REAL SMART HOME GmbH

APPMODULE

Soundtouch

Smart Home App Documentation

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1 INTRODUCTION

Thank you for your trust, and the purchase of the **Soundtouch** -Smart Home App for the BAB **APP**MODULE. With the **Soundtouch** -Smart Home App you obtain professional integration of the Bose® SoundTouch™ system into building automation.

This documentation will help you get started with the app and aims to improve your setup experience.

REAL SMART HOME GmbH

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 This entails the possibility that parts of this documentation might be out-of-date.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 Bose®. Neither **BAB** APP MARKET GmbH nor the developer of this app take any claim in the trademarks owned by Bose®

2 SOUNDTOUCH FUNCTIONAL OVERVIEW

Connect your Bose® SoundTouch™ devices with the KNX® world! Enjoy quality audio from Bose® in all rooms via WIFI and control the functions conveniently via the available visualizations or any tactile sensors. All SoundTouch™ devices can be installed in complex scenarios and can thus be particularly conveniently used. In the process, playback, presets, volume control including variable dimming time and switching to AUX are possible. The display of the current track keeps you up to date. As a particular highlight, you can – in addition to the presets available from the factory – store the currently playing track as a preset. Up to 128 presets are possible for this.

2.1 HIGHLIGHS

- Audio notifications
- Discovery function (no fixed IP required)
- Playback of presets
- Playback control incl. shuffle/repeat
- Volume control incl. variable dimming time
- Multi-rooming
- Extended presets through group address linking

2.2 SMART SCREENS

This Smart Home App is suitable for »Smart Screens«

»Smart Screens« is an application for iOS® or Android® that allows you to control applications installed on the **APP**MODULE directly and on one interface via the touchscreen of your smartphone or tablet.

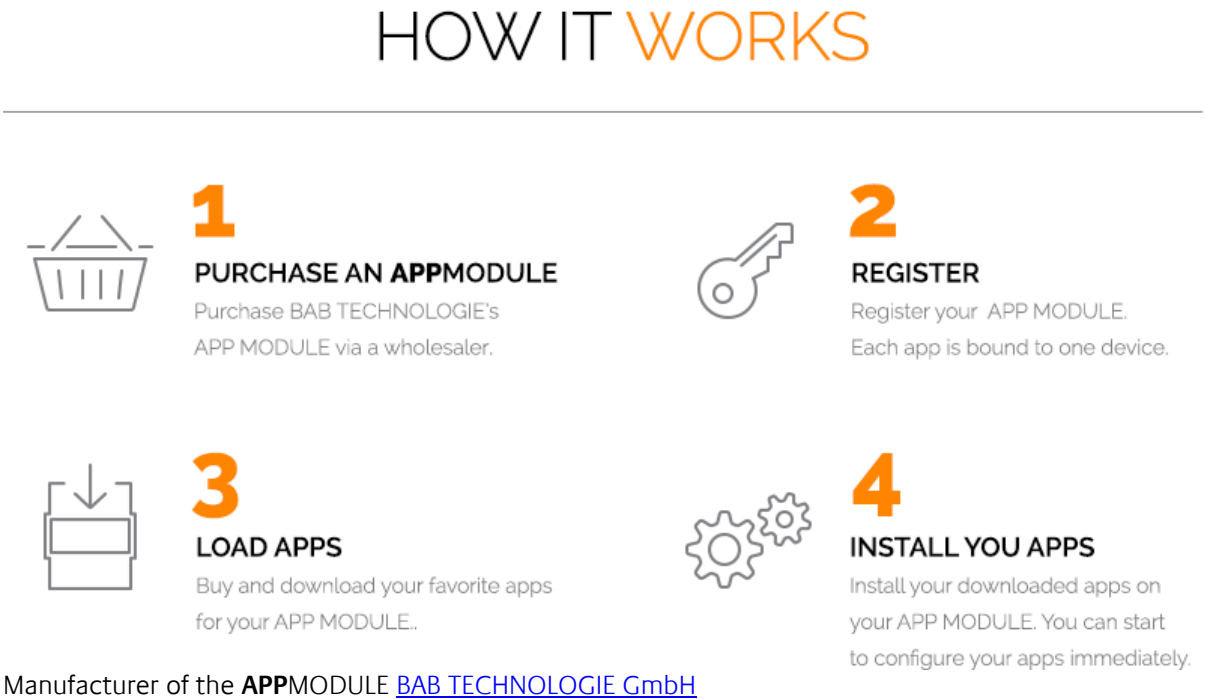
The setup takes only a few minutes and does not require any additional components.

