CHORUS

GEWISS

Smart Gateway configuration and domotic supervision

Installation manual

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WHAT IS THE CONFIGURATION PORTAL USED FOR?

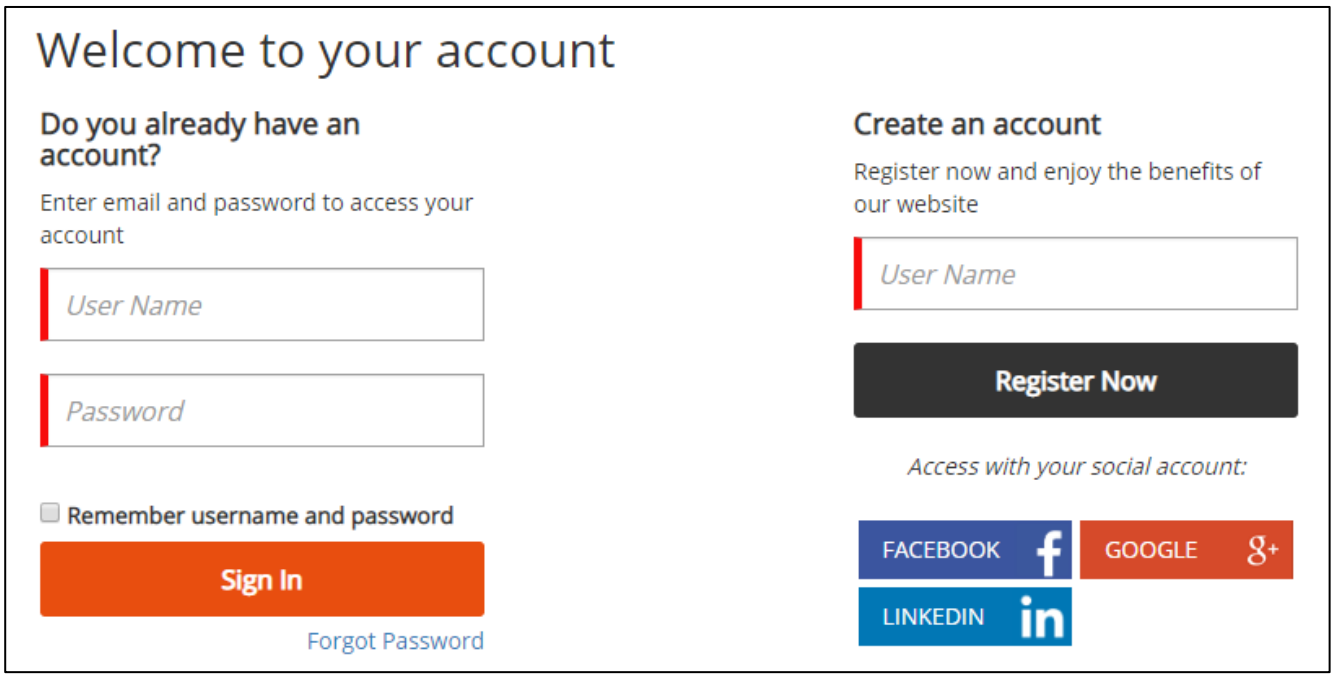
The IoT Configurator is used to programme the Smart Gateway, configuring the basic settings, the communication between devices using different protocols, the special functions offered by the Gateway, roles and users with the relative access rights and the graphic interface of the Smart Gateway app for domotic system supervision.
To configure the KNX part, the relative ETS 4.0 (or higher - .knxproj) project must be imported, whereas the ZigBee products can be implemented directly via the IoT Configurator.

REQUISITES

The IoT Configurator is accessed from the web page https://iotconfig.gewiss.cloud, using one of the commons web browsers: Chrome, Internet Explorer, Mozilla Firefox, Microsoft Edge, Safari, etc.
An Internet connection is needed when configuring the Smart Gateway and its functions, because the configuration is saved on the cloud so it can then be distributed to all the clients connected (Smart Gateway and mobile device with the app installed).
A personal account is needed in order to use the IoT Configurator and the relative services.

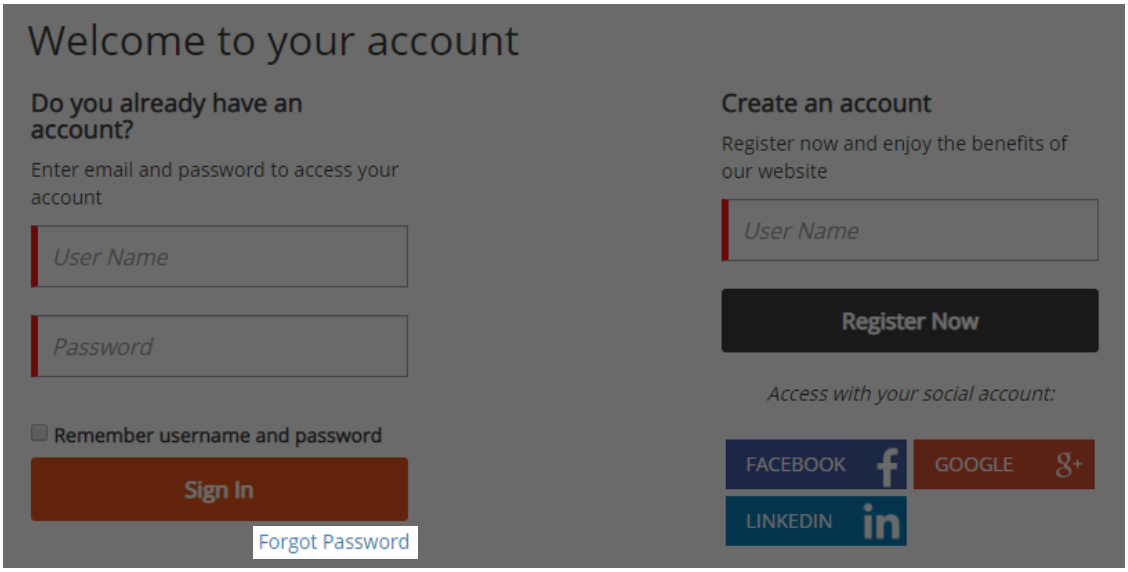
GEWISS IOT CONFIGURATOR

The GEWISS IoT Configurator can be accessed via the link https://iotconfig.gewiss.cloud.
To access the services and the IoT Configurator, you must enter your credentials; if you don't have an account on the GEWISS IoT Configurator, you will have to register or make the access using the account of one of the social media listed on the page.



Registering on the GEWISS IoT Configurator

If you have not yet registered in the system, you have to create a new account choosing from the two options that you find in the right column of the login page. Insert you mail in the box and then click "**Register**" if you want use your mail address, or login with a social Account (Facebook, Google+, and LinkedIn.



To complete the registration, you have to fill the boxes with your information (the ones with a red label are mandatory), read and mark the information regarding the processing of personal data and press "**Register**".

