



eConfigure KNX Lite

User Guide - English

Software v1.2



www.schneider-electric.com

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When devices are used for applications with technical safety requirements, the relevant instructions must be followed.

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1 Introduction

1.1 Presentation of the software

The "eConfigure KNX Lite" software is a tool for designing, configuring and maintaining KNX home and building automation systems.

This software can be used at different stages of a project (Quotation, Commissioning, Maintenance). This will allow you to be autonomous in the design and the commissioning of KNX home and building automation systems.

You must purchase a Dongle license to be able to log in and download the programs to devices. This Dongle is available as LSS900100.

Important note:

You will find an initial version of the software on the enclosed USB memory. After the software is installed, a tool for updating to the updated version is created on the desktop:



1.2 Compatibility and installation of the software

Details on the computer compatibility and installation of the software are available in the Quick Starter Guide available in the package LSS900100 and on the website « The Exchange Community ».

The installation of the software leads also automatic installation of the last version of the software ETS5, from KNX association, as well as of an ETS App. If you already have ETS5 on your computer, it will be updated with a newer version, but your projects will be retained.

When using the software "eConfigure KNX Lite", the ETS5 software is opened, and runs in the background on your computer (the tab ETS5 can appear in the Windows task bar in some cases), however the use and the ETS5 software training are not necessary for the use of the software "eConfigure KNX Lite".

1.3 Limits of the software

This software allows the simple and fast implementation of KNX devices with a limitation of the parameters from the ETS software. The user shall check in the software that features needed for his project are well attainable.

The list of compatible KNX devices can be found directly in the software and on the internet site « The Exchange Community ».

"eConfigure KNX Lite" is limited to projects with maximum 250 KNX devices.

Important note:

Not all KNX functionalities are possible with "eConfigure KNX Lite" (versus ETS5).

1.4 Contents of this document

This document gives an overview of the features of the software “eConfigure KNX Lite”. For more details, it is mandatory to install the software and to start working on a real project.

1.5 Online help

1.5.1 Tutorials

Several tutorials are available on the internet, on the Schneider Electric Exchange Community. We recommend you to use these videos as help and support in your first projects.

A link to these tutorials is available in your software “Help” section.

Some tutorials (English only) are available without an internet connection.

1.5.2 Exchange Community

A community for exchange is available on the Schneider Electric Exchange Community in order to find all tutorials and documentations.

You must create an account to access the forum.

1.6 Training

We recommend you to follow an official training in order to use the software in the best conditions.

Ask your local Schneider Electric contacts for more details.

2 Implementation advice

2.1 The steps of your project

“eConfigure KNX Lite” software allows you to perform a complete installation of home automation and building automation.

We recommend that you follow the following steps:

1. QUOTE your installation with “eConfigure KNX Lite” allows you to give an accurate quote and a full report to your final customer or Engineering Office to give content to your commercial proposal.
2. UPLOAD a basic program (minimum features) in the devices before their installation, which allows you to have a functional facility from their installation. This helps reassure your customer and give him time to refine his need without pressure.
3. COMMISSION the installation with your client to validate the operation of the system.
4. INTERVENE on site 1 or 2 months after completion of the project to have the maximum return on the part of the customer and minimize travel.

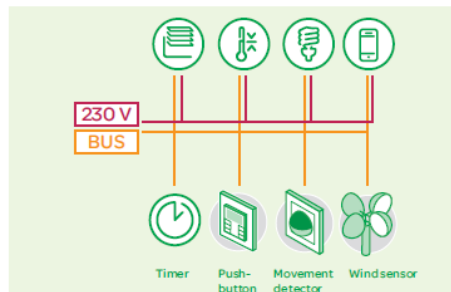
It is important to prepare each step of your project before on-site service to optimize your time.

2.2 Wiring

The quality of the wiring of your installation is essential. If you have any doubts, do not hesitate to be trained on the KNX installation or to consult our experts.

Some important reminders about the wiring of a KNX installation:

- Use a KNX certified cable,
- Do not loop the KNX cable on itself,
- Do not forget to install repeaters for any facility with more than 64 devices or a consumption above 640 mA,
- Do not forget the KNX power supply!



