



BAB TECHNOLOGIE GmbH

SMART SCREENS

Documentation

APPMODULE

Version of manual 1
As from 06/2021
Date: 17. June 2021

EN



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1 INTRODUCTION

Thank you for your trust and download, as well as the use of SMART SCREENS for your smartphone or tablet. The "SMART SCREENS" App gives you a unified interface to control your IoT, KNX, and EnOcean devices.

The "SMART SCREENS" App provides additional functionality for your smartphone or tablet and is used for mobile control your applications, but it requires that suitable Smart Home Apps are installed on your **APPMODULE** and configured for use accordingly.

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

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 This entails the possibility that parts of this documentation might be out-of-date.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

bab-technologie.com



2 SMART SCREENS FUNCTIONAL OVERVIEW

The "SMART SCREENS" App provides an additional functionality for your smartphone or tablet and is used for mobile control of applications on the **APPMODULE**. For the device used, the "SMART SCREENS" App is available in the **Apple® AppStore®** or on **Google® Play**.

Using the "SMART SCREENS" App on your mobile device provides the possibility of cross-device control with intuitive menu navigation without having to make any further settings on the respective devices. However, it is necessary that all devices have already been fully configured. Only under these conditions are the possible functions of the instances offered for control. An instance is a control unit that either controls just one device or a device can be splitted into several instances. The possible instances are specified by the **APPMODULE** as they are configured there.

Not all Smart Home Apps installed on the **APPMODULE** have the SMART SCREENS functionality. The following Smart Home Apps are supported with the following features:

- **Bluesound Connect**
- **DoorBird Control**
- **HEOS Connect (Denon® HEOS)**
- **HUE CONTROL (Philips® hue)**
- **KNX Control**
- **Nuki Control**
- **Panasonic Connect**
- **PJLINK**
- **PLAY (SONOS®)**
- **R-Connect**
- **SEQUENCER**
- **Soundtouch**

Possible functions/controls:

- Switch (e.g. ON/OFF, Up/Down, Repeat)
- Button (e.g. Forward/Back, Title Jump)
- Selection list (e.g. radio station, source)
- Slider/ Dimming (e.g. brightness, volume)
- ColorPicker (e.g. light color, light temperature)
- Multimedia (start/play, pause/stop, title forward and back, mute, volume control, shuffle)
- Shutter / Blind control
- Value input (e.g. dimming value, temperature value, channel change)



3 SMART HOME APP SETTINGS

The "SMART SCREENS" App provides an additional functionality for your smartphone or tablet and is used for mobile control of applications, but it requires that the appropriate Smart Home Apps are installed on your **APPMODULE** and configured for use accordingly.

Note: The correct operation of the "SMART SCREENS" App requires the correct settings in the Smart Home Apps on the **APPMODULE**. In addition, the respective devices must also be properly configured and available. Any discrepancies may affect the operation of the "SMART SCREENS" App and may cause network sign-in problems. To correct incorrect settings, you should reboot the router so that your device can log in correctly with the "SMART SCREENS" App.

3.1 CREATE SMART SCREENS

To create a central control, select the instances of your Smart Home App installed on the **APPMODULE**. The number of SMART SCREENS is not limited, so you can create several groups as SMART SCREENS if required, for different control units that are for example room- or function-related. When you set up your SMART SCREENS, only these Smart Home Apps with their instances are displayed that are also compatible to SMART SCREENS.

As part of our product development, the availability of Smart Home Apps is expanded, but also the scope of functionality is increasing. These adjustments are made via the respective firmware, so that changes are expected during updates.

Now create your SMART SCREENS in the following, make your selection of instances and activate the functions that can be controlled via this SMART SCREENS. To set up a SMART SCREENS is intuitive because it does not require parameter settings. The parameters have been set up in the Smart Home Apps and your SMART SCREENS only accesses them.

If you have devices, functions - which should actually be present - or even in case of communication problems, please contact the integrator who has configured your **APPMODULE**.

In addition, the instances can also be used multiple times if you create several SMART SCREENS.

When you activate the SMART SCREENS Smart Home App, a window opens to create a SMART SCREENS to control IoT devices. To do this, your mobile device and the **APPMODULE** must be connected on the same network in order to be able to connect.

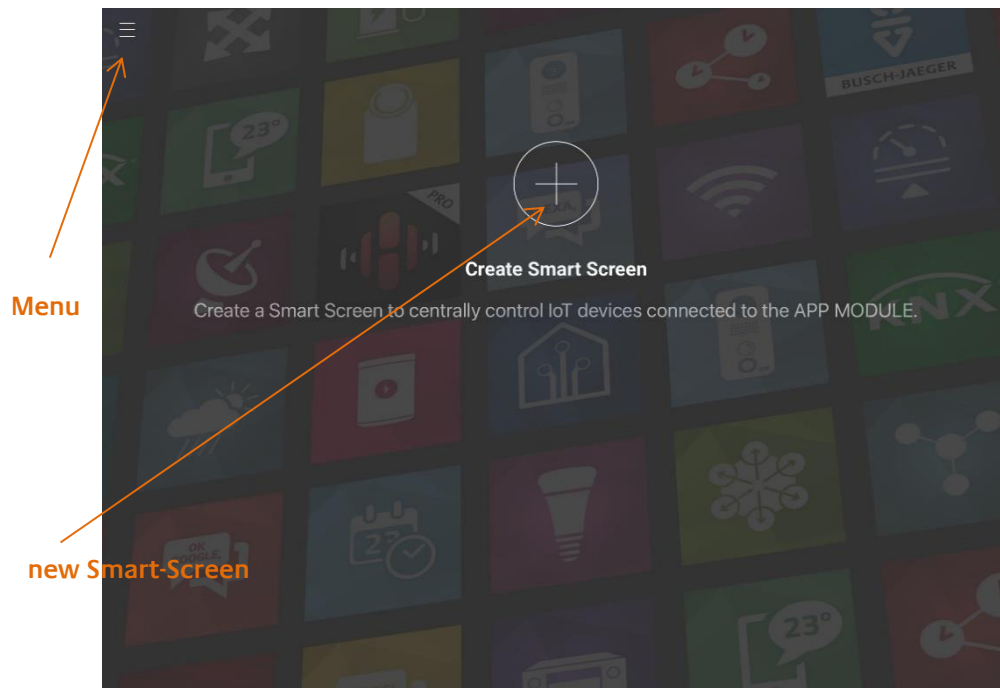


Figure 1: iPad start SMART SCREENS

You can use the icon button (+) to create a new smart screen. You can access existing SMART SCREENS via the menu icon.

(+) create Smart Screen

Create a new smart screen and give a name these applications first.

After confirmation of the name assignment, the app (the **APPMODULE**) is selected for control. The available modules are displayed for selection. Make your selection and confirm with "Done".