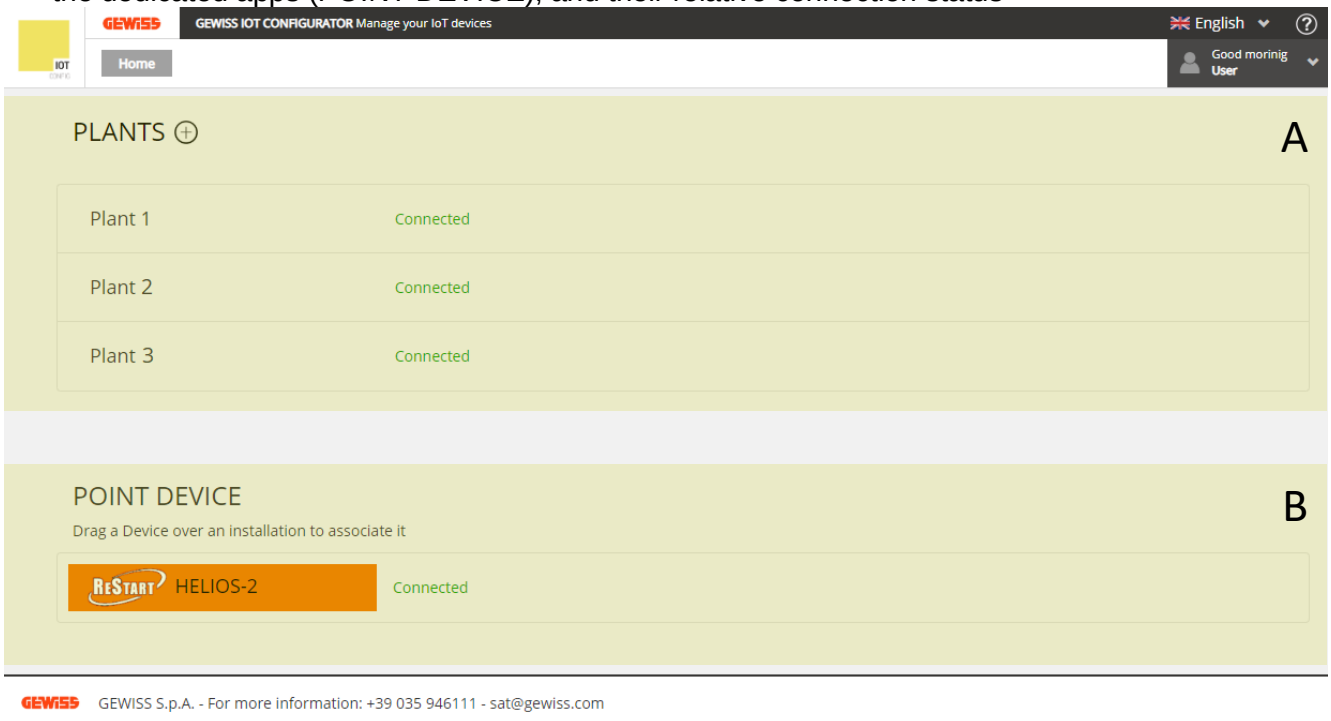
The system will send an automatic e-mail to the address given, with a link for completing the registration.

After clicking on the link, your registration is confirmed and you will be automatically redirected to the IoT Configurator access page, where you can enter your credentials and go to the portal.

IoT Configurator homepage

Once you have accessed the IoT Configurator, you will see the homepage showing:

A. a list of the systems associated with your account, indicating the status of the IoT devices in it
B. the IoT devices not yet associated with a system but associated with your account via the use of the dedicated apps (POINT DEVICE), and their relative connection status

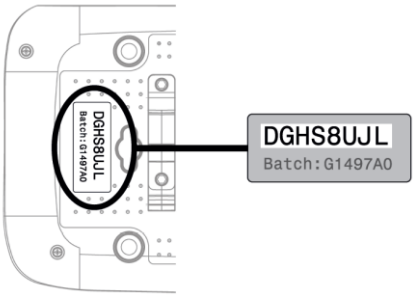


From the bar at the top, you can always:

C. return to the homepage
D. access the “Modify account” and user disconnection section
E. change the presentation language
F. see the release version of the IoT Configurator and the and the configuration section of the Smart Gateway App

Creating a new system

From the homepage, you can create a new system just by pressing the “+” icon next to the item “Systems”.
In order to create a new system, you will be asked to enter the ID of your GEWISS IoT device; the identification code is shown on the label on the device itself (see the Smart Gateway example below)



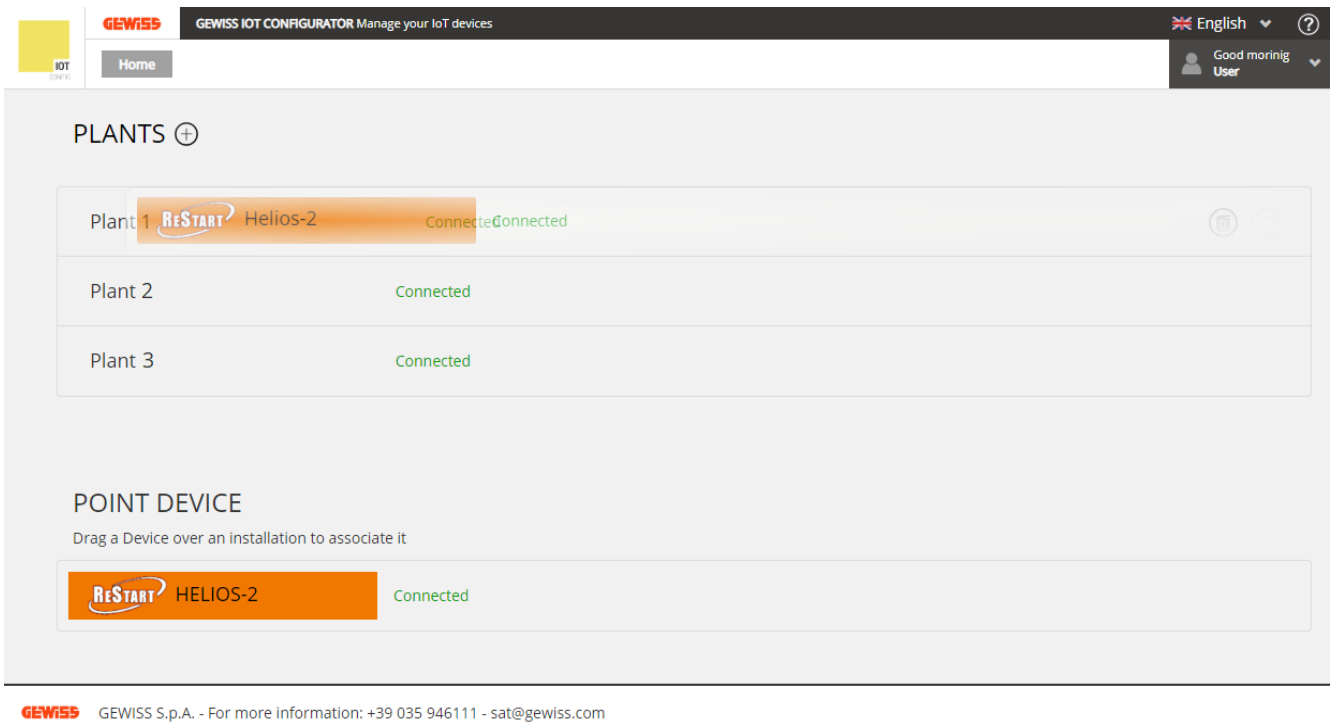
After you have entered the code, a check is automatically made to ensure the device in question isn't associated with another system:

a. if the outcome is OK, the system is created and the user is associated with “Installer” rights
b. if the Gateway is already associated with another system, you are asked which role you want to adopt (from the list of those available) and the association is then made. If no role is available, it will not be possible to join the system

