

Software

SIDE KNX

v1.2

PROGRAMMING MANUAL



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1 GENERAL DESCRIPTION

The “Development System KNX®” (SIDE KNX) is the software for programming Ingenium KNX web servers and touchscreens (ETHBUSKNX, PPKL7-G, PPKL4-G, etc.)

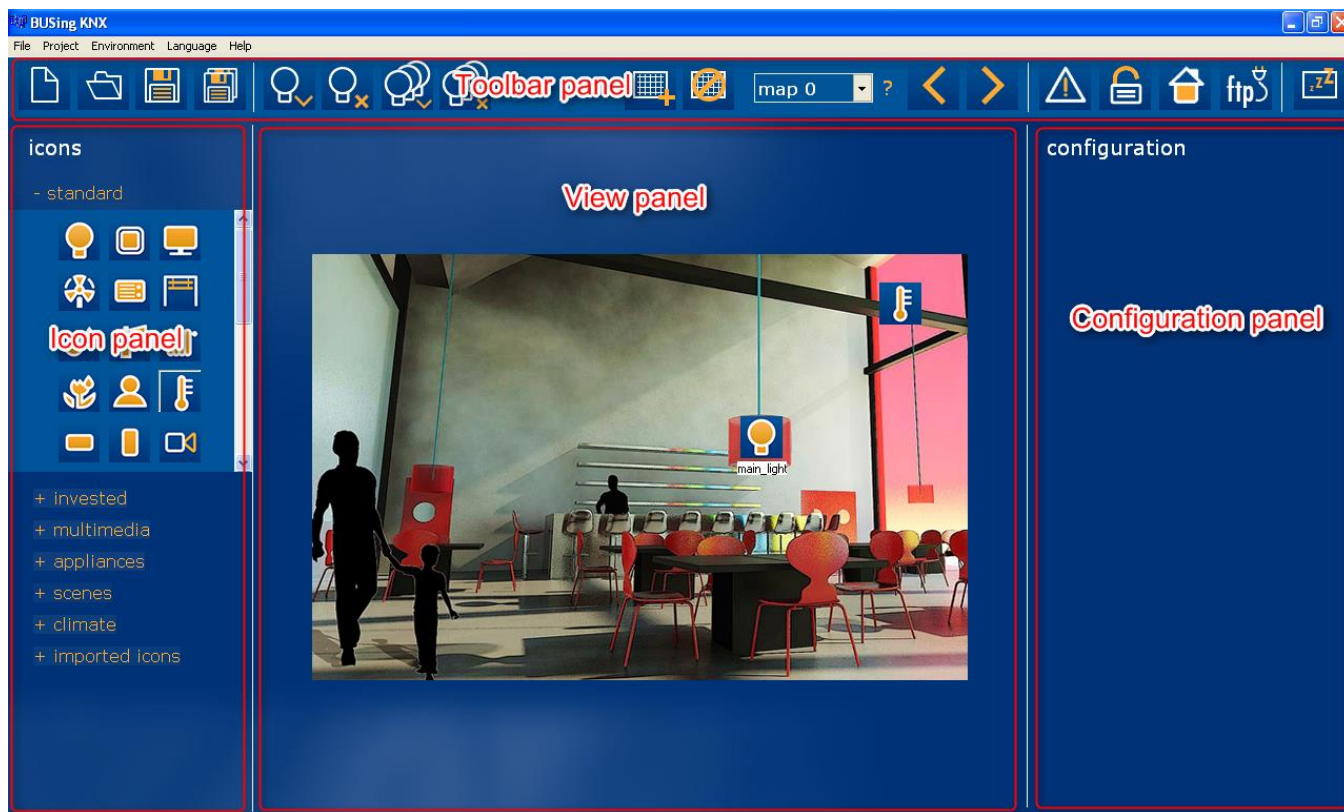
SIDE KNX is provided with following functions:

- **Quick and easy programming:** All the devices that have been added to the project are shown intuitively over the plans. Every icon can be set according to your needs and preferences to control different KNX devices.
- **Images processing:** The 3D Drawings, photographs, etc. used and set by the designer / programmer are processed to obtain a good visualization without losing quality.
- **Importing:** The ETS project can be imported in *.xml to make the programming easiest.
- **FTP downloading:** Fastest programming method to download all the data to the screens.
- **Personalization:** The software allows to use any picture or icon created by the programmer

With this program you can place plans (usually pictures of the rooms of a house) and over them the icons of the objects you want to control. You must to setup the icons to link them with the KNX devices to control. When you have it all ready you must transfer the project to the touchscreens web server, to do this you will need to be connected to these devices by an ip connection. The devices will self-reset and when they finish you will have ready the devices to operate with them.

2 MAIN WORKSPACE

The application has a menu bar and 4 control panels: *Toolbar panel*, *Icons panel*, *View panel* and *Configuration panel*.



The menu bar has alternative accesses to the application options.

With the View panel you can control how plans and icons are displayed in the screen.

In the Icons panel you can select the icon that will represent the device you want to control.

In the configuration panel you can add a name to the icon that will be displayed on the screen and matched it with the knx device.

The Toolbar panel is to load, save and open new projects, to import and delete personal icons and group of icons, to load, delete, and show plans, to import KNX address XML files previously exported by ETS, to transfer the project to the touch screen and webserver devices and to configure the screensaver.

In order to create your first project, open the program and press the load plan button from Toolbar panel, and select any picture or photo to load. The second step is to place the icons over the plan; to do this look at the left side of the screen you will see the Icons panel. Select the icon and place it over the plan. On the right side is the configuration panel. To configure the icon you must select first the icon and then select the type of device which the icon is matched and fill the rest of the parameters of configuration, you will be able to add a name to the icon that will be displayed in the touchscreen. If you want to add another plan you must select in the combo box a new number and repeat the operation you did before.

2.1 TOOLBAR PANEL

From the Toolbar panel you can acting over the several functions that the program own. Some of them ca be accessed through the menu bar.



Following a short functionality description of the items is showed:



Create a new project



Open a saved project



Save the current project



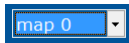
Save the current project with other name



Load or replace a plan in the view panel



Delete a plan from the view panel (deletes all the configuration plan, icons, etc.)



Select a plan to view



View the plan image file path



Navigate through the plans in the View panel



Technical alarms settings



Intrusion alarm settings



Presence simulation settings



Transfer the project to the device



Screensaver configuration.