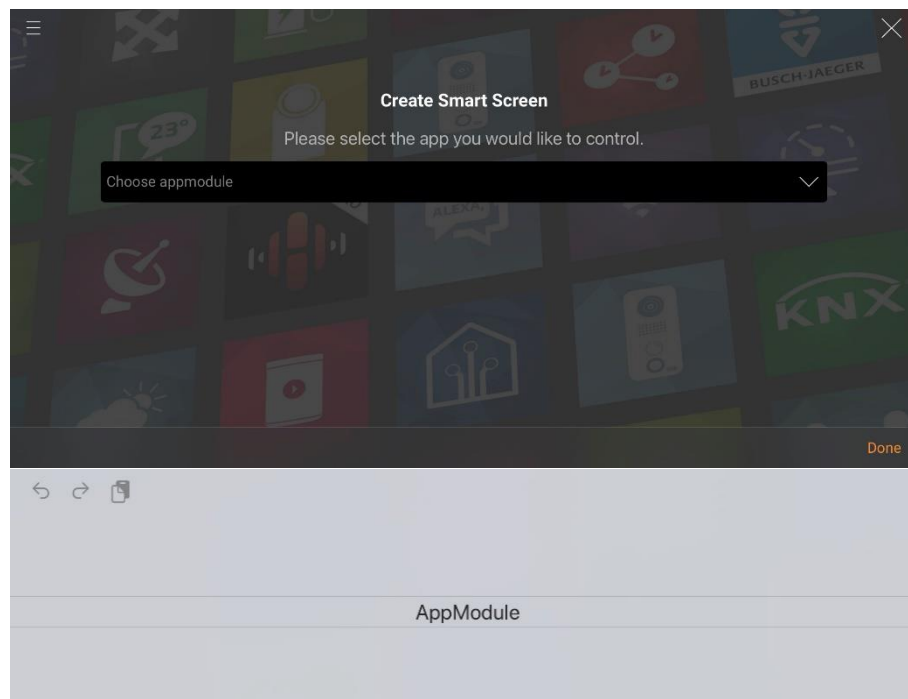


Figure 2: SMART SCREENS - APPMODULE



The available applications from the selected **APPMODULE** are displayed only for selection. Please note that not all your Smart Home App's are available for selection, the Smart Home App's must have the appropriate firmware, only then they will be displayed for selection. (Examples Smart Home Apps: Doorbird, AEOS, Philips-HUE, Play-SONOS)

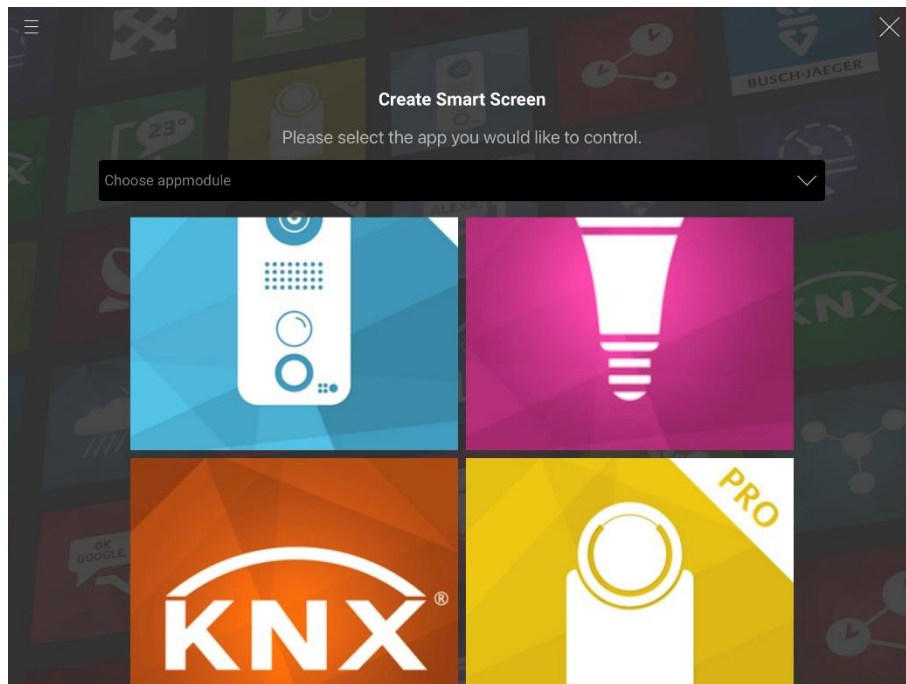


Figure 3: SMART SCREENS - selection Smart Home Apps

3.2 SMART HOME APP - ACTIVATE APPLICATIONS

When you enable the applications for use in SMART SCREENS, you will see the possible functions. Note that mostly functions only that are to be used are displayed. The usage of these functions depends on two main factors.

On the one hand, the functions must always be activated for use in the SMART SCREENS. This use is determined by the respective firmware of the Smart Home Apps.

On the other hand, the functions in the **APPMODULE** must be configured accordingly. So, if a basically useable function has no values (such as selection of playlists), this function is also not displayed in the SMART SCREENS.

After activating the Smart Home App or application, you will see available functions. These functions are selected by clicking on the right edge for the SMART SCREENS.

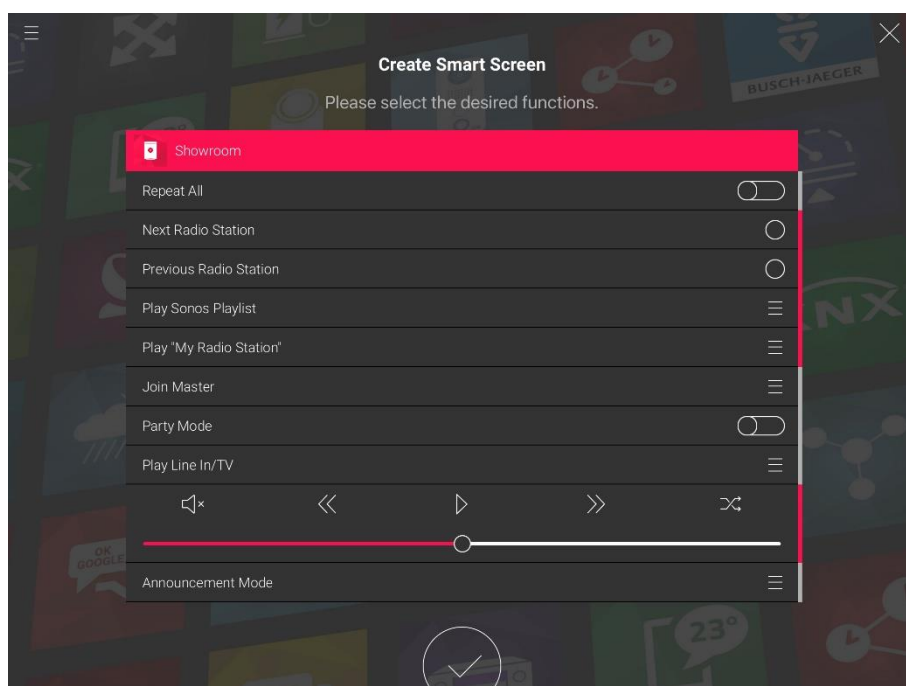


Figure 4: Enable desired functions

The confirmation of the selection is also storage. This procedure must be performed for all Smart Home Apps. If a Smart Home App provides multiple instances, you can create a function group for each instance. You can change the order of the function group in any arrangement by moving it.

To make changes to the SMART SCREENS or functions, you must enable the adjustment mode for this.

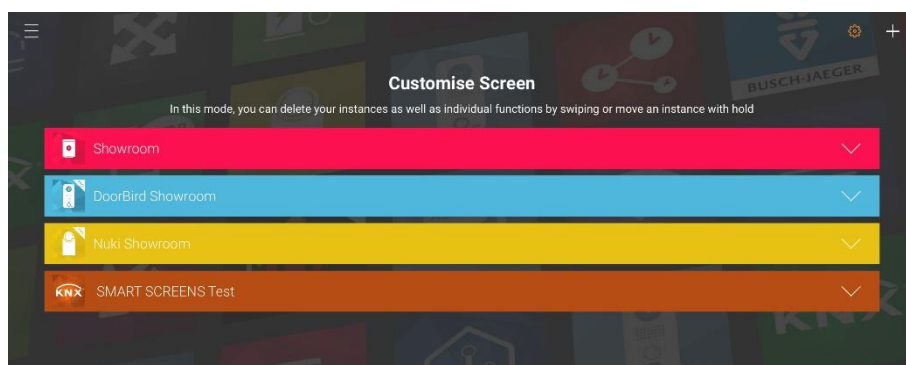


Figure 5: Customise Screen



In this mode, you can delete SMART SCREENS and functions, or you can also move the SMART SCREENS in new order. For changes in the function group, do the following:
Deletes individual functions by swiping from right to left in the line of the desired function. The delete icon appears.