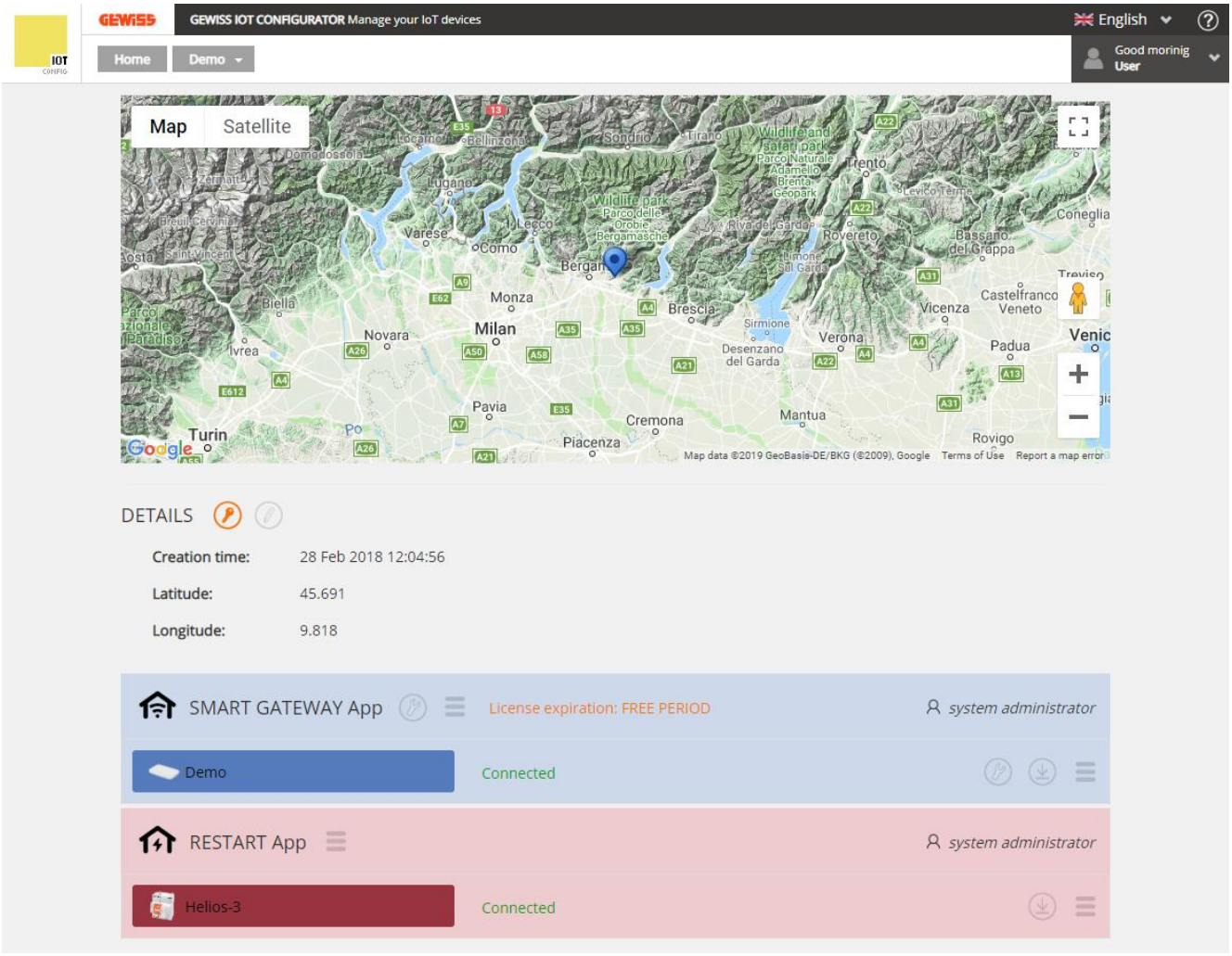
When the procedure has been completed, the name of the new system is added to the list.

Associating an IoT device with a system

To take an IoT device already associated with your account (e.g. via the use of a dedicated app) and associate it with an existing system, just select it and drag it onto the name of the required system.

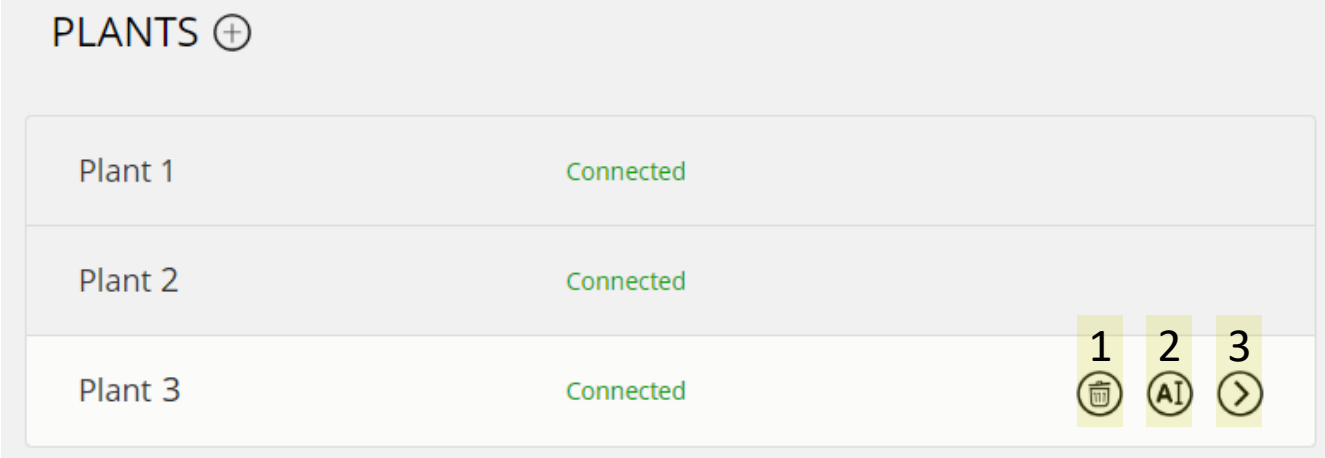


Once you have made the association, the device will no longer be visible in the POINT DEVICE list; it will be shown in the list of devices of the system that it's been added to.


GEWISS IOT CONFIGURATOR Manage your IoT devices
English
Home
Demo
Good morinig
User
Map
Satellite
Map data ©2019 GeoBasis-DE/BKG (©2009), Google
Terms of Use
Report a map error
DETAILS
Creation time: 28 Feb 2018 12:04:56
Latitude: 45.691
Longitude: 9.818
SMART GATEWAY App
License expiration: FREE PERIOD
system administrator
Demo
Connected
RESTART App
system administrator
Helios-3
Connected

SYSTEM MANAGEMENT

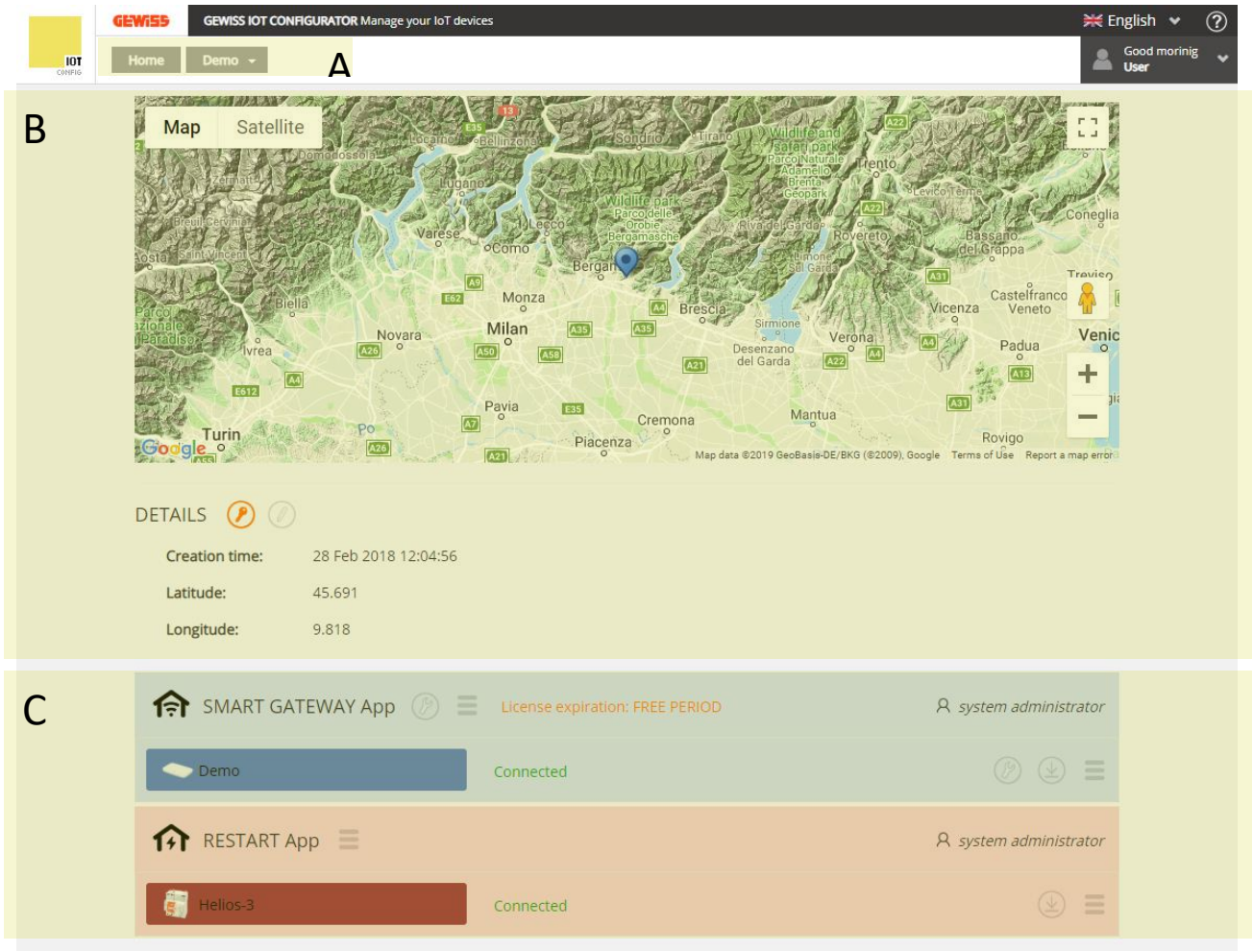
In the ‘Systems’ section of the IoT Configurator homepage, you can find a list of all the systems associated with the user's account, and the relative status of the devices. Click on the name of a system to see all the details.
Position the mouse on the name of a system to visualise other commands.



