Tumble Dryer](#).

Application sample:

[Handling Blocks](#)

[Properties of Blocks](#)

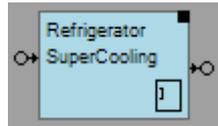
Refrigerator

This block represents a refrigerator.

This block requires either the license option [@home bus](#) or [Home Connect](#).

This block can be obtained from Home Connect.

Start/stop super cooling →



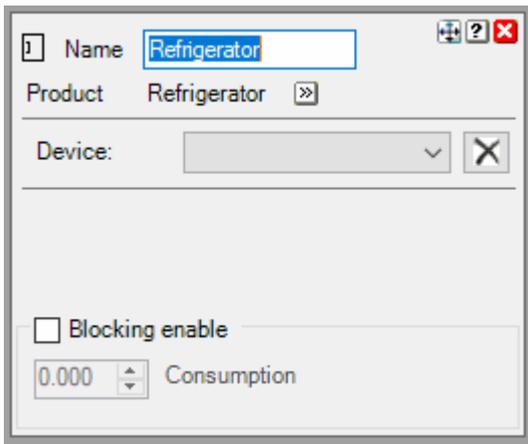
← super cooling in operation

Function

This block is used to start/abort a program of a refrigerator.

In operation indicates that the device is processing its function.

Properties



Select the physical device.

Find details about the corresponding visualization element in chapter [Visualization Element Refrigerator](#).

Application sample:

[Handling Blocks](#)

[Properties of Blocks](#)

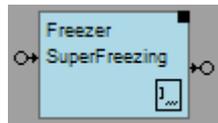
Freezer

This block represents a freezer

This block requires either the license option [@home bus](#) or [Home Connect](#).

This block can be obtained from Home Connect.

Start/stop super freezing →



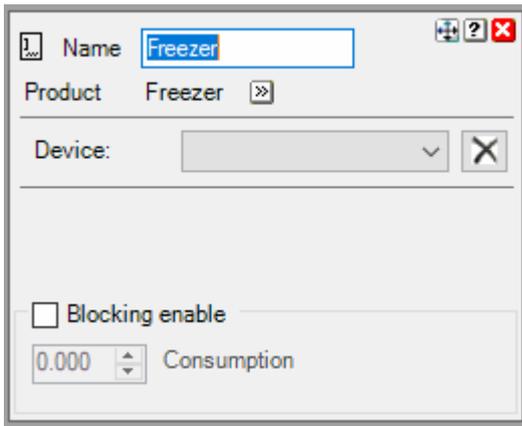
← super freezing in operation

Function

This block is used to start/abort a program of a freezer

In operation indicates that the device is processing its function.

Properties



Select the physical device.

Find details about the corresponding visualization element in chapter [Visualization Element Freezer](#)

Application sample:

[Handling Blocks](#)

[Properties of Blocks](#)

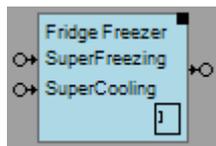
Fridge Freezer

This block represents a fridge freezer

This block requires either the license option [@home bus](#) or [Home Connect](#).

This block can be obtained from Home Connect.

Start/stop super cooling →



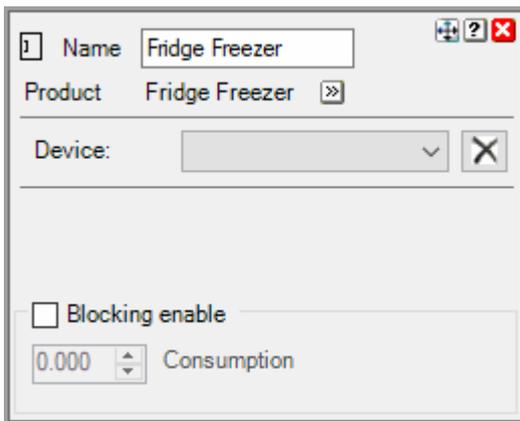
← super cooling or super freezing in operation

Function

This block is used to start/abort a program of a fridge freezer

In operation indicates that the device is processing its function.

Properties



Select the physical device.

Find details about the corresponding visualization element in chapter [Visualization Element Fridge Freezer](#)

Application sample:

[Handling Blocks](#)

[Properties of Blocks](#)

Energy management

This chapter introduces various blocks related to energy and energy management.

Some of the blocks represent physical devices others represent logical functions.

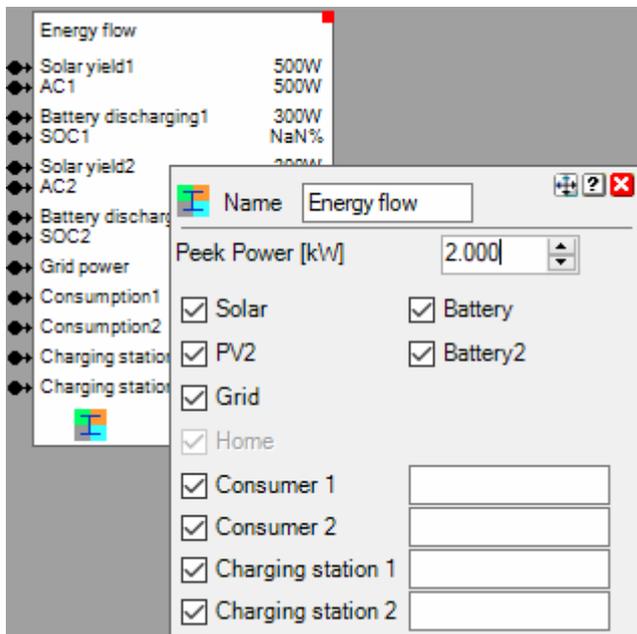
The energy management functions handle the topics:

- Solar power
- Battery charging (positiv value), Battery discharging (negativ value)
 - From Grid (positiv value), to Grid (negativ value)
- Ownconsumption

Energy Flow

This block can be obtained from Functions / Energy Management.

Purpose of this block is the visualization of the energy flows in the building.



Properties

Peek Power: defines the scaling of the arrows representing the energy flows.

Use the checkboxes to show/hide the various branches in the visualization element. There is the opportunity to name charging stations and additional consumers. The names are shown in the corresponding branch of the visualization element.

Find details about the corresponding visualization element in chapter [Visualization Element Energy Flow](#).

Additional application samples:

- Energy Management

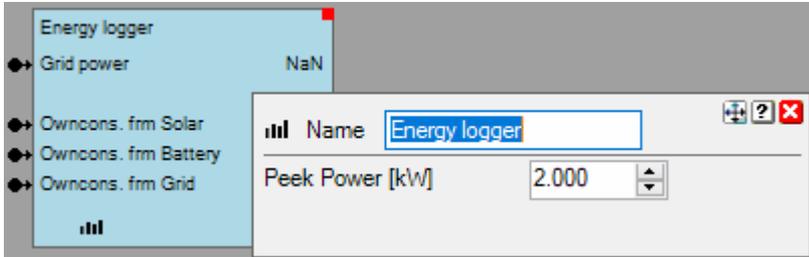
[Handling Blocks](#)

[Properties of Blocks](#)

Energy Logger

This block can be obtained from Functions / Energy Management.

Purpose of this block is the visualization of the use the various energies in the building (solar power, battery power, grid power).



Properties

Peak Power: defines the scaling of the visualization element.

Not connected input pins will be ignored and will not be shown by the visualization element.

Find details about the corresponding visualization element in chapter [Visualization Element Energy Logger](#).

Additional application samples:

- Energy Management

[Handling Blocks](#)

[Properties of Blocks](#)

Energy Manager

This block can be obtained from Functions / Energy Management.

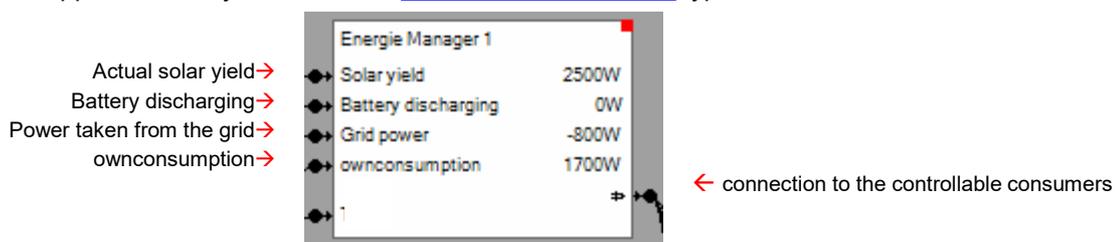
This block is used for self-consumption optimization. It can be used to control various consumers depending on the yield of the PV system.

Consumers suitable for this function are consumers with a significant energy requirement, which must be switched on for a definable time each day in order to fulfill their task. Examples for this are:

Hot water treatment, heat pump, swimming pool heating, pond pump, etc.

The aim of the function is to use the energy generated by the PV system in the best possible way and to minimize energy consumption from the grid.

The block is supplemented by blocks of the [Controllable Consumer](#) type.

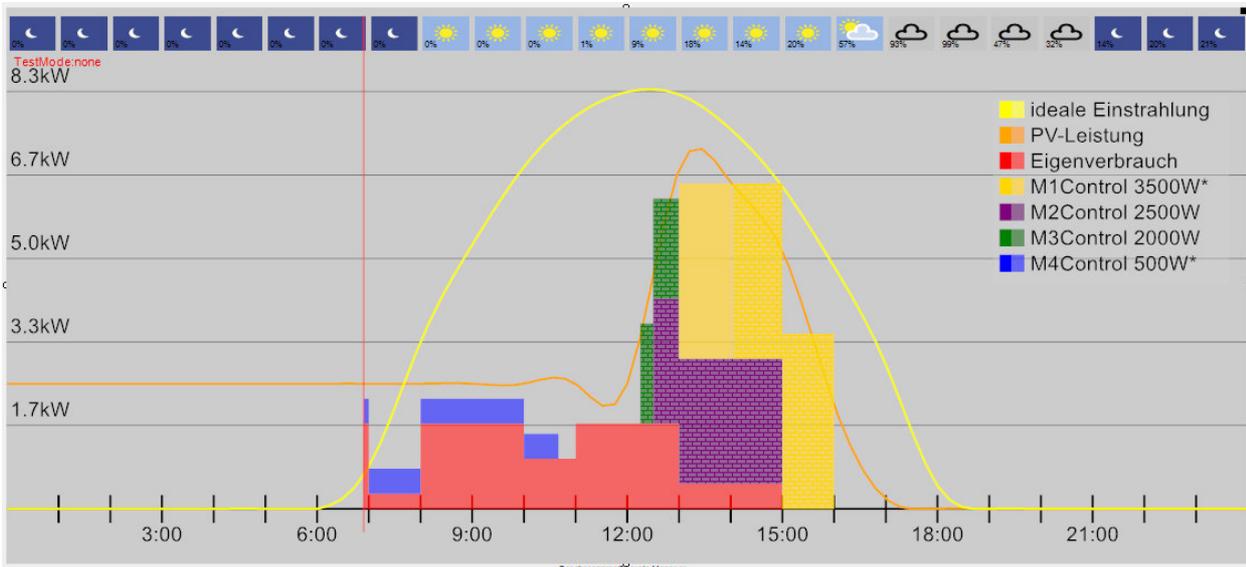


Function

Depending on the location and date, the possible irradiation on the surface of the PV system is calculated. Depending on the weather forecast and empirical values, the potential yield of the PV system is estimated.

The estimate of the PV yield is corrected based on the measured variables: PV yield, battery discharge capacity, grid capacity and self-consumption.

For the "[controllable consumers](#)" linked to the energy management block, a plan is constantly drawn up as to when which consumer should ideally be switched on. The setting of each "controllable consumer" is taken into account here.



Input signals

Typically, these pins are linked to the corresponding output pins of a PV inverter block.

PV yield: Power currently provided by the PV system.

Battery discharge power: + discharged, - charged:

This signal is currently not taken into account by the energy management

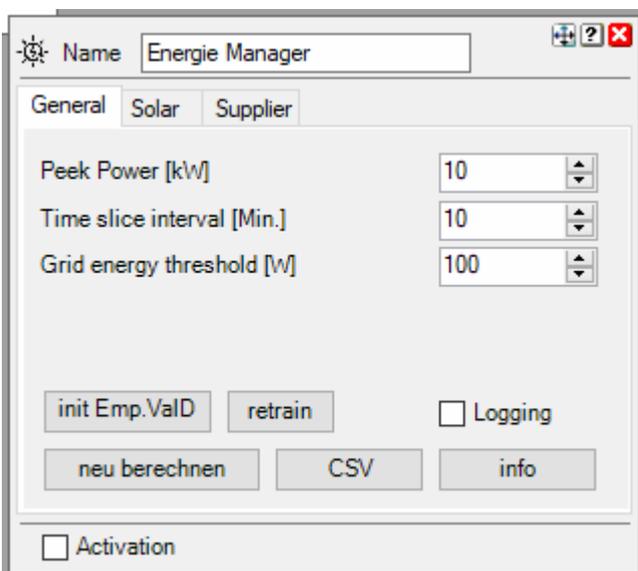
Grid/Mains power: +reference, -feedback:

If the purchased electricity exceeds the "Purchased electricity" threshold, the corresponding controllable loads are switched off. This function prevents excessive mains consumption.

Own consumption:

total consumption of the house. Internally, the energy manager block subtracts the connected controllable consumers from the self-consumption.

Settings



Tab: General

Peek Power:

Maximum output power of the PV system according to the data sheet.

Time slice interval:

Interval in which the plan for the connected consumers is revised.

Threshold mains consumption:

Maximum grid reference. If this value is exceeded, consumers are turned off.

Tab: Solar

Irradiation factor:

Correction factor for the irradiation

Max. overshoot of the PV curve:

Maximum exceeding of the PV yield curve. If the energy manager is allowed to exceed the PV yield curve, the utilization of the PV yield can be improved. However, this measure can lead to power consumption from the grid.

Tab: Supplier (Tariff)

The supplier defines the tariff system. The energy manager takes the tariffs into account in the periods when there is no PV yield.

Supplier:

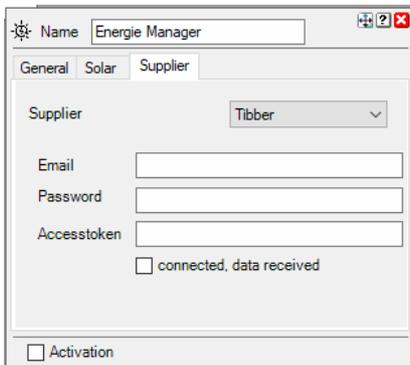
Select supplier. Allows myHomeControl to call up tariff information.

---: unknown supplier

A two-tariff system (high and low tariff) can be activated and the switching times for high and low tariff can be set.

Tibber:

Tibber's hourly rates are queried. An account with Tibber is required:



Obtaining an access token is described at the following URL. See section Authentication/Authorization:

<https://developer.tibber.com/docs/guides/calling-api>

Application example



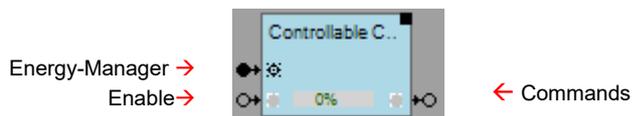
Find details about the corresponding visualization element in chapter [Visualization Element Energy Manager](#).

[Handling Blocks](#)
[Properties of Blocks](#)

Controllable Consumer

This block can be obtained from Functions / Energy Management.

This block is used to optimize self-consumption and is to be used in combination with an [Energy Manager](#) block.



Function

One of these blocks must be inserted into the project for each consumer to be controlled.

The first input pin is linked to the [energy manager](#).

The second input pin is used to enable the consumer. The consumer is only turned on, when the block is enabled.

The output pin switches the load (typically a switching actuator).

The bar graph on the block shows the progress of the execution in percentage.

Settings

Name	Controllable Consumer	
power request [W]	1000	
Period [Min.]	60	
Priority	5	
earliest starting time	0	0
done till	23	59
execution mode	interruptible	
minimal uninterrupted runtime [Min.]	10	
minimum interruption time [Min.]	10	

Power request:

Power consumption of the consumer according to the rating plate, data sheet or measurement.

Periode:

Periode in time that the consumer must stay turned on during a day so that it can carry out its task. For example, a water heating must be turned on for at least 2 hours so that it can heat up all the water.

The duration can also be interrupted if necessary, see "Execution mode".

Priority:

Priority controls, among other things, the order in which loads are turned on.

Earliest time to start:

Earliest time at which the consumer is turned on.

Executed until:

Point in time up to which the consumer was turned on for the duration "Duration".

Execution mode:

Defines whether the consumer may be turned off in the meantime or must run through in one go.

Minimum uninterrupted runtime:

This configuration parameter is only available if the execution mode "interruptible" has been selected. It defines how long the consumer must be turned on at least.

Minimum interruption duration:

This configuration parameter is only available if the execution mode "interruptible" has been selected. It defines how long the consumer must be turned off in the event of an interruption.

Additional application samples:

- Energy Management

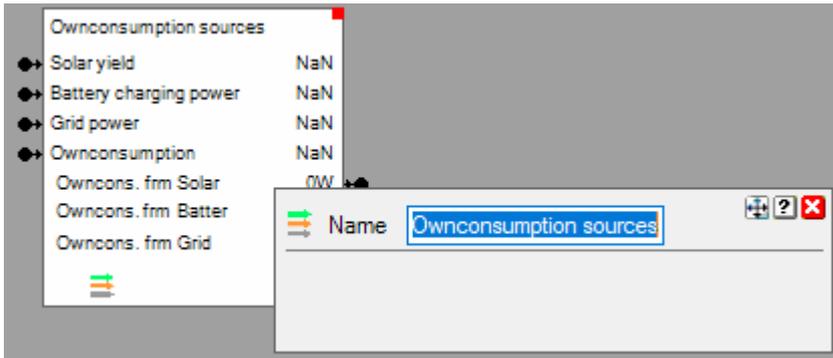
[Handling Blocks](#)

[Properties of Blocks](#)

Ownconsumption sources

This block can be obtained from Functions / Energy Management.

This block calculates how the self-consumption is divided among the various energy sources.



Not connected input pins will be ignored and will not be shown by the visualization element.

Additional application samples:

- Energy Management

[Handling Blocks](#)

[Properties of Blocks](#)

PIKO Inverter

This block can be obtained from **Special / Kostal**.

This block is used to read the process signals of a converter of type Kostal PIKO-XX.

For Details refer to [PIKO Storage](#)

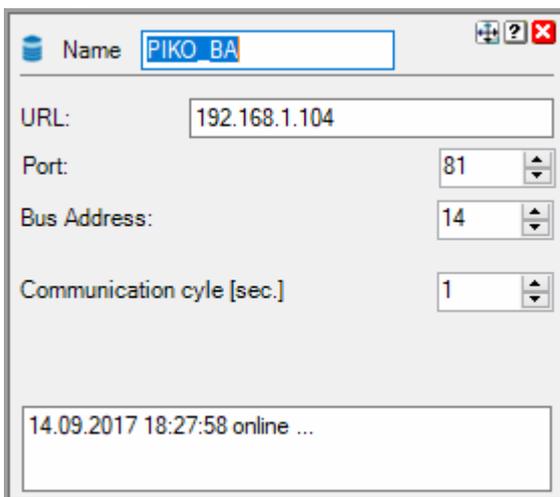
PIKO Storage

This block can be obtained from **Special / Kostal**.

This block is used to read the process signals of a converter of type Kostal PIKO BA.

Refer to the PIKO BA LAN manual for details concerning the signal meanings.

Configuration



URL: URL or IP address of the converter
Refer to menu on the converter: "Converter/Communication/Networksettings2/IP

Port: default is 81. Port must be adapted in case connection to the converter is done via DynDNS.

Bus Address: Refer to menu on the converter: “Converter/Communication/RS485 settings/RS485 address”. Value range is: 1..255

Communication cycle:

The Communication cycle parameter defines the interval the signals get read from the converter.

Peek Power: Maximum power. This setting defines the scaling of the various graphics.

Supported Devices:

PIKO BA, PIKO 6 BA, PIKO 8 BA, PIKO 10 BA

PIKO 3.0, PIKO 4.2, PIKO 4.6, PIKO 45.5, PIKO 7.0, PIKO 8.5, PIKO 10, PIKO 12, PIKO 15, PIKO 17, PIKO 20, PIKO 36 EPC

Check software versions. Communication requires software releases greater equal 5.

The software version can be checked on the display of the converter. See menu

Converter symbol / settings / device info / sw / hw version

In case software version is less then 5, update converter software via the portal.

Photovoltaic Inverter

Refer to [Kostal PLENTICORE](#).

Kostal PLENTICORE

This block can be found in Register **Modbus / Photovoltaic Inverter / Kostal**.

This block is used to read out signals from a Kostal Plenticore device.

This block requires the license option [ModbusTCP](#).

Function

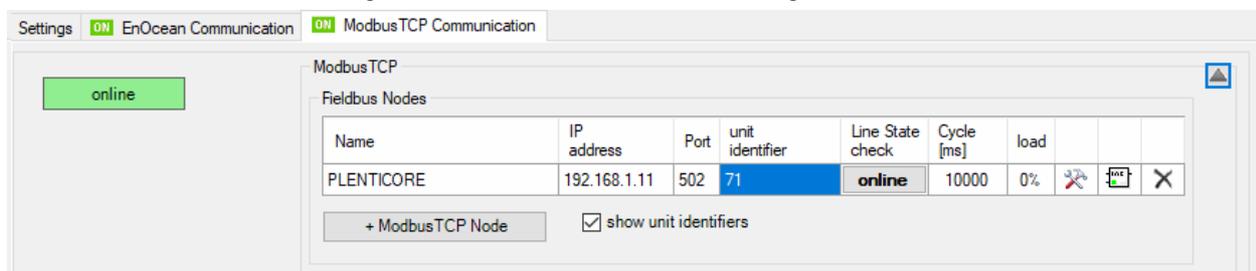
This block reads multiple signals from the inverter and makes them available within the network of myHomeControl.

In der folgenden Tabelle meint „Haus“ die Verbraucher im Haus.

Signal	Unit	Meaning
Operation mode		Off = 0, Init = 1, IsoMeas = 2, GridCheck = 3, StartUp = 4, FeedIn = 6, Throttled = 7, ExtSwitchOff = 8, Update = 9, Standby = 10, GridSync = 11, GridPreCheck = 12, GridSwitchOff = 13,
PV_P	W	Total power produced by the panels
Bat_P	W	Power flow to/from battery: + discharge, - charge
DC_P_tot	W	Inverter power (DC)
AC_P_tot	W	Inverter power (AC)
Grid_P	W	Grid power: +energy purchase, -energy recovery
Home_PV	W	Power consumed by home (PV part)
Home_Bat	W	Power consumed by home (battery part)
Home_Grid	W	Power consumed by home (grid part)
Bat_SOC	%	State of charge
Bat_Cycles		Performed loading cycles of battery

Configuration

As ModbusTCP is used for the communication with the PLENTICORE device, a TCP-Node "PLENTICORE" must be configured within the ModbusTCP-Settings.



Set IP-Adresse of PLENTICORE device. Default unit identifier is 71.

Select the ModbusTCP-Node „PLENTICORE“ with the settings of the block.

The screenshot shows a configuration window for a ModbusTCP node. The window has a title bar with a blue icon, a question mark, and a close button. The main content area is divided into several sections:

- Name:** A text input field containing "PLENTICORE".
- Product:** A dropdown menu showing "Kostal,PLENTICORE" with a right-pointing arrow.
- Modbus Slave:** A dropdown menu showing "MB TCP\PLENTICORE" with a downward arrow and a refresh icon.
- Peek Power [kW]:** A numeric input field with a spinner, set to "11".
- Enable logging:** An unchecked checkbox.
- cyclic logging:** An unchecked checkbox.
- Interval [sec.]:** A numeric input field with a spinner, set to "60.0".
- Duration of recording per file:** A time input field with a spinner, set to "1 00:00". The format is indicated as "[DD HH:MM]".

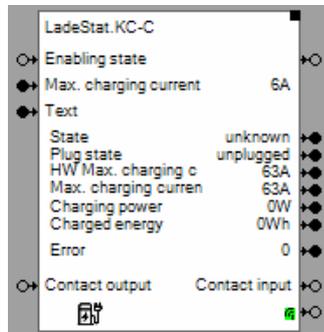
Peek Power: Maximum power. This setting defines the scaling of the various graphics.

Check software versions. Communication requires software releases greater equal 1.3.

Charging station

This block can be obtained from Functions / Energy Management.

This block represents a car charging station within the software.



Inputs

Enabling state: The off command sets the charging power to zero. The charging station stops charging.

Max. charging current: Controls the charging current in Amps.

Text: Controls the text shown on the display of the charging station. Refer to the settings of the block.

Contact output: Controls the switching output of the charging station.

Outputs

Enabling state:

State:

Unknown	-1	Unknown state
Starting	0	Charging station is starting up
Ready	1	Station is ready to charge
Charging	2	Charging in progress
Error	3	Error
Interrupted	4	Charging has been interrupted or terminated

Plug state:

unplugged	0	Not plugged
pluggedOnStation	1	Cable is plugged to the charging station
pluggedOnStationLocked	3	Cable is plugged to the charging station and locked
pluggedOnStationAndEV	5	Cable is plugged on both sides
pluggedOnStationAndEVLocked	7	Cable is plugged an locked on both sides. Ready to charge.

HW Max charging current: Maximal current the charging station is able to feed [A]

Max charging current: Maximal current enabled [A]

Charging power: charging power [W]

Charged Energy: Amount of energy already charged [Wh].

Error: Failure code according the documentation of the charging station.

Contact input: State of switching input of the charging station.

Properties

IP Address: IP address of the charging station

Texts: List of texts to be shown on the display of the charging station. The input pin «Text» of the block selects the text to be shown. Value (Index) 0 corresponds to the first text of the table.

Find details about the corresponding visualization element in chapter [Visualization Element Charging Station](#).

Additional application samples:

- Energy Management

[Handling Blocks](#)

[Properties of Blocks](#)

 **Excess Energy Charging**

This block can be obtained from Functions / Energy Management.

This block is used to control a car charging station within the software.

Max. demand form grid →	●→ Grid power	NaN	
Permitted max. power from grid (opt.) →	●→ Max. demand from the grid	NaN	
Min. charging power of charging station (opt.) →	●→ HW min. charging P	1000W	
Max. charging power of charging station(opt.) →	●→ HW max. charging P	1000W	
Selection of mobile (1/2) →	●→ Selected Car	1	
Already charged energy (opt.) →	●→ Charged energy	30000Wh	
	Max. charging power	NaN	← Max. charging power
ON = operation mode OFF (opt.) →	○→ Off	0	← Operation mode
ON = operation mode AUTO (opt.) →	○→ On Time Charging		
ON = operation mode ECO (opt.) →	○→ Excess Energy Charging		
ON = operation mode FAST (opt.) →	○→ Fast Charging		

Function

This function is used to control charging of e-mobiles. There is the opportunity to configure the function with the battery capacities for to individual mobiles. The selected operation mode defines how the vehicle is going to be charged (ECO, FAST, AUTO).

Grid power

Positive values mean that energy is drawn from the grid. Negative values mean mains feedback. The function only starts a charging process in ECO mode when there is mains feedback.

The excess charging function now regulates the charging power in such a way that the grid power levels off at 0 or the energy originally fed back into the grid has leveled off as charging energy.

Operation Modes

- **Off**
No charging takes place.
- **Fast** / fast charging mode
The charging process is carried out at full power. Charging power is reduced in case the permitted max. demand from the grid is exceeded.
- **Eco** / Excess energy charging
Only excess energy from PV is used to perform the charging. This operation mode avoids power consumption form the grid.

- **Auto** / Vehicle is charged till a given point in time.
 The vehicle is going to be fully charged until a given point in time.
 Initially, only the excess PV energy is used to charge the vehicle (Eco). However, if it is foreseeable that the charging process cannot be completed with the excess PV energy by the specified time, additional energy is drawn from the grid in order to charge the vehicle by the desired time (Fast).

Parameter:

- End time when the vehicle must be charged.
- Charging target: kWh

Charged energy

In the Auto operating mode, the function tries to determine the appropriate time to switch from excess to fast charging. To do this, it calculates the theoretical charging power for fast charging and uses the difference to the charging target and the amount of energy already charged to determine the point in time for the switchover.

The function automatically adds up the amount of energy already charged, if this value is not fed in via the input pin.

Settings

Max. demand from the grid The function regulates the charging current so that no more energy is drawn from the grid than specified here.

If the corresponding input pin is connected, the input value applies and the input field is grayed out. Otherwise a value can be configured.

Min. charging power of the station The function regulates the charging current so that it does not fall below this value.

If the corresponding input pin is connected, the input value applies and the input field is grayed out. Otherwise a value can be configured.

Max. charging power of the station The function regulates the charging current so that it does not raise above this value.

If the corresponding input pin is connected, the input value applies and the input field is grayed out. Otherwise a value can be configured.

Charging targets can be specified for 2 different vehicles. The charging target is used to calculate the point in time to switch from excess charging to fast charging in automatic mode.

End of charging determines, in automatic mode, at what time of day the charging process should be completed.

Control tolerance determines how finely the charging current should be regulated. Small values can lead to oscillations.

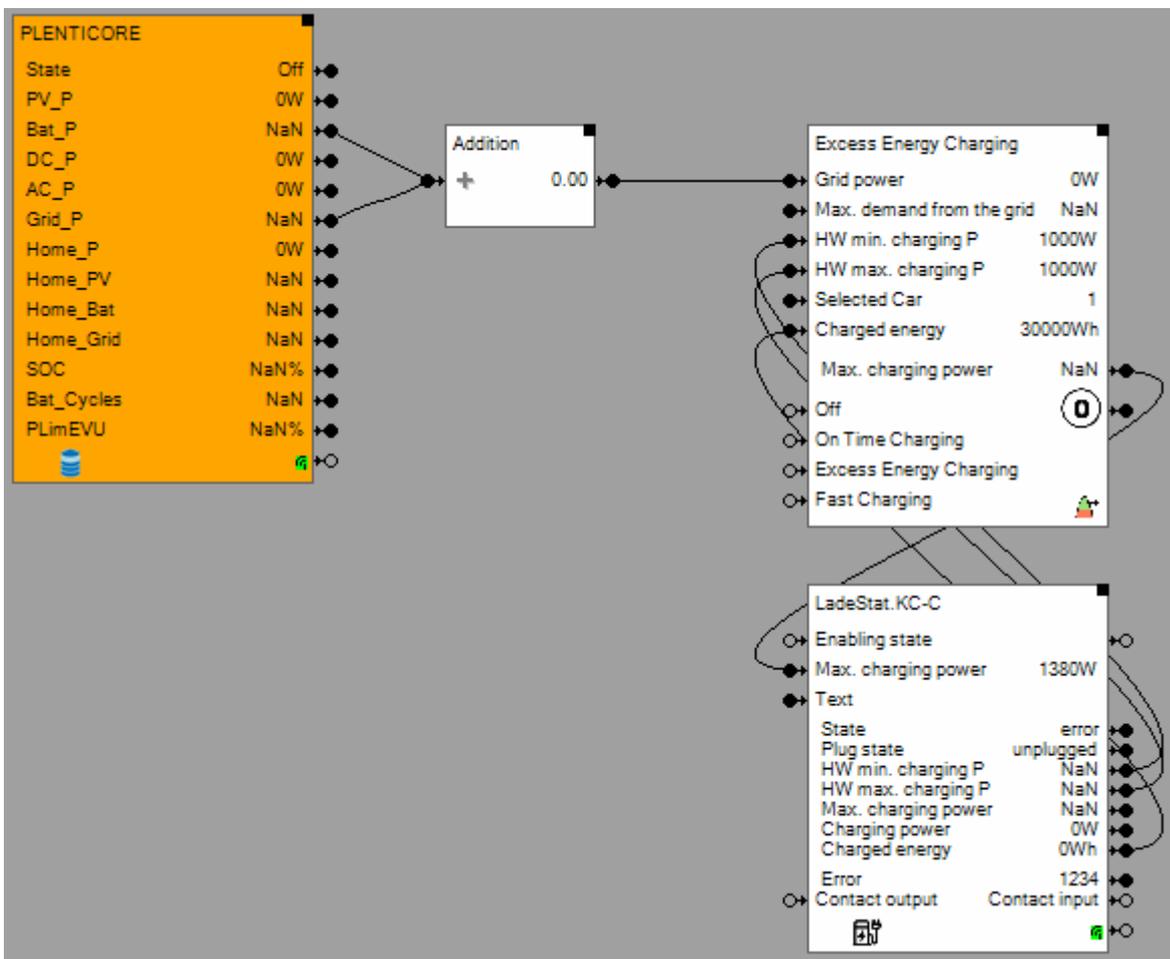
Dynamic of control determines the dynamics of the control process. Values that are too high can lead to oscillations.

Find details about the corresponding visualization element in chapter [Visualization Element Excess Energy Charging](#).

Application sample:

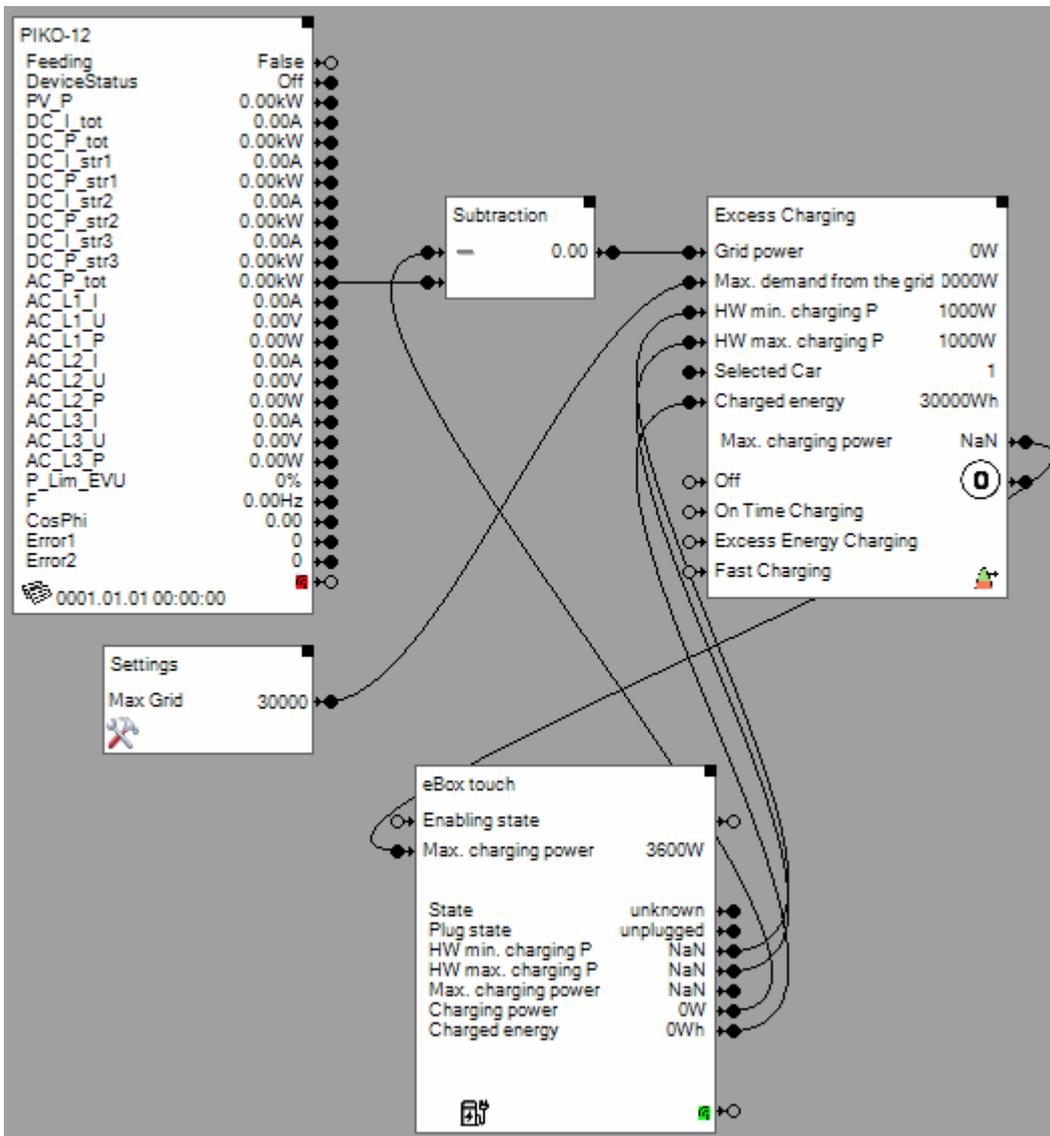
With power storage

To prevent that the vehicle is charged from the storage system, the energy flow from the battery must also be taken into account. Discharge from the battery is a positive signal, which leads to a reduction in the charging current in the circuit below.



Without Power Storage Device, without measurement signals from the power meter

In case measurement signals of the power meter are not available, the signal “AC_P_tot” can be used to simulate the connection point of the house to the grid. The subtract-block inverses “AC_P_tot”. The feedback of the charging power closes the control loop.

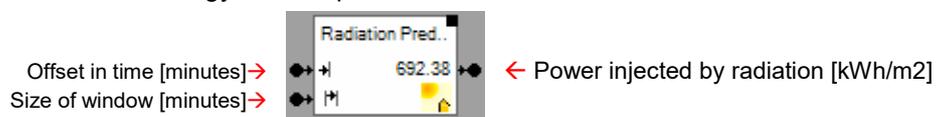


[Handling Blocks](#)
[Properties of Blocks](#)

Radiation Prediction Window

This block can be obtained from Functions / Energy Management.

This block estimates the radiation energy to be expected within a time window.

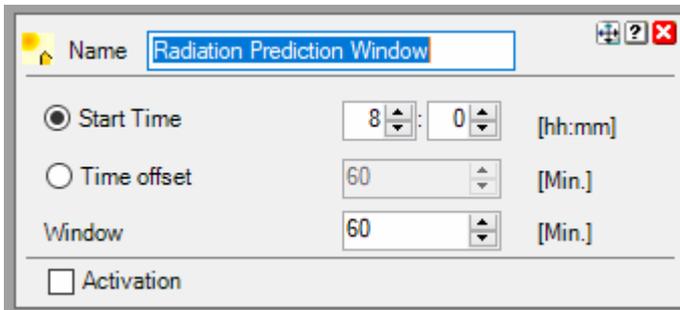


Function

Depending on the location and date, the possible radiation energy that hits the building during the given time window is calculated. The calculation is based on the values from the European Photovoltaic Information System re.jrc.ec.europa.eu and the forecast values from World Weather online. The value is recalculated every minute.

The time window can be placed either at a fixed start time or continuously with a lead time.

Properties



Start Time defines the absolute point in time where the calculation starts today.

Time offset defines the offset in time relative to the actual time where the calculation starts today.

Window defines the size of the calculation window.

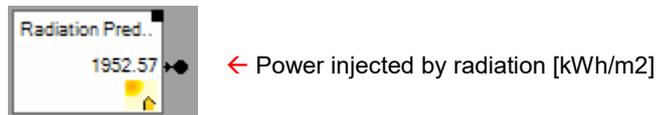
[Handling Blocks](#)

[Properties of Blocks](#)

 Radiation Prediction Day

This block can be obtained from Functions / Energy Management.

This block estimates the radiation energy to be expected within a time window.



Function

Depending on the location and date, the possible radiation energy that hits the building during the selected day is calculated. The calculation is based on the values from the European Photovoltaic Information System re.jrc.ec.europa.eu and the forecast values from World Weather online. The value is updated every hour based on the current weather data.

In case Time offset is 0 (Today), the radiation energy to be expected from the current time to midnight is calculated.

[Handling Blocks](#)

[Properties of Blocks](#)

Logic

The logic blocks do not represent physical devices. They only exist in **myHomeControl**. They process convenience functions.

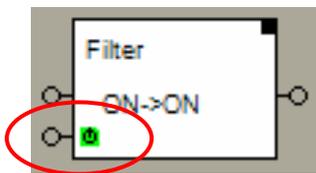
The logic blocks might be inserted between sensor- and actuator blocks or be cascaded by them self.

Activation

Most of the logic blocks provide an optional activation feature. The activation feature can be enabled within the properties dialog of the blocks.



If the activation feature has been enabled, then the block shows an additional pin to control the activation status of the block.



The activation input pin indicates the enabled activation feature and the status of the activation:

- Block is **activated**
- Block is **deactivated**

Function:

A logic block can be activated or deactivated. A deactivated block doesn't send any commands or signals to its successor block(s). Internally the block evaluates its state independent if it is activated or not. The block stores the last command sent in case it is activated, or would have sent in case it is deactivated. It stores this command as **last event**.

The properties dialog contains following controls in case the block supports the activation feature:

Enables the activation feature:

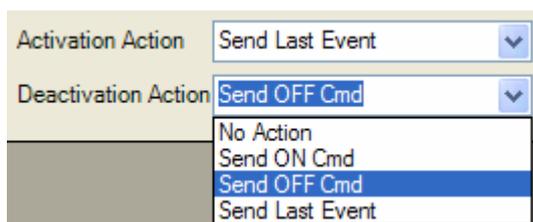
Indicates the state of the activation:

By clicking the activation state might be changed. This will also force the selected activation/deactivation behavior (e.g. sending last event).



The button "last event" shows the stored last command the block has send or would have sent if it would be activated at the time the event appeared. A click on the button changes the type of command.

There are different behaviors selectable, which will be triggered in case of the activation or the deactivation of the block:



No Action:

no command will be forwarded to the successor block(s) in case of activation/deactivation.

- Send ON Cmd:** an ON command will be sent to the successor blocks in case of activation/deactivation.
- Send OFF Cmd:** an OFF command will be sent to the successor blocks in case of activation/deactivation.
- Send Last Event:** in case of activation/deactivation the block sends the stored last command to the successor blocks. This is the command the block should send if it would have been activated at the time of the event.

Additional application samples:

- Access to home

Abs. Humidity

This block can be obtained from Functions / Arithmetic.

This function calculates the absolute humidity based on the temperature and the relative humidity.

This function is useful to build control logic for ventilation system. Often the outside absolute humidity is compared with the inside absolute humidity and a fan is controlled accordingly.

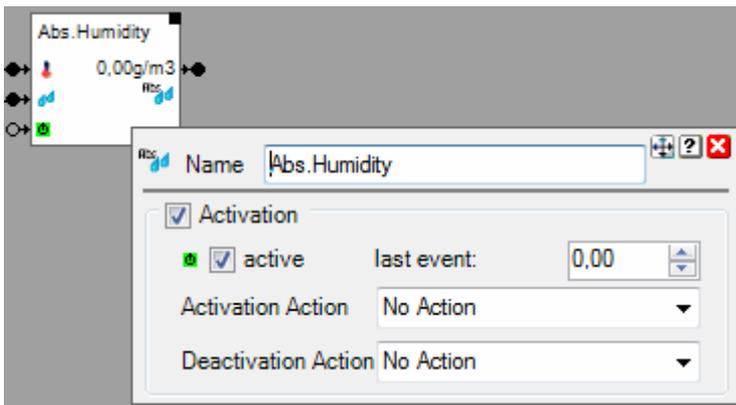
Formula

SaturationPressure = $6.1078 * \text{Math.Pow}(10, ((7.5 * \text{Temperature}) / (273.3 + \text{Temperature})))$;

VaporPressure = $\text{RelHumidity} / 100 * \text{SaturationPressure}$

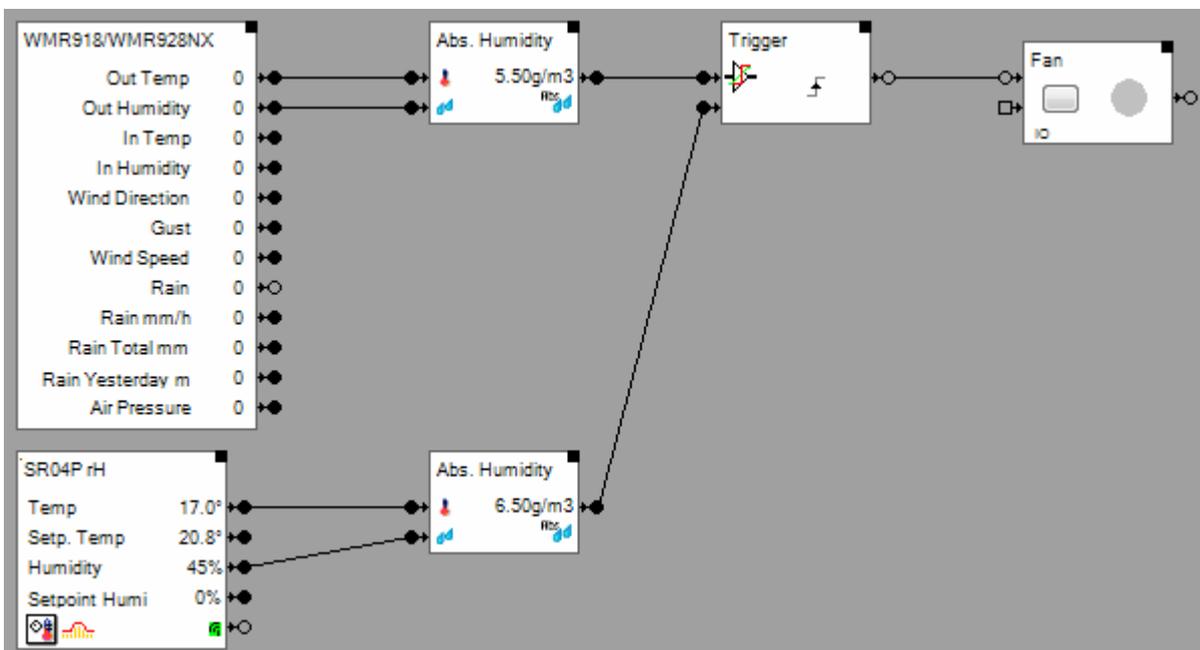
Output = $216.687 * \text{VaporPressure} / (273.15 + \text{Temperature})$; in g/m3

Properties



This block supports the [Activation Feature](#).

Application sample



Additional application samples:

[Handling Blocks](#)

[Properties of Blocks](#)

 **Absence**

This block can be obtained from Functions / Advanced.

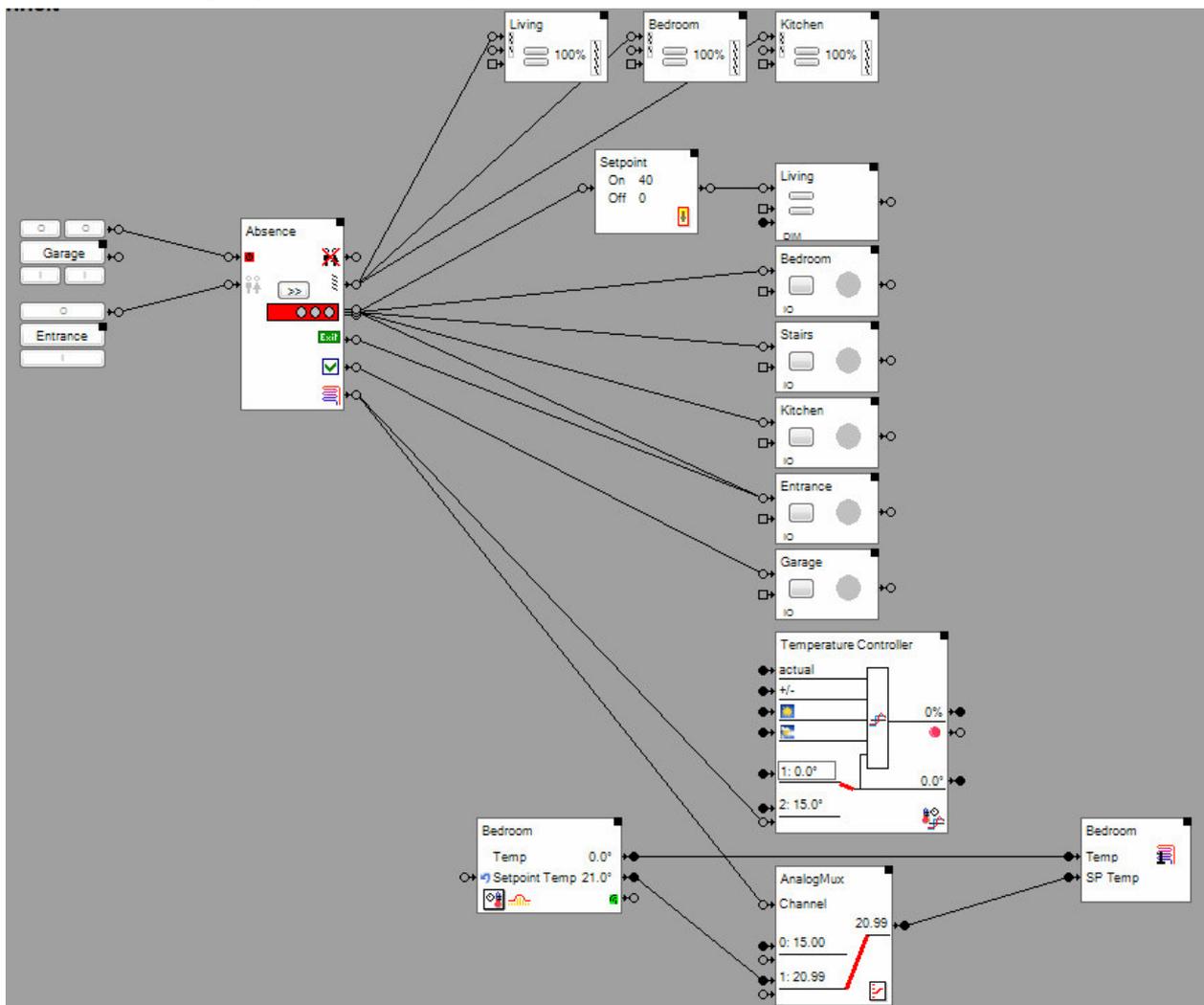
This block manages all functions during absence. These functions are:

- Check-in, checkout of the users
- Presence simulation
is done by switching on lights of the house randomly. The lights get illuminated in different rooms at different times.
- Activation of security and monitoring functions
- Temperature control my means of changing temperature set points during absence

Application sample

If the last user leaves the building, it has to check out. This will be done at the PTM radio button in the garage in the example below. This button activates the absence function.

When the absence function is activated, then all lights connected to the presence simulation output pin  are going to be turned off by the block.



Presence simulation:

The block calculates for each day the time of sunrise and sunset. The light will earliest be switched on after it is dark outside. Additionally a sleep phase might be specified. During the sleep phase no lights will be turned on.

At sunset the block sends a command via the output pin  to lower the blinds. It shall not be visible, if somebody is in the room, where the lights will be switched on or not. A few minutes after lowering the blinds the presence simulation block will start illuminating lights in different rooms. It starts in a randomly chosen room and will activate the lights for a time range of 5-20 minutes. Then the block moves further to the next randomly chosen room and activates the lights there. After a time range of 10-60 seconds it switches off the lights in the first room. The block continues like this illuminating the lights in all attached rooms.

In case the time of sunset is later then the start of the sleep phase, the jalousies will be lowered at the time of start of sleep phase. In case the time of sunrise is before the end of the sleep phase, the jalousies will be raised at the end of the sleep phase.

Close rolling shutters in room with lights simulation to 85%:

Rolling shutters get closed only 85% in rooms where light simulation takes place. Therefore the light simulation can be seen from the outside. The Absence-block retrieves the information to decide how to close the Blinds/rolling shutters according to the setting "Tilt time" of the jalousie block and the simulation lights connected to the -output.

Exit-lights:

If the absence function is activated from the screen during darkness, then the block turns on all lights connected to the "Exit lights"- output pin for about 15 minutes. This gives the user the opportunity to securely leave the building. If the absence function is activated via the activation input (e.g. physical button) no "Exit lights" will be turned on.

Temperature control:

The temperature control requires the parameter "Heating hours before return".

If the users enters a return date at check out, and the time period until return is longer then twice the "Heating hours before return", then the temperature set points are going to be changed. The temperature set points will be switched back to there normal values one period "Heating hours before return" before the date of return given by the user at checkout.

The AnalogMux blocks switches the temperature set point for the heating or cooling between the value received from the room temperature sensors and a constant value of e.g. 5 degrees Celsius. This is controlled by the absence function.

Security functions and logic

If the presence simulation block get activated it sends an ON-command through the absence pin . This command might be used to activate security and monitoring functions as well as dedicated logic. If the block gets deactivated it sends an OFF-command thru this pin.

When the user returns it checks in. This can be done either at the PTM radio button in the garage or at any of the PTM radio buttons "entrance door" or "corridor".

Function



Activation. The ON-command activates the presence simulation block. This informs the system that all inhabitants of the building are absent.

An OFF-command deactivates the block. This informs the system that somebody is present in the building.

If the absence function is activated via this pin, then it delay first actions for about 15 seconds. This gives the user the opportunity to deactivate the function in case of a miss operation before the absence function processes the first operations e.g. lowering all blinds.



Presence. Any command (ON or OFF) deactivates the block. Immediately after the activation of the presence simulation this pin will be locked for about 30 minutes. This avoids unexpected deactivation of the simulation during the house will be left. In case the presence simulation has to be deactivated during the 30 minutes use the Activation input .



Absence. Whenever the block will be activated it sends an ON-command through this pin and vice versa an OFF-command when it gets deactivated.



Control output for the jalousies. In the evening the illuminations will start 5 minutes after the jalousies have been lowered. In the morning the illuminations will stop 5 minutes before the jalousies will be raised.



Sequence output. Through this pin the illumination command for the lights will be sent. This pin has a special behavior. The command is only forwarded to one of the connected successor blocks.



Acknowledgment. If it is requested to have an acknowledgement indication if the presence simulation has been activated, then connect a switch actuator to this output pin, e.g. the light in the garage. When the block gets activated or deactivated it toggles the connected light for half of a second.



Exit lights. This pin can be connected e.g. to the floor lights or the lights of the stairs. If the absence function is activated during the evening or night hours, then the block turns on all lights connected to this output pin for about 15 Minutes.



Command output for the temperature set point switching. If the user has entered a date of return and there is a time gap between now and the day before the estimated return, then the temperature set points will be changed. This pins sends out an OFF-Command in case the temperature set points shall be changed and an ON-command in case they should be switched back to normal conditions. It is thought to use this pin in combination with [Temperature Controller-blocks](#) and [AnalogMux-blocks](#).

Properties

The screenshot shows the 'Absence' block properties dialog. The 'Name' field is set to 'Absence'. The settings are as follows:

Starts in the Evening	20:37
Sleep Phase from	23:30
Sleep Phase to	06:00
Ends in the Morning	07:16
Heating hours before return	12
Absent till	26.05.2011

Simulation options:

- Activate Simulation Mode

Activation options:

- Activation
- active last event: ???
- Activation Action: No Action
- Deactivation Action: Send OFF Cmd

Starts in the evening shows the calculated time to start the presence simulation in the evening. From this time on the lights will be illuminated. The start time is calculated automatically about 40 minutes after sunset.

Sleep Phase from defines the time where the sleep phase begins. During this phase the lights will not be illuminated. This simulates that the inhabitants are sleeping.

Sleep Phase to defines the time where the sleep phase ends. From this time on the presence simulation block starts to illuminate lights again.

Ends in the morning shows the calculated time the simulation ends. The lights will be switched off and the jalousies will be raised. This time is calculated about 40 minutes before sunrise.

The **Heating hours before return** define the required heating period to raise the temperature in the controlled rooms from the lower temperature (during absence) to the normal temperature conditions.

The input field **Absent till** might be used to enter a date for the return for test purposes. Usually this input will be done on the [control dialog of the absence function with in the presentation view](#).

Activate Simulation Mode

This feature is for testing purposes.

If simulation mode has been activated, then the block will ignore the actual time of day and simulates operation during the night hours.

The simulation mode only takes place if the block has been activated by means of the inhabitants have checked out.

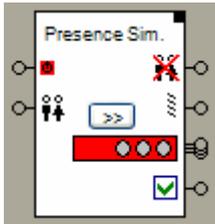
If simulation mode is activated during daylight hours, then the block will lower the blinds and start the light simulation.

If simulation mode is deactivated during daylight hours, then the block will lift the blinds and turn of all lights used for the light simulation.

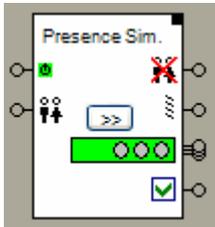
Buttons

Click the >>button to force a change of lights. This might simplify [Testing](#) of the network.

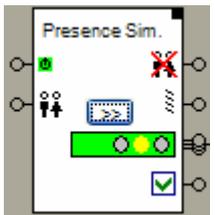
State indication



The presence simulation is deactivated and will not generate any commands.



The presence simulation is activated, but the simulation doesn't generate any commands because the actual time is not during the night hours.



The presence simulation is active and generates commands for the connected jalousies and lights.

Find details about the corresponding visualization element in chapter [Visualization Element Presence Simulation](#).

Additional application samples:

- Interrupt heating in case a window has been opened
- Create and play an text message (audio)

[Handling Blocks](#)

[Properties of Blocks](#)

|x| Absolute

This block can be obtained from Functions / Arithmetic.

This function calculates the absolute value.

Formula

Output = absolute value of the input signal changed last.

This block supports the [Activation Feature](#) .

[Handling Blocks](#)

[Properties of Blocks](#)

+ Addition

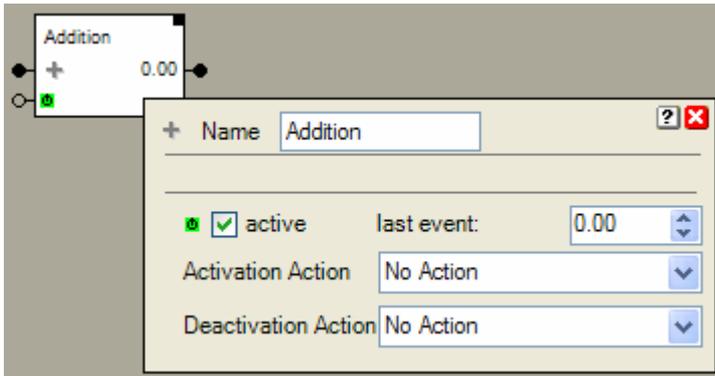
This block can be obtained from Functions / Arithmetic.

This function summarizes the values of all connected signals.

Formula

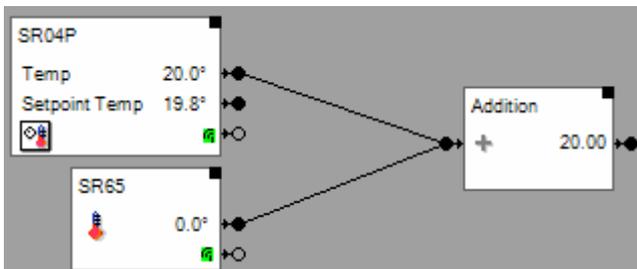
Output = sum of the signal values of all signals connected to the input pin

Properties



This block supports the [Activation Feature](#) .

Application sample



Additional application samples:

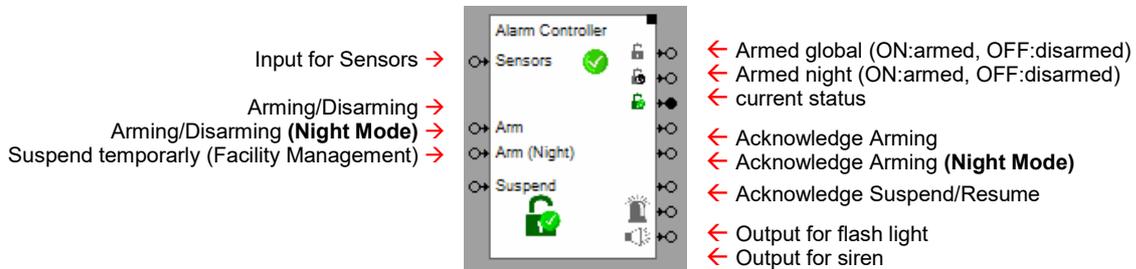
[Handling Blocks](#)

[Properties of Blocks](#)

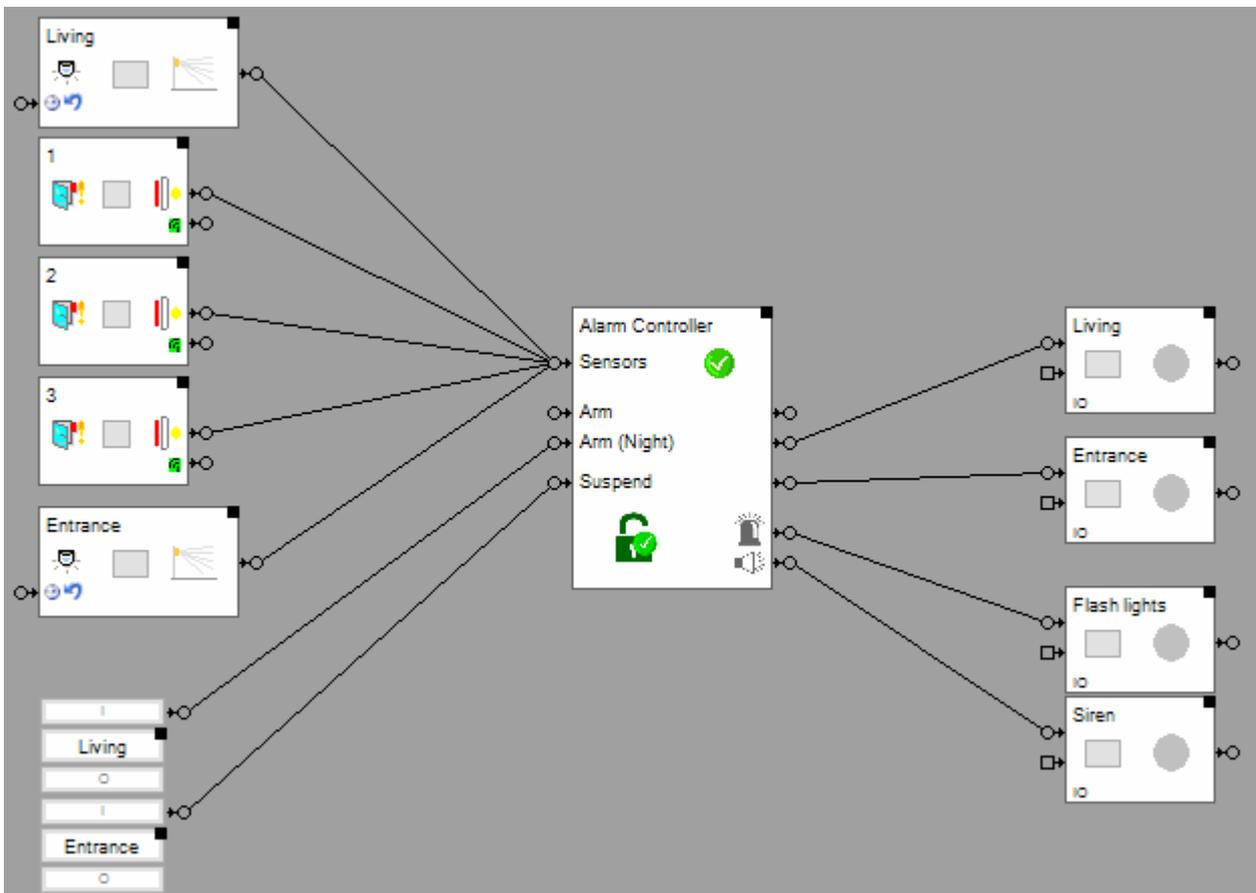
Alarm Controller

This block can be obtained from Functions / Monitoring.

This function acts as an alarm central. It evaluates the state of various sensors e.g. window contacts, window handles, motion sensors, etc.



Application sample:



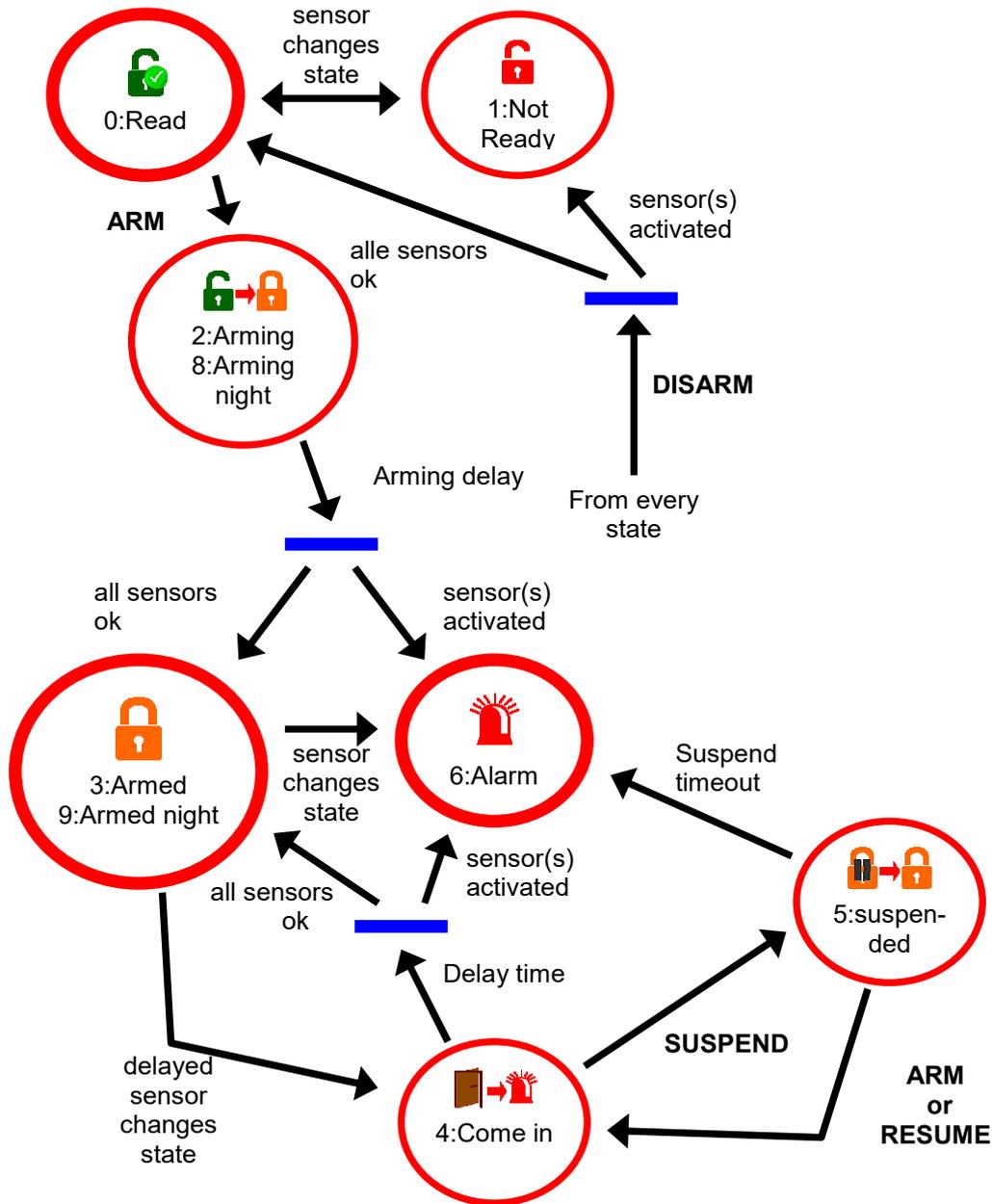
Sensors: connect all sensors to this pin.

Arm: an ON command arms the alarm central in case all sensors are in the expected state. The alarm central acknowledges arming with a pulse on the arming output. The operation mode of the central changes temporarily to an intermediate state, where sensors aren't evaluated. After a period of time it automatically proceeds to the operation mode "Armed". This behaviour enables the user to leave the building after the alarm central has been armed. An OFF command disarms the alarm central.

Arm (Night): Similar to Arm but activates night mode. In night mode only sensors of the outer shell are monitored. Configure the behaviour of the various sensors in the configuration dialog of the block.

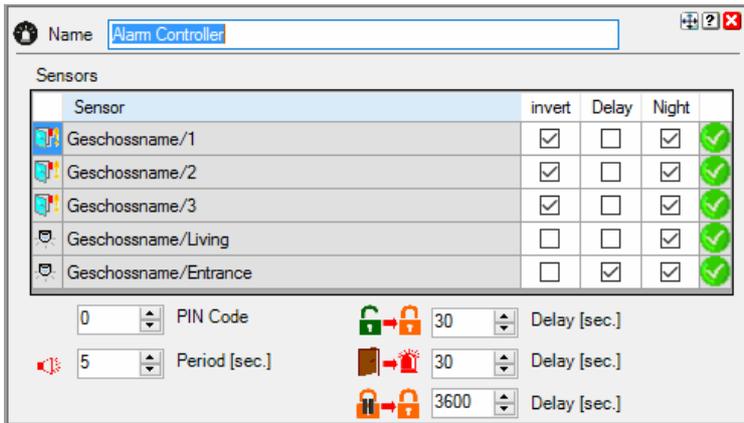
Suspend: an ON command suspends monitoring of the sensors. The alarm central changes the operation mode to "Suspended". This operation mode is used e.g. by facility management staff. If a person opens the entrance door it triggers a delayed sensor. Then he/she operates the suspend-button before the delay time of the sensor expires. Now the monitoring is suspended until either the monitoring is resumed by the resume-button or after a delay time (suspend timeout). Suspend and Resume are acknowledged by a puls on the suspend acknowledge output of the block.

Operation modes (states):



The code for the operating status is output via the "current status" pin.

Settings:



Sensors

configure the behaviour of the connected sensors:

invert: defines the default state

Delay: delay reaction on events of this sensor (come in – situation)

Night: monitored in night mode.

PIN Code

If the PIN code is set to a value larger than 0, then the PIN code must be entered when the alarm central is armed or disarmed. The system only asks for the PIN code if arming/disarming is done on the screen. In case of arming/disarming via rocker push buttons, no PIN code is required. The security aspects have to be handled by a click pattern for the push button.

Disarming via network without requesting the PIN

If this box is checked, then the alarm controller gets disarmed by an OFF command on the input-pin “Arm” without requesting the PIN code.



Arming delay delays the change to the armed operation mode. This delay enables the user to leave the building before the sensors are monitored.



Delay time of sensors this delay time is used for all sensors connected to the input pins marked with ->. This feature enables the user to either disarm the alarm central or to activate the suspended operation mode.



Suspend timeout defines the maximal duration of the operation mode „Suspended“. If the timeout periode expires, then the alarm central gets automatically rearmed.



Puls duration for the siren.

Syntax of the scene values as they can be set within the properties dialog of the [scene block](#):

- «0» Disarms the alarm controller.
- «0;nnnn» Disarms the alarm controller using the PIN (nnnn = PIN)
- «1» Arms the alarm controller
- «1;nnnn» Arms the alarm controller using the PIN (nnnn = PIN)
- «-» The state will not be changed.
- «#» Recreates the brightness value which was available before the call of the last scene.

Find details about the corresponding visualization element in chapter [Visualization Element Alarm Controller](#).

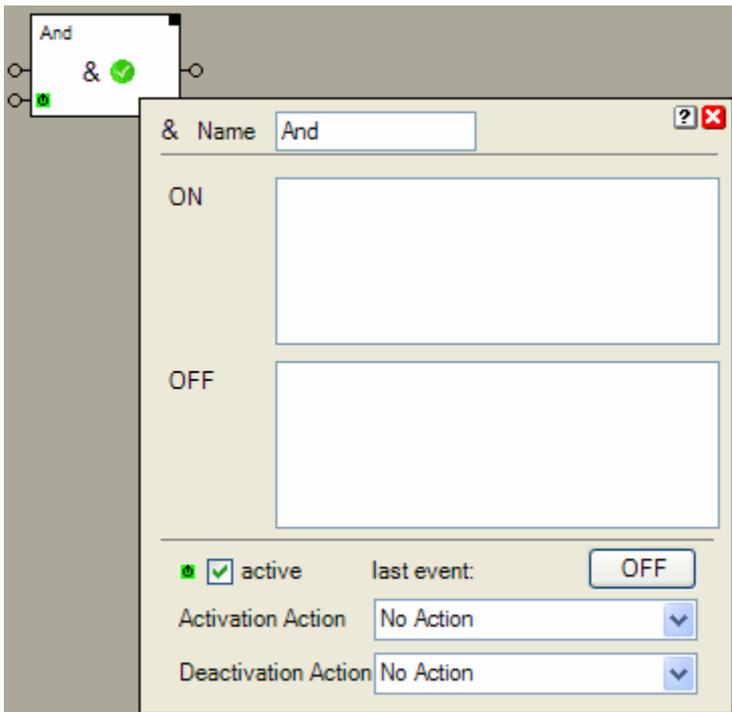
[Handling Blocks](#)

[Properties of Blocks](#)

& And

This block can be obtained from Functions / Logic.

The And-Block sends an ON-Command in case it receives an ON-Command from all its predecessor blocks.



Function

The And block checks the And-Condition. It changes between two states:

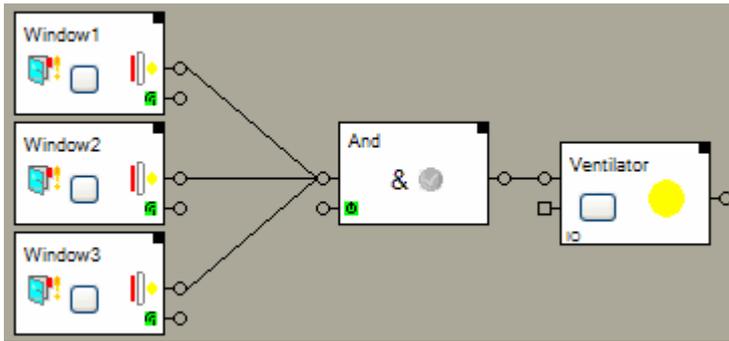
- “And-Condition fulfilled”
The block received from all predeceasing blocks an ON command as last command.
- “And-Condition not fulfilled”
The block received at least from one predecessor block an OFF command as last command.

If the And block changes its state to “And-Condition fulfilled”, then it sends an ON command to its successor blocks. If it changes to the state “And-Condition not fulfilled”, then it sends an OFF command to its successor blocks.

The And block supports the [Activation Feature](#) .

Application sample

The ventilator is only running if all windows are closed.

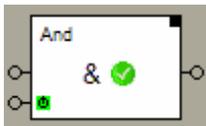


Properties

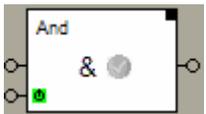
The properties dialog shows the state of the commands received from the predecessor blocks.

State indication

The toggle block knows the states ON and OFF. If changes its state with each processed command. On each state change it sends a corresponding command to the successor blocks.



The And condition is fulfilled. The block sent out an ON command.



The And condition is not fulfilled. The block sent out an OFF command.

Additional application samples:

-

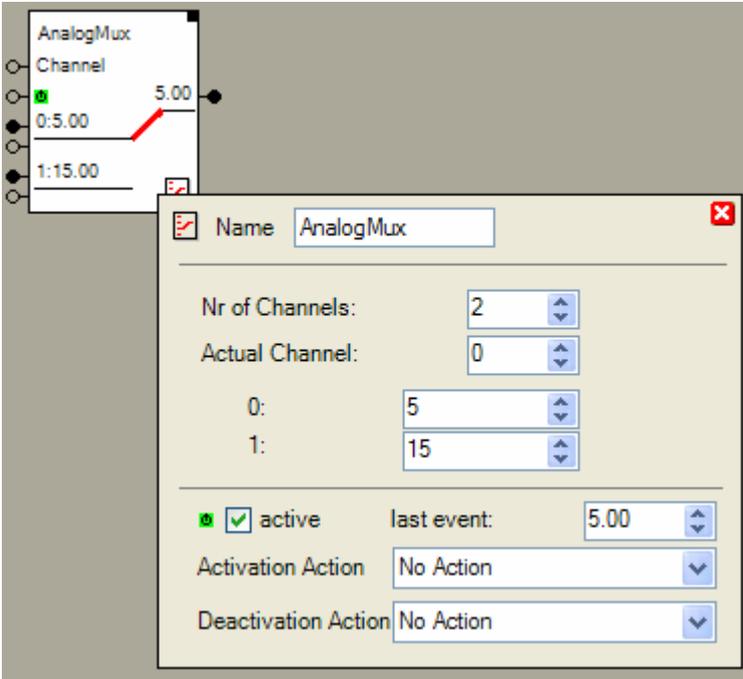
[Handling Blocks](#)

[Properties of Blocks](#)

AnalogMux

This block can be obtained from Functions / Logic.

The analog multiplexer provides switching functionality for analog values. This block might be used as selector for analog values or set points.



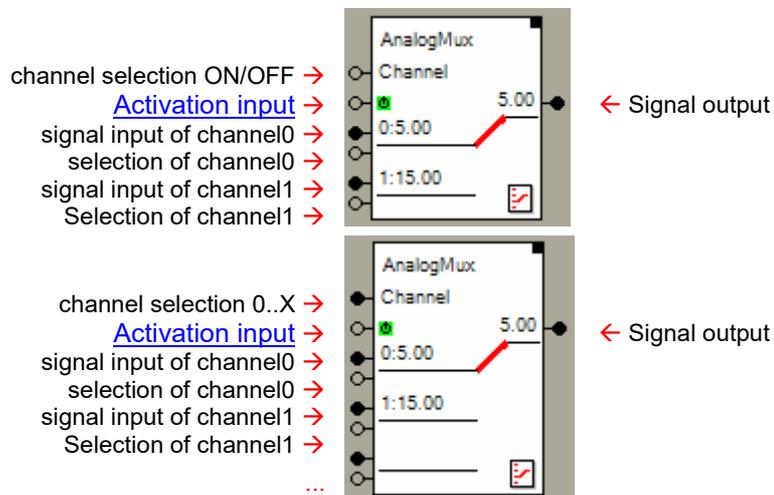
Function

The analogue multiplexer forwards the signal values received on the selected channel to its output pin. There are two different methods to select a channel:

1. Each channel provides a selection pin. If the block receives an ON command on the selection pins of one of the channels, the corresponding channel becomes active (selected).
2. There is a dedicated channel selection input, which can be directly used to select a certain channel by value (0=channel0, 1= channel1, etc.).

Properties

The input field **Nr of Channels** defines the number of available channels.



In case the selected amount of channels is below 3 the channel selection input converts to a command input. An OFF command selects channel0 and an ON command selects channel1. In case the selected

amount of channels is more than 3, then the channel selection pin converts to an analog input pin. The channel selection will be done by value (0=channel0, 1=channel1, etc.).

The input field **Actual Channel** defines the selected channel. This is for simulation purposes. The input will be overwritten by the next channel selection.

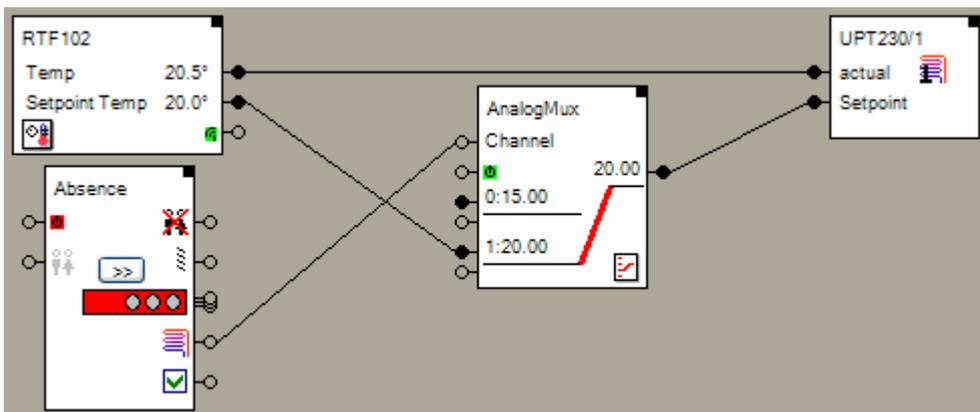
0...X: For each channel there is a default value. This input might be either used for simulation purposes or as set points. The given values will be stored to the database. The channels keep their default values even after a system restart. In case there is a block connected to a signal input, then the default value will be overwritten by value received next.

Application sample

Requested functionality:

Reduce room temperature during absence (e.g. holidays) to 15 C.

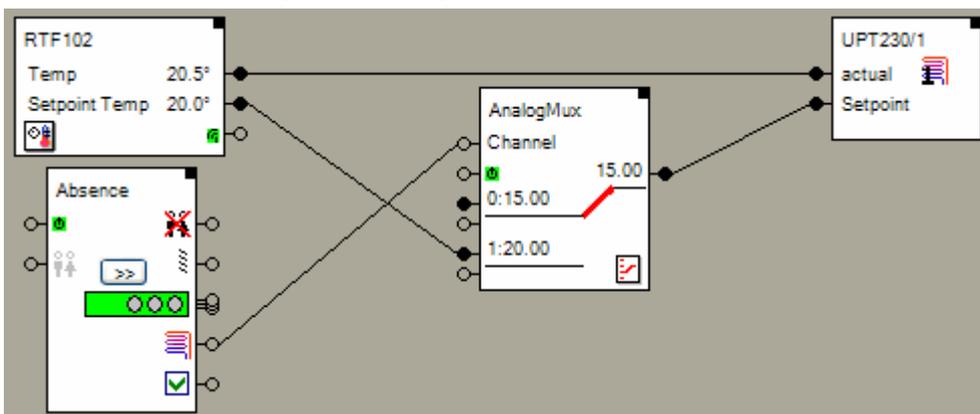
Normal operation:



Due to the selected channel 1, the AnalogMux-Block forwards the temperature set point provided by the Room Temperature Control sensor to the set point input of the valve actuator.

Absence:

The presence simulation block provides a command output indicating if heating shall be activated or not. In case it becomes active and the period of absence is greater than the heating up period, then it sends an OFF command through the heating output. This command selects the channel0 of the AnalogMux.



The Signal input of the first channel is not connected to any source. This means, it keeps its default value and forwards it in case it is selected. Therefore the valve actuator receives the value 15 C as set point.

The analog multiplexer block supports the [Activation Feature](#) .

Additional application samples:

- Interrupt heating in case a window has been opened
- Constant light control

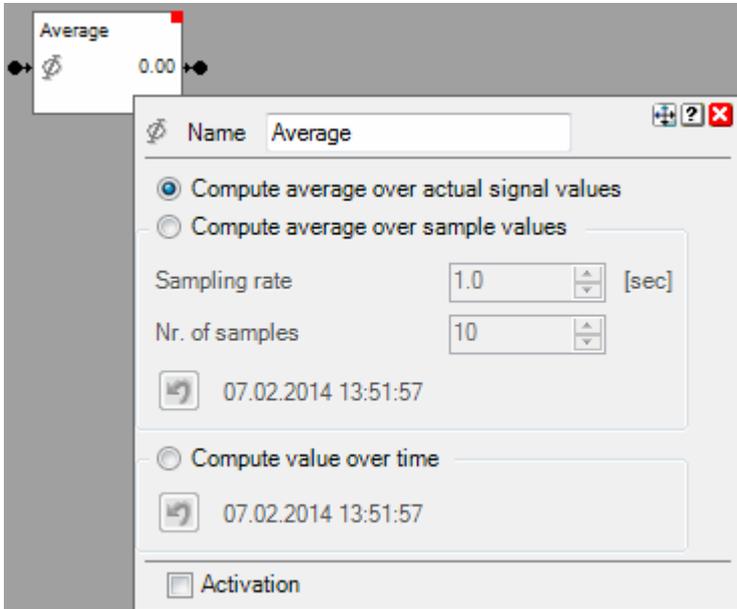
[Handling Blocks](#)

[Properties of Blocks](#)

⚙ Average

This block can be obtained from Functions / Arithmetic.

This block calculates the average value of all signals connected to its input pin.



Function

There are 3 modes available to compute the average value:

Compute average over actual signal values

Output = (Sum of the signal values of all signals connected to the input pin) / signal count

Compute average over sampled values

The actual values are sampled according to the configured **Sampling Rate** and saved as a sample. As soon as there are more than the configured **Number of samples** the oldest sample is deleted.

After each sampling the average value is recomputed. The value is computed according to the following rules:

AverageValueOfSample = Sum of the signal values of the sample / signal count

The output value is computed as:

Output = Sum of all AverageValueOfSample / Nr of samples.

Compute value over time:

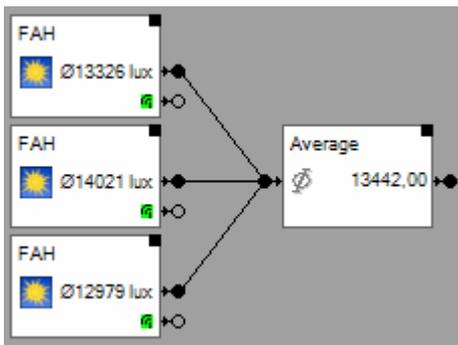
The block calculates the average value of all inputs over time since last reset. Multiple signals might be connected to the input pin. The output value is refreshed on every value change of an input signal.



Point in time where the last reset has been processed.

The And block supports the [Activation Feature](#)

Application sample



Additional application samples:

-

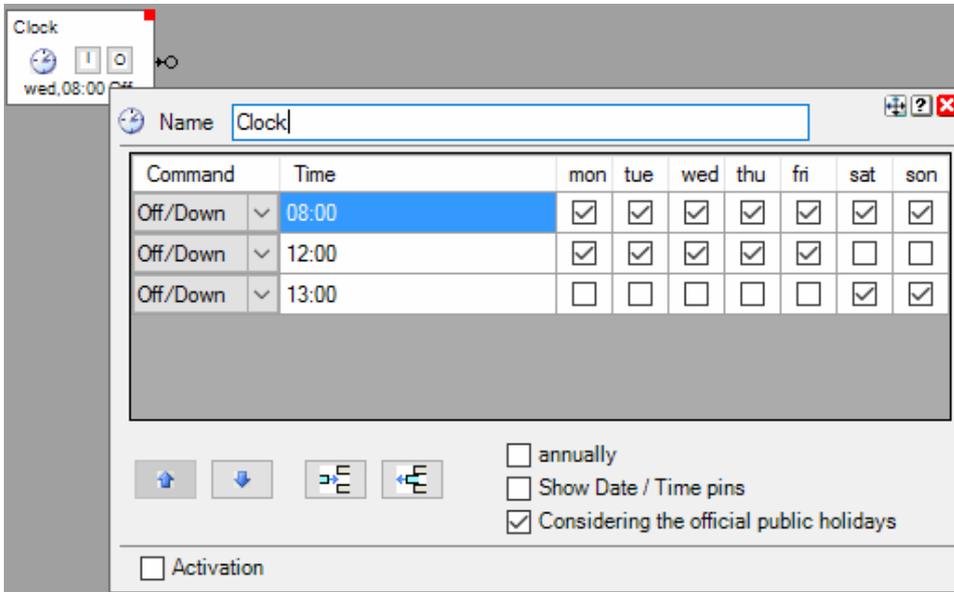
[Handling Blocks](#)

[Properties of Blocks](#)

Clock

This block can be obtained from Functions / Advanced.

The clock block generates time-based commands to successor blocks. A list of times can be defined to be processed on a weekly basis. Or a list of dates and times can be defined to be processed on a yearly basis.



Command	Time	mon	tue	wed	thu	fri	sat	son
Off/Down	08:00	<input checked="" type="checkbox"/>						
Off/Down	12:00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Off/Down	13:00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Function

The property dialog provides a form to fill out a list of times. Each row of the form describes a command by means of ON or OFF, time, and days of week. The order of the times in the rows doesn't matter.

Command

The entry in this column defines whether the block sends an [ON or an OFF command](#) at the time specified.

Time

Enter the time the command shall be sent. The command will be repeated on a weekly basis. Check the following columns to define the days of week.

so	mo	tue	we	thu	fri	sat
----	----	-----	----	-----	-----	-----

On all checked days of week the command will be sent.

	
---	---

These buttons move the selected row.

	
---	---

Use these buttons to append or insert new rows and to delete existing rows. The buttons refer to the selected row. To select a row, click the corresponding time field:



Inserts a new row beyond the selected row,



Deletes the selected row.

annually

Changes the clock timer mode to send events on annually basis.

Show Date / Time pins

The block shows additional pins providing date and time information. The pins “second” and “minute” are not logged in the event list to avoid over flow of the list.

Considering the official public holidays

Shall this clocktimer consider holidays? Holidays are handled by the clocktimer like Sundays.

To configure holidays see [Settings / General / Public Holidays](#)

Buttons

A click on the “I”-button sends an ON-command. A click on the “O”-button sends an OFF-command. This simplifies [testing](#) of the network.

State indication

The clock is deactivated and will not send any commands.



The clock is running and will process the list of given times. It will send commands at the corresponding times.

The indications below the buttons informs about the time and the type of command that will be send out next.

The filter block supports the [Activation Feature](#) .

Find details about the corresponding visualization element in chapter [Visualization Element Clock](#).

Additional application samples:

- Access to home

[Handling Blocks](#)

[Properties of Blocks](#)

Command

This block can be obtained from Functions / Logic.

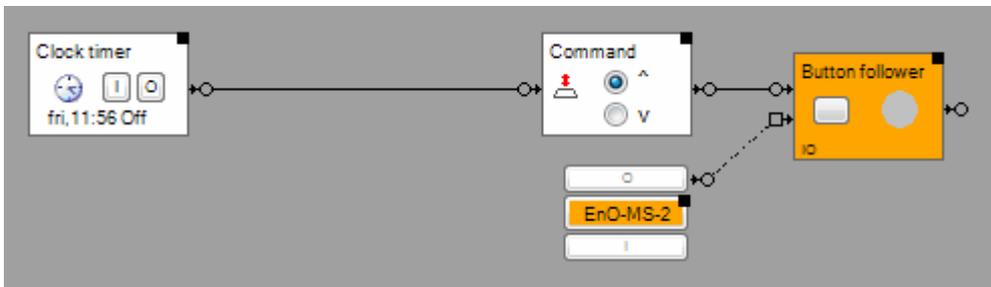
This block creates a key stroke signal. This function is useful in case a switch actuator shall be controlled, which is configured as a button follower.



Function

If the block receives an ON command on its input pin, then it sends out a “key press” event through its output pin. If it receives an OFF command, then it sends a “release key” command.

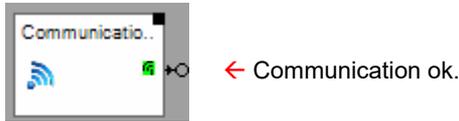
Application sample



Communication Monitoring

This block can be obtained from Functions / Monitoring.

This blocks monitors the communication status of various communication medias e.g. EnOcean- or Modbus communication.



Function

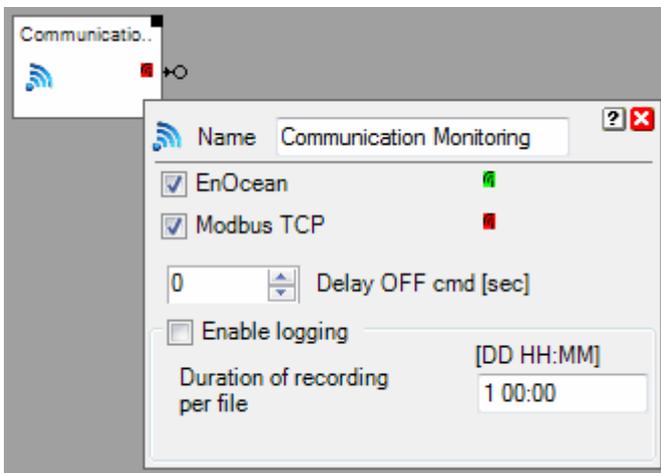
The block monitors all configured medias for communication break downs. If all selected medias are ONLINE the block sends out an ON command at its output pin, otherwise it sends an OFF command.

Configuration

All medias enabled in the [general settings](#) appear as a checkbox in the properties dialog of the block.



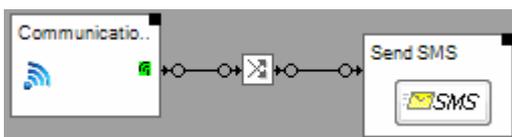
The medias to be monitored by the block have to be checked.



In case short interruptions shall not raise an alarm condition, then delay the OFF command.

This block provides the [individual logging](#).

Application sample

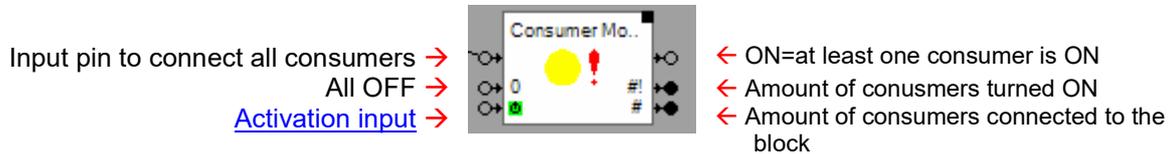


If communication breaks down, then the block sends an OFF command. This command gets inverted and triggers the SMS block to send a message to a technician.

Consumer Monitoring

This block can be obtained from Functions / Monitoring.

This blocks monitors if any electrical consumer is activated or running (e.g. lights). This informs you clearly about the state of the electrical consumer in your building if you intend to leave.



Function

The consumer monitoring block collects the states of all attached [Switch Actuators](#) and [Dimmer Actuators](#). It monitors if one of the actuators is in ON-state.

- Indication by the consumer monitoring block:
1. At least one consumer is in on state. → „Lights are on“
 2. All consumers are switched off. → „All off“

All OFF input:

An ON command sent to this input pin will turn off all consumers.

Alarm output:

The output pin indicates an alarm. When the block leaves its internal “all off” state an ON-command will be sent through the alarm output pin.

The [Properties dialog](#) lists the active consumers.

State indications



Light(s) are on

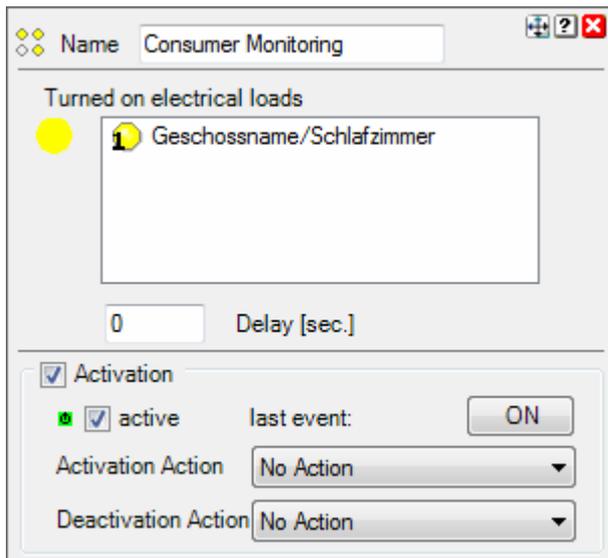
At least one consumer is energized.



All off

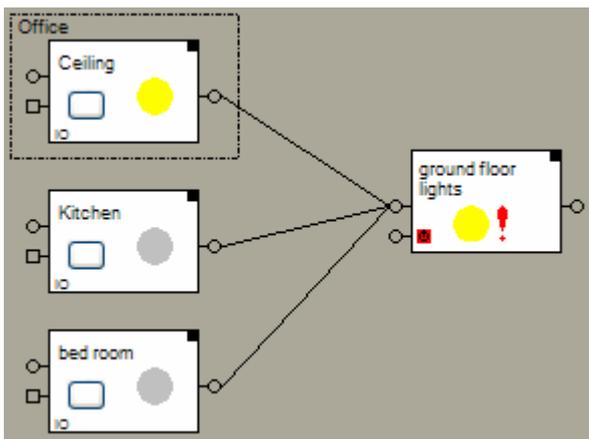
All consumers are switched off.

Configuration



Delay delays sending out the ON command.

Application sample



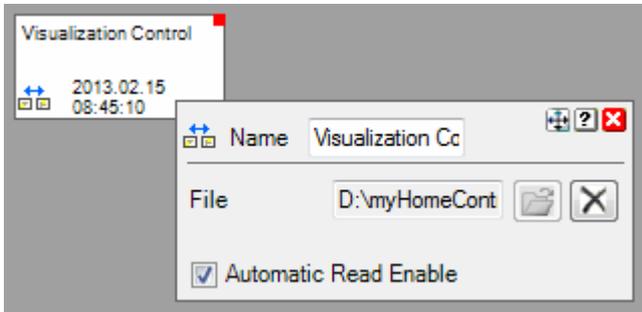
As soon as one light gets switched on, the consumer monitoring block changes its internal state to „Light(s) are on“ and sends a ON-command through its alarm out put.

Find details about the corresponding visualization element in chapter [Visualization Element Consumer Monitoring](#).

Control Visualization

This block can be obtained from **Functions / Interfaces**.

This block controls the content displayed in the visualization area. The block evaluates a XML file and selects the addressed floor tab and optionally opens the addressed [zoom element](#).



The time/date of the last XML file evaluation is indicated on the block.

Sample XML file:

```
<?xml version="1.0" encoding="UTF-8"?>
<VisualizationControl xmlns="http://myHomeControl.ch/VisuControl.xsd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="VisuControl.xsd"
  Version="1" Id="{3007FB5C-7369-4781-900E-642CFCDF5047}">
  <NavigateTo FloorTab="Floor 1" Zoom="102"/>
</VisualizationControl>
```

Zoom is optional.

The block has to be placed in one of the networks. There is the opportunity to insert multiple blocks in case multiple XML files have to be evaluated. The XML file last changed will trigger focussing.

Properties

When the XML-File is read the first time, then the block evaluates the amount and the type of the signals. Correspondingly it assigns pins to the block.

If **Automatic Read Enable** has been checked, then the block automatically rereads the file and updates the signal values, in case the XML file has been updated (rewritten).

If **Automatic Read Enable** has not been checked, then a additional Pin appears enabling the network logic to trigger a read of the XML file (ON command).

Syntax

The syntax of the XML-File is defined by the VisuControl.xsd – XML Schema. The schema can be found in menu: ? -> other files -> XML; VisuControl.xsd

Additional application samples:

-

[Handling Blocks](#)

[Properties of Blocks](#)

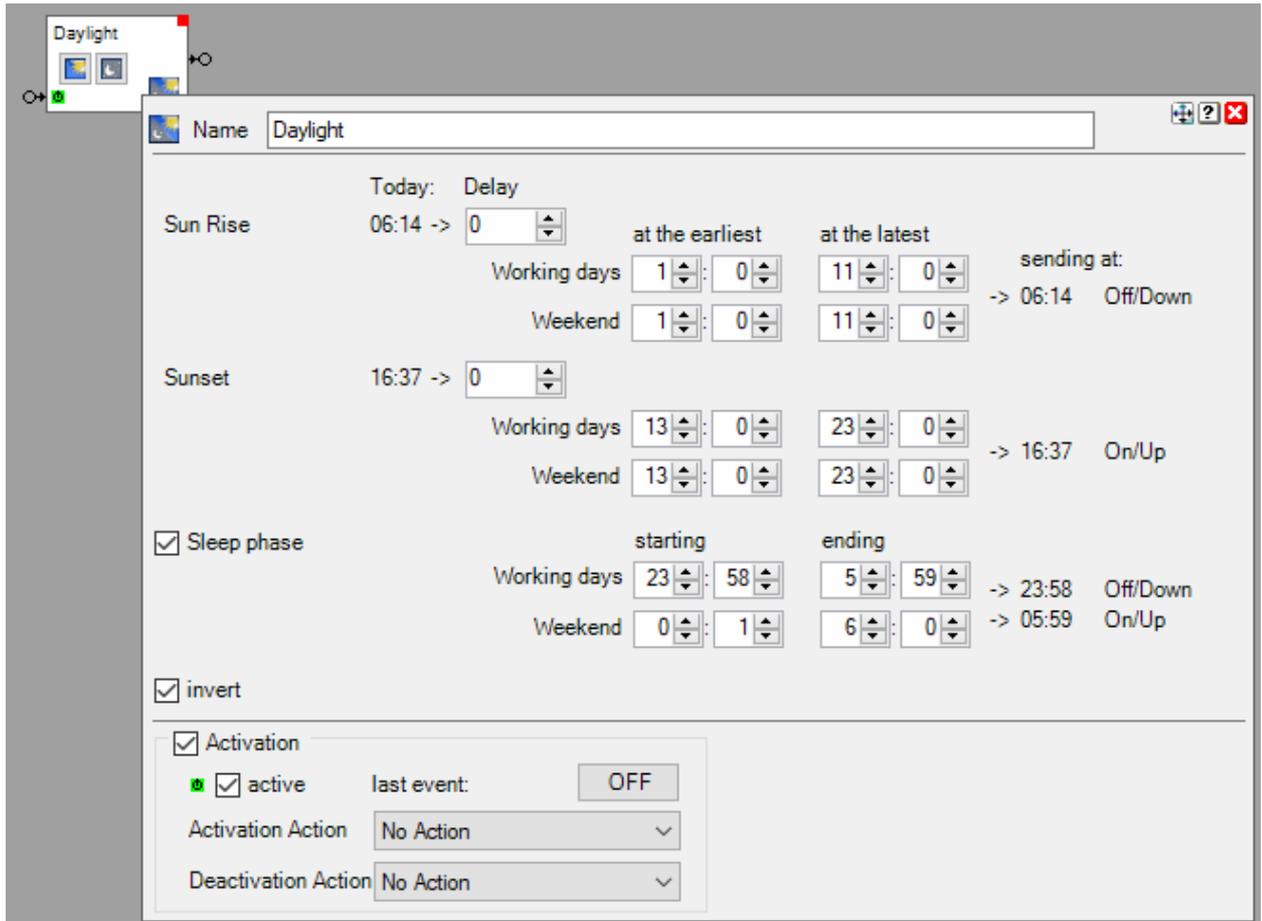
Day Light

This block can be obtained from Functions / Advanced.

This block calculates the time of sunrise and the time of sunset. Depending on the calculated times it send corresponding commands to the succeeding blocks.

The time of sunrise and sunset differs from day to day. Therefore a clock is not the best solution to switch outdoor lights. Usually this function is realized with a brightness sensor but it is easier and cheaper with the daylight block, because it doesn't request a brightness sensor.

[Activation input](#) →



The screenshot shows the configuration window for the 'Daylight' block. The 'Name' field contains 'Daylight'. The 'Today: Delay' is set to 0. The 'Sun Rise' section shows a time of 06:14, with 'at the earliest' and 'at the latest' settings for both working days and weekends. The 'Sunset' section shows a time of 16:37, with similar 'at the earliest' and 'at the latest' settings. The 'Sleep phase' section is checked, with 'starting' and 'ending' times for working days and weekends. The 'invert' checkbox is also checked. The 'Activation' section is checked, with 'active' checked, 'last event' set to 'OFF', and both 'Activation Action' and 'Deactivation Action' set to 'No Action'.

Function

The day light block calculates each day of the year the times of sunrise and sunset. It indicates the calculated time values in the column **“Today”**:

The calculated times might be advanced or delayed by an offset value. Enter a value in the column **“Delay”**. Positive values will delay the time when the corresponding command shall be sent; negative values will advance the time when the corresponding command shall be sent.

At the earliest defines the earliest point in time to send a command at Sun Rise.

At the latest defines the latest point in time to send a command at Sunset.

Check the box **“invert”** to change the type of command that shall be sent at sunrise and sunset.

Buttons

The block provides 2 buttons on its surface. These buttons are used for simulation (test) purposes to simulate either a sunrise event  or a sunset event .

The daylight block supports the [Activation Feature](#) .

Additional application samples:

- Access to home

Find details about the corresponding visualization element in chapter [Visualization Element Daylight](#).

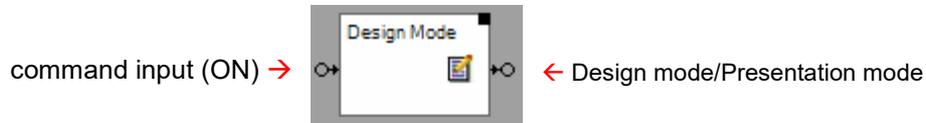
[Handling Blocks](#)

[Properties of Blocks](#)

Design Mode

This block can be obtained from Functions / Advanced.

The Design Mode block is used to return to the [design mode](#) from the [presentation mode](#).



Function

If the appearance for the presentation mode has been configured to "[Full Screen without menu bar](#)" under the general settings, then the only way to return to the design mode after the presentation mode has been activated, is to use the Design Mode block.

Typically the user clicks the [Visualization Element Design Mode](#) to return to the design mode. This element provides the opportunity to request the input of a pin code before activating the design mode.

Input pin:

An ON command on this pin activates the design mode.

Output pin:

On each change from the presentation mode to the design mode the block sends an ON command, on each change from design mode to presentation mode the block sends an OFF command.

Find details about the corresponding visualization element in chapter [Visualization Element Design Mode](#).

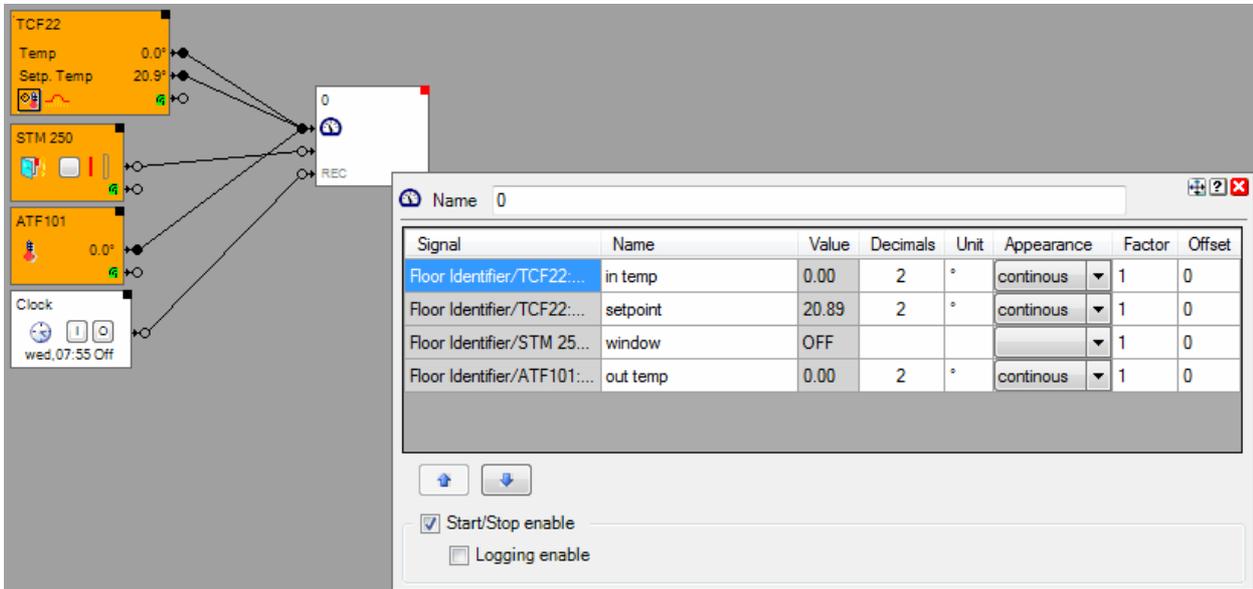
[Handling Blocks](#)

[Properties of Blocks](#)

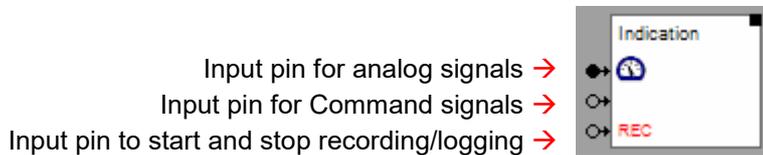
Display

This block can be obtained from **Functions / Advanced**.

The purpose of this block is to display any signals from the network area by means of connections between blocks. The visualization element corresponding to this block displays the actual values of the signals as well as there trends.



The Display block provides 2 input pins and 1 optional input pin:



There is the opportunity to write all recorded data to a logfile.

Start and stop controls recording of signals for trends and logging to file. An ON command starts a recording phase and an OFF command stops recording.

The trend graphs of all visualization elements belonging to the block show the trends of the signal values during the recording phase. If recoding is stopped then the trend graphs will freeze and they show the trend of the last recording phase. If the recording is restarted, then the visualization elements drop the old trend values and restart the trend.

If logging has been enabled, then the block records signal values to a log file. It creates an individual log file for each recording phase. The name of the log file derives from the block name. The path for the log file is to be configured in the [general settings](#) page.