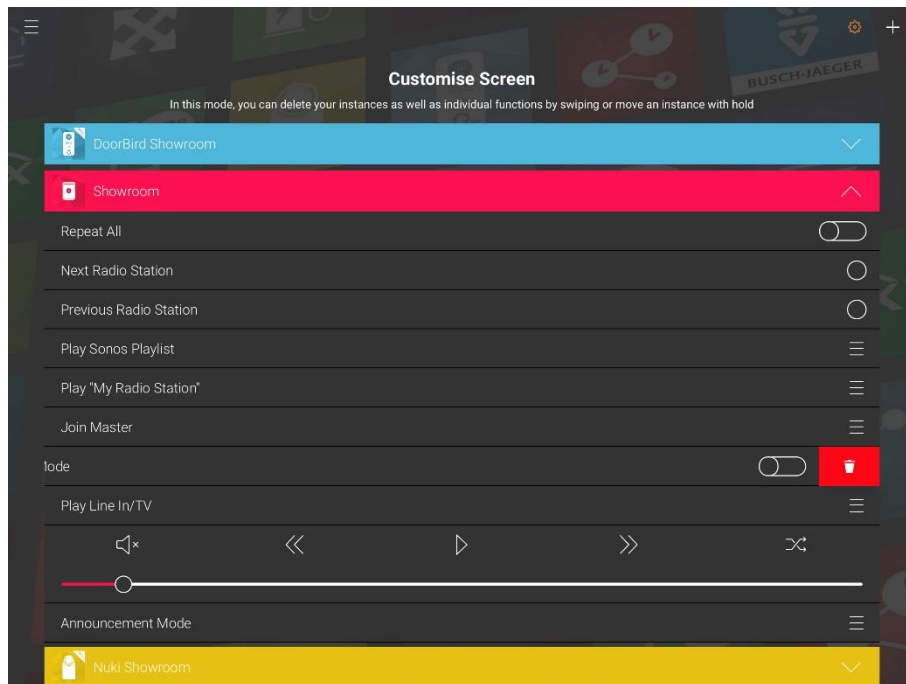


Figure 6: Delete function

Add new functions: it makes sense to recreate the entire function group. Delete the current function group and create a new function group with the desired functions. You can then move the group to the desired location.

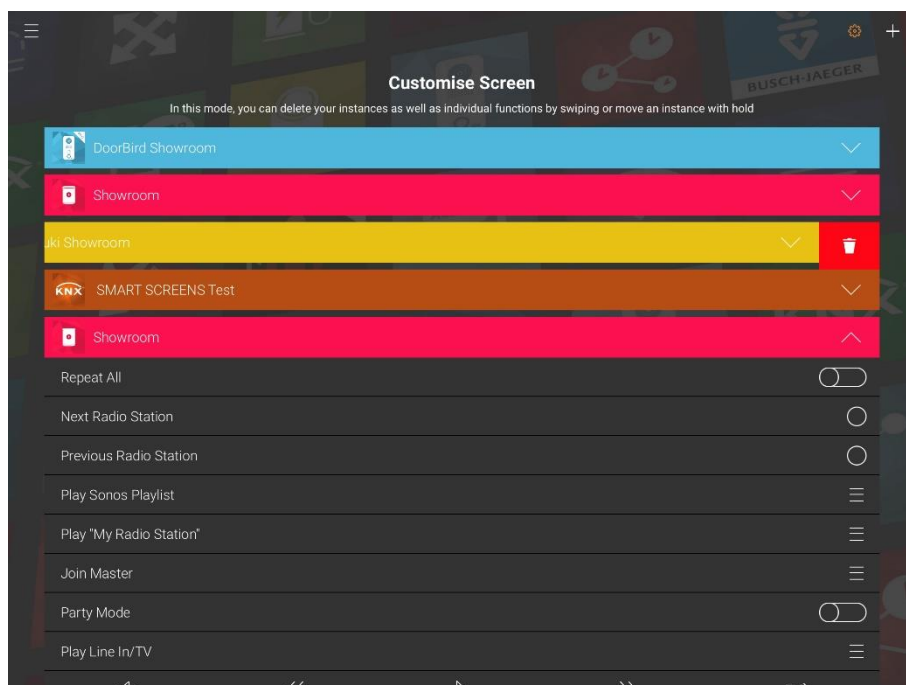


Figure 7: Delete screen

3.2.1 SMART SCREENS CONTROLS ELEMENTS

The SMART SCREENS control elements are different from the respective activated Smart Home Apps. According to the stored data types and configuration, these are assigned automatically, so they are not freely selectable. The number of control elements per Smart Home App is different and also depends on the configuration. However, the operation of these elements itself is always the same.

If there are no control elements that are displayed as available in the Smart Home Apps, you must contact your integrator who has set up for you the **APPMODULE**.

SWITCH



A "switch" supports functions such as ON/OFF, Up/down, Repeat. The "switch" thus displays its unique position and as well changes its status when switching operations have been triggered by other sources.

BUTTON



With a "Button" starts operation such as forward/ back, title jump. Only one digital or fixed value is initiated to trigger the function.

VALUE INPUT



Clicking on the symbol "Value input" opens an input box for entering predefined values or values in a value range. Values that do not match these presets or out of value range are displayed as errors.

SELECTION LISTS



Clicking on "selection list" icon opens a selection such as radio stations, playlists or items. These Selection lists were created during configuration. Changes to this list are possible via the respective Smart Home App.

SLIDER / DIM ELEMENT



With a slider or dimming element the values can be infinitely changed, such as

brightness, volume. The value range or dimming speed are configured in the respective Smart Home App. Desired changes or adjustments are usually only possible through the integrator, which has set up the corresponding smart home app in the **APPMODULE**.

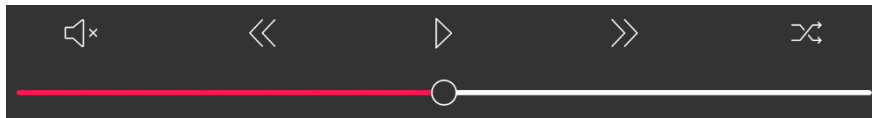
SELECTION CIRCLE



The "selection circle" is a graphical control element in order to be able to change e.g. the light-color or light temperature infinitely. The value range is configured in the respective Smart Home App. Desired changes or adjustments are usually only possible through the integrator, which has set up the corresponding smart home app in the **APPMODULE**.



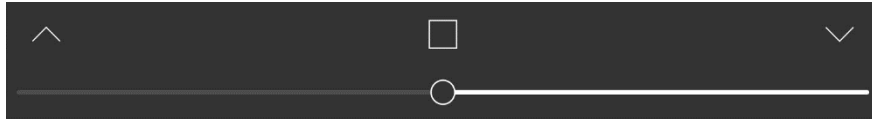
MULTIMEDIA



With the Multimedia there are several audio control elements are combined, e.g. start/ play, pause

/stop, title jump forward and back, mute, volume control, shuffle).

