frogblue™

SMART BUILDING
TECHNOLOGY
GERMANY

User Manual

frogblue ProjectApp Version 1.8

Wohnzimmer

- Beleuchtung
- Jalousie
- Heizung
- Alarm

frogblue

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Note

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1   About this manual

Read this manual carefully and follow the instructions provided.
This will prevent personal injury and damage to property and ensure reliable operation as well as the long service life of the equipment.

Keep the manual in a safe place.

If you pass on devices for others to use, include this manual.

frogblue AG accepts no liability for damage caused by non-observance of this manual.

If you require further information or have questions about the devices, please contact frogblue AG or visit us on the internet at → *frogblue.com.*

This manual describes how to set up and configure smart home applications quickly and easily with frogblue. You will learn:

- ✓   how to plan a smart home application with Frogs,

- ✓   how to install Frogs,

- ✓   how to configure and manage a frogblue system with the **frogProject** app.

1.1   Who is this manual for?

This manual is intended for electricians and anyone who wishes to plan, configure, and manage smart home applications.

> **Installation, commissioning, and maintenance of the devices may only be carried out by trained electricians with appropriate qualifications.**

1.2   Typographical conventions

The following typographical conventions are used in this manual:

Example	Meaning
`Command`	A command or code is shown in `Courier`.
Screen text	Text that is visible in the user interface is marked in **bold**.

Example	Meaning
Reference	References are marked in *italics*.

1.3 Abbreviations

Abbreviation	Meaning
Bluetooth LE	Bluetooth Low Energy
KNX	Fieldbus for building automation
MAC address	Media Access Control Address
VPN	Virtual Private Network
WLAN	Wireless Local Area Network

2 frogblue – Introduction and overview

Decentralized Bluetooth® network with automatic configuration

frogblue devices are connected to the mains and use wireless Bluetooth® technology to transmit switching commands and data. You therefore do not require any special cables, IT infrastructure or Internet. Communication with smartphones and tablets takes place directly via Bluetooth® without additional devices. frogblue guarantees the highest possible data security based on double encryption of the data, because in addition to the Bluetooth® encryption the frogblue data is also coded a second time (128-bit rollover).

The frogblue system is fail-safe, as the decentralized intelligence means a central unit for function control and communication is not necessary. If two units are outside the Bluetooth® range, any frogblue devices in between will forward messages. For users and installers, this happens automatically and without programming. The switching commands or data information automatically find their way in the frogblue network.

If the frogblue devices are controlled remotely via the **frogProject** app; this is realized by means of a secured VPN connection via the Internet to an in-house frogblue display (via WLAN connection). The double encryption and the VPN connection and frogblue messages guarantee a very high level of data security.

Configuration via naming of messages

The connection between switching inputs and switching outputs (for example between a photoelectric proximity switch and a lamp) is made by naming messages assigned to the inputs or outputs in the **frogProject** app. If the message for the switching input as well as for the switching output has the same name (for example "Kitchen light"), this establishes the connection between the two devices and their inputs or outputs. If another output with the same name (here "kitchen light") is on an additional device, both outputs will be virtually connected to each other and will switch synchronously.

The same applies to other inputs with the same name, so that multi-way switching is easy to realize with multiple light sensors. Switching inputs and outputs can be allocated as desired. The linking and message transmission to the switch take place automatically without further configuration.

Typing and space-based switching operations

By typing inputs and outputs and the space-based configuration of the devices, it is possible minimize the effort involved in configuration. To do this, the individual frogblue devices are allocated to a room (for example "Living room"), and their inputs and outputs are typed, which means an output may be marked as a light or roller shutter control or an input may be marked as a light sensor. Accordingly, these devices are automatically linked by way of the tying switching command "light on in the living room" without further configuration and without name assignment of the inputs and outputs. It does not matter how many devices or inputs and outputs there are in a room.

Such a typing switching command "light on in living room" can be put on any switching input of frogblue devices to switch on the light in that room or start the shadowing from another location, without knowing the number of devices and switching outputs in that room.

Parameterization of switching signals

All switching outputs can be parameterized individually and very specifically. So, amongst other things, the duty cycle, soft starts, dimming characteristics, delayed switching on and off and much more can be configured. The switching inputs can also be parameterized in such a way that, for example, a different duty cycle or brightness of the lamp can be realized depending on the switch.

Overlay of switching signals

Inputs and outputs can have multiple names and as such trigger different switching operations or actions. A light sensor can therefore switch on the living and dining room lights simultaneously and send different messages with different parameters depending on the button touch (short, long, double-click etc.). The overlay of messages to the outputs can allow convenient scenery control or the signaling of incidents, such as the kitchen light blinking when the doorbell rings.

System-wide functions through macros

For the simple configuration of central commands, such as central switching of multiple lamps, macros can be defined and assigned to the devices. If, for example, the central input (central control command for light) on all switches be converted from "double-click" to a "triple click", this only needs to be changed in one place, which is the macro. These macro functions ensure a clear configuration and significantly reduce the configuration effort.

Time control

All frogblue units have time functions for switching. Lamps or roller shutters can be controlled decentral by the devices themselves by way of a weekly schedule. This means that a central unit is not necessary. The time in the individual frogblue modules is synchronized via the Bluetooth® network with special frogblue devices with battery-buffered clocks or GPS time receivers. The frogblue display can as an option be supplied with the current time via its WLAN interface from a time server on the Internet.

This automatic time synchronization via the Bluetooth® network ensures that even after a power failure in all devices, the current time is again available within seconds. Of course, this time synchronization via the frogblue network is encrypted in addition to the Bluetooth® and therefore offers the highest possible security against manipulators.

Logic module decentralized in all devices

In every frogblue device, input and output signals of other frogblue devices can be linked system-wide. So, for example, a lamp can be switched on in addition to the normal operation by overlay for as long as a door is open (once a door contact signals this to a frogblue input module). The logic linking of multiple signals, including together with time conditions or a weekly schedule, is possible and is done decentral in the frogblue devices.

The typing of input signals with attributes, such as window contact, brightness sensor or frost monitor, allows fast implementation of sophisticated logic and control functions. With these functions for example, a children's room lamp can be limited to 30% of the maximum rating or an alarm can only be triggered by open doors on weekends.

Data backup of all data in one file

The entire project configuration of all data, therefore both the configuration data of all frogblue units and the settings on the **frogProject** app, such as passwords and project data, are stored in a single system backup. This system backup can be secured in every single frogblue unit and sent by email. This means that all data of a frogblue installation are stored in only one file.

A system function signals the end user via the display, and if applicable the **frogProject** app, that they are in possession of all the necessary configuration data for their frogblue system. This ensures that the system configuration is available for maintenance by third parties at any time, even if the electrician cannot be reached. The end user also needs the associated project password of course.

Platform-independent on Android, iOS, and Windows

The frogblue software runs on Android, iOS, and Windows. The end user app (**frogControl**) is identical to the app on the frogDisplay, that is the end user only needs to be familiar with one control panel, regardless of whether they are using the display on site or the smartphone app.

2.1   Revolutionary simplicity – the functional principle

This is what you are accustomed to: after the electrician has connected a lamp, the lamp goes on as soon as the button is pressed.
However, this does not allow automatic controls.
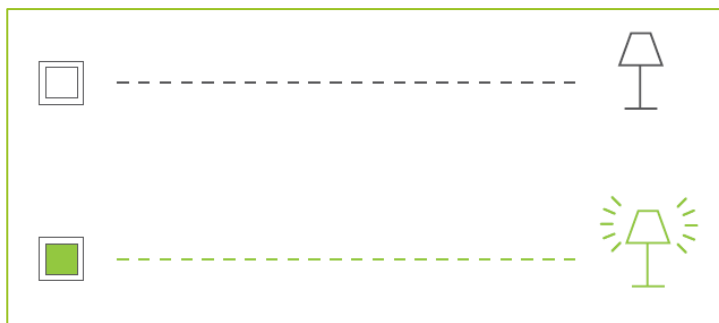
Figure: A connected lamp is switched on when a switch is actuated.

A Frog is connected to the circuit (in a flush-mounted box) to enable controls such as time control or central control.
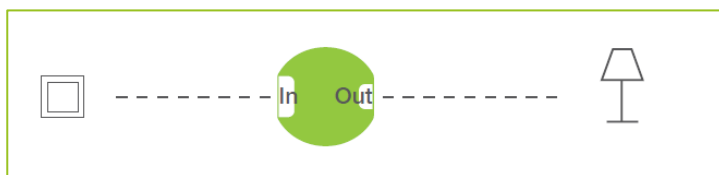
Figure: A Frog is connected to a circuit.

The button is connected to the input **In**, the lamp to the output **Out**.
A text message is assigned to the input **In** via the **frogProject** app, for example **LightOn**.
This is sent when the button is pressed.
If the output **Out** knows the text message **LightOn** (also assigned there via the **frogProject** app), the lamp is switched on when the switch is pressed.
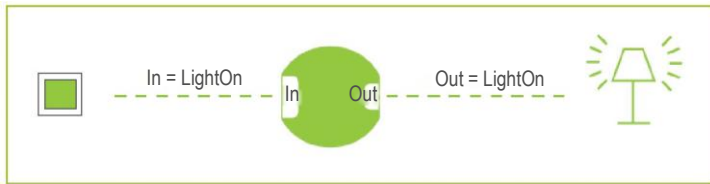
Figure: The Frog switches through when the text message in the input and output match.

If the **Out** output has been configured for another text message, for example for the text message **Lights**, the lamp remains off even if the switch is pressed.
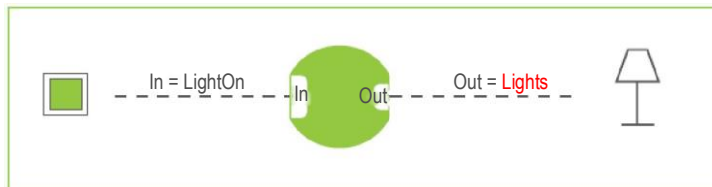
Figure: The Frog does not switch through if the text message in the input and output do not match.

If several Frogs are present in a building, all those frogs at whose output the text message **LightOn** has been configured will switch through.
The Frogs receive the message **LightOn** via Bluetooth®, this is, they are not wired to each other. The message functions like a virtual cable that can be adapted at any time.

If different scenes are to be set up, several messages can be entered both at the output and at the input, for example to make the lamps light up differently.
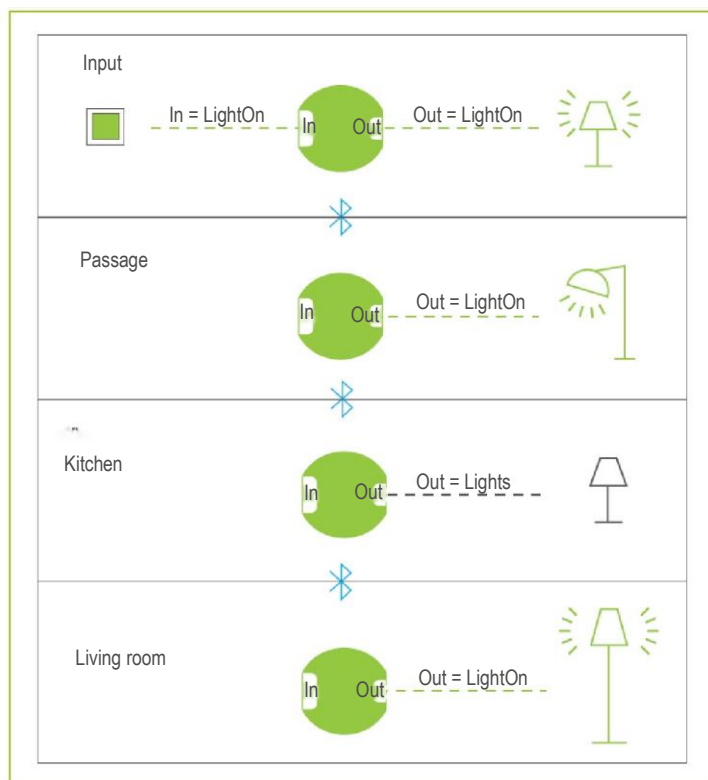
Figure: All Frogs that recognize the text message **LightOn** switch through.

In addition to activating switches, the sending of messages can also be controlled via logic functions.

2.2 frogblue software – an overview

The following frogblue software is available for controlling and configuring a frogblue system:

With the **frogProject** app you can plan, configure, and control a frogblue system. This app provides you with all the features you need to create and manage both simple and sophisticated smart home applications.
You will find detailed information on how to use the **frogProject** app in this manual.

With the **frogControl** app you can easily control the frogblue units for a project set up and configured with the **frogProject** app.
You will find detailed information on how to use the **frogProject** app in the
→ *frogControl User Manual.*

frogware: The software (firmware)) in the Frogs and frogKeys, which contains the system configuration and controls the frogblue system. The **frogware** is downloaded along with the **frogProject** app and must be updated in the Frogs and frogKeys afterwards.
Information on updating the **frogware** can be found in this manual in section
→ *Updating frogware, page 155.*

3 Safety: frogblue devices

The devices are built according to the currently valid rules of technology and are safe to operate. They are tested and leave the factory in a technically safe condition.

Nevertheless, there are residual risks. Read and follow the safety instructions to avoid hazards.

frogblue AG accepts no liability for damage caused by non-observance of safety instructions.

3.1 Notes and symbols used

The following information points out special dangers when handling the devices or provides useful indications:

Danger

Danger to life/serious damage to health

The respective warning symbol in conjunction with the signal word **Danger** indicates an imminent danger that may lead to death or serious (irreversible) injury.

Warning

Severe damage to health

The respective warning symbol in conjunction with the signal word **Warning** indicates an impending danger which can lead to death or serious (irreversible) injury.

Caution

Damage to health

The respective warning symbol in conjunction with the signal word **Caution** indicates a danger that can lead to minor (reversible) injuries.

Attention

Damage to property

This symbol in conjunction with the signal word **Attention** indicates a situation which may result in damage to the product itself or to objects in its vicinity.

This symbol warns of electrical voltage.

Note

The signal word **Note** indicates useful tips and recommendations for efficient handling of the product.

3.2   Intended use

The devices are Bluetooth® receivers and transmitters designed for flush-mounting. The devices form part of the frogblue system.

The devices are intended for the following:

- ✓ operation according to the technical data listed,
- ✓ installation in dry interiors and suitable flush-mounted boxes,
- ✓ use with the connection options available on the devices.

Intended use also includes compliance with all information in this manual.

3.3   Improper use

Any use which is not mentioned under → *Intended use* is considered to be contrary to the intended use and can lead to personal injury and damage to property.

frogblue AG is not liable for damages caused by improper use of the devices. The risk is borne solely by the user or operator.

The devices are not intended for the following:

- Unauthorized structural changes
- Repairs
- Outdoor use without appropriate protective housing

3.4 Safety instructions

Danger – Electrical voltage!

Electrical voltage! Danger of death and fire due to electrical voltage of 100 ... 240 V.

Direct or indirect contact with live parts results in a dangerous body current.
Electrical shock, burns or death can result.

Work on the 100 V... 240 V mains must only be carried out by qualified electricians.

Switch off the mains voltage before mounting or dismounting.

Never use the devices with damaged connection cables.

Do not open any firmly screwed or glued covers on the housing of the devices.

Only use the devices if they are in perfect technical condition.

Do not make any changes or repairs to the equipment, its components, or accessories.

Keep the units away from water and humid environments.

Attention! - Equipment damage due to external impact!

Moisture and soiling of the devices can lead to the destruction of the devices.

Protect the equipment from moisture, dirt and damage during transport, storage and operation.

Attention! - Fire hazard!

When operating with inductive transformers, protect each transformer on the primary side according to the manufacturer's instructions. Only use safety transformers according to EN 61558-2-6210-4 (VDE 0570 part 2-6:2010-04).

Attention!

Do not connect luminaires with integrated dimmers.

4   Security: frogProject app – passwords

All device configurations of the frogblue devices are saved in the **frogProject** app in a project configuration with the help of a project file.

The project is protected by three passwords:

- ✓   project password
- ✓   device key
- ✓   random network key

Project password

> The project password protects the project file on the tablet or laptop. A project file can only be imported to another device if the correct project password is entered.
>
> The project password is assigned by you when you create a project with the **frogProject** app.

> **Keep the project password in a safe place!**
>
> You need the project password to restore a project or to transfer a project to another device.

Device key

> The device key secures communication with the frogblue devices, that is accessing the Frogs with a tablet. Only with the device key can you change the device configuration.
>
> The device key is assigned automatically when you create a project on the **frogProject** app and is identical to the project password.

> **Keep the device key in a safe place!**
>
> Only with a device key can you access to a Frog via Bluetooth®.

> **Project password and device key**
>
> When you create a new project and therefore assign a project password to the project, a device key identical to the project password is automatically assigned.
>
> The project password can be shared with third parties, for example a technician who has configured the project. Once the project configuration is complete, you should change the device key to protect the device configuration in the Frogs from unauthorized access.
> After changing the device key, you can still configure the **frogProject** app on the tablet. However, the device configuration is always carried out using the device key.

Changing the project password and device key

> You can change both the project password and the device key at a later stage.
> If the device key is changed, all frogblue devices must be updated.

Project password and device key have been lost

> If the project password and the device key are no longer available, any frogblue device can be reset using a reset key. The reset key is always printed on the housing of the device and is only valid for that device.

Radom network key

The key for communication between the devices is randomly assigned when the project is created and can be reset if the device key is changed.

Note

When devices are removed from the project, the key for the network should be reset.

5   Notes on environmental protection

This symbol indicates that this product must not be disposed of with normal household waste in accordance with local laws.

Please take your old electrical equipment to a designated collection point.

Batteries and rechargeable batteries must not be disposed of with household waste, but you are legally obliged to return used batteries and rechargeable batteries.

Used batteries can contain harmful substances which, if not stored or disposed of properly, can harm the environment or your health. However, batteries also contain important raw materials such as iron, zinc, manganese, or nickel, which can be recycled. Please return the batteries free of charge after use in your immediate vicinity (for example in shops or municipal collection points).

Handling batteries

Keep batteries away from children!

Remove batteries if they have gone flat or if the unit has not been used for an extended period of time.

If a battery has leaked, remove all batteries, and ensure that skin and clothing do not come into contact with the liquid.
Battery fluid is corrosive and may be toxic. If this happens, rinse the affected area thoroughly under running water. Use a slightly moistened paper towel to clean the unit. Only use batteries of the correct size and type.

The declarations of conformity according to CE marking for the products can be found below:
→ *https://www.frogblue.com/de-de/support/downloads/*

6   General wiring instructions

> **Installation, commissioning, and maintenance of the devices may only be carried out by trained electricians with appropriate qualifications.**

The electrician must have read and understood the manual and follow the instructions.

The electrician must comply with the national regulations applicable in their country regarding the installation, functional testing, repair, and maintenance of electrical products.

The electrician must be familiar with and correctly apply the "Five Safety Rules" (DIN VDE 0105, EN 50110):

1. Unlock

2. Secure against restarting

3. Determine the absence of voltage

4. Grounding and short-circuiting

5. Cover or barrier adjacent live parts.

In this chapter you will find information on:

VDE certifications

Information on VDE certifications.
→ *VDE – Tested and certified, page 19.*

Installation information

Frogs are connected in flush-mounted boxes. We recommend deep, ideally larger-sized flush-mounted boxes for new construction or renovation projects. Detailed information on the installation of a Frog can also be found in the enclosed operating instructions for the respective Frog.
→ *Installation information, page 20*

Wiring examples

Typical Frogs wiring examples in flush-mounted boxes are presented here.
→ *Wiring examples, page 23.*

Range of Frogs

The typical free field range for Frogs is about 30 meters. Inside a building, the range is up to 10 meters, depending on the structure of the building. In the case of influencing factors or greater distances, you can simply connect a Frog as a repeater in between.
→ *Range of Frogs, page 29.*

6.1 VDE – Tested and certified

The technical conformity of the product with the requirements of the harmonization regulations is demonstrated by the technical documentation and compliance with the following standards:

DIN EN 60669-1 (VDE 0632 Part 1):2009-10; EN 60669-1:1999 + A1:2002 + A2:2008

IEC 60669-1:1998 + IEC 60669-1:1998/AMD1:1999 + IEC 60669-1:1998/AMD2:2006

Switches for household and similar fixed electrical installations – Part 1: General requirements

DIN EN 60669-2-1 (VDE 0632-2-1):2010-03; EN 60669-2-1:2004 + A1:2009

IEC 60669-2-1:2002 + IEC 60669-2-1:2002/AMD1:2008

Switches for household and similar fixed electrical installations – Part 2-1: Particular requirements – Electronic switches

DIN EN 60669-2-1/A12 (VDE 0632-2-1/A12) 2010-09; EN60669-2-1:2004/A12:2010

Switches for household and similar fixed electrical installations – Part 2-1: Particular requirements – Electronic switches

DIN EN 60669-2-5 (VDE 0632-2-5):2017-05; EN 60669-2-5:2016

IEC 60669-2-5:2013

Switches for household and similar fixed electrical installations – Part 2 -5: Particular requirements – Switches and similar accessories for use in home and building electronic systems (ESHG)

DIN EN 50428 (VDE 0632-400):2010-02; EN 50428:2005 + A1:2007 + A2:2009

Switches for household and similar fixed electrical installations – Collateral standard – Switches and similar accessories for use in home and building electronic systems (ESHG)

Note

Updates and additional information can be found on the website at → *frogblue.com*.

Note

frogblue cannot guarantee that all LED lamps will work correctly due to the large number of manufacturers and lamp types.
In particular, if non-dimmable lamps are connected to a dimmer, the lamps may not switch off completely.

6.2   Installation information

Frog are simply connected to the household power supply. Further cables or other wiring between the Frogs is not required.

We recommend using the Frogs with rigid conductors.

Note

When planning, make sure that there is sufficient space for frogs *and* normal wiring. Choose sufficiently large flush-mounted boxes or provide sufficient space for the Frogs and the wiring.

If there is not enough space for Frogs and wiring, the following measures are recommended:

    ✓   Installation of Frogs behind a cavity wall.

    ✓   Provision of a second multiple-unit flush-mounted box. For example, an unused chamber of a multiple-unit flush-mounted box can be used as a socket.

    ✓   Use of larger flush-mounted boxes with an additional side connection space. Use the → *flush-mounted boxes for new construction or renovation projects*, as presented in the next section.

    ✓   Install the Frog behind a lamp or behind a suspended ceiling.

Reset key

On each Frog, a reset key is printed on the back of each Frog. Make a note of the reset keys of all frogs before installing them and keep the reset keys in a safe place. You can use a reset key to reset a Frog if necessary.
For information on resetting Frogs, see section → *Resetting a frog, page 122.*

6.2.1   Flush-mounted boxes

Note

When selecting the flush-mounted box, make sure that there is sufficient space for the Frog *and* the normal wiring.

Boxes for flush mounting

→ *f-tronic GmbH: Flush-mounted box, solid, 2-unit, Type: UP20*

→ *f-tronic GmbH: Flush-mounted box, solid, 3-unit, Type: UP30*

→ *f-tronic GmbH: Flush-mounted box, solid, 4-unit, Type: UP40*

Boxes for mounting in hollow walls

For installation in hollow walls, we recommend the following combinations of two, three or four boxes, since they offer more space for the Frog and the wiring:

→ *f-tronic GmbH: Hollow wall box, solid, 2-unit, Type: HW20*

→ *f-tronic GmbH: Hollow wall box, solid, 3-unit, Type: HW30*

→ *f-tronic GmbH: Hollow wall box, solid, 4-unit, Type: HW40*

Flush-mounted boxes for new construction or renovation projects

For new construction or renovation projects, we recommend the following larger-sized flush-mounted boxes for more convenient installation of Frogs:

→ *KAISER GmbH & Co. KG: Electronic box ECON® Flex*

→ *KAISER GmbH & Co. KG: Electronic box*

6.3 Wiring examples

The following examples show how a Frog and the wiring are distributed in the corresponding flush-mounted box. It is often advisable to use larger flush-mounted boxes than the wiring logic would require. This guarantees you greater flexibility so that the frogblue system can be expanded even after the planning phase has been completed.

6.3.1 frogIn3-AC in 2-unit flush-mounted box

The following circuit diagram shows the wiring of a frogIn3-AC is located in a 2-unit flush-mounted box.

In the lower chamber of the 2-unit flush-mounted box, the voltage is connected through.

The frogIn3-AC is located in the chamber of the 2-unit flush-mounted box.
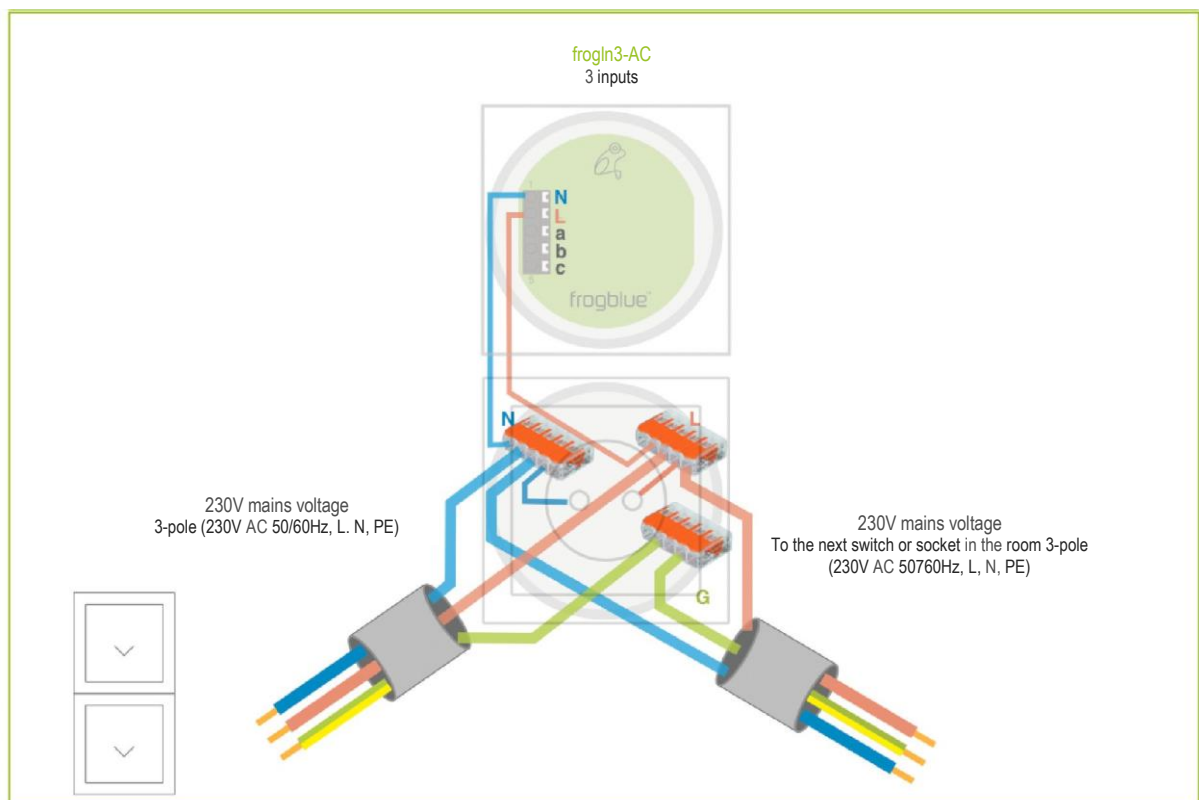
Figure: Wiring of a frogIn3-AC in a 2-unit flush-mounted box.

The following is suitable as a 2-unit flush-mounted box: → *f-tronic GmbH: Flush-mounted box, solid, 2-unit, Type: UP20.*

Figure: f-tronic GmbH: Flush-mounted box solid, 2-unit, type: UP20.

6.3.2   frogDim1-3 in 2-unit flush-mounted box

The following circuit diagram shows the wiring of a frogDim1 -3 in a 2-unit flush-mounted box.

In the lower chamber of the 2-unit flush-mounted box, the voltage is connected through.

The frogDim1 -3 is located in the upper chamber of the 2-unit flush-mounted box.

Figure: Wiring of a frogDlm1 -3 in a 2-unit flush-mounted box.

The following is suitable as a 2-unit flush-mounted box: → *f-tronic GmbH: Flush-mounted box, solid, 2-unit, Type: UP20.*
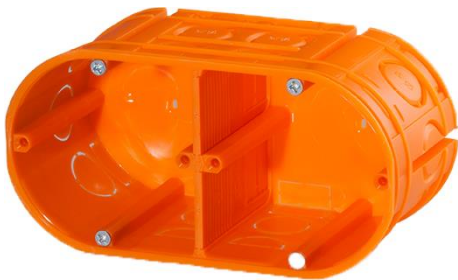
Figure: Flush-mounted box solid, 2-unit, type: UP20.

Also a 3-unit flush-mounted box such as the → *f-tronic GmbH: Flush-mounted box solid, 3-unit, type: UP30* could be used to ensure that there is sufficient space for the Frog and the wiring as soon as the connections of the frogDim1-3 are to be wired.

6.3.3 frogDim1-3 with connected lamp

The following circuit diagram shows the wiring of a frogDim1-3 in a 3-unit flush-mounted box.

In the lower chamber of the 3-unit flush-mounted box, the voltage is connected through.

The frogDim1-3 is located in the middle chamber of the 3-unit flush-mounted box.

The wiring to the branch circuit is located in the upper chamber of the 3-unit flush-mounted box.
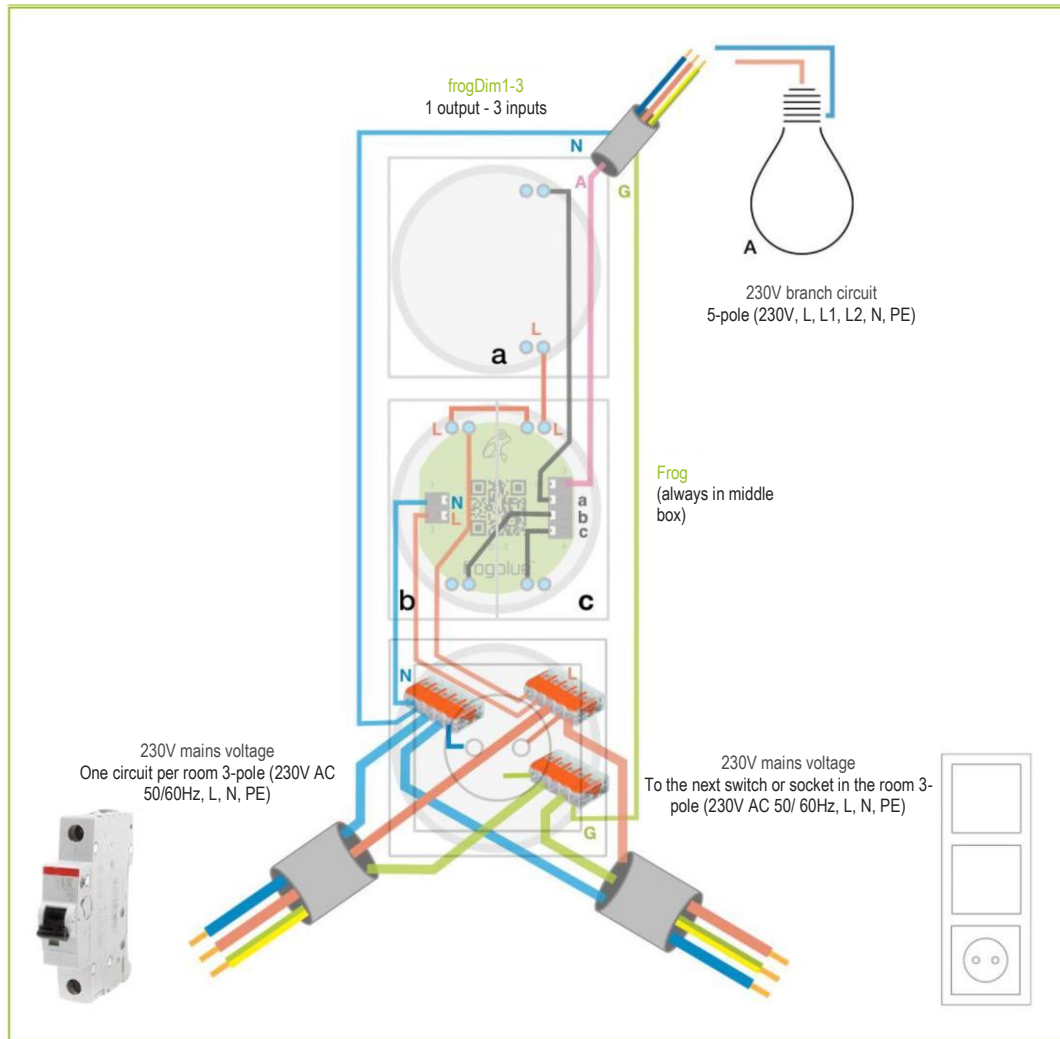
Figure: Wiring of a frogDim1 -3 in a 3-unit flush-mounted box.

The following is suitable as a 3-unit flush-mounted box: → *f-tronic GmbH: Flush-mounted box, solid, 3-unit, Type: UP30.*

Figure: Flush-mounted box solid, 3-unit, type: UP30.

6.3.4 frogDim2-2 with two connected lamps

The following circuit diagram shows the wiring of a frogDim2-2 in a 3-unit flush-mounted box.

In the lower chamber of the 3-unit flush-mounted box, the voltage is connected through.

The frogDim2-2 is located in the middle chamber of the 3-unit flush-mounted box.

The wiring to the branch circuit is located in the upper chamber of the 3-unit flush-mounted box.
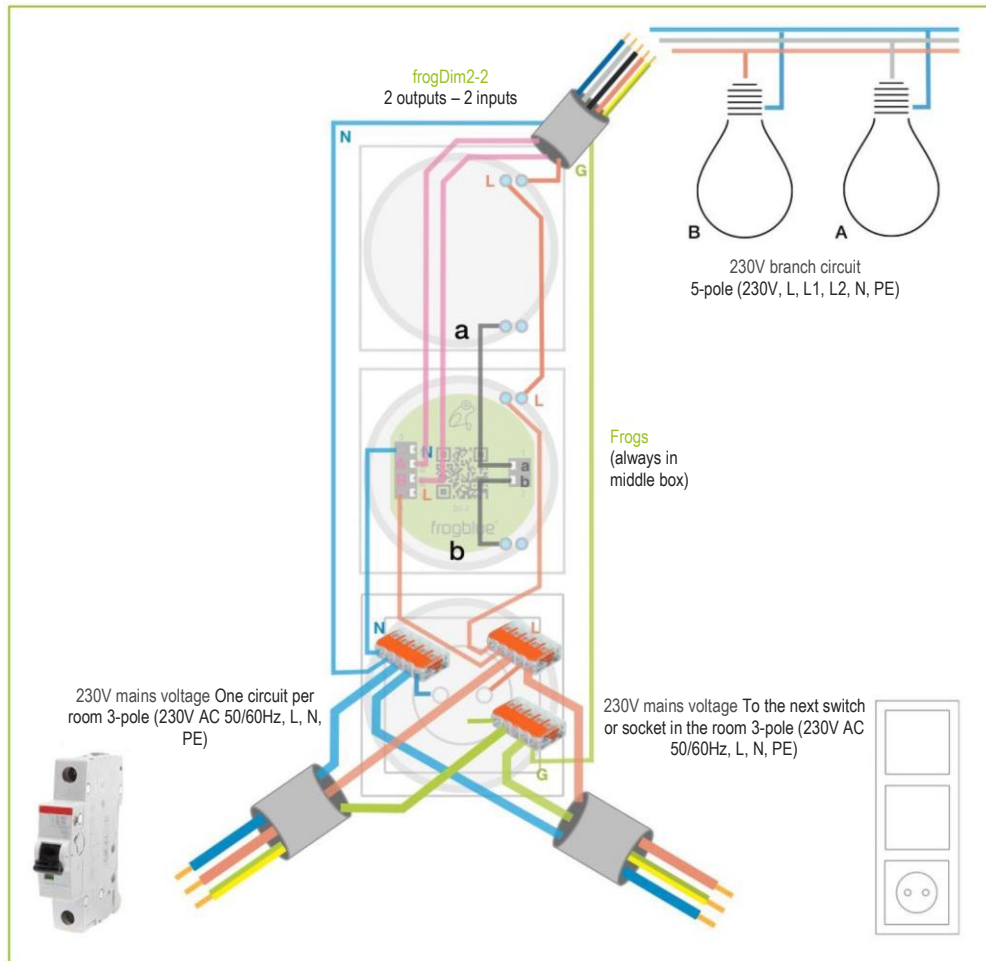
Figure: Wiring of a frogDim2 -2 in a 3-unit flush-mounted box.

In addition to the 3-unit flush-mounted box such as the → *f-tronic GmbH: Flush-mounted box solid, 3-unit, type: UP30,* a 4-unit flush-mounted box such as the → *f-tronic GmbH: Flush-mounted box solid, 4-unit, type: UP40* would also be suitable so as to ensure that there is sufficient space for the Frog and the cabling.

Figure: Flush-mounted box solid, 4-unit, type: UP40.

6.3.5   Bedroom scenario

The following diagram shows how different electronic devices in a bedroom can be controlled with Frogs.

When planning, make sure that there is sufficient space for the Frogs and for the wiring by means of deeper flush-mounted boxes or flush-mounted boxes with an additional lateral connection space.
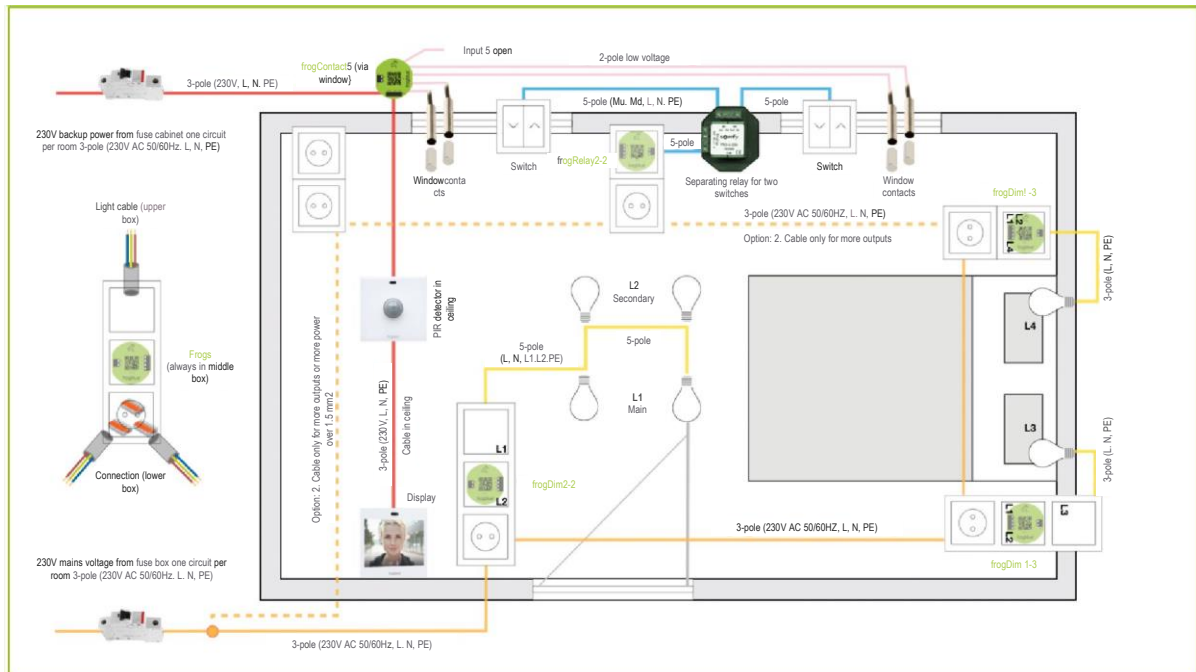
Figure: Wiring for one bedroom to control several lamps and electronic devices.

The following circuits are shown:

- **yellow/orange:** Basic circuit.

- **blue:** Window circuit.

- **red:** Emergency power, can be connected to the yellow/orange circuit (optional).

   If the basic circuit fails, the emergency power supplies the display so that the frogblue system can still be operated. In addition, the frogContact5 and the frogMotion remain supplied with power, so the functions of the motion detector and alarm system remain guaranteed.

6.3.6   Bathroom scenario

The following diagram shows how different electronic devices in a bathroom can be controlled with Frogs.

When planning, make sure that there is sufficient space for the Frogs and for the wiring by means of deeper flush-mounted boxes or flush-mounted boxes with an additional lateral connection space.
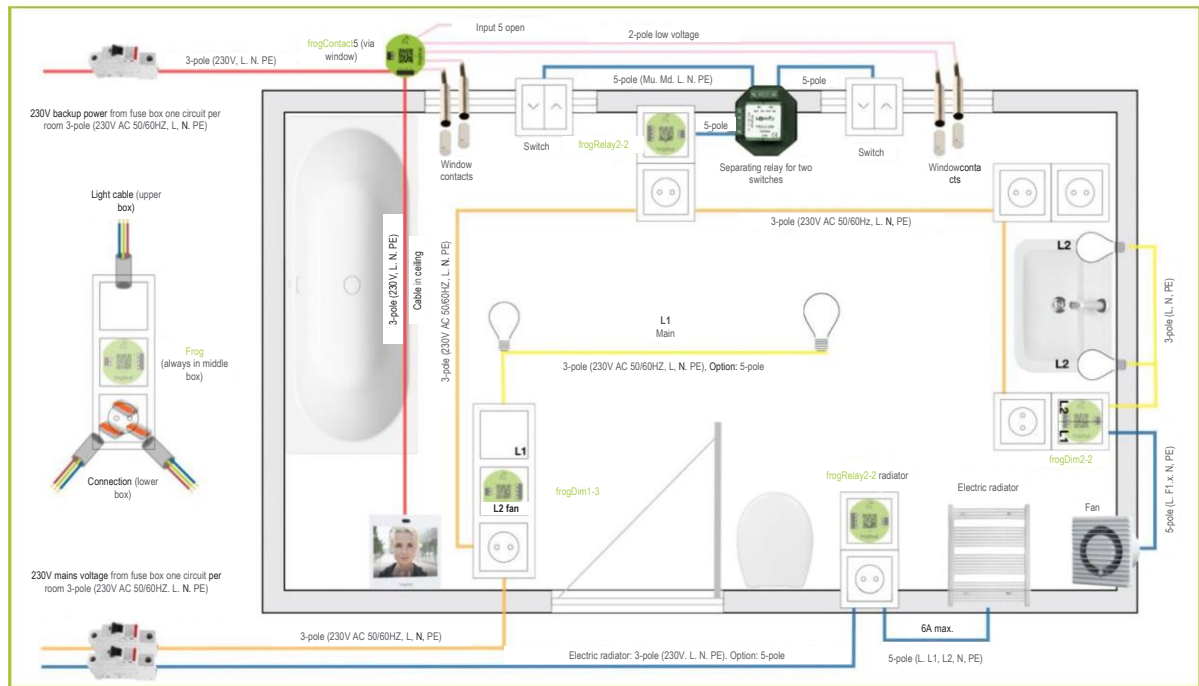
Figure: Wiring for a bathroom to control several lamps and electronic devices.

The following circuits are shown:

- **yellow/orange:** Basic circuit.

- **blue:** Window and heating circuit.

- **red:** Emergency power, can be connected to the yellow/orange circuit (optional).

  If the basic circuit fails, the emergency power supplies the display so that the frogblue system can still be operated. In addition, the frogContact5 remains supplied with power, so the function of the alarm system remains guaranteed.

6.4   Range of Frogs

Frogs communicate with each other via Bluetooth®. The typical free field range for Frogs is about 30 meters.

The range essentially depends on which building materials have been used and which sources of interference are present. Typical sources of interference for Bluetooth® are microwaves, LCD displays or wireless loudspeakers. Devices operating within a bandwidth between 2.4 GHz and 5 GHz are often responsible for a disturbed Bluetooth® connection.

To ensure a secure Bluetooth® connection between the Frogs, the recommendation is to measure the Bluetooth® field strength via the tablet and, if necessary, connect a Frog as a repeater in between. The field strength is displayed in the **frogProject** app.

Figure: An additional Frog is connected between the living room, bedroom, and children's bedroom (diagram).

A Frog which is used as repeater may only be connected to the power in the flush-mounted box and added to the project via the **frogProject** app. The inputs and outputs do not have to be configured. Any Frog can be used as a repeater.

Note

Messages are automatically forwarded or redirected.

7 Installing and updating the frogProject app

You can install and use the **frogProject** app on the operating systems iOS, Android and Windows (full version) .

You can download the **frogProject** app from the Google Play Store and the Apple App Store.

You can download the Windows version of **frogProject** from the frogblue website.
→ *frogblue.com.*

Note

The Android and iOS versions of the **frogProject** app run exclusively on tablets.
The Android and iOS versions of the **frogProject** app can be found in the Google Play Store and in the Apple App Store via tablet only.

Note

If a new version of the **frogware** is available, the latest version of the **frogware** is automatically downloaded along with the **frogblue Project** app.

Android: Is stored in the internal memory in the **Documents** folder.

iOS: Is stored in the internal memory.

Windows: Is stored in the **/User/***Username***/Documents/frogblue** folder.

For information on updating the **frogware** of Frogs and frogKeys, see → *Updating frogware, page 155.*

Search the Google Play Store for **frogProject.**
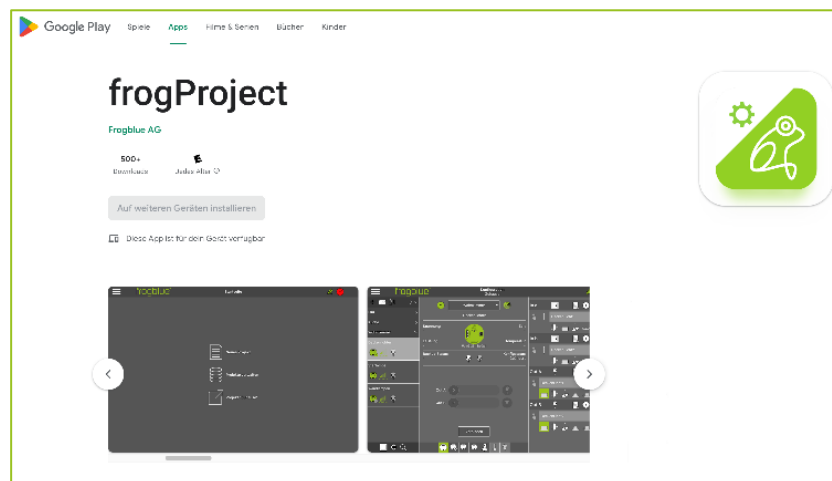
Figure: **frogProject** app in the Google Play Store.

In the Google Play Store, tap **Install** to install the **frogProject** app.

Search the Apple App Store for **frogProject**.
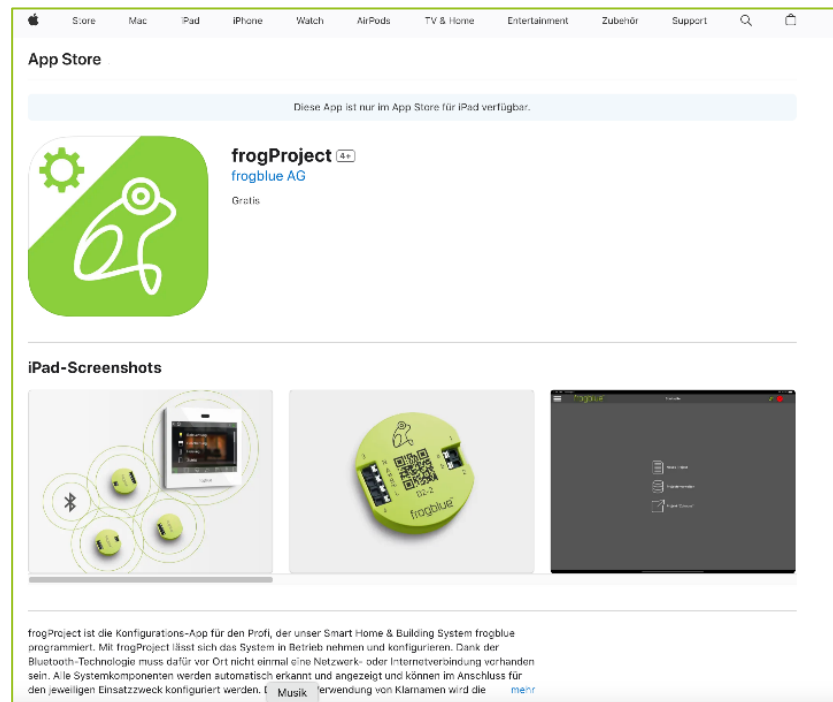
Figure: **frogProject** app in the Apple App Store.

In the Apple App Store, tap **Install** to install the **frogProject** app.

7.1 Starting frogProject

> **Note**
>
> Make sure Bluetooth® (version 4.2 or higher) is enabled on your tablet.
> Android: **Settings** - > **Connections** -> **Bluetooth**
> iOS: **Settings** - > **Bluetooth**

To start the **frogProject** app, tap the following button on your tablet after the installation
frogProject

When starting the **frogProject** app, allow access to the location of the device. This is required by
Bluetooth®.

Allow access to the photos, media, and files so that configuration files can be saved.

Assign a name to the tablet. This can be used to determine on which tablet a configuration was
created.

The start screen is displayed.
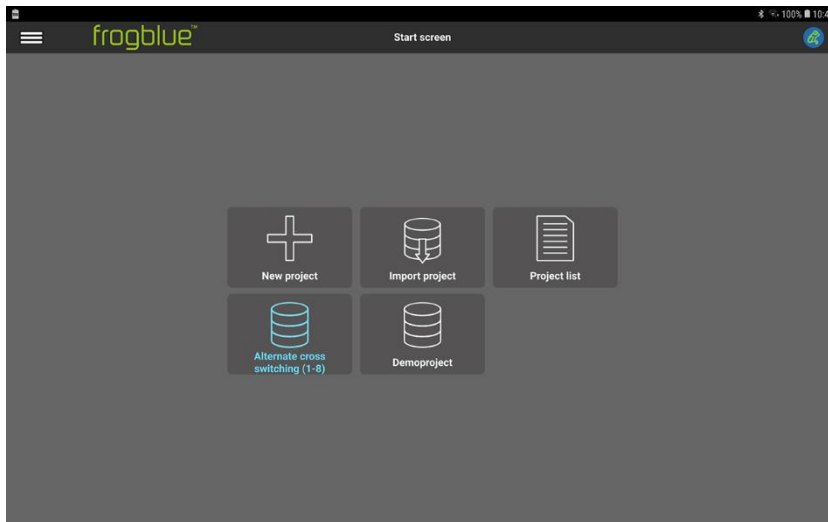
Figure: Start screen of the **frogProject** app.

