

Manual: QA Room Climate Control

Comfortable and economical control of heating and cooling in individual rooms — a combination of a time schedule, an automatic mode based on motion and occupancy, and setback when windows are opened.

Introduction

Application for comfortable and economical room climate control. It optimally controls heating and cooling by combining the time schedule and occupancy, and saves costs even when windows are opened.

It cooperates with the **Global Climate Mode** application (selection of the heating season winter / transitional period / summer), with the **Presence Detection** application (the presence of a specific person) and with the **Profile Control** application (global Vacation / Visit mode). It allows quick selection of a temporary mode to raise or lower the temperature.

The application cooperates with Mervis SCADA for visualisation and with other QA applications of the Energy Management family — for spot prices, energy sharing, controlled wallboxes, DHW heating and more.

Upstream and downstream applications

Upstream applications

Mandatory:

- **Main time schedule in the unit**, created and assigned to the thermostats.

Optional:

- **QA Global Climate Mode** — for selecting the heating season (winter / transitional period / summer).
- **QA Presence Detection** — for the automatic mode according to the presence of a specific person.
- **QA Profile Control** — for the global Vacation / Visit mode.

Downstream applications

Optional:

- **Thermostats / actuators** in the controlled rooms.
- **QA Klimatizace Mitsubishi (Intesis)** — for cooling the room via the air conditioning.

Installation and initial setup of the QA

Installation

Purchase the application in the Smart Home and Energy e-shop (<https://eshop.smarthomeenergy.cz>). After the purchase you receive an e-mail with a link to the activation form, in which you choose one of the two installation methods:

- **Installation via the SHE Installation Application (recommended)** — the activation form provides a link to download the Installation Application. Install it into the unit; it then automatically downloads and installs the purchased licences. It provides automatic updates of all applications and easy licence management (requires the "superuser" credentials for the unit). See the separate "Installation Application" manual for details.
- **Standalone installation file** — the activation form provides links to download an encrypted *.fqax file bound to the entered unit S/N. Install the file manually into the unit according to the unit manufacturer's instructions (logged in as "superuser"). This option does not allow automatic updates.

After a successful installation, a set of tiles and cards belonging to the application appears on the unit desktop in the **Climate** section, in this order:

- the **Setpoint** information tile,
- quick mode selection tiles (**AUTO**, **COMFORT NOW**, **COMFORT TODAY**, **HOME TODAY**, **ABSENT TODAY**, **ATTENUATION PERMANENT** and others according to the settings),
- the main cards **Climate mode**, **Rooms overview**, **Schedule**, **Setting Properties**, **Installation**.

Operating prerequisites

- Thermostats / actuators are installed in the controlled rooms.
- A main time schedule assigned to the thermostats is created in the unit.
- For the automatic mode based on motion, motion sensors are installed in the rooms.
- For setback when a window is open, window sensors are installed in the rooms.

Opening the application control card

To open the application card in a web browser, move the cursor over the tile and click the **eye** icon in the top-right corner of the tile. The card detail with the current state and settings opens.

The quick mode selection tiles (**AUTO**, **COMFORT NOW**, **COMFORT TODAY**, etc.) switch the mode directly with a click, without the need to open the detail.

Warning: Not all cards and tiles are displayed to all users. Each user selects which cards and tiles are displayed on the **Display Settings** card (sheViewControl application) – levels **SHORT**, **ADVANCED** and **ADMIN**. If you cannot see a described card, check the settings on this card.

User settings

Initial setup procedure

1. **"Installation" card** — select the sections, rooms, time schedules, thermostats, motion and window sensors.
2. **"Setting Properties" card** — set the climate mode according to the global mode, the temperature source and the enabling of the auto mode for the individual day periods and persons.
3. **"Schedule" card** — for each day, set the times and temperatures for the **Morning / Day / Evening / Night** periods.
4. **Routine operation** — in operation, use the quick selection tiles and the **Climate mode** card. You monitor the current state of the rooms in the **Rooms overview** tile.

"Setpoint" information tile

Tile with the current room setpoint temperature.

Quick mode selection tiles

The tiles switch the room mode directly with a click (e.g. **AUTO**, **COMFORT NOW**, **COMFORT TODAY**, **HOME TODAY**, **ABSENT TODAY**, **ATTENUATION PERMANENT**). The mode is applied with the parameters last set on the **Climate mode** card. The current state is displayed below the tile name. The range of tiles is set in the **Button selection** section of the **Installation** card.

"Climate mode" card

The main control card of the application. It combines an information overview of the current room state and all the buttons for mode selection.

The upper part of the card contains an information overview: **Control Mode**, **Room temperature**, **Setpoint**, **Schedule Time slot**, **Annual climate mode** and **Operating mode of the time program**.

