

M-RT-s module configuration guide

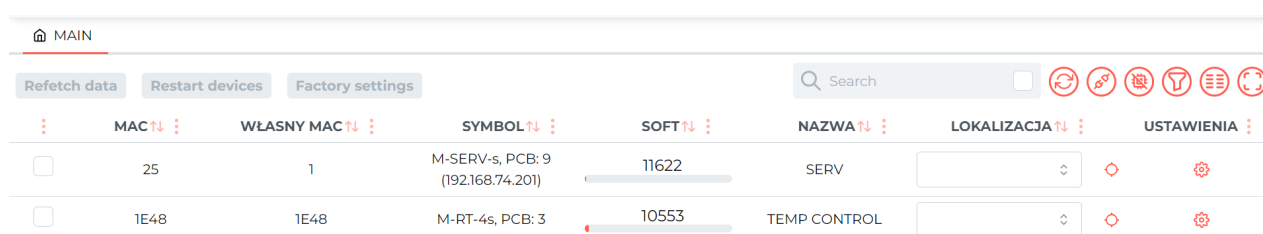
Document number: PO-085-EN Version: 4.0 Date of publication: October 9, 2024

An MR-T-s module is used to regulate the temperature in rooms, it allows one to control multiple heating zones (from 1 to 32) and it makes it possible to create schedules and automate the heating system.

Configuration in the Ampio Designer

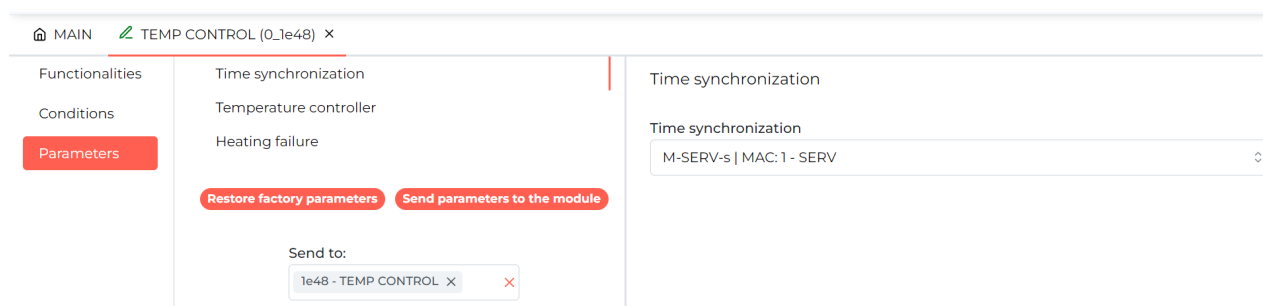
Use the Ampio Designer application for the configuration process.

In the list of modules, select a module from the M-RT family and navigate to the options (gear icon).



	MAC	WŁASNY MAC	SYMBOL	SOFT	NAZWA	LOKALIZACJA	USTAWIENIA
☐	25	1	M-SERV-s, PCB: 9 (192.168.74.201)	11622	SERV		
☐	1E48	1E48	M-RT-4s, PCB: 3	10553	TEMP CONTROL		

After accessing the *Parameters* tab, you can, among other things, synchronise the time with another module (e.g. from the M-SERV family).



MAIN
TEMP CONTROL (0_1e48) X

Functionalities
Conditions
Parameters

Time synchronization
Temperature controller
Heating failure

Restore factory parameters
Send parameters to the module

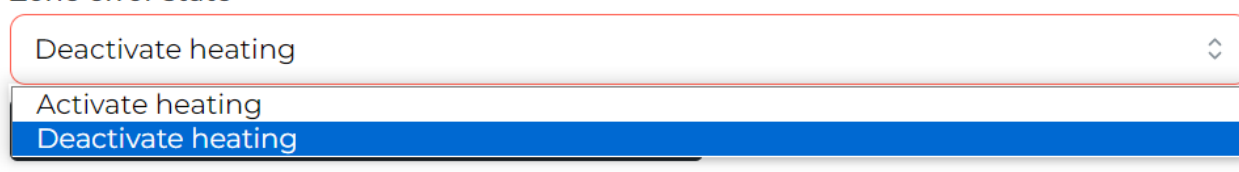
Send to:
1e48 - TEMP CONTROL X

Time synchronization
Time synchronization
M-SERV-s | MAC: 1 - SERV

It is also possible to set the controller's response behaviour in the event of a faulty temperature sensor in the *Heating Failure* sub-tab.

