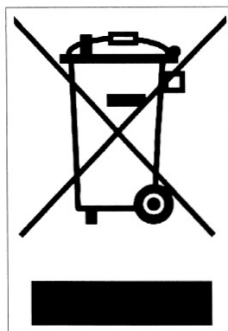**Wi-Fi**™

Wi-Fi PROTECTED SETUP

amazon alexa

Light-Manager Air

Quickstart Guide

Attention FRITZ!Box User
Set WPA Mode to **WPA2** please, but **not** to WPA + WPA2!

Note
Hinweis
Remarque
Nota

English

This symbol [the crossed-out wheeled bin/PICTURE] means that the product should be brought to the return and/or separate collection systems available to end-users, when the product has reached the end of its lifetime. This symbol applies only to the countries within the EEA (*).

(*) EEA = European Economic Area, which comprises the EU Member States plus Norway, Iceland and Liechtenstein.

Deutsch

Dieses Symbol (die durchgestrichene Abfalltonne) bedeutet, dass dieses Produkt nach der Lebenszeit zu einem für den Endanwender verfügbaren Rücknahme- oder getrenntem Sammelsystem zurückgebracht werden soll. Dieses Symbol gilt nur in den Staaten der EWR (*).

(*) EWR = Europäischer Wirtschaftsraum, welches die EU Mitgliedstaaten plus den Staaten Norwegen, Island und Lichtenstein umfasst.

Français

Ce symbole (un conteneur à déchets barré d'une croix) signifie que le produit, en fin de vie, doit être retourné à un des systèmes de collecte mis à la disposition des utilisateurs finaux. Ce symbole s'applique uniquement aux pays de l'EEE (*).

(*) EEE = Espace économique européen, qui regroupe les États membres de l'UE plus la Norvège, l'Islande et le Liechtenstein.

Italiano

Questo simbolo significa che il prodotto, giunto a fine vita, dovrebbe essere conferito ai punti di raccolta differenziata a disposizione dell'utente finale. Questo simbolo si applica ai paesi aderenti all'EEA (*).

(*) Europea Economic Area che comprende gli stati membri dell'EU, compresi Norvegia, Islanda e Liechtenstein.

Español

Este símbolo (imagen de un cubo de basura tachado) significa que el producto debería ser llevado a los sistemas de recogida dispuestos para los usuarios finales cuando llegue al final de su vida útil. Este símbolo solo tiene validez en los países de la EEA (*).

(*) La EEA incluye a los países miembros de la UE y Noruega, Islandia y Liechtenstein.

Overview and scope of delivery

Thank you for choosing the Light-Manager Air. The Light-Manager is a multivendor-capability wireless control center for your home automation. It offers highest flexibility and can be controlled by any smartphone, tablet, PC, Logitech Harmony and Amazon Alexa. The selection of supported hardware is extensive, not least because of the learn function for RF- und IR-signals. Also the line-up gets enlarged regularly. For this purpose the device integrates several modules as there are

- Radio transceiver at 433 MHz
- Radio transceiver at 868 MHz
- Infrared transceiver at 30-40 kHz
- Wi-Fi module
- High precision temperature sensor

Additionally the Light-Manager features an integrated webserver, which allows an autarkic and flexible service even when Internet connection is not available. So you are not dependent on a manufacturer cloud, which makes the Light-Manager very unique across the market.

The package includes

- Light-Manager Air
- Antenna for 433 MHz (pre-installed)
- Antenna for 868 MHz (pre- installed)
- 5V power adaptor with micro USB cable (approx. 1.5 m)
- Quickstart guide

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Wi-Fi compatibility

The Light-Manager Air uses the 802.11**g** standard (54 Mbit) with WPA2 encryption on the channels 1-11. Please ensure that your access point is configured accordingly. The network type can be set to any mode including **g**, for example 802.11 n+g.

Note: The encryption type must be set to **WPA2**. The outdated mixed mode WPA+WPA2 is **not** supported. This is especially important for FRITZ!Box routers which usually come with mixed mode enabled by default.

