



REAL SMART HOME

REAL SMART HOME GmbH

APPMODULE

HUE:CONTROL App

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1 INTRODUCTION

Thank you for your trust, and the purchase of the **HUE:CONTROL** -app for the BAB **APP**MODULE. With the **HUE:Control** - app you get one of the simplest integrations of your Philips® HUE lights into building automation. This documentation will help you get started with the app and aims to improve your setup experience.

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IMPORTANT INFORMATION ON THE OPERATING INSTRUCTIONS

We reserve the right continually improve the product. This entails the possibility that parts of this documentation might be out-of-date. You will find the latest information at:

www.bab-appmarket.de

This app is an independent product, with no legal ties to Philips®. Neither **BAB APP MARKET** GmbH nor the developer of this app take any claim in the trademarks owned by Philips®.

2 HUE:CONTROL – FUNCTIONAL OVERVIEW

This app connects your Philips® hue Bridge with KNX® so that you have access to all connected Philips hue lights through the building automation. The simple authorisation process makes connection particularly easy. The 50 freely definable "Alerts" which the hue lights use to inform themselves about the desired conditions (e.g. light red if the doorbell rings) are a particular feature.

2.1 HIGHLIGHTS

- Simple authorisation process (single touch on the Bridge)
- Control lights or groups
- Adjustable dimming duration (large or small steps)
- Duration of status transitions (colour, brightness) dynamically adjustable via KNX®
- Control brightness absolutely or relatively (dimming)
- RGB colour control through 3 group addresses, or through a (DPT232.600)
- Alternative colour temperature control for white tones
- 50 freely definable "Alerts" (e.g.: RGB colour x for y seconds when group address s = 1)

3 THE INNOVATIVE, MODULAR APP-CONCEPT FOR THE BUILDING AUTOMATION

The innovative, modular app concept for building automation. The **APPMODULE** brings the innovative, modular app concept into building automation. You can mix and match any of the diverse applications that are available to integrate third-party solutions. With these apps from the dedicated **BAB APP MARKET**, the **APPMODULE** becomes a tailor-made integration unit for your building automation.

HOW IT WORKS

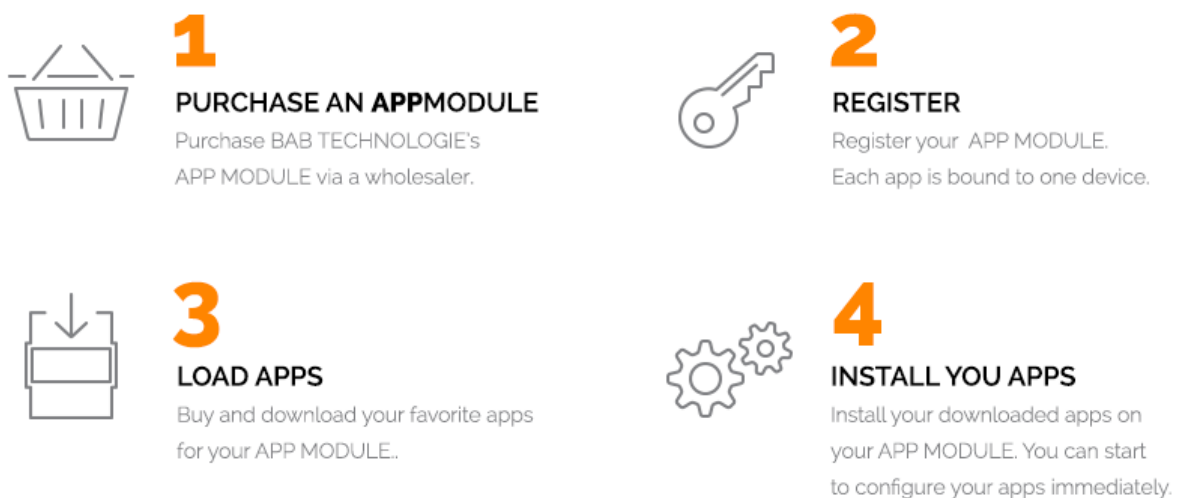


Figure 1: APPMODULE - How it works

Manufacturer of the **APPMODULE**

<http://bab-tec.de/>

Distribution of all apps for the **APPMODULE**

<https://www.bab-appmarket.de/de/>

App developer

<http://www.realsmarthome.de/>

3.1 INFORMATION ABOUT THE APPMODULE

Please refer to the separate product documentation of the **APPMODULE** for a detailed product description and setup instructions.