Heating failure

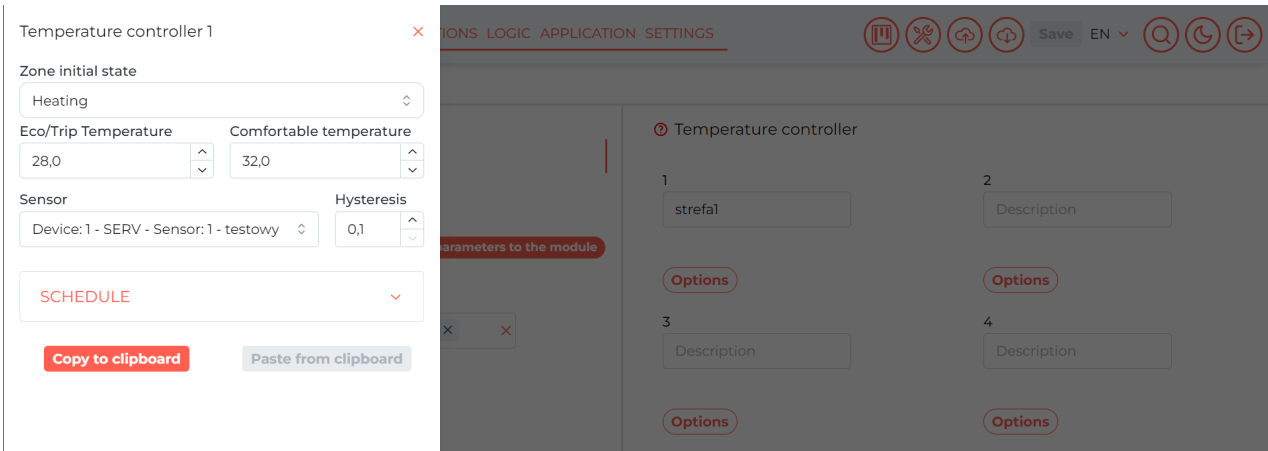
Zone error state



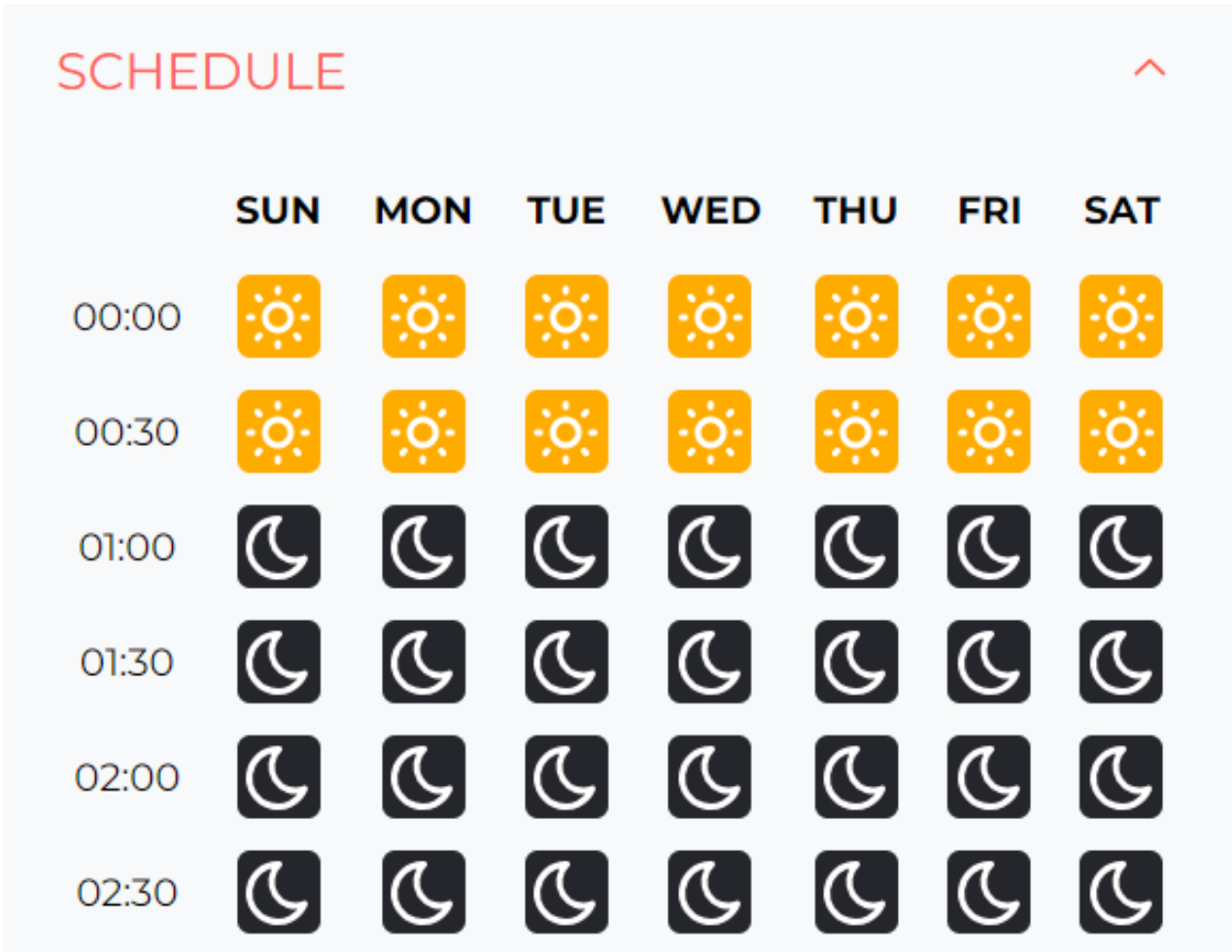
Deactivate heating
Activate heating
Deactivate heating

In the sub-tab *Temperature controller* you can see, among other things, all available zones, you can give them a name, select the type of controller for the zone, and select the module from the CAN network from which the current temperature

will be read. Next, you select the number of the temperature sensor for this module. Based on the data from the sensor, the controller manages the heating in the zone. You can enter the desired temperature for day and night (*Comfort* and *Economic*). Then, modify the hysteresis affecting the rate of switching the heating on/off.



In addition, by entering the schedule, it is possible to manually determine which hours are considered day and which are considered night for each day of the week.



In the *Functionalities* tab, after navigating to *Regulator*, we can preview the current status of the heating zones.

MAIN

SERV (0_25) X

Functionalities

Conditions

Parameters

Licence

Inputs & outputs

Flag

8-bit flag

16-bit flag

Roller blinds

Diagnostics

Time

MLED

OC

SATEL

1.

Name

office

Location

Active

OFF

Set temp

19.0

^

v

Temp

25.5

Diff

-6.5

Mode

A

Running

OFF

Block

OFF

Cooling

OFF

Whereas in the *Time* sub-tab, you will see the currently set time.