Configuration

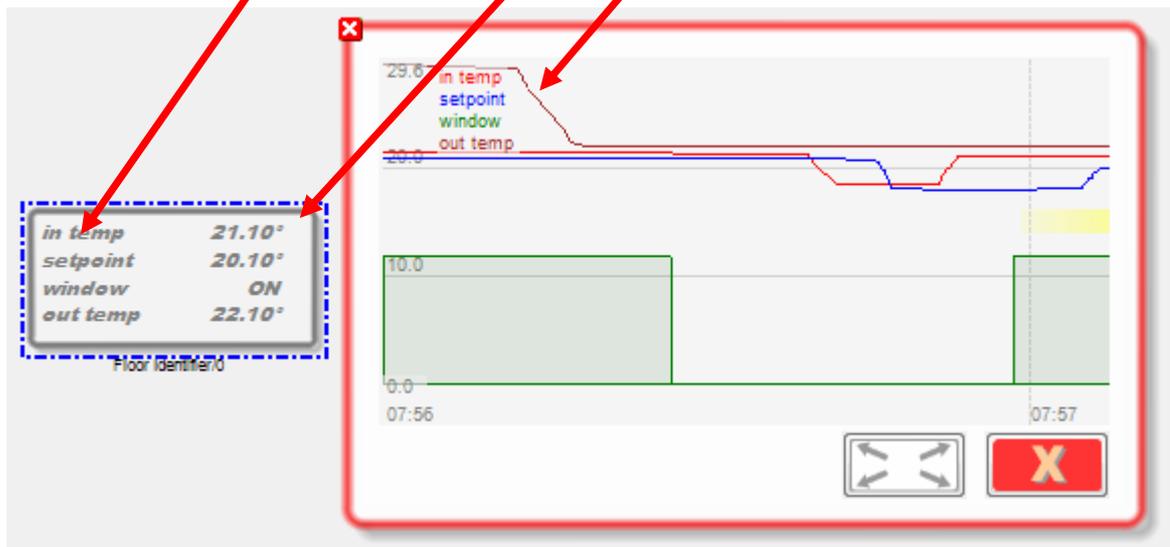
The properties dialog provides opportunities to name the signals and to assign units to the different signals.

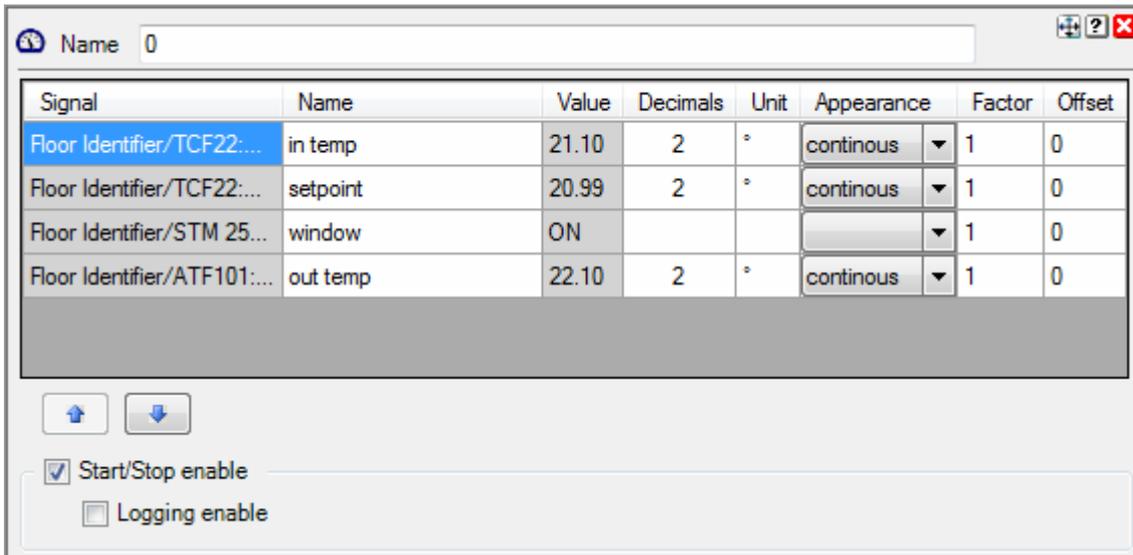
Configuration of the network block:

Signal	Name	Value	Decimals	Unit	Appearance	Factor	Offset
Floor Identifier/TCF22:...	in temp	0.00	2	°	continuous	1	0
Floor Identifier/TCF22:...	setpoint	20.89	2	°	continuous	1	0
Floor Identifier/STM 250:...	window	OFF				1	0
Floor Identifier/ATF101:...	out temp	0.00	2	°	continuous	1	0

Start/Stop enable Logging enable

Visualization:





The optional **Name** appears in the visualization element as signal identification.

The **Appearance** defines if the trend of the signal is shown continuously or stepped.

Factor / Offset scales the trend of the signal. This parameters do not scale the value shown in the visualization object. They only scale the trend. This gives e.g. the opportunity to shift the curve within the trend graph.



Reorders the signals. This modifies the order of the signals in the visualization element as well.

If **Start/Stop** is checked an additional input pin is shown by the block. This pin is used to control the recording. An ON command starts recording, an OFF command freezes recording and the trends shown by the corresponding visualization elements. An ON command restarts recording, old values will be dropped.

Logging enable advises the block to write recorded data to a logfile. The name of the log file is derived from the block name. The path configured on the [general settings](#) page is used to store the log file. A new log file is created for each recording phase.

Find details about the corresponding visualization element in chapter [Visualization Element Display](#).

[Handling Blocks](#)

[Properties of Blocks](#)

/ Division

This block can be obtained from **Functions / Arithmetic**.

This block divides the value of the signal connected to the upper pin by the value of the signal of the lower pin.



In case $B = 0$, then the value of the output becomes the maximal positive value.

Properties



This block supports the [Activation Feature](#) .

Additional application samples:

-

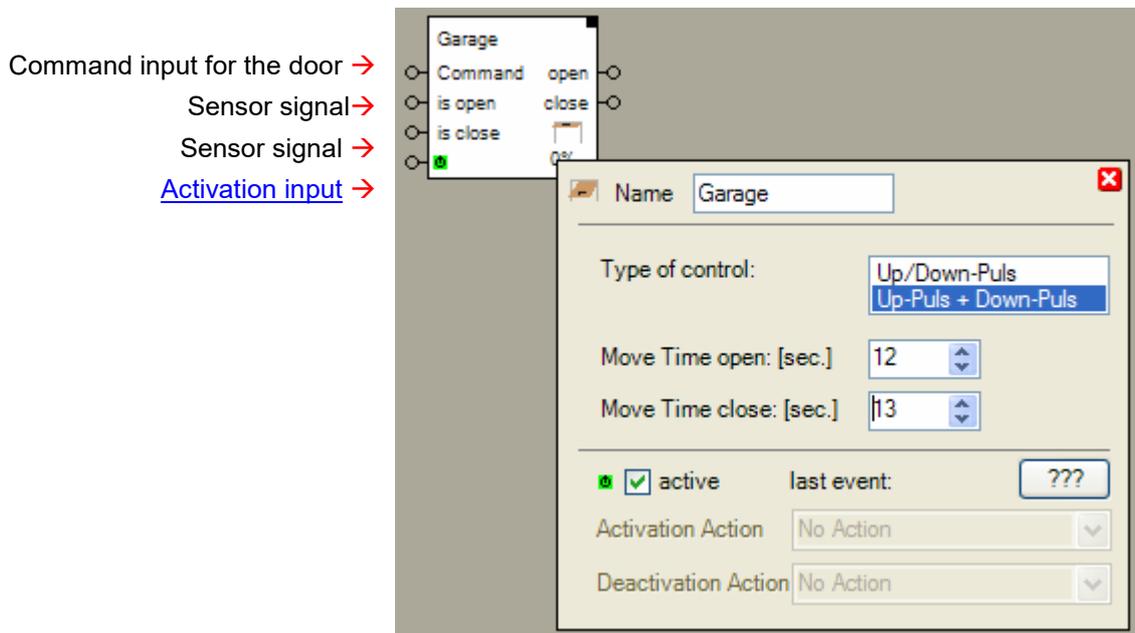
[Handling Blocks](#)

[Properties of Blocks](#)

Door Controller

This block can be obtained from **Functions / Advanced**.

The door controller block controls automatic door like garaging doors, entrancing doors etc. It tracks the actual position of the door. This information serves as base for the door visualization element, which indicates the actual state of the door.



Function

This block is primary made to control automatic door openers. Therefore it generates one or two pulses, which force the door opener to open or close the door. The pulses will be sent to switching actuators.

The block supports following control modes:

Up/Down - Pulse: There is only one pulse input available on the door opener. It reacts on pulses corresponding to the following pattern: open-stop-close-stop-open

Up-Pulse + Down-Pulse: There are individual pulse inputs for opening and closing available on the door opener. Therefore two switch actuators will be required (or a double channel type).

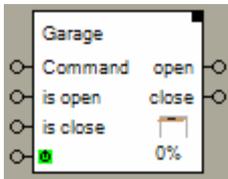
The control mode **“Up-Pulse + Down-Pulse“** is the preferred one. In this control mode the reaction (open or close) of the door opener is always defined.

The block simulates the actual position of the door based on moving times. These are properties of the block and have to be measured on site.

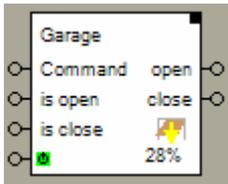
If additional remote control unit will control the door, then the block will not be informed about the movement of the door. Therefore additional sensors will be required.

It is recommended to install at least a position sensor for the position “closed”. This ensures the indication of the position “closed” of the visualization element. A window contact sensor might be used as position indication sensor.

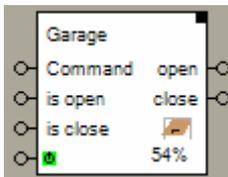
State indication



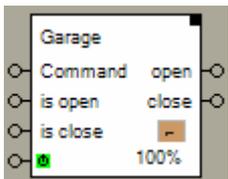
The door is open.
Position 0% indicates a completely open door.



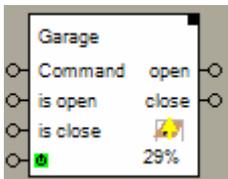
The door is closing.
Position 28% indicates, that the door has moved 28% of its driving range to the closed position.



The door has been stopped at position 54% which is nearly in the middle of the driving range.

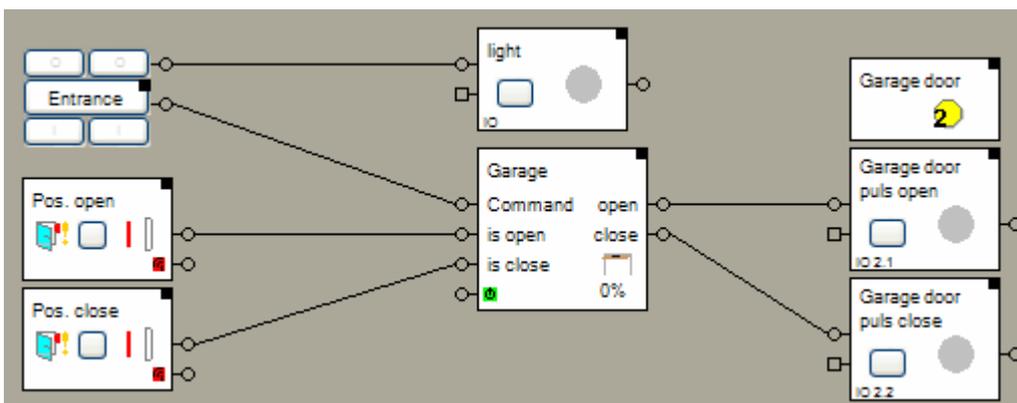


The door is closed.
Position 100% indicates a completely closed door.

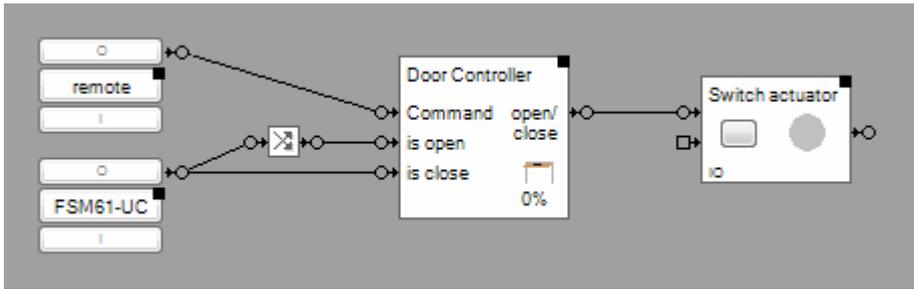


The door is opening.

Application sample



In the sample shown above two magnet contacts are used to monitor the door position. The drive provides individual control channels for each direction. Therefore a double channel actuator is used to control the door.



In the sample above a 2-fold transmitter is used to monitor the position of the door. The drive provides only a single control channel to operate the door.

The door controller block supports the [Activation Feature](#) . If the block is deactivated, then it will ignore any commands. Signals received from a position indication sensor will be processed independent of the activation state. The block will update its internal position estimation in any case.

[Handling Blocks](#)

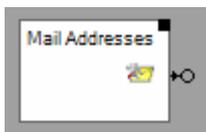
[Properties of Blocks](#)

Find details about the corresponding visualization element in chapter [Visualization Element Door Controller](#).

Email Settings

This block can be obtained from **Functions / Interfaces**.

This feature is available if the [License option: email, SMS, phone](#) has been enabled.



Sends out an ON command each time the user changes a setting.

Function

The block sends out an ON command each time the user changes an email setting via the corresponding [visualization object](#).

[Handling Blocks](#)

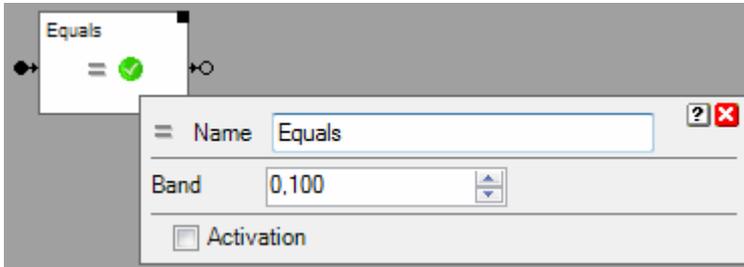
[Properties of Blocks](#)

Find details about the corresponding visualization element in chapter [Visualization Element Email Settings](#)

= Equals

This block can be obtained from **Functions / Arithmetic**.

This block compares the values of all signals connected to its input. If all these values are within a band, then the block sends an [ON command](#), otherwise an [OFF command](#).



Function

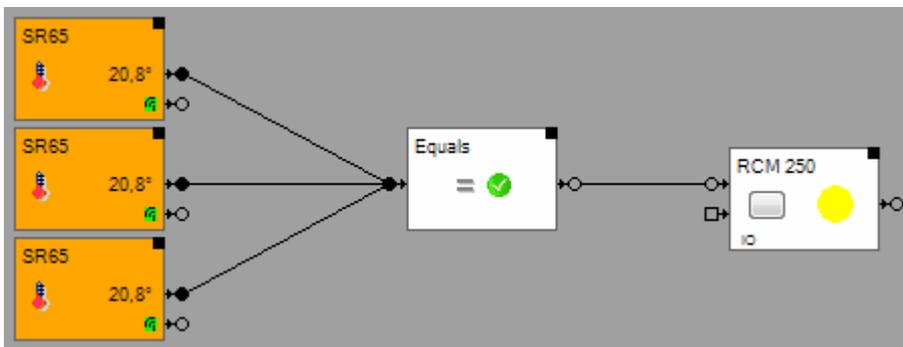
This block compares the values of all signals connected to its input. If the difference between the smallest and the largest signal value is smaller then the band value (see Configuration), then the block sends an ON command, otherwise an OFF command.

Properties

Band defines the range within all the signal values have to be, that the block sends the ON command.

This block supports the [Activation Feature](#) .

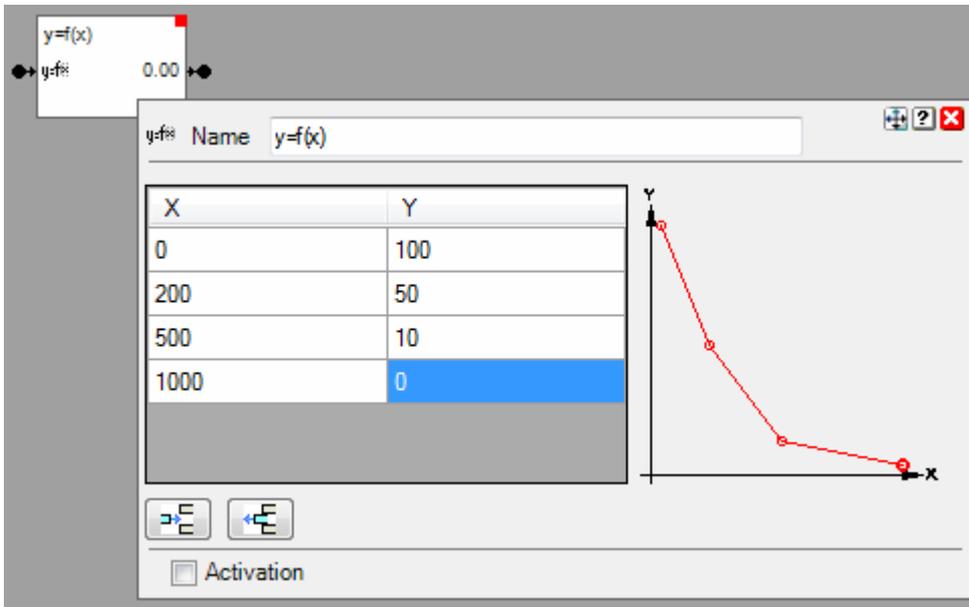
Application sample



y=f(x)

This block can be obtained from **Functions / Arithmetics**.

This block calculates a y value based on a x value and a curve. This block can be used for e.g. transform the brightness value measured by a weather station into a % value to control a dimmable light bulb.



Function

Each new value the block receives on its inputpin starts the calculation of a new Y value based on the given curve. The new y value is send to the output pin.

The table defines the data points of the curve. If the input signal value corresponds to the x value of one of the data points, the output value will correspond to the y value of the data point in question. Intermediate input values will be interpolated accordingly.

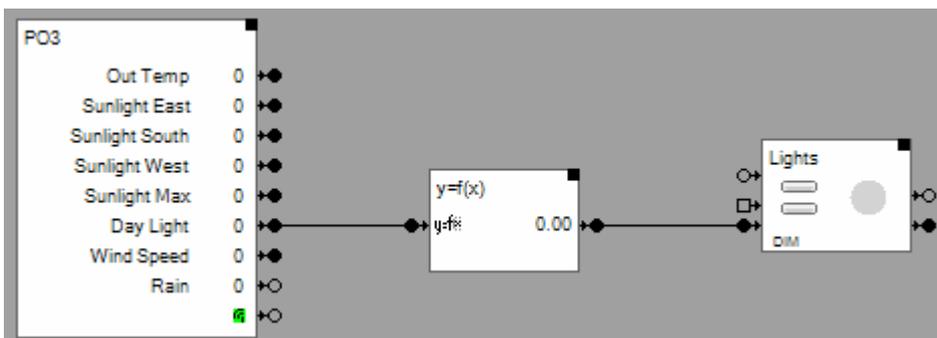
If the input signal value is smaller the the x value of the first data point, then the output signal value will correspond to the y value of the first data point.

If the input signal value is larger then the x value of the last data point, then the output signal value will correspond to the y value of the last data point.

Configuration

Individual values can be entered in the X and Y columns. The table is allwas ordered be the X column.

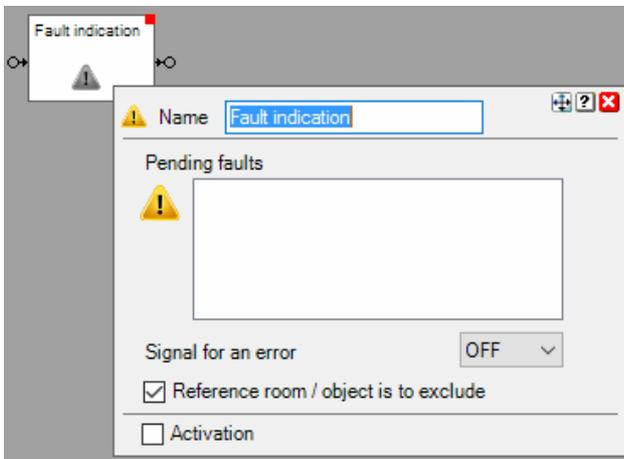
Application sample



Fault Indication

This block can be obtained from **Functions / Monitoring**.

This block indicates fault states of the connected blocks.



Function

The fault indication block collects the states of all attached Blocks. It monitors if one of the connected pins is in OFF-state.

Indication by the fault indication block:

- 3. At least one pin is in off state. →  a fault is pending
- 4. All fault signals are ok. →  everything is ok

Alarm output:

The output pin indicates an alarm. When the block leaves its internal “everything is ok” state an ON-command will be sent through the alarm output pin.

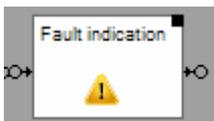
The [Properties dialog](#) lists the faulty blocks.

Configuration

Signal for an error: defines if an OFF signal is interpreted as a fault or an ON signal.

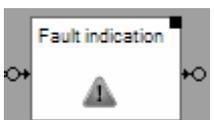
Reference room / object is to exclude: defines if object of reference rooms are excluded from evaluation.

State indications



Fault(s) are pending

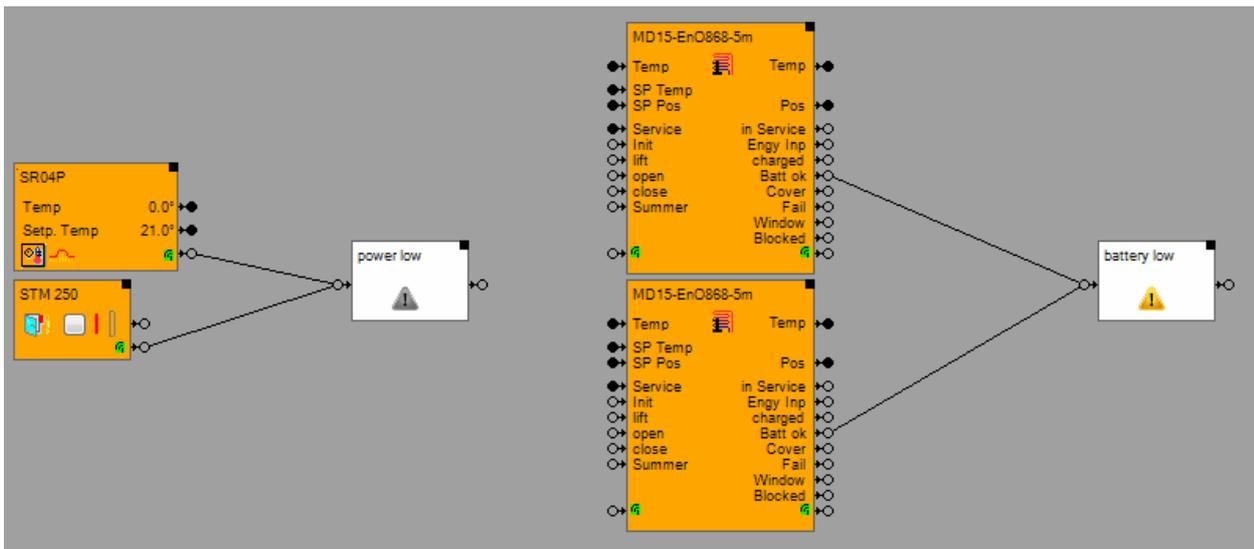
At least one connected block indicates a fault.



Ok

All connected blocks indicate ok.

Application sample



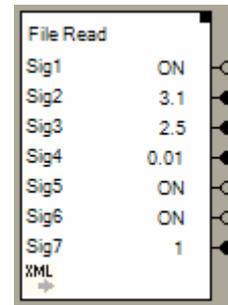
Find details about the corresponding visualization element in chapter [Visualization Element Fault Indication](#).

XML
➔ **File Read**

This block can be obtained from **Functions / Interfaces**.

This block reads a XML-File and evaluates the signal values specified in the file. Then it forwards the evaluated signal values to its output pins and from there to the network.

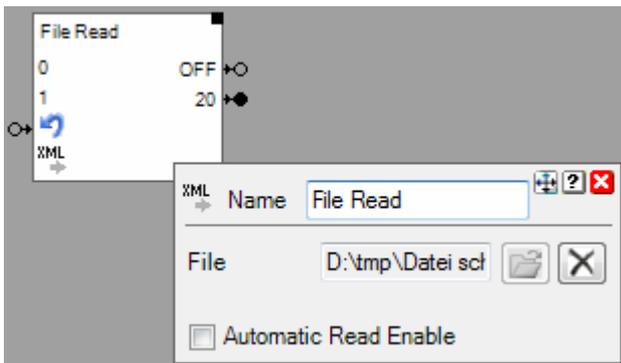
```
<?xml version="1.0" encoding="UTF-8"?>
<SignalCollection>
  <BinarySignal Name="Sig1" Value="1"/>
  <AnalogueSignal Name="Sig2" Value="3.1" Unit="PI"/>
  <AnalogueSignal Name="Sig3" Value="2.5" Unit="v"/>
  <AnalogueSignal Name="Sig4" Value="0.01" Unit="l/h"/>
  <BinarySignal Name="Sig5" Value="1"/>
  <BinarySignal Name="Sig6" Value="1"/>
  <AnalogueSignal Name="Sig7" Value="1" Unit="v"/>
</SignalCollection>
```



Function

The Block monitors the specified XML-File for changes (new version of file). As soon as it detects a new version of the file it reads the signal values from the file and forwards them to the corresponding output pins.

Properties



When the XML-File is read the first time, then the block evaluates the amount and the type of the signals. Correspondingly it assigns pins to the block.

If **Automatic Read Enable** has been checked, then the block automatically rereads the file and updates the signal values, in case the XML file has been updated (rewritten).

If **Automatic Read Enable** has not been checked, then a additional Pin appears enabling the network logic to trigger a read of the XML file (ON command).

During reading of the file it is checked if the signal names and types are still the same

The number of signals is limited to 20.

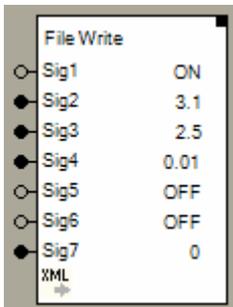
Syntax

The syntax of the XML-File is defined by the FileReader.xsd – XML Schema. The schema can be found in menu: ? -> other files -> XML; FileReader.xsd

Remark: The same syntax is used by the [File Write](#) function.

XML
➔ **File Write**

This block can be obtained from **Functions / Interfaces**.
This block writes signals and signal values to a XML-File.

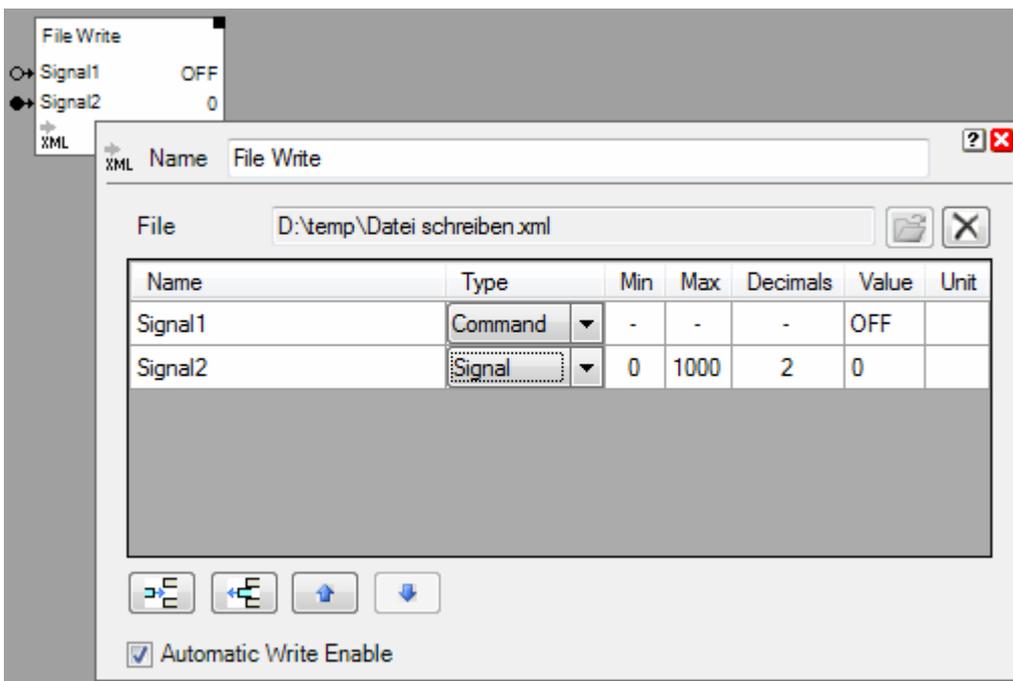


```
<?xml version="1.0" encoding="UTF-8"?>
<SignalCollection>
  <BinarySignal Name="Sig1" Value="1"/>
  <AnalogueSignal Name="Sig2" Value="3.1" Unit="PI"/>
  <AnalogueSignal Name="Sig3" Value="2.5" Unit="v"/>
  <AnalogueSignal Name="Sig4" Value="0.01" Unit="1/h"/>
  <BinarySignal Name="Sig5" Value="0"/>
  <BinarySignal Name="Sig6" Value="0"/>
  <AnalogueSignal Name="Sig7" Value="0" Unit="v"/>
</SignalCollection>
```

Function

Whenever a signal value changes, the block writes the new values to the XML-File.

Properties



First a **file** name has to be given, where the block writes the signal values to.

Then define the signals and there types within the table. The block assigns corresponding pins.

The number of signals is limited to 30.

If **Automatic Write Enable** is checked, then the block updates the XML file on every change of any of the input signals. Otherwise, if automatic write is disabled, the block shows an additional pin. Every ON Command on this pin forces the block to update the XML file. The file will not be updated automatically anymore.

Syntax

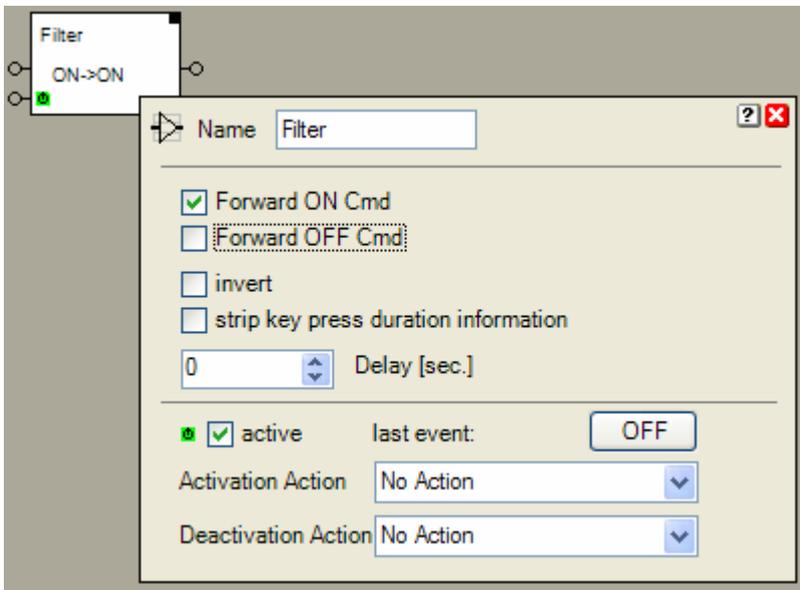
The syntax of the XML-File is defined by the FileReader.xsd – XML Schema. The schema can be found in menu: ? -> other files -> XML; FileReader.xsd

Remark: The same syntax is been used by the [File Read](#) function.

Filter

This block can be obtained from **Functions / Logic**.

This block forwards only those received [commands](#) to the successor blocks, which fulfill the filter criteria's (e.g. forwards only ON-commands). It is also able to invert and delay commands. The behavior has to be setup in the properties dialog of the block.



Function

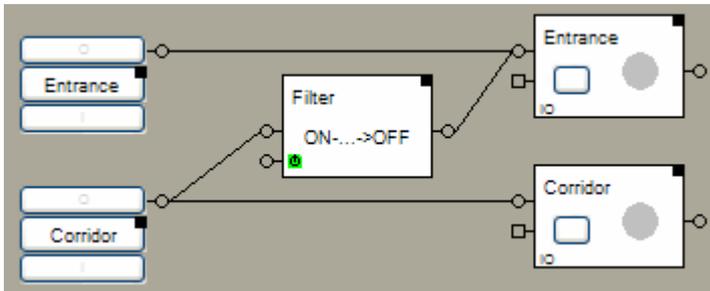
The filter block provides following functionalities:

- Forwarding of ON commands
- Forwarding of OFF commands
- Inverting commands (ON->OFF or OFF->ON)
- Converting [Key press-Commands into commands without key press information](#)
converts a key press into a corresponding ON/OFF command, ignores key release.
- Delaying commands
In case ON and OFF commands will be forwarded, then both command types will be delayed as configured.
In case only OFF commands will be delayed, then they will be delayed as well. But in case the block receives an ON command it will reject a delayed OFF command pending to be sent.
Vice versa if only ON command will be forwarded.
- Interrupt (if it is deactivated, it will not forward any commands).

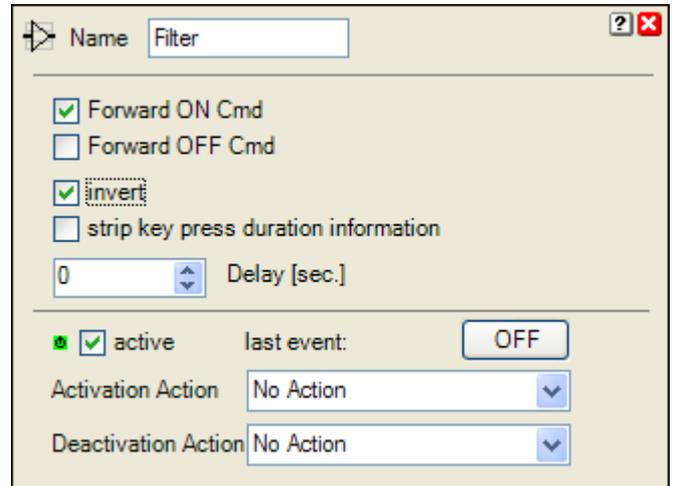
The filter block supports the [Activation Feature](#) .

Application sample:

If the lights in the corridor will be switched on, then the lights at the entrance shall switch off after 5 seconds.



The filter block only forwards ON-commands. It inverts the ON-commands and delays them by 5 seconds.



Properties of the filter block

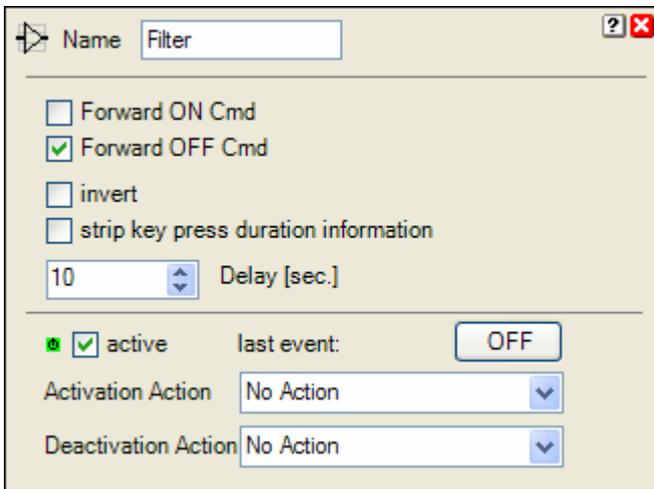
Properties

In case **Forward ON Cmd** is checked the block forwards ON-commands. In case **Forward OFF Cmd** is checked the block forwards OFF-commands.

Check **invert** to invert the polarity of the forwarded commands.

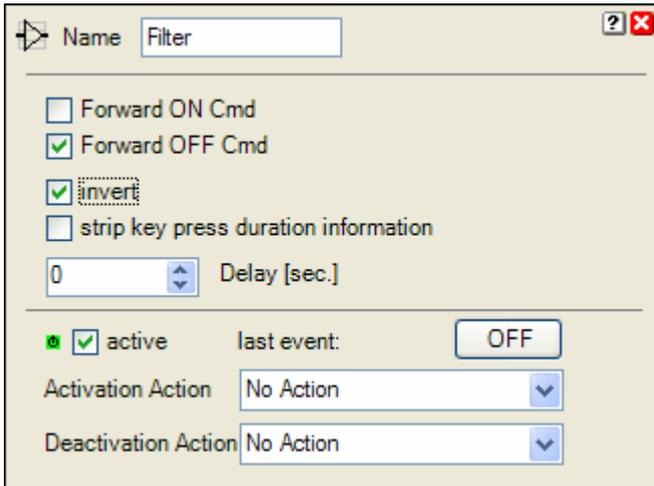
The forwarding of the received commands will be delayed by the value given in the field **Delay**.

Example:



Only OFF commands will be forwarded. These commands will be delayed for 10 Seconds.

In case the block receives an ON command during the delay of the OFF command, it will reject the pending OFF command.



Only OFF commands will be processed. The OFF commands will be converted into ON commands.

The filter block sends an ON command to its successor blocks in case it receives an OFF command.

Strip key press duration information converts the key presses into a [command without key press information](#).

State indication

The filter block does not have an internal state (except the activation state). The filter block just forwards the commands received.



← The info line indicates the actual configuration of the filter block.

Additional application samples:

- PTM230 Module
- Central OFF
- Delayed Off

[Handling Blocks](#)

[Properties of Blocks](#)

Flag

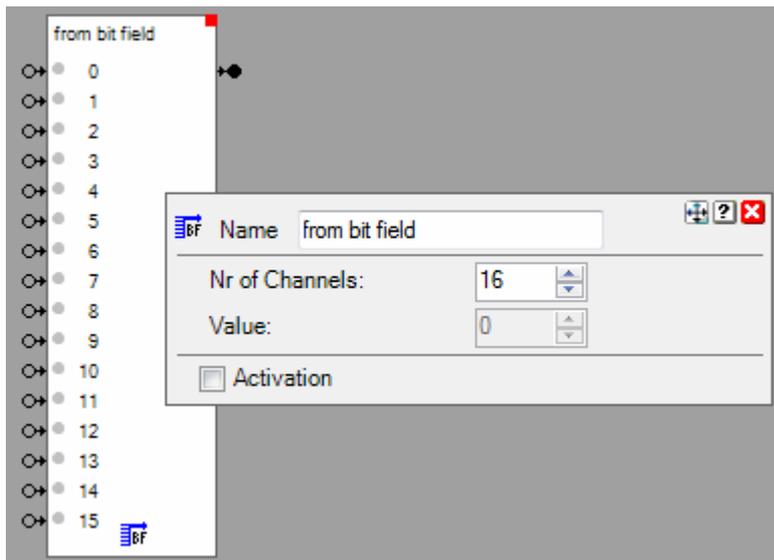
This block can be obtained from **Functions / Logic**.

This block behaves like a virtual switching actuator. Refer to [Switch1](#).

from bit field

This block can be obtained from **Functions / Logic**.

This block calculates the value from a set of bits (bit → integer).



Function

The block provides a configurable amount of binary input pins. Each pin has its weight. The weight of each pin is calculated as:

Weight = $2^{(\text{index})}$

Value = sum of all weights

Configuration

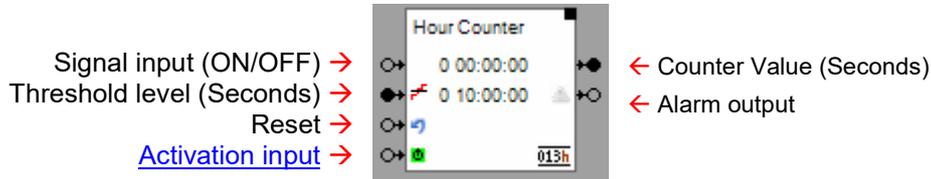
Nr of Channels: Defines the amount of input pins.

The filter block supports the [Activation Feature](#) .

013h Hour Meter

This block can be obtained from **Functions / Advanced**.

This block accumulates time if the signal input is ON and monitors the counter value against a threshold value. If the counter value is above the threshold value, then it sets the alarm signal otherwise the alarm signal gets cleared.



Function

The hour meter starts time accumulation with an ON command on the signal input pin and stops accumulation when it receives an OFF command on the signal input pin. The actual counter value is shown on the surface of the block by means of Days.Hours:Minutes:Secs.

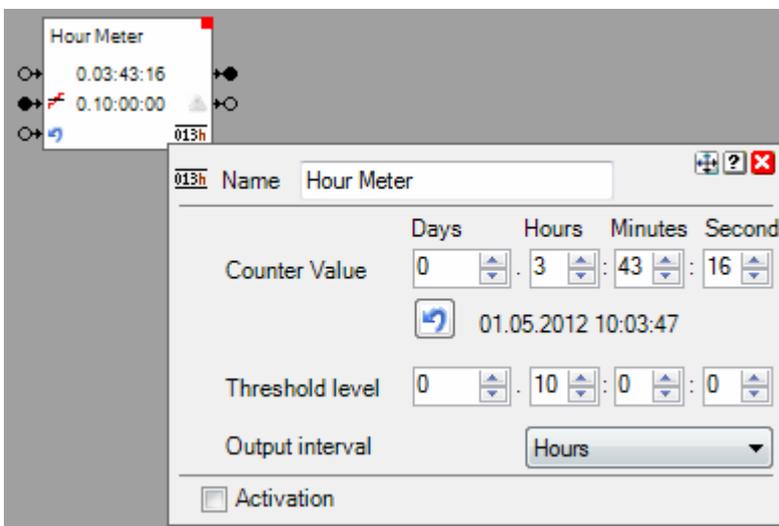
Internally the block calculates times based on milliseconds. Therefore it is able to measure very short periods in time.

The counter value might be reset by an ON command on the reset input pin.

As soon as the counter values reaches the threshold level, the block sends an ON command on the Alarm output. After the reset it sends an OFF command.

The threshold value can be set either by the corresponding Threshold level input pin or in the block configuration dialogue.

Properties



Counter Value

Actual counter value. The button might be used to reset the counter value manually.

Threshold level

Threshold level for the counter value which raises the alarm condition.

Output interval

Period in time where the actual counter value is sent to the output pin. To avoid extraordinary grow of the trend database, increase period in case signal is recorded.

This block supports the [Activation Feature](#) .

Find details about the corresponding visualization element in chapter [Visualization Element Hour Meter](#).

[Handling Blocks](#)

[Properties of Blocks](#)

⊗ Invert

This block can be obtained from **Functions / Logic**.

This block inverts Commands received on its input pin.



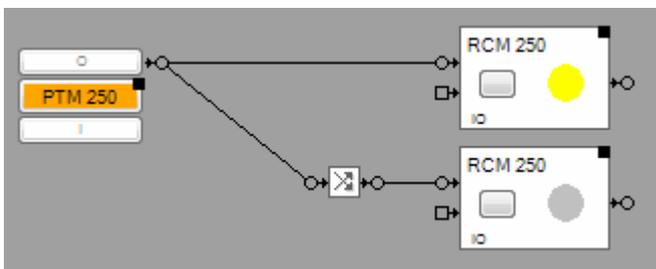
Function

If the block receives an ON command then its sends out an OFF command and vice versa. Following table shows the behavior in details:

Refer to chapter [Commands](#) for details to the commands.

empfangen	gesendet	Hinweis
ONv	OFFv	
ON^	OFF^	
OFFv	ONv	
OFF^	ON^	
TOGGLEv	TOGGLEv	No inversion takes place
TOGGLE^	TOGGLE^	No inversion takes place
Kommandos: Schaltbefehle ohne Tasteninformation		
ON	ON	
OFF	OFF	
TOGGLE	TOGGLE	No inversion takes place

Application sample



[Handling Blocks](#)

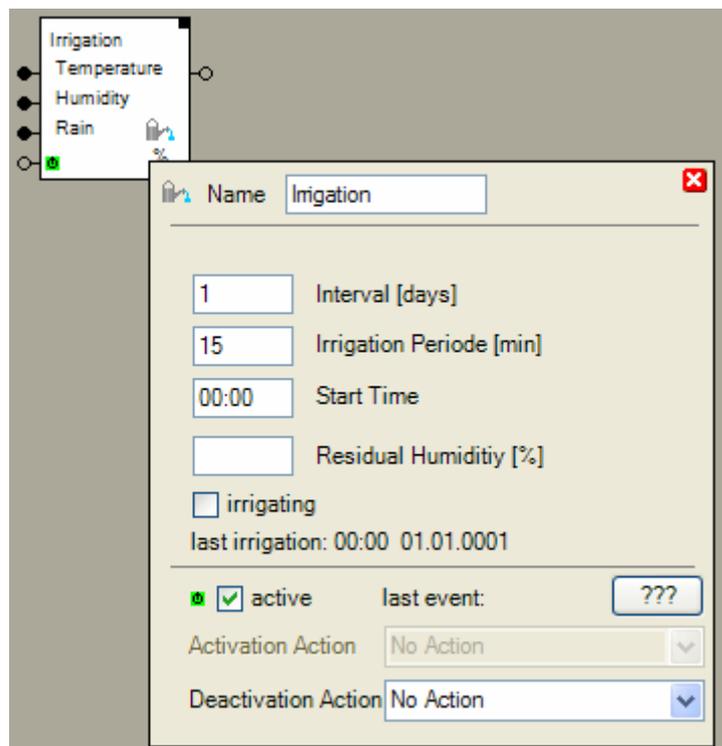
Irrigation

This block can be obtained from **Functions / Advanced**.

The irrigation block estimates the residual humidity in the soil, basing on the actual temperature profile; the actual air humidity profile and the rain fall.

This block might be used to control irrigation pumps.

- Signal input for the actual temperature →
- Signal input for the actual air humidity →
- Signal input for the actual amount of rainfall →
- [Activation input](#) →



Function

After rain fall or irrigation the block resets the residual humidity of the soil to 100%. The calculation will reduce the estimated residual humidity of the soil continuously. Once the estimation expects a residual humidity of 0, it releases the irrigation. But the pump(s) will not be started until the given start time (described later).

At a temperature of 20°C and an air humidity of 50% the next irrigation will be started exactly after the given **irrigation interval**. In case of higher air humidity or deeper temperature the interval will be stretched. In case of lower air humidity or higher temperature the interval will be shortened.

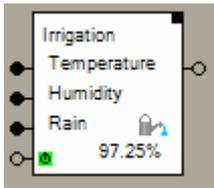
The **irrigation period** defines how long the pumps will be switched on.

The **start time** defines at what time of the day the pump(s) might be started. Sometimes it is most convenient to run the pump(s) at night because nobody gets disturbed and the effectiveness is best.

There is no need to connect all input signals of the irrigation block. Those signals, which are not connected, to any predecessor blocks will not be taken in account for the estimation. Therefore e.g. the rain input shall not be connected in case of irrigating indoor plants.

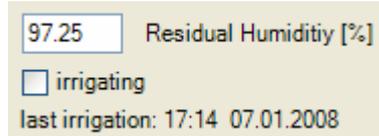
State indication

As soon as the estimation of the residual humidity of the soil comes below 0% and the time of day corresponds to the start time, an irrigation period will be started. This is indicated by the check mark in the checkbox **irrigating**. An irrigation period might also be started or stopped manually by checking the checkbox.



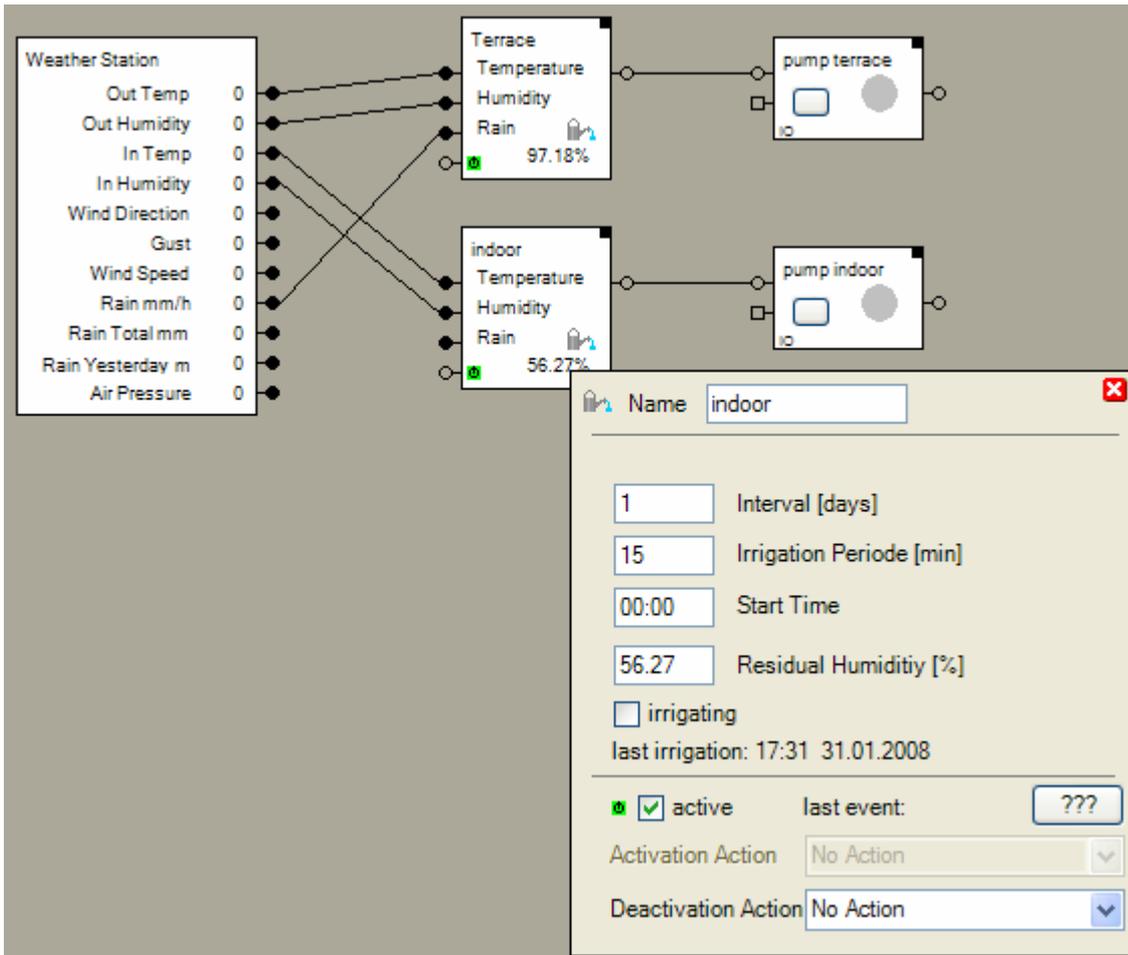
← Residual humidity of soil

Indication in the properties dialog:



Application sample

There are two pumps installed. One irrigates the indoor plants the other one the plants outdoor. The following example shows an indoor and an outdoor application:



The rain input pin of the irrigation block responsible for the terrace has been connected to the corresponding output pin of the weather station. In this case the irrigation block resets the estimated humidity of soil to 100% if the weather station indicates some rain.

This is not the case with the irrigation block for the indoor plants.

At the average of every third day irrigation period will be started. The irrigation starts at 3:00 in the morning.

The irrigation block supports the [Activation Feature](#) .

Find details about the corresponding visualization element in chapter [Visualization element Irrigation](#).

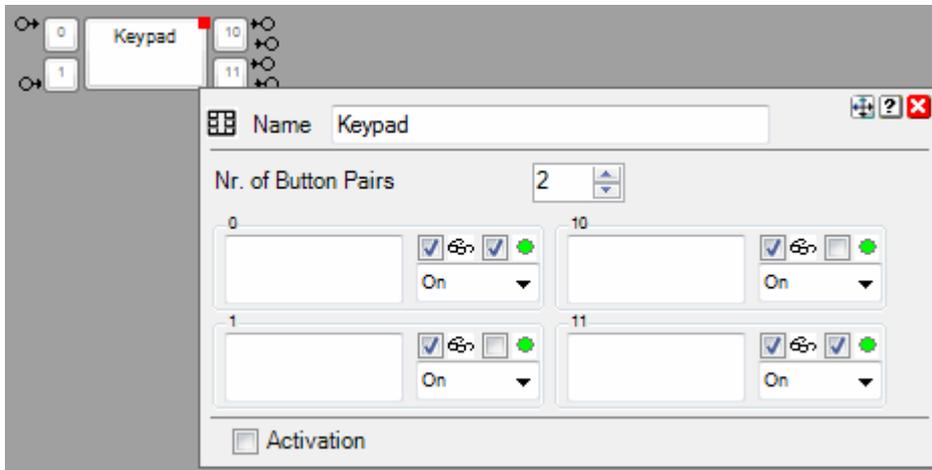
[Handling Blocks](#)

[Properties of Blocks](#)

Keypad

This block can be obtained from **Functions / Advanced**.

This block provides Keypads with up to 20 buttons. Individual configurations can be done for each button as: Button text, latching mode and command sent to the network.



Pins



The top pin corresponds to the upper left button.
 The second pin corresponds to the upper right button.
 The third pin corresponds to the lower left button.
 The fourth pin corresponds to the lower right button.



The control pins on the left side of the block are shown in case the corresponding button is configured to operate in latched mode. An ON command latches the button, an OFF command releases the button.

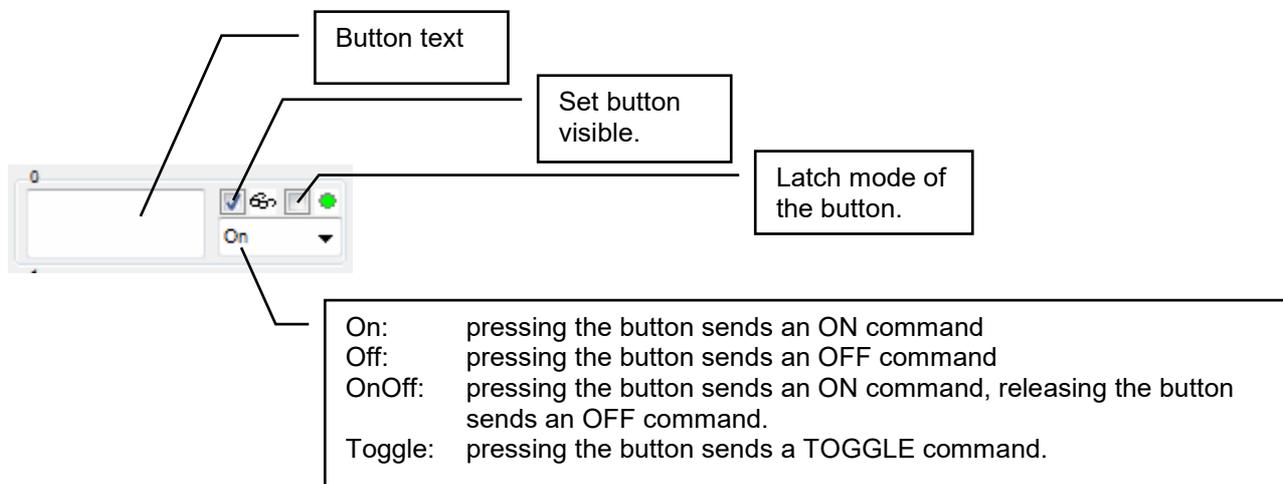
Function

This block feeds button operations into the network by sending [commands](#). The command to be sent is configurable individually for each button (refer to chapter configuration below).

Blue colored buttons are either pressed or latched.

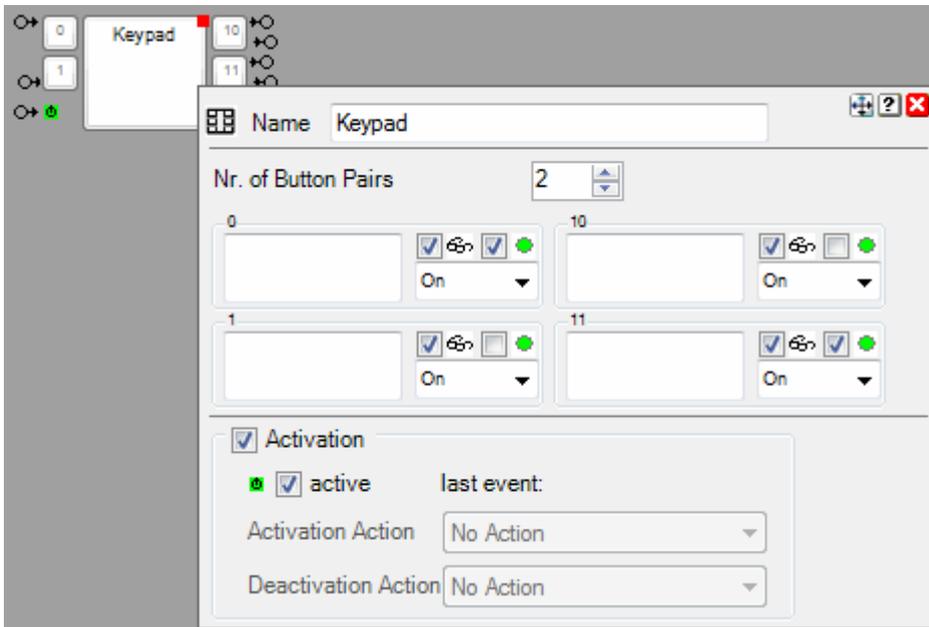
Configuration

The properties dialog provides following configurations fields for each button:



To implement operation mode selectors check the latching mode and select OnOff commands. With this configuration the button sends an ON command in case the mode is activated and an OFF command if it is deactivate by the user.

Activation



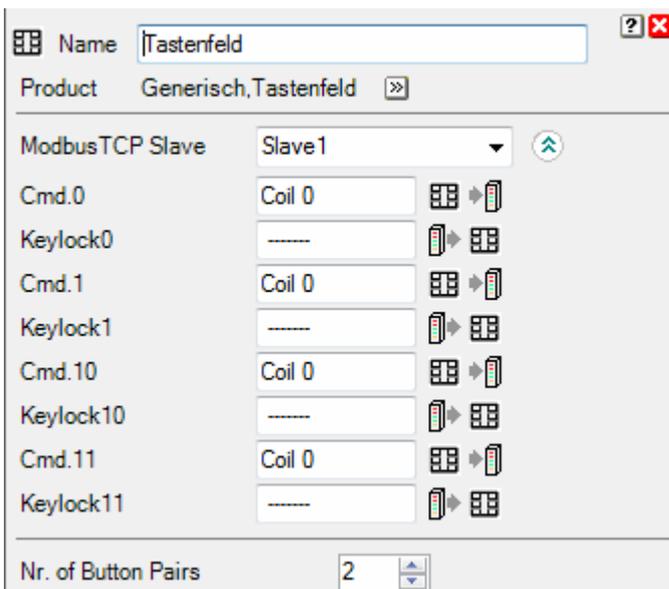
The keypad supports the activation feature. The activation enables/disables the buttons of the visualization elements. This means in case the keypad is deactivated, then all the buttons gets disabled and can not be operated any more.

Find details about the corresponding visualization element in chapter [Visualization element Keypad](#).

[Handling Blocks](#)

[Properties of Blocks](#)

Modbus: Function Channels (optional)



This section becomes visible in case the block has been dragged into the project from the tab „Modbus“

ModbusTCP Slave

The list box shows all defined [Modbus slaves](#). Select the corresponding slave device the block should interact with.

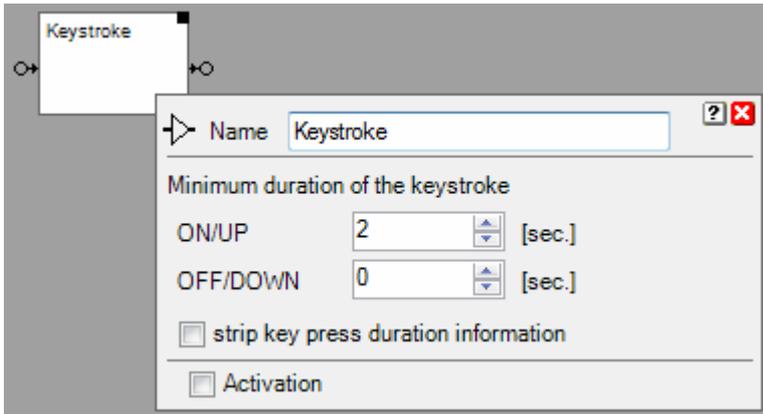
Cmd.X	<p>This binary signal is written by the switch block to the slave. It becomes ON in case the corresponding button has been pressed In case the function channel „KeylockX“ is activated, then the button changes temporary to the state „pressed“. If the function channel „KeylockX“ doesn't follow the state, then the button changes its state back to the original state.</p>
KeylockX	<p>This binary signal is read by the block from the slave. It is used to track the state of the corresponding button. This means, if the read signal is set, then the button changes to the state „pressed“.</p>

↳ Keystroke

This block can be obtained from **Functions / Logic**.

The Keystroke-Block delays the forwarding of the key press event. The button in question has to be pressed for at least the configured duration until the block forwards the corresponding key press event to its succeeding blocks. In case the button is released before the delay has expired, then no command is sent to the successor blocks.

Individual delays can be configured for the I- and the O-button.



Properties

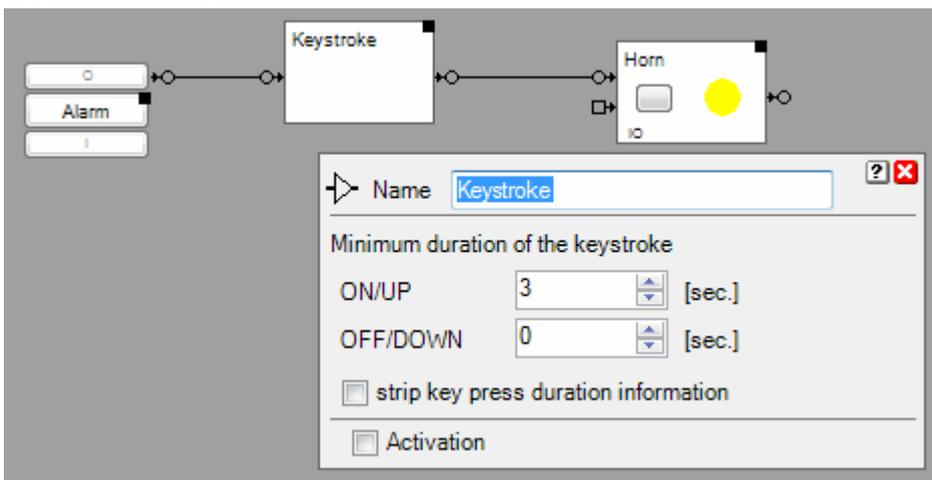
Input field ON: Delay time for the I button.

Input field OFF: Delay time for the O button.

Strip key press duration information converts the key presses into a [command without key press information](#).

The block supports the [Activation Feature](#) .

Application sample



Only if the I button is pressed for at least 3 seconds, the horn gets started. The O button stop the horn immediately.

🔗 Link

This block can be obtained from **Functions / Advanced**.

The link block might be used to automate sequences according the operations of the user.



Function

If the block receives an ON or OFF command on its input pin, then the link get called within the visualization. This means, the configured target tab is going to become visible and the rest of the tabs will be hidden or not depending on the configuration of the link.

Whenever the link is called, by the user itself or via a command at the input pin, then the block send an ON command through its output pin.

Further details, especially configuration items, are shown in the description of the [visualization element](#).

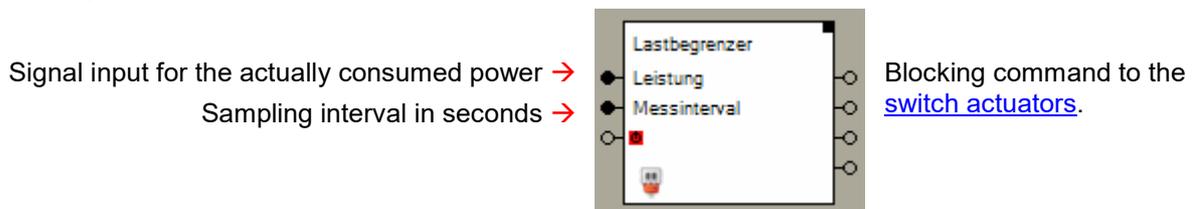
Find details about the corresponding visualization element in chapter [Visualization Element Clock](#).

The block supports the [Activation Feature](#) .

🛑 Load Limitation

This block can be obtained from **Functions / Advanced**.

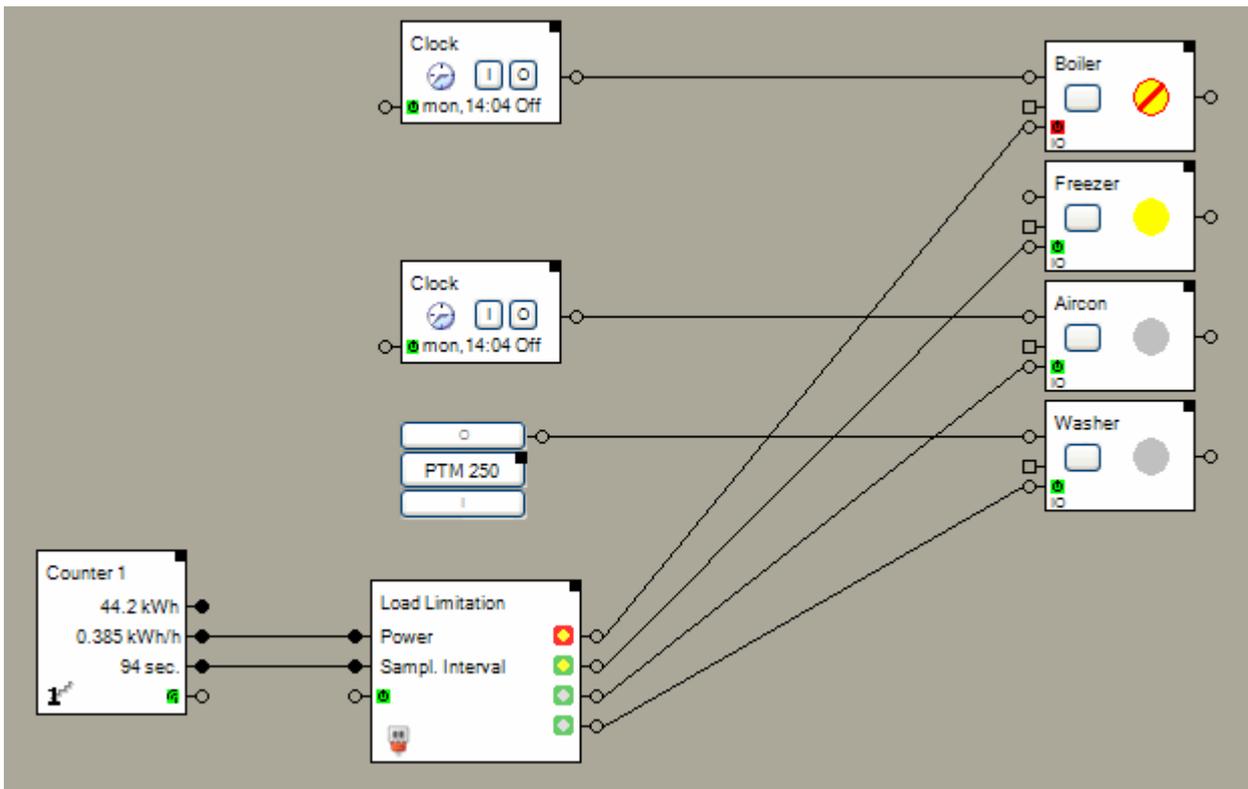
The Load Limitation controls the power consumption by turning off and on electrical consumers. This feature is useful in case the costs for electricity are related to power as well or in case overload might be sanctioned by the power supplier.



Function

A set of time conditions might be configured. The Load Limitation function considers these time conditions and the actual load to determine which consumers have to be blocked or released. There is the opportunity to connect up to 20 Switch Actuator blocks to the Load Limitation function. The switch actuator blocks will be turned off step wise from the top output pin to the bottom output pin to control the load. In case other consumers are going to be turned off, load becomes available and the Load Limitation function releases blocked switching actuators again. This is done from the bottom to the top.

Application sample:



The counter device e.g. Omnio TST230/01 with firmware “Counter” is electrically connected to the pulse output of an electricity meter. This output toggles e.g. every 100Wh. The counter device counts these pulses and calculates the consumed energy as well as the consumed power.

The output pin “actual power consumption” as well as the output pin “sampling interval” have to be connected to the corresponding input pins of the Load Limitation block. The Load Limitation function compares the consumed power against the time conditions (see below) and evaluates if there is an overload situation.. Depending on the result of the evaluation the function turns on or off connected consumers. Only switch actuator blocks are connectable to the Load Limitation block.

The [switch actuator blocks](#) provide a blocking input pin. This input pin doesn't control the state of the switch actuator block. It stays ON or OFF as it was before. But the blocking input controls the state of the physical switch actuator. Whenever the blocking is activated the physical switch actuator is turned off. If the blocking gets released, then the physical switch actuator get turned on if the state of the switch actuator block is ON. As soon as the switch actuator block gets connected to a Load Limitation block an additional input field appears within the properties dialog of the switch actuator block.

0.800 Consumption

For details refer to [switch actuator](#). This property will be read by the Load Limitation function and enables it to determine how many and which of the consumers shall be blocked or released in certain overload situations.

Priority:

The consumers are blocked step wise from the top pin to the bottom pin. This means, in case of an overload situation to consumer connected to the top pin will be blocked first. The amount of consumers which will be blocked depend on the overload and the power the individual consumers are consuming (switch actuator property “Consumption”).

In case “load becomes available” the consumers will be released from the bottom side. The next blocked consumers fitting into the “free load” will be released. For details refer to the section conditions further below.

Properties

Consumer

Load Limitation

Power

Sampl. Interval

Name Load Limitation

Consumer Conditions

Number of Consumers: 4

	Consumer	Consumption	State
0	Geschosname/Boiler	1.600	⚠
1	Geschosname/Freezer	0.300	🟢
2	Geschosname/Aircon	2.200	🟢
3	Geschosname/Washer	0.800	🟢

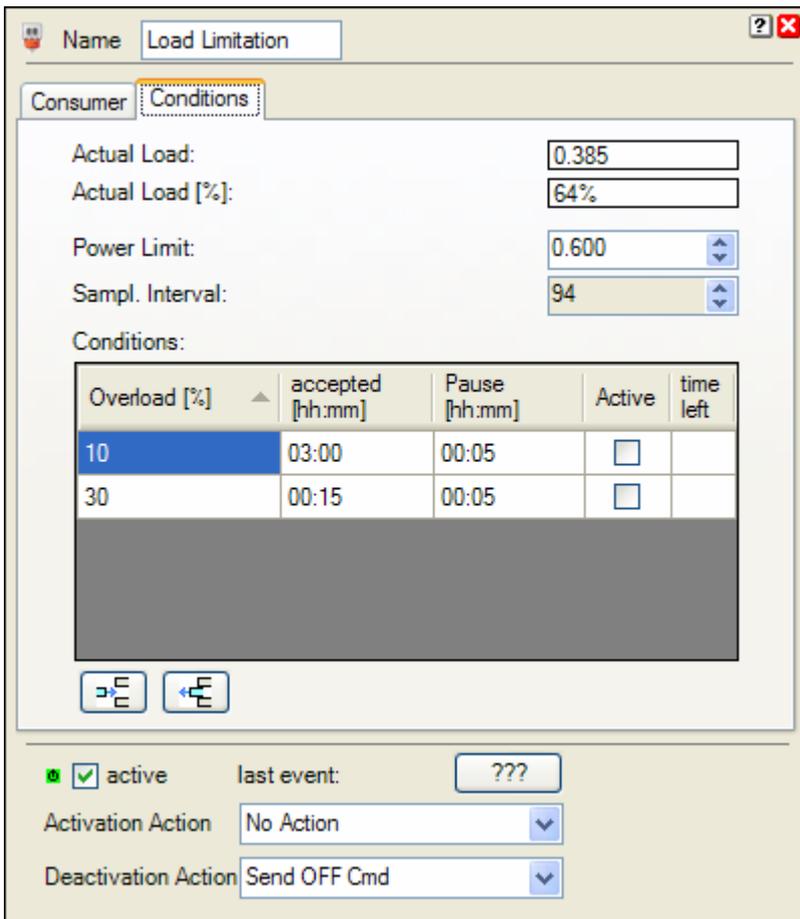
active last event: ???

Activation Action No Action

Deactivation Action Send OFF Cmd

← This input field controls the amount of output pins provided by the block. These pins control the blocking input of switch actuators.

Conditions



Indicates the current consumption
Indication in %

Input field for the limit.

Input field for the sampling interval.

Conditions defining the behavior of
the Load Limitation function under
different overload situations.

Insert and remove conditions.

Actual Load:

This field indicates the actual load e.g. kW. The indicated value corresponds to the signal value received on the input pin "Power".

Actual Load [%]:

This field indicates the actual load as a %-value basing on the Power Limit value.

Power Limit:

This is the input field for the power limit e.g. xyz [kW]. This value corresponds to 100%.

Sampling Interval:

This is the input field for the sampling interval in seconds. This means the duration between two measurements of the power consumption. The Load Limitation function requires this value to determine the latest time to block consumers.

In case the input pin "Sampl. interval" has been connected, then this field acts only as an indication and is read only.

Conditions:

Each row of the table defines the behavior during a certain overload situation. There is the opportunity to append additional rows.

A row defines a condition. This means it defines the behavior of the Load Limitation function in case of an overload situation between the overload[%] value of the previous row and the own overload[%] value (in the sample above defines the second row the behavior between overload of 10% and 30%). The cell "accepted" defines the duration how long the overload situation will be accepted. For unlimited duration enter a – instead of xx:yy as duration value. 2.1 times the sampling interval before the end of the accepted duration, the Load Limitation function is going to block consumers to solve the overload situation. The factor of 2.1 enables the Load Limitation to block additional consumers in case the first blocking step didn't solve the overload situation.

The cell "Pause" defines the minimal duration where the load must be within legal conditions before it may raise to overload situation again.

The cell "Active" indicates if the actual overload situation fits the corresponding condition.

The cell "time left" indicates in case the condition is active, for how long the overload will be accepted. In case the condition is not active, the cell indicates the rest ant duration of the pause.

The Or block supports the [Activation Feature](#) .

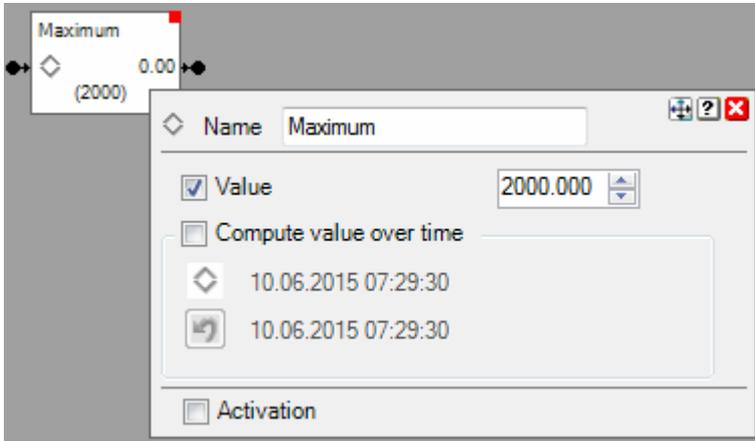
[Handling Blocks](#)

[Properties of Blocks](#)

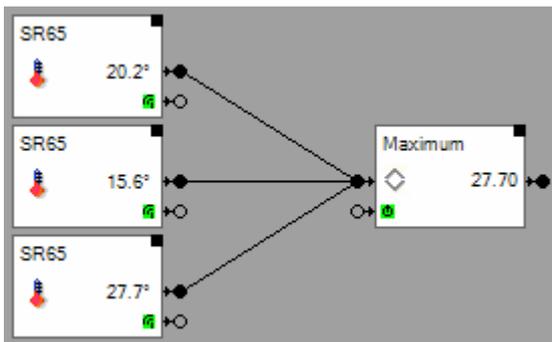
◇ Maximum

This block can be obtained from Functions / Arithmetic.

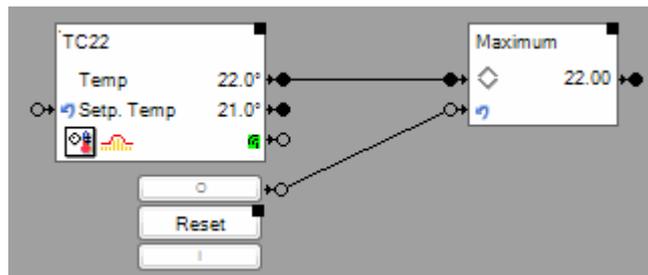
This function evaluates the largest value of the values of all connected signals.



Application sample



Maximum of the actual values of all inputs



Maximum of all values forwarded by the room operating panel, since last reset.

Properties

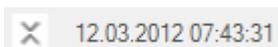
Value

Enter a constant maximum value here.

Calculate value over time:

Unchecked: The output of the block corresponds to the maximum value of all actual values of the input signals.

Checked: In principle the block works as in unchecked mode. But it stores the maximum value and considers the stored value for all future calculations. This means the value at the output corresponds to the maximum value of all inputs over time since last reset.



Point in time where the maximum values has been registered.



Point in time where the last reset has been processed.

Additional application samples:

-

This block supports the [Activation Feature](#) .

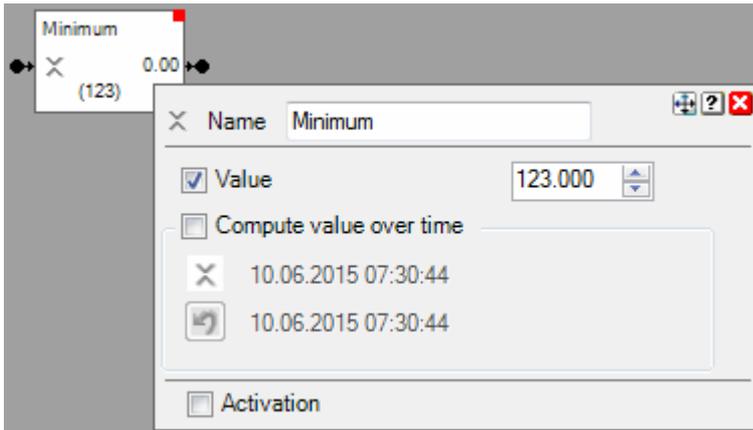
[Handling Blocks](#)

[Properties of Blocks](#)

✕ Minimum

This block can be obtained from Functions / Arithmetic.

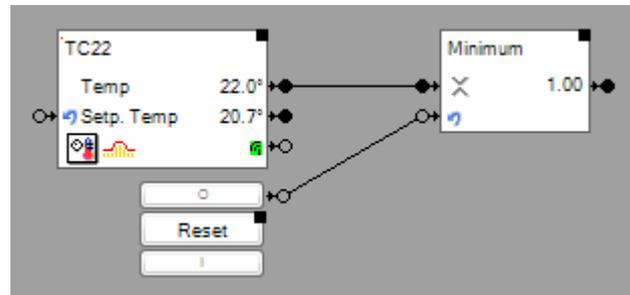
This function evaluates the smallest value of the values of all connected signals.



Application sample



Minimum of the actual values of all inputs



Minimum of all values forwarded by the room operating panel, since last reset.

Properties

Value

Enter a constant minimum value here.

Calculate value over time:

Unchecked: The output of the block corresponds to the minimum value of all actual values of the input signals.

Checked: In principle the block works as in unchecked mode. But it stores the minimum value and considers the stored value for all future calculations. This means the value at the output corresponds to the minimum value of all inputs over time since last reset.

 12.03.2012 07:43:31 Point in time where the minimum values has been registered.

 12.03.2012 07:43:31 Point in time where the last reset has been processed.

Additional application samples:

-

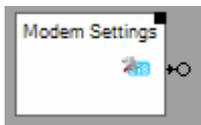
This block supports the [Activation Feature](#) .

- [Handling Blocks](#)
- [Properties of Blocks](#)

 **Modem Settings**

This block can be obtained from **Functions / Interfaces**.

This feature is available if the [License option: email, SMS, phone](#) has been enabled.



Sends out an ON command each time the user changes a setting.

Function

The block sends out an ON command each time the user changes a modem setting via the corresponding [visualization object](#).

See [general settings GSM modem](#).

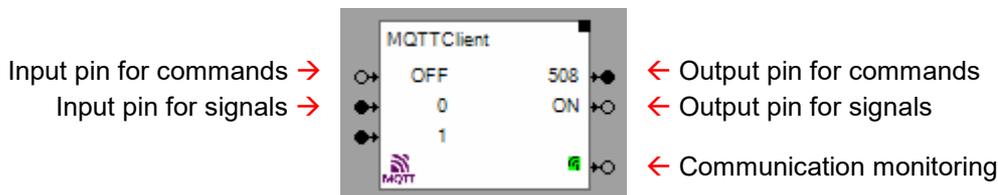
- [Handling Blocks](#)
- [Properties of Blocks](#)

Find details about the corresponding visualization element in chapter [Visualization Element Email Settings](#)

 **MQTTClient**

This block can be obtained from **Functions / Interfaces**.

This block is used to send MQTT messages to client devices containing dynamic parameters and to parse there response message



If at least one block of this type has been inserted into the project, myHomeControl will start the internal MQTT broker. Refer to [MQTT](#) for details.

Function

This block is used to communicate to MQTT client devices.

Typically a MQTT message is structured as shown below:

Request: /deviceId / outTopic : text-string or json-string

Response: /deviceId / inTopic : Json String

{

```

"value1": nnn,
"value2": mmm
}
    
```

Using the block configuration, the input signals of the block can be used for the topic(s) and there values. The same applies in reverse for the response values nnn, mmm and output pins.

Properties

Device

Select the device in question from the list.

Transmission interval

Value 0: means no cyclic request. Requests are performed if an input signal changes its value.

Values 1..x: Requests are performed with the given interval.

Tab: Publish

Publish

Json Topic:

Parameter	Type	Value	Value pairs
Cmd	Command	OFF	OFF=on;ON=off;
Signal1	Signal	0	
Signal2	Signal	1	0=off;1=halfspeed;2=fullspeed;

MQTTTest_2411903/set:{"Cmd": "on", "Signal1": "0", "Signal2": "halfspeed"}

Message to be sent to the MQTT client device

Json: messages sent to the MQTT client device can be sent either in json format or as plain text. If json is selected, then the topic has to be defined.

Each entry in this table generates an input pin of the selected type.

The name of the parameter (parameter column) is handled according to the message type selection:

- Json: the parameters are combined to a json payload
- Plain text: for each of the parameters an individual message will be sent to the client device. The parameter name is used as topic, the value is copied to the payload as plain text.

Command declaration: myHomeControl works with the commands ON & OFF. Typically, the MQTT client uses other terms for ON & OFF, such as e.g. on & off. Therefore the values ON & OFF must be translated.

The value pairs determine which input value is translated into which term within the message.

Signal declaration without value pairs: The value of the corresponding input pin is copied to the message as plain text.

Signal declaration with value pairs: Enumeration types that have more than 2 terms must be processed as signals in myHomeControl, since myHomeControl does not recognize any enumeration types. The signal values can be translated into terms by means of the value pair declaration, e.g.:

- 0: off
- 1: halfspeed
- 2: fullspeed

Tab: Subscribe

MQTTTest_2411903/set:{"Cmd":"on","Signal1":"0","Signal2":"halfspeed"}

13:50:13.191 json:MQTTTest_2411903/state:{"state":"on","brightness":12}

received message

This example shows a Json response. The above output signal declarations evaluate the "state" and the "brightness" parameters.

The command declaration for "state" also contains value pairs for the translation of the API-specific terms on & off into the myHomeControl command terms ON & OFF.

The signal declaration for "brightness" does not contain any value pairs. As a result, the value 12 is interpreted as a number and fed to the output pin unchanged.

By means of value pairs, terms can be translated into numerical values for the output pin: e.g. off = 0, halfspeed = 1, fullspeed = 2

Subscription-Parameter

A Subscription-Parameter describes the path of a certain object within the json response. This path can be absolute or relative. In the minimum case, it only consists of the object name as in the above example "Brightness". Below is a slightly more complex example:

Json response:

```
{
  "version": "0.8",
  "data": [
    { "tuples":
      [
        [1234, 5678]
      ]
    }
  ],
  "product": {
```

```
"link.db":123,  
"type":456  
}  
}
```

The path shown below addresses the second data of the data pair absolutely:

Subscription-Parameter: `data[0].tuples[0].[1]`

The path shown below addresses the second data of the data pair relatively:

Subscription-Parameter: `tuples[0].[1]`

The path shown below addresses `link.db` absolutely. Use the escape sequences `['` and `']`:

Subscription-Parameter: `product.['link.db']`

The path shown below addresses `link.db` relatively. The blocks add the escape sequences automatically:

Subscription-Parameter: `link.db`

[Handling Blocks](#)

[Properties of Blocks](#)

* Multiplication

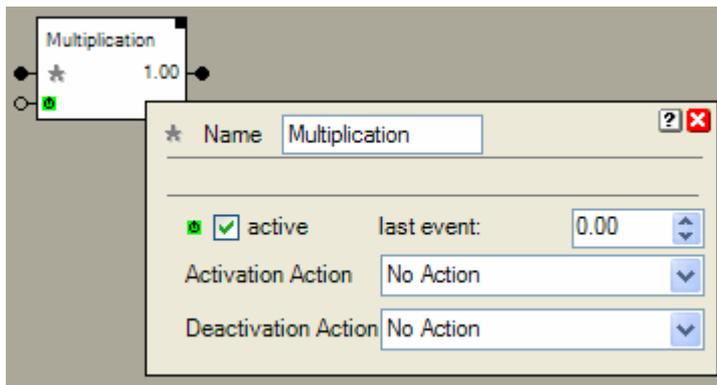
This block can be obtained from Functions / Arithmetic.

This function multiplies the values of all connected signals.

Formula

Output = product of the signal values of all signals connected to the input pin

Properties



This block supports the [Activation Feature](#) .

Additional application samples:

-

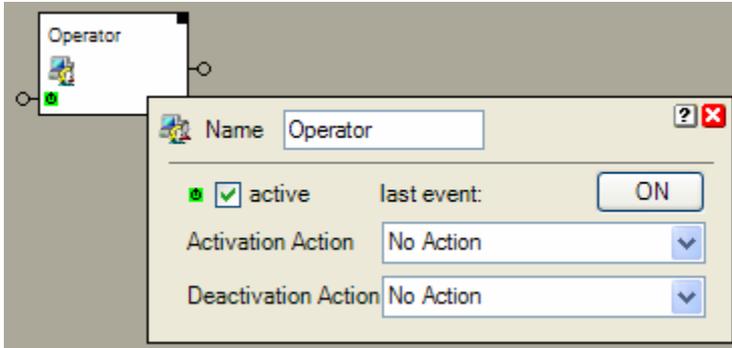
[Handling Blocks](#)

[Properties of Blocks](#)

Operator Screen

This block can be obtained from Functions / Logik.

This block forwards operator events to the network area. The block sends an ON command to the network in case the operator changes between different floor tabs in the visualization.



Properties

The operator events, on which the block shall react, have to be defined in the settings of the [Visualization element](#).

Find details about the corresponding visualization element in chapter [Visualization Element Operator Screen](#).

The set point block supports the [Activation Feature](#) .

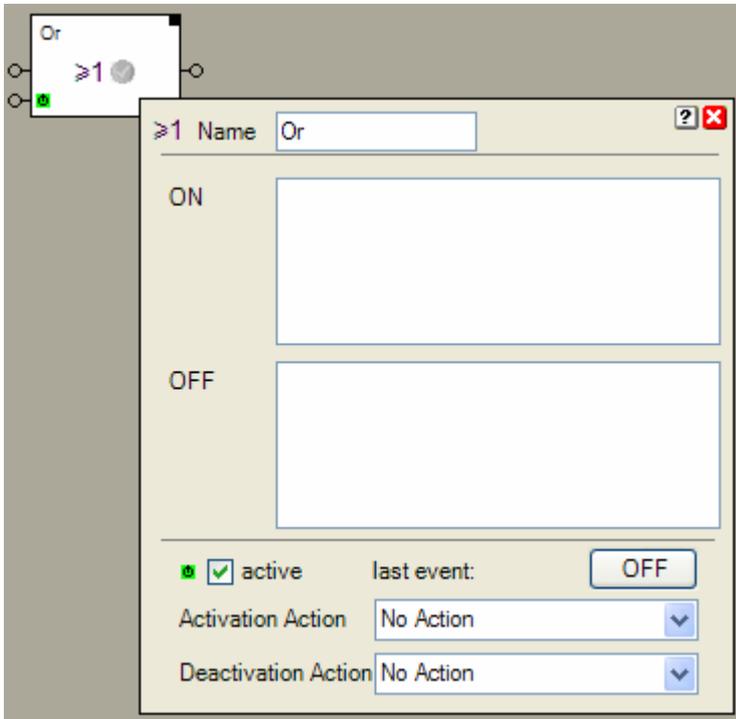
[Handling Blocks](#)

[Properties of Blocks](#)

≥1 Or

This block can be obtained from Functions / Logic.

The Or-Block sends an ON command in case it receives an ON-Command from at least one of its predecessor blocks. It sends an OFF command after the reception of OFF commands from all of its predecessor blocks.



Function

The Or block checks the Or-Condition. It changes between two states:

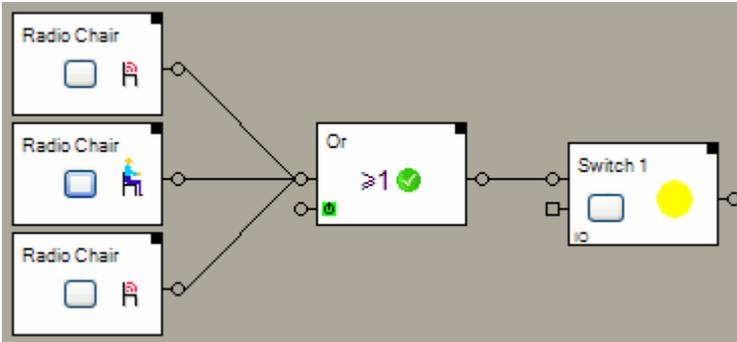
- “Or-Condition fulfilled”
The block received at least from one of its predecessor blocks an ON command as last command.
- “Or-Condition not fulfilled”
The block received from all predecessor blocks an OFF command as last command.

If the Or block changes its state to “Or-Condition fulfilled”, then it sends an ON command to its successor blocks. If it changes to the state “Or-Condition not fulfilled”, then it sends an OFF command to its successor blocks.

The Or block supports the [Activation Feature](#)

Application sample

As soon as one of the chairs will be occupied the light switches on. The light switches off if all the chairs have become free again.



Properties

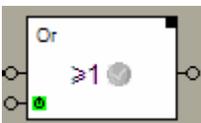
The properties dialog shows the state of the commands received from the predecessor blocks.

State indication

The toggle block knows the states ON and OFF. If changes its state with each processed command. On each state change it sends a corresponding command to the successor blocks.



The Or condition is fulfilled. The block sent out an ON command.



The Or condition is not fulfilled. The block sent out an OFF command.

Additional application samples:

- Lights in office controlled by radio chairs

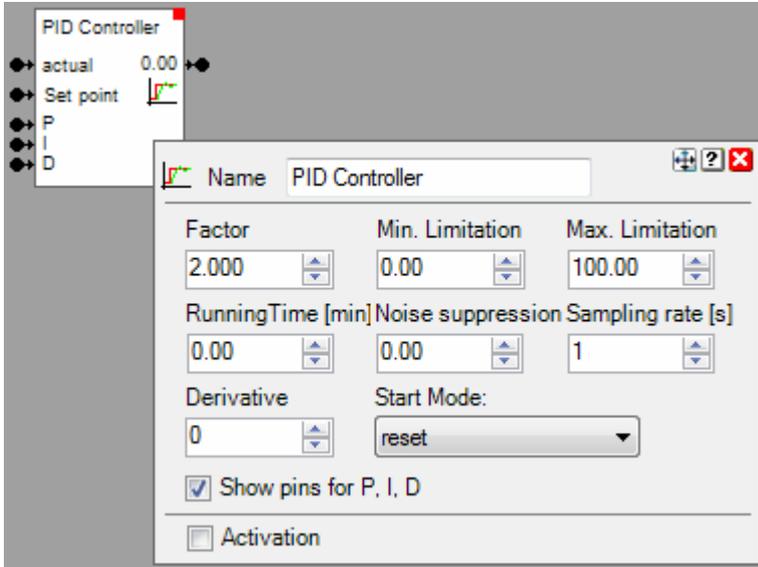
[Handling Blocks](#)

[Properties of Blocks](#)

PID Controller

This block can be obtained from Functions / Arithmetic.

This block implements a PID controller algorithm.



Function

The PID algorithm is executed according to the configured sampling rate.

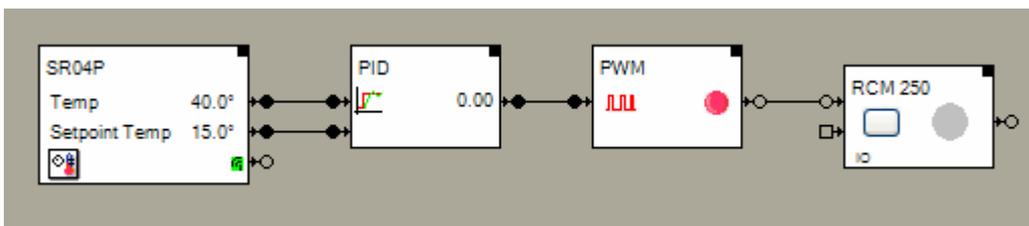
The output is updated, if it changed by at least 1%.

This block supports the [Activation Feature](#) .

Properties

Factor	P:
Running Time	I: in minutes
Derivative	D:
Min.Limitation	Min. limitation of the output value.
Max.Limitation	Max. limitation of the output value.
Noise Suppression	The controller outputs a new signal value, if the value changed at least by the value of the noise suppression.
Sampling rate	Defines how often the pid algorithm is executed.
Start Mode	Defines the behaviour of the integral part at startup time: - reset: initiates the integral part to 0, - restore: initiates the integral part to the value when shutting down the application
Show pins for P,I,D	Shows pins to control the parameters P, I, D from the network.

Application sample



This sample shows a closed loop control for a room heating.

- The room control panel measures the actual temperature and provides a set point value for the temperature.
- The PID controller evaluates the requested heating power as a % value.

- The PWM (pulse width modulator) converts the analogue % value to a sequence of ON and OFF command corresponding to a modulated pulse sequence.
- The RCM250 switch actuator is used to control a thermo dynamic valve (heating valve).

[Handling Blocks](#)

[Properties of Blocks](#)

🔒 PIN

This block can be obtained from Functions / Advanced.

This block might be used to build up a security system. The block requests the input of a PIN code by the user to activate or deactivate the security system.



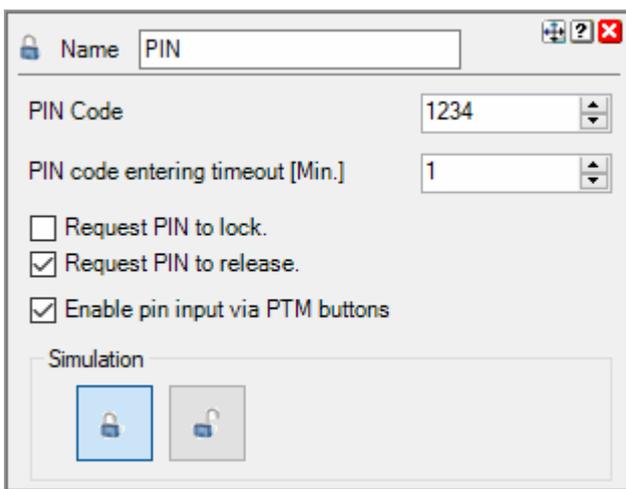
The block knows two individual states: “locked” and “unlocked”.

An ON command on the input triggers the block to change to the locked state. An OFF command triggers the block to change to the unlocked state. Depending on the configuration of the block, the block requests the input of the PIN code by the user.

The block only changes to the requested state, if the user enters the correct PIN code. Otherwise the block stays in its original state.

In case the block changes state from locked to unlocked state, then the block sends out an OFF command through the output pin. Vice versa it sends an ON command in case the block changes from the unlocked to the locked state.

Properties



PIN code

PIN code, which has to be entered by the user.

PIN code entering timeout

The input mask for the PIN stays open for this duration. After the configured time period the input mask closes automatically and the block stays in its original state.

Request PIN to lock

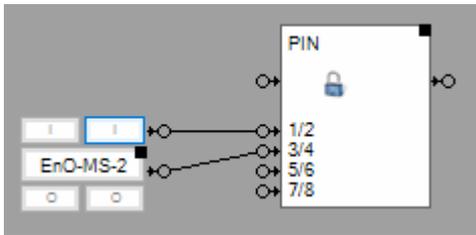
if this option is checked, then the block requests the input of the PIN code every time the block changes state from „unlocked“ to „locked“. The block changes to the requested state after the user inputs the correct PIN. Otherwise it stays in the original state.

Request PIN to unlock

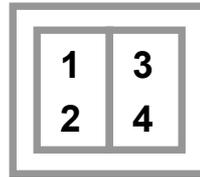
if this option is checked, then the block requests the input of the PIN code every time the block changes state from „locked“ to „unlocked“. The block changes to the requested state after the user inputs the correct PIN. Otherwise it stays in the original state.

Enable pin input via PTM buttons

Pin input via PTM buttons is an opportunity to use radio button switches to enter a pin code.



Meaning of the buttons

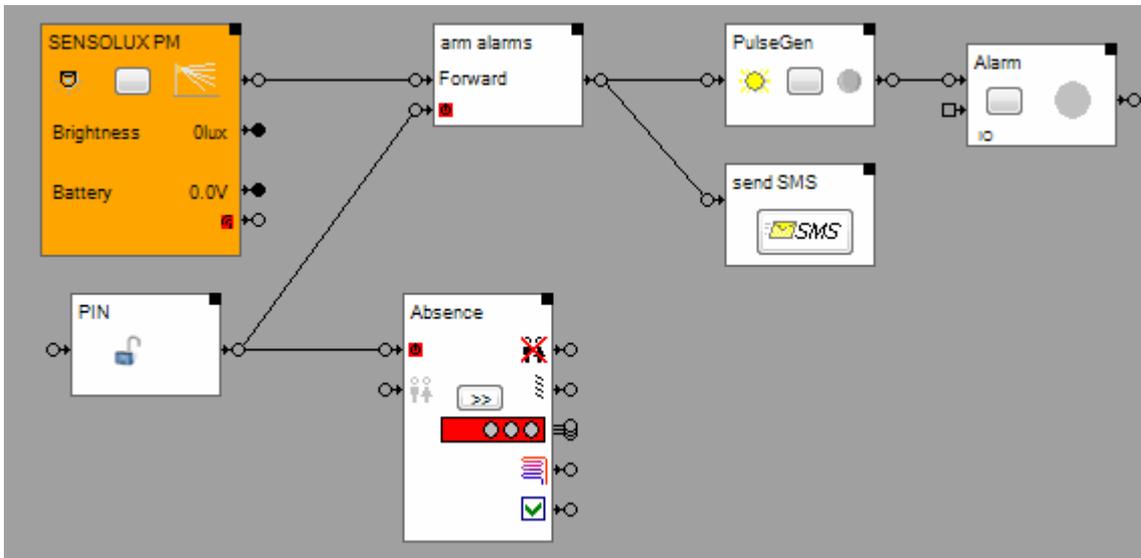


Take in account that in this configuration only digits 1,2,3,4 are allowed to be used for the pin.

Find details about the corresponding visualization element in chapter [Visualization Element PIN](#).

Application sample:

This sample shows the principle of an security function.



A Sensolux [occupancy sensor](#) is used to detect motion within a room.

In case the sensor detects motion when the security function has been activated, then a indication light shall [blink](#) and the user shall be informed by an [SMS](#).

The signals received from the occupancy sensor will be forwarded to the security functions in case the [filter block](#) “arm alarms” has been activated. The activation of the filter block is done by the PIN function.

When the user leaves the building, then she/he arms the security functions by locking the PIN function in the visualization. The PIN block sends out an ON command via its output pin. This activates the filter block and the filter block forwards all signal received from the occupancy sensor to its successor blocks.

When the user returns he/she disarms the security functions by unlocking the PIN function. Therefore he/she is requested to enter the correct PIN code. If the PIN code has been entered correctly, then the block changes to the “unlocked” state and sends out an OFF command to the filter block. This deactivates the filter block and no signal will be forwarded anymore.

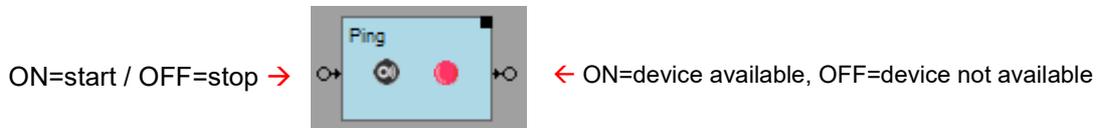
[Handling Blocks](#)

[Properties of Blocks](#)

Ping

This block can be obtained from Functions / Advanced.

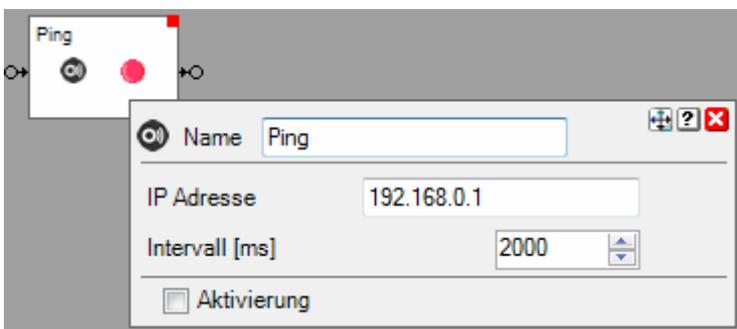
This block might be used to check availability of a LAN network device. Either an IP address or a host name can be checked.



Function

After the block has been started with an ON command, it starts pinging the network device in question. If it receives a response from the network device it sends an ON command to its output pin. If it doesn't receive a respond for 10x it will send an OFF command to its output pin.

Properties



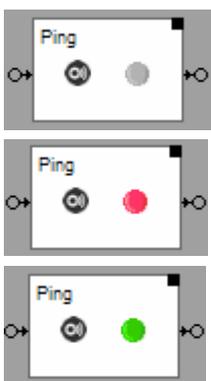
IP address

IP address or host name of the device in question

Interval

Interval in milliseconds to ping the network device in question.

State indication



The block is stopped.

The block is pinging the device in question, but it doesn't respond.

The device in question is available.

Find details about the corresponding visualization element in chapter [Visualization Element Ping](#).

Application sample:

This block might be used to detect if e.g. a smart phone becomes available in the wireless network. This is typically the case, if somebody arrives its home.

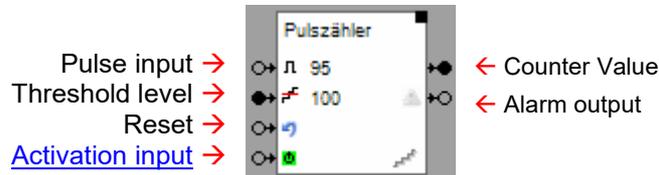
[Handling Blocks](#)

[Properties of Blocks](#)

Pulse Counter

This block can be obtained from **Functions / Logic**.

This block counts pulses and monitors the counter value against a threshold value. If the counter value is above the threshold value, then it sets the alarm signal otherwise the alarm signal gets cleared.



Function

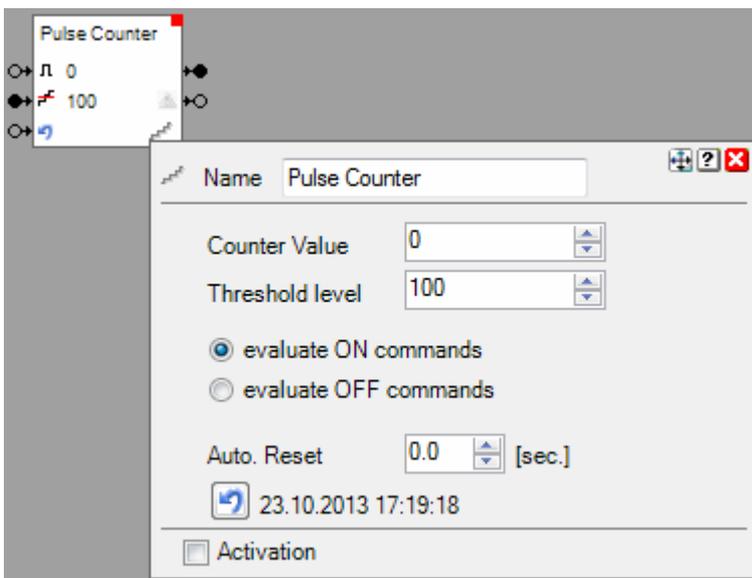
The block counts always upwards, this means counting starts at 0 and counts up to xxxxxx. The block counts either ON- or OFF commands, which it receives by the pulse input pin.

The counter value might be reset by an ON command on the reset input pin.

As soon as the counter values reaches the threshold level, the block sends an ON command on the Alarm output. After the reset it sends an OFF command.

The threshold value can be set either by the corresponding Threshold level input pin or in the block configuration dialogue.

Properties



Counter Value

Actual counter value. The button might be used to reset the counter value manually.

Threshold level

Threshold level for the counter value which raises the alarm condition.

Regard ON/OFF commands

This setting defines if the block counts ON or OFF commands.

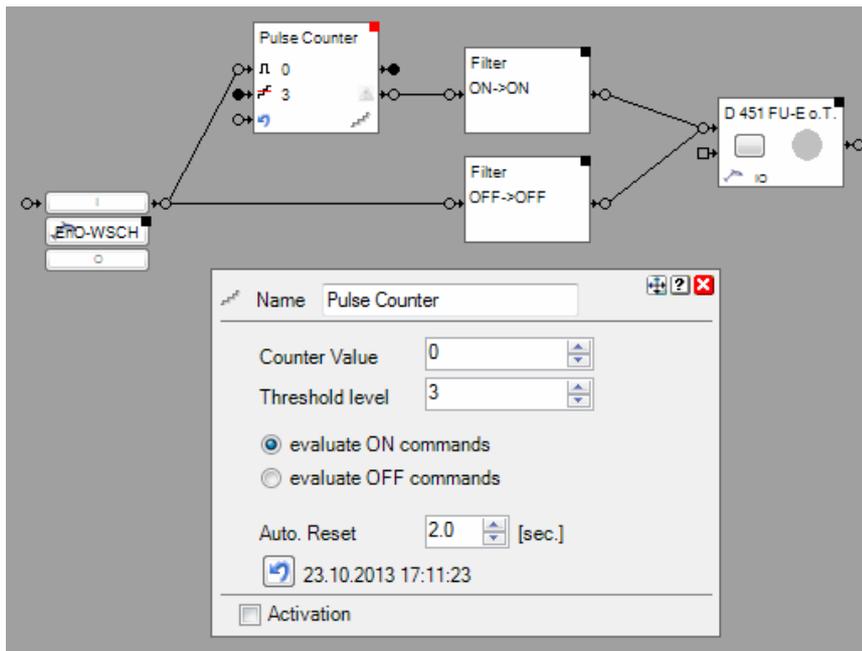
Auto. Reset

Delay time for automatic reset. Delay starts when counter value becomes > 0.

This block supports the [Activation Feature](#) .

Application sample

The switch actuator shall turn on in case a button is clicked 3 times within 2 seconds.



The pulse counter block is configured to:

- count button presses on the I button
- set alarm when counter value reaches 3
- automatically resets the counter value after 2 seconds.

Find details about the corresponding visualization element in chapter [Visualization Element PulseCounter](#).

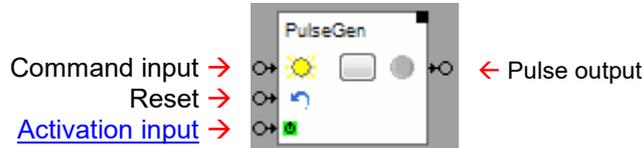
[Handling Blocks](#)

[Properties of Blocks](#)

PulseGen

This block can be obtained from **Functions / Logic**.

This block acts as a pulse generator. It generates a pulse with adjustable interval and pulse width.



Function

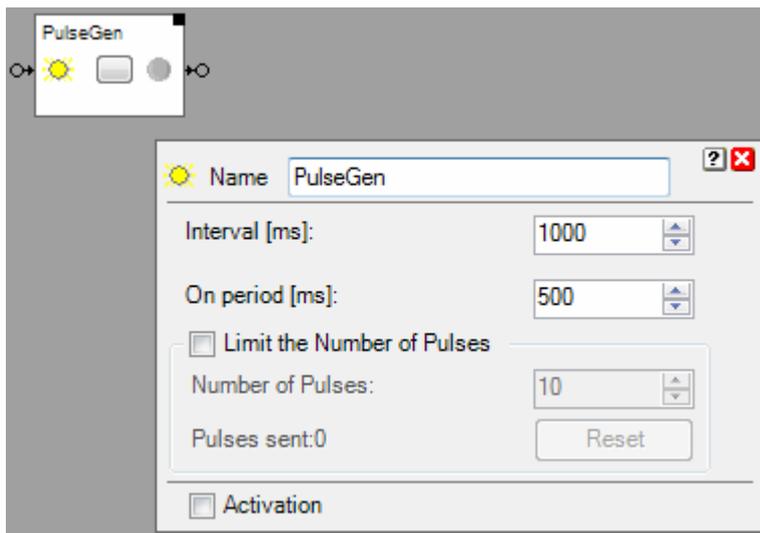
An [ON command](#) received on the command input pin activates the pulse generation, an [OFF command](#) deactivates it. The button in the center of the block activates or deactivates the pulse generation as well.

