

Manual: QA RGBW Light Control

Application for smart control of RGBW colour lighting scenes with automatic response to the time of day, motion, door opening, TV operation and the current illuminance. It is based on the **QA Light Control** application and additionally allows you to select a specific **colour** or a **built-in Z-Wave program (animation)** of the RGBW controller for each scene.

Introduction

QA RGBW Light Control is an application for Fibaro HC3 and Nice Yubii Home that automatically controls RGBW lighting in a given room or group of rooms. In addition to the usual intensity (on / off / dimming), it also sets the **colour, intensity of the white channel (W)** and optionally starts **built-in Z-Wave programs (animations)** directly from the RGBW controller.

The application responds to:

- the time of day (Morning / Day / Evening / Night) with its own colour and intensity for each part of the day,
- motion detected by motion sensors (different colour / intensity during motion and after motion),
- the current illuminance (lux) from the selected sensors,
- door opening (a separate lighting scene for the specified duration),
- TV operation (switching to a dimmed colour scene when the TV is on),
- detection of a click, double click and triple click on the switch.

A separate colour, intensity, white level and lighting duration can be set for each time of day, for the open door and for the TV. To prevent the lights that are on from affecting the illuminance measurement, the lux value is sampled only while the selected lights are off.

You can also set devices whose active state blocks the start of the application, blocks its operation or blocks the evaluation of the illuminance sensor (e.g. when another appliance is running that would interfere with switching on the light).

The application is fully compatible with and optimised for the **FIBARO FGMS00x** motion sensors (Motion Sensor).

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

Optional:

- **QA Profile Control** – for responding to the global profiles Absence, Arming and Partly arming. Recommended if you want the light to switch off automatically in these states (e.g. "Sleep" mode adjusts the RGBW strips to provide low-level lighting for finding your way in the dark).
- **TV application** (a device in the unit recognised as a TV) – required only if you want to use the TV settings scene (different light colour / intensity while watching TV).

Downstream applications

None – QA RGBW Light Control is the end application for lighting control.

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 a link 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.

Before purchase, you can try out the application in the **TRIAL version**, which unlocks full functionality for **2 days**. The trial file can be downloaded from the product description in the e-shop.

After a successful installation, three tiles belonging to the application appear on the unit desktop: **Light control**, **Setting Properties** and **Installation**.

Operating prerequisites

- **RGBW controllers, dimmers or switches** controlling the lights to be controlled by the application are installed in the unit and assigned to sections / rooms.
- **Motion sensors and illuminance sensors** are installed in the given rooms (at least one motion sensor is required for automatic operation; the illuminance sensor is optional and is used for switching between the day and night mode according to the current light). The **FIBARO FGMS00x** motion sensors are recommended.
- The **Z-Wave parameters of the RGBW controller** must be set correctly at the unit level (especially the colour synthesis parameters and the support of built-in programs / animations).
- For detection of a click, double click and triple click on the switch, the unit contains a device with a **scene output** (typically a Z-Wave switch supporting central scene). The device must be configured correctly at the unit level (device parameters and connected output).
- For the Open door scene, a **door sensor** is installed.
- For responding to the Absence / Arming / Partly arming profiles, **QA Profile Control** is installed and active (optional).
- For the TV scene, a device recognised as a TV is present in the unit (optional).

Opening the application control card

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

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

QA RGBW Light Control has three cards on the desktop (in the order in which you see them on the desktop):

- **Light control** – operating card for selecting the mode (automatic / manual) and an overview of the current states.
- **Setting Properties** – definition of the colour lighting scenes for the individual times of day and other states.
- **Installation** – selection of the sections, rooms and devices (RGBW controllers, dimmers, switches, motion and illuminance sensors, doors) the application works with.

Initial setup procedure

After the installation is complete, set up the cards in this order:

1. **Step 1 – “Installation” card** – select the sections, rooms, lights (RGBW / dimmer / switch), motion sensors, illuminance sensors and door sensors the application is to work with. This is the key step – without selected devices the other cards control nothing.
2. **Step 2 – “Setting Properties” card** – for each time of day (Morning, Day, Evening, Night) and the other states (Open door, TV), set the colour, white level, intensity and lighting duration. Optionally assign a **Z-Wave program (animation)** from the RGBW controller.
3. **Step 3 – “Light control” card** – select the operating mode. For normal operation, choose **AUTO**.

“Light control” card

The operating card. In the upper part you select the application mode:

- **AUTO** – the application controls the lights according to the settings on the other cards.
- **MANUAL-ON** – the light stays on; automatic control is disabled.
- **MANUAL-OFF** – the light stays off; automatic control is disabled.
- **UNCONTROLLED** – the application does not control the lights and leaves them in their current state (suitable if you want to temporarily disable the automatic control without switching off the output).

In the **MANUAL** section you set the light parameters for manual mode: program, Color R / G / B components, white and taking over the current colour.