Setup with WPS

A comfortable method to connect the Light-Manager to your Wi-Fi network is by using WPS (Wi-Fi Protected Setup). This just requires a push of a button. Please connect the Light-Manager to the AC adaptor included in delivery. Now activate WPS mode at your router. Most devices offer a dedicated button for this purpose. In case of the FRITZ!Box the Wi-Fi button has to be pressed for 5 seconds. Other models require the WPS mode to be enabled in the configuration interface.

Now press the button of the Light-Manager briefly. The LED starts blinking in green. As soon as the devices have found each other the LED changes its color to yellow. Connection establishment can take up to two minutes. When this is done the LED stops blinking and changes its color to dim blue to signal operational readiness. The Light-Manager is successfully connected to your local Wi-Fi network. Further configuration is done within airStudio, the configuration software. More about this further down.

Setup with Wi-Fi connection

An alternative way to connect the Light-Manager to your Wi-Fi network is by accessing the device directly through its own network. Right after power on the Light-Manager creates its own Wi-Fi network called **Light-Manager Air**. You can connect to this network with your smartphone, tablet or PC. There is no password required. Afterwards open a browser and navigate to:

- **192.168.100.115**

The Wi-Fi configuration menu opens up. In the upper part there is a list of all networks found by the Light-Manager automatically. If the desired network is not included you can enter its name (SSID) manually. Below the passphrase has to be entered. After a click on the OK button the Light-Manager starts connecting to the selcted Wi-Fi network. During this phase the LED is blinking in green. When this is done the LED stops blinking and changes its color to dim blue to signal operational readiness. Now the Light-Manager is connected to your Wi-Fi network.
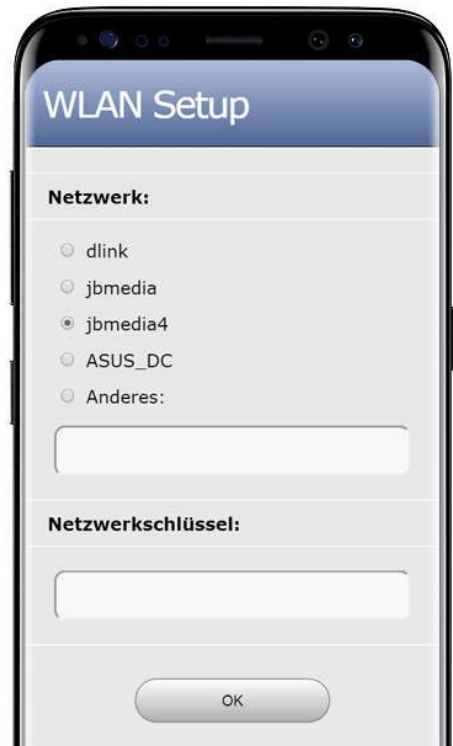
Possible errors during connection establishment

If the LED flashes in red during connection establishment then there is an error. The number of times it flashes red gives information about the error source.

- **1x** Blinking: the network name (SSID) is wrong
- **2x** Blinking: the passphrase is wrong
- **3x** Blinking: the access point is set to mixed mode (WPA+WPA2)
- **4x** Blinking: the access point is set to WEP or Open
- **Permanently orange:** The originally configured network is not available anymore.

To delete the network credentials and to start over, set the device back to factory defaults.

Reset to factory defaults

To reset the Light-Manager to factory defaults please proceed as follows:

- Disconnect Light-Manager from power
- Keep button at the front of the Light-Manager pressed gently
- Connect AC adaptor
- Wait until the LED flashes red
- Release the button

Now the device has been reset and the Wi-Fi connection can be setup again if required.

airStudio

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The configuration of the Light-Manager is done with the software a**irStudio** which can be found in the download section of www.jbmedia.de. After the program has been installed and started, it will find all Light-Manager devices available in the network. The corresponding IP address will be displayed in the status bar.

Login credentials

To access the Light-Manager interface a username and password is required. These can be configured in airStudio under O**ptions -> Light-Manager setup -> Alexa and Cloud -> jbmedia Cloud.** We recommend to enter the credentials right now.

