



REAL SMART HOME

REAL SMART HOME GmbH

APPMODULE

BAB Assistant

Smart Home App Documentation

Version: 1.0.8

Type: Application

Article No.: BAB-053

Documentation version I

Actual state 05/2021

Date: 10. May 2021

EN



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1**INTRODUCTION**

Thank you for your trust, and the purchase of the BAB Assistant Smart Home App for the BAB **APP**MODULE. With BAB Assistant Smart Home App you integrate the voice control assistant from Google® into your smart home based on KNX, EnOcean and IP. 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 This entails the possibility that parts of this documentation might be out-of-date.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 and has no legal connection to Google LLC. Neither BAB APP MARKET GmbH nor the developer are in possession of the above-mentioned trademark. This Smart Home App may be used in conjunction with third-party products or services. The respective manufacturer is responsible for data protection.

2 BAB ASSISTANT – FUNCTIONAL OVERVIEW

With this app you integrate the voice control assistant from Google® into your smart home based on KNX, EnOcean and IP.

Highlights

Integrate:

- Switching
- Dimming
- Room Temperature Control
- Color Control
- Color Temperature Control
- Shutter / blind control

3 THE INNOVATIVE, MODULAR SMART HOME APP CONCEPT FOR THE BUILDING AUTOMATION

The innovative, modular Smart Home App concept for building automation. The **APPMODULE** brings the innovative, modular Smart Home 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 Smart Home Apps from the dedicated **BAB APPMARKET**, the **APPMODULE** becomes a tailor-made integration unit for your building automation.

HOW IT WORKS

**1****PURCHASE AN APPMODULE**

Purchase BAB TECHNOLOGIE's APP MODULE via a wholesaler.

**2****REGISTER**

Register your APP MODULE.
Each app is bound to one device.

**3****LOAD APPS**

Buy and download your favorite apps for your APP MODULE.

**4****INSTALL YOUR APPS**

Install your downloaded apps on your APP MODULE. You can start to configure your apps immediately.

Manufacturer of the **APPMODULE** [BAB TECHNOLOGIE GmbH](#)

Distribution of all Smart Home Apps for the **APPMODULE** [BAB APPMARKET GmbH](#)

Smart Home App developer [REAL SMART HOME GmbH](#)

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 IP** – for use in an IP-based KNX installation (KNXnet/IP) or as extension for an **EIBPORT**

4 SMART HOME APP INSTALLATION / UPDATE

Please proceed as follows to install a Smart Home App.

1. Open the **APPMODULE** web page: Enter <IP Address of **APPMODULE** > into your browser's address bar and press Enter. The **APPMODULE** web interface will appear.
2. Log in with your user credentials. Please refer to the **APPMODULE** documentation for login details.
3. Click on the menu entry "App Manager"
4. You are now on the page where already installed Smart Home Apps are listed. The list will be empty if no Smart Home Apps have been installed. Click "Install App" in order to install a new Smart Home App.
5. Now click on "Select App"; a file selector window will appear. Choose the Smart Home App » BAB Assistant « and click "OK".

The Smart Home App » BAB Assistant « must first be downloaded from the **BAB** APPMARKET (www.bab-appmarket.de).

After the message "Installation successful" appears, click "OK". You are ready to configure the Smart Home App.

To update a Smart Home App manually you have to proceed as follows

1. To update an already installed Smart Home App, click on the App icon in the "App Manager".
2. The detail view of the Smart Home App appears. Click on "Update App" to select the Smart Home App package and start the update. The update version must be downloaded from the **BAB** APPMARKET.

After the message "Installation successful" appears, click "OK". The Smart Home App has been updated. Your instance configurations will remain unchanged.

The Smart Home App can also be updated directly in the web interface. Without having to download the Smart Home App from the **BAB** APPMARKET first.

In the "App Manager" available Smart Home App updates are reported

Information

To configure the Smart Home App please use Google Chrome.



5 SMART HOME APP SETTINGS / GOOGLE ACTIONS

With this Smart Home App you integrate the voice control assistant from Google® into your smart home based on KNX, EnOcean and IP.

The Smart Home App "**BAB Assistant**" for the **APPMODULE** is the counterpart to the Google Action "**BAB TECHNOLOGIE**".

The "**BAB TECHNOLOGIE Service**" is used for a particularly comfortable setup of the system. Like Google itself, it uses the Google "Sign in" authentication to ensure a secure and unambiguous connection between the **APPMODULE** and Google.

