Iddero Home Server 3

Getting started

Version: 4.7.1
20241202-02

Contents

1 Introduction

1.1 About this document

This document is a quick guide to help you get started with Iddero Home Server 3. Detailed, step-by-step instructions are provided on how to create and configure a simple installation project, and to upload it to the touch panel.

This guide assumes basic knowledge and familiarity with KNX® technology and with the ETS® configuration software.

1.2 Product overview

Iddero Home Server 3 is a compact server for control and monitoring of KNX installations. It combines advanced functionality with a powerful, intuitive visualisation.

Control from smartphones and tablets is possible using the **Iddero Mobile** app (available for iOS and Android). A build-in web-based user interface also allows access from any device running a standard web browser.

Function highlights:

- User-friendly navigation through floorplans and zones
- Up to 512 configurable pages, with up to 8 control functions per page (more than 4000 functions)
- Custom background images in all pages
- User-editable scenes
- Weekly time schedules
- Alarm monitoring with event log
- Presence simulation with day and night schedules
- Event notifications via push, e-mail and GSM [1]
- Logic functions (logic gates, comparators, timers, expressions, etc.)
- 8 independent thermostats

[1] Requires DW-GSM expansion module

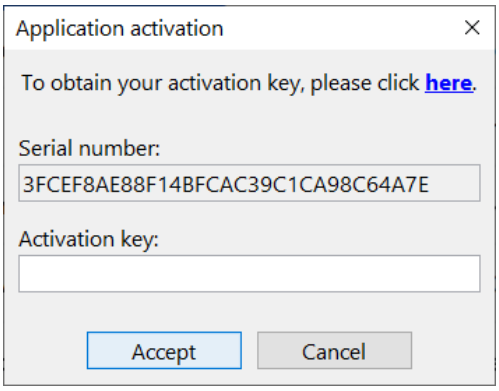
- 8 multi-function inputs, individually configurable as binary or temperature probe inputs
- Remote control from smartphones, tablets, and PCs
- Real-time clock (RTC) with backup battery
- Integrated KNX bus coupling unit (TP1)
- Ultra-low power consumption

2 The iddero-config configuration software

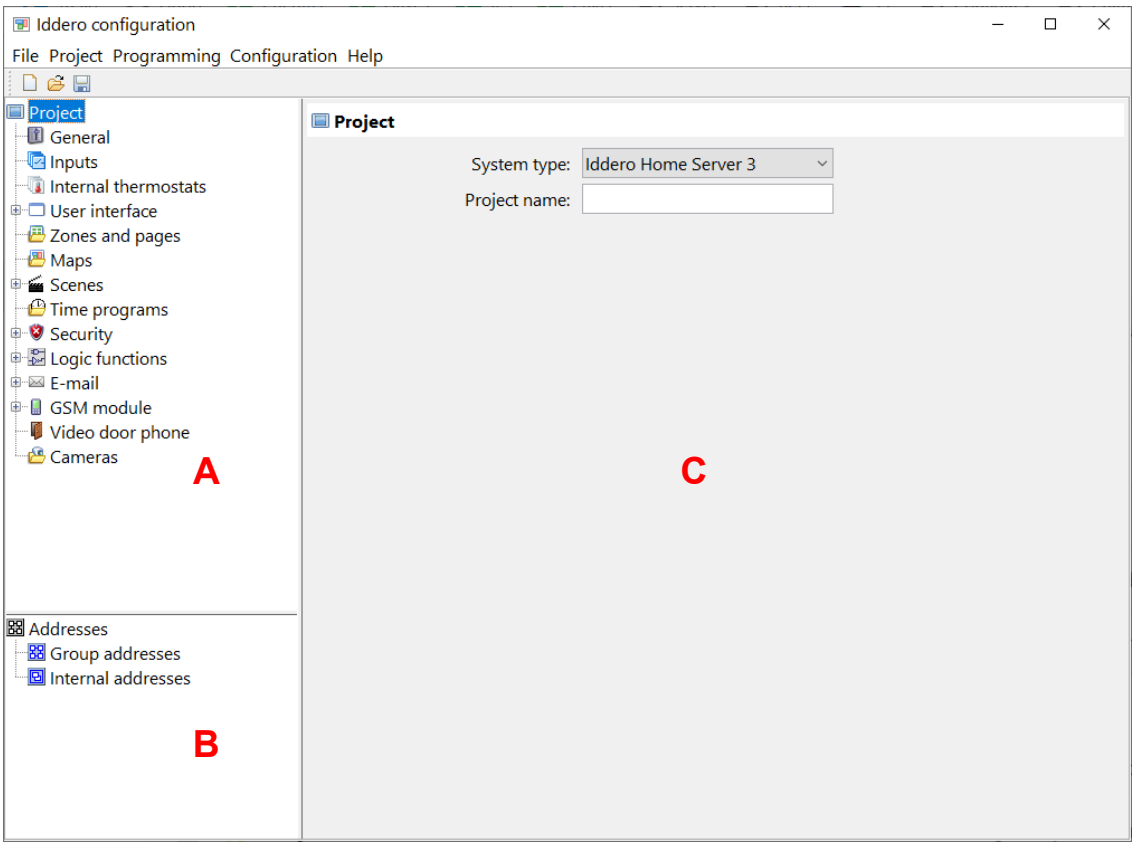
2.1 Installation and first steps

Iddero Home Server 3 can be configured using the **iddero-config** software, which is available free of charge from www.iddero.com. We recommend to always use the latest version available. For Iddero Home Server 3, version 4.7 or later is required.

The first time you run the software, it will request an activation key. In order to obtain the activation key, please click on the link shown in the dialog box. This will open a web page with a request form. Fill in the form and you will receive an activation key by e-mail.



Once the activation process is complete, the main application window will be shown.



At the top, the main menu is shown (File, Project, Programming, Configuration, and Help) along with a toolbar with quick access buttons.

The main window is split in three different areas:

- *Project tree* (A): Shows the project structure, including sections for general parameters, zones and pages, maps, scenes, time programs, security, logic functions, and more.
- *Address tree* (B): Shows group addresses for this project, including both regular group addresses and internal group addresses.
- *Parameter area* (C): When an item is selected in the project or address trees, this area will show any configurable parameters that are available for this item.