7.2   Installing the frogProject app in Windows

The **frogProject** app can be used on Windows 7/8/10 64bit. A USB2.0 interface and a frogLink are required.
For information on frogLinks, see → *Configuring frogLinks, page 141.*

1. Download the **frogProject** app from the frogblue website → *frogblue.com*

2. Unzip the zip file.

3. Double-click the unzipped .exe file.

4. Follow the installation instructions on the screen.

    During installation, a dialog box for installing device software is displayed.
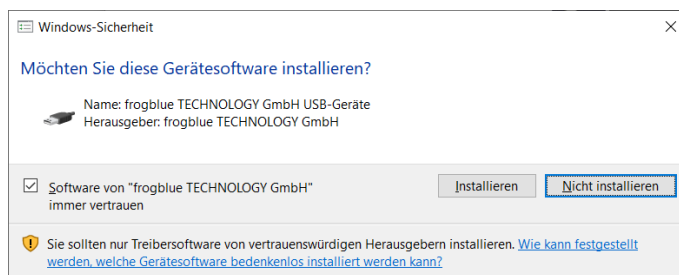
    Figure: Dialog box for installing the device software.

5. Click **Install**.

    The **frogProject** app is installed.

    During installation, the **frogware** is stored in the folder **User/*Username*/Documents/frogblue**.

    To be able to use the **frogProject** app in Windows, you need a frogLink for which editing mode **frogblue mode** is configured. A frogLink is a Bluetooth® LE USB stick for the configuration and control of the frogblue components with Windows computers.
    For information on how to configure a frogLink, see section → *Configuring frogLinks, page 141.*

7.3   Updating the frogProject app

New versions of the **frogProject** app are available for download in the Google Play Store or Apple App Store.

A new version of the **frogware** can also be made available with a new version of the **frogProject** app. When the **frogProject** app is downloaded, the **frogware** is automatically downloaded along with it.

> **Attention!**
>
> While the **frogProject** app can be updated automatically, the **frogware** must be updated manually on the Frogs. On this point, see the next section → *Updating frogware, page 155.*
>
> If the **frogware** is not updated, new functions provided by the updated **frogProject** app cannot be used.

Depending on the settings in the Google Play Store the **frogProject** app will be updated automatically.

How to check on an Android device whether apps are updated automatically:

1. Open the **Play Store** app.

2. Tap the **Menu** icon, then tap **Settings**.

3. Tap **Automatic app updates**.

4. Check the option **Do not update app automatically**.

Depending on the settings in the Apple App Store, the **frogProject** app will be updated automatically.

How to check on an iOS device whether apps are updated automatically:

1. Open the Apple App Store.

2. Tap **App Store** and then **Preferences**.

3. Check the **Automatic Updates** option.

8 frogProject – Overview of icons and color codes

This chapter provides an overview of the functions of the icons and the color codes used for the configuration screen.

The devices of the frogblue system are configured in the configuration screen.

The configuration screen is divided into the following areas:

- **Title bar:** Here the menu is available and access to various configuration options is provided.

- **Device list**: Here all devices such as Frogs, frogKeys, or frogDisplay that have been added to the project are listed.

- **Display area**: Here an overview is provided of a selected device. In the display area the configuration of the device can be saved, and switches can be configured.

- **Configuration area**: Here the inputs and outputs of the device can be configured.

- **Footer**: Further options are available here for the individual areas.
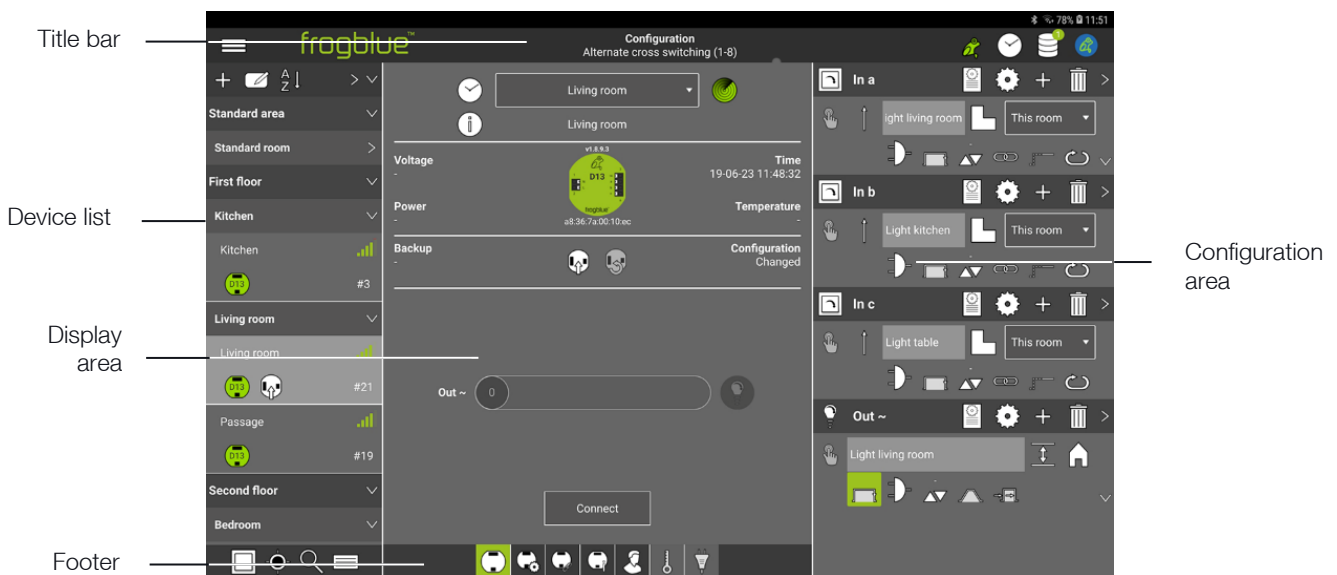
Figure: **Configuration** screen.

In the following sections, the icons are introduced along with the colors and color codes for the individual areas.

8.1   Title bar

☰	**Menu**	Access to all functions.	
	Backup status	Display the current backup status.	
🕐	**Time server configuration**	Configuration of the Time Frog.	
	Creating a backup	Save the configuration in a Frog or file.	→ *page 155*
	Integrated Bluetooth	If a frogDisplay is available in the project, an IP connection to the frogDisplay can be established here.	

Colors and color codes in the title bar

🕐	**Time server configuration**	white	Status OK.
		red flashing	At least one Frog has the wrong time.
		blue flashing	The Time Frog just sent a message.
		white flashing	An error has occurred.
	Backup status	red	No project backup was saved, or the configuration of a Frog was changed, and no project backup was saved in the frogs.
		green	The project backup matches the configuration of the Frogs. The system is up to date.
		with crown	Project password and device key match the last project backup.
		without crown	Project password and device key do not match the last project backup.

8.2 Device list

▢	**Search for inputs**	Displays the nearest Frog where an input signal is registered.	
◉	**Show room**	Displays the room of the currently selected Frog.	
🔍	**Search for Frogs/rooms**	Search for Frogs or rooms using a keyword.	
▭	**Display details**	Displays the detailed information of the devices in the device list .	
✚	**Add**	Add Frogs, rooms, and areas to a project.	→ *page 60*
✐	**Edit**	Edit mode for adding rooms.	→ *page 66*
↓AZ	**Sort devices**	Sorting of devices according to different criteria.	
D22	**Select Frog**	Selection of a Frog to display the details in the display area and configuration area.	→ *page 65*

Colors and color codes in the device list

D22	**Frogs**	green	Standard
		Frog with clock symbol	Time Frog
		blue	Master
		white	Clone
		orange	Clone with old configuration.
-68dbm	**Signal strength**	green	Within direct range the tablet.
		orange	In mesh range.
		red	Unavailable.
		blue	Connected.
		white	Connection is being established.

8.3   Display area

	Time Frog	Frog with clock (displayed on the bottom right of the Frog.)	
	Room detection	Activating room detection.	→ *page 126*
	Device note	Here you can add a note text for the device.	
	Save configuration	Load configuration onto Frog.	→ *page 127*
	Undo changes	Undo the changes since the last save.	→ *page 127*
	Load configuration	Loads the configuration of the frogDisplay into the **frogProject** App.	
Connection		Establishing a fast Bluetooth® connection to a Frog.	→ *page 198*
	Frog view	View of the configuration of a Frog (standard view).	→ *page Fehler! Textmarke nicht definiert.*
	Advanced device settings	Definition of power limits for outputs, input debounce time, dim curves and lamp failure detection.	→ *page Fehler! Textmarke nicht definiert.*
	Master/clone configuration	Configuration of master and clone frogs.	→ *page 122*
	Status	Display of how inputs and outputs are assigned	→ *page 125*
	User view	View to add buttons and switches to a Frog.	→ *page 78*
	Monitor temperature	Monitoring the temperature in housing of the Frog.	→ *page 126*
	Power measurement	Measuring power consumption at the outputs.	→ *page 126*

8.4 Configuration area

In the configuration area you can configure the inputs and outputs.

8.4.1 Inputs

In a, In b,…		Name of the input	→ *page 70*
▣	**Macro**	Assigning a macro to an input.	→ *page 174*
⚙	**System group**	Assigning a system group to an input.	→ *page 185*
?	**Function**	A selection of the following functions for an input:	→ *page 71*
	▢	**Button - light**	A button.
	◠	**Button - dim**	A button for a dimmable lamp.
	◠	**Button - dim to warm**	A button for a dimmable heat lamp.
	🔳	**Button - color shift**	A button for controlling the color.
	🔳	**Button - tunable white shift**	A button to control the light intensity and color.
	🔳	**Button - custom**	A button that can be configured individually.
	I	**Button - on**	A button for a lamp which switches on at click.
	0	**Button - off**	A button for a lamp which switches off at click.

RGBW presets

	🔳	**2-buttons control – bright ness**	A button for controlling the hue of a light device.
	🔳	**2-buttons control - color**	A button for controlling the saturation of a light device.
	🔳	**1-button control**	A button on with a function key for control.
	🔳	**1-button control - tunable white**	A button for controlling the color temperature of a light device.

Motor

	Button - shutter	A button for a roller shutter to go up and down.
	Button - screen	A button for a screen to go up and down.
	Button - skylight	A button to open and close a skylight.
	Button - awning	A button for an awning to go up and down.
	Button – custom motor	. A button for a user defined motor.

Door

	Button - bell	A button for a bell.
	Button - door	A button for opening a door.
	Button – furniture lock	A button to open a furniture lock.

Ventilation

	Button - ventilation	A button to regulate a ventilation.
	Button – adjustable ventilation	A button to regulate an adjustable ventilation.

Status

Predefined statuses: **Status, Status night**, **Status alarm**, **Status frost**, **Status wind, Status smoke, Status rain, Status fire, Status gas, Status flow, Status level, Status leak, Status window tilted, Status window open**, **Status window closed**, **Status door open, Status door closes, Status door locked, Status furniture door open Status furniture door closed, Status furniture door locked, Status garage open, Status garage closed, Status garage locked, Status gate open, Status gate closed, Status gate locked**.

Other

	Switch	Ein einfacher Schalter.
	Motion	Möglichkeit, um einen Bewegungsmelder abzufragen.
	Custom	Möglichkeit, um einen eigenen Taster zu definieren.
	Scene	Möglichkeit, einen Schalter in eine Szene zu integrieren.

Function macro

	Save	→ *page175*

	Action	A selection of the following actions for an input:	→ *page 72*
—	**Inactive**	The input is not assigned.	
	Status	A status message is sent whenever there is a change in status. If there is no change, the status is repeated cyclically.	
	Rising	Short input signal in the case of a ascending edge. A change of 0 to 1.	
	Falling	Short input signal in the case of an ascending edge. A change of 1 to 0.	
	Edge	Short input signal in the case of an ascending and falling edge.	
	Click	A short input signal < 250 ms (the value can be changed in the settings).	
	Double click	Two input signals in short succession.	
	Triple click	Three input signals in short succession.	
	Hold	Levels 0 and 1 are available. The signal is triggered when for longer than 250 ms (default) level 1 is present, that is, the switch is closed. A level hold time increases this 250 ms by the hold time.	
	Release	The signal is triggered when the level (set hold time) has elapsed, and the button is released (long hold time).	
	Click hold	The signal is triggered if, after a click, the signal is present for longer than 250 ms or if the button is held down again after a click.	
	Click release	The signal is triggered when the button is held again after a click and then released.	
	Double click hold	The signal is triggered if the signal is present for longer than 250ms after a double click, or if the button is held down again after a double click.	
	Double click release	The signal is triggered when the button is held again after a double click and then released.	

Enter signal		Entry field to define messages.	→ *page 71*
	Add messages	Add further messages to an input.	→ *page 80*
	Send message	Send message immediately.	→ *page 71*
	Range	Range of the message in the frogblue system.	→ *page 117*
	Gate/Time editor	Gate/Time editor to define logic functions.	→ *page 103*
	Minimal on	Minimal on time. Time adjustable from 1/10s to 63h.	→ *page 106*
	Dim	Values for dimming: up/down activate/deactivate; brightness pre-settings; dimming speed.	→ *page 106*
	Input matrix	Logical linking of inputs.	→ *page 107*
	Hold time	Dead time for **Hold** and **Release** actions.	→ *page 108*
	Rolling messages	Sending the next message with the same action.	→ *page 108*
	Shutter	Setting the shading position and slat position for roller shutters.	→ *page 112*
	Status	Definition of a status.	→ *page 109*

8.4.2   Outputs

Out A, Out B	Name of the output.	→ *page 73*
Macro	Assigning a macro to an output.	→ *page 174*
System group	Assigning a system group to an output.	→ *page 185*
Function	A selection of the following connections for an output:	→ *page 74*

Light

	Light	A switchable light.
	Dimmable light	A dimmable light.
	Status light	Shows the state for a status (does not respond to **TYPE:Light**).

Door

	Bell	A simple doorbell.
	Door	Connection for a door.
	Gate	Connection for a gate.
	Garage	Connection for a garage.
	Furniture lock	Connection for a furniture lock.

Ventilation

	Ventilation	Connection for a ventilation.
	Adjustable ventilation	Connection for an adjustable ventilation.

Other

	Irrigation	Connection for an irrigation.
	Pump	Connection for a pump.
	Heating	Connection for a heating.
	Climate	Connection for a cooling system.
	Custom	Possibility to define your own connection.

Function macro

	Save	→ *page175*

	Action	A selection of the following actions for an output:	→ *page 75*
	Toggle	Switch on and off.	
	Switch in	Switch on only.	
	Switch off	Switch off only.	
	Follow	Follow the status of another output, → *page 116.*	
	Dim	Dimming from minimum 20% to maximum 100% (default).	
	Dim up	Dimmer increase only.	
	Dim down	Dimmer decrease only.	
	Time	The output is switched at the set time.	
	On	Without gate: The output is on at the set brightness level. With gate: The output is on when the gate is TRUE. If the gate is FALSE, the output goes off.	
	Off	Without gate: The output is off at the set brightness value. With gate: The output is off if the gate is TRUE. If the gate is FALSE, the output goes off.	
	On transparency	Without gate: The output is on at the set brightness level. With gate: The output is on when the gate is TRUE. If the gate is FALSE, the output is assigned the state by the incoming messages.	
	Off transparency	Without gate: The output is off at the set brightness value. With gate: The output is off if the gate is TRUE. If the gate is FALSE, the output is assigned the state by the incoming messages.	

Enter signal		Entry field to define messages.	→ *page 74*
	Add messages	Add further messages to an output.	→ *page 80*
	Other messages	Displays additional entries for a message.	→ *page 80*
	Detailed view	Displays all configurations of a message.	→ *page 74*
	Delete message	Delete message and its configuration	
	Send message	Send message immediately.	→ *page 74*
	Range	Range of the message in the frogblue system.	→ *page 117*
	Time control	Time when the output connected to the input is to be switched off.	→ *page 106*
	Gate/Time editor	Gate/Time editor to define logic functions	→ *page 103*
	Dim	Values for dimming.	→ *page 106*
	Soft Function	Duration of dimming.	→ *page 111*
	Delay function	Time to wait for a message until the output is switched off.	→ *page 111*
	Shutter	Setting the travel time and reversal time for roller shutters.	→ *page 112*

9 Configuring frogblue projects

This chapter describes how to configure a frogblue system with the **frogProject** app.

9.1 Managing projects

In the **Project management** screen, you can:

- ✓ create new projects and find projects,
- ✓ load projects and edit existing projects,
- ✓ import and export projects,
- ✓ delete projects that are no longer needed.

Each project is protected by a project password.

1. Tap **Menu** ▤ if you have already opened a project.

— or —

1. Tap a project on the **Start screen**.

> **Note**
>
> When you create the first project, this is no other project has been previously created in the **frogProject** app, tap **New project** on the start screen.

2. Tap **Project**, and then tap **Project management.**

   The **Project management** screen for managing projects is displayed.
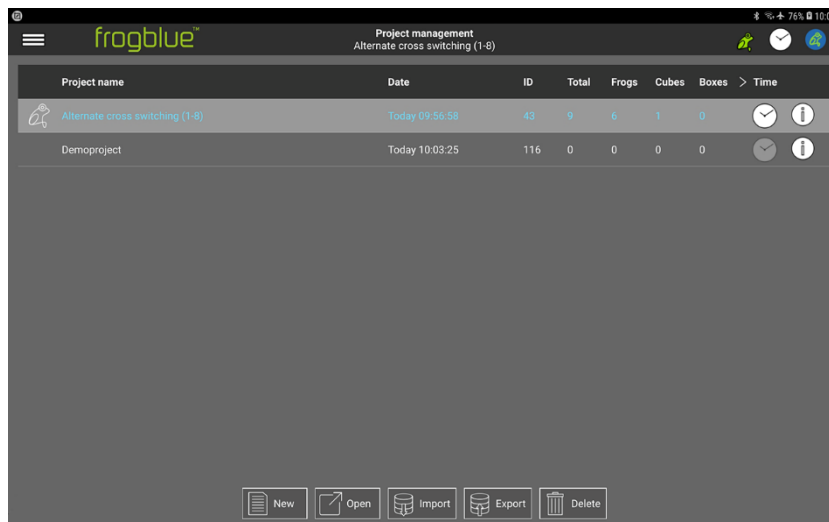
Figure: **Project management** screen for managing projects.

> **Project colors**
>
> **Blue:** Data is being received from the project.
>
> **White:** No data is being received from the project.

9.1.1 Creating a project

The first step in setting up a frogblue system is to create a project.

You can create as many projects as you wish. You can use different projects to try out different configurations, for example.

Note

You assign a project password to each project. You need the project password to restore a project or to transfer a project to another device.

Keep the project password in a safe place!
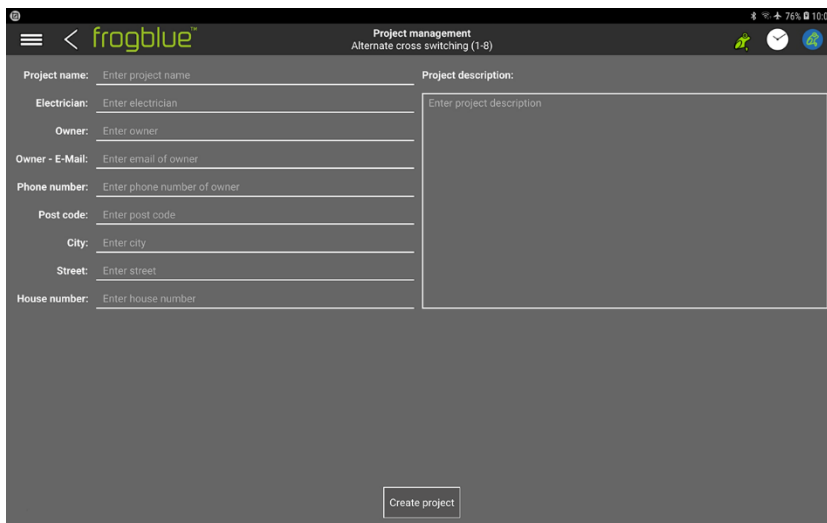
For information on assigning the project password and the device key when creating a project, see → *Security: frogProject app – passwords, page 15*.

For information on changing the project password, see → *Changing the project password, page 57*.

For information on changing the device key, see → *Changing the device key, page 58.*

1. In the **Project management** screen, tap **New**.

   The **Project management** screen is displayed.

Figure: **Project management** screen for creating a new project.

2. Enter a project name in the **Project name** input field.

   You can enter additional optional details relating to the project in the input fields **Electrician**, **Owner**, **Owner-E-mail**, **Phone number**, **Post code**, **City**, **Street** and **House number**.

3. Tap **Create project.**

   The **Set project password** dialog box is displayed.
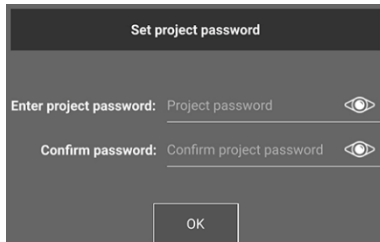
Figure: **Set project password** dialog box for creating a project password.

4. In **Enter project password**, enter a project password with at least eight characters.

   Keep the project password in a safe place!

5. Confirm the project password in **Confirm password** and tap **OK**.

6. Tap **Create project**.

   The project is created, and the **Configuration** screen is displayed.

   The next step involved in setting up a frogblue system is to add Frogs and other devices to a project.

   For information on adding Frogs and devices to a project, see → *Adding devices to a project, page 60.*

9.1.2   Editing project information

You can change the project information of an existing project.

1. In the **Project management** screen, tap the project you wish to edit.

    The project is marked.

2. Tap **Information** ⓘ

    The **Project management** screen is displayed.

3. Tap **Edit information**.

    The button **Edit information** is highlighted in green and the editing mode is activated.

4. Change the project details as you wish.

5. Then tap **Edit information** again.

    The **Project management** screen is displayed again.

9.1.3   Open a project

Note

The most recently opened project is shown on the start page and can be opened directly from there.

You can change to a different project by opening a previously created project.
The current and active project is marked with a Frog.

1. In the **Project management** screen, tap the project you wish to open.

    The project is marked.
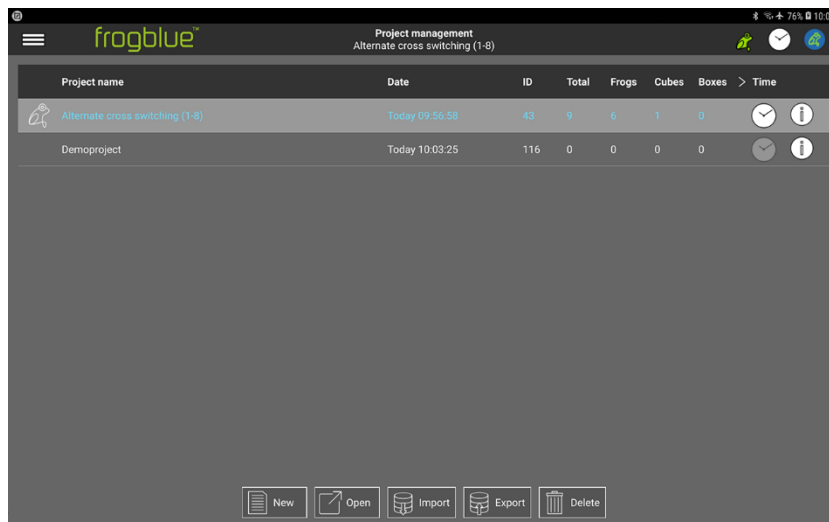
Figure: Selected project on the **Project management** screen.

2. Tap **Open**.

    The **Open project** dialog box is displayed.
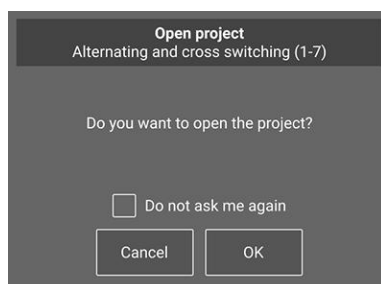
Figure: **Open project** dialog box.

3. Tap **OK**.

    The **Configuration** screen for the selected project is displayed.

9.1.4   Exporting a project

You can export the data of a project to create a backup, for example, or to load the data onto a different tablet.

You can import the exported project file into the **frogControl** app to be able to control the frogblue system from there.

> **Note**
>
> For the export, a **Documents** folder is automatically created in the internal memory of the Android tablet to which the file is exported.
>
> In the case of iOS devices, the exported files are stored in an existing directory in the internal memory.

1. In the **Project management** screen, tap the project you wish to export.

   The project is marked.
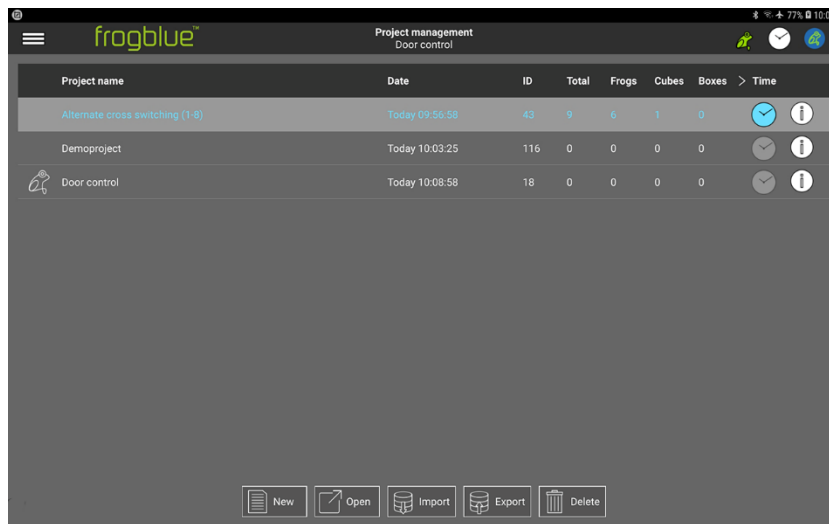
   Figure: Selected project on the **Project management** screen.

2. Tap **Export.**

   The **Export project** dialog box is displayed.
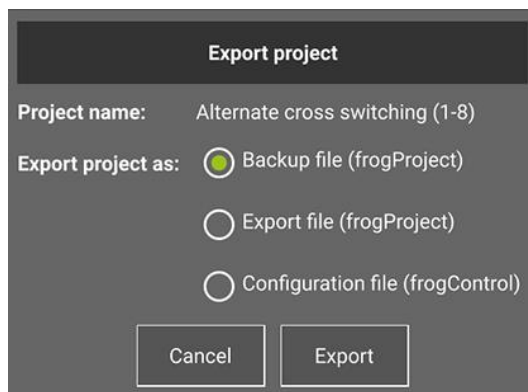
   Figure: **Export project** dialog box for exporting the current project.

You can export a project as:

Backup file (frogProject): The backup file is saved locally to the tablet.

Export file (frogProject): You can import this file again into a **frogProject** app, for example on another tablet. The project password already used in the frogProject app is required for this.

Configuration file (frogControl): You can import the configuration file into the **frogControl** app.
Information about the **frogControl** app can be found in the → *frogControl User Manual.*
In the **frogControl** app you can operate and control the configured frogblue devices. This configuration file cannot be written to, that is changed, in the **frogControl** app or in the **frogProject** app.
A new password must be used for the exported configuration file. This does not change the project password in the **frogProject** app.

3. Select the file type and tap **Export**.

The project data is encrypted and stored in the **Documents** directory for Android devices and in the internal memory for iOS devices.
You can assign a new name to the file to be exported or keep the suggested name.

9.1.5 Importing a project

You can import projects you have created on other tablets with the **frogProject** app and have exported there. To import a project, you require the project password of that project.

1. Save the data of the project to be imported in the **Documents** folder.

2. In the **Project management** screen, tap **Import**.

    The **Import project** dialog box is displayed.
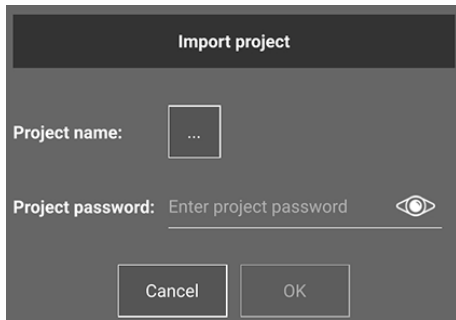
Figure: **Import project** dialog box for importing the current project.

3. Tap **Select project** next to **Project name**.

    A window for selecting a project file is displayed.
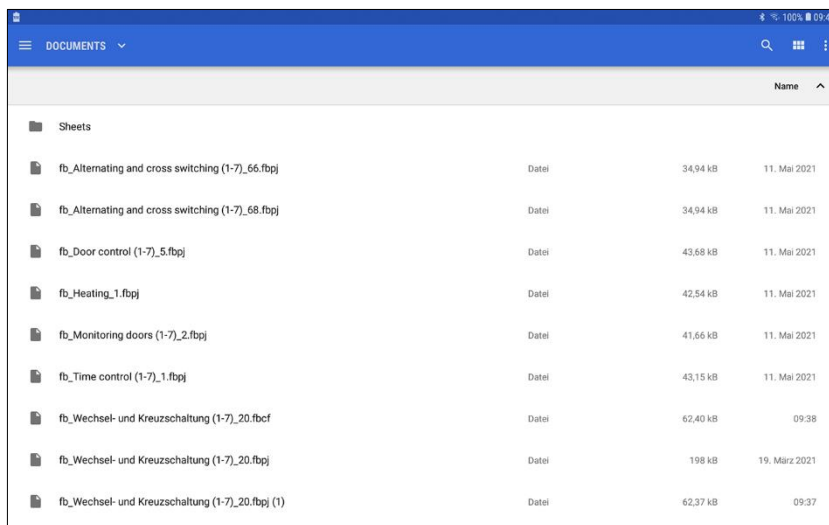
Figure: Selection of a file on Android.

4. Tap the desired project.

    The selected project is shown in the **Import project** dialog box in the **Project name** field.

5. Under **Project password**, enter the password of the project to be imported and tap **OK**.

    The data is imported, and the project is displayed in the **Project management** screen.

9.1.6   Finding a project

If a project already exists but is not yet known to the **frogProject** app, you can import this project via a project backup from a Frog or another device and open it. For this you need the device key of the corresponding device.

You can recognize projects which are not yet known to the **frogProject** app by looking out for the entry **Project x** in the **Project management** screen.
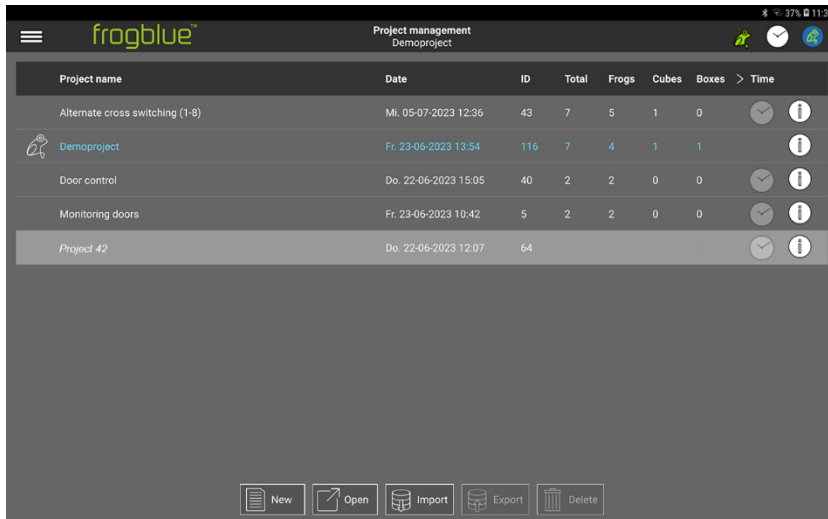
Figure: **Project x** shows an unknown project.

Show devices ⏺ shows all devices contained in the unknown project to which a Bluetooth® connection exists.

1. In the **Project management** screen, tap the **Project x** entry.

   The entry is highlighted in grey.

2. Tap **Open**.

3. The **Find project backup** dialog box is displayed.
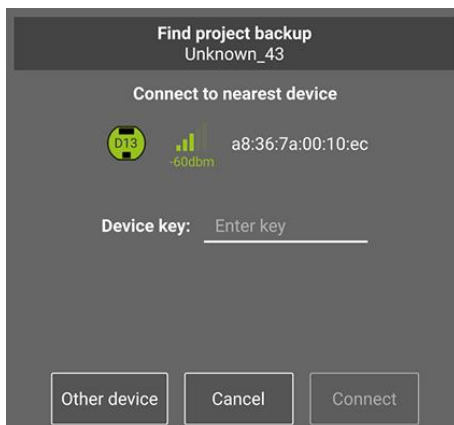
Figure: **Find project backup** dialog box.

   The nearest device with a project backup is displayed.

   Via **Other device** you can change the device and download the project backup from this device.

4. Enter the **device key** of the displayed device.

5. Tap **Connect**.

    A fast Bluetooth® connection is established, and the project backup is downloaded to the
    tablet. After the project backup is downloaded, you can load the project.
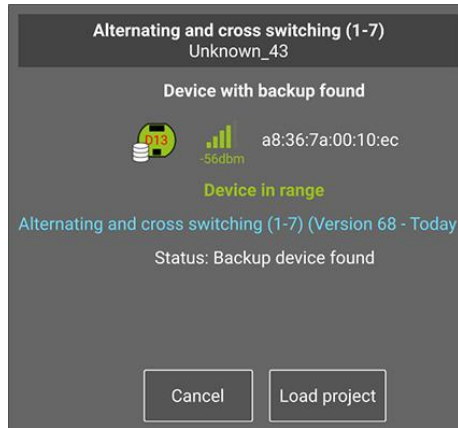
Figure: A downloaded project can be loaded.

6. Tap **Load project**.

    A dialog box for entering the project password is displayed.

7. Enter the **project password** and tap **Import project**.

    The project opens.

9.1.7   Deleting projects

You can delete a project which you no longer require. In doing so, all project data is deleted. Active projects cannot be deleted.

1. In the **Project management** screen, tap the project you want to delete.

   The project is marked.

2. Tap **Delete.**

   The **Delete project** dialog box is displayed.
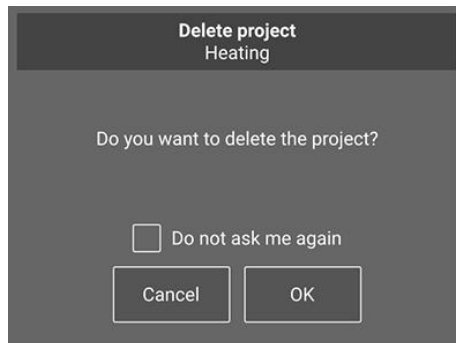
Figure: **Delete project** dialog box.

3. Tap **OK**.

   The project is deleted along with all the configuration data.

9.1.8   Changing the project password

The project password assigned when creating a project can be changed at a later stage.

For information on the project password, see → *Security: frogProject app – passwords, page 15* and → *Creating a project, page 47.*

For information on changing the device key, see → *Changing the device key, page 58*

1. Tap **Menu** ☰

2. Tap **Keys & passwords**, and then tap **Change project password**.

    The **Change project password** screen is displayed.
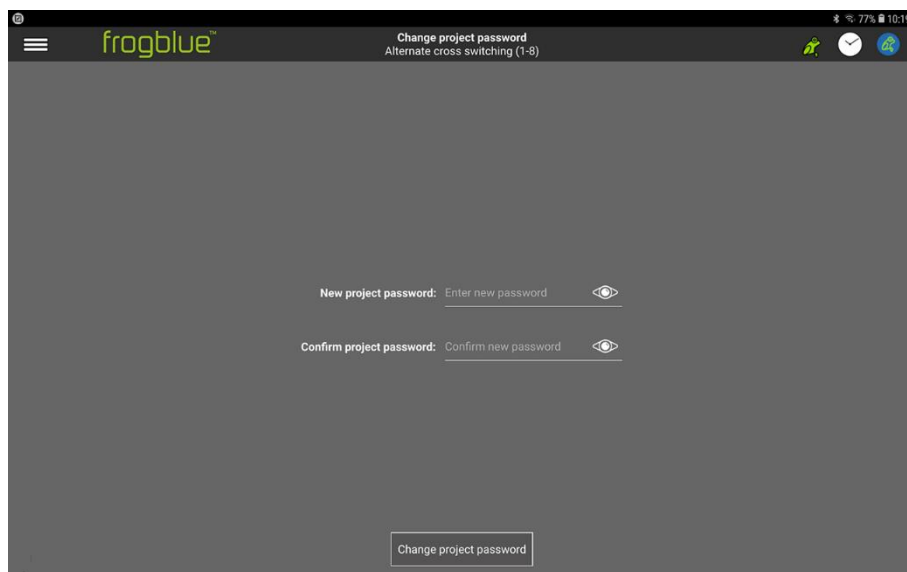
Figure: **Change project password** screen.

3. In **New project password**, enter a new project password with at least eight characters.

4. Confirm the new project password in **Confirm project password**.

5. Tap **Change project password**.

    The new project password is saved and must be entered the next time the project is opened.

9.1.9   Changing the device key

To save a backup or configuration in a Frog, a device key is required to enable the access to the Frog.

When you create a new project and assign a project password to a project, the device key is set to be identical to the project password. Since the project password and the device key are identical, you can backup the project or upload a configuration to a Frog with the project password data.

The project password can be shared with third parties, for example a technician who has configured the project. Once the project configuration is complete, you should change the device key to protect the configuration in the Frogs from unauthorized access. Once the device key has been changed, the project password can still be used to configure the **frogProject** app on the tablet, but the configuration can only be uploaded onto the devices with the altered device key.

For further information on the project password and the device key, see chapter
→ *Security: frogProject app – passwords, page 15.*

For information on changing a project password, see → *Changing the project password, page 57*.

1. Tap **Menu** ☰

2. Tap **Keys & passwords**, and then tap **Change device keys**.

   The **Change device keys** screen is displayed.
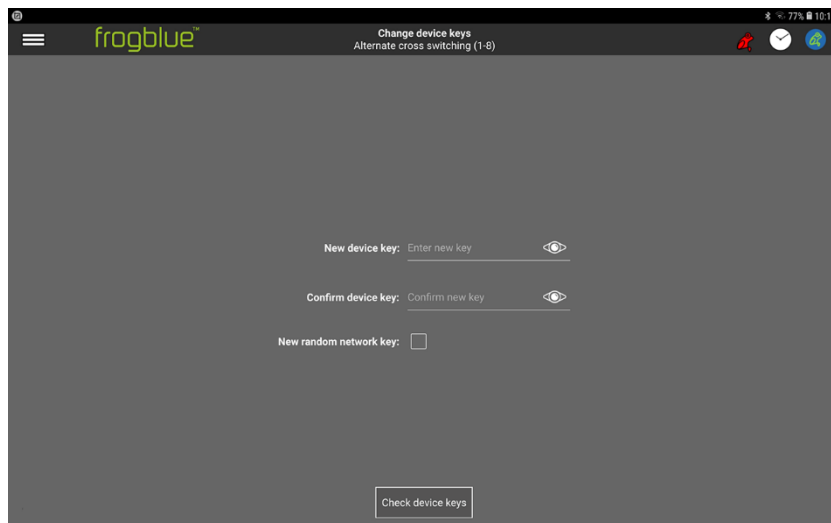
Figure: **Change device key** screen.

3. In **New device key**, enter a device key with at least eight characters.

4. Confirm the device key in **Confirm device key**.

> **Note**
>
> Enable **New random network key** to encrypt the Bluetooth® network communication with a new key. This ensures, among other things, that no external commands can be sent to the Bluetooth® network after a device has been replaced (or if the device key is no longer available).

5. Tap **Check device keys**.

    The **Change device keys** dialog box is displayed.
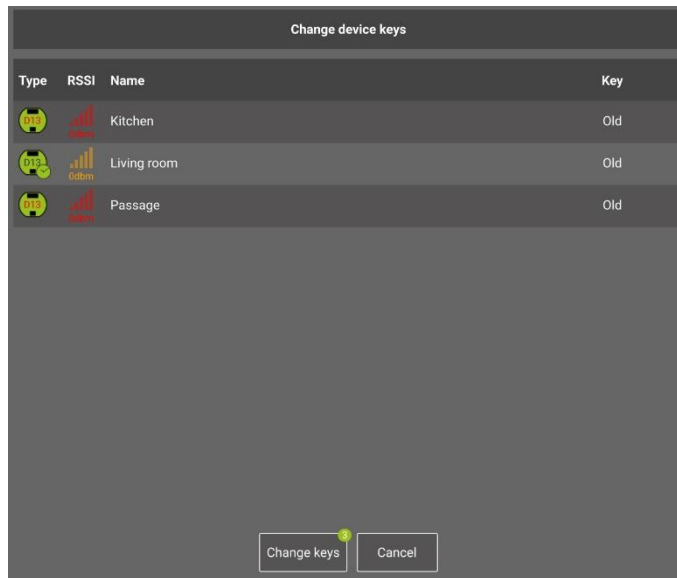
Figure: **Change device keys** dialog box.

> **Note**
>
> The changed device key must be transferred to all devices in the frogblue system.

6. Tap **Change keys**.

    The new device key is uploaded to all devices in the frogblue system.

9.2   Adding devices to a project

To configure and manage Frogs, frogKeys, switches and controllers, you must first add them to a project.

You can add the following devices to a project:

- Frogs
- frogKey
- frogLink
- frogDisplay
- frogContact5-BAT

Notes on frogKey and frogContact5-BAT

To ensure the longest possible battery life, the frogKey and the frogContact5-BAT use energy-saving functions. For this reason, the frogKey and the frogContact5-BAT have to be set to configuration mode for configuration purposes. Only then you can add a frogKey and a frogContact5-BAT to a project.

1. To activate the configuration mode for the frogKey for 60 seconds, click **four times quickly, holding the last click**.

   The frogKey flashes red because it has not been assigned to a project yet.
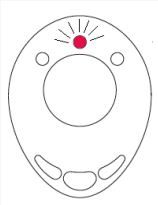
   Figure: A flashing frogKey indicates the activated configuration mode.

1. To activate the configuration mode for the frogContact5-BAT for 60 seconds, click a button connected to the frogContact5-BAT **with three short clicks and one long click** (within 2 seconds).

✓ The devices are properly wired or powered.
   For information on installing Frogs, see → *General wiring instructions, page 18.*

✓ A project was created or opened.
   For information on how to create projects, see → *Managing projects, page 46.*

1. Tap **Menu** ▤

2. Tap **Project**, and then tap **Configuration**.

   The **Configuration** screen is displayed.

Figure: **Configuration** screen with the (empty) device list.

3. In the device list, tap **Add** ⊹

   The **Add** dialog box is displayed.
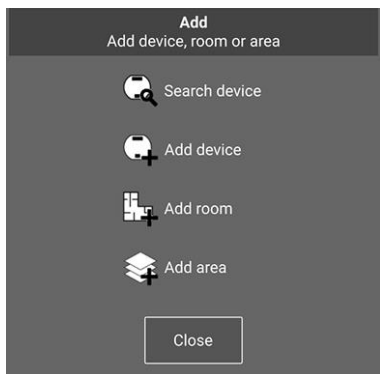
Figure: **Add** dialog box.

4. Tap **Search device** 🔍

   The **Devices** dialog box is displayed.
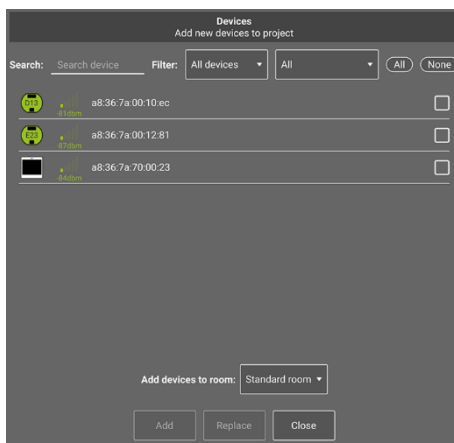
Figure: Frogs can be added to a project via the **Devices** dialog box.

The following options are available in the **Devices** dialog box:

> **Search:** Enables the user to search for devices based on MAC addresses.
> When searching for a full MAC address, enter the colon as well. Usually, however, it is sufficient to enter the last two digits.

> **Filter:** The following options are available to choose from:

>> **New Devices:** Displays all devices that are not assigned to a project or that are still configured with factory settings.

>> **Other Devices:** Displays all devices already assigned to other projects.

>> **All Devices:** Shows all accessible devices.

>> **All:** Displays all device types that can be searched for.

> **All/None**: Allows selection of all visible devices found and filtered based on the **Search** text.

> **Add devices to room**: If you have already created a room, you can assign the devices to a room here when you add them. Tap the checkboxes of the devices you wish to add to the project.

5. Tap the checkboxes of the devices you want to add to the project.

6. Tap **Add**.

7. Tap **Close**.

The selected devices are displayed in the device list.
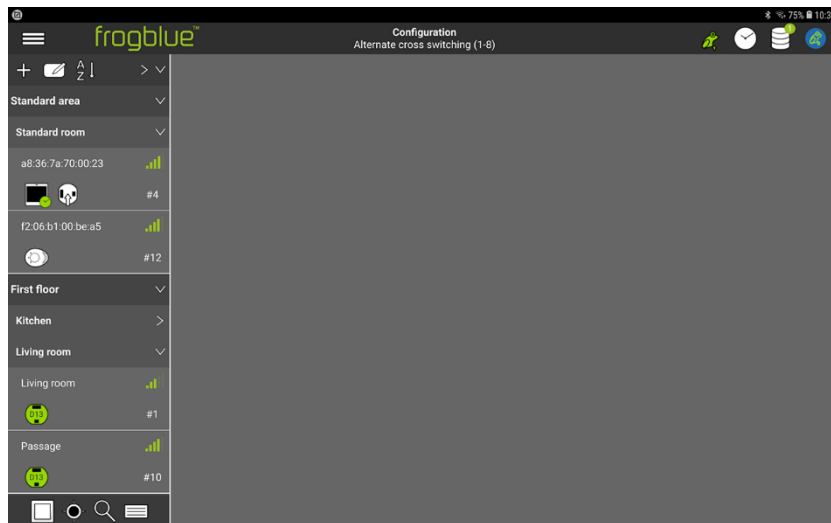
Figure: Added devices (frogKey, frogDisplay and Frogs) in the device list.

Sorting the devices

With ⬆ you can sort the devices shown in the device list:

⬆ Sort from A to Z.

⬆ Sort from Z to A.

⬆ From minimum to maximum Bluetooth® field strength.

⬆ From maximum to minimum Bluetooth® field strength.

🔘 Sort Frog types.

8. Tap a device in the device list.

> The **Configuration** screen is displayed.
> For information on the icons in the **Configuration** screen,
> see → *frogProject – Overview of icons and color codes, page 35.*

Figure: The display area in the **Configuration** screen.

Note

By default, all device configurations are automatically stored in the tablet's system memory.
Projects can be loaded from this area.
If the tablet is defective, this project data is no longer available.

If the device configuration is to be activated in a Frog, the configuration must be uploaded to the Frog in question. You can do this in the display area of the **Configuration** screen and using the Device manager.

When you perform a data backup or wish to share the project file, you should save the project configuration externally.
For information on exporting a project, see → *Exporting a project, page 51.*

9. Tap **Connect** to establish a fast Bluetooth® connection between the tablet and the Frog.

10. Tap **Save configuration** 👻

> The device configuration is uploaded to the corresponding Frog.

9.2.1   Adding unconnected devices

You can also add devices to a project that are not yet connected.
This way you can plan a frogblue system, for example.

1. In the device list, tap **Add** ✛

   The **Add** dialog box is displayed.

2. Tap **Add device**.

   The **Add device manually** dialog box is displayed.
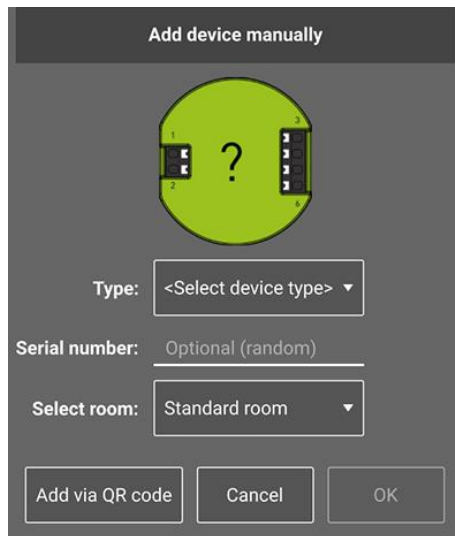
Figure: **Add device manually** dialog box.

3. Select the **Type** of device you wish to add to the project.

Adding devices via QR code

If the camera of the tablet is activated, you can add this device to a project using the QR code printed on the frogblue device.
To do this, tap **Add via QR code** and scan the QR code of the device via the **Scan QR code** scan dialog box. The detected **Type** and **Serial number** are displayed in the **Add Device manually** dialog box.

Frog: Scanning a QR code from a Frog.

---

4. Tap **OK**.

The selected device is displayed in the device list and can now be configured.

9.2.2 Replacing Frogs

You can replace Frogs in a project if they are of the same device type.

1. In the device list, tap the Frog you wish to replace.

2. In the device list, tap **Add** ⊕

The **Add** dialog box appears.

3. Tap **Search device** ⌕

The **Devices** dialog box is displayed.

4. Select a Frog to replace the existing Frog in the project.

5. Tap **Replace**.

The replaced Frog is displayed in the device list.