»Smart Screens« is available free of charge in the Apple® AppStore® and on Google® Play.

Further information on »Smart Screens« at Smart Screens APP - BAB TECHNOLOGIE GmbH (https://bab-technologie.com/products/smart-screens-app/?lang=en)

3 THE INNOVATIVE, MODULAR SMART HOME APP CONCEPT

The innovative, modular Smart Home App concept for building automation. The **APP**MODULE 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 ingrate third-party solutions. With these Smart Home Apps from the dedicated **BAB** APPMARKET, the **APP**MODULE becomes a tailor-made integration unit for your building automation.



Manufacturer of the **APP**MODULE BAB TECHNOLOGIE GmbH

Distribution of all Smart Home Apps for the **APP**MODULE 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 **APP**MODULE for a detailed product description and setup instructions.

https://bab-tec.de/appmodule#downloads

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 SMART HOME APP INSTALLATION / UPDATE

Please proceed as follows to **install** a Smart Home App.

1. Open the **APP**MODULE web page: Enter <IP Address of **APP**MODULE > into your browser's address bar and press Enter. The **APP**MODULE web interface will appear.

2. Log in with your user credentials. Please refer to the **APP**MODULE 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 » **Soundtouch** « and click "OK".

The Smart Home App » **Soundtouch** « 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 BABAPPMARKET first.
In the “App Manager” available Smart Home App updates are reported

Information
To configurate the Smart Home App please use Google Chrome.

5 SMART HOME APP SETTINGS

Connect your Bose® SoundTouch™ devices with the KNX® world! Enjoy quality audio from Bose® in all rooms via WIFI and control the functions conveniently via the available visualisations or any tactile sensors. All SoundTouch™ devices can be installed in complex scenarios and can thus be particularly conveniently used. In the process, playback, Presets, volume control including variable dimming time and switching to AUX are possible. The display of the current track keeps you up to date. As a particular highlight, you can – in addition to the Presets available from the factory – store the currently playing track as a Preset. Up to 256 Presets are possible for this.
You can make the following settings on your Smart Home app:

- Create instance
- Preset Extensions

5.1 INSTANCE

Note:
After inactivity of 60 minutes the browser session is automatically closed. Unsaved changes will be lost.

As soon as the Smart Home 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".

5.1.1 SOUNDTOUCH

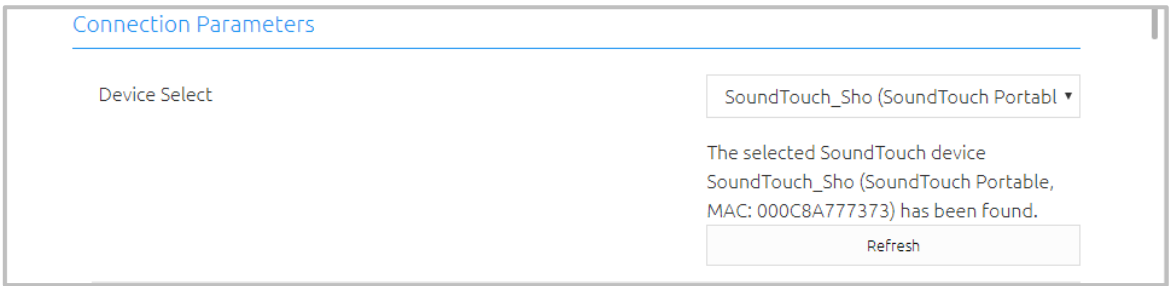
Instance Name:
Choose a name for this new instance.

Comment:
Insert a description what this instance does.

5.1.2 CONNECTION PARAMETERS

Device Select:

Select the main SoundTouch™ device in your network that can be controlled by this app.



5.1.3 VOLUME CONTROL ADDRESSES (ALL SETTINGS OPTIONAL)

Absolute Volume Control (EIS 6: 0%...100%)

Insert the group address for the absolute volume control (e.g. for sliders).

Volume Dimmer (EIS 2 relative Dimming):

Insert the group address for the relative volume control (for dimmers).