3 Touch panel configuration

3.1 The configuration process

This section walks through the basic configuration process in order to create a sample project where Iddero Home Server 3 will be used to control a single lamp, through a KNX-based dimmer actuator.

We will assume that the KNX dimmer actuator in question implements at least the following communication objects:

- One 1-bit communication object for switching the lamp on and off (address 1/1/1)
- One 1-byte communication object for setting the brightness value (1/1/2)
- One 1-byte communication object that holds the current brightness value (feedback) (1/1/3)

3.2 Select the product model

The first thing you need to do is select the product model. For this, first select the “Project” section in the project tree, then choose “Iddero Home Server 3” in the “System type” field in the parameter area.

The selected product model determines the avaialable functionality, as well as resource limits for certain functions. Available resources can be checked at any time in the Project > Resource monitor menu option.

3.3 Create or import group addresses

Although it is possible to define group addresses directly in iddero-config, it is common to initially import addresses from an existing ETS project.

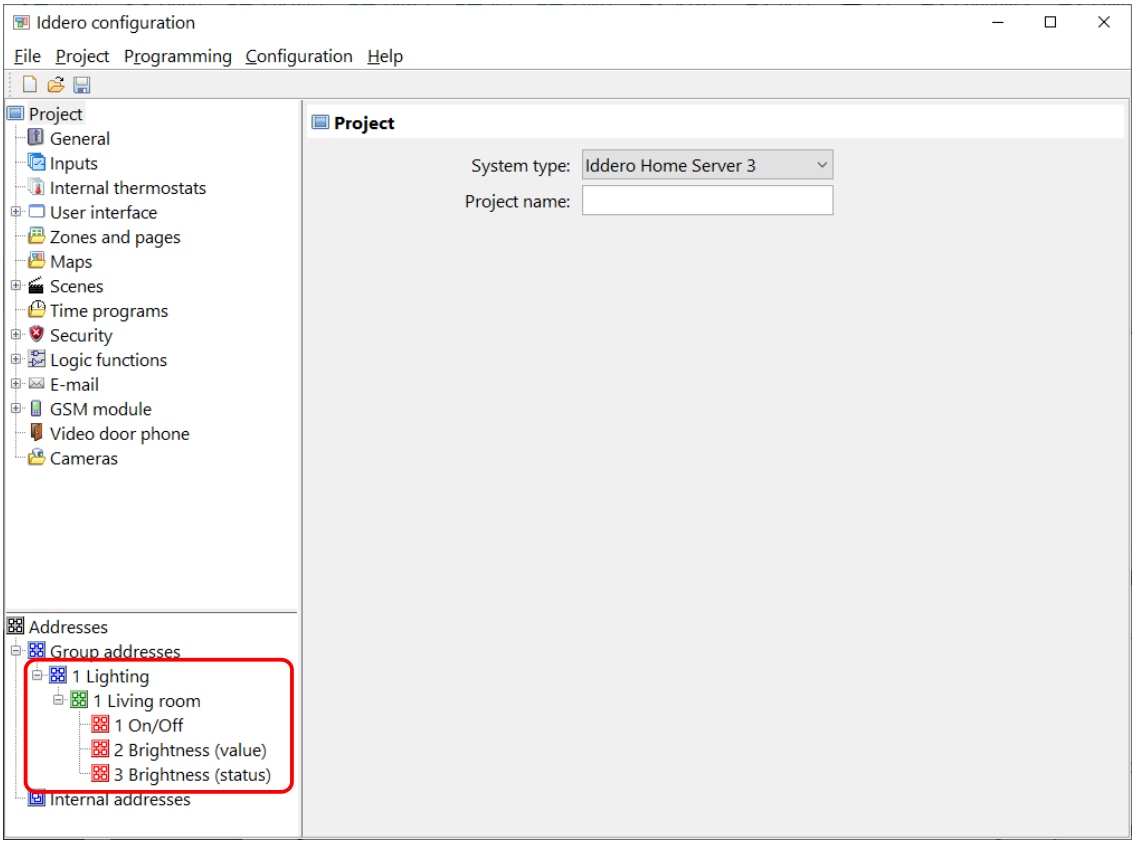
You can import group addresses directly from the .knxproj files generated by ETS. For this, select Project > Import ETS addresses (.knxproj)... in iddero-config, then select the .knxproj file.

> **Note**
>
> Make sure the selected .knxproj file is not password protected.

The software will then show all group addresses found in the .knxproj file. Click on “Import” to complete the import.

> **Note**
>
> If you try to import group addresses from a .knxproj file into a project that already contains group addresses, you will be given two options: “Add new addresses to the existing address tree” or “Discard existing addresses”.

Once the group addresses have been imported, they will be shown in the address tree.



3.4 Configure the visualization components

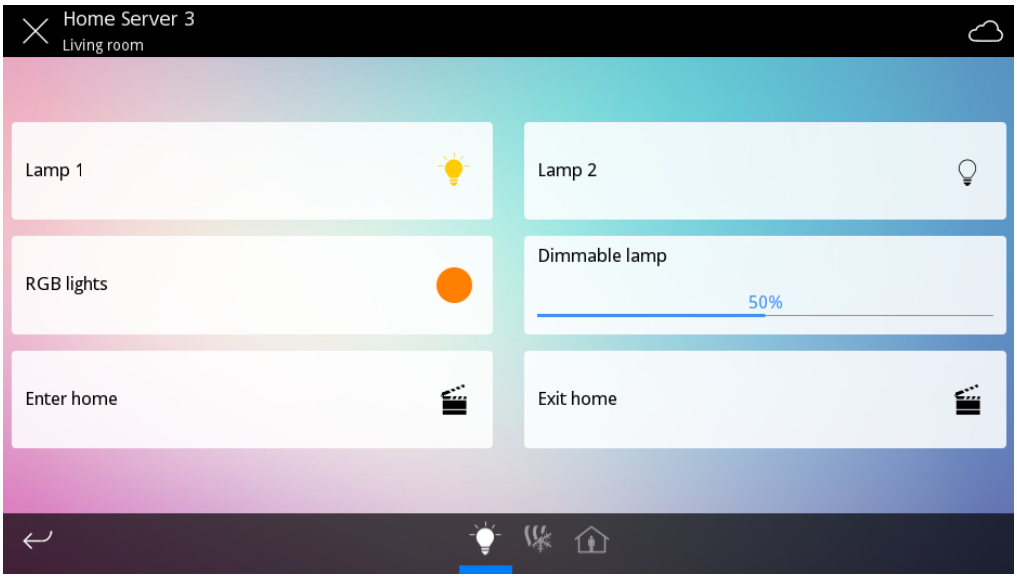
3.4.1 General concepts

Navigation in Iddero Home Server 3 is based on the concept of “zones” and “pages”.