2.3 Fields knowledge

This software does not replace a good knowledge of the trades.

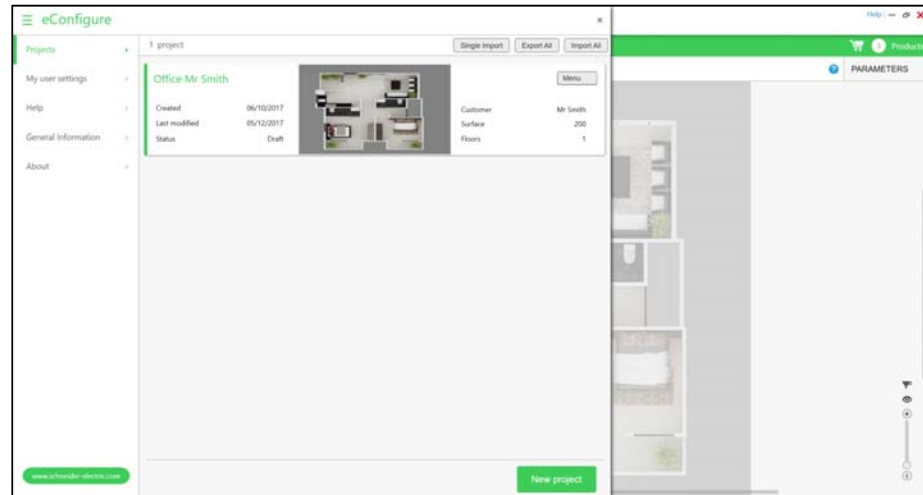
For example, it is necessary to have knowledge of heating base to install heating management devices. In case of doubt, don't hesitate to ask for confirmation to the thermal head of installation or training on the basics of heating.

3 User parameters and project management

The users parameters and project management are accessible by clicking on the button located at the top left of the screen, on the icon located on the left of the name “eConfigure”:



3.1 Projects



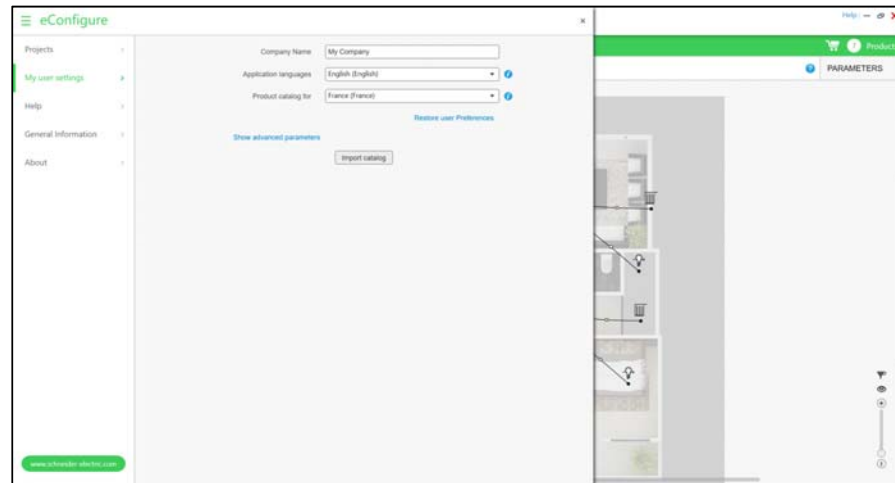
A project can be created by clicking on the button “New project”. The minimum required to validate the creation of a project is to complete the project name, and the name and the country of the end-customer.

Using the “Menu” button available for each project on the right, it is possible to open, edit, duplicate, delete, and export projects. Only the current project can be duplicate.

The complete base of projects can also be exported using the button “Export all”. During an export, the projects are saved in the folder: *My documents/Schneider Electric/ BackupFiles/*.

Projects can be imported using the “Import all” or “Import a project”.

