REAL SMART HOME

REAL SMART HOME GmbH

APPMODULE

VALUE App
Documentation

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TABLE OF CONTENTS

1   INTRODUCTION

Thank you for your trust, and the purchase of the VALUE app for the BAB **APP**MODULE. With this app you can generates values and sends them as KNX telegrams.

Versatile setting options such as "generator type", "value type", "transmission interval" or "data point type", as well as the possibility to define minimum and maximum values for this value make this app a particularly flexible tool.
In addition, the values and period duration can be assigned a variance in order to adapt the output values even better to the e.g. test setup.

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 This entails the possibility that parts of this documentation might be out-of-date.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

2   FUNCTIONAL OVERVIEW

"**VALUE**" you can generate up to 35 different values and send them cyclically as KNX telegrams to the KNX bus.

Versatile setting options such as "generator type", "value type", "transmission interval" or "data point type", as well as the possibility of defining minimum and maximum values for this value, make this app a particularly flexible tool.

In addition, the values and period duration can be assigned a variance in order to adapt the output values even better to the e.g. test setup.

Highlights:

- Fluctuate the initial value by specifying the maximum variance (in percent).
- Adjustable value ranges with lower and upper limits
- Percentage (allowed) deviation for lower and upper limit
- Optional sum output for generated values
- Three generator types to choose from (constant value, saw (or triangular) wave and sine wave)
- Selection of different data point types for output values
- Determining the period length
- Synchronization minute (minute of the day) for daily synchronization of the period.
- period flexibility
- Transmission interval (in seconds)

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 and click "OK". The App 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

This chapter explains the individual configuration parameters and options of the "VALUE" App.

5.1 VALUE

To create instances please click on the following symbol "+ create nstance". Please note that a maximum of 25 instances can be created.

Instance Name:

Choose a name for this new instance.

Comment:

Insert a description what this instance does.

5.2 GROUP ADDRESSES

Input Object (optional):

Group address for input commands. Turns constant values on (1) and off (0), resets the period for other generator types.

Output Current Value:

Group address on which the currently generated value will be sent.

Output Aggregate (optional):

Group address on which the aggregate will be sent.

5.3 GENERATOR PARAMETERS

Generator Type:

Specify which type of values the app should generate.

- Constant value: for a defined period there is a square wave which is set to maximum in each period for 'increase percentage'.
- Saw wave: Period starts at Min, rises to Max in 'Rise share'%, falls for the rest of the period and ends at Min.
- Sine wave: period begins and ends halfway between Min and Max.
    - Constant value
    - Sawtooth
    - Sine wave

Value Data Type:

Choose a corresponding data type that can hold your desired values

- EIS 5
- EIS 9
- EIS 10s
- EIS 10u
- EIS 11s
- EIS 11u

Aggregate Data Type:

Choose a corresponding data type that can hold your desired values

- EIS 9
- EIS 11u

Min. Value:

Specify the minimum value for the initial value.

Min. Value Flexibility (%):

Specify how much the minimum value may fluctuate per period. For each period, a random value is generated within the maximum allowed variance.
If the value equals 0, then all periods have identical minima, for example, a minimum temperature for a temperature with a 24-hour period would be identical every day.

Max. Value:

Define the maximum value that should be sent.

Max .Value Flexibility (%)

Define how much the maximum value of the wave is allowed to fluctuate in between periods. A new random value within this derivation will be calculated for each new period. If set to zero, all periods will have identical max values, for example a solar power panel would produce identical max output every day.

Jitter (%)

Define a maximum allowed variance for any value. Before sending the calculated value it will be modified with a random factor. Use this for example to have a constant value fluctuate. Note: Zero values will not jitter to prevent something like a '1' being sent when a virtual device is off.

Sync Minute

Set a specific minute of the day when a period should start. The start will be at a random second within this minute to prevent a flood of telegrams on the KNX bus at any given moment when several instances of this generator are running.
This is meant to sync the value to the day cycle, so that e.g. an exterior temperature will not peak at night just because you started the app at a specific time. Depending on the period of your wave, the cycle will of course start more often in a day.

Period (s)

Define the period of the wave. 24h = 86400, 12h = 43200, 1h = 3600.

Period Length Flexibility (%)

Define how much the period length may vary from the default. A new random value within this derivation will be calculated for each new period.
Note: this will influence the sync behavior. Sync calculates with the default period. The larger period fluctuations and the shorter the periods are, the more likely peak sync will be off a bit.

Ascend Period (%, integer)

Define how many % of the period should be ascending. For generator type 'constant value' this will set how long max value will be sent within a period.

Send Interval (seconds)

Defines the interval at which values will be sent (and generated, if they are variable)

Ascend Period (%, integer)

Define how many % of the period should be ascending. For generator type 'constant value' this will set how long max value will be sent within a period.

6   ATTACHMENT

function	EIS type	DPT	typical function	typical values	data	identifier
PriorityPosi-tion	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)