Zones are groups of devices (“components”) within the installation. A zone can represent a room in a house, an office, a department in a services building, or just a group of devices that do not necessarily share a physical location.

Devices associated to each zone are in turn organized in one or more **pages**. Each page can show up to eight devices. The grouping of devices in pages can be done based on arbitrary criteria: Devices can be grouped by function, by type, by frequency of use, etc.

The following screenshot from the Iddero Mobile app shows the structure of a typical page with six devices. The status bar at the top of the screen shows that this page belongs to the “Living room” zone. The navigation bar at the bottom shows that the zone includes another two pages besides the one shown.



In our sample project we will initially create one single zone with one single page, since we only need to control one device.

In a real-world project, though, the navigation structure should be carefully planned so that navigation is as easy and comfortable as possible for the end user.

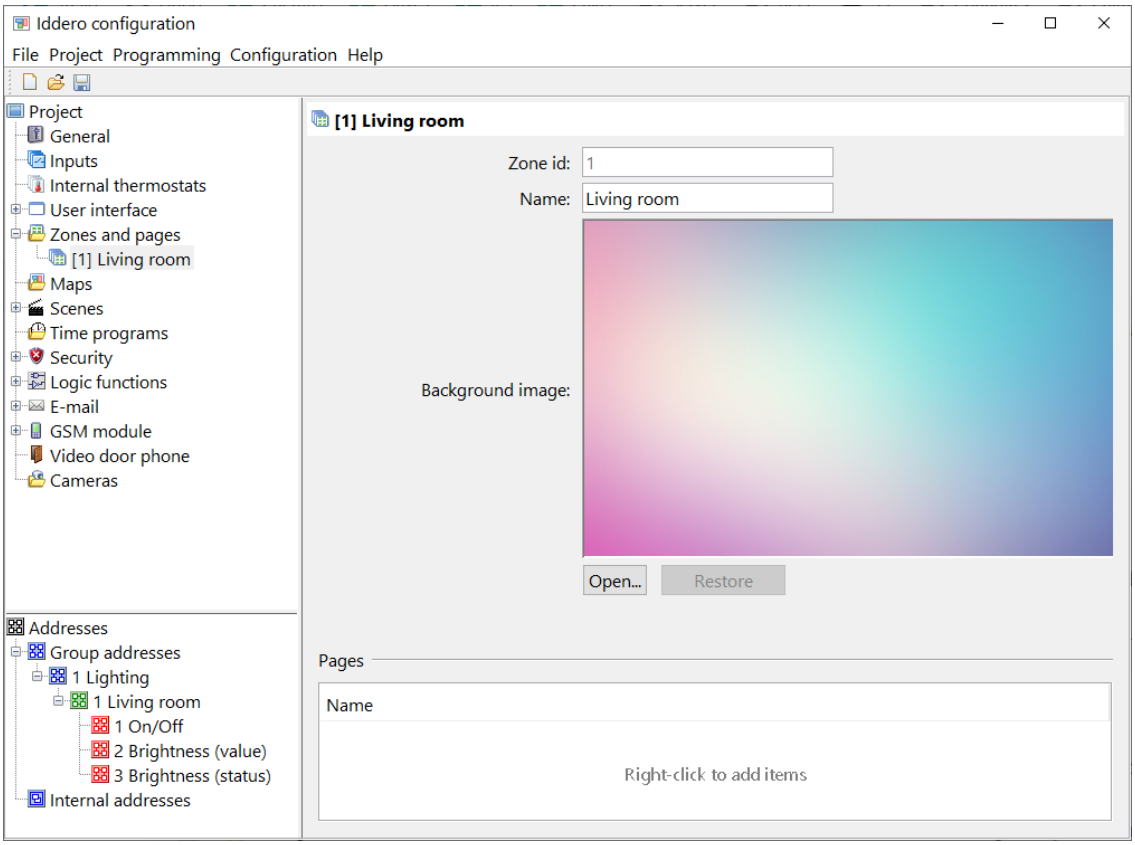
3.4.2 Definition of zones

In order to add a zone to the project, right-click on the “Zones and pages” section in the project tree, and select “Insert zone” from the pop-up menu.

By selecting the newly created zone (left-click on the new zone in the project tree, or double-click on the zone name in the table shown in the parameter area) the configurable parameters will be shown:

- *Name:* A descriptive name for this zone.
- *Background image:* A background image for all pages in this zone.

Let’s configure the name for this zone, and set it to “Living room”.