9.3 Configuring Frogs

You can use the **frogProject** app to configure devices such as Frogs, frogKeys, frogDisplays etc. as well as buttons and switches. All devices connected to the mains must be properly correctly to enable correct configuration.

✓ The devices, switches and controllers are properly wired.
For information on installing Frogs, see → *General wiring instructions, page 18.*

✓ A project was created or opened.
For information on how to create projects, see → *Managing projects, page 46.*

Carry out the following steps to configure the input of a Frog in a project:

- Assign Frogs to rooms and areas

- Configuring inputs

- Configuring outputs

- Configure buttons and switches

- Assigning inputs to buttons and switches

An overview of all configured Frogs can be found in the **Device manager.**
For information on the **Device manager**, see → *Device manager, page 146.*

9.3.1   Assigning Frogs to a room and an area

You can assign Frogs in a project to rooms and areas. This allows you to type the inputs and outputs, that us to limit them to certain rooms. This significantly minimizes the configuration effort involved.

✓   The Frogs, switches and controllers are properly wired.
      For information on installing Frogs, see → *General wiring instructions, page 18.*

✓   A project was created or opened.
      For information on how to create projects, see → *Managing projects, page 46.*

✓   Frogs have been added to a project.
      For information on adding Frogs to a project, see → *Adding devices to a project, page 60.*

9.3.1.1   Assigning a device to a room

1. In the device list, tap **Add** ✛

   The **Add** dialog box is displayed.
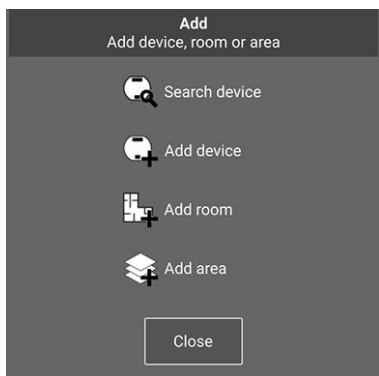
   Figure: **Add** dialog box.

2. Tap **Add room** 🏠➕

   The **New room** dialog box and the keyboard is displayed.
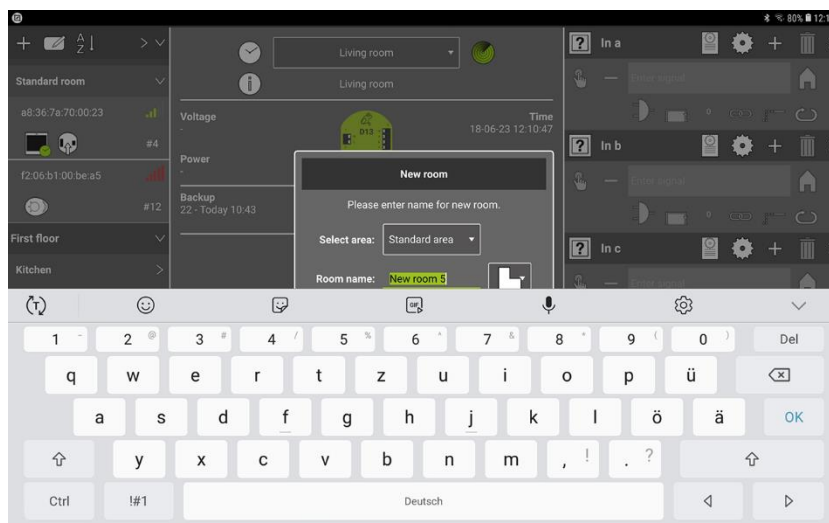
   Figure: Keyboard displayed for entering a name for a room.

When you tap **Room** ⌐, you can choose some default names for rooms.

3. Use the keyboard to enter a name, for example **Living room**.
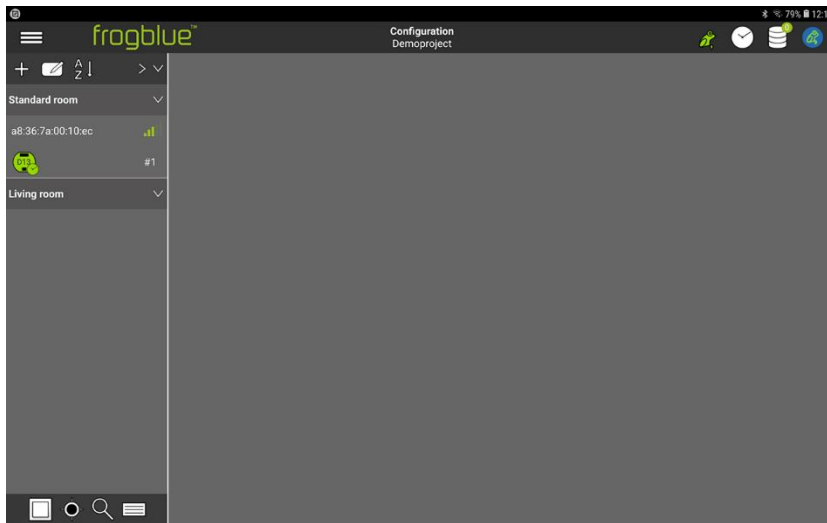
Figure: The Frog and the Living Room label in the device list.

The Frog and the room **Livingroom** are listed in the device list.

4. In the display area, tap **Standard room** in the selection list.

The available rooms are displayed in a selection list.
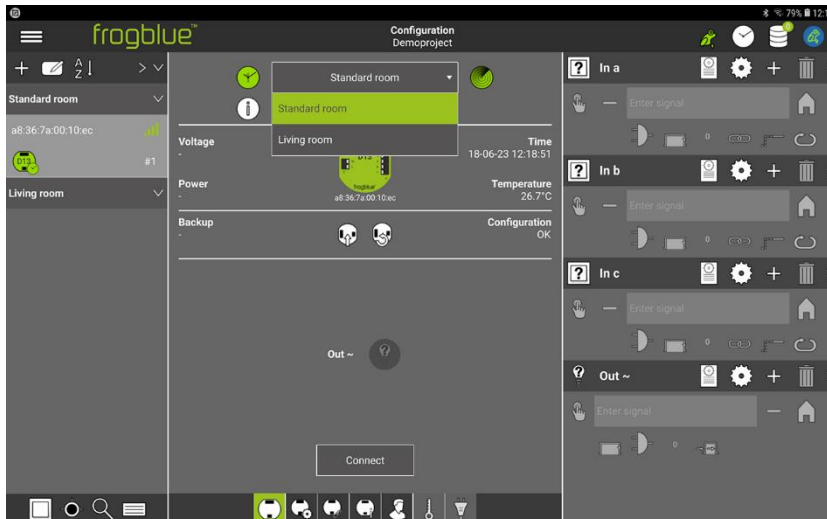
Figure: The newly created room **Living room** is displayed in the selection list.

5. In the selection list, tap **Living room.**

The Frog is assigned to the **Living room.**

Figure: A Frog is assigned to the room **Living Room**.

In the next step you can assign the Frog to an area or configure the inputs directly.

9.3.1.2   Assigning a room to an area

You can assign several rooms to one area, for example to one floor. This allows you, for example, to control and operate the devices of several rooms in combined form in the frogDisplay.

1. In the device list, tap **Add** ✛

    The **Add** dialog box is displayed.
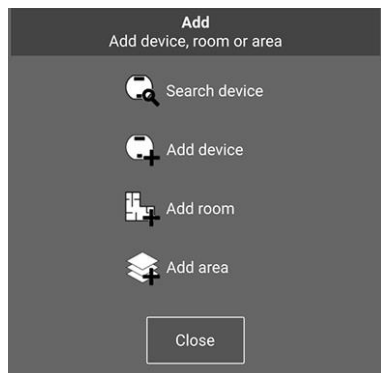
Figure: **Add** dialog box.

2. Tap **Add area** ⬙

    The **New area** dialog box and the keyboard is displayed.
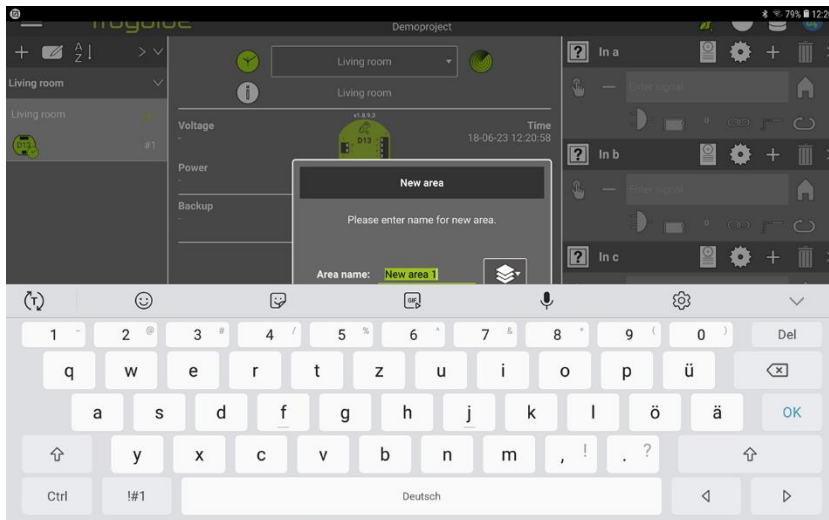
Figure: Keyboard displayed for entering a name for an area.

When you tap **Area** ⬙, you can choose some default names for areas.

3. Use the keyboard to enter a name, for example **First floor**.

    The area is listed in the device list.

4. Tap and hold a room in the display area and drag it to the **First floor** label.

    The room is assigned to the area.
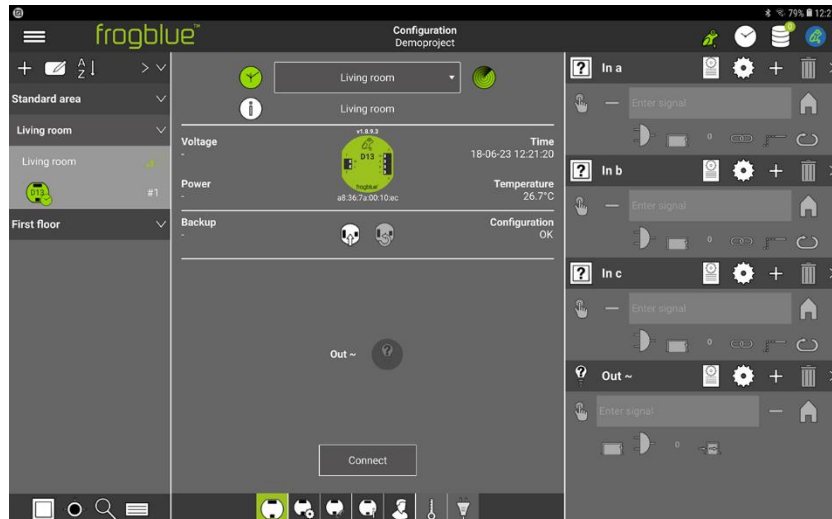
Figure: The **Living room** and the area **First floor**.

9.3.2 Configuring inputs

The connection between the switching inputs and the switching outputs of the Frogs is made by sending messages.

Example

On the input side, enter the message **LightOn**, which is to be sent when a button is pressed, for example. All Frogs for which you have entered the message **LightOn** at the output will then switch this output. An assignment via IDs or addresses is therefore not necessary.

Figure: The Frog switches through when the text message in the input and output match.

✓ The Frogs, switches and controllers are properly wired.
For information on installing Frogs, see → *General wiring instructions, page 18.*

✓ A project was created or opened.
For information on how to create projects, see → *Managing projects, page 46.*

✓ Adding a Frog to a project and assigning it to a room.
For information on adding Frogs to a project, see → *Adding devices to a project, page 60.*

Carry out the following steps to configure the input of a Frog:

- Select a function

- Define a message

- Select an action

To configure the inputs of a Frog, tap a Frog in the device list.

The input of a Frog is configured in the configuration area.
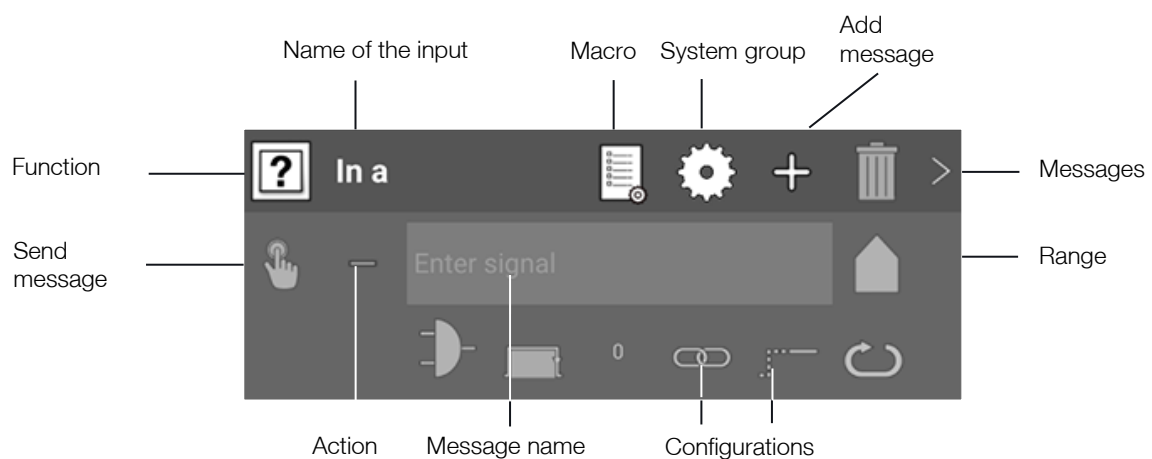
Figure: Configuration of an input **In a**.

Changing the name of the input

Tap the name of the input until the cursor starts blinking. Then you can change the name of the input. By assigning the same name, inputs and outputs that are configured on different frogs can be combined.

If the input has its own name, the frogDisplay shows the name of the input instead of the name of the message.

For information on the extended configuration of inputs, see → *Extended configurations for inputs and outputs, page 82.*

9.3.2.1   Selecting functions and defining messages

You can use the selected function to specify the type of the input. The type of an input can be different buttons or a status that is queried at the input.

1. Tap [?]

    A selection of buttons and functions is displayed.
    For information on possible buttons and functions, see → *Inputs, page 39.*

2. Tap the desired button.

    For an input to connect to an output, the same message must be assigned to the input and the output.

3. Tap **Enter signal**.

    Predefined standard messages are displayed in a selection list.
    You will recognize standard messages by the **TYPE:** that appears in front of them, for example **TYPE:Light**.

TYPE messages and text messages

If a **TYPE:**Message is entered at an input, this messages switches all outputs of the same type.

The message **TYPE: Light** switches all outputs at which a lighting device has been defined.

ATTENTION: *No* **TYPE:** message may be entered at the output!

TYPE: messages are mainly suitable for operating several identical devices in a single room.
If three roller shutters are installed in a living room with one frogRelay2-2 each, for example,
it is possible to select the **TYPE:** messages **TYPE:Shutter – up** and **TYPE:Shutter – down** at the outputs, for example, without having to create special text messages.

Note

You can enter previously defined messages in the **Enter signal** input field using the autocomplete function. For example, if you enter **Lic**, the message **Light Child's Bedroom** will be suggested.
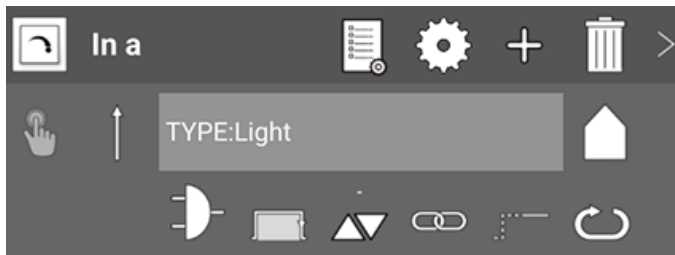
Figure: A selected button.

Note

To be able to configure the frogblue system according to your wishes, it is recommended that you define your own messages. This gives you full control over every input and output of all devices in the frogblue system.

4. Enter a unique name for the message.

    The entered message is displayed.

Message colors

The entered messages are displayed in the input in different colors:

Red: The message only occurs once in the frogblue system. This might be an indication that a typo crept into your entry.

Yellow: The message is a status message.

White: The message is a normal message. The message occurs at least twice, either at two inputs or at one input and one output.

Blue: A message occurs at least twice, but only at outputs.

You can define up to nine messages for an input.
For information on creating other messages, see → *Define several messages, page 80.*

The settings are automatically saved in the **frogProject** app.

9.3.2.2   Selecting an action

With an action, you can specify how a button or switch must be pressed to trigger a message. When you select a button, the action (**Click**) ⇡ is selected by default.

1. Tap ═ next to **Enter signal**

    A selection of actions is displayed.
    For information on available actions, see → *Inputs, page 39.*

2. Tap the desired action.

    The selected action is displayed.

Figure: A click has been selected as an action.

The settings are automatically saved in the **frogProject** app.

This is the easiest way to configure an input.

With the advanced settings, you can configure additional functions such as logic functions and time functions.
For information on extended configuration, see → *Extended configurations for inputs and outputs, page 82*

The next step involves defining an output with the same message so that a Frog can be switched through.

9.3.3   Configuring outputs

The connection between the switching inputs and the switching outputs of Frogs is made by sending messages. If the sent message of the input is the same as the message assigned to an output, the Frog is switched through.

✓   The Frogs, switches and controllers are properly wired.
     For information on installing Frogs, see → *General wiring instructions, page 18.*

✓   A project was created or opened.
     For information on how to create projects, see → *Managing projects, page 46.*

✓   Adding a Frog to a project and assigning it to a room.
     For information on adding Frogs to a project,
     see → *Adding devices to a project, page 60.*

✓   The inputs of the Frogs are configured.
     Information on the configuration of the inputs, see → *Configuring inputs, page 70.*

Carry out the following steps to configure the outputs of a Frog:

- Select a connection
- Select a message
- Select an action

To configure the inputs of a Frog, tap a Frog in the device list.

The output of a Frog is configured in the configuration area.

Name of the output   Macro   System group   Add
message

Connections —   — Messages

Send
message —   — Range

Message name   Configurations   Action
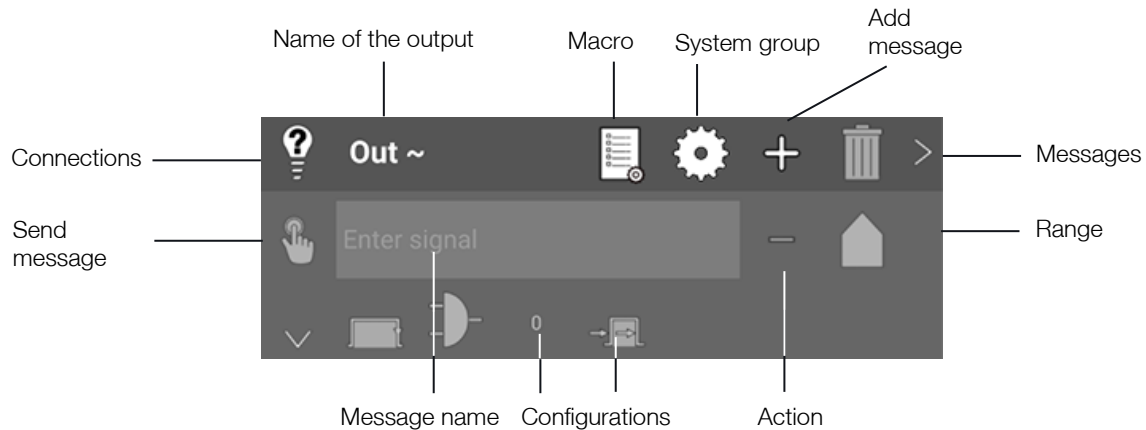
Figure: Configuration of an output **Out ~**.

Changing the name of the output

Tap the name of the output until the cursor starts blinking. Then you can change the name of the output. By assigning the same name, inputs and outputs that are configured on different frogs can be combined.

For information on extended configuration of outputs, see → *Extended configurations for inputs and outputs, page 82.*

9.3.3.1   Selecting connections and messages

With the selected connection you determine the type of the output . Typical connections are lamps, doors, bells, and venetian blinds.

1. Tap

    A selection of connections and consumers is displayed.
    For information on potential consumers, see → *Outputs, page 43.*

    Depending on the selected consumer, the corresponding messages are automatically prepared. For a dimmable light, for example, three messages are created: Switch on, dim and switch to a specific level.
    Tap   to display the messages.

2. Tap the desired connection.

    The selected port is displayed.

Figure: The selected connection **Dimmable light** in output **Out ~**.

3. Tap **Enter signal**.

Standard messages and the messages you have defined are displayed in a selection list. Standard messages can be identified by a **TYPE:** appearing before the message, such as **TYPE:Light**.

Note

You can enter previously defined messages in the **Enter message** input field more quickly using the autocomplete function. For example, if you enter **Lic**, the message **Light Child's Bedroom** will be suggested.
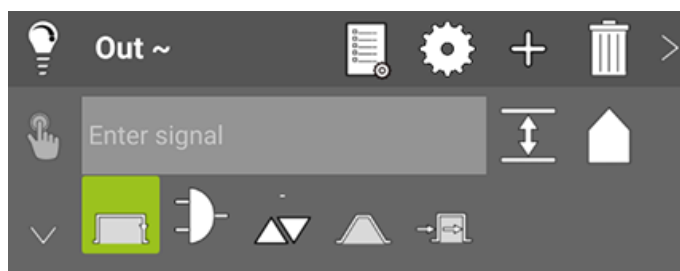
---

4. Tap the desired message.

    The selected message is displayed.

    Only if the message of an input matches the message of an output is the Frog switched through.

    The settings are automatically saved in the **frogProject** app.

Note

Tap **Send message** 🖑, if you wish to send the message immediately, for example for test purposes. Note that the set range influences the possible outcome of the message.

The next step involves selecting an action for the selected connection.

9.3.3.2   Selecting an action

With an action you can determine how a connection should behave in relation to a message.

1. Tap **Action** =

    A selection of functions is displayed.
    For information on potential consumers, see → *Outputs, page 43.*

Override on and off with a gate (Overlay)

If the action **On** is used without a gate, the output is permanently switched on. In this way, further messages will be ignored.
If you temporarily select the action **On** for an output, the output switches on without losing the other configurations of the output.

The action **On** is best used in conjunction with a gate. For example, if a night light is to remain all the time except during the day, the lamp will be on as long as the status **Night** is true.

The action **On-Transparency** has the same function. In addition, messages continue to be processed here in the background. If the gate is not true, the last message is processed.

If the action **Off-Transparency** is used with gate, the output is switched off as soon as the gate is **TRUE**. Other messages continue to be processed in the background, so the status after the last message after termination of the gate applies.
With this configuration, for example, the terrace light, which is activated by movement for 10 minutes, can be reactivated via buttons.

If the action **On-Transparency** is used with gate, the output is switched on as soon as the gate is **TRUE**. Other messages continue to be processed in the background, so the status after the last message after termination of the gate applies.
With this configuration, for example, the light can be switched on when the door is opened, or a staircase switch (switch off after 5 minutes) is overridden.

---

2.   Tap the desired action.
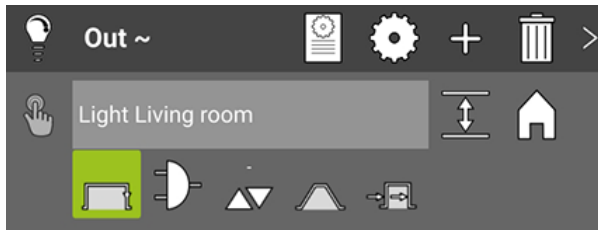
The selected action is displayed.

Figure: **Toggle** has been selected as an action.

The settings are automatically saved in the **frogProject** app.

This completes the basic configuration for a Frog.
The configured Frog is now functional in the frogblue system.

Example

To find out how to configure the messages for alternate and cross-switching, see the quick guide
→ *Alternate, cross and central on/off switching, page 204*.

For information on advanced configuration options, see → *Extended configurations, page 80.*

9.3.4   Copying and exchanging configurations for inputs and outputs

Once you have fully configured an output and require this configuration for another input in the same
Frog, you can copy the configuration of the input.
You can also exchange the configuration of one input with that of another input in the same Frog.

Accordingly, you can copy or exchange the configuration of an output in a Frog.

The following describes how to exchange or copy the configuration of an input.

1.   Tap the name of an input, for example **In a**, for approximately one second and keep the input
pressed down.

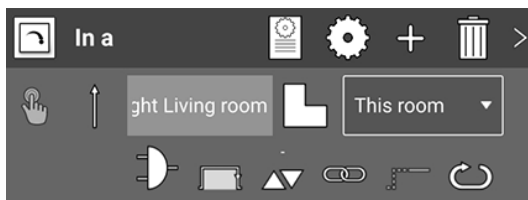The entire first line of the input is highlighted in dark.

Figure: Input **In a** is highlighted in dark.

2.   Drag the marked input to the input you wish to replace, for example to input **In c**.

The input **In c** to be replaced is highlighted in light green.

Figure: Input **In c** is marked light green and can be replaced.

3. Release the input **In a** in the input **In c**.

   The **Copy or swap configuration** dialog box is displayed.
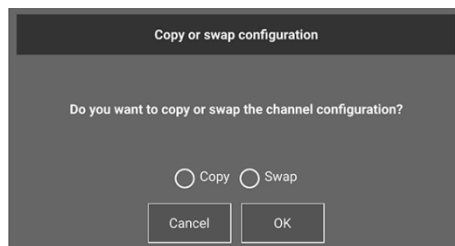
Figure: **Copy or swap configuration** dialog box.

4. Select **Copy** if you want to copy the configuration of the **In a** input to input **In c**.

   An existing configuration in input **In c** is overwritten.

5. Select **Swap** if you want to exchange the configuration of input **In a** with that of input **In c**.

   The configuration of input **In a** is written to input **In c**, and the configuration of input **In c** is written to input **In a**.

9.3.5   Adding buttons and assigning inputs

Depending on the Frog, you can add buttons and switches. This allows you to operate the buttons and switches directly in the **frogProject** app.

Note

If you want to use the **frogControl** app or the frogDisplay, you should add buttons and switches to use the app more comfortably. For example, you can assign a pin to a button in the **frogControl** app.

The number of buttons to select depends on how many inputs a Frog has.

1. In the device list shown in **Configuration** screen, tap the Frog to which you wish to add buttons and controllers.

    The selected Frog is highlighted in grey in the device list, and the display area and configuration area are displayed.
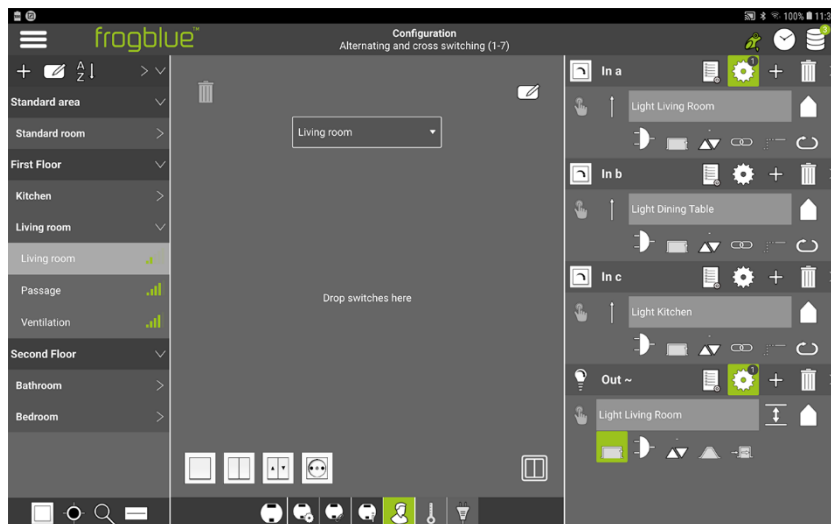
2. In the display area, tap **User view**

Figure: The user view in the display area with a selection of configurable buttons.

3. Tap the button you wish to add and drag it to the center of the display area.

    Tap to display all switches configured in the system so far.

    The button is displayed in the display area.
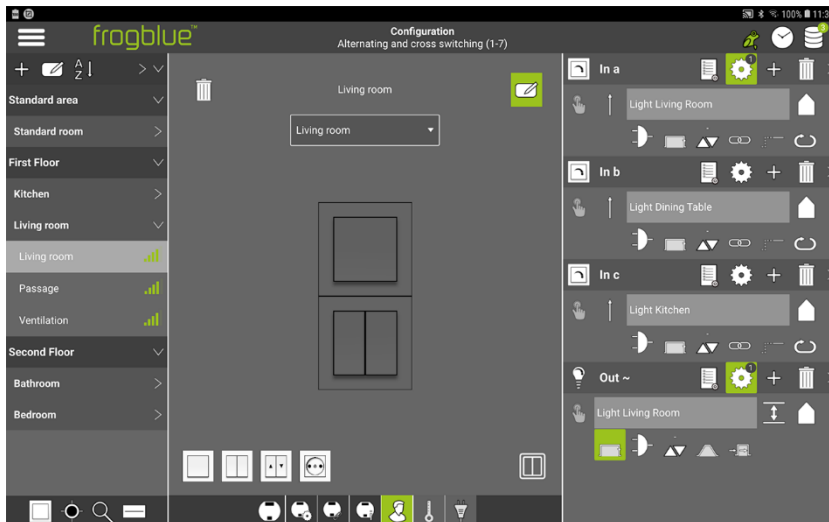
Figure: A selected button in the display area.

Deleting a button

Tap **Edit** ✏ and drag the button into the rubbish bin.

4. Tap **In a** and drag the heading to the display area on the button to which you wish to assign the input.

   The selected button turns white, and the input heading is displayed on the button.

5. Repeat the first step for all inputs to which you wish to assign a button.

Figure: Two buttons are assigned to two inputs.

The buttons are now assigned to the inputs.

9.4 Extended configurations

This section provides information on advanced Frog configuration options.

Define several messages

Several messages can be defined for the input as well as for the output of a Frog. For example, buttons can be assigned several times.
→ *Define several messages, page 80.*

Extended configurations for inputs and outputs

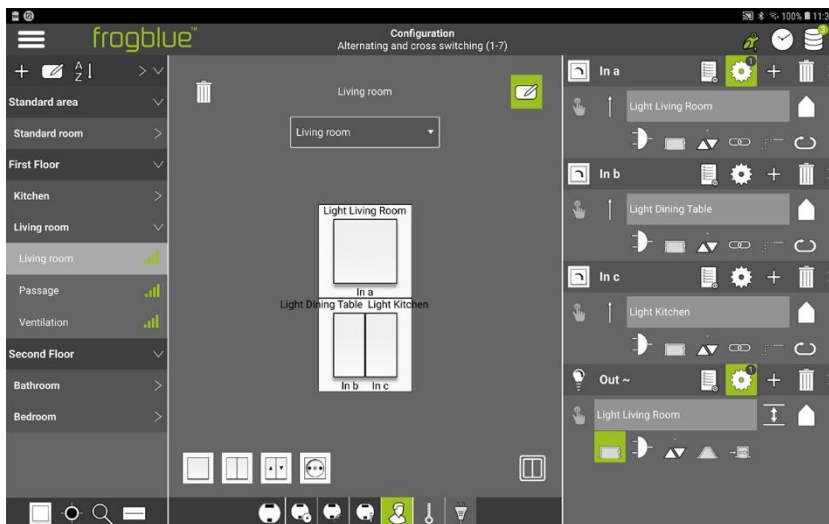You can configure numerous logic functions for the inputs and outputs.
→ *Extended configurations for inputs and outputs, page 82.*

Special configurations for outputs

Special configurations are required for special outputs such as shading, screen or ventilation.
→ *Special configurations for outputs, page112.*

Configuring the range

For each input and output, you can determine the range within which components in the frogblue system the messages are sent.
→ *Configuring the range, page 117.*

9.4.1 Define several messages

For one input, you can define up to nine messages and for an output you can define up to 13 messages. This enables you to implement logic functions, for example, or to assign a button several times.

Example

Frogs	Messages Output In a	Action	Message Output Out A
Frog A	Light on All light on	Click Double click	Light on
Frog B			All light on
Frog C			All light on
Frog D			All light on

For Frog A, the two messages **Light on** and **All light on** are defined for the input **In a**.
A simple click on the button of Frog A triggers the message **Light on**.
A double click on the button of Frog A triggers the message **All light on**.
Since the message **All light on** is assigned to output **Out A** of Frogs B, C and D, a double click activates the Outputs of Frogs B, C and D.

The following describes how you can define another message for an input.
In the same way you can define further messages for outputs.

1. In the input for which you wish to define another message, tap **Add message** ✛

Figure: Adding a new message.

A new input field for defining another message is displayed.
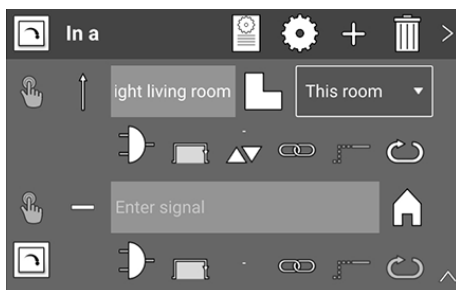

Figure: Additional input field for defining another message

2. Enter a message into the new input field.

3. Tap **Action** ━ and select an action.

You can make further settings for each new message.
For information on the configuration of additional settings, see → *Configuring inputs, page 70*
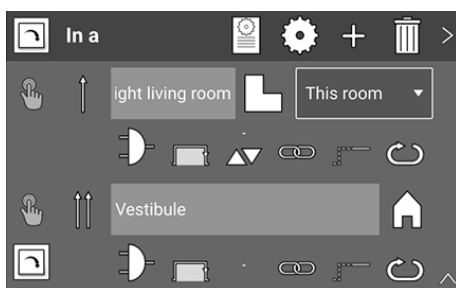and → *Configuring outputs, page 73.*

Figure: Two messages with two different actions for one switch.

The settings are automatically saved in the **frogProject** app.

Note

When messages are sent, they are processed in order from top to bottom. The first message is also
called the main message.

9.4.2   Extended configurations for inputs and outputs

For inputs and outputs you can configure additional functions, such as logic functions or time functions.

Note

If certain settings are required for several Frogs, we recommend defining the settings in a macro and then assigning the macro to several Frogs.
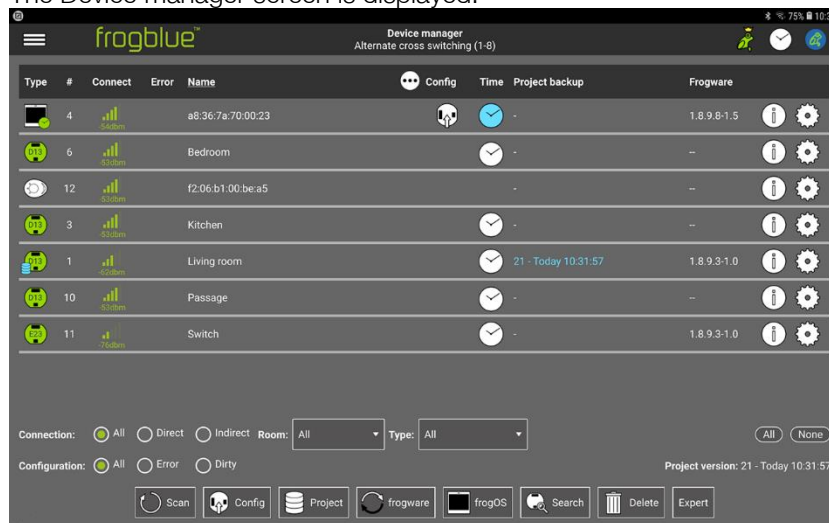For information on creating macros, see → *Device manager*

In the **Device manager** you will find an overview of all frogblue devices that have been added to the current project.

Tap Menu ▤

Tap Project, and then tap **Device manager.**

> ✓   The Device manager screen is displayed.

> ✓
> ✓   Figure: Device manager screen.
> ✓   The following functions are available in the Device manager:
> ✓   Scan
>   Check the status and accessibility of all devices such as Frogs, frogKeys, frogLinks etc.
> ✓   Config
>   Upload the device configuration on the selected Frog.
>   For information on uploading device configurations, see → *Loading a device configuration onto a device page 127.*
> ✓   Project
>   Create a project backup for the current project in a file or in a selected Frog.
>   For information on creating a backup, see → Updating frogware
> ✓   In the Device **manager** you can update the **frogware** on the following devices:
> ✓   Frogs, see → Updating frogware for Frogs, page 155.
>
> ✓   frogKeys, see → Updating *frogware , page 157.*
>
> ✓   For information on updating the frogware of frogDisplays, see → Updating the frogware for a frogDisplay, page 158.
> ✓   If the frogProject app is updated from the Google Play Store or the Apple App Store, the latest version of the **frogware** (for Frogs and frogKeys) for Android devices is stored in the **Documents** folder. For iOS devices the **frogware** is stored in the internal memory.

Updating frogware for Frogs

For devices you can update the **frogware** of all frogs, such as frogDim1-3, frogDim2-2 frogEntry2-3 or frogContact5-BAT.

1. Open a project.

2. Tap **Menu** ☰

3. Tap **Device manager**.

    The **Device manager** screen is displayed.

    Figure: **Device manager** screen.

4. In the **Device manager**, tap the Frogs for which you want to perform the **frogware** update.

    Figure: **Device manager** screen with a selected Frog.

    By activating **All** you can select all Frogs and frogKeys at the same time.

5. Tap **frogware** ↻

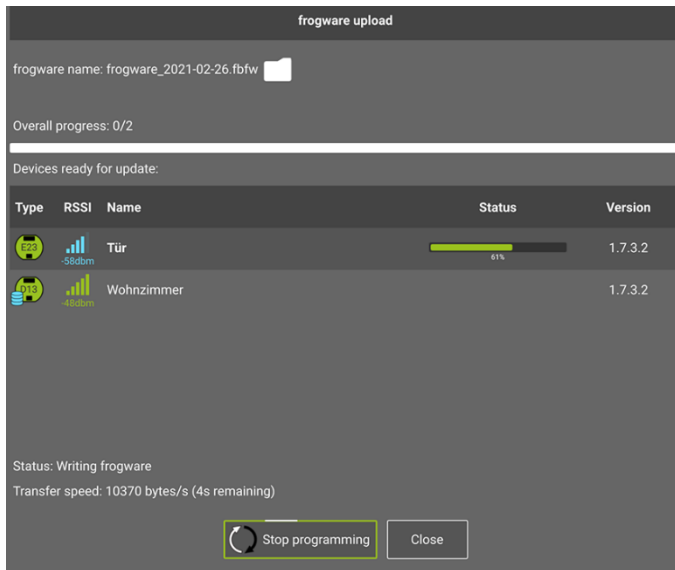   The **frogware upload** dialog box is displayed.

Figure: **frogware upload** dialog box.

6. Tap **frogware name: <Select File>**.

A dialog box, depending on the operating system of the tablet, is displayed.

7. Select the **frogware** you wish to use for the update.

The selected **frogware** is displayed in the **frogware upload** dialog window.

8. Tap **Start programming** ↻

The **frogware** is installed.
In the **frogware upload** dialog window you can see the progress of the upload and the installation.
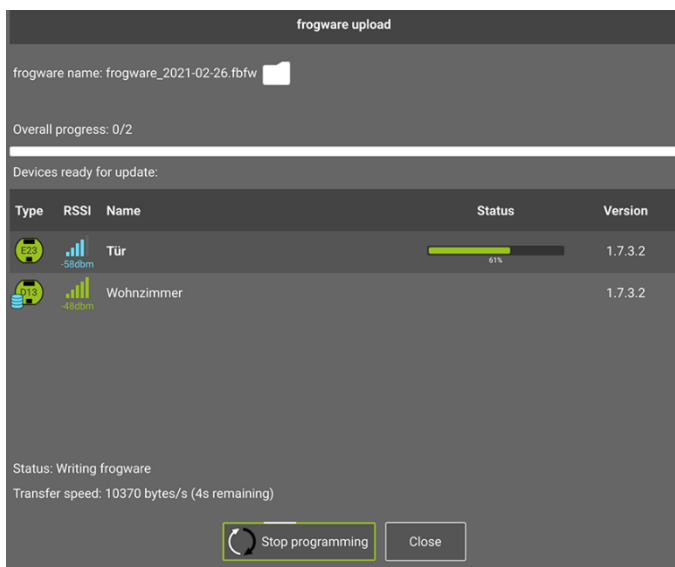

Figure: The **frogware** is installed on the Frogs.

After finishing the update, check to make sure all Frogs have been updated. If necessary, repeat the upload of the **frogware**.

After a successful update, tap **Close**.

9.4.3   Updating frogware for battery-powered frogblue devices

Battery-powered frogblue devices, such as a frogKey, frogContact5-BAT, RoomSense, and MultiSense, must be assigned to a project for the **frogware** to be updated.

Note

To ensure the longest possible battery life the frogKey and the frogContact5-BAT use energy saving functions. For this reason, the frogKey and the frogContact5-BAT must be set to configuration mode to update the **frogware**.

---

1. To activate the configuration mode for the frogKey for 60 seconds, click the frogKey four times quickly, holding the last click until the middle LED flashes.

   The frogKey flashes green when it is assigned to a project.

   Figure: Green flashing frogKey is assigned to a project.

1. To activate the configuration mode for the frogContact5-BAT for 60 seconds, click a button connected to the frogContact5-BAT **with three short clicks and one long click** (within 2 seconds).

2. Update the **frogware** in the same way as for a Frog.
   For information on updating the **frogware** of a Frog, see → *Updating frogware for Frogs, page 155.*

9.4.4   Updating the frogware for a frogDisplay

The frogDisplay requires a different **frogware** from Frogs and frogKeys.

Download frogOS

You can download the **frogware**, that is the **frogOS**, for the frogDisplay from the frogblue website → *frogblue.com*

You can update the **frogware** for a frogDisplay via the **frogProject** app in the **Device manager** or directly on the frogDisplay via a WLAN.

9.4.4.1   Updating frogOS via the Device manager

You can update the **frogware** for the frogDisplay via the **Device manager**.

1. Tap **Menu** ☰

2. Tap **Project**, and then tap **Device manager.**

3. Tap the frogDisplay whose frogware is to be updated.

4. Tap **frogOS**.

The **frog OS update** dialog box is displayed-

5. Tap **frog OS image** and select the **frogware** for the frogDisplay.

   You can identify the **frogware** for the frogDisplay by the file extension **.frogos**

6. Tap **Start OS update** ↻

   The **frogOS** is downloaded to the frogDisplay and updated there.
   In the **frog OS update** dialog window you can see the installation progress.

   After that the frogDisplay must be rebooted.

7. Tap **Reboot**.

   The frogDisplay is restarted automatically.

   Now you can configure and operate the frogDisplay.

9.4.4.2   Updating frogOS via WLAN

The **frogware** for the frogDisplay is transferred via a WLAN to the frogDisplay.
The first step you have to carry out is to configure the WLAN on the frogDisplay.
Only then does the actual update of the **frogware** for the frogDisplay take place.

1. Connect the frogDisplay to the power circuit.

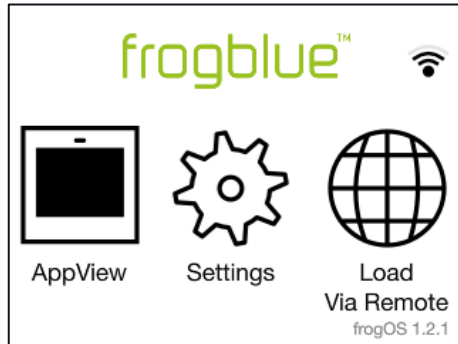   The frogDisplay starts and then displays the start page.

Figure: Start page of the frogDisplay.

2. Tap **Settings**.

Note

Tap **Language** to change the language of the frogDisplay user interface.

3. Tap **WLAN**.

4. Activate the slider for WLAN.

   All wireless LANs within range are displayed.

5. Tap the WLAN you wish to use.

6. Tap **Password** to enter the password of the wireless LAN.

7. Enter the password for the wireless LAN and tap **OK**.

8. Tap **Connect**.

   If the connection is successful, the WLAN name will turn green.

Via the configured WLAN the frogware can now be transferred to the frogDisplay.
In the next step, the IP address must be determined which is to be used to access the frogDisplay.

1. In the **Settings**, tap **WLAN**.

2. Tap the settings of the active wireless LAN.

3. Tap **IPv4 address**.

   The **IPv4 address** screen displays the IP address.

4. Make a note of the IP address, for example 192.168.2.116.

Using the set IP address, you can access the frogDisplay via a browser.
You can then go on to upload and update the frogware of the frogDisplay.

1. Start a browser on a PC which can be accessed in the same wireless LAN.

2. Enter the IP address of the frogDisplay in the address line of the browser.

    A dialog box for entering a user name and a password is displayed.

Note

The first time you update the frogware for the frogDisplay, the access data is as follows:
Username: **frogblue**
Password: **greenfrog**

For further updates, the access data is as follows:
Username: **frogblue**
Password: *<Project password>*

The project password is the same as the password of the project uploaded to the frogDisplay.
Information on uploading a project to a frogDisplay can be found in the section
→ *Loading a project on the frogDisplay, page 145.*

---

3. Enter the user name and password.

    A warning regarding the security of the certificate is displayed.

4. Ignore the warning for the certificate and load the website.

5. Re-enter the user name and password.

    The **Overview** page is displayed.

6. Click **Firmware Update**.

    The **frogOS Firmware Update** page is displayed.

Figure: **frogOS Firmware Update** page.

7. Click **Browse ...**

A dialog box for selecting a file is displayed.

8. Select the **frogware** for the frogDisplay.

You can recognize the frogware for the frogDisplay by the file extension **.frogos**.

9. Click **Upload**.

The **frogware** is loaded onto the frogDisplay and updated there.
After that the frogDisplay will be restarted automatically.
The start page is displayed again in the frogDisplay.
Now you can configure and operate the frogDisplay.

Creating a backup*, page 155.*

frogware
Update the **frogware** for Frogs and frogKeys.
For information on updating the **frogware**, see → *Updating frogware, page 155*
and → *Updating frogware, page 157.*

frogOS
Update the **frogware** for frogDisplays.
For information on updating the **frogware** for frogDisplays, see → *Updating the
frogware for a* frogDisplay*, page 158.*

Search
The **Devices** dialog box is displayed that you can use to add devices to the current
project.
For information on the **devices** dialog box, see → *Adding devices to a project,
page 60.*

Delete
Devices (Frogs, frogKey, frogDisplay etc.) can be removed from a project.
For information on deleting devices, see → *Deleting devices, page 163.*

Note

For safety reasons, we recommend resetting devices to their factory settings before deleting them.
For this reason, you can also reset devices in the **Delete** dialog box.

CSV export
Export the device list into a CSV file. The Frog type, name, room, network, MAC
address and **frogware** version are saved in the CSV file.
The CSV file is placed in the **Documents/sheets** folder.

If you select a Frog, frogKey or frogLink by tapping on it, a green number in the buttons shows you
which actions are possible for the selected device.

Figure: Green figures indicate possible actions for a Frog, frogKey or frogDisplay.

Note

When you tap the name of a Frog, the room is shown to which the Frog is assigned.

9.5   Updating frogware

In the **Device manager** you can update the **frogware** on the following devices:

- Frogs, see → *Updating frogware for Frogs, page 155.*

- frogKeys, see → *Updating frogware , page 157.*

For information on updating the **frogware** of frogDisplays, see → *Updating the frogware for a frogDisplay, page 158.*

If the **frogProject** app is updated from the Google Play Store or the Apple App Store, the latest version of the **frogware** (for Frogs and frogKeys) for Android devices is stored in the **Documents** folder. For iOS devices the **frogware** is stored in the internal memory.

9.5.1   Updating frogware for Frogs

For devices you can update the **frogware** of all frogs, such as frogDim1-3, frogDim2-2 frogEntry2-3 or frogContact5-BAT.

10. Open a project.

11. Tap **Menu** ☰

12. Tap **Device manager**.

The **Device manager** screen is displayed.

Figure: **Device manager** screen.

13. In the **Device manager**, tap the Frogs for which you want to perform the **frogware** update.

Figure: **Device manager** screen with a selected Frog.

By activating **All** you can select all Frogs and frogKeys at the same time.

14. Tap **frogware** ⟳

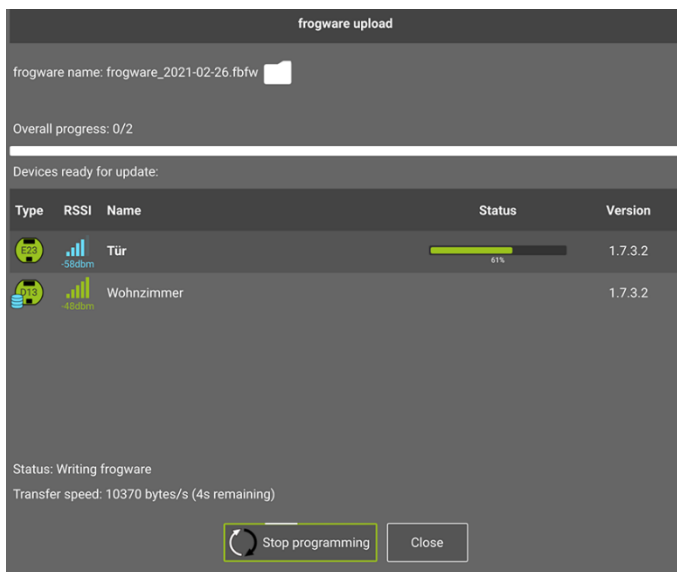The **frogware upload** dialog box is displayed.

Figure: **frogware upload** dialog box.

15. Tap **frogware name: <Select File>**.

A dialog box, depending on the operating system of the tablet, is displayed.

16. Select the **frogware** you wish to use for the update.

The selected **frogware** is displayed in the **frogware upload** dialog window.

17. Tap **Start programming** ⟳

The **frogware** is installed.
In the **frogware upload** dialog window you can see the progress of the upload and the installation.

Figure: The **frogware** is installed on the Frogs.

After finishing the update, check to make sure all Frogs have been updated. If necessary, repeat the upload of the **frogware**.

After a successful update, tap **Close**.