BLIND / SHUTTER CONTROL



The blind or shutter control element allows to set Up and Down, also stop move, as well as a

determined percentage (position).

3.3 SMART SCREENS APPLICATIONS

3.3.1 BLUESOUND CONNECT

To control your Bluesound audio system you can select the Bluesound Connect Smart Home App. This allows you to use the following functions:

- Multimedia (play, pause, title jump: forward / back, mute, volume, shuffle)
- Switch: Repeat
- Selection list: Playlist
- Selection list: Trigger for presets (presets)

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

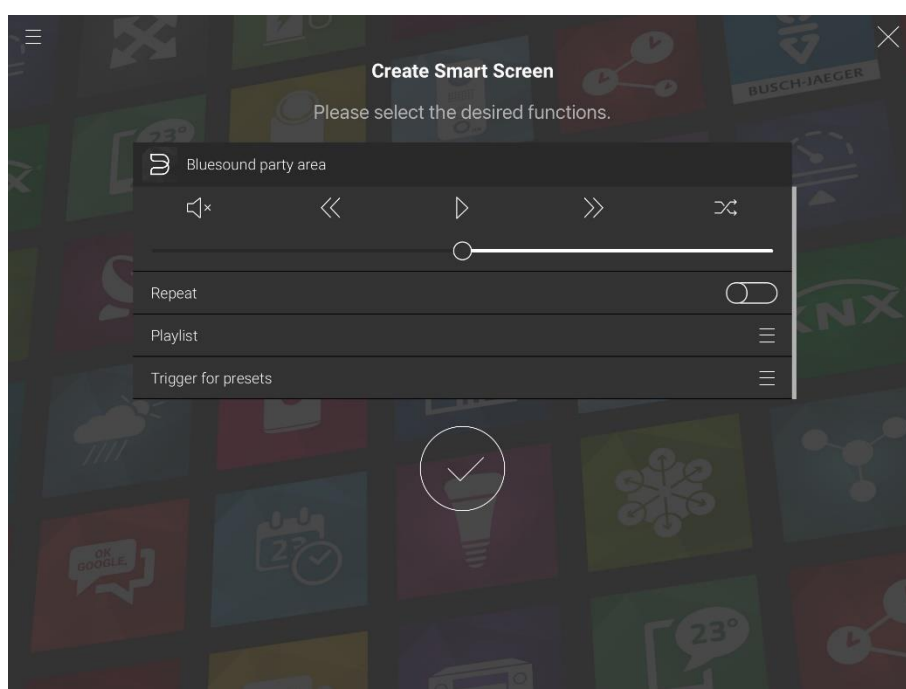


Figure 8: SMART SCREENS - Bluesound Connect

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.



3.3.2 DOORBIRD CONTROL

To control your DoorBird intercom station you can select the Doorbird Control Smart Home App. This allows you to use the following functions:

- Button: Door opener / switching relay1
- Button: e.g. Light / switching relay2

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

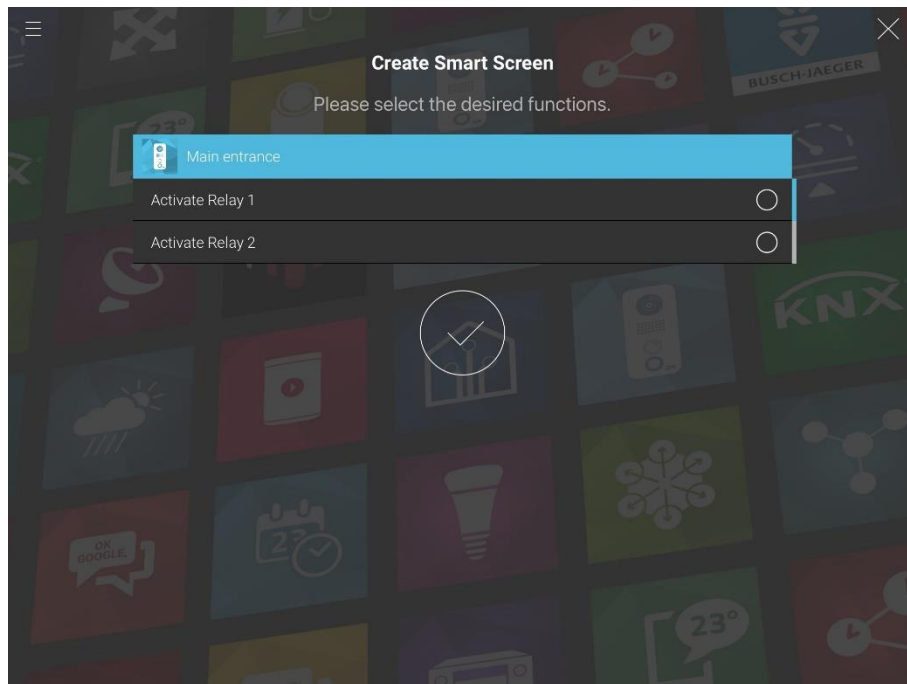


Figure 9: SMART SCREENS - Doorbird Control

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.

3.3.3 HEOS-CONNECT

To control your HEOS audio system you can select the HEOS-Connect Smart Home App. This allows you to use the following functions:

- Selection list: Stream / audio source
- Selection list: Playlist
- Switch: Party mode on/off
- Multimedia (play, pause, title jump: forward / back, mute, volume, shuffle)

The HEOS-Connect Smart Home App allows the creation of up to 5 instances (HEOS devices).

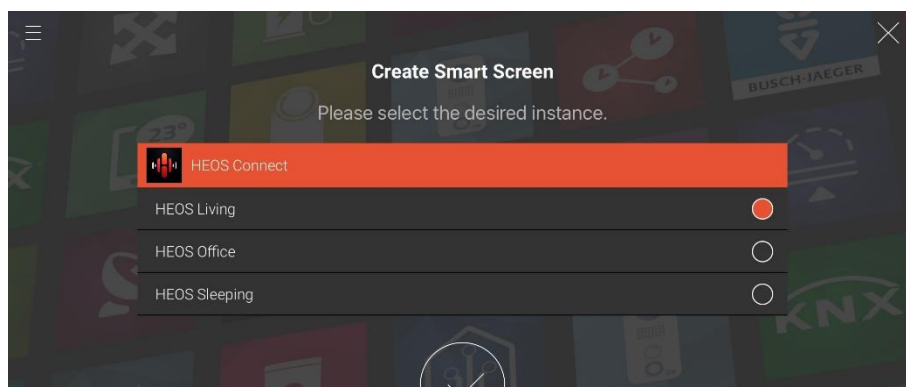


Figure 10: SMART SCREENS - HEOS Connect / instances

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

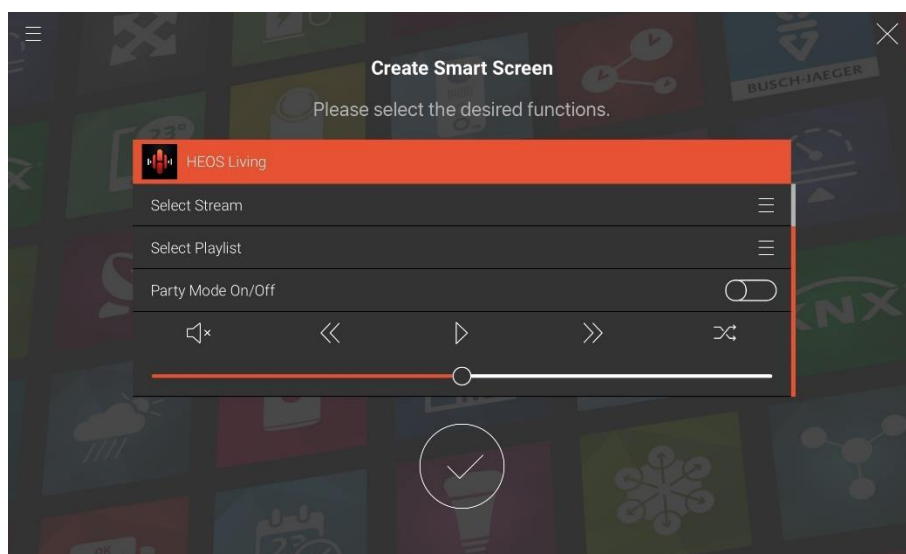


Figure 11: SMART SCREENS - HEOS connect / functions

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.