3.4.3 Definition of pages

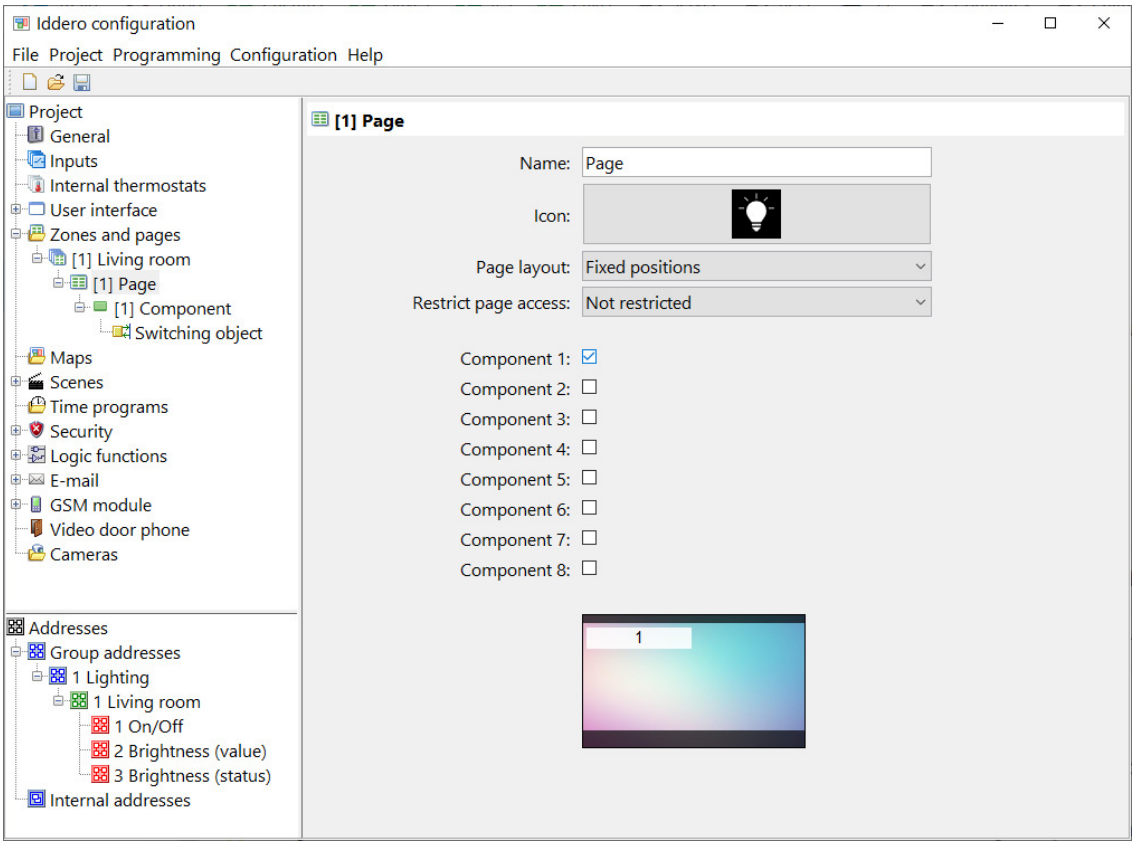
In order to add a page to a zone, right-click on the zone in the project tree, and select “Insert page” from the pop-up menu.

By selecting the newly created page, the configurable parameters will be shown in the parameter area:

- *Name:* A descriptive name for this page.
- *Icon:* The icon that will be shown for this page in the navigation bar.
- *Page layout:* Determines how components are arranged in the page.
- *Restrict page access:* The minimum access level that is required in order to access this page.
- *Component 1 ... 8:* Check these checkboxes to enable the corresponding components.

Since our page will be used for lighting control, you can just leave the default icon (a light bulb).

There will be one single device in this page. Thus, check the “Component 1” checkbox: a component will automatically be added beneath the current page in the project tree.



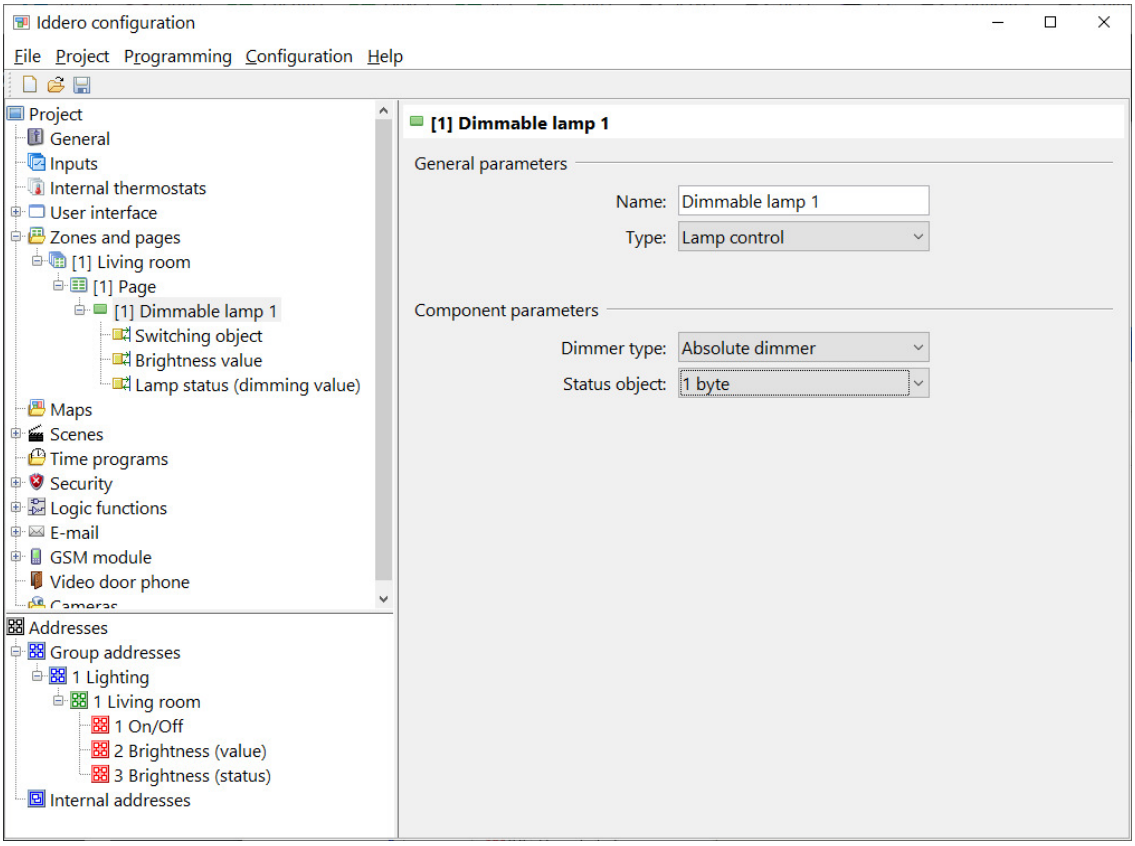
3.4.4 Configure components and link group addresses

We will now configure the visual component that will be used to control the lamp from the touch panel. As described earlier, we will actually be controlling this lamp through a KNX-based dimmer actuator.

Select the component beneath the first page of the “Living room” zone. Set a descriptive name, for example “Dimmable lamp 1”, and choose “Lamp control” from the “Type” combo box.