1. delete the system
2. rename the system
3. access the system details

System details

When you select a system from the homepage, a page of details is called up:



A. Navigation bar

The navigation bar shows the name of the selected system. You can change the system by pressing on the drop-down menu (without returning to the homepage).

B. System details and geolocation

This section of the page shows general information and the geolocation of the system.
At the time of creation, information about the latitude and longitude are obtained automatically from the operating system of the PC used; this information can be modified at any time by selecting the icon underneath the map.

C. Supervision app and the relative devices controlled

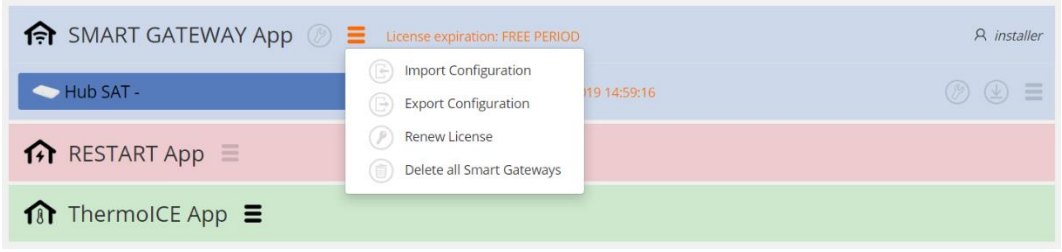
Below the system name you can see all the apps and a list of all the IoT devices that are controlled. For each app, there's the name and (at the top right) the role associated with the user for that specific app.

Alongside the name, you'll find the following commands:

	Configure: It allows to access the IoT Configurator section where you can configure the app and the functions of the devices in the system

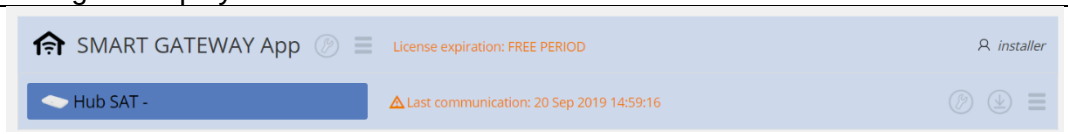
The optional commands menu (activated via the ☰ push-button) contains:

Add Restart	It adds a new IoT device (not associated with another system/user) to the system. This command is not available for Smart Gateway App
Import Configuration	It allows to replicate the programming of the Smart Gateway App of another system associated to the user (with Smart Gateway present) or to import the configuration from file
Export Configuration	It allows to save the Smart Gateway App programming on file
Renew License	It allows to access the IoT Configurator page where you can renew the app user licence
Delete all Smart Gateways	It allows to eliminate the Smart Gateway associated with the system and disassociates all users from the Gateway



Next to the name of an IoT device controlled by the app, there is the connection status and the following commands:

	It allows to set device parameters: for accessing the page where you can configure the device operating parameters
	Smart Gateway upgrades; it allows to update the device firmware: for updating the firmware version of the device (to launch the update, the device status must be “connected”). When a more up-to-date version of the firmware is available, the button is orange coloured and a message is displayed under the connection status of the device

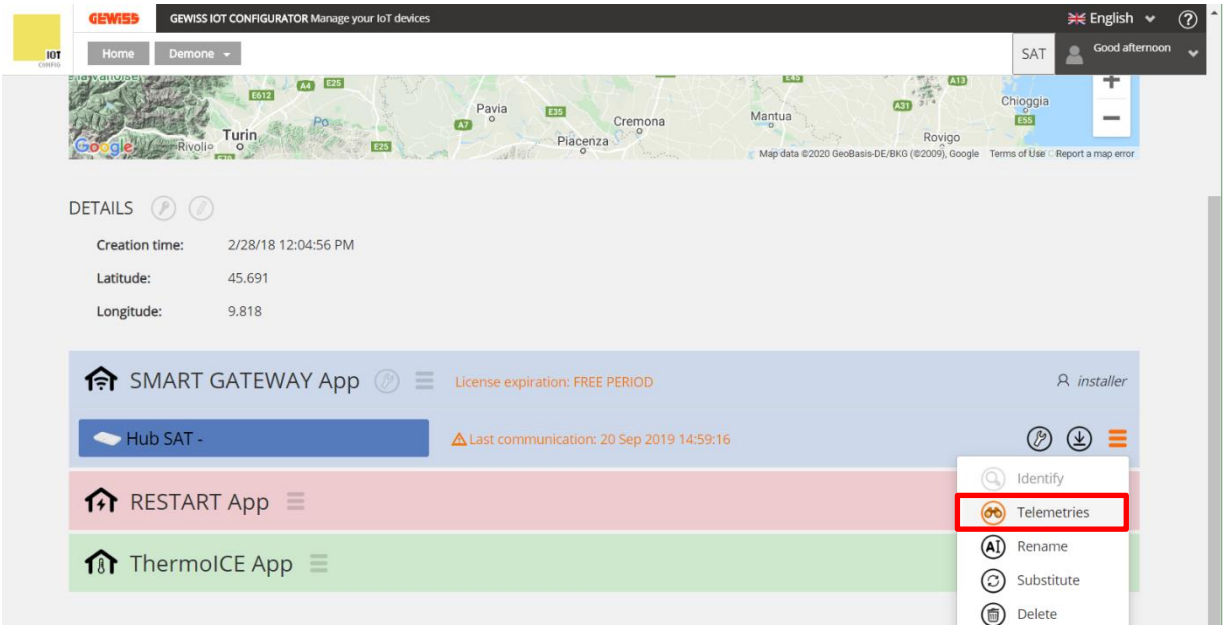


The optional commands menu (activated via the ☰ push-button) contains:

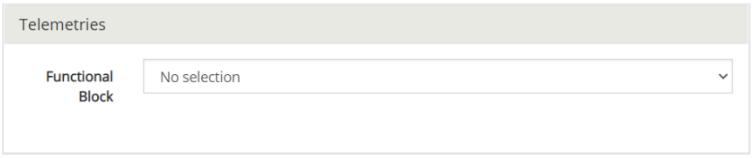
Telemetries	Permits displaying the telemetries
Rename	It allows to rename the device (i.e. change the name of the device)
Substitute	It allows to replace a device (activates the procedure to replace a faulty device, transferring the configuration and parameters to the new one)
Delete	It eliminates the Smart Gateway-system association and all the associations between user-Smart Gateways
Delete all data	Deletes all the data saved on the cloud

Telemetries

This function makes it possible to download system data stored on the cloud.

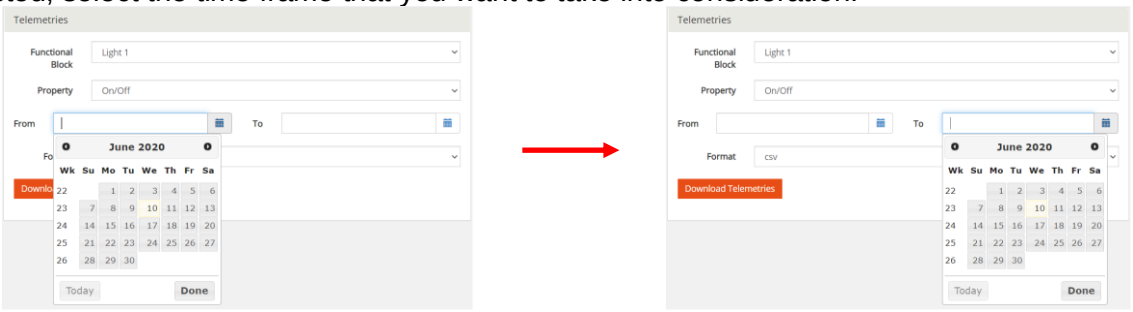


After selecting “Telemetries” from the optional commands menu ☰, a new page opens where it is necessary to select the functional block for which you want to see the recorded data.