Volume Dimming Time:

Insert the time in ms a full dimming process should take.
Note: Each volume level has to be sent individually (there is no 'start increasing volume' command). This app will internally calculate how to set the individual increment in order to reach the desired value whilst contacting your SoundTouch™ device every 110ms.
If you wanted the smoothest possible dimming, that is an increment of 1 sent every 110ms, you would have to set this to 11000 (11s).

Volume Step Dimmer (EIS 2 relative Dimming)

Insert the group address for the relative volume control (for step dimmers).

Relative Volume Control (EIS 1)

Relative volume control with fixed step level (0: down, 1: up). The step level can be configured betow.

Volume Step Level (0–10)

Integer value which will serve as the step level of the relative volume control. The default value is 1.

Volume Status (EIS 6 0%..100%)

Insert the group address for the volume status.

Mute (EIS 1):

Insert the group address for the mute switch.

Mute Status (EIS 1):

Insert the group address for the mute status.

Bass Amount Control (EIS 14 0...255):

Insert the group address of the bass amount input.

Bass Amount Status (EIS 14 -128...127):

Insert the group address for the bass amount status.

5.1.4 PLAYBACK CONTROL ADDRESSES (ALL SETTINGS OPTIONAL)

Power On/Standby (EIS 1):

Insert the group address of the power on/stanby switch (0: standby, 1: power on).

Power On/Standby Status (EIS 1):

Insert the group address of the power on/standby (0: standby, 1: power on).

Play/Pause (EIS 1):

Insert the group address of play/pause switch. Default behavior: Send 1 to resume or begin playback and send 0 to pause playback. (Please keep that in mind when using a physical switches) If the checkbox "Invert Play/Pause Command" below is checked, 1 will pause and 0 will resume or begin playback.

Playback Status (EIS 1):

Insert the group address of the playback status. Sends 1 if playback is active and sends 0 in all other cases. If the checkbox "invert Play/Pause Command" below is checked, 0 will indicate active playback while 1 applies to all other cases.

Invert Play/Pause Command:

If this option is active, the values on the "Play/Pause" address will be interpreted differently. Sending 1 will pause, while sending 0 will resume or begin playback. This setting is e.g. necessary when integrating this app with Alexa.

Track Browse (EIS 1):

Insert the group address for the track browse button (0: backwards, 1: forwards).

Select Preset (EIS 14 0...255):

Insert the group address of the preset selector. Send a value that is equal to the number of the preset to select.

Store Preset (EIS 14 0...255):

Insert a group address of the preset store control. Insert a value corresponding to the preset slot you wish to store the currently playing radio station or playlist into.

Preset Status (EIS 14 0...255):

Insert the group address of the preset status. The corresponding preset number is going to be sent this address if the currently playing radio station or playlist is registered as a preset (this also applies to extended presets of this instance). A 0 is sent whenever the speaker is not playing a preset.

Shuffle On/Off (EIS 1):

Insert the gruop address of the shuffle on/off switch (0: off, 1: on).

Shuffle Status (EIS 1:

Insert the group address of the shuffle status (0: off, 1: on).

Repeat Mode (EIS 14 0...255):

Insert the group address of the repeat mode input. Send a 0 to stop repeating the current track, a 1 to repeat the current track and a 2 to repeat all tracks.

Repeat Mode Status (EIS 14 0...255):

Insert the group address of the repeat mode status (0: repeat off, 1: repeating current track, 2: repeating all tracks).

Add to/ Remove from Favorites (EIS 1):

Insert the group address of the favorites switch. Send a 1 to add a track to favorites and a 0 to remove a track from favorites.

Thumbs Up/Down (EIS 1):

Insert the group address for the thumbs up/ down switch. Send a 0 to give a thumbs down and a 1 to give a thumbs up.

Bookmark (EIS 1):

Insert the group address of the bookmark switch.

5.1.5 LOCAL SOURCE SELECTION AND PLAYBACK

Play Local Source (EIS 14 0...255):

Insert the group address with which to select a local source (such as AUX and Bluetooth). For details, see the tooltip of »Assign Local Source«

Assign Local Source:

With this feature you can assign integers to available local sources of SoundTouch™ device which is controlled by this instance. If you then send the integer on a specific group address, then SoundTouch™ device will start playing audio from the corresponding local source.

Desired local source

The local source to be played...

Corresponding Integer

...if this number is sent as a telegram value.