The dimmer actuator in our sample project implements a 1-byte communication object that can be used to set the brightness (light intensity) value. This is often referred to as *absolute dimming*. In the “Dimmer type” field, select “Absolute dimmer”.

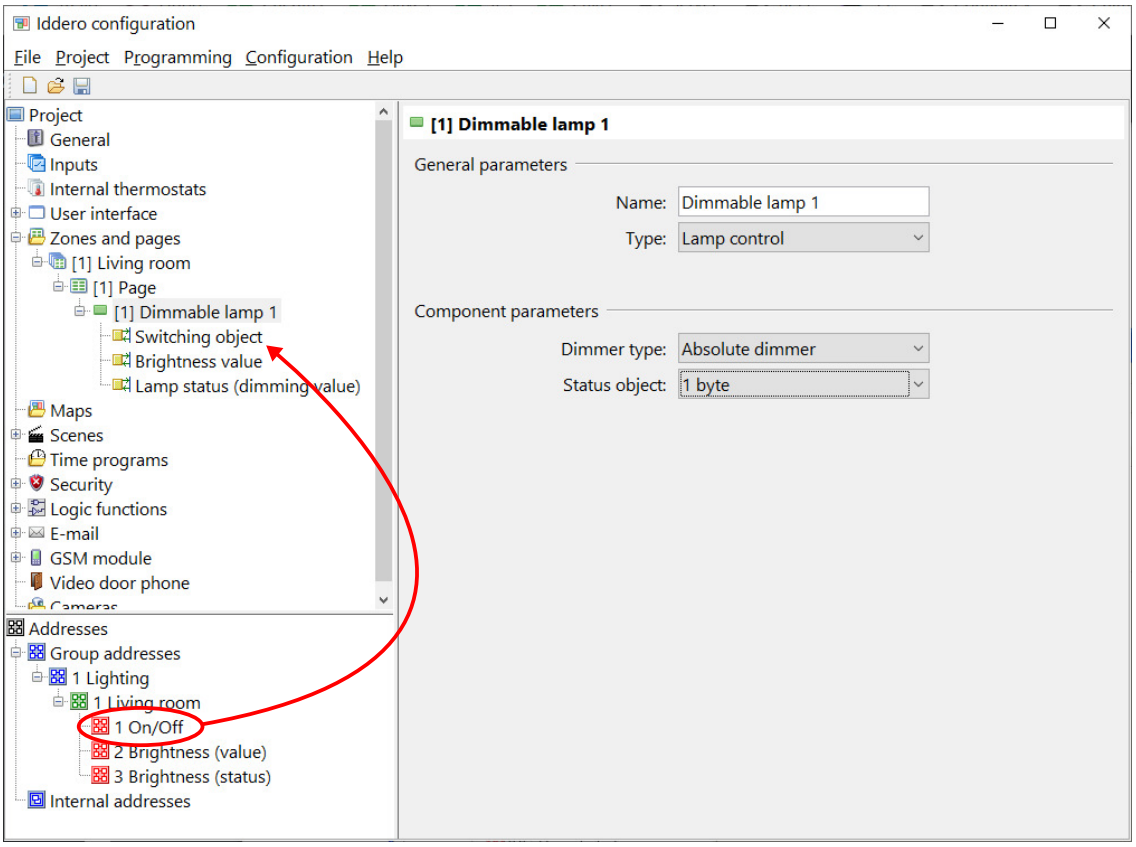
Finally, in the “Status objects” combo box, select “1 byte” since our dimmer actuator provides a 1-byte communication object that indicates the current brightness status.



If you look at the project tree, you will see that several communication objects have automatically been added under the “Dimmable lamp 1” component: One 1-bit communication object (“Switching object”) and two 1-byte communication objects (“Brightness value” and “Lamp status (dimming value)”).

Iddero Home Server 3 will send On and Off telegrams to the first of these communication objects, absolute brightness values to the second one, and will use the value of the third object in order to update the graphical representation of the lamp's status.

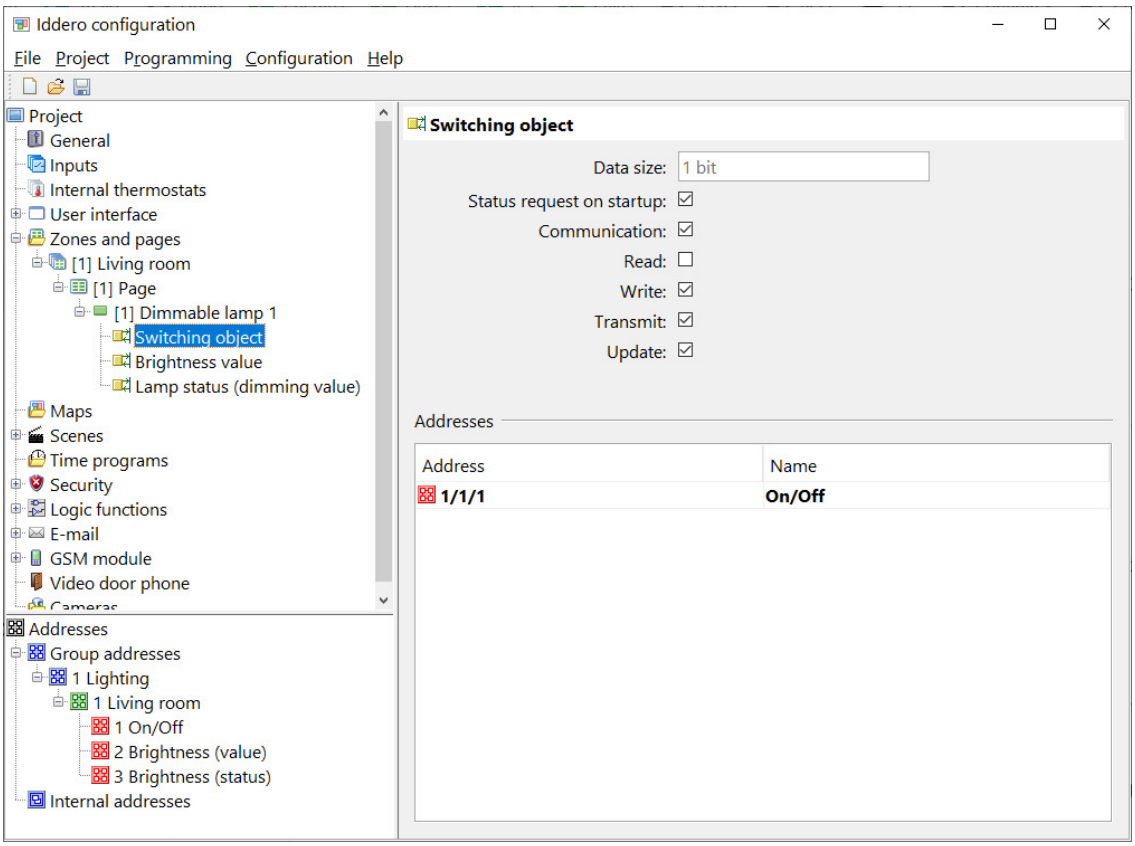
Group addresses must now be linked to communication objects. First, link group address 1/1/1 ("On/Off") to the lamp's Switching object. This is done through a drag & drop operation: Click and hold the left mouse button over the "On/Off" address node in the address tree; then, without releasing the mouse button, drag the address onto the communication object in the project tree; finally, release the mouse button.