9.5.2   Updating frogware for battery-powered frogblue devices

Battery-powered frogblue devices, such as a frogKey, frogContact5-BAT, RoomSense, and MultiSense, must be assigned to a project for the **frogware** to be updated.

Note

To ensure the longest possible battery life the frogKey and the frogContact5-BAT use energy saving functions. For this reason, the frogKey and the frogContact5-BAT must be set to configuration mode to update the **frogware**.

18. To activate the configuration mode for the frogKey for 60 seconds, click the frogKey four times quickly, holding the last click until the middle LED flashes.

    The frogKey flashes green when it is assigned to a project.

Figure: Green flashing frogKey is assigned to a project.

19. To activate the configuration mode for the frogContact5-BAT for 60 seconds, click a button connected to the frogContact5-BAT **with three short clicks and one long click** (within 2 seconds).

20. Update the **frogware** in the same way as for a Frog.
    For information on updating the **frogware** of a Frog, see → *Updating frogware for Frogs, page 155.*

9.5.3   Updating the frogware for a frogDisplay

The frogDisplay requires a different **frogware** from Frogs and frogKeys.

Download frogOS

You can download the **frogware**, that is the **frogOS**, for the frogDisplay from the frogblue website → *frogblue.com*

You can update the **frogware** for a frogDisplay via the **frogProject** app in the **Device manager** or directly on the frogDisplay via a WLAN.

9.5.3.1   Updating frogOS via the Device manager

You can update the **frogware** for the frogDisplay via the **Device manager**.

21. Tap **Menu** ☰

22. Tap **Project**, and then tap **Device manager.**

23. Tap the frogDisplay whose frogware is to be updated.

24. Tap **frogOS**.

    The **frog OS update** dialog box is displayed-

25. Tap **frog OS image** and select the **frogware** for the frogDisplay.

    You can identify the **frogware** for the frogDisplay by the file extension **.frogos**

26. Tap **Start OS update** ↻

    The **frogOS** is downloaded to the frogDisplay and updated there.
    In the **frog OS update** dialog window you can see the installation progress.

    After that the frogDisplay must be rebooted.

27. Tap **Reboot**.

    The frogDisplay is restarted automatically.

    Now you can configure and operate the frogDisplay.

9.5.3.2   Updating frogOS via WLAN

The **frogware** for the frogDisplay is transferred via a WLAN to the frogDisplay.
The first step you have to carry out is to configure the WLAN on the frogDisplay.
Only then does the actual update of the **frogware** for the frogDisplay take place.

28. Connect the frogDisplay to the power circuit.

    The frogDisplay starts and then displays the start page.
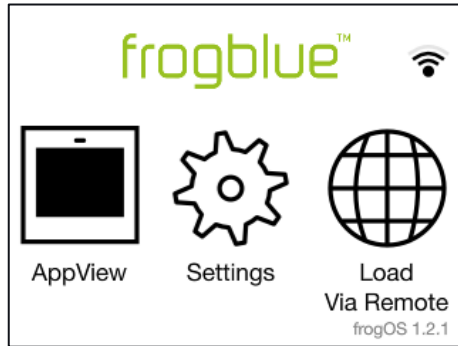
Figure: Start page of the frogDisplay.

29. Tap **Settings**.

Note

Tap **Language** to change the language of the frogDisplay user interface.

30. Tap **WLAN**.

31. Activate the slider for WLAN.

    All wireless LANs within range are displayed.

32. Tap the WLAN you wish to use.

33. Tap **Password** to enter the password of the wireless LAN.

34. Enter the password for the wireless LAN and tap **OK**.

35. Tap **Connect**.

    If the connection is successful, the WLAN name will turn green.

'Via the configured WLAN the frogware can now be transferred to the frogDisplay.
In the next step, the IP address must be determined which is to be used to access the frogDisplay.

36. In the **Settings**, tap **WLAN**.

37. Tap the settings of the active wireless LAN.

38. Tap **IPv4 address**.

    The **IPv4 address** screen displays the IP address.

39. Make a note of the IP address, for example 192.168.2.116.

Using the set IP address, you can access the frogDisplay via a browser.
You can then go on to upload and update the frogware of the frogDisplay.

40. Start a browser on a PC which can be accessed in the same wireless LAN.

41. Enter the IP address of the frogDisplay in the address line of the browser.

    A dialog box for entering a user name and a password is displayed.

Note

The first time you update the frogware for the frogDisplay, the access data is as follows:
Username: **frogblue**
Password: **greenfrog**

For further updates, the access data is as follows:
Username: **frogblue**
Password: *<Project password>*

The project password is the same as the password of the project uploaded to the frogDisplay.
Information on uploading a project to a frogDisplay can be found in the section
→ *Loading a project on the frogDisplay, page 145.*

---

42. Enter the user name and password.

    A warning regarding the security of the certificate is displayed.

43. Ignore the warning for the certificate and load the website.

44. Re-enter the user name and password.

    The **Overview** page is displayed.

45. Click **Firmware Update**.

    The **frogOS Firmware Update** page is displayed.

Figure: **frogOS Firmware Update** page.

46. Click **Browse ...**

    A dialog box for selecting a file is displayed.

47. Select the **frogware** for the frogDisplay.

    You can recognize the frogware for the frogDisplay by the file extension **.frogos**.

48. Click **Upload**.

    The **frogware** is loaded onto the frogDisplay and updated there.
    After that the frogDisplay will be restarted automatically.
    The start page is displayed again in the frogDisplay.
    Now you can configure and operate the frogDisplay.

9.6 Creating a backup

You can save the configurations and project data in a file or on a device to create a project backup. A project backup contains all the information and configurations for a project.

If you wish to save the entire configuration externally, you can export the project.
For information on exporting projects, see → *Exporting a project, page 51.*

When using multiple Frogs, the project backup is saved to the selected Frogs one after the other.

1. Tap **Menu** ☰

2. Tap **Project**, and then tap **Device manager**.

    The **Device Manager** screen is displayed.

3. Tap **Project**.

    The **System backup** dialog box is displayed.
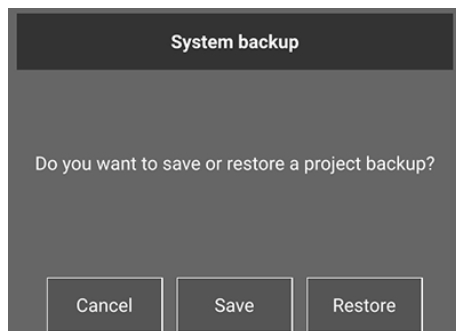
Figure: **System backup** dialog box.

4. Tap **Save**.

    The **Save project backup** dialog box is displayed.
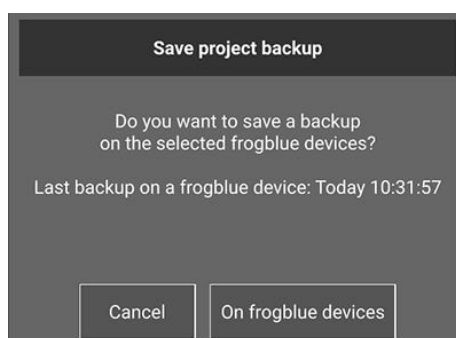
Figure: **Save project backup** dialog box.

4. Tap **On frogblue devices** to save the entire set of configuration data on the devices.

    In this case, however, you can only access the project backup if you have access to the device.

    The project backup is uploaded to the devices.

9.7   Deleting devices

In the **Device manager**, you can remove devices from a project if the devices are no longer needed in the current project. This marks the devices for deletion. Devices marked for deletion can then be permanently deleted in the **Deleted devices** screen. All deleted devices should be reset to factory defaults to ensure that no project information is stored on the devices.

1. Tap **Menu** ☰

2. Tap **Project**, and then tap **Device manager.**

    The **Device manager** screen is displayed.

3. Tap the devices that you want to delete.

4. Tap **Delete**.

    The **Delete** dialog box is displayed.
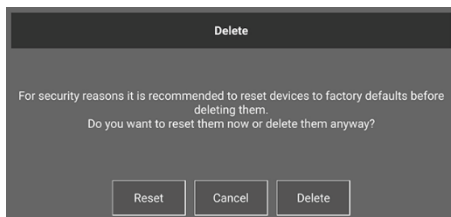
Figure: **Delete** dialog box.

5. Tap **Reset** if you want to reset the device to factory defaults.

    The **Reset devices** dialog box is displayed. Tap **Reset**. The device is reset to the factory defaults.

    — or —

5. Tap **Delete** if you want to remove the device from the project.

    The **Information** dialog box is displayed.

6. Tap **Close**.

    The device is removed from the project.
    This means that the device has not yet been permanently deleted but can be added to the project again if required. The devices that have not yet been permanently deleted are displayed in the **Deleted devices** screen.

Deleting a device permanently

1. Tap **Menu** ☰, which now is displayed in red color.

2. Tap **Project**, and then tap **Deleted devices**.

    The **Deleted devices** menu is only visible if at least one device has been deleted.

    The **Deleted devices** screen is displayed.

Figure: **Deleted devices** screen.

3. Tap **Add** if you want to add the device to the project again.

    The **Add** dialog box is displayed.
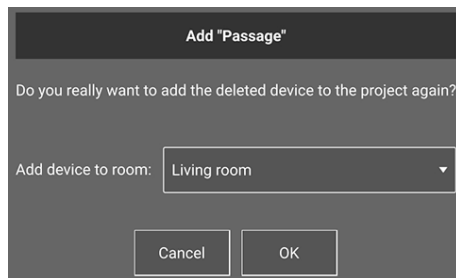
Figure: **Add** Dialog box.

4. Tap **OK**.

    The device is added to the project again. With this you have undone the deletion.

    — or —

4. Tap **Delete**.

    The **Delete** dialog box is displayed.
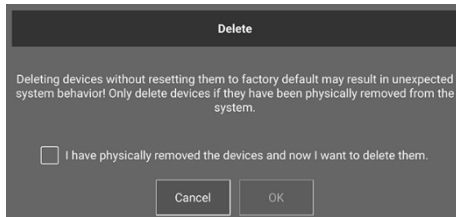
Figure: **Delete** dialog box.

5. Activate the checkbox **„I have physically removed the devices and now want to delete them“.**

6. Tap **OK**.

   The **Change keys** dialog box is displayed.

   It is recommended to change the device and network key. Changing the device and network key only affects the remaining devices in the project, but not the deleted device. This means that the project is encapsulated in itself again and only acts via the new device and network key. The deleted device with the old device and network key is thus "locked out".

7. Tap **Change keys** if you want to change the device key and the network key.

The **Change device keys** screen is displayed. Information on the device key and changing the device key, see → *Changing the device key, page 58.*

   — or —

7. Tap **No** if you want to remove the device without changing the device key.

   The device is permanently removed from the project.

10 Macros and system signals

This chapter contains information on the following topics:

   ✓ Creating and managing macros.
Macros offer the possibility to define settings for inputs and outputs centrally and to assign them to several Frogs.

   ✓ Creating and managing function macros.
Functions can be explicitly assigned to Frogs via function macros.

   ✓ Creating and managing system signals.
One or more system signals are combined to a system group, via which all frogs configured in the frogblue system can be controlled simultaneously.

   ✓ Creating and managing system groups.
System signals are combined in a system group.

   ✓ Creating and managing dim curves.
Dim curves can be created and applied in the advanced settings of outputs. The management, import and export of dim curves are possible in the dim curve editor.

Inputs

The following functions are available for inputs:

Gate/Time editor
Dialog box to define logic functions.

Switch off after
Time adjustable from 1/10 s to 63 h.

Dim
Up/down activate/deactivate; brightness pre-settings; dimming speed.

Input matrix
Link local inputs with each other logically.

Hold time
Debouncing of an input signal. The input does not react to a status change at the input within the set time.

Rolling messages
Send multiple messages in succession.

Shutter
Set the shading position and the slat position for roller shutters.

Note

If you have selected the function **Status** as the type for the input, you can also use the settings for the **Status** .

Outputs

The following functions are available for outputs:

Time control
Dialog box for configuring a time control.

Gate/Time editor
Dialog box to define logic functions.

Dim
Configuration of the dimming parameters.

Soft Function
Slowly switch outputs on and off (for dimmable outputs).

Delay functions
Debouncing of an input signal. The input does not react to a status change at the input within the set time.

Shutter
Set the travel time and reversal time for roller shutters.

Note

The set parameters at the output overwrite the set parameters at the input, except in the settings for **Switch off after** or if the parameter at the input is equal to
is equal to 0.

The functions are described in detail in the following sections.

1. Tap the function for which you wish to make further settings.

Note

If settings have already been made for the function, tap the function for about two seconds to edit it. The corresponding dialog box then opens for processing purposes.

2. Configure the desired setting.

All settings are automatically saved in the **frogProject** app.

10.1.1.1 Gate/Time editor

In the **Gate/Time editor** you can implement logic functions for inputs and outputs. By using status messages, it is possible to permit or prevent the sending of the actual message.

Figure: **Gate/Time editor** dialog box.

Example

With the **Gate/Time editor** functions such as *Button only available in darkness* can be implemented. For this purpose, a message Dark is saved in the Gate/Time Editor. The gate only is only usable when the input receives the status message **Dark**.

Tap **Select status messages** to display all status messages in the frogblue system in the **Message center**.

Message name	ID	Devices	Rooms	In Channel	Out Channel	In Sys	Out Sys	In Macro	Out Macro	
TYPE:Night	11	0	0	0	0	0	0	0	0	>
TYPE:Frost	12	0	0	0	0	0	0	0	0	>
TYPE:Window is tilted	14	0	0	0	0	0	0	0	0	>
TYPE:Window is open	15	0	0	0	0	0	0	0	0	>
TYPE:Window is closed	16	0	0	0	0	0	0	0	0	>
TYPE:Door is open	17	0	0	0	0	0	0	0	0	>
TYPE:Door is closed	18	0	0	0	0	0	0	0	0	>
TYPE:Door is locked	19	0	0	0	0	0	0	0	0	>
TYPE:Alarm	20	0	0	0	0	0	0	0	0	>
TYPE:Wind	27	0	0	0	0	0	0	0	0	>

Search: [Search message] Message type: All ▾ Status: Yes ▾
Room: All ▾ Device type: All ▾
[+ Add] [Rename] [Delete] [CSV export] [Close]

Figure: The **Message center** displays the status messages used.

For information on the message center, see → *Message center, page 189.*

Tap the status message for which you wish to define a logic function.
The selected status message is displayed in the **Gate/Time editor**.

Gate/Time editor
Select timerange and/or status messages

Status messages: invert result ☐

TYPE:Night invert ☐

[Select status message]

[Expert] [Cancel] [OK]
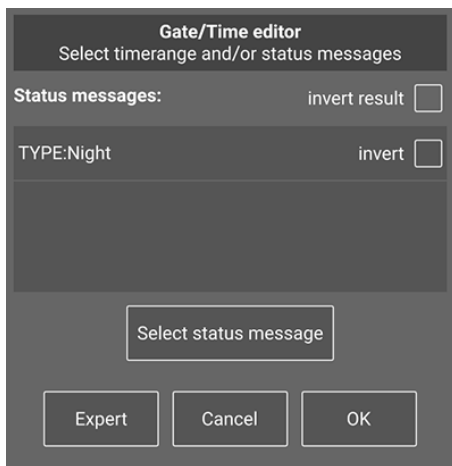
Figure: **Gate/Time editor** with selected status message.

Via **invert result**, the determined result can be inverted. This defines a logical NOT.

Note

To delete a selected status message, tap the name of the status message and swipe it to the left.

TYPE:Night invert ☐ 🗑

Then tap the rubbish bin to remove the status message from the **Gate/Time editor**.

Via **Expert**, the expert mode of the **Gate/Time editor** is available.
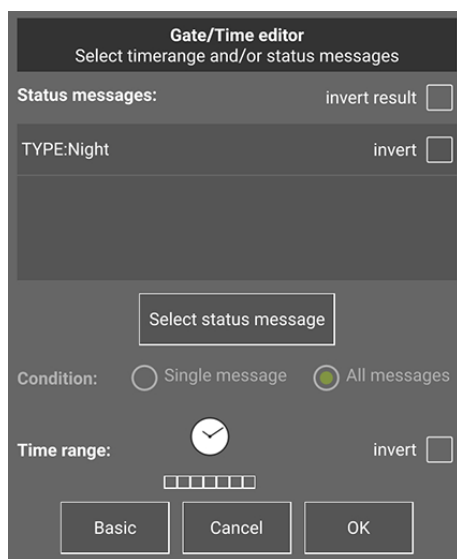
Abbildung: Expert mode in the **Gate/Time editor.**

Via **Condition** you can define the logic of the gate:

>   **All messages:** A logical AND gate.

>   **Single message**: A logical OR gate.

Via **Time control** ⌄ you can configure a time range where the selected message will be sent only in the set time period. Via **invert** the defined time range can be inverted.
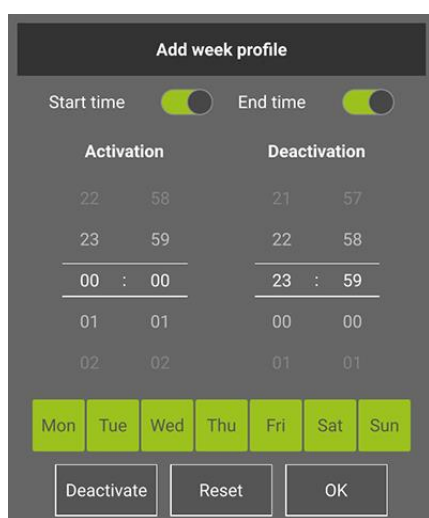
Figure: Time control in the **Gate/Time Editor**.

To get an example of a time control, see→ *Time control for child's bedroom with dimming, page 223*.

10.1.1.2 Minimal on

In them **Minimal on** ▭ dialog box you can define for inputs when the output connected to the input is to be switched off.
The settings for the input overwrite the settings in the assigned output.
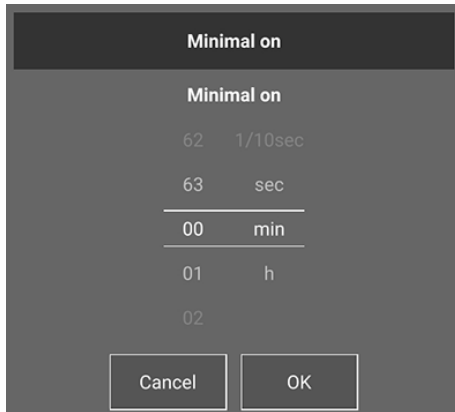
Figure: **Minimal on** dialog box.

10.1.1.3 Dim

In the **Dim** ◨ dialog box you can set the dimming parameters for inputs and outputs.
The settings of the assigned output overwrite the settings for the input.
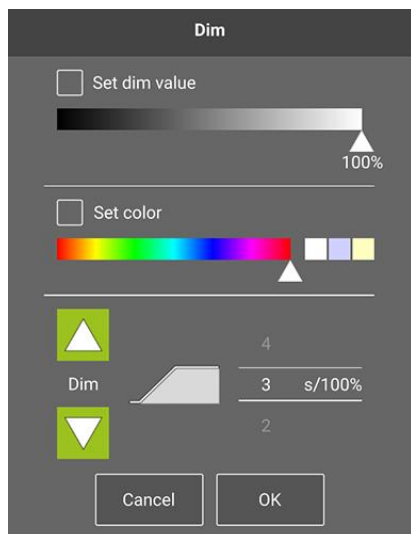
Figure: **Dim** dialog box.

The following options are available:

> **Set dim value** Here you can define which dimming value is to be set when switching on. If the option is switched off, the last brightness value used is used.

> **Set color:** Here you can set the color, if supported by the lighting device.

> ◨ Here you can set the direction of dimming (up and down) for the input.

> ◨ Defines the speed for dimming.

10.1.1.4   Input matrix

In the **Input matrix** ⭗ dialog box you can link several local inputs of a Frog to each other logically. The own input is always closed unless a status has been defined. Then the state of the own input can also be defined.

Figure: **Input matrix** dialog box.

> **Note**
>
> If you have selected a **Status** as the action, the corresponding setting is automatically configured in the **Input matrix**.

Figure: The settings in the **input matrix** if a status has been set for Input **In a**.

A message is only sent if the logical combination of the input with other inputs of the same device is logically TRUE.
For example, it is possible to implement the function that the door contact only locks the door if the door contact and the bolt contact are closed.

10.1.1.5 Hold time

In the **Hold time** ⌐ dialog box you can define for an input how long a button must be pressed before a message is sent.

The dead time is only available for the actions **Hold** and **Release**.
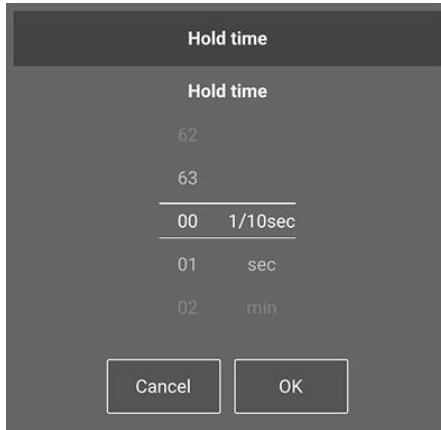
Figure: **Hold time** dialog box.

Example of Hold and Release

Several messages are configured with **Hold** 1 s, **Hold** 2 s, **Hold** 3 s.

When a switch is pressed, only one message is sent after 1 s, after 2 s and after 3 s.

Several messages are configured with **Release** 1 s, **Release** 2 s, **Release** 3 s.

If the switch is pressed for 1 s and then released, message 1 is sent.
If the switch is pressed for 2 seconds and then released, only message 2 is transmitted.
If the switch is pressed for 3 seconds and then released, only message 3 is transmitted.

10.1.1.6 Rolling Message

By activating **Rolling Message** ⟳ the messages defined for the input are sent one after the other each time the action is activated. To do this, several messages must be defined for one input. Rolling messages are only valid for the same action.
For information on creating several messages, see → *Define several messages, page 80.*

Example

The following four messages are defined:

Message 1 – Click – Light 10%

Message 2 – Click – Light 100%

Message 3 – Click – Light 0%

Message 4 - Double click - Light 40%

With one click the messages are always sent in the following order: Message 1, message 2, message 3. Message 4 is only triggered by a double click.

If you double-click at any time, the light will always be set to 40%.

If the double-click occurs after message 2, the light is set to 40%. Another click sets the light to 0% (message 3).
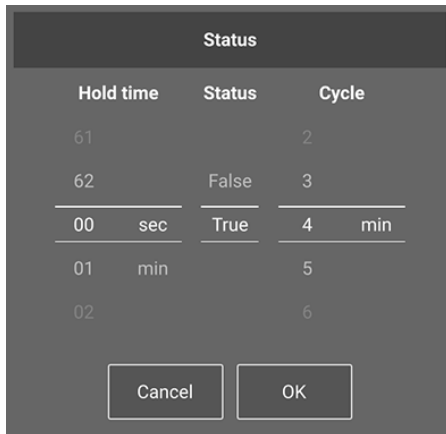
10.1.1.7 Status

If **Status** is selected as the action, you can configure it using the **Status** dialog box.

A status message is sent every time a status is changed. If there is no change, the status is repeated cyclically.

If you have selected a **Status** as the action, the corresponding settings are automatically configured in the **Input matrix**.
For information on the **Input matrix**, see section → *Input matrix, page 107.*

Figure: **Status** dialog box.

The following options are available to choose from:

Hold time: This time defines for how long no new status is sent.

Status "true": Here you can define whether a closed switch is **Open** or **Closed**.

10.1.1.8   Time control

In the **Time control** dialog box, you can set actions for an output that depend on defined times.
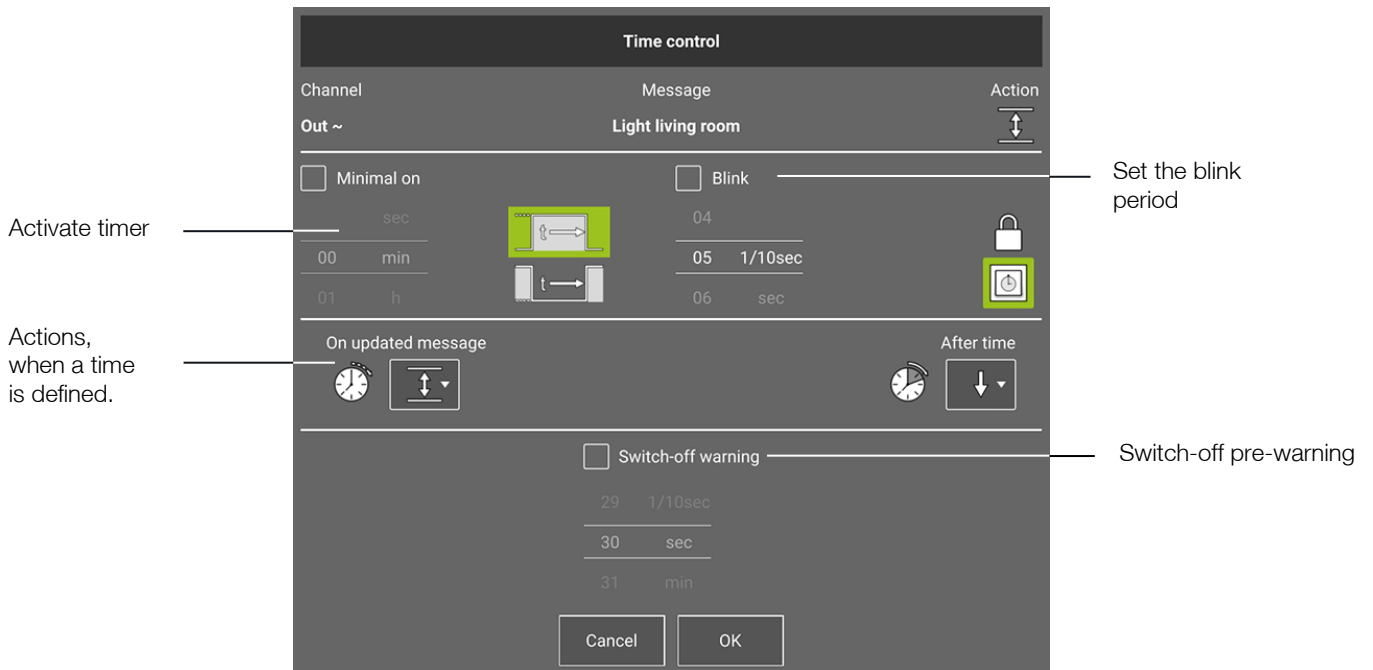
Figure: **Time control** dialog box.

Activating a timer

You can activate a timer for an output.
With **Minimal off** you can define after which time the output should be switched off.
With **Minimal on** you can define how long the output should remain switched off.

Only this message may change the output status when a time is running.

You can use activation to specify that a set time at the input overwrites the switch-off time at the output. If, for example, two minutes are set for the input and one minute for the output, the two minutes set for the input apply.

Actions when a time is defined

With this selection you can define what is to happen if a message arrives while a timer is running in the output. Possible options are **Nothing**, **Reset time** and **Toggle output**.

With this selection you can define what is to happen after the set time. With **Off** the output is switched off and with **On** the output remains switched on.

Switch-off pre-warning

For a dimmable output you set the time for the output in which the output reduces the brightness in four steps to indicate that the output is about to be switched off.
For a non-dimmable output, the lamp flashes briefly every three seconds.

Setting the blinking time

By activating the **Blink period** you can define the period of time for flashing.

The time determines how long the output is switched on or off within the flashing period, that is, the flashing speed is defined here.

> **Note**
>
> As soon as flashing is activated, the defined action (for example. **switch over**) is ignored and only the flashing is carried out.

10.1.1.9 Soft Function

For an output, you can use **Soft Function** ⌂ dialog box to define how long the dimming is to last until the desired brightness value is reached.

Figure: **Soft Function** dialog box.
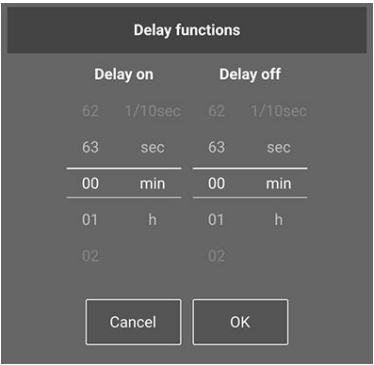
The following options are available to choose from:

> **Soft On**: This time determines how long dimming from 0% brightness to the desired brightness value takes.

> **Soft Off:** This time determines how long dimming from the current brightness to 0% brightness value takes.

10.1.1.10 Delay functions

In the **Delay functions** dialog box for an output, you can set for an output how long the system is to wait after receiving the message until the output is switched on or off.

Figure: **Delay functions** dialog box.

The following options are available to choose from:

Delay on: With this value you can ensure that the lamps are only switched on gradually over a long period of time, for example. It is also possible to configure the system so that a fan in the bathroom is switched on automatically if a lamp has already been switched on for five minutes.

Delay off: With this value you can ensure that the corridor light is only switched off after a certain time after you have left the house, for example.

10.1.2   Special configurations for outputs

The following sections describe the following special configurations for outputs:

- ✓ Configuring **Shutter** and **Screen**
- ✓ Follow output

10.1.2.1   Shutter and Screens

With **Shutter** ⬛ (for roller shutters and blinds) and for **Screens** ⬛ , you can make the following configurations in the output:

- travel time
- changeover time

For a **Shutter** ⬛ you can also configure a **Reverse time**.

First configure the output by specifying the **Travel time** or determining it via a measurement. Then configure the inputs for which the following configurations are possible:

- Start/Stop
- Position
- Manually (long)

For **Shutter** ⬛ you can also configure the position of the **Slats**.

> **Note**
>
> ⬛ indicates that no **Travel time** has yet been defined in the output. This means that possible settings in the input may not become effective.

Measuring and configuring travel time, changeover time and reverse time

To measure the **Travel time** and the **Reverse time**, the shutter, blind or screen must be properly connected to a frogRelay2-2.

The following describes how to configure the settings for a **Shutter**. The settings for a **Screen** are analogous, but no **Reverse time** can be configured here.

1. In the output, tap **Shutter settings**

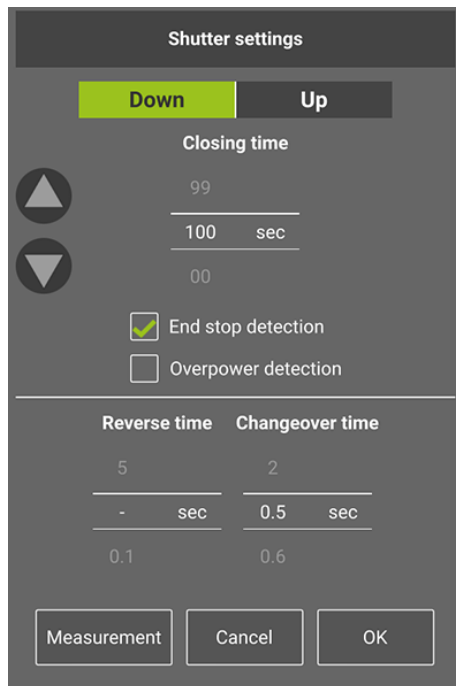   The **Shutter settings** dialog box is displayed.

   Figure: **Shutter settings** dialog box.

   In the **Shutter settings** dialog box, you can set the **Travel time**, the **Reverse time** and the **Changeover time** for startup and shutdown or determine them via a measurement.

   In the **Screen settings** dialog box, you can set the **Travel time** and the **Changeover time** or determine them via a measurement.

   The **Reverse time** is the time required by the blind to tilt the slats from open to closed.

   The **Changeover time** is the time that is waited before the direction of travel of a roller shutter changes from one direction to the other.
   For information on the changeover time, please refer to the documentation of your roller shutter, blind or screen manufacturer.

   If you know the **Travel time** and **Reverse time** of your shutter or blind or screen, you can set them directly for the **Travel time** and **Reverse time**.

   If you do not know the **Travel time** and the **Reverse time**, you can determine them via a measurement. The travel time is measured both for shutting up and for shutting down.

2. Tap **Measurement**.

   The **Shutter configuration** dialog box is displayed.

3. Tap **Continue**.

   The **Time measurement up/down** dialog box is displayed.
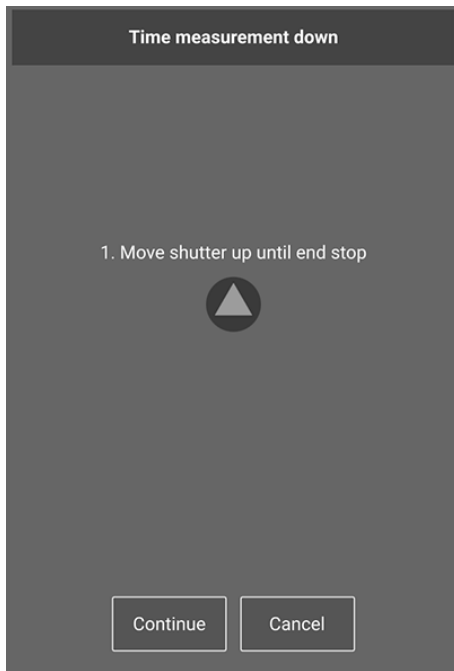
Figure: **Time measurement up** dialog box.

4. Tap **Continue.**

5. Tap **Start** to start the measurement.

    The **Travel time** is measured. You can stop the measurement with **Stop**.

    After the measurement, save the determined configuration to the frogRelay2-2.

6. Tap **Save configuration** 🎧

    The configuration is written to the frogRelay2-2.

7. Tap **OK**.

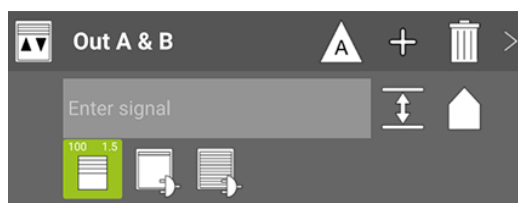   The determined measurement values are shown in the output.

Figure: The measurement values in the output **Out A & B**.

In the next step you can configure the inputs.

Setting the position and slats in the input

You set the **Position**, that is, how far the roller shutter is to be lowered, and the position of the **Slats**, that is, how far the slats of the roller shutter are to be opened, in the input.

1. In the input, tap **Shutter input action settings** .

   The **Shutter input action settings** dialog box is displayed.
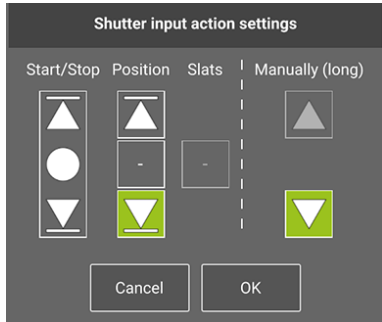
Figure: **Shutter input action settings** dialog box.

2. First determine the **Position.**

Note

The **Reverse time** of the roller shutter must be set before the slats can be moved into position. Information on setting the **Reverse time** can be found in → *Measuring and configuring travel time, changeover time and reverse time*.

  Position at the top.

–

Figure: **Position** dialog box.

  Position at the bottom.

3. Determine the position of the **Slats**.
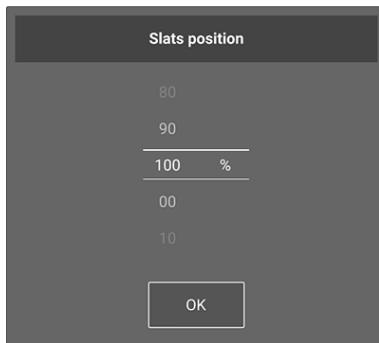
Figure: **Slats position** dialog box.

4. Tap **OK**.

   The settings are shown in the inputs.
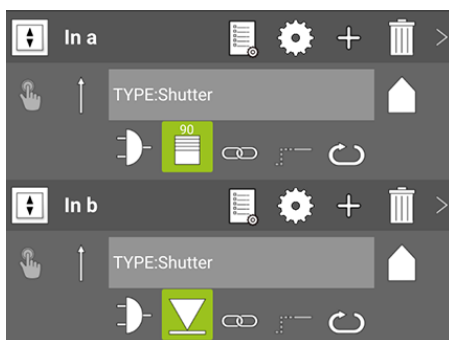
Figure: Settings for the shutter in the inputs.

5. Configure the settings for both inputs.

10.1.2.2 Follow output

Via **Follow** ⇨ the output can follow the status of another output.

For example, a ventilation can follow the status of a light so that the ventilation switches on when the light is off or after a defined time after the light has been switched off. You can set the delay via the delay functions, see → *Delay functions, page 111.*
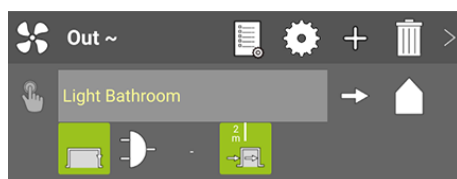
Figure: Follow a status.

10.1.3   Configuring the range

You can establish a range for the messages defined for the input and output. The range defines to which components in the frogblue system the messages are sent.
This makes it easy to create large installations with little configuration effort.

1.   Tap **Range** 🏠

The following options are available to choose from:

In-house: Messages are distributed throughout the project. All Frogs that listen to the same message will respond.

In-area: Messages are only forwarded in the area. Only Frogs in the same area respond.

In-room: Messages are only forwarded in the room. Only Frogs in the same room respond.

In-frog: Messages are only sent within the Frog. Only outputs in the same Frog can react to the message.

Example

In a garden, several lamps are installed, each with a motion detector and a Frog. Each motion detector is connected to the input of a Frog. Each lamp is connected to the output of a Frog.
If a movement is detected, the message **Light on** is sent. If the **In-room** option is activated for the message, all Frogs switch on the lamps in the garden.
In addition, a **Flashing** message is sent, but with the option **In-frog**.
Now only the lamp flashes to which the triggering motion detector is connected.

10.2 Advanced settings

The following functions and views are available in the footer on the **Configuration** screen:

Advanced device settings, see → *Advanced device settings, page 119*.

Master/clone configuration, see → *Master/clone configuration, page 124*.

Status, see → *Status, page 125*.

User view, see → *User view, page 126*.

Monitor temperature, see → *Temperature view, page 126*.
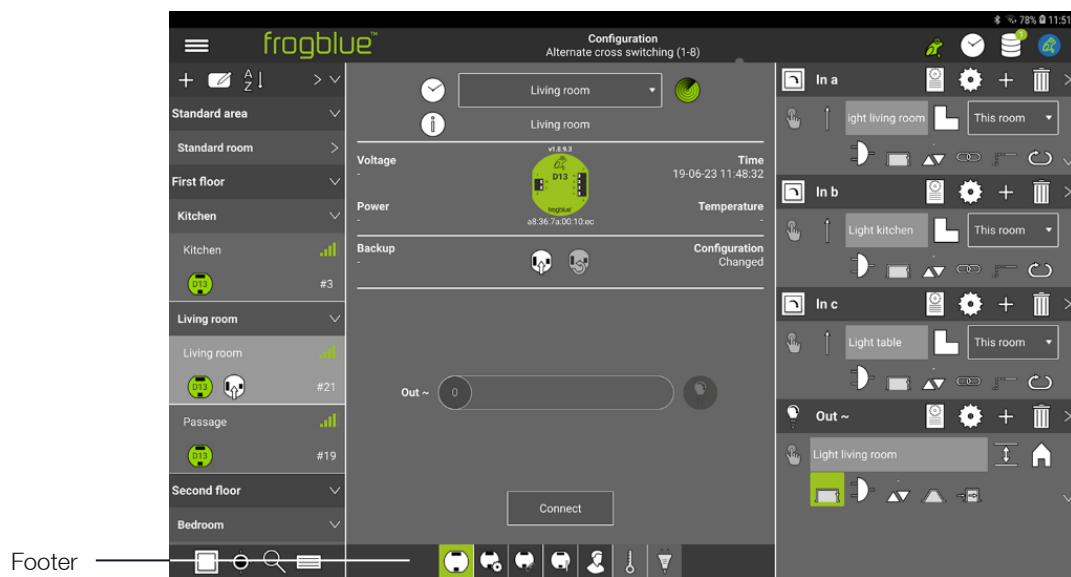
Power measurement, see → *Power measurement, page 126*.

Footer

Figure: The advanced settings in the footer.

10.2.1 Advanced device settings

The advanced device settings are divided into three areas:

In: Here you can define a debounce time for the input. The debounce time is the minimum time that a signal must be present for a click to be detected. If the input is switched without a button being pressed, this time must be increased.

Out: Here you can configure the advanced settings for the outputs, see → *Advanced settings for outputs, page 119.*

Expert: Here you can restart the device, reset to factory settings, or delete the device configuration, see → *Expert settings, page 122.*

10.2.1.1 Advanced settings for outputs

In the advanced settings for outputs, you can:

- ✓ adjust the dim curve,
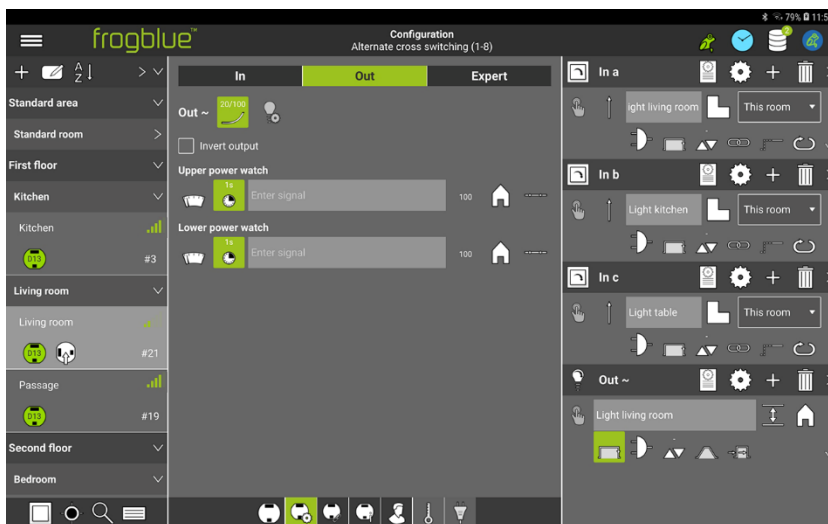- ✓ detect defective bulbs for one or more bulbs,
- ✓ define power limits.

Figure: Advanced settings for an output.

10.2.1.1.1 Adjusting the dim curve

You can use the **Dim editor** to adjust the dim curve for an output.

> **Note**
>
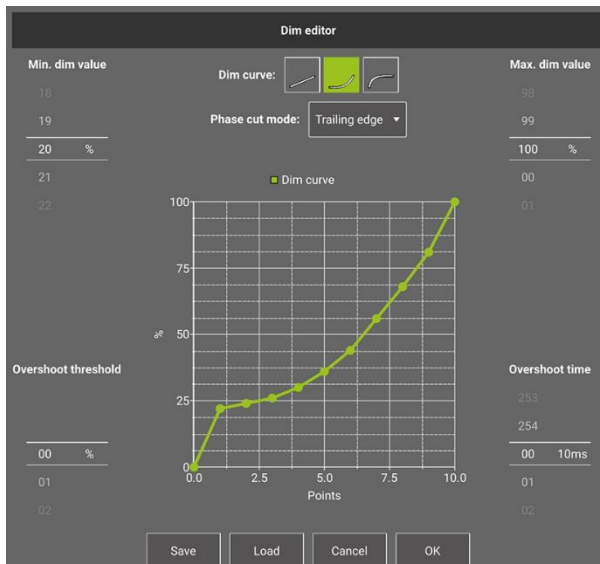> The **Dim editor** is only available for the action **Dimmable light** .

Figure: **Dim editor.**

Dim curve

With the **Dim curve** you can adapt the dimming response to different light sources. If, for example, a light source very quickly changes the perceptible brightness in the lower range (approximately 10% - 50%) of a linear curve, but then shows barely perceptible changes in the high range, this can be corrected with an exponential curve. If necessary, the curve in the graph can also be adjusted manually.

The following options are available to choose from:

Linear curve (default setting)

Exponential curve

Logarithmic curve

Note

Only switching and dimming is possible for all reverse phase control and phase control-approved light sources.

Phase cut mode

Here you can select whether the dimming is to be applied to the **Trailing edge** or the **Leading edge**.

Min. dim value, max. dim value

Here you can select the lowest and highest dimming level (in per cent, starting from 100%). The setting of a high dimming level is recommended, for example, if an output (lamp) is generally to be limited to a reduced brightness.

Overshoot threshold, Overshoot time

Some light sources require a higher inrush current to be switched on than that provided in **min. dim value**. For example, a light source can be dimmed down to 10%, but not started at 10%.

With the **Overshoot time** value, you can determine which dimming level a light source is to be started at. Use the **Overshoot time** to set the duration of how long the higher dimming level is to be used.

Example

A lamp (mostly LED) can be dimmed down to 10%. If the lamp is switched on at 10%, there is no response, however, that is, the lamp remains dark.
In this case the **Overshoot threshold** value is set to 20%, while the value **Overshoot time** is set to 80 ms.
When the lamp is switched on again, the dimming level is set to 20% for 80 ms, which makes the lamp go on. After this, the dimming level is reduced to 10%.

Save

You can save the settings for the dim curve. This allows you to transfer the setting to other Frogs. You can manage dim curves in the dim curve editor, see section → Creating and managing dim curves*, page 187.*

Load

If dim curves already exist or have been imported into the project (see → *Importing and exporting dim curves, page 188)* you can load an existing dim curve.

10.2.1.1.2 Defective bulb detection

Here you can set up a defective bulb detection for an output to which one or more lamps are connected.
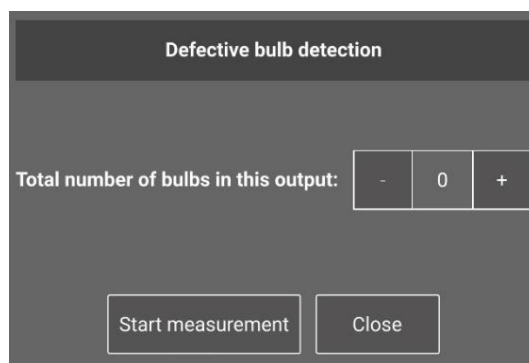
1. Tap **Defective bulb detection**

Figure: **Defective bulb detection** dialog box.

Tap **Start measurement** to start a power measurement with different dimming values. If a lamp in the output circuit fails, this is detected by the reduced power output and indicated by an orange frame in the output.

10.2.1.1.3 Defining power limits

You can define an **Upper power limit** and a **Lower power limit**. The selected message is sent as soon as the upper power limit is exceeded, or the lower power limit is undershot, and the output is not switched off.

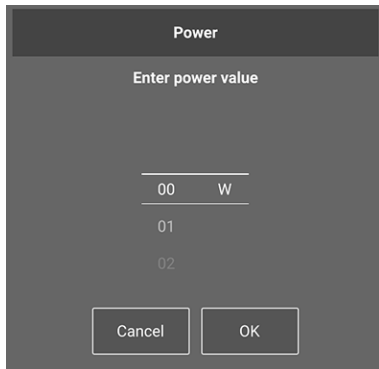Tap **Power** ⬗, to define the power level in the **Power** dialog box.

Figure: **Power** dialog box.

10.2.1.1.4 Expert settings

In the **Expert settings** you can configure message forwarding, reset the Frog's configuration as well as restart the Frog.
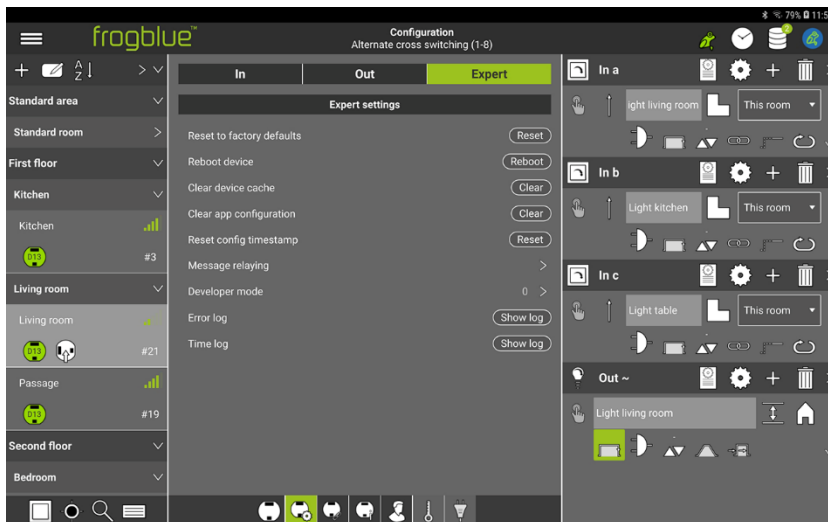

Figure: Expert settings.

Resetting a Frog

Resetting a frog may be necessary if you forget the project password.

To reset a Frog, you need the device key and the reset key of the Frog.

For information on the device key, see → *Changing the device key, page 58.*

For information on the reset key, see → *Installation information, page 20.*

Note

The reset key is only accepted within three minutes after Frog has been reconnected to the circuit. Thus, a Frog can only be reset after, for example, the fuse has been switched off and on again.

1. Tap **Reset**.

   The **Default settings** dialog box is displayed.

2. Tap **OK**.

   The Frog is reset to the factory settings.

10.2.2 Master/clone configuration

In the view for the **Master/clone configuration** you can assign slaves to a Frog which has been defined as the master. The clone takes on the configuration for the inputs and outputs from the master.

1. In the device list, tap the Frog that is to serve as the master.

   The selected Frog is displayed in the display area of the Master/clone configuration.
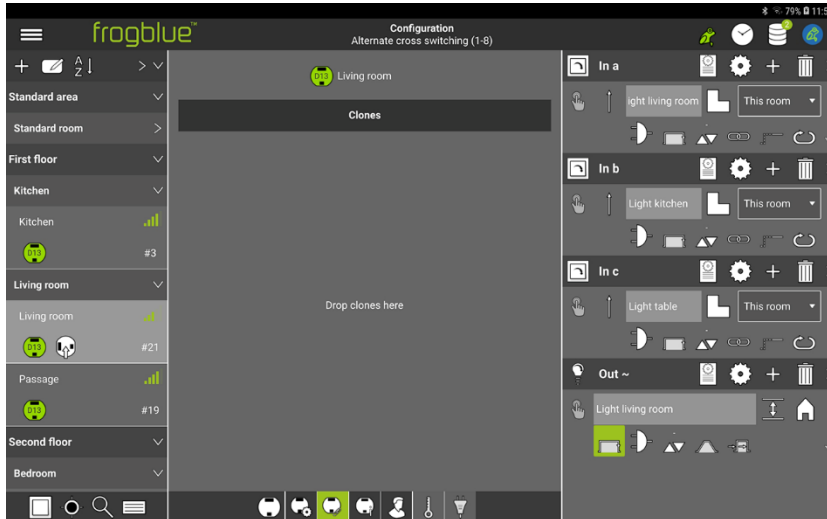

Figure: **Master/clone configuration** in the display area.

