REAL SMART HOME

REAL SMART HOME GmbH

APPMODULE

BAB Homelink App
Documentation

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1   INTRODUCTION

Thank you for your trust and the purchase of the BAB Homelink app for the BAB **APP**MODULE. With BAB Homelink app you integrate the Siri voice control from Apple® 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 This entails the possibility that parts of this documentation might be out-of-date.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, with no legal ties to Apple®. Neither **BAB** APP MARKET GmbH nor the developer of this app takes any claim in the trademarks owned by Apple®.

2   BAB HOMELINK – FUNCTIONAL OVERVIEW

With »BAB Homelink« you integrate the Siri voice control from Apple® into your Smart Home based on KNX, EnOcean and IP.
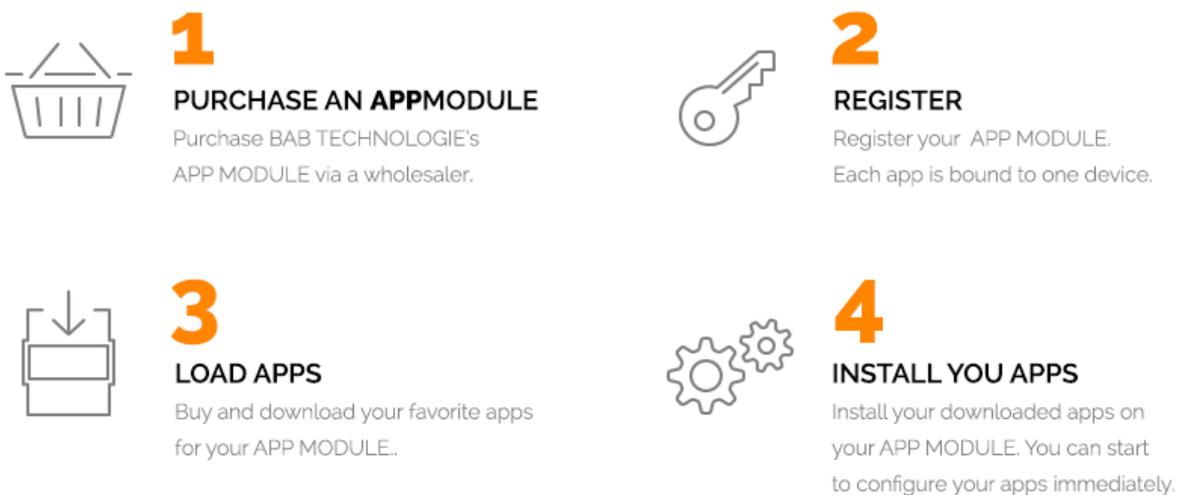
HIGHLIGHTS

Integrate and control:

- Switch
- Dimmer
- Thermostat
- Lightbulb
- Shutter
- Blinds horizontal / vertical
- Motion sensor
- Smoke sensor
- Air quality sensor
- Carbon dioxide sensor
- Carbon monoxide sensor
- Contact sensor
- Humidity sensor
- Leak sensor
- Light sensor
- Temperature sensor
- Garage door opener
- Outlet

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

The innovative, modular app concept for building automation. The **APP**MODULE brings the innovative, modular app concept into building automation. You can mix and match any of the diverse applications that are available to ingrate third-party solutions. With these apps from the dedicated **BAB** APP MARKET, the **APP**MODULE 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 YOU APPS
Install your downloaded apps on your APP MODULE. You can start to configure your apps immediately.

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

Distribution of all apps for the **APP**MODULE [BAB APP MARKET GmbH](#)

App developer [REAL SMART HOME GmbH](#)

3.1 INFORMATION ABOUT THE APPMODULE

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

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

Product variants:
The **APP**MODULE is available in three variants:

- **APP**MODULE KNX/TP – for stand-alone use on KNX/TP Bus
- **APP**MODULE EnOcean – for stand-alone use in the EnOcean wireless network
- **APP**MODULE IP – for use in an IP-based KNX installation (KNXnet/IP) or as extension for an EIB**PORT**

4   APP INSTALLATION / UPDATE

Please proceed as follows to install an 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 Apps are listed. The list will be empty if no apps have been installed. Click "Install App" in order to install a new app.

5.   Now click on "Select App"; a file selector window will appear. Choose the app » BAB Homelink « and click "OK". The Smart Home App » BAB Homelink « must first be downloaded from the BAB APP MARKET (www.bab-appmarket.de).