Repeat this operation with the Brightness value and Lamp status objects, and link them with group addresses 1/1/2 "Brightness (value)" and 1/1/3 "Brightness (status)", respectively.

If you select any communication object in the project tree, the parameter area will show any linked group addresses, along with the current configuration of the communication object's flags (please refer to the KNX standard for the detailed meaning of each flag).

Likewise, if you select any group address in the address tree, the parameter area will show any linked communication objects.

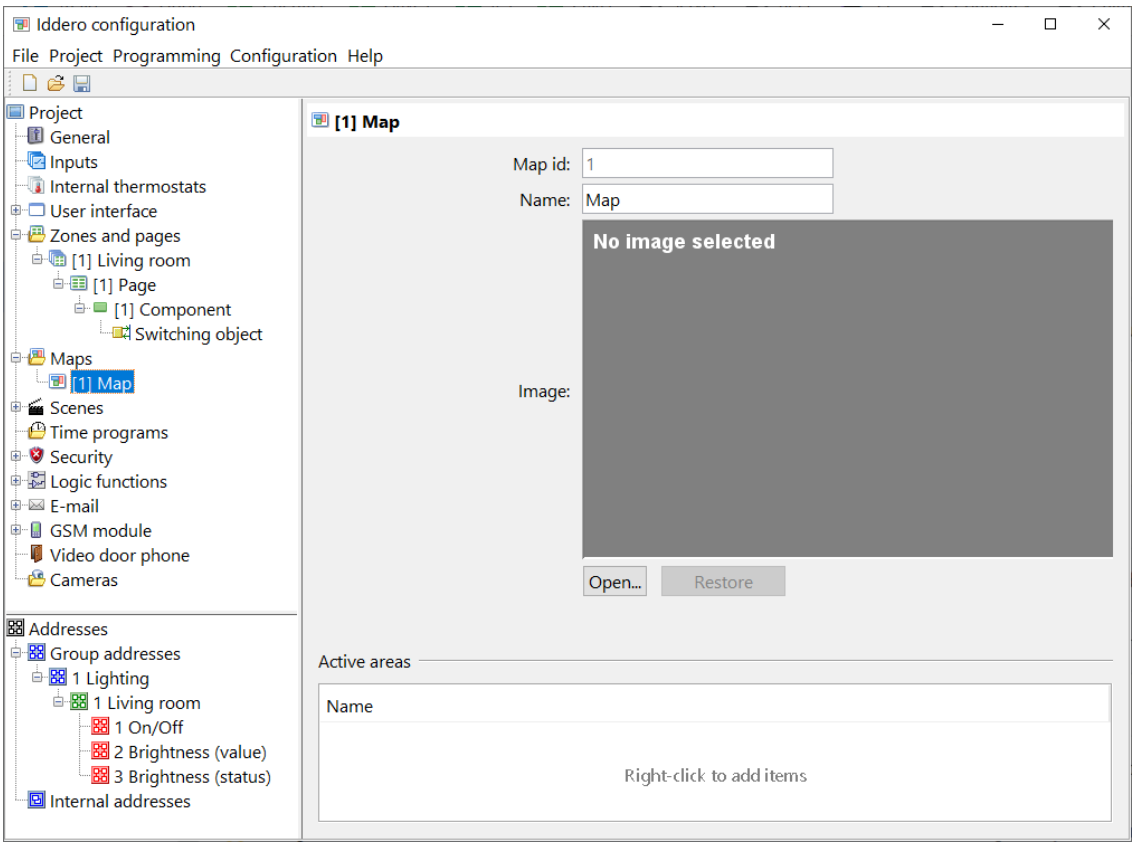


3.4.5 Graphical navigation through maps (optional)

In order to make it easier for the end user to navigate through available zones, you can define image-based **maps** as well as active (touchable) areas within the map that can be linked to zones or to other maps.

> **Note**
>
> Map definition is optional. If no maps are defined, the system will just present a list of available zones to the end user.