Functionalities

Conditions

Parameters

Flag

Temperature controller

Time

Q Search



NUMBER	PREFIX	DESCRIPTION	LOCATION	VISUAL
1		Date and time		 5/1/2024 12:38
1		Year		24
1		Month		1
1		Day of month		5
1		Weekday		5
1		Hour		12
1		Minute		38
1		Day/night		1

Conditions

The M-RT-s module additionally offers the possibility of creating time-dependent conditions or based on heating zone control in the configurator.

The conditions can be activated, for example, at night, during a specific month or at a specified time.

#	TRIGGERS	OUTPUT TYPE	INPUT NUMBERS	FUNCTION	ACTOR	OUTPUT TYPE	OUTPUT NUMBERS	FUNCTION	TYPE
✓	Create condition		✓	Create function					Confirm
⚠	TEMP CONT...	Time	Day/night	Simple	SERV	Flag	1	Simple	Toggle

Responses of the device

Using conditions, we can also trigger certain functions for the M-RT-s controller, e.g. a change in the setpoint until the next change in the schedule.

⚠	SERV	Flag	1	Simple	→	TEMP CONT...	Temperature...	Active	Simple	Set until
---	------	------	---	--------	---	--------------	----------------	--------	--------	-----------

Set for a duration of time
Set until schedule changes
 Change the holidays mode
 Activate the schedule
 Set up a lock
 Set up holidays
 Switch holidays off

Configuring the mobile app

In order to control the heating of the M-RT-s module from the Ampio UNI mobile application, add the corresponding object to the group.

From the left-hand side of the screen, expand the list for the M-RT-s device and drag the relevant zone to the selected group in the second column, then select Save in the top right-hand side of the screen.

DEVICES LOCATIONS LOGIC APPLICATION SETTINGS
Save EN

(M-SERV-s) SERV (25)
 (M-RT-4s) TEMP CONTROL (1e48)
 > flag
 > thermostat
 1.zone 1(56)
 2.
 3.
 4.
 (ENOCEAN) (3)
 (WL-OC-RGBW(p)) (2)