3.2 Parameters users

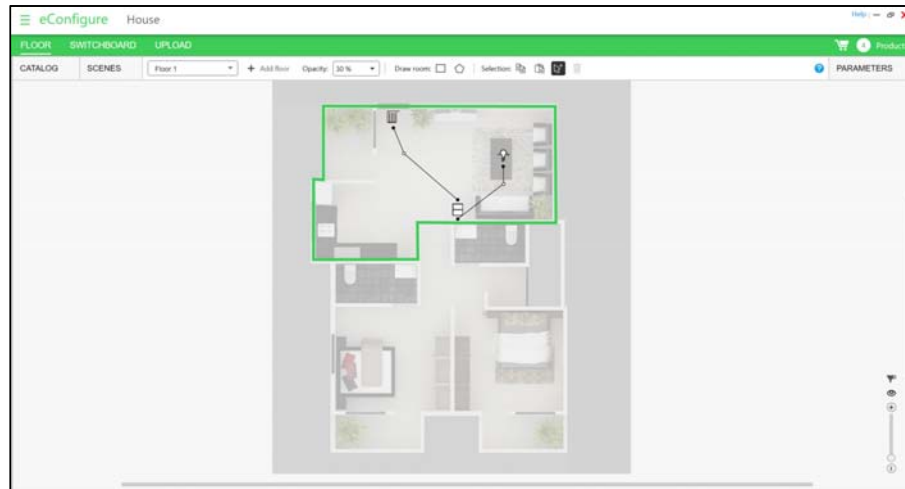


Users parameters are the parameters that will be used by default in all created projects. It is possible to change these parameters to create a project.

These parameters include:

- The name of your company (that will appear on the report).
- The language of the software.
- The location of the catalog, which will allow you to display only the devices available in your country.
- Free space, which corresponds to the place you want to leave free on your actuators in the case of the automatic composition (see later in this document).

4 Tab «FLOORS»



4.1 Creation of floor

When creating a project, the first tab to use is the tab “FLOORS”.

In this tab, it is necessary to work per floor. When creating a project, it is automatically asked to create the first floor. You can create 8 floors maximum in a “eConfigure KNX Lite” project.

When creating a floor, it is possible to insert an image of background (in general, the floor plans), to allow a graphic work in the design of the project.

Acceptable formats are:

- JPEG,
- BMP,
- PNG.

The maximum size of image is 1920x1440 pixels.

4.2 General view

4.2.1 The different elements of the tab “FLOORS”.

The “FLOORS” tab is divided into 4 zones:

- The work area, in which we find the floor plan,
- The toolbar, in which we find the creation of floors, rooms and general tools (copy, paste, select, delete),
- The catalogue on the left of the screen, which contains devices, loads, virtual loads (like schedulers) and solutions,
- The scene module, right next to the catalogue, which allows the creation of control scene,
- The parameters on the right side of the screen, which allows, when a device or a load is selected, change the parameters for this item.

4.2.2 Shortcuts

The shortcuts can be used in this tab are:

- CTRL C: copy.
- CTRL X: cut.
- CTRL V: paste. The paste of an item is not immediate, it is necessary to position the item on the plan and click to validate the paste.
- CTRL A: select all items on the floor, or all text of a selected area.
- CTRL E: show / hide links.
- CTRL R: draw the contours of a rectangular room.
- CTRL P: draw the outline of a polygon room (max. 15 faces).
- CTRL S: multiple Selection mode.
- ESC: return to classic mode (from any mode).
- CTRL + mouse wheel: zoom in/out

4.3 Catalog

4.3.1 Devices

The term “Devices” here represents all the communicating (KNX) devices that can be installed in the rooms of a building.




The devices are represented by icons. For more details on a device, you can leave your mouse a few moments on the icon in the view parameter. It is also possible to use filters to display a selection of devices. It is possible to filter categories and ranges (for push buttons).







Devices can be integrated into your project by drag-and-drop directly on the floor plan.

The list of devices compatible with “eConfigure KNX Lite” is accessible in the document *eConfigureKNXlite_List_of_compatible_devices.pdf* available on “The Exchange Community”.

The list of features of the different types of devices is available in Chapter 4.6 of this document.