The **Overview** section shows the current operating state:

- the current global time of day (Morning / Day / Evening / Night),
- the motion status, the light status and its intensity in %,
- the current colour and the active Z-Wave program (if set),
- the current illuminance in lux,
- active blocking (of the illuminance sensor, of switch-on, of operation),
- the sunrise and sunset times.

“Setting Properties” card

Defines the colour lighting scenes according to the time of day and conditions. The card contains separate sections for each time period and state. You can enable each section and configure its parameters.

Common colour scene parameters

For each section (Morning / Day / Evening / Night / Open door / TV), you set these **RGBW parameters**:

- **PROGRAM** – selection of the built-in Z-Wave program (animation) of the RGBW controller. The option **“None”** = static colour according to the Color R / G / B and WHITE settings. When a program is selected, the corresponding animation from the controller is played.

- **Color R, Color G, Color B** – three sliders for the individual colour components (red, green, blue). They are used if PROGRAM is set to “None”.
- **Copy current** – takes the current colour of the light into the section.
- **WHITE** – intensity of the separate white channel (W) in % (0–100). For RGBW strips and bulbs, it controls the brightness of the neutral white.

Morning settings / Day settings / Evening Motion settings / Evening settings / Night Motion settings / Night settings

For each time of day you set:

- **Duration after motion** – how long the light is to stay on after the detected motion ends.

Use the **•** switch (Morning, Day, Evening, Night sections) to set the lighting duration to **Permanent**.

- **PROGRAM / Color R / Color G / Color B / WHITE** – RGBW parameters of the scene (see above).
- **WHITE INCREMENT** – size of the step by which the intensity of the white channel gradually changes during the transition to the target WHITE value (gradual addition of white in steps, not abruptly).
- **Duration of Morning Mode Max** (Morning section only) – maximum duration of the morning mode.
- **Transition Time Max** – maximum transition time (fade) between colours when the scene changes.
- **Maximum overlap time** (Morning / Evening) – maximum time before / after the change of the time of day during which the mode can switch according to the current illuminance (see Illumination limit for switch-on).
- **Enabled** – enables or disables the operation of the given section.

The **Evening Motion** and **Night Motion** sections contain **PROGRAM**, **Color R**, **Color G**, **Color B**, **WHITE**, **Copy current**, **Duration after motion** and **Enabled**.

Door settings

A separate colour scene triggered by opening the door (selected on the Installation card). You set the lighting duration and the RGBW parameters of the scene (see Common colour scene parameters).

TV settings

A scene activated when a device marked as a TV is in operation (the Enable TV section on the Installation card). You set the lighting duration, the colour parameters during motion and the idle colour parameters – this makes it possible to create a “cinema atmosphere” immediately after the TV is switched on.

Common parameters (global, at the bottom of the card)

- **Time after clicking** – after a click on the switch is detected, the light switches on at full intensity for this time.
- **Illumination limit for switch-on** – illuminance threshold (lux) at which the application switches between the day and night mode in the hours around sunrise and sunset. The application works with a tolerance of 2 hours before and after sunrise / sunset – within this window, the measured illuminance determines when the application switches between day and night modes.
- **Time for Long On status** – time after which a permanently lit light is evaluated as “Long On” (an information state for higher-level applications).
- **Absence Off / Arming Off / Partly arming Off** – behaviour of the application when QA Profile Control reports the given profile. By default, **Off** is set (the light does not switch on in this profile).

“Installation” card

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

On this card you define which system elements the application works with. The selection is cascading – first the sections, then the rooms, then the specific devices.

- **SECTION** – select one or more sections from which you will select the rooms.
- **ROOMS** – choose specific rooms from the selected sections.
- **MOTION SENSORS** – motion sensors that activate the lighting (FIBARO FGMS00x recommended).
- **ILLUMINANCE SENSORS** – sensors measuring the illuminance level (lux). The value is used for automatic switching between the day and night mode.
- **ENTRANCE DOOR** – door sensor for triggering the Open door scene.
- **Enable TV** – enables the application's response to TV operation (the TV settings section on the Setting Properties card).
- **LIGHTS** – selection of the lights the application will control (RGBW controllers, dimmers, switches).
- **SCENE ACTIVATION OUTPUT** – output of the switch / central button for detecting a click, double click and triple click. For this function to work, the corresponding Z-Wave device must be configured correctly at the unit level (device parameters and connected output).
- **BLOCKING SWITCH-ON** – if a device listed here is active, the application does not switch to the on state.
- **BLOCKING OPERATION** – if a device listed here is active while the light is on, the application switches the light off immediately.
- **ILLUMINATION SENSOR BLOCKING** – the active state of these devices (typically the selected lights) causes the illuminance value not to be evaluated. This prevents the measurement from being distorted by the application's own lighting.

When you have finished the selection, click **SAVE**. Wait until Run status changes to Running.