5.1.6 DISPLAY ADDRESSES (ALL SETTINGS OPTIONAL)

For screen addresses, all settings are optional

Name Display (EIS 15 14Byte text):

Insert the group address of the SoundTouch™ name display. You can also assign a name to your device by sending a EIS 15 string.

Track Name Display (EIS 15 14 Byte text):

Insert the group address of the current track name display.

Artist Name Display (EIS 15 14 Byte text):

Insert the group address of the artist name display.

Album/Station Name Display (EIS 15 14 Byte text):

Insert the group address of the album/station name display.

Source Name Display (EIS 15 14 Byte text):

Insert the group address of the source name display.

5.1.7 ZONE CONFIGURATION CONTROLS

Zone Status (EIS 1):

Insert the group address of the zone status (0: device is not in a zone, 1: device is in a zone).

Zone Role (EIS 1):

Insert the group address of the zone role status. If the device controlled by this instance is a zone member and assumes the role of the master, a "1" will be send to this group address.

Party Mode On/Off (EIS 1):

Insert the group address of the party mode on/off switch. Send a 1 to activate party mode which creates a zone including the device controlled by this instance as master and every other device as slave. Send a 0 to end party mode.

Set Zone (EIS 14 0...255):

Insert the group address with which to set up a zone. For details, see the tooltip of "Assign Zone Configuration".

Assign Zone Configuration:

With this feature you can assign integers from 1 up to 100 to several zone configurations. The zone here will be automatically configured with the device controlled by this instance as master device. Transmit the integer on the group address specified above so a group can be set up. If you want to dissolve a group that includes this device, transmit the value “0”.

Name

Name of this zone configuration.

Zone Configuration

Check all SoundTouch devices listed here that you want to be included in this zone.

Corresponding Integer

Integer value to be sent in order to set up this zone.

Zone Volume Synchronization:

Check if you want to use the zone volume synchronization. This feature enables you to control the volume of every device in a zone simultaneously.

5.1.8 AUDIO NOTIFICATION CONTROLS

Play Audio Notification (EIS 14 0...255):

Insert the group address with which to play an audio notification. For details, see the tooltip of "Assign Audio Notification".

Assign Audio Notification:

With this feature you can assign integers to several audio notification configurations. Transmission of such integers via the group address defined in "Play Audio Notification" triggers playback of its corresponding audio notification. Please note that audio notifications are only supported on SoundTouch™ 10/20/30 Series III and that your device must be a master when it is part of a zone

Notification Service:

Define the name of the notification service which will appear on the display (Bose® SoundTouch™ App) of the device controlled by this instance.

Audio File URL:

Insert the URL of the audio file to be played. Please make sure that the URL inserted here is valid. Supported media formats are as follows:

- MP3: 8 kbit/s ~ 320 kbit/s
- AAC: 24 kbit/s ~ 128 kbit/s
- HE-AAC: 48 kbit/s ~ 64 kbit/s
- WMA: 8 kbit/s ~ 329 kbit/s
- Vorbis: 32 kbit/S ~ 500 kbit/s
- FLAC: VBR: 0bit/s ~ 1.4 Mbit/s, up to CD quality (2 channels / 48 kHz / 16 bit)
- ALAC: 300 kbit/s ~ 5 Mbit/s, HD (2 channels / 96 kHz / 32 bit)

Notification Reason (optional):

Attach a reason for the notification which will appear on the display (Bose® SoundTouch™ App) of the device controlled by this instance.

Notification Message (optional:

Attach a message to the notification which will appear on the display (Bose® SoundTouch™ App) of the device controlled by this instance.

Notification Playback Volume (optional):

Choose a value between 10 and 70 as desired volume level during the notification. Leave this filed blank if you want the device to remain at existing volume level.

Local Trigger Address (optional) (EIS 1):

Insert a group address if you want to trigger the playback of this audio notification via a dedicated group address as well. Send a "1" in order start playback of the audio notification.

Corresponding Integer:

Insert the integer value with which to trigger the audio notification playback.

Audio Notification Activity (EIS 1):

Insert the group address for the audio notification activity status. A "1" indicates that the device controlled by this is currently playing an audio notification. A "0" applies to all other cases.