Transferring the configuration

When configuration has changed it has to be transferred to the Light-Manager. This is done with the **Transfer** button in the upper part of the airStudio main window.
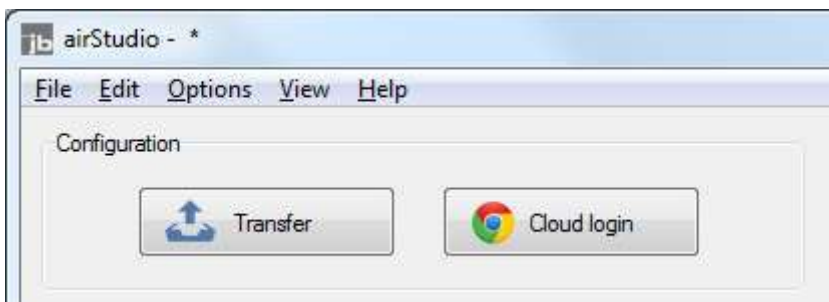
Finally the Light-Manager is ready for action. A click on the button **Cloud login** opens up the web interface in the browser. As we have not yet configured any actuators nor scenes there is not much to see.

The web-interface

The web-interface is the control center for the Light-Manager. You can find it at cloud.jbmedia.de. The login works with the credentials assigned in the previous step. In the headline you will find the configuration title as well as the current indoor- and outdoor-temperature, outdoor humidity as well as time and date. Below there are several sections which can be opened and closed by clicking. It starts with scenes, followed by zones. Within the zones all actuators are listed with according control elements. In the lower part there is the marker section. A click on the right part of the headline opens up the chart view, which presents the temperature and humidity data of all sensors connected for the last 48 hours. The current state of the web-interface is preserved automatically and will be restored when it is opened up again.

Under Android and iOS the web-interface can be transformed to a web-app. This means that you have an icon for the web-interface on the homescreen and that it opens up as a usual app in full view. To perform this step just select add to homescreen from your browser's options.

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Access to the web-interface is not limited to your home network. Instead it works from everywhere with an internet connection. So turn on your coffee machine from on the way.

Amazon Alexa

The Light-Manager offers extensive support for Amazon Alexa. This allows to control your home automation system by voice commands very comfortably. Also retrieving temperatures is possible. To enable Alexa support just enter your Amazon account e-mail address in airStudio. This is done under **Options -> Light-Manager setup -> Alexa and cloud -> Alexa**. Now transfer the configuration to the Light-Manager. Finally install the Alexa skill **jbmedia smarthome** in the Alexa app. Speak the magic works "**Alexa, search for new devices**" and you are done. Alexa will find all actuators, scenes and sensors configured in airStudio.

Adding actuators

The most important step when configuring the Light-Manager is to add actuators. This is done in the actuator administration, which can be opened by CTRL-A or with the button […] at the end of the **Select actuator** drop down list.
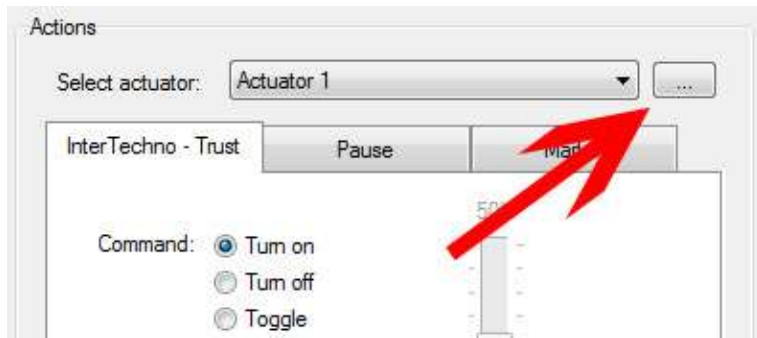
The actuator administration window lists all actuators which have been created. These are divided into zones, while zone 1 is added automatically. Zones are made to group actuators and can be thought of the rooms of your house.