The icons used by devices are:

	Push buttons.	<p><i>Push buttons allow the control of the installation. They are available, according to the ranges in 2, 4, 6, and 8 keys.</i></p> <p><i>Some devices also have an IR function to allow the command via the remote control infrared of Schneider Electric.</i></p>
	Push buttons interfaces.	<p><i>Push buttons interfaces allow the control of the installation. They are installed in the installation box behind all kind of conventional push button. They are available in 2 or 4 inputs.</i></p>
	Push buttons Pro.	<p><i>The push buttons Pro allows control of the installation. Each device can be set in 1, 2, 3 or 4 keys, which allows an adaptation on site without change reference.</i></p>

	Thermostat.	<i>The thermostats allow heating area management and/or a cooling zone. Also, some thermostats contain buttons, whose functions are the same as the push buttons.</i>
	Multitouch.	<i>The multitouch allows control of the installation (lighting, shutters...) as well as heating and cooling. A built-in touchscreen allows a viewing clear and simple installation.</i>
	Presence / Movement detectors.	<i>Presence or movement detectors allow the management of presence or movement. There is different type (ceiling, wall, 2,2 m, outside, ...), but they are all based on the same parameters. Some of them also allow the regulation of lighting.</i>
	Various sensors.	<i>The sensors include CO2 sensors, humidity, temperature, indoor or outdoor (weather station). It allows to back up the information in real time and to automate certain functions of the building.</i>
	Valve drive.	<i>The valve drive allows to control valve on water heating system.</i>
	Actuators embedded	<i>Built-in actuators allow management closer to the loads. They are used in projects where the electric tables do not allow installation of KNX components.</i>

4.3.2 Loads




The term «Loads» here represents all the non-communicating elements that can be installed in the rooms of a building. Each load will be then connected to an actuator in the tab «SWITCHBOARDS».








A load is not compatible with all actuators, so it is important to choose the right loads in the tab «FLOORS»«. In the automatic composition of actuators, each load is linked to a specific family of actuators.

The loads are represented by icons. For more details on a load, you can leave your mouse a few moments on the icon in the view parameter.

The loads can be integrated into your project by drag-and-drop directly on the floor plan.

The icons used are the following:

	Lighting area 10A.	Compatible with: MTN6492xx (used in automatic composition)
	Switch area 16A.	Compatible with: MTN647x93 (used in automatic composition)
	Dimming area.	Compatible with: 250W: MTN6710-000x (used in automatic composition), MTN649350, MTN649310

		500W: MTN649350 (used in automatic composition), MTN649310 1000W: MTN649310 (used in automatic composition)
	Group of ballasts 1 - 10V.	Compatible with: MTN64xx91 (used in automatic composition)
	Group of ballasts DALI.	Compatible with: MTN6725-0001 (used in automatic composition)
	Group of sockets.	Compatible with: MTN647x93 (used in automatic composition)
	Shutter / Blinds Parameter 230V	Compatible with: 230Vca: MTN6498xx (used in automatic composition) 24Vcc: MTN6497xx (used in automatic composition)
	Floor heating area	Compatible with: MTN6730-0001 (used in automatic composition)
	Fan coil controller	Compatible with: MTN645094 (used in automatic composition)
	Binary input	Compatible with: MTN644492 / MTN644592 (used in automatic composition) MTN644892 / MTN644792 (used in automatic composition) MTN644992 / MTN644692 (used in automatic composition)

4.3.3 Virtual devices

The virtual devices folder includes all virtual function that can be drag-and-drop on the plan but are not devices nor loads.

In this version the only virtual device is the scheduler.

When using a scheduler, the software will automatically add a controller in your installation (Wiser for KNX or spaceLYnk logic controllers, see chapter 5.3).

All schedulers will be created automatically in the controller user interface.

4.3.4 Solutions

The solutions are available in the solution tab. A solution is a set of devices and loads, with predefined parameters to perform specific functions. By default, the solutions folder is empty.

There are 2 types of solutions:

- Created by Schneider Electric, available on the forum of Schneider Electric (a direct link is available in the "Help" section of the software)
- Solutions created by the user.

The user can create his own solutions:

1. Select a set of devices
2. Open the window of solutions
3. Click on «Create a solution»

The user can use a solution by drag-n-drop on the plan.