Dashboard (0)
 1.zone 1(56) (57)
 UNGROUPED

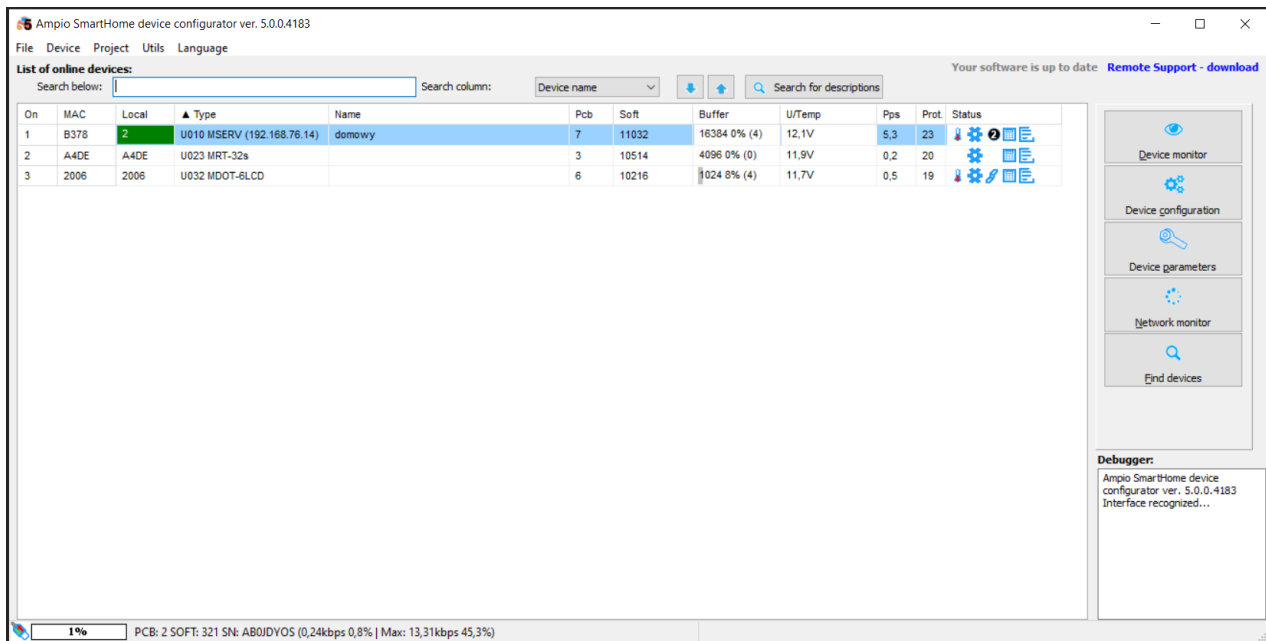
Add objects to group: Search

ID	NAME	TYPE	SETTINGS	REMOVE
57	1.zone 1(56)	thermostat	⚙️	🗑️

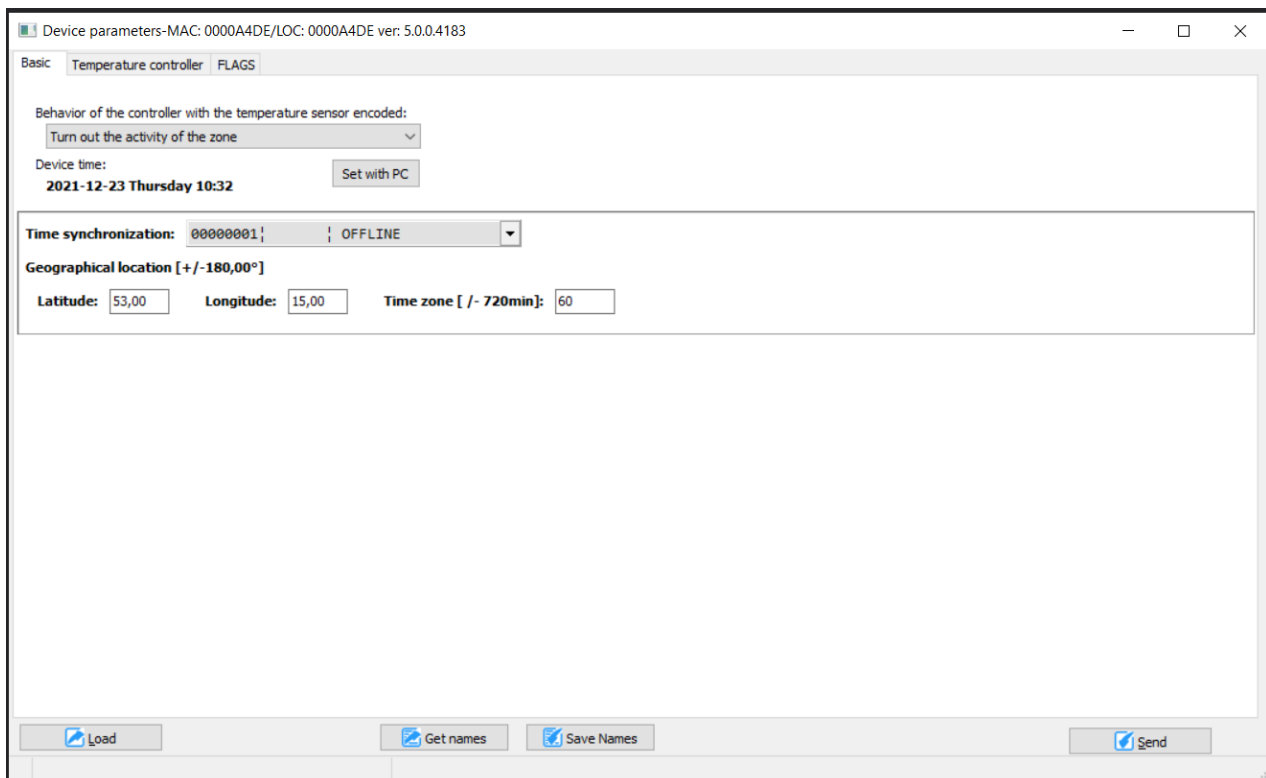
Configuration in the Smart Home Configurator and Smart Home Manager*

*from January 2024, the Smart Home Configurator and Smart Home Manager softwares are no longer being developed. It is recommended to use them only in substantiated instances.

On the list of modules, select the M-RT-s module and open *Device parameters*.



In the *Basic* tab, you can, for example, download the current time from a computer to the module, or enter the geographical location of an object, which helps in setting the right time for sunrise and sunset. There is also an option to set the controller's behaviour in case the temperature sensor breaks, as well as an option to sync time with another module.



In the *Temperature controller* tab, you will find, for example, all available zones, which can be given names, you can select the regulator type for a specific zone, and select a module from the CAN network, from which the current temperature will be obtained. You will need to select the number of temperature sensor for that module next. On the basis of the obtained data, the controller regulates heating in a given zone. You will then also set the day and night temperatures. Hysteresis, which manages the speed of activation/de-activation can also be modified. On top of that, it can also be manually determined, what hours constitute day, and which night.

[illegible]

Schedule settings can be copied to other zones, or each zone can be set up individually.

The *Flags* tab provides the capability of managing flags, just as it is the case with every other module of the Ampio system.

Conditions

The M-RT-s module enables the function of creating conditions in the configurator that are dependent on time or on the heating zone controls.

Such conditions can, for example, be activated at night, in a given month, or at a certain hour.