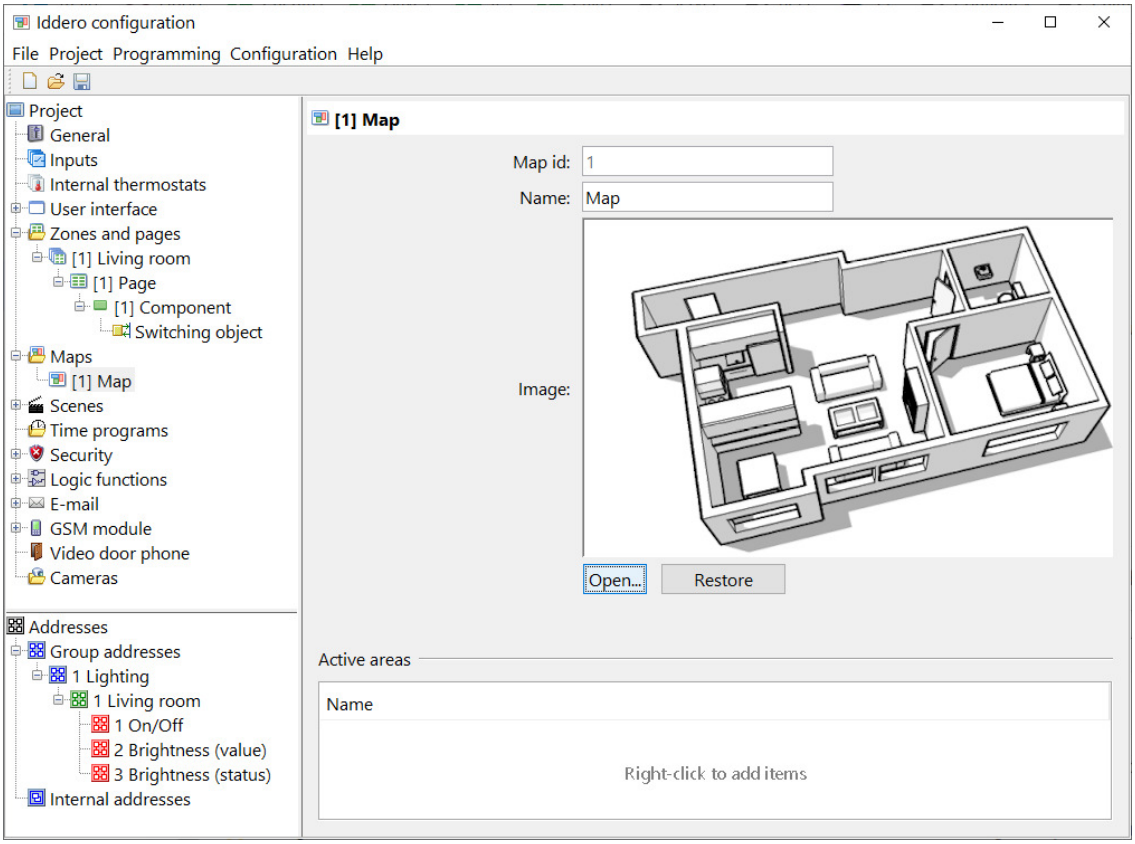
In order to insert a new map, right-click on the “Maps” section in the project tree and select “Insert map” in the pop-up menu. Then, just select the newly added map and the configurable map parameters will be shown in the parameter area.



Next step is to pick a background image for the map.

Background images can be created using any drawing or picture editing software, or with specialized CAD and 3D design packages.

Once you have your background image ready, click on the “Open...” button in the map configuration section, and select the image file. GIF, JPEG, and PNG file formats are supported. If the image size is larger than the maximum allowed size (1024 x 600 pixels) , the image will be adapted (trimmed) automatically.



Now we will define one active area on top of the image.

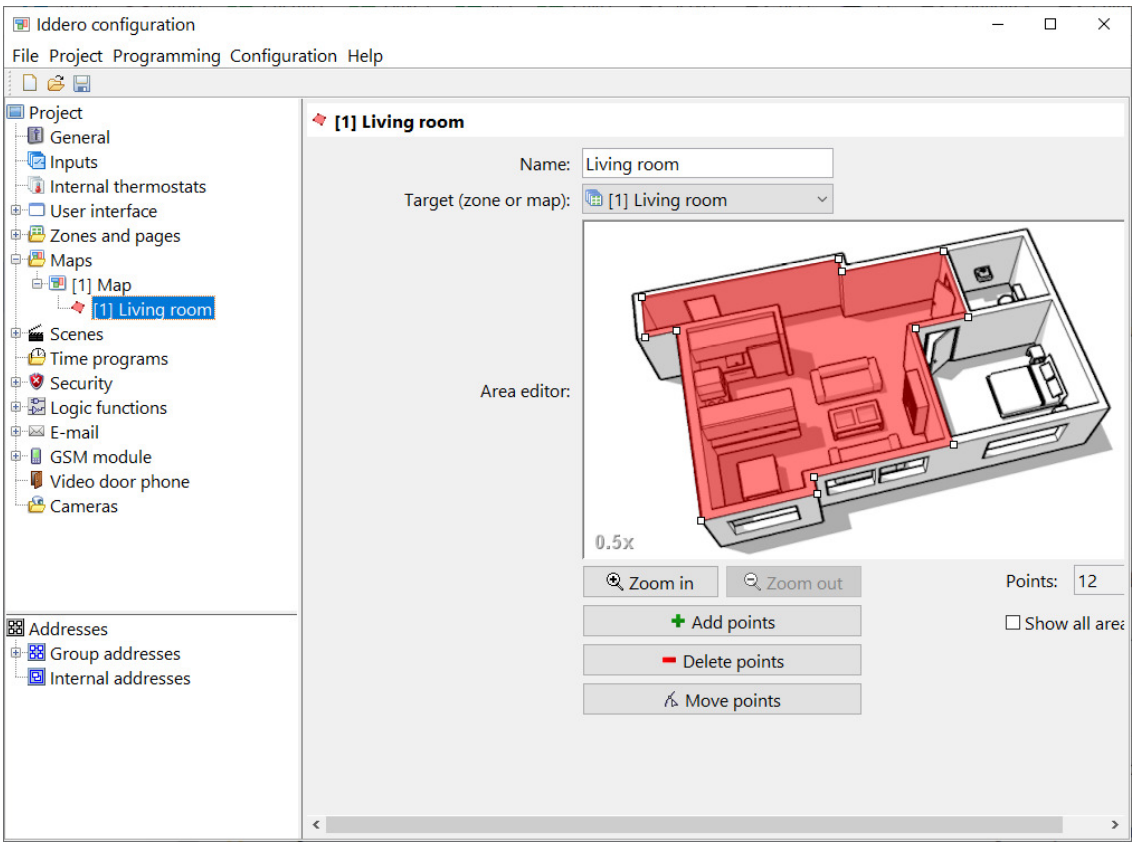
Right-click on the map in the project tree, and select “Insert area” from the pop-up menu. Then, select the newly created area in the project tree.

Assign a descriptive name for the area (for example, “Living room”). Then, in the “Target” combo box, select the “Living room” zone. By doing this, we are specifying the zone that should be opened when we touch this area on the map.

Now, the polygon associated to this active area must be defined. Click on the “Add points” button, then click on the image to add the vertices for the polygon.

The “Delete points” and “Move points” buttons let you delete and move existing polygon vertices.