A created solution can be used in all projects the user.

Solutions can be edit, delete, and export. Exported solutions can be saved on your computer. Their format is “.Sls”.

4.4 Scene

The scenes (or scenarios) are managed in the tab “Scene”. When the “Scene” tab is selected, the software goes into a special mode, which allows a simple and quick scenarios creation. It is possible to create, edit, and delete scenes.

When creating a scene, only the channels connected and compatible with the scenes can be selected. When a channel is selected, then this channel passes in mode “Scene” and appears in the list of items in the scene on the right side of the screen. Then the user just has to select on the right the value of each loads in this scene.

Number of scene per items:

- Lighting and Dimming loads can be linked to maximum **5 scenes**.
- Switch and Socket loads can be linked to maximum **5 scenes**.
- Thermostats (except Mutlitouch) can be linked to **8 scenes**.
- Multitouch can be linked to **4 scenes**.

Note: some thermostats are not possible to be integrated in scenes (Altira, Unica, ...).

4.5 Workflow


4.5.1 Tips


Tutorials are available on the internet to illustrate the steps for creating a project in a more visual channel.

The steps recommended for work in the «FLOORS» tab are:

1. Create floors and download the floor plan
2. Create different rooms in each floor, giving them a specific name (a name is given by default, but it is strongly recommended to rename rooms)
3. Insert devices and loads on the plan in drag-and-drop, and change the parameters for each item (if necessary)
4. Linking the devices with loads (or other devices).

4.5.2 Hide / show / filter links and zoom

It is possible to hide the links of the project using the shortcut CTRL E or by clicking on the icon on the right side of the screen: . In this mode, it is possible to select a device or a load and view links related only to this item. This allows greater clarity when checking of the installation.

It is also possible to filter some links by clicking on the icon on the right side of the screen: , and then select the type of loads you want to display or not:



It is possible to zoom in on the map by using the shortcut CTRL + the mouse wheel or by using the zoom bar available on the right side of the screen:



4.5.3 Channels and links

A device, when it is present on the plan, has points called «Channel». Each channel can contain parameters that change the behavior of the device. The main parameters are described in this document, but it is essential to use the software for more details.

The channels of different devices or loads can then be connected between to ensure a functional link between these items. In some cases, the channels are not compatible, in this case the binding is not possible.



It is possible to link different loads and devices from different floors. You need to use the multi-floors symbol:



4.6 Devices parameters details

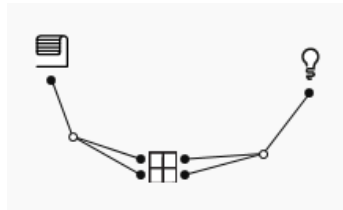
The settings of the loads and devices are visible in the windows «Parameters» on the right side of the screen. This window opens by clicking on the “Parameters” text at the top right of the screen, or by clicking on the icon of a device or a load.

Important note:

Not all parameters of KNX devices are available in “eConfigure KNX Lite”. Please be sure that functionalities that you want are integrated in the software.

Some typical examples are described below. Please follow the tutorials available on Exchange Community for more details.

4.6.1 Example 1: Lighting and Shutter Control

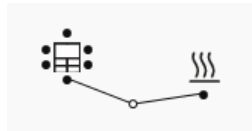


In this example, the settings of the push-button shall be:

- Button 1: “Moving blind up”
- Button 2: “Switching On”
- Button 3: “Moving blind down”
- Button 4: “Switching Off”

The LED status can be set for Switching On and Switching Off.
For shutter, the LED of the button are always Off.

4.6.2 Example 2: Heating control (valves)

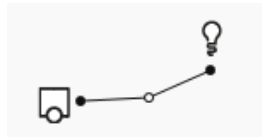


In this example, the settings of the thermostat shall be:

- Heating control type: “PI continuous control (valves)”

Several parameters can be changed, but the thermostat is ready to control heating without any additional changes.

4.6.3 Example 3: Movement detection (external)



In this example, the settings of the detector are directly set. The user can change the timer, sensitivity and range directly on the device.

Several parameters can be changed, but the detector is ready to control lighting without any additional changes.