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

7.   To update an already installed app, click on the App icon in the "App Manager".

8.   The detail view of the App appears. Click on "Update App" to select the app package and start the update. The update version must be downloaded from the BAB APP MARKET.

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

Information
To configure the app please use Google Chrome.

5 APP SETTINGS

With »BAB Homelink« you integrate the Siri voice control from Apple® into your Smart Home based on KNX, EnOcean and IP.

The smart home app »BAB Homelink« for the **APP**MODULE forms the interface to the Apple® Home App. In four steps only you can integrate up to 150 devices into the controller with Apple® Home. The maximum number of devices of 150 is specified by Apple® as the limit for a Homelink Bridge.

Proceed as follows to connect your **APP**MODULE to Apple® Home:

Step 1: Assign instance name!

Step 2: Remove an already paired **APP**MODULE from the Apple® Home App.

Step 3: Click on "Start pairing" and wait about 3 seconds. In the Apple® Home app, go to "Add device" and then go to "Enter code manually" to enter the code displayed in the instance! Pairing is completed. (Please note, no devices appear yet)

Step 4: Create devices in the list element, click on "Add" and select a device type, e.g. switch, as well as the associated group address. Click on "OK" and "Save and close". Wait short time then the device should appear in the Apple® Home App. If the device is not displayed, then stop and restart the instance if necessary.

The connection of your **APP**MODULE is now set up and the voice commands from Siri are forwarded to your **APP**MODULE for control.

5.1 BAB HOMELINK

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 symbol "Create Instance".

Instance Name:

Choose a name for this new instance.

Comment:

Insert a description what this instance does.

5.2 AUTHENTICATION

Further it is now required that you associate the **APP**MODULE with your Apple® Home app. Before proceeding, please remove the **APP**MODULE from the Apple® Home App to ensure a flawless integration. Then confirm the message with the warning.

To establish a link, click on "Start pairing". Wait at least 3 seconds. A setup code will be generated and displayed in the field "Bridge Pairing Setup Code".

Bridge Pairing Setup Code

Enter the setup code in your BAB Homelink app on your Apple® device.

Turn on the pairing mode in the Apple® Home app by selecting "Add Device" and go to "Enter Code Manually" in the menu of your Apple® device. Enter the displayed code and the pairing is completed. Devices which are created and configured later in device management will appear in your Apple® Home app if available.

Remark on the status addresses: Control address ("xxx change") is the address used by Apple® to control KNX. If no status address is given, on this address will also be heard and changes on KNX will be used to change the status in the Apple® Home App. Status Address ("xxx query") is the address used by Apple® to accept changes from KNX.

Devices such as roller shutters, blinds, garage doors and thermostats have "current status request" addresses which are mandatory for the individual functions according to Apple® specifications.

Note: If no status is reported at this address, HomeKit will not control the configured device!

If a function is not required in a device (thermostat), the "Current status query" address" does not need to be entered either.

5.3 DEVICE MANAGEMENT

In device management you can create and handle your device list.

Device list

Use this list to manage your devices: Add, Copy, Edit, Delete

Description

Enter a description for your device.

Device type

Select the appropriate device type that you want to configure.

SWITCH

- **Change On/ Off (EIS 1)**

  Specify the group address for switching the device On and Off. If ´1` is sent the device is switched on, if `0´ is sent the device is switched off.

- **Query On/ Off (EIS 1)**

  Enter the group address fort o check the status of device.

DIMMER

- **Change On/Off (EIS 1)**

  Specify the group address for switching the light On and Off. If ´1` is sent the light is switched on, if `0´ is sent the light is switched off.

- **Query On/Off (EIS 1)**

  Enter the group address to check the status of the light.

- **Change Brightness (EIS 6 / 0 - 100)**

  Specify the group address to change the brightness of the light. You can use values between 0 and 100%.

- **Query Brightness (EIS 6 / 0 - 100)**

  Specify the group address to query the brightness value.

THERMOSTAT

- **Temperature Scale**

  Select the temperature scale of your KNX thermostat. (Celsius, Fahrenheit)

- **Query current heating /cooling status (EIS 14)**

  Specify the group address to query the current heating/ cooling status. Default values 1=Off, 2=Heating, 3=Cooling, 4=Automatic

- **Change target heating / cooling state (EIS 14)**

  Specify the group address to change the heating/ cooling state. Default values 1=Off, 2=Heating, 3=Cooling, 4=Automatic

- **Operating mode 'Off' - value (0–255)**

  Value to be sent for the 'Off' operating mode.