The block sends at the start of a new pulse an [ON command](#) and at the end of the pulse a [OFF command](#).

There is an option to limit the amount of pulses sent by the block to a certain value.

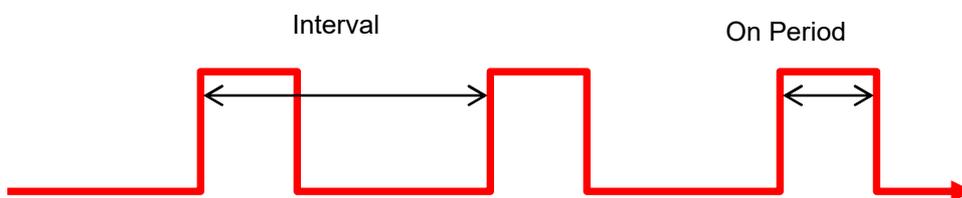
This block supports the [Activation Feature](#) .

Properties



The Interval defines the period for the generation of the pulses. This is the time between two pulses.

The **On Period** defines the pulse width. This is the time between the ON command and OFF command.



If "**Limit the Number of Pulses**" has been checked, then the block stops sending out pulses as soon as its actual pulse counter reaches the configured **Number of Pulses** value. The reset button as well as the reset input resets the actual pulse counter. The block continues to generate pulses as long as the actual pulse count didn't reach the configured **Number of Pulses** value.

State Indication



The pulse generator is turned off. It doesn't generate pulses.

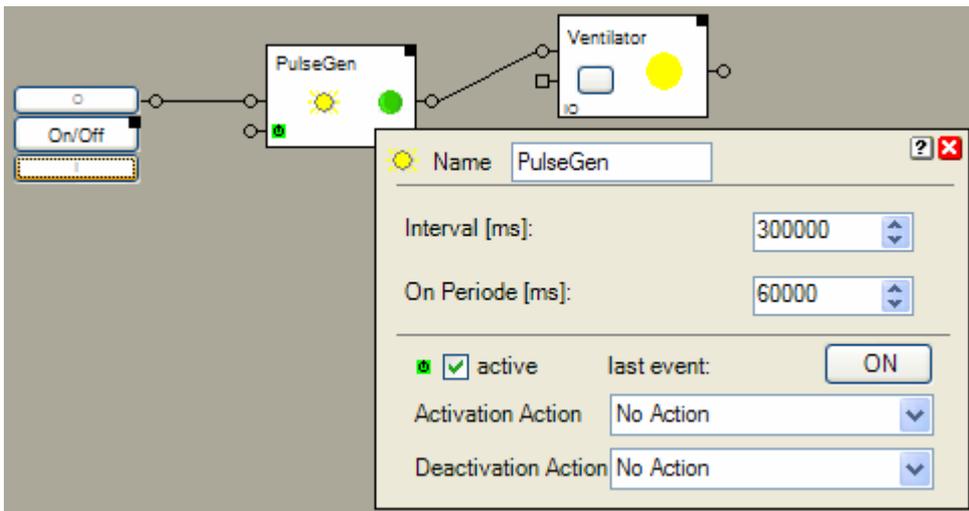


The pulse generator is turned on. It generates pulses. Actually the last sent command was an ON command.



The pulse generator is turned on. It generates pulses. Actually the last sent command was an OFF command.

Application sample



The pulse generator generates a pulse every 5 minutes with a duration of 1 minute.

[Handling Blocks](#)

[Properties of Blocks](#)

PWM

This block can be obtained from **Functions / Arithmetic**.

Pulse Width Modulation:

This block generates a pulse sequence according to an analogue % value.



Function

The block creates pulses at a configurable rate. The width of the pulses correspond to the %-value received on the input.

Samples (assuming the rate is set to 10 Seconds):

0%: no pulses are generated, output is set to OFF.

25%: every 10 seconds a pulse with a width of 2,5seconds is generated. At the start of the pulse the block sends an [ON command](#) via. its output, at the end of the pulse it sends an [OFF command](#).

75%: every 10 seconds a pulse with a width of 7,5seconds is generated.

100%: no pulses are generated, output is set to ON.

The range for the input values is 0..100.

Properties



The Interval defines the rate for the generation of the pulses. This is the time between two pulses.

State Indication

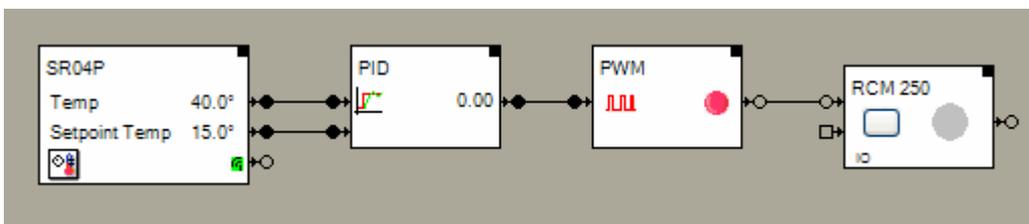


The last sent command was an ON command.



The last sent command was an OFF command.

Application sample



This sample shows a closed loop control for a room heating.

- The room control panel measures the actual temperature and provides a set point value for the temperature.
- The PID controller evaluates the requested heating power as a % value.
- The PWM (pulse width modulator) converts the analogue % value to a sequence of ON and OFF command corresponding to a modulated pulse sequence.

- The RCM250 switch actuator is used to control a thermo dynamic valve (heating valve).

[Handling Blocks](#)

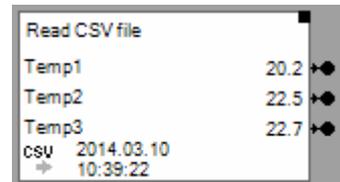
[Properties of Blocks](#)

CSV
 **Read CSV File**

This block can be obtained from **Functions / Interfaces**.

This block reads a CSV-File and evaluates the signal values specified in the file. Then it forwards the evaluated signal values to its output pins and from there to the network.

```
Temp1;Temp2;Temp3
20.1;22.1;23.4
20.2;22.5;22,7
```



Function

The block monitors the specified CSV-File for changes (new version of file). As soon as it detects a new version of the file it reads the signal values of the not yet read lines of the file and forwards them to the corresponding output pins. Typically this is the last line of the file.

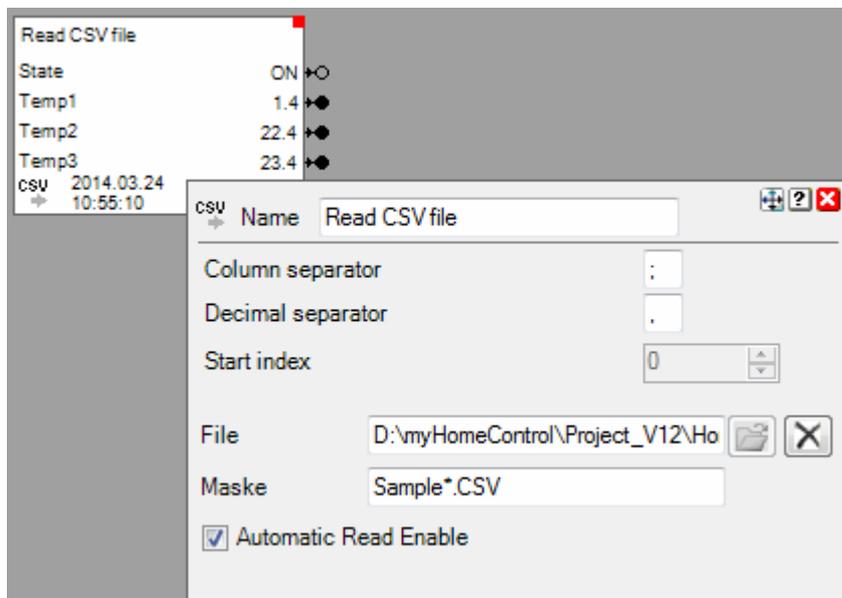
The first line of the file is interpreted as signal name.

In case the size of the file has decreased since last read, then the file will be completely reinterpreted and all lines will be parsed and forwarded to the outputs. Typically this is the case if the filegenerator has restarted with a new file and in the new file there is only one new line.

The block reads files according following parameters:

- Path: Path of the folder containing the file.
- Mask: Wildcard defining the filename. Often the file name is enhanced by any date/time codes. The wild card enables the user to specify a generic name. The block will read the file with the youngest modification date.

Properties



If the CSV-file is read the first time, then the block evaluates the amount and the type of the signals. Correspondingly it assigns pins to the block.

Start index

Defines the first Colum to be evaluated. Start index = 0 means first colum. The block is able to handle up to 49 signals. In case there are more then 49 columns in the file, it might be nessecary to use a second block.

File

Path to the folder containing the file.

Mask

Wild card for the file name. Use * to mask any amount of any letter or figure.

If **Automatic Read Enable** has been checked, then the block automatically rereads the file and updates the signal values, in case the CSV file has been updated (rewritten).

If **Automatic Read Enable** has not been checked, then a additional Pin appears enabling the network logic to trigger a read of the CSV file (ON command).

During reading of the file it is checked if the signal names and types are still the same

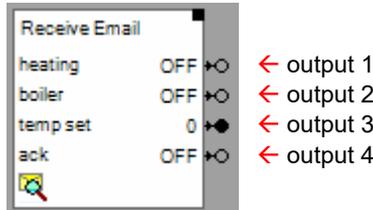
The number of signals is limited to 20.

 **receive email**

This block can be obtained from **Functions / Interfaces**.

This feature is available if the [License option: email, SMS, phone](#) has been enabled.

This block receives emails from the account defined in the [general settings -> Email](#). The block searches for phrases within each received mail. If a phrase is found, then the block triggers a certain action.



Function:

There is the opportunity to configure multiple signal or command outputs. For each of the outputs a set of search phrases have to be defined. The block shows output pins accordingly (outputs 1..n).

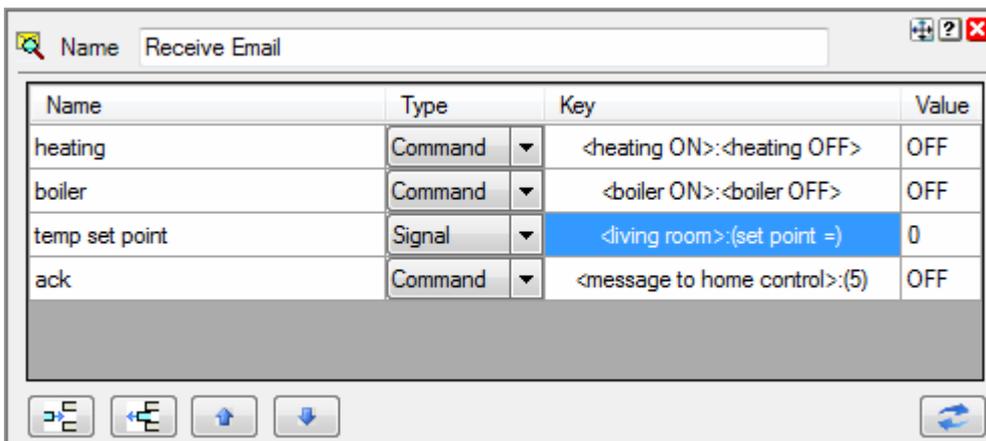
If search phrases are found in a received email, then the action will be triggered on the corresponding output. There are following types of actions:

- send ON or OFF command to the network
- send a pulse with a configurable duration to the network
- update the value of a signal output

For each output a set of search phrases have to be defined. All the phrases must be found in the mail to trigger the action.

There is the opportunity to insert multiple "receive email" blocks into the project. A received mail will be evaluated by all of the blocks.

Settings



Each row in the table above defines an output of the block.

Name: Name of the signal

Type: Command or Signal
 Select Command for commands or Signal for analog signals. This selection defines the type of output pin shown by the block.

Key: This column shows a coded representation of the search phrase lists. Each action requires a type-specific search phrase configuration. The search phrase list may consist of one or multiple search phrases

Syntax for the search phrase list

A **search phrase list** consists of at least one search term. Multiple search phrases must be

separated by ;.

A **search phrase** consist of at least one word but can also contain multiple words. These words must be found in the mail in the same order then in the search phrase. Multiple spaces and line feeds in the mail are seen as single spaces.

Sample search phrase list to turn on heating:

Mail:

```
message to home control
sent: 01.03.2013
command: heating      ON
```

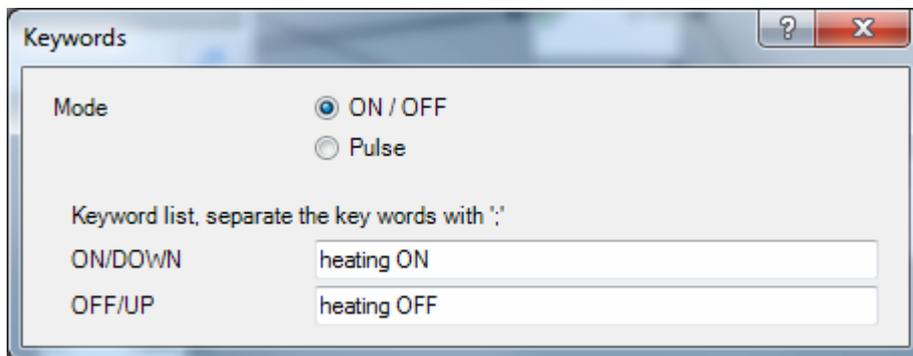
Search phrase list: heating ON

Click on the corresponding cell to open the configuration for the search phrase of the signal in question.

In case type **Command** has been selected:

Action: **ON / OFF**

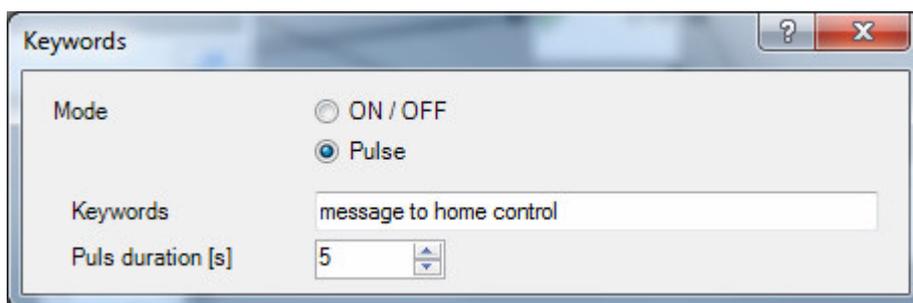
Enter individual search phrases for ON and for OFF.



In this sample the block will send an ON command on the corresponding output pin in case the email contains the term `heating ON`. In case the email contains the term `heating OFF`, then the block will send an OFF command.

Action: **Pulse**

A single search phrase list has to be configured.

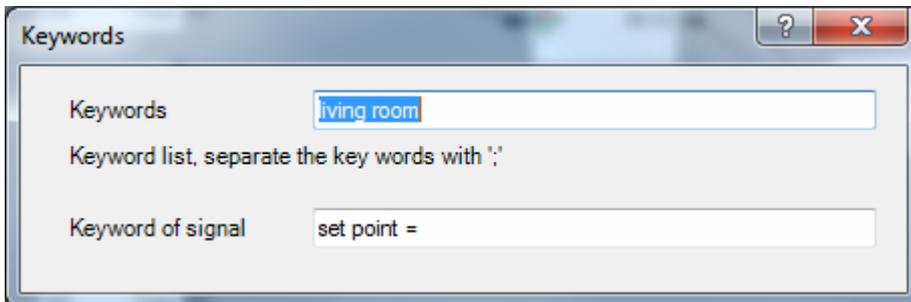


In this sample the block will send an ON command to the corresponding output pin in case the email contains the term `message to home control`. After 5 seconds its sends an OFF command.

In case type **Signal** has been selected:

Action: **Update signal value**

Enter a search phrase list and a search phrase to locate the value of the signal.



In this sample the block updates the value of the output pin in question in case the phrases `living room` and `set point =` are found in the mail. The term following the search phrase of the signal will be numerically evaluated by the block. The evaluated value will be assigned to the corresponding output pin of the block.

Sample email:

`adjust temperature set point in living room to set point = 21.5°.`



Use these buttons to append or insert new rows and to delete existing rows. The buttons refer to the selected row. To select a row, click the corresponding Name field:



Inserts a new row at the end of the table,



Deletes the selected row.



These buttons move the selected row.



Triggers a email read cycle. Email are read every 15 seconds automatically.

POP <-> IMAP

There are two protocols available to read emails. One is POP and the other is IMAP. **myHomeControl®** automatically selects the protocol based on the given configuration under [general settings -> Email](#). Both protocols have their own singularities:

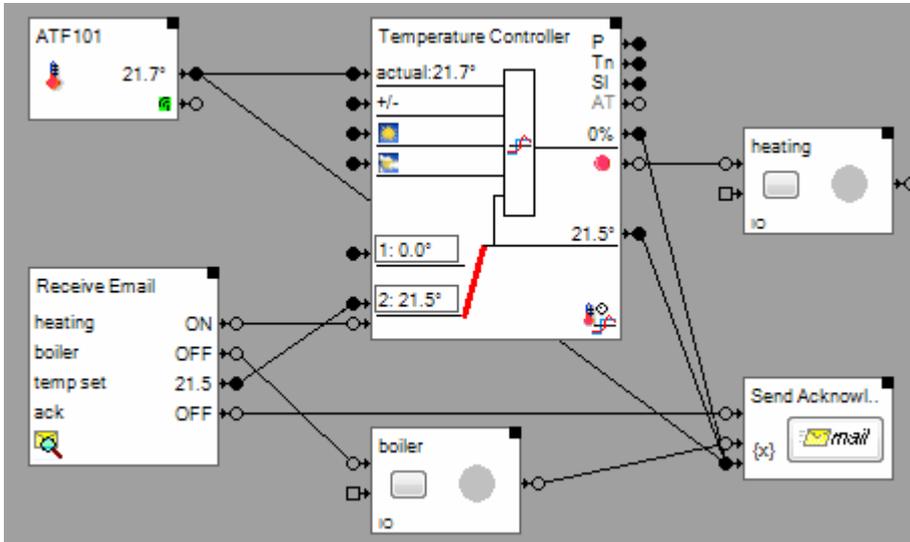
POP this protocol doesn't provide any feature to mark already readen messages. Therefore **myHomeControl®** gets all the emails from the server, when it reads the mails. To avoid multiple evaluation of the same mail, **myHomeControl®** stores the Ids of the already evaluated mail in the project database.

IMAP this protocol provides a feature to mark mails as already evaluated. Therefore **myHomeControl®** only gets new mails from the server. There is no need to store any mail-Ids into the project database. This saves storage capacity. **myHomeControl®** only gets mails from the last two days. This protocol is the preferred protocol.

Application Sample

Following mail controls the heating in the building:

```
message to home control
heating ON, boiler OFF
living room set point = 21.5
```



The Receive Mail – block evaluates the search phrases for all of the 4 signals. 2x ON/OFF for heating and boiler, 1x signal value update for the temperature set point and 1x a pulse to send the acknowledge message.

Name	Type	Key	Value
heating	Command	<heating ON>:<heating OFF>	ON
boiler	Command	<boiler ON>:<boiler OFF>	OFF
temp set point	Signal	<living room>:(set point =)	21.5
ack	Command	<message to home control>:(5)	OFF

Additional application samples:

-

[Handling Blocks](#)

[Properties of Blocks](#)

RestAPI

This block can be obtained from **Functions / Interfaces**.

This block is used to send http messages containing dynamic parameters and to parse the response message



Function

This block is used to perform http/https request according to the RestAPI standard.

Typically a RestAPI request is structured as shown below:

Request: `http://<domain>/route?param1=xxx¶m2=yyyy...`

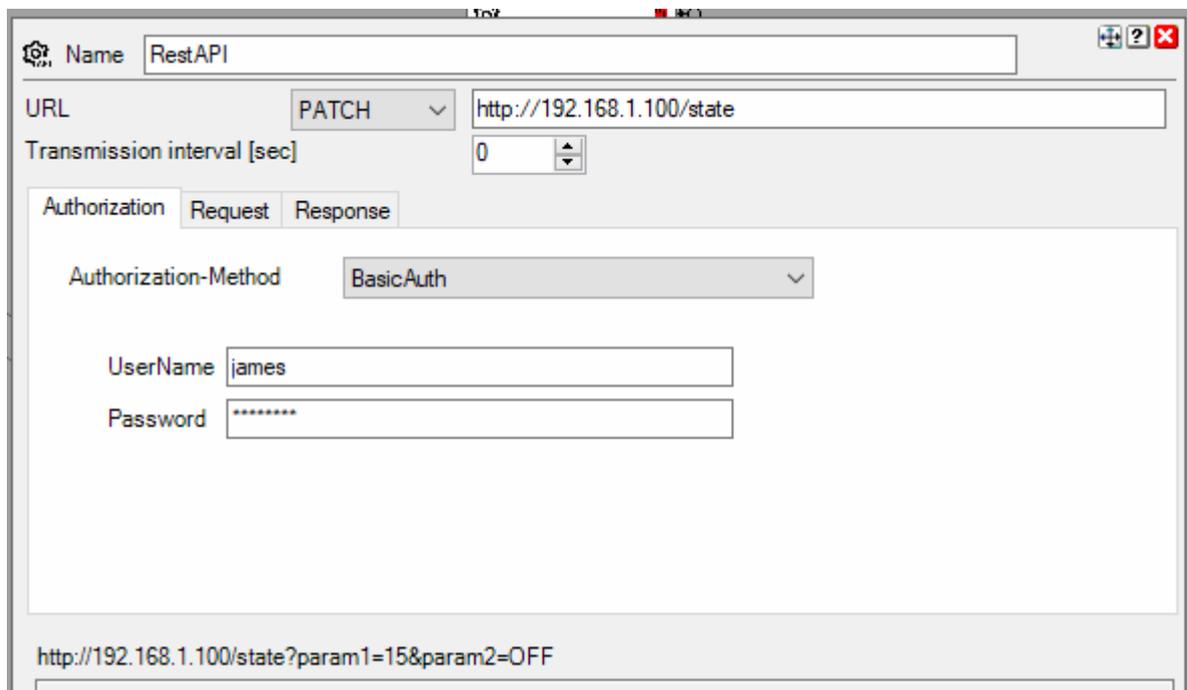
Response: `Json String`

```
{
  "value1": nnn,
  "value2": mmm
}
```

Using the block configuration, the input signals of the block can be used for the parameter values xxx, yyy,....

The same applies in reverse for the response values nnn, mmm and output pins.

Properties



URL

URL of the service in question. Static parameters can be given within the url. Valid formats are:

- `http://<domain>/route`
- `http://<domain>/route?param1=1`

Transmission interval

Value 0: means no cyclic request. Requests are performed if an input signal changes its value.

Values 1..x: Requests are performed with the given interval.

Tab: Request

Parameter	Type	Value	Value pairs
param1	Signal	0	
param2	Command	OFF	OFF=on;ON=off;

http://192.168.1.100/state?param1=0¶m2=on

created URL

Each entry in this table generates an input pin of the selected type.

The name of the parameter (parameter column) is transferred to the URL.

Signal declaration without value pairs: The value of the corresponding input pin is adopted unchanged in the URL

Command declaration: myHomeControl works with the commands ON & OFF. Typically, the RestAPI service uses other terms for ON & OFF, such as e.g. on & off. Therefore the values ON & OFF must be translated.

The value pairs determine which input value is translated into which term in the URL.

Signal declaration with value pairs: Enumeration types that have more than 2 terms must be processed as signals in myHomeControl, since myHomeControl does not recognize any enumeration types. The signal values can now be translated into terms by means of the value pair declaration.

Tab: Response

Parameter	Type	Value	Value pairs
State	Command	ON	NONE=OFF;OCCUPANCY=ON;
Brightness	Signal	127	

http://localhost:4443/v1/occupancies/9fff2168-344b-4df1-907e-5da4aa4d57a4

```

11:40:35.647 {
  "State": "OCCUPANCY",
  "Brightness": 127,
  "Guid": "9fff2168-344b-4df1-907e-5da4aa4d57a4",
  "Name": "SR-MDS BAT",
  "RefString": "Testdevices/SR-MDS BAT",
  "PathRef": "occupancies",
  "DeviceState Type": "DeviceStateOccupancy"
}
    
```

This example shows a Json response. The above output signal declarations evaluate the "State" and "Brightness" parameters.

The command declaration for "State" also contains value pairs for the translation of the API-specific terms NONE & OCCUPANCY into the myHomeControl command terms ON & OFF.

The signal declaration does not contain any value pairs. As a result, the value 100 is interpreted as a number and fed to the output pin unchanged. By means of value pairs, terms can be translated into numerical values for the output pin: e.g. off = 0, halfspeed = 1, fullspeed = 2

Response-Parameter

The Response-Parameter describes the path of a certain object within the json response. This path can be absolute or relative. In the minimum case, it only consists of the object name as in the above example "Brightness". Below is a slightly more complex example:

Json response:

```
{
  "version": "0.8",
  "data": [
    { "tuples":
      [
        [1234, 5678]
      ]
    }
  ],
  "product": {
    "link.db": 123,
    "type": 456
  }
}
```

The path shown below addresses the second data of the data pair absolutely:

Response-Parameter: `data[0].tuples[0].[1]`

The path shown below addresses the second data of the data pair relatively:

Response-Parameter: `tuples[0].[1]`

The path shown below addresses `link.db` absolutely. Use the escape sequences `[']` and `']`:

Response-Parameter: `product.[']link.db']`

The path shown below addresses `link.db` relatively. The blocks add the escape sequences automatically:

Response-Parameter: `link.db`

[Handling Blocks](#)

[Properties of Blocks](#)

Run

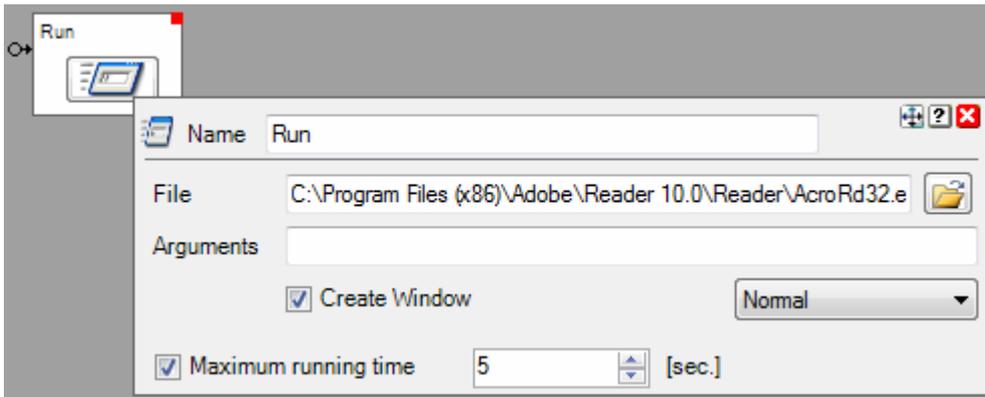
This block can be obtained from **Functions / Advanced**.

This block is used to run other windows applications.



In case the block receives an ON command on its input pin, then it spawns a new process with the file in question. If it receives an OFF command, then stops the processes spawned before.

Properties



File: Enter path to the application file which shall be run.

Arguments: Enter argument string for the application.

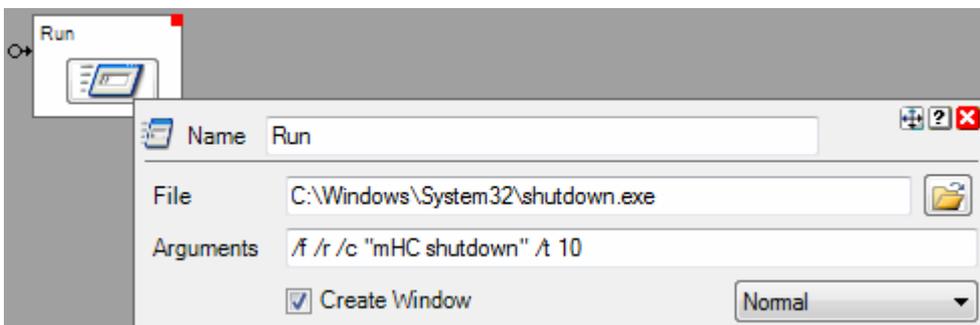
Create Window defines whether the application shall be run in a window or not. If this option is selected, then there is an opportunity to select whether the window shall be opened normal, minimized or maximized. Not all applications regard these options.

Maximum running time defines, if checked, after which period in time the started application will be automatically terminated.

Find details about the corresponding visualization element in chapter [Visualization Element Run](#).

Application sample

Shows warning message and reboots PC after 10 seconds.



Additional application samples:

- Forwarding of an alarm message to all PCs of the network

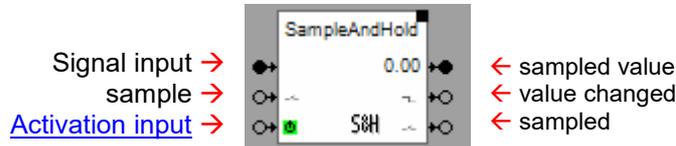
[Handling Blocks](#)

[Properties of Blocks](#)

S&H SampleAndHold

This block can be obtained from Functions / Arithmetics.

This block samples an analoge signal and stores it.



Function

Sampling is done either time based or on reception of an ON command on the input pin “sample”.

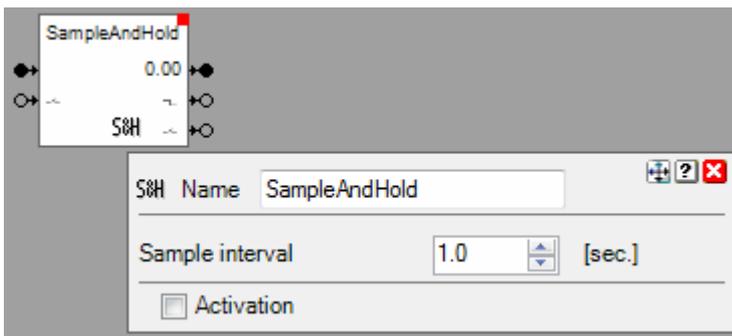
The sampled value will be stored internally and will be forwarded to the output pin “sampled value”.

In case a new value has been sampled, an ON command will be sent out by the pin “value changed”.

Each sample process will be indicated by an ON command on the output pin “sampled”. This signal might be used to cascade various S&H blocks. The “sampled” pin is not logged to the event list as this would typically create a huge amount of entries.

The pin “sampled” is not logged in the event list to avoid over flow of the list.

Properties

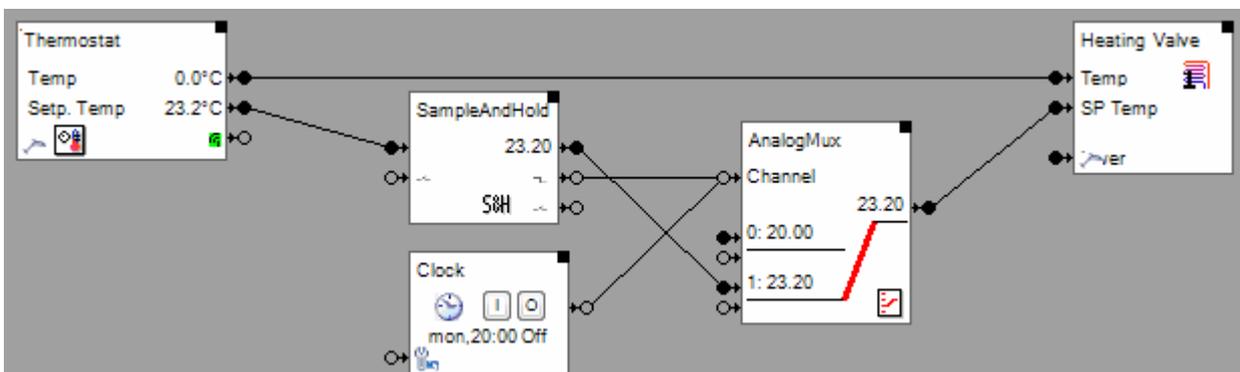


Sample interval

This input field is only available in case no other block is connected to the input pin “sample”. In this case the block enables its internal sampling, which is time based. The input field configures the interval for the sampling.

The block supports the [Activation Feature](#)

Application sample



Each time the user adjusts the temperatur setpoint, the adjusted setpoint is used for heating. At 20:00 the clock timer switches the setpoint selector (AnalogMux) back to the default setpoint.

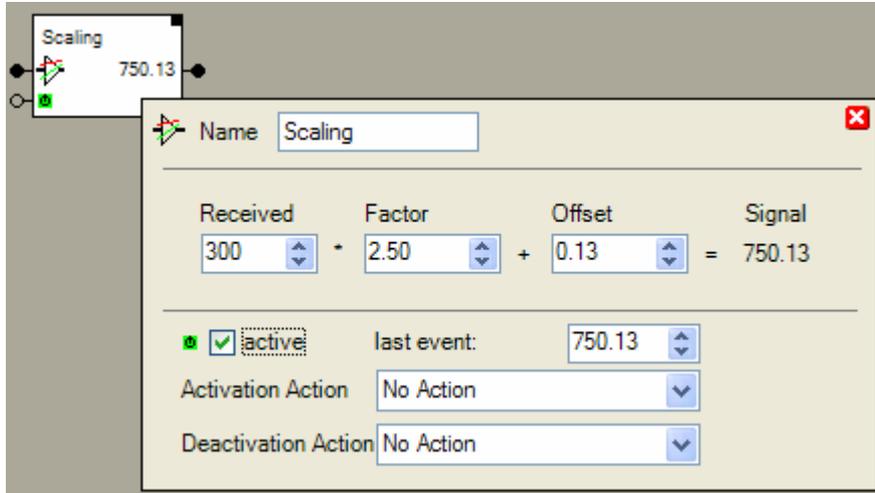
[Handling Blocks](#)

[Properties of Blocks](#)

Scaling

This block can be obtained from **Functions / Arithmetic**.

This block scales analogue signals.



Properties

The input field **Received** shows the last value the block received. This value will be multiplied with the value of the input field **Factor** and added to the value of the input field **Offset**. Following formula will be processed:

$$\text{Input signal} * \text{Factor} + \text{Offset} = \text{Output signal}$$

The input field “Received” enables you to modify the value for test purposes. The input will be overwritten with the reception of the next value from the input pin.

The scaling block supports the [Activation Feature](#) .

Additional application samples:

- Constant light control

[Handling Blocks](#)

[Properties of Blocks](#)

Scenes

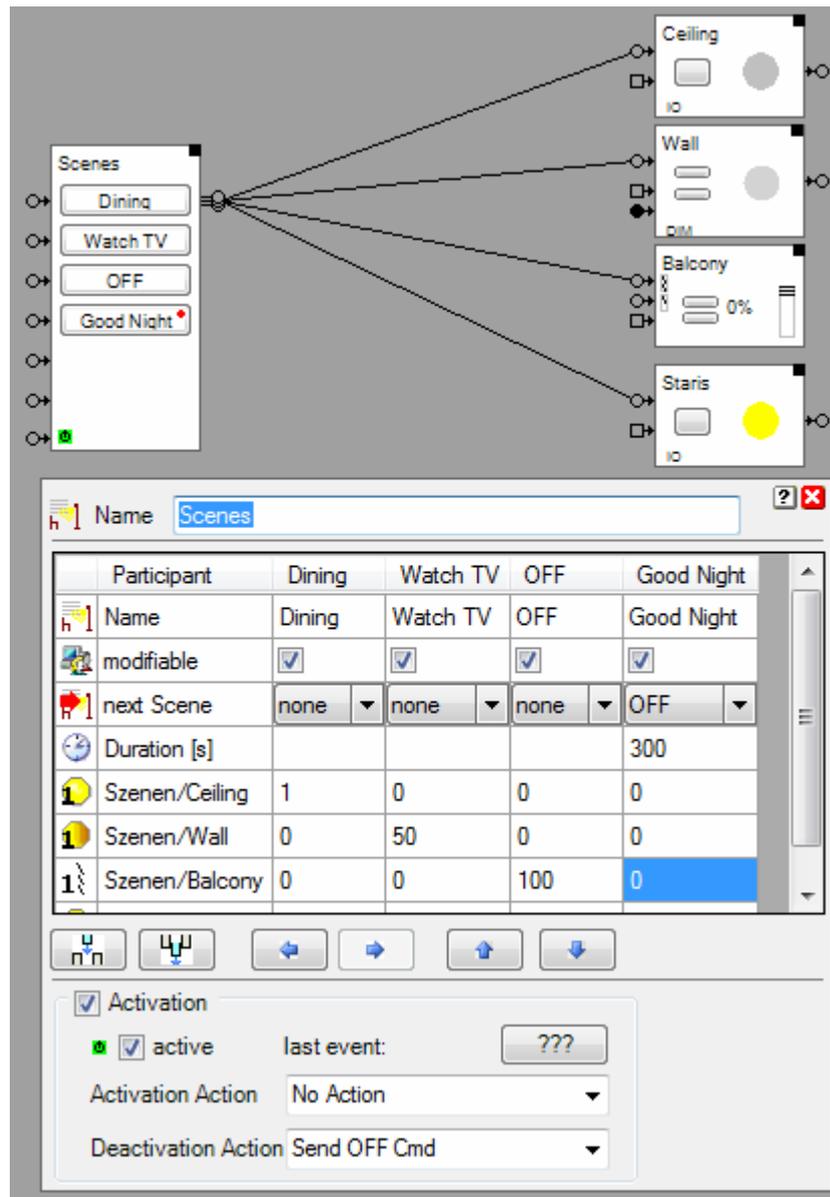
This block can be obtained from **Functions / Advanced**.

This block stores up to 6 scenes with an unlimited amount of scene participants. A scene stores a set point value for each of the scene participants. This may involve switch actuators, dimmers and even jalousie actuators.

If a scene gets activated, it sends the stored set point values to all the participants and they adapt their state to the set point value.

Command inputs to activate the corresponding scene →

[Activation input](#) →



The screenshot shows the 'Scenes' block in the myHomeControl interface. On the left, there are four command inputs: 'Dining', 'Watch TV', 'OFF', and 'Good Night'. On the right, four participants are connected: 'Ceiling', 'Wall', 'Balcony', and 'Stairs'. Below the block is the configuration dialog for the 'Scenes' block.

Participant	Dining	Watch TV	OFF	Good Night
Name	Dining	Watch TV	OFF	Good Night
modifiable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
next Scene	none	none	none	OFF
Duration [s]				300
Szenen/Ceiling	1	0	0	0
Szenen/Wall	0	50	0	0
Szenen/Balcony	0	0	100	0

Below the table, there are navigation buttons (up, down, left, right, search, refresh) and an 'Activation' section with the following settings:

- Activation
- active last event: ???
- Activation Action: No Action
- Deactivation Action: Send OFF Cmd

Function

Blocks connected to the output pin of the scenes block become automatically scene participants.

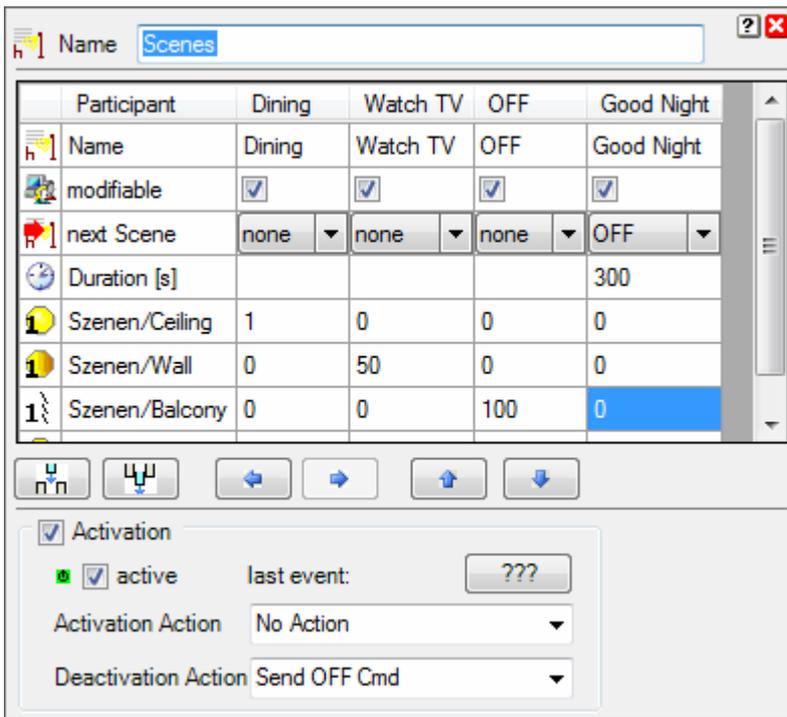
The input pins might be used to activate certain scenes from the network.

Properties dialog:

The  appends a new scene. Enter a name for the scene in the field, which is marked blue.

The  deletes the selected scene.

The arrow keys left, right might be used to reorder the scenes.

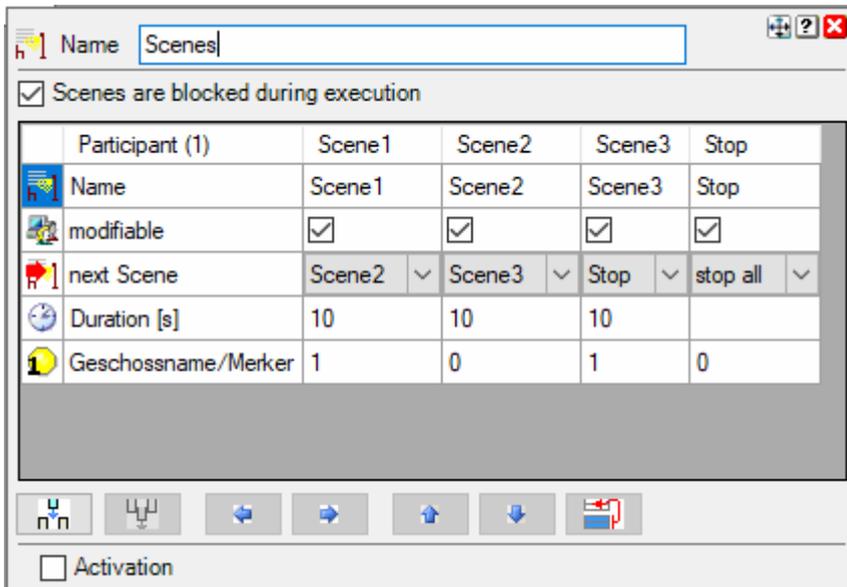


Enter the scene name in the first row.

The 2th row (modifiable) defines, if the user is allowed to modify the scene values within the visualization view. Especially for global scenes as e.g. "Central OFF" it doesn't make sense to allow the user to modify the scene.

The 3th row (next scene) defines if there is a following scene, which shall be activated after this scene. Select "stop all" to avoid any running scene to call its follower scene.

Sample with 4 scenes:



If the "Stop"-scene is called the running sequence Scene1→Scene2→Scene3→Stop is going to be aborted.

The 4th row (Duration) defines after which period in time the follower scene shall be called, if there is a follower scene specified in row 3.

If a scene participant shall keep its actual state in case a certain scene will be activated, then set the corresponding set point value of the scene to -.

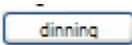
Syntax of the scene values:

- [Switching actuator](#)
- [Dimmer actuator](#)
- [White color dimmer actuator](#)
- [RGB dimmer actuator](#)
- [Jalousie actuator](#)

The arrow keys up, down might be used to reorder the scene participants.

The table shows a set point value for each scene and each scene participant. These values might be edited within the table. The user is able to modify the scene values in the visualization view as well, refer to [Teaching of a scene](#).

Teaching of a scene:

If one of the scenes buttons e.g.  will be pressed for about 5 seconds, then the actual states of the scene participants will be collected by the scenes block and stored accordingly.

Find details about the corresponding visualization element in chapter [Visualization Element Scenes](#).

The scene block supports the [Activation Feature](#) .

[Handling Blocks](#)

[Properties of Blocks](#)

 **Screensaver**

This block can be obtained from **Functions / Advanced**.

This function controls either the monitor(s) or the screensaver.



Function:

The screensaver block is able to control following objects:

Object	ON command	OFF command
Monitor(s)	Monitor(s) get turned on	Monitor(s) get turned off.
Screensaver	Built in screensaver active	Built in screensaver inactive
Windows-Screensaver This option is not yet available.	Screensaver active	Screensaver inactive

Additional application samples:

-

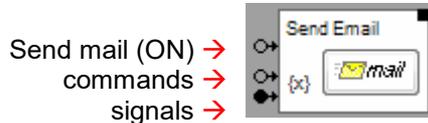
[Handling Blocks](#)

[Properties of Blocks](#)

✉ send email

This block can be obtained from **Functions / Interfaces**.

This feature is available if the [License option: email, SMS, phone](#) has been enabled.



This block sends an email in case it receives the corresponding command on the top most pin. The lower two input pins might be used to connect any signals of the network to embed the actual value of the signal into the message.

Function

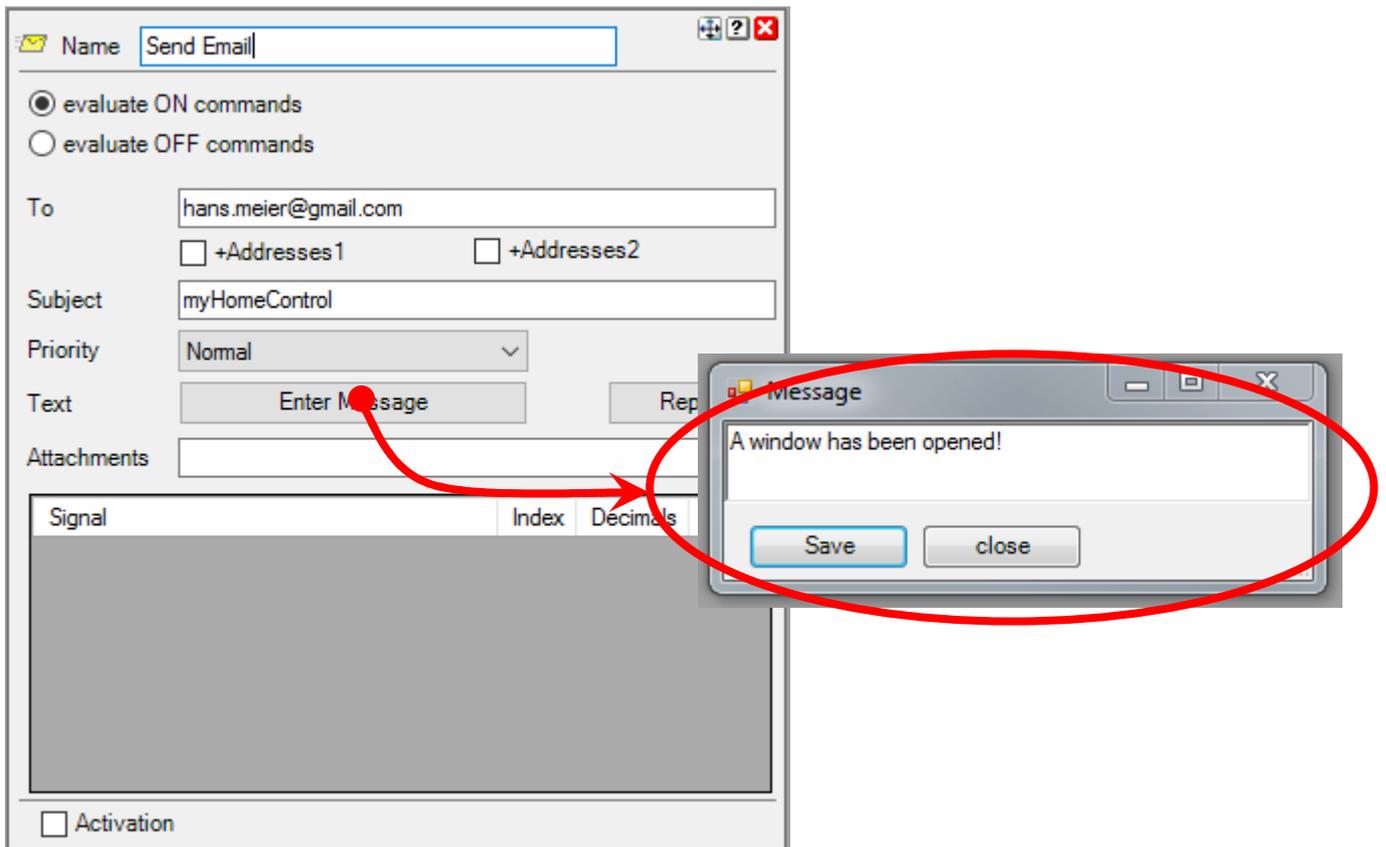
This block sends an email to the address given in the [Properties dialog](#).

Configuration

Enter the address of the recipient into the **To** field. Separate multiple recipients by semicolons.

To enable the sending of emails, account information's have to be given in the main Options tab (see [Settings → Email](#)).

Press the button "Enter Message" to enter the message text of the mail.



Evaluate ON/OFF commands

This setting controls the command type used to trigger sending of an email.

+Addresses1, +Addresses2

Check the box to add receiver email addresses defined in the [general settings](#) to the mail.

Attachments

Enter wild card to attach files. The youngest file fitting the wild card is going to be attached to the mail. Multiple wild cards can be separated by semicolon ;

Sample:

C:\Log\Log_UF_Bath_Thermostat_*. * ; C:\Log\Log_UF_Sleeping_Thermostat_*. *

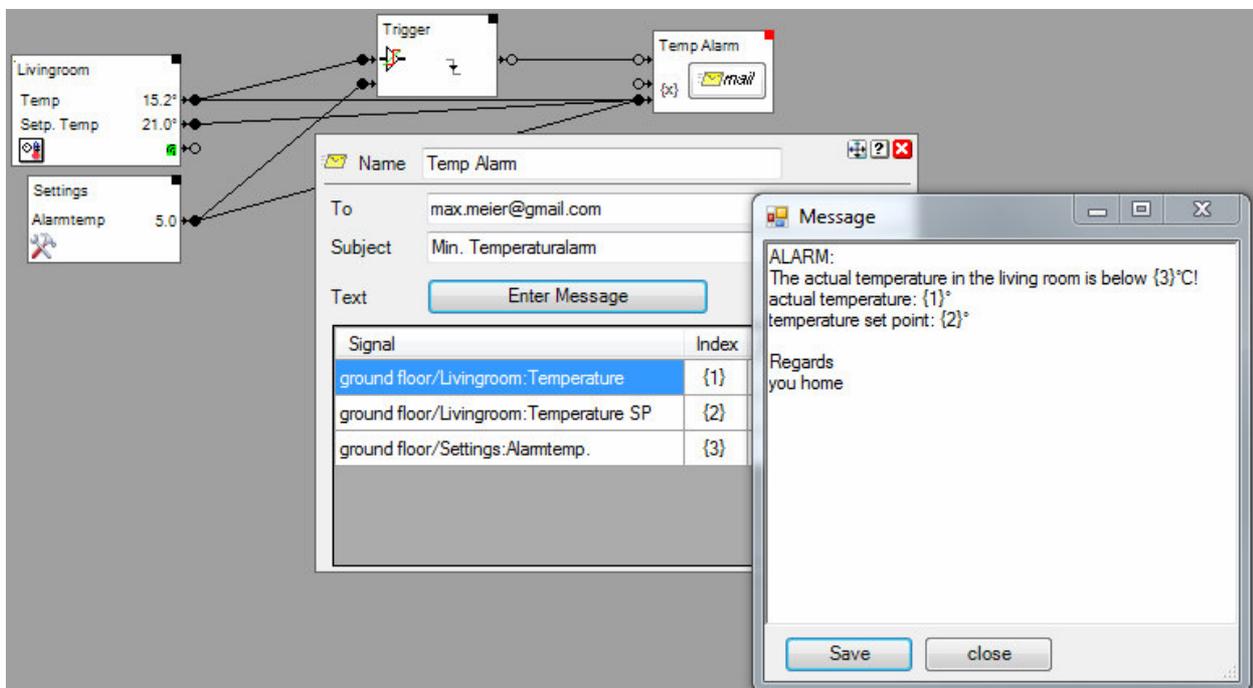
When the mail is going to be sent, then the youngest log files of the sensors UF/Bath/Thermostat and UF/Sleeping/Thermostat will be attached to the mail. The wild card *. * stands for the date in the filename and the file name extension, which might be .csv or .zip.

Wild cards: ? stands for any character, * stands for any amount of any characters.

Embedding of actual values

Use the lower two input pins to connect any signals of the network to the block. The actual values of these signals will be shown either in the subject or in the body of the mail.

The picture below shows a sample for temperature monitoring and alarming. In case the actual temperature of the living room comes below 5°C then an email will be sent to the owner of the building. The body of the message will show the actual values of the signals connected to the bottom pin.



The signal table of the properties dialog list all the connected signals. The column “Index” shows the place holder to be used in the subject or message text. These place holders will be replaced by the actual values when the email is going to be sent.

Special values:

Property of the connected object, which triggered sending of the mail:

- {@1}: name
- {@2}: floor / room / name
- {@3}: floor / room
- {@4}: Detail information according to the connected block
 - Samples:
 - Alarm Controller: list of triggered sensors
 - Consumer monitoring: list of consumer in state: turned on
 - Window monitoring: list of open windows
 - Fault Indication: list of disturbed devices
 - Shading: changed event of last shading action

Check operation

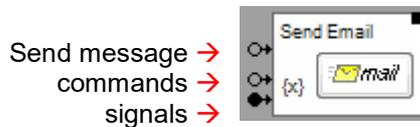
It is recommended to check the operation of the block after any configuration changes. Click the button on the block to send a mail.

Afterwards click the “Report” button to get a log from the last sending’s. This log reports successful sending’s or in case of failures it indicates the configuration error.

The block supports the [Activation Feature](#) . In deactivated state emails will not be sent out.

send Pushover message

This block can be obtained from **Functions / Interfaces**.



This block sends a Pushover message in case it receives the corresponding command on the top most pin.

The lower two input pins might be used to connect any signals of the network to embed the actual value of the signal into the message.

Function

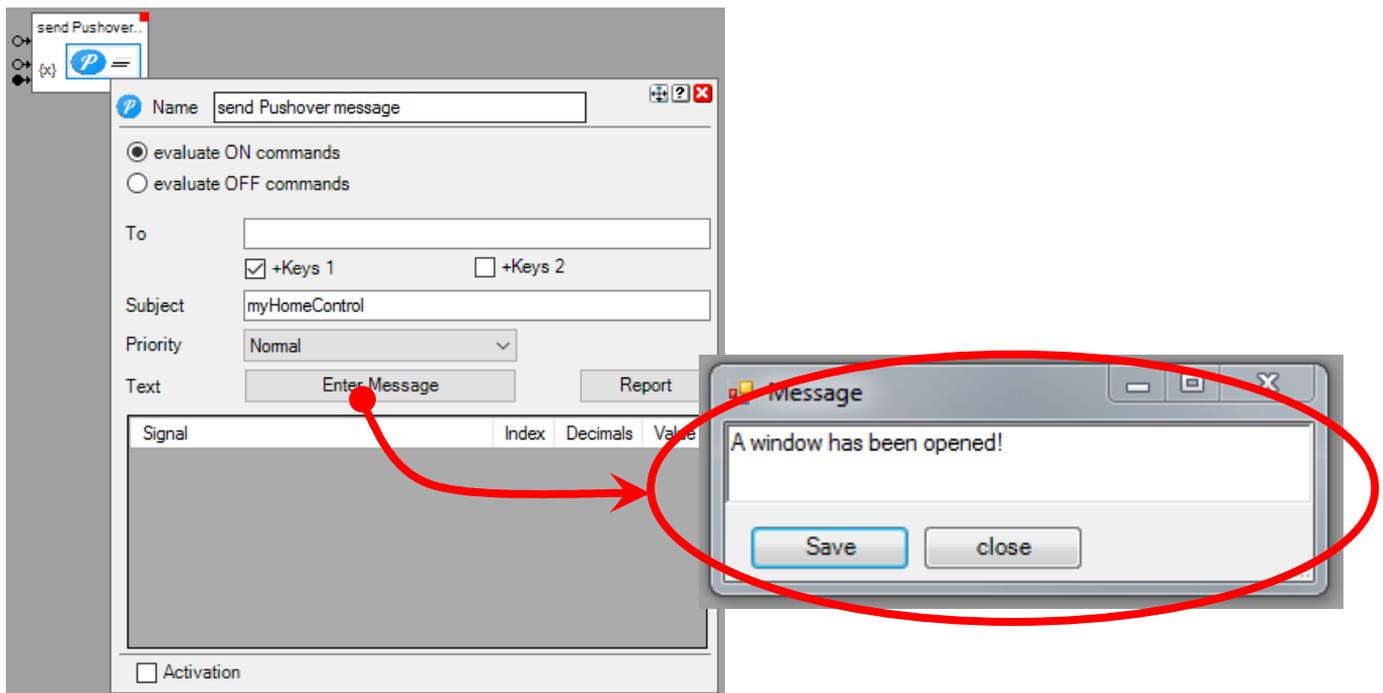
This block sends a Pushover message to the Pushover account configured in [general settings/Pushover](#).

Configuration

Enter the address of the recipient into the **To** field. Separate multiple recipients by semicolons.

To enable the sending of Pushover messages, account information's have to be given in the general settings (see [Settings / Pushover](#)).

Press the button "Enter Message" to enter the message text of the mail.



Evaluate ON/OFF commands

This setting controls the command type used to trigger sending of an email.

+Keys 1, +Keys 2

Check the box to add user keys defined in the [general settings / Pushover](#).

Embedding of actual values

Refer to "[send email](#)" for details.

The block supports the [Activation Feature](#) . In deactivated state emails will not be sent out.

send SMS

This block can be obtained from **Functions / Interfaces**.

This feature is available if the [License option: email, SMS, phone](#) has been enabled.

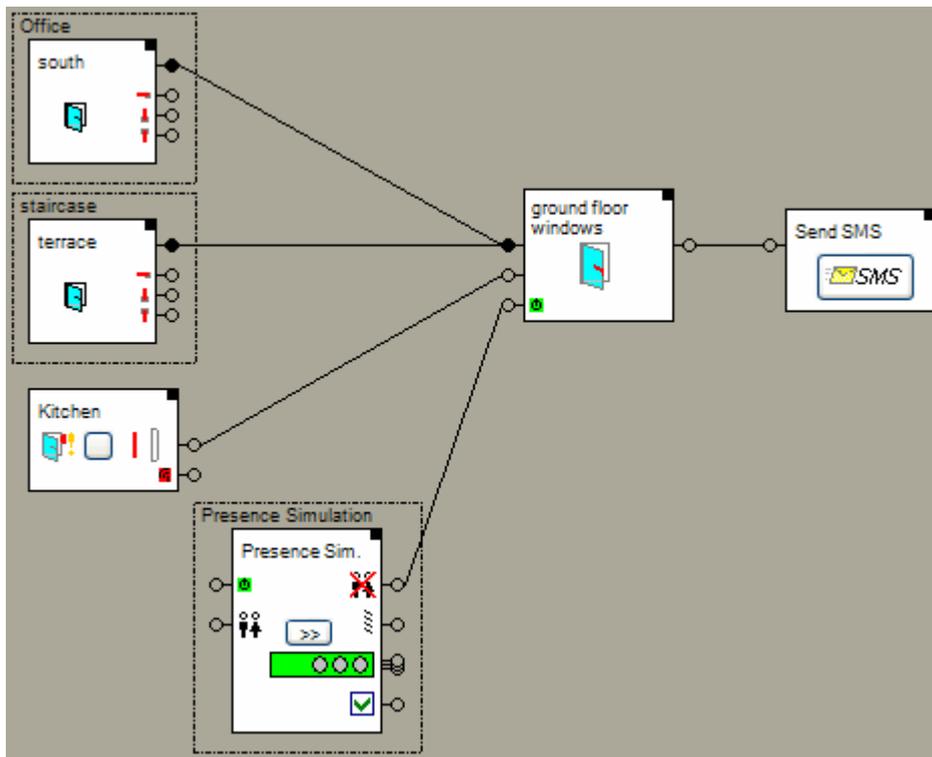
This block sends an email if it receives an ON-command.

The block provides 2 operation modes:

- SMS-Gateway
In this operation mode the block sends an email to an SMS gateway service in the internet. The service converts the email into an SMS and sends it out.
- GSM Modem
In this operation mode the block sends a SMS via a connected GSM modem direktly to a GSM radio network.
See [general settings / GSM modem](#)

Regarding configuration details and embedding of actual values refer to [send email](#).

Application sample



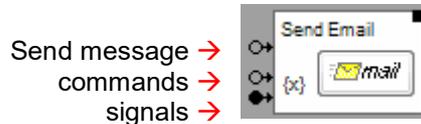
In the example above the presence simulation activates the window monitoring. The window monitoring monitors if all windows stay closed.

In case one window will be opened it will send an ON-command through its alarm output. This command is forwarded to the connected send SMS block.

The block supports the [Activation Feature](#) . In deactivated state sms will not be sent out.

send Telegram message

This block can be obtained from **Functions / Interfaces**.



This block sends a Telegram message in case it receives the corresponding command on the top most pin.

The lower two input pins might be used to connect any signals of the network to embed the actual value of the signal into the message.

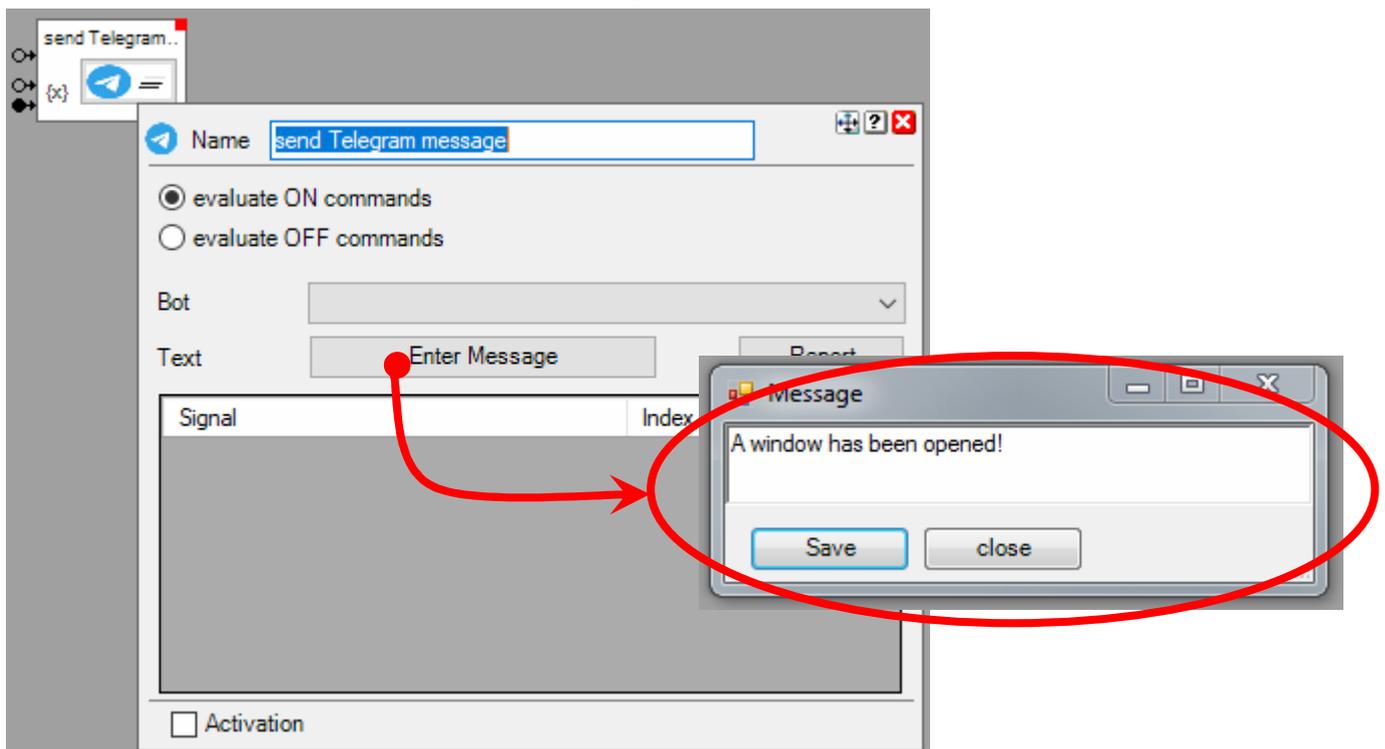
Function

This block sends a Telegram message to one of the Telegram-Bots configured in [general settings/Telegram](#).

Configuration

Select the Telegram-Bot to be used to send the message.

Press the button “Enter Message” to enter the message text of the mail.



Evaluate ON/OFF commands

This setting controls the command type used to trigger sending of an email.

Embedding of actual values

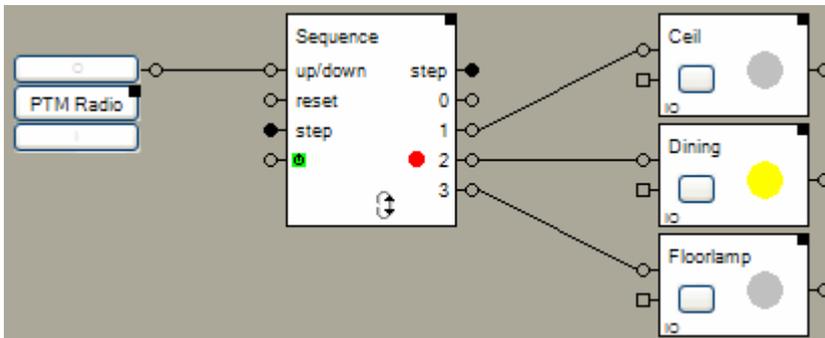
Refer to [“send email”](#) for details.

The block supports the [Activation Feature](#) . In deactivated state emails will not be sent out.

Sequence

This block can be obtained from **Functions / Logic**.

The Sequence block provides functionality to create sequences.



Function

The Sequence block provides a configurable amount of output pins. Each output pin corresponds to a sequence Step. There can only be one step active at a time. An ON-command will be sent through the output corresponding to the active step.

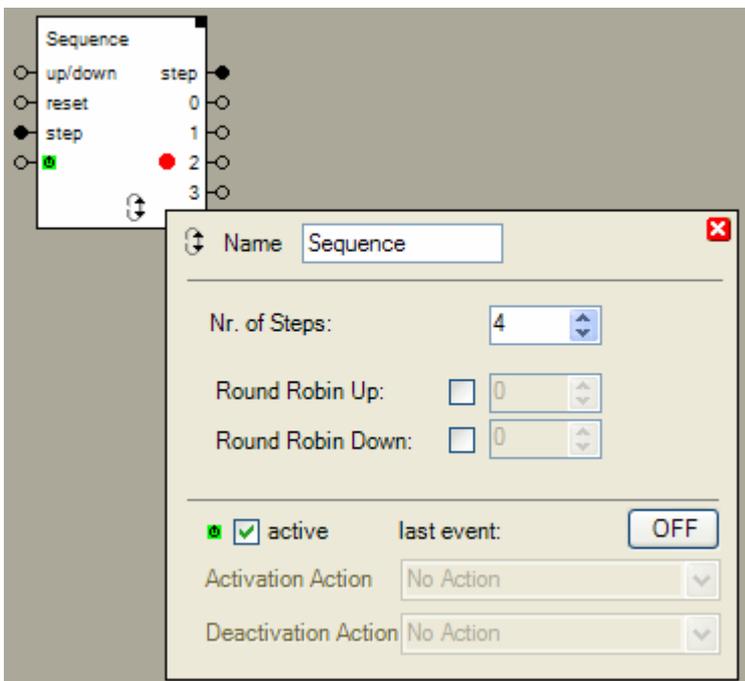
The input „up/down“ is used to step to the next step. An ON-command steps up (e.g. 1->2), an OFF-command steps down (e.g. 3->2). Optionally round robin might be activated which forces the block to step to the first step after the last step has been activated and vice versa.

If a step change occurs, then first an OFF-command will be sent to the output pin corresponding to the „old“ step and then an ON-command will be sent to the output pin corresponding to the „new“ step.

On every step the block will send an OFF-command to the pin corresponding to the „old“ step and then an ON-command to the „new“ pin.

The input „reset“ activates step 0.

The input „step“ activates the step corresponding to the value.



Configuration

Nr. of Steps defines the amount of steps and output pins.

The block locks stepping up when the last step has been activated and stepping down when the first step has been activated. In case one of the round robins is enabled, then stepping will be continued to the given step. Enter the target step in the input field just right of the round robin option.

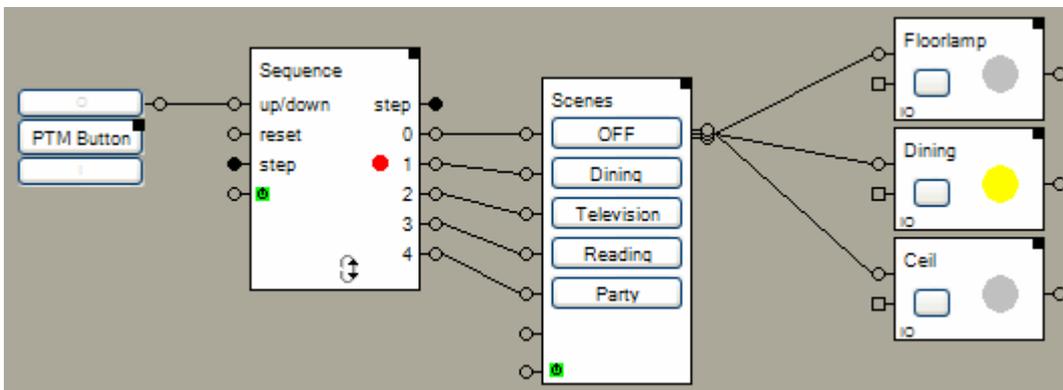
Automatic stepping is configurable as well. Automatic stepping bases on times. For each step a time might be parameterized to step up or down. The corresponding times will be started when a step becomes active. After expiration of the time, the new step becomes active. The block accepts step commands on its input pin even if a time is running.

State indication

The red dot indicates the actual step.

Application sample: Single button scene control

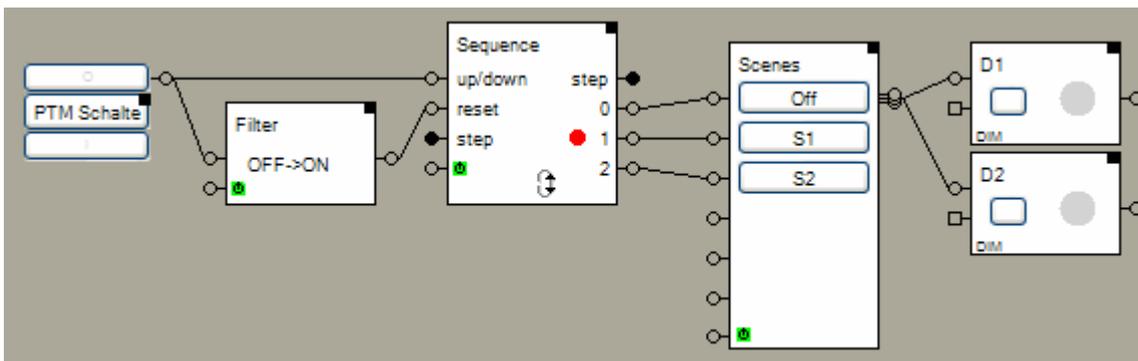
Activation of different scenes with one 1-channel radio button.



The sequence block activates the next scene with each key press.

Application sample: Ambiance

Ambiance: Continuous change of lights



A key press on the ON-Button of the PTM radio button activates step 1 of the sequence block. This activates scene „S1“ accordingly. The setup of sequence block will toggle between step 1 and step 2 every 15 minutes. This activates a new scene every 15 minutes. The on- and off ramps of the dimmers are setup to reach the new brightness set point value after 5 minutes. This results in a smooth change between the scenes.

A key press on the OFF-Button of the PTM radio button forces the sequence block into step 0. The scene „Off“ will be activated accordingly.

Configuration of the sequence block:

After a delay of 15 minutes (900 seconds) the block changes automatically from step 1 to step 2. Due to the activated round robin, it will step back to step 1 after another 15 minutes. No times are configured for step 0. After a reset-command will the block stay in step 0 until it receives a step command.

The sequence block supports the [Activation Feature](#)

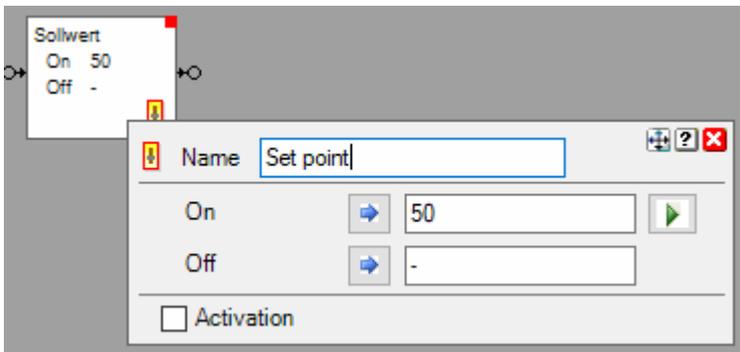
[Handling Blocks](#)

[Properties of Blocks](#)

Set point

This block can be obtained from **Functions / Logic**.

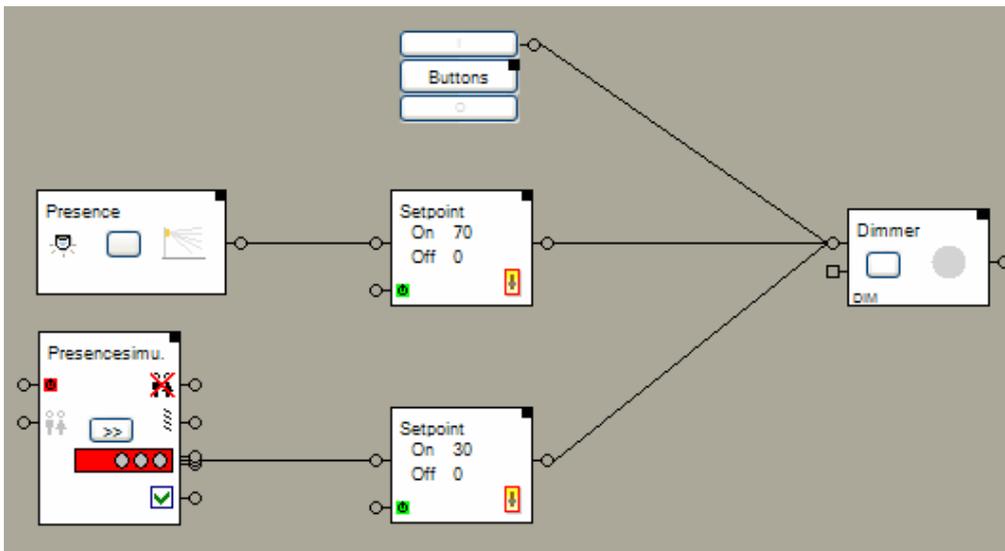
The set point block stores two individual set point values. In case it receives an ON command on its input pin, it sends the first set point value to the succeeding blocks. In case it receives an OFF command it sends the other set point value.



 Copy actual state of follower block as set point value.

 Test set point value.

Application sample:



1. The Buttons provide manual operation of the dimmable light.
2. In case the occupancy sensors detect presence of a person, it sends an ON command to the upper set point block. The set point block sends the 70% value to the dimming actuator block. The dimming actuator block switches on the light and lights it up to 70%.
3. The dimmable light is also included in the presence simulation function. If the dimmable light will be activated by the presence simulation function, it will light up to only 30% to save energy.

Properties

Before entering the set point values, at least one successor block have to be connected to the output pin of the set point block.

The set point block supports the [Activation Feature](#) .

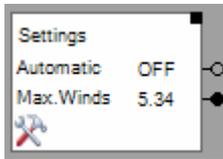
[Handling Blocks](#)

[Properties of Blocks](#)

Settings

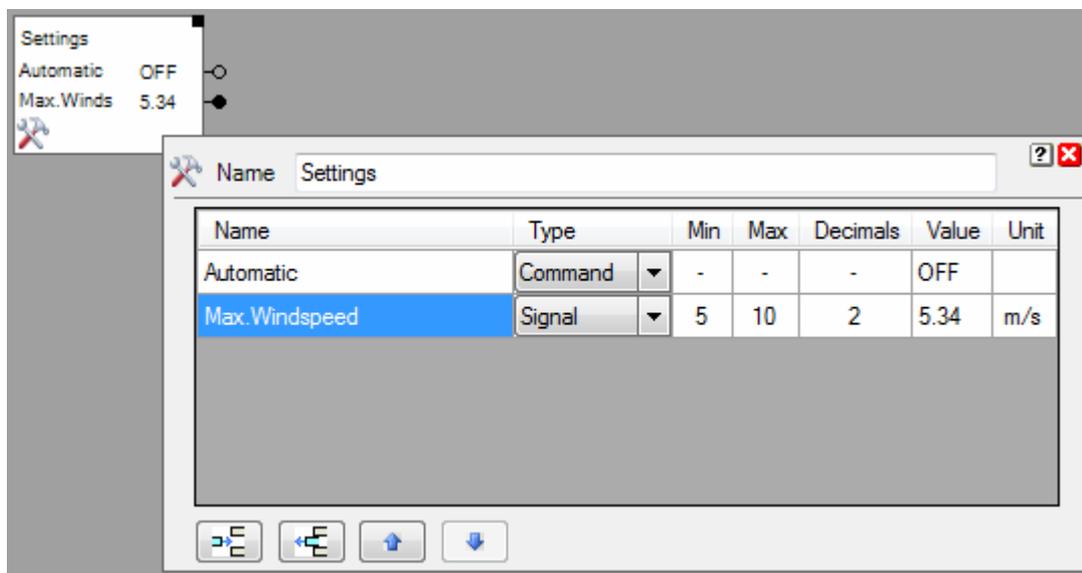
This block can be obtained from **Functions / Advanced**.

This function stores a free amount of parameters and forwards the parameter values via the output pins to the network. The corresponding visualization element enables the user to modify the parameter values.

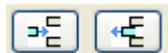


There is a line for each parameter indicating the name and the actual value of the parameter.

Properties



The properties dialog shows a table. Each row of the table corresponds to one parameter.



Use these buttons to append or insert new rows and to delete existing rows. The buttons refer to the selected row. To select a row, click the corresponding time field:



Inserts a new row at the end of the table,



Deletes the selected row.



These buttons move the selected row.

Find details about the corresponding visualization element in chapter [Visualization Element Settings](#).

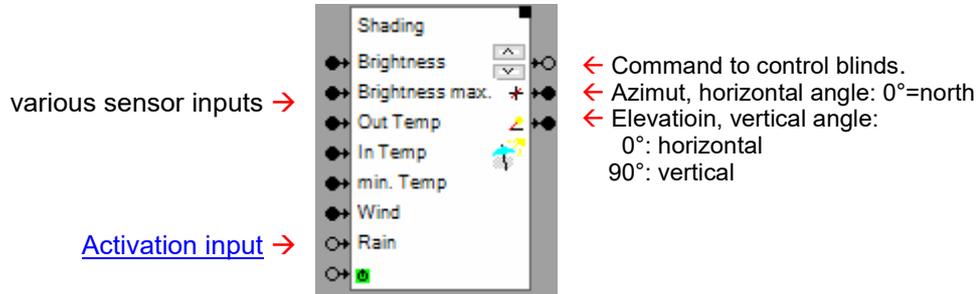
[Handling Blocks](#)

[Properties of Blocks](#)

Shading

This block can be obtained from **Functions / Advanced**.

The shading block commands jalousies to support the control of the room temperature.

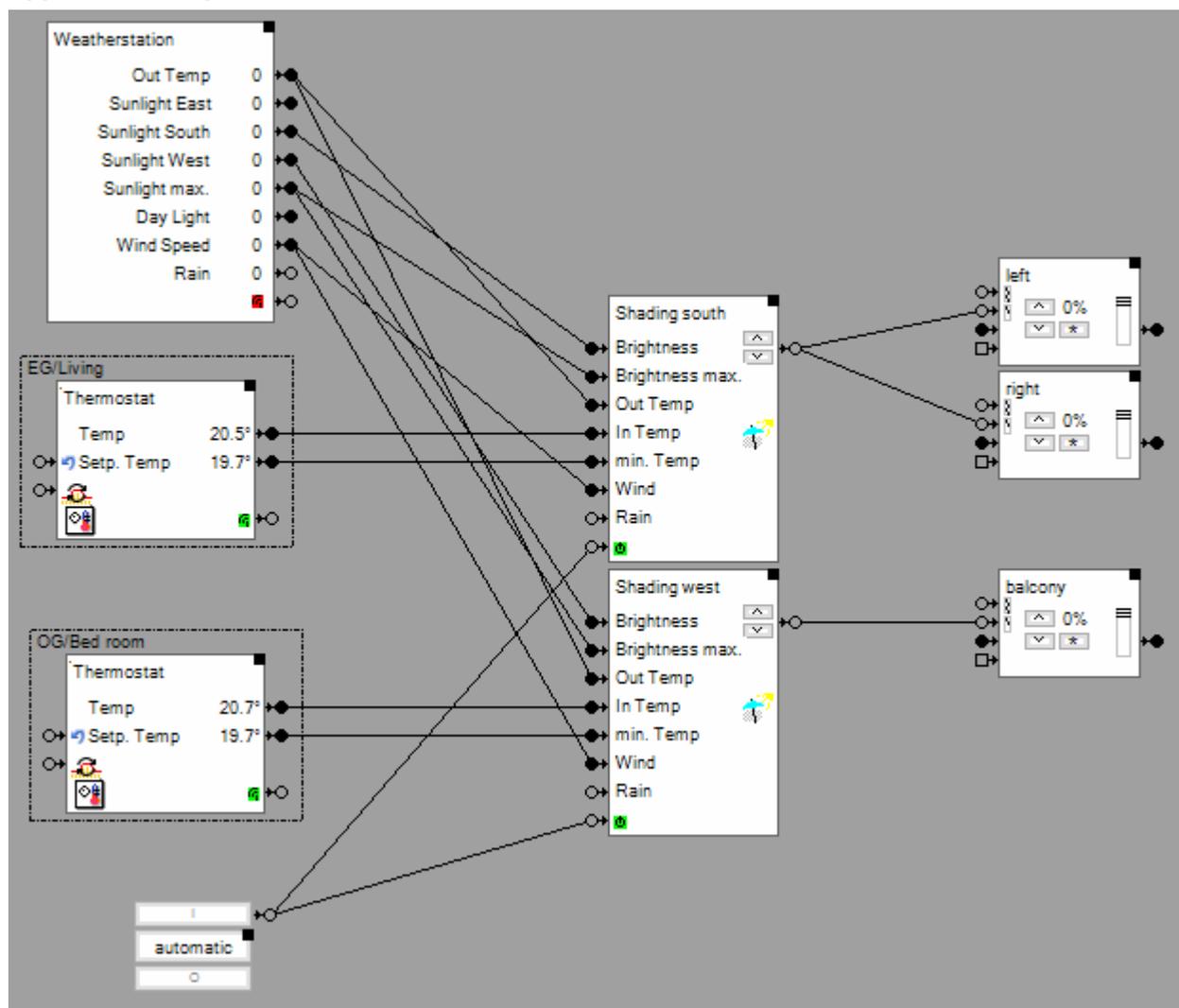


It calculates the actual position of the sun. The properties dialog provides different forms to define the geometrical characteristics of the building und the windows. Concerning the position of the sun and the geometrical information's it is able to define the best times to lower or raise the jalousies.

One single central brightness sensor may inform the shading blocks about the intensity of the sun. Temperature sensors may be used to optimize the shading process as well.

Find details about the corresponding visualization element in chapter [Visualization Element Shading](#).

Application sample



Each shading block evaluates its own criteria's if lowering or rising of the jalousies shall be performed.

Buttons

The block provides 2 buttons on its surface. These buttons are used for simulation (test) purposes to simulate either a lift event  or a lower event .

Tab Thresholds:

The screenshot shows the 'Tab Thresholds' configuration window for 'Beschattung'. The window has a title bar with a name field containing 'Beschattung' and standard window controls. Below the title bar are tabs for 'Thresholds', 'Dimensions', 'Orientation', 'Behavior', 'State', and 'Protokoll'. The 'Thresholds' tab is active, showing the following settings:

- Today:** Sun Rise 07:58, Sunset 19:58, max. Elevation 53.7°
- Brightness [lux]:** 32000
- Cloud Detection:** Conditions 1 M/h, 2%
- Wind [m/s]:** 2.5
- Wind-Delay[sec.]:** 30
- Temperature:**
 - indoor max.: 20.0, indoor min.: 23.0
 - outdoor: 20.0
 - Completely Shading: 25.0
 - Average of the outside temperature: 0.0°
 - Note the maximum values of the last X days: 3
- Time frame:**
 - at the earliest: 1:00
 - at the latest: 23:00

At the bottom, there is an 'Activation' section with the following options:

- Activation
- active last event: ON
- Activation Action: No Action
- Deactivation Action: No Action

There is a threshold level available for the **Brightness**. If the actual brightness value is below this threshold level, the jalousies will never be lowered. If the actual brightness is above the level, then the jalousies might be lowered.

Cloud detection: In light cloudy conditions, when the clouds move, variable brightness values are measured. These could lead to the shading being closed and opened several times. To avoid this effect, the shading function switches to an alternative mode of evaluating the brightness condition. The proportion of "sunshine" during the last hour is determined. If this is over 50%, there is no shadowing. The "Conditions" display shows the registered number of brightness changes and the percentage of sunshine. (Φ) indicates that alternative evaluation is active. If the brightness becomes constant again, the evaluation logic for the brightness condition changes back to normal mode.

There is a threshold level for the **Wind** speed as well. If the actual wind speed value is above this level for at least **Wind-Delay** seconds the jalousies will be raised and blocked in the upper end position until the wind speed is below the level for at least 30 Minutes. [Windmonitoring feature of the jalousie block versus the windmonitoring feature of the shading block.](#)

Also for the **out-** and **indoor temperature** there are corresponding threshold levels available. Optionally there is the opportunity to enable **averaging** of the outside temperature. In this case the outdoor threshold level is compared with the average value of the outside temperature of the last X days. This level comparison may deliver better results during morning hours compared to the level comparison with the actual outside temperature, because the outside temperature raises slowly during the morning hours. The actual outside temperature becomes more and more weight during the day time hours.

In case the "min.Temp"-input pin is connected, the value for the threshold level "indoor min." is taken from that pin.

Complete Shading

In case outdoor temperature is very high, then there is lots of global radiation. In these situation room with any orientation are heathen up, not only those rooms, where sunlight shines in directly in. Therefore it is useful to shade the building completely. The threshold level "Completely Shading" defines from which temperature level completely shadowing starts. In case of completely shadowing, the horizontal and the vertical conditions will be ignored.

If certain threshold levels are not of interest, the corresponding pins must not be connected to a sensor. Disabled threshold values are indicated by disabled input fields. Connect the sensor first before entering the corresponding threshold level value.

At the earliest and **at the latest** define a time frame. Shading is only processed during this time frame.

Following rules have to be fulfilled, in case a corresponding sensor is connected to the function, that the jalousies can be lowered. The various conditions are only considered in case sensors are connected to the corresponding input pins (Sample: The condition "must not rain" is only evaluated in case a rain sensor is connected to the "rain" input pin of the block):

1. The actual brightness must be above the brightness threshold level.
2. It must not rain.
3. The actual wind speed must be below the wind speed threshold level.
- 3a. The actual indoor temperature muss be above the minimal indoor temperature threshold level and the actual outdoor temperature must be above the outdoor temperature threshold level,

Or

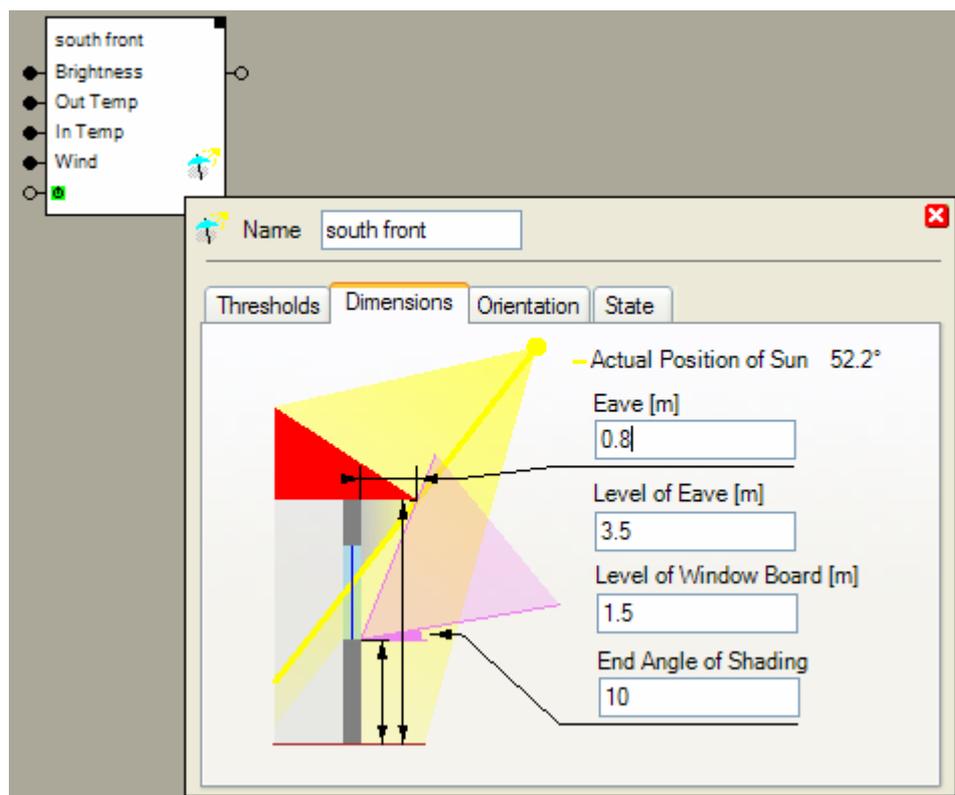
- 3b. The actual indoor temperature must be above the maximal indoor threshold level.
4. The sun shines into the window at the actual elevation state (see tab Dimensions).
5. The sun shines into the window at its actual horizontal angle (see tab Orientation).
6. The actual time is within the time frame.

 [Activation](#). An ON-command activates the shading block, an OFF-command deactivates if.

REGARD:

Even if the block is deactivated, a wind alarm or rain will raise a command to lift the blinds!

Tab Dimensions:



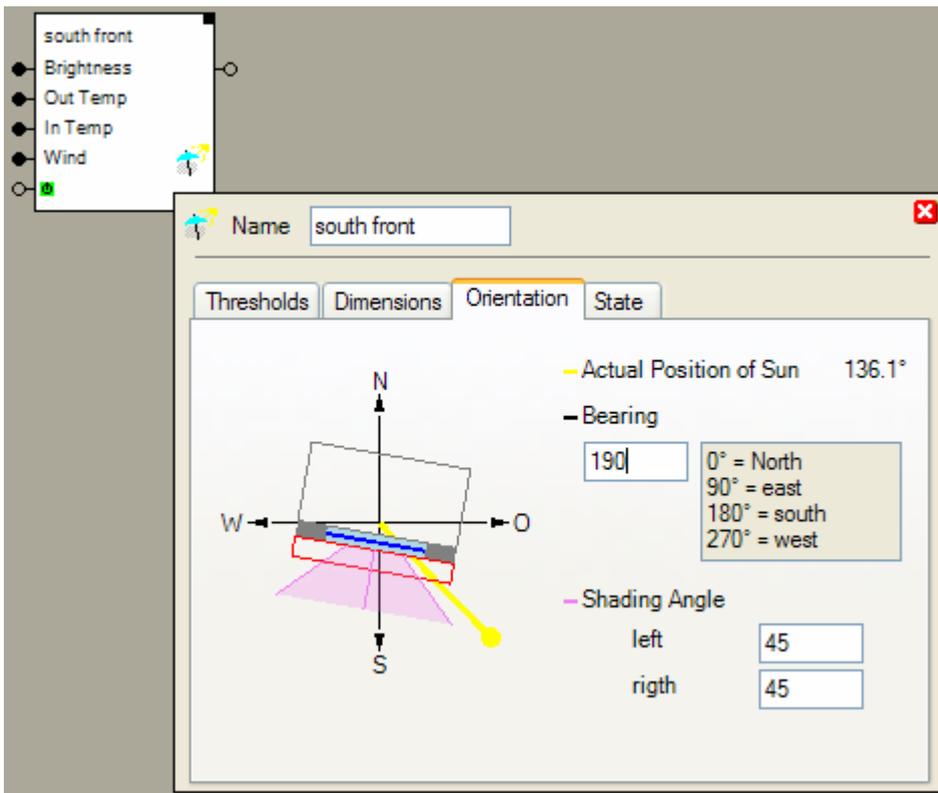
The time to lower the жалюзи is when the sun shines through the window into the room. This depends on the shading of the window by the eave and the elevation angle of the sun. Therefore some geometrical aspects of the building have to be entered. 0.1 m is a sufficient accuracy.

For a window in an upper floor estimate the values accordingly.

The purple angle shows the angle range within the жалюзи might be lowered if all conditions are fulfilled.

The End Angle of Shading defines the lowest elevation angle of the sun where the жалюзи might be lowered.

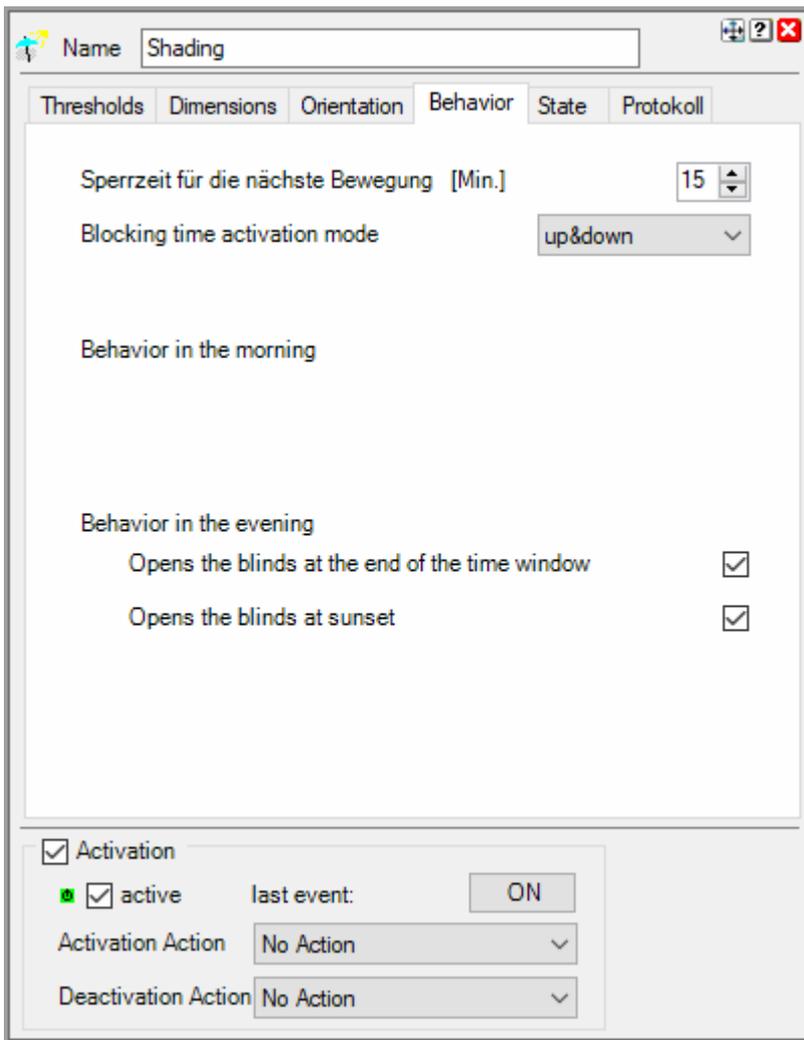
Tab Orientation:



Besides the shading of the window by the eave, also the orientation of the window has to be taken in account. This dialog provides the configuration of the bearing of the window. Sufficient accuracy is about 5-15°.

If the horizontal angle of the sun is within the purple angle range then the horizontal lowering condition is fulfilled. The two shading angle parameters left and right define the purple angle range. Left and right apply to the vision out of the window.

Tab Behaviour



Blocking time

To avoid that the jalousies run up and down at changing weather conditions there is a movement delay. Between to movements there must be at least a delay of 15 minutes.

The **Blocking time for next movement** avoids periodical movement of the blinds. The shadow controller awaits at least the specified time period before the next movement.

The **Blocking time activation mode** defines in which of the situations the blocking time is started.

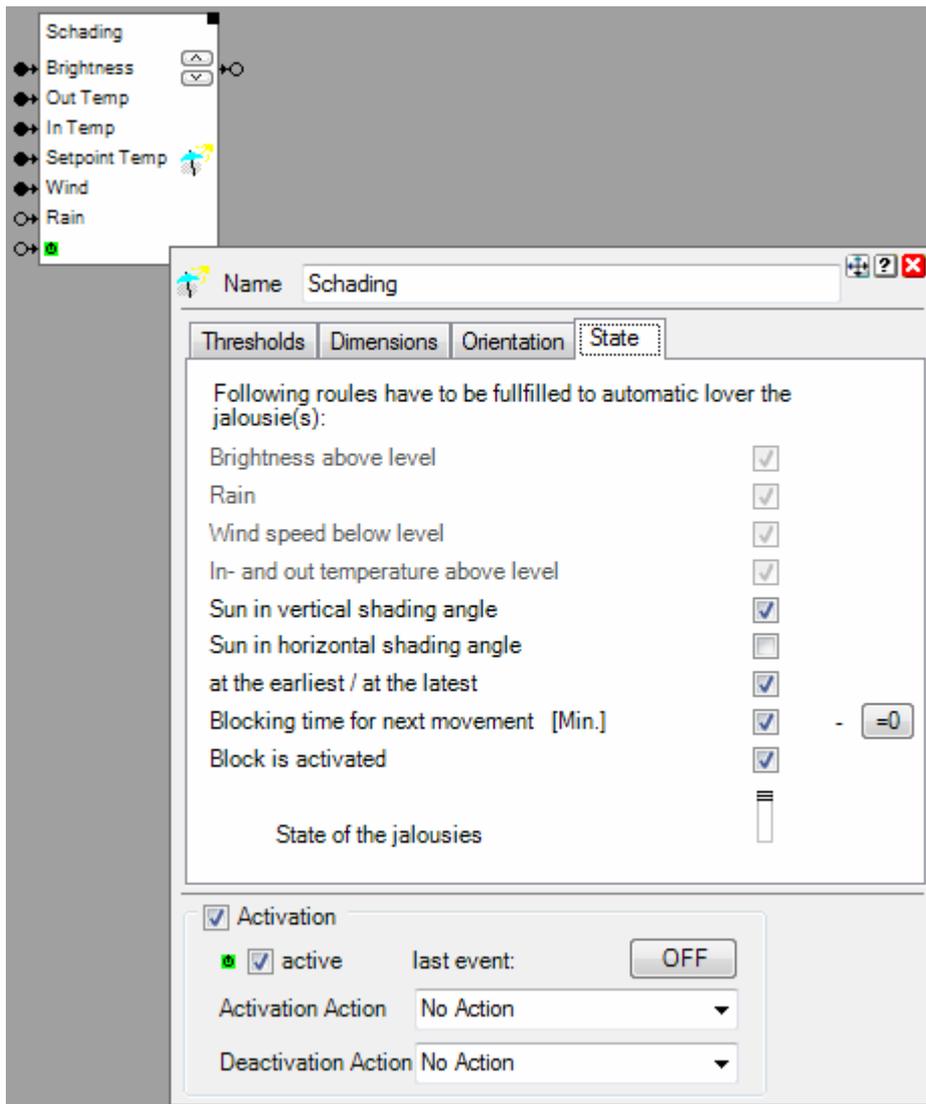
In case of over wind conditions the blinds will be raised immediately, also before the blocking period as been expired.

Behaviour in the Evening

Opens the blinds at the end of the time window: Uncheck to keep blinds in actual position when the time window ends.

Opens the blinds at sunset: Uncheck to keep blinds in actual position at sunset.

Tab State:



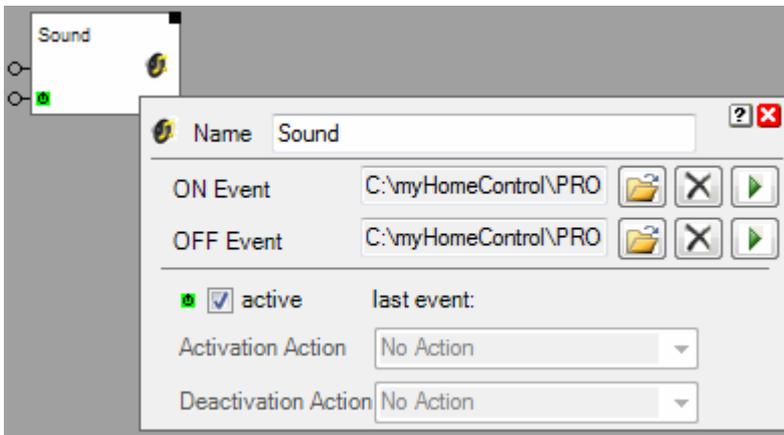
This tab shows the actual states of all the conditions. Gray conditions are not evaluated because there is no sensor connected to corresponding input pin.

As soon as all conditions are fulfilled the jalousies will be lowered.

Sound

This block can be obtained from **Functions / Advanced**.

This block plays audio files. Two individual audio files can be assigned. One to the ON event and the other to the OFF event. The audio file for the ON event is played in case the block receives an ON command on its input pin. The audio file for the OFF event is played in case the block receives an OFF command.



This block supports the [Activation Feature](#) .

In case the block is in deactivated state it doesn't play the audio files.

Application sample



In case the I button has been pressed the block plays the audio file assigned to the ON event. In case the O button has been pressed the block plays the audio file assigned to the OFF event.

Additional application samples:

- Create and play an text message (audio)

[Handling Blocks](#)

[Properties of Blocks](#)

State

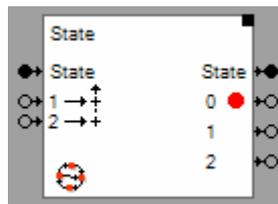
This block can be obtained from **Functions / Logic**.

This function provides state management support. The block represents a number of states. A name and a value can be assigned to the state.

Sample:

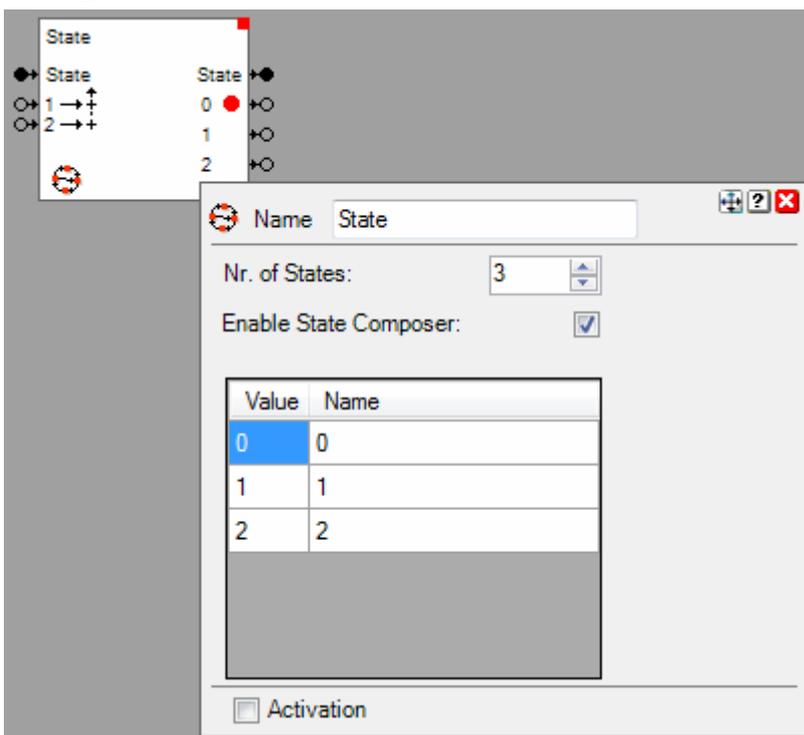
State	Value
Off	0
Heating	1
Cooling	2

Set state via value
Compose state out of multiple commands



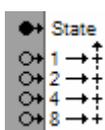
Value of the actual state
The pin corresponding to the actual state send an ON command.

Settings:



Individual values and names can be assigned to each state.

State Composer

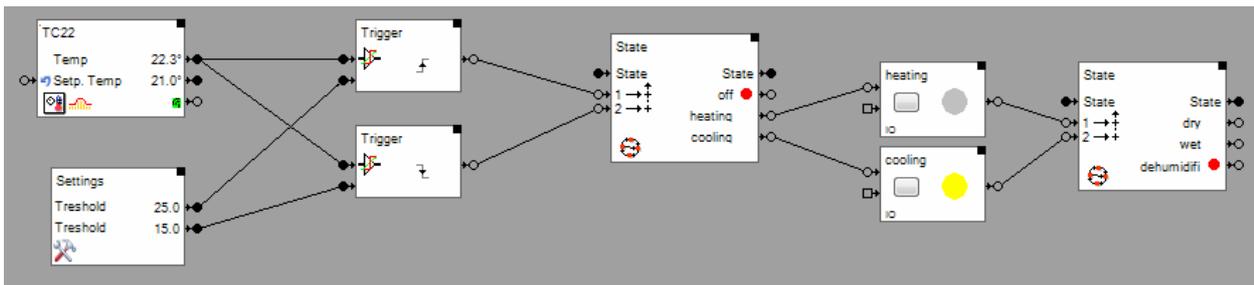


The State Composer calculates the actual state value from the state of state composer inputs. The pins have different weights. The state value is calculated as follows:
State value = sum of all weights of the pins received an ON command.

Sample:

The first and the third pin received an ON command. Therefore the calculated state value is $1+4 = 5$.

Application sample



Additional application samples:

-

[Handling Blocks](#)

[Properties of Blocks](#)

Find details about the corresponding visualization element in chapter [Visualization Element State](#).

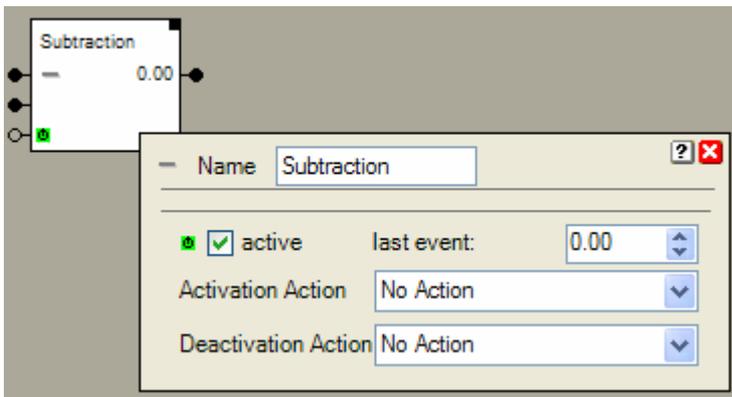
- Subtraction

This block can be obtained from **Functions / Arithmetic**.

This block subtracts the value of the signal connected to the lower pin from the value of the signal of the lower pin.



Properties



This block supports the [Activation Feature](#) .

Additional application samples:

-

[Handling Blocks](#)

[Properties of Blocks](#)

 **Phone Call**

This block can be obtained from **Functions / Interfaces**.

This feature is available if the [License option: email, SMS, phone](#) has been enabled.

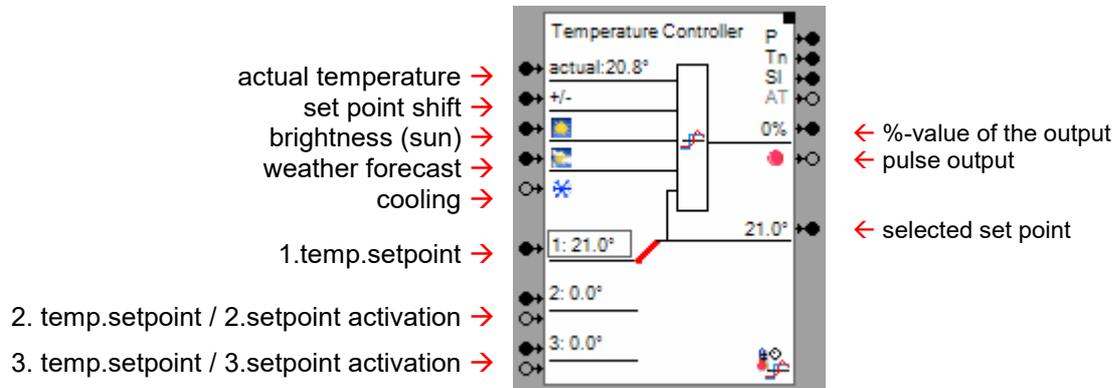
This block processes a phone call if it receives an ON-command. It activates a voice mail.

This block is still under development. Refer to [send email](#).

Temperature Controller

This block can be obtained from **Functions / Advanced**.