The overview is followed by the mode selection buttons. For some buttons, a parameter used on activation is set above them:

- **AUTO** — automatic mode according to the settings in Enabling Auto Mode Scheduler.
- **ALWAYS AUTOMATIC** — all day periods except the night are considered automatic.
- **COMFORT NOW** — comfort mode for the duration of the current day period. Parameter: **Temperature offset**.
- **COMFORT TODAY** — comfort mode for the whole of today (except the night). Parameter: **Offset Comfort Today**.
- **HOME TODAY** — comfort mode in the day periods for today.
- **ABSENT NOW** — setback for the duration of the current day period.
- **ABSENT TODAY** — setback in the day periods for today.
- **SCHEDULE** — permanent control according to the time schedule, automation off.
- **PRESENT UNTIL FROM** — setback until the set time, then comfort until the end of the period. Parameter: day and hour (D-, D+, M-, M+).
- **VISIT** — Parameters: **Visit time**, **Temperature visit**.
- **VACATION** — Parameters: **Vacation midnights**, **Setpoint Vacation heating**, **Setpoint Vacation cooling**.
- **HOME TO** — comfort in the day periods for the set number of days. Parameter: **Days at home**.
- **ATTENUATION PERMANENT** — permanent setback. Parameter: **Temperature attenuation**.
- **MANUAL-OFF** — the room is permanently switched off (frost protection remains active).

"Rooms overview" card

Information card with a list of rooms and the state of the installed technologies (heating, cooling, blinds). Active only for rooms managed by applications of the SHE ecosystem.

"Schedule" card

Setting of the day periods and temperatures of the main time schedule assigned to the thermostats. For each day, use the < / > arrows to select the day, then set the start time and setpoint temperature for each of the **Morning / Day / Evening / Night** periods.

The **Save Day**, **Copy to Working days / Weekend / Full Week** and **Refresh** buttons allow you to save and work with the schedule in bulk. After a change, the schedule must be saved — without saving, the changes are not written to the thermostats.

"Setting Properties" card

Mode according to global mode

Selection of the room operating mode for each global mode from the **QA Global Climate Mode** application: **Winter**, **Transient**, **Summer**. For each, **Heating**, **Cooling** or **Off** can be set.

Dependency Settings

- **TV ON MODE** — automatic switching to the set mode when the TV in the room is on. The TV state is detected via a smart wireless socket with a consumption sensor connected to the unit.
- **MODE AFTER VACATION MODE** — the mode to which the room switches after the vacation ends.

Source of Auto Mode Temperatures

For the automatic mode, the application selects the setpoint temperature according to the configured source. This makes it possible to have a different setpoint temperature in different day periods, even in the same automatic mode.

The sources are set for: **PRESENCE MODE MORNING / DAY / EVENING / NIGHT**, **ABSENCE MODE** and **PRESENCE MODES FOR HOME TO**.

Enabling Auto Mode Scheduler

A weekly matrix (Monday–Sunday, periods **M / D / E / N**) determines on which days and in which periods the application works automatically. It is set separately for **Motion** (from the motion sensors) and for **individual users** (the source is **QA Presence Detection**).

If no automatic source is selected in a given period, the room is controlled purely by the time schedule.

Protection temperature

Minimum temperature that the application maintains in the room even in the **MANUAL-OFF** mode (frost protection).

"Installation" card

 **Warning: When saving settings, always wait until Run status changes to Running. Do not press SAVE before that.**

Configuration of which part of the system the application acts on and which sensors, thermostats and time schedules it uses:

- **SECTION** and **ROOMS** — selection of the sections and rooms in which the application is to act.
- **MAIN SCHEDULE** — the schedule according to which the day periods are controlled.
- **CONTROLLED SCHEDULERS** — other schedules in which the application sets the temperatures for presence and setback in the automatic mode.
- **THERMOSTATS** — list of thermostats (actuators) in the selected rooms.
- **MOTION SENSORS** and **WINDOW SENSORS** — selection of the sensors that affect the automatic mode and the setback when a window is open.

Time Settings

- **Motion to Presence Test Time** — window in which the total duration of motion is summed for switching to **Present**.
- **Motion to Presence sum limit** — how much motion (in the window above) is needed for switching. Prevents the system from reacting to people briefly passing through the room.
- **Time to Absence** — time without motion after which the room switches to **Absent**.
- **Max attenuation time by window opened** — limit of how long the room stays in setback mode after a window is opened.

Thermostat synchronization

The thermostats occasionally need to be synchronised with the system time schedule. The application ensures automatic synchronisation at the set interval (**Thermostat synchronization** field). Use the **Sync now** button to start the synchronisation manually.

Button selection

Selection of which quick control buttons are to be displayed as separate tiles on the desktop. Select the modes that you really use in the household.

Run status and saving

After each change, confirm with the **SAVE** button and wait until **Run status** changes to **Running**.

Notes

- The application sets the linked system time schedule — changes made on the **Schedule** card also take effect in other places where the schedule is used.
- When a window is opened in the automatic mode, the application switches the room to setback mode only for the maximum time set on the **Installation** card (prevents permanent setback when a window is accidentally left open).