2. Drag the Frog that is to serve as clone from the device list into the display area.

   You can define any number of Frogs as clones.

Figure: The Frog selected as a clone in the display area.

The master is marked blue, and the clone is displayed in the display area.

A white marked clone then shows that the configuration is correct.

An orange marked clone indicates that the configuration does not correspond to that in the **frogProject** app. Here the configuration must be changed accordingly.

If you now tap a Frog in the device list that has been assigned to a master as a clone, this dependency is displayed in the display area.
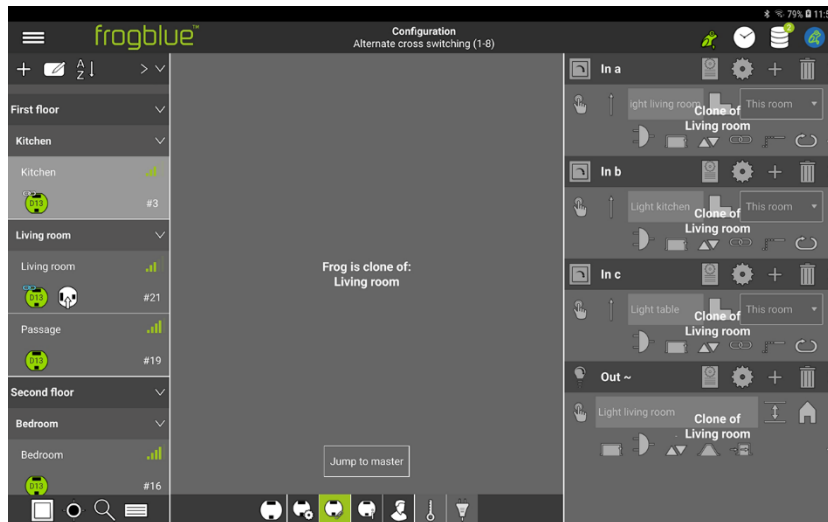The configuration of the clone is then only possible via the master.

Figure: A Frog that has been defined as clone can only be configured via the master.

10.2.3 Status

The status view shows whether the inputs and outputs are open or closed. In addition, the gates and their assignment are displayed, if any have been defined.

Figure: Status view for a Frog.

10.2.4   User view

In the User view you can add buttons and switches to a Frog and assign these to the inputs of the Frog.
Information on assigning buttons and switches to inputs, see → *Adding buttons and assigning inputs, page 78*.

Figure: User view of a Frog.

10.2.5   Temperature view

In the temperature view, you can check the development of the temperature in the Frog's housing.
From a temperature of 75°C, the Frog switches off electronically for safety reasons.

10.2.6   Power measurement

In the Power measurement view, the consumption at the outputs is recorded. The last 100 hours, days, weeks, or months can be displayed.

10.3 Loading a device configuration onto a device

Only when a device configuration has been loaded to a Frog will it take effect in the Frog.
You can load the device configuration of a Frog after the Frog has been configured, or you can load it onto all devices if the device configurations of all Frogs have been changed.

All data of the device configurations are automatically saved in the **frogProject** app. The configuration can then only be opened via the **frogProject** app. If the device configurations are to be passed on, the device configuration must be exported to a file, the project configuration .

Loading a device configuration onto a Frog

For a device configuration to take effect in the Frog, it must be loaded onto a Frog.

1. In the Frog view, tap **Connect** in the display area.

   A fast Bluetooth® connection is established to the Frog.
   Once a Bluetooth® connection is established, the button is renamed **Disconnect**.

2. Tap **Save configuration**

   The device configuration is loaded onto the corresponding Frog and saved there.

Undo the device configuration

You can undo a device configuration by restoring the last saved configuration on the Frog.

1. In the Frog view in the display area, tap **Connect**.

2. Tap **Undo changes**
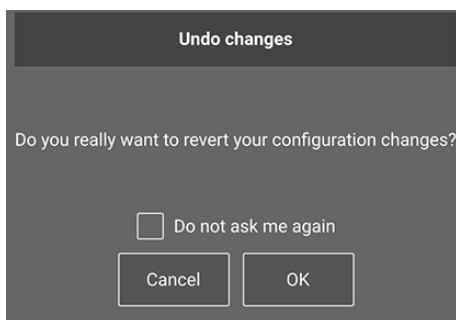
   The **Undo changes** dialog box is displayed.

Figure: **Undo changes** dialog box.

3. Tap **OK**.

   The changes since the last save are undone.

Loading a device configuration on all devices

If you have made changes whose configuration has to be saved, the icon **Save configuration** 🗄 is displayed in the upper title bar with a number.

1. Tap **Save configuration** 🗄
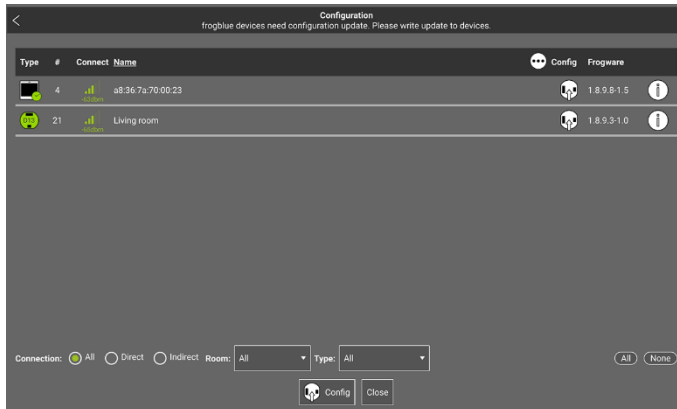
   The **Configuration** dialog box is displayed.

Figure: **Configuration** dialog box.

   All devices that are in the project are listed.

2. Tap **All** to select all devices or select the devices to which you want to load the changed configuration.

3. Tap **Config** 💀

   The device configuration is loaded onto all devices.

10.4 Health check

Numerous automatic checks can be performed via the health check to test whether the frogblue system has been configured correctly.

1. Tap **Menü** ☰

2. Tap **Project**, and then tap **Health check.**

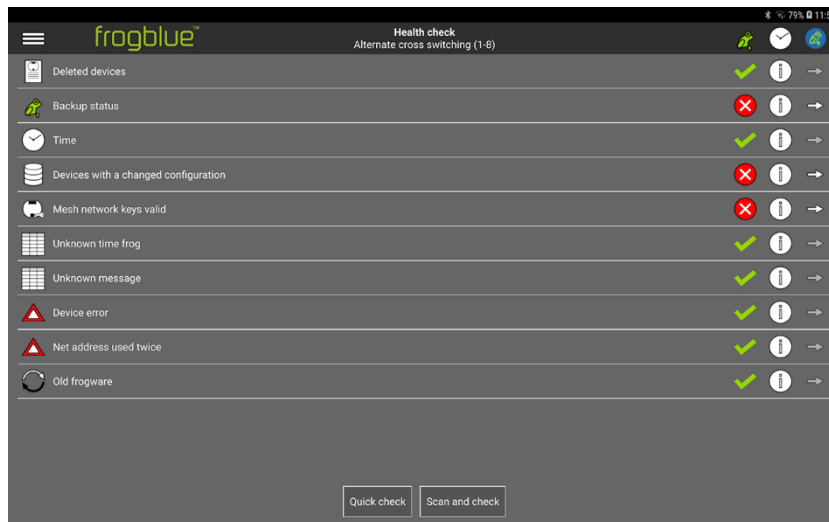The **Health check** screen is displayed.

Figure: **Health check** screen.

Quick check performs a quick scan that checks the most important factors.

Scan and check performs a detailed scan of the frogblue system.

If an error or problem is found, you can use ⇨ to call up the screen or dialog box in which the error is described, or the problem can be solved.

Deleted devices	⇨	Deleted devices screen	→ *Deleting devices, page163.*
Backup status	⇨	System configuration and backup dialog box	Displays the current backup status.
Time	⇨	Time server configuration dialog box	frogblue device can be defined as time server and frogblue system time can be synchronized with computer time.
Devices with a changed configuration	⇨	Configuration screen	→ *Loading a device configuration onto a device, page 127.*
Mesh network keys valid	⇨	Change device keys screen	→ *Deleting devices, page163.*
Unknown time frog	⇨	Time server configuration dialog box	frogblue device can be defined as time server and frogblue system time can be synchronized with computer time.

Unknown message	⇨	**Unknown messages** screen	→ *Unknown messages, page 195*
Device error	⇨	**Device manager**	→ *Device manager, page 146*
Net address used twice	⇨	**Device manager**	→ *Device manager, page 146*
Ols frogware	⇨	**Device manager**	→ *Device manager, page 146*

10.5 Configuring heating control

For a heating control you need one of the following frogblue devices for temperature measurement:

- ✓ frogMultiSense
- ✓ frogRoomSense
- ✓ frogAccess
- ✓ frogMotion

To regulate the temperature of the heater, you need one of the following frogblue devices:

- ✓ frogBoxHeat1
- ✓ frogHeatBar

For a frogBoxHeat1 and a frogHeatBar the configuration is identical.

First, for example, a frogMultiSense is added to the room to which the temperature is to be regulated.
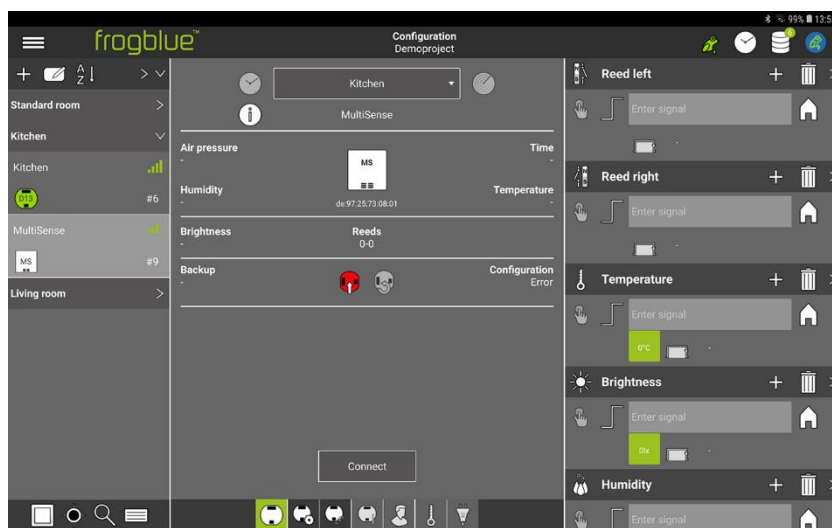
Figure: A frogMultiSense.

After that, a frogBoxHeat1 is added for the actual temperature control.

One frogboxHeat1 can control the temperature in several rooms.

Connection of a frogHeatBar

Several actuators can be connected to one output on a frogHeatBar. Five outputs can be connected directly, in addition six further control loops can be connected via further frogs and virtual outputs.

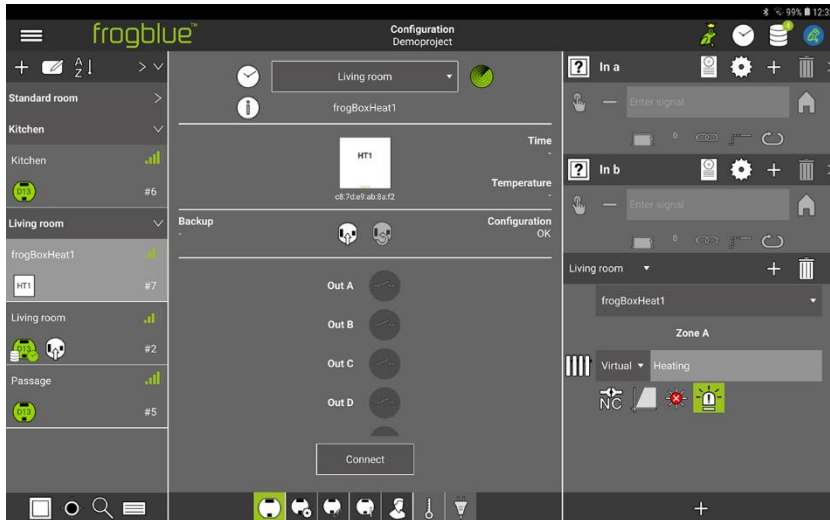For instructions on how to install a frogHeatBar to a heating manifold, refer to the enclosed operating instructions.

Figure: A frogBoxHeat1.

For a heating control, the output of the frogBoxHeat1 is configured.

1. Tap **<Select room>** in the configuration area and select the room where the frogBoxHeat1 will control the heating.

Note

Tap ⊹ at the bottom right of the footer to add more rooms.

2. Tap **<Select sensor>** to select the sensor that measures the temperature in the desired room.

   Only the sensors from the selected room are listed.
   Since a frogMultiSense has been installed for temperature measurement, select the frogMultiSense here.

3. Tap ⟨?⟩ to select the heating type.

   You can choose between **Radiator**, **Floor heating,** and **Electric heater**.

4. Tap **Out A** to assign a valve of the heating distributor to an output.

   If all outputs are assigned, you can configure a virtual output, which can then be activated via a message. For example, a heater can be connected to a frogAct2-2, which can be activated via the message assigned in **Virtual**.
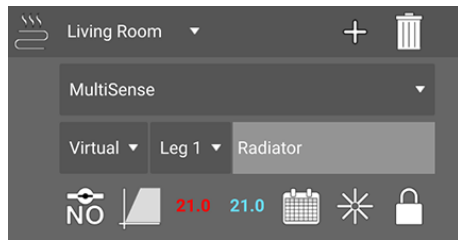
Figure: Example of a virtual output.

This adds a heating circuit to the **frogProject** app.

> **Note**
>
> Tap ⊹ to add more heating circuits and sensors for heating control.

After that you can configure the heating circuit. In addition, you can make further heating settings via the **Advanced Settings** of the frogBoxHeat1.

Configuring the heating the circuit

Normally closed and normally open

Select one of the following two options according to the installed and connected actuators:

At ⫯ (**Normally close**) the actuator is closed without current.

At ⫯ (**Normally open**) the actuator is closed without current.

Maximal on phase (only for electric heater)

For an electric heater, you can set here the maximum switch-on phase in minutes.
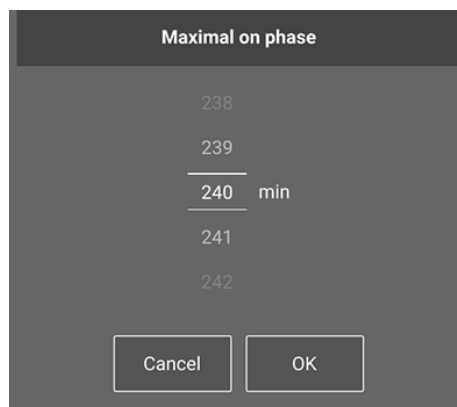
Abbildung: **Maximal on phase** dialog box.

Heating mode

With **Heating mode** you can define the behavior of the heating. In combination with the **Radiator**, **Floor heating** or **Electric heater**, the frogBoxHeat1 regulates differently accordingly.
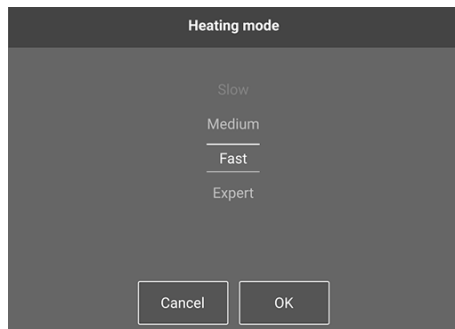
Figure: Settings for the heating mode.

For the heating mode, the options **Slow**, **Medium,** and **Fast** are available.

Heating / cooling mode

Via you can specify whether the heater should be operated in heating or cooling mode (if supported by the heating).

A setting is only necessary if the control is realized independently via the frogBoxHeat1 or the frogHeatBar.
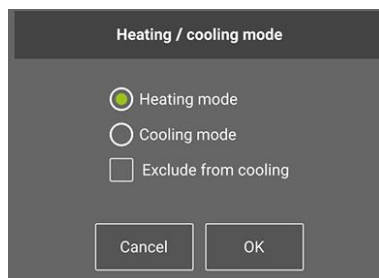
Figure: **Heating / cooling mode** dialog box.

You can exclude individual devices, for example a radiator in the bathroom, from cooling.

Advanced settings for a frogBoxHeat1

You can directly control the heating via the **Advanced settings** of the frogBoxHeat1 or the frogHeatBar.

Figure: The **Heating** settings in the **Advanced settings** of a frogBoxHeat1.

Burner & pump

If it is supported by the heating, another Frog (for example with a frogRelay2-2-PF) can be used to switch a contact on the heating to signal the burner request.

A burner request is triggered as soon as a heating circuit has received a heat request (that is, the actuator is opened).

The message entered here must also be entered on the frog connected to the heating.

Rinse interval and Rinse duration

Here you can specify at what intervals and then for how long the valves of the heating are to be opened and rinsed. Particularly during periods when there is no heating, this ensures that the valves do not get stuck and that there are fewer sediments in the pipes.

10.6 Configuring frogKeys

A frogKey is a transponder for operating the frogblue system by means of a position sensor.

Color codes for the frogKey

Middle LED

1x red flash	No frogblue devices within range.
5x red flashing	frogblue devices within range, but in a different project from that of the frogKey.
1x green	Single message sent.
1x blue	Message sent based on room detection.
5x blue flashing	frogblue devices belonging to the project within range, but none found in the correct room.
2x red slow flashing	frogKey is not provisioned.

Middle LED after activated configuration mode

Green or red flashing	Configuration mode.
Green on permanently	Connected with the **frogProject** App.

Right LED

Red permanent	Low battery level

The position sensor distinguishes three directions in the room for which you can configure actions and functions:

- Upwards
- In the middle
- Downwards

You can also program a frogKey in such a way that the actions are executed depending on the location of the frogKey. The following options are available to choose from:

In-house: Messages are distributed throughout the project. All Frogs that listen to the same message will respond.

In-area: Messages are only forwarded in the area. Only Frogs in the same area respond.

In-room: Messages are sent to the room where the frogKey is located. If the frogKey is not in one of the configured ones, the message is sent to the nearest room.

In-frog: Messages are sent to the corresponding Frog. Only outputs in the same Frog can react to the message.

Note

The frogKey is assigned to the **Standard room**. Since the frogKey can be used for different rooms, assignment to a room is not necessary.

Example

A single click for the **upward** direction:

- opens the front door when the frogKey is clicked in front of the front door,

- switches on the living room light when the frogKey is clicked in the living room,

- raises the roller shutter when the frogKey is clicked in the child's bedroom.

Note on the frogKey

For room detection, the frogKey can remember up to 100 Frogs.

If more Frogs are installed in a project, room detection should be switched off for individual Frogs. This is possible in the display area via **Room detection** .

10.6.1   Configuring directions

For a frogKey you can configure actions and functions for three directions in the room:

- Upwards
- In the middle
- Downwards

Additionally, the following gestures can be configured for each directional message:
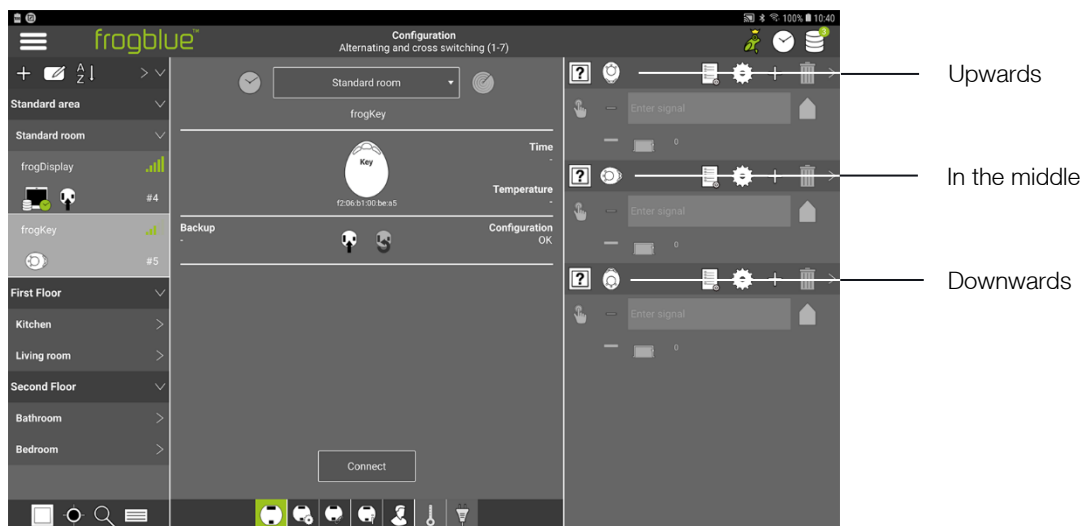
- Move down

- Move up

Figure: The three directions to configure for a frogKey.

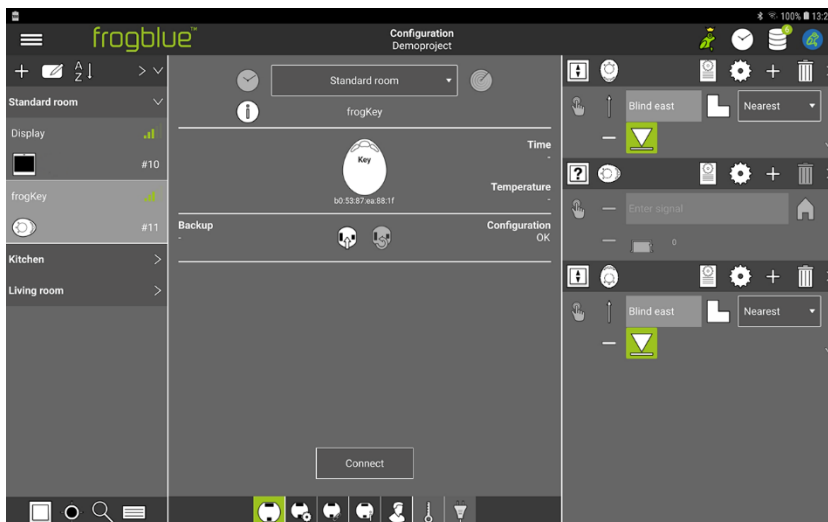By setting the range, the messages can be sent depending on the location.

Figure: frogKey sends the predefined message as a broadcast.

Example

The Frogs **Living room** and **Kitchen** are configured.
If the Frog **Living room** is closest, the message **Blind east** is sent to this Frog (first message in the following figure). If the Frog **Kitchen** is closest, the message **Blind west** is sent to this Frog (second message in the following figure).
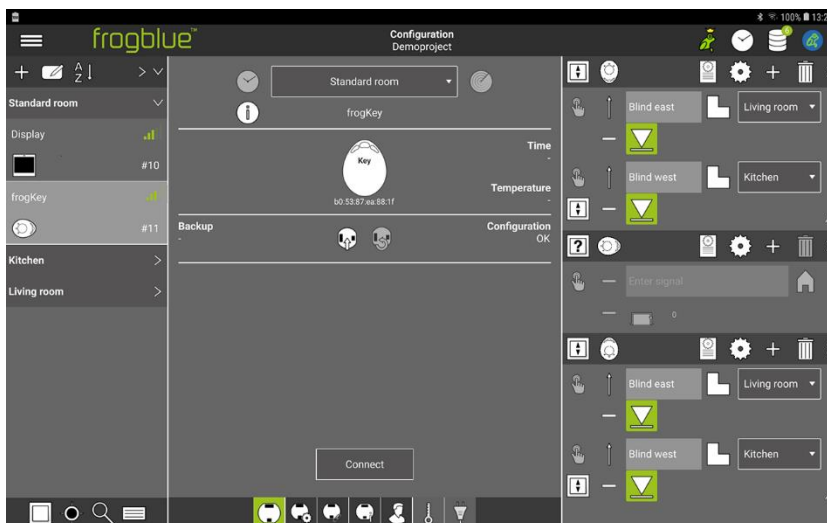

Figure: Defined directions.

Example

Room: The message will be sent inside the room where the frogKey is located.

Figure: Message in the room.

The following example shows how the direction **Upwards** can be configured.
An action is defined for each of two rooms (living room and child's bedroom). After the frogKey has been configured, the device configuration must be loaded onto the frogKey.

1. Tap [?] for the direction **Upwards** and select **Button - light**.

    Next, select a message to be activated in the first room.

2. Select a message.

3. Tap **Range** ⌂

4. Choose **In-room** [⌐]

5. Select a room.

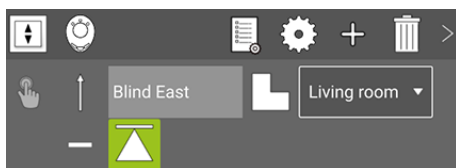   This defines an action in a room for the direction **Upwards**.

Figure: Direction **Upwards** with the message **Blind East** in the **Living room**.

Note

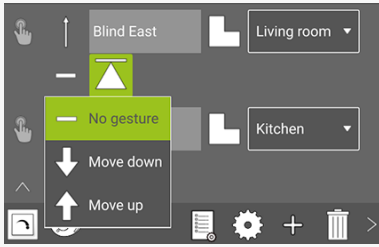Tap **Gesture** ⊖ to configure one gesture for the message.

Figure: Gestures.

Next, an action is defined for another room for the direction **Upwards**.

6. Tap **Add messages** ✛

7. Select an action, a name, and the range for the second message.
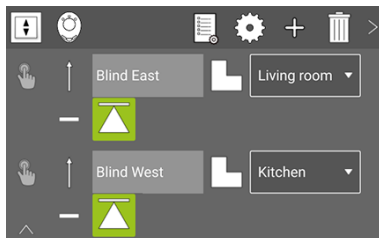

Figure: Direction **Upwards** with two messages for two rooms.

You can make the same configuration for other directions in the same way as for the **Upwards** direction.

Figure: Configured frogKey for several directions and rooms.

After the configuration has been completed, it must be saved on the frogKey.

8. Click on the frogKey **four times quickly and then hold the last click until the middle LED flashes** so to activate the configuration mode for 60 seconds.

9. Tap **Save configuration** 🐸

The configuration is transferred to the frogKey and saved.

With the direction **Upwards** you can switch on the ceiling lamp in the living room and the dining table lamp in the kitchen.
With the direction **In the middle** you can illuminate the sofa corner in the living room and the play corner in the child's bedroom.

10.7 Configuring frogLinks

A frogLink is a Bluetooth® LE USB stick which can be connected to different devices via a USB interface. Communication with the frogblue components is established via the serial FTDI interface.

A frogLink is delivered in **Text mode** by default. For a frogLink to be used to configure frogs, the frogLink must use **frogblue mode**, see → *Configuring the operating mode, page 142*.

To communicate with a project, the frogLink must be added to a project and the usable messages must be configured there.

10.7.1 Configuring usable messages

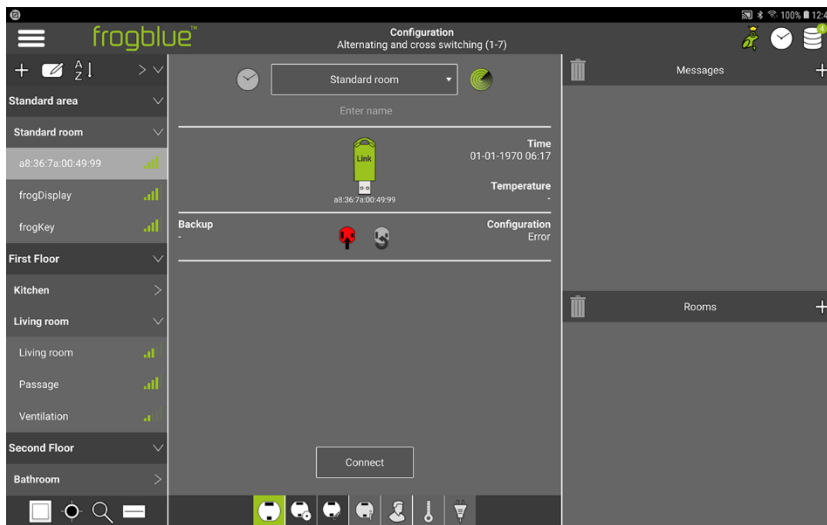In the configuration area you can assign the usable messages to the frogLink.

Figure: A frogLink in the device list.

1. Tap **Add messages** ✛.

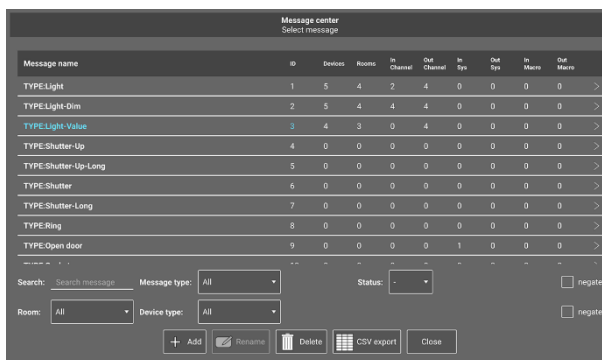   The **Message center** dialog box is displayed.

Figure: **Message center** dialog box

2. Tap to select the messages that are to be usable for the frogLink.

3. Tap **Back** ⟨ to close the **Message center** dialog box.

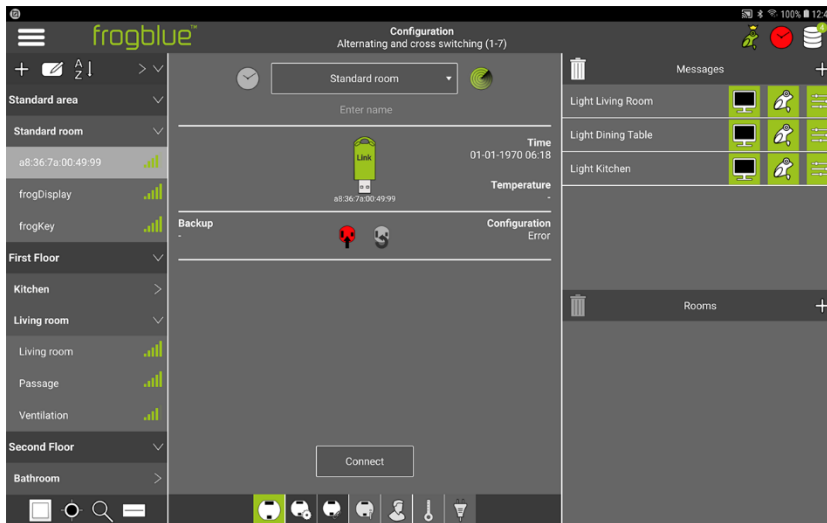The selected messages are displayed in the configuration area.

Figure: Usable messages for the frogLink in the configuration area.

4. Load the configuration onto the frogLink.

10.7.2 Configuring the operating mode

A frogLink offers two different operating modes:

frogblue mode: Use of the frogLink as a Bluetooth® communication interface for configuration and operation with a Windows computer.

Text mode: Use as a serial text gateway (ASCII or JSON) for frogblue integration from and into other systems.

A frogLink is supplied as standard in **Text mode**. In the **frogProject** app you can change the mode to the **frogblue mode** so the frogLink can be used with a Windows computer.

✓ **frogProject** app is installed on a Windows computer.
Information on the installation of the **frogProject** app in Windows, see → *Installing the frogProject app in Windows, page 33.*

✓ The frogLink is connected to a USB socket of the Windows computer.

1. Start the **frogProject** app for Windows.

The start page is displayed.
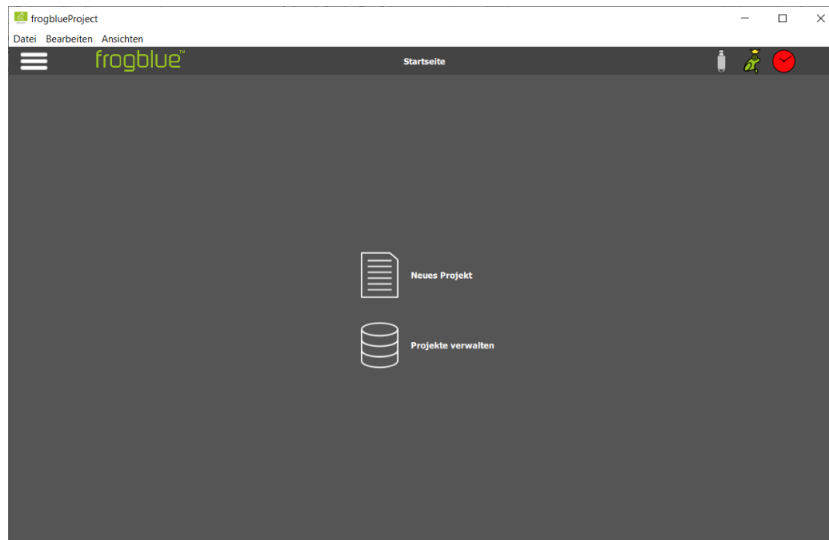
Figure: Homepage of the **frogProject** app for Windows.

2. Click **Menu** ☰

3. Click **frogLink**-**Manager**

   The connected frogLink is displayed in the **frogLink Manager**.
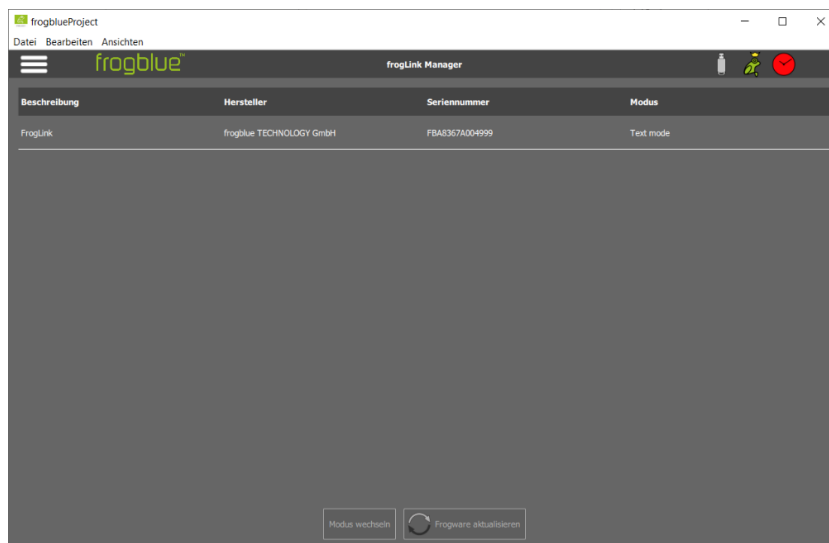
Figure: **frogLink Manager** with a frogLink.

4. Click the entry for the frogLink.

   The line is marked, and the **Change mode** button activated.

5. Click **Change mode**.

   A dialog box is displayed.
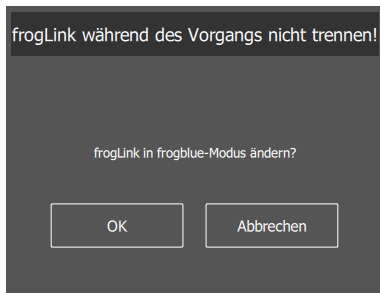
Figure: Dialog box for changing the mode.

6. Click **OK** to change the mode.

    The **frogLink detected in frogblue mode!** dialog box is displayed.

7. Click **Next**.

    The frogLink is activated.

8. Remove the frogLink from the USB socket and plug it in again.

    The frogLink is now ready for operation in **frogblue mode** and can be used with a Windows computer.

10.8 Configuring frogDisplays

The frogDisplay is a universal operating interface for controlling all frogblue units.
The frogDisplay is operated and configured via the **frogControl** app.

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frogControl User Manual

For detailed information on the operation and configuration of the **frogControl** app as well as the frogDisplay, see → *frogControl User Manual.*

10.8.1 Loading a project on the frogDisplay

To control the frogblue units of a project with the frogDisplay, a project must first be loaded onto the frogDisplay.

Figure: frogDisplay in the **configuration** screen.

1. Tap **Connect.**

2. Tap **Save configuration**

   The configuration is transferred to the frogDisplay.

   The **New configuration is received on the frogDisplay!** dialog box is displayed.

   Now the project has been transferred to the frogDisplay.

11 Device manager

In the **Device manager** you will find an overview of all frogblue devices that have been added to the current project.

1. Tap **Menu** ☰

2. Tap **Project**, and then tap **Device manager.**

    The **Device manager** screen is displayed.

Figure: **Device manager** screen.

The following functions are available in the **Device manager**:

⟳   **Scan**
Check the status and accessibility of all devices such as Frogs, frogKeys, frogLinks etc.

🔌   **Config**
Upload the device configuration on the selected Frog.
For information on uploading device configurations, see → *Loading a device configuration onto a device page 127*.

🗄   **Project**
Create a project backup for the current project in a file or in a selected Frog.
For information on creating a backup, see → *Updating frogware*

In the **Device manager** you can update the **frogware** on the following devices:

- Frogs, see → *Updating frogware for Frogs, page 155.*

- frogKeys, see → *Updating frogware , page 157.*

For information on updating the **frogware** of frogDisplays, see → *Updating the frogware for a* frogDisplay, *page 158.*

If the **frogProject** app is updated from the Google Play Store or the Apple App Store, the latest version of the **frogware** (for Frogs and frogKeys) for Android devices is stored in the **Documents** folder. For iOS devices the **frogware** is stored in the internal memory.

11.1.1   Updating frogware for Frogs

For devices you can update the **frogware** of all frogs, such as frogDim1-3, frogDim2-2 frogEntry2-3 or frogContact5-BAT.

3.   Open a project.

4.   Tap **Menu** ☰

5.   Tap **Device manager**.

The **Device manager** screen is displayed.
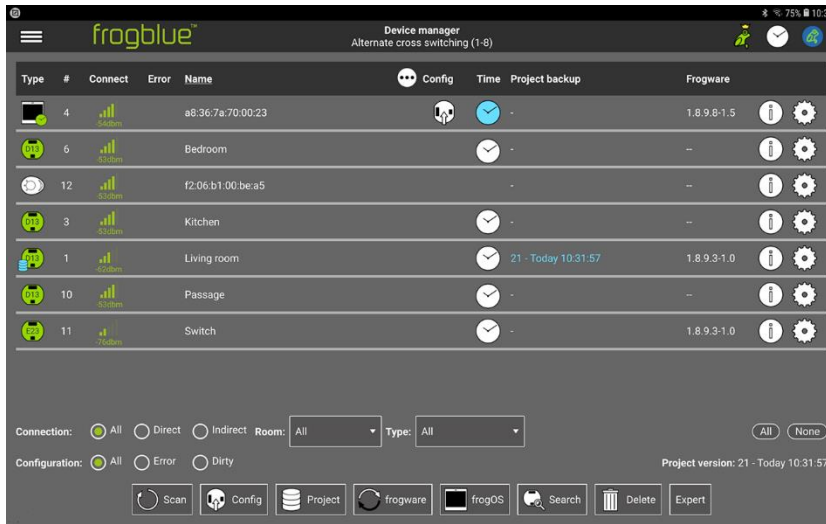
Figure: **Device manager** screen.

6.   In the **Device manager**, tap the Frogs for which you want to perform the **frogware** update.
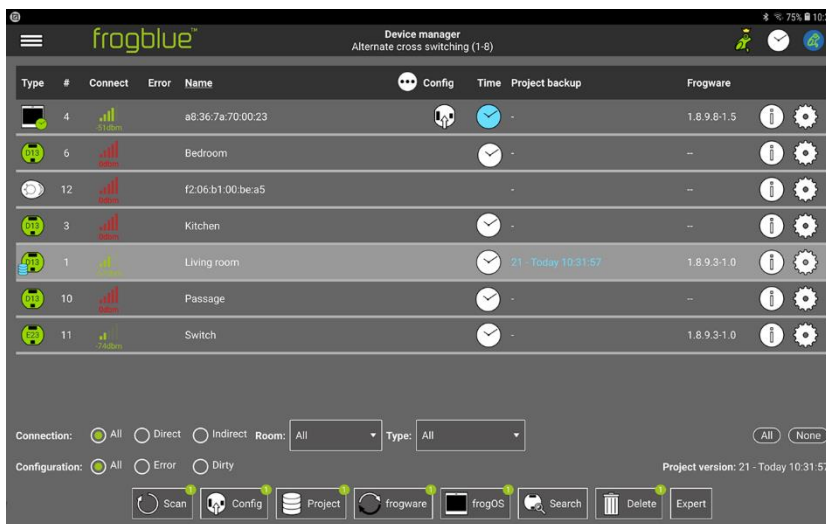
Figure: **Device manager** screen with a selected Frog.

By activating **All** you can select all Frogs and frogKeys at the same time.

7.   Tap **frogware** ↻

The **frogware upload** dialog box is displayed.
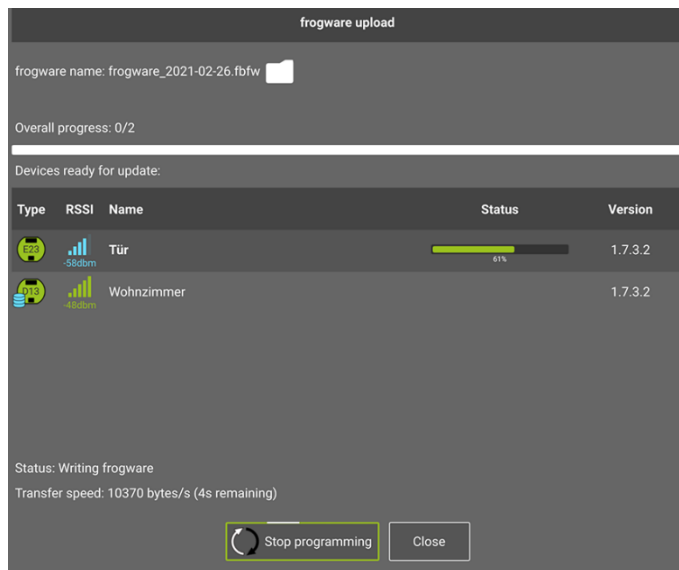
Figure: **frogware upload** dialog box.

8. Tap **frogware name: <Select File>**.

   A dialog box, depending on the operating system of the tablet, is displayed.

9. Select the **frogware** you wish to use for the update.

   The selected **frogware** is displayed in the **frogware upload** dialog window.

10. Tap **Start programming** ⟳

   The **frogware** is installed.
   In the **frogware upload** dialog window you can see the progress of the upload and the installation.
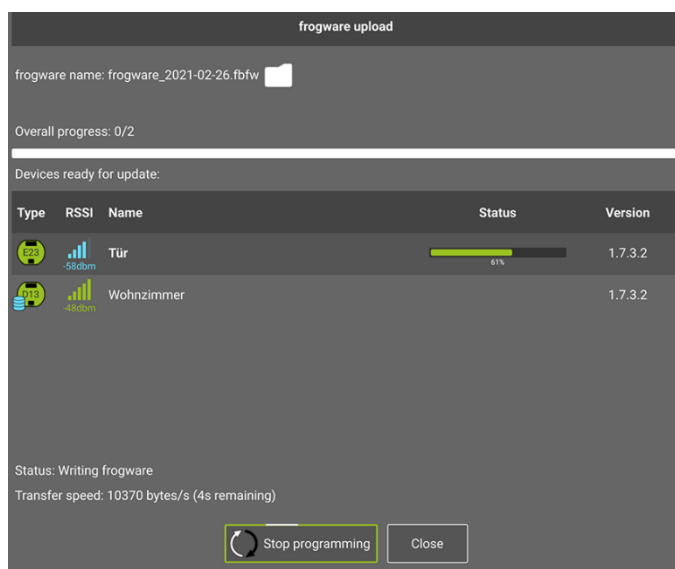
Figure: The **frogware** is installed on the Frogs.

After finishing the update, check to make sure all Frogs have been updated. If necessary, repeat the upload of the **frogware**.

After a successful update, tap **Close**.

11.1.2 Updating frogware for battery-powered frogblue devices

Battery-powered frogblue devices, such as a frogKey, frogContact5-BAT, RoomSense, and MultiSense, must be assigned to a project for the **frogware** to be updated.

> **Note**
>
> To ensure the longest possible battery life the frogKey and the frogContact5-BAT use energy saving functions. For this reason, the frogKey and the frogContact5-BAT must be set to configuration mode to update the **frogware**.

11. To activate the configuration mode for the frogKey for 60 seconds, click the frogKey four times quickly, holding the last click until the middle LED flashes.

    The frogKey flashes green when it is assigned to a project.

    Figure: Green flashing frogKey is assigned to a project.

12. To activate the configuration mode for the frogContact5-BAT for 60 seconds, click a button connected to the frogContact5-BAT **with three short clicks and one long click** (within 2 seconds).

13. Update the **frogware** in the same way as for a Frog.
    For information on updating the **frogware** of a Frog, see → *Updating frogware for Frogs, page 155.*

11.1.3 Updating the frogware for a frogDisplay

The frogDisplay requires a different **frogware** from Frogs and frogKeys.

> **Download frogOS**
>
> You can download the **frogware**, that is the **frogOS**, for the frogDisplay from the frogblue website → *frogblue.com*

You can update the **frogware** for a frogDisplay via the **frogProject** app in the **Device manager** or directly on the frogDisplay via a WLAN.

11.1.3.1 Updating frogOS via the Device manager

You can update the **frogware** for the frogDisplay via the **Device manager**.

14. Tap **Menu** ▤

15. Tap **Project**, and then tap **Device manager.**

16. Tap the frogDisplay whose frogware is to be updated.

17. Tap **frogOS**.

The **frog OS update** dialog box is displayed-

18. Tap **frog OS image** and select the **frogware** for the frogDisplay.

    You can identify the **frogware** for the frogDisplay by the file extension **.frogos**

19. Tap **Start OS update** ↻

    The **frogOS** is downloaded to the frogDisplay and updated there.
    In the **frog OS update** dialog window you can see the installation progress.

    After that the frogDisplay must be rebooted.

20. Tap **Reboot**.

    The frogDisplay is restarted automatically.

    Now you can configure and operate the frogDisplay.

11.1.3.2   Updating frogOS via WLAN

The **frogware** for the frogDisplay is transferred via a WLAN to the frogDisplay.
The first step you have to carry out is to configure the WLAN on the frogDisplay.
Only then does the actual update of the **frogware** for the frogDisplay take place.

21. Connect the frogDisplay to the power circuit.

     The frogDisplay starts and then displays the start page.
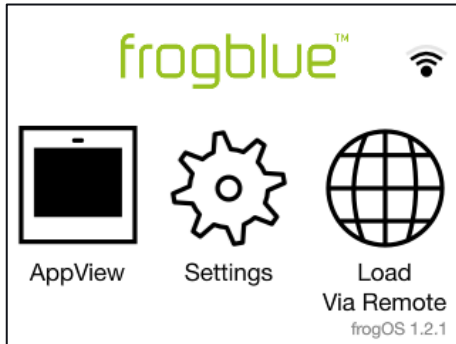
Figure: Start page of the frogDisplay.

22. Tap **Settings**.

Note

Tap **Language** to change the language of the frogDisplay user interface.

23. Tap **WLAN**.

24. Activate the slider for WLAN.

     All wireless LANs within range are displayed.

25. Tap the WLAN you wish to use.

26. Tap **Password** to enter the password of the wireless LAN.

27. Enter the password for the wireless LAN and tap **OK**.

28. Tap **Connect**.

     If the connection is successful, the WLAN name will turn green.

'Via the configured WLAN the frogware can now be transferred to the frogDisplay.
In the next step, the IP address must be determined which is to be used to access the frogDisplay.

29. In the **Settings**, tap **WLAN**.

30. Tap the settings of the active wireless LAN.

31. Tap **IPv4 address**.

     The **IPv4 address** screen displays the IP address.

32. Make a note of the IP address, for example 192.168.2.116.

Using the set IP address, you can access the frogDisplay via a browser.
You can then go on to upload and update the frogware of the frogDisplay.

33. Start a browser on a PC which can be accessed in the same wireless LAN.

34. Enter the IP address of the frogDisplay in the address line of the browser.

   A dialog box for entering a user name and a password is displayed.

Note

The first time you update the frogware for the frogDisplay, the access data is as follows:
Username: **frogblue**
Password: **greenfrog**

For further updates, the access data is as follows:
Username: **frogblue**
Password: *<Project password>*

The project password is the same as the password of the project uploaded to the frogDisplay.
Information on uploading a project to a frogDisplay can be found in the section
→ *Loading a project on the frogDisplay, page 145.*

---

35. Enter the user name and password.

   A warning regarding the security of the certificate is displayed.

36. Ignore the warning for the certificate and load the website.

37. Re-enter the user name and password.

   The **Overview** page is displayed.

38. Click **Firmware Update**.

   The **frogOS Firmware Update** page is displayed.

Figure: **frogOS Firmware Update** page.

---

39. Click **Browse ...**

A dialog box for selecting a file is displayed.

40. Select the **frogware** for the frogDisplay.

You can recognize the frogware for the frogDisplay by the file extension **.frogos**.

41. Click **Upload**.

The **frogware** is loaded onto the frogDisplay and updated there.
After that the frogDisplay will be restarted automatically.
The start page is displayed again in the frogDisplay.
Now you can configure and operate the frogDisplay.

Creating a backup, *page 155.*

frogware
Update the **frogware** for Frogs and frogKeys.
For information on updating the **frogware**, see → *Updating frogware*, *page 155*
and → *Updating frogware, page 157.*

frogOS
Update the **frogware** for frogDisplays.
For information on updating the **frogware** for frogDisplays, see → *Updating the*
frogware for a frogDisplay, *page 158*.

Search
The **Devices** dialog box is displayed that you can use to add devices to the current
project.
For information on the **devices** dialog box, see → *Adding devices to a project,*
page 60.