3.3.4 HUE:CONTROL

To control your HUE devices, you can select the HUE:CONTROL Smart Home App. This allows you to use the following functions:

- Switch: On/Off
- Selection circle: Light color
- Selection circle: Color temperature (Kelvin)
- Slider: Brightness

The HUE:CONTROL Smart Home App allows the creation of up to 20 instances (lights).

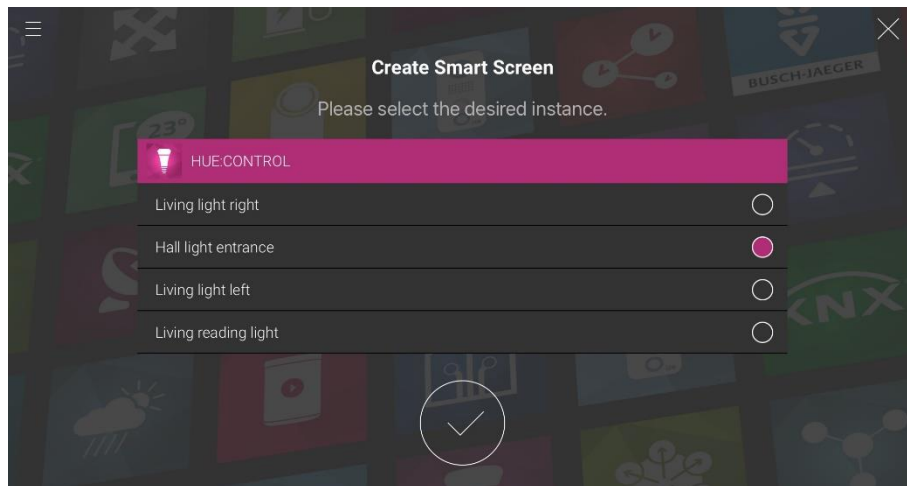


Figure 12: SMART SCREENS - HUE:CONTROL / instances

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

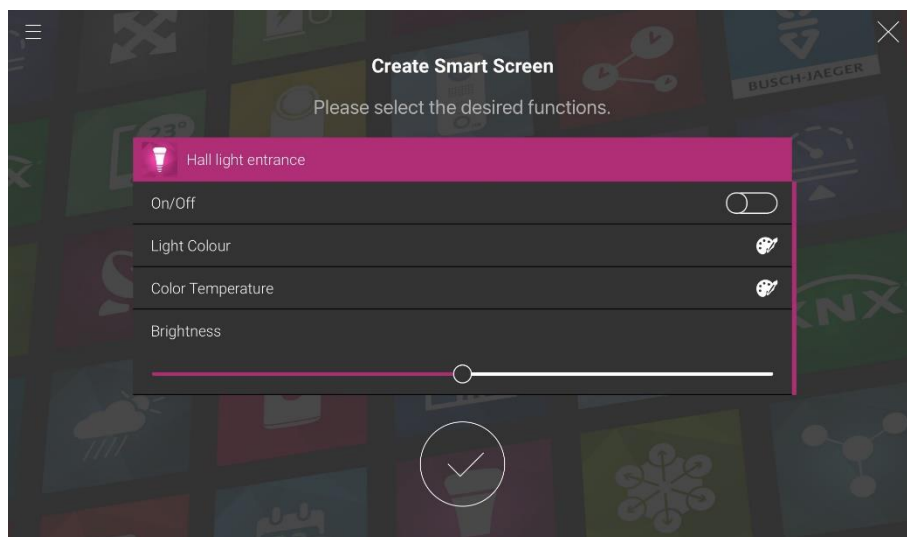


Figure 13: SMART SCREENS - HUE:CONTROL / functions

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.

3.3.5 KNX CONTROL

To control your KNX devices you can select the KNX Control Smart Home App. This allows you to use the following functions:

- Switches: unlimited
- Buttons: unlimited, with preconfigured integer value
- Slider or dim element: unlimited
- Value input: unlimited, fixed value range
 - Integer Values 0... 255
 - Floating point value signed or unsigned

The respective named elements must be created in the smart home app of the **APPMODULE**. Thus, the range of values must also be specified for the value entry.

The labels can also be edited in the Smart Home App of the **APPMODULE**. For desired customizations in this area, please contact your system integrator who has set up these smart home apps for you.

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

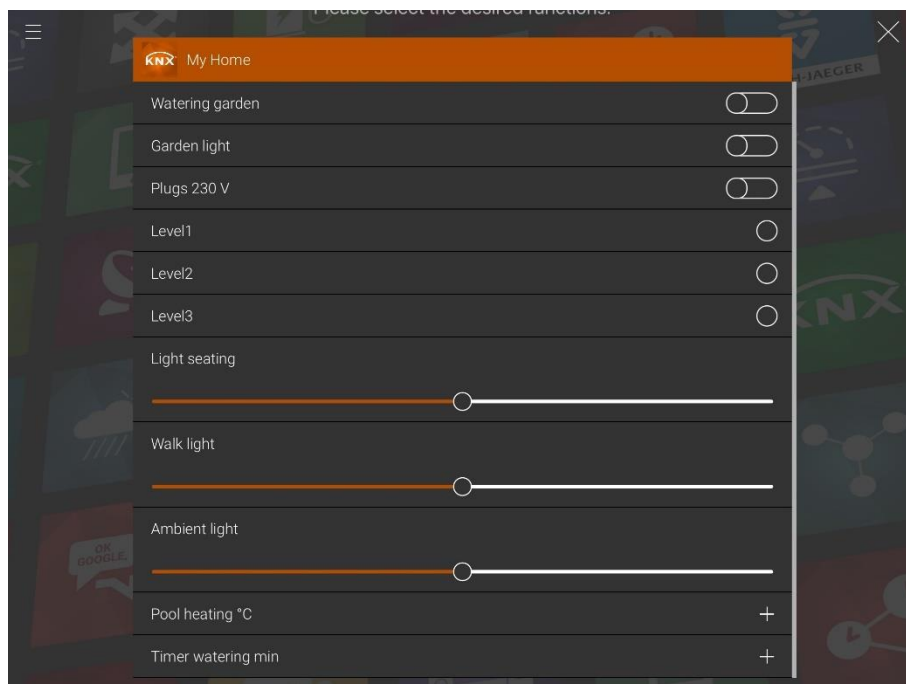


Figure 14: SMART SCREENS - KNX Control

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.