5.1.9 PRESET EXTENSIONS

Preset Extensions:

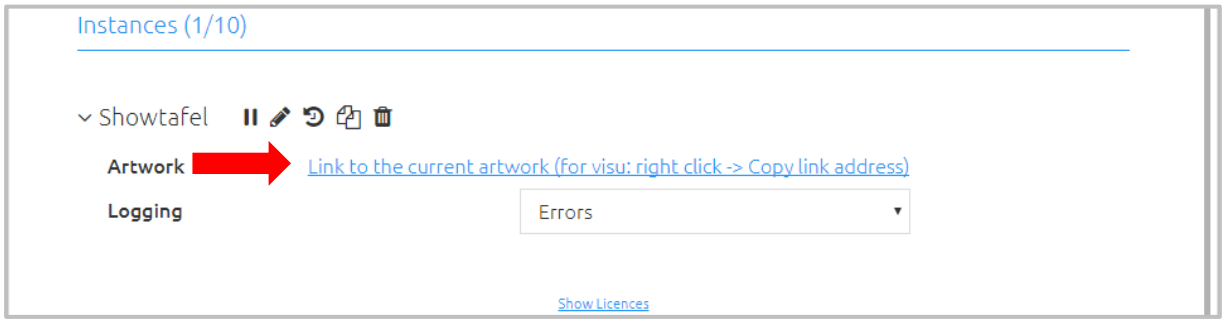
With this list you can extend the number of presets for your SoundTouch device to up to 128. These will then be assigned to a number greater than six and can only be accessed via telegram. Click "Add" for further details.

Save Currently Playing:

Click "OK" to save the currently playing playlist or radio station as a preset. If you wish to save a different item, switch to a different station or playlist via the SoundTouch app by BOSE® and click on the button below to refresh.

5.2 LINK TO THE CURRENT COVER (FOR THE VISUALIZATION)

Click the name of a created instance. Two entries appear under the name. Cover and log level. Next to Cover is the link for a visualization. Click on this link with the right mouse button, copy the link and enter it into the visualization element.



6 ATTACHMENT

6.1 DATAPOINT TYPES

Function	EIS type	Data point type	Typical value	Data	Identifier
Switching	EIS 1	DPT 1.yyy	[0] = Off | FALSE; [1] = On | TRUE	1 Bit	1-bit
Relative Dimming	EIS 2	DPT 3.yyy	**„Dimming steps“**: [[0],[2…7]] Darker [2, 4, 8, 16, 32, 64] -Steps and [[1],[2…7]] Brighter [2, 4, 8, 16, 32, 64]-Steps **„Start/Stop Diming“**: [0,8] Stop; [1] Darker und [9] Brighter	4 Bit	4-bit
Time	EIS 3	DPT 10.yyy	hh:mm:ss	3 Byte	Time
Date	EIS 4	DPT 11.yyy	dd:mm:yyyy	3 Byte	Date
Floating point number (short)	EIS 5	DPT 9.yyy	-671 088,64 … 670 433,28	2 Byte	2-byte float value
Percent, Position, Brightness, …	EIS 6	DPT 5.yyy	0 … 100%	1 Byte	8-bit unsigned value
Blinds Drive/adjust	EIS 7	DPT 1.yyy	[0] = up; [1] = down When driving [0,1] = stop	1 Bit	1-bit
Priority	EIS 8	DPT 2.yyy	[0], [1] Switch on, off; [3] = Forced off; [4] = Forced on	2 Bit	1-bit controlled
IEEE Floating point number (long)	EIS 9	DPT 14.yyy	4-Octet float value; IEEE 754	32 Bit	4-byte float value
Counter 16 Bit Unsigned	EIS 10u	DPT 7.yyy	0 … 65.535	16 Bit	2-byte unsigned value
Counter 16 Bit Signed	EIS 10	DPT 8.yyy	-32.768 … 32.767	16 Bit	2-byte signed value
Counter 32 Bit Unsigned	EIS 11u	DPT 12.yyy	0 … 4.294.967.295	32 Bit	4-byte unsigned value
Counter 32 Bit Signed	EIS 11	DPT 13.yyy	-2.147.483.648 … 2.147.483.647	32 Bit	4-byte signed value
Access control	EIS 12	DPT 15.yyy	Access data	4 Byte	Entrance access
ASCII Character	EIS 13	DPT 4.yyy	Char	1 Byte	Character
Counter 8 Bit Unsigned	EIS 14u	DPT 5.yyy	0 … 255	8 Bit	8-bit unsigned value
Counter 8 Bit Signed	EIS 14	DPT 6.yyy	-128 … 127	8 Bit	8-bit signed value
String	EIS 15	DPT 16.yyy	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)