Delete
Devices (Frogs, frogKey, frogDisplay etc.) can be removed from a project.
For information on deleting devices, see → *Deleting devices, page 163*.

Note

For safety reasons, we recommend resetting devices to their factory settings before deleting them.
For this reason, you can also reset devices in the **Delete** dialog box.

CSV export
Export the device list into a CSV file. The Frog type, name, room, network, MAC
address and **frogware** version are saved in the CSV file.
The CSV file is placed in the **Documents/sheets** folder.

If you select a Frog, frogKey or frogLink by tapping on it, a green number in the buttons shows you
which actions are possible for the selected device.

Figure: Green figures indicate possible actions for a Frog, frogKey or frogDisplay.

Note

When you tap the name of a Frog, the room is shown to which the Frog is assigned.

11.2 Updating frogware

In the **Device manager** you can update the **frogware** on the following devices:

- Frogs, see → *Updating frogware for Frogs, page 155.*

- frogKeys, see → *Updating frogware , page 157.*

For information on updating the **frogware** of frogDisplays, see → *Updating the frogware for a frogDisplay, page 158.*

If the **frogProject** app is updated from the Google Play Store or the Apple App Store, the latest version of the **frogware** (for Frogs and frogKeys) for Android devices is stored in the **Documents** folder. For iOS devices the **frogware** is stored in the internal memory.

11.2.1 Updating frogware for Frogs

For devices you can update the **frogware** of all frogs, such as frogDim1-3, frogDim2-2 frogEntry2-3 or frogContact5-BAT.

42. Open a project.

43. Tap **Menu** ☰

44. Tap **Device manager**.

The **Device manager** screen is displayed.

Figure: **Device manager** screen.

45. In the **Device manager**, tap the Frogs for which you want to perform the **frogware** update.
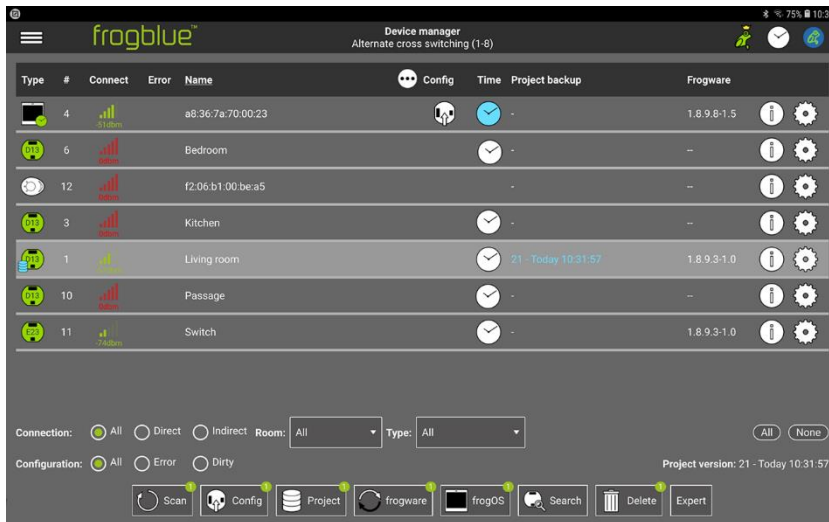
Figure: **Device manager** screen with a selected Frog.

By activating **All** you can select all Frogs and frogKeys at the same time.

46. Tap **frogware** ↻

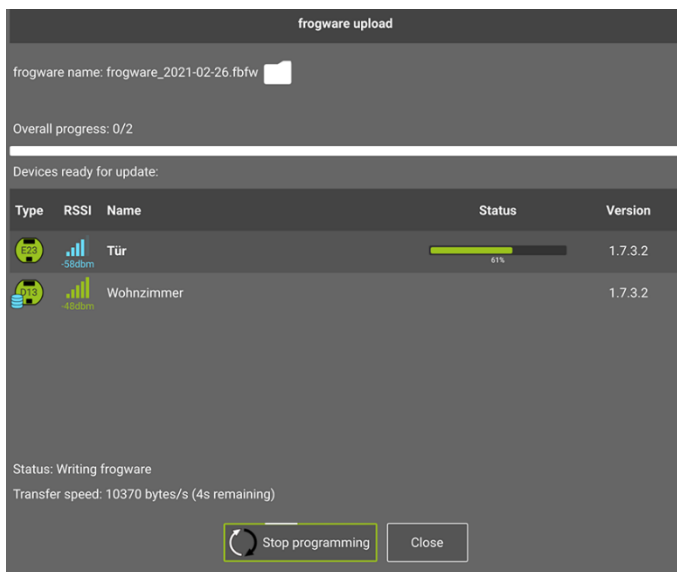The **frogware upload** dialog box is displayed.

Figure: **frogware upload** dialog box.

47. Tap **frogware name: <Select File>**.

A dialog box, depending on the operating system of the tablet, is displayed.

48. Select the **frogware** you wish to use for the update.

The selected **frogware** is displayed in the **frogware upload** dialog window.

49. Tap **Start programming** ↻

The **frogware** is installed.
In the **frogware upload** dialog window you can see the progress of the upload and the installation.
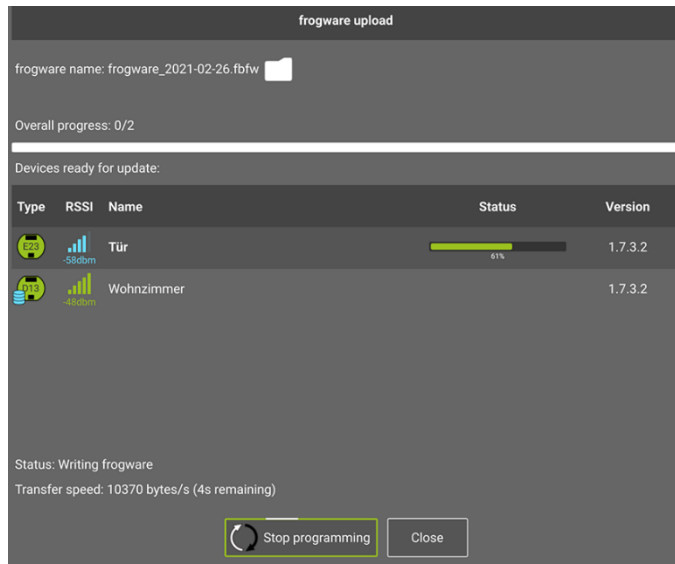
Figure: The **frogware** is installed on the Frogs.

After finishing the update, check to make sure all Frogs have been updated. If necessary, repeat the upload of the **frogware**.

After a successful update, tap **Close**.

11.2.2   Updating frogware for battery-powered frogblue devices

Battery-powered frogblue devices, such as a frogKey, frogContact5-BAT, RoomSense, and MultiSense, must be assigned to a project for the **frogware** to be updated.

Note

To ensure the longest possible battery life the frogKey and the frogContact5-BAT use energy saving functions. For this reason, the frogKey and the frogContact5-BAT must be set to configuration mode to update the **frogware**.

50. To activate the configuration mode for the frogKey for 60 seconds, click the frogKey four times quickly, holding the last click until the middle LED flashes.

    The frogKey flashes green when it is assigned to a project.

Figure: Green flashing frogKey is assigned to a project.

51. To activate the configuration mode for the frogContact5-BAT for 60 seconds, click a button connected to the frogContact5-BAT **with three short clicks and one long click** (within 2 seconds).

52. Update the **frogware** in the same way as for a Frog.
    For information on updating the **frogware** of a Frog, see → *Updating frogware for Frogs, page 155*.

11.2.3   Updating the frogware for a frogDisplay

The frogDisplay requires a different **frogware** from Frogs and frogKeys.

Download frogOS

You can download the **frogware**, that is the **frogOS**, for the frogDisplay from the frogblue website → *frogblue.com*

You can update the **frogware** for a frogDisplay via the **frogProject** app in the **Device manager** or directly on the frogDisplay via a WLAN.

11.2.3.1   Updating frogOS via the Device manager

You can update the **frogware** for the frogDisplay via the **Device manager**.

53. Tap **Menu** ▤

54. Tap **Project**, and then tap **Device manager.**

55. Tap the frogDisplay whose frogware is to be updated.

56. Tap **frogOS**.

    The **frog OS update** dialog box is displayed-

57. Tap **frog OS image** and select the **frogware** for the frogDisplay.

    You can identify the **frogware** for the frogDisplay by the file extension **.frogos**

58. Tap **Start OS update** ↻

    The **frogOS** is downloaded to the frogDisplay and updated there.
    In the **frog OS update** dialog window you can see the installation progress.

    After that the frogDisplay must be rebooted.

59. Tap **Reboot**.

    The frogDisplay is restarted automatically.

    Now you can configure and operate the frogDisplay.

11.2.3.2 Updating frogOS via WLAN

The **frogware** for the frogDisplay is transferred via a WLAN to the frogDisplay.
The first step you have to carry out is to configure the WLAN on the frogDisplay.
Only then does the actual update of the **frogware** for the frogDisplay take place.

60. Connect the frogDisplay to the power circuit.

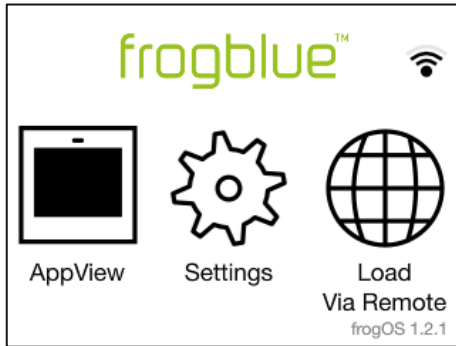   The frogDisplay starts and then displays the start page.

Figure: Start page of the frogDisplay.

61. Tap **Settings**.

Note

Tap **Language** to change the language of the frogDisplay user interface.

62. Tap **WLAN**.

63. Activate the slider for WLAN.

   All wireless LANs within range are displayed.

64. Tap the WLAN you wish to use.

65. Tap **Password** to enter the password of the wireless LAN.

66. Enter the password for the wireless LAN and tap **OK**.

67. Tap **Connect**.

   If the connection is successful, the WLAN name will turn green.

ʹVia the configured WLAN the frogware can now be transferred to the frogDisplay.
In the next step, the IP address must be determined which is to be used to access the frogDisplay.

68. In the **Settings**, tap **WLAN**.

69. Tap the settings of the active wireless LAN.

70. Tap **IPv4 address**.

   The **IPv4 address** screen displays the IP address.

71. Make a note of the IP address, for example 192.168.2.116.

Using the set IP address, you can access the frogDisplay via a browser.
You can then go on to upload and update the frogware of the frogDisplay.

72. Start a browser on a PC which can be accessed in the same wireless LAN.

73. Enter the IP address of the frogDisplay in the address line of the browser.

   A dialog box for entering a user name and a password is displayed.

Note

The first time you update the frogware for the frogDisplay, the access data is as follows:
Username: **frogblue**
Password: **greenfrog**

For further updates, the access data is as follows:
Username: **frogblue**
Password: *<Project password>*

The project password is the same as the password of the project uploaded to the frogDisplay.
Information on uploading a project to a frogDisplay can be found in the section
→ *Loading a project on the frogDisplay, page 145*.

---

74. Enter the user name and password.

   A warning regarding the security of the certificate is displayed.

75. Ignore the warning for the certificate and load the website.

76. Re-enter the user name and password.

   The **Overview** page is displayed.

77. Click **Firmware Update**.

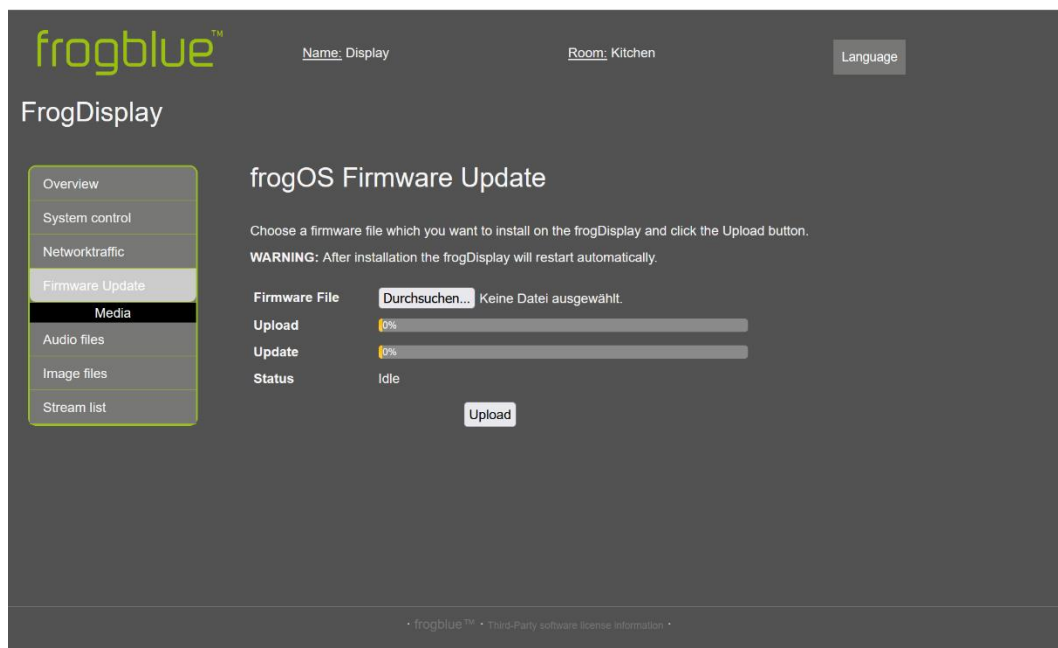   The **frogOS Firmware Update** page is displayed.

Figure: **frogOS Firmware Update** page.

78. Click **Browse ...**

A dialog box for selecting a file is displayed.

79. Select the **frogware** for the frogDisplay.

You can recognize the frogware for the frogDisplay by the file extension **.frogos**.

80. Click **Upload**.

The **frogware** is loaded onto the frogDisplay and updated there.
After that the frogDisplay will be restarted automatically.
The start page is displayed again in the frogDisplay.
Now you can configure and operate the frogDisplay.

11.3 Creating a backup

You can save the configurations and project data in a file or on a device to create a project backup. A project backup contains all the information and configurations for a project.

If you wish to save the entire configuration externally, you can export the project.
For information on exporting projects, see → *Exporting a project, page 51*.

When using multiple Frogs, the project backup is saved to the selected Frogs one after the other.

81. Tap **Menu** ☰

82. Tap **Project**, and then tap **Device manager**.

    The **Device Manager** screen is displayed.

83. Tap **Project**.

    The **System backup** dialog box is displayed.
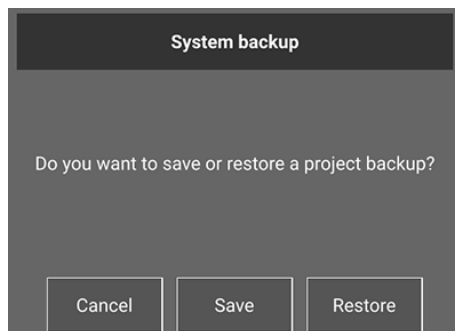
Figure: **System backup** dialog box.

84. Tap **Save**.

    The **Save project backup** dialog box is displayed.
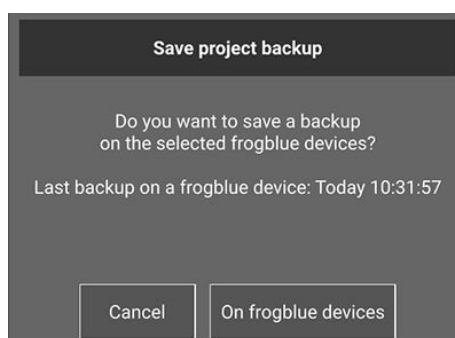
Figure: **Save project backup** dialog box.

85. Tap **On frogblue devices** to save the entire set of configuration data on the devices.

    In this case, however, you can only access the project backup if you have access to the device.

    The project backup is uploaded to the devices.

11.4 Deleting devices

In the **Device manager**, you can remove devices from a project if the devices are no longer needed in the current project. This marks the devices for deletion. Devices marked for deletion can then be permanently deleted in the **Deleted devices** screen. All deleted devices should be reset to factory defaults to ensure that no project information is stored on the devices.

86. Tap **Menu** ☰

87. Tap **Project**, and then tap **Device manager.**

    The **Device manager** screen is displayed.

88. Tap the devices that you want to delete.

89. Tap **Delete**.

    The **Delete** dialog box is displayed.
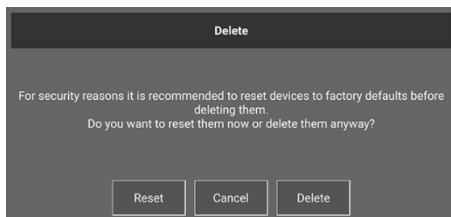
Figure: **Delete** dialog box.

90. Tap **Reset** if you want to reset the device to factory defaults.

    The **Reset devices** dialog box is displayed. Tap **Reset**. The device is reset to the factory defaults.

    — or —

91. Tap **Delete** if you want to remove the device from the project.

    The **Information** dialog box is displayed.

92. Tap **Close**.

    The device is removed from the project.
    This means that the device has not yet been permanently deleted but can be added to the project again if required. The devices that have not yet been permanently deleted are displayed in the **Deleted devices** screen.

Deleting a device permanently

93. Tap **Menu** ▤, which now is displayed in red color.

94. Tap **Project**, and then tap **Deleted devices**.

    The **Deleted devices** menu is only visible if at least one device has been deleted.

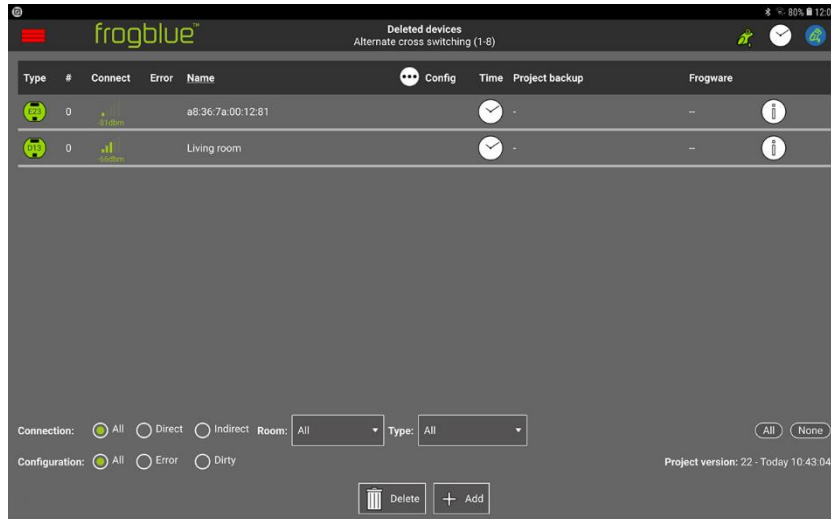   The **Deleted devices** screen is displayed.

Figure: **Deleted devices** screen.

95. Tap **Add** if you want to add the device to the project again.
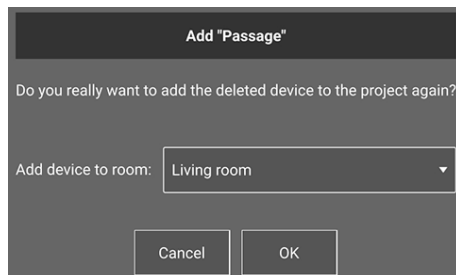
    The **Add** dialog box is displayed.

Figure: **Add** Dialog box.

96. Tap **OK**.

    The device is added to the project again. With this you have undone the deletion.

    — or —

97. Tap **Delete**.

    The **Delete** dialog box is displayed.
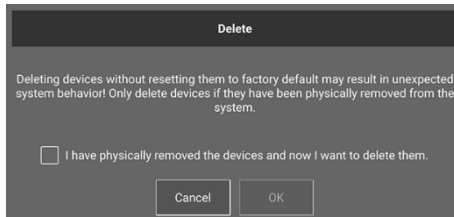
Figure: **Delete** dialog box.

98. Activate the checkbox „**I have physically removed the devices and now want to delete them**“.

99. Tap **OK**.

    The **Change keys** dialog box is displayed.

    It is recommended to change the device and network key. Changing the device and network key only affects the remaining devices in the project, but not the deleted device. This means that the project is encapsulated in itself again and only acts via the new device and network key. The deleted device with the old device and network key is thus "locked out".

100.   Tap **Change keys** if you want to change the device key and the network key.

The **Change device keys** screen is displayed. Information on the device key and changing the device key, see → *Changing the device key, page 58*.

    — or —

101.   Tap **No** if you want to remove the device without changing the device key.

    The device is permanently removed from the project.

12 Macros and system signals

This chapter contains information on the following topics:

- ✓ Creating and managing macros.
  Macros offer the possibility to define settings for inputs and outputs centrally and to assign them to several Frogs.

- ✓ Creating and managing function macros.
  Functions can be explicitly assigned to Frogs via function macros.

- ✓ Creating and managing system signals.
  One or more system signals are combined to a system group, via which all frogs configured in the frogblue system can be controlled simultaneously.

- ✓ Creating and managing system groups.
  System signals are combined in a system group.

- ✓ Creating and managing dim curves.
  Dim curves can be created and applied in the advanced settings of outputs. The management, import and export of dim curves are possible in the dim curve editor.

12.1 Creating and managing macros

You can use macros to define settings for inputs and outputs centrally and assign them to several Frogs. If for example you define the settings for an output in a macro, you can activate this macro in the output of any Frog, thereby ensuring that all outputs have the same settings.

A big advantage of a macro is that when changes are made, each individual Frog does not have to be reconfigured. If changes are made to a macro, writing the configuration to all devices allows you to load the configuration to each Frog that uses the macro.

> **Note**
>
> Macros always apply to the currently opened Project. This means that independent macros can be created on a project-specific basis.

You can define macros for inputs and outputs:

- **Input macros**: Macros for inputs.

- **Output macros**: Macros for outputs.

Input macros can only be assigned to inputs. **Output macros** can only be assigned to outputs.

✓ Frogs have been added to the project and configured.
For information on how to configure Frogs, see → *Configuring Frogs, page 65.*

✓ The Frogs, switches and buttons are properly wired.
For information on installing Frogs, see → *General wiring instructions, page 18.*

✓ A project was created or opened.
For information on how to create projects, see → *Managing projects, page 46.*

12.1.1 Creating macros

The creation of **Input macros** and **Output macros** differs only in the configuration of the macros. Identical steps are required from the creation of a macro through to the actual configuration.

1. Tap **Menu** ☰

2. Tap **Macros & system signals**, and then tap **Macro editor**.

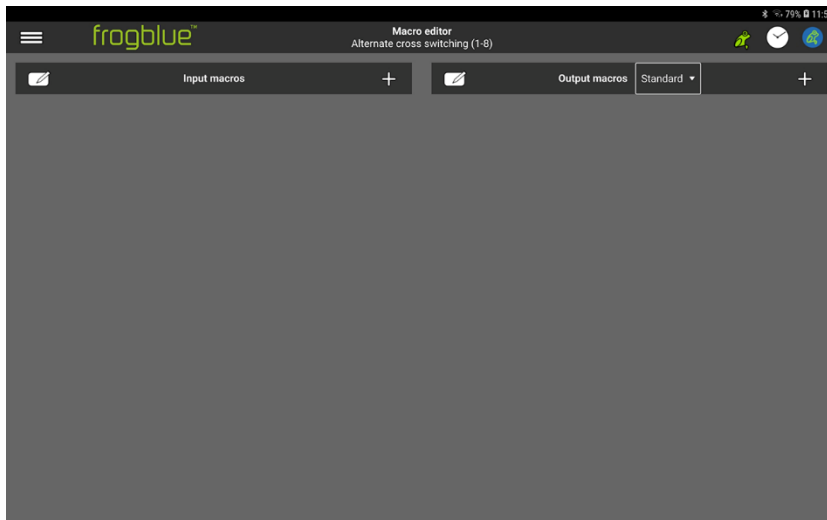   The **Macro editor** screen is displayed.

Figure: **Macro editor** screen.

3. Tap **Input macro** ✛ if you want to create an **Input macro**.

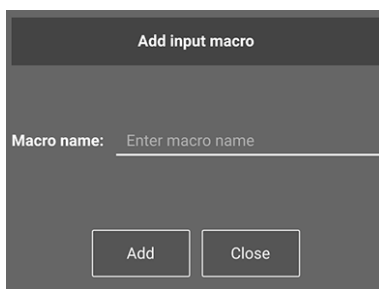   The **Add input macro** dialog box is displayed.

Figure: **Add input macro** dialog box.

— or —

3. Tap **Output macro** ✛ if you want to create an **Output macro**.
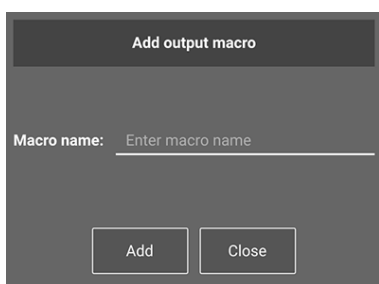
   The **Add output macro** is displayed.

Figure: **Add output macro** dialog box.

4. Tap the **Macro Name** input field and enter a name for the macro.

5. Tap **Add**.

6. Tap **Close**.

   The name of the macro you created is displayed in the **Macro editor**.
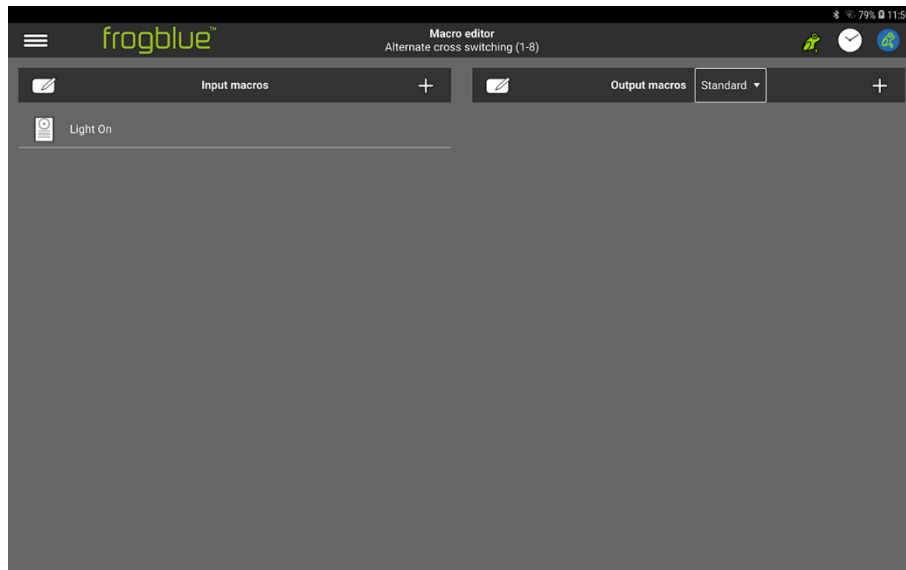
Figure: Newly created **Input macro Light On** in the **Macro editor**.

Now you can configure the macro.

Note

If you wish to change the name of a macro, tap **Edit** ✏
You can also delete a macro.

12.1.1.1   Configuring input macros

The options for configuring an **Input macro** are the same as the options for configuring inputs.
For information on configuring inputs, see → *Configuring inputs, page 70.*

1.   Tap the name of the **Input macro** that you wish to configure.

The screen for configuring the **Input macro** is displayed.
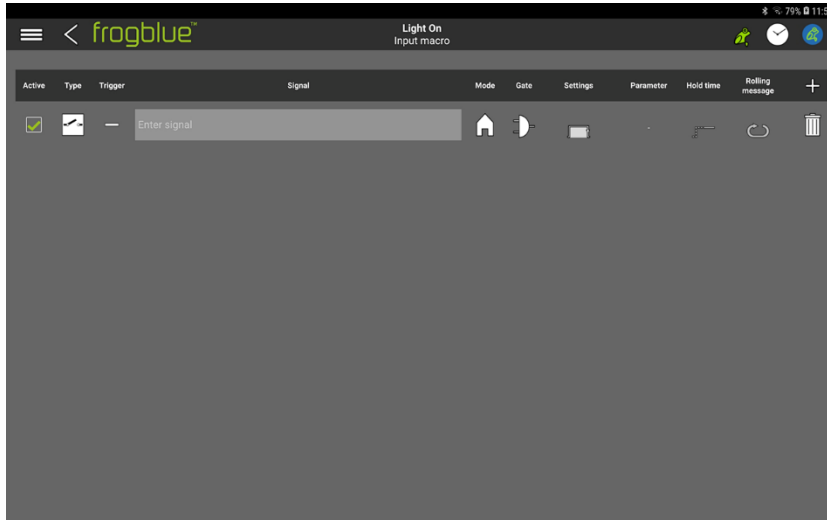
Figure: Screen for configuring an **Input macro**.

The following options are available for configuring a message:

Active
Here you can specify whether the message is active for the **Input macro** or not.

Type
Here you can define for which function the **Input macro** is to be used. When creating a new macro, **Custom** is automatically used.
For information on possible functions, see → *Inputs, page 39*.

Trigger
Here you can select an action that triggers the message.
For information on potential actions, see → *Selecting an action, page 72.*

Signal
Tap the **Enter signal** input field to select a message or create a new message.
For information on creating messages, see → *Selecting functions and defining message, page 71.*

Mode
Here you can set the range of the message.
For information on the range of messages, see → *Configuring the* range, *page 117.*

Gate
You can use the **Gate/Time editor** to define logic functions for macros. For information on the **Gate/Time editor**, see → *Gate/Time editor, page 103*.

Settings

Here you can set when the output connected to the input is to be switched off.

For information on setting the switch-off time, see → *Minimal on, page 106.*

Parameter

Here you can set the brightness and the dimming speed.

Hold time

Here you can set how long a button must be kept press down before a message is sent. The dead time can only be set for certain actions. For information on the **Hold time**, see → *Hold time, page 108.*

Rolling messages

If several messages are defined for the input, you can activate **Rolling messages** to determine that the defined messages are sent successively every time the action is triggered.

For information on rolling messages, see → *Rolling Message, page 108.*

Tap **Add message** ✛ to configure another message for the **Input macro**.

2. Configure the **Input macro**.

The settings are saved automatically.

12.1.1.2   Configuring output macros

The options for configuring an **Output macro** are the same as the options for configuring outputs.
For information configuration of outputs, see → *Configuring outputs, page 75.*

1. Tap the name of the **Output macro** that you wish to configure.

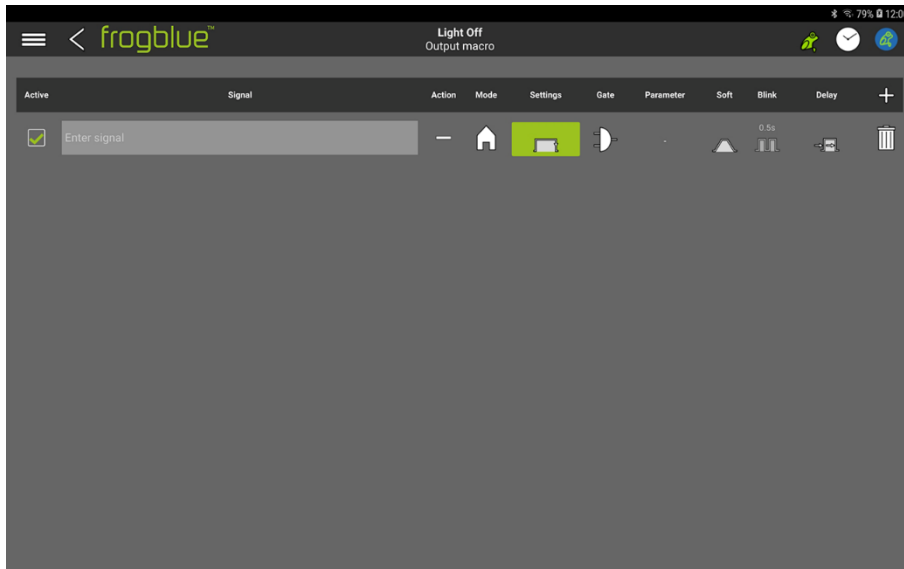   The screen for configuring the **Output macro** is displayed.

Figure: Screen for configuring an **Output macro**.

The following options are available to you for configuring a message:

Active
Here you can specify whether the message is active for the **Output macro** or not.

Signal
Tap **Enter signal** to select a message or create a new message.
For information on creating messages, see → *Selecting connections and message, page 74.*

Action
Here you can select an action that triggers the message.
For information on potential actions, see → *Selecting an* action*, page 43.*

Mode
Here you can set the range of the message.
For information on the range of messages, see → *Configuring the* range*, page 117.*

Settings
In the **Time control** dialog box you can define actions dependent on specified times**.**
For information on the **Time control**, see → *Time control, page 110.*

Gate
You can use the **Gate/Time editor** to define logic functions for macros.
For information on the **Gate/Time editor**, see → *Gate/Time editor, page 103.*

Parameter
Here you can set the brightness and the dimming speed.

Soft
In the **Soft Functions** dialog box, you can set the time until a device is switched on or off.
For information on the **Soft Function**, see → *Soft Function, page 111.*

Delay
In the **Delay functions** dialog box, you can set a time delay until the port is activated or deactivated.
For information on **Delay functions**, see → *Delay functions, page 111.*

Tap **Add message** ✛ to configure another message for the **Output macro**.

2.   Configure the **Output macro**.

The settings are automatically saved in the **frogProject** app.

12.1.2   Assigning macros to inputs and outputs

You can assign **Input macros** to one or more inputs of any number of Frogs. You can assign **Output macros** to one or more outputs of any number of Frogs.

You can assign several macros to one input or output.

The macros are assigned to the inputs and outputs of the selected Frog in the **Configuration** screen.

1. Tap **Macro**

    A list of available macros is displayed.

    Figure: For the input **In a**, the **Input macro Light On** is available for selection.

2. Tap the macro you wish to assign to the input or output.

3. Tap the screen.

    The macro is activated for the input or output.
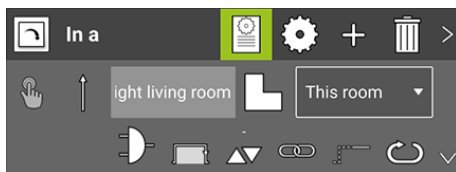
    Figure: An Input macro is activated for the input **In a**.

4. Upload the device configuration to all Frogs for which a macro has been activated.

12.2 Creating and managing functions macros

Function macros can be used to save configurations of inputs and outputs and then make them available specifically for other frogs. In contrary to macros, in which settings for inputs and outputs are defined centrally and assigned to several frogs, individual frogs can be controlled via function macros.

Example

> In an office complex, the same frogs are always used in its rooms to control the same lights. For example, a timer may be configured to automatically dim the lights at a certain time until they are completely off.
> You now want to add another function, for example, that when you double-click, the light is on for another hour. However, this function should only be available for selected rooms in the office complex. This can then be implemented using function macros.

Function macros for inputs and outputs can either be saved directly in the configuration or they can be created in the function macro editor.

12.2.1 Saving function macros in the configuration

The configuration of an input or output can be saved directly in a function macro.

1. Configure an input or an output.

   Information on the advanced configuration of inputs and outputs, see → *Extended configurations for inputs and outputs, page 82*.

2. Tap the selected function, for example **Button – Dim**, and then tap **Function macro** and **Save** 🔲

   The **Save as function macro** dialog box is displayed.
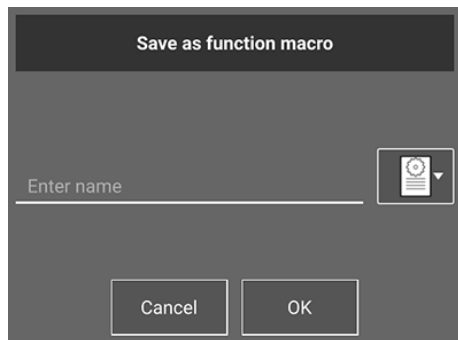
   Figure: **Save as function macro** dialog box.

3. Enter a name for the function macro and tap **OK**.

   The function macro is saved and displayed in the function macro editor.

12.2.2   Creating a function macro in the editor

You can configure functions macros for inputs and outputs:

- **Input function macro**: Function macro for inputs.

- **Output function macro**: Function macro for outputs.

Input function macros can only be assigned to inputs. **Output function macros** can only be assigned to outputs.

The creation of **Input function macros** and **Output function macros** differs only in the configuration for inputs and outputs.

1. Tap **Menü** ☰

2. Tap **Macros & system signals**, and then tap **Function macro.**

   The **Function macros** screen is displayed.
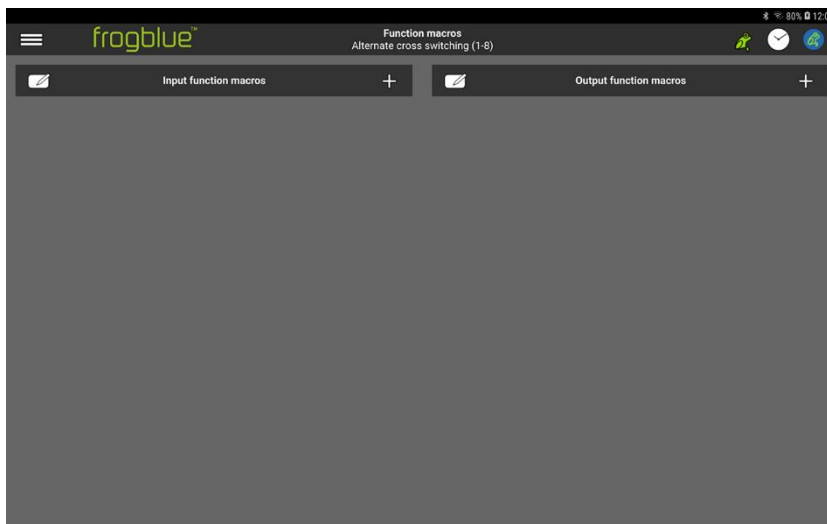
Figure: **Function macros** screen.

3. Tap **Input function macros** ✛ if you want to create an input function macro.

   The **Add input function macro** dialog box is displayed.
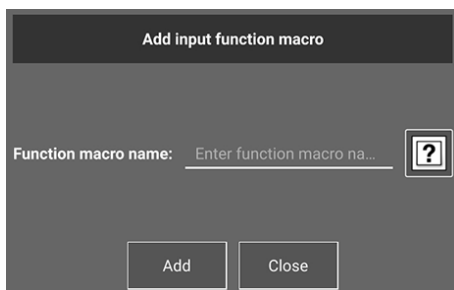
Figure: **Add input functions macro** dialog box.

   — or —

3. Tap **Output function macros** ✛ if you want to create an output function macro.

The **Add output function macro** dialog box is displayed.
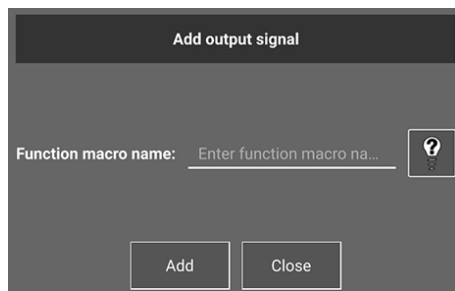
Figure: **Add output function macro** dialog box.

4. Select a function for an input or a connection for an output ⏻

5. Enter a name for the function macro.

6. Tap **Add**.

7. Tap **Close**.

    The name of the newly created function macro is displayed in the **Function macros** screen.
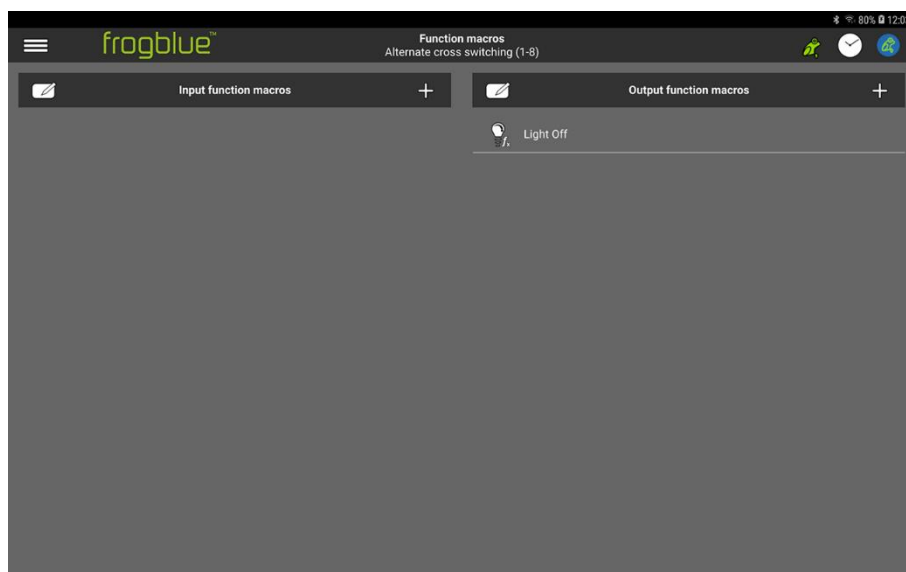
Figure: Newly created **Output function macro** in the **Function macros** screen.

Now you can configure the function macro.

Note

Tap **Edit** ✎ if you want to change the name of the function macro. Also, you can then delete a function macro .

12.2.2.1 Configuring an input function macro

An **Input function macro** is configured like an **Input macro**.
For information on configuring Input macros, see → *Configuring input macros, page 170.*

12.2.2.2 Configuring an output function macro

An **Output function macro** is configured like an **Output macro**.
For information on configuring Output macros, see → *Configuring output macros, page 172.*

12.2.3 Activating a function macro

Function macros are activated in the **Configuration** screen in the inputs and outputs of the selected frog.

1. Tap the function or connection for which you want to activate a function macro.

    A selection list of available functions (at the input) or connections (at the output) is displayed.
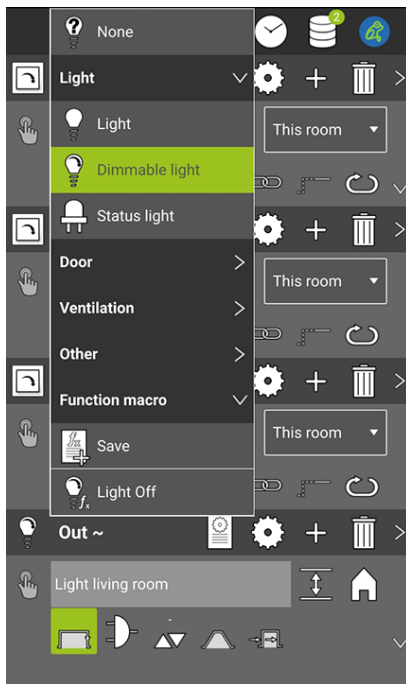
Figure: Fort he output **Out ~** the output function macro **Light Off** is available.

2. Tap on the function macro that you want to activate.

    . The **Load function macro** dialog box is displayed.
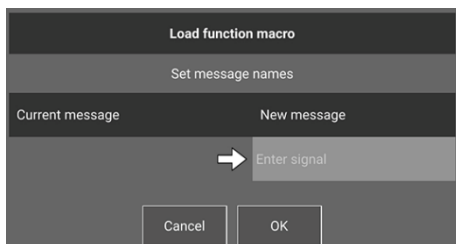
Figure: **Load function macro** dialog window.

3. Enter a message name for which you want to activate the function macro.

This message can be used to explicitly control the Frogs for which the function macro has been activated.

4. Tap **OK**.

    The function macro is activated for the input or output.
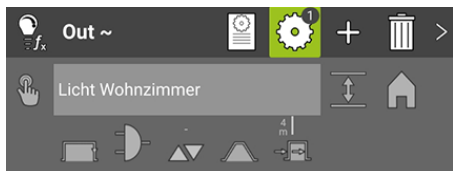
Figure: Output **Out ~** with an activated function macro.

5. Upload the device configuration to all Frogs for which the function macro is to be activated.

12.3 Creating and managing system signals

One or more system signals are combined into a system group, by means of which all Frogs configured in the frogblue system can be controlled simultaneously. In this way, a system signal can only be used in connection with a system group. In a system group, a system signal is identified by the message name.
For information on system groups, see → *Creating and managing system groups, page 182.*

You can define system signals for inputs and outputs:

- **Input signal**: System signals for inputs.

- **Output signal**: System signals for outputs.

Input signals can only be assigned to inputs. **Output signals** can only be assigned to outputs.

Some typical system signals are already defined in the **frogProject** app and can be activated.

12.3.1 Creating system signals

The creation of **Input signals** and **Output signals** differs only in the configuration of the system signals. Identical steps are required from the creation of a system signal through to the actual configuration.

1. Tap **Menu** ▤

2. Tap **Macros & system signals**, and then tap **System signals**.

    The **System signals** screen is displayed.

    Typical and frequently used system signals, such as **Central**, **Open door** and **Panic**, are already provided as standard in the **frogProject** app.
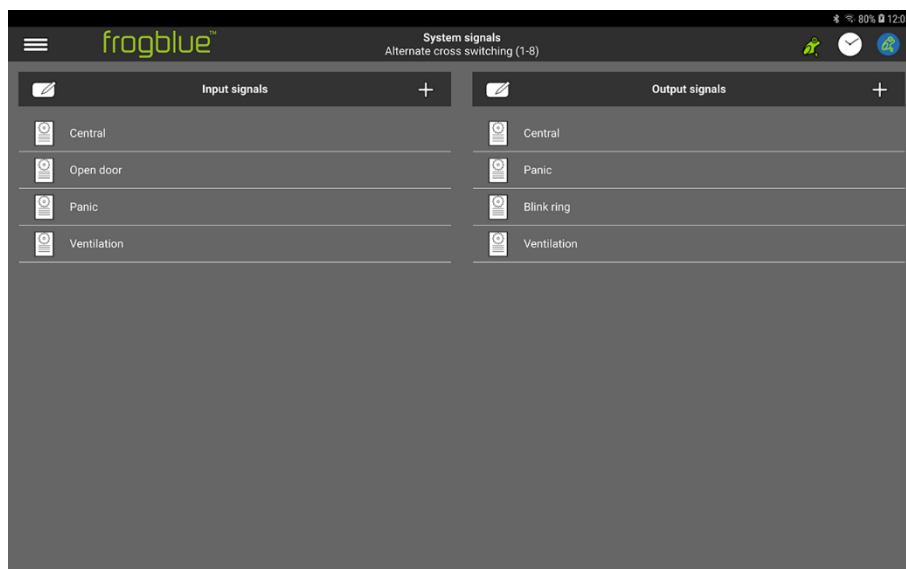
Figure: **System signals** screen.

3. Tap the **Input signal** plus symbol ✚ if you want to create an **Input signal**.

    The **Add input signal** dialog box is displayed.

Figure: **Add input signal** dialog box.

— or —

3. Tap the **Output signal** plus symbol ✛ if you want to create an **Output signal**.

    The **Add output signal** dialog box is displayed.

Figure: **Add output signal** dialog box.

4. Tap the **Signal name** input field and enter a name for the system signal.

5. Tap **Add**.

6. Tap **Close**.

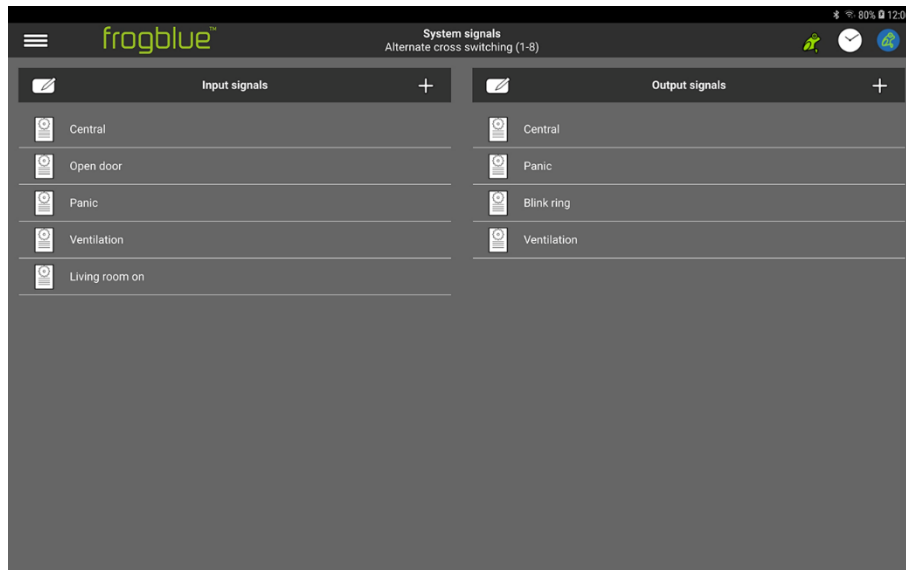   The name of the newly created system signal appears in the **System signals** screen.

Figure: Newly created **Input signal** in the **System signals** screen.

Now you can configure the system signal.

Note

Tap **Edit** ✎ if you want to change the name of a system signal. You can also delete a system signal.

12.3.1.1 Configuring an input signal

An **input signal** is configured like an **input macro**.
For information on how to configure an input macro, see → *Configuring input macros, page 170*.

12.3.1.2 Configuring an output signal

An **output signal** is configured in the same way as an **output macro**.
For information on configuring an output macro, see → *Configuring output macros, page172*.

12.4 Creating and managing system groups

System groups enable you to implement central switch operations, such as central switching on and off for all devices. A system group consists of one or more system signals.

You can define system groups for inputs and outputs:

- **Input groups**: System groups for inputs.

- **Output groups**: System groups for outputs.

Input groups can only be assigned to inputs. **Output groups** can only be assigned to outputs.

Some typical system signals belonging a system group are already defined in the **frogProject** app and can be activated.

12.4.1 Creating system groups

The creation of **Input groups** and **Output groups** differs only in the configuration of the system signals. Identical steps are required from the creation of a system group through to the actual configuration.