http://www.bab-tec.de/index.php/download_de.html

Product variants:

The **APPMODULE** is available in three variants:

- **APPMODULE KNX/TP** – for stand-alone use on KNX/TP Bus
- **APPMODULE EnOcean** – for stand-alone use in the EnOcean wireless network
- **APPMODULE Extension** – for use in an IP-based KNX installation (KNXnet/IP) or as extension for an EIBPORT

4 APP INSTALLATION

You can install and manage apps under the menu items „App Manager“. In order to manage an app or to change functions/instances, just click on the corresponding app.

You can find the functions of each APP on the homepage of **BAB APP MARKET** (<https://www.bab-appmarket.de/>) or from the ToolTips of the corresponding application.

To install an app, please proceed as follows:

1. Open the web interface of your **APPMODULE**

<IP-Address **APPMODULE** >

2. Click on the menu entry „App Manager“, marked here in red.

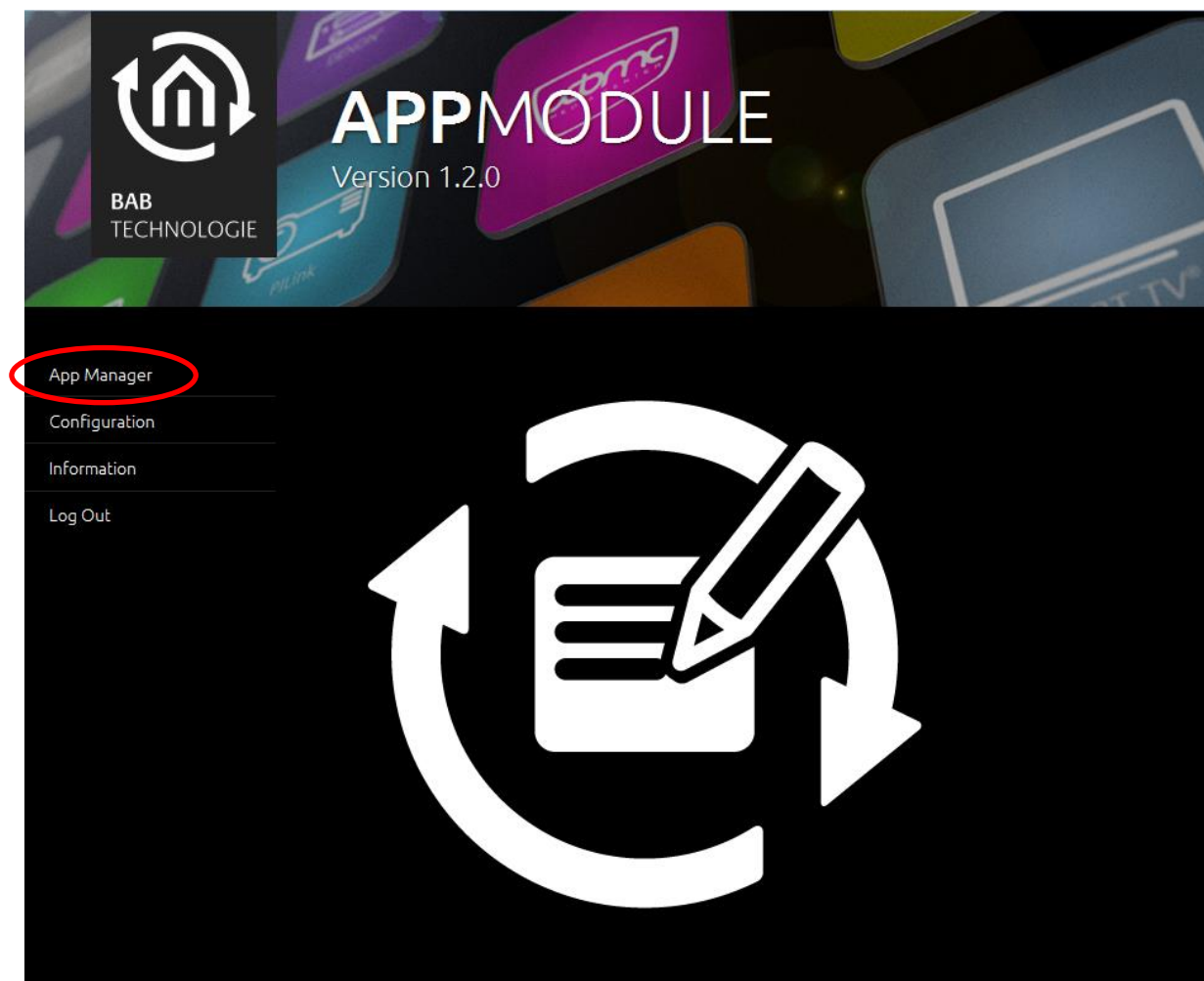


Figure 2: APPMODULE - Start menu

3. You are now in the menu which lists all the apps that have already been installed. To install another app, click on "Install App", highlighted orange in the picture below.



Figure 3: Install APP

4. Click on "Select App" and a new window will open. Select the app file and click "OK".

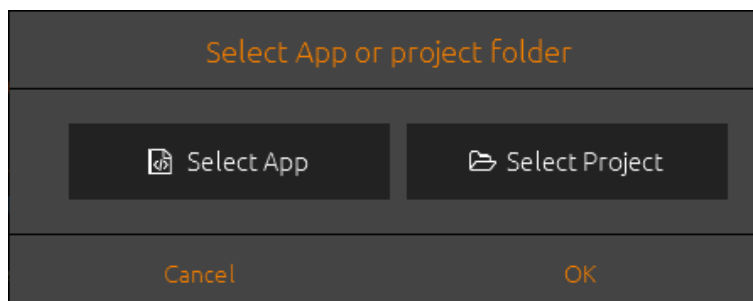


Figure 4: Select APP