3.3.6 NUKI CONTROL

To control your NUKI devices you can select the NUKI-Control Smart Home App. This allows you to use the following functions:

- Button: Unlatch
- Button: Lock
- Button: Unlock

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

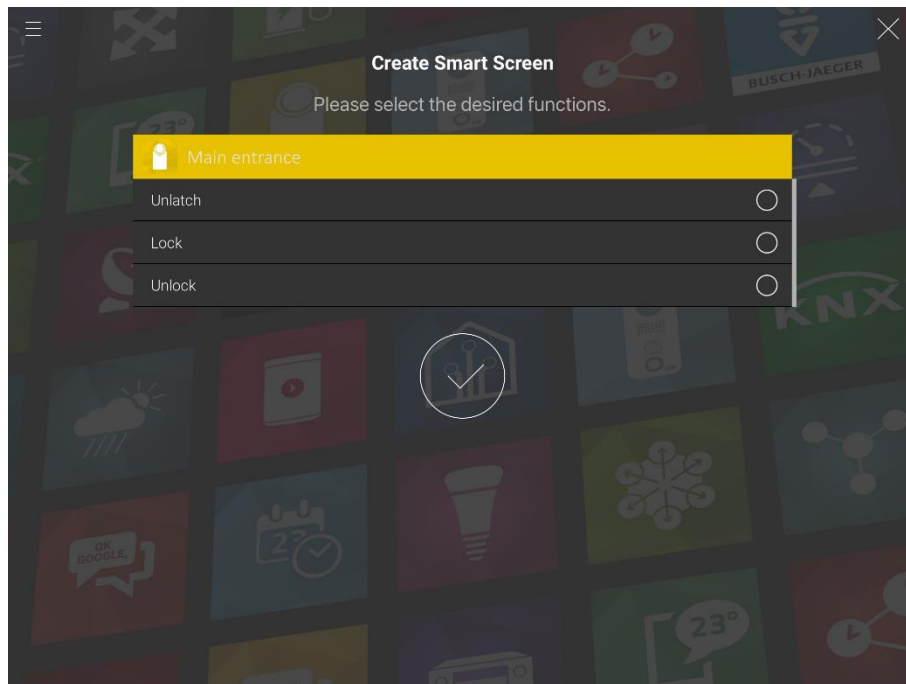


Figure 15: SMART SCREENS - NUKI Control

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.

3.3.7 PANASONIC CONNECT

To control your Panasonic devices, you can select the Panasonic Connect Smart Home App. This allows you to use the following functions:

- Multimedia (play, pause, title jump: forward / back, mute, volume, shuffle)
- Switch: Standby on/off
- Setting channel
- Switch: LastView mode
- Selection list: Inputs HDMI and Display Port
- Selection list: Inputs AV and Component
- Selection list: Types of reception
- Selection list: Channel list (Favourites)

The Panasonic Connect Smart Home App allows the creation up to 10 instances (Panasonic devices).

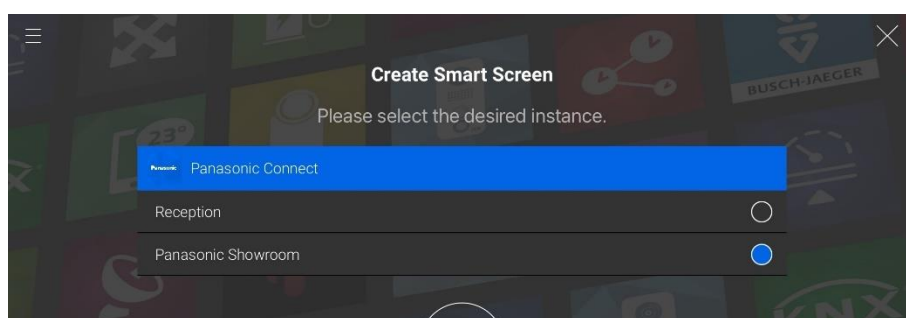


Figure 16: SMART SCREENS - Panasonic Connect / instances

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

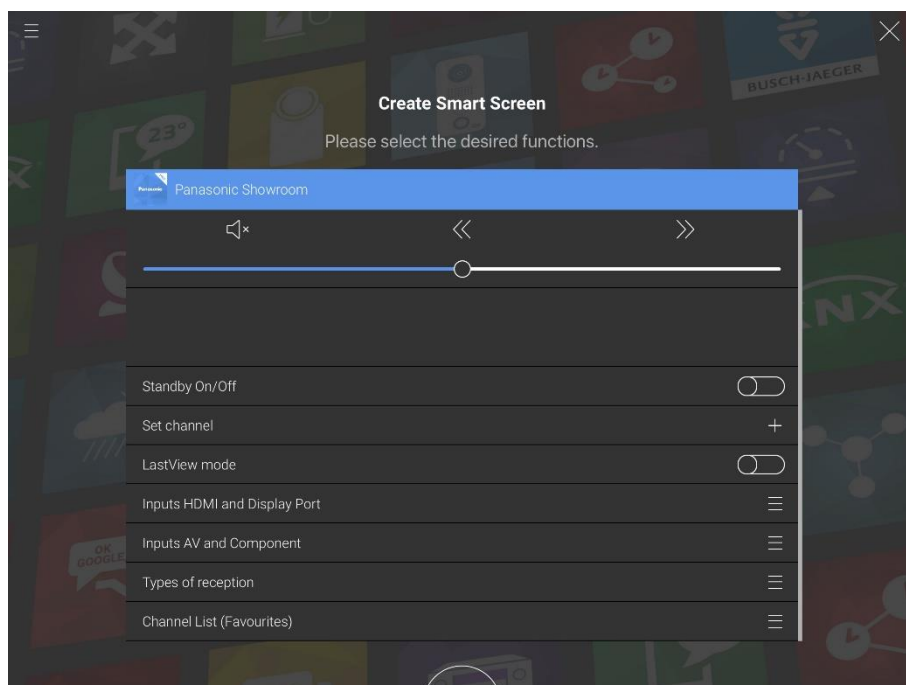


Figure 17: SMART SCREENS - Panasonic Connect / functions

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.



3.3.8 PJLINK

To control your Link devices (e.g. Sony®, Sharp® or Hitachi®), you can select the PJLINK Smart Home App. This allows you to use the following functions:

- Switch: Mute
- Switch: Power On/Off
- Selection: Input

The PJLINK Smart Home App allows the creation up to 10 instances.

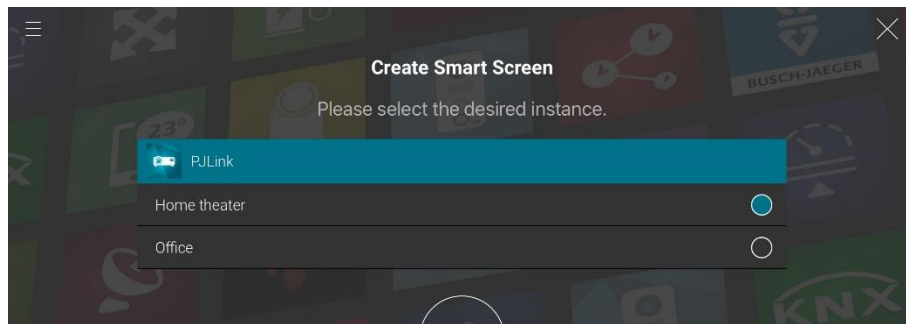


Figure 18: SMART SCREENS - PJLink / instances

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

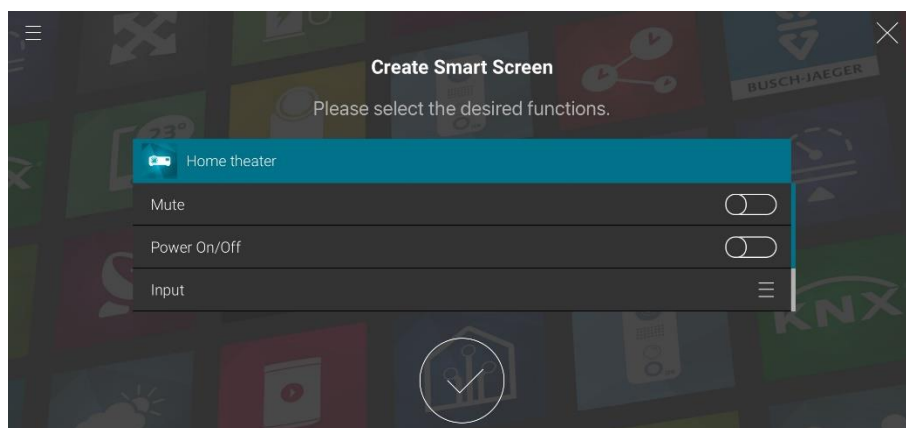


Figure 19: SMART SCREENS - PJLink / functions

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.