> **Note**
>
> You can use the mouse wheel to zoom in and out of the map. While zoomed in, hold down the middle or right mouse button and drag the mouse to pan the image.



3.5 Save the project

You can save the project at any time by selecting the File > Save menu option. We recommend to do this often in order to avoid losing your changes.

4 Installation and commissioning

4.1 Installation

Iddero Home Server 3 is a compact device suitable for 35mm DIN-rail mounting. It is typically installed on an electrical cabinet, along with the provided 12 VDC power supply unit.

During the installation process, the following connections should be made:

- Power supply (12 VDC). Only the provided power supply should be used.
- KNX bus
- Ethernet, to the local area network (LAN)
- RS-485 bus, if an expansion module such as the DW-GSM will be used

4.2 Boot in “Install Mode”

In order to upload the project data to Iddero Home Server 3, you first now boot in “install mode”. For this, press and hold the “RESET / PRG” button for a few seconds. Iddero Home Server 3 will beep three times to acknowledge the request, and will automatically enter install mode (the device also enters install mode automatically the first time it boots, or when no valid project data is found).

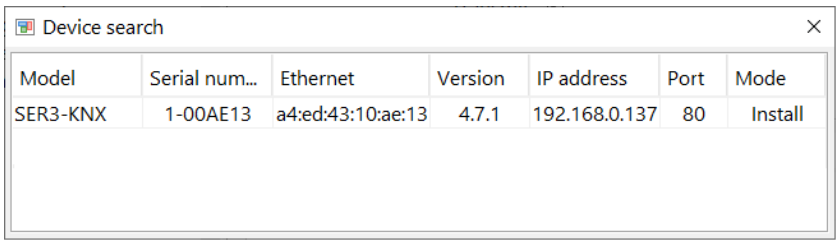
Once the boot process completes, the device will beep twice, and the “STATUS” indicator will turn green and start to flash.

4.3 Finding Iddero Home Server 3 in the network

Iddero Home Server 3 is preconfigured to obtain an IP address automatically using the DHCP protocol. DHCP is supported by almost every Internet router, and should be available in most home and office networks. Thus in the majority of the cases, no additional configuration should be needed at this stage.

In order to find the current IP address of Iddero Home Server 3, select Programming > Search for devices in iddero-config. A list of available devices will be shown, along with the IP address assigned to each one, and some additional information (serial number, firmware version, etc.)

Also, the “Mode” column shows the device’s current operating mode (“Install” for install mode, and “User” for normal operation).



4.4 Commissioning

In order to upload the project data to Iddero Home Server 3, select Programming > Program in iddero-config while the device is in installation mode.

The “Connect settings” dialog will pop up. Enter the IP address of the device and the installer login and password (default values: “instalador” / “knxinstall”) and click “Accept”.

The commissioning process may take a few seconds to complete. **Do not interrupt this process or turn off the device**. Once the process is complete, press the “RESET / PRG” button, and the system will reboot with the new configuration.

4.5 Firmware updates

If you need to update the Iddero Home Server 3 firmware, you can do so from iddero-config by selecting Programming > Update firmware.

The software will first ask you to select a valid firmware update file (.bin file type). The “Connection settings” dialog will then pop up. The rest of the process is identical to the commissioning process.

It is critical that you **do not interrupt the operation or otherwise disconnect or turn off the device during the update process**. If the firmware update process is interrupted, the device could be left in a locked state and may need to be returned to factory for repair.

4.6 STATUS LED indicator

The “STATUS” LED indicator at the top of the Iddero Home Server shows the current status of the device, according to the following table:

STATUS LED indicator	Device status
Off	The device is off
Heartbeat: LED flashes briefly in red two times per second	The device is booting
Flashing green (150 ms green / 1 s off)	The device is ready in install mode
Fixed color (red / green / yellow)	The device is ready and operating normally. The actual LED color depends on the application status; please refer to the user manual for more information.
Slow flashing red (1 s red / 1s off)	A non-recoverable error occurred; operation is interrupted.

4.7 Restoring default settings

The “DEFAULTS” button in Iddero Home Server 3 lets you restore certain settings to their default values. This is a recessed button; use a small pointed object such as a paperclip to push it.

Restoring network settings to factory defaults

This procedure restores network settings to factory defaults (DHCP).

- (Recommended) Boot in install mode
- Press and hold the DEFAULTS button
- Press RESET / PRG briefly without releasing the DEFAULTS button.
- Iddero Home Server 3 will start to emit short warning beeps. Do not release the DEFAULTS button yet.
- After five seconds, the device will emit a long beep. The network settings have been restored to factory defaults. Changes will be take effect after rebooting.

Restoring user settings to default values

This procedure restores user settings (user interface language, time schedules, scenes, access codes, etc.) to the values defined in the configuration project.

- Boot normally (do not boot in install mode)
- Once the device is operating normally, press and hold the DEFAULTS button
- Iddero Home Server 3 will start to emit short warning beeps. Do not release the DEFAULTS button yet.
- After five seconds, the device will emit a long beep. User settings have been restored to the values defined in the configuration project.

4.8 Static network configuration

Using DHCP for automatic IP address configuration simplifies the Iddero Home Server 3 configuration and commissioning process, and is the recommended configuration for most use cases (remote accesss through the Iddero Mobile app, or access through idderocloud using a standard web browser).

However, IP addresses obtained over DHCP are typically dynamic, and can change over time. This may confuse end users in certain situations (for example, for when using a standard web browser within the same LAN, without using the idderocloud service).

If you want to ensure that the same IP address is always used, then there are two ways to achieve this:

1. Configure the DHCP server (typically the Internet router) so that the same IP address is always assigned to Iddero Home Server 3, for example based on its MAC address. This is typically called “IP reservation” or “static IP allocation”.

2. Configure the Iddero Home Server manually to use a static IP address. You can do this by entering the “Network settings” menu in the Iddero Home Server 3’s web based user interface, disabling DHCP, and entering static network settings. However, if Iddero Home Server 3 is installed in a network with a running DHCP service, you will still need to make sure that the selected IP address is **outside of the IP address range** managed by the DHCP server.

In both cases, you will need to check or modify the configuration of your DHCP server. The exact procedure depends on the device that is acting as a DHCP server; please refer to the documentation supplied by the manufacturer for additional information.

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