5. The installation was successful as soon as the dialog pictured below appears. Finally, click "OK" and configure the app.

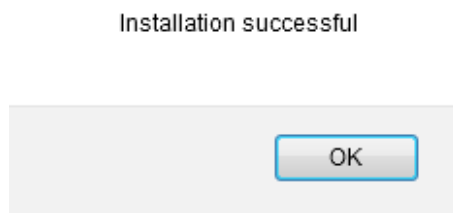


Figure 5: successful installation

5 APP SETTINGS

This app connects your Philips® hue Bridge with KNX® so that you have access to all connected Philips hue lights through the building automation. The simple authorisation process makes connection particularly easy. The 50 freely definable »Alerts« which the hue lights use to inform themselves about the desired conditions (e.g. light red if the doorbell rings) are a particular feature.

5.1 INSTANCE

As soon as the app is installed, you can create so called "Instance". An Instance is one of several objects of the same class.

In order to create an instance, click on the following symbol "Create Instance".

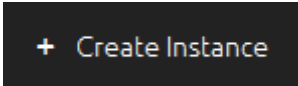


Figure 6: Create Instance

5.1.1 HUE BRIDGE

IP and Authentication Status:

Your bridge must have a static IP for the app to work reliably. The IP address of your hue bridge should have been pre-filled automatically, as long as your bridge is reachable in your network right now, and you are connected to the Internet (including functional DNS). In case this field is empty, you can specify manually which IP your bridge has. In this case, the authentication status check will start once you exit the input field with your mouse or keyboard.