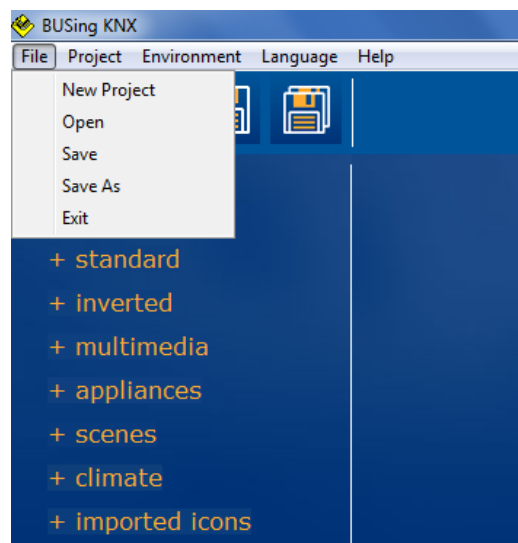
2.2 OPEN AND SAVE PROJECTS

You can find the open and save project options in the Toolbar panel. Following is shown a short description of each button.



1. Open a new File
2. Open a project saved
3. Save the project
4. Save the project with other name.

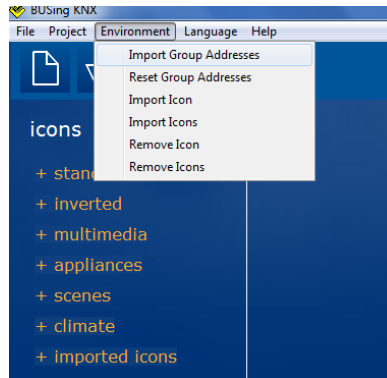
The same options are also available by clicking *file* from the menu bar on the upper left corner of the window.



Note: Save the project before doing anything else. Most of the functions are not available if the project has not been saved.

2.3 IMPORTING GROUP ADDRESSES FROM ETS

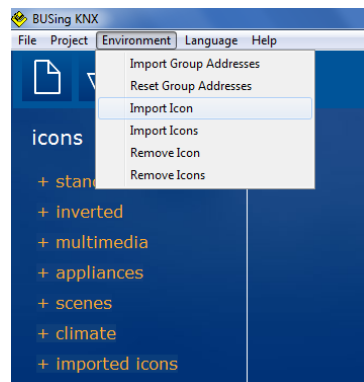
You can import group addresses already created from the ETS by selecting *Environment > Import Group Addresses* in menu bar and then selecting the XML exported file from ETS.



You can also delete this imported KNX addresses from project selecting *Environment > Reset Group Addresses* in menu bar. It is recommended to delete the group addresses imported before importing again in order to avoid mixing them.

2.4 ADDING CUSTOMIZED ICONS

The programmer can add his own customized icons to the screen. This icons must be in bmp format and must uploaded them in pairs one to show the “On” state and the other one for the “Off” state. Select *Environment > Import Icon* from menu bar to do so.



There is also the possibility to upload several icons at the same time. In order to do that the icons must be placed in a folder in alphabetic order being the “off” before than the “on” one. Select *Environment > Import Icons* from menu bar to do this.

Doing this the icons will be added to the *Icon panel* so that they are now ready to be used in the project.

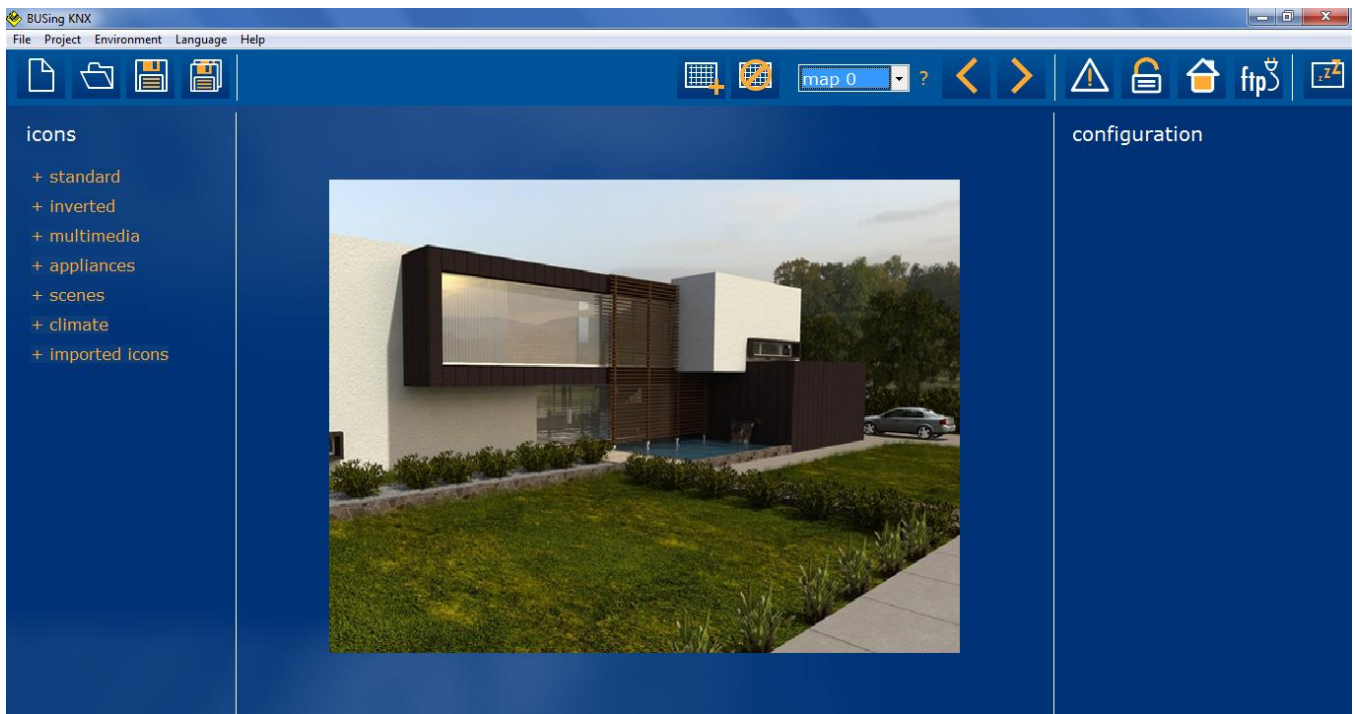
To remove them just select *Environment > Remove Icon* and *Environment > Remove icons* respectively.