This block is used for single room temperature control. It manages up to 10 individual set point values. It controls the temperature in a room according the selected set point value. It uses a heater to control the temperature.



Function

Set point management

The block allocates two input pins for each set point. One is used to feed in the set point value, the other one is to control the activation of the set point. An ON command activates the set point, an OFF command deactivates it. The activation state of the set point is indicated by a black rectangular surrounding the set point value. The first set point is always active and can not be deactivated.

There are different priorities assigned to the set points. The first set point has lowest priority, to last set point has highest priority.

The activated set point with the highest priority is used for the temperature control. This value is also forwarded to the corresponding output of the block.

Temperature control

The temperature control part of the block calculates the output for the heating. Therefore the block compares continuously the actual temperature and the set point and controls the output accordingly. The calculated %-value for the output is forwarded to the %-value output pin.

In case thermo dynamic valve actuators shall be used, these kind of devices can be easily controlled by a regular switch actuator. Thermodynamic valve actuators have only two states „open“ and „closed“. The temperature control block provides a pulse modulated output to control these kind of devices. The block creates a pulse pattern corresponding to the %-value calculated by the temperature control algorithm.

Sunlight

Rooms with large windows, oriented to the south, sunlight will considerably support the heating. The temperature controller block is able to consider the support and reduce the heating power for energy saving reasons. To benefit from this function a brightness sensor has to be connected to the temperature controller.

Weather forecast (optional, not yet implemented)

myHomeControl gathers weather forecast information form the internet. In case there is a forecast for nice and warm weather, the temperature controller block reduces the heating power during the heating-up phase after the night time lowering.

Cooling

The temperatur controller block provides heating- as well as cooling operation modes according to the selected configuration:

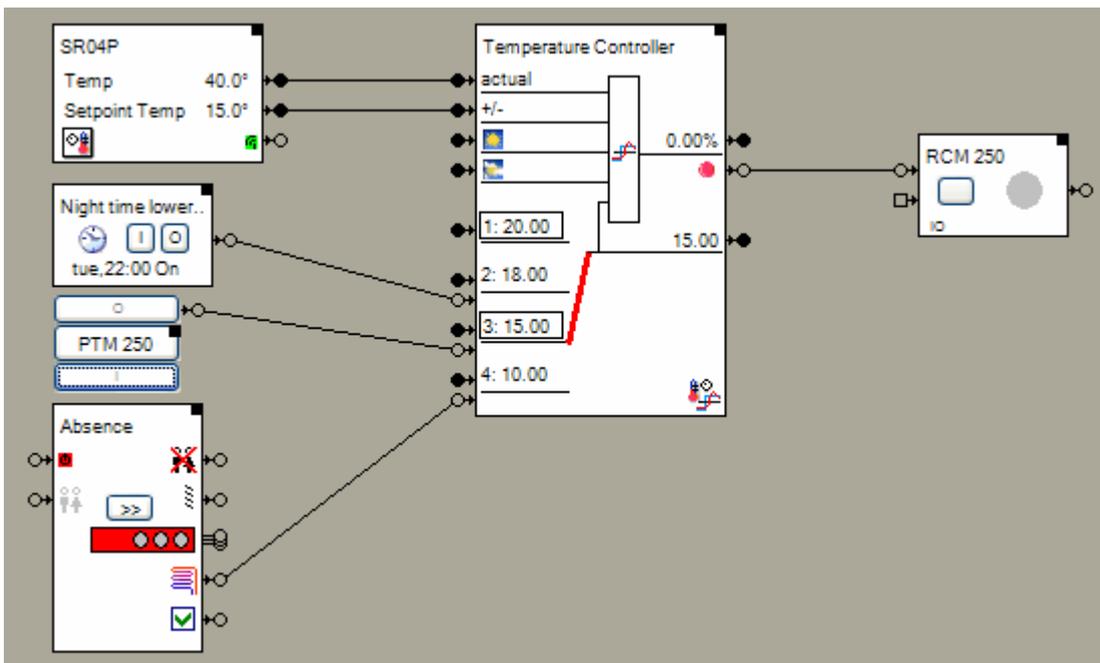
- only heating
If this configuration is selected, then the block controls the actuator just for heating purposes. In simple words: the actuator gets only activated in case the actual temperature of the room is below the set point temperature.
- only cooling
If this configuration is selected, then the block controls the actuator just for cooling purposes. In simple words: the actuator gets only activated in case the actual temperature of the room is above the set point temperature.
- heating or cooling according input
This modus is to be used in case the climatisation system differentiates between heating and cooling e.g. thermal heat pump. This kind of device creates warm wather for heating purposes or cool wather for cooling purposes.
This modus is usefull in case the same installation object of the rooms is used either for heating of for cooling. Usually these kinds of systems provide a output signal indicating the actual operation mode (heating or cooling). This signal can be forwarded to myHomeControl by using a button interface device. The signal can be connected to the input pin  and controls the operation mode of the temperature controller block (ON→cooling, OFF→heating).
For further details refer to application sample
- heating and cooling (not jet implemented)
The temperature controller block evaluates the actual operation mode (heating/cooling) by it self. The block provides two seperate outputs. One for heating, one for cooling. The block controls the correspondig output depending on the actual operation mode.

For details refer to section **Configuration** and to the application samples.

Application sample

Temperature control for a guest room.

If no guests are in the guest room shall be temperate to 15 degrees Celsius.



The room operating panel (SR04P) measures the actual room temperature. The wheel is used to shift the set point by +/- 3 degrees.

The basic temperature set point value of the temperature controller block (set point 1) is set to 20 deg Celsius. Set point 2 is used for night time temperature lowering. The clock timer block activates and deactivates set point 2 according a configured schedule.

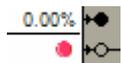
The third set point value is used for temperature control in case the guest room is unoccupied. The button switch "PTM 250" activates/deactivates the set point.

The fourth set point value gets activated by the absence function.

The temperature controller block controls the room temperature according the selected set point value (considering the set point shift). In the sample above, set point 3 is used because it is the activated set point with the highest priority.

The temperature controller block determines a suitable pulse pattern for the switch actuator to control the heating valve.

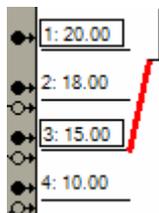
State indications



Pulse output is OFF.



Pulse output is ON.



Set points 1 and 3 are activated. This is indicated by the rectangle around the set point value indication.

Set point 3 is selected and used for the temperature control because it is the activated set point with the highest priority.

Properties**Set points**

The screenshot shows a software window titled 'Temperatur Controller'. It has two tabs: 'Setpoints' (selected) and 'Controller Settings'. Below the tabs, there are two spinners: 'Nr of Setpoints' set to 4 and 'Used Setpoint' set to 3. A table with four columns (Index, invert, Value, active) lists setpoints 1 through 4. Setpoint 3 is selected (highlighted in blue). At the bottom, there is an 'Activation' checkbox which is unchecked.

Index	invert	Value	active
1	<input type="checkbox"/>	20	<input checked="" type="checkbox"/>
2	<input type="checkbox"/>	18	<input checked="" type="checkbox"/>
3	<input checked="" type="checkbox"/>	15	<input checked="" type="checkbox"/>
4	<input type="checkbox"/>	10	<input type="checkbox"/>

Nr of Set points defines the amount of set point provided by the temperature controller block.

Used Set point indicates the number of the selected set point, which is used for the temperature control. This value is just indication.

There is an individual row for each set point as shown below:

- **Index:**
Number of the set point:
- **invert:**
Checkbox indicating if the activation commands of the channel behaves in inverted manner. The box enables the user to modify the inversion state.
- **Value:**
Numeric input field indicating the value of the set point. It enables the user to enter a set point value. In case a signal has been connected to the corresponding set point value input pin, then the next change of the signal value will overwrite a value entered in the input field.
The temperature controller block stores all set point values. After a restart, these values are still available.
- **active:**
Checkbox indicating the activity state of the set point. The box enables the user to modify the activity state.

Controller Settings



To find correct values for the controller settings is not simple for users which are not used to. The wizard supports the determination of adequate values for the settings for different use cases.

PID-Controller

The output value of the PID controller are multiplied by 100 to be rescaled to %-values. The parameter **Mode** defines the valid operation modes of the controller. Refer to section Function/Cooling for details.

PWM

The Interval defines the rate for the generation of the pulses. This is the time between two pulses. The width of the pulses correspond to the %-value received on the input. Samples (assuming the rate is set to 10 Seconds):

- 0%: no pulses are generated, output is set to OFF.
- 25%: every 10 seconds a pulse with a width of 2,5seconds is generated. At the start of the pulse the block sends an [ON command](#) via. its output, at the end of the pulse it sends an [OFF command](#).
- 75%: every 10 seconds a pulse with a width of 7,5seconds is generated.
- 100%: no pulses are generated, output is set to ON.

The range for the input values is 0..100.

Additional application samples:

- Interrupt heating in case a window has been opened
- Heating or Cooling

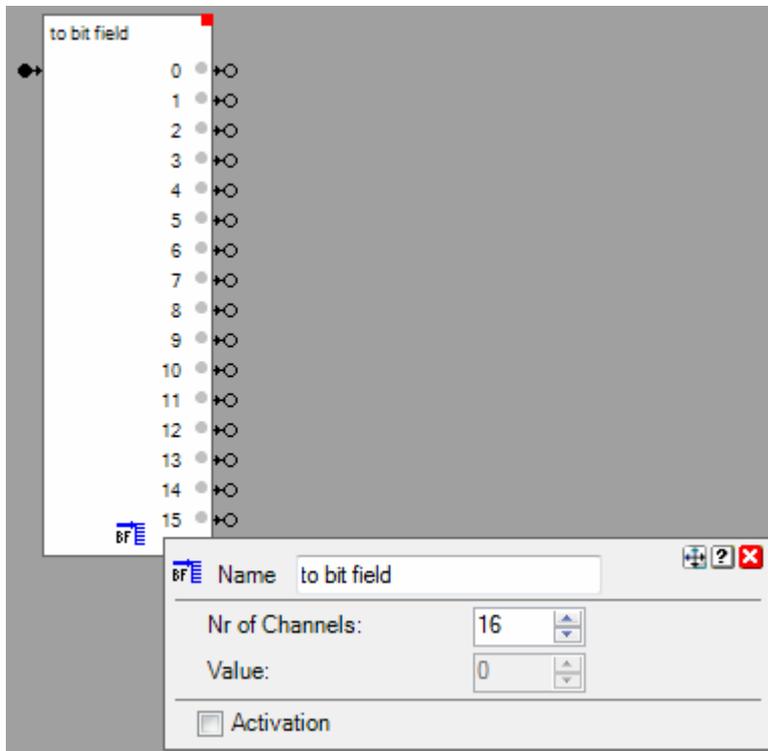
[Handling Blocks](#)

[Properties of Blocks](#)

to bit field

This block can be obtained from **Functions / Logic**.

This block calculates bitstates according the input value (integer → bit).



Function

The block provides a configurable amount of binary output pins. Each pin has its weight. The weight of each pin is calculated as:

$$\text{Weight} = 2^{(\text{index})}$$

Configuration

Nr of Channels: Defines the amount of output pins.

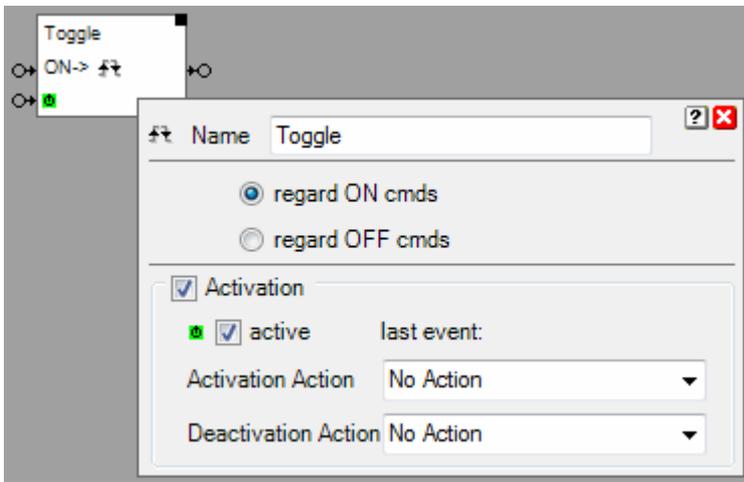
The filter block supports the [Activation Feature](#) .

Toggle

This block can be obtained from **Functions / Logic**.

The toggle block processes either only ON-command or only OFF-commands. This depends on its setup. On each processed command the toggle block sends out a [TOGGLE-command](#).

This block is useful in case a light should be operated with only one button of a PTM radio button device.



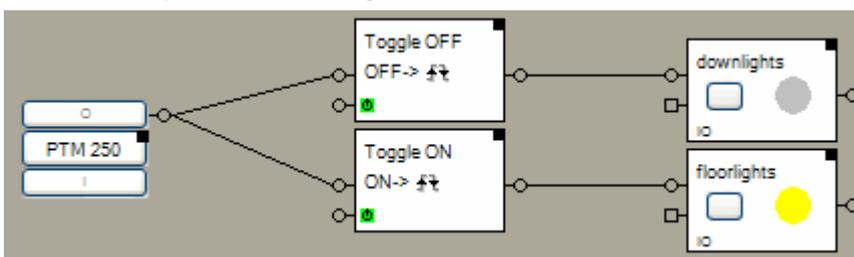
Function

The toggle block processes either only ON-command or only OFF-commands. On each processed command the toggle block sends out a TOGGLE-command. This advises the successor blocks to change there corresponding state.

The filter block supports the [Activation Feature](#)

Application sample

The upper button of a single channel PTM radio button shall operate the down lights in the ceil, the lower button shall operate the floor light.



Properties

The properties dialog offers the opportunity to setup the block to either process only ON-commands or only OFF-commands.

Additional application samples:

- PTM230 Module

[Handling Blocks](#)

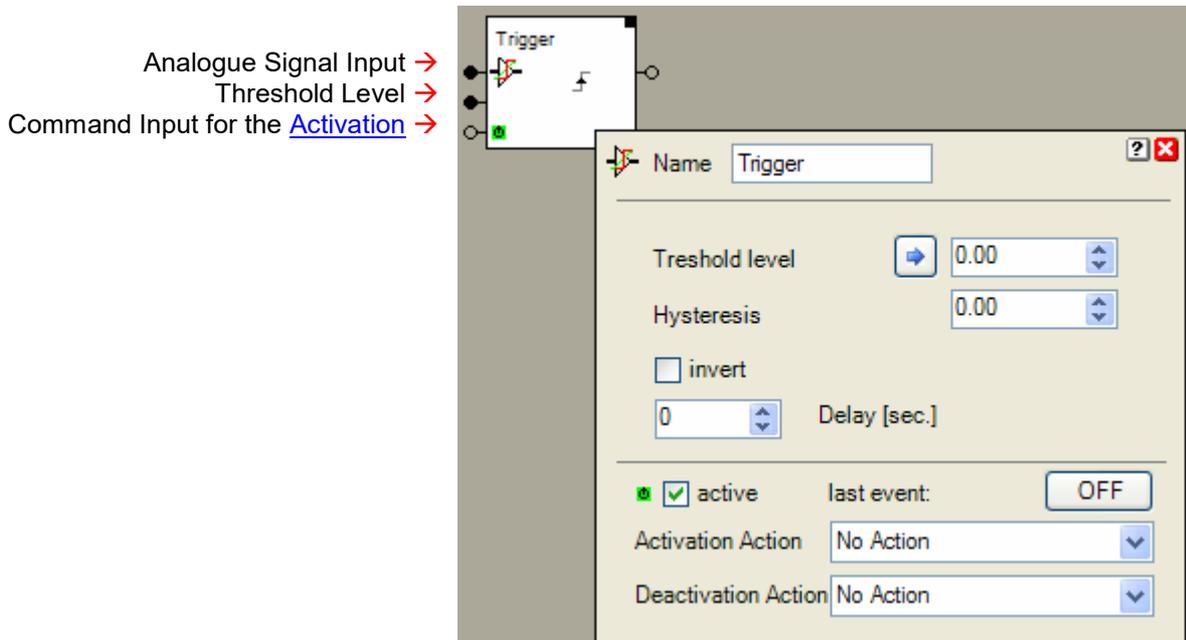
[Properties of Blocks](#)

Trigger

This block can be obtained from **Functions / Logic**.

The trigger block compares an analogue signal with a threshold level and generates commands in case the signal passes the level.

The threshold level may either be entered in the properties dialog of the block or via the analogue input pin.



The button  copies the actual value of the analogue signal into the threshold level field. The threshold level field is inactive in case the corresponding input pin is connected. In this case the value of the level is taken from the signal pin.

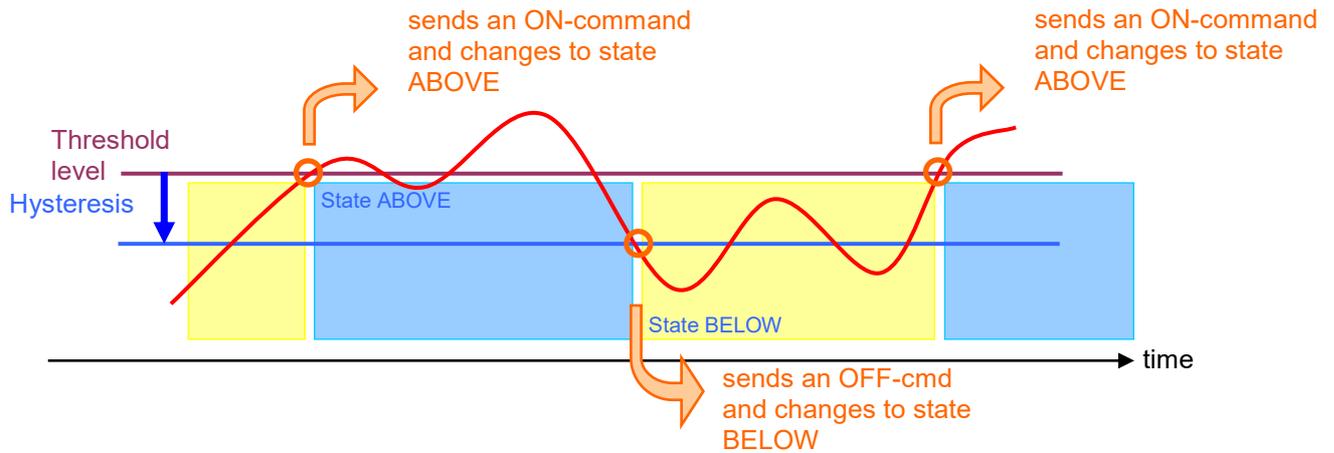
Function

The trigger block supports a threshold value and a hysteresis value. Depending on its internal state the block monitors if the signal (analogue input ), will go over the threshold level or will go under the threshold level.

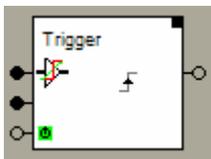
In case the actual state is “BELOW”, the block generates an ON-command if the signals value becomes greater then the **Threshold** level. It changes its internal state to “ABOVE”.

In case the actual state is “ABOVE”, the block generates an OFF-command if the signals value becomes lesser then the **Threshold** level – the **Hysteresis**. It changes its internal state to “BELOW”.

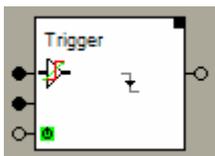
Application sample:



State indication



State is BELOW. The trigger block monitors if the signal passes the threshold level.



State is ABOVE. The trigger block monitors if the signal passes the threshold level – the hysteresis.

The filter block supports the [Activation Feature](#) .

Additional application samples:

- Lights in office controlled by radio chairs
- Constant light control

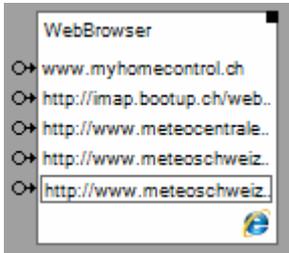
[Handling Blocks](#)

[Properties of Blocks](#)

WebBrowser

This block can be obtained from Functions / Advanced.

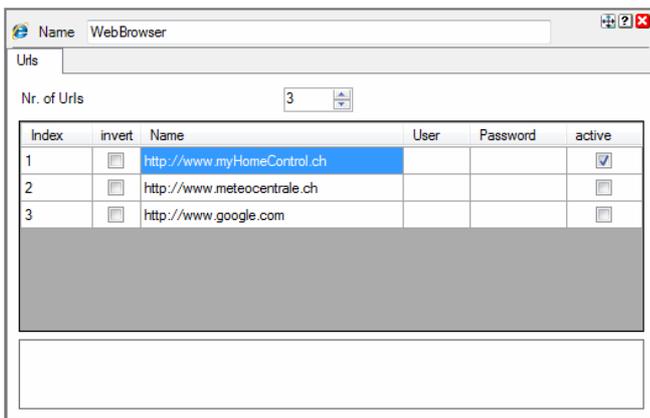
The web browser block controls the web browser visualization element. Different URLs can be configured. The URLs can be activated by a network signal.



Function

If the web browser block receives an ON command on one of its input pins, then the corresponding URL is shown by the visualization element.

Configuration



Select the number of URLs requested. The block enlarges the table and shows pins accordingly.

Check **invert** in case an OFF command shall activate the URL.

Enter the complete URL in the **"Name"** Field, inclusive http://.

Enter login credentials in columns **User** and **Password** if required.

Active shows the actually shown URL.

Find details about the corresponding visualization element in chapter [Visualization Element WebBrowser](#).

Application Sample

This block might be useful to control cameras e.g. to move them to preset positions. Search google for <camera type> url commands.

Additional application samples:

-

[Handling Blocks](#)

[Properties of Blocks](#)

WebBrowser Edge

This block can be obtained from Functions / Advanced.

The web browser block controls the web browser visualization element. Different URLs can be configured. The URLs can be activated by a network signal.



Function

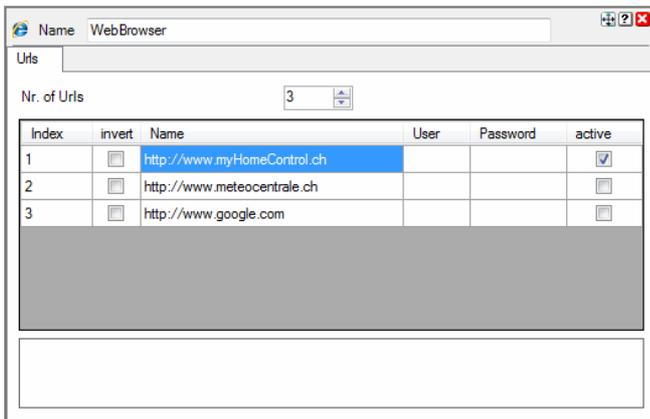
If the web browser block receives an ON command on one of its input pins, then the corresponding URL is going to be called and the result is shown by the visualization element.

The outpins signal the success state of the call.

Status code 200 → outpins sends ONv-ON^

other codes → outpins sends OFFv-OFF^

Configuration



Select the number of URLs requested. The block enlarges the table and shows pins accordingly.

Check **invert** in case an OFF command shall activate the URL.

Enter the complete URL in the “**Name**” Field, inclusive http://.

Enter login credentials in columns **User** and **Password** if required.

Active shows the actually shown URL.

Find details about the corresponding visualization element in chapter [Visualization Element WebBrowser](#).

Application Sample

This block might be useful to control cameras e.g. to move them to preset positions. Search google for <camera type> url commands.

Additional application samples:

-

[Handling Blocks](#)

[Properties of Blocks](#)

Window Monitoring

This block can be obtained from **Functions / Monitoring**.

The window-monitoring block collects the states of all attached [window handles](#) and [windows contacts](#). It evaluates if all the windows were closed.



Function

The window-monitoring block collects the states of all attached [window handles](#) and [windows contacts](#). It updates its own internal state depending on the states of the attached window sensors and manages lists of windows with the similar state.

Indication of the block:

1. At least one window is open.	→		„Window open“
2. No windows are open, but at least one is in tilt position	→		„Window in tilt position“
3. All windows are closed	→		„All Windows closed“



Alarm output:

The output pin indicates an alarm. When the block leaves its internal “all Windows closed” state an ON-command will be sent through the alarm output pin.

The [Properties dialog](#) lists the open windows and the windows in tilt position separately.

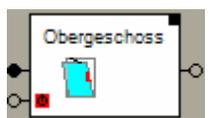
A **delay** time might be given to delay the generation of the alarm. Only if a window stays open or tilt for a longer period than the delay time, the alarm output will be activated.

State indications



Windows closed

All windows are closed.



Window(s) in tilt position

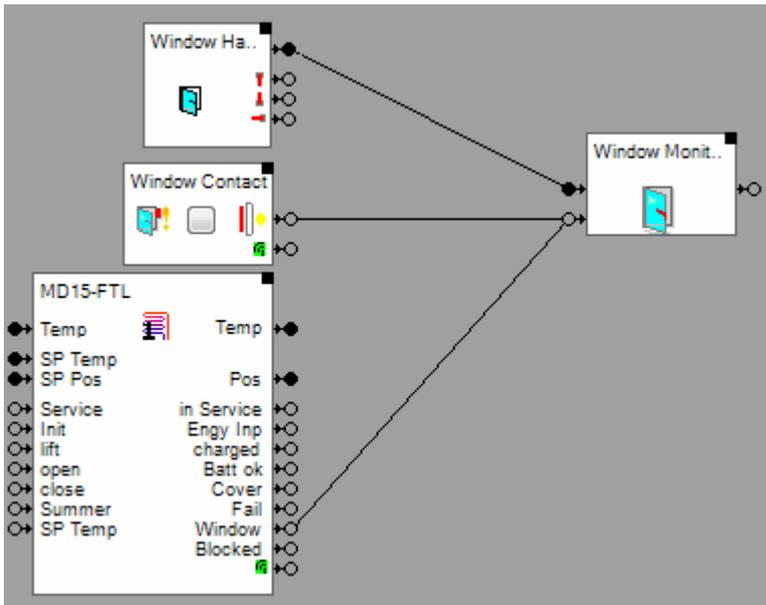
At least one window is in tilt position, but none is open.



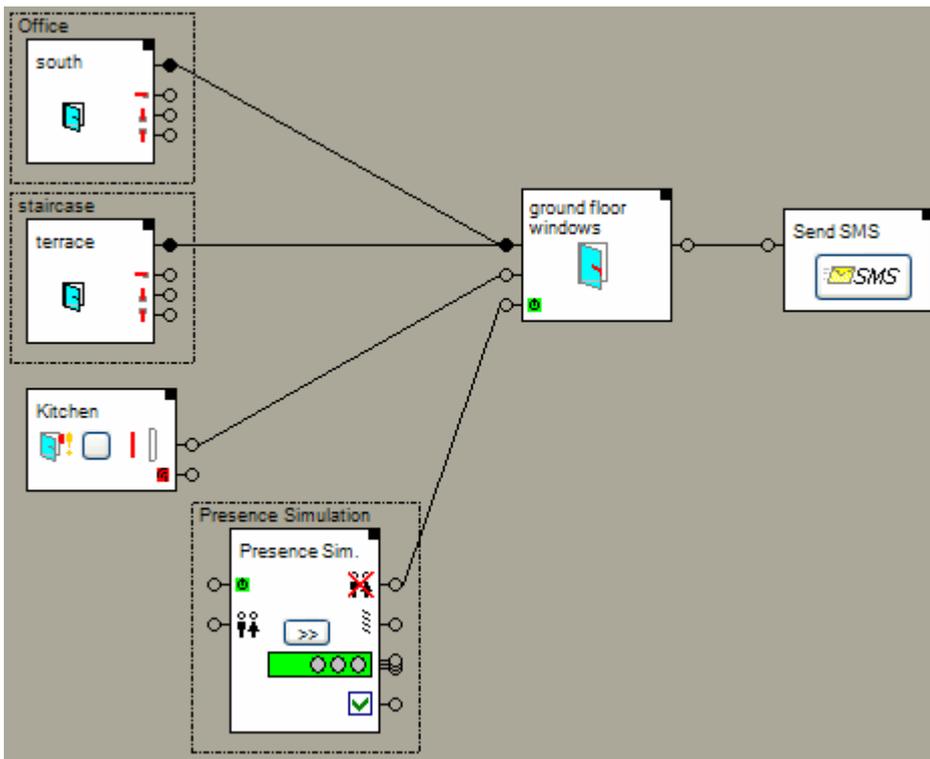
Window(s) open

At least one window is open, but there might be some in tilt position as well.

Application sample



Connect all window sensors to the corresponding window-monitoring block.



The sample above shows a simple alarming logic. It sends a sms message in case a window is opened if all inhabitants have checked out (nobody is at home).

Find details about the corresponding visualization element in [Visualization Element Window Monitoring](#).

Additional application samples:

- Create and play an text message (audio)

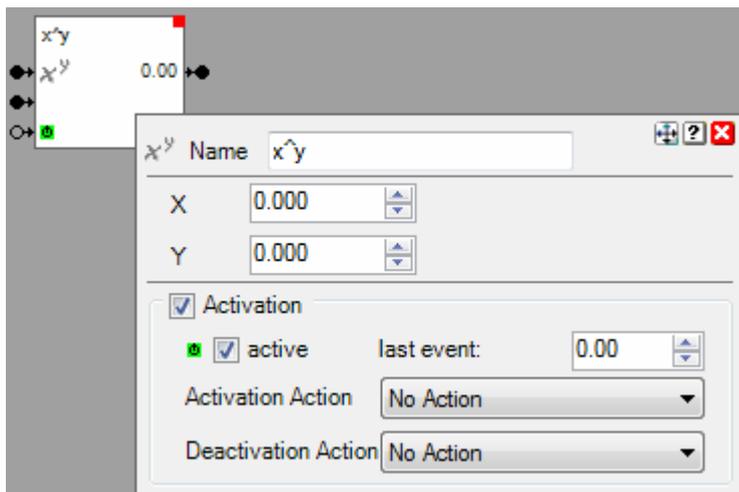
x^y $x^{\wedge}y$

This block can be obtained from **Functions / Arithmetic**.

This function raises x to the power of y.



Configuration



In case one of the input signals are not connected, then the block will use the given configuration value for X or Y.

The filter block supports the [Activation Feature](#) .

Additional application samples:

-

[Handling Blocks](#)

[Properties of Blocks](#)

Sensors

Sensors are EnOcean devices measuring any physical signals and transmitting them as radio messages. The sensor blocks, which represent a sensor device within myHomeControl, have to be [taught](#) to a certain sensor device to be able to evaluate them specific radio messages.

Teaching Sensor blocks

- ▶ In the context of EnOcean addresses always means a combination of ORG and EnOcean Id. The address value is always shown in hexadecimal representation. The address follows the schema:
 <ORG:XX><EnOceanId:XXXXXXXX>
 ORG is optional. ORG is required for those sensors sending different messages under the same EnOceanId e.g. some room controllers. Using the Teach button, ORG is always stored with the EnOceanId.

All sensor block provide in there [Properties dialog](#) a teach button an they show the teached address.

To teach a sensor first press the Teach-button, it starts blinking in blue color. Then press the LRN-button at the sensor device to force it to send a radio message (in case of a PTM radio button just press on of the buttons).



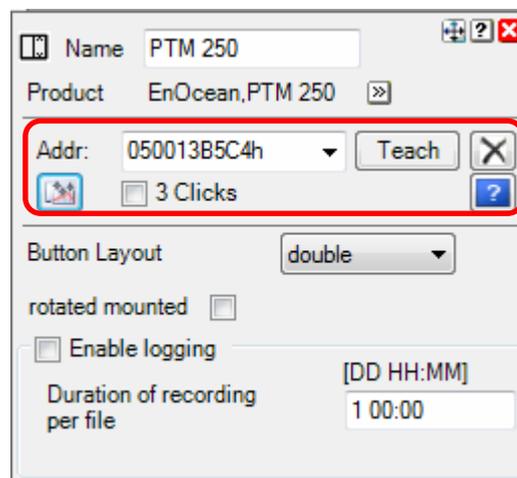
clears an already teached address.



shows a step by step teach in instruction in many cases.



opens the [radio statistics dialogue](#).



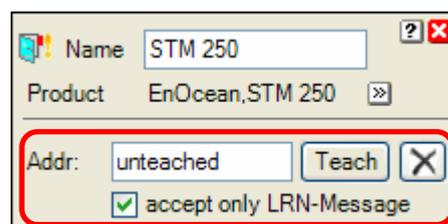
3 Clicks

If the sensor transmits PTM-type of messages (e.g. a Pushbutton Rocker Switch), then the option “3 Clicks” becomes available. In case this option has been checked, then the teach in procedure requires at least 3 PTM messages. This option is useful in case of considerable radio traffic. It prevents the teach in of invalid sensors. The sensor in question has to be operated at least 3 times within a timeframe of 2 seconds.

accept only LRN-Message

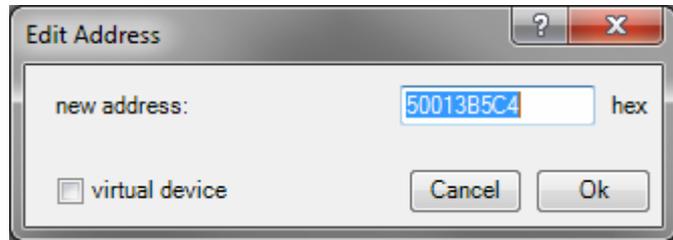
Sensor, sending messages periodically, have a LRN-button. This button is used to initiate the transition of a LRN-message. By default myHomeControl accepts for the teach in process only messages marked as LRN messages.

If the sensor is not reachable, the LRN button can not be pressed. In this case disable the option “accept only LRN-message”. myHomeControl accepts the next message received for the teach in.



As soon as the sensor block receives a radio message corresponding to its type, the teached address will be shown in the field “**Addr:**”

There is a opportunity to enter the address manually as well. Click the box indicating the value of the address in the properties dialog of the block. Following dialog will be shown:



Hint:

There is also the opportunity to modify the addresses directly in the [list of all devices](#).

Virtual Devices:

Refer to chapter [Virtual Devices](#).

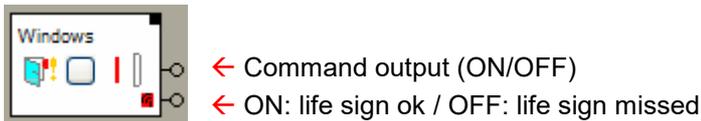
Life-Sign Monitoring

Some of the EnOcean-Sensor send there signals on a cyclic basis. Therefore they send out radio signals periodically.

MyHomeControl monitors if it receives the radio messages from a particular sensor periodically. If this is not the case, then the sensor might be broken.

The result of the monitoring is provided by the block of the sensor to the network by an output pin.

Example: Window Contact



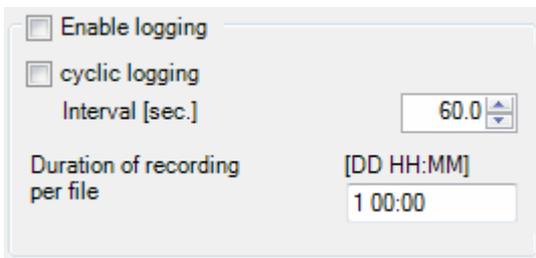
The block forwards following commands:

Stays ON as long as radio messages from the sensor will be received continuously. If messages are outstanding for more then the monitoring period an OFF-command will be sent indicating a communication loss.

The corresponding visualization element of the sensor shows an indication in case of a life sign failure. A red antenna symbol pops up in the area of the visualization element.

Individual logging

Various sensor blocks provide a logging feature, which logs received signal values to individual log files per sensor. The CSV format is used for the log files. The log files can be directly opened in Excel.



If the logging has been enabled, then log files will be created on reception of radio signals.

If cyclic logging is enabled, then the values of the signals are not logged on any value change but periodically at the given cycle time.

The **Duration of recording per file** defines the period of time where signals where logged to the same file. After the period a new file is created. Regard that Excel limits the amount of rows per table to about 64000 lines. Therefore the period has to be adapted to the send rate of the sensor to keep logging within the row limits.

The files will be named as follows:

Log_<project name>_<block reference>_<yyyy_MM_dd_hh_mm>_00.csv

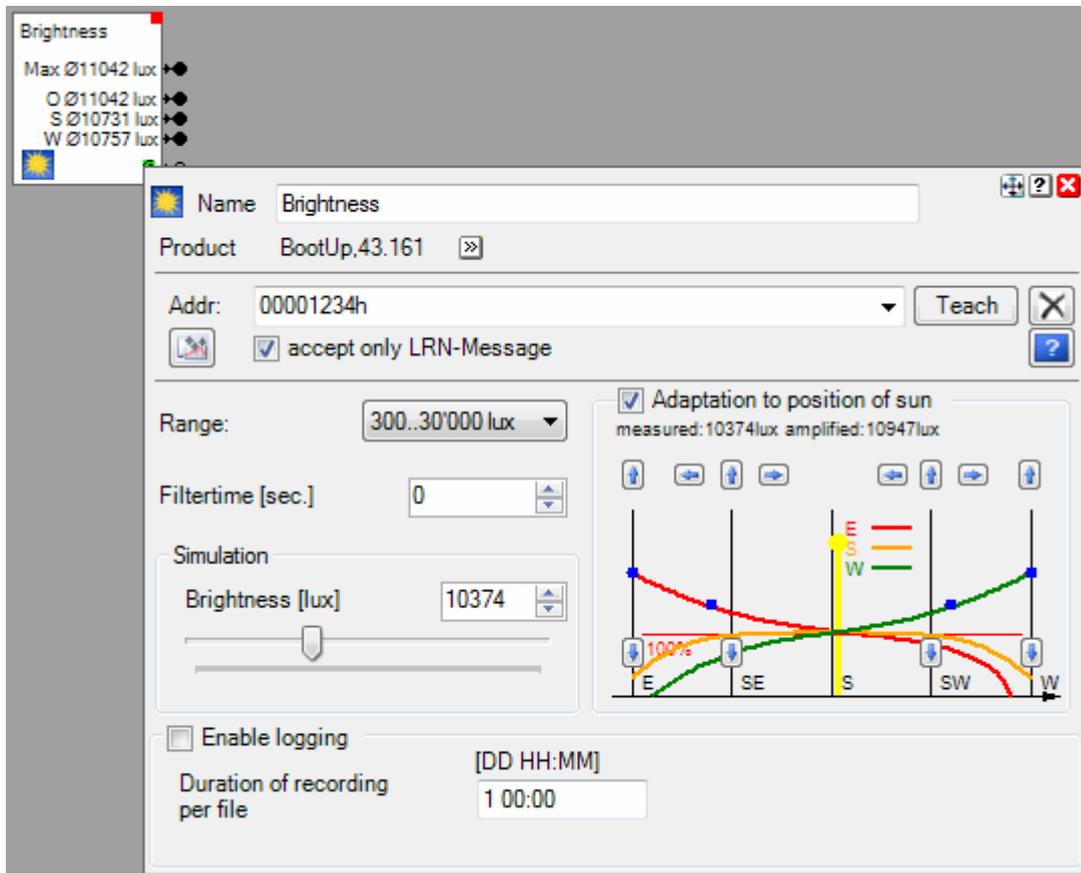
Project name: as defined in general settings / [project name](#)

Block reference: floor name _ room name _ block name

The files are stored to the path defined in the general settings / [protocol](#).

Brightness

The Brightness block evaluates radio message transmitted by a brightness sensor (e.g. on basis of a EnOcean STM100-Modul). There is the opportunity to activate a low pass filter for the brightness values.

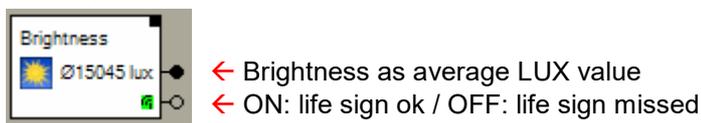


The block forwards the brightness signal as LUX-value to its output pin.

Depending on the sensor type a value range has to be selected. Following ranges are available:

- 300..30'000 lux
- 600..60'000 lux

The brightness block provides to different [output pins](#).



The [Properties dialog](#) offers the opportunity to simulate the brightness value. Enter a value into the brightness field or move the slider to a corresponding position. Take in account that your inputs will be overwritten by the next reception of a radio message transmitted by the sensor device.

In case the value of the **Filtertime** will be set to a value >0, then a low pass filter will be activated. This filter filters the received brightness values. A typical value for shading is 15 minutes = 900 seconds.

Addition to position of sun

If this option is selected, then the block calculates individual brightness values for the different directions. The intention is to mount the sensor in south orientation. In this situation the morning - and the evening

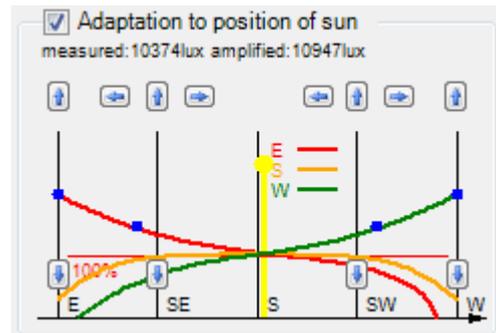
light will touch the sensor under a flat angle. Therefore the sensor will measure to small values during these times of the day. The block provides a function to compensate this effect.

There are 3 individual curves to scale the signals.

The diagram on the right side shows these 3 curves (East, South, West). Use the arrow buttons to adjust the curves.

The vertical yellow line shows the position in the diagram corresponding to the actual position of the sun.

The values received from the sensor will be multiplied individually with the actual values of the curves and forwarded to the corresponding output pins.



This block provides the [individual logging](#).

This is a sensor block and has to be [taught](#).

Find details about the corresponding visualization element in chapter [Visualization Element Brightness](#).

Supported Devices

[Appendix B](#) list the devices supported by this block.

[Handling Blocks](#)

[Properties of Blocks](#)

Physical binding

[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

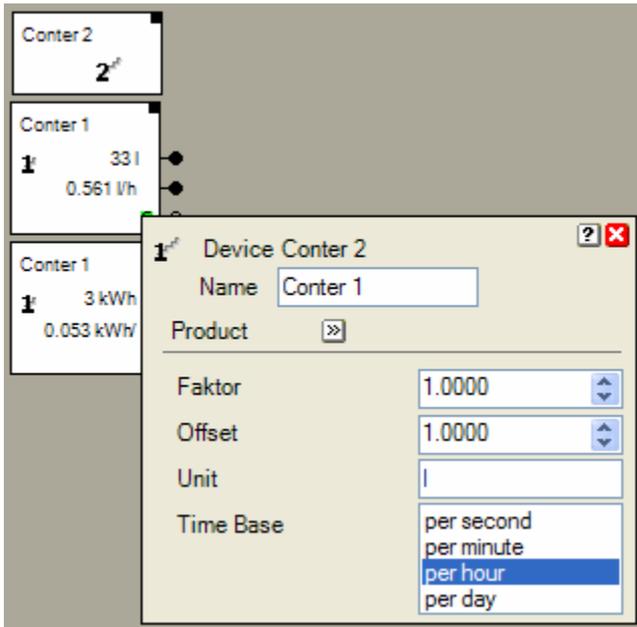
Functional channels

Value This analogue signal is read by the block from the slave. It is used to track the state of the block.

Counter 1

The counter block receives its values from a TST230/01 device provided by Omnio. There is a special firmware available implementing the counter function. The device processes 2 independent 28bit counters. Each of the counters is represented by an own instance of the counter 1 block.

Remark: It is only allowed to insert a complete device into a project. Refer to [counter 2](#) for details.

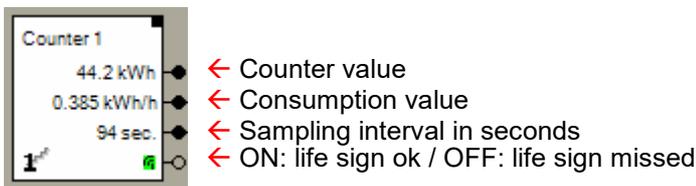


The counter 1 block provides at its first output pin the counter value. There is the opportunity to scale the value by means of received value * factor + offset. Additionally a unit can be configured. On its second output pin it provides a consumption value by means of a value reflected on a time base:

$$\text{consumption} = (\text{center value}_{t_2} - \text{counter value}_{t_1}) / (t_{m_{t_2}} - t_{m_{t_1}}) * \text{time base}$$

The time base is an option to be configured within the properties dialog.

The counter 1 block provides to different [output pins](#).



[Regard the special teach in procedure for this device!](#)

Find details about the corresponding visualization element in chapter [Visualization Element Counter 1](#).

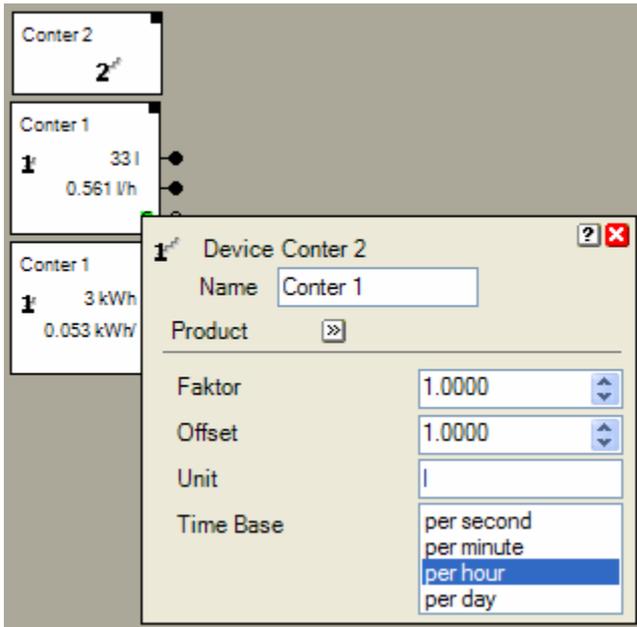
[Handling Blocks](#)

[Properties of Blocks](#)

2nd Counter 2

This block represents a TST230/01 device provided by Omnio where a special firmware has been loaded. This device provides two individual counters.

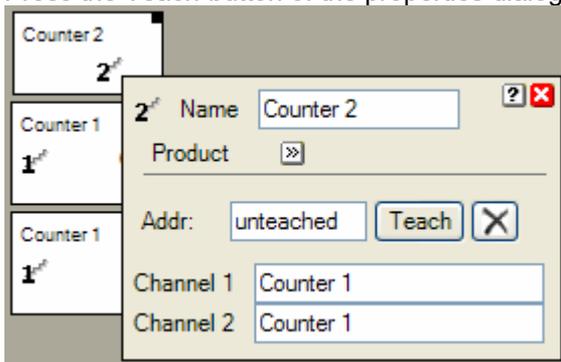
This block represents the whole device. It acts as a container for 2 blocks of type [Counter 1](#).



Teach In procedure

The device TST230/01 with firmware “Counters” requires a special procedure for the teach in:

1. Press the Teach-button of the properties dialog of the whole device (block counter 2).



2. Remove the power supply of the device and reconnect it again. The device sends a teach telegram during the startup.

Manual input of the address:

This device sends on 3 addresses:

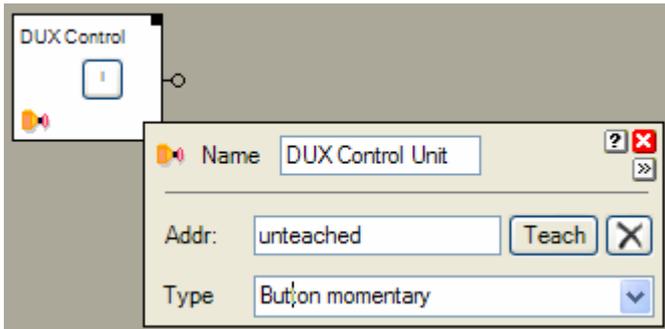
StartUp: A5 5A 0B 07 00 00 00 0A FF FF 33 46 00 93
 Kanal1: A5 5A 0B 07 FF FF FF 0F FF FF 33 45 00 94
 Kanal0: A5 5A 0B 07 FF FF FF 0F FF FF 33 44 00 93

To enter the address manually click the input field for the address which is located in the properties dialog of the root element of the device. Then calculate the address found in the StartUp-telegram and enter it into the field.

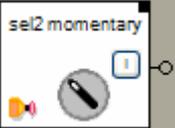
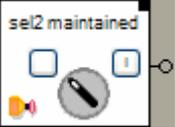
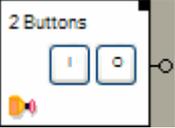
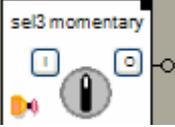
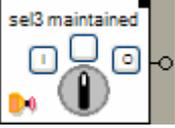
calculate hex to dez: FFFF3346h = 4294914886

Control Unit

The Control Unit block receives its data from a DUX Control Unit of the company Schlegel (Radio transmitters DMF-A, DMF-B) or from a radio position switch of the company Steute (EF 95 xx, EF 41 xx). This block might be configured according to the buttons or selectors available on the control unit. It forwards button presses or selections to the follower blocks.



The [Properties dialog](#) offers the opportunity to select the corresponding sensor type. Following types are available:

	<p>single button momentary DUX: Module DMF-A Steute: EF 41 xx, EF 95 xx Commands: ONv, ON^</p>
	<p>single button maintained Module DMF-A Commands: ONv, ON^</p>
	<p>Selector with 2 positions momentary Module DMF-A Commands: ONv, ON^</p>
	<p>Selector with 2 positions maintained Module DMF-A Commands: ONv, ON^</p>
	<p>two button momentary Module DMF-B Commands: ONv, ON^, OFFv, OFF^</p>
	<p>Selector with 3 positions momentary (jumping back to middle position) Module DMF-B Commands: ONv, ON^, OFFv, OFF^</p>
	<p>Selector with 3 positions maintained Module DMF-B Commands: ONv, ON^, OFFv, OFF^</p>

Button(s)

Click on the corresponding buttons of the block to simulate the physical buttons or the selector.

This is a sensor block and has to be [taught](#).

Additional application samples:

- Control Units

Visualization element

There is no visualization element available yet.

[Handling Blocks](#)

[Properties of Blocks](#)

Electric Meter

This block evaluates radio messages sent from a electric meter sensor module.

FSS12	1110.50 kWh	← Counter (cumulative) tariff 0
	0.00 kWh	← Counter (cumulative) tariff 1
	1.51 kW	← current power
	2.4 sec.	← Sampling interval in seconds
	0	← Tariff (0/1)
	ON	← ON: life sign ok / OFF: life sign missed

Configuration

The block is able to handle different **tariffs** in case the corresponding tariff selection input of the sensor device has been connected to the energy meter. If tariff is not of interest then deactivate the tariff handling. If tariff handling is deactivated, then the visualization element doesn't show tariff information any more.

A **correction value** can be set individually for the cumulative values of the electric meter (kWh Tariff0 / kWh Tariff1). The corresponding correction value is added to the cumulative value received from the electric meter device. The sum is forwarded to the output pin of the block.

For testing purposes there is the opportunity to **simulate** a consumption. This value gets overwritten with the next reception of a radio telegram from the electric meter device.

This block provides the [individual logging](#).

This is a sensor block and has to be [taught](#).

Find details about the corresponding visualization element in chapter [Visualization Element Electric Meter](#).

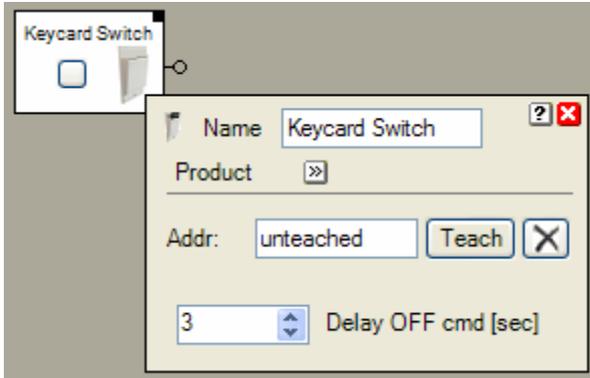
Regard the option to establish a connection to [Google PowerMeter](#).

[Handling Blocks](#)

[Properties of Blocks](#)

Keycard Switch

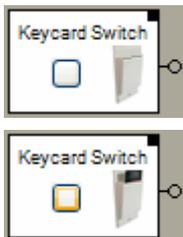
The Keycard Switch block evaluates PTM200 radio telegrams. The PTM 200 module which is operated by a Keycard. This device type is usually used within hotels.



Function

If the keycard is going to be pushed into the switch, then the block sends an ON command to its output pin. If the keycard is removed, then the block sends an OFF command to the output pin. The sending of the OFF command can be delayed (parameter "Delay Off cmd [sec]").

State indications



Keycard is not inserted

The block sent an OFF command.

Keycard is inserted

The block sent an ON command.

Button(s)

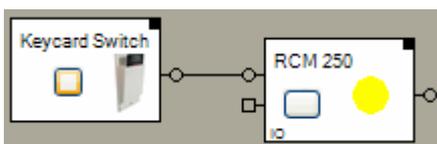
The button in the middle of the block enables to simulate insertion of a keycard. This is just for [testing](#) purposes of the network. If the block receives a radio telegram form the real chair, it immediately updates its own state to the reported state.

This block provides the [individual logging](#).

This is a sensor block and has to be [taught](#).

Find details about the corresponding visualization element in chapter [Visualization Element Keycard Switch](#).

Application sample



[Handling Blocks](#)

[Properties of Blocks](#)

Physical binding

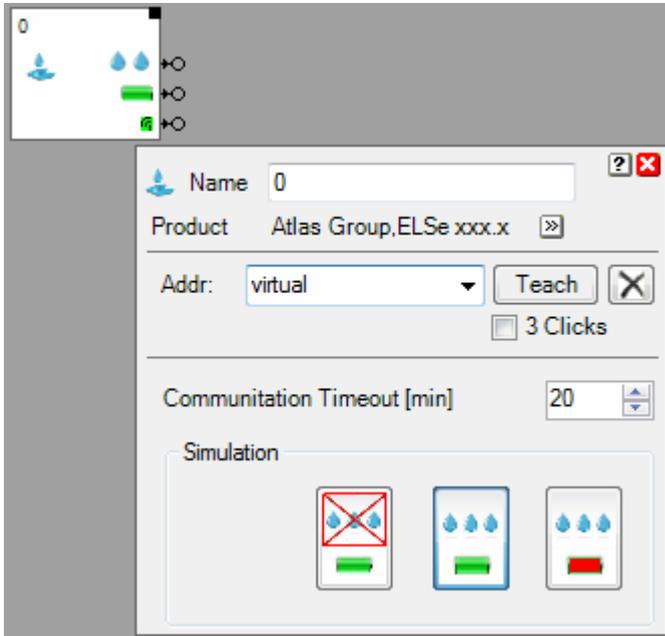
[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

Functional channels

State This binary signal is read by the block from the slave. It is used to track the state of the block.

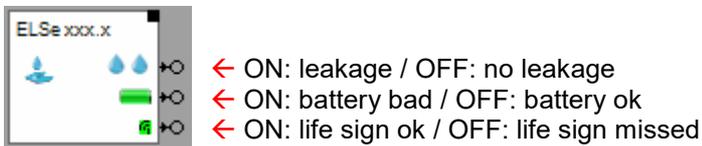
Leakage

The leakage sensor block forwards an ON command in case it detects leakage. The battery is monitored as well. Bad battery is indicated by a dedicated output of the block.



Function

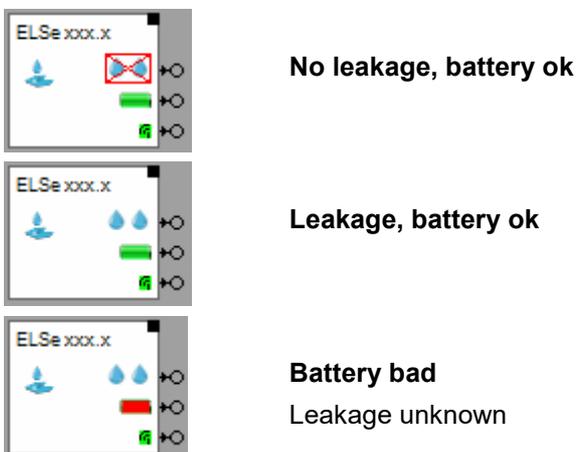
The leakage sensor block provides 3 [output pins](#):



The [Properties dialog](#) provides [testing features](#) to simulate the leakage and battery states. Take in account that your inputs will be overwritten by the next reception of a radio message transmitted by the sensor device.

The **Communication Timeout** defines the period for the life sign monitoring.

State indications



This is a sensor block and has to be [tached](#).

This block provides the [individual logging](#).

Find details about the corresponding visualization element in chapter [Visualization Element Leakage](#).

[Handling Blocks](#)

[Properties of Blocks](#)

Meter

This block evaluates radio messages sent from a meter sensor module (Automated Meter Reading). It evaluates the various counters of the device and feeds the received values to the network.

SR-MI-HS

- 0: Energy
 - 65699 kWh ← Counter (cumulative)
 - 1798,961 kW ← Counter (current)
 - 20,0 sec. ← Sampling interval in seconds
- 1: Water
 - 302 l ← Channel 2
 - 1124,943 l/h ← Channel 2
 - 32,0 sec. ← Channel 2
- 2: Gas
 - 0 m3 ← Channel 2
 - 0 m3/h ← Channel 2

ON: life sign ok / OFF: life sign missed

In case the device only maintains cumulative values and doesn't provide current values for the various channels, then the block will calculate current values by itself based on the transmission rate of the cumulative values.

Configuration

Name: SR-MI-HS

Product: Thermokon,SR-MI-HS

Addr: unteached [Teach] [X]

accept only LRN-Message [?]

Name	Unit	Factor	Correction value	Average intervals
0	/h	1	0	2
1	/h	1	0	1
2	/h	1	0	1

Enable logging

Duration of recording per file: [DD HH:MM] 1 00:00

There are following configuration items for each channel:

Name: Name of the channel shown on the blocks surface and the by the visualization element.

Unit: Unit shown on the blocks surface and the by the visualization element.

h / /h: h: an 'h' is appended to the cumulative counter value

/h: an '/h' is appended to the current values

Samples:

Energy metering: 'h' → kWh, kW

Water metering: '/h' → l, l/h

Factor: Scaling factor Shown value = cumulative value * factor

Correction value: The cumulative counter value gets decremented by the correction value. The correction value can be used e.g. to reset the counter values.

Average intervals:

In case of very low consumption values, there will be no counter increment during several measurement periods of the counter device. Therefore the display of the current value will show "jumping" values (0,0,0, 1, 0, 0). To avoid this effect, there is the opportunity to average

the last couple of measurement intervals. This option defines the amount of intervals to be averaged.

This block provides the [individual logging](#).

This is a sensor block and has to be [tached](#).

Find details about the corresponding visualization element in chapter [Visualization Element Meter](#).

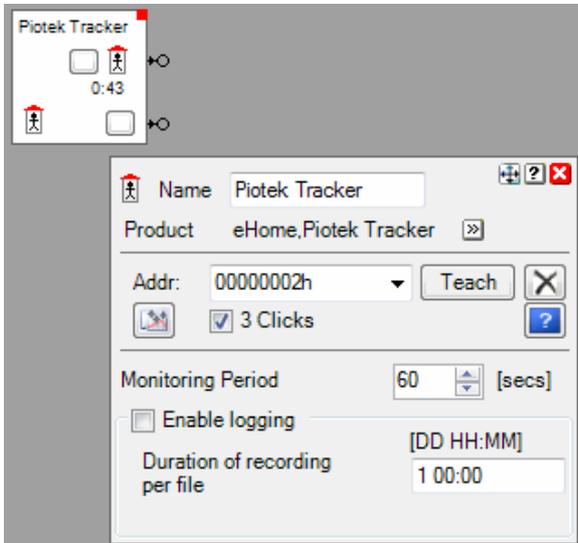
Regard the option to establish a connection to [Google PowerMeter](#).

[Handling Blocks](#)

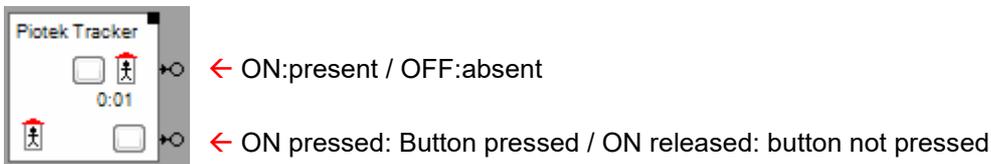
[Properties of Blocks](#)

Piotek Tracker

The Piotek Tracker device might be used to detect presence automatically. The device cyclically transmits EnOcean radio messages. The Piotek Tracker block monitors reception of the radio messages. If there is regular reception then the block indicates „present“, in case of missing radio messages it signalsises „absence“.



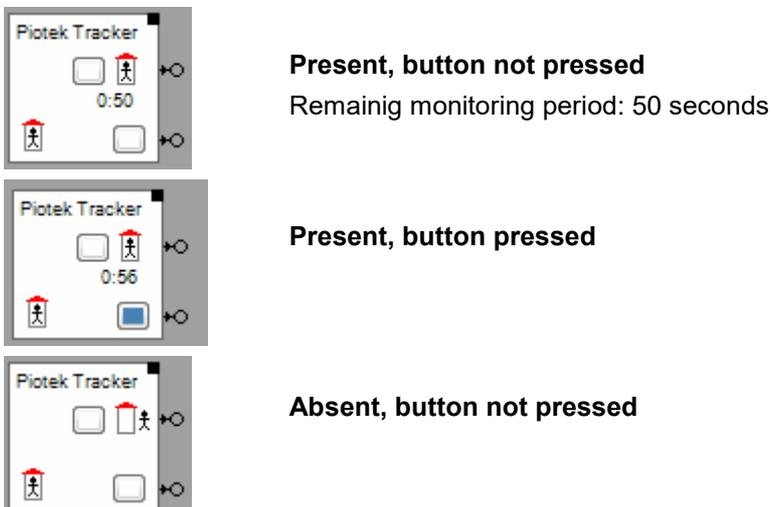
The block provides 2 [output pins](#):



Configuration:

The monitoring period for the reception of radio messages can be configured in the range of 10..30'000 seconds. If no radio messages have been received from the corresponding tracker device, then the block will signal „absent“.

State indication

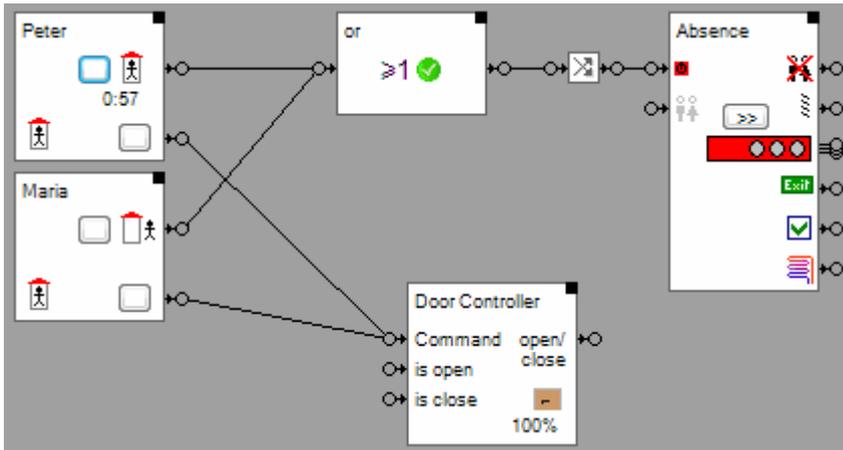


Controls

The button left of the small house might be used to simulate reception of a radio message.
 The button to the bottom might be used to simulate the button of the tracker device.

This is a sensor block and has to be [tached](#).
 This block provides the [individual logging](#).

Application sample



Each of the inhabitants wear a personal Piotek Tracker device at their bunch of keys.
 The tracker blocks, shown most left in the sample, monitor the reception of radio messages from the corresponding Piotek Tracker device. In the sample above the block representing Peter's tracker indicates that Peter is at home. The block receives radio messages from Peter's tracker at regular basis.
 The block representing Maria's tracker didn't receive any radio messages for more than the monitoring period and indicates therefore absence.
 The 'or' block combines the state of both tracker and controls the activity state of the absence function. This means, as long as Peter or Maria is at home, the absence function will not be activated.
 Peter as well as Maria have the opportunity to control the door of the garage with the button of their tracker.

Visualization element

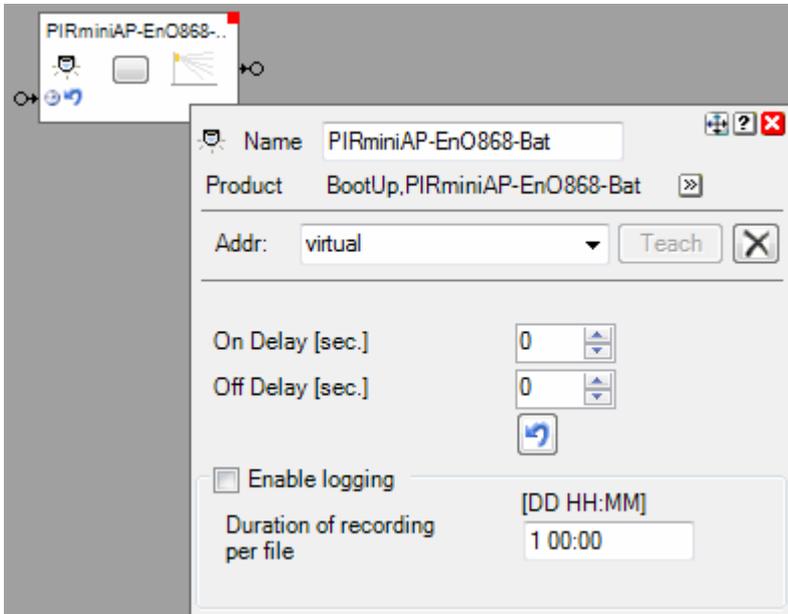
This function doesn't provide a visualization element.

- [Handhabung von Blöcken](#)
- [Eigenschaften von Blöcken](#)

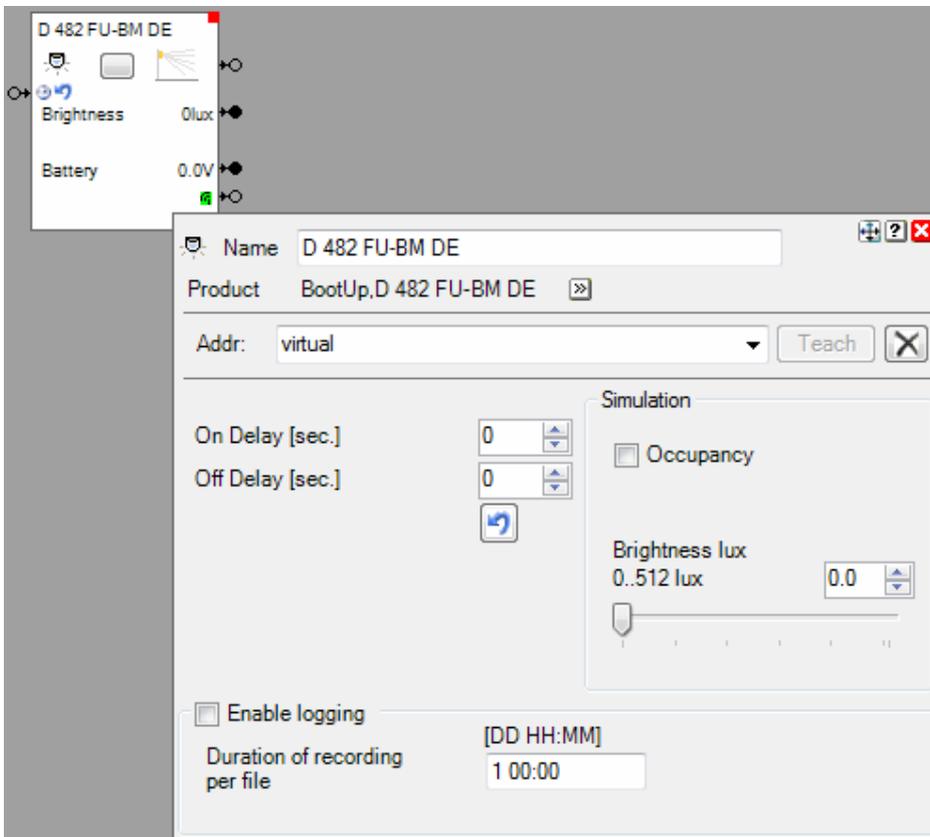
Presence Indication

This block evaluates radio messages transmitted by a presence indication sensor (PIR). It supports different Types of sensors. The different types of sensors provide information like brightness, temperature and/or supply voltage.

Pure occupancy sensor:



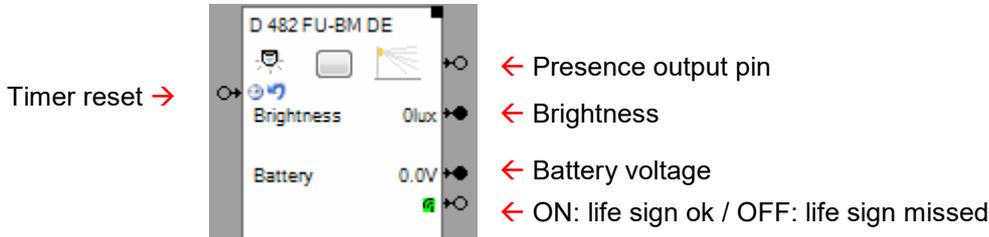
Occupancy and brightness:



Additional pins and control are shown according the type of the device.

The block sends an ON-command if somebody enters the monitored area. Depending on the setup of the sensor (hardware device) the OFF-command will be sent if the person leaves the monitored area or if a delay time expires. Refer to the manual of the sensor for details of the specific behavior.

Additionally to block provides delays for the commands send by the sensor. The property **On Delay** defines the time how long an ON command sent by the sensor to the block will be delayed until the block feeds it in into the network. The **Off Delay** works for the OFF command accordingly.

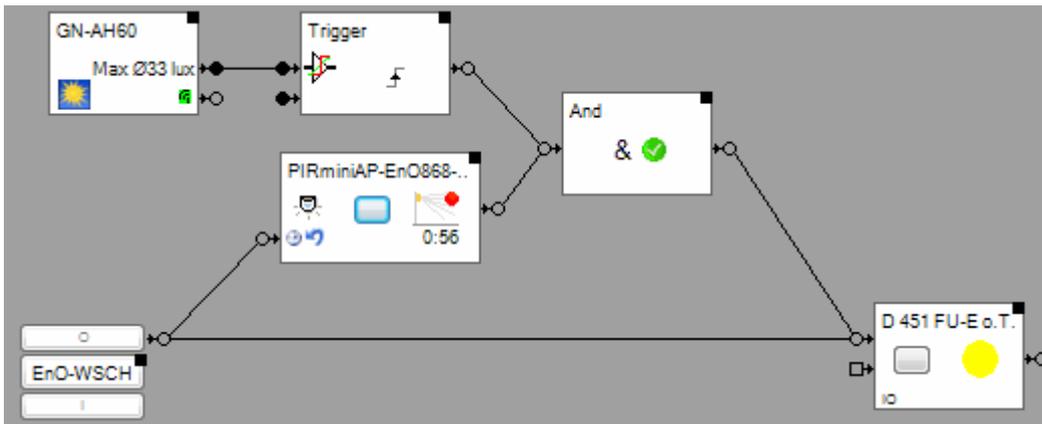


The input pin "timer reset" is used to reset the running delay timer. Either an ON or an OFF command are accepted. In case the delay timer is not running when the block receives a command, then the reset command get stored. At the next change of the sensor signal the stored reset command will be consumed and the delay will be suppressed.

Sample:

The PIR sensor monitors the room for presence of persons. The switch actuator will only be switched in case it is dark in the room (Brightness sensor→Trigger→&).

In the sample below the person has just left the room. The PIR block is configured to delay the OFF command for 60 seconds.



Why is there a connection between the PTM rocker push button and the PIR block?

In case the person turns of lights manually by pressing the push button, then the PIR block will delay the OFF command as soon it detects no presence. This means that the condition for the & blocks stays fulfilled.

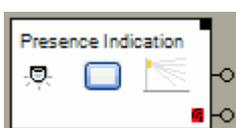
If a new person enters the room before the delay has expired, then the PIR block detects the new presence and sends an ON command to the & block, but this will not change the condition. Therefore the & block will not send a ON command to the switch actuator block.

The connection between the push button block and the PIR block avoids that the PIR delays the OFF command, when it detects the the room has been left.

Buttons

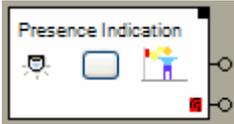
The button simulates presence of an object. The first click simulates the entrance of an object into the monitored area. The block sends an ON-command. The second click simulates the object is leaving the monitored area.

State indications



The monitored area is free

There is no object present in the monitored area.



Somebody is in the monitored area

There is an object somewhere in the monitored area.

This is a sensor block and has to be [teached](#).

This block provides the [individual logging](#).

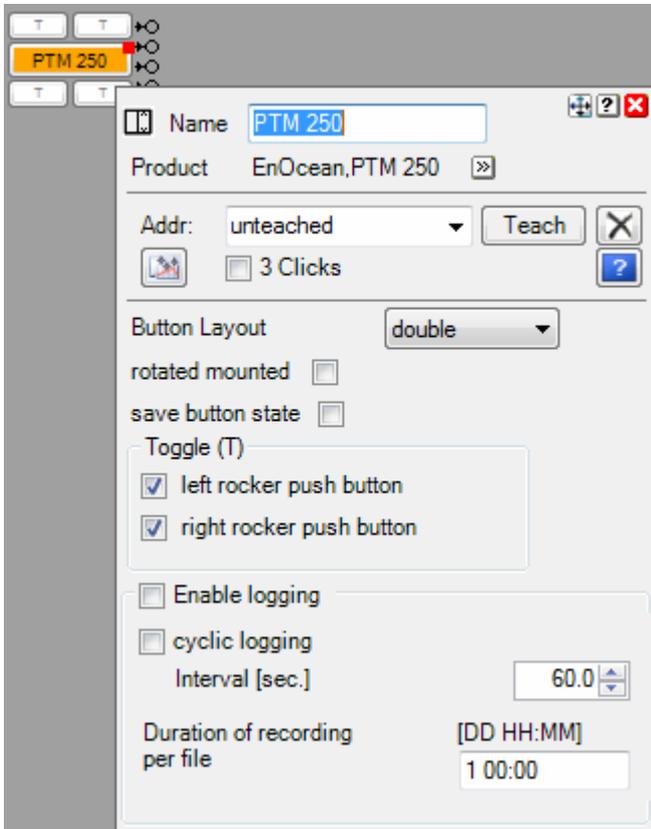
Find details about the corresponding visualization element in chapter [Visualization Element Presence Indication](#).

[Handling Blocks](#)

[Properties of Blocks](#)

PTM Radio Button

The PTM radio button block evaluates the radio messages transmitted by a PTM radio pushbutton device. It supports the PTM100 module with up to 4 channels(rockers) and the PTM200 module with up to 2 channels. it supports the PTM230 module as well.



The PTM radio button block evaluates the button pushes and forwards them as ON and OFF commands through the corresponding output pins.



Use the property field **Button Layout** to adjust the amount of channels.

PTM230

The two channels (SW1 and SW2) of the module are mapped to rocker A.



Best is to select Button Layout „single“. Channel 1 (SW1) corresponds to the I-button and channel 2 (SW2) to the O-button.

In case SW1 will be activated, the block generates an [ONv command](#). If it get deactivated then the block generates an [ON^ command](#). The activation/deactivation of SW2 will generate corresponding OFF commands. Refer to the [application samples](#).

This is a sensor block and has to be [teached](#).

Find details about the corresponding visualization element in chapter [Visualization Element PTM Radio Button](#).

Configuration:

The setting **Button Layout** controls the arrangement of the buttons of the block. It also controls what pins are shown.

The setting **rotated mounted** is to be checked in case the PTM module has been mounded in reverse orientation (l to the to instead to the bottom or vice versa). This setting is useful in case an existing installation is enhanced by myHomeControl. In case this setting is checked then this will be indicated as follows:

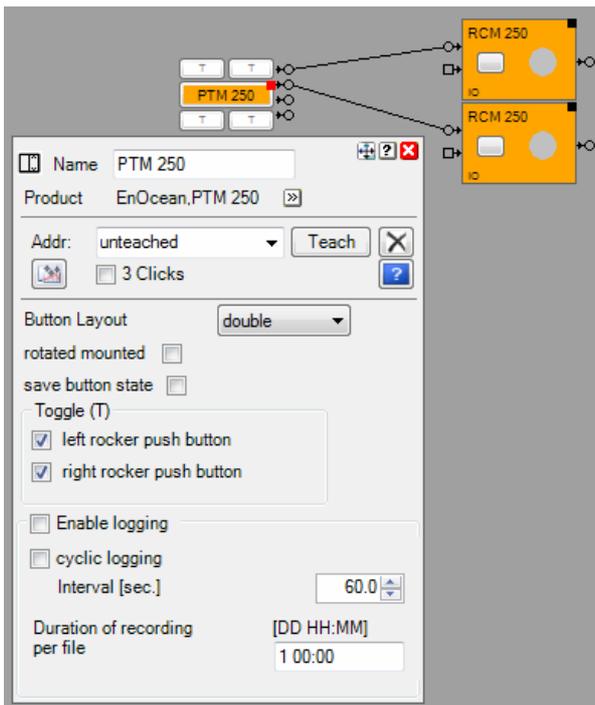


Regard the [general setting for the button orientation](#) as well.

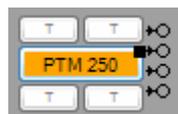
If **Save button state** is checked, then the actual press state of the buttons is saved into the project database. This allows myHomeControl to recover the state at startup time. This feature is helpful if block is used with transmitter modules.

Toggle:

The individual rockers can be configured as toggle buttons. If a rocker is configured as toggle then the buttons of the rocker in question will send [TOGGLE command](#) instead of ON and OFF. For each button a connection pin is shown:



The rockes are configured as toggles.
 The upper pin sends the command of the upper left button, the next of the lower left button.
 The buttons are marked with a T (toggle).



- ← upper left button
- ← lower left button
- ← upper right button
- ← lower right button

Additional application samples:

- PTM230 Module
- [Thanos](#)

Device specific hints

Sauter, This device is shown in **myHomeControl®** as two blocks, one Room

EY-RU110...146 Temperature Sensor and one [PTM Radio Button](#). Both blocks have to be inserted individually into the project. Each of them has to be taught individually.

Refer to Device specific hints for the [Room Temperature Sensor](#).

Refer to [Application Sample in Appendix C](#).

Eltako:

FSM12-UC, FSM61-UC

Jäger-Direkt:

GN-GW-U8-230V-T-2,
GN-GW-R8-230V-T-2

The devices send following information:

Button1 pressed -> Device sends "Button 1 pressed"

Button1 released -> Device sends "Button released" (not which button!)

Button2 pressed -> Device sends "Button 2 pressed"

Button2 released -> Device sends "Button released" (not which button!)

Button1 pressed -> Device sends "Button 1 pressed"

Button2 pressed -> Device sends "Button 2 pressed"

Button1 released -> Device sends "Button released" (not which button!)

Button2 released -> Device sends "Button released" (not which button!)

In case both buttons have been pressed and the first is released, then it is not possible to determine which of the buttons have been released. Therefore it is not allowed to press both buttons at the same time!

[Handling Blocks](#)

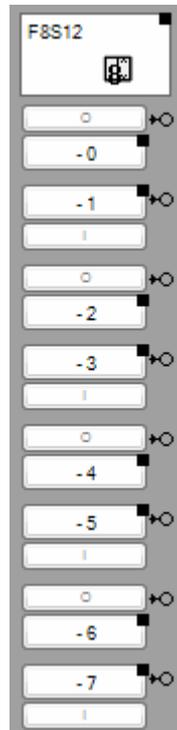
[Properties of Blocks](#)

PTM Radio Button 8

This element represents a 8 fold PTM Radio Button or a 8 fold wireless transmitter unit. . It serves as container for 8 [Single Channel PTM Radio Buttons](#). Each behaves like a single PTM Radio Button.

Device specific hints

Eltako, F8S12



This device is shown in **myHomeControl®** as 8 half PTM radio button blocks. The I/O polarity of the buttons is given be the device.

A1

A3

A4

A5

E1

E3

E4

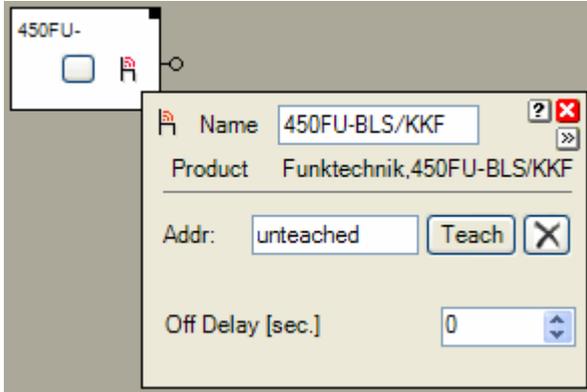
E5

To [teach in](#) the devices address activate the teach mode one of the button blocks. Then operate one of the physical buttons. The individual device addresses will be assigned to all of the blocks automatically.

Find details about the corresponding visualization element in chapter [Visualization Element PTM Radio Button 8](#).

Radio Chair

The radio chair sensor block evaluates PTM200 radio telegrams. The state of the block corresponds to the state of the energy bow.



The [Properties dialog](#) offers the opportunity set a delay for the OFF command. If the value is >0 then the block delays sending of the OFF command in case the chair becomes free. This is useful to keep the lights on for a while after the chair has become free.

The radio chair sensor block provides 1 [output pin](#). The block sends out an ON command in case somebody sits down on the chair. And vice versa it sends an OFF command in case the chair becomes free.



Button(s)

The button in the middle of the block enables to simulate occupation of the chair. This is just for [testing](#) purposes of the network. If the block receives a radio telegram form the real chair, it immediately updates its own state to the reported state.

State indications



Chair is occupied

There is somebody sitting on the chair. An ON command has been sent trough the output pin of the block.



The chair is free

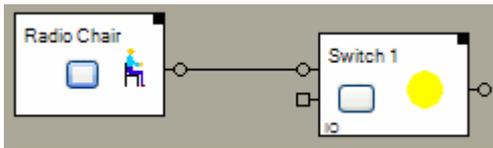
Nobody is sitting on the chair. An OFF command has been sent trough the output pin of the block.

This block provides the [individual logging](#).

This is a sensor block and has to be [teached](#).

Find details about the corresponding visualization element in chapter [Visualization Element Radio Chair](#).

Application sample



Additional application samples:

- Lights in office controlled by radio chairs

[Handling Blocks](#)

[Properties of Blocks](#)

Physical binding

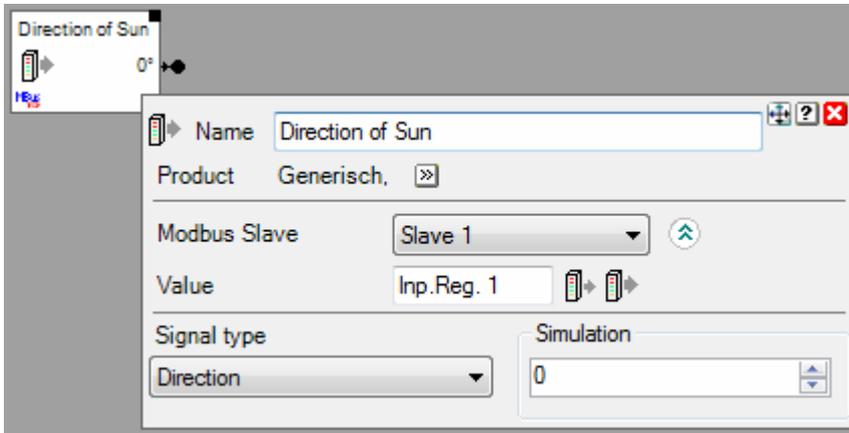
[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

Functional channels

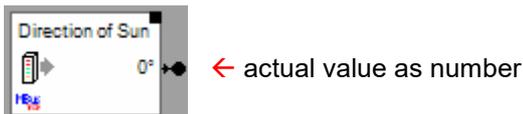
State This binary signal is read by the block from the slave. It is used to track the state of the block.

Receive(analog)

This block receives data from a physical device or a controller and feeds it into the network.
This feature is only available for certain communication medias.



This block provides one [output pin](#).



A signal type is to be selected in the settings dialog of the block. The signal type controls the icon, the data representation and the unit shown in the [visualization element](#).

This block provides the [individual logging](#).

Find details about the corresponding visualization element in chapter [Visualization Element Receive\(analog\)](#).

[Handling Blocks](#)

[Properties of Blocks](#)

Physical binding

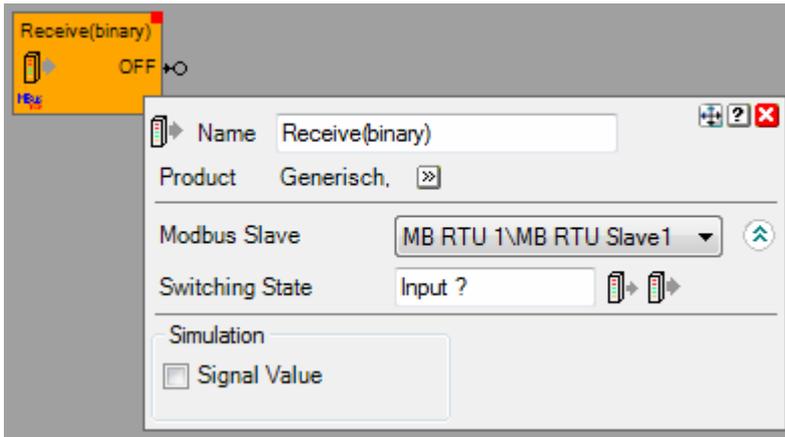
[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

Functional channels

Value This analog signal is read by the block from the slave. It is forwarded to the output pin of the block.

Receive(binary)

This block receives data from a physical device or a controller and feeds it into the network.
This feature is only available for certain communication medias.



[Handling Blocks](#)

[Properties of Blocks](#)

Physical binding

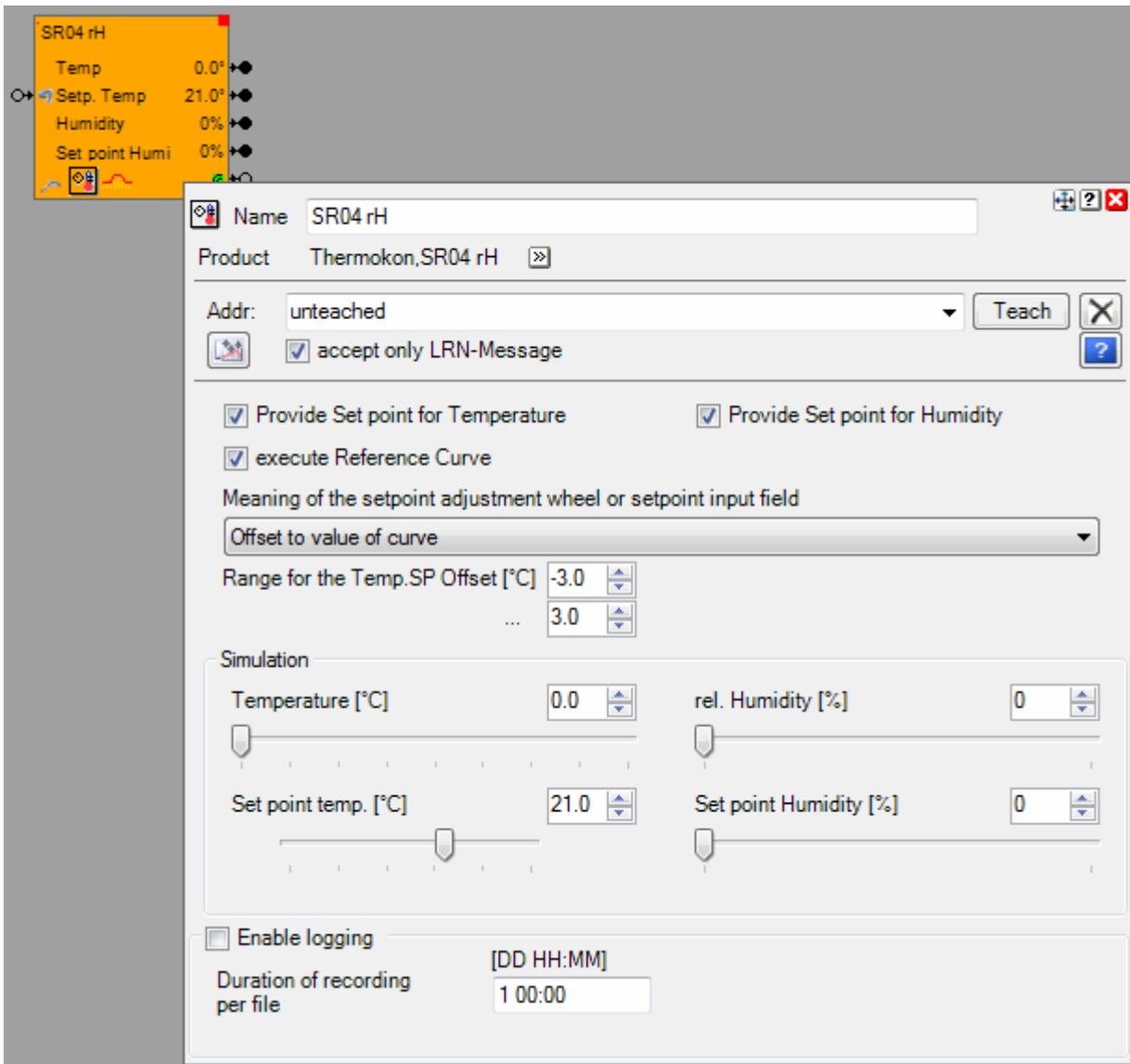
[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

Functional channels

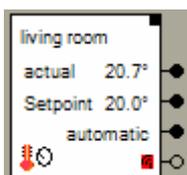
Switching State This binary signal is read by the block from the slave. It is used to track the state of the block and is forwarded to the output pin.

Room Temperature Sensor

The Room Temperature Sensor block evaluates the radio messages transmitted from a Room Temperature Sensor (Room operating panel). Various profiles are supported by this block including humidity, fan speed and occupancy buttons.



Depending on the selected type of sensor different [output pins](#) becomes visible. The block forwards the different measurement values to its dedicated output pins.

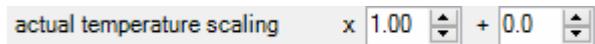


- Sample:
- ← Actual temperature as Celsius value
 - ← Set point temperature as Celsius value
 - ← Operation mode *)
 - ← ON: life sign ok / OFF: life sign missed

*) Operation mode: Meaning of the value:

- 0: Automatic
- 1: Day
- 2: Night
- 3: Antifreeze

The [Properties dialog](#) provides [testing features](#) as an input field for the „Actual Temperature “ and an input field for the „Set point temperature “ to simulate temperatures. Take in account that your input will be overwritten by the next reception of a radio message transmitted by the sensor device.



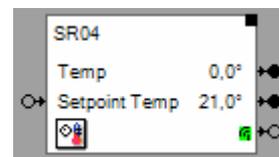
Scaling of actual temperature (shown temperature value = measured value x factor + offset)



In case the Room Temperature Sensor doesn't provide a control for the temperature set point, then the block may provide a control for the temperature set point by itself. The value for the temperature or humidity set point can be adjusted in the [Visualization Element Room Temperature Sensor](#).

In case **Provide Setpoint for Temperature** has been activated, an additional input pin appears:

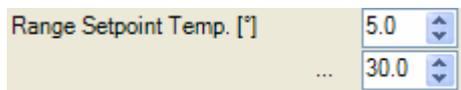
Resets the temperature set point value or the set point correction value →



An ON command on this pin resets the set point value:

- if the temperature set point is an absolute value, then it is reset to the medium value of the set point range (see **Range Set point Temp.**)
- if the set point is a correction value (°/- x°), then the value is reset to a correction value of 0°.

Similar behavior for humidity in case the sensor also measures humidity.



Typically there is no temperature indication at the turning wheel for the temperature set point adjustment (on the sensor device). Therefore the interpretation of the position of the wheel by means of what temperature does it correspond to, is done by the valve actuator.

In case the room temperature sensor is linked to **myHomeControl**, then the interpretation of the position of the turning wheel is done by the room temperature sensor block. The block sends an absolute set point value via the corresponding output pin to the network. The range for the set point temperature can be adjusted to your needs. A small range allows smooth set point adjustment at the wheel.

The parameters shown above enable the user to set corresponding values to get an accurate temperature indication for the temperature set point within the [Visualization Element Room Temperature Sensor](#).



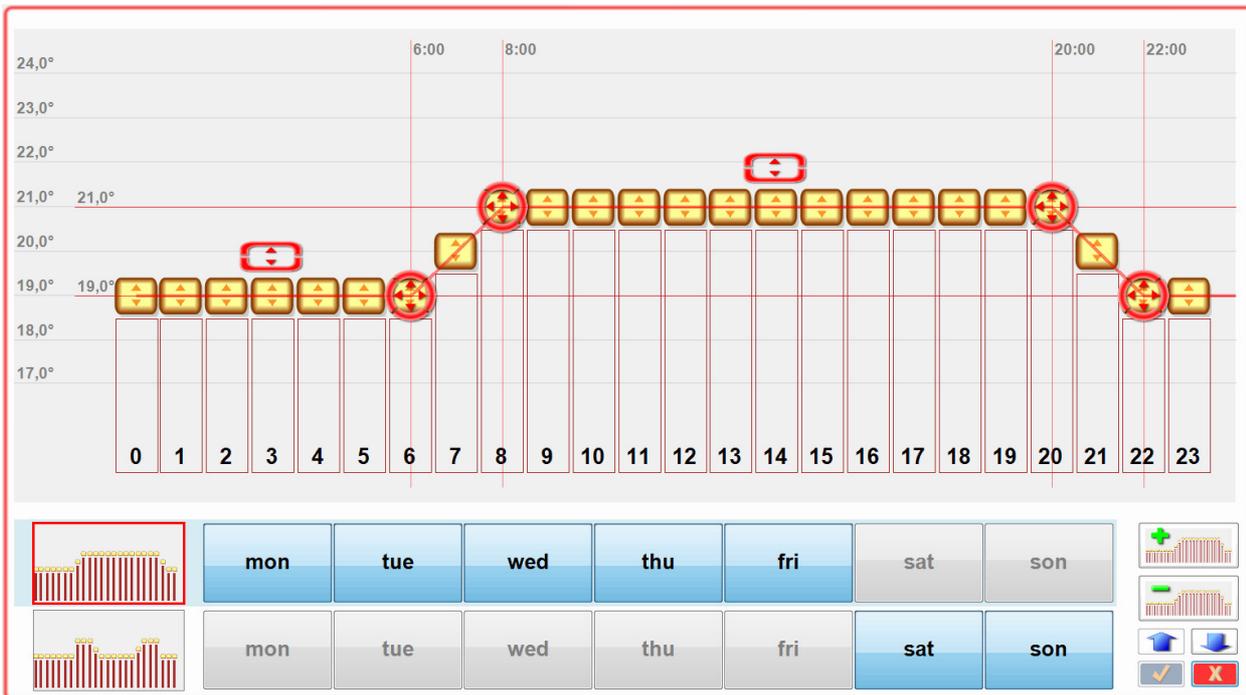
In case the Room Temperature Sensor provides the opportunity to adjust the temperature set point, the option above becomes visible. If this option is checked, then the temperature set point indication within the [Visualization Element Room Temperature Sensor](#) becomes editable. This gives the user the opportunity to overwrite the temperature set point sent by the sensor device. The overwritten value is valid until the set point value has been changed on the sensor by means of the wheel has been readjusted.

Temperature Reference Curve



The room temperature sensor block is able to provide individual temperature set point values during the day according to a reference curve. This enables the system to control heating tailored to the needs of the users.

Therefore the [visualization element](#) of the block provides a dedicated editor to adjust reference curves:



The figure above shows the curve progression during the day (24 hours). Two individual curves have been configured valid for different days of the week.

If the reference curve has been enabled, then the wheel on the physical room controller device or the setpoint temperature input field of the control dialog of the visualization element becomes a new meaning.

Meaning of the setpoint adjustment wheel or setpoint input field

Offset to value of curve

Range for the Temp.SP Offset [°C] -3.0 ... 3.0

The position of the wheel gives an offset to the temperature set point calculated from the reference curve.

Meaning of the setpoint adjustment wheel or setpoint input field

Absolut value until the next value change of curve

Range Set point Temp. [°C] 15.0 ... 25.0

Every time the position of the wheel is going to be changed, then the position acts a new temporary temperature setpoint value. It will be valid until the next value change of the temperature setpoint created by the curve. Therefore avoid ramps in the curve in this case. Ramps in the curve will permanently create new setpoint values and therefore overwrite the setpoint from the wheel within short time.

Start/Stop Reference Curve →

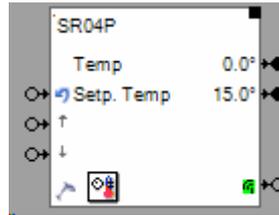


Reference curve is executed

Reference curve is not executed.

Lifting / lowering of temperature setpoint value

temporary lift temperature setpoint value by 2° →
 temporary lower temperature setpoint value by 4° →



This block provides the [individual logging](#).

Find details about the corresponding visualization element in chapter [Visualization Element Room Temperature Sensor](#).

This is a sensor block and has to be [teached](#).

Additional application samples:

- Interrupt heating in case a window has been opened
- Room Operating Panel from Sauter
- [Thanos](#)

Device specific hints

Sauter, EY-RU110...146	This device is shown in myHomeControl® as two blocks, one Room Temperature Sensor and one PTM Radio Button . Both blocks have to be inserted individually into the project. Each of them has to be taughted individually. Refer to Device specific hints for the PTM Radio Button . Refer to Application Sample in Appendix C .
Eltako, FTR55D	The device sends and shows the temperature set point value as an absolute value. Therefore it is not possible to use the Temperature Reference Curve feature. If the Temperature Reference Curve would be used, then the temperature set point indication on the device would be invalid.

[Handling Blocks](#)
[Properties of Blocks](#)

Physical binding

[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

Functional channels

Cmd. Temp. Setpoint This analog signal is written from the block to the pyhsical device. Is used as temperature setpoint value.

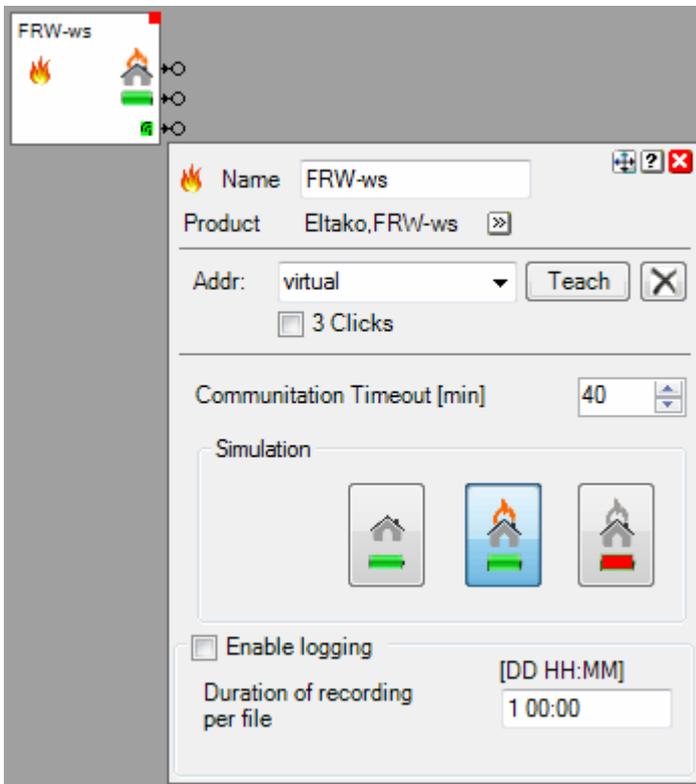
Actual temperature This analog signal is read from the physical device.

Set point Temp.

This analog signal is read from the physical device. It represents the actual temperature setpoint value (differs from Cmd.Temp.Setpoint in case user operates the knob on the physical device).

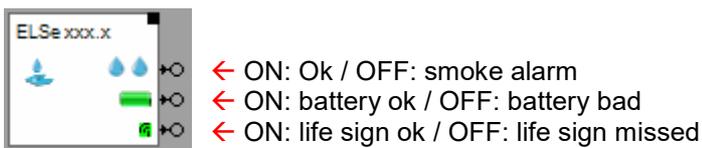
🔥 Smoke Detector

The smoke detector block receives the radio signals from a smoke detector device. The outputs of the block are done so, that they can be directly connected to [fault indication](#) blocks. All outputs send ON commands under normal conditions. In case of alarm, then the corresponding pin sends out an OFF command.



Function

The smoke detector block provides 3 [output pins](#):



The [Properties dialog](#) provides [testing features](#) to simulate the smoke- and battery alarm states. Take in account that your inputs will be overwritten by the next reception of a radio message transmitted by the sensor device.

The **Communication Timeout** defines the period for the life sign monitoring.

State indications



Smoke Ok, battery ok



Smoke Alarm, battery ok



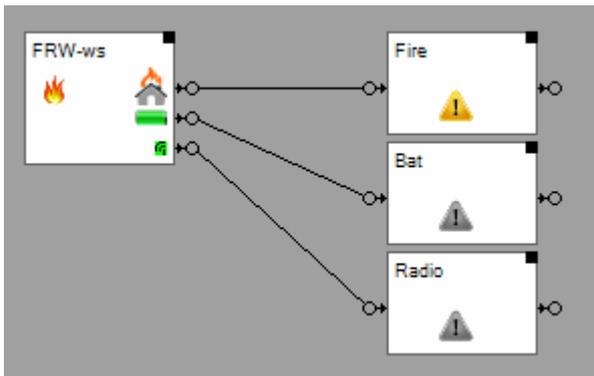
Battery bad

Smoke alarm state unknown

This is a sensor block and has to be [teached](#).

This block provides the [individual logging](#).

Application sample



Each of the outputs have been connected to a [fault indication](#) block.

On the visualization screen the fault indication blocks can be placed within the general functions area. There they show a summarized state of all smoke detectors.

Find details about the corresponding visualization element in chapter [Visualization Element Smoke Detector](#).

[Handling Blocks](#)

[Properties of Blocks](#)

STM100

This block receives and evaluates BS1 and BS4 telegrams. It may represent sensor devices based on the STM100 or STM110 modules.

This block is just for experimentation purposes!

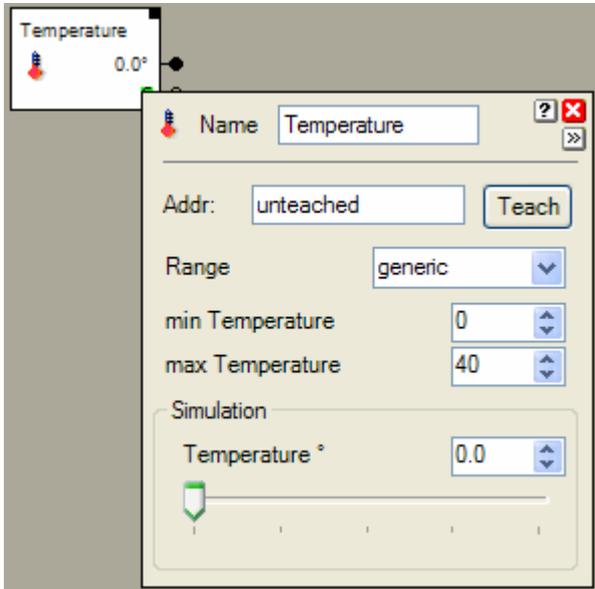
This is a sensor block and has to be [tached](#).

[Handling Blocks](#)

[Properties of Blocks](#)

Temperature

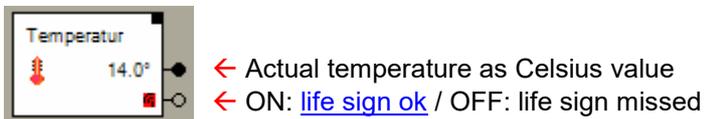
The Temperature Sensor block evaluates the radio messages transmitted by a temperature sensor.



This block forwards the measured temperature as Celsius-value to its output pin.

Depending on the type of sensor a corresponding range has to be selected. If none of the predefined ranges fits the sensors behaviors, then select “generic” and enter the minimal and maximal temperature manually.

This block provides two [output pins](#).



The [Properties dialog](#) provides [testing features](#) as an input field for the „Temperature “ to simulate the actual temperature. Take in account that your inputs will be overwritten by the next reception of a radio message transmitted by the sensor device.

This block provides the [individual logging](#).

This is a sensor block and has to be [taught](#).

Find details about the corresponding visualization element in [Visualization Element Temperature](#).

[Handling Blocks](#)

[Properties of Blocks](#)

Physical binding

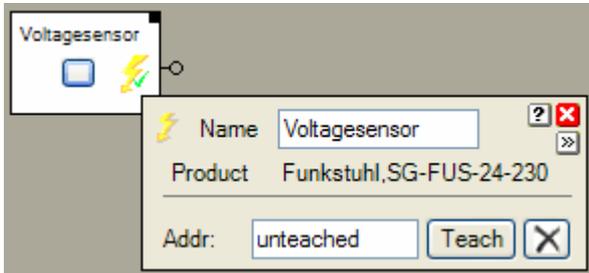
[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

Functional channels

Value This analogue signal is read by the block from the slave. It is used to track the state of the block.

Voltagesensor

The voltage sensor generates an ON command in case it detects a voltage at its input pins. Otherwise it sends an OFF command.



The voltage sensor block provides 1 [output pin](#). The block sends out an ON command in case it detects a voltage at its input pin. And vice versa it sends an OFF command in case there is no voltage.



Button(s)

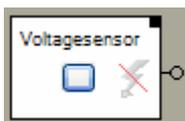
The button in the middle of the block enables to simulate voltage at the input pin. This is just for testing purposes of the network. If the block receives a radio telegram from the real sensor, it immediately updates its own state to the reported state.

State indications



voltage detected

An ON command has been sent trough the output pin of the block.



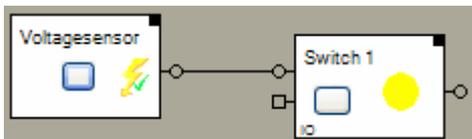
no voltage

An OFF command has been sent trough the output pin of the block.

This block provides the [individual logging](#).

This is a sensor block and has to be [tached](#).

Application sample



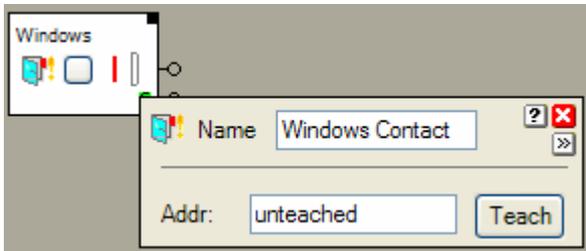
No visualization element is available yet for this block

[Handling Blocks](#)

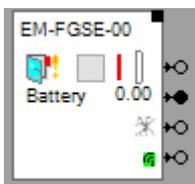
[Properties of Blocks](#)

Window Contact

The Windows Contact block evaluates radio messages transmitted by an EnOcean STM250-Modul. It forwards if the magnet covers the sensor or not.



The windows contact block provides to different [output pins](#).



- ← Command output (ON/OFF)
- ← Battery voltage (depending on equipment of sensor)
- ← break sensor (ON/OFF) (depending on equipment of sensor)
- ← ON: [life sign ok](#) / OFF: life sign missed

Buttons

The button simulates window positions. This simplifies the [testing](#) of the network. Take in account, as soon as the block receives a radio message from the windows contact sensor, it will change back to the real state.

State indications



Window closed

The magnet covers the sensor (red magnet touches the windows contact sensor). The block sends an ON-command through its output pin.



Window open

The magnet does not cover the sensor (red magnet doesn't touch the windows contact sensor). The block sends an OFF-command through its output pin.

This is a sensor block and has to be [teached](#).

This block provides the [individual logging](#).

Application sample

- Refer to [Window Monitoring](#).
- [Thanos](#)

Find details about the corresponding visualization element in chapter [Visualization Element Window Contact](#).

[Handling Blocks](#)

[Properties of Blocks](#)

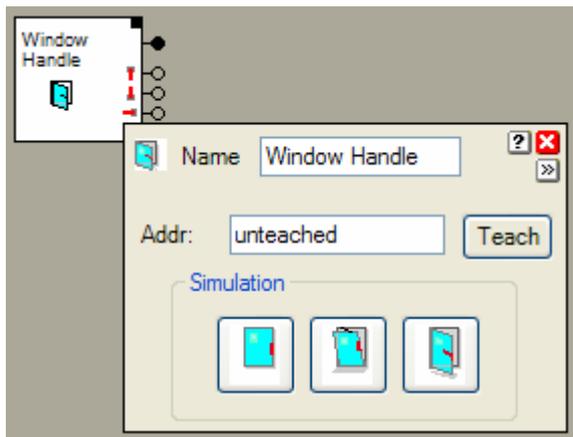
Physical binding

[Physical binding](#) describes the linking between the networkblock and physical device, which is represented by the block.