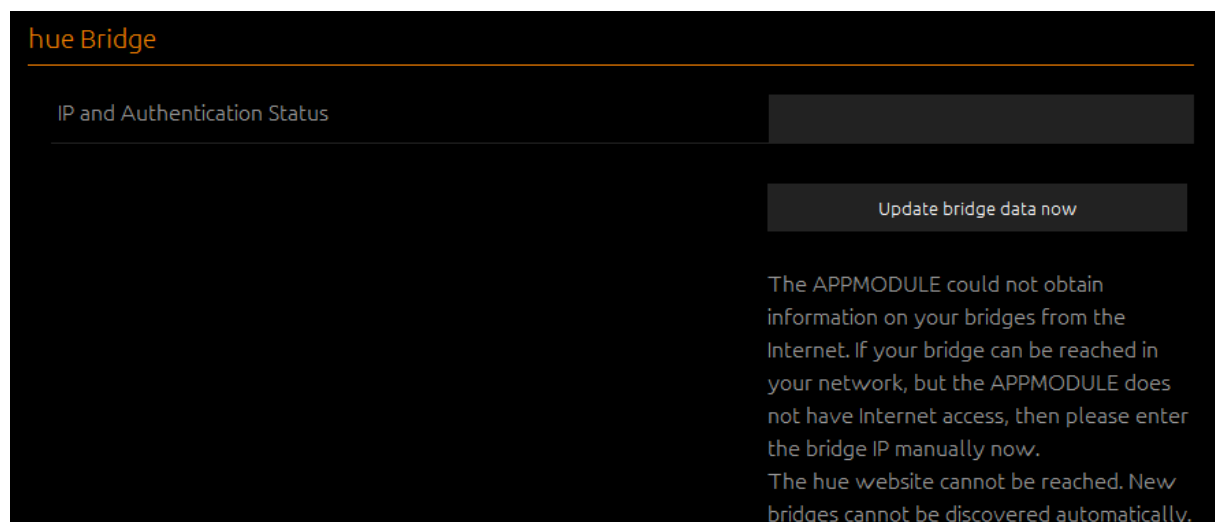


Figure 7: hue Bridge

5.1.2 GENERAL PARAMETERS

Control with this Instance:

If your hue Bridge is connected, and you already have lights set up, a list of your lights or groups will appear here. Choose the item which this instance should control.

Bulb Type:

In control mode 'light bulb' this value is ignored, because the bulb transmits its type automatically. In group mode, the type of bulb is unknown however. Set it here to ensure the most accurate color reproduction. Hue bulbs have a different color range than Living Color and the conversion from RGB produces slightly different outputs (see 'RGB Submit' for further information).

- Hue
- Living Colors Bloom, Aura, Iris, and Hue Light Strips

Polling Interval:

Philips Hue lights need to be polled for remote state changes. This is necessary to receive changes made to your lights by means other than KNX, for instance with the Philips smartphone apps. Insert an interval in seconds in which your item will be polled.

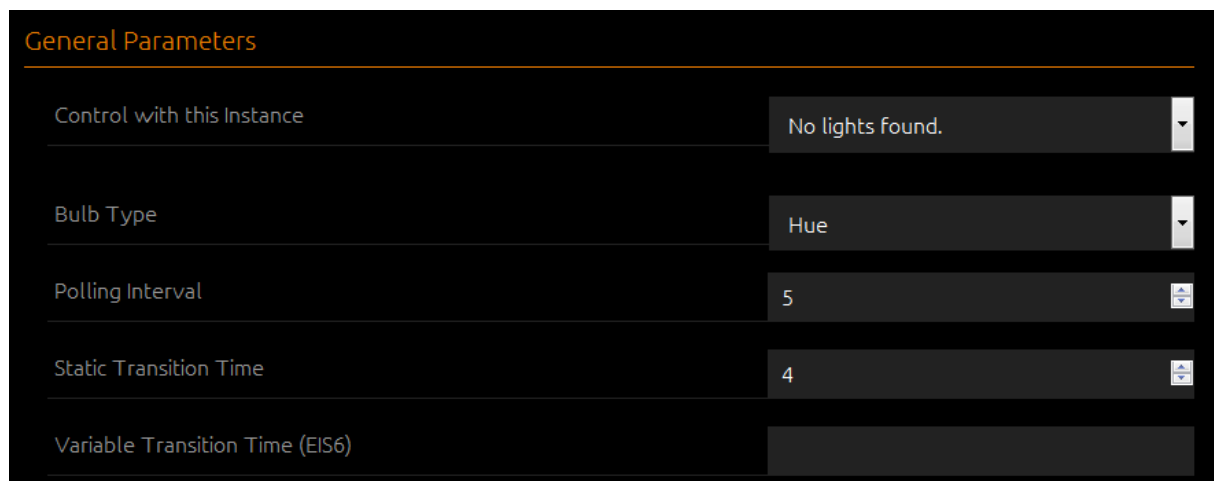
Static Transition Time:

Insert the transition time for state changes (in multiples of 100ms).
Default for hue bulbs is 4, i.e. 400 ms.