2.5 ADDING NEW PLANS

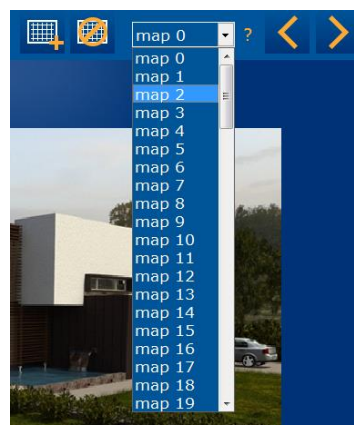
The first thing to do is adding plans or images (usually a 3D plan, a picture or photograph of the rooms of a house). Once it has been added it is possible to place over it the icons of the objects that will be controlled.



Drawings or plans can be added to the project by pressing the #9 button from Toolbar panel and remove from the project with button #10.



With combo box #11 and buttons #13 and #14 you can move through the plans in the project.

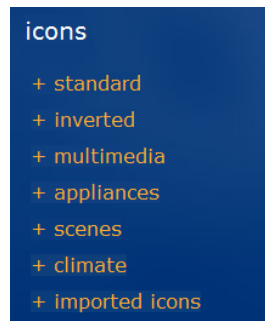


The question mark #12 is used to know where the program is searching for the plan. When you move a project to another folder or to another computer, the locations of the maps are missed and you must restore them. To do this you first search the file missed looking the file path in the question and add it again by pressing the #9 button and selecting the new file path.



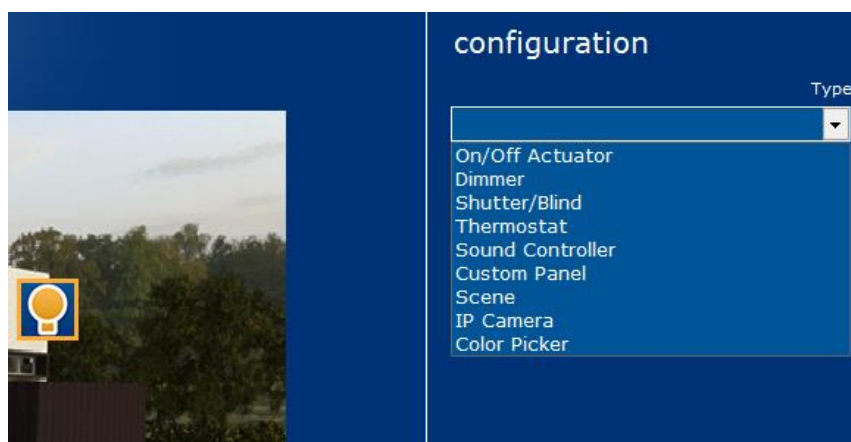
2.6 PROGRAMMING ICONS

Once added plans to the project, the second step is to place the icons over them. To do so, select any icon from the icons panel on the left side of the window and place it over the plan.



Navigate through the different categories to look for the icon desired: standard, inverted, multimedia, appliances, scenes, climate or imported customized icons.

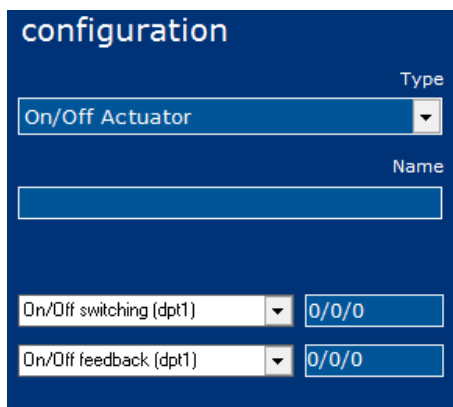
On the right side of the window is the configuration panel. To configure an icon you must click on it first and then select the type of device which the icon is matched to. You will be able to add a name to the icon that will be displayed in the touchscreen and fill the rest of the parameters of configuration.



Depending of the type selected different controls will be shown. But always there will be a control to edit the name that will be displayed in the touchscreen besides to the icon. All different options are explained next.

2.6.1 ON/OFF ACTUATOR

When you select “On/Off Actuator” option in the Configuration type field the following controls are shown:



The screenshot shows a configuration window titled 'configuration'. It has a 'Type' dropdown menu set to 'On/Off Actuator'. Below it is a 'Name' text input field. There are two rows of controls: the first row has a dropdown menu labeled 'On/Off switching (dpt1)' and a text input field containing '0/0/0'; the second row has a dropdown menu labeled 'On/Off feedback (dpt1)' and a text input field containing '0/0/0'.

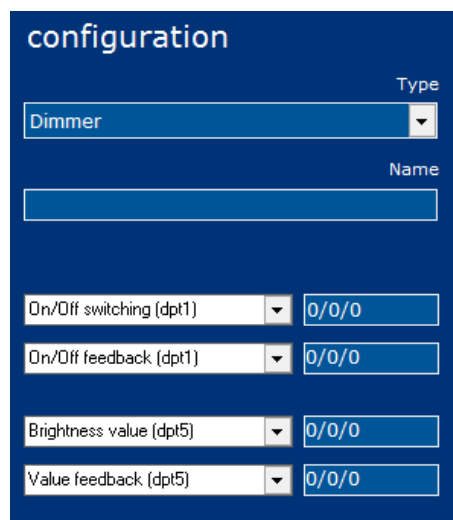
1. An edit box to insert a name for the icon that will be shown on the screen.
2. A combo box and an edit box to insert the KNX group address to switch on/off an actuator output. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
3. A combo box and an edit box to insert the KNX group address for the switching on/off feedback from the actuator output. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.

If a group address inserted matches with an imported one, the combo box will show the tag/description created in the ETS. The imported addresses are shown always in an orange background colour.

Press the save button below to finish the configuration.

2.6.2 DIMMER

When you select “Dimmer” option in the Configuration type field the following controls are shown:



The screenshot shows a configuration window titled 'configuration'. It has a 'Type' dropdown menu set to 'Dimmer'. Below it is a 'Name' text input field. There are four rows of controls: the first row has a dropdown menu labeled 'On/Off switching (dpt1)' and a text input field containing '0/0/0'; the second row has a dropdown menu labeled 'On/Off feedback (dpt1)' and a text input field containing '0/0/0'; the third row has a dropdown menu labeled 'Brightness value (dpt5)' and a text input field containing '0/0/0'; the fourth row has a dropdown menu labeled 'Value feedback (dpt5)' and a text input field containing '0/0/0'.