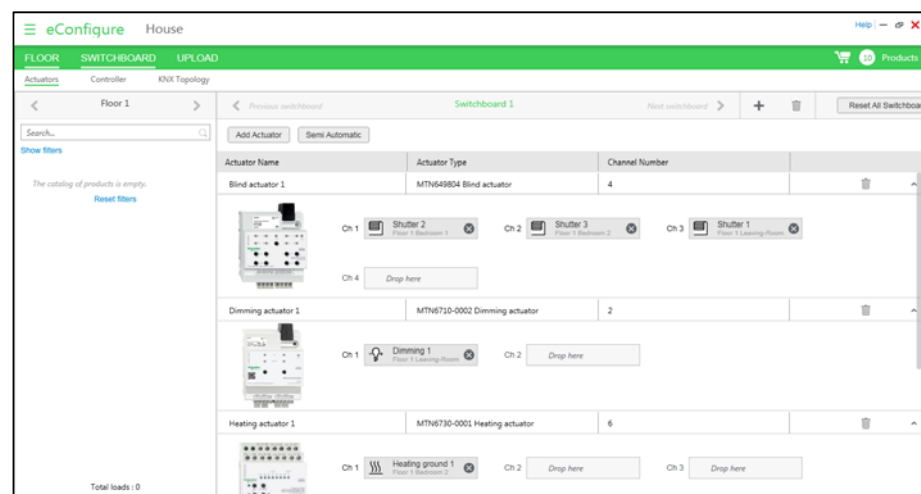
5 Tab «PANELS»

5.1 General view

The «PANELS» tab has 3 subtabs:

- Subtab “Actuators”.
- Subtab “Controller”.
- Subtab “Topology KNX”, used for projects with more than 64 devices or with higher consumption 640 mA.

5.2 Subtab «Actuators»



The subtab «Actuators» is divided into 2 main rooms:

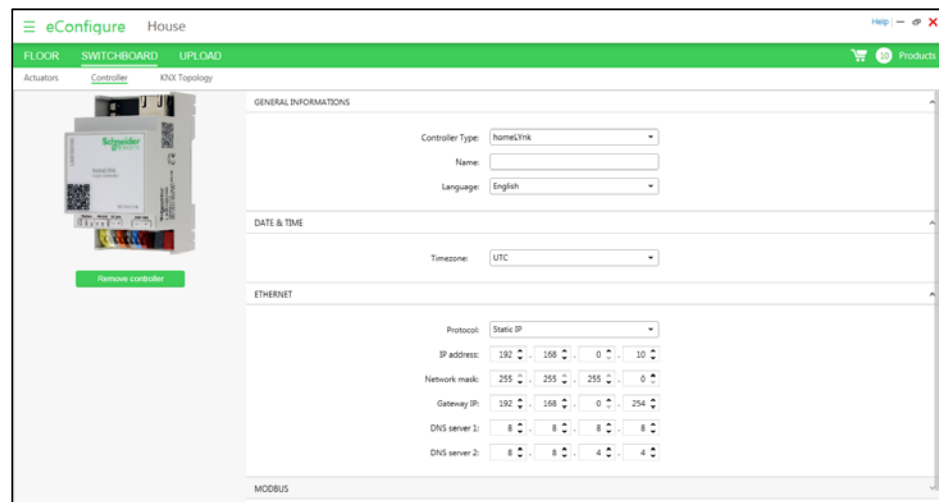
- The “Loads” part, on the left of the screen, with all loads of the project which are not yet connected to an actuator. These loads are classified by floors.
- The “Switchboard” part, on the middle and the right side of the screen, which contains the electric SWITCHBOARDS.

At the opening of the tab “SWITCHBOARD-Actuators”, actuators can be integrated with different way:

- It is possible to integrate them automatically. In this case, the actuators are created automatically in order to connect all the loads that are created in the “FLOORS” tab to its default actuator. You can make changes later.
- It is possible to integrate them manually. In this case, the actuators must be added manually (button “Add an actuator” and the loads must be connected to the outputs of the actuators by drag-and-drop.

It is also possible to use the semi-automatic function, which allows you to compose the actuators from loads selected on the left side of the screen.