You use one and the same account (access data) to register on Google as well as on the BAB service. Please note that within the framework of the OAuth registration procedure, which is particularly secure for you, your registration data will remain completely hidden from the **BAB TECHNOLOGIE Service**. Google will issue the **BAB TECHNOLOGIE Service** with an encrypted character string with which it can act on your behalf.

Proceed as follows to connect your **APPMODULES** with Google:

1. Open the configuration interface of the **APPMODULE** and navigate to the Smart Home App "**BAB Assistant**" in the "App Manager" area.
2. Click on "the **BAB TECHNOLOGY Service** link and log in to the "**BAB TECHNOLOGY Service**".
3. Enter the serial number and the registration key of the **APPMODULE**.
4. Copy the generated access token to the clipboard.
5. Return to the configuration interface of the **APPMODULE** and insert the access token.
6. Click Verify access token to allow the access token to be verified.
7. The connection status is not checked or displayed until the instance is saved, because only then the connection is established.
8. Go to the Google Home App or Google Assistant and navigate to the "Manage Accounts" section.
9. In the "Manage accounts" section, select the **BAB TECHNOLOGIE** action and link it to your account

The connection of your **APPMODULE** is now set up and Google voice commands are forwarded to your **APP MODULE** via the "**BAB TECHNOLOGIE Service**".

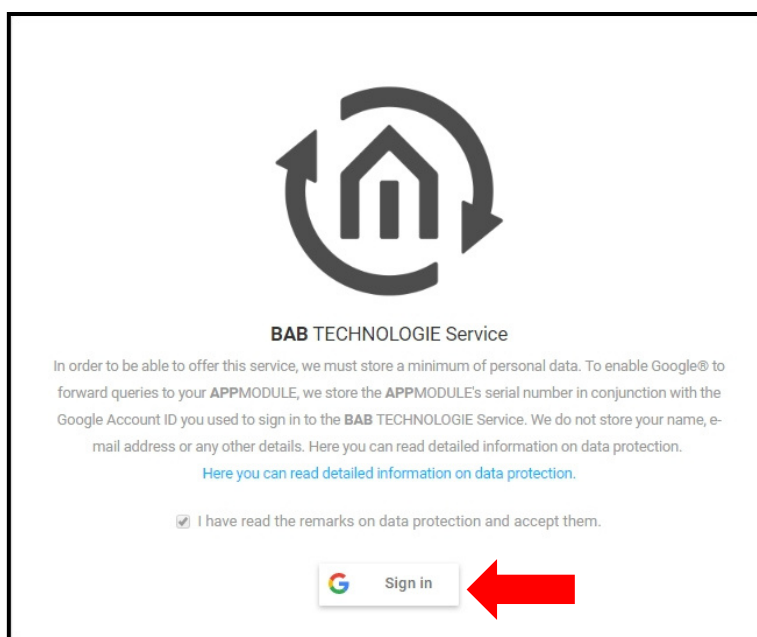
Continue now with the further configuration of the Smart Home App.

5.1 ACCESS TOKEN

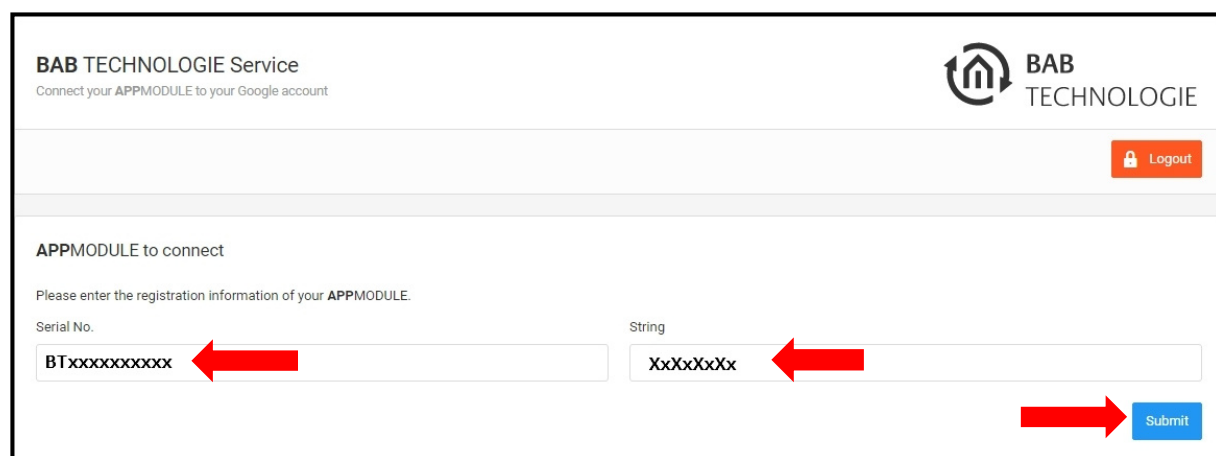
The **APPMODULE** must be registered in the **BAB TECHNOLOGIE** Service "<https://google1.home.bab-tec.de/>".