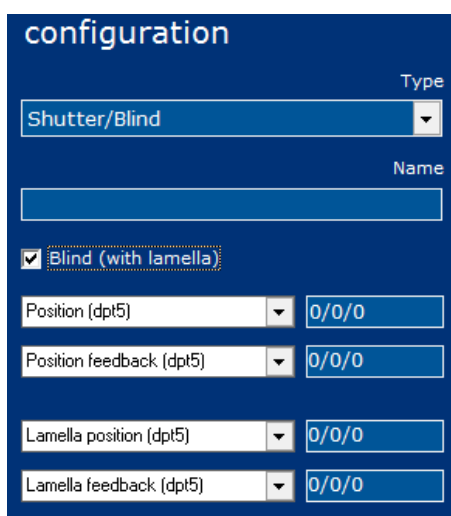
1. An edit box to insert a name for the icon that will be shown on the screen.
2. A combo box and an edit box to insert the KNX group address to switch on/off a dimmer channel. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
3. A combo box and an edit box to insert the KNX group address for the switching on/off feedback from the dimmer. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
4. A combo box and an edit box to insert the KNX group address to set a brightness value of the dimmer channel. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
5. A combo box and an edit box to insert the KNX group address for the brightness value feedback from the dimmer. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.

If a group address inserted matches with an imported one, the combo box will show the tag/description created in the ETS. The imported addresses are shown always in an orange background colour.

Press the save button below to finish the configuration.

2.6.3 SHUTTER/BLIND

When you select “Shutter/Blind” option in the Configuration type field the following controls are shown:



1. An edit box to insert a name for the icon that will be shown on the screen.
2. A combo box and an edit box to insert the KNX group address to set the position of the shutter/blind channel. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
3. A combo box and an edit box to insert the KNX group address for the position feedback from the actuator. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
4. A combo box and an edit box to insert the KNX group address to set the position of the lamella. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.

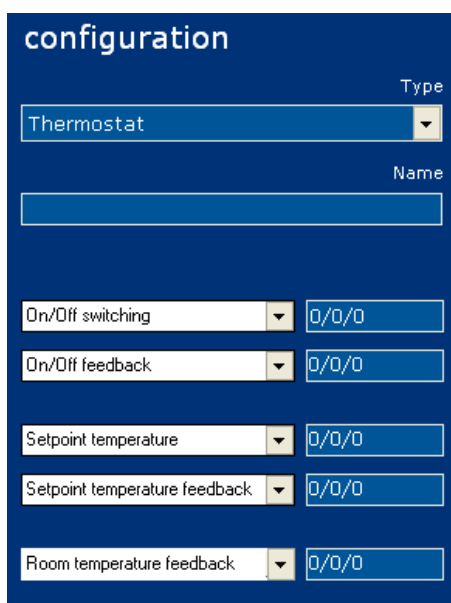
5. A combo box and an edit box to insert the KNX group address for the lamella position feedback from the actuator. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.

If a group address inserted matches with an imported one, the combo box will show the tag/description created in the ETS. The imported addresses are shown always in an orange background colour.

Press the save button below to finish the configuration.

2.6.4 THERMOSTAT

When you select “Thermostat” option in the Configuration type field the following controls are shown:



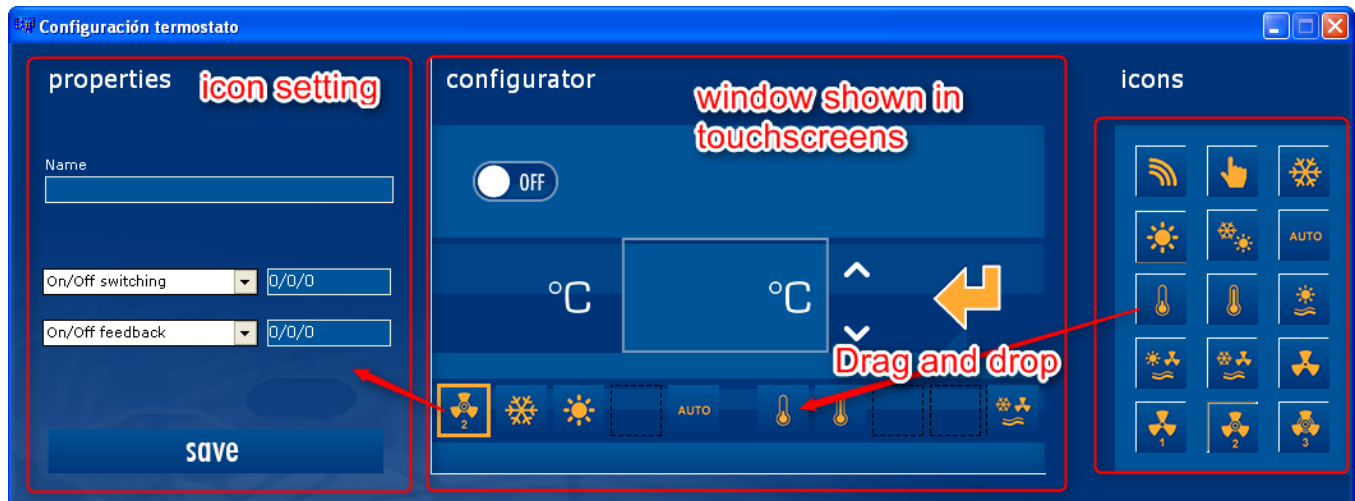
The screenshot shows a configuration window titled "configuration" with a dark blue background. At the top right, there is a "Type" dropdown menu currently set to "Thermostat". Below this is a "Name" text input field. Further down, there are five rows of controls, each consisting of a dropdown menu and a corresponding text input field. The first row is for "On/Off switching" with a value of "0/0/0". The second row is for "On/Off feedback" with a value of "0/0/0". The third row is for "Setpoint temperature" with a value of "0/0/0". The fourth row is for "Setpoint temperature feedback" with a value of "0/0/0". The fifth row is for "Room temperature feedback" with a value of "0/0/0".

1. An edit box to insert a name for the icon that will be shown on the screen.
2. A combo box and an edit box to insert the KNX group address to switch on/off the thermostat. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
3. A combo box and an edit box to insert the KNX group address for the switching on/off feedback from the thermostat. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
4. A combo box and an edit box to insert the KNX group address to control the setpoint temperature of the thermostat. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
5. A combo box and an edit box to insert the KNX group address for the setpoint temperature feedback from the thermostat. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
6. A combo box and an edit box to insert the KNX group address for the room temperature feedback from the thermostat. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.

If a group address inserted matches with an imported one, the combo box will show the tag/description created in the ETS. The imported addresses are shown always in an orange background colour.

Press the save button below to finish the configuration.