5.3 Subtab «Controllers»



In the “Controller” subtab, it is possible to choose a logic controller.

This controller will be used for the configuration of the KNX devices and to generate a graphical interface that the end-user can use to control its installation from a Smartphone or a tablet. If Wiser for KNX is used, the end-user will be able to use the “Wiser for KNX Remote” App available on Google Play and Apple Store.

Important note:

the GUI configuration is automatic. You can subsequently make changes directly in the configuration of the controller interface, but any reprogramming with “eConfigure KNX lite” will result in the loss of information.

The user need to decide if the controller will be in automatic or manual IP address:

- Automatic (DHCP) is used if your controller is connected to a router
- Manual is used if your controller is directly connected to your computer








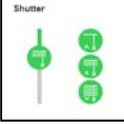




Important note:


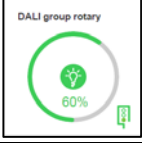




You need to follow an IP training or contact an integrator for more details about Automatic and Manual connection.

5.3.1 Widgets details

The widgets are automatically created from some loads and devices.
Find below the list of widgets with linked loads or devices.

Load / Device	Widget
	
	
	
	

Load / Device	Widget
	
	
	
	
	
	

5.3.2 Controller workflow

When you will use the controller it is important that your computer is on the same IP network than the controller. Please check that your controller is installed with the right firmware.

All steps to configure and use Wiser for KNX and spacELynk are detailed in a tutorial available on the Exchange Community on the web.

To connect to the controller, you can use “Wiser for KNX Remote”, if you are in residential, and use Wiser for KNX logic controller, you have to put your Wiser for KNX in DHCP in eConfigure.

To connect to the controller in Static IP, you need to use the URL of your Wiser for KNX or spacELynk directly using an internet navigator.

Step 1:

Connect to your controller using the IP.

Step 2:

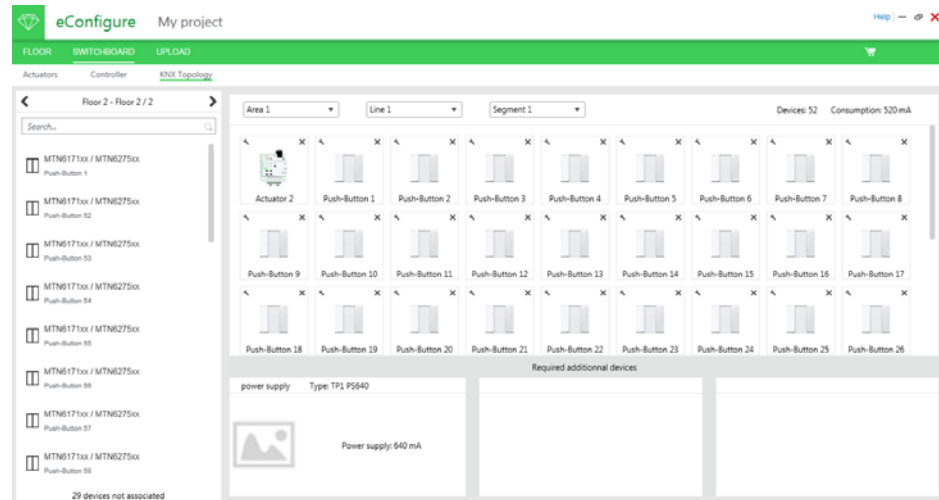
Use the standard Admin and Password to connect to your device: Admin / Admin

Step 3:

Click on Touch.