Once the element is selected, other menus appear that must be completed.

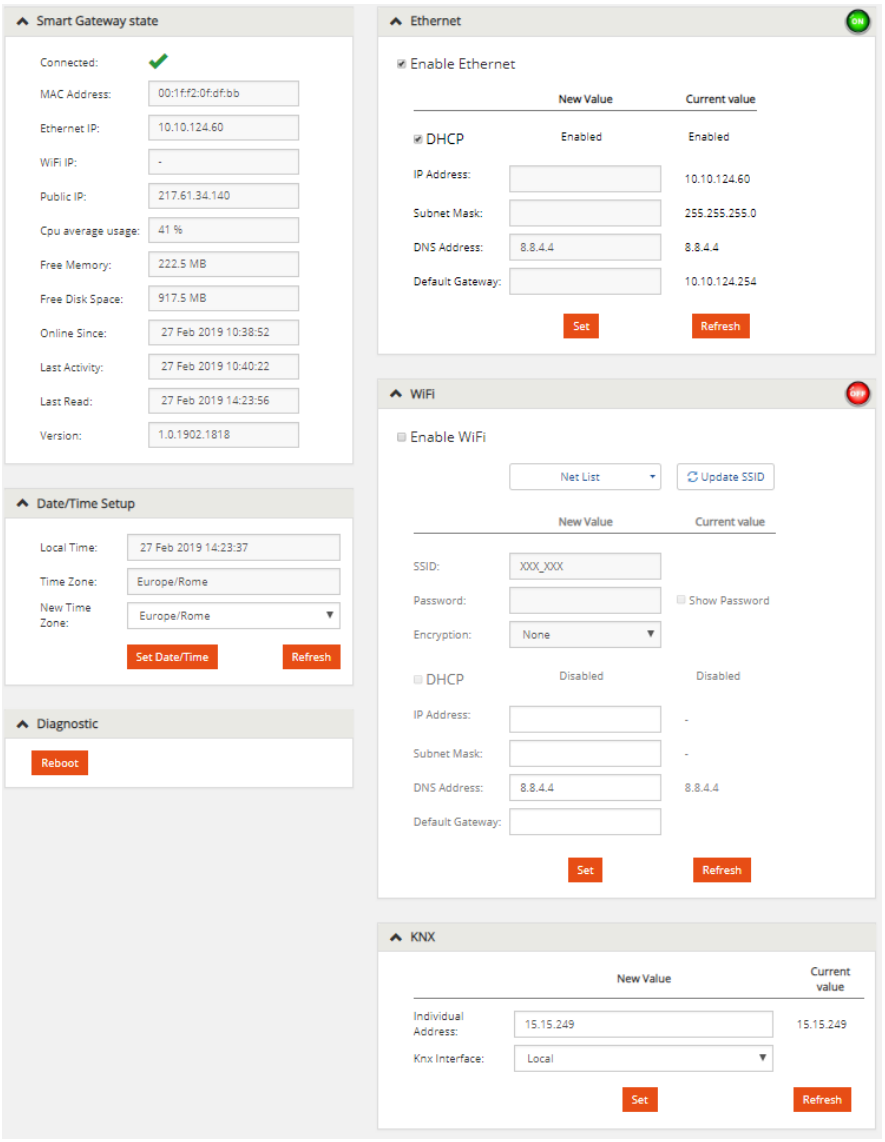
The second is “Object” whose options depend on the type of functional block selected. Once the object is selected, select the time frame that you want to take into consideration.



Once the fields have been completed, click the “Download telemetries” button: a file in CSV format will be downloaded to the utilised device.

Setting the Smart Gateway parameters

From the details page of a system, select the icon ⚙ of a Smart Gateway to access the page where you can set the operating parameters of that Gateway.



- **Smart Gateway state**
  This section contains all the information about the connection status of the Smart Gateway and the firmware version used.

- **ZigBee mode**
  In this section it is possible to define the role of the Smart Gateway in the ZigBee network (the Coordinator determines the network encryption key)

- **Date/Time setup**
  This section has all the information relating to the current date and time indicated by the Gateway; you can alter the time zone of the device.

- **Diagnostic**
  In this section it is possible to remotely restart the device.

- **KNX**
  In this section, you can select the method for communication between the Gateway and the KNX devices: local (Twisted Pair line connected to the KNX terminal) or via an external KNX/IP interface installed in the system.
  If you select “local” (default configuration), you can modify the physical KNX address of the Gateway (15.15.249 by default).

- **Ethernet**
  In this section, you can enable the Ethernet connection of the device and set the relative parameters. The Ethernet and wi-fi connections can be activated simultaneously; in this case, the Ethernet connection has the higher priority.

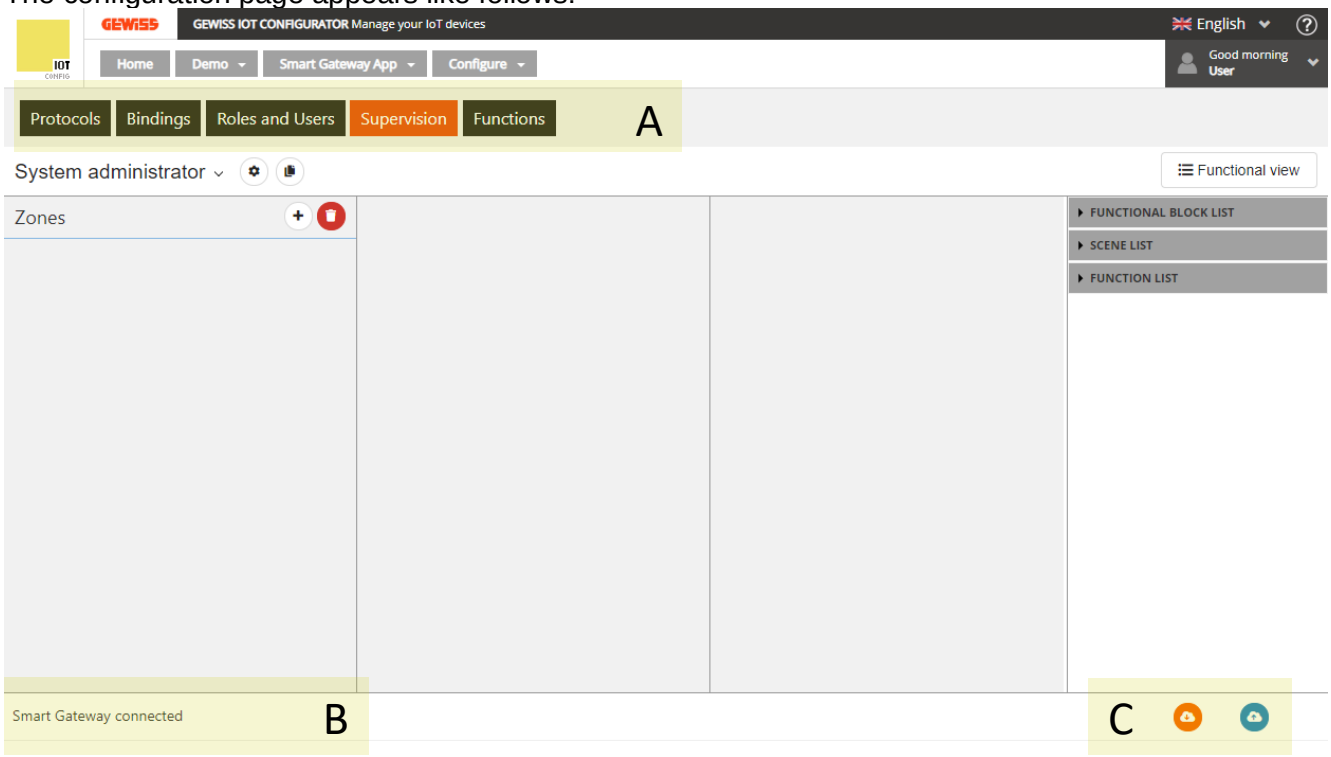
- **Wi-fi**
  In this section, you can enable the wi-fi connection of the device and set the relative parameters (wi-fi network to be connected to, and network parameters). The Ethernet and wi-fi connections can be activated simultaneously; in this case, the Ethernet connection has the higher priority.