3.3.9 PLAY (SONOS)

To control your SONOS devices, you can select the PLAY Smart Home App. This allows you to use the following functions:

- Repeat All
- Next Radio Station
- Previous Radio Station
- Play Sonos Playlist
- Play "My Radio Station"
- Join Master
- Party Mode
- Line In/TV playback
- Multimedia (play, pause, title jump: forward / back, mute, volume, shuffle)
- Announcement Mode

The Play Smart Home App allows the creation up to 50 instances (SONOS devices). The designation of these instances is transferred to the Smart Screens. Select the desired instances below, by clicking in the selection circle and activate corresponding functions.

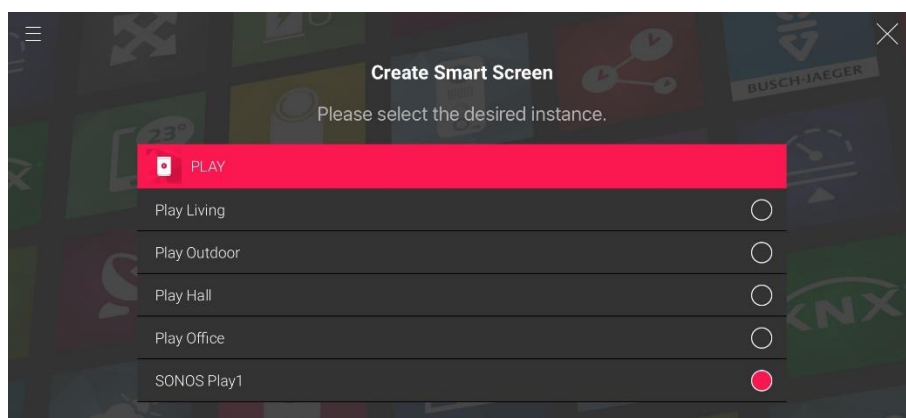


Figure 20: SMART SCREENS - PLAY / instances

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

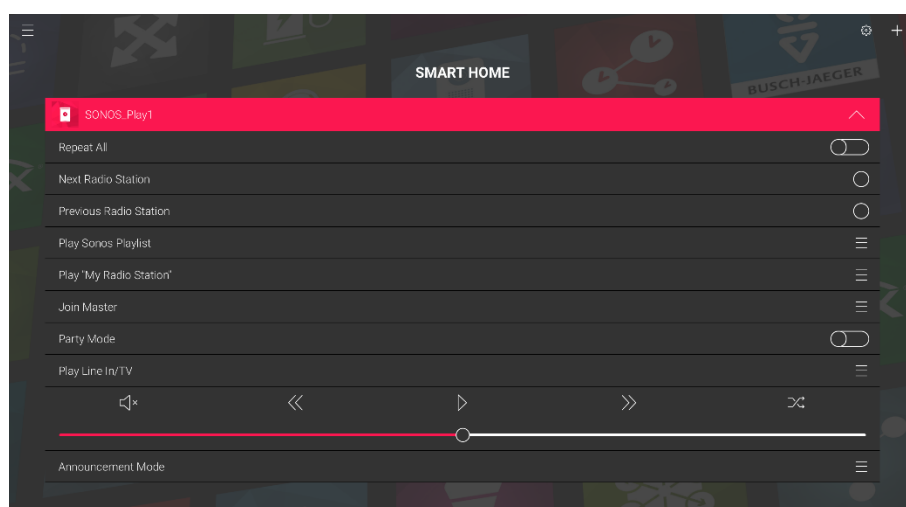


Figure 21: SMART SCREENS - PLAY (SONOS) / functions

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.



3.3.10 R-CONNECT

To control your Rutenbeck® devices you can select the R-Connect Smart Home App. This allows you to use the following functions:

- Blind/ shutter control (Up/ Down / Stop / set position value)
- Switch: on/off

The R-Connect Smart Home App allows the creation of up to 10 instances (devices).

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

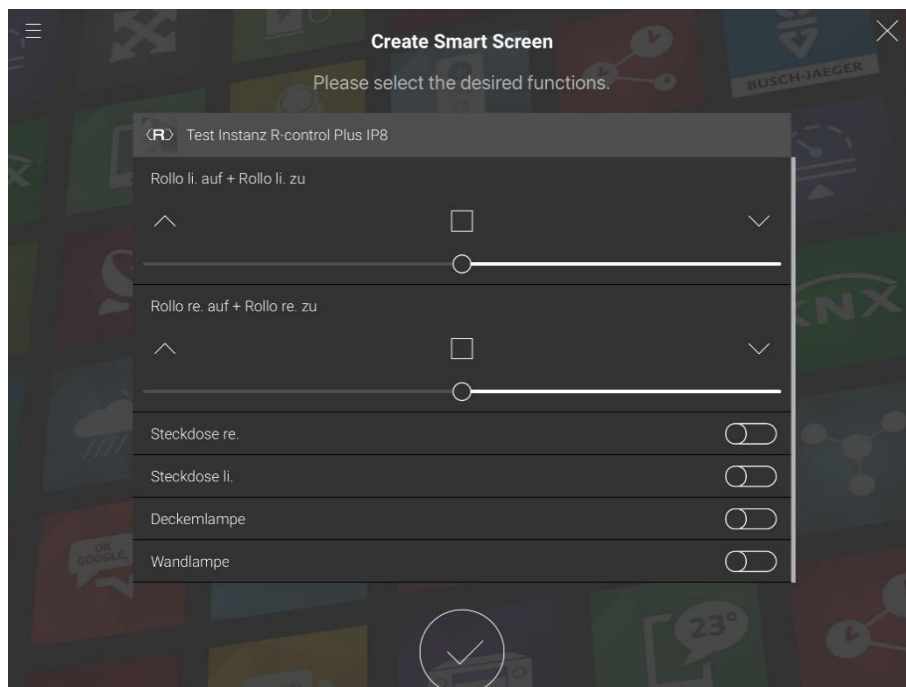


Figure 22: SMART SCREENS - R-CONNECT

The R-Connect allows the operation up to 8 single channels. The channels can be switching channels or 2 channels combined in a control group are used for a blind control. The designation of the controls is taken from the configuration of the Rutenbeck® device.