Note: This app has a hard-coded value of 1, i.e. 100ms, for changes to and from special notifications, as well dimming (see below).

Variable Transition Time (EIS6):

Insert the group address for transition time (see comment on field Static Transition Time for more information).



| General Parameters | |
|---------------------------------|------------------|
| Control with this Instance | No lights found. |
| Bulb Type | Hue |
| Polling Interval | 5 |
| Static Transition Time | 4 |
| Variable Transition Time (EIS6) | |

Figure 8: General Parameters

5.1.3 BASIC GROUP ADDRESSES

On/Off (EIS1):

Insert the group address for the on/off switch-

Item Name (EIS15):

Insert the group address on which the name of your current bulb or group will be sent.



Figure 9: Basic Group Addresses

5.1.4 BRIGHTNESS

Absolute Brightness (EIS6):

Insert the group address for absolute brightness (0-255)

Relative Brightness (Dimming) (EIS2):

Insert the group address for relative brightness (dimming)

Dimming Time:

Insert the time (in multiples of 100ms) a full dimming process should take.

Note: hue bulbs accept 10 commands per second, for groups the suggested rate is only 1 command per second. Each brightness has to be sent individually (there is no 'start dimming' command). This app will internally calculate how to set the individual increment in order to reach the desired value whilst contacting the hue every 110ms, or when in group mode every 1100ms.

If you wanted the smoothest possible dimming for a bulb, that is an increment of 1 sent every 110ms, you would have to set this to 280 (28s).

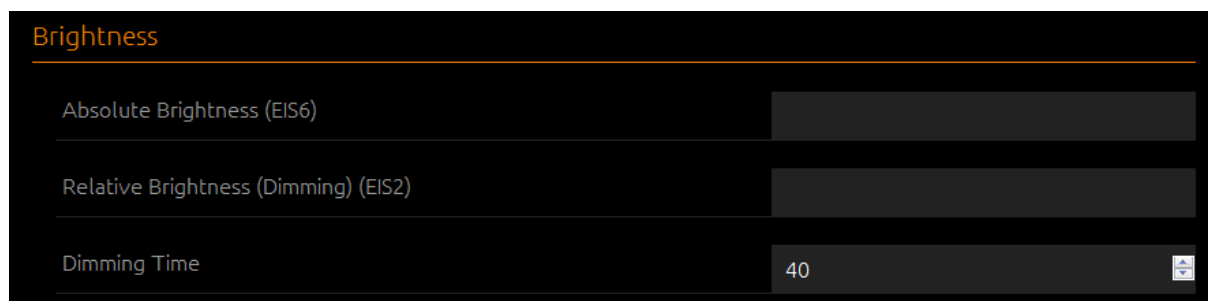


Figure 10: Brightness

5.1.5 COLOR CONTROL

RGB Output Type:

Choose whether your RGB visualisation elements output 4 bytes (3x EIS14 + 1x EIS 1) or a single 3-byte value. If you choose 'combined 3-byte value', this app will ignore the EIS 14 group addresses for RGB below.

- 4 separate byte values (R, G, B, Send)
- combined 3-byte value

RGB Submit (EIS1 or DPT 232.600):

Insert the group address for the RGB submit trigger. The color wheel visu element will send this after the RGB values and only then will the device receive a new color update.

Note: Philips Hue lights have a special color space. Internally, your RGB values are converted to that space and checked against the limitations of your hue. This will often lead to your color picker 'jumping' after you set a new color because the RGB color value you tried to set can be different from the closest value your device supports, and once the bulb reports back its actual current color, the visu element gets updated.

Red (EIS14):

Insert the group address for RGB's red value.

Green (EIS14):

Insert the group address for RGB's green value.

Blue (EIS14):

Insert the group address for RGB's blue value.

Color Temperature (EIS6):

Insert the group address for color temperature. This is an alternative color control mode to RGB which focuses on whites. Hue bulbs support 2000K (warm) to 6500k (cold). This is an EIS6 value that gets mapped into the correct value range (255=6500).