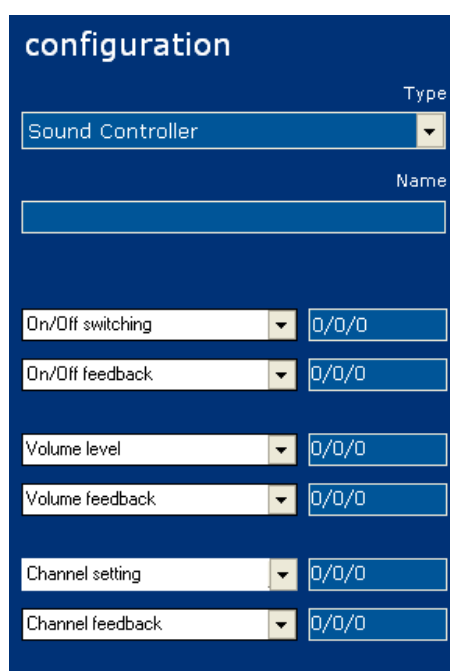
If you want to add more controls to thermostat you must press the settings button that you can find below of the previous field. When you press the settings button the following window will be shown.



In this window you can drag the icons on the right side, drop them on the central panel and give them a name and two KNX group addresses in the left side panel. If you want to delete an icon placed on the central pane you just only press the right mouse button and select "delete".

2.6.5 SOUND CONTROLLER

When you select "Sound Controller" option in the Configuration type field the following controls are shown:



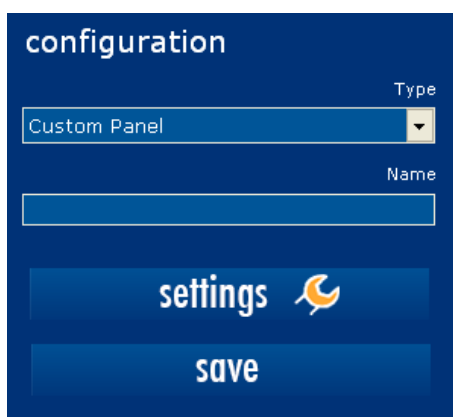
1. An edit box to insert a name for the icon that will be shown on the screen.
2. A combo box and an edit box to insert the KNX group address to switch on/off the controller. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
3. A combo box and an edit box to insert the KNX group address for the switching on/off feedback from the controller. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
4. A combo box and an edit box to insert the KNX group address to set the volume of the controller. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
5. A combo box and an edit box to insert the KNX group address for the volume feedback from the controller. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
6. A combo box and an edit box to insert the KNX group address to set the channel of the controller. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
7. A combo box and an edit box to insert the KNX group address for the channel feedback from the controller. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.

If a group address inserted matches with an imported one, the combo box will show the tag/description created in the ETS. The imported addresses are shown always in an orange background colour.

Press the save button below to finish the configuration.

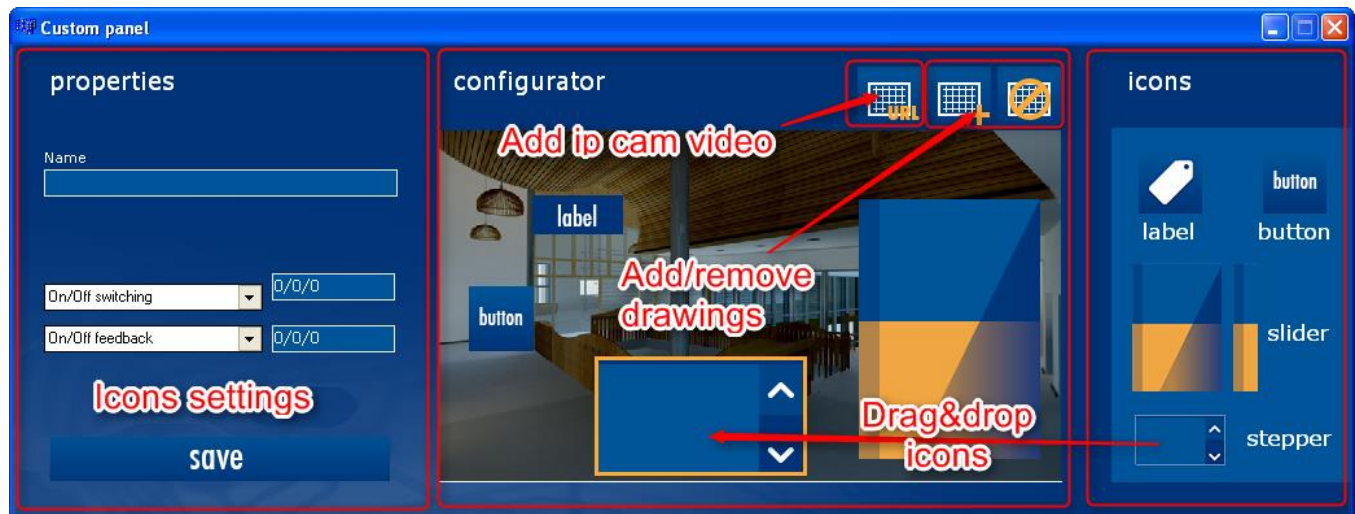
2.6.6 CUSTOM PANEL

When you select “Custom panel” option in the Configuration type field the following controls are shown:




1. An edit box to insert a name for the icon that will be shown on the screen.
2. A *settings* button to setup the customized panel. When you press this button a new window will be shown.

When you press the icon in the touchscreen the customized panel will be displayed. In this panel you can add static labels, buttons, slides and a stepper with which you can select a value to send.



In the right side of the custom panel are the icons which you can drag and drop to the central panel which will be displayed in the touchscreen. To configure an icon you must selected first and then setup it in the left side panel of the custom control window.

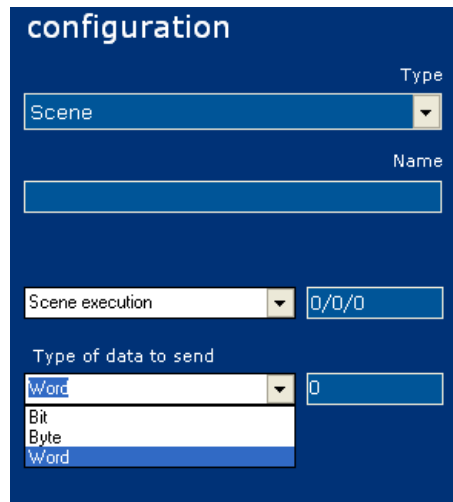
To add and remove a background picture you have two buttons in the upper right corner of the central panel. If you prefer you can display the video from an ip cam or an image from internet. In order to do that you must press the *URL* button in the top of the central panel and insert in the popup window the url, user and password of the ip cam. In case of an image you insert only the url.