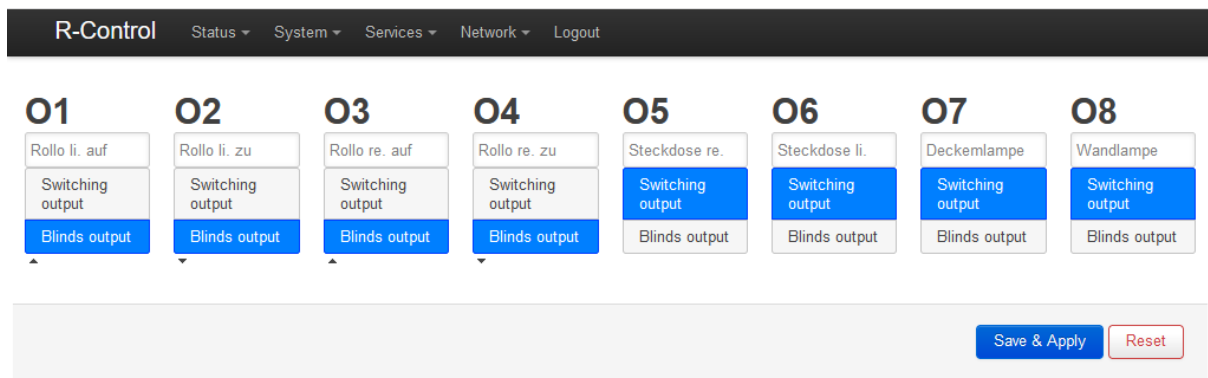


Figure 23: R-CONNECT - Configuration Switching output

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.

3.3.11 SEQUENCER

To control and use your sequences you can select the SEQUENCER Smart Home App. This allows you to use the following functions:

- Button: Start the sequence
- Button: Stop the sequence

The different sequences were created as instances. The naming of these instances/sequences is transferred to the Smart Screens. Select the desired instances below, by clicking in the constituency and activating corresponding functions.

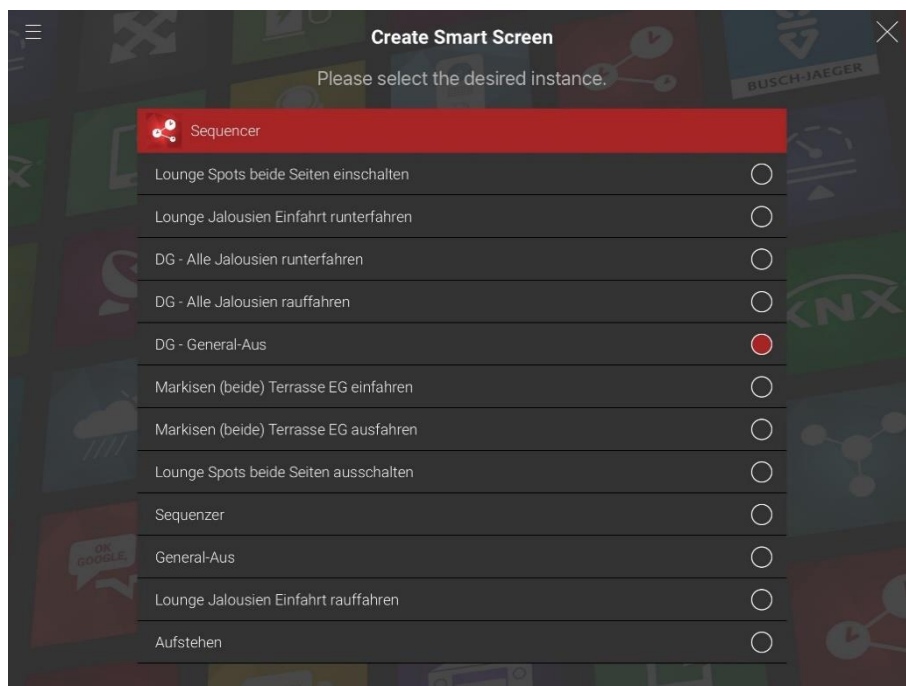


Figure 24: SMART SCREENS - Sequencer / instances

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

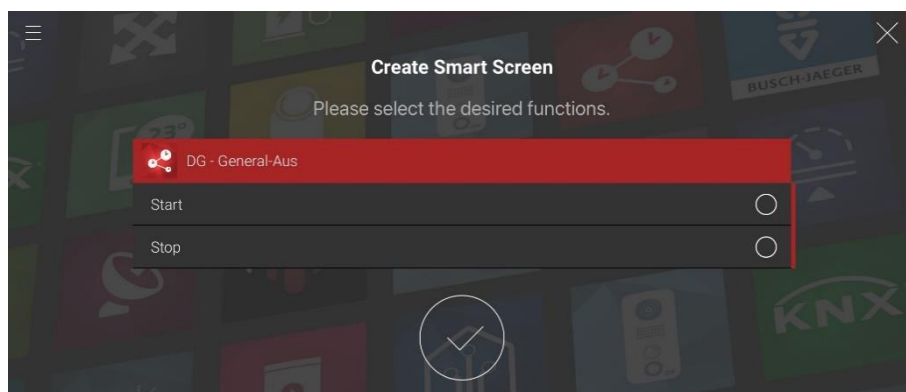


Figure 25; SMART SCREENS - Sequencer / functions

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.



3.3.12 SOUNDTOUCH

To control your BOSE® audio system, you can select the Soundtouch Smart Home App. This allows you to use the following functions:

- Switch: Turn on the device/ Standby
- Switch: Turn on Repeat Mode
- Switch: Party mode on/off
- Selection: Preset load
- Multimedia (play, pause, title jump: forward/ back, mute, volume, shuffle)

The Soundtouch Smart Home App allows the creation up to 10 instances (BOSE® devices).

In order to take over desired functions for central control, you still have to activate them by clicking on the right edge of the corresponding function display.

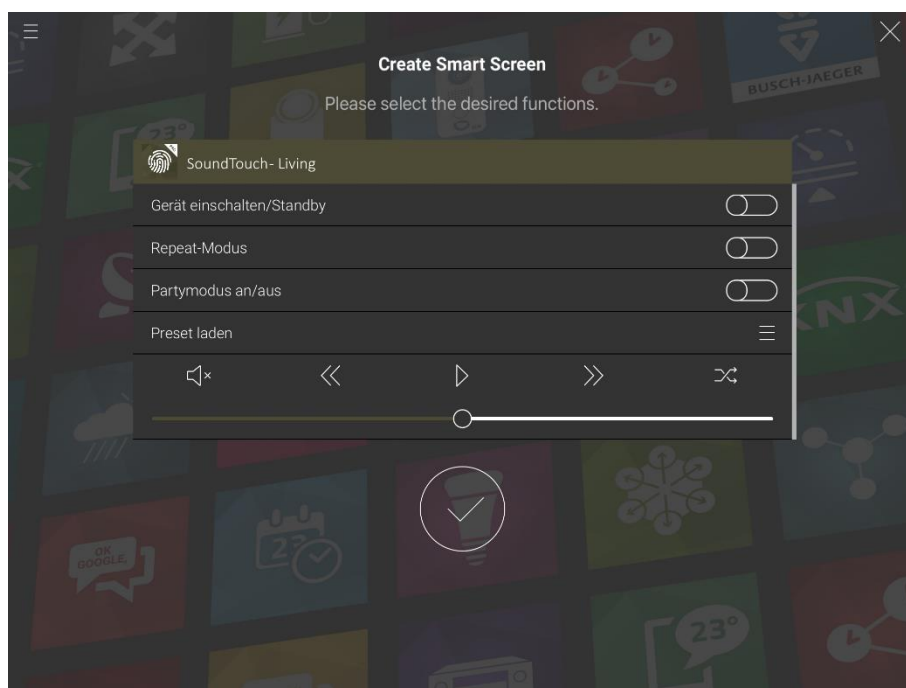


Figure 26: SMART SCREENS - Soudtouch

Selected functions can be deleted by swiping the desired function line to the left. The delete icon appears and you can confirm for deletion.



4 ATTACHMENT

4.1 DATAPOINT 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 Value 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
PriorityControl	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)