The condition-MAC: 0000A4DE/LOC: 0000A4DE ver: 5.0.0.4183

The definition of forcing information. Warning!!! in this window, we only mark what we want to respond to.

Temp. reg. Clock Flags Bin

Real-time clock: 2021-12-23 Thursday 10:40 Day

Set with PC

Year: ☐ = 2021

Month: ☐ = December

Day: ☐ = 23

Day of week: ☐ = Thursday

Day/Night: ☐ Day

Hour: ☐ = 09

Minute: ☐ = 37

Features

Type of logical operation: (AND) all

Type of condition: Basic function

Get names Save Names Accept Close

The image below shows how a condition is created from an active zone, checking whether heating for the zone is active, or not.

The condition-MAC: 0000A4DE/LOC: 0000A4DE ver: 5.0.0.4183

The definition of forcing information. Warning!!! in this window, we only mark what we want to respond to.

Temp. reg. Clock Flags Bin

Zone control Zone Monitor

1 Description Set: 18,0 Meas: 24,3 Mode: Auto	2 Description Set: ND Meas: ND Mode: ND	3 Description Set: ND Meas: ND Mode: ND
4 Description Set: ND Meas: ND Mode: ND	5 Description Set: ND Meas: ND Mode: ND	6 Description Set: ND Meas: ND Mode: ND
7 Description Set: ND Meas: ND Mode: ND	8 Description Set: ND Meas: ND Mode: ND	9 Description Set: ND Meas: ND Mode: ND
10 Description Set: ND Meas: ND Mode: ND	11 Description Set: ND Meas: ND Mode: ND	12 Description Set: ND Meas: ND Mode: ND
13 Description Set: ND Meas: ND Mode: ND	14 Description Set: ND Meas: ND Mode: ND	15 Description Set: ND Meas: ND Mode: ND
16 Description Set: ND Meas: ND Mode: ND	17 Description Set: ND Meas: ND Mode: ND	18 Description Set: ND Meas: ND Mode: ND
19 Description Set: ND Meas: ND Mode: ND	20 Description Set: ND Meas: ND Mode: ND	21 Description Set: ND Meas: ND Mode: ND
22 Description Set: ND Meas: ND Mode: ND	23 Description Set: ND Meas: ND Mode: ND	24 Description Set: ND Meas: ND Mode: ND
25 Description Set: ND Meas: ND Mode: ND	26 Description Set: ND Meas: ND Mode: ND	27 Description Set: ND Meas: ND Mode: ND
28 Description Set: ND Meas: ND Mode: ND	29 Description Set: ND Meas: ND Mode: ND	30 Description Set: ND Meas: ND Mode: ND