Press the save button below to finish the configuration.

2.6.7 SCENE

When you select “Sound Controller” option in the Configuration type field the following controls are shown:



The screenshot shows a configuration window titled 'configuration' with a dark blue background. It contains several controls: a 'Type' dropdown menu set to 'Scene'; a 'Name' text input field; a 'Scene execution' dropdown menu set to '0/0/0'; a 'Type of data to send' dropdown menu with 'Word' selected, and a corresponding value input field set to '0'. A list of options (Bit, Byte, Word) is visible below the 'Type of data to send' dropdown.

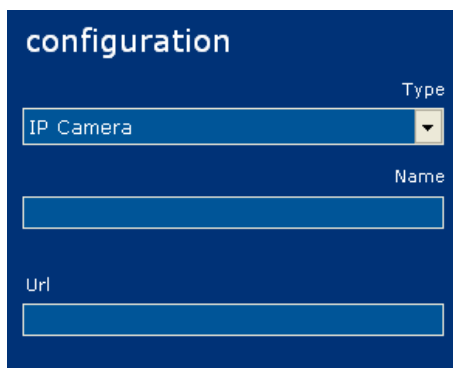
1. An edit box to insert a name for the icon that will be shown on the screen.
2. A combo box and an edit box to insert the KNX group address to execute a scene. Select a KNX group address previously imported with the combo box or insert/modify it manually with the edit box.
3. A combo box to select the data type that will be sent and insert/modify the value manually with the edit box.

If a group address inserted matches with an imported one, the combo box will show the tag/description created in the ETS. The imported addresses are shown always in an orange background colour.

Press the save button below to finish the configuration.

2.6.8 IP CAMERA

When you select “IP Camera” option in the Configuration type field the following controls are shown:



The screenshot shows a configuration window titled 'configuration' with a dark blue background. It contains several controls: a 'Type' dropdown menu set to 'IP Camera'; a 'Name' text input field; and a 'Url' text input field.

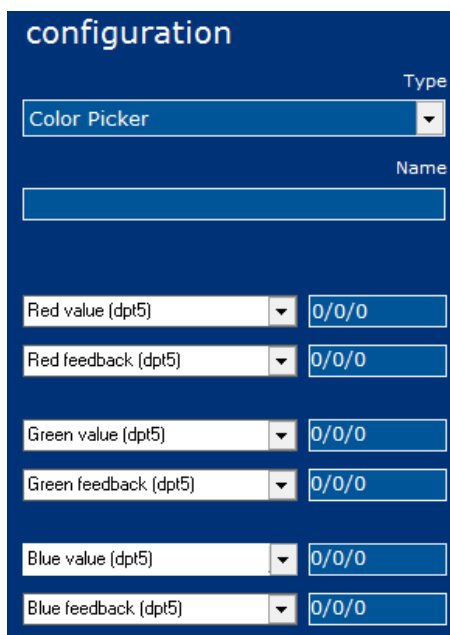
1. An edit box to insert a name for the icon that will be shown on the touchscreen.
2. An edit box to insert or modify the IP Camera URL. The format must be the following one:
http://user:password@IP:port/path
For example: "http://demo:ingenium@85.152.52.212:8088/image.jpg"

For further information about how to access to the pictures saved by the IP camera read the manufacturer configuration manuals.

Press the save button below to finish the configuration.

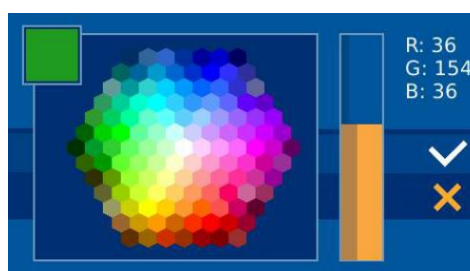
2.6.9 COLOUR PICKER

When you select "Colour picker" option in the Configuration type field the following controls are shown:



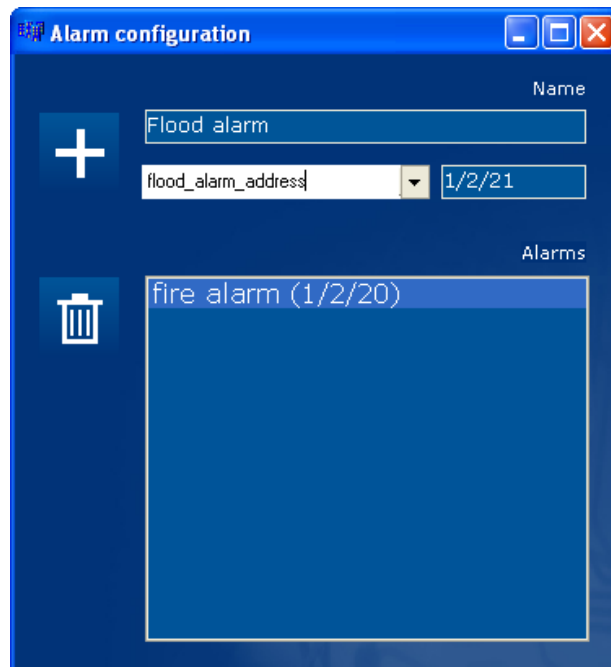
1. An edit box to insert a name for the icon that will be shown on the touchscreen.
2. Three pairs of a combo box and an edit box to insert the KNX address to set the colour value of each RGB dimmer channel. The combo box is for selecting a KNX address previously imported from ETS and the edit box on its right side is to insert or modify the KNX address.
3. Three pairs of combo box and an edit box to assign a KNX address to receive the colour feedback from the RGB dimmer. The combo box is for selecting a KNX address previously imported from ETS and the edit box on its right side is to insert or modify the KNX address.

Press the save button below to finish the configuration.



3 OTHER FUNCTIONS

3.1 TECHNICAL ALARMS



Do click on the *Alarms configuration* button or in Project > Technical alarms from menu bar to show the technical alarms configuration window. In this window can be added the text messages that will be displayed by the touchscreen.

The 'plus' icon is for add alarm messages to the list and the bin icon is for deleting the messages from the list.

When a touchscreen receives a "1" value through the associated group address a technical alarm notification appears on its upper right corner and the message can be read by clicking on the alarms button. A "0" value through the same group address will delete the message.



Note: When technical alarms are configured, the touchscreen allows also sending emails or taking screenshots from IP cameras with every alarm notification. These functionalities are configured directly on the screen.