5.4 KNX Topology

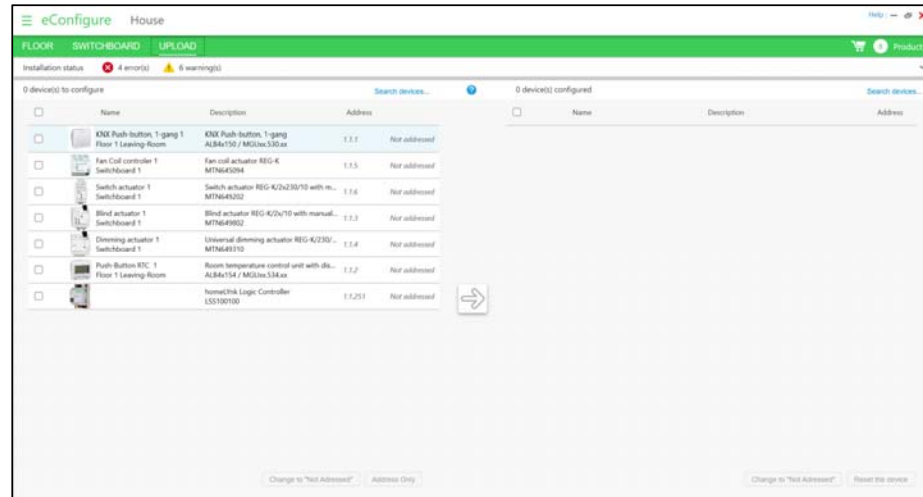


The “Topology” tab is only available for projects with more than 64 devices or a consumption above 640 mA.

In this case, it is necessary to distribute devices on different segments of the KNX bus. Please follow a training to enter more in details in this kind of architecture.

6 Tab «UPLOAD»

6.1 General view



The “UPLOAD” tab is composed of 2 distinct parts:

- The “installation status” which allows you to view the problems of design of the tabs “FLOORS” and “SWITCHBOARDS”. This tab can be opened or closed by clicking on the text “Installation status”.
- The list of devices that can be configured. This tab allows to download programs in devices.

6.2 Installation status

In this part there are so-called problems “Errors” and any other so-called “Warnings”:

- Errors are problems that will prevent the software to run.
- Warnings are problems that will not prevent the software to run but may be forgotten on your part.

6.3 Devices configuration

6.3.1 Advices

We strongly recommend you to configure devices one by one before the installation on site, and not all at the same time.

6.3.2 Connection to the devices

Before uploading the programs into KNX devices, you need first to connect your computer to an USB interface. The reference of the USB interface is MTN631829. You can connect to the complete installation (on site), or connect to each device (in your office, for example).

To configure a controller, the PC must be connected to the controller via a RJ45 cable. The downloading steps are then detailed in the Wizard.

6.3.3 Steps

First, you have to select the device(s) you want to upload. Then you click on the button in the center of the screen:



The first time you want to configure a device, you need to click on the “programming” button of the device in order to give an individual number (called “Physical address”) to this device. In option, you can also decide to configure only the physical address, in this case click on “Address only” on the bottom of the screen.

Important note:

If you have several devices with the same individual address, it means you made an error. In this case you need to use the function “Reset physical device” in order to solve the issue.

In case you have remaining problems, the best is to configure each device separately.

7 Bill of material (BOM) and Reports

7.1 Bill of materials (BOM)

You can generate a .csv file containing the full list of KNX devices of the building. This function is available by clicking on the icon located in the top bar of your software:



You need to verify that the actuators and the controllers have been set up, otherwise they will not appear in the list of hardware. The USB interface is not included in the BOM. You can use the same USB interface for all your project.

In the case of several line segments, please check the tab “Topology KNX” has been set up.

Note:

The list of materials contains only the KNX devices. Don't forget to order additional accessories:

- For push-button don't forget to add frames, installation boxes, and additional accessories.
- For controllers don't forget to add power supplies (24Vcc)

7.2 Reports

This function is available by clicking on the icon located in the top bar of your software:



It allows you to edit 2 types of reports that will be export in a .zip file:

- the installation report file
- the customer report file
- the floor plans

7.2.1 Installation report

This installation report contains information to allow the electrician to:

- Check the list of KNX devices,
- Check the list of loads,
- Wire the actuators on right loads,
- Install the devices at the right place in the installation,
- Check the proper functioning of the installation.

7.2.2 Customer report

This customer report contains the more essential information for the end customer to test its installation and validate that the installation corresponds to his needs.

You can join this report to your quotation in order to provide more details to your customer.

7.2.3 Floor plan

The floor plans are generated in .pdf format, with the unique address of each device. It enables you to use this plan on site to install the devices at the right place.