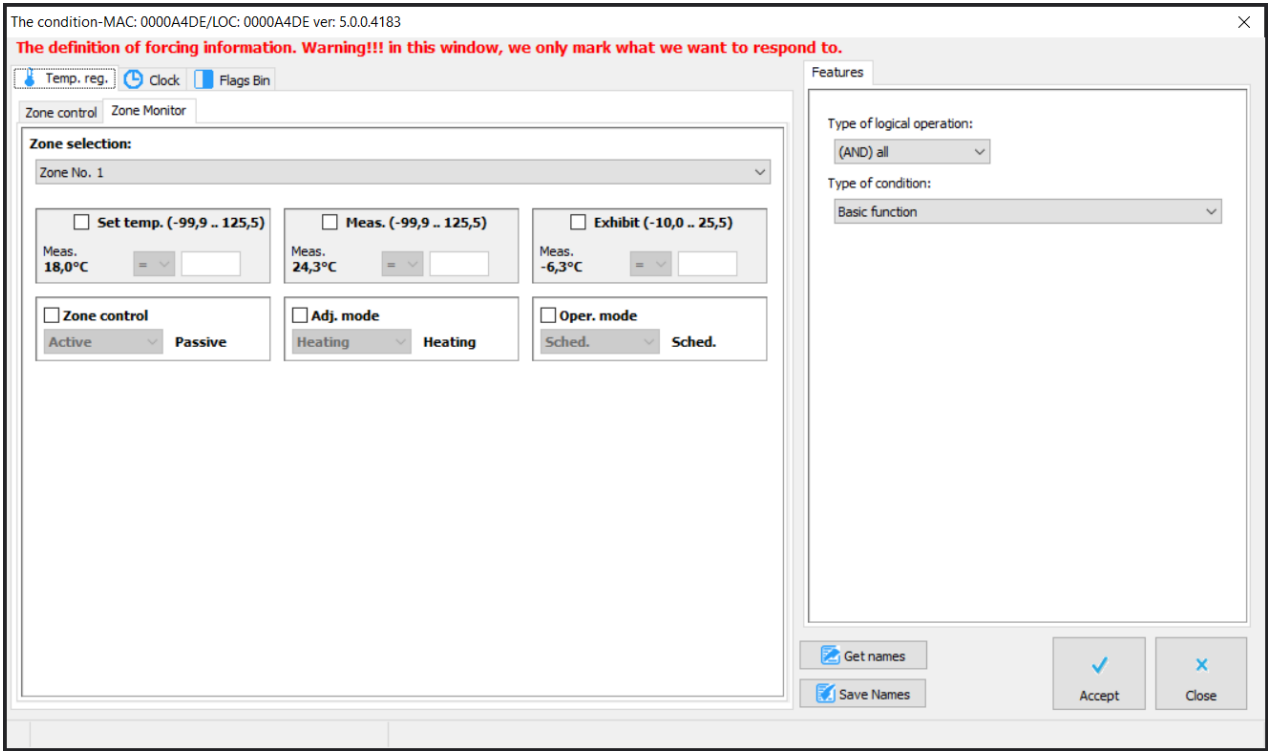
Features

Type of logical operation: (AND) all

Type of condition: Basic function

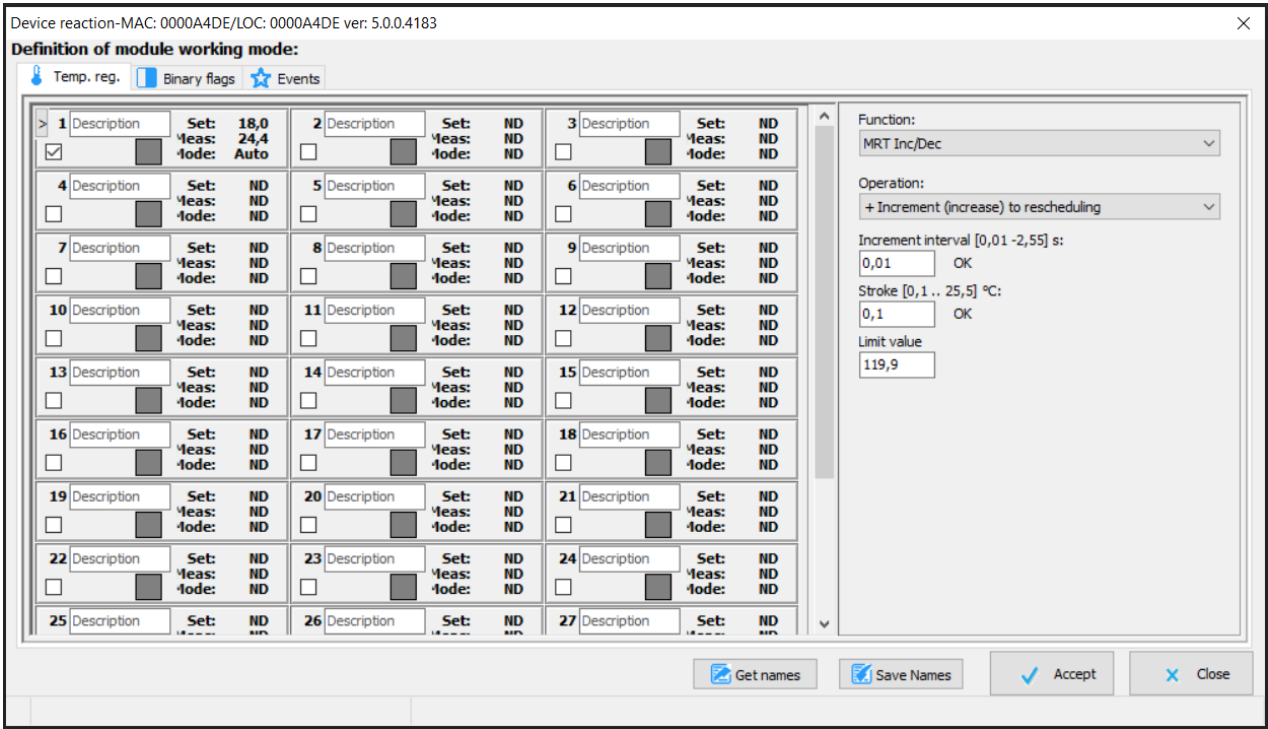
Get names Save Names Accept Close

Another capability of creating such conditions is comparing temperatures (the set temperature, or the measured temperature) to assumed values.

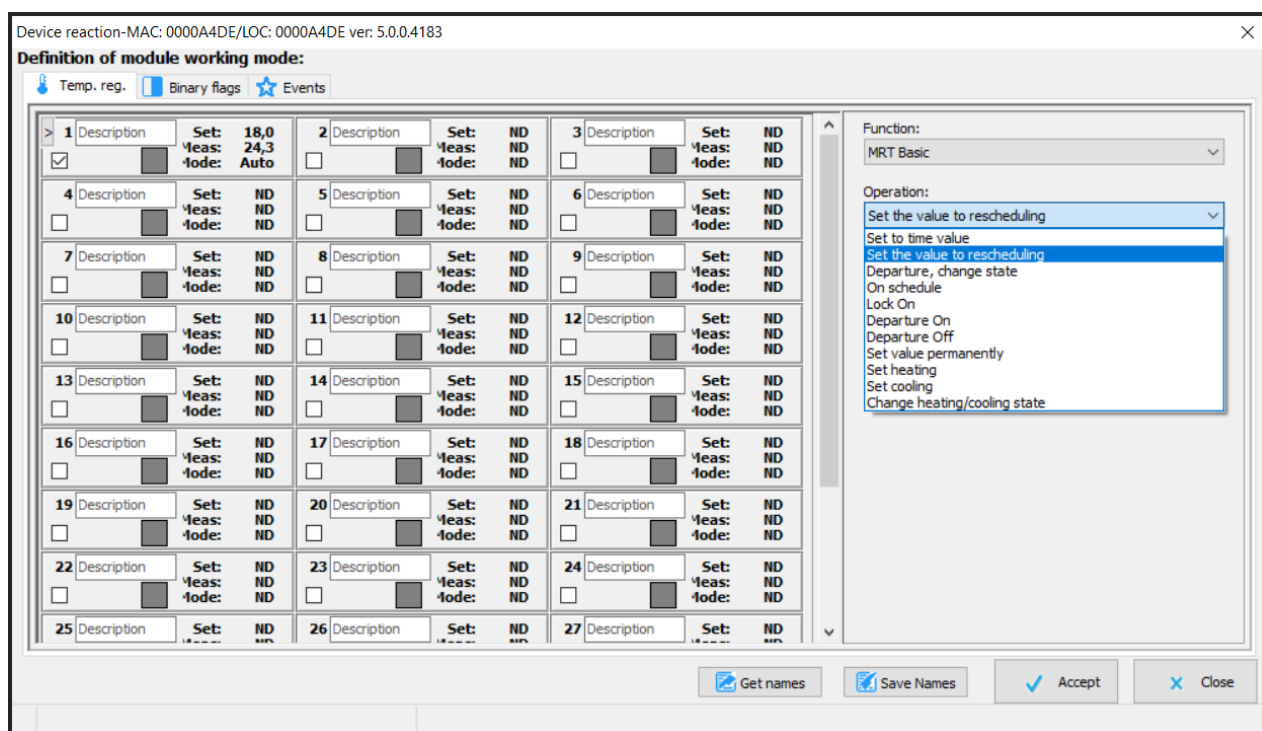


Device's response

With the use of conditions, you can also trigger some functions for the M-RT-s’ driver, e.g. an alteration of the value set for the next rescheduling.