The configuration of the email notifications and camera screenshots is done from the technical alarms menu on the PPKLx. Press and slice up on the screen to show the options bar and do click on the alarms icon. In the window that appears are shown all the alarm messages that are now active and we can also configure the emails and camera screenshots.



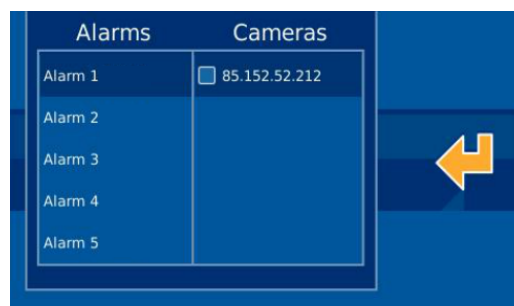
3.1.1 CONFIGURE EMAIL NOTIFICATIONS

In the technical alarms window, do click on the @ icon below to show the email list that the screen will send the messages to. Use + and – to add and remove more email addresses with the keyboard.

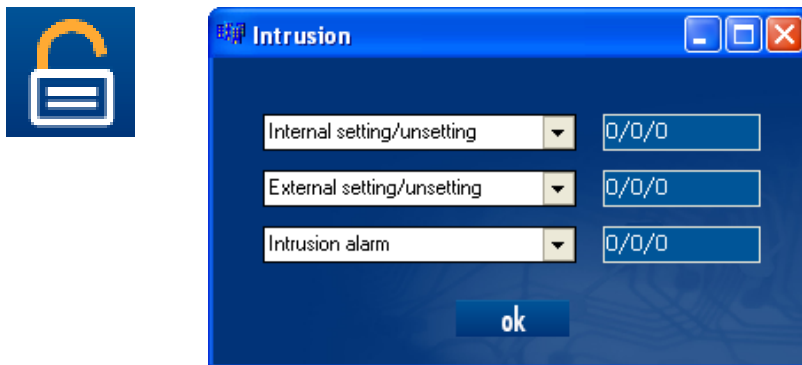


3.1.2 CONFIGURE CAMERA SCREENSHOTS

From this window do click on the camera icon below to show the alarms/cameras list that the screen will send the messages to. Use + and – to add and remove more email addresses with the keyboard.

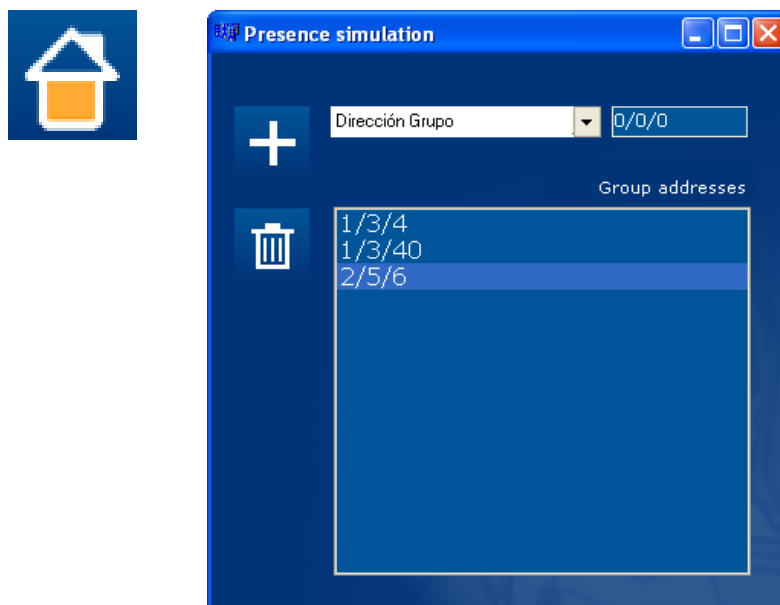


3.2 INTRUSION SETTINGS



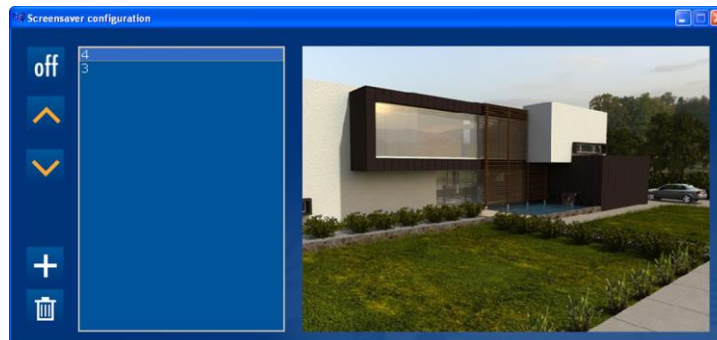
When you press the *Intrusion settings button* or on *Project>Intrusion* from menu bar the *Intrusion window* is displayed. This window displays three rows each of them has a field to select the label of a group address you have previously imported and a field to its right side to edit the group address. The first row contains the group address for setting/unsetting the intrusion alarm from the touchscreen. The second row contains the group address for setting/unsetting the intrusion alarm remotely. Finally the third row contains the group address to where sensors must to send an intrusion notification.

3.3 PRESENCE SIMULATION



When you press the *simulation presence button* or on *Project > Presence Simulation* from menu bar the *Presence simulation window* is displayed. You can add in this window the group addresses to play when the presence simulation is enabled. The plus icon is for adding addresses to the list and the bin icon is for deleting them from the list.

3.4 SCREENSAVER CONFIGURATION

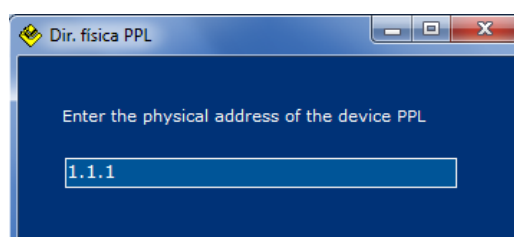


You can show pictures as screensavers in touchscreens, for that, you must first save the project and after that press the *Screensaver* button of the *Toolbar panel* to a window will be displayed. In this window you can add or delete the pictures for the screensaver. To add a picture to the list you must press the button with a plus sign on it and if you want to remove it from the list you must first select the picture in the list and then press the button with a bin icon on it. The arrows are for selecting a picture in the list which is displayed on the right.

Press the *Off/On* button in the *Screensaver configuration* window to choose if the screensaver pictures will be transferred with the project or not. If the button shows the *Off* text the pictures will not be transferred with the project.