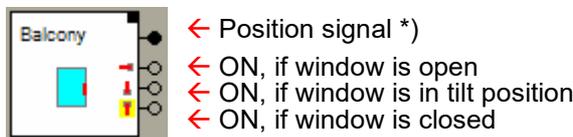
State This binary signal is read by the block from the slave. It is used to track the state of the block.

 **Window Handle**

The Window Handle block evaluates radio messages transmitted by an EnOcean PTM230-Modul. It forwards the actual position of the window handle.



The window handle block provides 4 different [output pins](#).



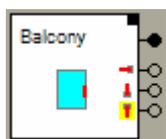
*) Position signal: 0:position unknown,
 1:closed,
 2:tilt,
 3:open

The forwarded information's are redundant. But the presence of the information as signal and as command might simplify to build logic with other blocks.

Buttons

The [Properties dialog](#) provides to simulate to window positions. This simplifies the [testing](#) of the network. Take in account; as soon as the block receives a radio message from the window handle sensor, it will change back to the real state.

State indications



Window closed

The window handle is in the downward situation. The position signal has been updated. An ON-command was sent to the yellow indicated output pin. OFF-commands where sent to the other command pins.

**Window in tilt position**

The window handle is in the upward situation. The position signal has been updated. An ON-command was sent to the yellow indicated output pin. OFF-commands were sent to the other command pins.

**Window open**

The window handle is in the horizontal situation. The position signal has been updated. An ON-command was sent to the yellow indicated output pin. OFF-commands were sent to the other command pins.

This block provides the [individual logging](#).

This is a sensor block and has to be [tached](#).

Application sample

→ Refer to [Window Monitoring](#).

Find details about the corresponding visualization element in chapter [Visualization Element Window Handle](#).

Additional application samples:

- Interrupt heating in case a window has been opened

[Handling Blocks](#)

[Properties of Blocks](#)

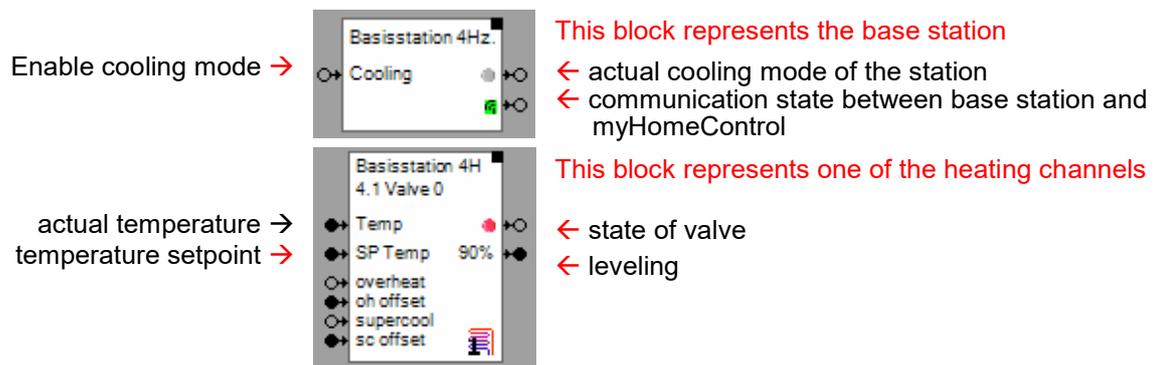
Special

These blocks represent special devices no fitting to the bus arrangement.

Base Station 4

This block represents the EZR base station for underfloor heating.

This block can be obtained from **Special / Kopp**.



The header block represents the base station with there overriding control features. The blocks below the header block represent the individual underfloor heating circuits (channels).

The channels where a thermostat is linked to, doesn't show an input pin for the actual temperature as the value of the signal is taken from the thermostat.

For all other channels myHomeControl is going to configure a virtual thermostat within the base station. This gives myHomeControl the opportunity to control the actual- and setpoint temperature values.

Signal exchange between the base station and myHomeControl takes place every 30 seconds.

Cooling

The input pin "Cooling" is shown in case the "ChangeOver-Mode" has been enabled on the base station.

Overheating

The overheat mode is activated by the input pin "overheat". Enabling the overheat mode will increase the temperature setpoint value by the value connected to the input pin "oh offset". The original temperature setpoint value is stored.

The user has the opportunity to adjust the temperature setpoint via the thermostat at any time.

As soon as the overheat mode is going to be deactivated the temperature setpoint will be reset to the stored value.

Supercool

The input pins "supercool" and "sc offset" are only shown in case the "ChangeOver-Mode" is activated at the base station.

The supercool mode is activated by the input pin "supercool". Enabling the supercool mode will increase the temperature setpoint value by the value connected to the input pin "oh offset" (use negative value!). The original temperature setpoint value is stored.

The user has the opportunity to adjust the temperature setpoint via the thermostat at any time.

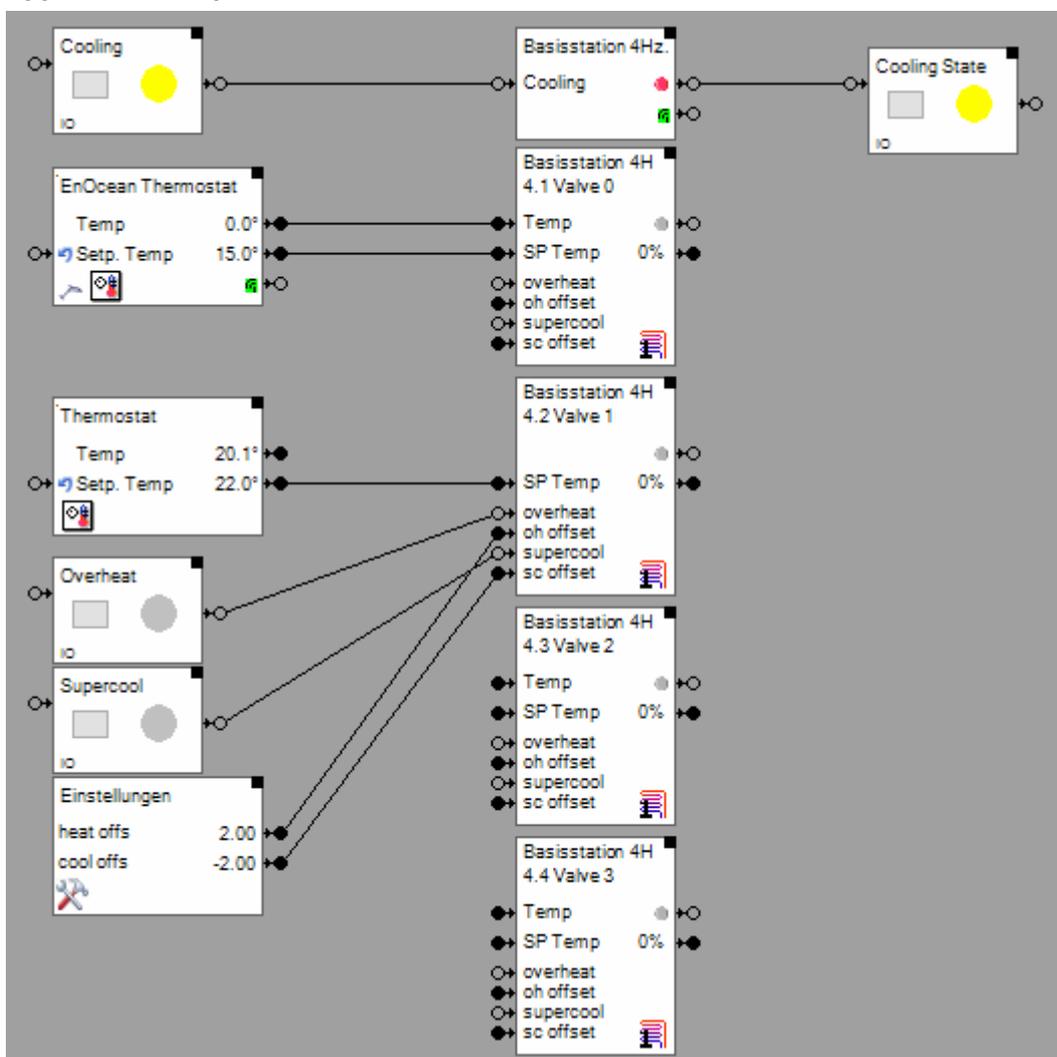
As soon as the supercool mode is going to be deactivated the temperature setpoint will be reset to the stored value.

Configuration

Name	Basisstation 4Hz.	
Product	Kopp,Basisstation 4Hz.	
IP Address:	192.168.1.180	
13.05.2020 08:16:44 read successfull		
Channel 1	Floor identifier	Valve 0
Channel 2	Floor identifier	Valve 1
Channel 3	Floor identifier	Valve 2
Channel 4	Floor identifier	Valve 3

IP address of the base station

Application sample



There is no Visualization element available for this block.

[Handling Blocks](#)

[Properties of Blocks](#)

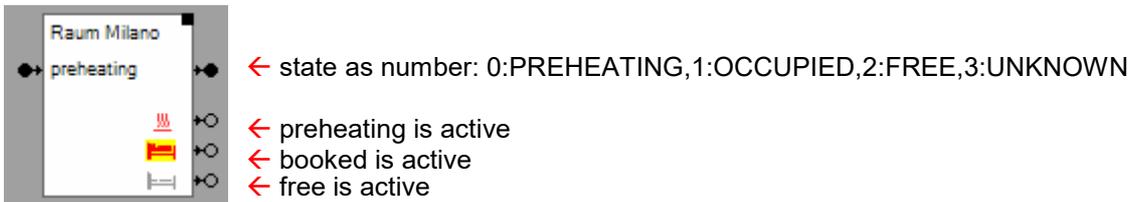
🚩 Booking

The booking block represents booking information retrieved from a booking system within myHomeControl. This block is used to control the booking state of a room within myHomeControl.

Following booking systems are supported:

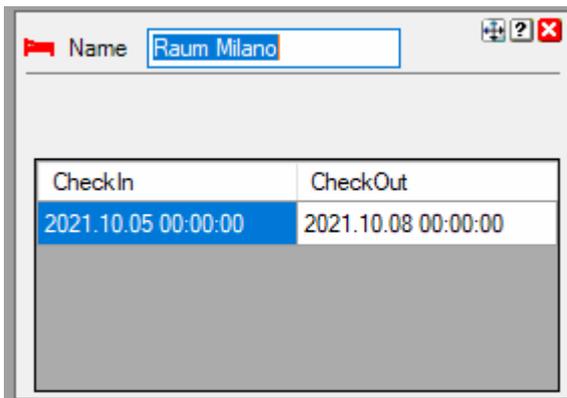
- BookingExperts
- AIDAX
- Google-Calendar
- iCal

This block can be found in register Special/Booking. It is available if [license option booking system](#) has been activated.



The input pin defines the preheat duration in seconds.

Configuration



The name of the block must correspond the room name given within the booking system.

This table shows the next booking states retrieved from the booking system.

Setup of the booking service

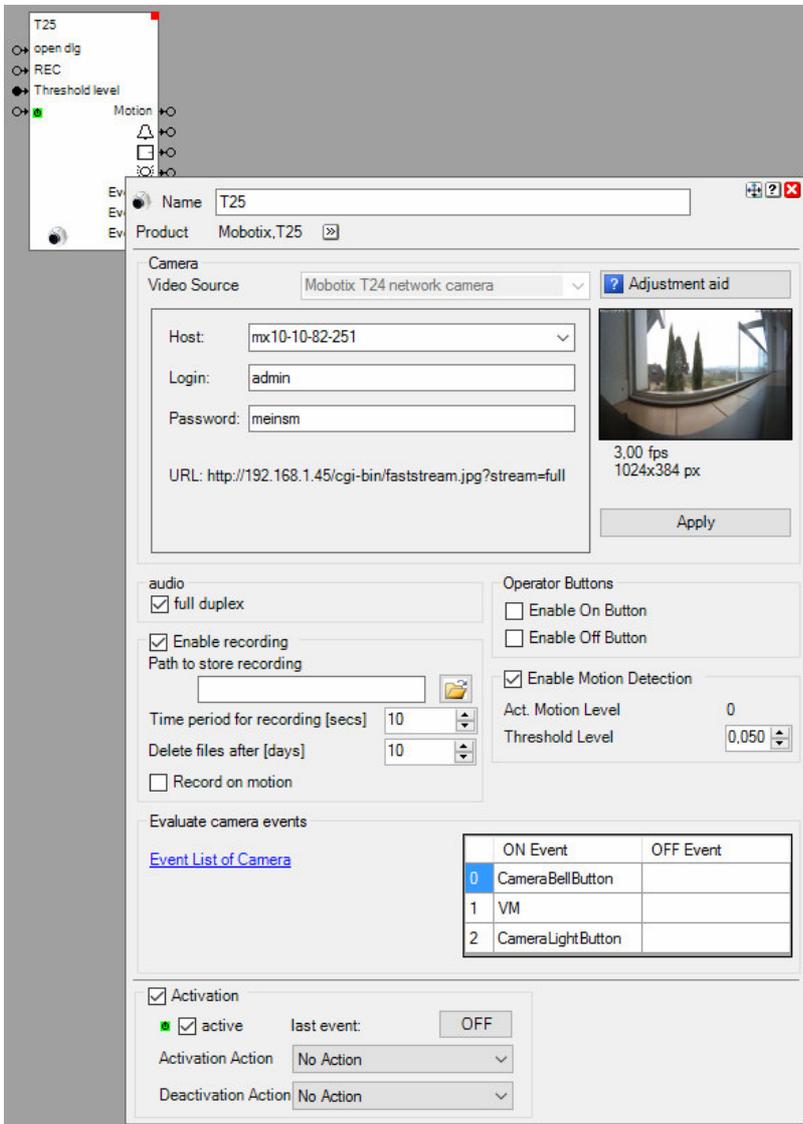
Refere to [general settings / booking system](#)

[Handling Blocks](#)

[Properties of Blocks](#)

Camera

This block operates any camera. USB-cameras, IP-cameras and WEB cameras are supported. The corresponding [visualization element](#) shows the pictures taken by the camera. This network block enables the integration of the camera into the control logic. The block provides different features as described below.

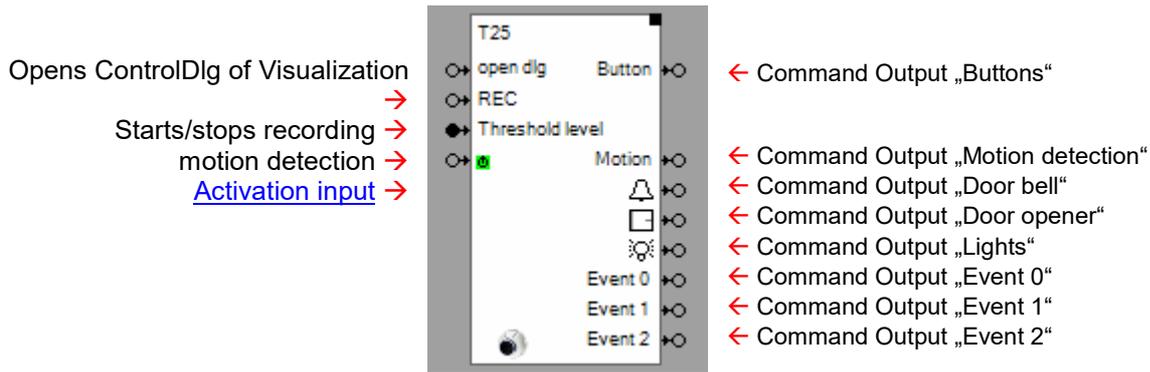


Function

- Opens ControlDlg of Visualization →
- Starts/stops recording →
- [Activation input](#) →



- ← Command Output „Buttons“
- ← Command Output „Motion detection“



Open Control Dialog of the Visualization Element:

An ON command, which is received by the block over the command input pin “open dlg.” forces the [visualization element of the camera](#) to open the dialog showing the pictures of the camera. The corresponding floor tab will be selected accordingly. This feature might be used to automatically show the camera in case the door bell has been pressed. Refer to the [visualization element of the camera](#).

Recording of the video stream:

If “Enable recording” is checked in the properties dialog of the camera block, then the block becomes an additional input pin “REC”. An ON command on this pin starts the recording of the video stream. An OFF command stops recording. The periode of recording is limited to 60 minutes.

The location where the recordings will be stored can be defined within the properties dialog, refer to parameter “Path to store recording”. The maximal time period for the recording can be configured within the properties dialog as well, refer to the parameter “Time period for recording”. The file containing the recording will be named as following:

<Name of the block>_<Date of recording:YYYYMMDD>_<Time of recording:HHMMSS>.AVI

The files kann be automatically deleted after X days. Set 0 to avoid deletion of files.

Use the windows media play to watch the file.

The recording might also be started due to a motion detection event. Therefore the motion detection has to be enabled first, then check the “Record on motion” option.

Operator Buttons:

There is the opportunity to activate an ON and an OFF button. In case a button has been activated, then it will be shown within the visualization element and can be operated by the user. These buttons raise corresponding command sent by the command output pin “Buttons” of the block. This feature might be used to activate a door opener if the user presses a button on the [visualization element of the camera](#).

Motion Detection:

The camera function provides a motion detection option. If “Enable Motion Detection” has been checked, then the camera function monitors the life pictures of the camera for motion. If motion detection has been activated the block becomes an additional pin “Motion”. In case the function detects “enough” motion, then the block sends out an ON command on the “Motion” pin, otherwise it sends out an OFF command.

The motion detection function calculates a intensity value based on the size of the areas of the picture where motion has been detected. This motion intensity value is shown within the properties dialog of the block. The parameter “Threshold Level”, which can be set in the properties dialog of the block, defines the threshold level value for the motion intensity. In case the motion intensity value is greater then the threshold level, the block sends out an ON command on the pin “Motion”. In case the motion intensity value falls below the threshold level, then the block sends out an OFF command.

Evaluate Camera Events:

Fill in this table to define the camera events to be evaluated by the block and forwarded to the output pins. The names of the events must correspond to the events defined in the configuration of the camera itself (Click link "Event List of Camera" to get a list of events).
 If an event name has been entered in the table a corresponding output pin will appear. Individual Events can be configured for ON and OFF.

Properties

The properties dialog enables the user to select a camera, as well as to activate different features e.g. Operator Buttons, Motion Detection, ...).

In case changes within the configuration area of the camera will not be applied to the picture automatically, then the apply button has to be pressed. The picture above the button shows the actual pictures corresponding to the settings of the camera.

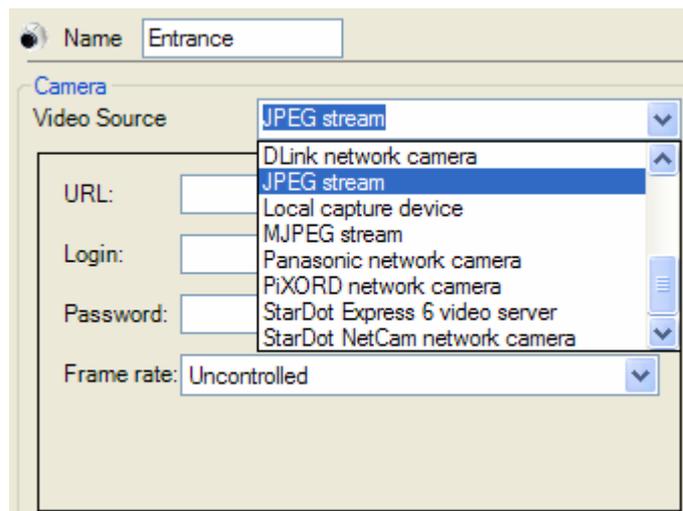


Types of cameras

Various types of cameras are supported by this block.

The corresponding video source has to be selected.

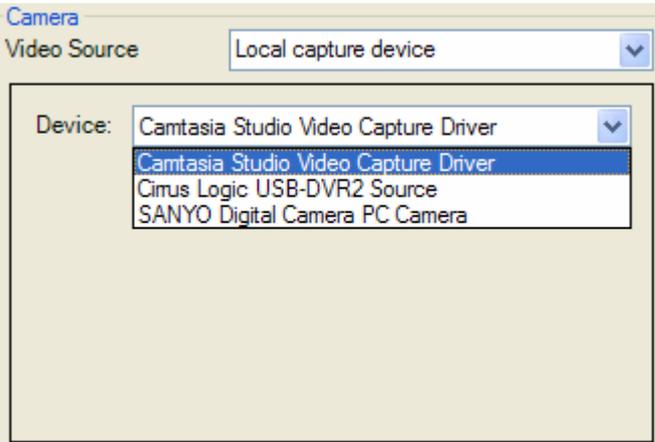
The presented input fields correspond to the selected type of camera.



Configuration of the camera refer to Appendix H: Camera configurations

IP-Cameras:	<p>There are some concrete types of cameras available showing dedicated input fields. In case a camera of an unknown type shall be operated, then select the JPEG stream and enter the camera specific connection string into the URL: field. Usually the connection string also includes some configuration items. Refer to the documentation of the camera for details.</p> <p>Application sample: http://webcam.oii.ox.ac.uk</p>
--------------------	--

<p>Camera</p> <p>Video Source: <input type="text" value="Axis 205 network camera"/></p>	
<p>Server: <input type="text" value="http://webcam.oii.ox.ac.uk"/></p> <p>Login: <input type="text"/></p> <p>Password: <input type="text"/></p> <p>Size: <input type="text" value="320x240"/> Stream type: <input type="text" value="Jpeg"/></p> <p>Frame rate: <input type="text" value="Uncontrolled"/></p>	 <p>2.00 fps</p> <p><input type="button" value="Apply"/></p>

<p>USB-Cameras:</p>	<p>If the local capture device has been selected, then a list box showing all USB cameras available on the PC will be shown.</p>  <p>Select the corresponding camera.</p>
<p>WEB-Cams:</p>	<p>The WEB cams differentiate between JPEG and MJPEG. The connection string to the camera indicate the type to be selected. Select the type corresponding to the extension .jpg or .mjpg.</p> <p>Application sample:</p> <p>JPEG: http://www.swisswebcams.ch/mobotix/ar3o.jpg</p> <p>MJPEG: http://www.broodjesexpress.net:8080/axis-cgi/mjpg/video.cgi?camera=&showlength=1&resolution=352x288</p>

Frame rate

The update of the pictures may require some CPU power. Especially USB cameras require a considerable amount of CPU power. Therefore the load must be checked and should not exceed 50%. The frame rate should be reduced accordingly.

Setup of the Camera

For the camera specific settings refer to chapter: Appendix H: Camera configurations

Mobile / Smartphone

The video stream can be see in the CompactWEB as well. But it is worth to install a dedicated app in case multiple cameras are available.

Android: IP Cam Viewer

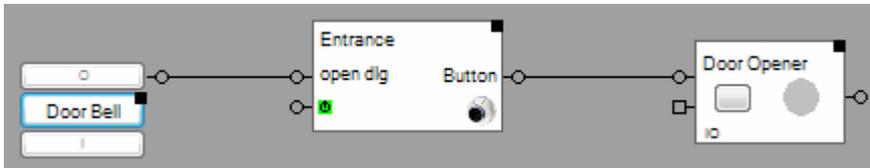
IOS:

Visualization Element

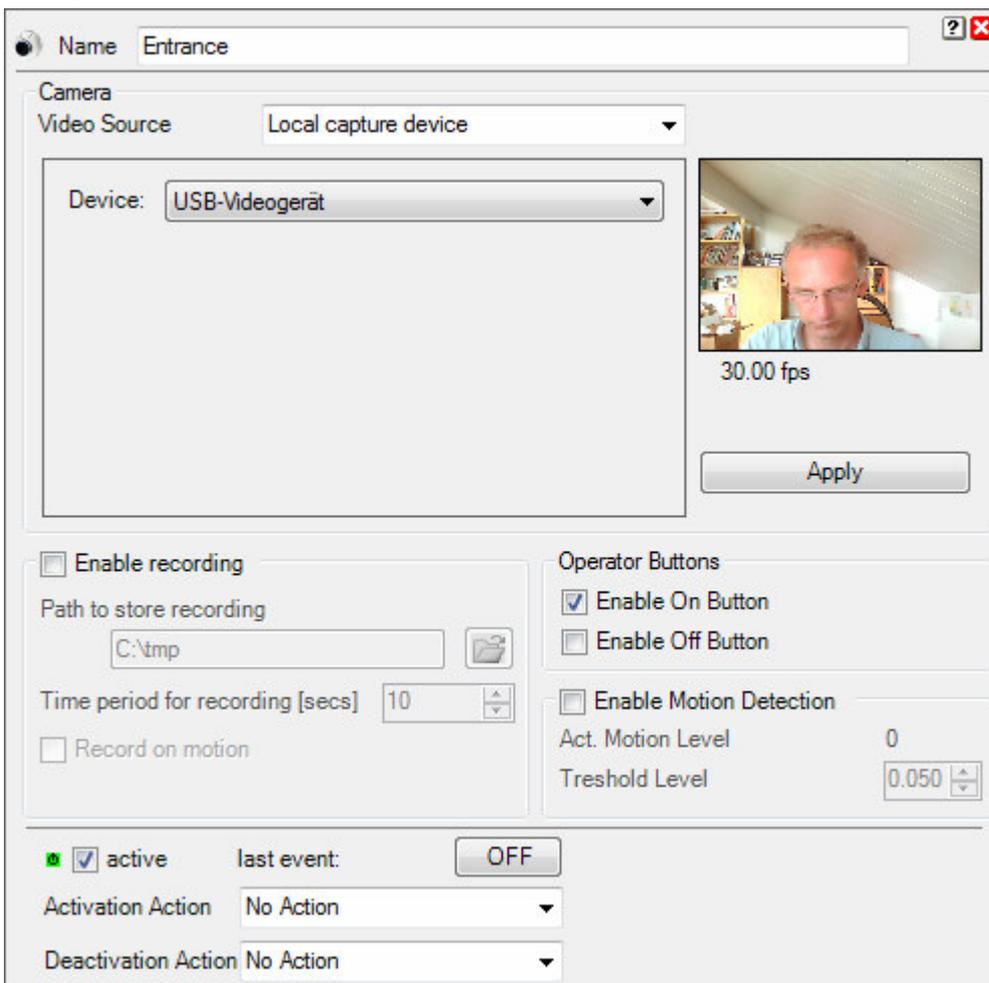
Find details about the corresponding visualization element in [Visualization Element Camera](#).

Application sample

If the bell button has been pressed at the entrance door, the visualization dialog of the camera pops up automatically. The user sees who is ringing the bell. In case the visitor is welcome, then the user presses the button „open door“ which is located on the visualization dialog as well. This opens the entrance door and enables the visitor to come in.

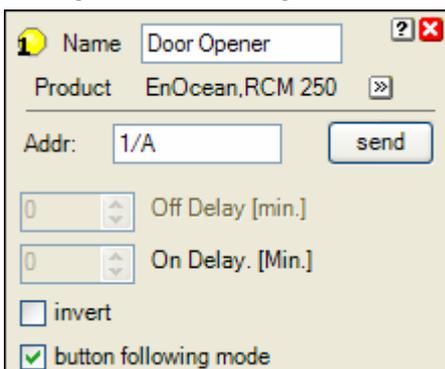


Settings of the camera block:



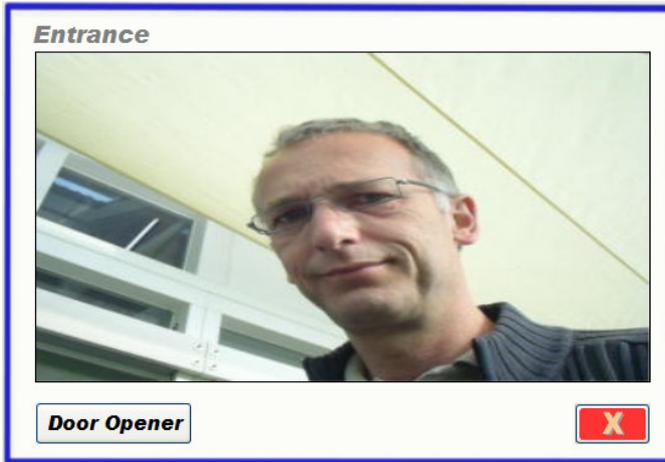
Check „Enable On Button“ to activate the on button on the visualization dialog of the camera. This enables the user to operate the door opener.

Settings of the switching actuator block:



Activate „button follower mode“ to turn on the actuator during the button press of the user.

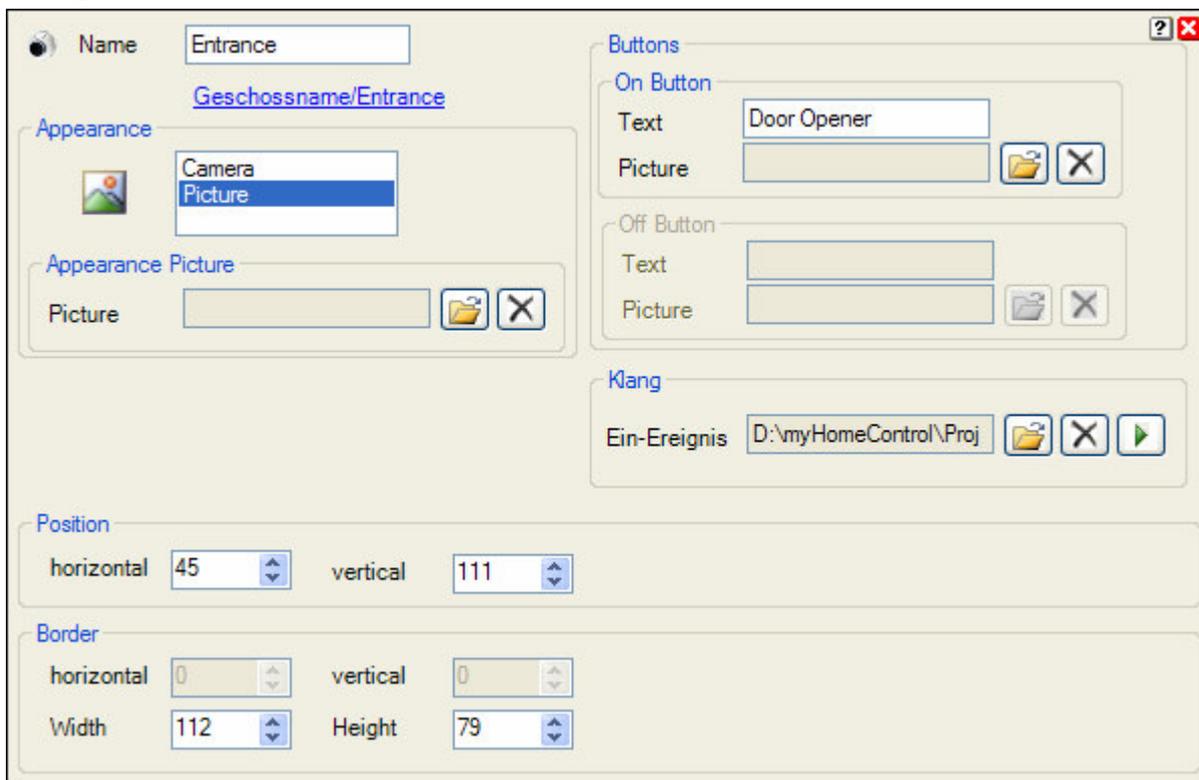
Application sample of the visualization element:



The dialog of the visualization element pops up automatically in case the button of the door bell has been pressed.

Press the button „Door Opener“ to release the entrance door.

Settings of Visualization element:

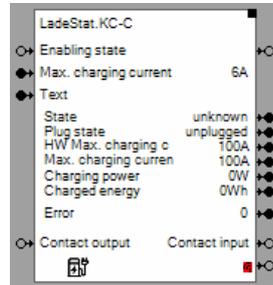


[Handling Blocks](#)

[Properties of Blocks](#)

Charging Station

This block represents a car charging station within the software.



Inputs

Enabling state: The OFF command sets the charging current to 0A. No charging takes place.

Max. charging current: Loading current limitation

Text: Index of text (refer to settings) shown at the charging station.

Contact output: Controls the contact output of the charging station.

Outputs

IR device

This block is used to control a infrared transceiver. Several commands might be configured.

The block is used to send and receive infrared commands.

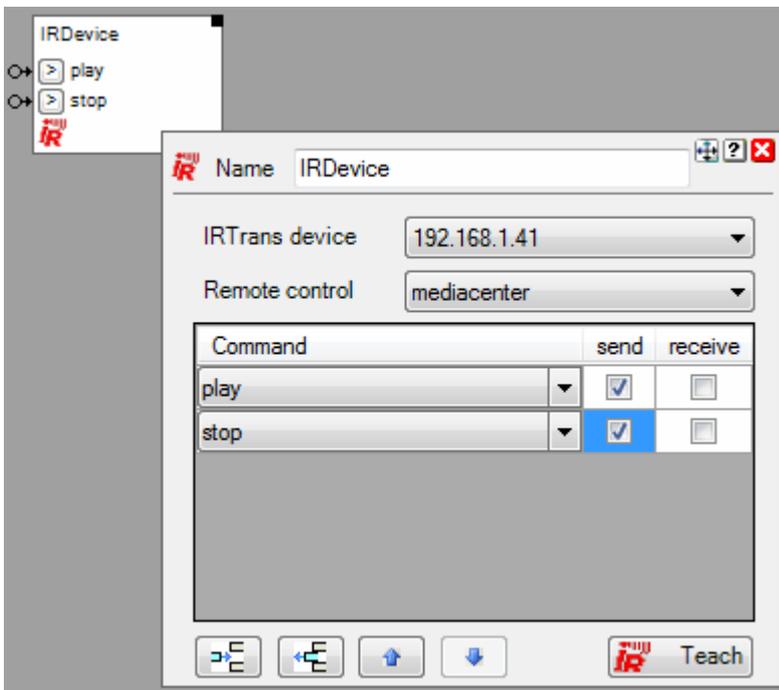
This block best supports the IRTrans Ethernet devices of IRTrans(www.IRTrans.de). The IRTrans software package has to be installed, as **myHomeControl®** uses one of the software components (IRServer) to control the devices. At least following versions must be installed:

Irserver: 6.10.02
 GUI Client 7.3.01

The IRServer might or might not be started as a service. If it is not running, when **myHomeControl®** starts, then **myHomeControl®** will run it by itself.

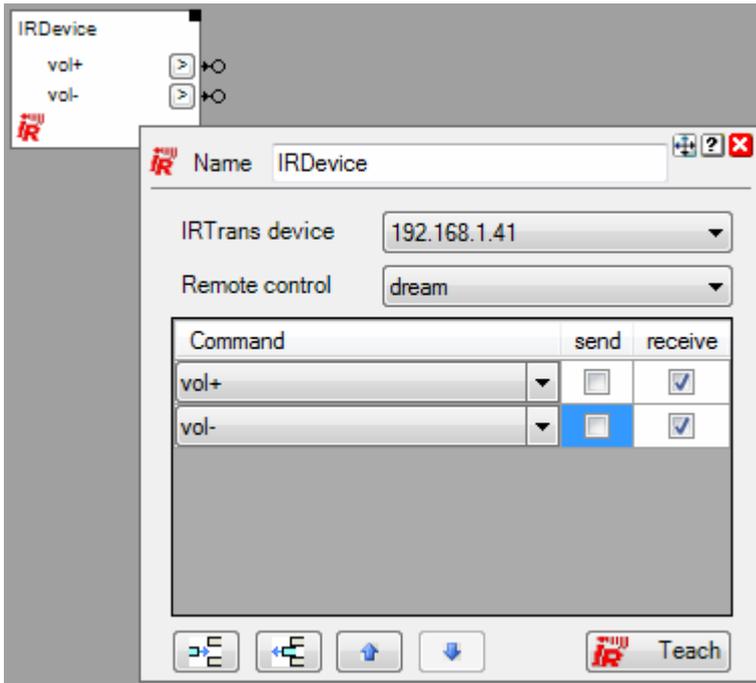
During the startup of the IRServer all IR devices are going to be scanned. All devices which are not connected to the LAN or not powered, will not be detected by the IRServer. Therefore these devices can not be used later on.

The tools provided by IRTrans might be used in parallel to **myHomeControl®**. All infrared commands are handled by the IRServer. The IRServer accepts multiple clients at a time.



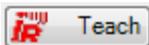
In case the block is used to send out infrared messages, then network signals might be used to initiate a transmission.

The buttons on the block are used to send infrared messages for test purposes.

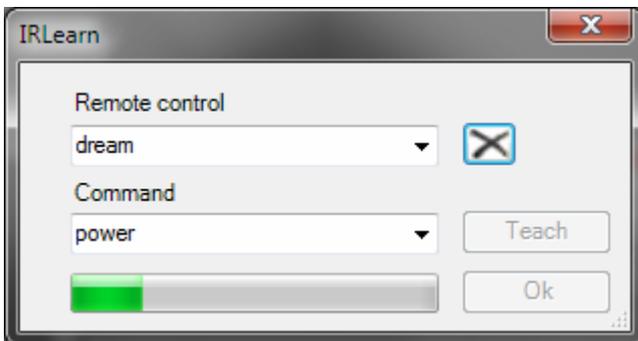


In case the block is used to receive infrared messages, then received infrared messages will create ON commands at the corresponding network pins of the block.

The buttons of the block might be used to simulate reception of the corresponding infrared message for test purposes.



This button opens the teach dialog to create new remotes and to teach new commands.



Select a remote or define a new one.

Select a command or define a new one.

Enter a new command into the command field or select a command which shall be re-taught.

After pressing the **Teach** button, press the corresponding button on the remote.

In case it is not possible to teach a certain infrared command correctly, please use the GUIclient coming with the IRTrans software package, as it will provide more detailed teach in features.



deletes a remote from the database.

Remotes and Commands

In first all infrared commands have to be taught. The IRServer stores all commands into a database. When dealing with IRTrans devices think in remotes and there commands(buttons).

In a first step define a remote, then teach in all commands of the remote. This is the way how the IRServer stores data.

Configuration

Select the IP address of the IRTrans device in the upper list box. The IP addresses of all detected IRTrans devices are listed.

Select the corresponding remote or, in case it doesn't exist in the list, press the **Teach** button.

Now various commands might be configured within the table.



inserts an additional command line into the table.



removes the selected command line from the table.

A command line defines the command, if it shall be sent or received or both.

For each command to be sent, the block will be equipped with an input pin. Each ON command received on an input pin will advice the block to send the corresponding infrared command.

For each command to be received, the block will be equipped with a output pin. Each time the IR device receives a infrared message a ON command will be sent out via the corresponding output pin of the block.

Remote- and Commanddefinitions

The IRServer stores data into *.rem files in a folder called "remotes". There is a file for each remote. These files are include into the myHomeControl project when the project is saved.

If a myHomeControl project is loaded, then myHomeControl checks for each rem file if there is already a corresponding rem file in the folder "remotes". If not, then the file is going to be copied. Otherwise the file date is checked and only in case the file in the myHomeControl project is younger the file is copied into the folder "remotes".

Find details about the corresponding visualization element in chapter [Visualization Element IR Device](#).

Netatmo weather station

This block can be obtained from **Special / Netatmo**. The usage of this block requires license option "[Netatmo](#)". It is used to read the weather signals of Netatmo weather stations (main module).

Function

This block reads the weather signals of a main module. The signals will be refreshed every 10 minutes.

Configuration

Read out of data is done via the account at Netatmo. Therefore you have to enter the login credentials on the settings page, refer to [Settings/Netatmo](#).

Netatmo indoor module

This block can be obtained from **Special / Netatmo**. The usage of this block requires license option "[Netatmo](#)". It is used to read the weather signals of Netatmo indoor module.

Function

This block reads the weather signals of an indoor module. The signals will be refreshed every 10 minutes.

Configuration

Read out of data is done via the account at Netatmo. Therefore you have to enter the login credentials on the settings page, refer to [Settings/Netatmo](#).

Netatmo outdoor module

This block can be obtained from **Special / Netatmo**. The usage of this block requires license option "[Netatmo](#)". It is used to read the weather signals of Netatmo outdoor module.

Function

This block reads the weather signals of an outdoor module. The signals will be refreshed every 10 minutes.

Configuration

Read out of data is done via the account at Netatmo. Therefore you have to enter the login credentials on the settings page, refer to [Settings/Netatmo](#).

Netatmo rain gauge

This block can be obtained from **Special / Netatmo**. The usage of this block requires license option "[Netatmo](#)". It is used to read the weather signals of Netatmo rain gauge module.

Function

This block reads the weather signals of a rain gauge. The signals will be refreshed every 10 minutes.

Configuration

Read out of data is done via the account at Netatmo. Therefore you have to enter the login credentials on the settings page, refer to [Settings/Netatmo](#).

Netatmo wind gauge

This block can be obtained from **Special / Netatmo**. The usage of this block requires license option "[Netatmo](#)". It is used to read the weather signals of Netatmo wind gauge module.

Function

This block reads the weather signals of a wind gauge. The signals will be refreshed every 10 minutes.

Configuration

Read out of data is done via the account at Netatmo. Therefore you have to enter the login credentials on the settings page, refer to [Settings/Netatmo](#).

Sonos Media

This block can be obtained from **Special / Sonos**.

The usage of this block requires license option ["Sonos"](#).

This block controls Sonos devices. It is used to play up to 6 different playlists or favorites defined within the Sonos system.

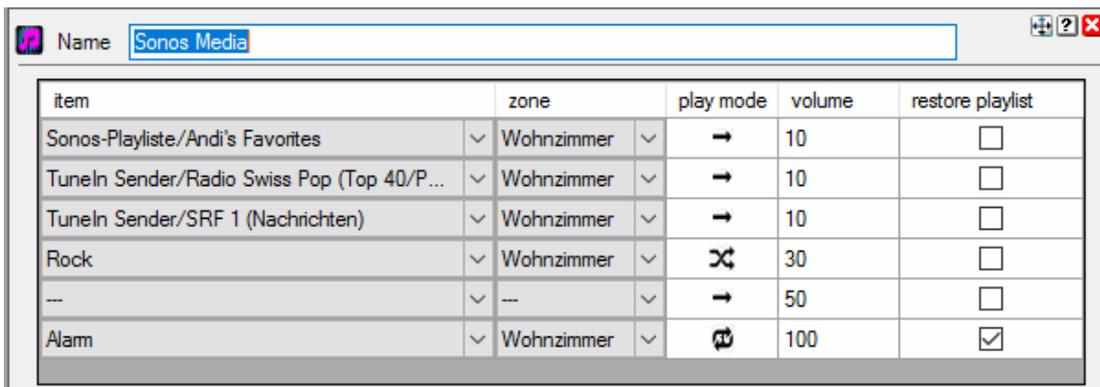
ON: starts the item
OFF: stops the item



Function

Each item can be started or stopped individually by an ON/OFF command on the input pin. Pins might be connected to scenes.

Configuration



Item

The item can be selected from the list of all favorites and all play lists.

Zone

Defines in which of the zones the item is going to be played.

Play mode

-  Play once
-  Repeat
-  Repeat first
-  Shuffle

Volume

0..100: quiet to loud.

Restore playlist

If checked original item list is going to be restored after play of item is stopped.

Syntax of the scene values as they can be set within the properties dialog of the [scene block](#):

«0»	Stop item.
«1»	Start item.
«-»	No action.

Find details about the corresponding visualization element in chapter [Visualization Element Sonos Media](#).

[Handling Blocks](#)

[Properties of Blocks](#)

Sonos Zone

This block can be obtained from **Special / Sonos**.

The usage of this block requires license option ["Sonos"](#).

This block controls Sonos devices. It is used to control a dedicated Sonos zone.

ON: start, OFF: stop
ON: forw., OFF: reward
Volume



ON: is playing

Volume

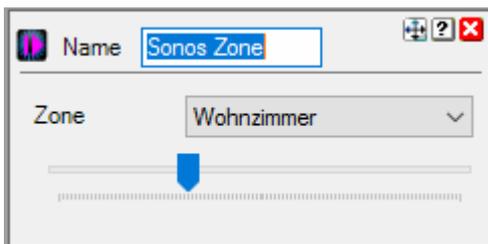
Function

Controls the actual play of a Sonos zone. Starts and pauses the actual play.

Enables to select next or last item in play list

Enables to control volume.

Configuration



Zone

Defines in which of the zones the item is going to be played.

Volume

0..100: quiet to loud.

Syntax of the scene values as they can be set within the properties dialog of the [scene block](#):

- «0» Stop item.
- «l» Starts to play actual item using the actual volume.
- «1 .. 100» Starts to play actual item using given volume.
- «-» No action.

Find details about the corresponding visualization element in chapter [Visualization Element Sonos Zone](#).

[Handling Blocks](#)

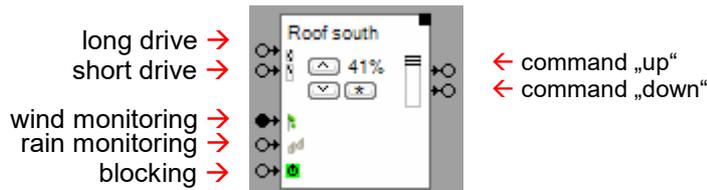
[Properties of Blocks](#)

Velux interface

This might be used to control Velux windows and blinds via a Velux interface. From the functions point of view, this block behaves similar to a [Jalousie actuator block](#). The Velux interface are controlled by potential free contacts. The Velux interface sends according to the states of the contacts „io-homecontrol“ radio signals to the drives of the window.

Therefore the Velux interface block doesn't send any radio signals, it creates command and sends then via its output pins to the network. To these pins [switch actuator block](#) might be connected. The contact of the switch actuator are wired to the Velux interface.

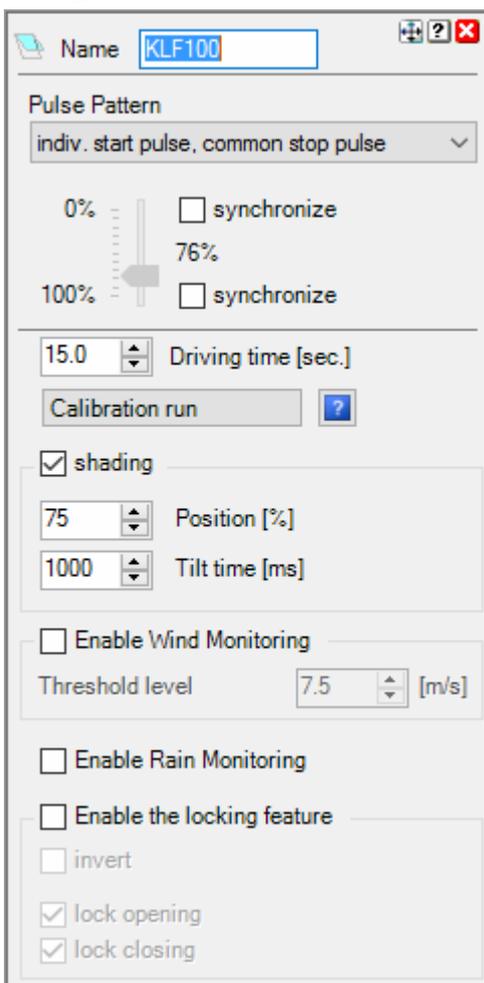
Various pulse patterns can be selected to control the switch actuator blocks.



Function

The block behaves similar then a [Jalousie actuator block](#) but instead of sending radio signals to a jalousie actuator it creates command at its output pins.

Configuration



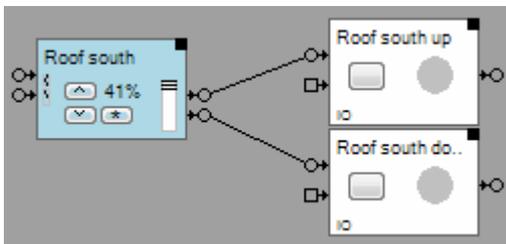
Pulse Pattern

The switch actuators can be controlled by various pulse patterns:

- **On during move:** The switch actuator corresponding to the direction of drive will be switched on during the whole driving periode.
- **Individual start pulse, indiv. stop pulse:** The switch actuator corresponding to the direction of drive will be switched on for about 500ms to initiate the drive. The switch actuator corresponding to the direction of drive will be switched on for about 500ms to stop the drive.
- **Indiv. start pulse, common stop pulse:** The switch actuator corresponding to the direction of drive will be switched on for about 500ms to initiate the drive. Both switch actuator will be switched on for about 500ms to stop the drive.

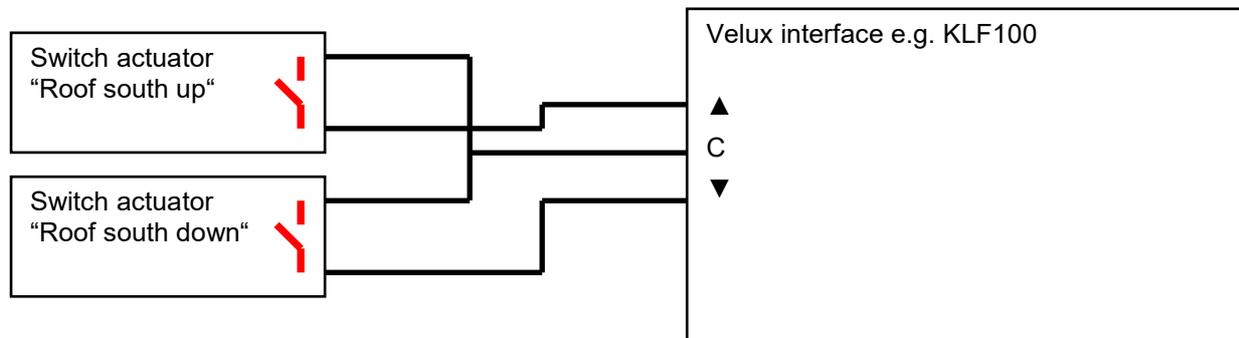
For further details refer to [Jalousie 1](#).

Application sample



The switch actuators „Roof south up“ and „Roof south down“ are connected to the Velux interface block. The physical switch actuators are wired to the Velux interface e.g. KLF100. The switch actuators must provide potential free contacts.

Schematics:



Find details about the corresponding visualization element in chapter [Visualization Element Velux interface](#).

[Handling Blocks](#)

[Properties of Blocks](#)

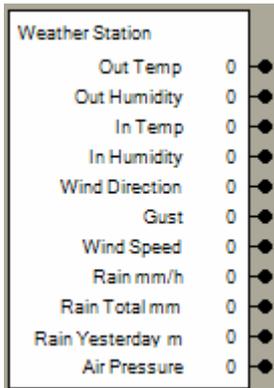
Weather station

This feature is available if the [License option: Weather](#) has been enabled.

This block provides the weather signals measured by a weather station device. The weather station device has to be connected to the PC by an interface such as e.g. RS232, RS485, USB, ...

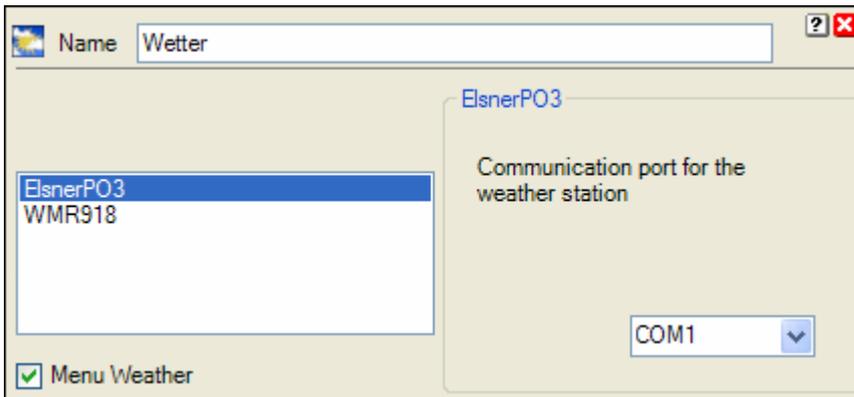
Only one weather station can be connected to the PC at a time.

The appearance of the weather station block differs between the different weather station types. Not all weather station provide the same range of signals.



Weather Station		
Out Temp	0	●
Out Humidity	0	●
In Temp	0	●
In Humidity	0	●
Wind Direction	0	●
Gust	0	●
Wind Speed	0	●
Rain mm/h	0	●
Rain Total mm	0	●
Rain Yesterday m	0	●
Air Pressure	0	●

The left side of the properties dialog provides a list box where the type of weather station can be selected. The right side provides station specific settings.



Following Weather station are supported by myHomeControl:

Huger, Oregon Scientific WMR 918 and WMR 928 NX

Connection between myHomeControl and the Weather station via Serial Port (RS232).

Oregon Scientific WMR 100 and WMR 200

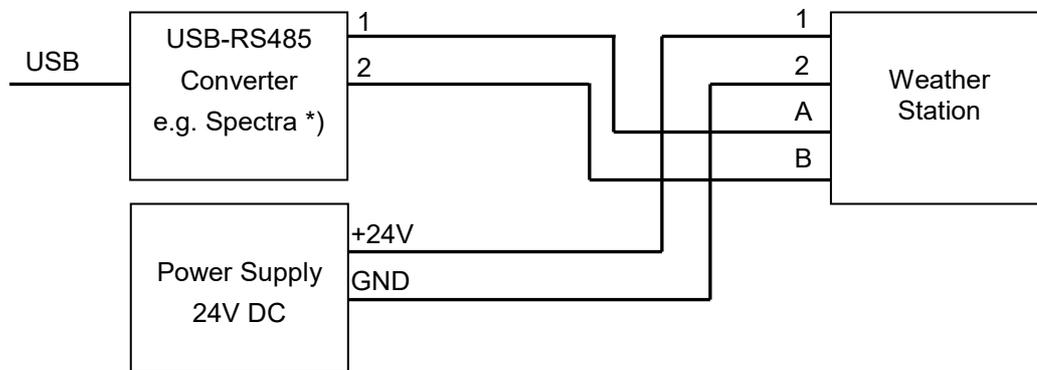
Connection between myHomeControl and the Weather station via USB.

Elsner Elektronik PO1 und PO3

For details refer to http://www.elsner-elektronik.de/3c_wetter.htm

Connection between myHomeControl and the Weather station via Serial Port (RS485).

Schematics



*) USB-RS485 Wandlerstecker Spectra Produktnr: 112887 (www.spectra.de / www.spectra.ch)

In case the settings dialog of the weather station block shows „invalid telegram received“, try to exchange connections A and B.

Dedicated Wetter page

Checking the option „Menu Weather“ will show an additional item „Weather“ in the main menu. This menu shows a dedicated page containing weather information provided by the connected weather station.

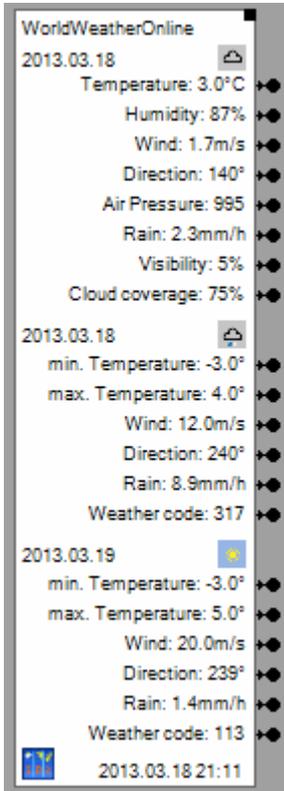
[Handling Blocks](#)

[Properties of Blocks](#)

 **WorldWeatherOnline**

This feature is available if the [License option: Weather](#) has been enabled.

This block gets weather forecast values from the myHomeControl-Cloudserver, powered by BootUp. It provides the weather signals to the network. This block requires a permanent internet connection.

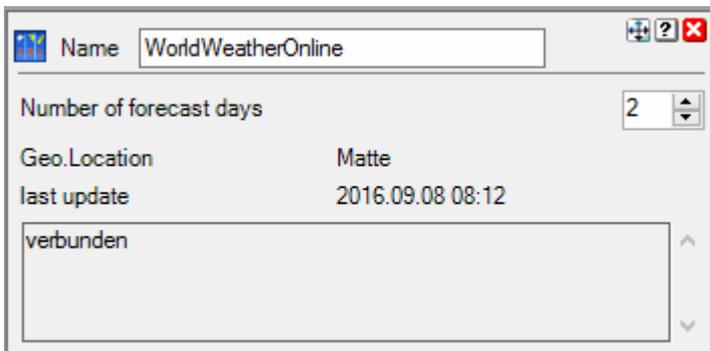


The block base on the koordinate values of the building. Therefore the general settings [City / Coordinates](#) have to be given first.

Function

The block reads new values from the web service every hour. The readen values are forwarded to the corresponding pins.

Configuration



Number of forecast days

Defines the range of forecast data is evaluated by the block.

Wettercodes

WeatherCode	Condition
395	Moderate or heavy snow in area with thunder
392	Patchy light snow in area with thunder
389	Moderate or heavy rain in area with thunder
386	Patchy light rain in area with thunder
377	Moderate or heavy showers of ice pellets
374	Light showers of ice pellets
371	Moderate or heavy snow showers
368	Light snow showers
365	Moderate or heavy sleet showers
362	Light sleet showers
359	Torrential rain shower
356	Moderate or heavy rain
353	Light rain shower
350	Ice pellets
338	Heavy snow
335	Patchy heavy snow
332	Moderate snow
329	Patchy moderate snow
326	Light snow
323	Patchy light snow
320	Moderate or heavy sleet
317	Light sleet
314	Moderate or Heavy freezing rain
311	Light freezing rain
308	Heavy rain
305	Heavy rain at times
302	Moderate rain
299	Moderate rain at
296	Light rain
293	Patchy light rain
284	Heavy freezing drizzle
281	Freezing drizzle
266	Light drizzle
263	Patchy light drizzle
260	Freezing fog
248	Fog
230	Blizzard
227	Blowing snow
200	Thundery outbreaks in nearby
185	Patchy freezing drizzle nearby
182	Patchy sleet nearby
179	Patchy snow nearby
176	Patchy rain nearby
143	Mist
122	Overcast
119	Cloudy
116	Partly Cloudy
113	Clear/Sunny

[Handling Blocks](#)[Properties of Blocks](#)

abc **Comment**

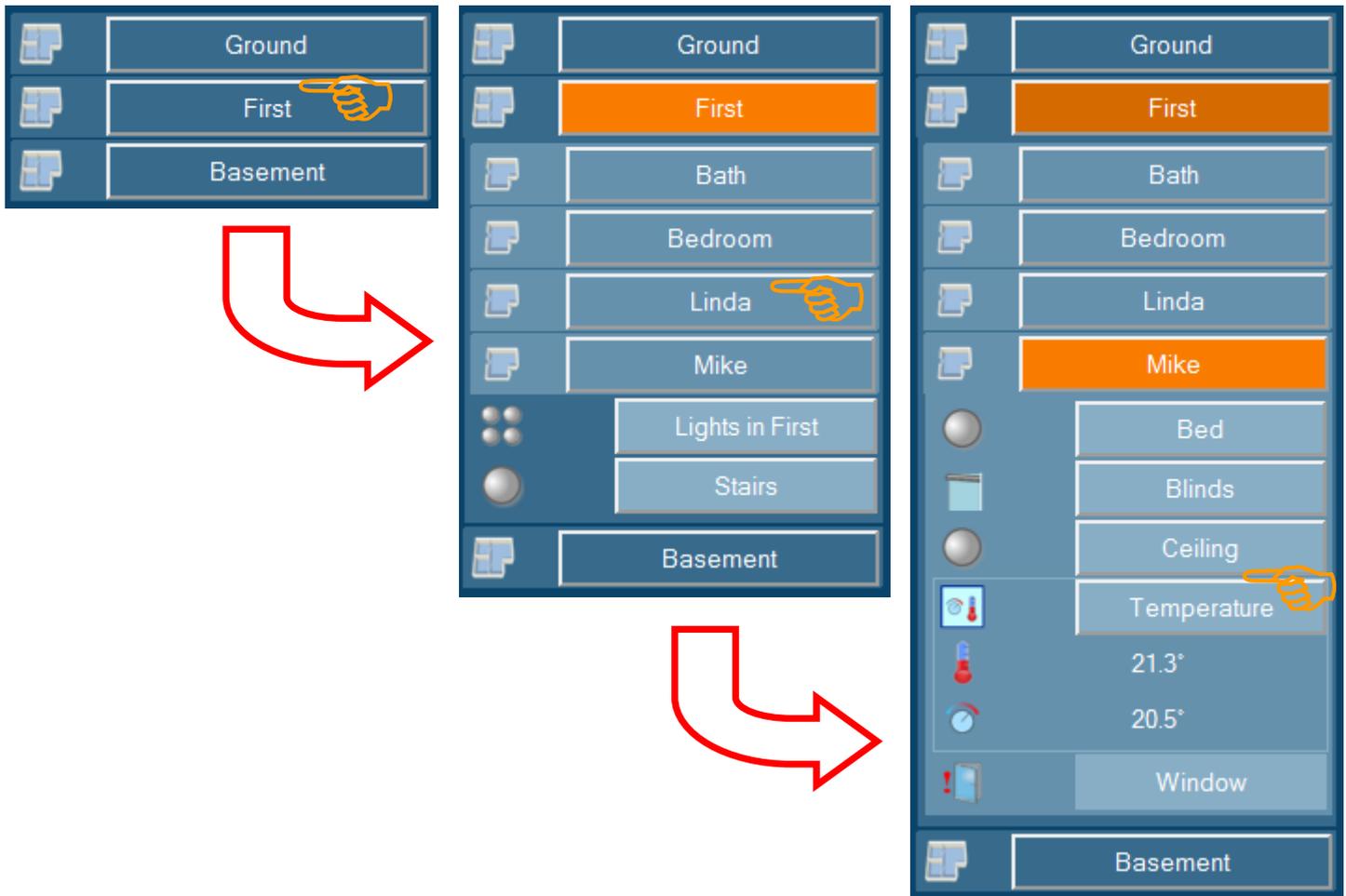
Dies ist ein Kommentarblock.
Er kann an einer beliebigen Stelle
im Raum platziert werden und
soll erklärende Hinweise geben.

Use the comment block to place your comments somewhere in the workspace of the network area.
It has no influence to the control functions.

Compact WEB

CompactWEB is a WEB browser based representation of the project. The representation is simplified and compact. Therefore it might be used with small displays e.g. mobile devices.

The CompactWEB feature must be enabled under [Settings/WEB/CompactWEB](#).



The menu structure is according the floors and rooms structures of the project:

- Floors contains rooms and items (e.g. lights, blinds, windows, ...)
- Rooms contains items

If a web page is called by the browser, then a list of buttons representing the different floors of the project are going to be shown. If one of these buttons is clicked, then the display changes and buttons for all rooms and items of the corresponding floor are going to be shown. The pressed floor button is going to be marked orange.

A click on a room button opens the corresponding room and all items of that particular room are going to be shown. The pressed room button is marked orange.

Clicking an item button toggles the state of the corresponding item or opens the item and shows more detailed information and controls.

A second click on one of the button closes the corresponding context.

Operation mode

As soon as the CompactWEB functionality has been [enabled](#) in the settings menu, **myHomeControl®** will create web pages. Any browser can be used to view these web pages.

myHomeControl® installs a WEB server which is used to host the web pages representing the project and its actual states. The WEB server is part of the installation package and doesn't require any additional configuration.

The user has to enter as URL either the IP address or the name of the computer running **myHomeControl®**. Alternatively the static URL might be used, see [provide static URL](#).

`http://<IP-Adresse of the myHomeControl server>`

Alternatively following url might be used:

`http://www.myHomeControl.ch/compactweb.html`

This url only works in the local network. The myHomeControl cloud service routes the call to the right IP address.

By default the amount of simultaneous browser sessions is limited to 3. The [license option: CompactWEB large](#) eliminates this limitation.

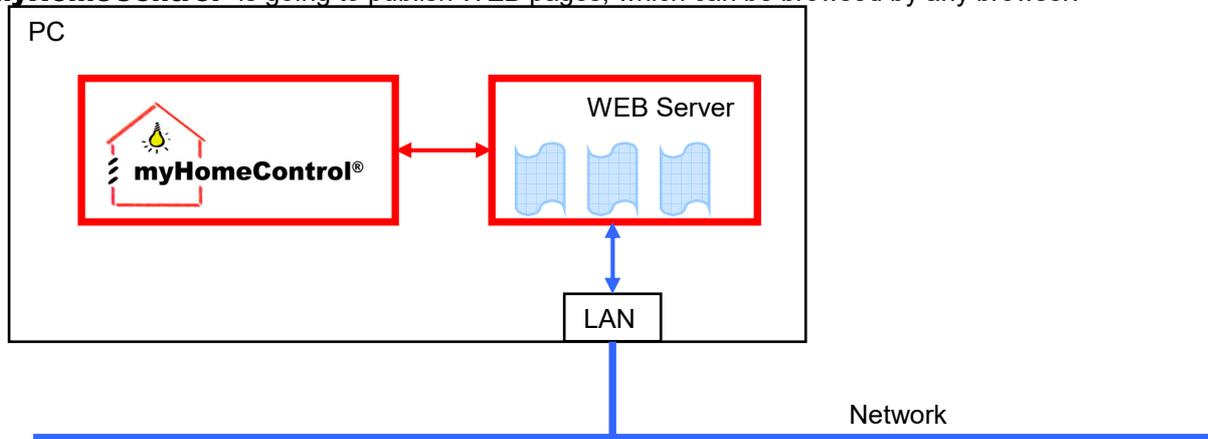
Find hints to configure port under [Settings/WEB/Port No.](#)

- [Network infrastructure required](#)
- [Setup web pages](#)
- [Smart phones e.g. the iPhone used as a remote control](#)
- [Remote access via Internet using a WEB Browser or mobile phone](#)

Network infrastructure required

This chapter describes the required network infrastructure for different CompactWEB applications.

In case CompactWEB has been enabled and the built in WEB server has been started, then **myHomeControl®** is going to publish WEB pages, which can be browsed by any browser.

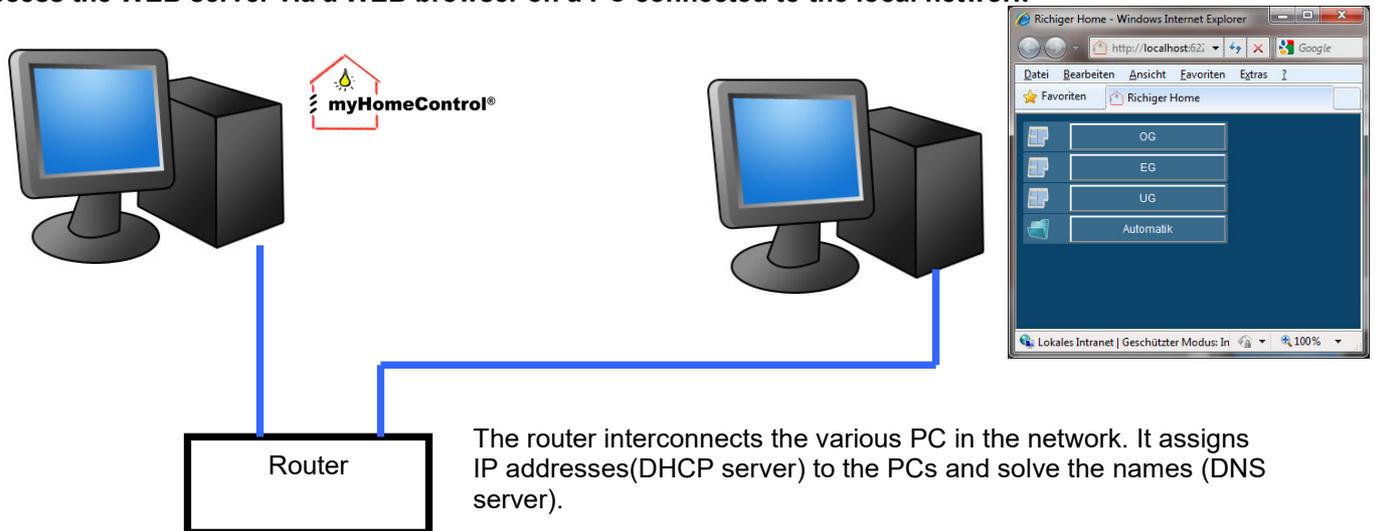


A participant of the network may browse the WEB pages via the network (LAN).

The network components required for the access to the WEB pages depends on how the WEB pages shall be accessed:

- [via a WEB browser on a PC connected to the local network](#)
- [wireless via a laptop PC or a smart phone](#)
- [from the Internet](#)

Access the WEB server via a WEB browser on a PC connected to the local network



The router interconnects the various PC in the network. It assigns IP addresses(DHCP server) to the PCs and solve the names (DNS server).

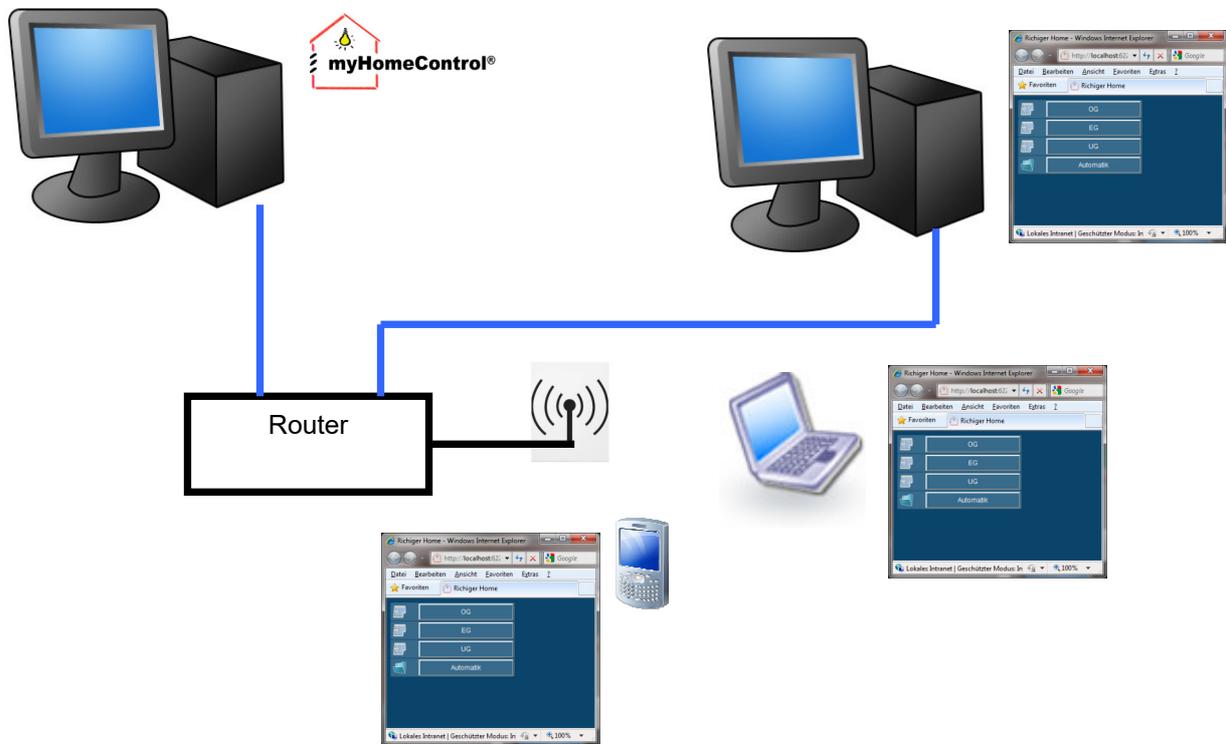
Usually PC are configured to request an IP address from the routers DHCP server when they establish the connection to the network.

Typically routers are pre-configured by default to serve the IP address request and to solve the name requests.

Usually it is sufficient to connect PCs to the router, then to start a WEB browser and to enter the name of the PC where **myHomeControl®** is running.

Access the WEB server wireless via a laptop PC or a smart phone

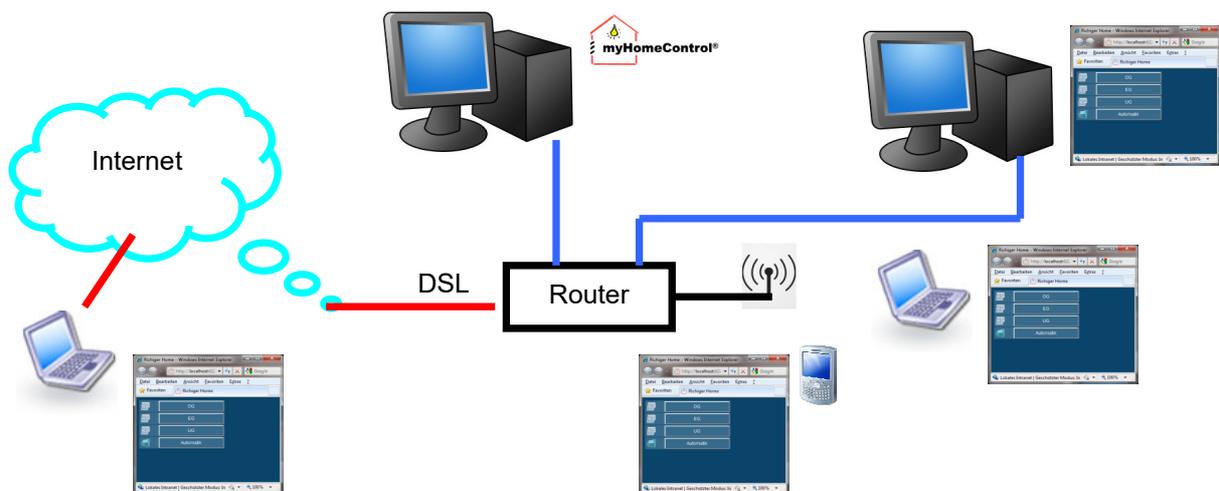
To access **myHomeControl®** WEB pages wireless a wireless access point is required within the network. Usually a wireless router is used for this purpose.



Alternatively there is the opportunity to enable a static URL, see [provide static URL](#). Refer to chapter [Smart phones e.g. the iPhone used as a remote control](#).

Access the WEB server from the Internet

To access **myHomeControl®** WEB pages from the Internet a permanent connection to the Internet is required. This might be achieved by a DSL connection via a wireless modem/router device.



Refer to chapter [Remote access via Internet using a WEB Browser or mobile phone](#).

Setup web pages

There is the opportunity to setup different web pages for the same project. These pages can be addressed individually by a browser.

Samples:

- <http://192.168.0.10> ← default.aspx (loaded by the browser by default)
- <http://192.168.0.10/Office.aspx>
- <http://192.168.0.10/Shop.aspx>

myHomeControl® creates a page(Url) called default.aspx if CompactWEB functionality has been enabled. This page will be loaded by browsers when entering an Internet address only containing a host reference, by default. (e.g. <http://myName.dyndns.org>, or within the intranet <http://X.X.X.X> (X.X.X.X means the IP address of the PC running **myHomeControl®**).

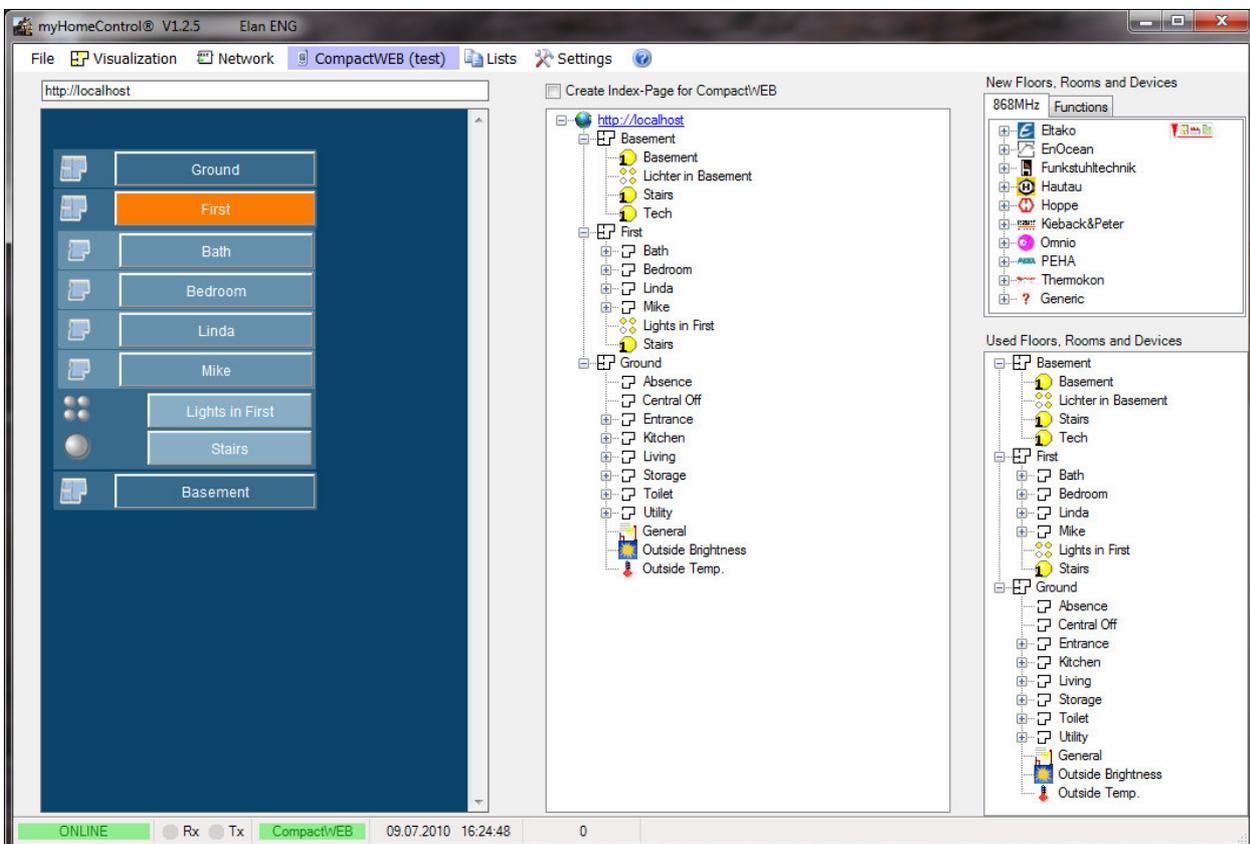
In case there is a DNS server available in the local network e.g. provided by the router, then the name of the computer running **myHomeControl®** can be used to address the web pages alternatively.

Sample: <http://home>

In case there is a DNS server provided by the router, then there is no need to assign a fix IP address to the computer running **myHomeControl®**. The DNS server will evaluate the correct IP address if computer names are going to be used.

myHomeControl® creates the default page where it copies the project structure into the page, by means of floors, rooms and devices.

The setup of web pages is done in the main menu “CompactWEB” Following figure shows a screen shot of the menu:

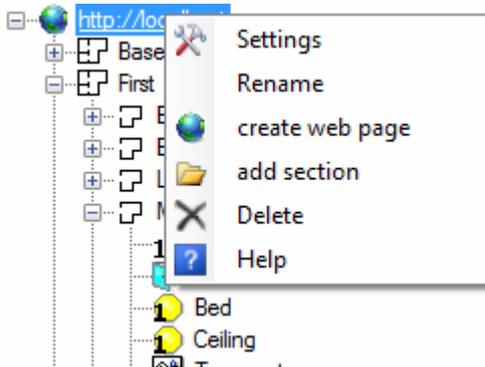


The right column contains the same tree views for new objects and the project tree.

The middle column contains the editor to design the web pages.

The left column contains a web browser showing the page selected in the medium column. This is useful to quick check the page. In case there are more then one web pages, then click the link (world icon) to advise the browser to show the corresponding page.

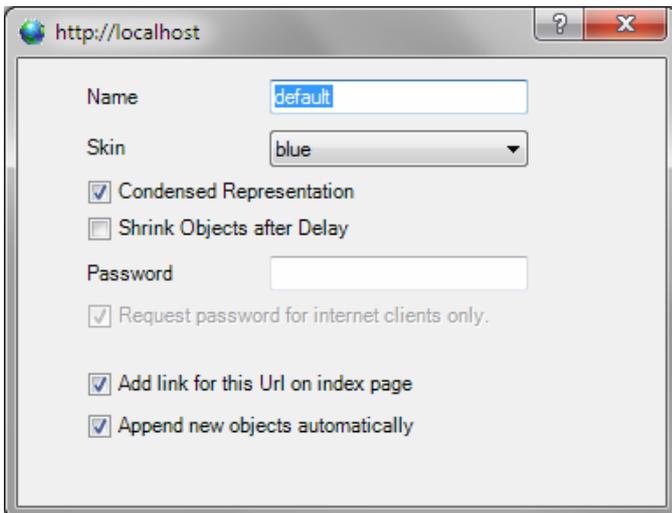
To setup web pages the user places objects with in the web page by drag&drop the objects from the project tree. The structure of the web page can be different to the structure of the project. The grouping and ordering of the floors, rooms and devices might be different. It also might be different for different web pages.



← Beside the floors and rooms, there is an additional structuring tools, called section and subsection, available. Sections can be mixed up with floors and rooms within the WEB page. This gives freedom to design the structure of the web page according the needs.

Additional setting are available for the [web page](#) itself and dedicated [item](#).

Web page settings



Condensed Representation

This setting enables a condensed view of the page.

Behavior:

If a floor or a section gets selected by the user, then all other floors and sections will be hidden. If a room or subsection has been selected by the user, then all other rooms and subsections become hidden. The purpose of this setting is to avoid scrolling within the browser.

Shrink Objects after Delay

This Option shrinks structured objects as dimmers, jalousies, scenes after a delay time automatically.

Password

An individual password can be assigned to each web page. The user is requested to enter the password the when she/he browses the page.

Alternatively the user can add the password to the url.

Sample:

<http://myHome.dyndns.org/default.aspx?password=myPassword>

<http://myHome.dyndns.org/user1.aspx?password=myPassword> → also refer to chapter [additional web pages](#)

Request password for internet clients only

This setting defines if the password is always requested (also in case the page is browsed from the intranet) or only if the page is browsed from the Internet.

Add link for this Url on index page

Optionally **myHomeControl®** creates an index page (table of content) referring the different web pages of the project (see [CompactWEB-create index page](#)). If the setting “Add link for this Url on index page” is checked, then the page appears on the index page.

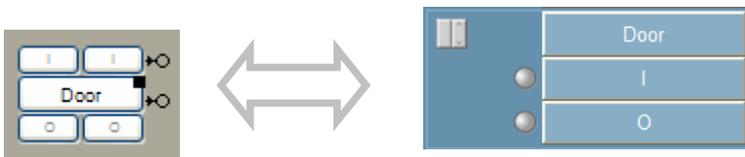
Append new objects automatically

If this setting is checked, then **myHomeControl®** is going to maintain the web page automatically according to the changes of the project structure. This means, if the user inserts a new devices in a certain room, **myHomeControl®** automatically inserts the device at the corresponding location of the web page.

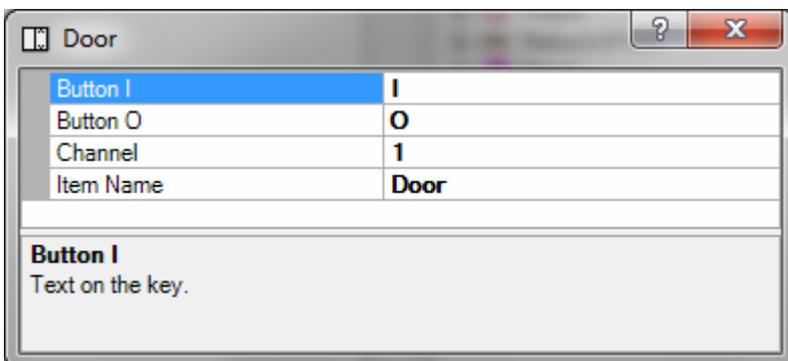
This setting is useful in case the web page shall show the project tree 1:1. This saves configuration effort for the web interface.

Item settings

Certain items require additional settings, e.g. the PTM button switch:



The rocker push button in the project has 2 rockers. The rocker push button symbol in the web page represents only one rocker. Therefore there is the opportunity to configure which of the rockers is represented by the web symbol.



Item Name:

Many of the WEB objects provide the opportunity (**Item Name**) to give an individual name to the WEB object (different to the one given in the project). The item name for the WEB object corresponds to the item name of the project by default.

In case the item name for the web object has been modified, then it will not be updated automatically if the name in the project is modified.

To reinitiate the automatic update of the “web name” delete the entry in the field “Item Name” in the dialog shown above.

Create Index-Page for CompactWEB

If this option is checked, then **myHomeControl**® will create an index page (table of content) of the pages available within the project. The index page is called Index.aspx. Browsers typically opens this page if only the host address has be given by the user.

Additional web pages

The menu create web page adds an additional page to the web configuration tree. Individual, unique names have to be given to the different additional pages. These names are used to address the page in the browser.

Sample:

The web page „Office“ is accessed via the address:

<http://myName.dyndns.org/Office.aspx>

Smart phones e.g. the iPhone used as a remote control

State of the art mobile phones provide usually Internet abilities and are enabled to browse web pages either connecting to the Internet or a local WLAN.

Therefore these devices can easily be used as a remote control for **myHomeControl**®.

Requirement is a local WLAN which is connected to the PC running **myHomeControl**®. Then enable WLAN on the phone, start the browser (e.g. Safari) and enter the IP-address of the computer running **myHomeControl**® to browse the WEB interface an gain full control over you electrical equipment and the utilities.

Settings for iPad/iPhone/Safari

Enable cookies on your mobile device:

Settings/Safari/block cookies/always enabled

Refer to chapter [Infrastructure](#) for further details.

Remote access via Internet using a WEB Browser or mobile phone

To access the WEB pages by means of accessing the myHomeControl WEB server, requires configuration of certain network devices e.g. router and modems. Find a guide in [appendix E](#).

The simplicity of the structure of the WEB pages allows to browse the pages by simple mobile phones only supporting WAP.

Usage of an alternative WEB server

To do....

Multiple Operating Stations

There is the opportunity to configure various operating stations beside the master station.

Master station: PC where the gateway is connected to **myHomeControl®** with the project database
All network functions and the communication to the gateway(s) are processed on this PC. This PC has to run all the time.

Client station: PC connected to the PC network
myHomeControl® only visualization and operation

The client stations can only be used for visualization and operation purposes. No changes of the configuration of the project can be done at these stations.

The client/server architecture requires enabling of the [license option: ClientStations](#).

Master Station

Most of the configuration of the Operating stations has to be done at the master station.

Configuration

As the first step to run operation stations it is required to enable multiple operating stations. This has to be done in the [general settings](#) as shown below:

Then select „This is the server station” on the master station.

Restart all Clients

Click the button to restart all clients. This restarts automatically all **myHomeControl®** applications on the client stations in question. **myHomeControl®** restarts and synchronizes the data base from the master station.

Profiles for Operating Stations

As soon as the Option “This is the server station” is selected an additional tab appears on the settings page called “Profiles for Operating Stations”.

Profile	First Floor	Second Floor	Door	General	Shading
same as server	<input checked="" type="checkbox"/>				
Door	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Within this tab various profiles might be defined. A profile defines which of the floor plans and which of the general controls tabs are visible in case the profile is selected.

Refer to chapter [Operating Stations](#) regarding setup of an operating station.

Operating Stations

Behavior of the Operating Stations

When the Operating Stations starts up, then it copies the actual project database from the master station to its local memory. Then it starts based on this copy of the project. After starting up it connects to the master station to be informed about any state changes and to send commands.

It is not the idea to maintain the project at a Operating Station. All modifications of the project have to be done at the master station.

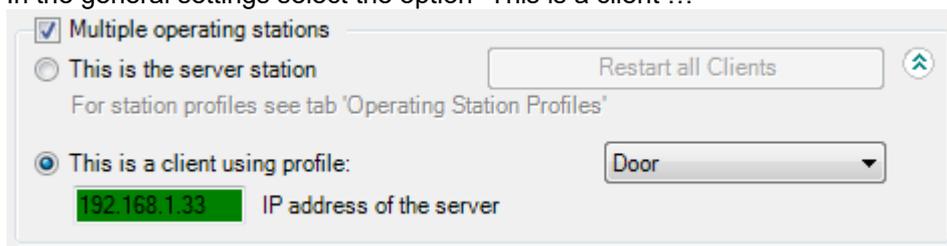
Modifications are not transmitted to the operating stations. If e.g. a new visualization element is placed on a floor plan, then this will not be visible at the operating station.

After modifications to the project, the operating stations have to be restarted to resynchronize the local project database. There is the button “Restart all Clients”, which is available on the master station to automatically restart all operating stations.

Setup of an Operating Station

To setup an Operating Station do following steps:

1. Install **myHomeControl**®
2. start **myHomeControl**®
3. In the general settings select the option “This is a client ...”



4. Enter the IP address of the master station. **myHomeControl**® is going to connect to the master station to retrieve the list of profiles. Connecting in progress is shown by an arrow moving to the right. As soon as the input field for the IP address becomes green the connection has been established successfully.
5. Select the profile to be used by this Operating Station from the list box.
6. Click the main menu “Visualization” to change to the visualization. **myHomeControl**® is going to restart and synchronize with the master station.

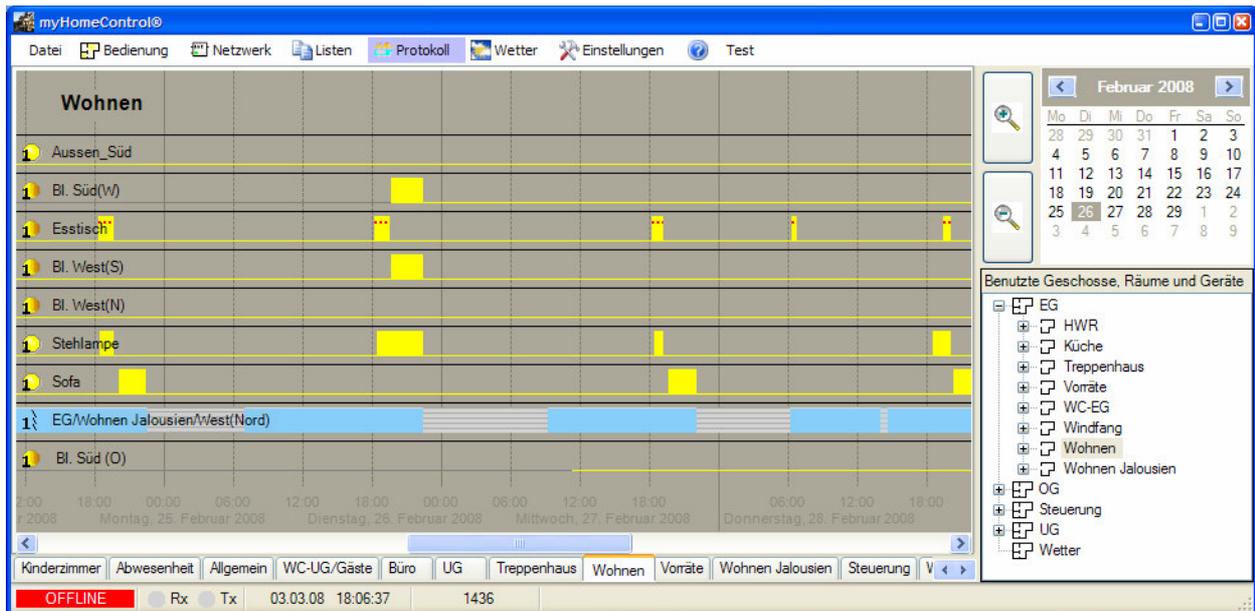
Refer to chapter [Master Station](#) regarding setup of an operating station.

Loggings

The logger views provide a look into the past. myHomeControl logs continuously received and transmitted radio messages as well as generated commands. These events might be visualized by different views.

Time line

The Logging tab shows all recorded state changes of the actuators. It visualizes all actions in the past.



The structure of the logging tab is similar to the network tab. There is a tab (workspace area) for each room. This tab presents the recorded state information on a time line.

The calendar provides direct access to certain dates.

Event list

The event list shows all events in chronological order. The shown information is time stamped.

Following information is shown:

- radio messages
- state changes of the blocks
- outputs of the blocks
- info messages of the blocks
- general information of the program
- errors and warnings

The screenshot shows the myHomeControl software interface. The main window displays a log of events with columns for time, date, and event details. The sidebar on the right contains a calendar for May 2016, an 'Object filter' section with a tree view of objects, and a 'Filter' section with checkboxes for 'Communication', 'General', 'Object messages', 'State changes', and 'Block outputs'. The 'show latest message' checkbox is also visible.

Activate filters to concentrate the information flow on that information you are interested in:

- **Communication:** shows radio messages
- **General:** shows general messages of the software execution
- **Object messages:** shows info messages of the objects(blocks)
- **State changes:** state changes of blocks are shown
- **Block output:** changing output values of the blocks are shown (if output is connected to a follower block)



Deletes the whole log, also log messages of past days.



Saves the shown protocol into a text file.



Appends a marker line to the protocol.

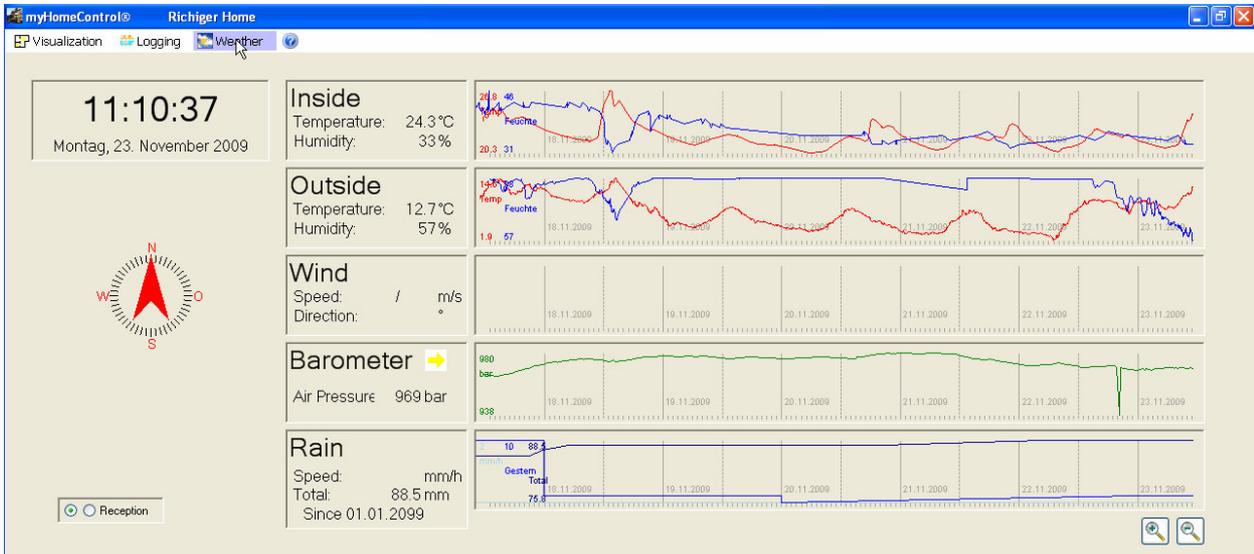
The check box “show latest message” activates automatic scrolling of the text window. The latest event will be shown at the end of the text.

Double click on a device in the tree view to see only messages of the device.

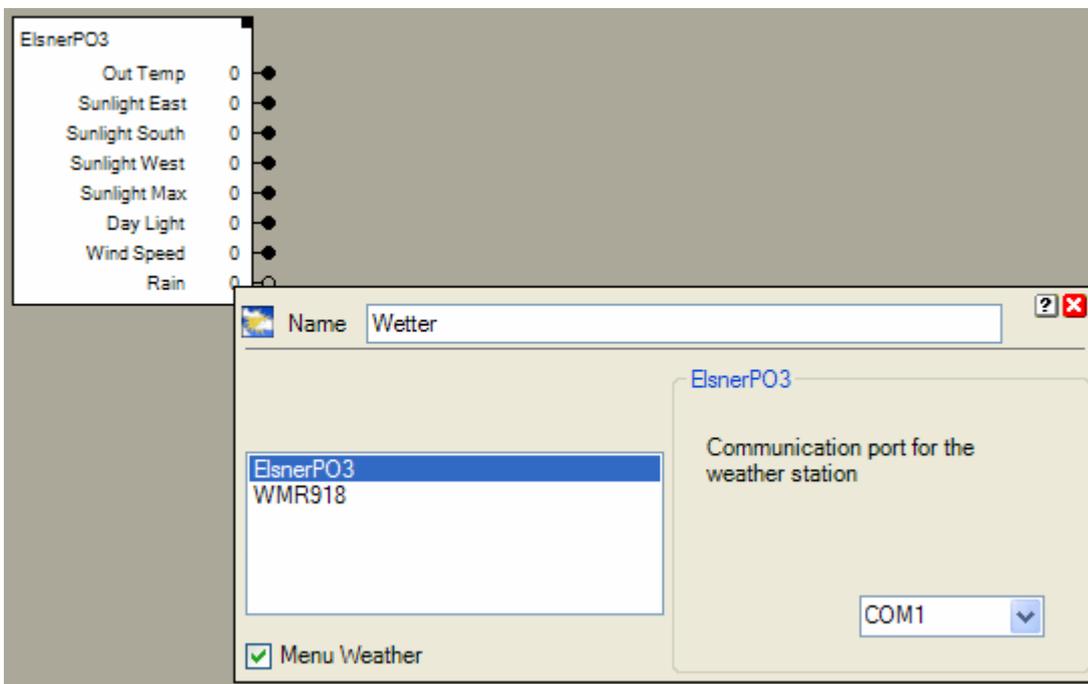
Double click on a room to see all messages.

Weather

There is a dedicated page for weather information. This page displays information and trends collected from the local weather station.

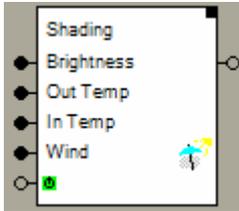


The page "Weather" becomes available, if a [weather station](#) has been inserted into the project and the option "Menu Weather" is checked.



The [weather station block](#) that can be found in the network area. It provides the measured values as analogue signals to connect them to logic blocks. Several blocks accept signals from the weather station block.

Typically these blocks are able to operate even if no weather station is available. See following example:

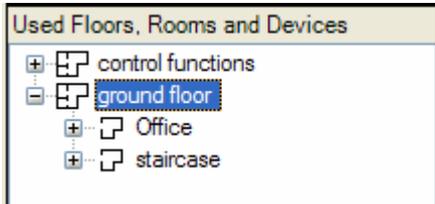


The input pin for the brightness might be connected to a [brightness sensor](#). The input pin Out-Temp might be connected to a temperature sensor or the weather station block. But all this is optional. The [shading block](#) evaluates only information that is available.

Structuring

Structuring helps to keep clarity within the project, especially in large projects.

The structuring is based on floors and rooms. There are following roles:



- A project consists of 1..n floors
- A floor consists of 0..n rooms.

Floors and rooms are just tools to structure the project. These elements might be used in the sense of virtual floors and rooms.

Floor

A floor contains several rooms. The term “floor” has not to be seen strictly. A floor could also represent a whole flat in an apartment house.

See [Structuring](#) to learn more about floors and rooms.

[Networks](#)

Within the network area floors and rooms will be used as workspace areas. Each floor and each room has its own workspace area where blocks might be placed.

[Process Communication](#)

The floor-room structure also supports the organization of the communication to the sensors and actuators. Depending on the chosen process interface a transceiver unit of field bus node can be assigned to each floor. Find details in chapter [Process Interface](#).

Floors can be dragged in from the tree view “New Floors, Rooms and Devices”, Tab “Functions”.

Room

The term “room” has not to be seen strictly. Sometimes it is useful to create virtual rooms where general functions e.g. the presence simulation can be placed. This function is not assigned to a single physical room.

See [Structuring](#) to learn more about floors and rooms.

Rooms can be dragged in from the tree view “New Floors, Rooms and Devices”, Tab “Functions”.

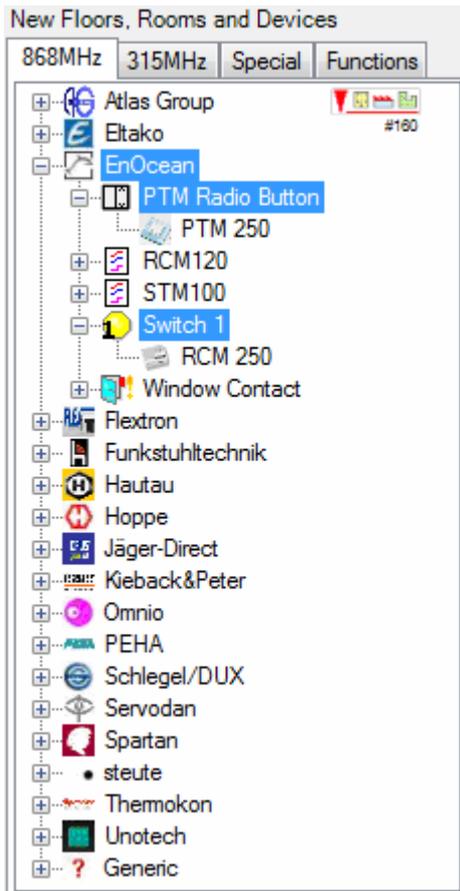
Tree views

myHomeControl used tree views in different areas of the application.

There are two types of tree views:

- [New Floors, Rooms and Devices](#)
- [Used Floors, Rooms and Devices](#)

New Floors, Rooms and Devices



This tree view shows all elements (blocks) which can be inserted in the workspace area(s) on the left side of the tree.

 changes the sorting criteria between:

- manufacturers
- product types

#xxx: Amount of available items in tree view.

Drag new elements out of this tree view and drop them somewhere in the workspace area. See [Handling blocks](#).

Use the context menu (right mouse button) to get help on the selected element.

Tabs of the tree view:

868MHz, 315MHz

Each supported and enabled communication medium is presented by its own Product-Tab. Elements in these tabs represent real products.

Generic

If you can't find a certain product within this tab, refer to the tab "Generics". The blocks provided by this sub tree are generic. This means, they do not represent a certain product. They can be adapted by configuration to any product.

The EnOcean Radio System defines several profiles. These profiles define the data mapping within the EnOcean telegrams. Most devices are compliant with a profile.

The generic blocks support profiles corresponding to their kind, e.g. the RoomTemperatureSensor-block supports all profiles related to room temperature measurement. Configure the block to correspond to the required profile.

Special

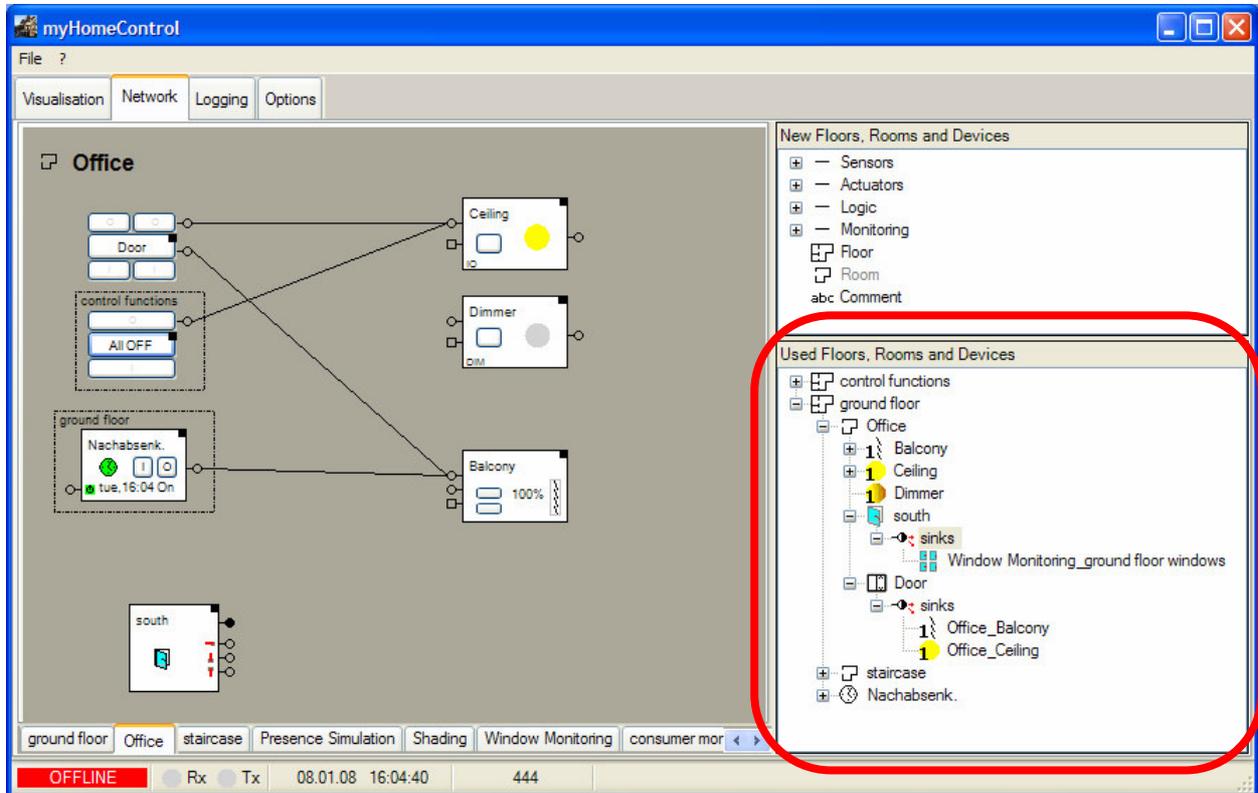
This Tab combines products which perform their own medium or do not fit efficiently into the product trees e.g. weather stations or cameras.

Functions

This tab provides logical and comfort functions as well as floors and rooms.

Used Floors, Rooms and Devices

This tree view gives the overview about all defined Floors and Rooms, all inserted blocks and their connections.

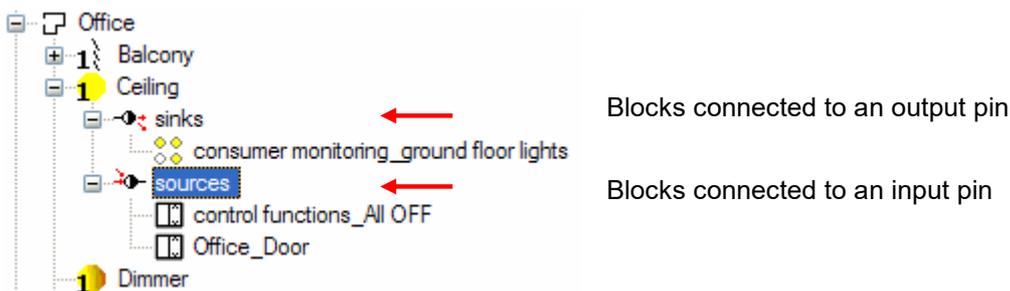


This tree view is used to insert existing blocks into the workspace areas and to get an overview about the connections of the blocks (see [List of connections](#)).

Drag existing elements out of this tree view and drop them somewhere in the workspace area. See [Handling blocks](#).

Double click an element to navigate to it, e.g. a double click on a room element opens the corresponding network view in the left side working area. The right mouse button opens the corresponding context menu.

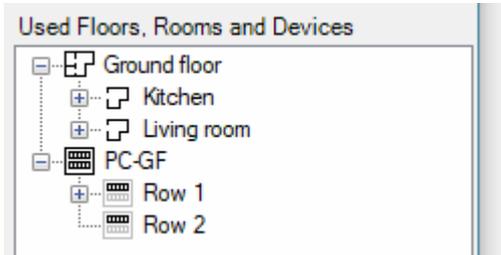
List of connections



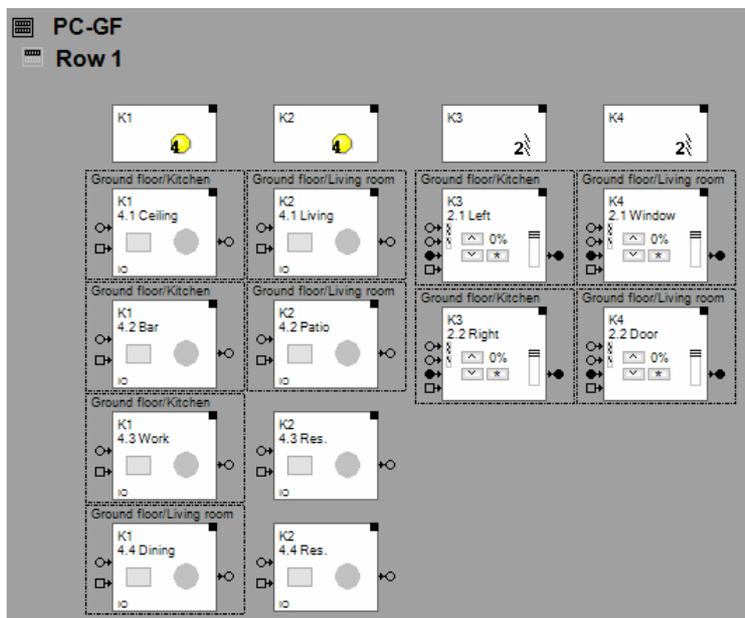
There might be connections to block in other rooms. Depending on the actually shown room, not all connection to or from a block might be visible in the actual workspace area. Therefore the presentation of the connections in the tree view might be helpful.

Power cabinet and Rows

Beside Floors and Rooms there is also the opportunity to create power cabinets and installation rows. This is helpful to in case rail mounted devices are used.



Similar to rooms there is an individual network available for each row in the power cabinet.