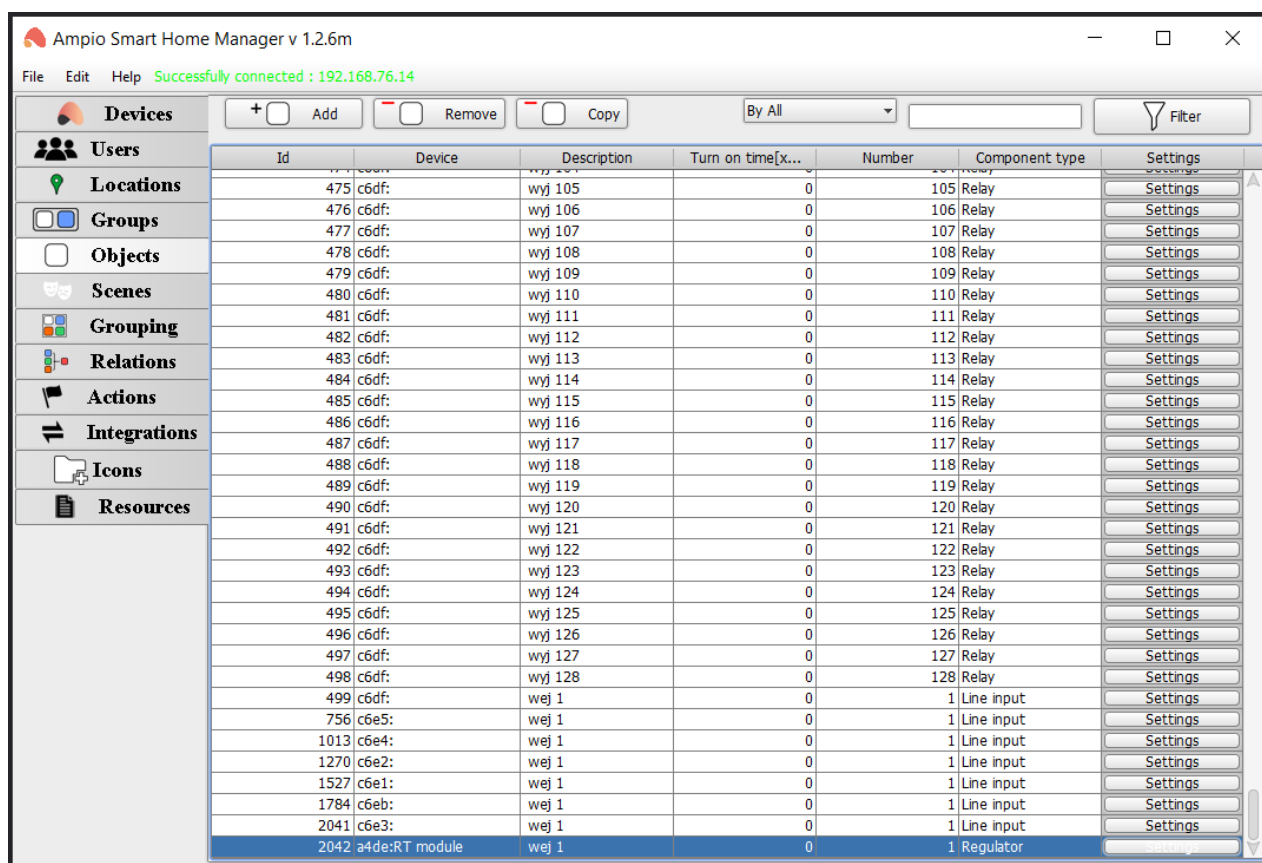
Other functions include, among others, changing the heating/cooling state, or setting a *Departure* mode.



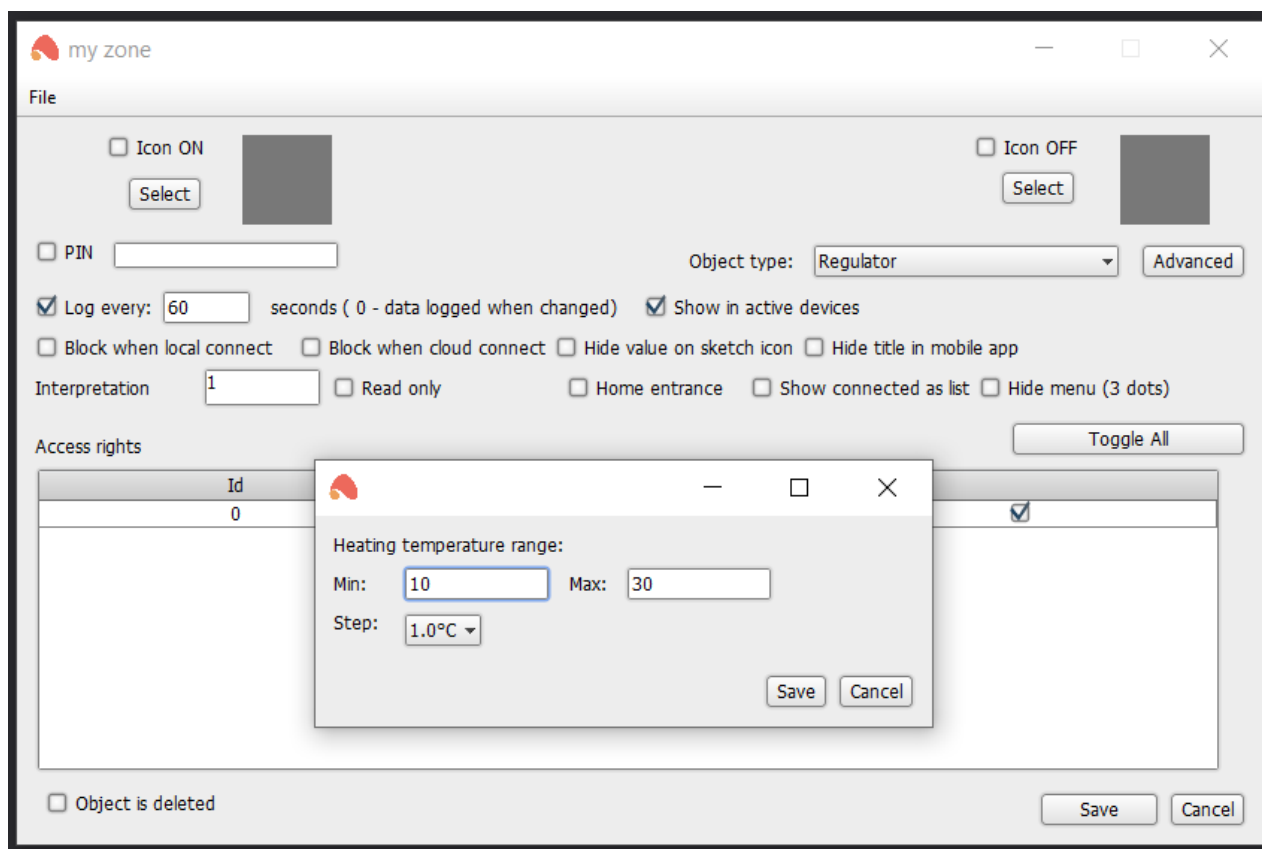
Control via the Ampio UNI application

In order to control heating in the M-RT-s module via the Ampio UNI mobile app, you have to add an appropriate object to the group.