Deleting a system

From the homepage, select the icon ⓘ related to a System to delete it from the user list.
The last user who performs the operation will be notified of the fact that the data stored in the cloud related to the system will be maintained for 25 months, unless it is expressly requested to cancel them instantly.

CONFIGURING THE FUNCTIONAL BLOCKS AND FUNCTIONS OF THE SMART GATEWAY

From the system details page, select the icon next to SMART GATEWAY App to access the page where you can configure the supervision and functions of the Smart Gateway.
The configuration is only possible if the PC that you are using is connected to the Internet; you cannot configure - or save the configuration - without an active connection.
During the configuration, the Smart Gateway doesn't need to be connected to the Internet; once it is connected, it will check if there is a more recent version of the project than the one already uploaded, and download it.
The configuration page appears like follows:



A. List of functions sub-divided into topic menus or sub-menus.
When you select a function, the central part of the page changes structure to allow the configuration.

B. Information relating to the Gateway and its connection status.
The connection status of the Gateway is shown; if you select the “ZIGBEE” menu, additional dedicated commands will appear (see The IoT configurator for ZigBee networks).

C. Send configuration / Read configuration.
These two push-buttons are used to save the configuration on the cloud or download the current configuration from the cloud.
The project is saved whenever a modification is made; the “temporary” project is saved on the cloud too, but in a dedicated area that can't be accessed by clients (Smart Gateway and app).
When the push-button is pressed, the file is moved from the temporary area to the area shared with clients (that, when they connect, can download it).
The push-button is used to take the current configuration and copy it in the temporary area (if it has been modified via the app). The push-button changes colour to show:

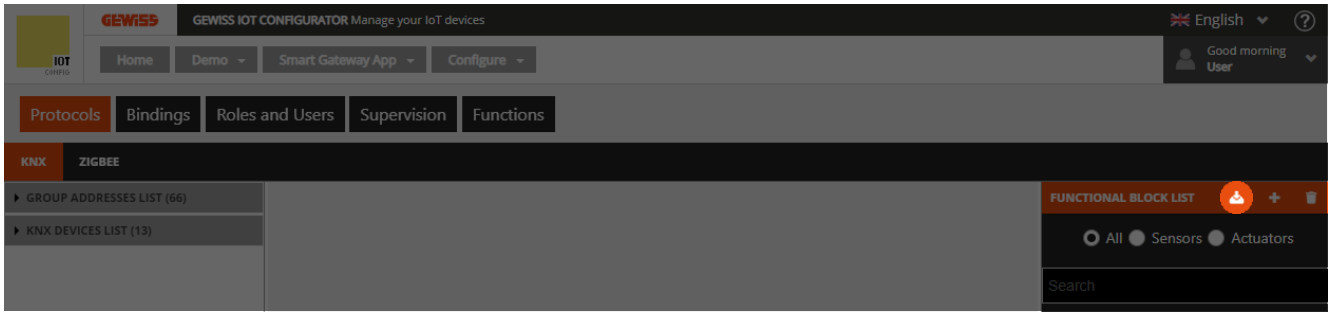
- the temporary configuration coincides with the shared one, but the Smart Gateway hasn't yet downloaded it
- the temporary configuration does NOT coincide with the shared one
- the temporary configuration coincides with the shared one, and the Smart Gateway has already downloaded it

NOTE: before beginning to modify a configuration on which you haven't worked for some time, YOU ARE ADVISED to read the current configuration to make sure the project is aligned.

Modelling the KNX devices/functional blocks

The KNX devices in the system must be programmed via the ETS tool (distributed by the KONNEX association). The Smart Gateway doesn't have a KNX database, but it does allow the ETS project to be imported in order to model the devices/functional blocks within the IoT Configurator.

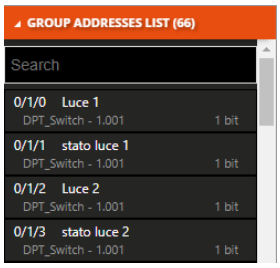
After completing the programming, export the project in ".knxproj" format and then import it in the IoT Configurator; to import a KNX project, select **Protocols→KNX** and press **Import KNX project** icon.



Select the file and then confirm its opening.
The conversion tool will start processing the KNX project. When this step has been completed, the left-hand column will show the group addresses in the ETS project.

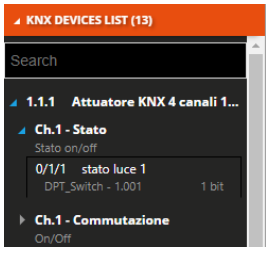
The group addresses are arranged in two different ways:

- **LIST OF GROUP ADDRESSES**



A complete list of the addresses, in ascending order (visualisation at three levels). For each address, you can see the name, size and Data Point Type (if specified in ETS).
At the head of the list there's a text search field for filtering the contents: the search can be made on the basis of address, address name, size or Data Point Type.

- **LIST OF KNX DEVICES**



A tree structure showing:

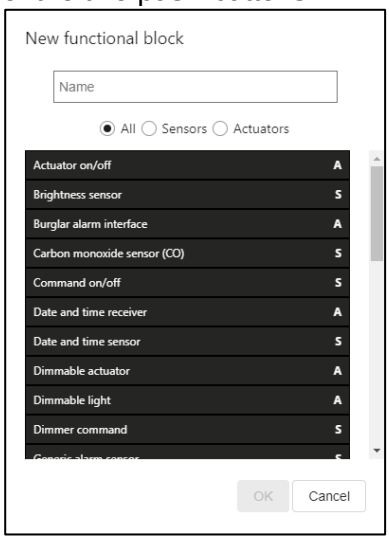
i. the name of the KNX device (derived from the topology of the ETS project)
ii. the name of the communication object of the device, and the object function
iii. the group address associated with the communication object, along with the name, size and Data Point Type (if specified in ETS).

At the head of the list there's a text search field for filtering the contents: the search can be made on the basis of KNX device name, object name and function, name, size or Data Point Type group address.