1. Tap **Menu** ☰

2. Tap **Macros & system signals**, and then tap **System groups.**

   The **System groups** screen is displayed.
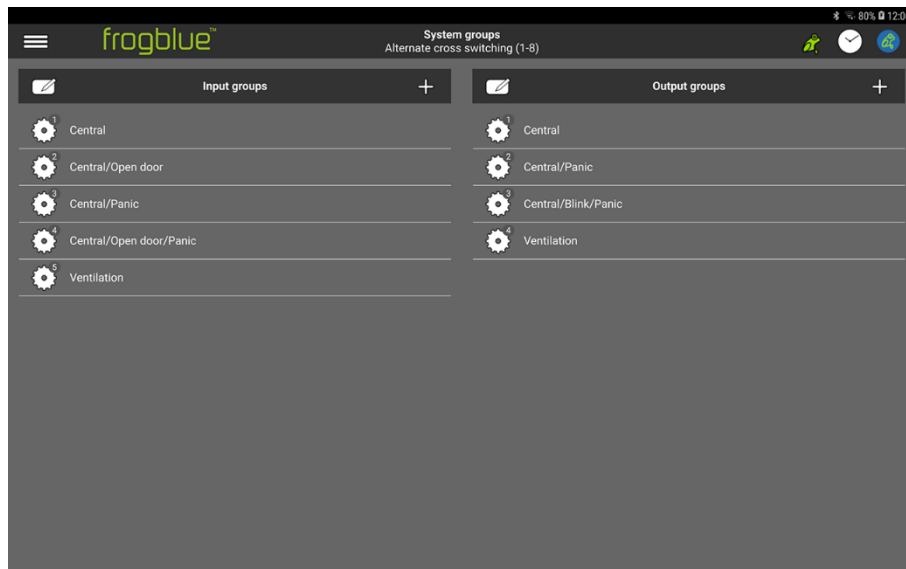
Figure: **System groups** screen.

3. Tap **Input groups** ✛ if you want to create an **Input group**.

   The **Add input group** dialog box is displayed.
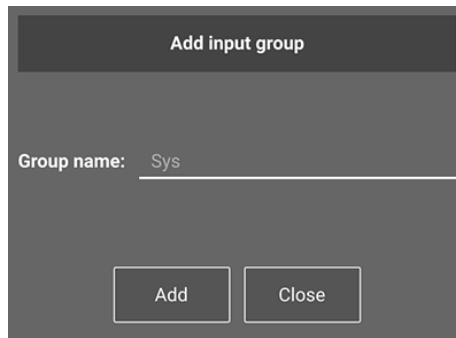
Figure: **Add input group** dialog box.

— or —

3. Tap **Output groups** ⊕ if you want to create an **Output group**.

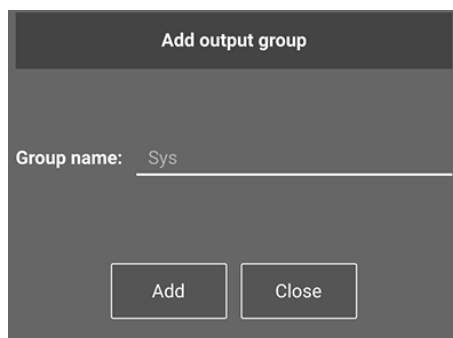   The **Add output group** dialog box is displayed.

Figure: **Add output group** dialog box.

4. Tap the **Group name** input field and enter a name for the system group.

5. Tap **Add**.

6. Tap **Close**.

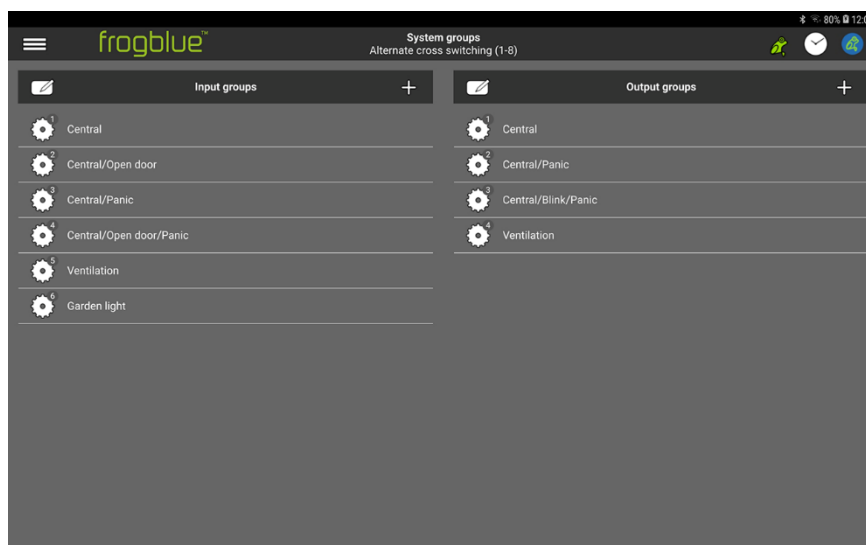   The system group name appears in the **System groups** screen.

Figure: Newly created **Input group** in the **System groups** screen.

Now you can configure the system group.

> **Note**
>
> Tap **Edit** ✐ if you wish to change the name of a system group. You can also delete a system group.

12.4.1.1   Configuring an input group

An **input group** is configured in the same way as an **input macro**.
For information on how to configure an input macro, see → *Configuring input macros, page 170*.

12.4.1.2   Configuring an output group

An **output group** is configured in the same way as an **output macro**.
For information on configuring an output macro, see → *Configuring output macros, page172*.

12.4.2   Assigning system groups to inputs and outputs

You can activate **Input groups** to an input or assign them to several inputs of any number of Frogs.
You can activate **Output groups** to an output or assign them to several outputs of any number of Frogs.

The system groups are activated in the configuration area of the **Configuration** screen in the inputs and outputs.

1.   Tap **System group** ⚙

     A selection list of the available system groups is displayed.
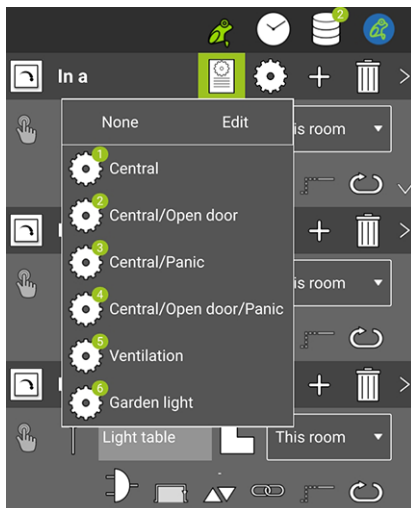
Figure: For the input **In a**, for example, the system group **Garden light** is available for selection.

2.   Tap the system group that you want to activate in the input or output.

3.   Tap the screen.

     The system group is activated for the selected input or output.

Note

A maximum of one system group can be activated for each input and output.
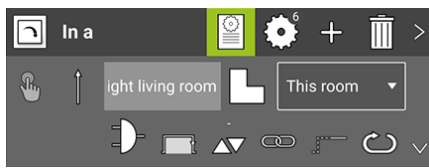

Figure: A system group is activated for **In a** (identified by **6**).

The system group is activated for the selected input or output.

12.5 Creating and managing dim curves

The settings for a dim curve defined once for a lighting unit can be saved and applied to other lighting units.

12.5.1 Creating a dim curve

You can create a dim curve directly in the advanced settings for outputs (see → *Extended configurations for inputs and outputs, page 82*) or in the dim curve editor.

1. Tap **Menu** ☰

2. Tap **Macros & system signals**, and then tap **Dim curves.**

    The **Dim curves** screen is displayed.
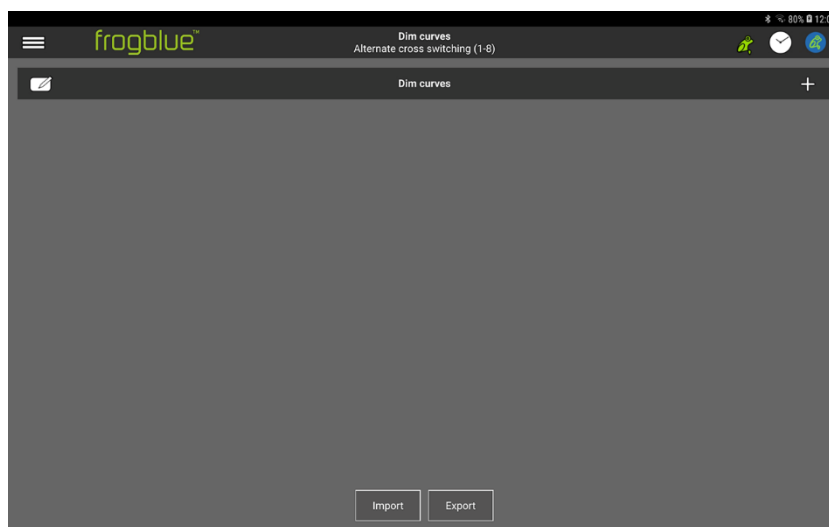
Figure: **Dim curves** screen.

3. Tap ✛

    The **Add dim curve** dialog box is displayed.
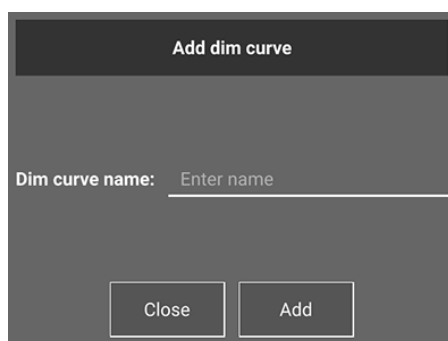
Figure: **Add dim curve** dialog box.

4. Enter a name for the dim curve in **Dim curve name**.

5. Tap **Add**.

    The name of the newly created dim curve is displayed in the **Dim curves** screen.
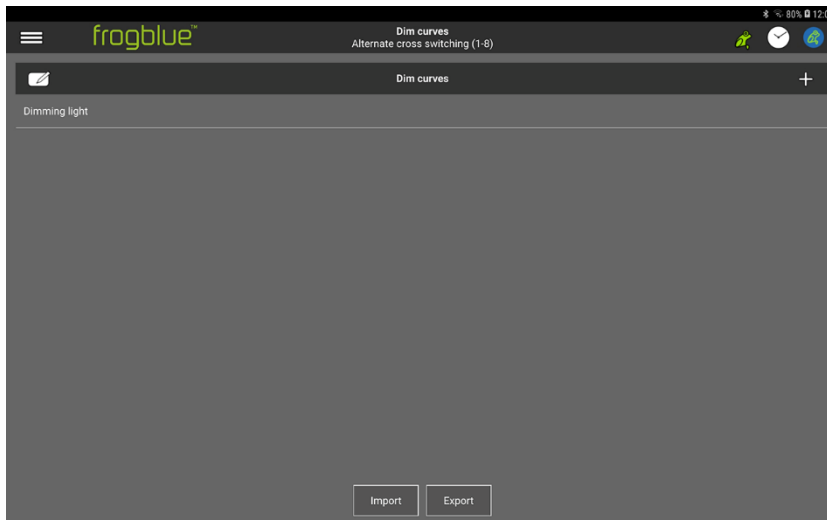
Figure: **Dim curves** screen with a dim curve.

6. Tap the name of the dim curve to configure it.
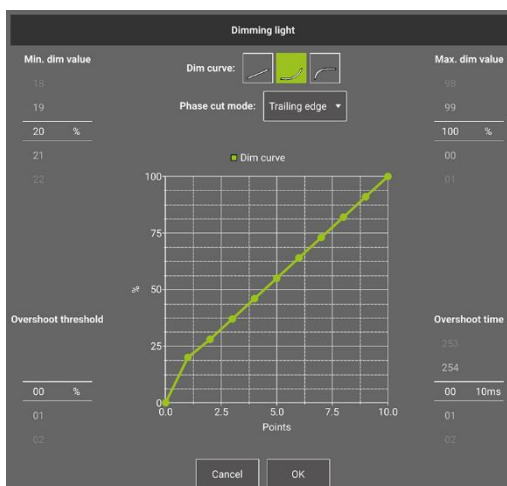
The **Dim curve editor** is displayed.

Figure: **Dim curve editor.**

For information on configuring a dim curve in the **Dim curve editor**, see → *Extended configurations for inputs and outputs, page 82*.

12.5.2 Importing and exporting dim curves

Dim curves that have been created in another project can be imported into the current project. To do this, tap **Import** in the **Dim curves** screen. In the window that then is displayed, you can select the dim curves that you want to import.

You can also make dim curves of the current project available for other projects by exporting them. To do this, tap the dimming curves you want to export in the **Dim curves** screen and then tap **Export**. In the window that then is displayed, assign a name to the export file, and save it.

13 Messages

This chapter contains information on the following topics:

- ✓ Message center
  Here you can manage the messages used in the project.

- ✓ Message logger
  The messages that are sent in the frogblue system are displayed here.

- ✓ Message traffic
  The occurrence of messages in the frogblue system is displayed here.

- ✓ Time messages
  The time messages sent by the time server, among others, are displayed here.

- ✓ Unknown messages
  Messages are listed here that are not used in the project but are still recognized.

- ✓ Unknown frogs
  Devices are listed here that are not used in the project but are still detected.

13.1 Message center

In the **Message center** you have an overview of all messages used in the frogblue system. In addition, the following functions are available:

- ✓ add new messages,
- ✓ rename messages,
- ✓ delete unused messages,
- ✓ export messages to a CSV file.

1. Tap **Menu** ☰

2. Tap **Messages**, and then tap **Message center.**

   The **Message center** screen is displayed.

Figure: **Message center** screen.

You can search and filter messages in the **Message center** using the following options:

Search: Here you can search for messages.

Message type: You can filter according to message types here.

Status: Here you can filter for status messages.

Room: Here you can filter for messages that refer to a room.

Device type: You can filter according to Frog types here.

Note

If you tap the right arrow for a message, the room in which the message is used is displayed.

Figure: The message **Light Living Room** is used in the rooms **Living room**, **Passage** and **Kitchen.**

Adding a new message

In the **Message center** you can add messages which can later be assigned to the inputs and outputs of Frogs.

1. Tap **Add message**.

   The **Message** dialog box is displayed.
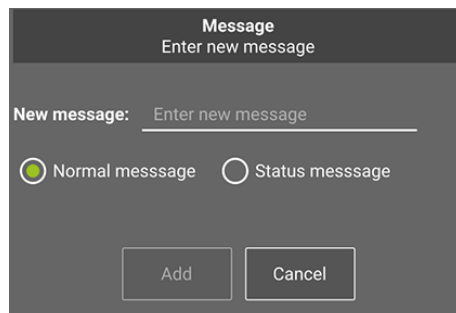
Figure: **Message** dialog box to create a new message.

2. Type the name of a message in **Enter new message**.

3. Choose between a **Normal message** and a **Status message**.

4. Tap **Add**.

   The message is created and displayed in the **Message center**.

Renaming a message

In the **Message center** you can rename messages. If the message is already assigned to inputs and outputs, it is automatically renamed there.

1. In the **Message center**, tap the message you wish to rename.

   The message is then highlighted.

2. Tap **Rename message**.

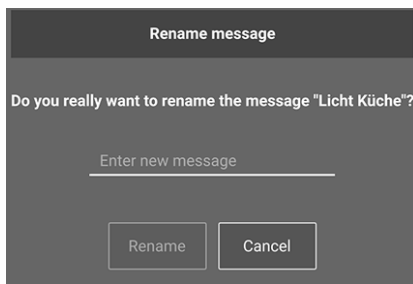The **Rename message** dialog box appears.

Figure: **Rename message** dialog box for renaming a new message.

3. Type the name of the new message in **Enter new message**.

4. Tap **Rename**.

The renamed message appears in the **Message center**.

Deleting unused messages

In the **Message center** you can delete all messages that are not used or no longer used in the frogblue system.

1. Tap **Delete messages**.
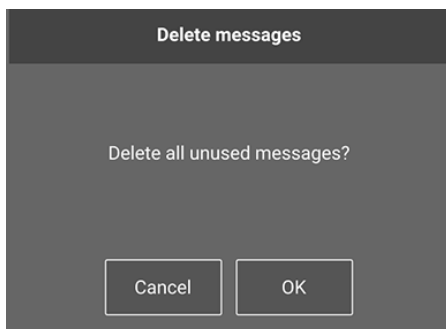
The **Delete messages** dialog box is displayed.

Figure: **Delete messages** dialog box for deleting unused messages.

2. Tap **OK**.

All unused messages are deleted.
The messages predefined by the frogblue system are not deleted.

Exporting messages

You can export the messages listed in Message center into a CSV file.

1. Tap **CSV export**.

The CSV file is stored in the **Documents/sheets** folder. The file name contains the name of the project as well as the **message** label and a date stamp, for example:
fb_Mustermann_Messages_190509_145516.csv.

13.2 Message logger

Via the **Message logger** all Bluetooth® messages sent in the frogblue system can be tracked. This allows you to check whether messages are actually sent as expected.

1. Tap **Menu** ☰

2. Tap **Messages**, and then tap **Message logger.**
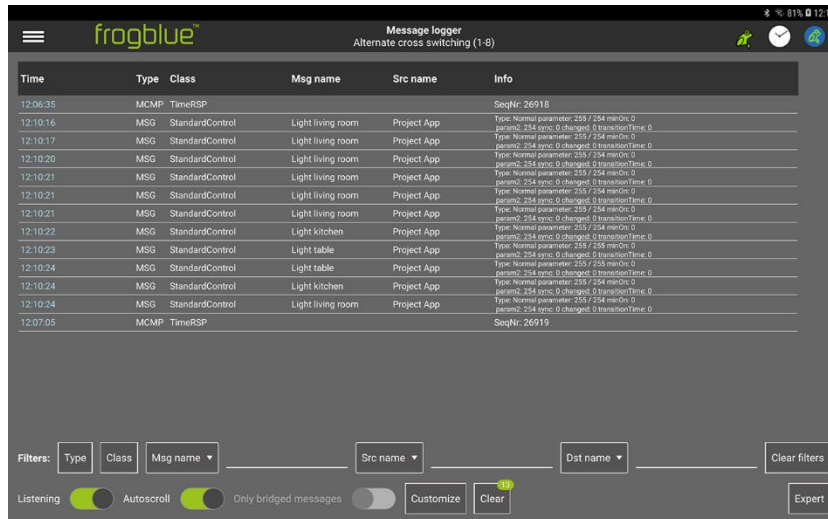
   The **Message logger** screen is displayed.

Figure: **Message logger** screen.

3. Activate **Listening** to display all Bluetooth® messages sent in the frogblue system.

   You can filter the recorded Bluetooth® messages according to various criteria.

Note

You can export the data to a CSV file. Tap **Expert**, and then tap **CSV Export**.
The CSV file is very useful for frogblue support.

13.3 Message traffic

In the **Message traffic** screen, the volume of sent messages in the frogblue system is displayed graphically. This allows you to identify, for example, an unusually high volume of messages.

1. Tap **Menu** ☰

2. Tap **Messages,** and then tap **Message traffic.**

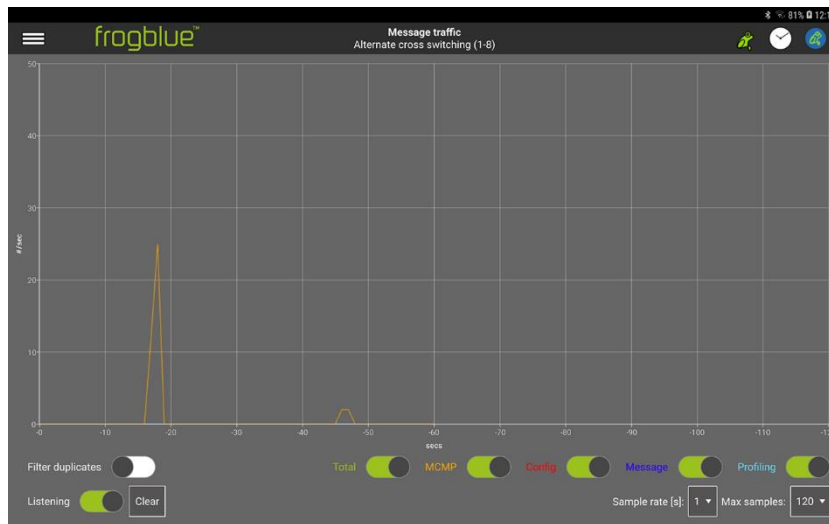   The **Message traffic** screen is displayed.

Figure: **Message traffic** screen.

3. Activate **Listening** to display the volume of the Bluetooth® messages sent in the frogblue system.

13.5 Unknown messages

The **Unknown messages** screen lists messages that are not configured in the project or are not listed in the message center but are nevertheless detected. Among other things, this can be used to identify devices that have been configured incorrectly.

1. Tap **Menu** ☰

2. Tap **Messages**, and then tap **Unknown messages.**

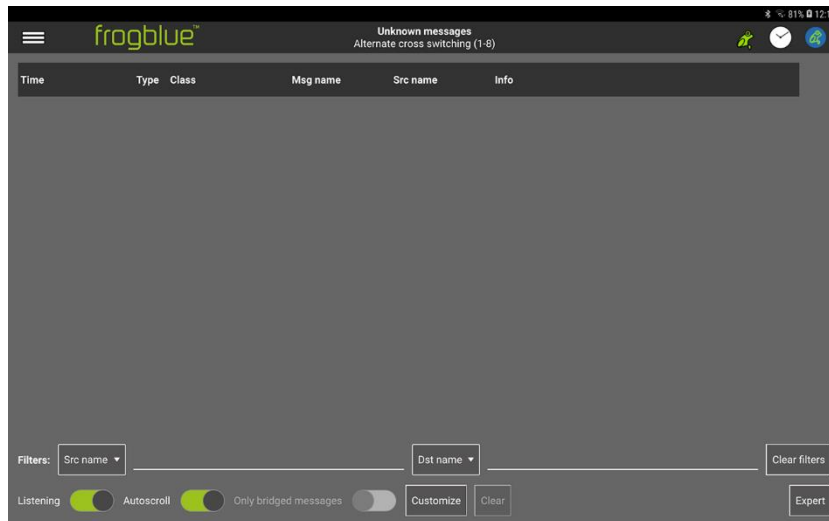   The **Unknown messages** screen is displayed.
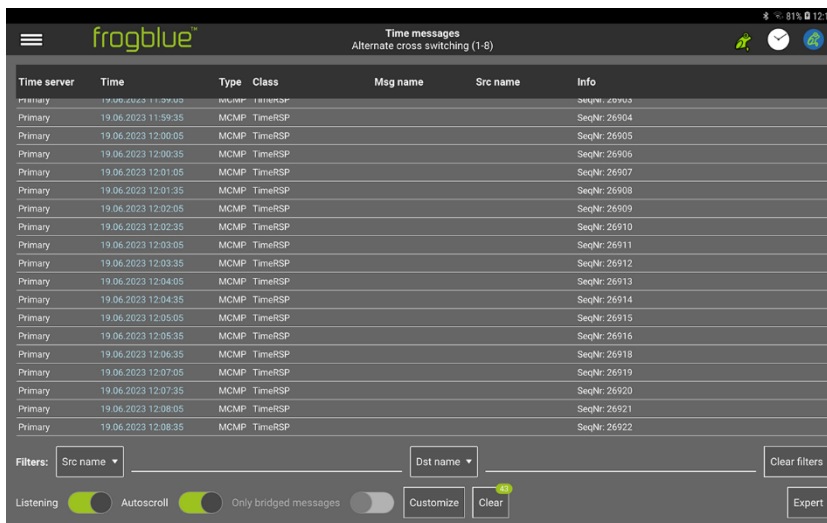
Figure: **Unknown messages** screen.

3. Activate **Listening** to display all identified unknown messages.

13.6 Unknown frogs

The **Unknown frogs** screen lists devices that are not configured in the project but are nevertheless detected. This allows, among other things, devices that have been configured incorrectly to be identified..

Unknown frogs

Unknown frogs can be displayed, for example, if a project has been configured on tablet A and then the project is further configured on another tablet B and a new frog is added there. If work is then continued again with tablet A, the newly added frog is detected but marked as "unknown".

If deleted devices are not reset to factory settings, they can also be displayed as unknown Frogs, since they still have valid settings stored for the project.

1. Tap **Menu** ▤

2. Tap **Messages**, and then tap **Unknown frogs.**

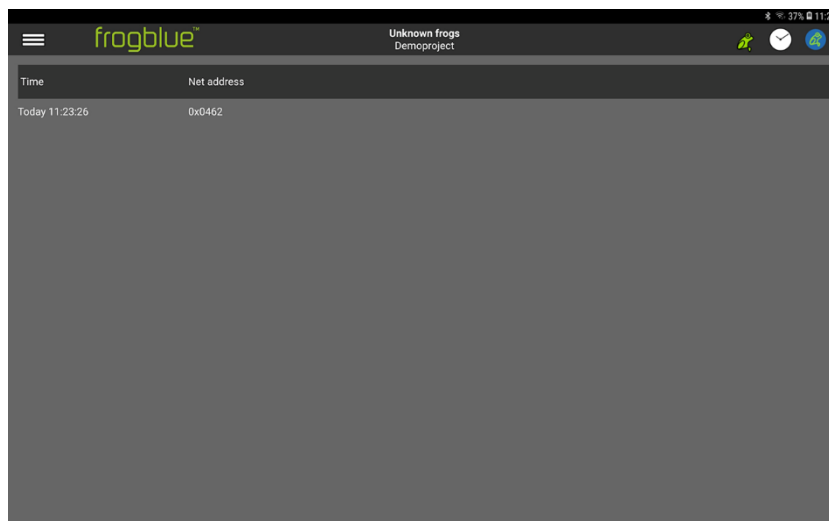   The **Unknown frogs** screen is displayed.

Figure: **Unknown frogs** screen.

14 Quick guides

This chapter contains quick guides to the following topics:

- ✓ Add a Frog to a project and assign it to a room.
- ✓ Cross, alternate, and central on/off for living room, kitchen, and dining area.
- ✓ Time control for child's bedrooms with dimming.
- ✓ Door control with an additional optical signal.
- ✓ Monitor doors and windows.

The first two quick guides build on each other.
Here you will get to know the configuration tables which will help you carry out configurations for larger projects.

14.1 Adding a Frog to a project and assigning it to a room

The following example shows how you can add a frogDim1-3 to a project and assign it to a room. You also assign a name to the Frog.
The result of the individual steps is summarized in a configuration table.

The device configuration carried out is the first step for the realization of an alternate and cross-switching as is presented in the quick guide in the next section, → *Alternate, cross and central on/off switching, page 204.*

✓ A project has already been created or loaded and the Frog is supplied with power.
   For information on how to create projects, see → *Managing projects, page 46.*

1. Start the **frogProject** app and open a new project.

   The **Configuration** screen is displayed.

Figure: **Configuration** screen of the **frogProject** app with the device list, the icon line, and the footer.

2. In the device list, tap **Add** ✛
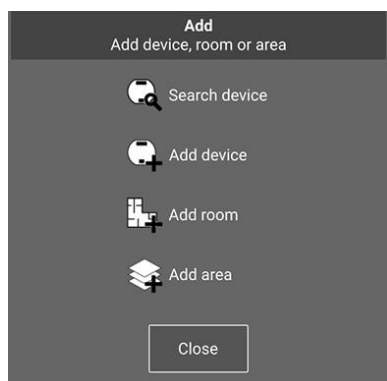
   The **Add** dialog box is displayed.

Figure: **Add** dialog box.

3. Tap **Search device** 🔍

The **Devices** dialog box is displayed.

All Frogs that are still configured with the factory settings and to which a Bluetooth® connection exists are displayed.
You can use the **Filter** to select which devices are to be displayed:

> **New Devices:** Displays all frogs that are not assigned to a project or that are still configured with factory settings.

> **Other Devices:** Displays all Frogs already assigned to other projects.

> **All Devices:** Shows all accessible devices.

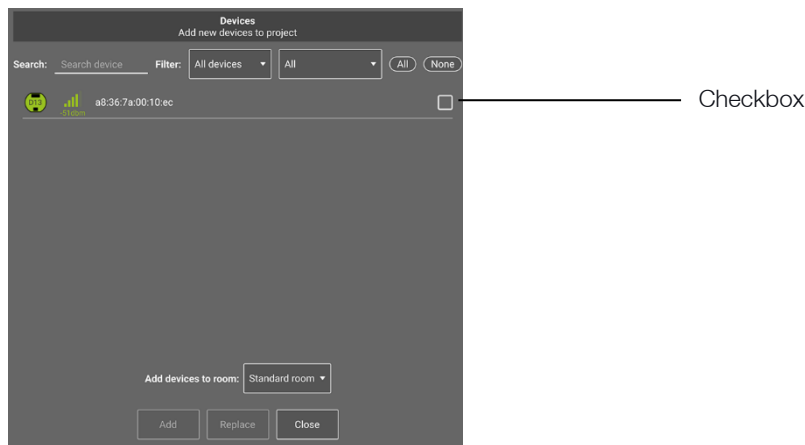In this example, the connected frogDim1-3 is displayed.

Figure: The **Devices** dialog box shows a connected frogDim1-3.

4. Tap the checkbox for the frogDim1-3.

   The activated checkbox gets a check mark.

5. Tap **Add**.

6. Tap **Close**.

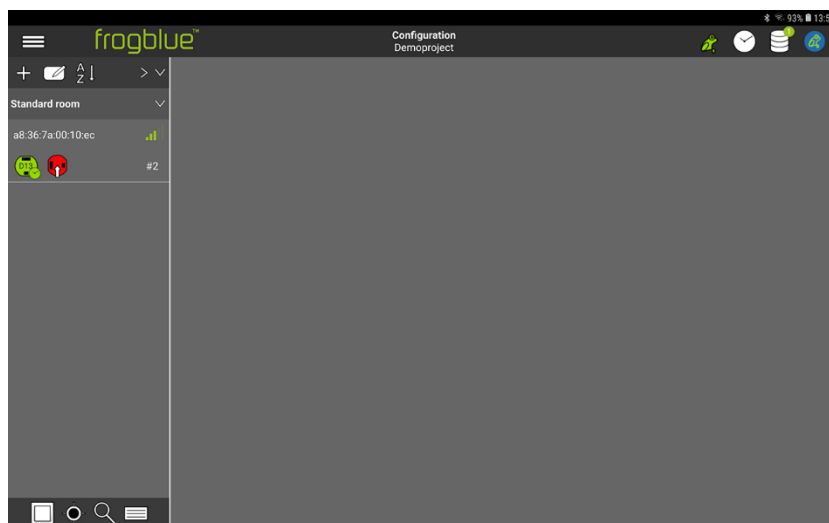   The added Frog is displayed in the device list.

Figure: The added Frog is displayed in the device list.

7. Tap the Frog icon in the device list to configure the Frog.

   The display area and the configuration area are displayed.

Display area

Configuration area

Figure: Display area and configuration area.

Next, the Frog is assigned to a room.

8. In the device list, tap **Add** ✛

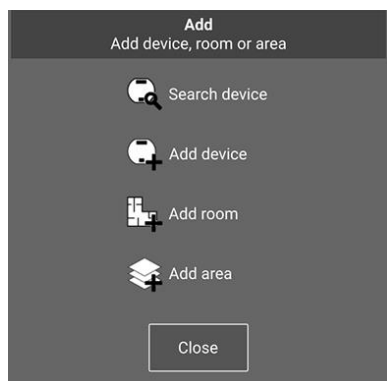   The **Add** dialog box is displayed.

Figure: **Add** dialog box.

9. Tap **Add room** 🏠➕
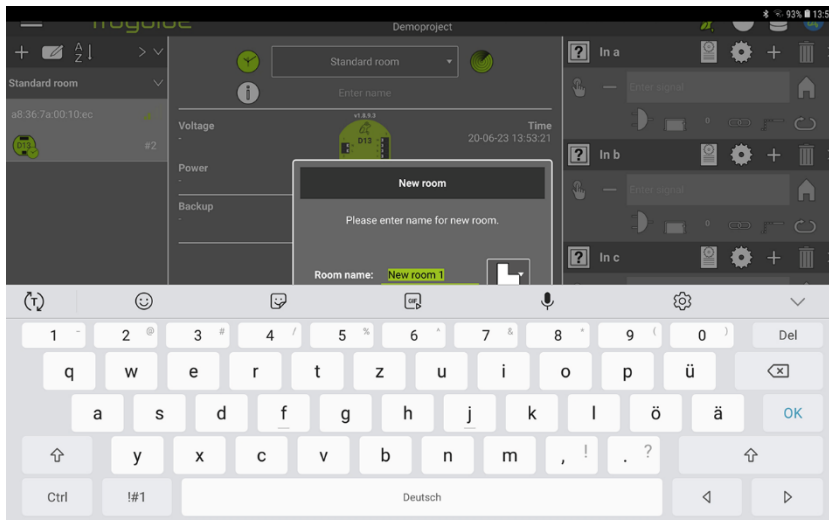
   A **New room** entry is displayed in the device list.

Figure: Displayed keyboard for entering a name for a room.

You can give the room a new name by replacing the **New room** text or selecting a default room name.

10. Use the keyboard to enter a name, such as **Living room**.

Figure: The Frog and the label **Living room** in the device list.

The Frog and the **Living room** are listed in the device list.

11. In the display area, tap **Standard room** in the selection list.

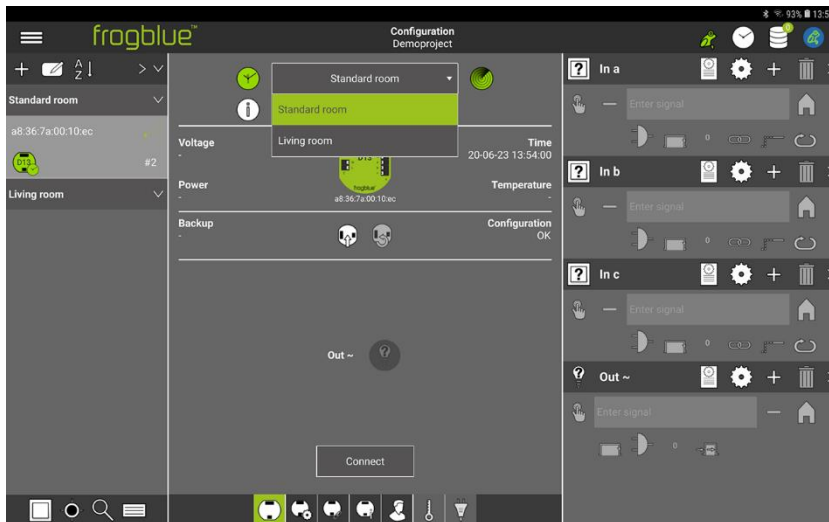The entries in the selection list are displayed.

Figure: Selection list to select the room in the display area.

12. Tap **Living room** in the selection list.

   The Frog is assigned to the room **Living room**.
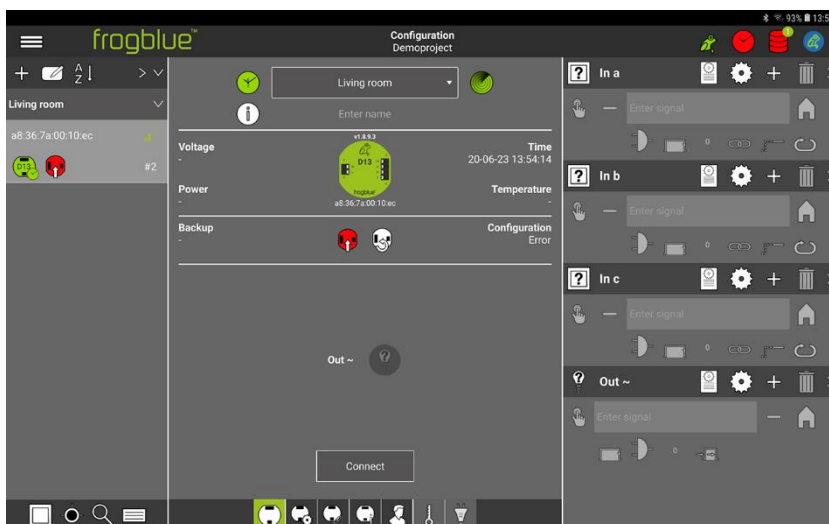

Figure: The Frog is assigned to the room **Living room**.

   Next a name is assigned to the Frog.

13. Tap the **Enter name** field in the display area.
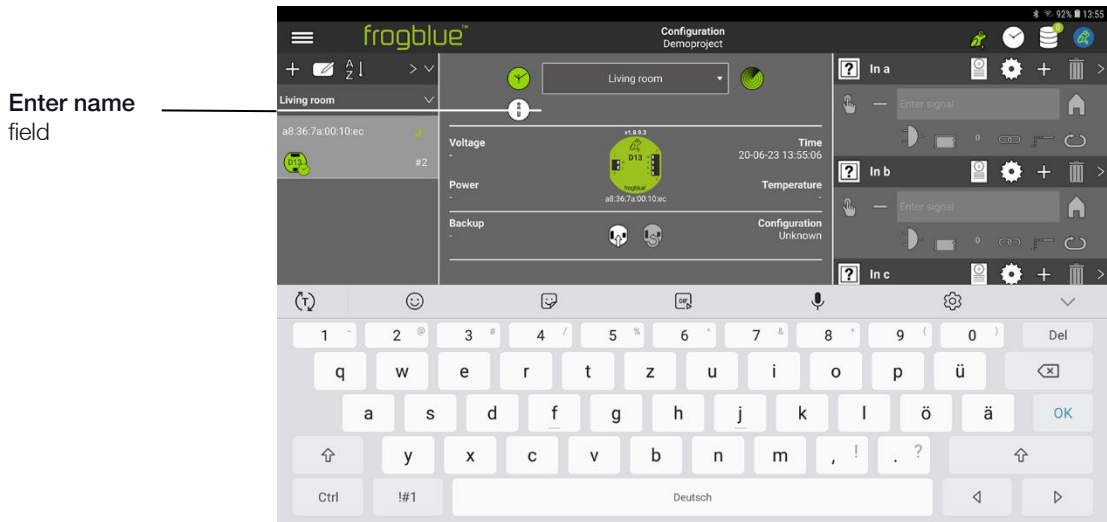
   The keyboard appears.

Enter name
field

Figure: Keyboard shown for entering a name in the **Enter name** field.

14. Use the keyboard to enter the name for the Frog, for example **Living room**.

Figure: A frogDim1-3 with the name **Living room** is assigned to the room **Living room**.

The result of the device configuration is summarized in a configuration table:

frogDim1-3

Name	Living room
Assigned room	Living room

The device configuration is now complete. The configuration is automatically saved in the **frogProject** app.
For the configuration to take effect on the Frog, it must be loaded onto the Frog.

1. In the Frog view, tap **Connect** in the display area.

   A Bluetooth® connection is established to the Frog.
   Once a Bluetooth® connection is established, the button is renamed **Disconnect**.

2. Tap **Save configuration**

   The changes are loaded into the corresponding Frog and saved.

14.2 Alternate, cross and central on/off switching

The following configurations are presented in this section:

- Alternate switching in the living room and dining area

- Cross-switching for living room, dining area and kitchen

- Central on/off

14.2.1   Alternate switching in the living room

For alternate switching in the living room, two frogDim1-3 are configured. One Frog is in the entrance of the living room, the other in the passage to the kitchen.
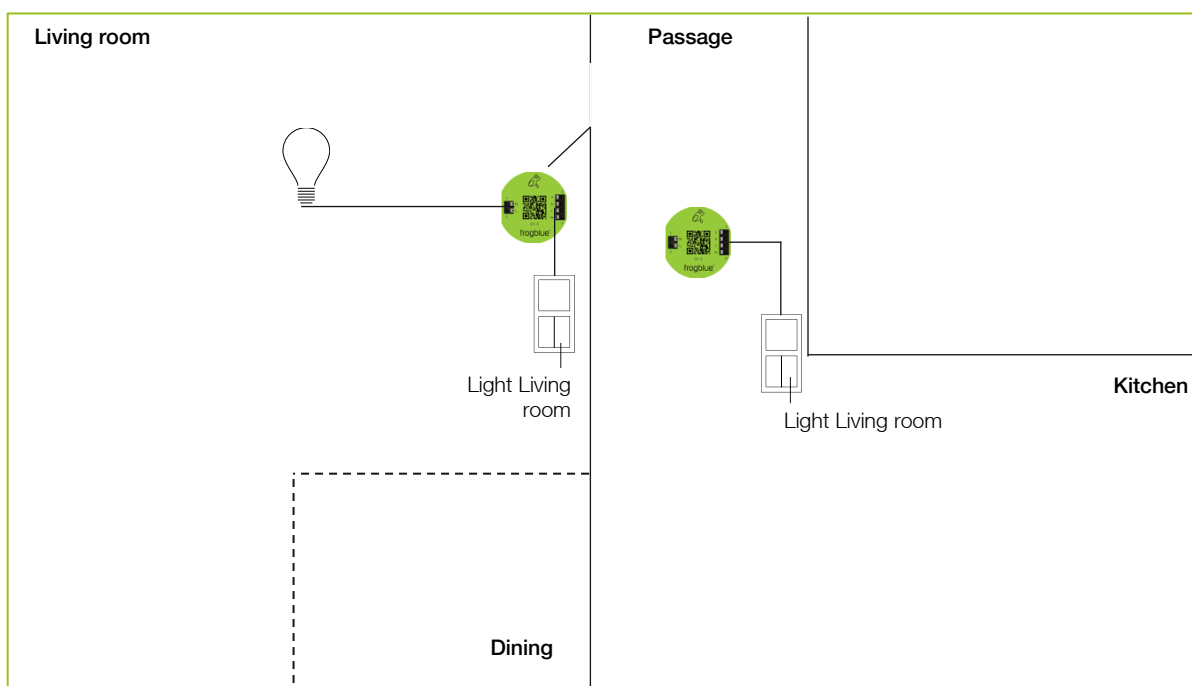

Figure: One frogDim1-3 in the living room, one frogDim1-3 in the passage to the kitchen.

The following device configurations have already been carried out:

frogDim1-3

Name	Living room
Assigned room	Living room

frogDim1-3

Name	Passage
Assigned room	Living room

Information on adding frogs and assigning frogs to rooms can be found in the quick guide → *Adding a Frog to a project and assigning it to a room, page 198*.
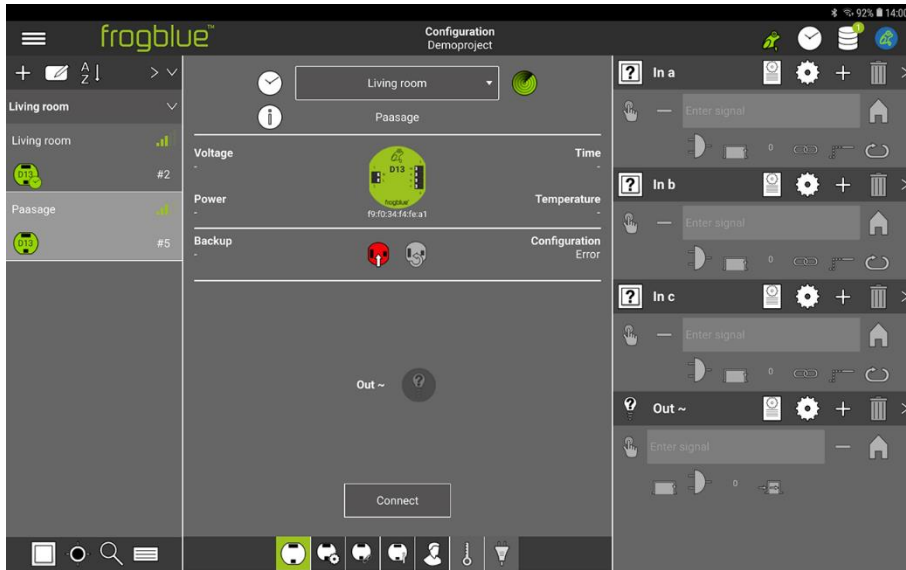
Figure: Two frogDim1-3 in the device list.

First the input **In a** in the Frog **Living room** is connected to the output **Out ~** via the message. **Light living room**.
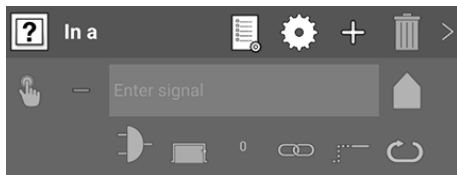
1. Tap in the input **In a**.

Figure: Input **In a**.

A selection of buttons and functions is displayed.

2. Tap **Light**, and then tap **Button - dim**

The selected button is displayed in the input **In a**.

Figure: Input **In a** with the button **Button - dim**.

The action **Click** ⇡ is automatically selected.

Next, a connection is configured for the **Out ~** output.
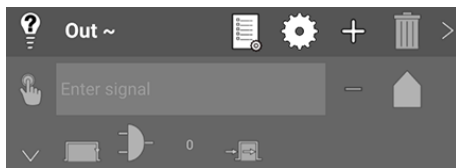
3. Tap 📍 in the output **Out ~**.

Figure: Output **Out ~**.

A selection of connections and consumers is displayed.

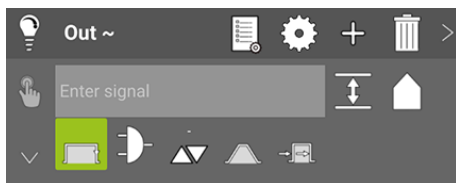4. Tap **Light**, and then tap **Dimmable light** 💡

Figure: Output **Out ~** with the connection **Dimmable light**.

The action **Toggle** ↕ is automatically selected.

Now the input **In a** and the output **Out ~** are connected via the message **Light living room**.

5. For the **In a** input in **Enter signal**, enter the name **Light living room**.

Figure: Input **In a** with the message **Light Living Room**.

6. Also enter the name **Light living room** for the output **Out ~** in the **Enter signal** field.

Figure: Output **Out ~** with the message **Light living room**.

Note

You can enter previously defined messages in the **Enter signal** input field more quickly using the autocomplete function.
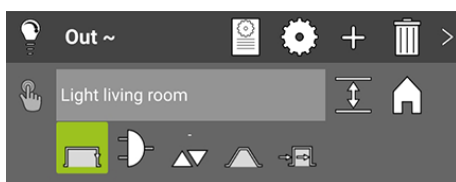For example, if you enter **Lic**, the message **Light living room** will be suggested.

Figure: The message **Light Living Room** for the input **In a** and the output **Out ~**.

The following configuration has now been carried out for the Frog **Living room** (marked grey in the following table):

frogDim1-3

Name	Living room
Assigned room	Living room
In a	
Button	Button - dim
Message	Light living room
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light living room
Action	Toggle

7. Load the configuration onto the Frog **Living room**.

Figure: The message **Light living room** for the input **In a** and the output **Out ~**.

To realize alternate switching, the input of the Frog **Passage** is assigned to the same message **Light living room** as was previously defined in input **In a** of the Frog **Living room**.

1. To do this, configure the following settings for the Frog **Passage** (marked grey in the following table):

frogDim1-3

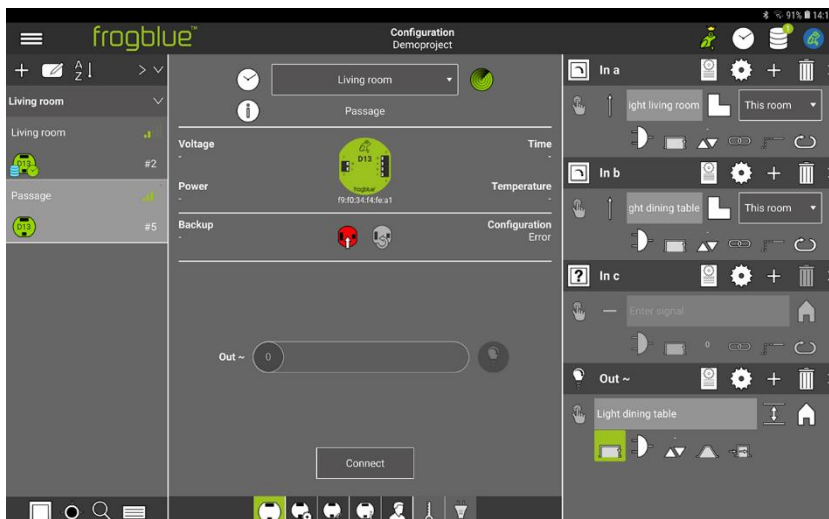| Name	Passage
Assigned room	Living room
In a	
Button	Button - dim
Message	Light living room
Action	Click

Figure: The message **Light living room** in the input **In a** for the Frog **Passage**.

2. Load the configuration onto the Frog **Passage**.

14.2.2 Cross-switching for living room, dining area and kitchen

First, lighting in a dining area is added to the alternative switching.
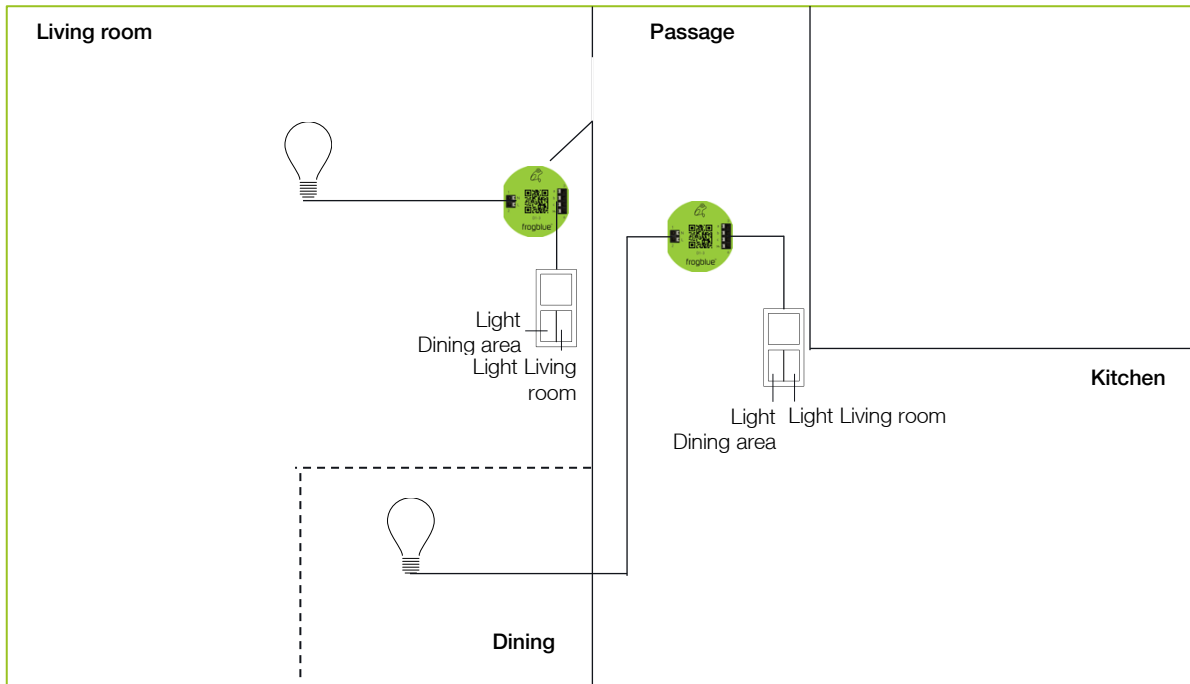The dining area is in the living room.