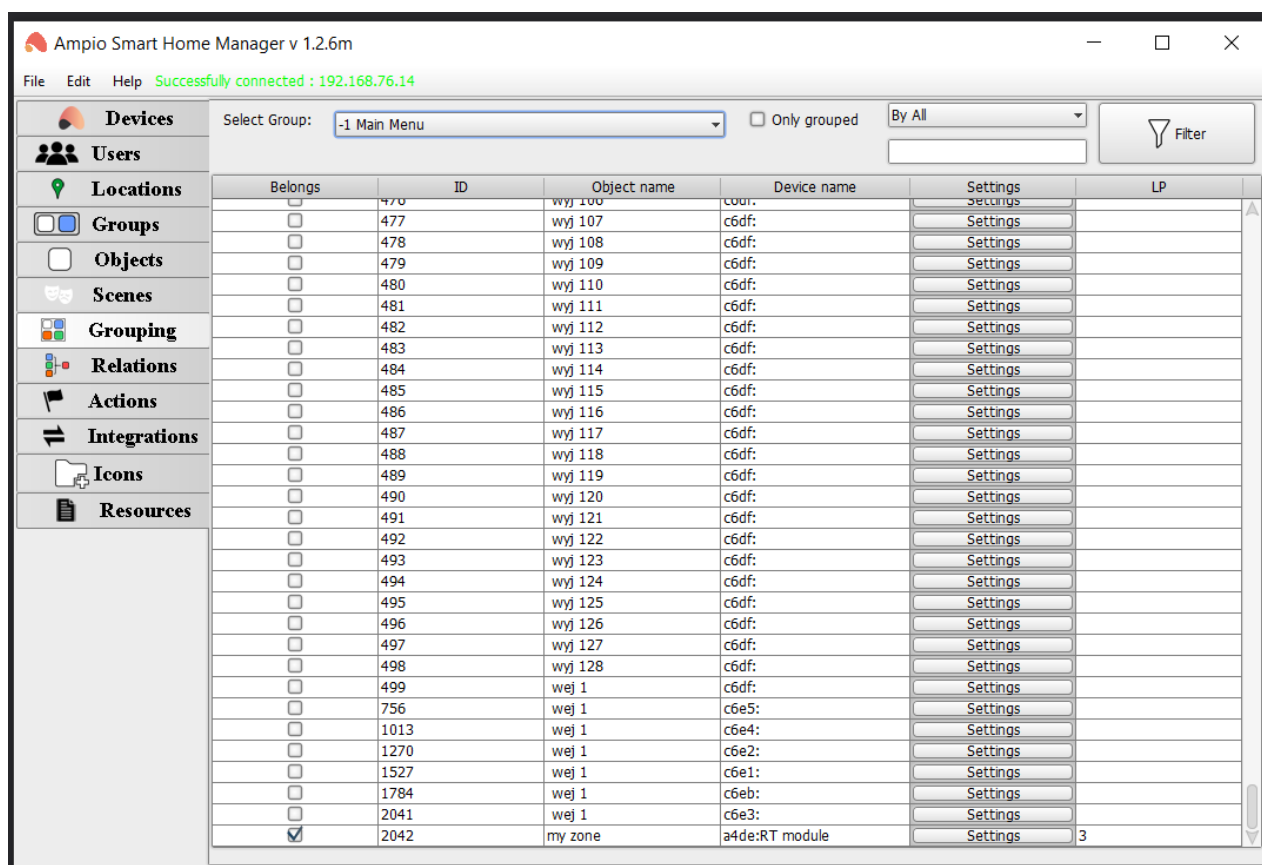
Create a new object in the ASH Manager and assign it to the M-RT-s device. In the *Number* column you can also select the number of the zone that you wish to control.



Open the device's *Settings*, set the object type to *Regulator* and, optionally, change the *Advanced* settings (min. and max. temperature, as well as the regulation step).



Save the object and add it to the correct group in the *Grouping* tab in order to display it in the application.



At the end, save the configuration on the server, e.g. using the *Ctrl+S* shortcut.

From this moment on, controlling zones will also be possible via the mobile application. You will have the option to change modes in the app. First, set the temperature and then choose the mode:

- automatic
- semi-automatic
- manual
- departure

A detailed description of different modes can be found in the following document: [Controlling the temperature in Ampio UNI](#).



After clicking on the settings icon (gear icon), you can also set up schedules manually in the app. Clicking on the 3 dots, on the other hand, will let you add favourites, display charts, or change between heating/cooling.

Cancel

heating zone 1

 Save

 High temp.

24.0 °C



 Low temp.

14.0 °C



 Schedule

Time:

03.30



-

04.00



Day:

Mon



Tue



Wed



Thu



Fri



Sat



Sun



Time:

10.30



-

11.00



Day:

Mon



Tue



Wed



Thu



Fri



Sat



Sun



Time:

05.00



-

05.30



Day:

Mon



Tue



Wed



Thu



Fri



Sat



Sun



Time:

11.30



-

13.30



Day:

Mon



Tue



Wed



Thu



Fri



Sat



Sun



Time:

12.00



-

14.00