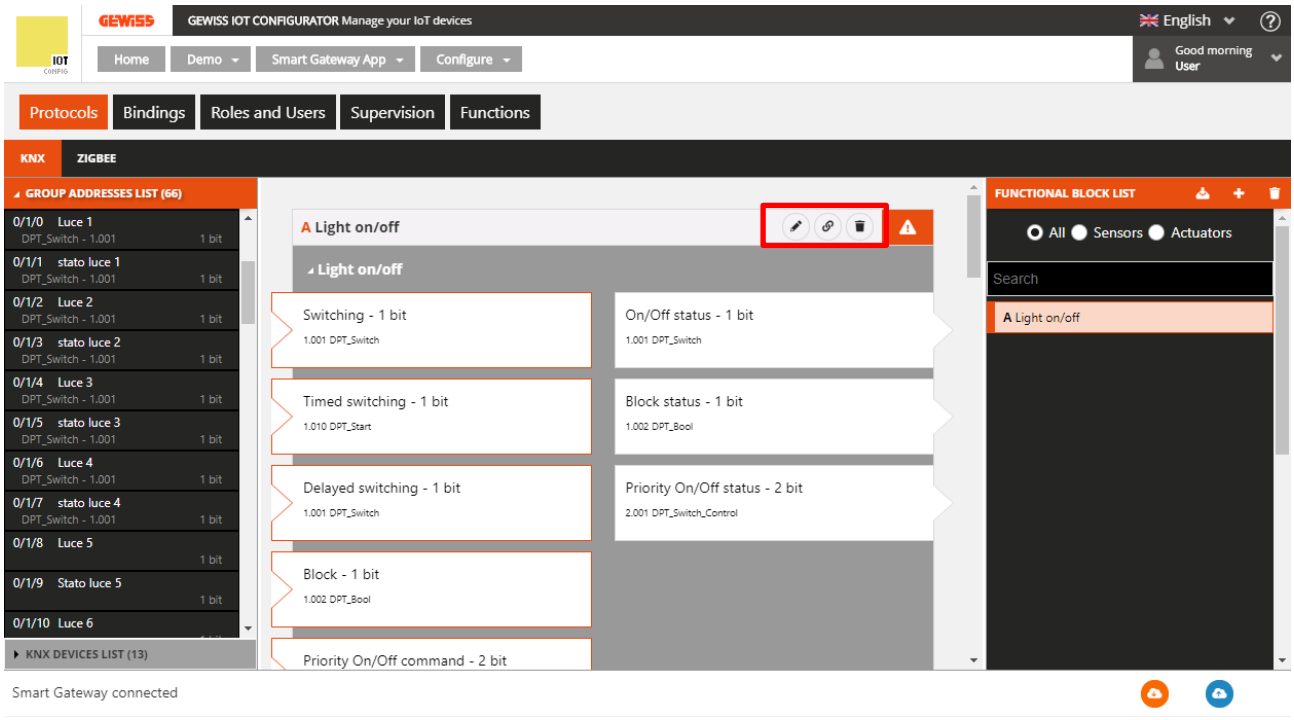
After importing the group addresses from the KNX project, you must create the functional blocks that model the KNX devices. This process allows you to construct the supervision and, if necessary, create the application functions with devices that communicate via other protocols such as ZigBee. Bearing this in mind, it may be useful to model the sensor functional block that acts as a KNX contact interface so it can use the Gateway to command ZigBee actuators.

To create a new functional block, press the “**+**” icon in the right-hand column (“LIST OF FUNCTIONAL BLOCKS”).

The pop-up menu will show the text field for the name you want to assign to the functional block and, underneath, a list of all the functional block models in the system. You can filter the list by selecting one of the two push-buttons - “Sensors” or “Actuators”.



Apart from the name of the functional block model, the right-hand part also shows the category: Actuator (A) or Sensor (S).
After selecting the functional block and confirming your choice, the central part of the page will show the functional block model.



The category is indicated on the left-hand side of the functional block name. On the right, there is:

Rename push-button for modifying the name of the functional block

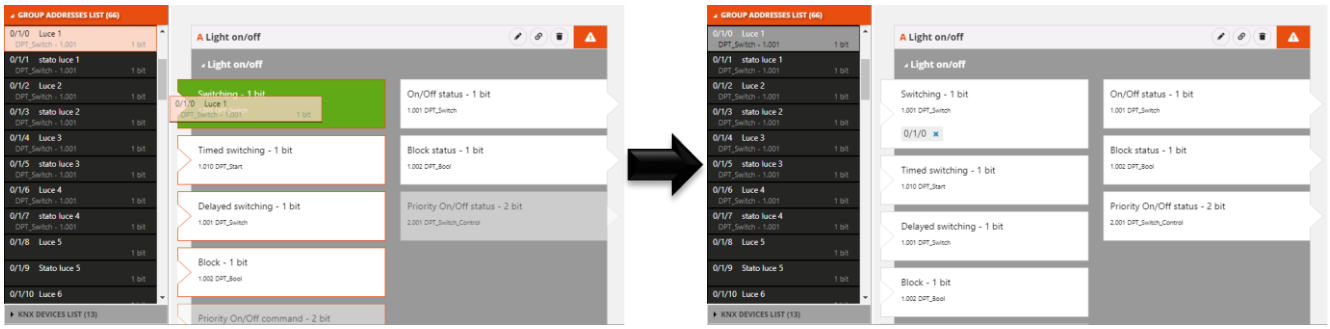
View connections push-button for displaying all the pages where the functional block is used (select the required page to gain direct access)

Delete push-button for eliminating the functional block

Icon indicating the validity status of the functional block: orange if the functional block is incomplete and can't therefore be used in the project, green if the functional block is complete and can be used. If the functional block is incomplete, click on the orange icon to see the type of error.

In the area below, you will see the communication objects envisaged for that type of functional block: the input communication objects on the left, the output ones on the right.
Objects with an orange border are compulsory in order to validate the functional block; some are alternatives of others but, once an object is connected, the alternative ones are automatically disabled.

To associate a group address with an object, just select the address from the list (left-hand column) and drag it onto the required object. While the address is being dragged, the system compares the size of the group address with that of the functional block objects, temporarily disabling any that are incompatible with the address selected.
The object that is about to be associated with the address is highlighted in green. When the dragging operation is complete, the address is shown next to the name of the object.

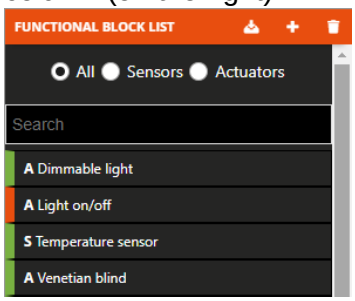


In the LIST OF GROUP ADDRESSES / LIST OF KNX DEVICES, the group addresses connected to the functional block are highlighted in grey.
If the objects that are compulsory for functional block validation are connected, then the functional block is valid and the icon appears.

ATTENTION: an incomplete functional block isn't saved on the cloud. This means that it will no longer be present when the Internet page is reloaded, or when the project is closed and reopened, even if the configuration has been sent to the area shared with clients (by pressing the push-button).

To delete a group address from an object, press the “x” 1/0/14 × icon alongside.

All the functional blocks created are listed in alphabetical order in the LIST OF FUNCTIONAL BLOCKS column (on the right).



For each functional block, you can see:

- the name
- the category (A - Actuator or S - Sensor)
- the functional block validity status (orange - incomplete or green - complete).

At the head of the list there's a text search field and two option push-buttons “Sensors” or “Actuators” for filtering the contents.

To remove a functional block from the list, just activate the context menu on the functional block in question and select the “Delete” command. You can even eliminate all the functional blocks simultaneously by pressing the 🗑 icon in the right-hand column (“LIST OF FUNCTIONAL BLOCKS”).
ATTENTION: a functional block can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the functional block won't be deleted.

ZigBee network: the possible roles of the Smart Gateway

Limits of the ZigBee network: Keep in mind that a ZigBee network with Smart Gateway supports 50 Zigbee devices, of which: 1 coordinator, 19 routers and 30 battery-operated end devices.

The IoT configurator makes it possible to configure both the KNX system as well as the ZigBee system and integrate them so that they can function in unison.

If you use the Smart Gateway with ZigBee functionality, it is necessary to elect a coordinator device for the ZigBee network.

The coordinator is the device that creates the network, but it is also the Trust Center, the device that makes it possible to associate/join new devices.

The following Gewiss devices can be elected as coordinators: GWA1502, GWA1521, GWA1522, GWA1523, GWA1531, GWA1916 or the Smart Gateway.

To elect one of the above indicated devices as the coordinator, follow the instructions on the instruction sheet for the selected device, whereas if you opt for the Smart Gateway, refer to the following paragraph The IoT configurator for ZigBee networks.

For all devices, if there is a dip-switch selector, position the dedicated selector in PC programming mode (it is usually the first and is set to ON); for more information, follow the instructions on the instruction sheet for the various devices.

The next chapters cover how to detect the devices of the ZigBee network to which the Smart Gateway belongs (section “Association and detection of new ZigBee devices”) and how to make the configurations that allow a device to control another one (Section “Connections” and “Scenarios”).

The Smart Gateway in the ZigBee network can carry out two different functions:

- Router
- Coordinator

If the Smart Gateway is used as a simple router, it not only performs the functions specific to the Smart Gateway, it also participates in communications in the network, forwarding the messages. The Smart Gateway is set in the factory as a Router. In order for the Smart Gateway to become part of the ZigBee network with the router role, it must join the network (see: The IoT configurator for ZigBee networks). Once the Smart Gateway has joined the ZigBee network, it is possible to activate the Permit Join directly from the configurator.