Below the table there are tabs for all supported system. Some tabs are made for multiple systems. For example the tab **Trust** does not only support Trust actuators, but also Intertechno, Chacon and compatible types. On the right side of these tabs there is a (not necessarily complete) list of the systems resp. brands supported.
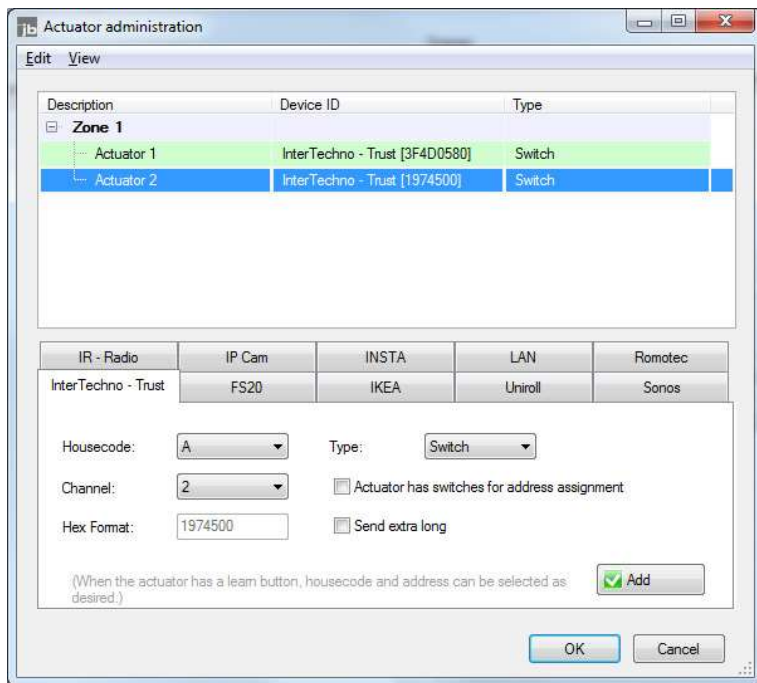
After an actuator has been added, it can be given a name free of choice. This is the name it will be listed in the web-interface and will be identified by Alexa. By doing a right click a context menu opens up which lists a number of options. Among others there are the options to connect (check in) and disconnect (check out) and actuator to the Light-Manager.

Note: If you have an RF remote for an actuator, it is sufficient to press a button on the remote control to add the settings for the corresponding actuator automatically. The Light-Manager processes the received signal and calculates the parameters like housecode and channel for you. This method is not yet supported by all systems.

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Adding scenes

The Light-Manager is not limited to control single actuators. Instead you can create extensive scenes with a large number of actuators and additional actions.
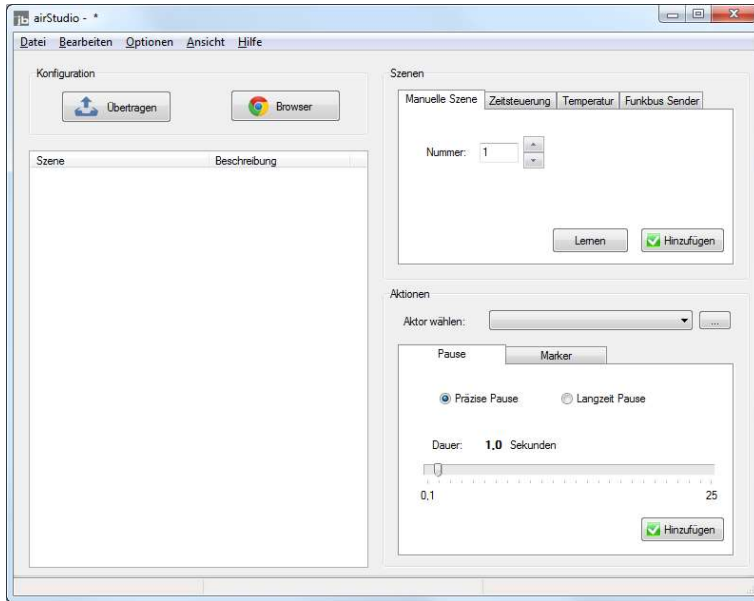
On the left side of the main window there is a table which shows the whole configuration. The right part is split into **Scenes** and **Actions**. The first section is used to create new scenarios. Here you can select what kind of trigger is used to start the scenario. The selection consists of:

- **Manual scene**: Triggers by a press of a button in the web interface or on an infrared remote control
- **Timer**: Triggers at fixed points of time or by astro function
- **Temperature**: Triggers by over- or underrun of inside or outside temperature

- **By RF transmitter**: Triggers by RF signals e.g. from a push button or motion detector

In the Actions section you can select actions which are performed when a scenario has been triggered. Among others the selection consists of:

- Actuator commands
- Infrared commands
- SONOS commands
- Network commands
- Long-term and short-term pauses
- Marker commands

Manual scene

To create a scenario, which is triggered by a button in the web interface or by a button on an infrared remote control, a click on the Add button is sufficient. Right after the click a new scenario appears in the table on the left side. A scene number is increased automatically. In the right column of the table a short description can be entered. This will be used to display the scenario in the web interface.
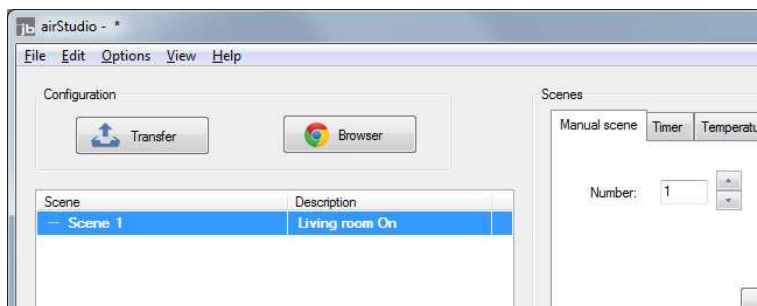
To start this scenario with a Logitech Harmony remote control, please add the device Light-Manager Air from the Logitech database to your remote control. This will install buttons with the names L001 until L255 on your Harmony. The number behind the letter L corresponds to the scene number configured in AirStudio. Of course the button names appearing on the display of the Harmony can be renamed with the Logitech software.

If a different remote control other than a Harmony is to be used, then the IR code for each button has to be taught to the remote control manually. For this purpose there is the learn button on the tab:

Timer

With the integrated real time clock of the Light-Manager it is possible to trigger scenarios at certain points of times at certain days.
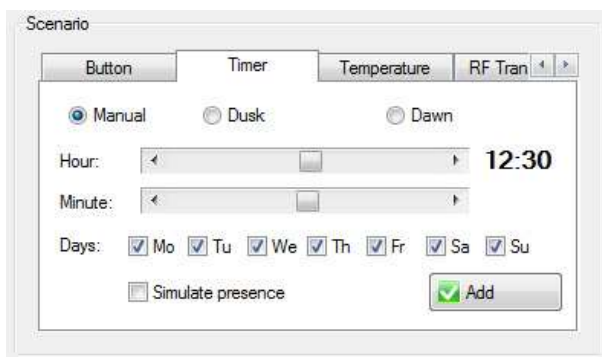
The internal clock of the Light-Manager is synchronized with an Internet time server resulting in a very accurate time adjustment at any time.

The option **Simulate presence** will move points of time in the range of +/- 60 minutes randomly. So for an observer from outside it is not obvious that this is an automated process.

Astro function

Instead of using fixed points of time it is often desired to couple lighting control to dusk or dawn. The Light-Manager offers an extensive astro function for this purpose which calculates the times for civil twilight for each day and each location precisely. Civil twilight is defined as the point of time where it is not possible anymore to read a newspaper outside in the evening.

You can define your location in airStudio under **Options -> Astro function** comfortably by a Google maps application.
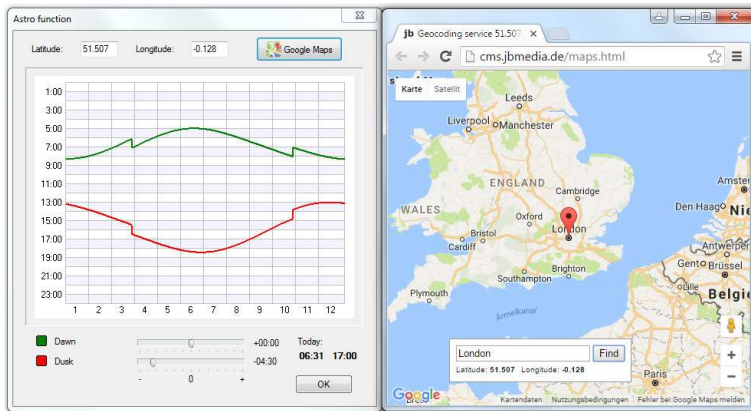
The hops in the curves are changes from summer to winter time and back. For control purposes the dusk and dawn times for the current day are displayed in the lower right corner of the window. On the left there are two sliders which allow the adjustment of the curves in the range of +/- 6 hours.