Insert all devices of the corresponding row.

If multiple EnOcean gateways are used in the project, select the power cabinet in the floor->gateway assignment list. See [Floor assignment of the Gateways](#).

Process Interface

myHomeControl supports several transceiver types and field bus nodes with their dedicated protocols.

Refer to [Options/Communication](#)

Settings

Within the Settings tab the general settings might be adjusted.

Project

Project specific information as name, identification number, version.

Name

Menu: Settings / Project

Name of the project. Any combination of characters and figures.

Number

Menu: Settings / Project

Identification number of the project. Any combination of characters and figures. Is optionally.

Version

Menu: Settings / Project

Version of the project. It is recommended to increase the version when changes to the project have been done.

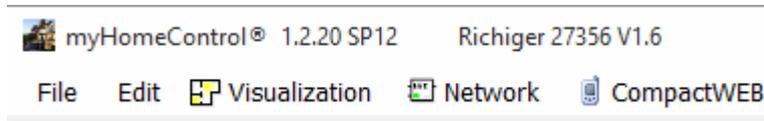
This eases the management of different project versions.

History

Menu: Settings / Project

Free text field to store additional project information or to maintain a version history.

Projectname, -number, -version will be shown in the header line of the main window.



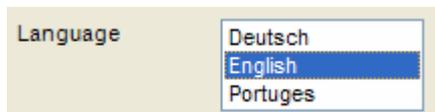
This information will be used to create a default file name to save the project.

General

This group provides general configurations.

Language

Menu: Settings / General



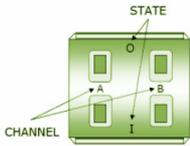
Select the language according your requirements. All shown texts will be translated immediately. Please take in account that the manually given texts will not be translated.

There is also an opportunity to append a supplementary language. Refer to [appendix D](#) for further details.

PTM mounting

Menu: Settings / General

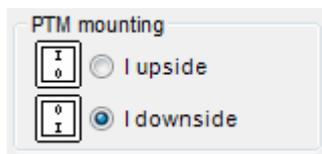
Rocker push buttons contain the EnOcean transmitter by means of the PTM module. The PTM module has two sides, the I and the O. There are indications on the backside of the module showing which side is what.



Regard the indications on the PTM module for mounting. All rocker push buttons (PTM) should be mounted the same way.

myHomeControl requires this configuration for correct visualization of button operation within the networks.

This setting defines the orientation of the PTM module (I top or I bottom) when mounted.

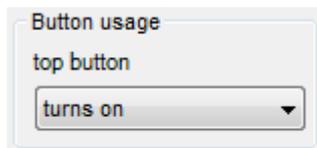


← default orientation for mounting

Refer to Menu [Settings / General / Button usage](#) as well.

Button usage

Menu: Settings / General



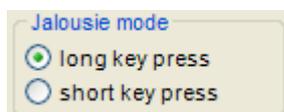
Is the upper button used to turn on or turn off?

Background:

The various component manufacturers give rules how the rocker push buttons are to be mounted e.g. O to top / I to bottom.

Some actuator types offer the opportunity to define which of the buttons are used to turn on / turn off during the teach in process. This enables the user to define which of the buttons is used to turn on. This may result in the situation where the I-button is to the bottom (according the rules of the manufacturer) but the O-button is used to turn on. In this case the O-button creates [ON commands](#) in the networks.

Jalousie mode

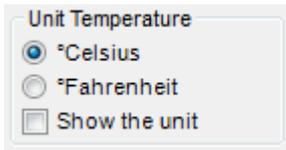


There are two different types of blind actuators:

- long key press:
the blind runs to its end position in case the key is pressed for a long period of time and it adjusts if the key is pressed for a short period.
- short key press:
the blind runs to its end position in case the key is pressed for a short period of time and it adjusts if the key is pressed for a long period,

This setting defines which type of jalousie actuators have been installed.

Unit Temperature



This setting defines the unit of the temperature values.

Show the unit controls whether the unit shall be shown beyond the temperature values or not.

Sample: 21.4° or 24.1°C

Public Holidays

Menu: Settings – General – Public Holidays

Considering the public holidays

Check this box in case public holidays shall be considered by the clock functions. Holidays are handled like Sundays.

Import the public holidays

There are 2 opportunities to import holiday definitions:

1. Open dialog “public holidays” by clicking the button “public holidays”. This dialog provides a button to import a holiday definition file.
2. Main menu: File – Import/Export – Import the public holidays
This menu is also available in presentation mode.
3. Control dialogue of the clock timer
Use button  to open a dialog providing an import feature for public holiday definitions.

Holiday definition file

Use a XML file for the holiday definitions:

```
<?xml version="1.0" encoding="utf-8"?>
<Holidays xmlns="http://myHomeControl.ch/Holidays.xsd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="Holidays.xsd"
  Version="1" Id="{3007FB5C-7369-4781-900E-642CFCDF5047}">

  <DateElement Date="25.03.2016" Description="Good Friday"/>
  <DateElement Date="28.03.2016" Description="Easter Monday"/>
  <PeriodicDateElement Day="1" Month="5" Description="Labor Day"/>
  <DateElement Date="05.05.2016" Description="Ascension Day"/>
  <DateElement Date="16.05.2016" Description="Whit Monday"/>
  <PeriodicDateElement Day="25" Month="12" Description="Christmas"/>
  <PeriodicDateElement Day="26" Month="12" Description="St Stephens's Day"/>
  <DateRangeElement StartDate="25.07.2016" EndDate="14.08.2016" Description="vacation"/>

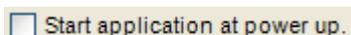
</Holidays>
```

- o **DateElement:** dedicated date as holiday
- o **PeriodicDateElement:** periodic date. Valid every year.
- o **DateRangeElement:** from-to e.g. to define vacation periode.

When the file is imported all holidays already loaded into the project database of the years defined in the file are removed from the project database.

The file may contain holiday definitions of different years.

Autostart



The program registers itself in the registry of the operating system to be started automatically at power up of the computer.

myHomeControl® runs as a standard application, not as a background service. Therefore the auto start works only after a user has been logged in.

If the option „Start application at power up“ has been checked, **myHomeControl**® registers itself within the Windows registry to be started automatically at user logon. This is a similar mechanism to the auto start group, which can be found under Start->Programs->Autostart. During user logon, Windows check for applications indicated to be started and runs them.

Windows updates often require reboots after they have been processed. To enable the auto start of **myHomeControl**® a automatic user logon is required. To configure WindowsXP to automatically logon a user, following Keys have to be set in the registry. Use the regedit to edit the registry entries.

Navigate to: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlogon

Edit or append following keys:

"DefaultUserName"="Name"

"DefaultPassword"="password"

"AutoAdminLogon"="1"

For Windows7 a different procedure is requested:

- Press the Windows key + R on your keyboard to launch the “Run” dialog box.
- Type in control userpasswords2
- Press Enter. The User Accounts window will display.
- Uncheck the option “Users must enter a user name and password to use this computer”
- Click “OK”
- You will then be prompted to enter the current password and confirm it.
- After doing so, you will no longer be prompted to enter your password upon login.

Application starts in presentation mode

Application starts in presentation mode

If this option is checked, then the application always starts up in presentation mode. If the option is unchecked, then the application restarts in the same mode as it has been closed.

Backup the project to the cloud

Backup the project to the cloud

If this option is checked, then the application backups the project to the cloud on a server at BootUp. Backup is started after any changes of settings (also by the end user).

The backup is used to restore a computer after a crash. Therefore a new pc can be setup with myHomeControl. When it starts it will restore the correct version of the application as well as the latest version of the project out of the cloud. Refer to chapter [System recovery](#) for details.

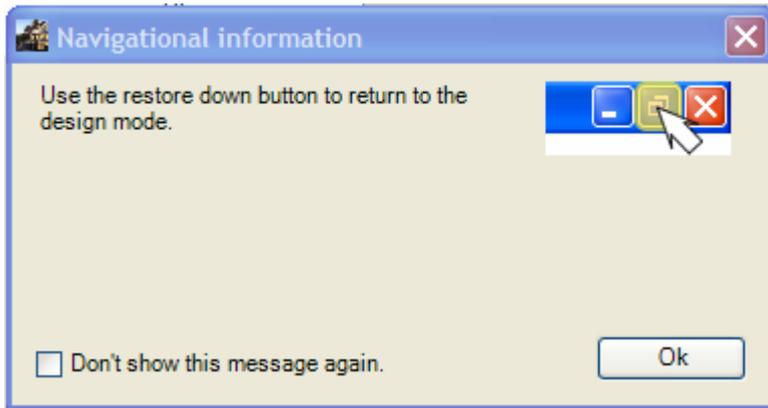
The backup copy of the project is stored in encrypted form und is not readable for third parties. The license dongle is used for the encryption. Decryption is only possible with the usage of the same license dongle. Therefore only the owner of the license dongle is able to restore the project.

Reshow hidden messages

Reshow hidden messages:

Press the button on the right to enable the locked info messages again.

Example: The following message will not be shown any more if you check the checkbox “Don’t show this message again”.



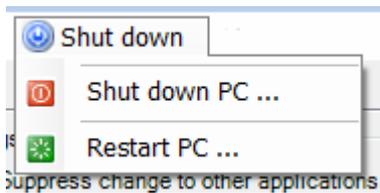
Check for updates

If this setting is checked, then myHomeControl checks for updates at every program start in [design mode](#) (not in [presentation mode](#)). In case a new update is available, then a dialogue pops up containing information about the update and offering the user the opportunity to install the update.

Shut down

Very often the power button is not accessible by the user With wall mounted PCs. The user doesn't have an opportunity to turn off or reboot the computer in case the power button is not accessible.

There is an additional "shut down" menu, which can be enabled by this configuration item. The menu offers the user the opportunity to shut down and reboot the computer.



Splash Screen

Select a picture file which is used as splash screen during startup of the application.

Enabled Media

This group box provides checkboxes to enable communication medias, which will be shown in the [tree view of the new devices](#).

Corresponding [communication protocols](#) are only enabled for the selected medias.

Settings of the visualization

This group provides configuration of the visualization screen.

Change Application

Suppress change to other applications.

If this option has been activated, changes to other applications will be suppressed during the presentation screen is active. Also termination of the application will be suppressed.

This option should be activated in case myHomeControl shall run as the only application on the computer.

Following windows mechanisms will be deactivated:

- Start menu
- Task bar
- Windows-Button

- Alt-Tab
- Alt-F4
- Minimizing and closing of the window.

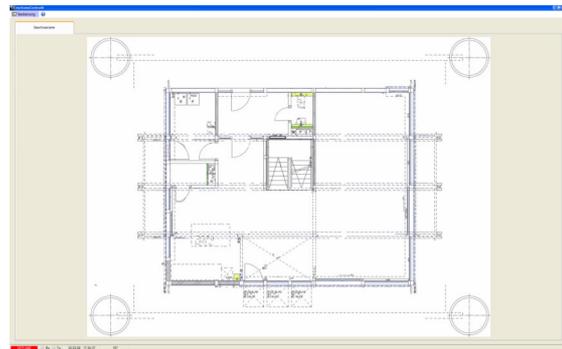
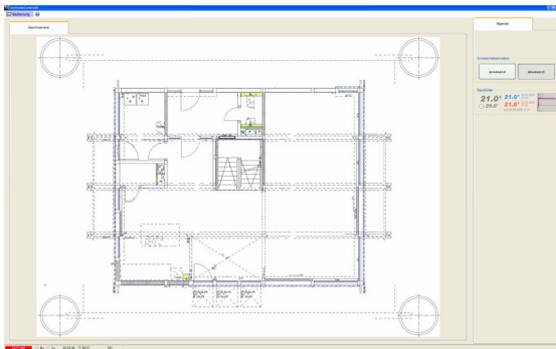
When returning to the design mode, all mechanisms will be reactivated.

The combination of the keys Ctrl-Alt-Del is not locked to enable the user to start the task manager in very special cases.

Display General Controls

Display area for general functions.

This option defines if the Tab Control for the general functions within the visualization screen shall be displayed.



Indicate Radio Transmission



If this option has been activated, then the symbol beside will appear in case radio telegrams, pending to be send, will jam up due to the limited capacity or the transceiver. This is typically the case if a „Central Off“ button is pressed.

Presentation Mode

Menu: Settings / Visualization

This configuration item defines the appearance in the presentation mode. Following appearances are available:

Appearance	Behavior
Windows	The floor plans and visualization elements are shown within a maximized windows form.
Full Screen	The floor plans and visualization elements are shown using the full screen. Window borders, title bar, status bar and Windows taskbar are hidden.
Full Screen without menu bar	Same as Full Screen, but the menu bar is hidden as well. This mode requires the usage of a Design Mode Element .

Die Vollbild-Einstellungen eignen sich besonders für kleine Bildschirme.

This option is useful in case a small screen shall be used.

Suppress the first click when Windows screen saver is active

On some touch panel PCs the first touch is forwarded to **myHomeControl** even if the user touches the screen to deactivate the screen saver. This leads to missoperation by means of accidentally switching unwanted lights.

In case this option is checked, then **myHomeControl** ignores the first touch in case a screen saver was active when the screen gets touched. The first touch is only used to deactivate the screen saver.

Screensaver

Menu: Settings / Visualization

myHomeControl provides its own screen saver in case the embedded screen saver of windows doesn't fit the requirements.

Show the unlock slider shows a slider similar to the unlock slider of an iPhone to return from the screen saver to the normal screen.

There is the opportunity to configure a password. If the password only consists of figures, then a number input dialog is going to be shown to enter the password. If the password consist also of characters, then a whole keypad is shown.

Mainpage

Menu: Settings / Visualization

visible	Tab
<input checked="" type="checkbox"/>	First floor
<input checked="" type="checkbox"/>	Basement
<input checked="" type="checkbox"/>	Ground floor

These settings configure the behavior of the „[automatic return to the main page](#)“ feature.

The checkbox in the left top activates the feature.

Size of Symbols

Menu: Settings / Visualization

This option defines the size of the symbols of following visualization elements:

- Lamp symbol of switching actuator and dimmer (not the illumination area)
- PIR symbol of the PIR (not the observation area)

The given value is valid for all pages of the visualization.

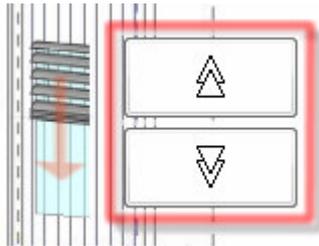
Animate Elements

Menu: Settings / Visualization

Activates different visual effects like the fading of the lights. This may consume too much CPU power on certain computers or may delay the screen refresh using remote access. Therefore this effect can be disabled.

Display time of Control Dialogs

Menu: Settings / Visualization



Display time of Control Dialogs [secs]

Control dialogs, as the one show on the left side, close automatically, in case they stay idle for the duration set in the input field above.

These setting is valid for all control dialogs closing automatically.

In case a control dialog closes before it becomes visible on a mobile phone due to the delayed screen update, the display time of the control dialogs must be enlarged. For details refer to [Remote Control via Mobile Phone](#).

Dimmer brightness control slider indication mode

Menu: Visualization / Visualization

Dimmable lights might be configured either as dimmer or as switch (refer to the properties dialog of the [dimmer block](#)). “Switches” cannot be dimmed via the command input of the network block. Only switching on and off is enabled. In case the “Switch” option is has not been activated, then dimmers can be switched on and off as well as dimmed via the command input of the network block.

The brightness of **all** dimmable lights is individually adjustable by the brightness control sliders, also those configured in switch mode. To indicate the user the availability of the brightness control slider, the appearance of a slider symbol may be configured.



The following configuration item sets up the appearance of the slider symbols:

- none** The slider symbol will not be shown at all.
- Dimmermode only** The slider symbol will only be shown on dimmable lights not configured in switch mode.
- Dimmermode and Switchmode** The slider symbol will be shown on all dimmable lights.

Logging

This group provides configuration of the different recordings.

Record state changes and events

Menu: Settings / Logging



Activates the recording of received and transmitted radio messages, changes in block states etc.

These recordings will be stored into the Logging.mdb – database. This requires a certain space on the hard disk of the system. The maximum file size will be limited according to the setting.

If the maximum file size for the Logging.mdb has been reduced to a value smaller then an existing Logging.mdb, the existing Logging.mdb will not be reduced to the given value. But it will not grow any more.

If the used disk space should be released, then stop myHomeControl and delete the Logging.mdb – file. At the next start myHomeControl will create a new Logging.mdb. This file will not grow more then the given maximum file size.

Record weather data

Menu: Settings / Logging

This configuration item belongs to the functions: [Weather station](#).

This configuration item will become active as soon as a weather station has been inserted into the project (e.g. a [weather station network block](#)).

Activates the recording of weather data.

These recordings will be stored into the Weather.mdb – database. This requires a certain space on the hard disk of the system. The maximum file size will be limited according to the setting.

Path for the individual log files

Various sensor objects provide a [individual logging feature](#) to log the received signal values into individual log files.

Define the path where all the log files are to be stored.

Old log files will be discarded after the given period of time.

City / Coordinates

Menu: Settings / City/Coordinates

This configuration item belongs to the functions: [Day Light](#), [Shading](#), [Absence](#).

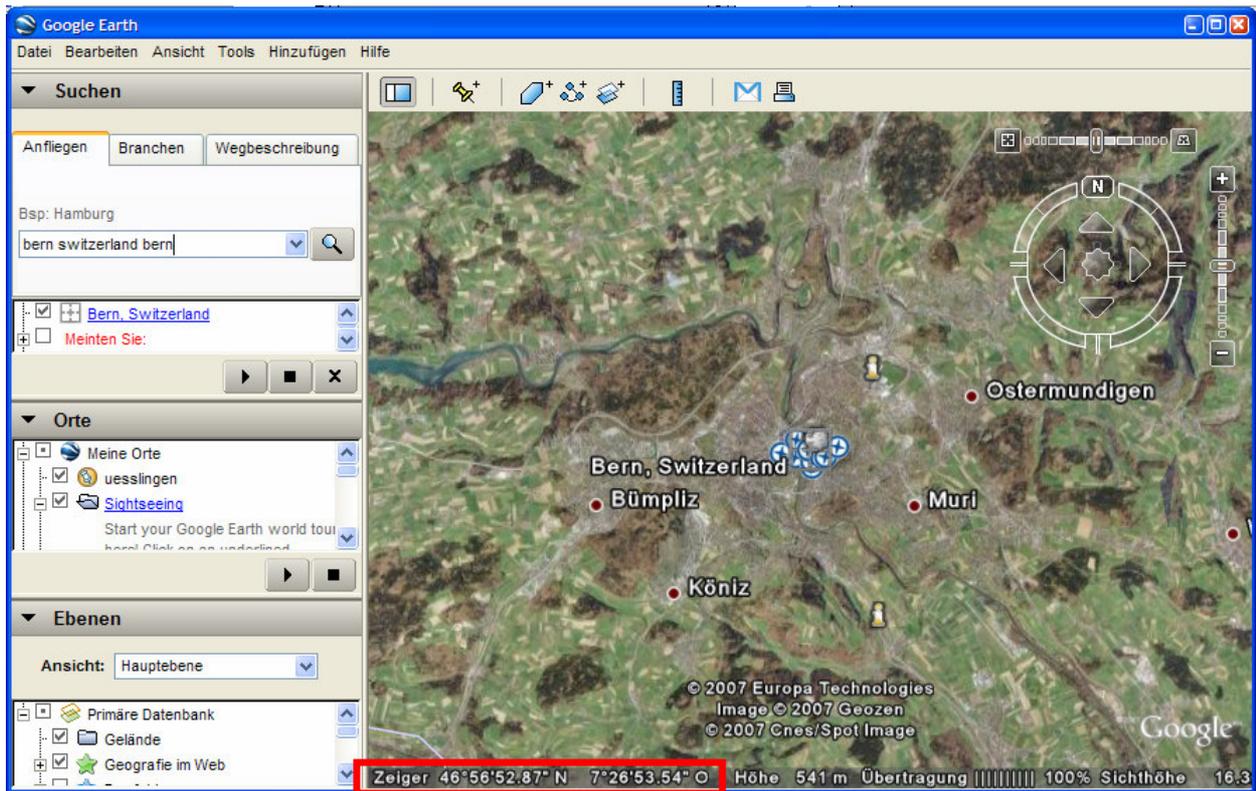
To calculate the position of the sun, the location of the building is required. Longitude and latitude has to be set to correct values.

It is sufficient to use the coordinates of the next main city. The values don't require high accuracy (accuracy around +/- 0.1 Degree will be sufficient). Usually it doesn't matter if light switches on one or two minutes earlier or later.

Latitude northern coordinates require a positive sign +
 southern coordinates require a negative sign -

Longitude eastern coordinates require a positive sign +
 western coordinates require a negative sign -

To evaluate the coordinate values refer to one of the given links or to Google-Earth.



These are the coordinate values you may enter. The N/S value corresponds to the latitude, the E/W value to the longitude. Regard the signs when copy the values to **myHomeControl**.

Email

Menu: Settings / Email

This configuration item belongs to the functions: [send sms](#), [send email](#), [receive email](#).

Enter your account information into the Email-box of the general settings page. These information will be used by the [send mail](#)-, [send SMS](#)- and [receive email](#) blocks.

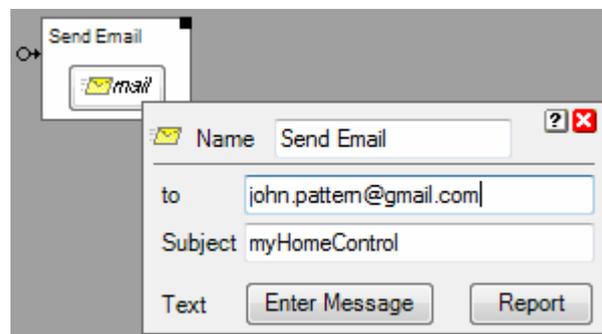
There is the opportunity to disable the **SMTP Server** entry. If the entry is disabled (unchecked) then no email nor sms will be sent out by the system. This feature is helpful in case the project is loaded on a foreigner computer for analysis or debugging purposes e.g. the computer of the integrator.

Quick check:

The account information shown above might be used for a quick check to send email. The password is: **myHomeControl_**

Fill in the receivers email address and the subject into the corresponding fields of the email – block and press the mail-button on the surface of the block.

The Report button might be used to check if the mail was sent successfully.



The email is going to be sent to the receiver passing the email-account given on the general settings page.

Check your email program to find your correct account settings.

POP3/IMAP Server

This entry is only required if "[receive Email](#)" blocks are used in the project. According to the given Address myHomeControl uses the POP3 or IMAP protocol to read the mailbox.

Inputfolder

This entry names the inputbox used to check for new mails. Usually "Inbox" is used.

Send system warnings

This setting controls whether system warning like communication failures, missing radio messages, etc. are going to be reported via email.

Addresses1, Addresses2

Enter default receiver email addresses here to be used by various send email blocks within the networks. Separate addresses by;

The [visualization element "email settings"](#) can be used to give the user access to Addresses1 and Addresses2.

Remarks concerning GMAIL

To send mails via a gmail-account "unsecure Apps" must be enabled in the settings of the gmail account.
Refere to gmail-account / security / access to less sercure apps

Login to your google account form the machine running myHomeControl.

GSM Modem

Menu: Settings / Restart PC

Required setting for the modem must be given here. Only 1 GSM modem can be operated by myHomeControl at a time. All [Send-SMS-Blocks](#) use this modem to send there messages.

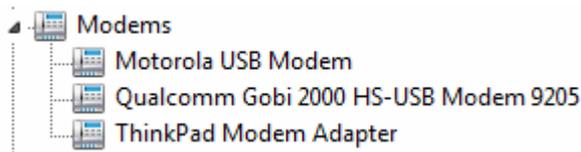
The AT-Commands are used. Therefore any modem supporting these commands might be used.

Modem enabled

Enables/Diables the modem. In case modem is disabled no messages are been sent. This feature is helpful in case the project is loaded on a foreigner computer for analysis or debugging purposes e.g. the computer of the integrator.

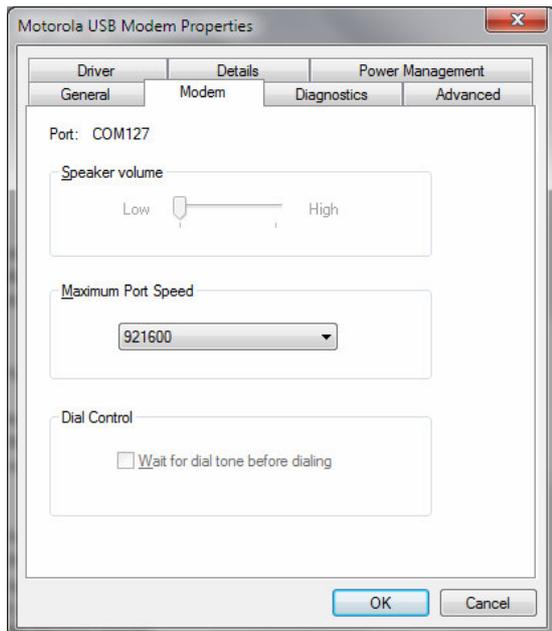
COM-Port

Port used for communication with the modem. The modem appears in the device-manager under Modems:



Sample of various modems

Select the modem in question. Open properties dialoge via context menu:



← COM-Port of the modem

Pin

4-figures PIN of the SIM card

Service Central Address

Enter number of service central. The number is shown automatically in case it is stored on the SIM card.

Provider

Shows the name of the provider in case the modem is logged in into a radio network.

Login status of the modem is shown by background color:

green: modem is logged in

red: modem is not logged in.

read

reads information from SIM card.

set

Sets PIN and number of service central.

Addresses1, Addresses2

Enter default receiver phone numbers here to be used by various send email blocks within the networks. Separate numbers by ;

Restart PC

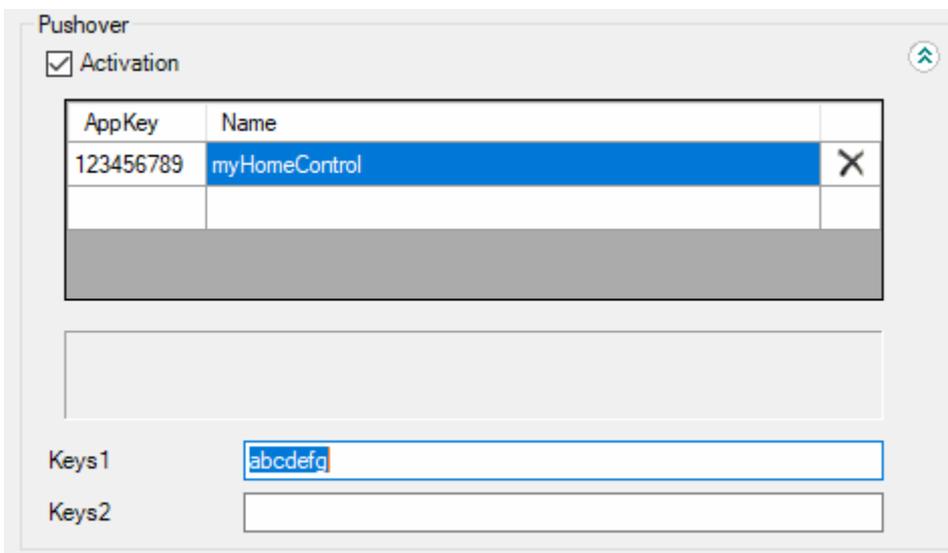
Menu: Settings / Restart PC

This configuration item defines the interval to restart the PC periodically.

 **Pushover**

Menu: Settings / Pushover

This configuration item enables the Pushover messages.



Pushover

Activation

AppKey	Name	
123456789	myHomeControl	X

Keys1:

Keys2:

AppKey: Application/API Token taken from the Pushover-Website

Name: free name for the application e.g. myHomeControl.

Keys1/2: UserKey of the receiver of the message. Keys1 and Keys2 are used by the pushover – send message blocks.

Setting up

Follow these steps to setup Pushover:

1. Sign in at www.pushover.net

- Register **myHomeControl**® as an application under “Your Applications”.
Click to “Register an Application/Create API Token”
Edit Application

Name:
This name should be short (20 character maximum), such as "Nagios", "Adium", or "Network Monitor". If messages are sent with no title, this name will be displayed.

Type: ▾

Description: x

URL:
If this is a public app/plugin, you can include a URL to point to a homepage, Github repo, or anything else related to the app.

New Icon:
To customize your app's notifications, upload a 72x72 icon in PNG format (transparent background preferred). Any images not 72x72 will be resized.

Delete Icon: Instead of uploading a new icon, you may delete the application's icon. Messages will show the default Pushover icon.

- Click “Save Changes” → the API Token/Key is shown.
- Copy the API Token/Key to the data grid in the general settings / Pushover section in **myHomeControl**®.
- Navigate back to the Pushover dashboard by clicking “Pushover” in the menu.
- Install the Pushover-App on the mobile devices in question. Configure them to sign in to your Pushover account.
- Register your mobile devices on the Pushover dashboard.

Telegram

Menu: Settings / Pushover

This configuration item configures the Telegram message service.

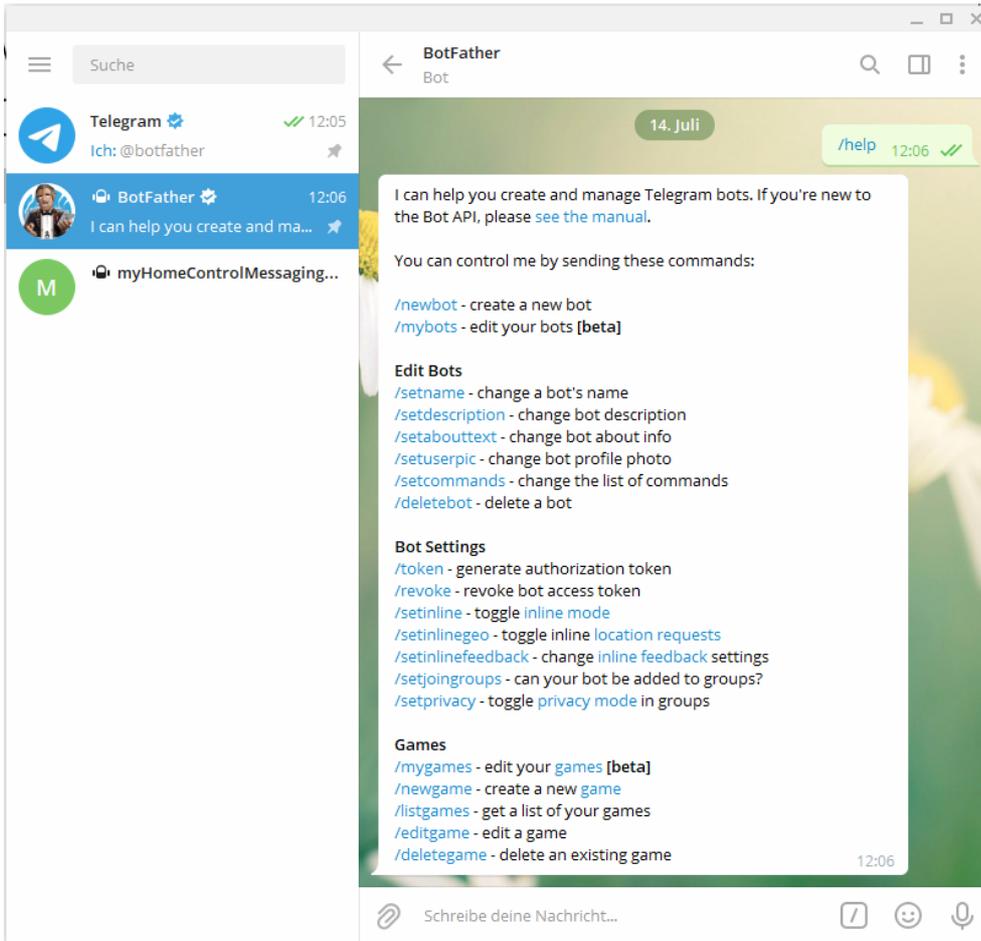
In order to be able to send Telegram messages, so-called bots have to be created. Bots are Telegram accounts that do not require a telephone number.

Several bots can be created on which you can then subscribe to receive the bot's messages.

For all messages that **myHomeControl**® sends, you can define which bot is used to send the message. All Telegram users registered with this bot receive the message sent by **myHomeControl**®.

How to create a bot

Enter the following message [@botfather](#). A new contact "BotFather" opens. Switch to this contact. If the chat is still empty enter [/help](#).

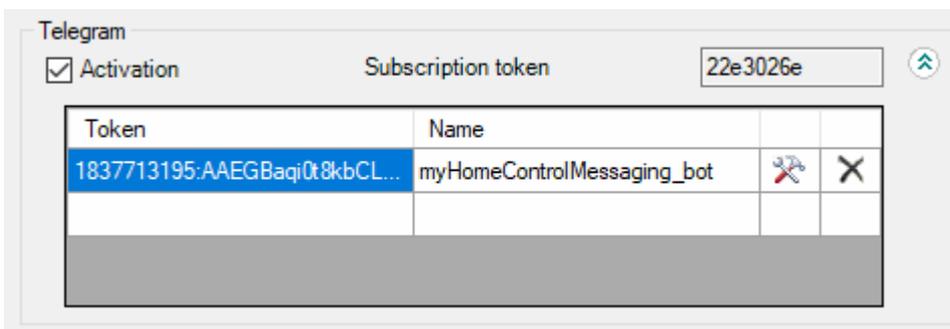


Click on `/newbot`. Enter the name of the bot. Think about which messages this bot should be the sender for, when selecting the name, e.g. myHomeControl_ <name of the house>. Now enter the same name again from username and add "_bot".

Now the bot is created and the token for the HTTP API is displayed:

xxxxxxxxxxxxxx: blablablablablalbla

Copy this token and paste it in **myHomeControl®** under general settings/Telegram in the left column of the table. Create a new line for each bot:



The bot defined in this table can be selected in the function blocks [Send telegram message](#). The block then sends its messages via the selected bot. The bot is, so to speak, the sender of the message.

In order to receive messages from these bots, you have to register with this bot. Select the bot as a contact and send the following message: `/help`

Now click on `/subscribe` to receive future messages from this bot.

Enter the Subscription token when requested, as shown above.

How does a third person subscribe to the bot's reports?

1. Enter the bots name into the search field of the telegram app.
2. Select the chat
3. send [/help](#)
4. subscribe for messages [/subscribe](#)

SOAP

Menu: Settings / SOAP

This configuration item enables the SOAP service.

The soap service is the open interface to control **myHomeControl**® by an overriding control system, building management system or mobile app. This interface provides functions to retrieve the actual states of the various objects (blocks and visualization elements) as well as controlling them (turn lights on/off).

To access the SOAP interface following url must be used:

http://<Address>:<Port>/soap.asmx

<Address> Address of the service.
 Intranet: IP address of the PC running **myHomeControl**®
 Internet: Public Domain or domain defined by a DNS service.

<Port> port to be used

To retrieve the WSDL use following URL:

http://<Address>:<Port>/soap.asmx?WSDL

Object related services:

There are dedicated services available for most of the object types provided by **myHomeControl**®. These services can be used to retrieve the state of the objects as well as to control them.

Each of the objects, shown by the tree "[used Floors, Rooms and Devices](#)", is referenced by a global unique identifier (GUID). When consuming a service the GUID of the object in question has to be used. A list of all devices including there GUIDs and object types can be retrieved using the service „getProjectStructure () “ (see below).

Special services:

Project model

To consume a service for a specific object the GUID of the object must be used. To get a list of all the objects an there GUIDs us the service „getProjectStructure () “. This service answers with an XML string showing the whole project structure including floors, rooms and objects.

Additionally the service returns a checksum corresponding to the actual project structure.

The service „getProjectStructureCKS () “ returns only the checksum of the project structure.

The checksum might be used to optimize the connection process between a consumer of the services and **myHomeControl**®. The whole project structure must only be retrieved and process in case the checksum has changes since last connection.

State observer service

This service might be used for efficient monitoring of the states of various objects. Instead of polling the states of all the objects, the state observer service can be used. The consumer calls the service periodically to get a list of the objects where states have changes since last call.

<pre>„SCMS_attachBlock(Guid[] BlockGuids) “</pre>	<p>Give a list of the objects to monitor. This service can be called multiple times to append objects to the “monitoring list”.</p>
<pre>„SCMS_detachBlock(Guid[] BlockGuids) “</pre>	<p>The given objects will no longer be monitored.</p>
<pre>„Guid[] SCMS_getChangedStates () “</pre>	<p>This service is to be consumed periodically. It answers with the list of object, where state has changed since last call.</p>

RestAPI-Service

Menu: Settings / RestAPI

This configuration item enables the RestAPIs.

The RestAPI provides functions to read and control various objects of the **myHomeControl®** project. This is the preferred interface for third party applications.

There are two RestAPIs available:

- local RestAPI**
 The local RestAPI is intended to be used in the local network.
 Url: **http://<IP-Adresse>:<Port>/**
 <IP-address> Address of the Server.
 Intranet:: Ip address of the PC running **myHomeControl®**
 Internet: requires DynDNS.
 <Port> configured port
- Cloud based RestAPI**
 The cloudbased RestAPI is intended to be used from the internet.
 Url: <https://www.bootup.ch/mhccloudserver/api>

Both APIs can be enabled individually to confirm to dedicated privacy policies. Authentication is done by an APIKey. The key can be modified if both APIs are disabled. Each call to the RestAPI must contain the APIKey in the authorization header (cookie): „X-API-KEY“:“xxxxxxxxxxxxxxxxxxxxxxxxxxxxx“

Sample for local API:

```
curl -H "X-API-KEY:e5f6edcd-2e97-4b21-8c11-4a2e497f8ff0" http://192.168.1.37:4443/v1/project
```

Sample for remote API:

```
curl -H "X-API-KEY:e5f6edcd-2e97-4b21-8c11-4a2e497f8ff0"  
https://www.bootup/mhcloudserver/api/v1/project
```

The specification of the RestAPI is to be found under Swagger-Hub. Swagger-Hub provides the opportunity to generate client stubs for various systems.

<https://app.swaggerhub.com/apis/BootUp/myHomeControl>

Postman is a good tool for testing purposes: www.postman.com

Booking Services

Various booking services can be connected to myHomeControl. This connection might be used to control a room or its heating according to the booking state of the room.

This feature requires license option: [Booking system](#).

Select the booking service in question on the general settings page in section "booking system"

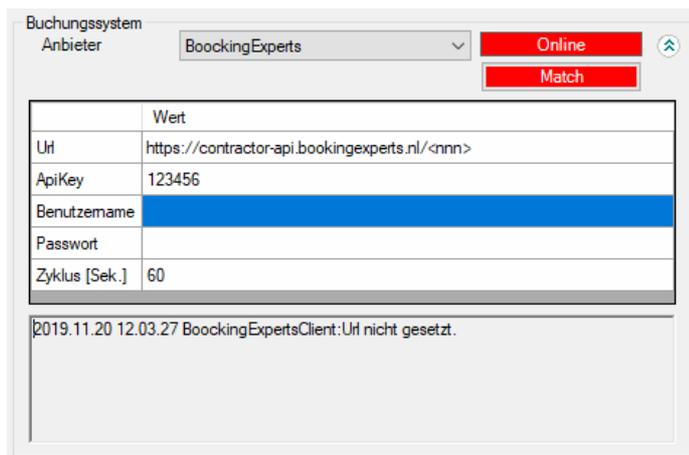
Online shows the actual connection state of the booking service:

- red: disconnected
- green: connected, ok

The button "Match" shows how the information read from the booking service corresponds to the [booking-blocks](#) of the myHomeControl project:

- red: For some of the booking-blocks information from the booking service is missing.
- green: Everything matches, ok
- orange: There is info read from the booking service, which can't be assigned to any of the booking-blocks. But all blocks are satisfied.

Booking Experts



	Wert
Url	https://contractor-api.bookingexperts.nl/<nnn>
ApiKey	123456
Benutzername	[REDACTED]
Passwort	[REDACTED]
Zyklus [Sek.]	60

2019.11.20 12.03.27 BookingExpertsClient: Url nicht gesetzt.

AIDA X

Buchungssystem Anbieter: AIDAX Online Match

	Wert
Url	http://192.168.1.10/bookinginfo/
ApiKey	CC70A11E-B5DF-41FC-8A56-0117DFC4D32F
Zyklus [Sek.]	60

2019.11.20 12:53:28 AIDAXClient :192.168.1.10:
Ungültiger URI: Das URI-Format konnte nicht bestimmt werden.

Google Calendar

Google Calendar might be used as booking service. Create an individual calendar for each room. Paste the calendar ids into the table.

Buchungssystem Anbieter: GoogleCalendar Online Match

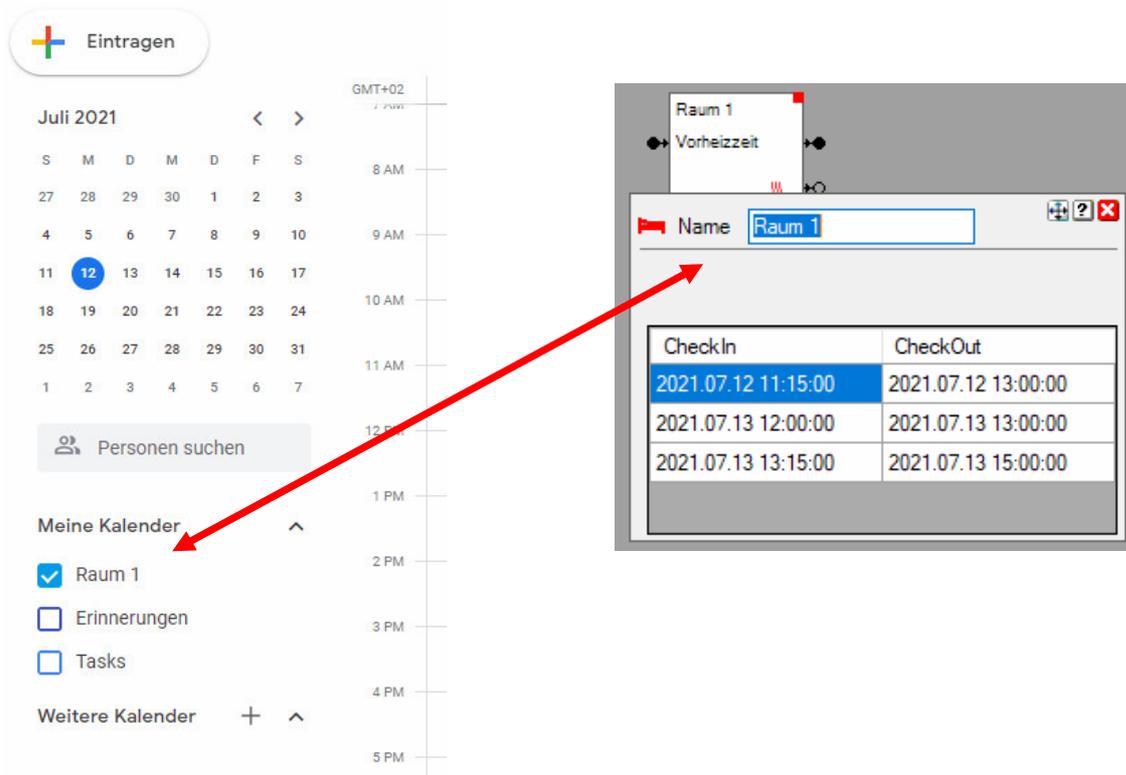
Simulation

	Wert
Zyklus [Sek.]	60
ga-muhameed...@gmail.com	Raum 1
h...@group.calendar.google.com	Raum 2
u...@group.calendar.google.com	Raum 3

2021.07.12 17:36:54 aquiring data ...
2021.07.12 17:36:55 processing reservations ...
2021.07.12 17:36:55 data received. (rooms:3/reservations:4)
2021.07.12 17:37:55 aquiring data ...
2021.07.12 17:37:56 processing reservations ...
2021.07.12 17:37:56 data received. (rooms:3/reservations:4)

Getting started:

1. Create a google account
2. create a calendar for each room. The name of the calendar must match the name of the booking-block.



3. Setup new calendar. Name = room name

Neuen Kalender einrichten

Name
Raum 1

Beschreibung

Zeitzone
(GMT+02:00) Mitteleuropäische Zeit - Zürich

click button „create calendar“

4. Go back to calendar view
5. click 3 dots right of calendar name and select menu “Options for xxxx” / “Settings and sharing”.
6. scroll down to “Access permissions for events”
7. check “make available for the public”
8. scroll down to “Integrate calendar”
9. copy Calendar ID and paste it to a new line of the table within myHomeControl

Each entry of the calendar, independent of its name, will be used by the booking-block as booked period in time.

iCal (.ics-File)

Links to files with ending .ics, which correspond to the iCal standard, can be processed by myHomeControl.

Various calendar systems provide the opportunity to integrate with other systems via the iCal interface, e.g. Office365-exchange server or google calendar.

Paste the links to the table of myHomeControl. One calendar per room:

Buchungssystem Anbieter iCal Online ⌄

Simulation Match

	Wert
Zyklus [Sek.]	60
https://calendar.google.com/calendar/ical/13tvcmgv8ih5sdiqdhkmc...	Büro
https://outlook.office365.com/owa/calendar/8f1e2dded914482682f9...	Raum Showroom
https://outlook.office365.com/owa/calendar/de675d1e2a4949ada63...	Raum Milano

2021.10.06 13.45.39 aquiring data ...

2021.10.06 13.45.47 processing reservations ...

2021.10.06 13.45.47 data received. (rooms:3/reservations:1)

2021.10.06 13.45.49 aquiring data ...

2021.10.06 13.45.50 processing reservations ...

2021.10.06 13.45.50 data received. (rooms:3/reservations:1)

Apple HomeKit

This feature requires license option: [Apple HomeKit](#).

Menu: Settings / Apple HomeKit

This configuration item enables the Apple HomeKit-Bridge. This feature requires license option: [Apple HomeKit](#).

The manual can be download:

https://www.myhomecontrol.ch/Loesungen/BootUp_mHC-ApplNote_AppleHomeKit_ENG.pdf

Amazon Alexa (Echo)

Menu: Settings / Amazon Alexa (Echo)

This configuration item enables the Alexa service. This feature requires license option: [Amazon Alexa](#).

Alexa can be used to control the **myHomeControl**® application. Alexa supports the languages English(U.S.), English(U.K.) and German.

To use the speech recognition following prerequisites have to be fulfilled:

- A WiFi network is required
- At least one Echo product is required
- An account at Amazon

Steps to setup the feature

Before the configuration of Alexa and myHomeControl takes place, an account at Amazon must be created:

- www.amazon.com

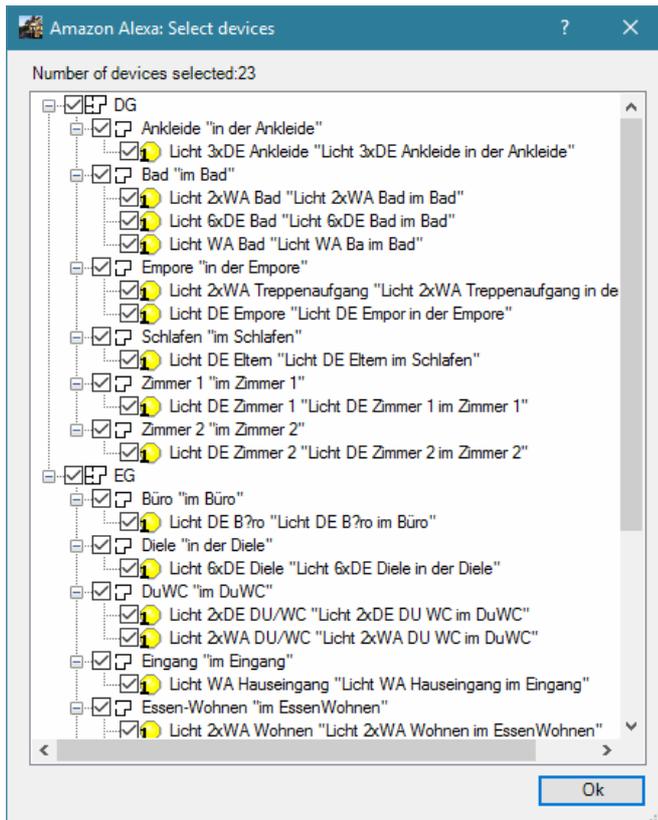
Then configure following settings within the general settings of **myHomeControl**®:

Amazon login user address (email)

Email address used as credential for the login to Amazon.

Select Devices

Select the devices to be controlled by Alexa. Click the corresponding button.



This dialog shows all **myHomeControl®** objects supported by Alexa.

Check the those devices which shall be controlled by Alexa.

Correct naming of the devices and the rooms has impact on the quality of the speech recognition service. Therefore consider the rules detailed in [appendix J: Naming conventions for Alexa](#)

To adjust naming of the devies and of the rooms, there are editing opportunities. Click the item in question with the right mouse button.

Adjust the item's name and choose if the name of the room shall be appended to the item name.

Consider that object names without appended room name must be unique.

Enable the service.

Start the Alexa app on a mobile device or use the browser version: alexa.amazon.com.

Perform following steps in the Alexa app:

1. Select the Settings tab and setup the Echo or Echo Dot.
2. Select the Skills tab and search for "myHomeControl"
3. Select the Skill "myHomeControl"
4. Enable the Skill with the button to right.
5. You get redirected to the login page of Amazon. Log in under the user name configured in **myHomeControl®**
6. After successful authentication click on "discover devices"
7. Found devices are shown in the "Smart Home" tab underneath "My Devices".
8. Go back to general settings of **myHomeControl®** and print out the phrases.

Everything is prepared now and Alexa can be used to control **myHomeControl®**.

Following conditions require to "Forget all devices" and then "Discover devices" within the Alexa App:

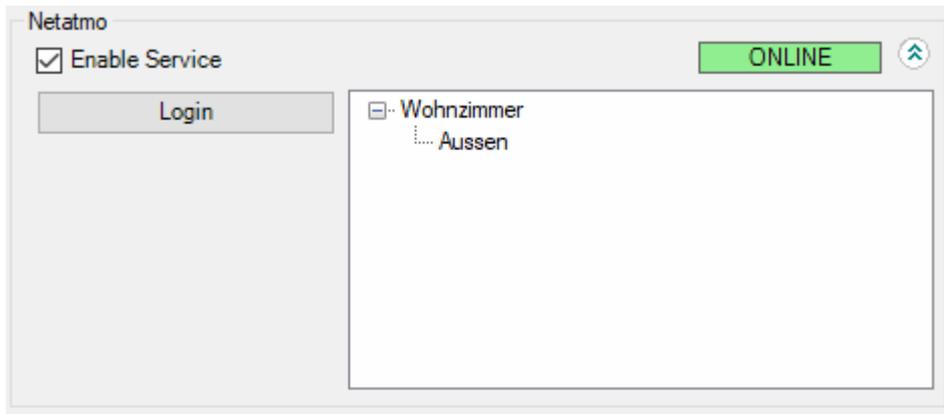
- an object of a device type which is controllable by Alexa has been added to the project.
- an object of a device type which is controllable by Alexa has been deleted from the project.
- an object has been renamed within the "Select Devices"-dialog.

Netatmo

myHomeControl supports weather stations and the corresponding sub units of Netatmo.

Before integrating the Netatmo devices into myHomeControl set them in operation according to the instructions in the Netatmo manuals. During the set in operation process you have to register the devices at Netatmo by giving an email address and a password.

Email address and password is also required to connect myHomeControl to the account at Netatmo. myHomeControl requires access to the account to read the weather values.



Click on "Login" to enter email address and password. Enable the service subsequently. The device tree is going to show the configured devices.

Select the Netatmo devices in the [product tree](#). You can find them under Special/Netatmo.

WEB

Menu: Settings / WEB

This configuration item belongs to the functions: [CompactWEB](#).

This group box contains the general settings for the WEB interface. These settings control if web content is going to be created and how it shall look like.

For details refer to chapter [CompactWEB](#).

Enable Compact WEB

Menu: Settings / WEB

This option enables the CompactWEB interface. In case it is checked, then **myHomeControl®** creates web pages, which can be browsed by any web browser. The presentation of the project is compact and suites also the needs of mobile phones. For further details refer to [CompactWEB](#).

Start WEB server

Menu: Settings / WEB

This configuration item belongs to the functions: [CompactWEB](#).

This option starts the associated WEB server, which provides the web content, generated by **myHomeControl®**, to browsers.

In case there is already an other WEB server installed on the computer, the [port number](#) 80 might be occupied. **myHomeControl®**'s WEB server has to be configured to avoid conflicts between the servers or other applications. Find hints to solve port occupancy conflicts in chapter [port number](#).

Access the WEB server from the Internet requires special, additional setting. Refer to [WEB Remote Access](#) for details.

Port Number

Menu: Settings / WEB

This configuration item belongs to the functions: [CompactWEB](#).

This setting defines the port used by **myHomeControl®**'s WEB server. To change Port Nr. uncheck the checkbox "[Start WEB server](#)".

Please consider following rules:

Port 80	This is the default port used by browsers if no port is given in the web address. The web pages can be browsed using following address (as an example) http://X.X.X.X (X.X.X.X means the IP address of the PC running myHomeControl®).
other Ports	If an other port has been selected, then the port has to be given with the web address: http://X.X.X.X:PortNr

In case there is already an other WEB server installed on the computer or port 80 is occupied by an other application, then an alternative port number has to be assigned. Occupied ports are indicated by a red background of the input field.

Typical applications occupying the port:

- a WEB server e.g. IIS from Microsoft
In case the web server is used, then the port within **myHomeControl®** has to be changed.
- **Skype**
The configuration of Skype might be changed to avoid occupancy of port 80.
See menu Tools->Options->Advanced->Connections
uncheck "Use port 80 and"

There is a tool available to evaluate the application occupying a port. The tool can be found under the menu: Start->myHomeControl->Tools->TPC-Port Occupancy Monitor

Provide static URL

This feature enables the static URL www.myHomeControl.ch/compactWeb.html to browse the CompactWEB. If this feature is enabled there is no need to retrieve the local IP address of the myHomeControl server.

This feature only works in the local network (same network as the myHomeControl server).

Operation mode:

myHomeControl sends every 5 minutes a message to the myHomeControl cloud containing the local IP address of the myHomeControl server. When browsing the static URL, the myHomeControl cloud will redirect the call to the IP address of the myHomeControl server and the server will show CompactWEB.

Secure Communication

Menu: Settings / WEB

This configuration item belongs to the functions: [CompactWEB](#).

This setting must be checked in case the web server is equipped with a certificate and uses therefore the HTTPS protocol.

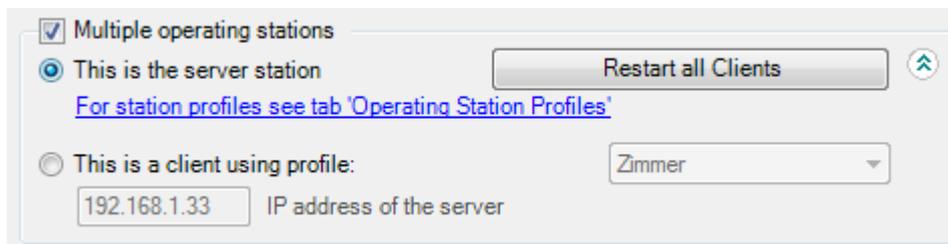
This setting controls the protocol used by the CompactWEB editor to call the browser (left column).

Multiple Operating Stations

This feature is under development.

Menu: Settings / Multiple operating stations

For detail concerning the setup of multiple operating station refer to chapter: [Multiple Operating Stations](#).



Google PowerMeter

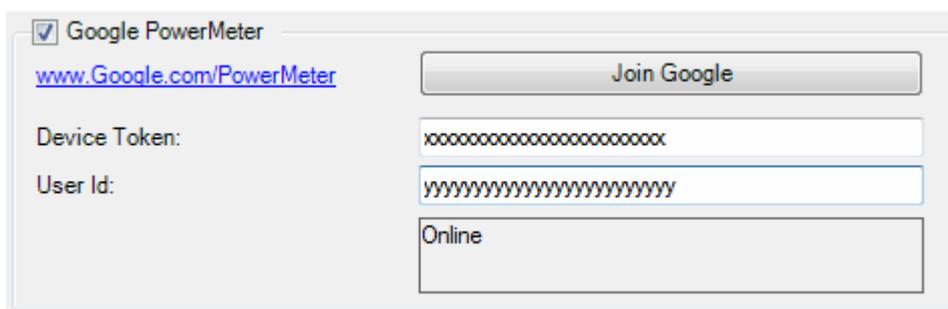
Menu: Settings / Google PowerMeter

myHomeControl® is able to connect to Googles PowerMeter services. If this feature is enabled, then all devices (blocks) of type [Electric Meter](#) will be connected to Googles PowerMeter service. The actual values of the devices are transmitted to Google periodically at a rate of 10 minutes.

Google offers a set of analysis functions for the power consumption and provides lots of hints to save energy according the measurements.

The use of Google PowerMeter requires you to have an account at Google.

Additional information is provided by following link:
<http://www.Google.com/powermeter/about>



The screenshot shows a settings window for Google PowerMeter. At the top left, there is a checked checkbox labeled "Google PowerMeter". Below it is a blue hyperlink "www.Google.com/PowerMeter". To the right of the link is a button labeled "Join Google". Below the link are two input fields: "Device Token:" containing a string of 20 'x' characters, and "User Id:" containing a string of 20 'y' characters. At the bottom of the form is a text box containing the word "Online".

To activate this feature check the box in the upper left corner. Then subscribe to Google PowerMeter the first time you activate the feature and announce **myHomeControl®** as measurement equipment (press button „Join Google“). The other fields are filled up during the subscription process.

Communication

myHomeControl supports various medias for the communication to sensors and actuators:

- EnOcean Radio Communication
- Modbus-TCP

Different drivers are provided for different gateway – types or IO-field bus devices. The various gateways and devices use different communication protocols and are connected to the PC in different ways.

Samples:

USB-EnOcean Radio Gateway:

This type of gateway is connected to the PC via USB. It communicates to the sensors and actuators via EnOcean radio signals. These devices emulate a serial port (RS232 COM port). The standard EnOcean protocol is used for the communication between the PC and the gateway.

Settings: EnOcean Communication / RS232

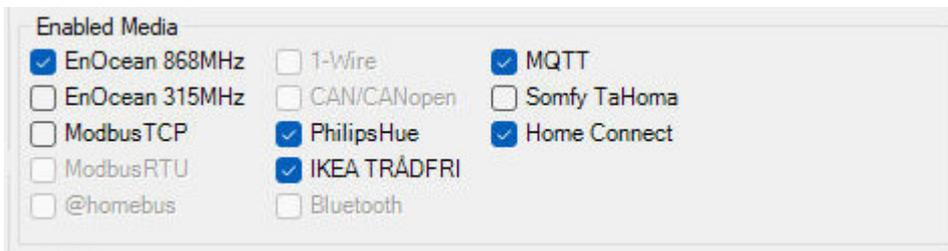
Ethernet IO-Devices e.g. Wago, Phoenix, Beckhoff

This kinds of IO devices provide Ethernet interfaces which will be used for the connection to the PC. It is required that the IO devices support the ModbusTCP protocol.

Settings: ModbusTCP Communication

Enabled Media

In the main menu "Settings" you will find the section "Enabled media". The required medium is to be ticked here. A corresponding tab is created in which the detailed settings for the medium can be made.



The screenshot shows a window titled "Enabled Media" with a list of communication protocols and their corresponding checkboxes. The checked items are EnOcean 868MHz, MQTT, PhilipsHue, and IKEA TRÅDFRI. The unchecked items are EnOcean 315MHz, ModbusTCP, ModbusRTU, @homebus, 1-Wire, CAN/CANopen, Somfy TaHoma, and Bluetooth.

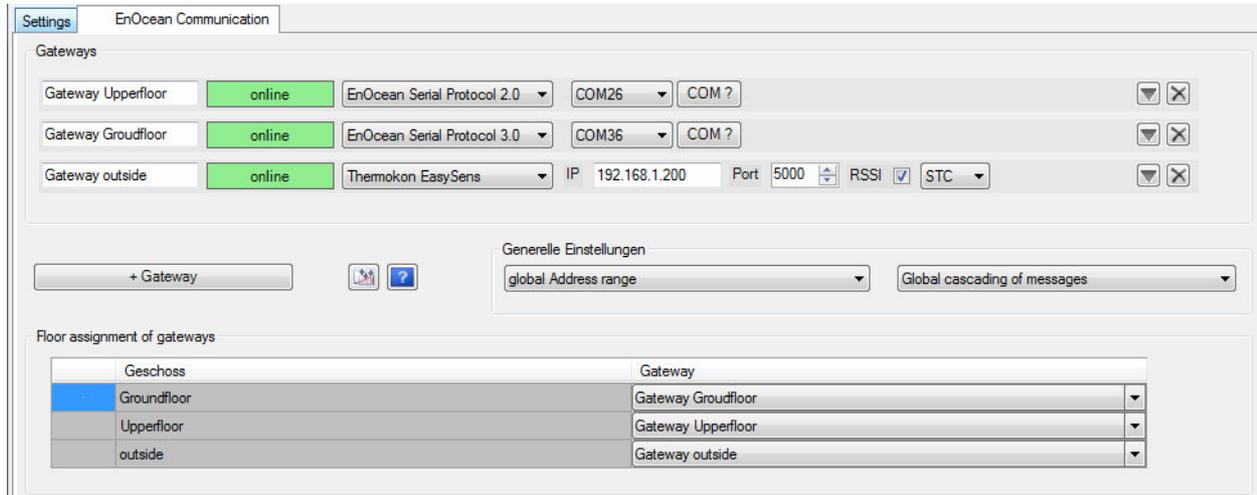
Protocol	Enabled
EnOcean 868MHz	<input checked="" type="checkbox"/>
EnOcean 315MHz	<input type="checkbox"/>
ModbusTCP	<input type="checkbox"/>
ModbusRTU	<input type="checkbox"/>
@homebus	<input type="checkbox"/>
1-Wire	<input type="checkbox"/>
CAN/CANopen	<input type="checkbox"/>
Somfy TaHoma	<input type="checkbox"/>
Bluetooth	<input type="checkbox"/>
MQTT	<input checked="" type="checkbox"/>
PhilipsHue	<input checked="" type="checkbox"/>
IKEA TRÅDFRI	<input checked="" type="checkbox"/>
Home Connect	<input checked="" type="checkbox"/>

EnOcean Communication

The EnOcean communication is to be setup within this tab. Multiple Gateways of various types can be created and process the radio messages.

The medium must first be enabled as described under [Enabled Media](#).

The installation of multiple gateways is useful to cover the whole radio range of a building.



The upper third of the tab shows the state of the created gateways. Use the button “+ Gateway” to create additional gateways.

Assign an individual name to each of the gateways using the input fields on the left. The red/green field right of the name shows the communication state of the gateway.

Select the type of the gateway from the pull down list accordingly. The input elements right of the pull down list show settings according to the type of the gateway.

Following table shows, which protocol has to be selected for which typ of gateway:

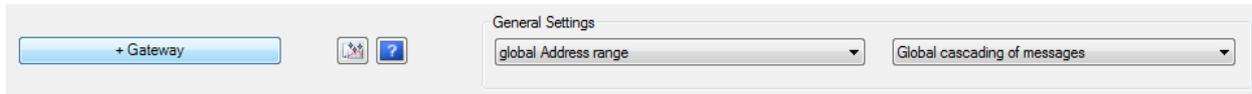
BootUp USB2+Rep-EnO868		EnOcean Serial Protocol ESP2.0
BootUp USB2+Rep-EnO315		EnOcean Serial Protocol ESP2.0
BootUp USB2+Rep-EnO868-ESP3.0		EnOcean Serial Protocol ESP3.0
BootUp USB2+Rep-EnO315-ESP3.0		EnOcean Serial Protocol ESP3.0
BootUp USB-EnO868-Stick-ESP3.0-mHCxxyya		EnOcean Serial Protocol ESP3.0
BootUp USB-EnO902-Stick-ESP3.0-mHCxxyya		EnOcean Serial Protocol ESP3.0
BSC BoR		EnOcean Serial Protocol ESP2.0
EnOcean USB 300		EnOcean Serial Protocol ESP3.0
Thermokon STC-Ethernet		Thermokon EasySens
FGW14/GW-R-T-2		Eltako BR14



shows details of the gateway



deletes the gateway

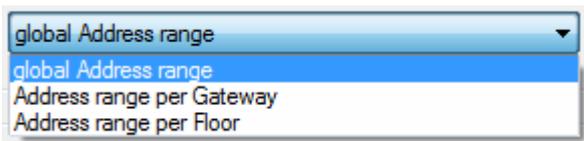


shows the overview of the received and sent out radio messages



shows the help

Address management



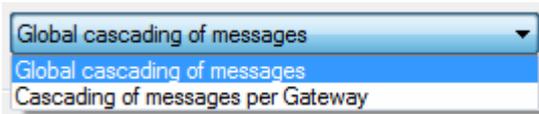
This setting is only available in case there is a license for more than 127 actuators.

myHomeControl automatically assigns EnOcean addresses to all actuator blocks, when they are inserted into the project. These addresses are used by the actuators to identify a message sent out from an actuator block of **myHomeControl**. EnOcean gateways only allow to send out 127 different addresses. This has to be taken in account according to the size of the project. In large projects with more than 127 actuators, the addresses can not be created globally. An alternative addressing schema has to be used.

myHomeControl provides 3 different schemas to automatically assign addresses to the actuator blocks:

- **Global Address range** (default)
The addresses for the actuator blocks are increased continuously. Each actuator block gets its own individual address.
The advantage of this schema is, that in case multiple gateways are used, the assignment between floors/rooms <-> gateway can be changed at any time. No new addresses have to be created and therefore no new teach-in is required in case a different gateway is assigned to a certain floor or room.
The disadvantage of the schema is that it only fits for projects smaller than 127 actuators.
- **Addresses per Gateway**
The addresses are managed per gateway. Therefore floors and rooms have to be assigned to a gateway before inserting actuator blocks. The addresses for the actuator blocks will then be taken from the assigned gateway.
The advantage of this schema is that there are no limitations in project size.
The disadvantage of the schema is, that whenever a floor/room – gateway assignment is changed, actuator addresses must be changed and therefore re-taught to the actuators in question.
- **Addresses per Floor**
The addresses are managed per floor. This schema is a compromise between the upper schemas. The schema allows to change floor/room – gateway assignments within the floor without the need to reassign addresses.
This schema can only be used in case there are less than 127 actuators on one floor.

Cascading



This selection box is only shown in case multiple Gateways have been inserted into the project.

The cascading logic delays radio messages to fulfill the rules defined by EnOcean and to manage message timings considering the limited throughput of the gateways. Refer to [Automatic Cascading](#).

Global cascading of messages:

All radio messages are cascaded globally. The cascading rules will be used independent of which of the gateways are going to be used to send the messages.

This cascading mode is to be used in case:

Railmounted actuators connected by an internal bus system with limited performance e.g. Eltako or Opus and

the antenna device is located within the radio range of multiple gateways.

Cascading of messages per gateway:

The cascading of the radio messages is done per gateway. The cascading rules will be applied individually for each gateway.

This cascading mode might be used in case:

no rail mounted actuators connected by an internal bus are used

or

the antenna device of the actuators doesn't receive radio messages from multiple gateways.

Floor assignment of the Gateways

Each floor or room a gateway has to be assigned to advise **myHomeControl** which of the gateways have to be used to send out a radio message of a certain actuator block. The location of an actuator block defines the gateway to be used to send out a message of the actuator block.

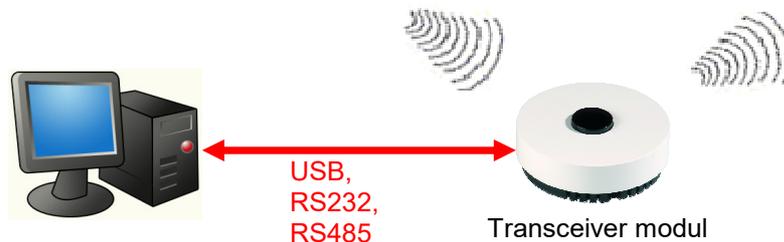
Within this section the gateways will be assigned to the floors. For details refer to the chapter [Floor assignments](#).

Details about the different protocols can be found in following chapters.

EnOcean Serial Protocol 2.0

ESP 2.0

This protocol is useful to adapt one single EnOcean transceiver. Most Transceiver based on the TCM120-Module might be operated using this option.



Specific settings:



- disabled This checkbox disables the gateway temporarily. **myHomeControl** doesn't receive or transmit any messages via this gateway. Also for the overall communication state „ONLINE“ the gateway state will not be considered anymore.
- COM26 Select the serial interface where the gateway is connected (COM1..COMn).
- COM ? Utility to determine the correct serial interface.
-  Linking wizard
This wizard help to link blocks defined in the projekt with real devices of the bus system. Refer to chapter [Linking Wizard](#) as well.

ID range base

The ID range base will be show just for information. This value is read back from the gateway. To set a new ID range base enter the required base address into the input field and press the set-button. If the new address is shown now in the ID range base – field, then the setting was successfully. Consider that after changing the base address 10 times, this function will be blocked by the gateway. The button “Logging” shows the history of the connected gateways and there Base IDs.

Consider:

The Base-Id of the gateway is used to create the unique address to send commands to actuators. During the teach-in (link) process this address is stored in the memory of the actuator. In case of a gateway replacement it has to be assured that the new gateway uses the same Base-Id then the old one. Otherwise all actuators have to be relinked.

Connection failures:

Gateways based on UBS usually requires a driver. Following drivers will be deployed with the myHomeControl installation. The folder containing the drivers can be accessed via start menu/Programs/myHomeControl/Drivers:

- BootUp USB2-EnO868 + USB2-EnO315 see subfolder BootUp

- BSC BoR see subfolder BSC_BoR

EnOcean Serial Protocol 3.0

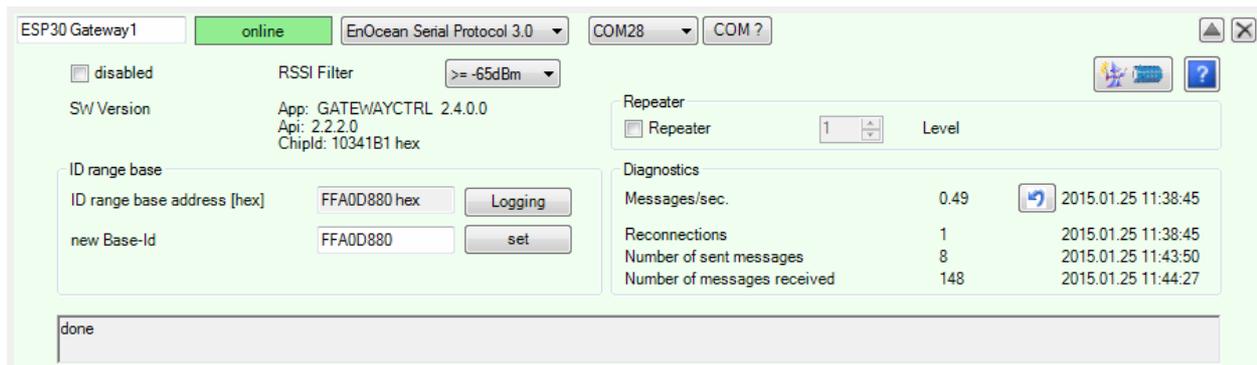
ESP 3.0

This protocol is useful to adapt one single EnOcean transceiver. Most Transceiver based on the Dolphin-Chip might be operated using this option.



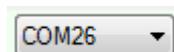
This gateway type provides lots of additional features compared to ESP2.0. Also lots of diagnostic information about the radio quality and the radio devices is collected. See [EnOcean Radio Statistics](#) for details.

Specific settings:

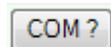


This checkbox disables the gateway temporarily.

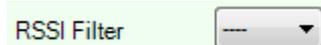
myHomeControl doesn't receive or transmit any messages via this gateway. Also for the overall communication state „ONLINE“ the gateway state will not be considered anymore.



Select the serial interface where the gateway is connected (COM1..COMn).



Utility to determine the correct serial interface.



Threshold value for received messages. Messages with RSSI values smaller than the threshold value will be ignored. Good reception means -45dBm, bad means -90dBm. “---“ deactivates the filter mechanism.



Linking wizard

This wizard help to link blocks defined in the projekt with real devices of the bus system.

Refer to chapter [Linking Wizard](#) as well.

ID range base

The ID range base will be show just for information. This value is read back from the gateway.

To set a new ID range base enter the required base address into the input field and press the set-button. If the new address is shown now in the ID range base – field, then the setting was successfully.

Consider that after changing the base address 10 times, this function will be blocked by the gateway.

The button “Logging” shows the history of the connected gateways and there Base IDs.

Consider:

The Base-Id of the gateway is used to create the unique address to send commands to actuators. During the teach-in (link) process this address is stored in the memory of the actuator. In case of a gateway replacement it has to be assured that the new gateway uses the same Base-Id then the old one. Otherwise all actuators have to be relinked.

Repeater enables the repeater functionality of the gateway.

Connection failures:

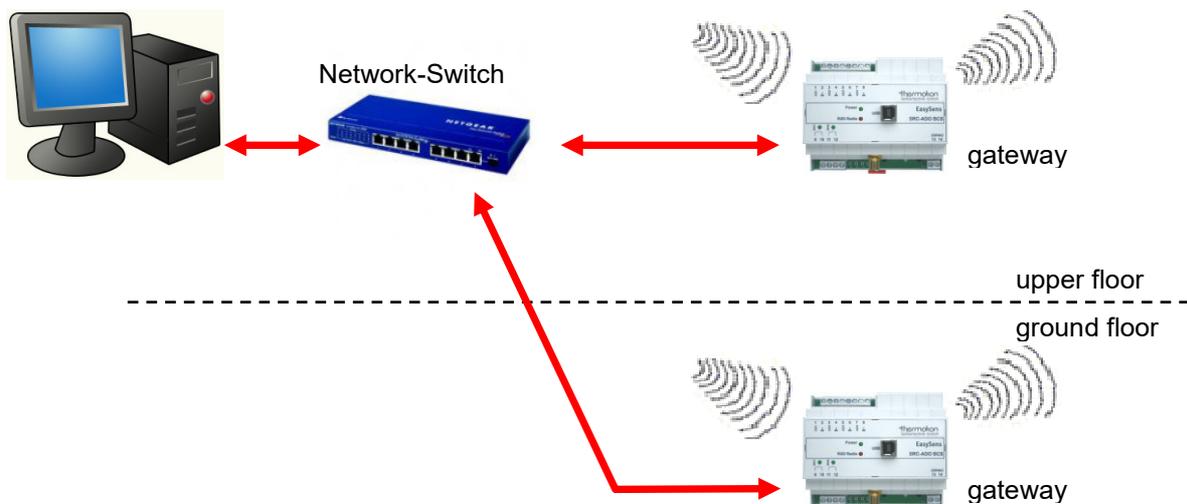
Gateways based on UBS usually requires a driver. Following drivers will be deployed with the myHomeControl installation. The folder containing the drivers can be accessed via start menu/Programs/myHomeControl/Drivers:

- BootUp USB2-EnO868 + USB2-EnO315 see subfolder BootUp

For floor / gateway assignment refer to chapter [Floor assignment](#).

Thermokon EasySens

This settings have to be set in case bi-directional sender/receiver gateway(s) of type “EasySens STC-Ethernet” or unidirectional receiver gateway(s) of type “EasySens SRC-Ethernet” shall be used. This kind of gateways will be connected to the Ethernet port of the PC. Therefore it can be integrated into a PC-Network. The ability to operate the gateway within a network allows to operate several gateways in parallel e.g. one on each floor.

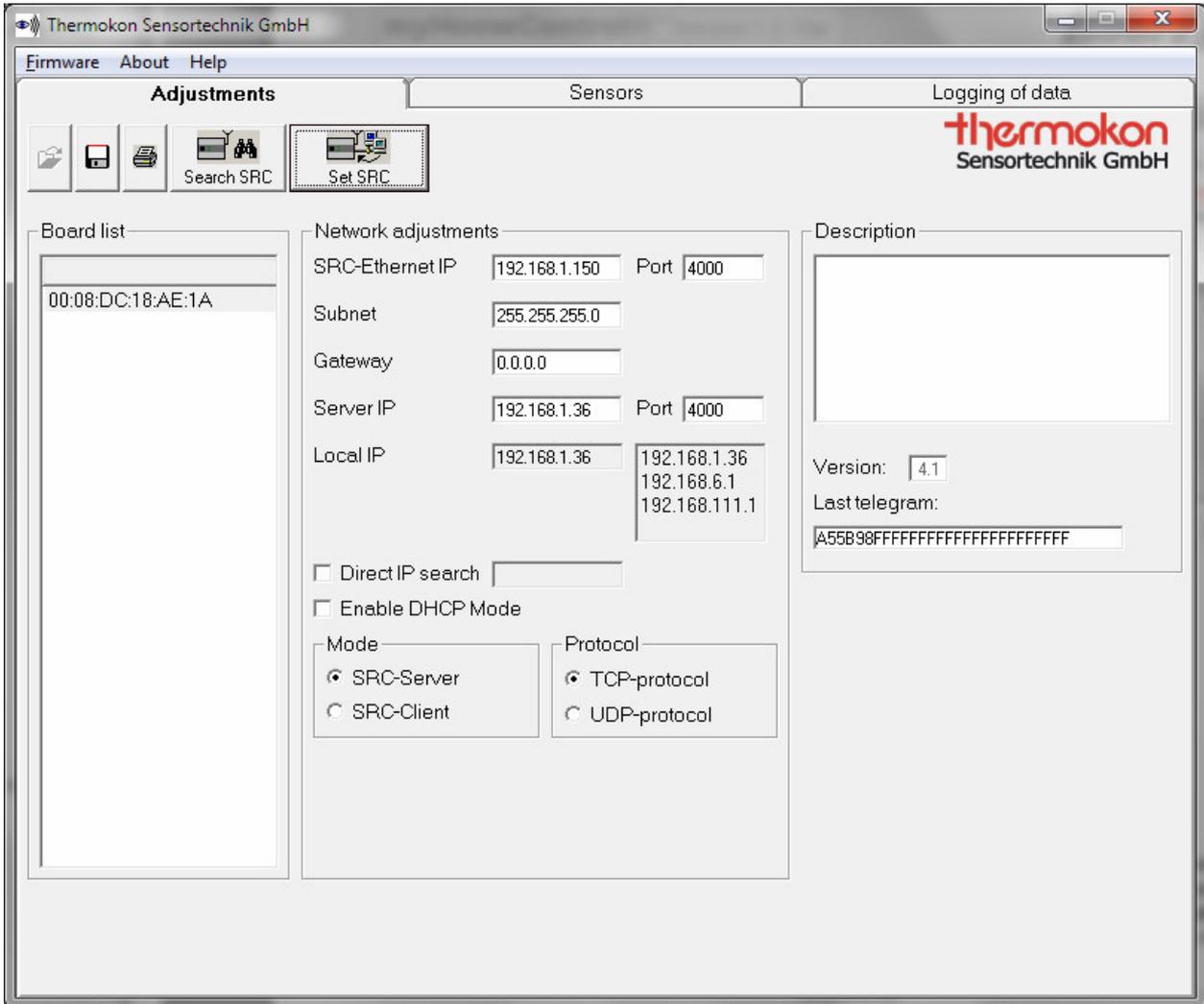


It is also possible to use a certain gateway for more then on floor. The amount of gateways may not correspond to the amount of floors.

In case more the one gateway will be operated, then an additional network switch will be required. It is not allowed to connect all the gateway and the PC with one cable.

Setup of the Gateways

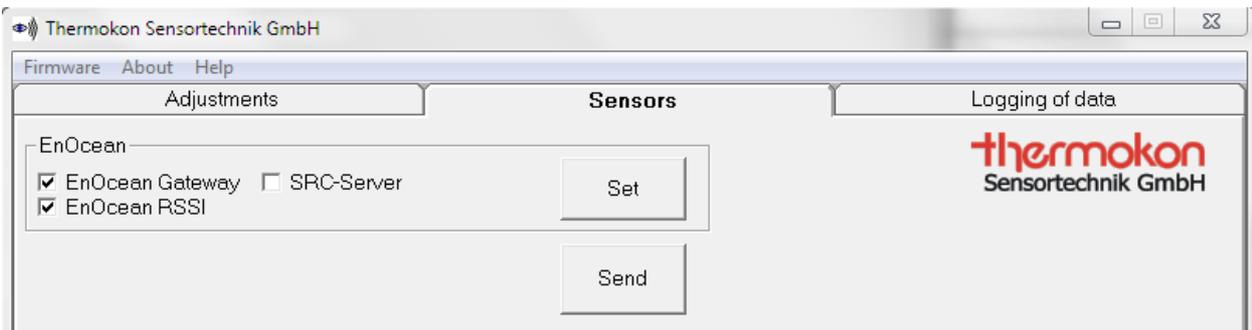
Before the **myHomeControl** is able to operate the gateway, it has to be configured. Use Thermokons SRC_Ethernet program to setup the gateway. This program is either delivered with the gateway or can be requested from Thermokon.



This program will be used to set the IP address of the gateway. Enter the IP address in the field called SRC-Ethernet IP. In case several gateways shall be used set individual IP addresses for all gateways. Second enter the IP address of the PC running **myHomeControl**® in the filed called Server IP. Set the radio buttons same as shown above. Finally press the button „SRC aktualisieren“.

Sensors:

Configure the tab “Sensors” as following:



Check the box “EnOcean RSSI” in case Version is 4.1 or younger (see Tab “Adjustments”). This enables the Gateway to include signal strength values of received signals into the messages. MyHomeControl will evaluate the signal strength and present it in the [EnOcean radio statistics](#).

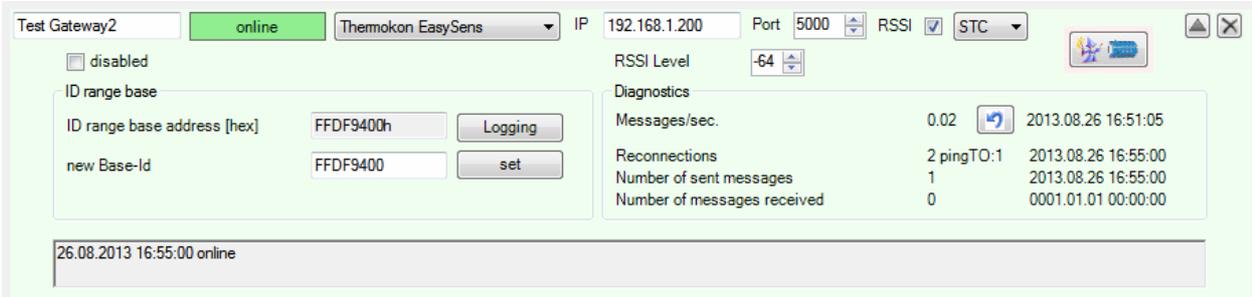
Press button “Set” after checking the option “EnOcean-Gateway”.

In case multiple STC-Ethernet gateways are used in an application, then there is the opportunity, that a radio message of a EnOcean sensor is received by two gateways at the same time. Usually this is no problem as myHomeControl filters doubled messages.

The EnOcean-Gateway mode is the easiest to handle. In this mode the gateways have to be configured once and don't need to be touched any more, even if a sensor is added to the application at a later stage.

Start **myHomeControl** now and configure the communication provided by the options tab....

Thermokon specific settings:



- disabled

This checkbox disables the gateway temporarily. **myHomeControl** doesn't receive or transmit any messages via this gateway. Also for the overall communication state „ONLINE“ the gateway state will not be considered anymore.
- IP 192.168.1.200

Assign each gateway its own unique IP address with the Thermokon tool. Enter the same value into the configuration mask.
- Port 5000

Enter the same value into the configuration mask then in the Thermokon tool
- RSSI

Set checkbox to same state as in the Thermokon tool. Activating the RSSI feature enable the user to see detailed radio quality signals under [EnOcean-Radiostatistics](#) and [EnOcean Radio Statisics overview](#).
- RSSI Filter ---

This input field is only shown if RSSI is checked. Treshold value for received messages. Messages with RSSI values smaler then the treshold value will be ignored. Good reception means -45dBm, bad means - 90dBm. “---“ deactivates the filter mechanism.
- STC

Select correct device type.
- Linking wizard
This wizard help to link blocks defined in the projekt with real devices of the bus

system.

Refer to chapter [Linking Wizard](#) as well.

ID range base

The ID range base will be show just for information. This value is read back from the gateway.

To set a new ID range base enter the required base address into the input field and press the set-button. If the new address is shown now in the ID range base – field, then the setting was successfully.

Consider that after changing the base address 10 times, this function will be blocked by the gateway.

The button “Logging” shows the history of the connected gateways and there Base IDs.

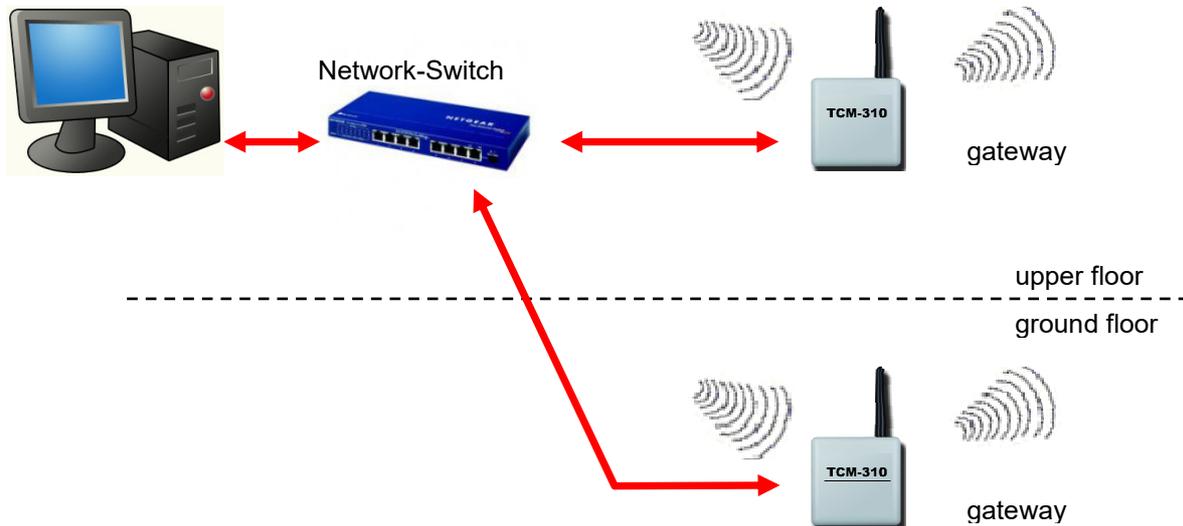
Consider:

The Base-Id of the gateway is used to create the unique address to send commands to actuators. During the teach-in (link) process this address is stored in the memory of the actuator. In case of a gateway replacement it has to be assured that the new gateway uses the same Base-Id then the old one. Otherwise all actuators have to be relinked.

For floor / gateway assignment refer to chapter [Floor assignment](#).

TCM-310 LAN-GW

This settings have to be set in case bi-directional sender/receiver gateway(s) of type “TCM-310 LAN-GW” shall be used. This kind of gateways will be connected to the Ethernet port of the PC. Therefore it can be integrated into a PC-Network. The ability to operate the gateway within a network allows to operate several gateways in parallel e.g. one on each floor.

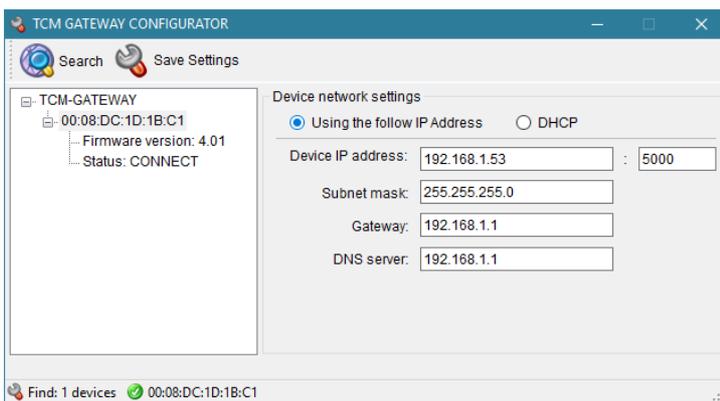


It is also possible to use a certain gateway for more than on floor. The amount of gateways may not correspond to the amount of floors.

In case more the one gateway will be operated, then an additional network switch will be required.

Setup of the Gateways

Before **myHomeControl** is able to operate the gateway, the gateway has to be configured. Use TCM-310 Configurator program to setup the gateway. This program can be found in the **myHomeControl** installation under Tools/TCM-310:



ATTENTION:

In case a VirtualBox with a corresponding LAN hostonly adapter is installed, then the TCM configuration tool will use this adapter instead of the physical one. This results in no found gateways.

In this case deactivate the hostonly adapter in the Windows LAN adapter settings during the usage of the TCM configuration tool.

FGW14/GW-R-T-2

Eltako FGW14 / Jäger-Direkt GN-2.0GW-R-T-2 (Gateway)

This feature requires the license option [FGW14/GW-R-T-2](#).

This protocol is used to interface the series 14 devices of Eltako and Jäger-Direkt. To run this protocol the bus system has to be equipped either with a FGW14(Eltako) or the GN-2.0GW-R-T-2 (Jäger-Direkt).

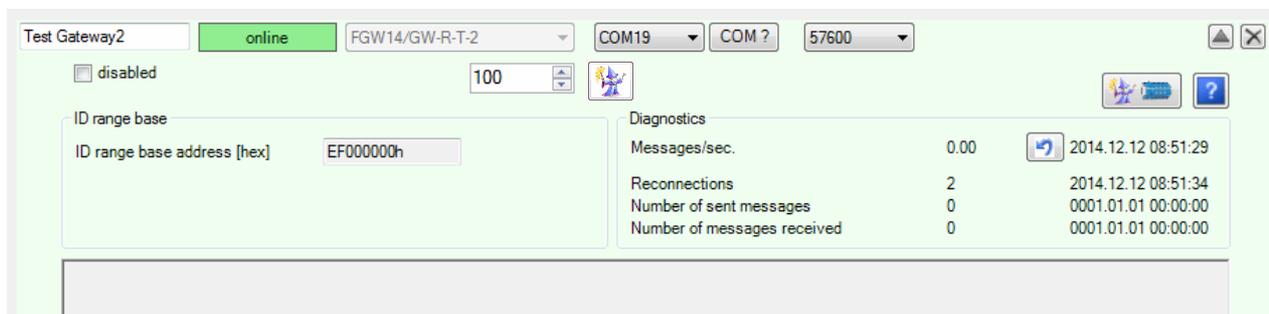


Via this connection **myHomeControl** will receive all radio messages received by the antenna module of the bus system as well as all radio messages received by a subantenna. Also all feedback messages of the various actuators as well as sensor directly connected to the bus will be forwarded to **myHomeControl**.

This connection enables **myHomeControl** to control all the actuators. But it is not possible to send out any radio messages to decentral actuators initiated by **myHomeControl**. In case decentral actuators have to be controlled by **myHomeControl**, then an additional EnOcean gateway is required.

All devices controlled by **myHomeControl** must be addressed (refer to addressing within the series 14 system, set antenna modul into operation mode 1).

After addressing is done, set operation mode of antenna modul to 2. Set operation mode of gateway modul to 6 (57600 baud) or 5 (9600) baud.



disabled This checkbox disables the gateway temporarily. **myHomeControl** doesn't receive or transmit any messages via this gateway. Also for the overall communication state „ONLINE“ the gateway state will not be considered anymore.

COM26 Select the serial interface where the gateway is connected (COM1..COMn). The COM port is to be selected at the first declaration of an Omnio transceiver.

COM ? Utility to determine the correct serial interface.

57600 Baudrate:
 9600: FGW operation mode 5
 57600: FGW operation mode 6.

Linking wizard
 This wizard help to link blocks defined in the projekt with real devices of the bus system. Refer to chapter [Linking Wizard](#) as well.

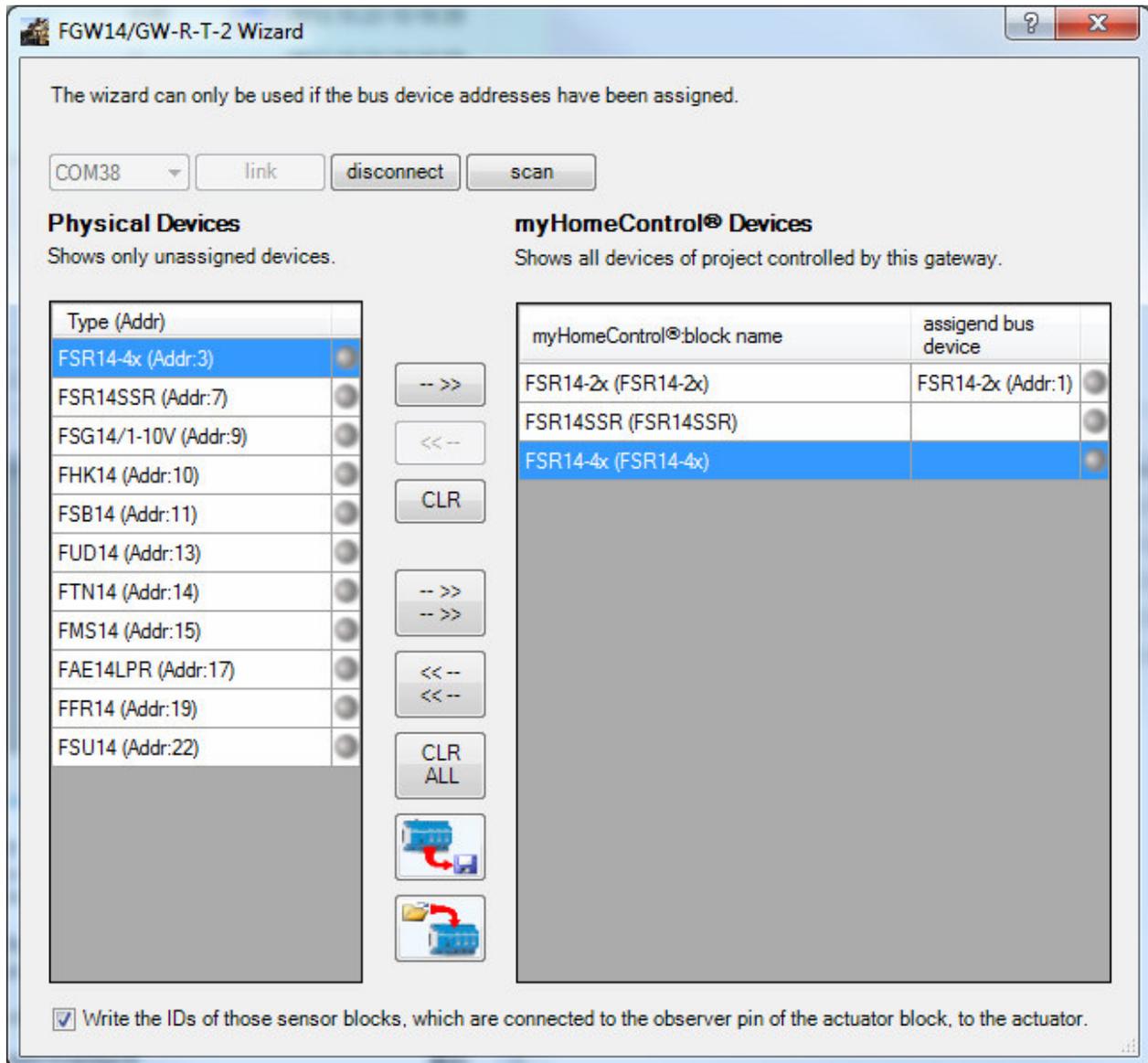
For floor / gateway assignment refer to chapter [Floor assignment](#).

Linking Wizard

The linking wizard eases the linking between blocks defined in the project and devices connected to the bus system.

The license option [BR14Wizard](#) is required to use this feature.

After connecting the antenna module with the pc and scanning the bus for devices, the wizard is showing two tables. The left table lists all devices of the bus system, the right table lists all blocks belonging to the bus system.

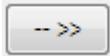


Operationinstruction:

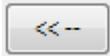
1. Set rotary switch of antenna modul to position 2.
2. Use an USB cable to connect the antenna module to the PC. The wizard will automatically detect the correct COM port. In case the cable was already connected, select the correct COM port manually.
3. Press button "link" to connect the wizard to the antenna module.
4. Press button "scan" to get device information from the bus → the wiizard fills the tables.
5. Select a device in the left table. The corresponding device on the bus flashes its LED. This helps you to identify the device.
All blocks of the same type as the selected device will be marked in the right table.

6. Select the corresponding block in the right table.
7. Press button "-->>" to assign the physical device to the block. The wizard configures the physical device to be linked to the block and vice versa.

Buttons:



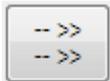
- Sets the ID of the actuator block selected in the right hand table on the physical actuator selected in the left hand table.
- Sets the ID of the feedback message on the actuator block.
- Sets, if checked, the IDs of all sensor blocks connected to the observer pin of the actuator block, on the physical actuator.
- Doesn't touch any other ID entries on the actuator.

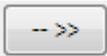


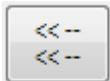
- Clears the ID of the actuator block selected in the right hand table, on the corresponding actuator.
- Clears the ID of the feedback message on the actuator block.
- Clears, if checked, the IDs of all sensor blocks connected to the observer pin on the actuator.
- Doesn't touch any other ID entries on the actuator.



- Clears all IDs of the selected actuator.



- Similar to  but for all the actuators. Linking is done in ascending order: actuators sorted according the bus address
actuator blocks according the name
Sorting is same as shown in the tables.



- Similar to  but for all the actuators.



- Similar to  but for all the actuators.



- Saves all IDs set in the actuators to an XML file.



- Reads IDs from an XML file and sets them on the actuators accordingly.

Write the IDs of those sensor blocks, which are connected to the observer pin of the actuator block, to the actuator.

If this is checked, then the wizard will create ID entries for all sensor blocks e.g. PTM Radio Buttons connected to the observer input pin of the actuator block in question. Precondition is that the sensor blocks have been taught in advance. This function avoids manual teach in of the corresponding sensors to the actuators.

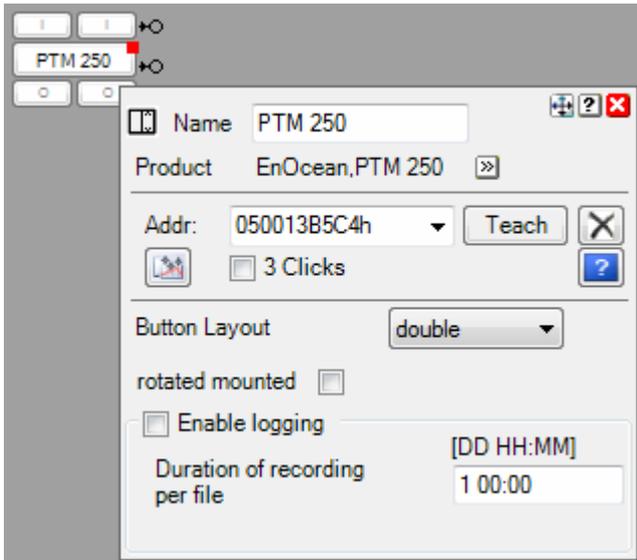
Remark!

The bus system will not process radio signals before the wizard has been disconnected and the LED on the antenna module starts flashing.

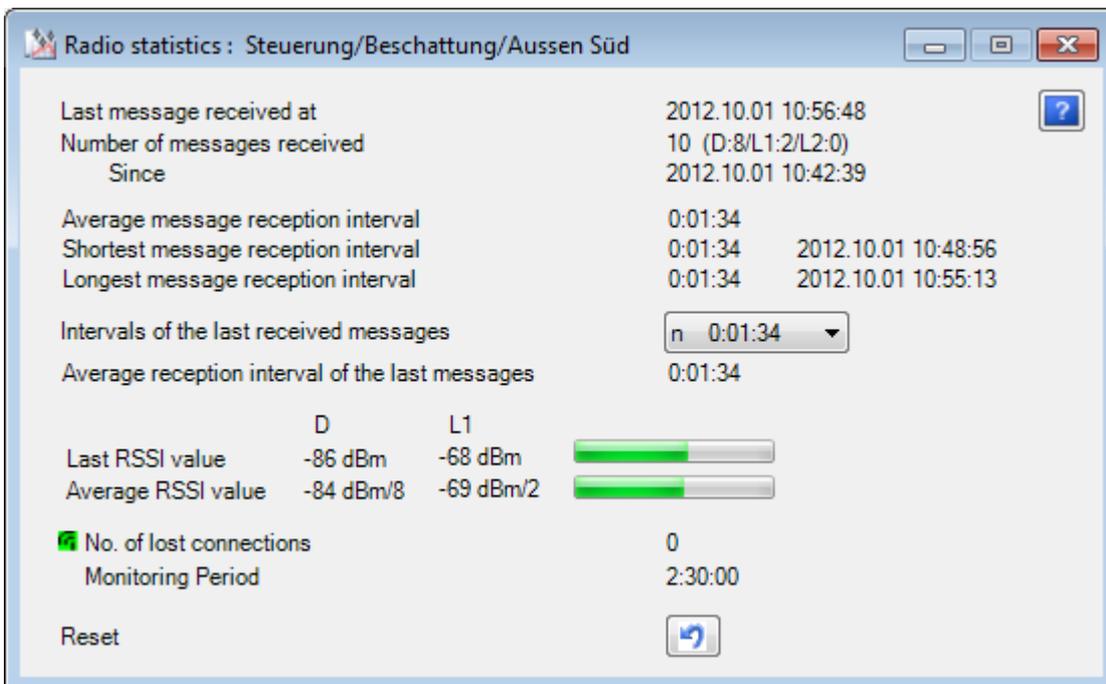
EnOcean Radio Statistics

myHomeControl evaluates the quality information received with the EnOcean radio messages. It collects statistical data and presents them in context of individual devices to the user.

Device related statistical information according radio messages is shown if the button  is clicked. This button can be found in the settings dialog of the sensor- or actuator blocks:



The dialog shows various statistical data related to the radio message reception. The shown values inform the user how **myHomeControl** receives the radio messages of the device in question.



Last message received at shows the time stamp of the last message received for the device in question.

Number of messages received since shows the amount of messages totally received and detailed amounts of messages directly received from the device in question, messages received via one single repeater and messages received via 2 repeaters.

D: direct
L1: 1x repeated
L2: 2x repeated

Average message reception interval shows the average period in time between to messages.

Shortest message reception interval shows the smallest period in time between two messages.

Longest message reception interval shows the largest period in time where no message has been received for the device in question.

Intervals of the last received messages shows a list of the time frames between the last received messages.

Average reception interval of the last messages shows the average value for the time frames shown in the list mentioned above.

Last RSSI value shows at what signal strength the last message has been received. There are individual indications for messages directly received from the device in question(D), messages recived via a repeater (L1) and messages received via two repeaters (L2). The bar gives a graphical indication about the reception quality. The values are to be read as:

-45dBm: reception is optimal
-45dBm .. -65dBm: reception is good and reliable
-65dBm .. -75dBm: reception is reliable
-75dBm .. reception is unreliable

Average RSSI value shows the average values of the received RSSI values.

No. of lost connections gives an indication how often there was no reception of any message during the monitoring period. Each device block monitores regular reception of radio messages accoring to its device type. The monitoring s setup that under normal conditions at least one message should be received from the device during the monitoring period. Each received message restarts the monitoring. Refer to [Life-Sign Monitoring](#) for details.

Reset  resets the statistical values of the device in question and restarts the evaluation.

The rows indicating RSSI values are only shown in case the connected gateway provides RSSI values. Typicaly this is the case if gateways based on ESP3.0 are in use.

EnOcean Radio Statistics overview

The EnOcean Radio Statistics overview can be found under menu: Lists / Radio Statistics

Product type	Count		Room	Name	Addr.	Lost Connections	Last message received at	Number of messages received (D/L1/L2)	RSSI	RSSI Rep1	Message reception interval
451 FU-BEP	1		UG/Heizen-Kühlen	UG kühlen aktiv	27h/C	0		0 (0/0/0)	0dBm/0	0dBm/0	
Amsterdam	2	+									
BWM-FUS-2	1		EG/WC-EG	BWM-FUS-2	00144EDCh	0	2012.10.01 13:13:23	20 (11/9/0)	-68dBm/11	-68dBm/9	0:00:58
D 482 FU-E	1	+	UG/Garage	Garagentor							
FAH 60	1		Steuerung/Beschattung	Aussen_Süd	07000221E5h	0	2012.10.01 13:22:20	104 (90/14/0)	-89dBm/90	-65dBm/14	0:01:35
FSS12	1		Steuerung	Energieverbrauch	FFC59600h	0	2012.10.01 13:19:58	398 (0/398/0)	0dBm/0	-85dBm/398	0:00:00
FTF55D	1		EG/Küche heizen	Raumfühler	0701004A55h	1		0 (0/0/0)	0dBm/0	0dBm/0	
PM101	1		Steuerung/Alarm	Bewegung	FF801003h	1		0 (0/0/0)	0dBm/0	0dBm/0	
PTM 250	1		OG/Bad	PTM 250	050013B5C4h	0	2012.10.01 11:01:36	1 (1/0/0)	-54dBm/1	0dBm/0	
RCM 250	8	+									
REGS24/02	3	+									
RFFE20	1		EG/WC-EG	RFFE20	070000D446h	0	2012.10.01 13:05:37	9 (3/6/0)	-91dBm/3	-86dBm/6	0:17:17
RTF102	5	-	OG/Büro	Raumfühler	0000E779h	0	2012.10.01 13:09:05	9 (7/2/0)	-58dBm/7	-67dBm/2	0:17:11
RTF102			OG/Kinderzimmer	Raumfühler	0000C4E7h	0	2012.10.01 13:07:13	9 (9/0/0)	-71dBm/9	0dBm/0	0:17:52
RTF102			OG/Schlafzimmer	Raumfühler	0000E856h	0	2012.10.01 13:16:20	9 (7/2/0)	-68dBm/7	-65dBm/2	0:18:12
RTF102			UG/Atelier	Raumfühler	0000DD34h	0	2012.10.01 13:09:04	9 (9/0/0)	-80dBm/9	0dBm/0	0:16:47
RTF102			UG/WC/Gäste	Raumfühler	0000E808h	0	2012.10.01 13:15:48	5 (5/0/0)	-80dBm/5	0dBm/0	0:18:32
STM 250	6	+									
UPD230/01	14	+									
UPJ230/01	18	+									
UPS230/03	26	+									
WMR918/WMR928NX	1		Steuerung/Bewässerung	WMR918							
WS-CH-102	33	+									

Show averages

The upper dialog shows an overview of the statistical data collected during the reception of EnOcean radio messages.

Lost Connection shows how often the corresponding block didn't receive any message during the whole monitoring period. In case Value is larger than 1, the field will be marked in red. Refer to [Life-Sign Monitoring](#) for details.

Last message received at shows the time stamp of the last message received.

Number of messages received (D/L1/L2) shows the total number of messages. Detailed values for direct, repeated and double repeated messages are indicated within the brackets.

The column **RSSI** shows the signal strength value of the last received message for the device in question. The value is to be read as:

- 45dBm: reception is optimal
- 45dBm .. -65dBm: reception is good and reliable
- 65dBm .. -75dBm: reception is reliable
- 75dBm .. reception is unreliable

The column **RSSI Rep1** shows the signal strength value of the messages received via one single repeater. This column is only visible in case the gateway provides RSSI values.

The column **RSSI Rep2** shows the signal strength value of the messages received via two repeaters. This column is only visible in case the gateway provides RSSI values.

Message reception interval shows the periode in time between the last two received messages.

Show averages

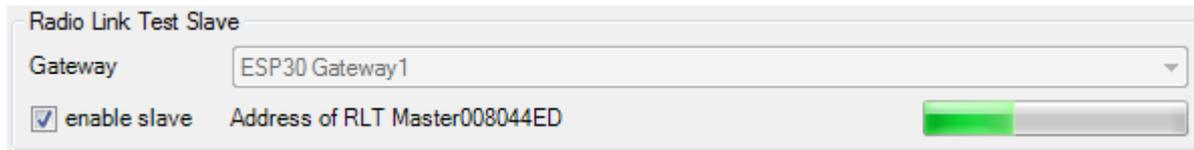
Check this box to show average values for RSSI values and intervals.

Reset resets statistic data of all devices.

Radio Link Test Slave

myHomeControl provides a Radio Link Test Slave. This slave can be enabled for test purposes. In combination with a Radio Link Master e.g. the P30 from Probare one can execute Radio Link Test to check the radio quality between **myHomeControl** and the Radio Link Master.

This enables the user to walk to the building and check the communication quality between **myHomeControl** and e.g. P30 from different locations.