SERIAL NUMBER / REGISTRATION KEY

For the registration you need the serial number of the **APPMODULE** (BTxxxxxxxx) and the registration key for the **BAB APP MARKET**. The serial number can be found on the rear side of the **APPMODULE** or - if you have logged in to the **APPMODULE** web interface - under Information. The registration key can be found on the packaging and on the enclosed map of the **APPMODULE**. Log in to the **BAB TECHNOLOGIE** service with your Google account data.



You will be redirected to a registration page of Google. Enter your Google account data here. Afterwards you will be redirected to the **BAB TECHNOLOGIE** Service page. Now enter the serial number of the **APPMODULE** and the registration key.



"Submit" completes the registration and creates the access token. Copy the access token into the clipboard.



BAB TECHNOLOGIE Service
Connect your APPMODULE to your Google account

BAB TECHNOLOGIE

Your linked APPMODULE

Please enter the generated login token into the BAB Assistant App configuration of the desired APPMODULE.

DETAILS

Serial number

App-Token

This field contains the access token. Click on "Copy to Clipboard" to copy it to the clipboard.
By clicking on "Generate token" the current token becomes invalid.
The newly generated token must then be entered into the app again.

Insert the token from the clipboard into the corresponding field in the Smart Home App "BAB Assistant".

> Start > Apps > BAB Assistant > Neue Instanz ✓ Instanz speichern

BAB Assistant

Instanzname

Kommentar

BAB TECHNOLOGIE SERVICE

Register [BAB TECHNOLOGIE Service](#)

Access Token

Connection State (EIS 1)

The registration process is completed by saving the instance.

5.2 BAB ASSISTANT

With this app, you can integrate the Google® Voice Control Assistant into your Smart Home based on KNX, EnOcean and IP.

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 the standard version 50 instances can be created, in the pro version 125 instances can be created.

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

This information is necessary.

Instance Name:

Choose a name for this new instance.

Comment:

Insert a description what this instance does.

5.3 BAB TECHNOLOGIE SERVICE

Register:

Register your device with **BAB TECHNOLOGIE** service to get an access token. The access token is necessary to use this app.

Access Token:

The access token is needed to connect and identify with **BAB TECHNOLOGIE** Service.

- *Verify access token:* Here the encrypted data is checked for correctness and completeness. The data is checked internally in the device. This happens regardless of whether the **APPMODULE** has Internet access or not.

Connection State (EIS 1):

Indicates whether the app is connected to the **BAB TECHNOLOGIE** service and can process requests.

- *Show current connection status:* Here the connection between the **APPMODULE** and the **BAB TECHNOLOGIE** service is checked and displayed in the web interface. In order for the **APPMODULE** to establish a connection to the **BAB TECHNOLOGIE** service, the **APPMODULE** must have an internet connection.

Note: If the registration of the **APPMODULE** in the **BAB TECHNOLOGIE** service has been successfully completed and the access token has been saved in the first instance, the access token is automatically entered in each new instance.



5.4 NAMES

Device Type:

Google device type selection. Select the appropriate device type here. This selects the function under "Option" and displays the associated group addresses and settings.

- Switch
- Outlet (switchable)
- Light
- Scene
- Thermostat
- Blind / Shutter height
- Blind / Shutter angle

Name:

Name of the device. Note that this name will not be visible in the Google Home App.

Nicknames:

Comma separated list of names by which to call the device.

Room:

Room where the device is located.

Structure:

Enter the name you chose in the Google Home App for "My Home Name" here. The default name in the Google Home App is "Home".

5.5 DEVICE CAPABILITIES

Switch:

Device has switch capability.