Perform actions only by night or by day

Sometimes it is useful to perform certain actions within a scenario only by day or at night. For example you might turn on the living room lights automatically when starting the activity **Watch TV** on your remote control, but only when it is dark outside. For this purpose the Light-Manager offers the options **Only by day** and **Only at night** in the edit menu and context menu of each action within a scenario. The underlying periods of time are defined by the astro function. At night is defined as the sector between the dusk and dawn curves, by day vice versa.

Temperature

Scenarios can be triggered when the temperature rises above or falls below a certain level. For this purpose the Light-Manager measures temperature every minute and triggers scenarios if required. This function is useful to control a fan or electric blinds for example.
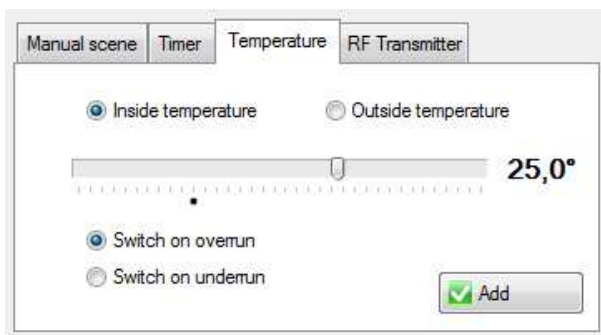

Besides the inside temperature, which is measured by the device itself, also the outside temperature can be used as control factor. The source for the outside temperature is a network of weather stations (openweathermap.org), out of which the Light-Manager selects the station which is closest to the location defined in the astro function settings.

Note: The temperature sensor is located on the layer board of the device. Therefore it will heat up slightly after startup, when connecting the Light-Manager to power. This calefaction is compensated automatically. However during the first 30 minutes the device will display a lower temperature than there is actually.

The Light-Manager can measure precise temperatures only if it is not exposed to direct sun light or to another source of heat. Fine tuning can be applied under **Options -> Light-Manager setup -> Extended settings**.

RF Transmitter

A very powerful feature is the ability to trigger scenarios by signals of RF transmitters, e.g. wall switches, motion detectors, magnet switches, brightness detectors or other components. To create such a scenario it is sufficient to send an RF signal with one of these components.
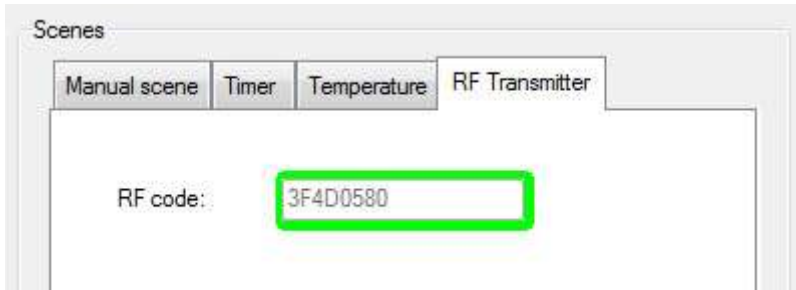

Instantly the corresponding RF code will be displayed in AirStudio. This scenario will be triggered each time this code has been received. If it is received several times in a row, the Light-Manager waits three seconds before it triggers the scenario again. This prevents unintended multiple execution of scenarios.

Front button

The button of the Light-Manager is an additional convenient input source to trigger two scenarios of your choice, depending if the button has been pressed short or long (> 2 sec.). The selection is done by the menu items **Button short** and **Button long** from the context and edit menu. This function is suitable for turning off the whole lighting when going to bed for example.