- **Operating mode 'Heat' - value (0–255)**

  Value to be sent for the 'Heating' operating mode.

- **Operating mode 'Cool' - value (0–255)**

  Value to be sent for the 'Cooling' operating mode.

- **Operating mode 'Auto' - value (0–255)**

  Value to be sent for the 'Auto' operating mode.

- **Query current temperature (EIS 5 / 0.0 - 100.0)**

  Specify the group address to query the current temperature. Values between 0.0 and 100.0 can be used.

- **Change target temperature (EIS 5 / 0.0 - 100.0)**

  Specify the group address to change the destination temperature. Values between 0.0 and 100.0 can be used.

- **Query target temperature (EIS 5 / 0.0 - 100.0)**

  Specify the group address to query the target temperature. Values between 0.0 and 100.0 can be used.

- **Change heating threshold (EIS 5 / 0.0 - 100.0)**

  Specify the group address to change the heating threshold value. Values between 0.0 and 100.0 can be used. The value is only relevant for the 'Automatic' operation mode.

- **Query heating threshold (EIS 5 / 0.0 - 100.0)**

  Specify the group address to query the heating threshold value. Values between 0.0 and 100.0 can be used. The value is only relevant for the 'Automatic' operation mode.

- **Change cooling threshold (EIS 5 / 0.0 - 100.0)**

  Specify the group address to change the cooling threshold value. Values between 0.0 and 100.0 can be used. The value is only relevant for the 'Automatic' operation mode.

- **Query cooling threshold (EIS 5 / 0.0 - 100.0)**

  Specify the group address to query the cooling threshold value. Values between 0.0 and 100.0 can be used. The value is only relevant for the 'Automatic' operation mode.

- **Query current relative humidity (EIS 5 / 0.0 - 100.0)**

  Specify the group address to query the current humidity. Values between 0.0 and 100.0 can be used.

SHUTTER

- **Query current position (EIS 6 / 0 - 100)**

  Specify the group address to query the current position. Values between 0.0 and 100% can be used.

- **Target position (EIS 6 / 0 - 100)**

  Specify the group address to change the destination position. Values between 0.0 and 100% can be used.

- **Obstruction detected (EIS 1)**

  Enter the group address to switch the obstruction status. If `1´ was sent an obstruction was detected, if `0´ the status is reset.

LIGHTBULB

- **Change On/Off (EIS 1)**

  Specify the group address for switching the light On and Off. If ´1` is sent the light is switched on, if `0´ is sent the device is switched off.

- **Query On/Off (EIS 1)**

  Enter the group address to check the status of the light.

- **Change Brightness (EIS 6 / 0 - 100)**

  Specify the group address to change the brightness of the light. You can use values between 0 and 100%.

- **Query Brightness (EIS 6 / 0 - 100)**

  Specify the group address to query the brightness value.

- **Change Saturation (EIS 6 / 0 - 100)**

  Specify the group address to set the saturation of the light. You can use values between 0 and 100%.

- **Query Saturation (EIS 6 / 0 - 100)**

  Specify the group address to check the saturation of the light.

- **Change colour (EIS 10u / 0 - 65535)**

  Specify the group address to determine the colour value. Values between 0 and 65535 can be used.

- **Query colour (EIS 10u / 0 - 65535)**

  Specify the group address to query the colour value of the light.

BLIND – HORIZONTAL / VERTICAL

- **Query current position (EIS 6 / 0 - 100)**

  Specify the group address to query the current position. Values between 0.0 and 100% can be used.

- **Target position (EIS 6 / 0 - 100)**

  Specify the group address to change the destination position. Values between 0.0 and 100% can be used.

- **Obstruction detected (EIS 1)**

  Enter the group address to switch the obstruction status. If `1´ was sent an obstruction was detected, if `0´ the status is reset.

- **Query current angle (EIS 6 / 0 - 100)**

  Specify the group address to query the current angular orientation. 0% corresponds to -90 degrees; 100% correspond to +90 degrees.

- **Change target angle (EIS 6 / 0 - 100)**

  Specify the group address to change the target angular orientation. 0% corresponds to -90 degrees; 100% correspond to +90 degrees.