- **Switch (EIS 1):**
Switching on and off as 1-bit value (switching on with value 1, switching off with value 0).
- **Status Switch (EIS 1):**
Status for switching on and off as 1-bit value (switching on with value 1, switching off with value 0) for feedback to Google.

Brightness / Dimmer:

Device has a dimmer or percentage value.

- **Brightness (EIS 6 0%...100%):**
Brightness in percent.
- **Brightness (EIS 6 0%...100%):**
Status of brightness as percentage value for feedback to Google.

Color:

Device has a color spectrum or a color temperature value.

- **Color Red Channel (EIS 14u 0...255):**
Red as 1-byte value 0-255.
- **Status Color Red Channel (EIS 14u 0...255):**
Status of color channel red as 1-byte value 0-255 for feedback to Google.
- **Color Green Channel (EIS 14u 0...255):**
Green as 1-byte value 0-255.
- **Status Color Green Channel (EIS 14u 0...255):**
Status of color channel green as 1-byte value 0-255 for feedback to Google.
- **Color Blue Channel (EIS 14u 0...255):**
Blue as 1-byte value 0-255.
- **Status Color Blue Channel (EIS 14u 0...255):**
Status of color channel blue as 1-byte value 0-255 for feedback to Google.
- **All Color Channels sent (EIS 1):**
Invoked when all color channels are sent.
- **Color RGB (DPT 232.600 3 Byte RGB):**
Color as 3-byte value.
- **Status Color RGB (DPT 232.600 3 Byte RGB):**
Status of color as 3-byte value for feedback to Google.
- **Color Temperature (Kelvin) (EIS 10u 0...65535):**
Color temperature (ambient white) as kelvin value.
- **Status Color Temperature (Kelvin) (EIS 10u 0...65535):**
Status of the color temperature for feedback to Google.
- **Color Temperature Minimum (Kelvin):**
Minimal possible color temperature value. Usually around 2000 K.
- **Color Temperature Maximum (Kelvin):**
Maximal possible color temperature value. Usually around 7500 K



Scene (Exclusive)

Start or reverse a scene.

- **Control Scene:**
Group address for activation (respectively deactivation) of the scene.
- **Datatype of the scene trigger group address:**
Sets the datatype to control the scene.
 - EIS 1
 - EIS 14u
- **Scene Reversible:**
Turns this scene into a reversible scene.
- **Scene Byte Value Start:**
Byte value that is sent to start the scene.
- **Scene Byte Value Reverse:**
Byte value that is sent to revert the scene

Thermostat (Exclusive)

Device is controlling a thermostat.

- **Unit**
Temperature unit °C or °F.
- **Setpoint value absolute (EIS 5 2 Byte FP):**
Absolute setpoint value for temperature.
- **Status setpoint value absolute (EIS 5 2 Byte FP):**
Status of the absolute setpoint temperature for feedback to Google.
- **Setpoint Adjustment (relative) (EIS 14s -128...127):**
The current setpoint value is the base for the adjustment.
- **Send absolute Setpoint value:**
Check this box to send the absolute setpoint value in addition to the setpoint adjustment.
- **Stepwidth Setpoint Adjustment:**
How many degrees are adjusted per step. A stepwidth of 0.5 would change by 1 degree every 2 steps.
- **Current Temperature (EIS 5 2 Byte FP):**
The current temperature should be provided by this group address.
- **Humidity (EIS 5 2 Byte FP) (optional):**
The current humidity can be made available at this group address.

- **Thermostat Mode (EIS 14u 0...255):**
Thermostat mode selection.
- **Status Thermostat Mode (EIS 14u 0...255):**
Status of the current operating mode of the thermostat for feedback to Google.
- **Mode Heat – Available:**
Activates the mode 'Heat' for this device.
- **Mode Heat – Value:**
Value to be sent for the mode 'Heat'.
- **Mode Off – Available:**
- Activates the mode 'Off' for this device. Switching on again via the language assistant reactivates the last operating mode used.
- **Mode Off – Value:**
Value to be sent for the mode 'Off'.
- **Mode Heat/Cool – Available:**
Activates the mode 'Heat/Cool' for this device.
- **Mode Heat/Cool – Value:**
Value to be sent for the mode 'Heat/Cool'.
- **Mode Cool – Available:**
Activates the mode 'Cool' for this device.
- **Mode Cool – Value:**
Value to be sent for the mode 'Cool'.

Blind / Shutter (Exclusive):

Blind or shutter control.