Radio Link Test Slave

Gateway ESP30 Gateway1

enable slave Address of RLT Master 008044ED

To execute a test follow these steps:

1. Select Gateway used to perform the test. Selection is only possible in case at least one configured gateway supports the radio link test.
2. enable RLT slave in **myHomeControl**
3. Select following menu on the P30:
Radio Link Test / Start RLT
4. P30 is now waiting for a query of the RLT slave of **myHomeControl** and starts then to communicate with the slave. This is shown with a progress bar on both the P30 and **myHomeControl**.
5. Finally the P30 presents the results of the test by showing 2 rows. The row "D" represents the communication quality for radio messages received directly from **myHomeControl**. More bars means better quality. The row "L1" represents the results for radio messages repeated once, "L2" means repeated twice.

The P30 is an excellent tool to do some basic radio checks in advance to get an idea about the radio conditions in a building and to analyse radio in case of problems.

In case P30 doesn't accept myHomeControl as RLT slave, then there might be a pairing configured on the P30. To delete the pairing information do following steps:

1. Enter settings menu on the P30 by pressing ^ and v buttons simultaneously.
2. Select menu Radio Link Test / Delete pairing.

EnOcean-Id Filter

There is an Id filter feature available. The Id filter holds a list of valid EnOcean Ids (EnOcean address of sensor devices and transmitters).

The Id filter filters all EnOcean messages received and rejects all messages with EnOcean ids not contained in the list of valid Ids. Only messages with an id contained in the list of the filter are going to be processed by **myHomeControl**®, all other messages will be dropped.

This feature is helpful if teach in should be demonstrated or executed during fairs or training courses, where lots of devices, belonging to other installations (e.g. neighbor booth), are frequently operated.

Configuration of the id-filter

The id filter is setup via a dedicated file.

This file can be found under the menu ? → other files → EnOcean → EnOceanIdFilter.xml

The file is structured as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<EnOceanIdFilter xmlns="http://myHomeControl.ch/EnOceanIdFilter.xsd"
Version="1" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <EnOceanId id="19534" description="rocker push button"/>
```

or alternatively

```
  <EnOceanId idHex="23A5F8" description="window contact"/>
  <EnOceanId id="" description=""/>
  <EnOceanId id="" description=""/>
  <EnOceanId id="" description=""/>
</EnOceanIdFilter>
```

Use an editor e.g. to modify the file, in case the id-filter feature is liked to be used. Therefore enter the ids of the sensors in question into the corresponding fields, and give a short description:

```
<EnOceanId idHex="23A5F8" description="window contact"/>
```

id/idHex specifies a EnOcean Id to be accepted.

description is free text, describing to which device the id is belonging. This text will not be evaluated by **myHomeControl**®.

If additional lines are required, copy and add them, There is no limitation in the amount of lines.

If all ID="" fields are empty or there are no <EnOceanId ... lines, then the id-filter is disabled.

This file is evaluated during the start of **myHomeControl**® and every time the [EnOcean protocol](#) is changed.

If the id-filter is active (there are Ids given in the configuration file), then a link is shown on the EnOcean communication configuration page. This link might be used to check the list of ids of the id-filter.

Scenario: Training course with different workplaces

Each workplace has its own set of EnOcean devices for training purposes.

Each workplace requires an own dedicated EnOcean-Id filter file. The EnOcean-Ids of all sensors of the corresponding workplace have to be configured within the filter file. The file has to be stored either on a CD or an USB stick which will become part of the workplaces equipment.

If the trainee reinstalls **myHomeControl**®, then he/she has to process following step after the installation:

- select menu ? -> other files -> EnOcean. This opens a folder containing a template Id-Filter file,
- copy the EnOcean Id filter file from the CD or stick to the folder opened in the step before,
- restart **myHomeControl**®

Remote Commissioning

Devices supporting remote commissioning can be configured via the EnOcean radio network.

There are two types of devices:

- Continuously powered
This type of device can be configured at any time
- Self or battery powered
This type of device wakes up cyclically and is only ready to receive radio messages at specific periods in time. Configuration can only be transmitted from myHomeControl to the device during that period. The device indicates when it becomes ready to receive radio messages by a dedicated radio message. myHomeControl starts transmission of the configuration according to that signal.

Geschosname/OPUS SMS Multifunktion: Remote Commissioning

Device Configuration Repeating Link Tables

ProduktID: 004000000009

Index	Bezeichnung	Wert
0	ALIVE Zyklus (1 Min Schritte ... 0 - 1440 Min - 0 Kein ALIVE)	1
7	Zykluszeit ReComBereitschaft (10s Schritte ... 10 - 655350s)	6->12
9	Nachlaufzeit (1s Schritte ... 0 - 65535s)	20
10	Lichtschwelle (1 Lux Schritte ... 0 - 65535 Lux)	4000
11	Timer Abschaltwarnung (0 - 45s)	2
12	Timer Signalisierung Abschaltwarnung (200 - 2000ms)	500
15	Messzyklus (Temp + Hum) [1s Schritte ... 0 - 65535s], 0 ... keine Messung	5
16	Anzahl der Messungen (Temp + Hum), nach denen in jedem Fall gesendet wird [1 - 255], 0 ... Invalid	10
17	Abweichung Temperatur, bei der auf jeden Fall gesendet wird [0,1 °K] [0 - 255 ... 0,1 - 25,5], 0 ... Keine Überprüfung	5
18	Abweichung Feuchtigkeit, bei der auf jeden Fall gesendet wird [%] [0 - 100], 0 ... Keine Überprüfung	3
19	Temperaturkorrektur [°C] [0 - 255 ... -12,7 bis +12,8]	127

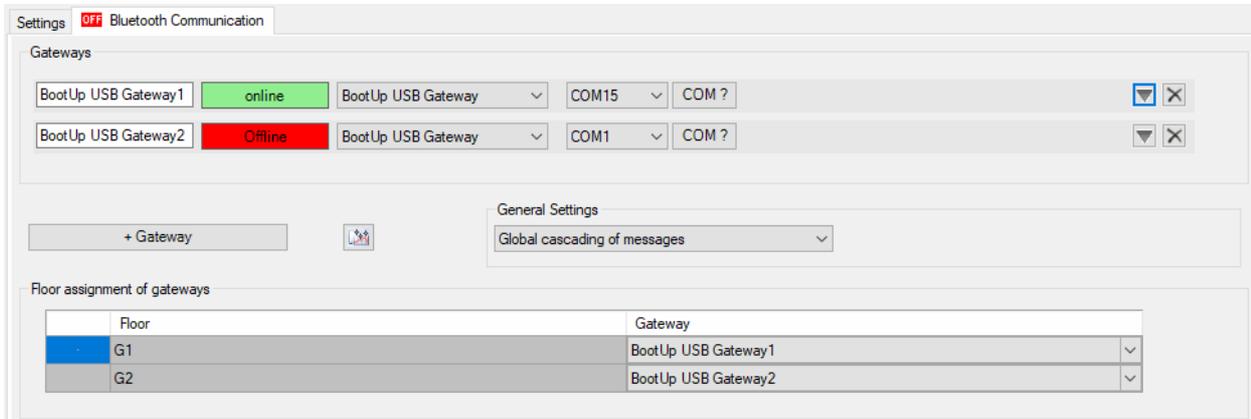
-> indicates that the corresponding parameter values has been changed but transmission of the new parameter value is postponed. This may take a while as the device is of type "self or battery powered". As soon as the device opens the rx window and sends out the signal, myHomeControl is going to transmit the new value automatically.

Bluetooth Communication

The Bluetooth communication is to be setup within this tab. Multiple Gateways of various types can be created and process the radio messages.

The medium must first be enabled as described under [Enabled Media](#).

The installation of multiple gateways is useful to cover the whole radio range of a building.



The upper third of the tab shows the state of the created gateways. Use the button “+ Gateway” to create additional gateways.

Assign an individual name to each of the gateways using the input fields on the left. The red/green field right of the name shows the communication state of the gateway.

Select the type of the gateway from the pull down list accordingly. The input elements right of the pull down list show settings according to the type of the gateway.

Following table shows, which protocol has to be selected for which typ of gateway:

BootUp USB2-Bluetooth		BootUp USB Bluetooth Gateway
-----------------------	---	--



shows details of the gateway



deletes the gateway

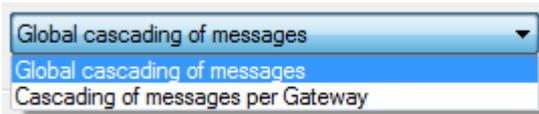


shows the overview of the received and sent out radio messages



shows the help

Cascading



This selection box is only shown in case multiple Gateways have been inserted into the project.

The cascading logic delays radio messages to fulfill the rules defined by Bluetooth and to manage message timings considering the limited throughput of the gateways. Refer to [Automatic Cascading](#).

Global cascading of messages: All radio messages are cascaded globally. The cascading rules will be used independent of which of the gateways are going to be used to send the messages.

Cascading of messages per gateway: The cascading of the radio messages is done per gateway. The cascading rules will be applied individually for each gateway.

Floor assignment of the Gateways

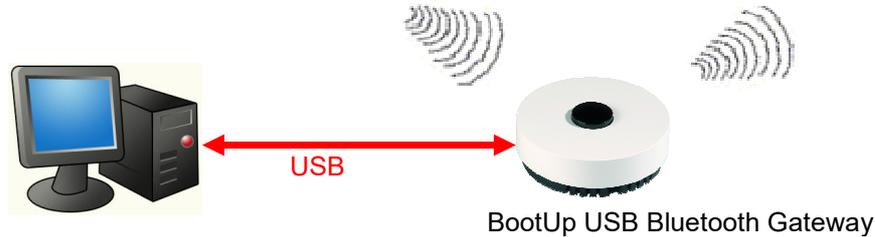
Each floor or room a gateway has to be assigned to advise **myHomeControl** which of the gateways have to be used to send out a radio message of a certain actuator block. The location of an actuator block defines the gateway to be used to send out a message of the actuator block.

Within this section the gateways will be assigned to the floors. For details refer to the chapter [Floor assignments](#).

Details about the different protocols can be found in following chapters.

BootUp USB Bluetooth Gateway

This protocol is useful to adapt one single EnOcean transceiver. Most Transceiver based on the TCM120-Module might be operated using this option.



Specific settings:

Test Gateway2 online EnOcean Serial Protocol 2.0 COM19 COM? 200

disabled

SW Version SW Ver.:2.0.0.0

ID range base

ID range base address [hex] FFE78180 hex Logging

new Base-Id FFE78180 set

Diagnostics

Messages/sec.	1.75	2014.12.12 08:52:57
Reconnections	1	2014.12.12 08:52:57
Number of sent messages	2	2014.12.12 08:52:58
Number of messages received	7	2014.12.12 08:53:00

disabled This checkbox disables the gateway temporarily. **myHomeControl** doesn't receive or transmit any messages via this gateway. Also for the overall communication state „ONLINE“ the gateway state will not be considered anymore.

COM26 Select the serial interface where the gateway is connected (COM1..COMn).

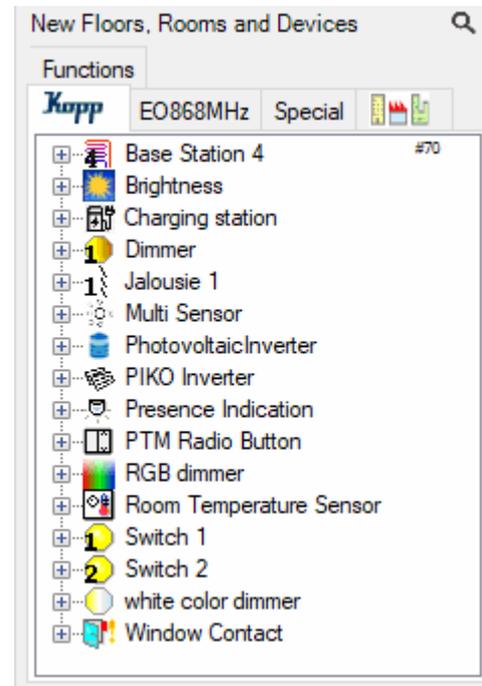
COM ? Utility to determine the correct serial interface.

Kopp Blue-control

This type of communication is used to interface the Blue-control devices provided by Heinrich Kopp GmbH.

This communication requires the [license Kopp](#).

In case the option „Kopp“ has been licensed, then an additional tab appears in the [tree view „New Floors, Rooms and Devices“](#). The tree view list all object types belonging to Blue-control.

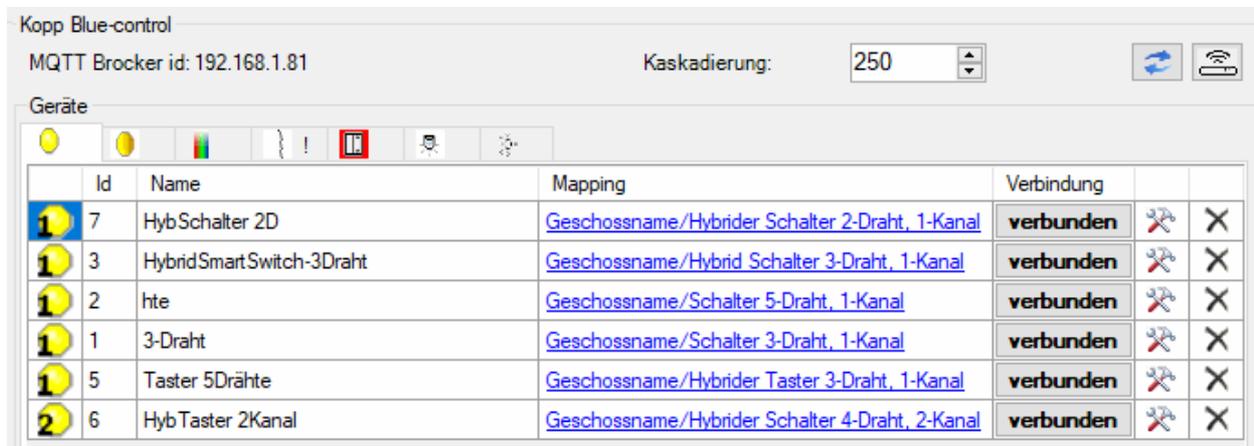


A Kopp Blue-control Bluetooth gateway is required to operate the devices with **myHomeControl**.

The gateway must be previously configured for local operation. The following steps are necessary for this:

- Reset gateway
- Set up gateway for local communication
- Enter the IP address of the myHomeControl server
This address is displayed under Settings/Kopp Blue-control communication.
- Configure WLAN access"

myHomeControl automatically recognizes the gateway when it starts and scans all Blue-control devices. These are displayed under Settings/Kopp Blue-control communication.



MQTT Broker id: id (ip address) to be set within the configuration of the blue-control gateway



refresh. Polls the blue-control gateway for a report of all devices



shows the details of the blue-control gateway

Each of the tabs of the table lists the sum of all devices of the corresponding type. An icon with a red background indicates that at least one of the devices is not connected. A ! sign indicates that at least one of the devices is not linked to a block or that a corresponding block was used in the project that is not linked to any device.

Id: Type-specific identification number of the device in the Blue control system

Name: Device name assigned in the Blue-control app

Mapping: Reference to the block that is linked to the device

Modbus

This communication requires a corresponding license.

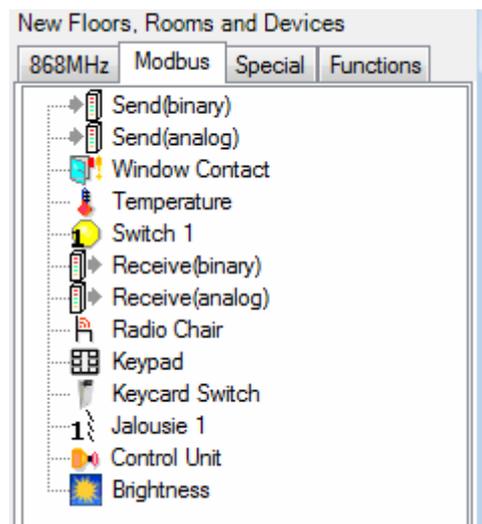
Following Modbus protocols are supported:

- ModbusTCP via Ethernet
- ModbusRTU via serial Ports or USB-serial converters. The dialects RTU and ASCII are supported.

The medium must first be enabled as described under [Enabled Media](#).

Both protocols might be operated in parallel.

In case the option „Modbus“ has been licensed, then an additional tab appears in the [tree view „New Floors, Rooms and Devices“](#). The tree view list all object which can be operated with Modbus.

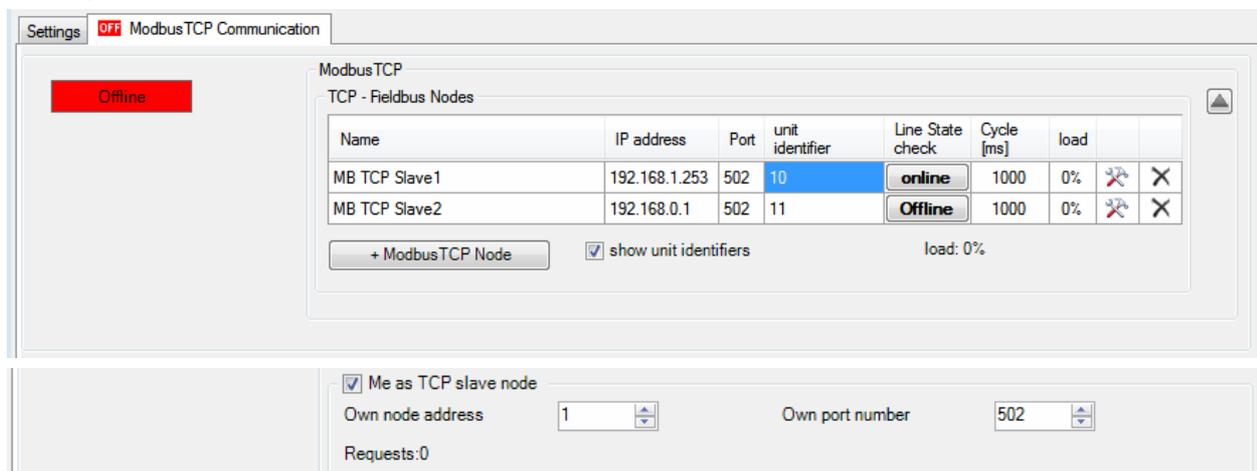


ModbusTCP

This communication requires the [license option: Modbus TCP](#).

WAGO, BECKHOFF or any other Ethernet-Field bus devices might be used as IO-devices as long as they support the ModbusTCP protocol.

Settings:



TCP - Fieldbus Nodes

All nodes have to be defined in the area “TCP - Fieldbus Nodes”. Use the **+ModbusTCP Node**-button to append a supplementary node.

Name

Each of the field bus nodes must be named. This simplifies the assignment to the network blocks in a later step.

IP-Address / Port

This communication type requires the input of the IP address to enable **myHomeControl** to address the slave individually.

Unit identifier

Typically a ModbusTCP slave device ignores the unit identifier. But in context with Modbus-Gateways it might be required to enter individual unit identifiers to address RTU slave devices behind the gateway.

Line State check

The button indicates the connection state. Clicking the button will start a communication check. This means, **myHomeControl** disconnects from the gateway and reestablishes the communication link.

Cycle

Defines the cycle periode to read values from the slave. Slave is polled every XX milliseconds.

Load

The shown %-value describes the part of the cycle time used to read the values from the slave.



Clicking this symbol opens the properties dialog of the individual field bus node. This function is not yet implemented.



Use the  button to remove the row of the corresponding field bus node.

show unit identifiers

Shows/Hides the "unit identifier" column.

Me as TCP slave node

myHomeControl operates as a TCP slave node.

ModbusRTU

This communication requires the [license option: Modbus RTU](#).

WAGO, BECKHOFF or any other Modbus field bus devices might be used as IO-devices as long as they support the ModbusRTU protocol.

Multiple ModbusRTU lines can be operated in parallel. This is useful in case not all the slaves can be configured to a common baudrate or parity. Also performance reasons might be motivation to split up a line.

Settings:

The screenshot shows the 'ModbusRTU Communication' settings window. At the top, there are tabs for 'Settings', 'EnOcean Communication', 'Modbus TCP Communication', and 'ModbusRTU Communication'. The 'ModbusRTU Communication' tab is active, showing a green 'online' status and a '+ LineDriver' button.

There are two main sections for RTU lines:

- MB RTU 1:**
 - COM: COM35, Baud: 9600, Parity: Even, Dialect: RTU
 - RTU - Fieldbus Nodes table:

Name	Address	Line State check	Cycle [ms]	load
MB RTU Slave1	3	online	500	12%
 - load: 12%
- MB RTU 2:**
 - COM: COM3, Baud: 9600, Parity: None, Dialect: RTU
 - RTU - Fieldbus Nodes table:

Name	Address	Line State check	Cycle [ms]	load
MB RTU Slave2	3	not in use	500	0%
MB RTU Slave3	4	not in use	500	0%
 - load: 0%

At the bottom, there is a section for 'Me as RTU slave node':

- Me as RTU slave node
- Own node address: 1
- COM: COM1, Baud: 9600, Parity: None, Dialect: RTU
- Requests: 0

Name the line to ease the selection of the slave within the network blocks.

Select the **COM-Port**, the **baud rate** and the dialect(**RTU/ASCII**).

RTU - Field bus nodes

All nodes have to be defined in the area "Field bus Nodes". Use the **+ModbusRTU Node**-button to append a supplementary transceiver.

Name

Each of the field bus nodes might be named. This simplifies the assignment to the floors in a later step.

Address

This communication type requires the input of the bus address of the slave to enable **myHomeControl** to address the slaves individually.

Line State check

The button indicates the connection state. Clicking the button will start a communication check. This means, **myHomeControl** disconnects from the gateway and reestablishes the communication link.

Cycle

Defines the cycle periode to read values from the slave. Slave is polled every XX milliseconds.

Load

The shown %-value describes the part of the cycle time used to read the values from the slave.



Clicking this symbol opens the properties dialog of the individual field bus node. The mode of writing signals can be defined here (refer to [Modbus functions](#)).



Use the  button to remove the row of the corresponding field bus node.

Regard

Slaves not responding to requests of the master will be only polled every 5-th cycle until they respond

Me as RTU slave node

myHomeControl operates as a RTU slave node.

Addressing of Signals

The properties dialog of the blocks taken from the tab „Modbus“, show a list of all slaves as well as an additional section listing all function channels of the block.

Select the appropriate slave from the list box showing all slaves which have been defined in the communication configuration areas ModbusTCP and ModbusRTU.

Function channels are a kind of signals, which are read from or written to the Modbus slave device. Each block contains an individual set of function channels. Theses function channels have to be mapped to signal addresses of the corresponding slave device.

Application sample:

This section becomes visible in case the block has been dragged into the project from the tab „Modbus“

Modbus functions

The modbus protocols support various function codes to access different signal ranges in the slave.

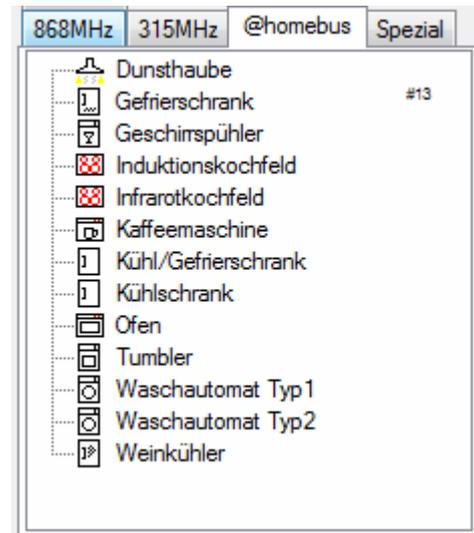
Signal type	direction	Function code	range
binary	read	2	Input
binary	read	1	Coil
binary	write single	5	Coil
binary	write multiple	15	Coils
analogue	read	4	Input Register
analogue	read	3	Holding Register
analogue	write single	6	Holding Register
analogue	write multiple	16	Holding Registers

Miele@home

This communication requires the [license option: @home bus](#).

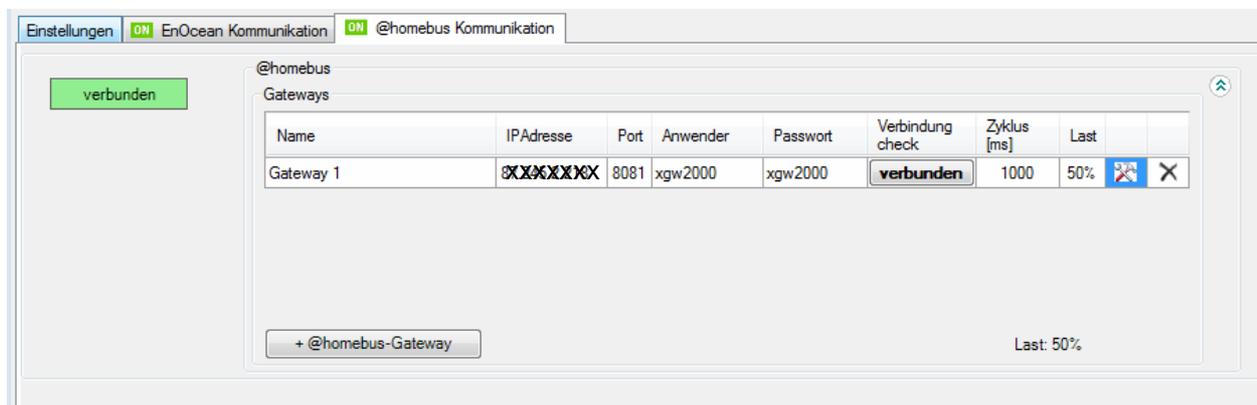
The medium must first be enabled as described under [Enabled Media](#).

In case the option „@home“ has been licensed, then an additional tab appears in the [tree view „New Floors, Rooms and Devices“](#). The tree view list all object which can be operated with @home.



MyHomeControl is able to establish communication to one or multiple [Miele@home](#) gateways connected to the LAN.

General @home communication settings:



@homebus-gateway

Within the section „Gateways“ all [Miele@home](#) gateways must be defined definiert. Use the button „+ @homebus gateway“ to add a row for an additional gateway.

To get additional infromations about the gateway and the connected devices click the symbol of the corresponding row.

Name

Assign each gateway a unique name. This easies the handling within the networks.

IP address / Port

IP adresse / Port used to establish communication with the gateway.

Communication check

Shows the state of the communication

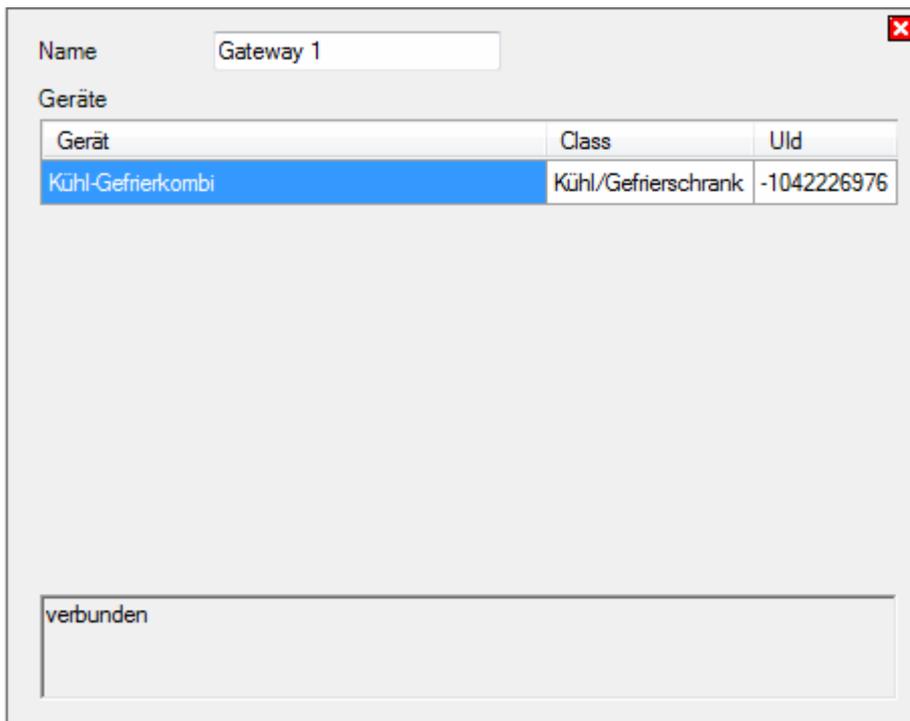


Opens a dialog showing details about the connection, the gateway and the devices connected to the gateway.



Removes the corresponding row.

Settings of the Gateway

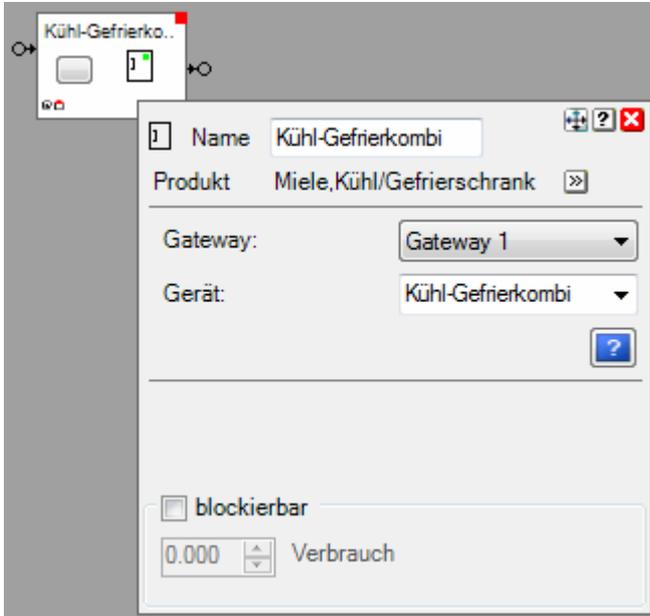


This dialog lists name, type and id of all the devices connected to the gateway.

Assignment of signals

In the settings dialog of the blocks, which have been „taken“ from the register „@homebus“, the gateway and the device has to be selected. The upper list box lists all gateways and the lower all devices of the selected gateway.

Sample:

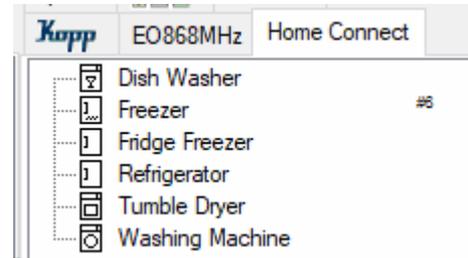


Home Connect

This communication requires the license option: [Home Connect](#).

The medium must first be enabled as described under [Enabled Media](#).

In case the option „Home Connect“ has been licensed, then an additional tab appears in the [tree view „New Floors, Rooms and Devices“](#). The tree view list all object which can be operated with “Home Connect”.



myHomeControl is able to connect to an existing Home Connect account:



Login/Logout to an existing Home Connect account.



data access is authorized



refresh device list

1-Wire

This communication requires a [1-Wire](#) license.

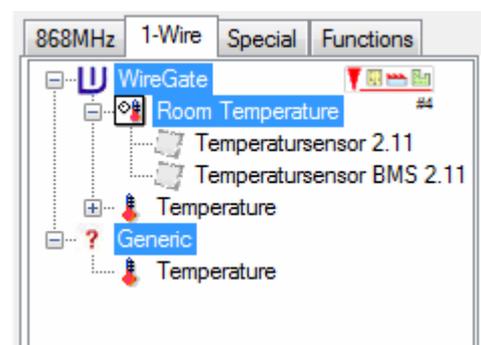
The medium must first be enabled as described under [Enabled Media](#).

To operate a 1-Wire network a USB-Busmaster device is required. Connect the 1-Wire devices to the USB-Busmaster with a 2 or 3 wire cable. The 3 wire powered solution is more preferable than the 2 wire parasitic solution.

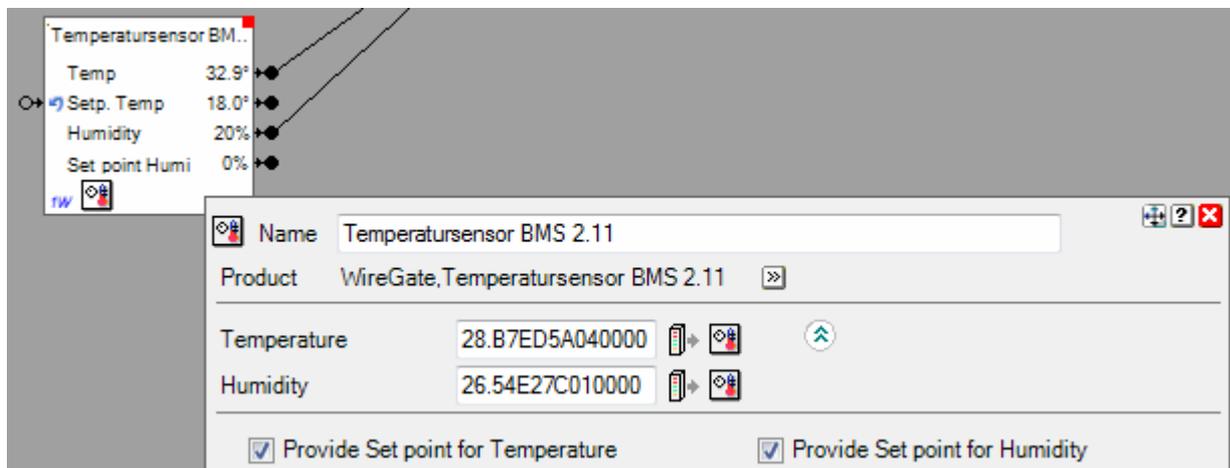
Regard!

Install the 1-Wire driver before plugging in the USB-Master device into the PC's USB port. The driver can be found under start → All Programs → myHomeControl → Drivers → 1Wire.

In case the option „1-Wire“ has been licensed and 1-Wire communication has been enabled, then an additional tab appears in the [tree view „New Floors, Rooms and Devices“](#). The tree view lists all objects which can be operated with 1-Wire.



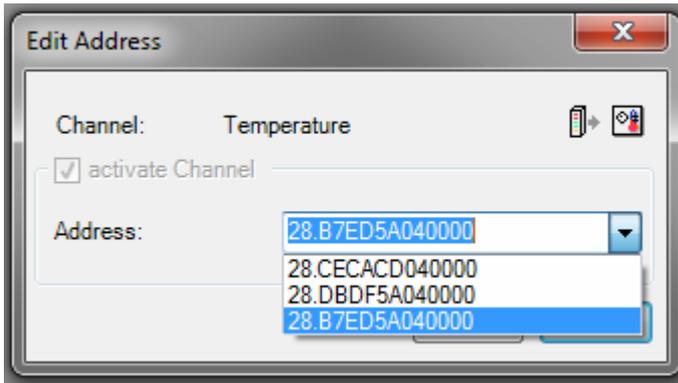
Each 1-Wire device contains 1-n components. Each of the components identifies itself by a unique identifier. This identifier is used to address the component for communication purposes.



Enter the identifier in the corresponding address fields of the settings dialogue of the network block.

The 2 figures in front of the decimal point indicate the family code of the component. This is an indication of the type of the sensor.

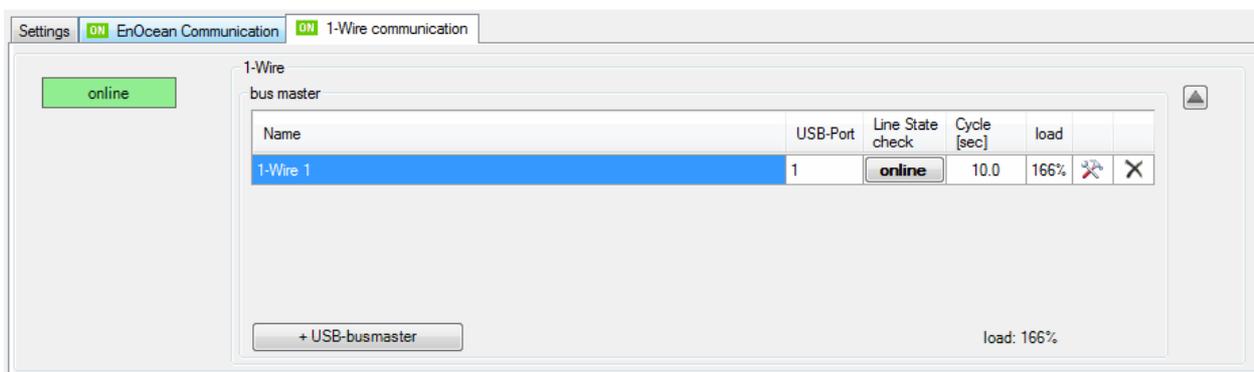
When clicking the address field an additional dialogue opens. Enter the identifier in the appropriate field or select it from the list.



The listbox shows all available Ids of the corresponding type.

Settings:

There is the opportunity to operate multiple 1-Wire busses in parallel. Each bus is driven by a individual 1-Wire bus master.



Add a new line for each 1-Wire USB bus master.

Name

Each of the bus masters can be named individually.

USB-Port

Enter the port number of the port in question.

Line State check

The button indicates the connection state. Clicking the button will start a communication check. This means, **myHomeControl** disconnects from the gateway and reestablishes the communication link.

Cycle

Shows the cycle periode to read values from the slaves. The cycle periode in time is calculated by **myHomeControl** according the amount of slaves/components.

Load

The shown %-value describes the part of the cycle time used to read the values from the slave.



Clicking this symbol opens the properties dialog of the individual slaves.



Use the  button to remove the row of the corresponding bus master.

CANopen

This communication requires a [CANopen](#) license.

The medium must first be enabled as described under [Enabled Media](#).

This communication driver supports the CANopen(PDO/SDO transfers) protocol as well as plain CAN protocol.

A USB-CAN converter is required to communicate with CAN devices. Following converters are supported:
- www.CANUSB.com

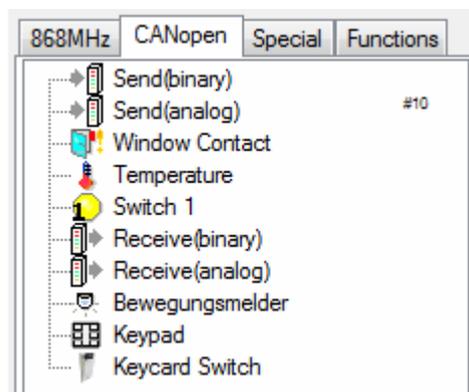
ATTENTION:

Regard install instruction in Appendix I: Install instruction for CAN interfaces before connecting the CAN-USB converter!

Several CAN networks can be operated in parallel. Each network can connect up to 127 nodes.

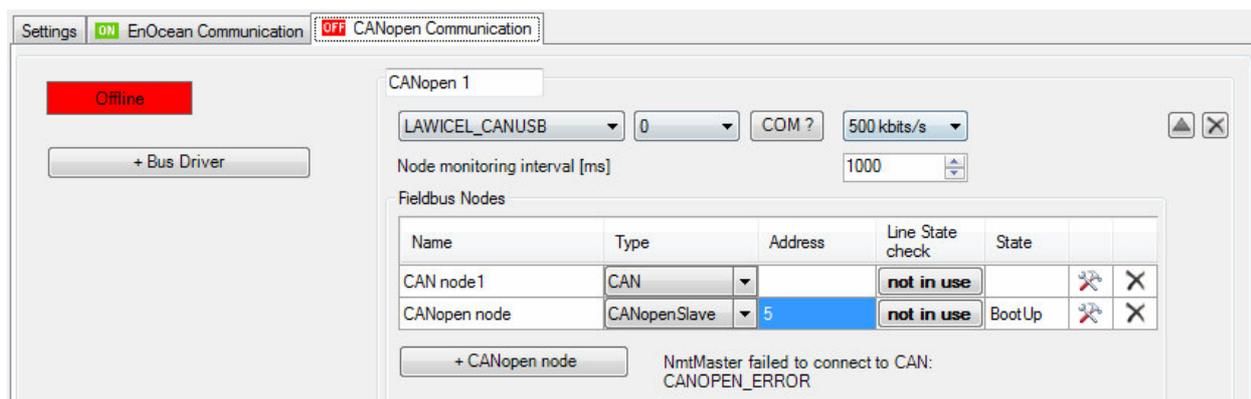
In case the option „CANopen“ has been licensed and CANopen communication has been enabled, then an additional tab appears in the tree view „New Floors, Rooms and Devices“. The tree view lists all objects which can be operated with CANopen.

In case the option „CANopen“ has been licensed and CANopen communication has been enabled, then an additional tab appears in the [tree view „New Floors, Rooms and Devices“](#). The tree view lists all objects which can be operated with CAN/CANopen.



General CAN communication settings:

Multiple CAN networks can be operated in parallel. Each connection to a CAN network requires its own USB-CAN converter.



Assign the network a name. This name will be used within the network view to identify the CAN nodes.

Name

Assign an individual name to each CAN node.

Type

Select the protocol:

- [CAN](#) Common CAN messages are sent/received by the driver. The messages are identified by the CAN-Id. Click  to create CAN-Id objects accordingly. These objects will be used by the network blocks.

Refer to [CAN-Settings](#).

- [CANopen](#) Select this protocol in case communication to CANopen slave nodes is required. **myHomeControl** supports the communication objects TPDO/RPDO and SDO write and read. The CANopen slave nodes will be monitored and controlled by the driver (NMT services). Click  to create PDO objects as required. Refer to [CANopen-Settings](#).

Address

This cell is only in case of CANopen of relevance. Enter the node id.

Line State check

State of the connection. Click the button to reset the node and re-establish the communication.

State

This cell is only in case of CANopen of relevance. It shows the actual communication state of the node.



Click this symbol to open the configuration dialog for the node.

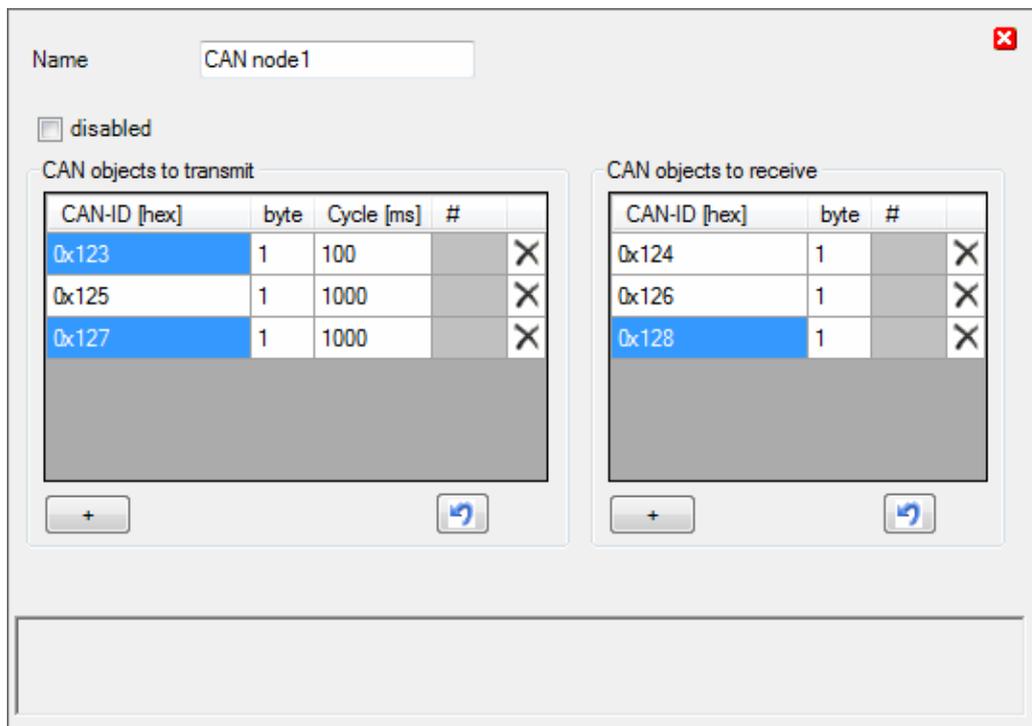


Deletes the node.

Refer to [CAN-Settings](#), [CANopen-Settings](#)

CAN Settings

This dialog shows the CAN communication objects. Each communication object identifies itself by the CAN-ID. The communication objects must be defined before they can be used by the network blocks.



+ adds a communication object.

byte defines the size of the object (1..8 bytes).

Cycle defines the minimal transaction rate of the object. In case the value changes, the object will be transmitted immediately.

shows how often the object has been transferred since last reset of the counter.

X deletes the communication object.

CANopen Settings

In diesem Dialog werden die PDO-Objekte angelegt. Die Standard-PDOs 1-4 sind bereits mit ihren entsprechenden COB-IDs vorinitialisiert. Weitere PDOs können ergänzt werden. Erst nachdem die Objekte angelegt worden sind, können diese in den Netzwerkblöcken verwendet werden.

Name:

disabled

Node monitoring
 Heartbeat
 Node Guarding

Configure the COB-Id without node address.

TPDO

Number	COB-ID [hex]	byte	#	
1	180	8	0	X
2	280	8	0	X
3	380	8	0	X
4	480	8	0	X

RPDO

Number	COB-ID [hex]	byte	#	
1	200	8	0	X
2	300	8	0	X
3	400	8	0	X
4	500	8	0	X

+ adds a communication object.

byte defines the size of the object (1..8 bytes).

Cycle defines the minimal transaction rate of the object. In case the value changes, the object will be transmitted immediately.

shows how often the object has been transferred since last reset of the counter.

X deletes the communication object.

Philips Hue

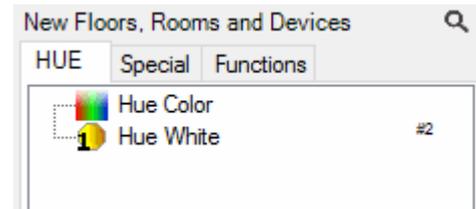
This communication requires a [PhilipsHue](#) license.

The medium must first be enabled as described under [Enabled Media](#).

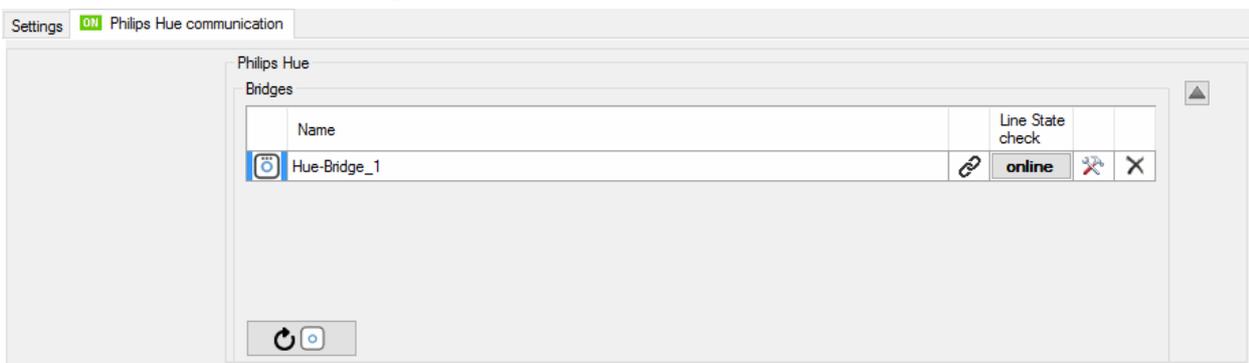
This protocol is intended to be used to communicate with devices from Philips and Osram.

The communication to the Hue- and Lightify-devices base on the HUE-Bridge. The HUE-Bridge must be part of the local network and all devices must be linked to the bridge. **myHomeControl** interfaces the devices via the bridge. The communication between myHomeControl and the bridge is LAN based. Therefore no additional interface device is required.

In case the option „Philips Hue“ has been licensed and Philips Hue communication has been enabled, then an additional tab appears in the [tree view „New Floors, Rooms and Devices“](#). The tree view lists all object which can be operated with Philips Hue.



General communication settings:



The table “Bridges” lists all bridges found in the local network.

Name: An individual name can be assigned to each bridge. The name is only valid within **myHomeControl**. It is used to connect the light blocks inserted in the networks with the corresponding bridge.

Linking state:

	The bridge is linked to myHomeControl and ready to be used.
	The bridge is not yet linked to myHomeControl . Press the button of the bridge once to link the bridge to myHomeControl .

Communication check:

Shows if **myHomeControl** is communicating with the bridge.



Clicking this symbol opens the properties dialog of the individual bridge. It shows additional details regarding the bridge device.



Use the button to remove the row of the corresponding bridge.

IKEA Tradfri

This protocol is intended to be used to communicate with devices from IKEA (Tradfri products).

The medium must first be enabled as described under [Enabled Media](#).

The communication to the IKEA Tradfri-devices is based on the Tradfri gateway. The gateway must be part of the local network and all devices must be linked to the gateway. **myHomeControl** interfaces the devices via the gateway. The communication between myHomeControl and the gateway works via LAN.

In case the option „IKEA Tradfri“ has been enabled, then an additional tab appears in the [tree view „New Floors, Rooms and Devices“](#). The tree view lists all object which can be operated with Philips Hue.



General communication settings:



The table “Gateways” lists all gateways found in the local network.

Name: An individual name can be assigned to each gateway. The name is only valid within **myHomeControl**. It is used to connect the light blocks inserted in the networks with the corresponding gateway.

Security code: Enter once the security code printed on the back side of the gateway.

Communication check:

Shows if **myHomeControl** is communicating with the gateway.



Clicking this symbol opens the properties dialog of the individual gateway. It shows additional details regarding the gateway device.



Use the  button to remove the row of the corresponding gateway.

Detail information regarding the gateway and the linked devices:

MQTT

This protocol is intended to be used to communicate with MQTT client devices. MQTT uses the LAN to communicate. Therefore no additional hardware is required to perform the MQTT protocol.

The medium must first be enabled as described under [Enabled Media](#).

If MQTT communication is activated, then myHomeControl starts the internal MQTT broker in the background. Every MQTT system requires a broker.

The MQTT broker listens on port 1883.

SONOFF

This chapter describes the usage of SONOFF devices by Itead.

Before SONOFF devices can be used within myHomeControl the devices must be linked to the local network. Follow these steps:

1. Download the config tool from Itead:
[https://github.com/itead/Sonoff_Devices_DIY_Tools/blob/master/tool/tool_01DIY85\(3.3.0\).exe](https://github.com/itead/Sonoff_Devices_DIY_Tools/blob/master/tool/tool_01DIY85(3.3.0).exe)
2. Enable the hotspot on your phone with SSID: **sonoffdiy** and PW: **20170618sn**.
3. Connect the computer where the BIY-Tool has been downloaded to the hotspot.
4. To enable the DIY mode open the housing of the SONOFF and plug in the bridge which has been deployed with the device.
5. Start SONOFF. It will connect itself with the hotspot.
6. Start the DIY-Tool on your computer.
7. Select the SONOFF device in question and click button „Change SSID Password“.
8. Enter SSID and PW of your regular network.

Following link describes the process in detail:

https://github.com/itead/Sonoff_Devices_DIY_Tools/blob/master/SONOFF%20DIY%20MODE%20Protocol%20Doc%20v1.4.md

Lists

List of Devices

The “list of devices” (Main menu Lists/List of Devices) lists all hardware devices with their product type information, counting and supplementary information about the location in the building. This list might be used as an order list.

Device type	Count	Room	Name	Addr.	Identification	Location	Comment
Omnio, ATF101	1	OG/Büro	Temperatur	23912			
Omnio, FK101	4						
Omnio, LS101	1	OG/Büro	Helligkeit	20632			
Omnio, RTF102	5						
Omnio, UPD230/01	11						
Omnio, UPJ230/01	10						

Room	Name	Product type	Addr.	Identification	Location	Comment
Steuerung/Steuerung	Schock Süd	▼	75			
EG/Wohnen	Licht Süd	▼	693584			
EG/Wohnen	Bl. Süd(W)	▼	63			

This information might be entered in the properties dialog of the network blocks. The columns with block text are editable.

The lower table list all devices not yet equipped with type or location information. This information might be completed directly in the table or in the properties dialog of the corresponding network block.

The button  moves completed rows into the upper table.

Refer to [Device type and location information](#).

Copy to Excel

1. Select all cells with a click on the most left header cell (the empty one).
2. Press Ctrl-C to copy the selected cells.
3. Open Excel spread sheet.
4. Select the cell of the Excel spread sheet where the information shall be copied.
5. Press Ctrl-V to insert the copied cells.

List of Blocks

The “List of Blocks” (Main menu Lists/List of Blocks) list all blocks used in the actual project. It shows the location where the blocks are located by means of floor and room.

	Block Type	Count	Block Reference	licensed
<input type="checkbox"/>	Brightness	2		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Dimmer	4	Simulation/Office/Ceiling	<input checked="" type="checkbox"/>
<input type="checkbox"/>			Simulation/Comfort/Couch	<input checked="" type="checkbox"/>
<input type="checkbox"/>			Online/Comfort/Couch	<input checked="" type="checkbox"/>
<input type="checkbox"/>			Online/Office/Ceiling	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Filter	26		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Jalousie 1	4		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Presence Indication	2		<input checked="" type="checkbox"/>
<input type="checkbox"/>	PTM Radio Button	14		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Radio Chair	2		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Room Temperature Sensor	3		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Scenes	2		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Switch 1	16		<input checked="" type="checkbox"/>

The column "licensed" indicate the license state of the blocks. Unlicensed blocks will remain in a blocked state. They will not react on input signals and will not generate any output signals on there pins.

- Block is enabled and works as expected. 1)
- Block is blocked.
- This row contains blocked blocks.
- myHomeControl runs in demo mode, blocks are enabled. 1)

1) In case the communication to the gateway is in blocked state (due to any license conflicts), even enabled blocks may not work in expected manner.

The column "Block Reference" contains links. If one of the links gets clicked then the corresponding element will be selected in all the views.

Configuration check

This function is not yet implemented!

Licensing

myHomeControl® basic functionality can be extended by various additional features. These features are enabled by license options which can be acquired separately. The enabled options are shown in the menu ?/About.

There are two types of license options:

The permanent license options enable the corresponding feature of an unlimited periode of time.

The temporary license options enable the corresponding feature for a limited period of time. This usually fits for features e.g. configuration wizards for devices.

Billing of License Points

All functions that have physical input signals or output signals are calculated with data points. These are typically myHomeControl functions (blocks) that map physical devices.

A distinction is made between "simple" devices such as sensors (light switches, temperature sensors, etc.), actuators (switch actuators, dimmers, roller shutters, etc.) and "complex" devices such as power converters, charging stations, etc.

Sensors are calculated as sensor points, actuators as actuator points. Complex devices consume data points.

A myHomeControl license always includes a quantity structure of xx sensor points and yy actuator points. These are consumed by the sensors and actuators. The sum of the remaining points serves as data points and is consumed by complex devices.

Example:

Quantity structure of the license: 20 sensor points, 20 actuator points

Device	Sensor points	Actuator points	Data points
5x Rocker button switch	5		
2x Temperatur sensor	2		
1x 4-fold switch actuator		4	
1x Power inverter			10
Sum	7	4	10

In the example above, a total of 24 data points remain free $(20SP+20AP) - (7SP-4AP-10DP) = 19$

Thus, for example, the following devices could also be added to the project:

- 13 sensors and 6 actuators
- 3 sensors and 16 actuators
- 3 sensors and 6 actuators and 1 converter

A list showing the consumption of license points for each supported device can be retrieved by the menu ?/Supported devices.

Permanent License Options

License option: Weather

Support for various weather stations. The weather data acquired by the weather station can be shown in the visualization and might be used within the networks for logical operations.

This option is enabled by default.

License option: Email, SMS, phone

Support for email, sms and phone. This option enables the corresponding blocks to send emails, sms.

This option is enabled by default.

License option: EnOcean

Enables the communication to EnOcean enabled devices.
This option is enabled by default.

License option: Modbus TCP

Enables the communication to ModbusTCP enabled devices.

License option: Modbus RTU

Enables the communication to ModbusRTU enabled devices.

License option: PEHA PHC

Enables the communication to PHC devices.

License option: Baudrate selector

Enables to control the communication speed to the gateway. This option is useful in case the gateways used supporting various communication speeds.

License option: CompactWEB small

By default the amount of simultaneous browser sessions is limited to 3.

License option: CompactWEB large

This option limits the amount of simultaneous browser sessions to 20.

License option: ClientStations

Enables the support for multiple operating stations (clients) beside the master station. The master station processes the logic functions, where the clients can only be used as user interface for visualization and operation purposes.

License option: @home bus

Enables the communication to devices supporting the [Miele@home](#) bus e.g. fridges, freezers, oven, cookers.

License option: Infrared

Enables the communication to multi media devices via infra red. This option enables the support of IRTrans devices. Refer to [IR-Device](#).

License option: Nx FGW14/GW-R-T-2

Enables the direct, wire based communication to the series 14 devices of Eltako and Jäger-Direkt. There are following options available:

- 1x FGW14/GW-R-T-2: enables 1 connection to 1 series 14 bus system.
- 2x FGW14/GW-R-T-2: enables 2 connections to 2 series 14 bus systems.
- 3x FGW14/GW-R-T-2: enables 3 connections to 3 series 14 bus systems.
- 5x FGW14/GW-R-T-2: enables 5 connections to 5 series 14 bus systems.
- 10x FGW14/GW-R-T-2: enables 10 connections to 10 series 14 bus systems.

Refer to [FGW14/GW-R-T-2](#).

License option: 1-Wire

Enables the communication to 1-Wire devices. This option enables the support of 1-Wire devices. Refer to [1-Wire](#).

License option: KNX

Enables the communication to KNX devices. This option enables the support of KNX devices. Refer to [KNX](#).

License option: CANopen

Enables the communication to devices using the CAN or CANopen standard. This option enables the support of CANopen devices. Refer to [CANopen](#).

License option: ALLNET

Enables the communication to devices provided by ALLNET. This option enables the support of ALLNET devices. Refer to [ALLNET](#).

License option: Philips Hue

Enables the communication to devices provided by Philips (HUE products) and Osram (Lightify products). Refer to [Philips Hue](#).

License option: Apple HomeKit

Enables the interface to the Apple HomeKit. Refer to [General Settings / Apple HomeKit](#).

License option: Amazon Alexa

Enables the interface to Alexa speech recognition. Refer to [General Settings / Amazon Alexa](#).

License option: Sonos

This option the multi room audio system from SONOS to be linked with **myHomeControl**®. Refer to [Sonos Zone](#) and [Sonos Media](#).

License option: Netatmo

This option enables various Netatmo products to be linked with **myHomeControl**®. Refer to [Netatmo](#).

License option: PV-Inverter

This option enables various PV inverter products to be linked to **myHomeControl**®. Refer to [Photovoltaic inverter](#).

License option: Replication

This option enables the template function for rooms.

License option: Booking system

This option enables various booking systems connection to be linked to **myHomeControl**®.

License option: Bluetooth

This option enables Bluetooth Low Energy communication. A Bluetooth Gateway is required.

License option: IKEA Tradfri

This option enables communication to a IKEA Tradfri bridge.

License option: MQTT

This option enables communication according the MQTT standard.

License option: Kopp

This option marks myHomeControl as a Kopp product.

License option: Charging station

Enables to link various charging station products to load electric mobiles to **myHomeControl®**. Refer to [Charging station](#).

License option: Somfy

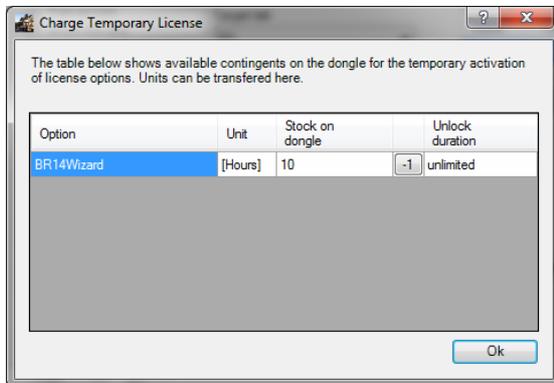
This option enables various Somfy products to be linked to **myHomeControl®**.

License option: Home Connect

This option enables various appliances, supporting the Home Connect communication standard, to be linked to **myHomeControl®**.

Temporary License Options

Temporary licenses are to buy by quota. To use the corresponding feature a part of the quota must be activated. This consumes a part of the quota. Use the menu ?/Charge temporary license... to activate the temporary license.



This dialog shows the available quotas of the temporary options and there activated duration.

Use the button  to activate an additional period of time to use the feature.

License option: Linking Wizard

Enables the configuration wizard for the devices from Eltako and Jäger-Direkt. Refer to [Linking Wizard](#).

Troubleshooting

myHomeControl® breaks during startup showing an error message

The project database seems to be corrupt. To restart **myHomeControl®** successfully, the project files have to be deleted in advance. **myHomeControl®** creates backups of the project periodically, so deleting project files doesn't necessarily mean lost of the project.

After restarting **myHomeControl®** there is the opportunity to load a backup of the recent project.

1. press Windows start button -> All Programs -> **myHomeControl®** -> Tools -> Clean Project
2. start **myHomeControl®**
3. File -> Project -> load -> select a backup of the project

Multiple Application Start

Either **myHomeControl®** has been already started, is actually running or didn't terminate correctly. In case no **myHomeControl®** related window can be seen, then use the task manager to terminate a running instance of **myHomeControl®**.

Right click the windows start line -> Start Task Manager -> click tab "Processes" -> select HomeControl.exe -> press button "End Process".

Now **myHomeControl®** should be able to be restarted.

Restart of myHomeControl® fails

Refer to [myHomeControl® breaks during startup showing an error message](#)

Uninstall of myHomeControl® fails

Limited access rights

If uninstall of **myHomeControl®** fails due to access rights, then follow these steps:

1. open windows explorer and navigate to folder:
C:\Program Files\BootUp GmbH\myHomeControl V1.2.
2. Click right mouse button on file "uninstall.bat"
3. Select menu "Run as administrator"
4. Accept the message from the User Account Control by clicking "Yes".

Uninstall stopps

In case Avira firewall has been installed, then there is a modul avoiding uninstall since Avira update Jun 28 / 2011. Uninstall the module: "ProActive". Refer to following link for details:

<http://forum.avira.de/wbb/index.php?page=Thread&postID=1093606>

Appendix A: EnOcean Profiles

Profiles are standardized by the EnOcean-Alliance. They define the mapping of the data within the radio messages. Details can be found in the corresponding EnOcean document „ EnOcean Equipment Profiles“. This document can be downloaded from the EnOcean WEB site (www.EnOcean.com).

Appendix B: Supported Devices

Please find a list of all supported devices under following link:

http://www.myhomecontrol.ch/Download/EN_SupportedDevices.pdf

EnOcean Gateways

Kind	Manufacturer	Type	myHomeControl Protocol
USB			
	BootUp	USB2-EnO868	EnOcean Serial Protocol V1
		USB2-EnO315	EnOcean Serial Protocol V1
	BSC	BoR	EnOcean Serial Protocol V1
	Hardsoft	EasyTED	EnOcean Serial Protocol V1
	Omnio		EnOcean Serial Protocol V1
RS232 / USB			
	BootUp	RS232-EnO868	EnOcean Serial Protocol V1
		RS232-EnO315	EnOcean Serial Protocol V1
	Omnio		EnOcean Serial Protocol V1
RS485			
	BootUp	RS485-EnO868	EnOcean Serial Protocol V1
		RS485-EnO315	EnOcean Serial Protocol V1
	Omnio		Omnio 485-Bus
Ethernet			
	Thermokon	EasySens STC-Ethernet	Thermokon STC-Ethernet
		EasySens SRC-Ethernet	Thermokon SRC-Ethernet (receiving only!)

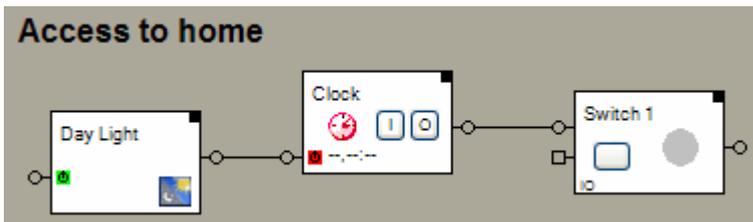
Appendix C: Application Samples

During the installation process of **myHomeControl®** a demo project has been installed as well. It is located in the sub folder DemoProjects and it is called Project_EnOcean-Demo. Feel free to load it using the menu File/Project/load.

Lights

Access to home

In the evening during sun set the lights of the access to the home shall switch on. On working days the lights shall switch off at 22:30 and at the week end at 23:45 for the convenience of our guests.



The Day Light block activates the Clock during sun set and deactivates it in the morning.

The screenshot shows a configuration window for the 'Day Light' block. It includes a table for sunrise and sunset times, an 'invert' checkbox, and fields for 'active' status and 'last event'.

	Today:	Delay	sending at:	
Sun Rise	08:04 ->	0	-> 08:04	OFF
Sunset	20:04 ->	10	-> 20:14	ON

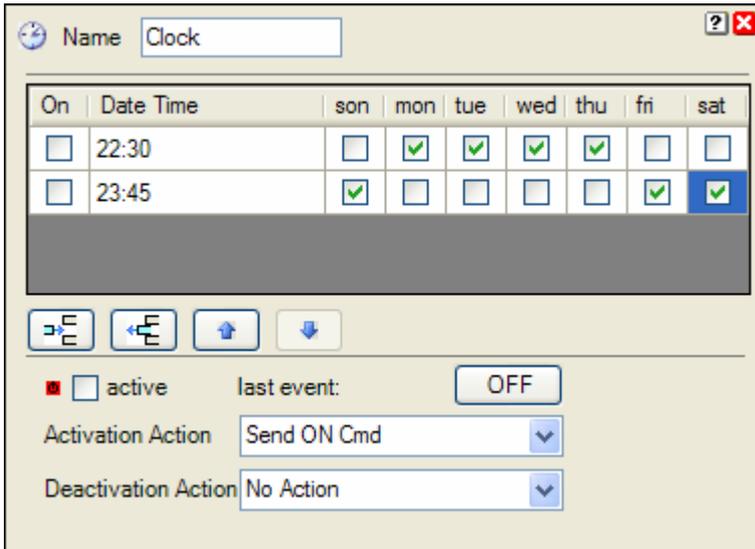
invert

active last event: OFF

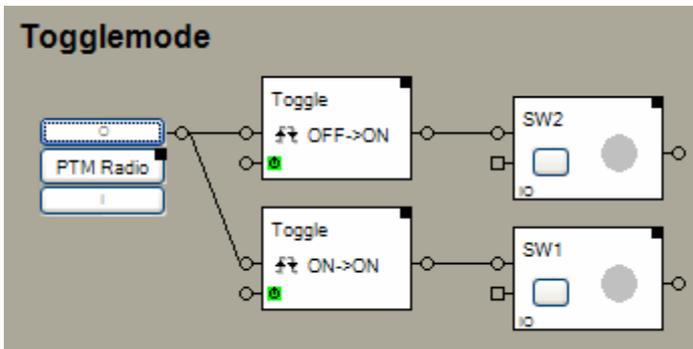
Activation Action: No Action

Deactivation Action: No Action

When the Clock gets activated by the Day Light block, it generates an ON command, which switches on the lights. Later the Clock generates an OFF command due to its configured times.

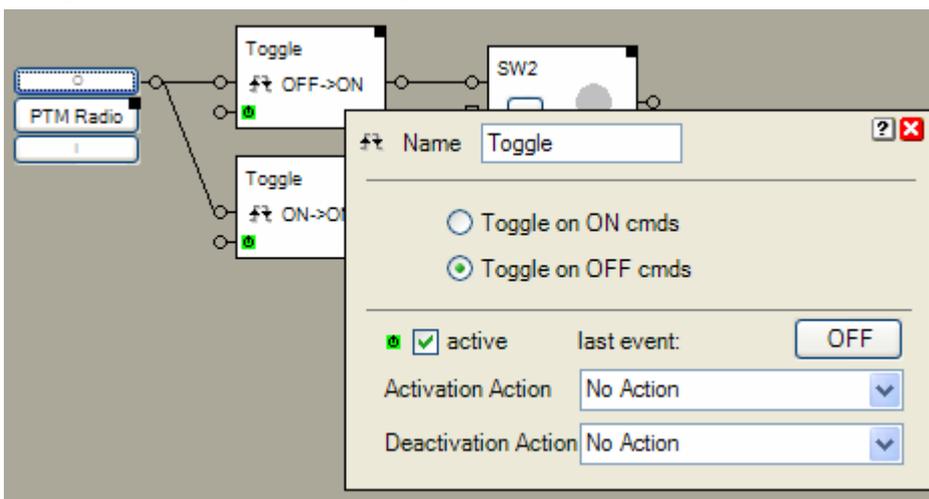


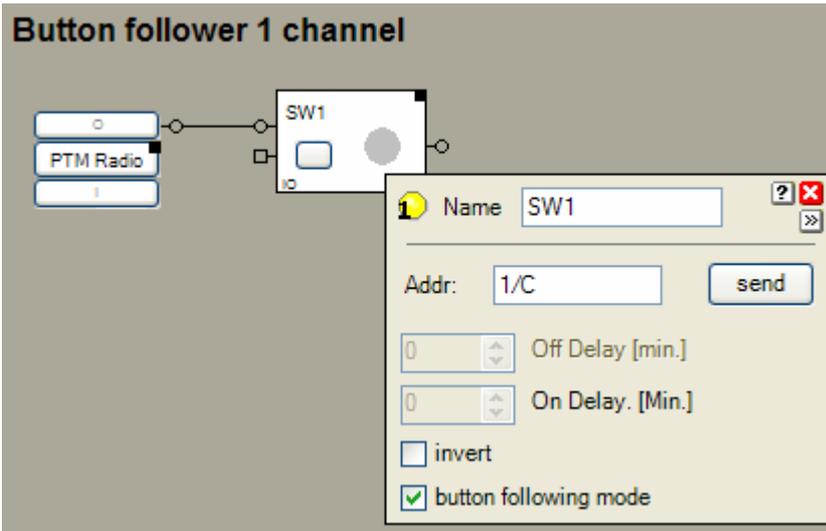
PTM230 Module



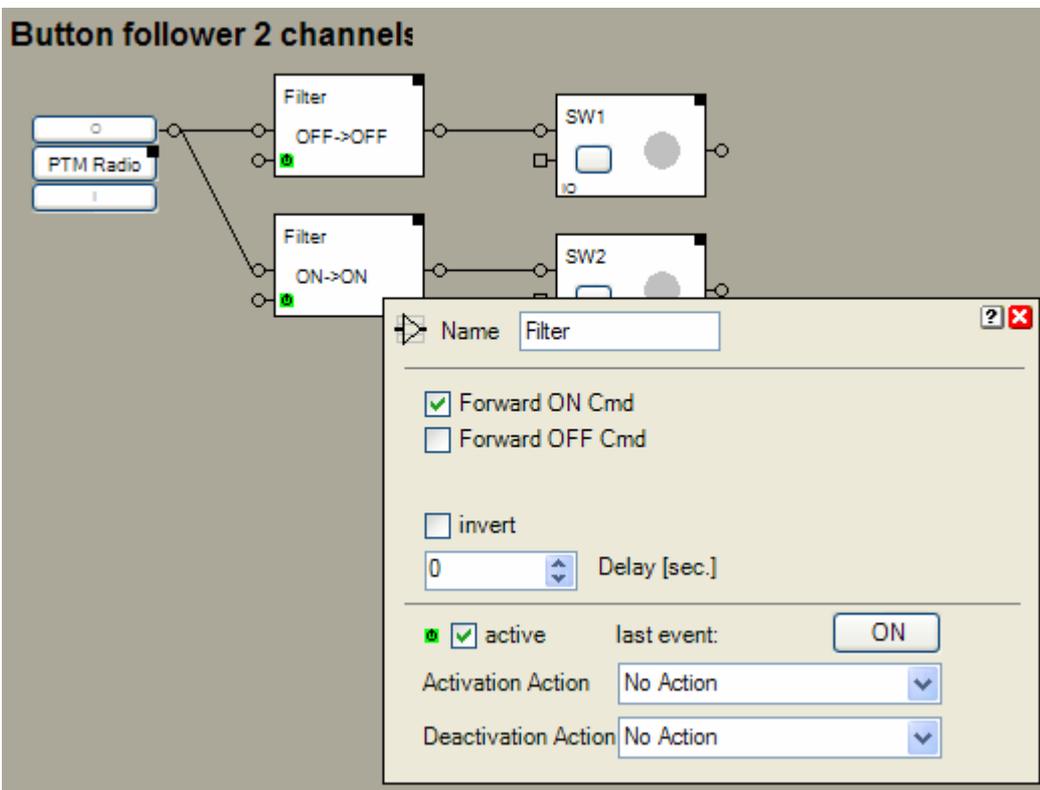
The [PTM radio button](#) represents in this sample the PTM230 module with two channels. Each channel controls an individual [switching actuator](#). When the button is pressed the first time the corresponding switching actuator switches on. With the next button press the actuator switches off.

The upper [toggle block](#) reacts on OFF commands, the lower one on ON command. This has been configured in the properties dialogs of the blocks.





In case a single button is used the switching actuator might be directly connected to the [PTM radio button block](#). If the button following mode has been activated, then the actuator will switch on during the button is pressed.

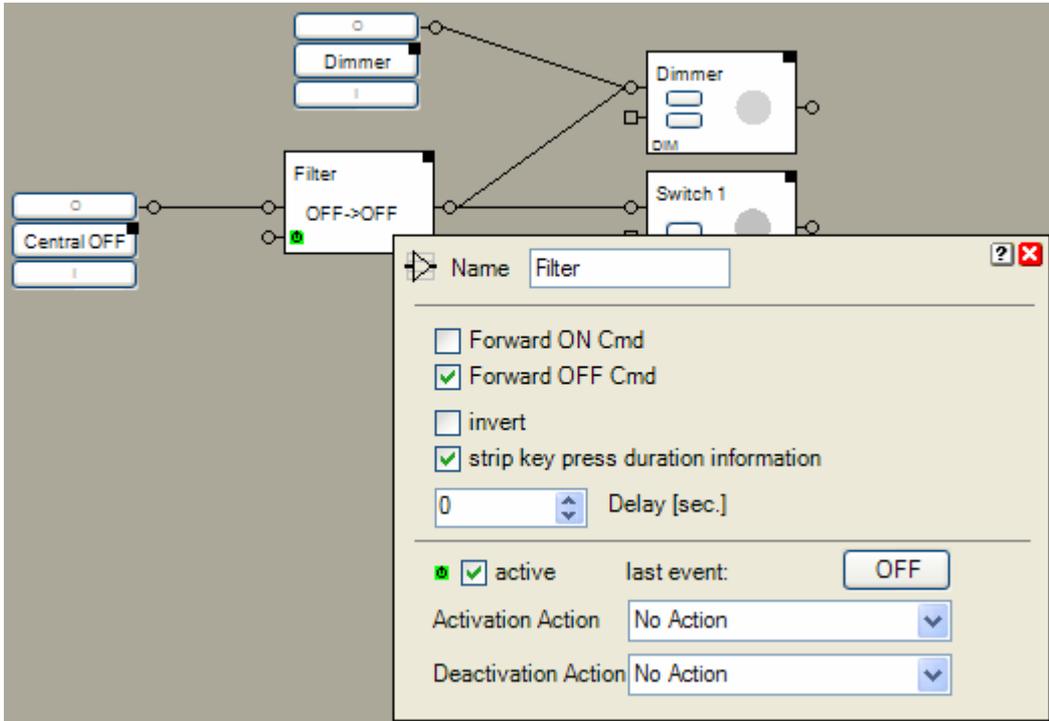


In case a double button module will be used, then the ON and OFF commands must be separated. Use [filter blocks](#) to separate the commands. The upper filter block forwards only OFF commands and the lower one only ON commands.

Central OFF

Problem statement:

In case there are any dimmers in the installation and there brightness will be controlled by PTM buttons, then the direct connection of a Central OFF – PTM button to the dimmers may result in unexpected behavior. If the configuration of the dimmers enable touch dim functionality (Switch mode is disabled), then the behavior of the dimmer depend on the duration of the key press. If a key is pressed for more then 0.5 seconds the dimming process will be started. This is unexpected behavior with the Central OFF key.

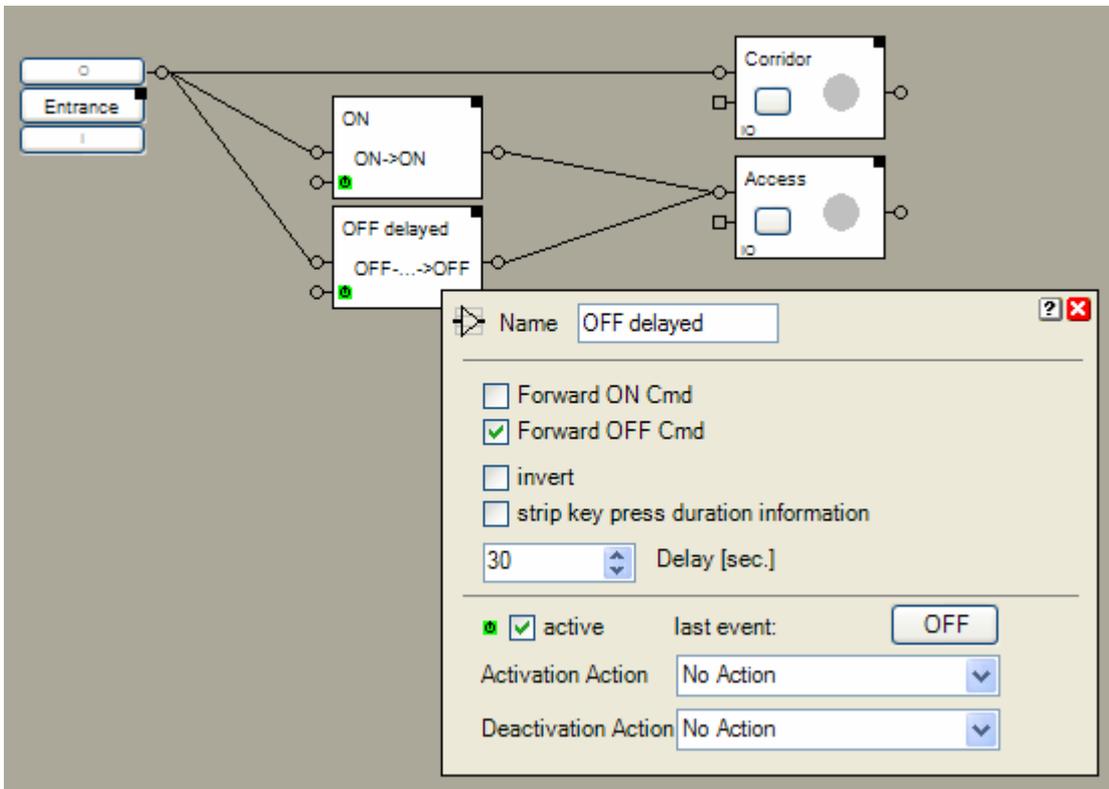


In this case insert a filter block and enable the „strip key press duration information“ feature. This avoids dimmer blocks from entering the dimming processes.

Delayed Off

A PTM radio button, located next to the entrance door, is used to switch on and off the lights of the corridor and the access to the house.

After say goodbye to our guests, the lights of the corridor will be switched of by pressing the OFF button of the PTM radio button. The lights of the access to the house shall light for another 30 seconds to lead the guests to there car.



If the OFF button has been pressed, the filter block “OFF delayed” will delay the OFF command. This means, it stores the OFF command for about 30 seconds and sends it to the switching actuator after the delay period has expired.

Special case:

If the ON button will be pressed once again before the delay has been expired, then the filter block rejects the stored OFF command to avoid unexpected switch off of the illumination of the access to the house.

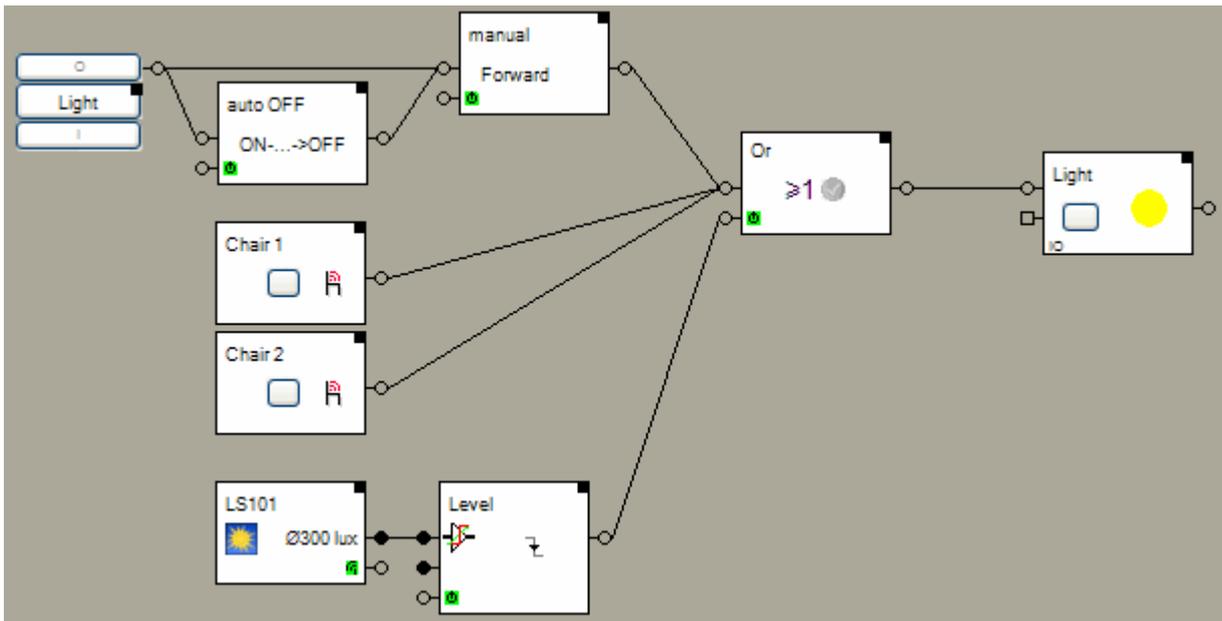
Lights in office controlled by radio chairs

Within this sample the [or block](#) plays a central role. The light is on as long as at least one of the chairs is occupied or the light have been switched on manually.

The [rocker push button switch](#) at the door switches the light on or off. The [filter block](#) „auto OFF“ releases the manual command.

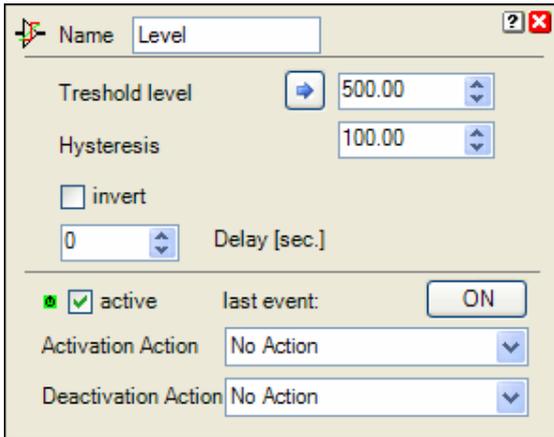
The light is on as long as the manual path or one of the chairs is ON.

The filter block „manual“ combines the rocker push button switch and the filter block „auto OFF“ support the correct operation of the or block.



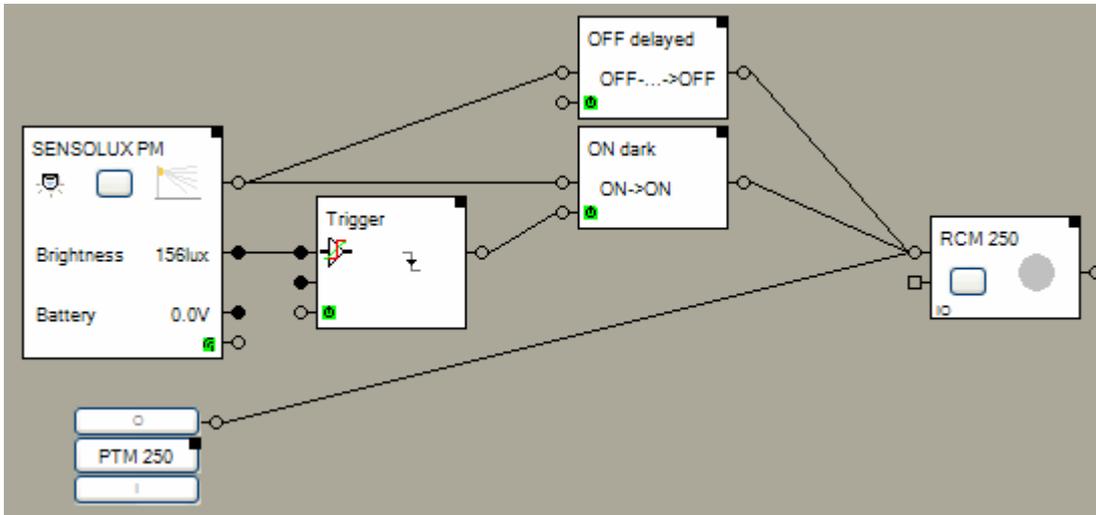
The [activation input](#) of the or block has been used to control the light depending on the brightness. A [outdoor light sensor](#) measures the actual brightness. The [trigger block](#) „Level“ checks whether the brightness level is above a threshold value or below. In case it is above, then the light will be switched of.

<p>Name: <input type="text" value="auto OFF"/></p> <p><input checked="" type="checkbox"/> Forward ON Cmd</p> <p><input type="checkbox"/> Forward OFF Cmd</p> <p><input checked="" type="checkbox"/> invert</p> <p><input type="checkbox"/> strip key press duration information</p> <p>5 Delay [sec.]</p> <p><input checked="" type="checkbox"/> active last event: OFF</p> <p>Activation Action: No Action</p> <p>Deactivation Action: No Action</p>	<p>Name: <input type="text" value="manual"/></p> <p><input checked="" type="checkbox"/> Forward ON Cmd</p> <p><input checked="" type="checkbox"/> Forward OFF Cmd</p> <p><input type="checkbox"/> invert</p> <p><input type="checkbox"/> strip key press duration information</p> <p>0 Delay [sec.]</p> <p><input checked="" type="checkbox"/> active last event: OFF</p> <p>Activation Action: No Action</p> <p>Deactivation Action: No Action</p>
---	---



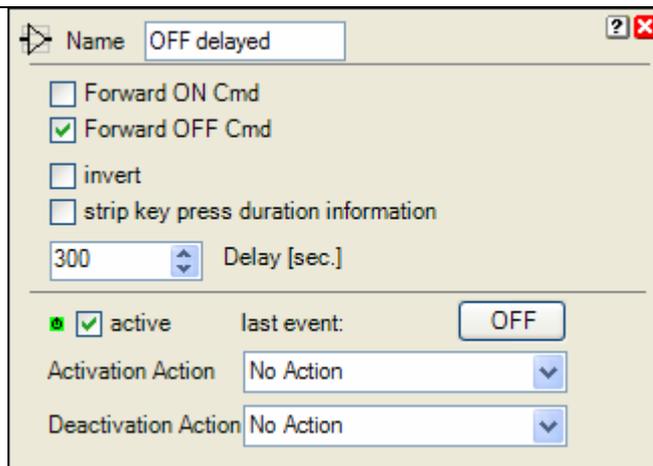
Occupancy Sensor

A light shall be switched on by a occupancy sensor in case it is dark. Switching off shall be delayed after the occupancy sensor detects that the area is free.



The two filter blocks separate the ON and OFF commands of the occupancy sensor.

The OFF commands will be delayed.



The trigger block monitors the brightness signal from the occupancy sensor to be beyond the threshold level.

The trigger block activates/deactivates the ON filter accordingly.

The screenshot shows the configuration window for a 'Trigger' block. The name is 'Trigger'. The 'Threshold level' is set to 300.00 and 'Hysteresis' is set to 100.00. The 'invert' checkbox is checked. The 'Delay [sec.]' is set to 0. The 'active' checkbox is checked, and the 'last event' is 'ON'. Both 'Activation Action' and 'Deactivation Action' are set to 'No Action'.

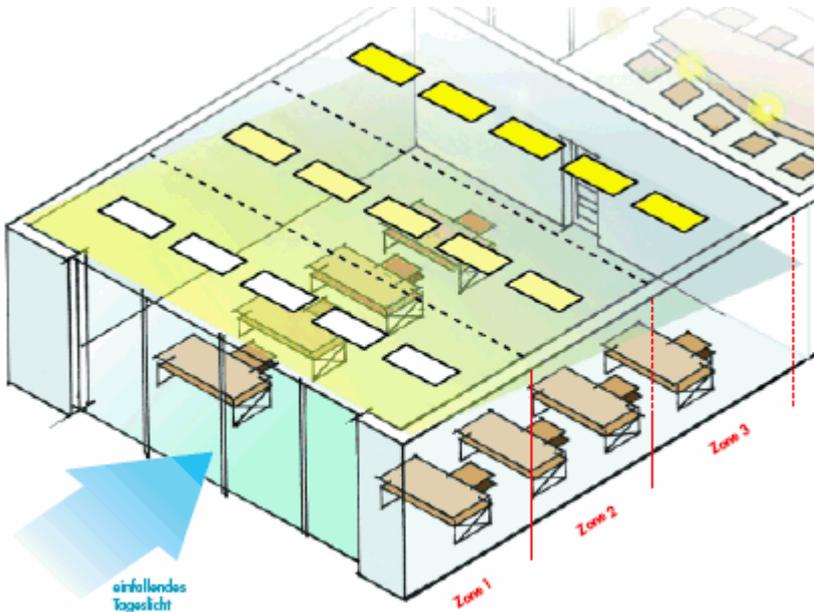
The ON filter forwards ON commands only in case it is activated. This means ON commands will only be forwarded by the block in case the brightness is below the threshold value.

The screenshot shows the configuration window for an 'ON dark' filter block. The name is 'ON dark'. The 'Forward ON Cmd' checkbox is checked, while 'Forward OFF Cmd', 'invert', and 'strip key press duration information' are unchecked. The 'Delay [sec.]' is set to 0. The 'active' checkbox is checked, and the 'last event' is 'OFF'. Both 'Activation Action' and 'Deactivation Action' are set to 'No Action'.

The PTM button enables manual operation.

Constant light control

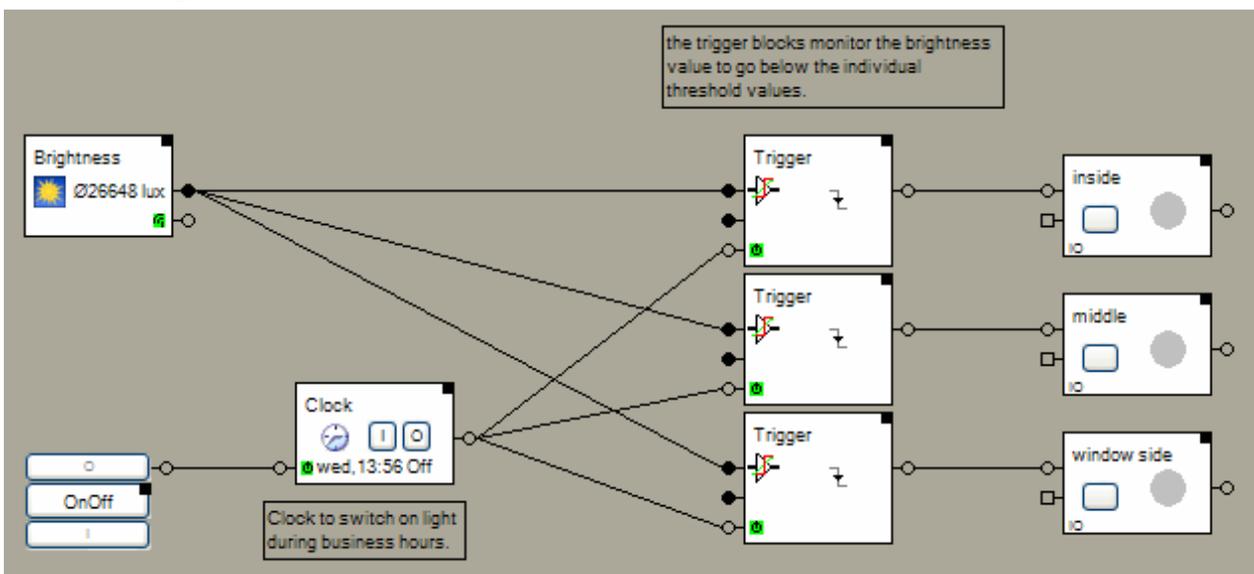
The illumination of a room shall be controlled according to a brightness sensor measuring the outside brightness. Therefore the room is split up in different zones. The illumination will be controlled for each zone individually.



There are two principles to control the illumination:

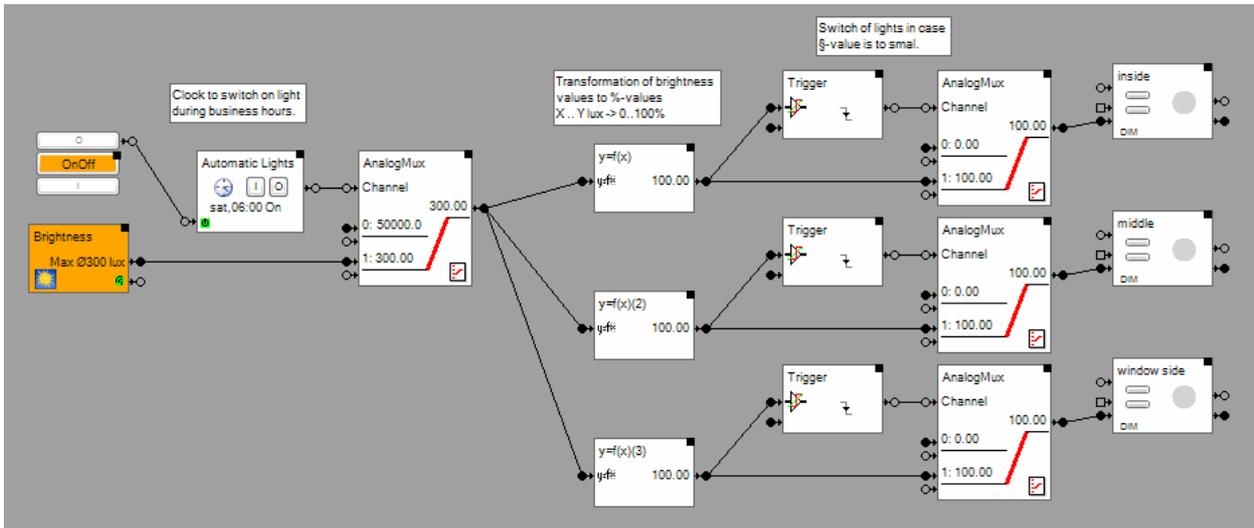
- Switch able lights (Illumination is controlled by the amount of lights switched on)
- Dim able lights (Illumination is controlled by the intensity of light)

Switch able lights:



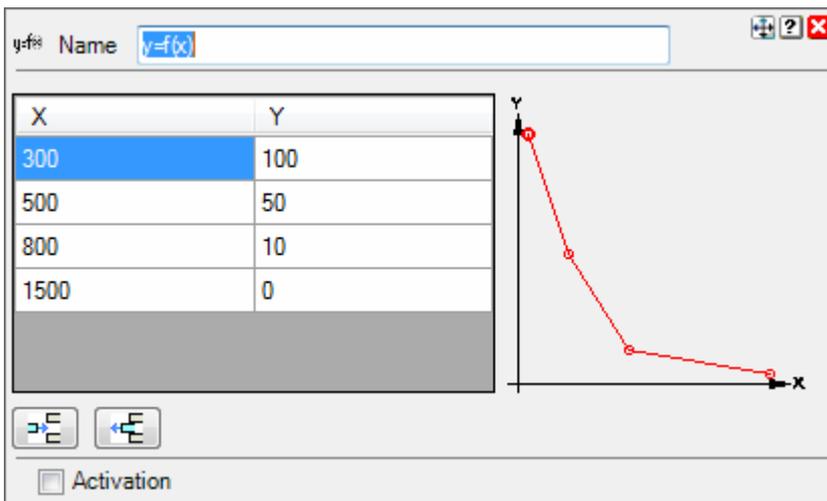
A trigger block monitors the brightness signal to go below a threshold value individually for each zone. In case the brightness value goes below the threshold value the lights of the zone will be switched on.

Dimmable lights:



For each zone the measured value from the brightness sensor will be transformed individually into a %-value to control the dimmer devices. The transformation is done by [y=f\(x\) blocks](#).

Set up of the [y=f\(x\) blocks](#):



Glow suppression:

In case the %-value for the dimmer control comes to a small value (e.g. < 20%), then the dimmed lights do not illuminate the room anymore. Therefore the lights will be switched of to save energy. This function is done by the [Trigger](#) and the [AnalogMux blocks](#).

Name

Threshold level

Hysteresis

invert

Delay [sec.]

active last event:

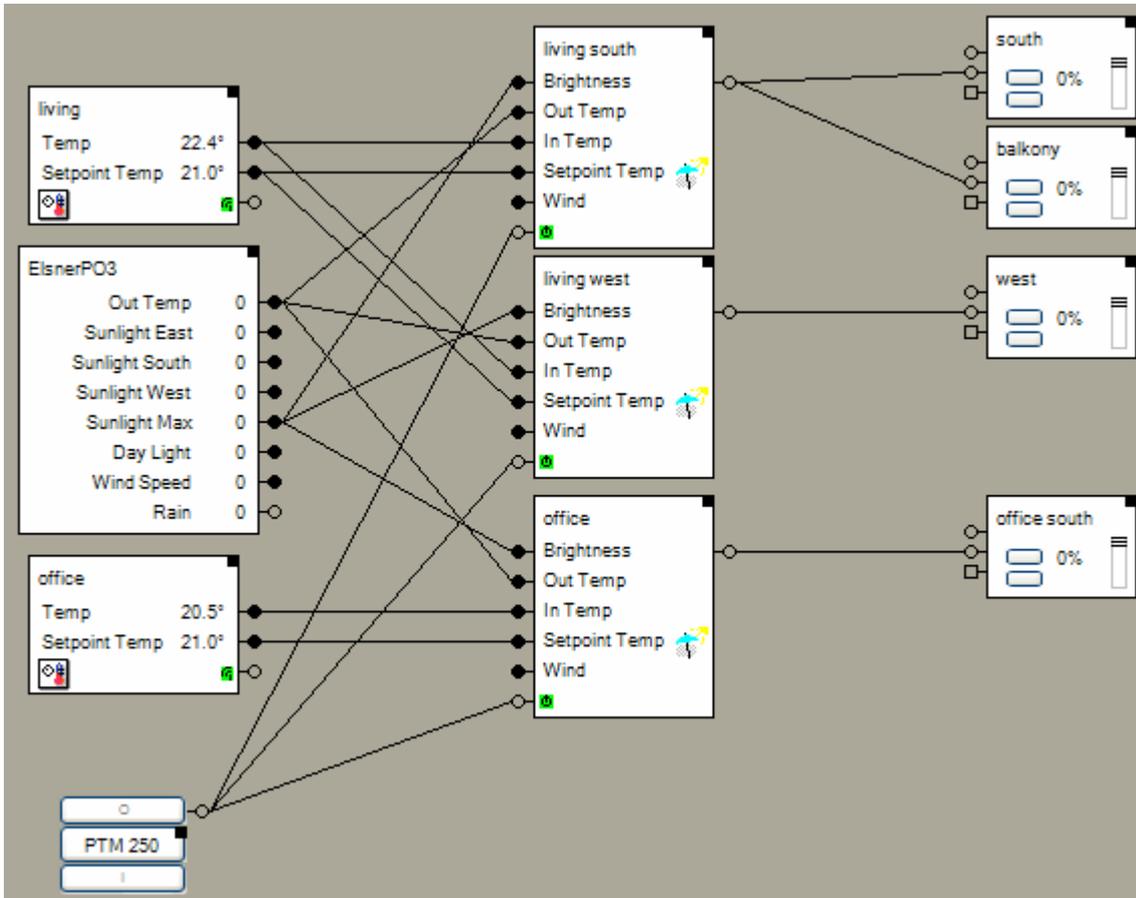
Activation Action

Deactivation Action

Jalousie / Blinds

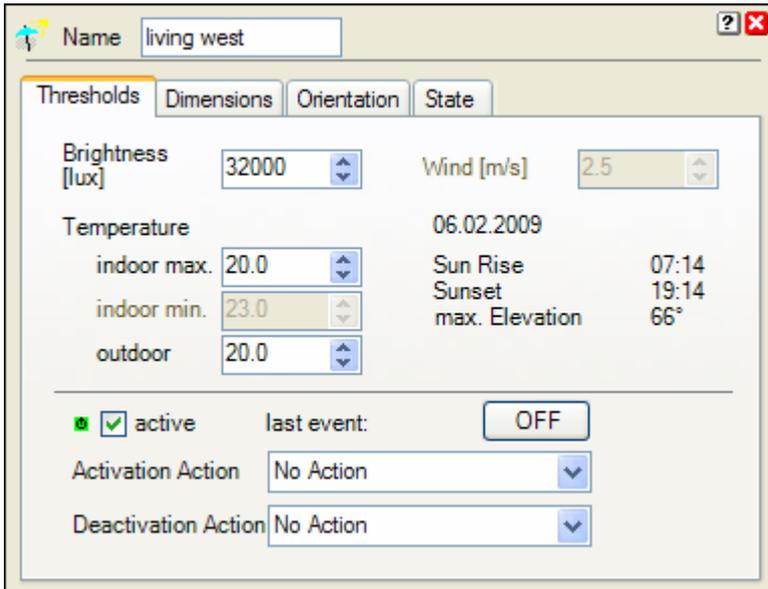
Automatic Shading

The [weather station](#) measures the brightness at a central point. The individual sun light situation of the different windows is calculated by the [shading blocks](#) according the actual position of the sun and the geometric of the building. The shading blocks control the shading input of the [jalousie actuator blocks](#). Consequently the jalousies will move to the shading position.



Beside the position of the sun, the shading blocks also consider different other threshold values to control the jalousies. Which of the threshold values will be considered, depends on the connected signals, e.g. in case a brightness sensor has been connected to the brightness input of the shading block, then the threshold value for the brightness will be considered automatically.

The shading is understood as enhancement to the room temperature control. Therefore the various temperature signals will be connected to the shading blocks.



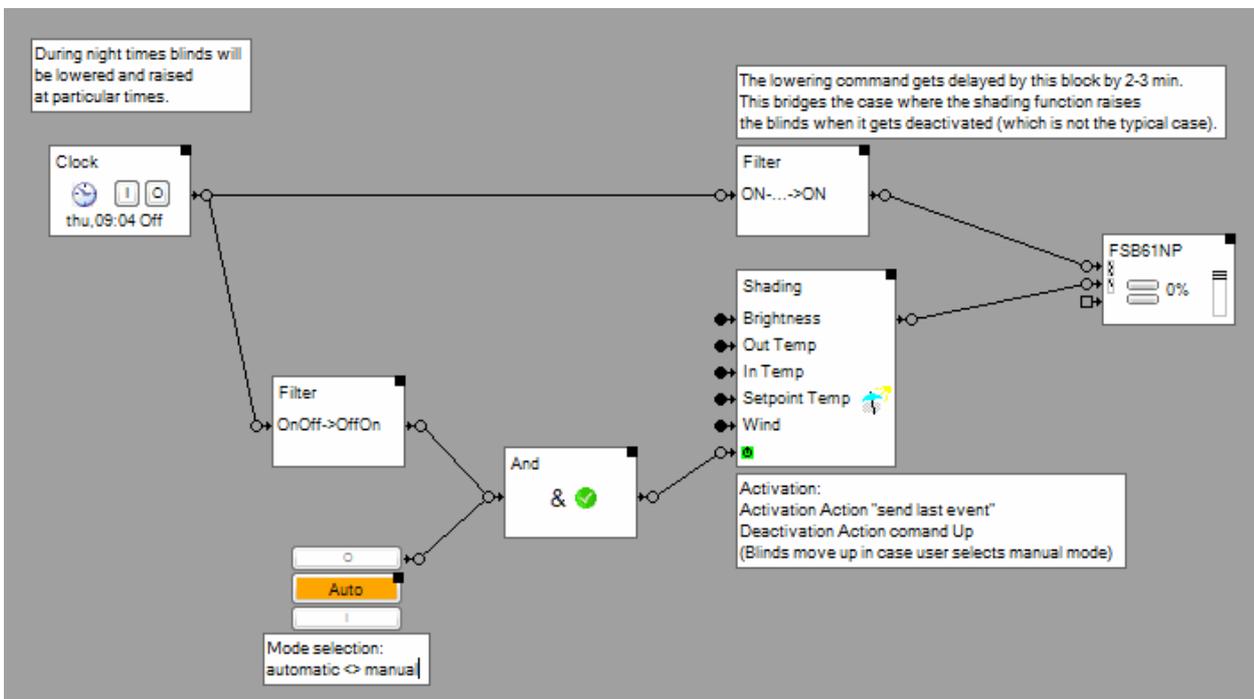
The shading block considers the threshold values for brightness, in and out temperature.

Refer to the description of the [shading block](#) for details.

The PTM button enables the user to activate and deactivate the automatic shading.

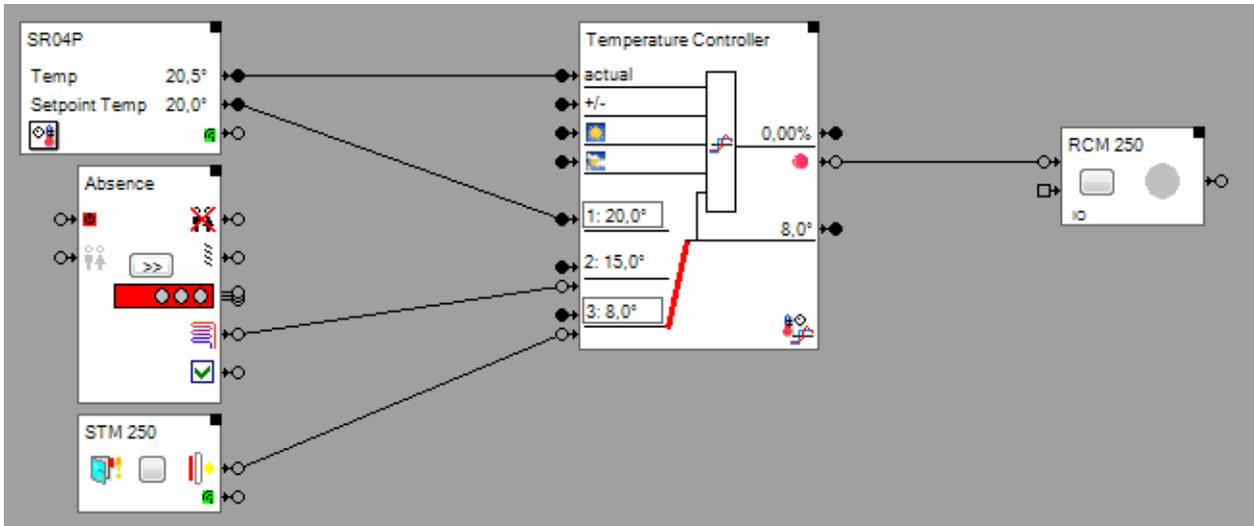
Automatic Shading and time controlled blind movements

This Sample illustrates how to combine clock timer controlled blinds with the shading function. Typical use case is when blind are lowered during night times for energy saving purposes.



Heating

Interrupt heating in case a window has been opened



This sample decreases the set point value for the temperature depending on the window state and if somebody is at home.

A [Room Temperature Sensor](#) provides the actual temperature and a value for the temperature set point. The actual temperature and the set point value is directly forwarded to the [Temperature Controller](#). The temperature controller performs the closed loop control of the room temperature. In the above sample it provides three individual temperature set points for normal operation, for absence and in case a window is open. The upper most set point is used under normal conditions, by means of, if no other set point has been activated.

The [absence function](#) activates the corresponding set point on demand.

The [window state sensor](#) activates the last set point in case the window has been opened. The last set point has the highest priority and overrides any of the other set points.

The [switch actuator](#) "RCM250" controls a thermo dynamic valve for the heating.

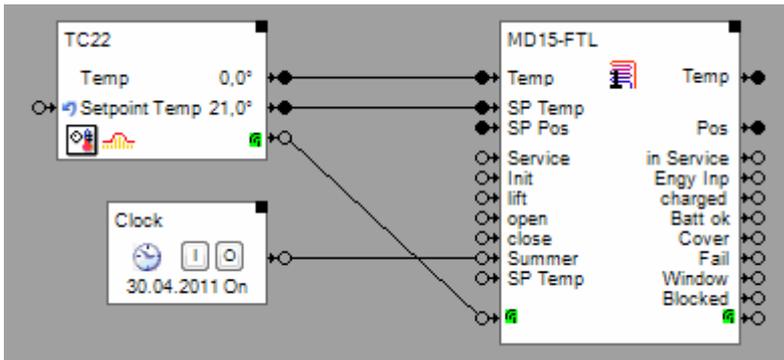
Proportional Heating Valve from Kieback&Peter

This sample shows a individual room temperature control application with the [valve actuator from Kieback&Peter](#).

A [Room Temperature Sensor](#) measures the actual temperature of the room and provides a setpoint value for the heating control. The radiator is controlled by the valve actuator from Kieback&Peter.

Solution1: internal heating controller

The valve actuator provides an internal heating controller. Therefore the output pins of a [Room Temperature Sensor block](#) can be directly connected to the input pins of the valve actuator block:



If the input pin „SP Temp“ is connected, then the valve actuator uses the internal heating controller. In case the input pin „SP Pos“ is connected, then the valve actuator just drives the valve corresponding to the received position setpoint.

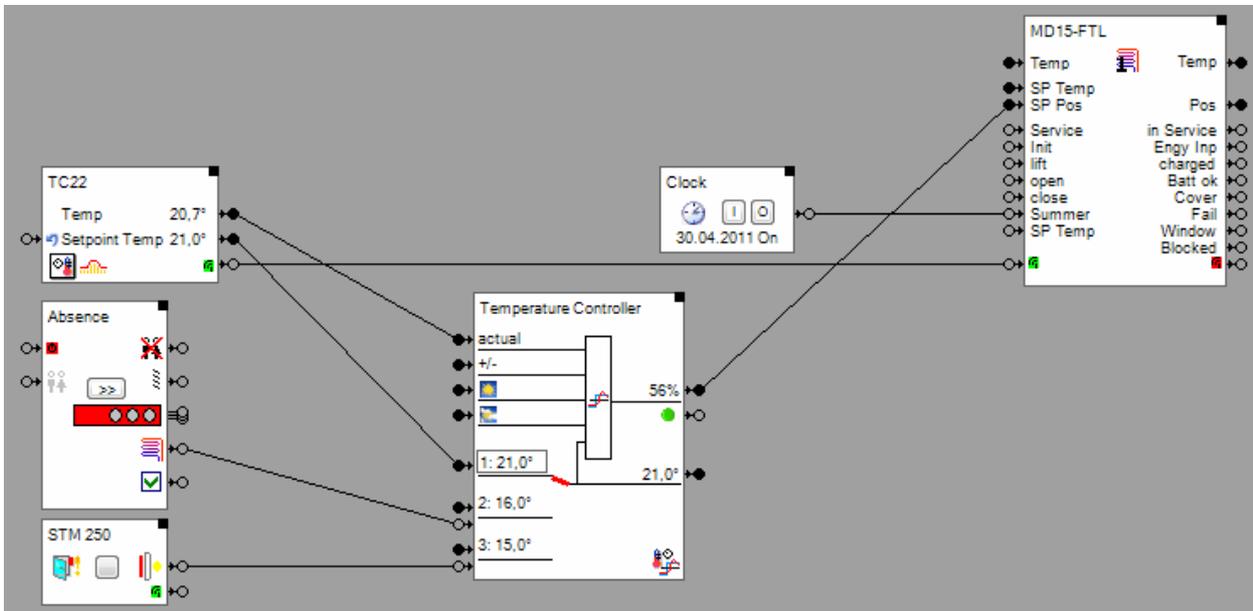
The connection line between the [room temperature sensor block](#) and the [valve actuator block](#) is used to force the emergency control mode of the valve actuator in case no radio telegrams are received from the room temperature sensor. An OFF command at the  input of the valve actuator block disables the valve actuator block to send response telegrams to the valve actuators request.

Summer operation mode:

To spare battery power during summer time the valve actuator is set into summer operation mode during the summer. In this mode the valve actuator reduces its periodical request to 1 per hour. The [clock block](#) is used to activate the summer operation mode.

Solution2: myHomeControl® Temperature Controller

myHomeControl® [Temperature Controller](#) calculates the setpoint values for the valve actuator by evaluating the various sensor signals.



The radio communication between the valve actuator and the valve actuator block (**myHomeControl®**) is driven by the valve actuator itself. The valve actuator sends periodical radio signals (10 Minutes) indicating the actual state of the actuator. Subsequently the valve actuator block (**myHomeControl®**) sends the actual temperature value, setpoint value and command information to the valve actuator.

Therefore a new setpoint (e.g. new position setpoint) will be transmitted from the valve actuator block to the valve actuator at the next communication interval. Then the valve is going to update the valve position according to the setpoint. The feedback of the valve position is then sent back to the valve actuator block at the next communication interval. This means in worstcase it may take up to 20 Minutes until the valve actuator block indicates the correct position at the corresponding output pin after a change in the position setpoint.

The connection line between the room temperature sensor block and the valve actuator block is used to force the emergency control mode of the valve actuator in case no radio telegrams are received from the room temperature sensor. An OFF command at the  input of the valve actuator block disables the valve actuator block to send response telegrams to the valve actuators request.

Summer operation mode:

To spare battery power during summer time the valve actuator is set into summer operation mode during the summer. In this mode the valve actuator reduces its periodical request to 1 per hour. The [clock block](#) is used to activate the summer operation mode.

Room Operating Panel from Sauter

Actually the bidirectional mode is not yet supported by **myHomeControl**®.

But the device can be configured to operate in the unidirectional mode, which is supported by **myHomeControl**®.

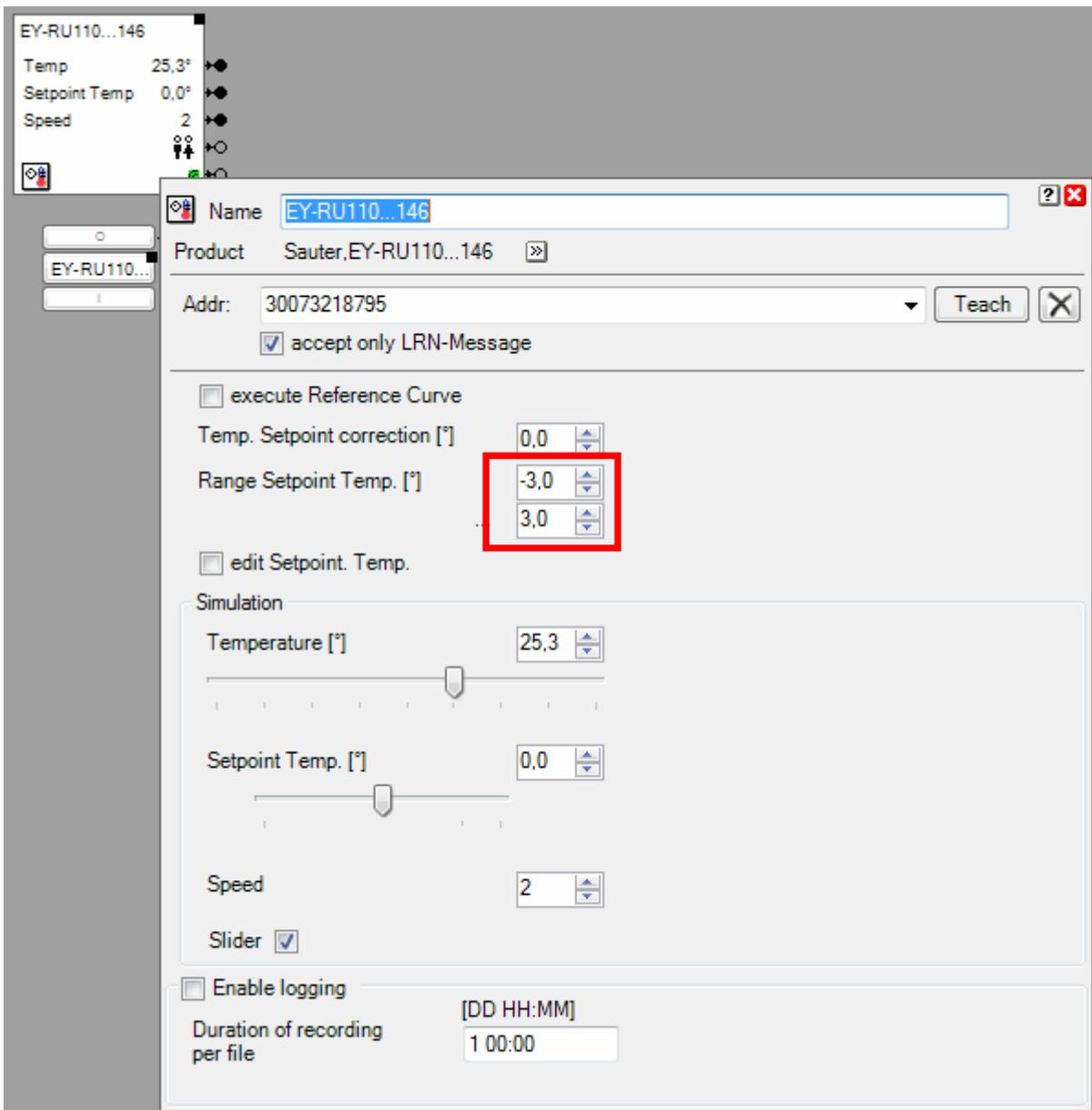
Configure the device for unidirectional operation mode

In case the display shows “Err 2” after a button has been pressed, then the device is working in the bidirectional mode and has to be reconfigured to operate with **myHomeControl**®.

The reconfiguration is done by a sequence of button presses. Please refer to the manual of the device for guidance.

Set configuration parameter 5 to value 04 to activate unidirectional mode.

Set configuration parameter 7 to the desired setpoint range e.g. 30 means $-3.0^{\circ}..3.0^{\circ}$. The similar range has to be configured in the block settings as shown in the figure below:



Set configuration parameter 8 to value 09.

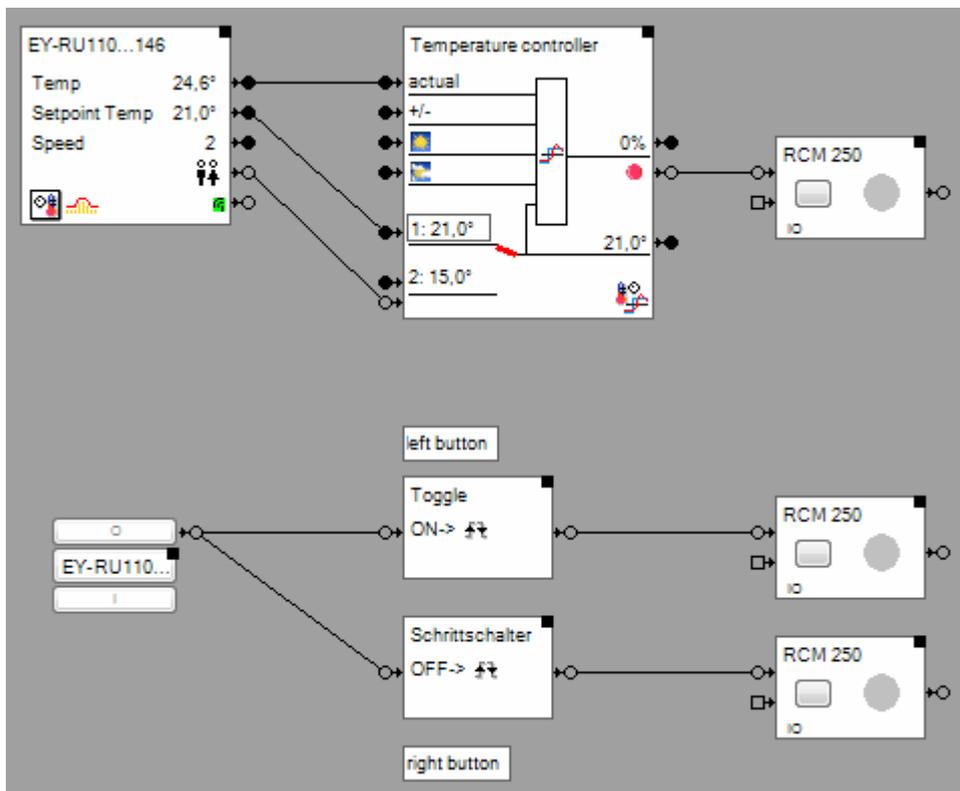
Fine tuning of the measurement

The measurement cycle and the threshold value for spontaneous transmission of temperature values can be configured:

Adjust configuration parameter 1 (measurement cycle) in steps of 10 seconds (12=120s).

Adjust configuration parameter 3 (threshold value) in multiples of 0.2K (4=0.8K).

Application sample with a temperature controller



Thanos (Thermokon)

The Thanos is a very flexible device with many configuration opportunities. For configuration use the configuration software from Thermokon.

The device provides a set of basic functions:

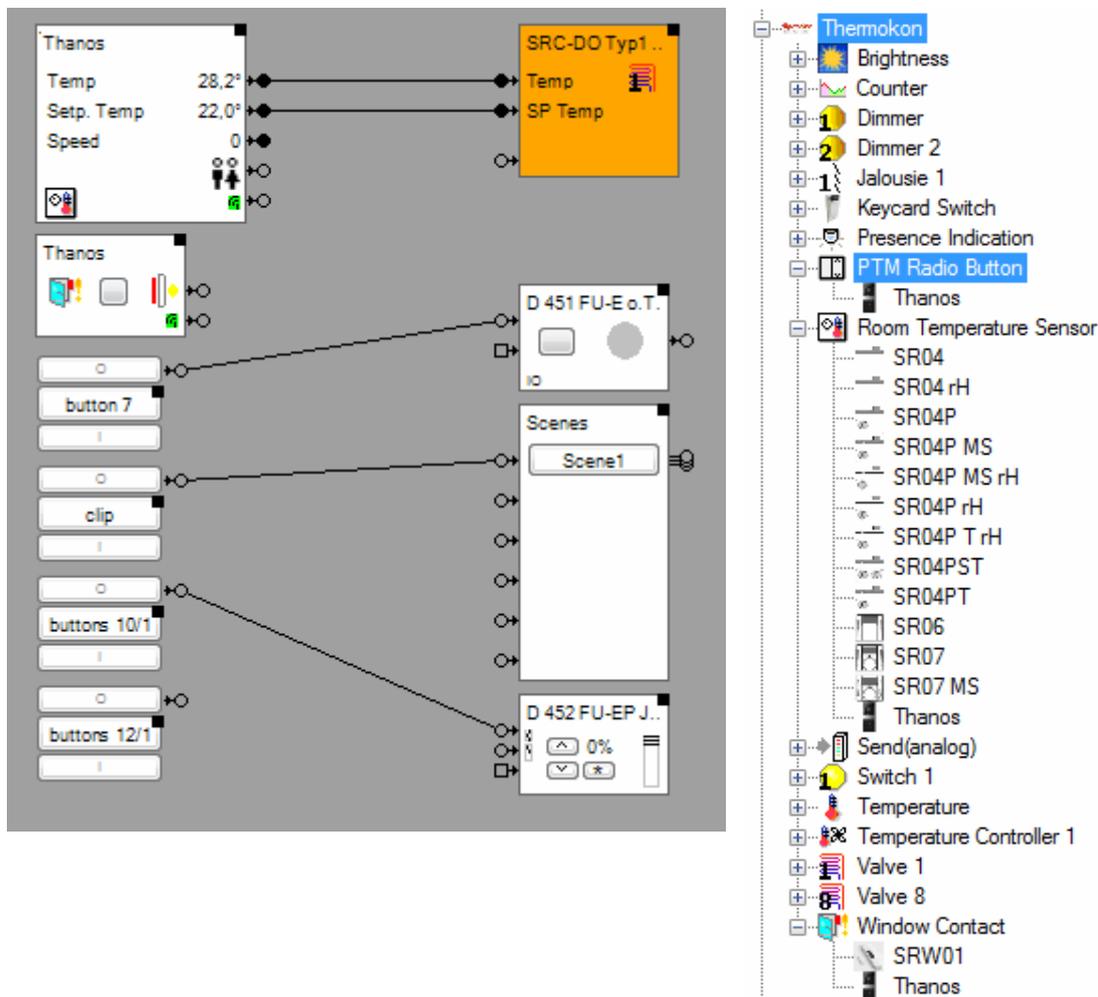
- Temperature / Humidity / Set point
- Buttons
- Window contact

These can be assigned to the various menus / buttons of the device by the user.

For each of the assigned basic functions a corresponding object has to be inserted into the **myHomeControl®** project:

- For the Temperature / Humidity Menu insert a Room Temperature Sensor object.
- For the Buttons insert a PTM Radio Button.
- For the Window Contact insert a Window Contact object.

Sample:



Configuration of the temperature object

There are two different use cases:

- Enter absolute temperature set point on Thanos
- Enter temperature setpoint offset

Absolute temperature set point

The user enters the absolute temperature set point value at the Thanos.

The configurations of the Thanos and the temperature object in **myHomeControl®** have to correspond to get correct behaviour.

Configure as follows:

Thermokon Konfigurations	myHomeControl®
<p>+Setpoint 1</p> <p>++ Configuration register</p> <p>Upper range + 10,0</p> <p>Lower range - 10,0</p> <p>Step size 0,5</p> <p>Base setpoint after reset 20,0</p>	<p>Name Thanos</p> <p>Product Thermokon,Thanos</p> <p>Addr: 07FF914764h</p> <p><input checked="" type="checkbox"/> accept only LRN-Message</p> <p><input type="checkbox"/> execute Reference Curve</p> <p>Temp. Set point correction [°C] 0,0</p> <p>Range Set point Temp. [°C] 10,0 ... 30,0</p> <p><input type="checkbox"/> edit Set point. Temp.</p>

$$20^{\circ} \pm 10^{\circ} = 10^{\circ} \dots 30^{\circ}$$

Temperature setpoint offset

The temperature object provides a function to process a temperature set point curve. If this function is used then entering an absolute set point value for the temperature doesn't make sense. In this case it is usefull to enter a value to shift the whole curve by some degrees.

Configure as follows:

Thermokon Konfigurations	myHomeControl®
<p>+Setpoint 1</p> <p>++ Configuration register</p> <p>Upper range + 3,0</p> <p>Lower range - 3,0</p> <p>Step size 0,5</p> <p>Base setpoint after reset 0,0</p>	<p>Name Thanos</p> <p>Product Thermokon,Thanos</p> <p>Addr: 07FF914764h</p> <p><input checked="" type="checkbox"/> accept only LRN-Message</p> <p><input checked="" type="checkbox"/> execute Reference Curve</p> <p>Range for the Temp.SP Offset [°C] -3,0 ... 3,0</p> <p><input type="checkbox"/> edit Set point. Temp.</p>

Heating or Cooling

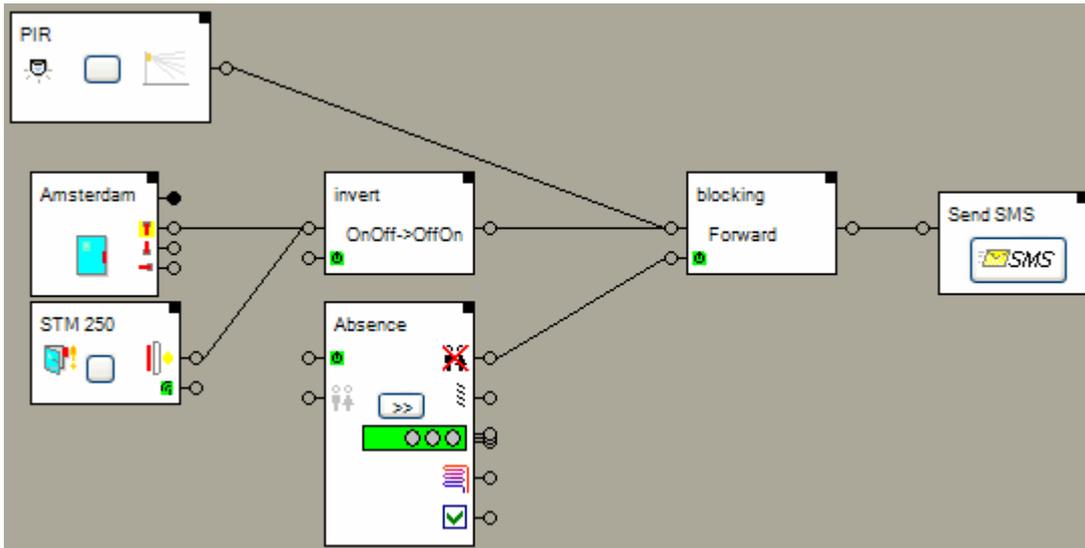
Security

Alarm in case of window will be opened or a presence indication during absence

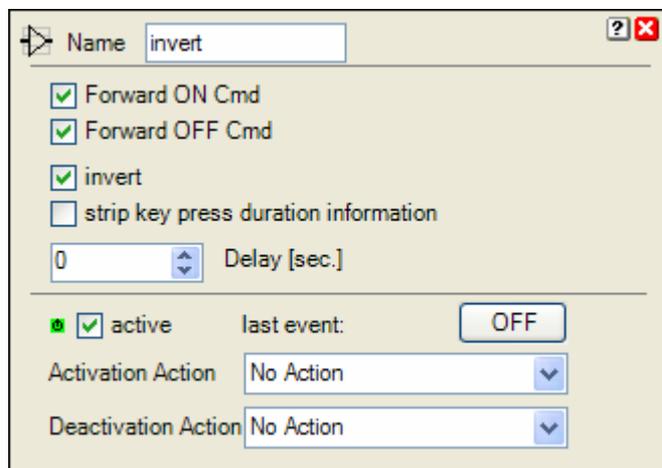
Problem statement:

In case a [door](#) or [window](#) has been opened or an occupancy sensor detects motion, during absence, a SMS containing an alarm message shall be sent to a phone.

Solution:



The left [filter block](#) inverts the ON/OFF commands of the door and window sensors.



The right filter block is active only during the [absence](#) of the owners. Only in the active state it will forward the commands of the [occupancy sensor](#) and the left filter block to the [SMS block](#).

The SMS block requires [general email settings](#). Refer to the options page.

Email

SMTP Server	<input type="text" value="mail.bluewin.ch"/>
POP3 Server	<input type="text" value="pop.bluewin.ch"/>
User name	<input type="text" value="myHomeControl@myHome.com"/>
Password	<input type="password" value="*****"/>

Forwarding of an alarm message to all PCs of the network

Problem statement:

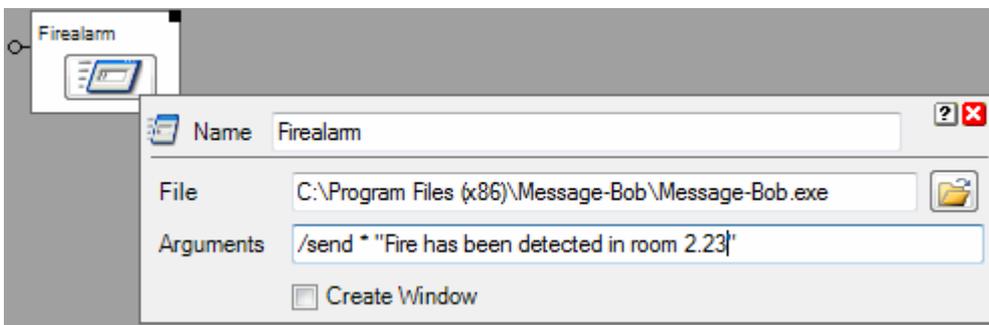
An alarm message shall be sent by myHomeControl to all PCs connected to the network. The message shall be shown on all PCs immediately after transmission.

Solution:

To achieve this behavior a additional application has to be installed on the PCs receiving the message as well as on the computer running **myHomeControl**®. This application is required because the NET SEND command is not longer supported by Windows XP SP2 and Vista.

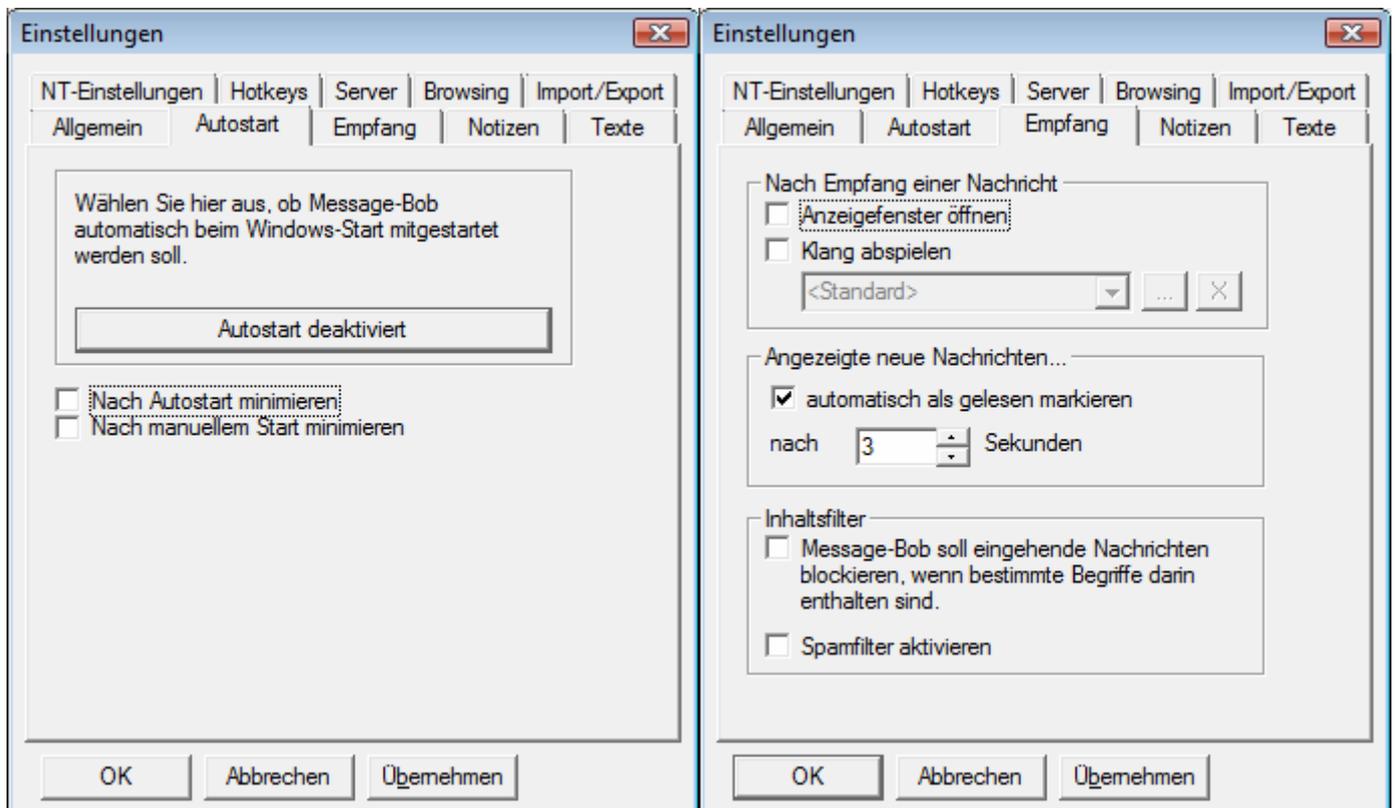
An opportunity for this kind of application is "Message-Bob". This tiny program replaces NET SEND.

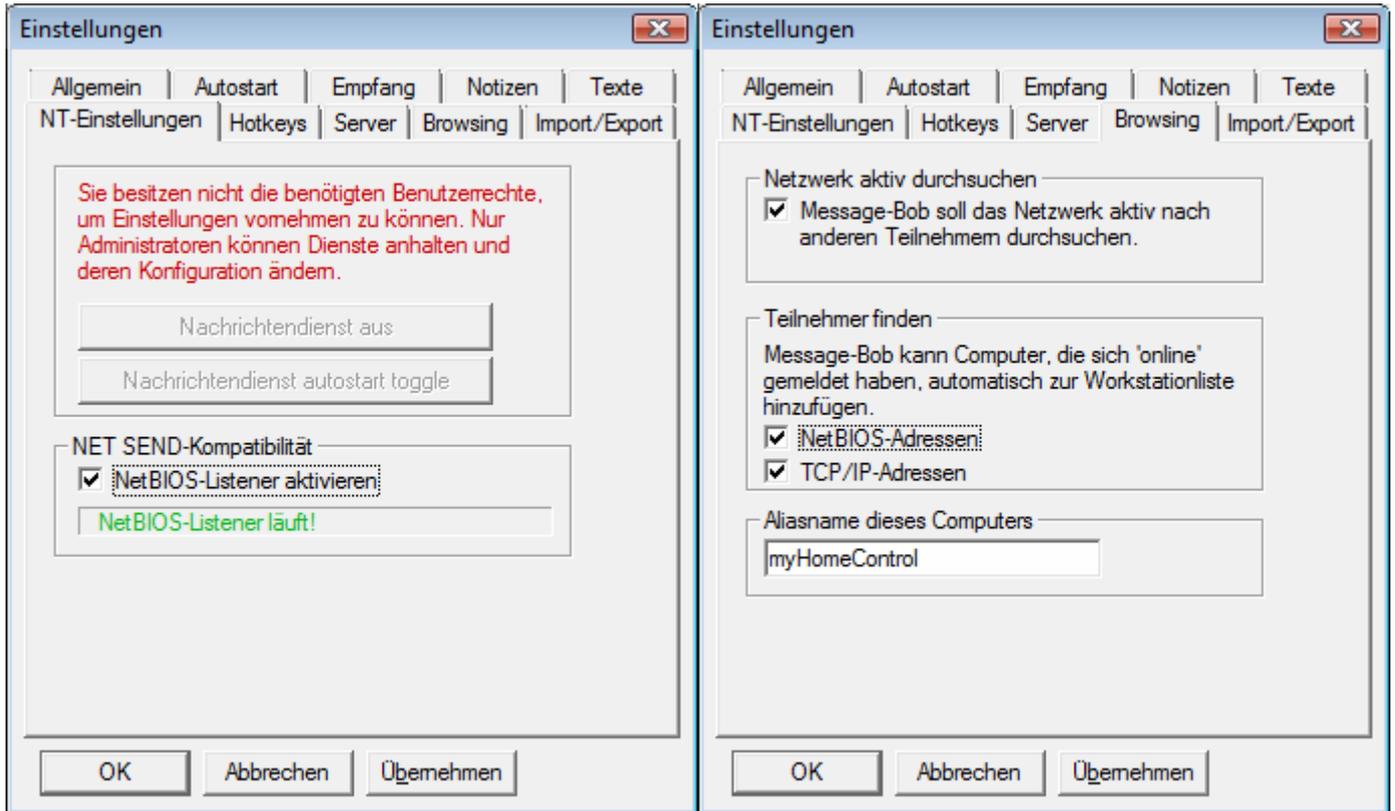
To run "Message-Bob" use the [Run-Block](#).



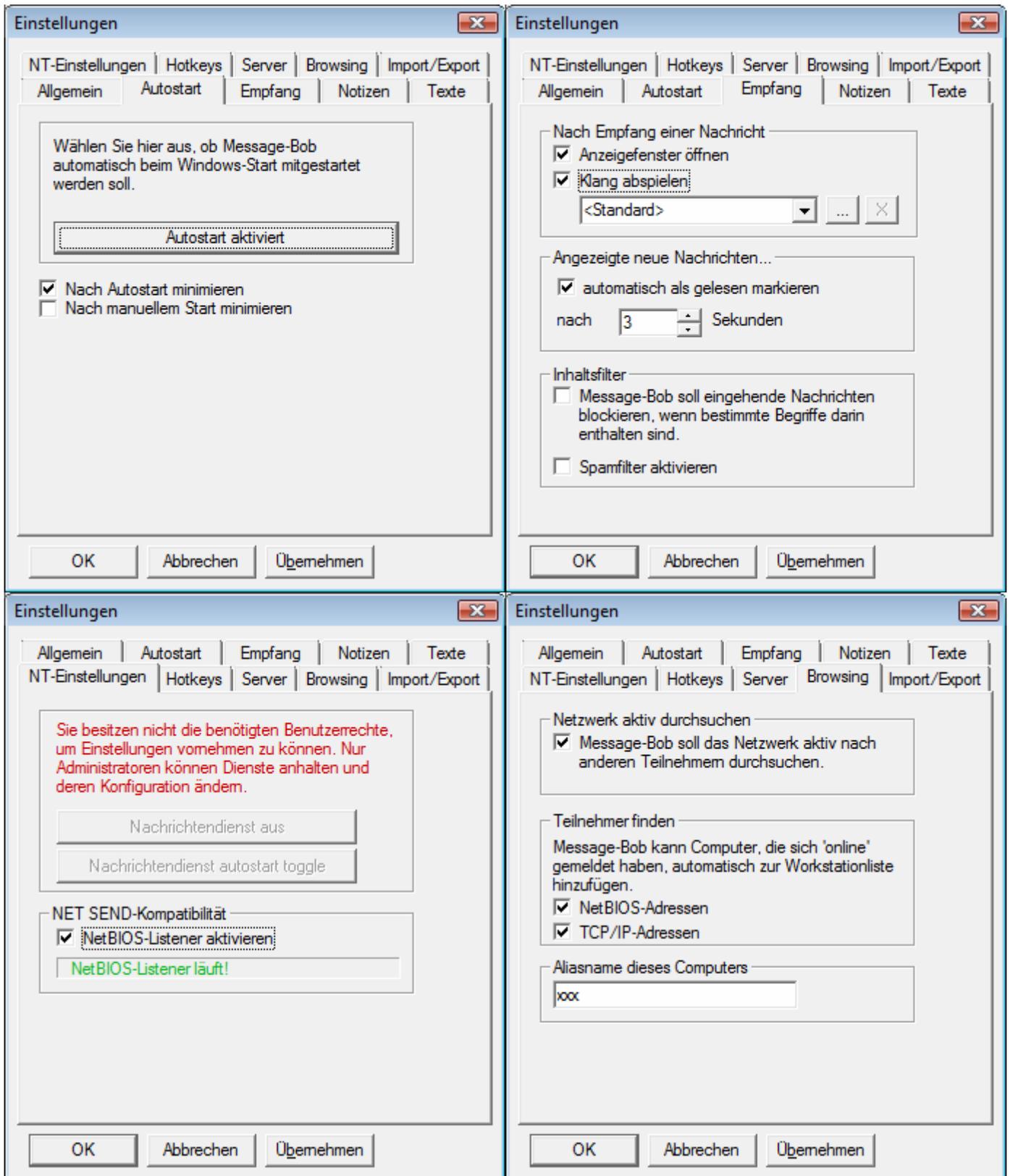
In case the block receives an ON command on its input pin, it starts the application „Message-Bob“ and passes the argument string to it. The * means broadcast to all computers on the net.

Settings for Message-Bob on the computer running myHomeControl®:





Settings for Message-Bob on the computers receiving the message:



Create and play an text message (audio)

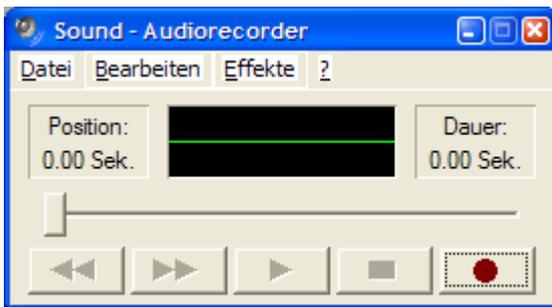
Problem statement:

Play an audio message in case a window is open, when the absence function is going to be activated.

Solution:

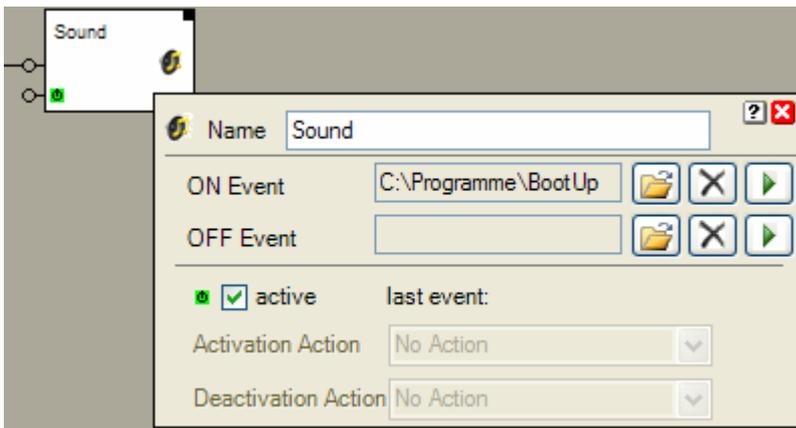
First create a corresponding audio message file. The message shall be: „Attention, there are open windows!“.

To create the audio file run the windows audio recorder which can be found in the utilities folder.

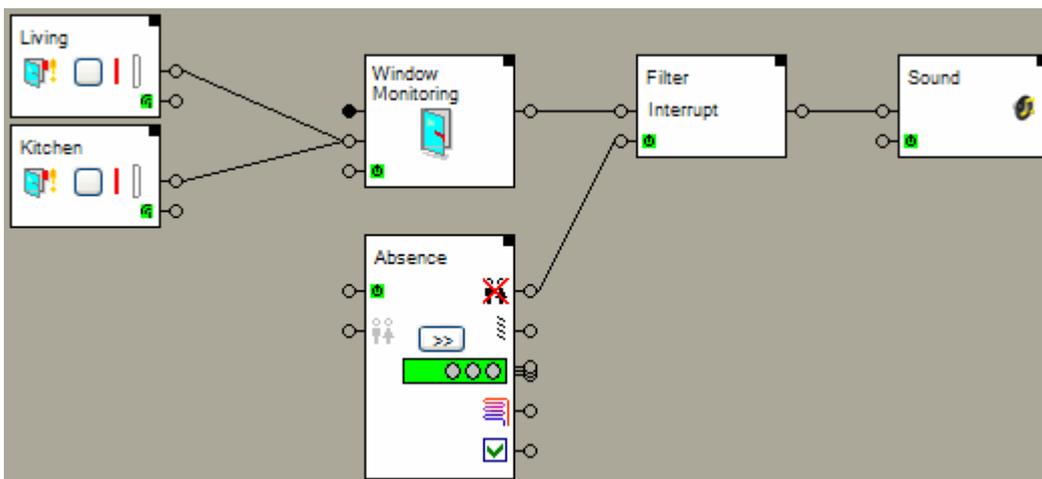


- press record button
- say text
- File/save as..
Saves the file as xx.wav.

To play the audio file within myHomeControl use the [sound block](#).



The following network implements the requested functionality:



The [Window Monitoring block](#) summarizes all states of the [window contacts](#). In case all windows are closed the Window Monitoring block sends an OFF command through its output pin. As soon as a window is opened the monitoring block send an ON command to the [filter block](#).

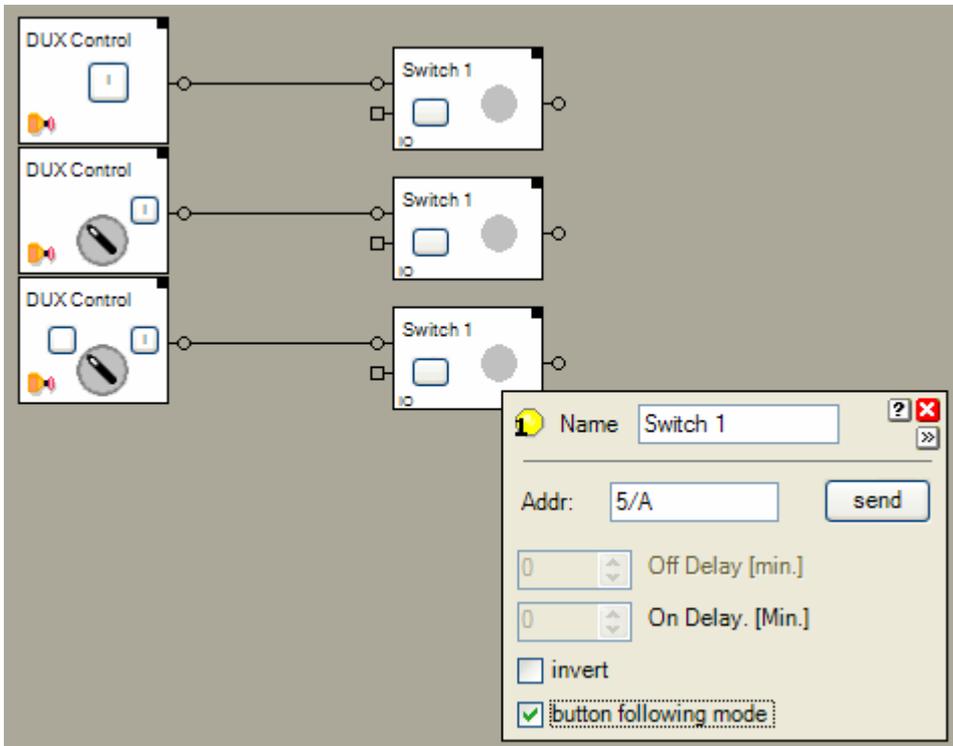
The filter block forwards only ON commands. It forwards received ON commands only in case it is activated. If the [absence function](#) is inactive then also the filter block will be deactivated. The filter block will not forward a received command but store it internally.

When the absence function is activated, then also the filter block will be activated and it will send the last received command to the sound block.

Control Units

Single Button

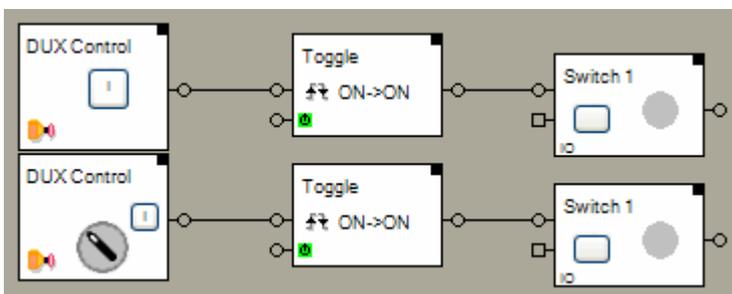
Single DUX-Buttons transmit only the [Commands](#) ONv and ON^ . To control a switching actuator, the actuator has to be set into the button follower mode.



This sample switches the switching actuators on either the button on the DUX control unit is pressed or the selector has been turned to the I position.

On-Off with on single button DUX control unit

The toggle block forwards alternatively ON or OFF commands to the connected block if it receives an ON command.

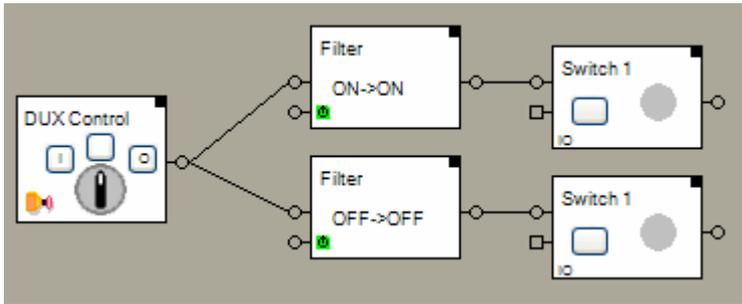


In this samples there is no need to configure the switching actuators. The first button press or operation of the selector, the corresponding switching actuator gets switched on. With the next operation of the button or selector the switching actuator gets switched off.

3 Position Selector

To use all of the 3 individual positions of a 3 position selector filter blocks and the button follower mode of the switching actuator will be used. The filter blocks split up the transmitted commands of the DUX control unit into ON and OFF commands. The upper filter block forwards only ONv and ON^ command to the

corresponding switching actuator and the lower one forwards only OFFv and OFF^ to the corresponding switching actuator.



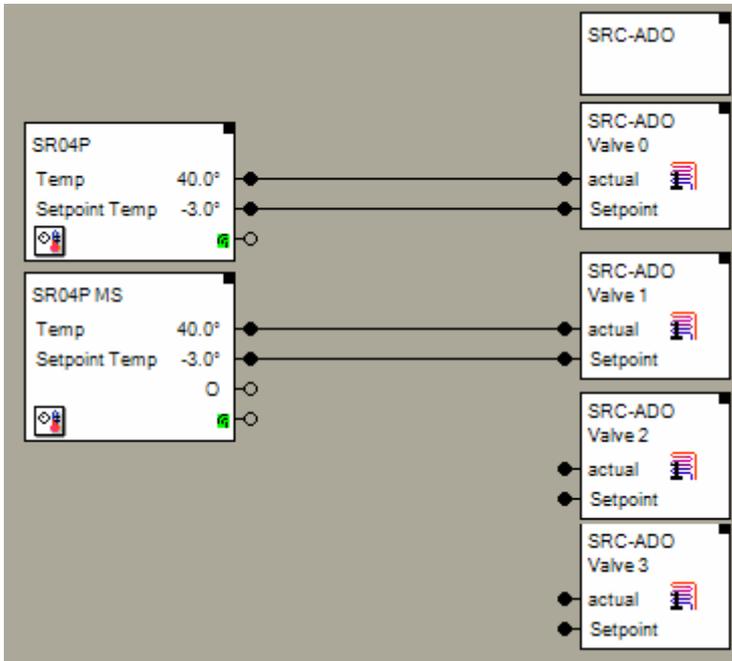
Due to the button follower mode the corresponding switching actuator will be switched on as long as the selector remains in the O or I position.

Universal controller: Thermokon SRC-ADO BCS

The following 4 Samples use the same device for different applications. The various outputs of the controller will be used in different cases.

Temperature Control

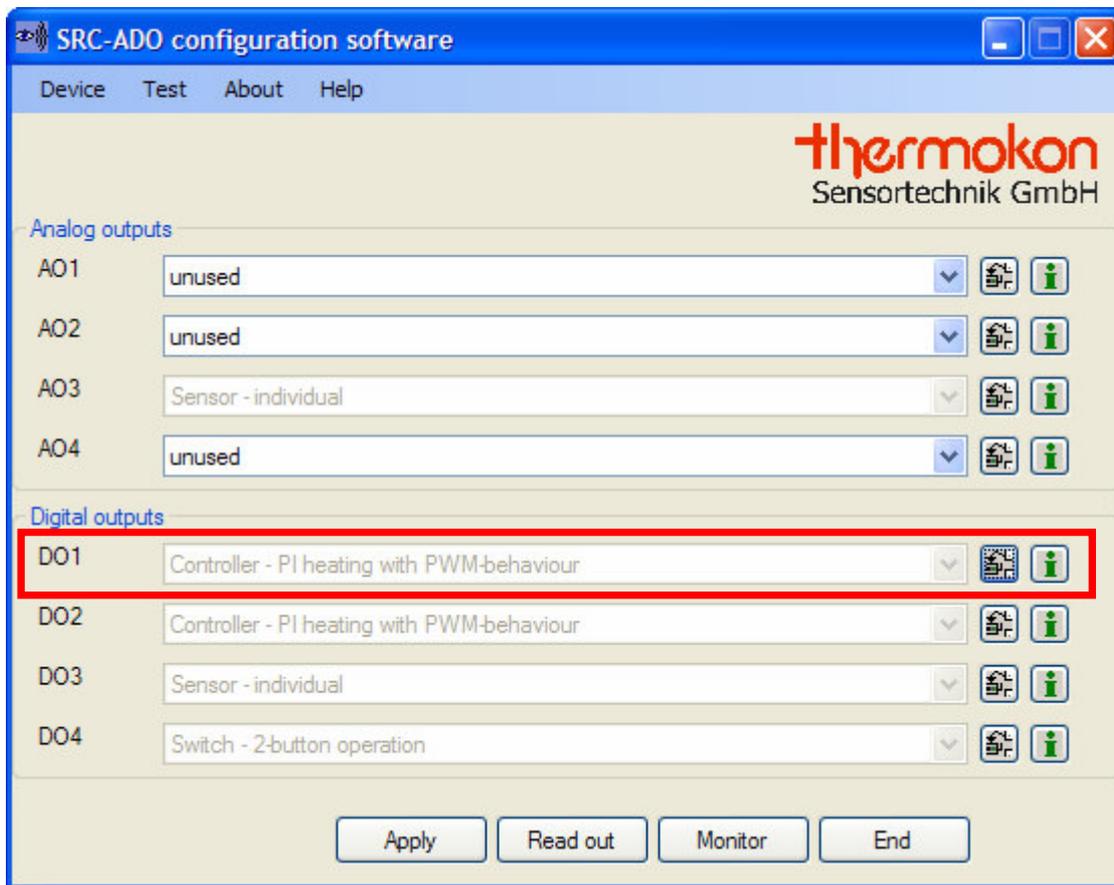
The outputs DO1 and DO2 drive individual thermo dynamic valve actuators.



Because the various outputs of the universal controller are going to be used for different applications, the blocks SRC-ADO/Valve 2 and SRC-ADO/Valve 3 have not to be teached to the controller.

Thermokon ships a configuration software with the universal controller.

Select the operation mode for the channels:



Configure the channel:

Controller - PI heating with PWM-behaviour - Digital output 1

Parameter Sensors

Sensor parameter

Min sensor measuring limit [°C]: 0

Max sensor measuring limit [°C]: 40

Temperature-Offset [°C]: 0.0

Set point adjustment [°C]: +/- 5 K

With temperature failure -> output: unchanged

Output

Read:

Heat:

Select the same range as in the actuator block and the sensor block within myHomeControl.

General parameter

Nighttime reduction [°C]: 8

Running time comfort [s]: 20

Min control variable limit at: Control deviation > 0

Anti-freeze [°C]: 6

Period time [min]: 1

The temperature lowering has been activated. Therefore this feature must be activated in the actuator block as well.

Controller parameter

Heating parameter

Basic set point [°C]: 24.6

Proportional band Xp [K]: 4.0

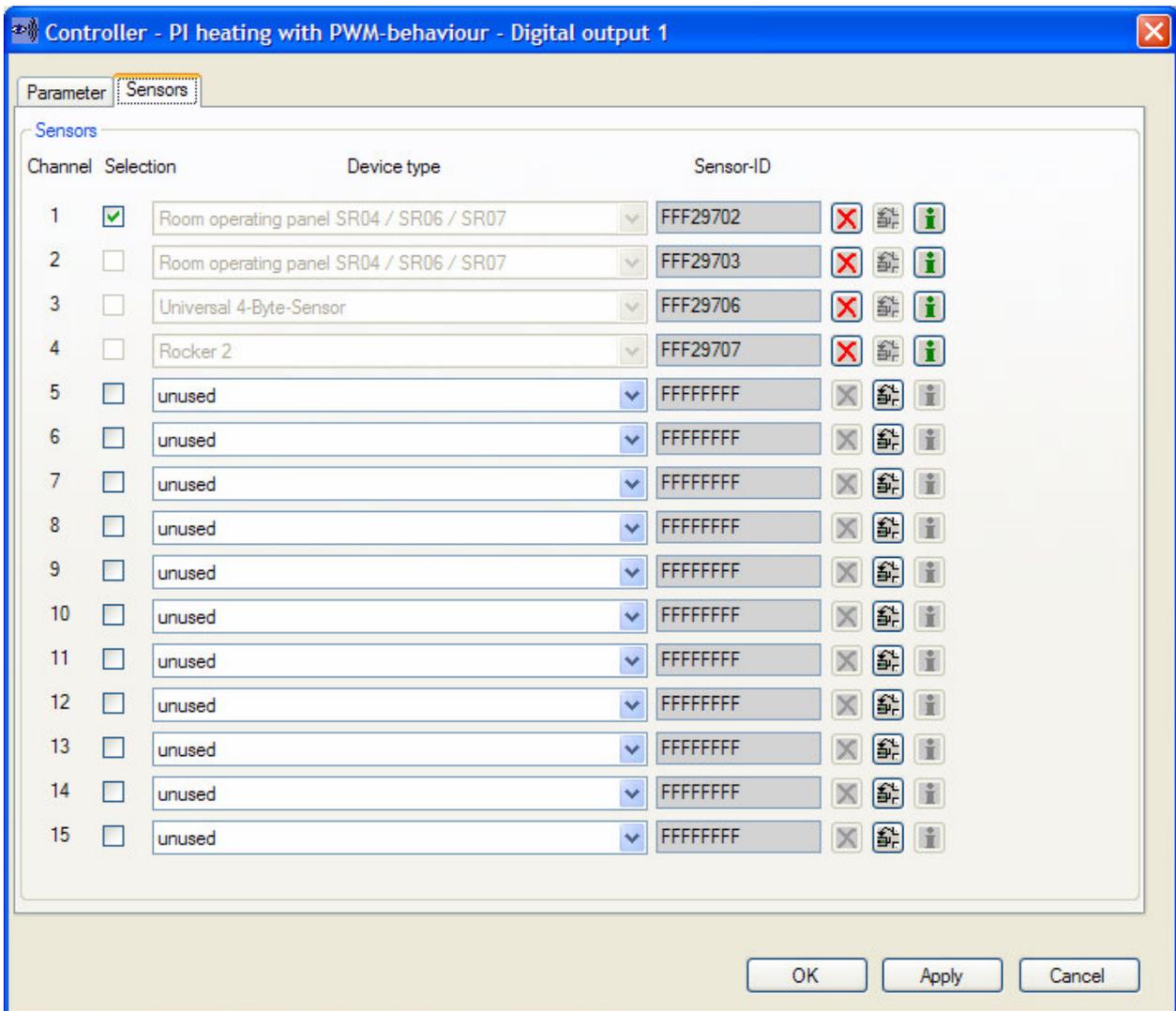
Running time Tn [min]: 1

Max control variable limit [%]: 100

Min control variable limit [%]: 0

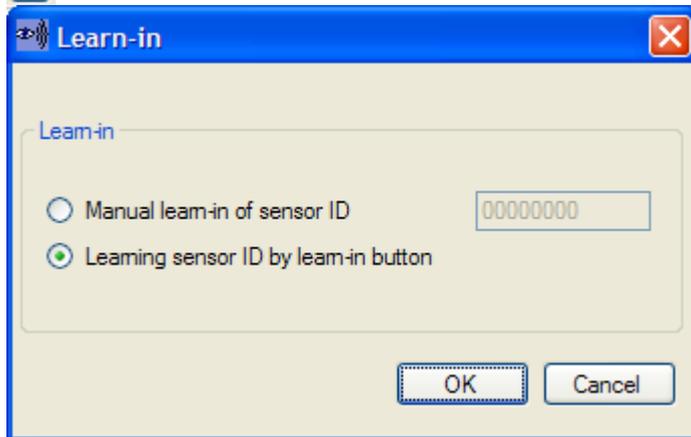
OK Apply Cancel

Teach the actuator block to the universal controller:



1. Select Type „Room operating panel ...“

- 2.



--> OK

Device SRC-ADO

Name Valve 0

Addr: 5 send

40.0 Temperature ° 0.0 ... 40.0

5.0 Setpoint Temp. ° -5.0 ... 5.0

0.0 Correction °

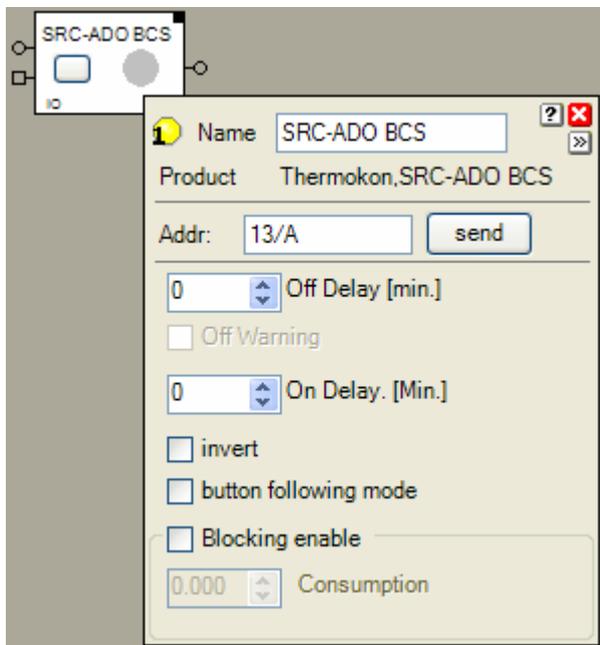
Temp. Lowering Enable Temp.Lowering

Press button „send“ to transmit a LRN radio telegram.

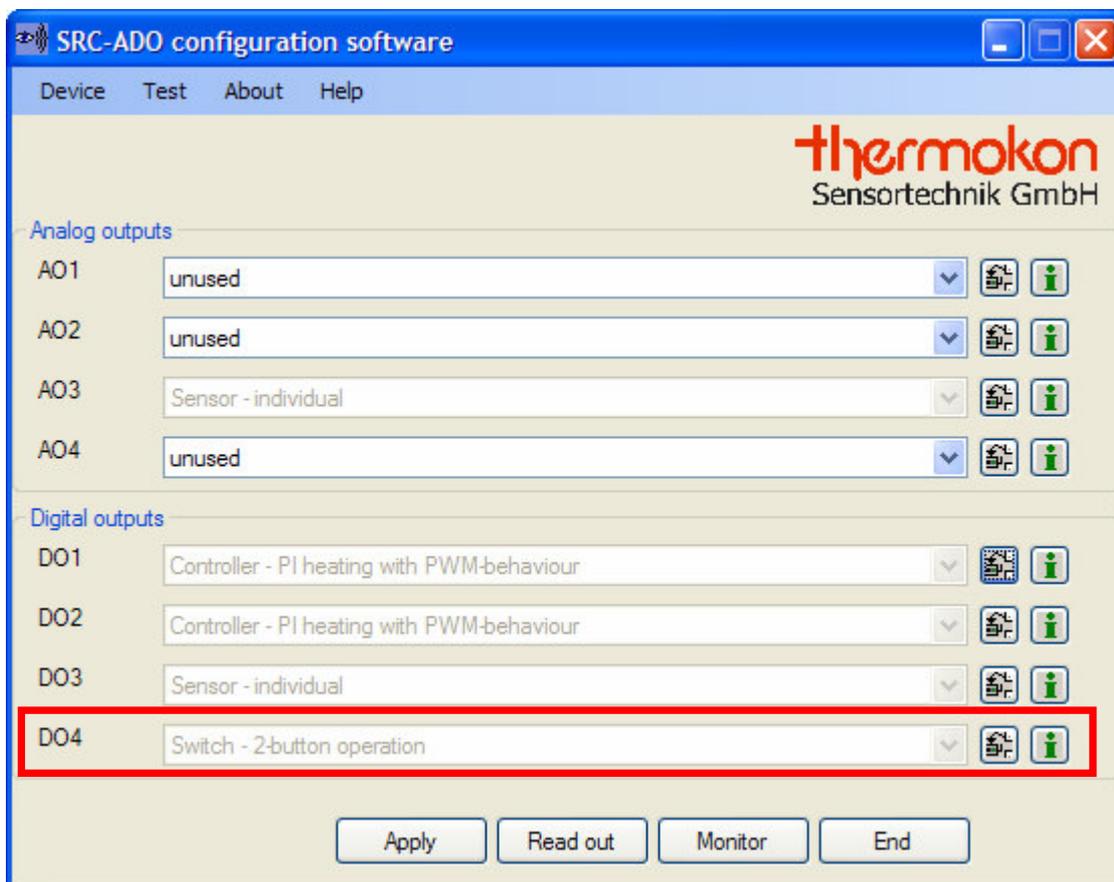
3.

Switching actuator

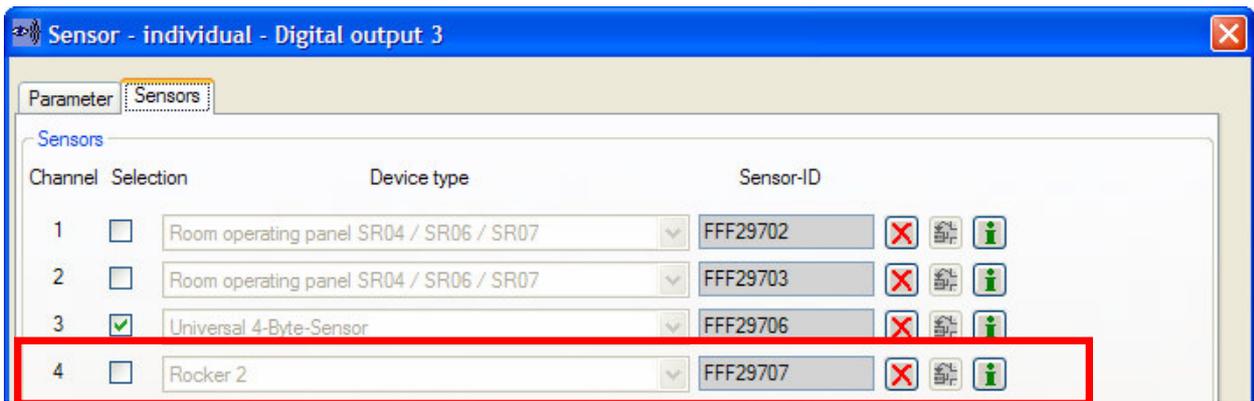
Usage of the universal controller as a switching actuator:



Select the operation mode for the channels:



Teach the actuator block to the universal controller:



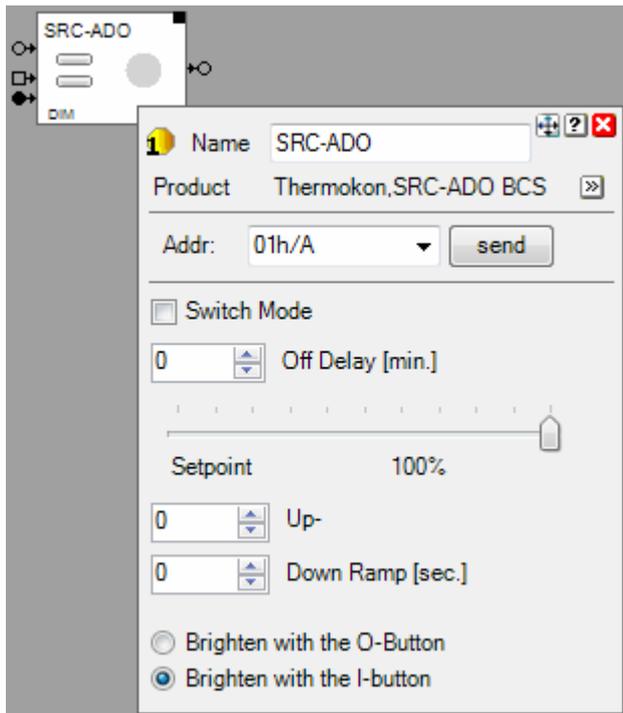
Dimmer

The universal controller is also able to control dimmable electronic ballasts.

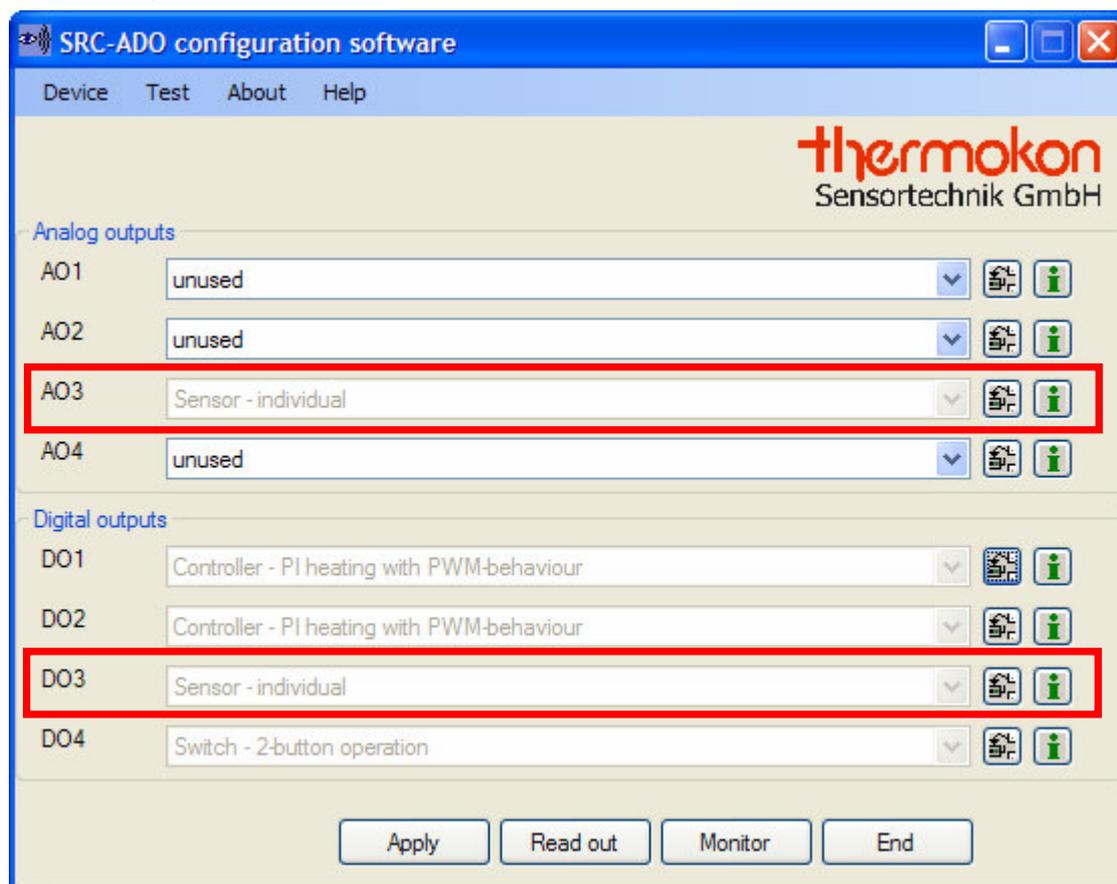
Use types of electronic ballasts providing a 0-10V interface.

Two outputs of the universal controller will be used to control the lighting equipment. One analogue 0-10V output and a binary output turn on and off the lights.

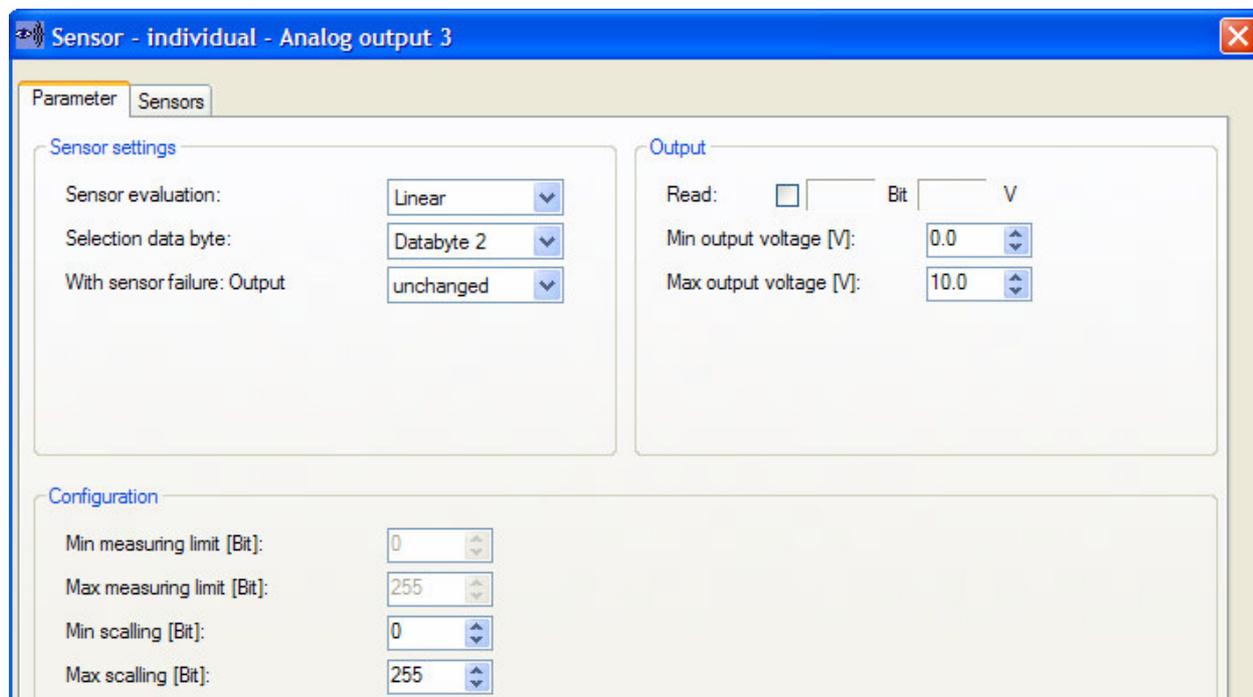
The configuration shown below uses the universal controller as a dimmer following the rules defined by the central command „dimming“ (EEP: 07-38-02). This solution doesn't support the ramping times defined in the EEP.



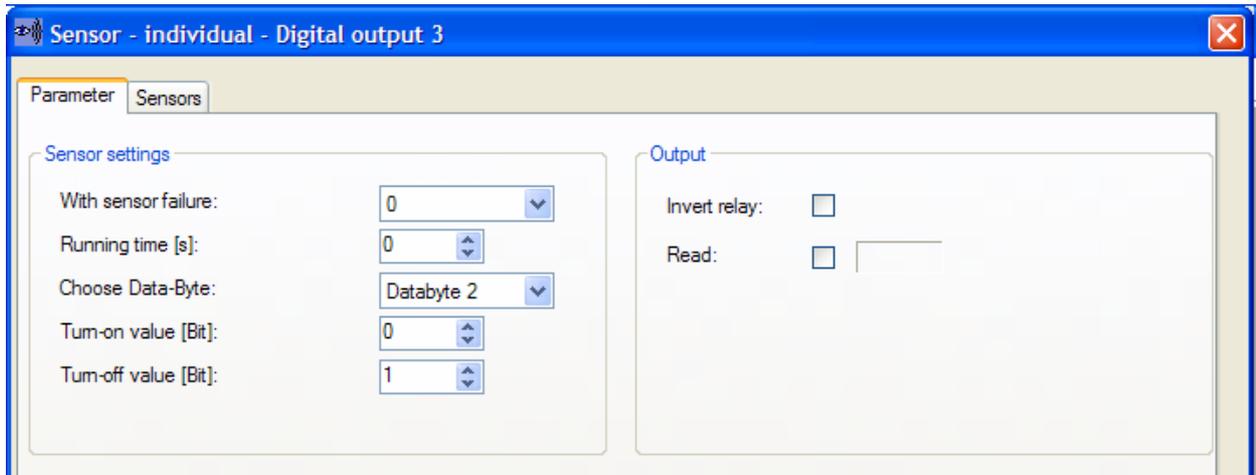
Select the operation mode for the channels:



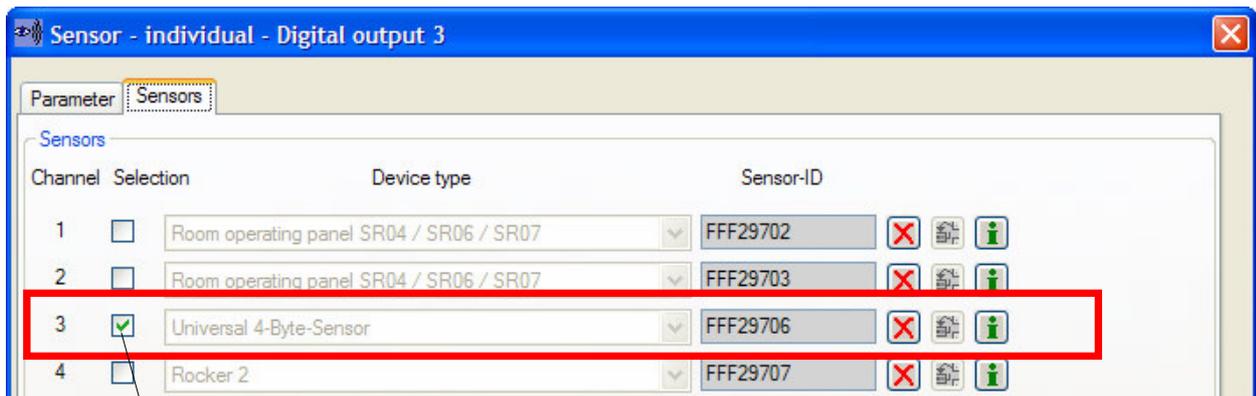
Configure the analogue channel AO3:



Configure the binary channel DO3:



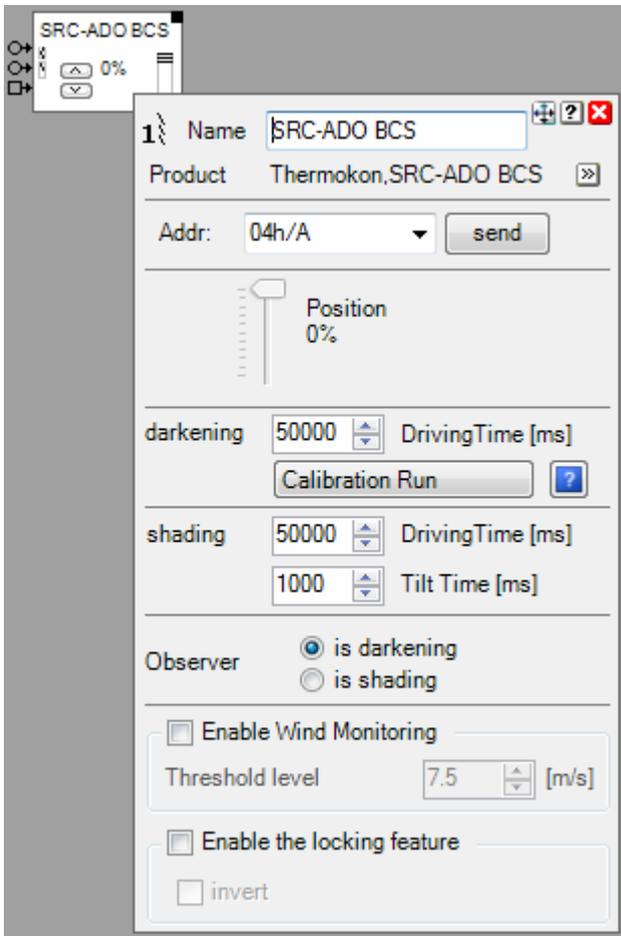
Teach the actuator block to the universal controller:



Assign this sensor to both channels (AO3 and DO3).

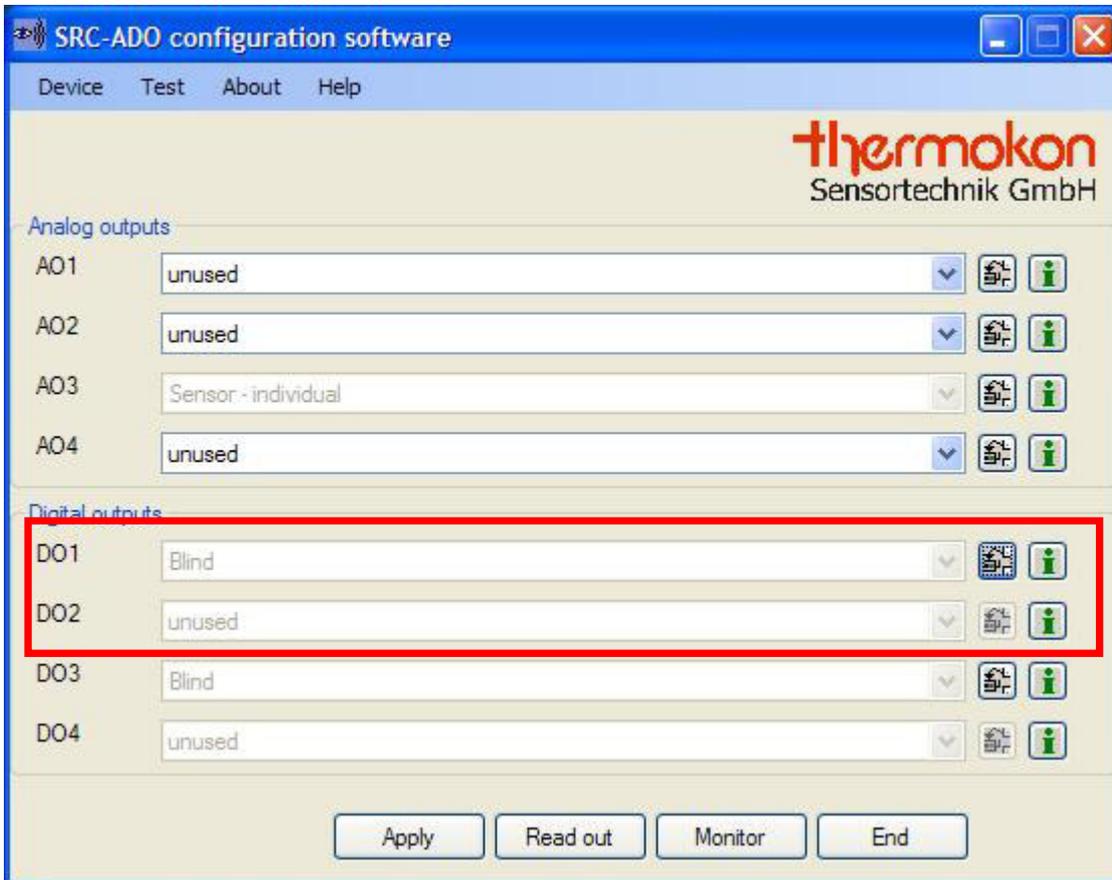
Jalousie / Blind actuator

Usage of the universal controller as a Jalousie or blind actuator:



To control jalousies or blinds two relay outputs are required. The SRC-ADO device uses either DO1 & DO2 as a blind channel or DO3 & DO4. Therefore the channel DO2 and/or DO4 must be configured as unused!

Select the operation mode for the channels:



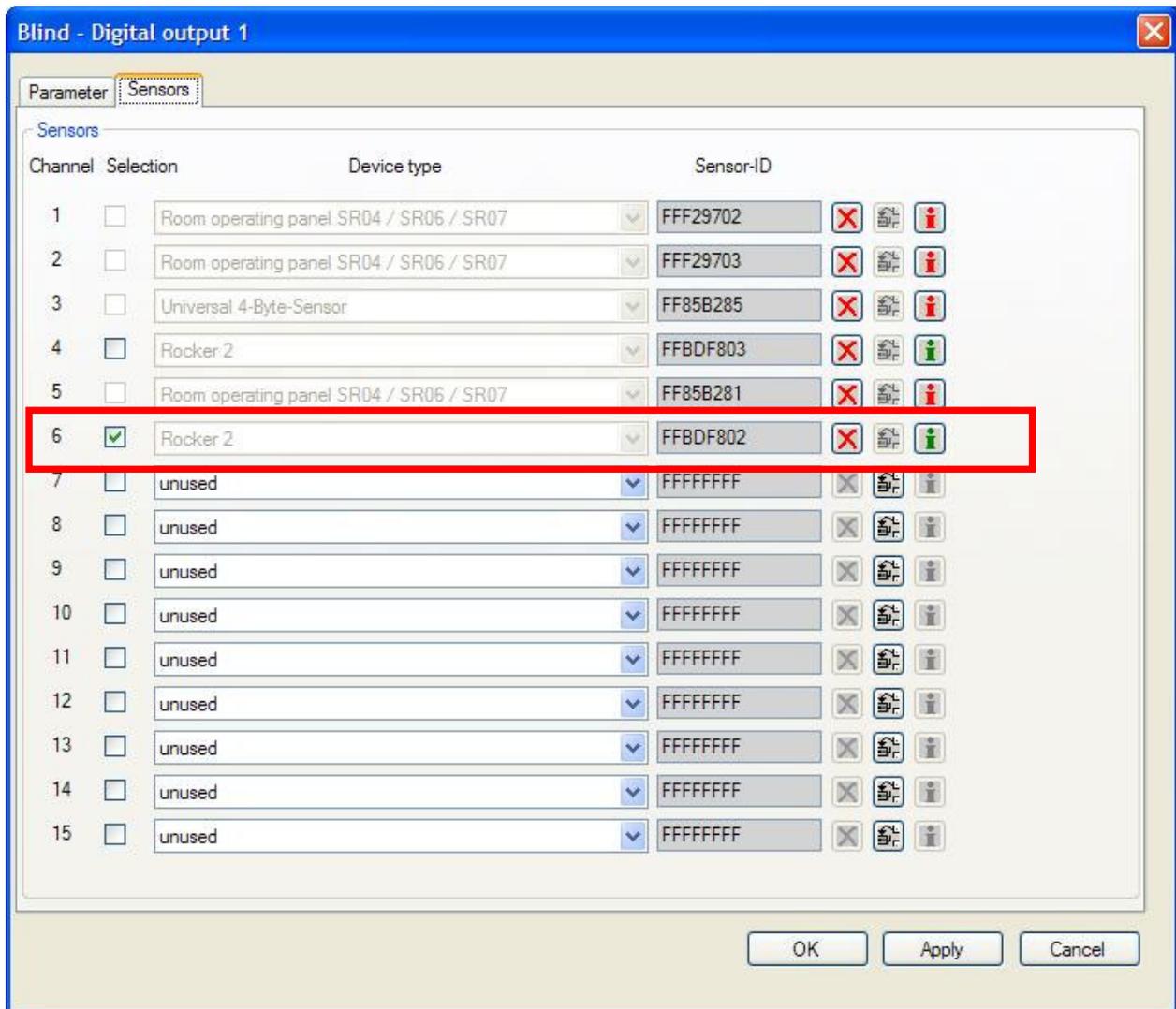
Configure the binary channel DO1:



Long button operation = 0.5 sec.

Running time = set a value larger the motion duration of the blind from one end to the other.

Teach the actuator block to the universal controller:



Energy Management

Appendix D: How to add a supplementary language

Text - resources

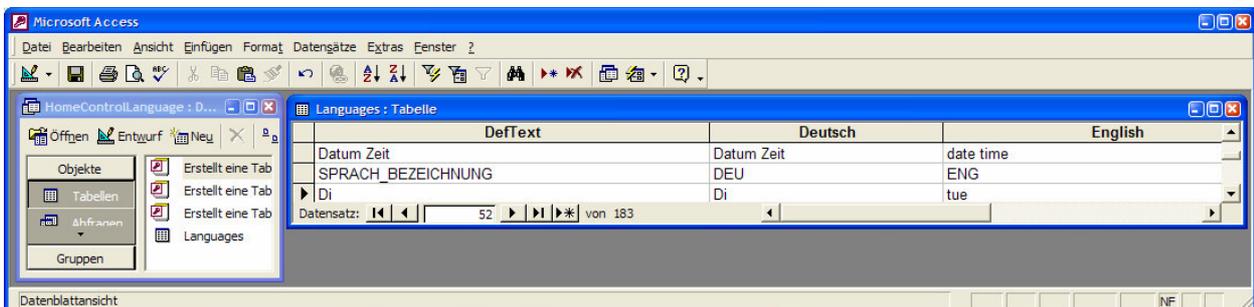
1. Open database ?\Resources\Languages.mdb using MS Access.
2. Open the table Languages
3. Switch to the design mode
4. Append an additional row. Name it corresponding to the language (Data type = Text)
5. Switch to data view
6. Fill up the empty column with the translated texts.
7. Close MSAccess

Alternatively the database might be exported into an excel data sheet.

Help

The source files for the help system are MS word documents. For each language there is an own document. Copy an existing document and rename it to Help_XXX, where XXX is an abbreviation of the language name.

In the languages database there is a special key called SPRACH_BEZEICHNUNG. The text given in this filed will be used as XXX.



The abbreviation XXX will be appended to the file name.

Now translate the renamed help file.

If the Help shall be translated in a later state, an alternative Help might be used until then. It is possible to combine a language X with the Help of Language Y. Therefore set the key HILFE_SPRACHE to the desired language:



The translated help file has to be compiled into the myHomeControl help system. Therefore send the file to info@bootup.ch. We will compile it and you will become the latest version of myHomeControl with your language included.

Appendix E: WEB Remote Access

Remote access to the myHomeControl WEB server

Following configuration steps will be required to enable remote access to **myHomeControl**® s WEB server:

1. [Assign a fix IP-Address to the Computer running myHomeControl.](#)
2. [Create an account at DynDNS.org and create a host.](#)
3. [Configure the modem/router of your local network.](#)

Assign a fix IP address to host PC

Assign a fix IP address to the pc running myHomeControl. This is required to configure a route on the modem/router.

Assign an IP address of the same sub net the DHCP server of your router does but outside the range of the DHCP server.

[Next step is to create an account at DynDNS](#)

Create an account at DynDNS.org

Each participant in the Internet requires a world wide unique IP address. Usually the DSL modem request an IP address from the Internet provider during the connection process to the Internet. This unique IP address is used to access the modem respectively a PC behind the modem from any location in the world by entering **Fehler! Hyperlink-Referenz ungültig.** in the browser address field.

Internet providers typically change the IP address from time to time. The actual IP address has to be retrieved from the modem/router and is usually unknown. Therefore it is not possible to retrieve the IP address from outside to access the computer remotely.

This is where DynDNS helps. DynDNS manages IP addresses and keeps informed about the actual IP address. Create an account at DynDNS www.dyndns.org. This is free of charge. Create a new host within your DynDNS account. Give a name you will use to access your host from the Internet e.g. *myNameAtHome*.

[Next step is to configure the modem/router](#)

Configuration of the modem/router

To enable DynDNS to keep track with the changing IP-addresses, the DSL/modem/router has to inform DynDNS periodically about the actual IP-address received from Internet provider. Usually this is a standard service of a DSL/modem/router. Just activate the corresponding client.

Host: *HostName.dynDNS.org*

Account: *myAccountName*

Usually the router contains a firewall or works on NAT. These features prevent any traffic initiated by the Internet to access the devices behind the router. But this is exactly what is required to access the myHomeControl WEB server form the Internet.

Therefore specific channels have to be opened. Configure a virtual server at the DSL/modem/router to enable access to the WEB server:

Server name	external port	protocol	internal port	Server IP Addr
WEB Server	80	TCP	80	XX.XX.XX.XX

Test from the Internet

Establish an Internet connection using a telephone line. Start the browser and enter

http://HostName.dyndns.org.

TeamViewer

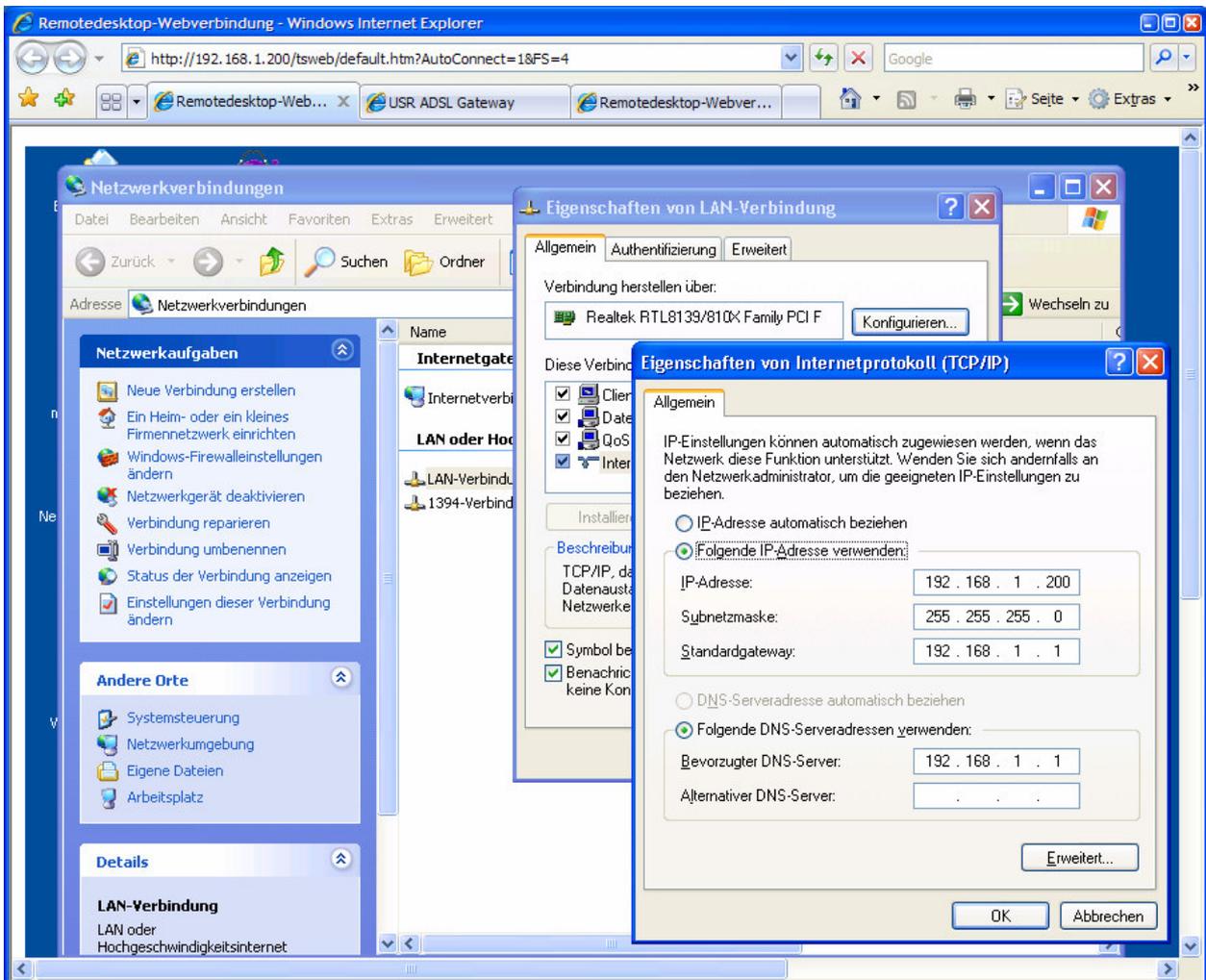
www.Teamviewer.com provides a very easy tool for remote desktop. It is free for private usage. It requires no special setup of firewalls and routers.

In case TeamViewer is installed as a service, then it runs in the background and the PC can be accessed via Internet at any time.

Fix IP-Address for the Host

A fix IP-address should be assigned to the host PC. This is required to announce it as a virtual host in your DSL/modem/router.

Network -> LAN/Settings -> Internet protocol (TCP/IP)/Properties->

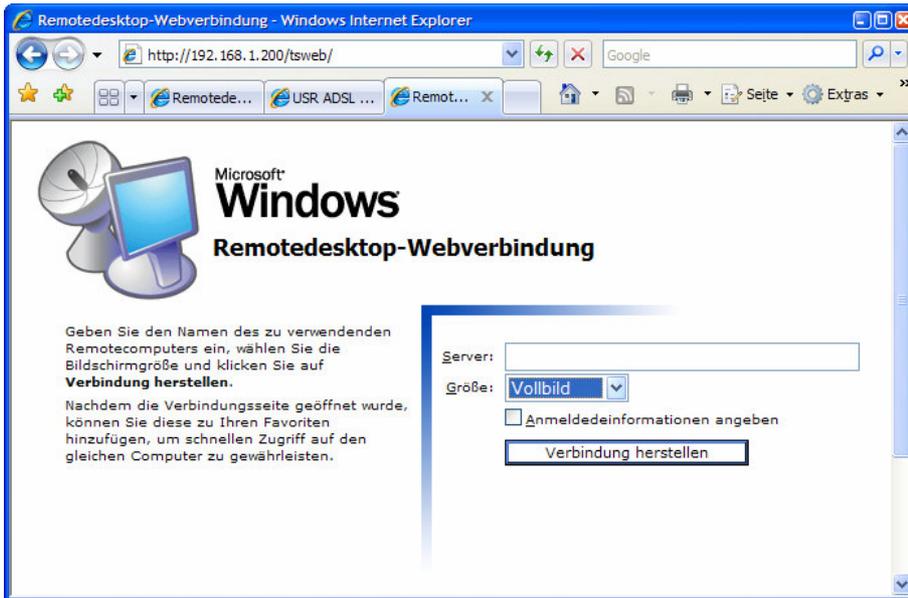


Enter a corresponding IP-address, which are in the same subnet then the addresses given by the DNS server.

Test:

Start an Internet explorer on an other PX

Enter the IP-address of the host into the address field of the explorer; accept the installation of the Active-X



- Full screen doesn't work
- ➔ Select a resolution
 - ➔ Establish connection

Account at DynDNS

The Internet provider changes the IP-address given to your DSL/modem/router from time to time. This address can be seen in your DSL/modem/router but is usually unknown.

Therefore create an account at DynDNS www.dyndns.org. This is free of charge. DynDNS manages IP-addresses. Create a new host at DynDNS. Give a name you will use to access your host from the Internet.

Settings of the DSL/modem/router

To enable DynDNS to keep track with the changing IP-addresses, the DSL/modem/router has to inform DynDNS periodically about the actual IP-address received from Internet provider. Usually this is a standard service of a DSL/modem/router. Just activate the corresponding client.

Host: *HostName.dynDNS.org*

Account: *myAccountName*

Usually the router contains a firewall or works on NAT. These features prevent any traffic initiated by the Internet to access the devices behind the router. But the Remote Desktop-connection requires exactly this.

Therefore specific channels have to be opened. Configuring a virtual server at the DSL/modem/router does this:

Server name	external port	protocol	internal port	Server IP Addr
Win2000 Terminal Service	3389	TCP	3389	XX.XX.XX.XX
Win2000 Terminal Service	3389	UDP	3389	XX.XX.XX.XX
WEB Server	80	TCP	80	XX.XX.XX.XX

Test from the Internet

Establish an Internet connection using a common telephone line.

Start I Explorer and connect to www.HostName.dyndns.org/tsweb

Appendix F: Upgrading to Version 1.2.2

In version 1.2.2 the valve actuator block has been redesigned. Due to the support of various new valve actuators we found out, that most valve actuators interpret the temperature set point value as an offset to a base temperature.

Therefore the valve actuator block has become some new properties. Some properties have to be adjusted manually when upgrading to version 1.2.2 of myHomeControl.

Property: **Setpoint Offset Range** (Tab: Device Configuration)

The screenshot shows a configuration window for device SRC-DO. The 'Device Configuration' tab is active. The following values are displayed:

- Base Temperature[°]: 20.0
- Temperature Range[°]: 0.0 ... 40.0
- Setpoint Offset Range[+/-°]: -5.0 ... 5.0
- Enable Temp. Lowering

Set values used by the valve actuator. Refer to the manual of the valve actuator to determine the correct values.

For Omnio devices set -5° ... 5° .

Thermokon devices usually use a range of -5° ... 5° by default.

Property: **Correction** (Tab: Signal values)

The screenshot shows a configuration window for device SRC-DO. The 'Signal values' tab is active. The following values are displayed:

- Temperature[°]: 40.0
- Setpoint Temp.[°]: 17.0
- Correction[°]: 0.0
- Temp. Lowering

With the new method a temperature correction should not be required any more. Therefore set the property to 0. In case temperature control is not accurate enough, feel free to adjust the correction property.

Appendix H: Camera configurations

Generic camera

Use a standard stream with this camera. In case the camera provides a MJPEG stream then enter the URL of this stream. Otherwise enter the URL of the JPEG stream.

The full URL string has to be entered, e.g.: <http://192.168.1.100/cgi/video.mjpg>

Samples of Camera URLs:

Alternatively refer to: www.ispyconnect.com/sources.aspx

Airlink101 IP cameras URLs

MJPG: <http://host:port/mjpeg.cgi>
<http://host:port/cgi/mjpg/mjpeg.cgi>

JPG: <http://host:port/cgi/jpg/image.cgi>

Axis IP cameras URLs

MJPG: <http://host:port/axis-cgi/mjpg/video.cgi?resolution=<resolution>&Quality=<camera>>
<http://host:port/axis-cgi/mjpg/video.cgi?resolution=320x240&camera=1>

JPG: <http://host:port/axis-cgi/jpg/image.cgi?resolution=<resolution>&camera=<camera>>
<http://host:port/axis-cgi/jpg/image.cgi?resolution=320x240&camera=2>

BrockCom IP cameras URLs

OB-100Ap JPG: <http://host/snapshow.jpg>

WLB-100Ap JPG: <http://host/snapshow.jpg>

D-Link IP cameras URLs (*)

MJPG: <http://host:port/video.cgi>
<http://host:port/mjpeg.cgi>

JPG: <http://host:port/cgi-bin/video.jpg>

Cannon IP cameras URLs

MJPG: http://host:port/-wvhttp-01-/getoneshot?frame_count=no_limit

Edimax IP cameras URLs

MJPG: <http://host:port/snapshot.cgi>

Gadspot IP cameras URLs

MJPG: <http://host:port/GetData.cgi?Status=0>

JPG: <http://host:port/Jpeg/CamImg.jpg>

Geovision IP cameras URLs

Enable H264 or MJPEG.

MJPG: <http://host/PictureCatch.cgi?username=<userID>&password=<password>&channel=1>

Goscam IP cameras URLs

MJPG: [http://host:port/cgi-bin/Stream?Video?Acc=\[userid\]?Pwd=\[password\]?webcamPWD=RootCookies00000](http://host:port/cgi-bin/Stream?Video?Acc=[userid]?Pwd=[password]?webcamPWD=RootCookies00000)

Mobotix IP cameras URLs

MJPG: <http://host:port/control/faststream.jpg?stream=full>

JPG: <http://host:port/record/current.jpg>

Linksys IP cameras URLs

MJPG: <http://host:port/img/video.mjpeg>

JPG: <http://host:port/img/snapshot.cgi?size=<size>>
<http://host:port/img/snapshot.cgi?size=2>

Level One cameras URLs

JPG: <http://host:port/cgi-bin/video.jpg>

Panasonic IP cameras URLs

MJPEG: <http://host:port/nphMotionJpeg?Resolution=<resolution>&Quality=<quality>>
<http://host:port/nphMotionJpeg?Resolution=320x240&Quality=Standard>
<http://host:port/cgi-bin/nphContinuousServerPush?Resolution=320x240&Quality=Standard> (for BL-C1)

JPG: <http://host:port/SnapShotJPEG?Resolution=<resolution>&Quality=<quality>>
<http://host:port/SnapShotJPEG?Resolution=320x240&Quality=Motion>

Qnap IP cameras URLs

MJPEG: <http://host:port/cgi/mjpg/mjpeg.cgi>

Sharx Security IP cameras URLs

MJPEG: <http://host:port/stream.jpg>

Sony IP cameras URLs

JPG: <http://host:port/oneshotimage.jpg>

MJPEG: <http://host:port/image>

Toshiba IP cameras URLs

MJPEG: <http://host:port/getstream.cgi?<clientID>&<uniqueID>&<userID>&<userPW>&<streamType>&<interval>&<mode>&<value>&<timeOut>>

<http://host:port/user/cgi-bin/getstream.cgi?<clientID>&<uniqueID>&<userID>&<userPW>&<streamType>&<interval>&<mode>&<value>&<timeOut>>

<http://host:port/getstream.cgi?10&&&&0&0&0&0&0>

<http://host:port/user/cgi-bin/getstream.cgi?10&&&&0&0&0&0&0>

webcamXP video server URLs

JPG: http://host:port/cam_1.jpg

MJPEG: http://host:port/cam_1.cgi

Y-cam IP cameras URLs

MJPEG: <http://host:port/stream.jpg>

Intellinet network camera

Following instructions are valid for camera types:

- | | |
|-------------------|-------------------|
| 551083 NSC16-WG, | 550949 NFC30 |
| 551021 NFC31 | 550956 NFC30-WG |
| 551038 NFC31-WG | 550963 NFC30-IR |
| 551045 NFC31-IR | 550970 NFC30-IRWG |
| 551052 NFC31-IRWG | 550932 NBC30-IR |
| 524421 NSC15 | 550987 NFD30 |
| 550901 NSC15-WG | 550994 NVS30 |

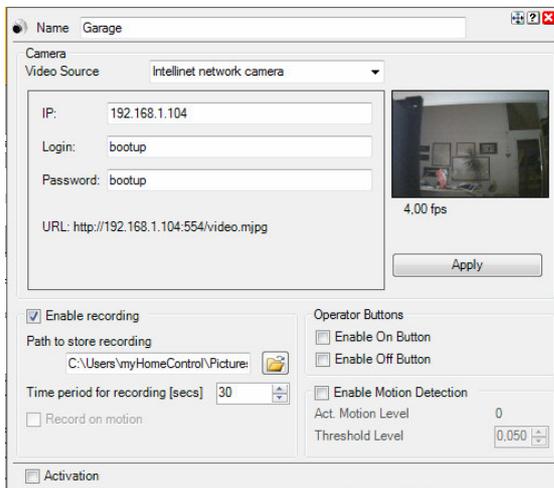
For details refer to document: Video Stream Documentation

Open a web browser and enter the IP address of the camera as URL.

Configure the camera as follows:

- Setting / BASIC / Camera / General
RTSP: Off
- Setting / BASIC / Camera / MJPEG
Image Size: according the needs
Frame rate: as high as possible, must be adapted later to adjust CPU load.
Quality: Auto

Settings of the camera block in **myHomeControl®**:



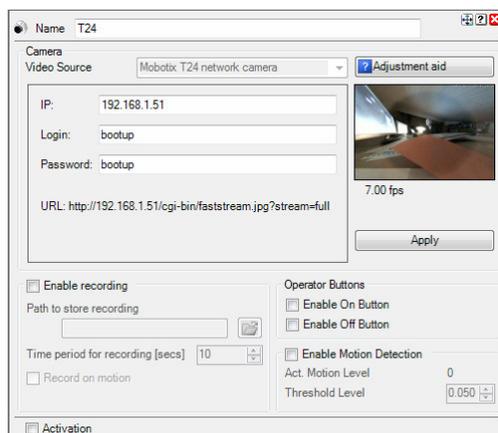
Enter IP address of the camera

Enter user name and password

Mobotix T25 network camera

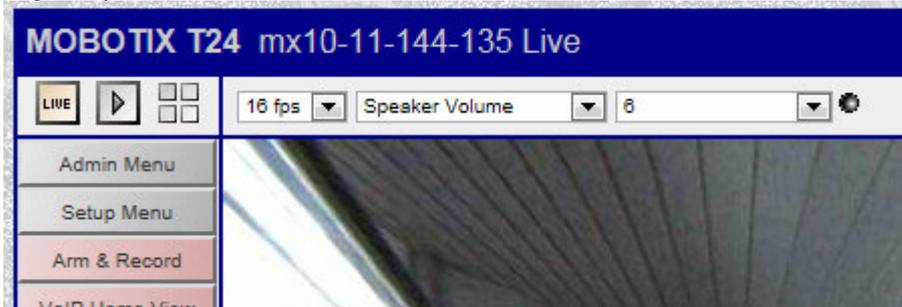
Following steps have to be taken to configure the camera:

1. Retrieve the IP address of the camera:
 - Download **MxEasy** from the Mobotix web page and install it.
 - Start MxEasy and determine the IP address of the camera.
 - Terminate MxEasy.
2. Configure the camera:
 - Start a web browser and enter the IP address of the camera as URL.
The live picture and the menu is shown.
 - Rename Camera
Admin Menu / Ethernet Interface / Camera Name
Changes require a restart of the camera.
 - User and Password
Admin Menu / Users and Passwords
 - Arm Events
Setup Menu / Recording / Arming: **Enabled**
Setup Menu / Recording / Start Recording / Recording Time: **2 s**
First press button „Set“, then „Close“, then „OK“.
 - Create door state events
Create an additional event:
Setup Menu / Event Overview / Signal Events / Edit...
scroll down and press button „Add new profile”
Create Profile:
Name: **Door closed**
Signal Input Pin:**Device In: ~DPC**
Trigger Condition: **Closed → Open**
First press button „Set“, then „Close“, then „OK“.
Add created profile as event:
Setup Menu / Recording / Start Recording / add selection of **Signal:Door closed** (keep Ctrl button pressed)
First press button „Set“, then „Close“, then „OK“.
 - Add signaling phase to avoid canceling of the door opener sound
Admin Menu / Bell Behaviour and Video Mailbox / IP Notify Profiles: select MxCC-Alarm, press “Add slected devices”
then further down on this page: “Add signaling phase”, select “MxCC-Alarm”
First press button „Set“, then „Close“, then „OK“.
3. Settings of the camera block in **myHomeControl®**:



Enter IP address of the camera
Enter user name and password

4. Adjust CPU load:
Setup Menu / General Image Settings (More) / adjust „Image Size“ and „Frames per Second“ .
Use Task Manager on PC to check CPU load. CPU load should be less then 50%.
First press button „Set“, then „Close“, then „OK“.
5. Adjust volumes
Beside the volume settings of the PC there are volume settings of the camera.
 - Start a web browser and enter the IP address of the camera as URL.
The live picture and the menu is shown.
 - Adjust Speaker Volume



- Adjust Microphone Sensitivity

Mobile Apps

Android: IP Cam Viewer

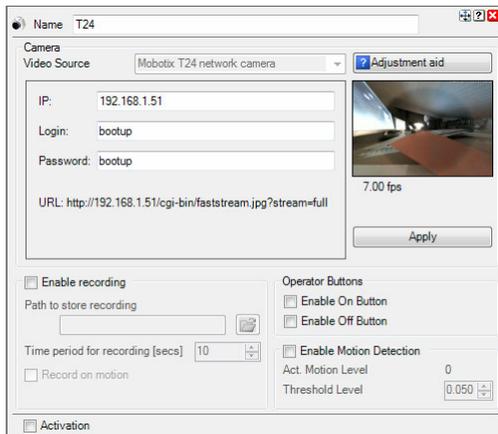
IOS: QCamPro

Mobotix S15 network camera

Following steps have to be taken to configure the camera:

1. Retrieve the IP address of the camera:
 - Download **MxEasy** from the Mobotix web page and install it.
 - Start MxEasy and determine the IP address of the camera.
 - Terminate MxEasy.
2. Configure the camera:
 - Start a web browser and enter the IP address of the camera as URL. The live picture and the menu is shown.
 - Arm Events
 Setup Menu / Recording / Arming: **Enabled**
 Setup Menu / Recording / Start Recording / Recording Time: **2 s**
 First press button „Set“, then „Close“, then „OK“.

3. Settings of the camera block in **myHomeControl®**:



Enter IP address of the camera
 Enter user name and password

4. Adjust CPU load:
 Setup Menu / General Image Settings (More) / adjust „Image Size“ and „Frames per Second“.
 Use Task Manager on PC to check CPU load. CPU load should be less then 50%.
 First press button „Set“, then „Close“, then „OK“.

Mobile Apps

Android: IP Cam Viewer
 IOS: QCamPro

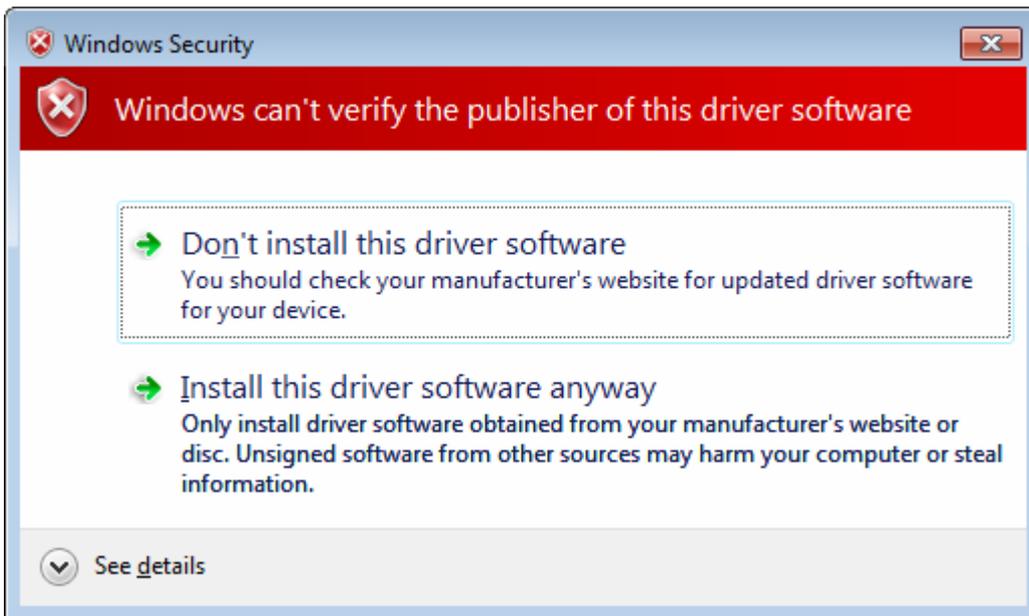
Appendix I: Install instruction for CAN interfaces

www.CANUSB.com

The device drivers have been installed as part of the **myHomeControl®** installation. The driver files are installed in the corresponding windows folder.

Connect the CAN interface after installing **myHomeControl®**.

Windows in starts now the installation of the drivers. After a while following dialog will be shown:



Click on "Install this driver software anyway".

After the installation has finished the PC must be rebooted. After the reboot **myHomeControl®** can be started and the CAN driver can be used.

Appendix J: Naming conventions for Alexa

Alexa reacts on phrases as:

“Alexa, turn on ceiling light in the living room.”

The names of the devices and rooms are derived from the names given in the **myHomeControl®** control project. These names can be adjusted in the device selection dialog.

Consider following rules to get best results of the speech recognition:

- Don't use too short names
guest → guest room
- Avoid single characters or figures
room 1 → use name of person the room is dedicated to
- Don't use abbreviations
WC → toilet
Outside light NO → Outside light northeast
- Length of whole name (device name + room name) should be less than 20 characters.

Choose intuitive names, which can be remembered.

The identifiers for the devices to be controlled by Alexa are using following schema:

<device name> <room name>

Examples:

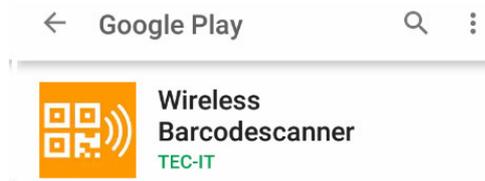
- Ceiling light in the living room
- Wall lights in the kitchen

Configure names and if room name shall be appended to the device name within the dialog to select the devices (see [general settings / Amazon Alexa](#)).

Appendix K: QRCode Scanner

QR Codes can be scanned by a smart phone and automatically copied to myHomeControl. Use following app:

Android: **Wireless Barcode Scanner** by TEC-IT



iOS: **Scan-IT to Office** by TEC-IT



This app sends the scanned code via network directly to myHomeControl.

Settings of the App:

Adjust following settings:

Connection type:	TCP-Client
Host/IP:	<IP-Adresse of the PC running myHomeControl>
Port:	9999