- **Invert absolute position**

  In the Apple Home App 100% correspond to the open state. With many KNX actuators, however, 100% correspond to the close state. If you want to configure such a KNX actuator, please activate this function.

MOTION SENSOR

- **Query motion sensor (EIS 1)**

  Specify the group address to query the motion sensor state. `1´ means motion detected.

SMOKE SENSOR

- **Query smoke sensor (EIS 1)**

  Specify the group address to query the smoke sensor state. `1´ means smoke detected.

AIR QUALITY SENSOR

- **Query air quality sensor (EIS 14 0-5)**

  Specify the group address to query the air quality sensor state. Supported values: 0= unknown, 1= excellent, 2= good, 3= fair, 4= inferior, 5= poor.

CARBON DIOXIDE SENSOR

- **Query carbon dioxide sensor (EIS 1)**

  Specify the group address to query the carbon dioxide sensor state. `1´ means abnormal carbon dioxide level.

CARBON MONOXIDE SENSOR

- **Query carbon monoxide sensor (EIS 1)**

  Specify the group address to query the carbon monoxide state. `1´ means abnormal carbon monoxide level.

CONTACT SENSOR

- **Query contact sensor state (EIS 1)**

  Specify the group address to query the contact sensor state. `1´ means that there is no contact. This seems logically inverted compared to other sensor types at first, but contact is seen as the normal state in HomKit (`0´) and no contact (`1´) as the „special case".

- **Invert contact sensor values**

  If you need a `1´on the bus to be interpreted as „contact exists", and `0´ to signal „no contact", then check this box.

HUMIDITY SENSOR

- **Query current relative humidity (EIS 6 0-100%)**

  Specify the group address to query the current humidity. Values between 0 and 100% can be used.

LEAK SENSOR

- **Query leak sensor (EIS 1)**

  Specify the group address to query the leak sensor state. `1´ means leak detected.

LIGHT SENSOR

- **Query ambient light sensor (Lux) (EIS 9 4Byte FP 0-100000)**

  Specify the group address to query the ambient light sensor value.

TEMPERATURE SENSOR

- **Temperature Scale**

  HomeKit internally always operates with Celsius, even when the customer sets their Apple Home App to Fahrenheit. Should your thermostat or sensor operates in Fahrenheit then please adjust this setting. BAB Homelink then converts the values to and from Celsius for HomeKit.

- **Query current temperature (EIS 5 2Byte FP 0-100)**

  Specify the group address to change the current temperature. Values between 0.0 and 100.0 can be used.

GARAGE DOOR OPENER

- **Data type status garage door opener**

  Specify here whether your KNX actuator for controlling garage doors sends its current status as a byte (EIS 14u) or bit value (EIS 1).

- **Query current status of garage door opener (EIS 14 0-255)**

  Specify the group address to query the current status of the garage door opener. Supported values: 0= open, 1= closed, 2= opening, 3= closing, 4= stopped.

- **Change target status of garage door opener (EIS 1)**

  Specify the group address to change the target status of the garage door opener. Supported values: 0= Open, 1= Close.

- **Query target status of garage door opener (EIS 1)**

  Specify the group address to query the target of the garage door opener. Supported values: 0= Open, 1= Close.

- **Obstruction detected (EIS 1)**

  Enter the group address to switch the obstruction status. If `1´ was sent, an obstruction was detected, if was sent `0´ the status is reset.

OUTLET

- **Change on/ off (EIS 1)**

  Specify the group address for switching the device on and off. If `1´ is sent, the device is switched on, if `0´ is sent, the device is switched off.

- **Query on/ off (EIS 1)**

  Enter the group address to check whether the device is switched on or switched off.

6 ATTACHMENT

6.1 ADDITIONAL INFORMATION AND TIPS

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

For example, if you have more than one lamp in a room and have light in the name of the unit (ceiling light, TV light, etc.), it may happen that the voice assistant does not switch the directly addressed lamp, but switches all the lights.

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	Hhh:mm:ss	3 Byte	Time
Date	EIS4	DPT 11*	Date	dd:mm:yyyy	3 Byte	Date
Value	EIS5	DPT 9*	Value	[-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*	Position 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 blind	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	4 Byte	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 with sign	-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 with sign	0 - 4.294.967.295	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 with sign	-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)