- **Invert absolute value:**
The 'open' state is represented by 100% or the value 255 (1 byte) by default and the 'closed' state by 0% or the value 0 (1 byte) by analogy. If the option 'Invert absolute value' is activated, both states are exchanged such that the state 'open' is represented by 0% or the value 0 (1 byte) and the state 'closed' by 100% or the value 255 (1 byte).

Note that the inversion only applies to the KNX bus, not to the Google assistant.

- **Shutter/Blind Absolute Position (EIS 14u 0...255):**
The 'open' state is represented by 100% or the value 255 (1 byte) by default and the 'closed' state by 0% or the value 0 (1 byte) by analogy.
- **Status Shutter/Blind Absolute (EIS 14u 0...255):**
Status address for the absolute value of shutter/blind position/angle.

6 APPENDIX

6.1 ADDITIONAL INFORMATION AND TIPS

Make sure that you use keywords such as lighting, lamp, light, socket, blind, scene or thermostat when naming the devices.

For example, if you have several lamps in a room and have light in the device name (ceiling light, TV light, etc.), Google will not switch the directly addressed lamp, but switches all lamps.

Examples of voice commands for the **BAB** TECHNOLOGIE Action can be found here:

<https://assistant.google.com/services/a/uid/00000041c959910d?hl=>

6.2 DATA TYPES

function	EIS type	DPT	typical function	typical values	data	identifier
PriorityPosition	EIS1	DPT 1*	Wind alarm	1=high and inhibit	1 Bit	1-bit
Switch	EIS1	DPT 1*	Light switching	0=Off; 1=On	1 Bit	1-bit
DimControl	EIS2	DPT 3*	Dimming	0=Off; 1=On xxxx=relative dimming 0-255=absolute dimming	1Bit 4Bit 8Bit	3-bit controlled
Time	EIS3	DPT 10*	Time	hh:mm:ss	3Byte	Time
Date	EIS4	DPT 11*	Date	dd:mm:yyyy	3Byte	Date
Value	EIS5	DPT 9*	Float Vaue IEEE	[-671088.64 ... 670760.96]	1Byte	2-byte float value
DimValue	EIS6	DPT 5*	Percent	0... 100%	1Byte	8-bit unsigned value
DriveBlade Value	EIS6	DPT 5*	Angle value	0... 100%; 0...255	1Byte	8-bit unsigned value
DriveShutter Value	EIS6	DPT 5*	Position value	0... 100%; 0...255	1Byte	8-bit unsigned value
Position	EIS6	DPT 5*	Control value Heating	0... 100%; 0...255	1Byte	8-bit unsigned value
DriveMove	EIS7	DPT 1*	Move shutter	0=up; 1=down	1Bit	1-bit
DriveStep	EIS7	DPT 1*	Adjusting the slat	0=up; 1= down; 0 or 1 during movement=stop	1Bit	1-bit
PriorityCont-rol	EIS8	DPT 2*	Priority	0,1 switch; 3=forced off; 4=forced on	2Bit	1-bit controlled
FloatValue	EIS9	DPT 14*	IEEE	Floating-point value	4Byte	4-byte float value
Counter 16bit	EIS10	DPT 7*	Counter 16 bit	0 ... 65.535	2Byte	2-byte unsigned value
Counter 16bit	EIS10	DPT 8*	Counter 16 bit signed	-32.768 ... 32.767	2Byte	2-byte signed value
Counter 32bit	EIS11	DPT 12*	Counter 32 bit	0 ... 4.294.967.295	4Byte	4-byte unsigned value
Counter 32bit	EIS11	DPT 13*	Counter 32 bit signed	-2.147.483.648 ... +2.147.483.647	4Byte	4-byte signed value
Access Control	EIS12	DPT 15*	Access control	Card number	4Byte	Entrance access
Char	EIS13	DPT 4*	ASCII characters	Character	1Byte	Character
Counter 8bit	EIS14	DPT 5*	Value	0 ... 255	1Byte	8-bit unsigned value
Counter 8bit	EIS14	DPT 6*	Value signed	-128 ... 127	1Byte	8-bit signed value
String	EIS15	DPT 16*	String	max. 14 characters	14 Byte	Character string

EIB/KNX devices exchange fixed prescribed data formats with each other. These are defined in types.
The old designations of the types are EIS (EIB Interworking Standard)
The new designations are DPT (Data Point Type)