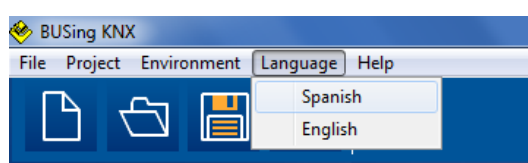
3.5 INDIVIDUAL ADDRESS

Do click on *Project > Individual address* from menu bar to show the individual address configuration window. Here it is set the KNX individual address that the device takes when it is programmed.



3.6 CHANGE THE APPLICATION LANGUAGE

Do click on *Language* option in the menu in menu bar and select the language with which you want to work. Two languages are available now: Spanish and English.



4 DOWNLOAD THE PROJECT

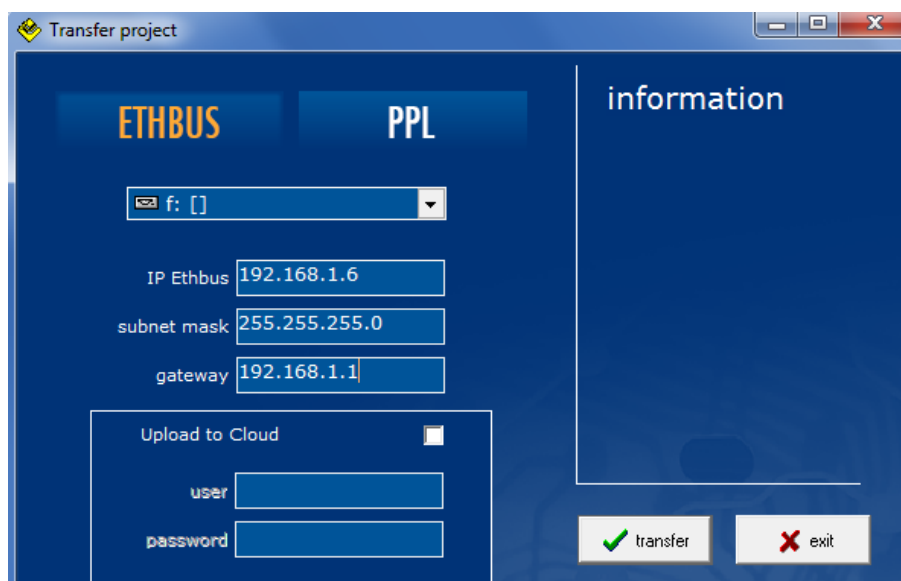
The SIDE KNX allows programming Ingenium KNX web servers and touchscreens: ETHBUSKNX, PPKL7-G, PPKL4-G, etc. In the case of the ETHBUSKNX the programming is downloaded to a microSD card that it incorporates. On the other side, the PPKLx touchscreens are programmed through the internet by connecting the computer to the same Wi-Fi network.



To program the Ingenium device, first save the project and then press the *transfer project* button from Toolbar panel or select *Project > Transfer* and the following window will be showed. Then do click on the corresponding button to select the device that will be programmed.

4.1 ETHBUSKNX

In the case of ETHBUSKNX, first select the drive where the microSD card has been inserted. Then configure the IP address, the subnet mask and the gateway of the network which the ETHBUSKNX will be connected to.



The 'Transfer project' window is displayed with a dark blue background. It features two tabs: 'ETHBUS' (selected) and 'PPL'. Below the tabs, there is a dropdown menu for 'f: []'. Below this, there are three text input fields: 'IP Ethbus' with the value '192.168.1.6', 'subnet mask' with '255.255.255.0', and 'gateway' with '192.168.1.1'. Below these fields is a section for 'Upload to Cloud' with a checkbox and two text input fields for 'user' and 'password'. At the bottom right, there are two buttons: a green 'transfer' button with a checkmark icon and a red 'exit' button with an 'X' icon. An 'information' panel is visible on the right side of the window.

Finally select if the project should be updated in the Ingenium servers or not by clicking on *upload to cloud*. If yes, enter the username and password of the Ingenium account (it must have been already created).

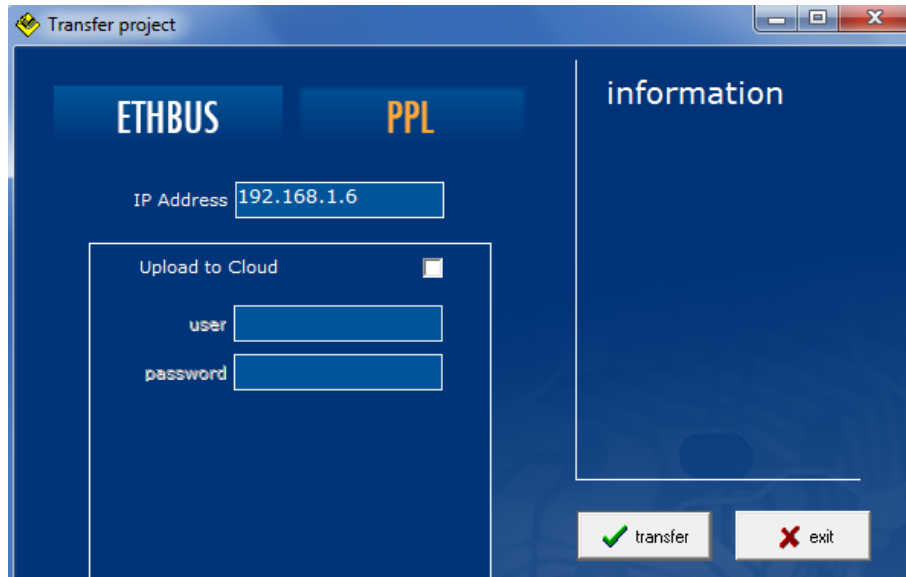


Note: When an installation is controlled remotely, it is done with the project that it is allocated in the Ingenium servers. On the other side, when the installation is controlled locally, it is done with the project downloaded to the local web server (ETHBUSKNX or PPKLx).

Do click on transfer to complete the process. The status will be shown in the information window.

4.2 PPKLx

In the case of a PPKLx, the programming is done through the internet by connecting the computer to the same Wi-Fi network. See the specific user manual to know how to connect the PPKLx to your local network.



Then, enter the IP address of the screen and select if the project should be updated in the Ingenium servers or not by clicking on *upload to cloud*. If yes, enter the username and password of the Ingenium account (it must have been already created).



Note: The PPKLx and the programmer computer must be connected to the same network and configured in the same subnet. Check the correct connection of the screen by using ping windows networks command before downloading.

Do click on transfer to complete the process. The status will be shown in the information window. After the downloading process the screen will reboot automatically.



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