Email notification

The Light-Manager allows getting a notification by e-mail when a scenario has been executed. This is especially suitable for scenarios which are triggered by sensors. So you could get an e-mail as soon as a window or a door has been opened or motion has been detected. If you want to go a step further you can also enter the address of an SMS provider. Then you will get an SMS notification on your phone within a few seconds worldwide. This can be very useful for alarm events.
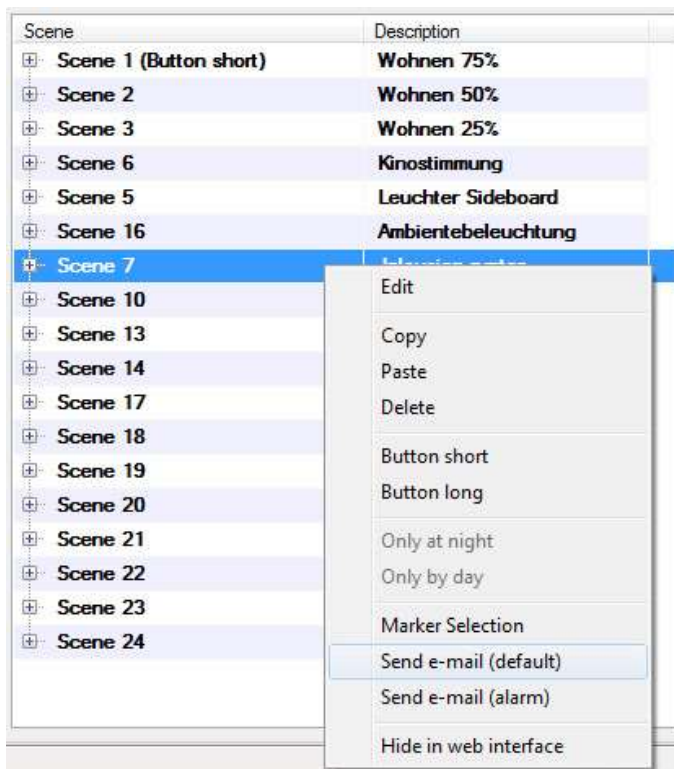
It is possible to configure two different e-mail addresses, one for standard notifications and one for alarm notifications with higher priority. These addresses can be entered under **Options -> Light-Manager setup -> E-mail setup**.

You can activate the notification feature by selecting a scenario in the table, and then from the edit or context menu (right click) select **Send e-mail (default)** or **Send e-mail (alarm)**. Both options can be enabled for the same scenario if desired. So one could send an e-mail to two recipients or send one e-mail and one SMS.

Markers

Markers are a powerful tool for advanced programming technics. Markers are variables which can have the values 1 (ON) and 0 (OFF) only. The value of each marker can be altered by actions within scenarios. This makes it possible to visualize certain information in the marker section of the web interface. So you could visualize if a window is open or if the alarm system is armed. Also marker states can be tied to scenarios in form of conditions, so that a scenario is executed only if one or more markers have a defined state. This is done by selecting a scenario in the table and opening the **Marker Selection** window from the edit- or context menu. In this window the desired

states of the markers can be configured which are required to make this scenario executable. (All markers are in an AND-relation.) If these states are not met the scenario will not be executed. This allows the creation of so called IF-THEN statements. Using markers makes it possible to create complex courses of actions with simple programming tasks.

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Notes

Technical data

Operating voltage: 5 Volts

Power consumption: ca. 0.9 Watts

Dimensions (W x H X D): ca. 6 x 6 x 2 cm

Wi-Fi types: Infrastructure and Virtual Access Point

Wi-Fi standards: 802.11 g with WPS function

Wi-Fi channels: 1 – 11

Wi-Fi encryption: WPA2

Radio transmission frequencies: 433.42, 433.92 and 868.35 MHz

Radio reception frequencies: 433.42, 433.92 and 868.35 MHz

Infrared transmission frequency: 38 kHz

Infrared reception frequencies: 30-40 kHz

Memory capacity: 2 Megabyte flash available memory for web interface

Supported operating systems of AirStudio software:

Windows 2000, Windows XP, Windows Vista, Windows 7 and 8

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