Figure 11: Color Control

5.1.6 SCENES

Scenes:

Up to 100 scenes, which have to be stored in the hue Bridge, can be set by telegrams. Please note: the scenes that come pre-installed in Philips hue apps, and those that you create within Philips hue apps, are not automatically also stored inside the bridge! This only happens once you actually set a scene via your Philips hue Smartphone app. Also, a bridge can store up to 100 scenes. If you create 101 scenes in your smartphone app, the bridge will delete the scene that has not been used for the longest period from its internal memory. In such a case, this app can of course not trigger that scene anymore.

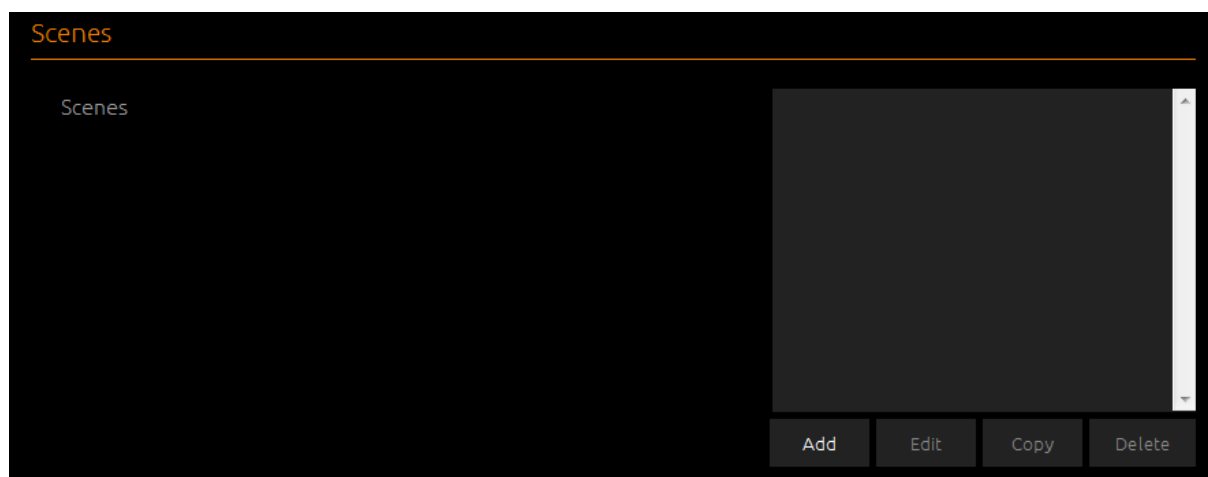


Figure 12: Scenes

Comment:

Insert a comment to describe the scene.

Scene to be started:

Select the scene which is to be started by the trigger value on the trigger address. Please also read the tooltip of »Scenes« in the app configuration!

Trigger Address (EIS 1):

Set the address that triggers this notification.

Trigger Value:

Set the value that triggers this notification.

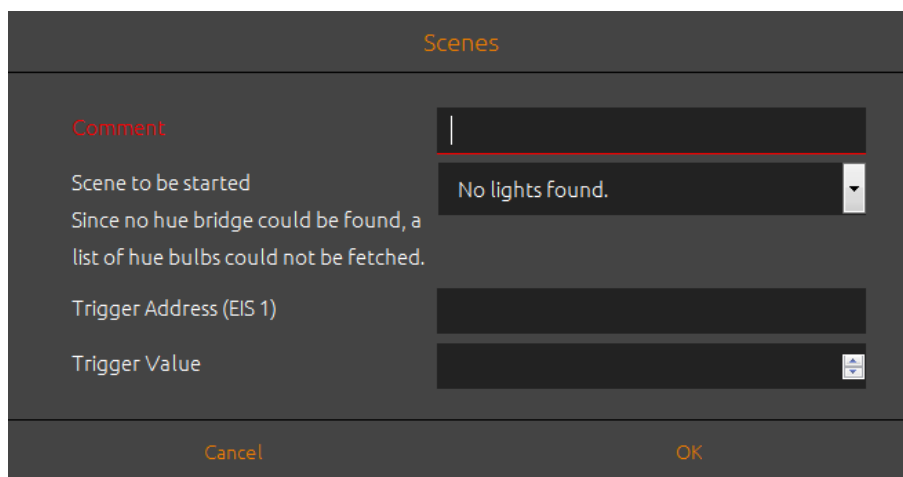


Figure 13: Scenes - settings

5.1.7 SPECIAL NOTIFICATIONS

Special Notifications:

Up to 50 special color notifications can be triggered by telegrams. Notification means that your hue will blink for the desired amount of time in the desired color. When a notification is stopped, this app will revert your hue its the previous color.