Figure: Additional lighting in the dining area.

The first step is to configure the input **In b** and the output **Out ~** for the Frog **Passage**. To connect the input **In b** with the output **Out ~**, the message **Light dining table** is defined.

1. To do this, configure the following settings for the Frog **Passage** (marked grey in the following table):

frogDim1-3

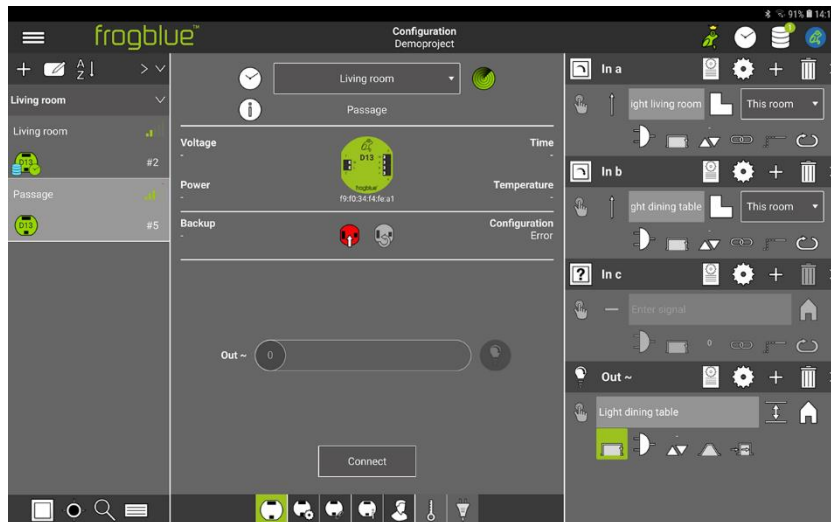| Name	Passage
Assigned room	Living room
In a	
Button	Button - dim
Message	Light living room
Action	Click
In b	
Button	Button - dim
Message	Light dining table
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light dining table
Action	Toggle

Figure: Input **In b** and output **Out ~** with the message **Light dining table** for the Frog **Passage**.

To realize alternative switching, the input **In b** of the Frog **Living room** is connected to the input **In b** of the Frog **Passage** via the message **Light dining table**.

2. To do this, configure the following settings for the Frog **Living room** (marked grey in the following table):

frogDim1-3

Name	Living room
Assigned room	Living room
In a	
Button	Button - dim
Message	Light living room
Action	Click
In b	
Button	Button - dim
Message	Light dining table
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light living room
Action	Toggle

Figure: The configured input **In b** for the Frog **Living room.**

3. Load the device configurations onto the Frog **Living room** and onto the Frog **Passage**.

In the next step, additional lighting – the kitchen lighting – is integrated in addition to the existing alternate switching. For this purpose, another frogDim1-3 is added to the project, which is located in the kitchen.
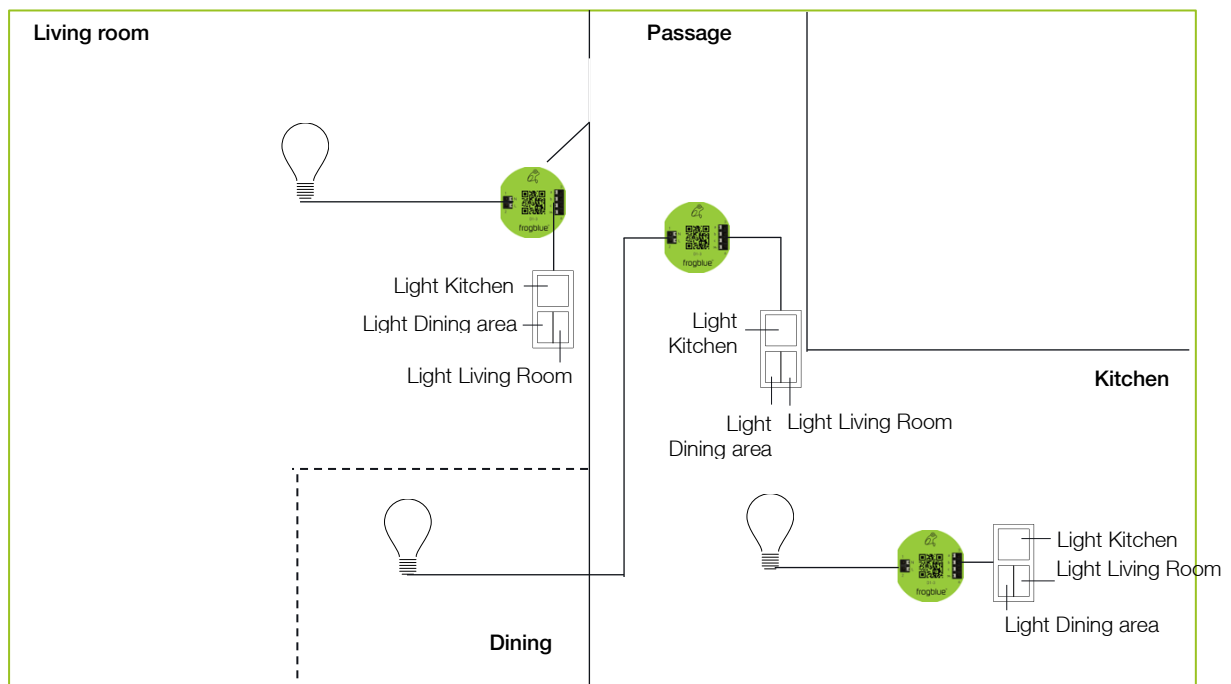

Figure: Alternate switching for the living room, the dining area and the kitchen.

The following device configuration has already been carried out:

frogDim1-3

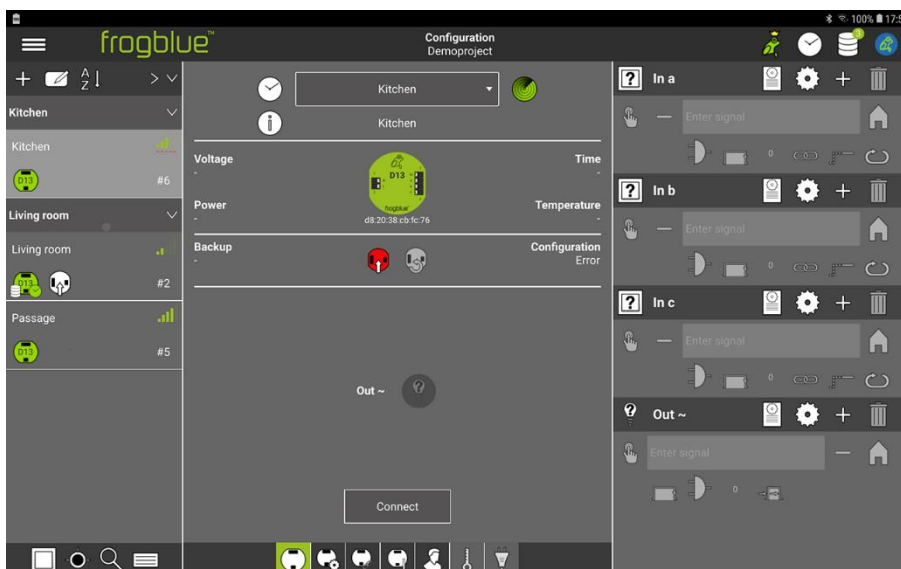| Name	Kitchen
Assigned room	Kitchen

Figure: Another Frog **Kitchen** was added to the project.

To be able to integrate the kitchen lighting into the existing alternative switching **Light living room** and **Light dining table**, the corresponding inputs and outputs are connected to the message **Light kitchen**.

1. To do this, configure the following settings for the Frog **Kitchen** (marked grey in the following table):

frogDim1-3

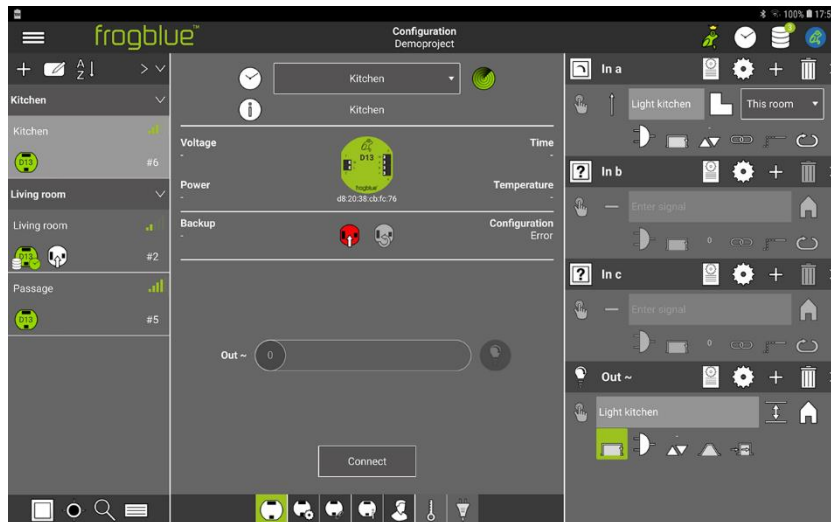| Name	Input
Assigned room	Kitchen
In a	
Button	Button - dim
Message	Light kitchen
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light kitchen
Action	Toggle

Figure: The message **Light Kitchen** for the input **In a** and the output **Out ~**.

To convert the button in the kitchen into the cross-switching, the input **In b** is connected to the output **Out ~** of the Frog **Living room** with the message **Light dining table**.
In addition, the input **In c** is connected to the output **Out ~** of the Frog **Living room** via the message **Light living room**.

2. To do this, configure the following settings for the Frog **Kitchen**
   (marked grey in the following table):

frogDim1-3

Name	Kitchen
Assigned room	Kitchen
In a	
Button	Button - dim
Message	Light kitchen
Action	Click
In b	
Button	Button - dim
Message	Light dining table
Action	Click
In c	
Button	Button - dim
Message	Light living room
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light kitchen
Action	Toggle

The Frog **Kitchen** is now switched as follows:

- **In a** switches **Out ~** (**Light kitchen**) in the kitchen.

- **In b** switches **Out ~** (**Light dining table**) in the dining area.

- **In c** switches **Out ~** (**Light living room**) in the living room.
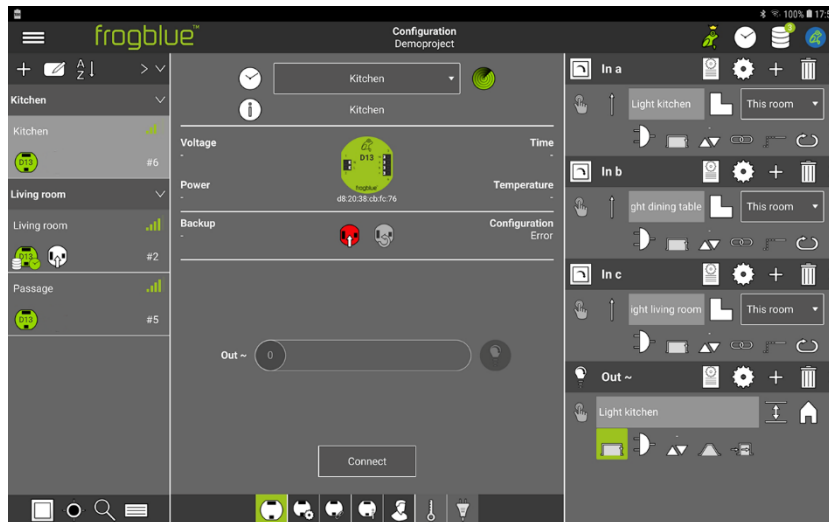

Figure: The messages of the inputs **In a**, **In b** and **In c** for the Frog **Kitchen**.

The next step is to connect the unused inputs **In c** of the Frogs **Living room** and **Passage** to the output **Out ~** of the Frog **Kitchen** via messages.

3. To do this, configure the following settings for the Frog **Living room** (marked grey in the following table):

frogDim1-3

Name	Living room
Assigned room	Living room
In a	
Button	Button - dim
Message	Light living room
Action	Click
In b	
Button	Button - dim
Message	Light dining table
Action	Click
In c	
Button	Button - dim
Message	Light kitchen
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light living room
Action	Toggle

Figure: The configured inputs of the Frog **Living room**.

Now the input **In c** is configured for the Frog **Passage**.

4. To do this, configure the following settings for the Frog **Passage** (marked grey in the following table):

frogDim1-3

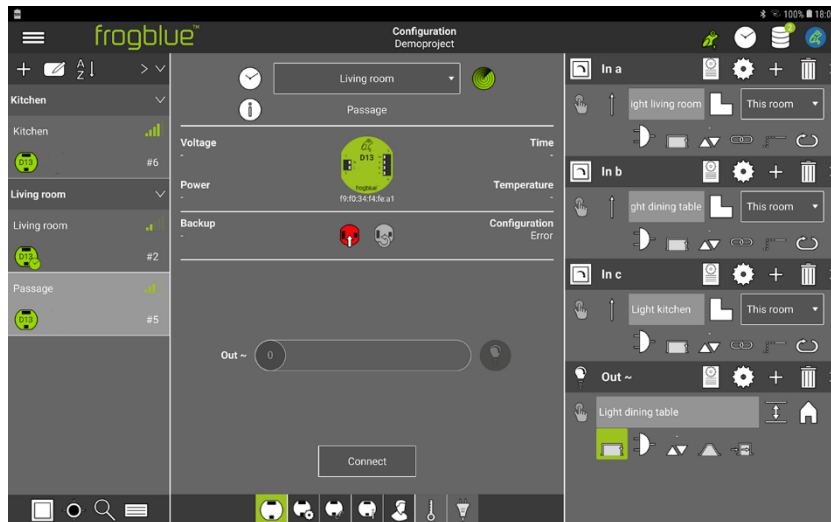| Name	Passage
Assigned room	Living room
In a	
Button	Button - dim
Message	Light living room
Action	Click
In b	
Button	Button - dim
Message	Light dining table
Action	Click
In c	
Button	Button - dim
Message	Light kitchen
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light dining table
Action	Toggle

Figure: The configured inputs of the Frog **Passage**.

This completes the configuration of the cross-switching.

5.   Load the configuration onto the Frogs **Living room**, **Passage** and **Kitchen**.

The following device configurations have been carried out:

frogDim1-3

Name	Living room
Assigned room	Living room
In a	
Button	Button - dim
Message	Light living room
Action	Click
In b	
Button	Button - dim
Message	Light dining table
Action	Click
In c	
Button	Button - dim
Message	Light kitchen
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light living room
Action	Toggle

frogDim1-3

Name	Passage
Assigned room	Living room
In a	
Button	Button - dim
Message	Light living room
Action	Click
In b	
Button	Button - dim
Message	Light dining table
Action	Click
In c	
Button	Button Dimming
Message	Light kitchen
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light dining table
Action	Toggle

frogDim1-3

Name	Kitchen
Assigned room	Kitchen
In a	
Button	Button - dim
Message	Light kitchen
Action	Click
In b	
Button	Button - dim
Message	Light dining table
Action	Click
In c	
Button	Light dimming
Message	Light living room
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light kitchen
Action	Toggle

14.2.3 Central On/Off

Double-click to switch on the lighting in the living room, dining area and kitchen. The lighting in the living room, dining area and kitchen can be switched off again by means of a triple click.

Central control across several Frogs is implemented via system groups, which are activated in the inputs and outputs of the Frogs. System groups are made up of individual system signals.
Some system signals and system groups are already predefined in the **frogProject** app, such as the system group **Central**.
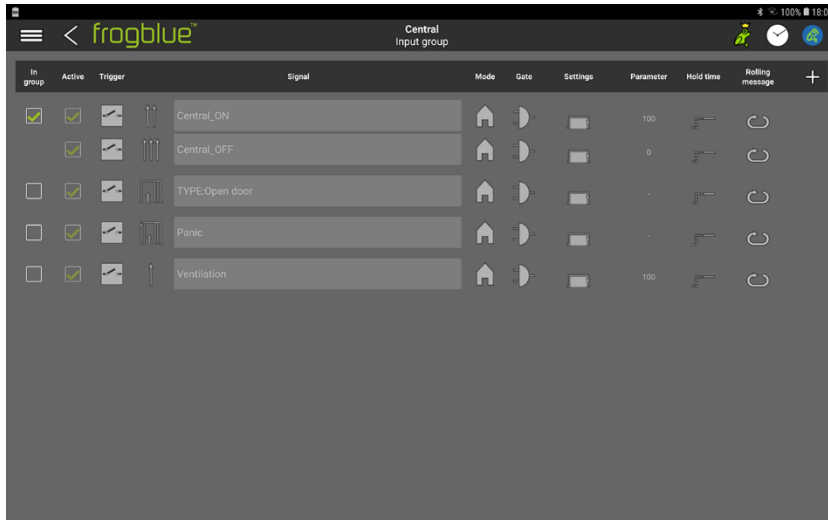
Figure: System signals of the system group **Central**.

The system signal **Central_ON** is triggered by a double click and the system signal **Central_OFF** by a triple click.

The system group **Central** must therefore only be activated in the inputs and outputs of all Frogs to implement a central on/off.

For information on system groups, see → *Creating and managing system groups, page 183*.
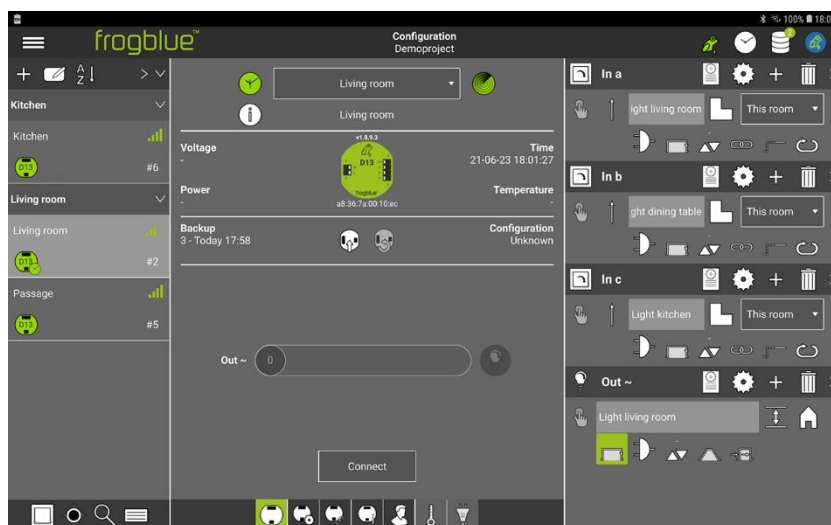
Figure: The configured Frog **Living room** in cross-switching.

For the Frogs **Living Room**, **Passage** and **Kitchen**, for the input **In a** and for the output **Out ~** the system group **Central** is activated.

1. Tap the Frog **Living Room** in the device list to configure it.

2. In the **In a** input, tap **System group** ⚙

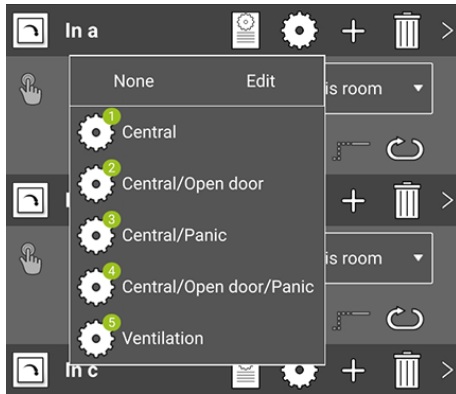   A selection of the available system groups is displayed.

Figure: For the input **In a**, the system group **Central** is available for selection, among others.

3. Tap the system group **Central**.

4. Tap the screen.

   The system group **Central** is enabled for input **In a**.
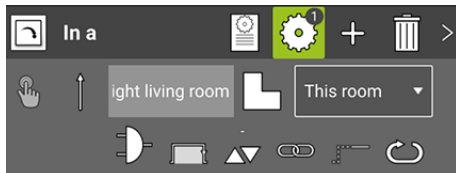
Figure: Activated system group for the input **In a**.

For the output **Out ~**, the system group **Central** also must be activated.

5. In **Out ~,** tap **System group** ⚙

   A selection of the available system groups is displayed.

6. Tap the system group **Central**.

7. Tap the screen.

   The system group is enabled for the output **Out ~.**
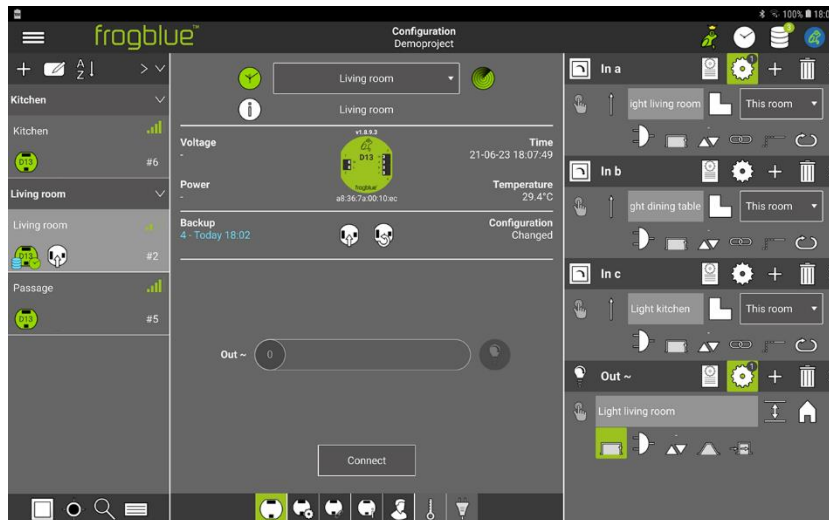
Figure: Activated system group for input **In a** and output **Out ~.**

The following configuration has now been carried out for the Frog **Living Room** (marked grey in the following table):

frogDim1-3

Name	Living room	
Assigned room	Living room	
In a		
Button	Button - dim	
Message	Light living room	
Action	Click	
	System group	Central: - Central_ON, action: Double click - Central_OFF, action: Triple click
In b		
Button	Button - dim	
Message	Light dining table	
Action	Click	
In c		
Button	Button - dim	
Message	Light kitchen	
Action	Click	
Out ~		
Power connection	Dimmable light	
Message	Light dining table	
Action	Switch over	
	System group	Central: - Central_ON, action; On with brightness 100 - Central_OFF, action: Off with brightness 0

8. Also activate the system group **Central** in the inputs **In a** and outputs.
Out ~ of the Frogs **Passage** and **Kitchen**.

9. Load the configuration onto the Frogs **Living Room**, **Passage** and **Kitchen**.

In this way the following device configurations have been performed for the Frogs **Passage** and **Kitchen** (marked grey in the table):

frogDim1-3

Name	Passage	
Assigned room	Living room	
In a		
Button	Button - dim	
Message	Light living room	
Action	Click	
	System group	Central: - Central_ON, action: Double click - Central_OFF, action: Triple click
In b		
Button	Button - dim	
Message	Light dining table	
Action	Click	
In c		
Button	Button - dim	
Message	Light kitchen	
Action	Click	
Out ~		
Power connection	Dimmable light	
Message	Light living room	
Action	Toggle	
	System group	Central: - Central_ON, action: On with brightness 100 - Central_OFF, action: Off with brightness 0

frogDim1-3

Name	Kitchen	
Assigned room	Kitchen	
In a		
Button	Button- dim	
Message	Light kitchen	
Action	Click	
	System group	Central: - Central_ON, action: Double click - Central_OFF, action: Triple click
In b		
Button	Button - dim	
Message	Light dining table	
Action	Click	
In c		
Button	Button - dim	
Message	Light living room	
Action	Click	
Out ~		
Power connection	Dimmable light	
Message	Light kitchen	
Action	Toggle	
	System group	Central: - Central_ON, action: On with brightness 100 - Central_OFF, action: Off with brightness 0

14.3 Time control for child's bedroom with dimming

This quick guide shows you how to configure a level for the brightness of a lamp in a child's bedroom depending on the time of day. At night, the lamp should automatically switch to 20% brightness. A frogDim2-2 is used to implement the time control.

Information on adding frogs and assigning frogs to rooms can be found in the quick guide → *Adding a Frog to a project and assigning it to a room, page 198*.

For information on configuring messages, refer to the quick guide → *Alternate, cross and central on/off switching, page 204.*

The following device configuration has already been carried out:

frogDim2-2

Name	Lamp
Assigned room	Child's bedroom
In a	
Button	Button - dim
Message	Light child's bedroom
Action	Click
Out A	
Power connection	Dimmable light
Message	Light child's bedroom
Action	Toggle
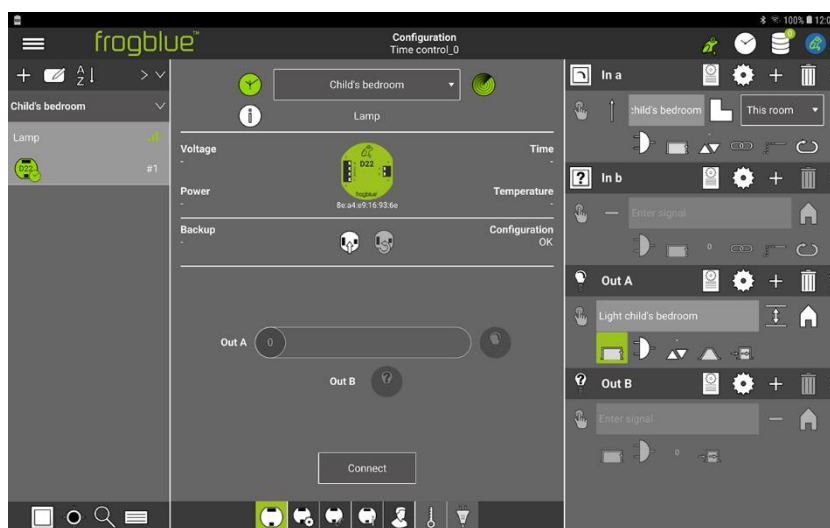
Figure: A configured frogDim2-2.

The configuration is carried out for output **Out A**, to which the lamp to be dimmed is connected.

1. In the **Out A** output, tap **Gate/Time editor** ⊐⊢

   The **Gate/Time editor** dialog box is displayed.
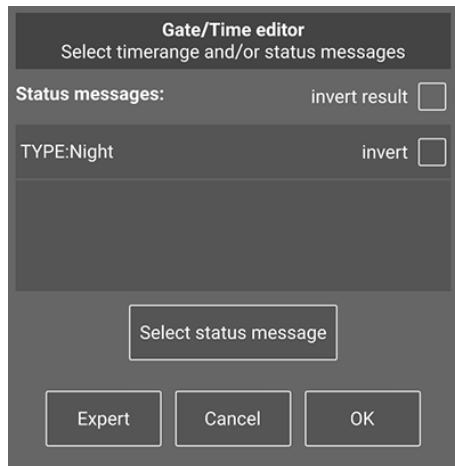
Figure: **Gate/Time editor** dialog box.

2. Tap **Expert**.

3. Tap **Time range** ⊘

   Add the **Add week profile** dialog box is displayed.
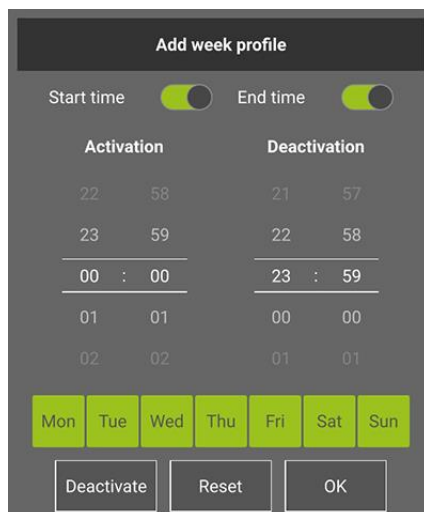
Figure: **Add week profile** dialog box.

4. Set a start time in **Activation**, for example **06:30** hrs.

5. Set an end time in **Deactivation**, for example **20:30** hrs.

   This configures the time switch for the day, that is, the day starts at **06:30** and ends at **20:30**.

6. Tap **OK**.

   The **Gate/Time editor** dialog box with activated time range is displayed.
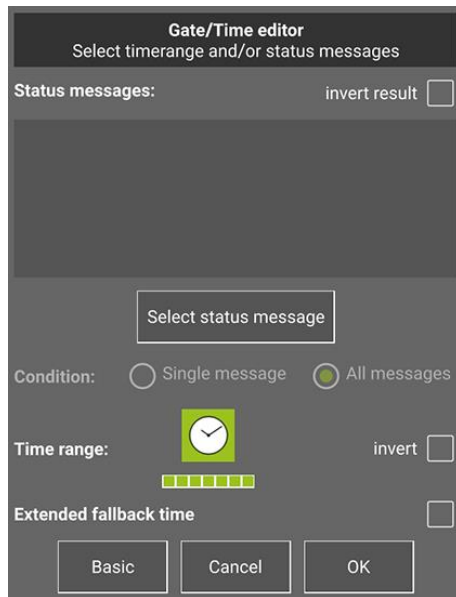
Figure: **Gate/Time editor** dialog box with activated time range.

7. Tap **OK**.
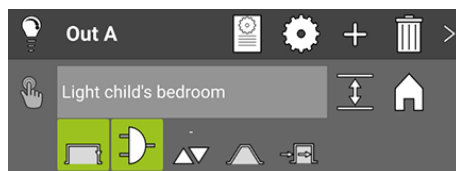
Figure: A configured output **Out A**.

The next step is to set the time switch for the night, this is the night starts at 20:30 hrs and ends at 06:30 hrs.

To set the time switch for the night, a second message is configured for output **Out A**.

1. In the output **Out A** tap **Add messages** ✛

   Another **Enter signal** input field is shown.
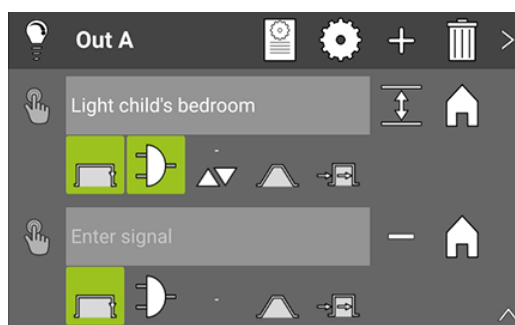
Figure: Another message can be entered for output **Out A**.

2. Tap the second **Enter signal** input field and select the message
   Light child's bedroom.
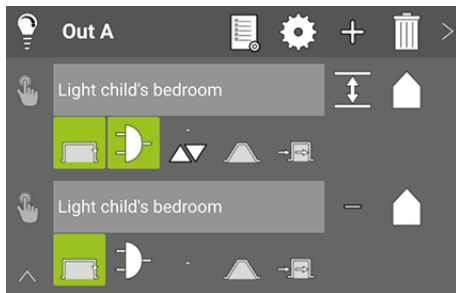
Figure: The second message **Light child's bedroom** for output **Out A**.

3. For the second message, tap the **Gate/Time editor** ⊅

4. Tap **Expert**.

5. Activate **invert result**.
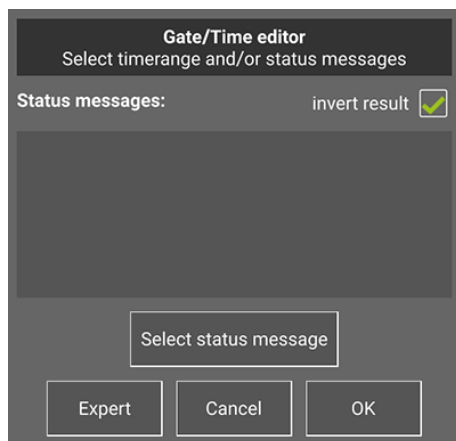
Figure: Activated **invert result** in the **Gate/Time Editor**.

6. Tap **Expert**.

7. Tap **Time range** ⊘

   The **Add week profile** dialog box is displayed.

   The same times are set as for the first message for the purpose of **Activation** and **Deactivation**.
   Since the gate is inverted, the time from 20:30 to 06:30 is active and not from 06:30 to 20:30 as for the first message.

8. For **Activation**, set the time to **06:30**.

9. For **Deactivation**, set the time to **20:30**.

10. Tap **OK**.

    The **Gate/Time editor** dialog box with activated time range is displayed.

11. Tap **OK**.

    The time switch for the night is now configured.

The next step is to set the brightness values for dimming.
During the day to 80% and at night to 20%.

1. In output **Out A**, tap **Dim** ▽ in the functions in the first message.

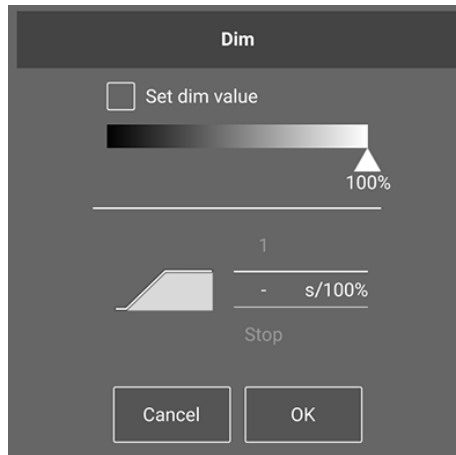   The **Dim** dialog box is displayed.

Figure: **Dim** dialog box.

2. Activate **Set dim value**.

3. Set the **Dim value** to **80%** and tap **OK.**

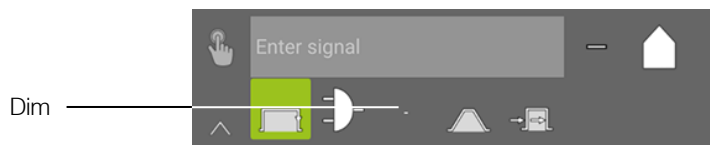4. In output **Out A**, tap the dash (parameter) in the second message.

Dim

Figure: Dash (parameter).

   The **Dim** dialog box is displayed.

5. Activate **Set dim value**.

6. Set the **Dim value** to **20%** and tap **OK.**

   The value for dimming is now set for both the first and the second message.

Figure: Dimming values for the first and second message.

7. Load the configuration onto the Frog **Lamp**.

The complete configuration for the Frog **Lamp** is summarized in the following configuration table:

frogDim2-2		
Name	Lamp	
Assigned room	Child's bedroom	
In a		
Button	Button dimming	
Message	Light child's bedroom	
Action	Click	
Out A		
Power connection	Dimmable light	
1st message	Light child's bedroom	
Action	Toggle	
	Gate/Time editor	Timer function Activation: 6:30
		Timer function Deactivation: 20:30
	Dim value	Parameter 80%
2nd message	Light child's bedroom	
Action	Toggle	
	Gate/Time editor	Invert gate result: on
		Timer function Activation: 6:30
		Timer function Deactivation: 20:30
	Dim value	Parameter 20%

14.4 Door control

In the following example a door control for a Mediator (DC voltage) is configured with a frogEntry2-3 and a frogDim1-3.

In addition, the configuration is presented of how the light in the entrance is switched on when the door is opened.

The following device configurations have already been carried out:

frogEntry2-3

Name	Entrance door
Assigned room	Input

frogDim1-3

Name	Light entrance
Assigned room	Input
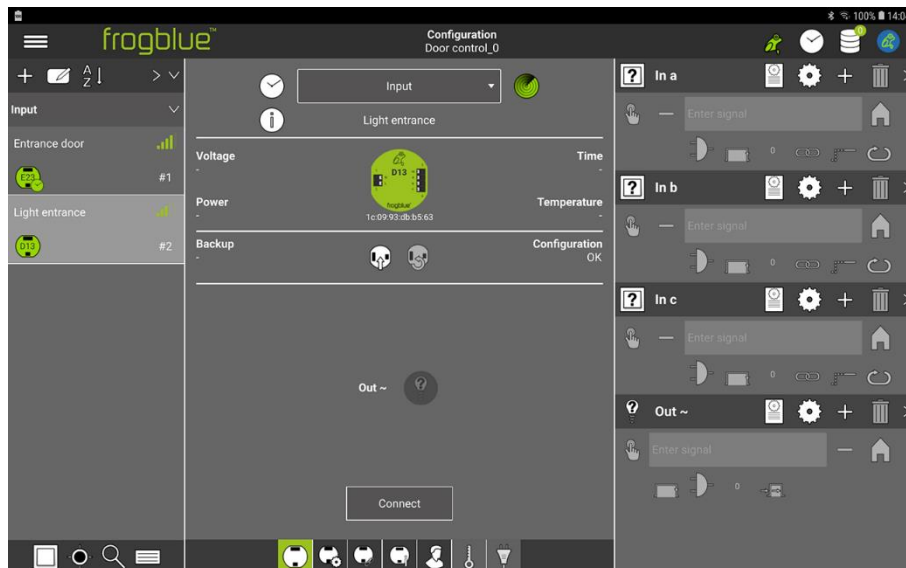
Figure: A frogEntry2-3 and a frogDim1-3.

In the first step, the inputs of the frogEntry2-3 are configured.
For the input **In r** a button for a bell is selected and for the input **In l** a door button is selected.
In input **In c** a status is queried.
Output **Out O** is assigned the connection **Door** the with the action **Motor lock.** This automatically couples the outputs **Out P** and **Out O** to output **Out P & O**.

Motor lock and e-opener

You can use a motor lock or an e-opener.
An e-opener opens on impulse and only requires the output **Out P** with 12 V / 1.3 A.
A motor lock requires continuous voltage and opens on impulse. Both outputs (**Out P** and **Out O**) are required.

---

1. To do this, configure the following settings for the Frog **Entrance door**
   (marked grey in the following table):

frogEntry2-3

Name	Entrance door
Assigned room	Input
In r	
Button	Button - bell
In l	
Button	Button - door
In c	
Button	Status: Door is closed
Out P & O	
Power connection Action	Door Motor lock

Next, messages are defined for the inputs and output **Out P & O**. The input **In l** and the output **Out P & O** are connected via the message **Door opener entrance**.

2. For this purpose, configure the following settings for the Frog Entrance door
   (marked grey in the following table):

frogEntry2-3

Name	Entrance door
Assigned room	Input
In r	
Button	Button - bell
Message	Doorbell entrance
In l	
Button	Button - door
Message	Door opener entrance
In c	
Button	Status: Door is closed
Message	Door contact entrance
Out P & O	
Power connection Action	Door Motor lock
Message	Door opener entrance

Figure: The messages for the inputs of the Frog **Entrance door**.

For the input **In c** for which a status has been defined, the input **In c** is automatically set to **open** in the **Input matrix**.

3. To do this, configure the following settings for the Frog **Entrance door** (marked grey in the following table):

frogEntry2-3		
Name	Entrance door	
Assigned room	Input	
In r		
Button	Button - bell	
Message	Doorbell entrance	
In l		
Button	Button - door	
Message	Door opener entrance	
In c		
Button	Status: Door is closed	
	Input matrix	Input In c: Open
Out O & P		
Power connection	Door	
Action	Motor lock	
Message	Door opener entrance	

Now the inputs and outputs of the frogEntry2-3 are completely configured.

4. Load the device configuration on the Frog **Door entrance**.

Next, the frogDim1-3 is configured. The light in the corridor is to be switched on automatically as soon as the door opens.

frogDim1-3

Name	Light entrance
Assigned room	Input

Figure: The frogDim1-3.

For the input **In a** and the output **Out ~** the message **Light corridor** is defined first.

1. To do this, configure the following settings for the Frog **Light input** (marked grey in the following table):

frogDim1-3

Name	Light entrance
Assigned room	Input
In a	
Button	Button - dim
Message	Light corridor
Action	Click
Out ~	
Power connection	Dimmable light
Message	Light corridor
Action	Toggle

To ensure the additional function "light on when door is opened" can be integrated into the **Out ~** output, a further message is defined for the **Out ~** output. The switching on of the light is controlled via the action **On** and the **Gate/Time editor**.

2. To do this, configure the following settings for the Frog **Light input**
    (marked grey in the following table):

frogDim1-3

Name	Light entrance
Assigned room	Input
In a	
Button	Button - dim
Message	Light corridor
Action	Click
Out ~	
Power connection	Dimmable light
1. Add	Light corridor
Action	Toggle
2nd message	
Action	On-Transparency
Gate/Time editor	Selected status message: Door contact entrance
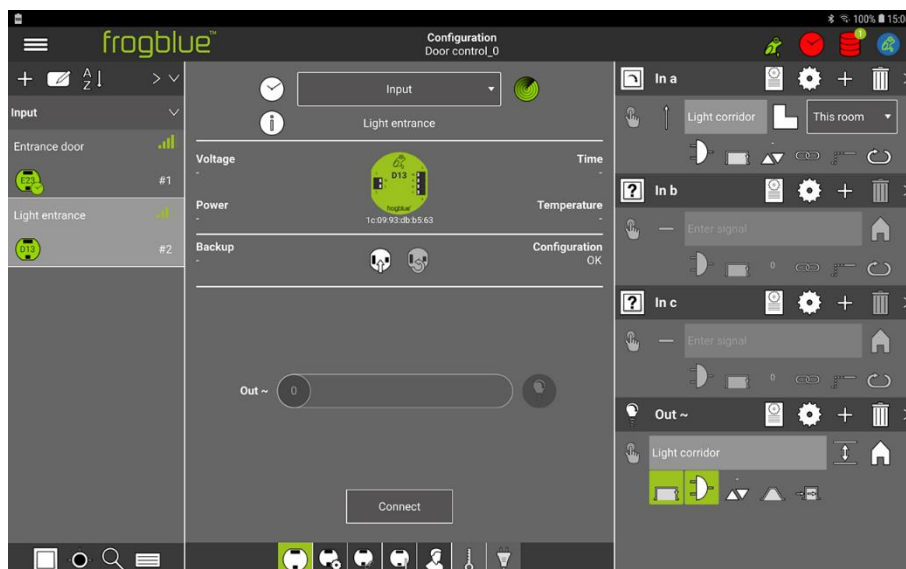
Figure: The configuration for the Frog **Light entrance**.

The configuration for the Frog **Light entrance** is now complete.

3. Load the configurations onto the Frog **Light entrance**.

14.5 Monitoring of doors and windows

In the following examples it is shown how doors and windows are to be configured so that they can be monitored.

If you have configured the doors and windows accordingly, you can add them to a watched group in the frogDisplay there. For example, if a window is open when you leave the house, the LED of the frogDisplay will turn red. You can then see directly in the frogDisplay which window is open. Information about watched groups can be found in the → *frogControl User Manual.*

Monitoring of multiple windows

A frogContact5 is configured for monitoring multiple windows.

Three windows are to be monitored: Kitchen window, living room window and basement window.
To determine the status of the corresponding window, the function **Status window closed** is required.
Each input that monitors a window receives a status message.

frogContact5	
Name	Window
Assigned room	Office
In a	
Button	Status window closed
Message	Kitchen window
In b	
Button	Status window closed
Message	Living room window
In c	
Power connection	Status window closed
Message	Basement window
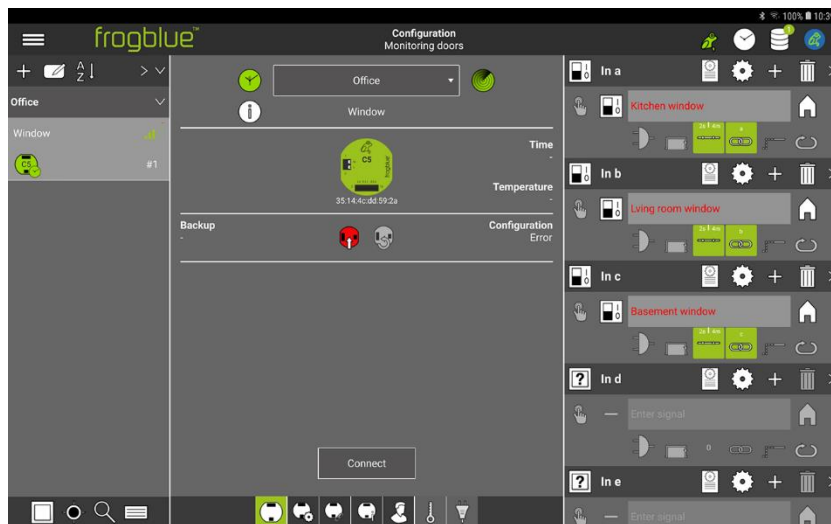
Figure: Configuration for monitoring windows.

Monitoring a door

For monitoring a door, for example, a frogEntry2-3 is configured.

The functions **Status door closed** and **Status door locked** are used to check whether the door is closed or locked. The door that is being monitored is connected in the **Out P** output. The configuration of output **Out P** is not necessary for the actual monitoring.

frogEntry2-3	
Name	Door
Assigned room	Office
In l	
Button	Status door closed
Message	Front door
In c	
Button	Status door locked
Message	Front door
Out P	
Power connection	Door
Message	Front door

Figure: Configuration for monitoring a door.

Appendix

Command reference ASCII

Queries are also sent with a dollar symbol "$" in front.

For information on available rooms, messages etc.

$help	List of available commands.

$project	Retrieve project information-
	Input:
	$project
	Return:
	$
	project=HomeJohnSmith
	frogLinkName=Camera2
	frogLinkRoom=Corridor
	frogLinkBuilding=
	SW-Version=1.4.0.0
	config=13.05.2019 13:47:52
	address=A8:36:7A:00:1D:C2
	netID=190
	$

$messages	List of available control messages.
	Input:
	$messages
	Return:
	$
	CeilingLight
	LampsMirror
	OpenMainDoor
	Ring
	$

$rooms	List of available rooms.
	Input:
	$rooms
	Return:
	$
	Livingroom
	Kitchen
	Bedroom
	Bath
	$

$types	List of available control types.
	Input: $types **Return:** $ Light ShutterUp ShutterDown Room $

Can be combined with *room* in order to create a list of the available types in the respective room:

	Input: $types **Return:** $ Light ShutterUp ShutterDown OpenDoor $

Sending control messages

Control messages are sent by simple use of the plain-text name of the control message or type.

Example

CeilingLight	Switches over all outputs which respond to *CeilingLight* (toggle).
	Input: CeilingLight **Return:** CeilingLight(255,0,0)

Light	Switches over all outputs which respond the type *Light* (toggle).
	Input: gLight **Return:** Light(255,0,0)

Optional parameters for control messages

Parameters can be optionally added to control messages.

CeilingLight(bright=50)	Switches over all outputs which respond to *CeilingLight* (toggle). When switched on, dimmable outputs are set to 50% brightness.
	Input: CeilingLight(bright=50) **Return:** CeilingLight(50,0,0)
CeilingLight(ON)	Switches on all outputs which respond to *CeilingLight*.
CeilingLight(OFF)	Switches off all outputs which respond to *CeilingLight*.
CeilingLight(ON,bright=50)	Switches all outputs on with a dimming level of 50% which response to *CeilingLight*.
CeilingLight(time=5s)	Switches over all outputs which respond to *CeilingLight* (toggle). When the output is switched on, the output is automatically switched off after five seconds (has to be enabled at output).
	Input: CeilingLight(time=5s) **Return:** CeilingLight(255,0,5s)
CeilingLight(room=Kitchen)	Switches over all outputs in the room *Kitchen* that respond to *CeilingLight* .

Parameters can be combined at will:

CeilingLight(room=Kitchen,ON,bright=60%,time=10m)	Switches on all outputs in the room *Kitchen* with a dimming level of 60% for 10 minutes.

Reception of control messages

Messages triggered by the frogblue system can also be received and further processed.
The format of the received messages is the same as the return format when sending.

Example

In the frogblue system, a button is pressed which switches the *CeilingLight* to a dimming level of 70% for 20 seconds.

Return:
CeilingLight(70,0,20s)

Query about output state (optional)

An output state of a device can be specifically queried.

Example

$status(type=bright,target=device address,output=X)

Input:	$status(type=bright,target=0012,output=A)
Return:	$status(source=0012,output=A,value=30%)

Command reference JSON

For information on available rooms, messages etc.

{"cmd":"help"}	List of available commands.

{"cmd":"project"}	Retrieve project information-

Input:
{"cmd":"project"}
Return:
{"project":"HomeJohnSmith","frogLinkName":"Camera2","frogLinkRoom":"Corridor","frogLinkBuilding":"","SWVersion":"1.4.0.0","config":"13.05.2019 13:47:52","address":"A8:36:7A:00:1D:C2","netID":"190"}

{"cmd":"messages"}	List of available control messages.

Input:
{"cmd":"messages"}
Return:
{"messages":["CeilingLight","LampsMirror","OpenMainDoor","Ring"]}

{"cmd":"rooms"}	List of available rooms.

Input:
{"cmd":"rooms"}
Return:
{"rooms":["Livingroom","Kitchen","Bedroom","Bath"]}

{"cmd":"types"}	List of available control types.

Input:
{"cmd":"types"}
Return:
{"types":["Light","ShutterUp","ShutterDown","OpenDoor"]}

Can be combined with *room* to create a list of the available types in the respective room:

Input:
{"cmd":"types","room":"Livingroom"}
Return:
{"types":["Light"]}

Sending control messages

Example

{"Msg":"Ceilinglight","on":true,"bright":50}

Switches on all outputs that respond to the message **Ceilinglight** and sets the brightness to 50%.

Keyword index