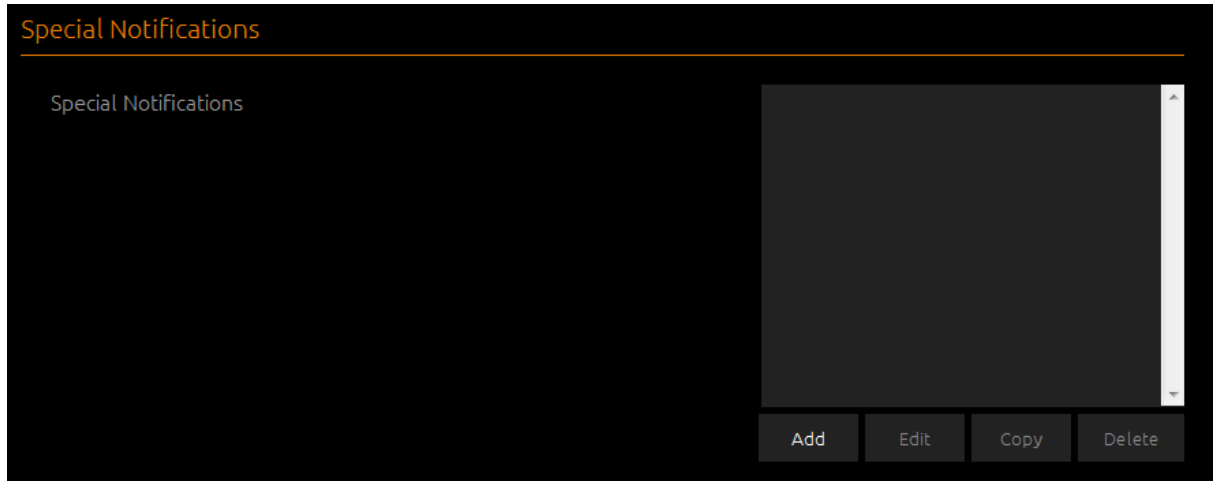


Figure 14: Special Notifications

Comment:

Insert a comment to describe the notification.

RGB value to set:

Set an RGB value (0-255 each, comma-separated as R, G, and B) for the notification.

Trigger Address (EIS 1):

Set the address that triggers this notification.

Notifications timeout in seconds:

Set a timeout after which the light should stop the notification and revert to the old color (the notification will stop earlier if you send a 0 on the trigger group address).

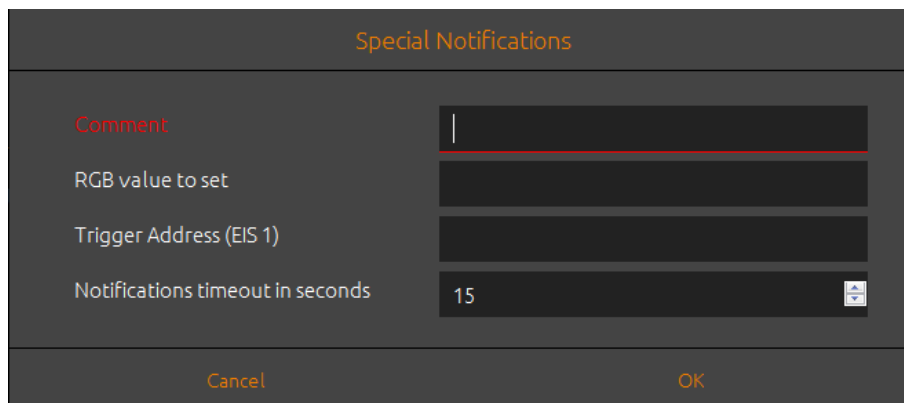


Figure 15: Special Notifications - Settings