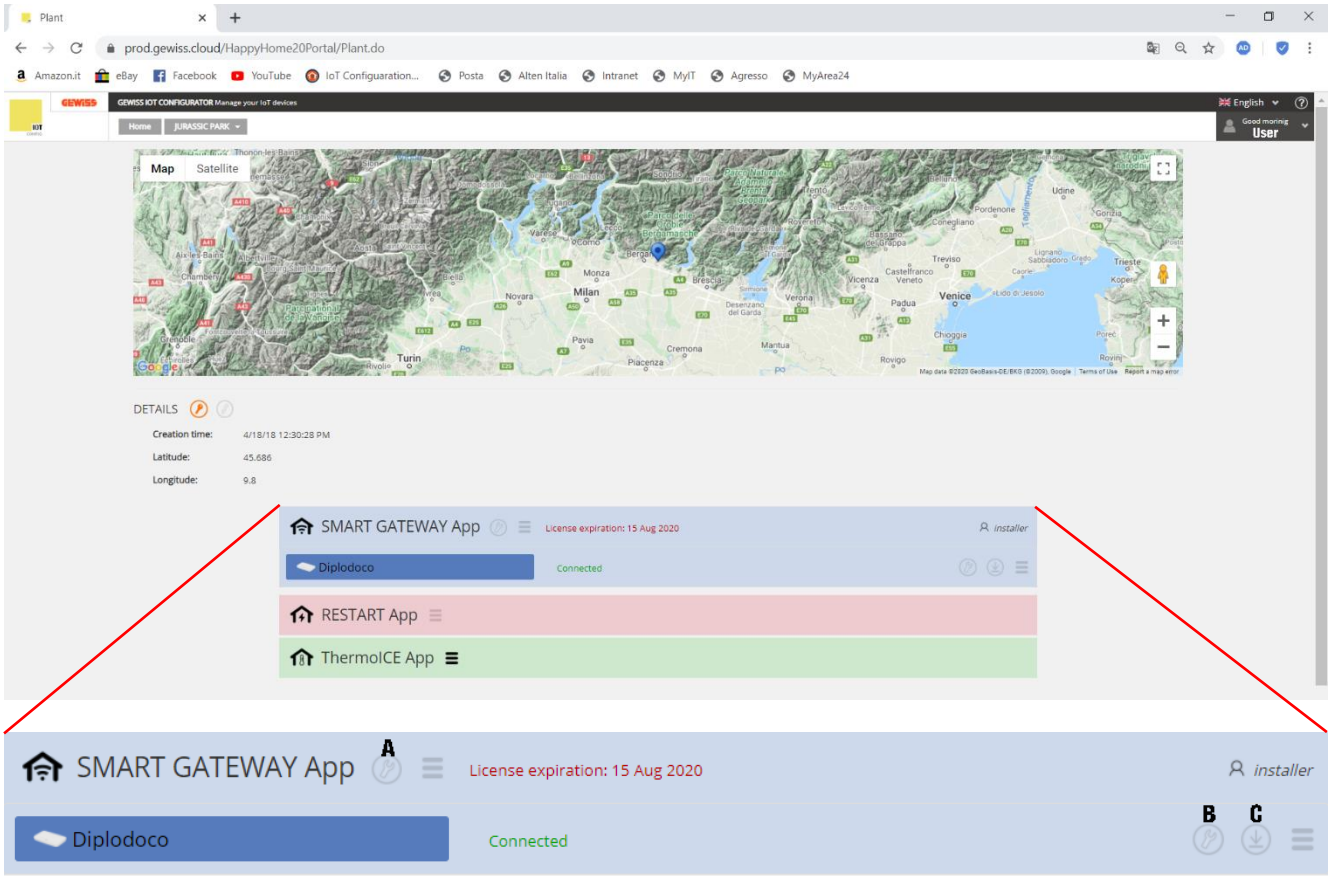
If instead the Smart Gateway is used as a Coordinator, in addition to performing the functions indicated above, it also has the following tasks:

1. Create the ZigBee network
2. Establish which are the optimal frequencies for the network to use
3. Generate the PAN (Personal Area Network)
4. Generate the decoding key used by this specific network
5. Assign a short address to all devices that will become part of that ZigBee network
6. Transmit the decoding key to these devices

Therefore, the first thing to decide is which of the two roles to assign to the Smart Gateway the moment the ZigBee system is created.

Proceed as follows:

1. Connect to the cloud IoT configurator page: https:// iotconfig.gewiss.cloud
2. Access using your credentials
3. Associate with your account the Smart Gateway that you want to use in the ZigBee system that you want to create
4. Access the page “Details”

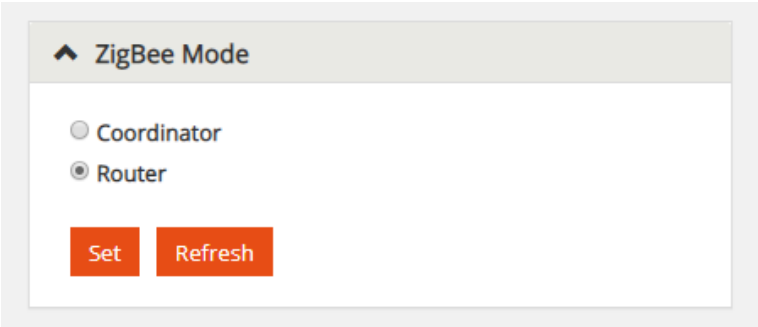


A. Configure App

B. Configure Smart Gateway

C. Firmware update

Clicking on “Configure Smart Gateway” accesses the page that contains all the information regarding the Smart Gateway. Scrolling down the page, on the left column, there is the section: “ZigBee mode”. In this section it is possible to define the role of the Smart Gateway in the ZigBee system.



The “Set” button configures the mode selected on the Smart Gateway.

The “Refresh” button reads the mode currently set on the Smart Gateway.

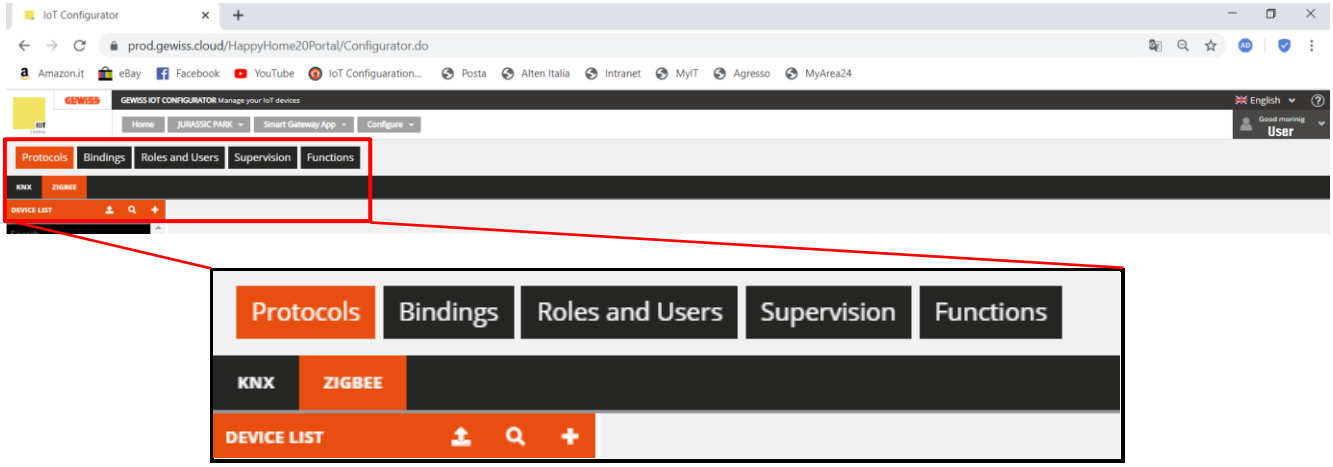
THE IOT CONFIGURATOR FOR ZIGBEE NETWORKS

If the Smart Gateway has not yet joined a ZigBee network and you want it to have the role of a router in that network, in the IoT configurator the Smart Gateway is not yet associated with any system.

Therefore, it is necessary for the Smart Gateway to join the ZigBee network with which it should be associated.

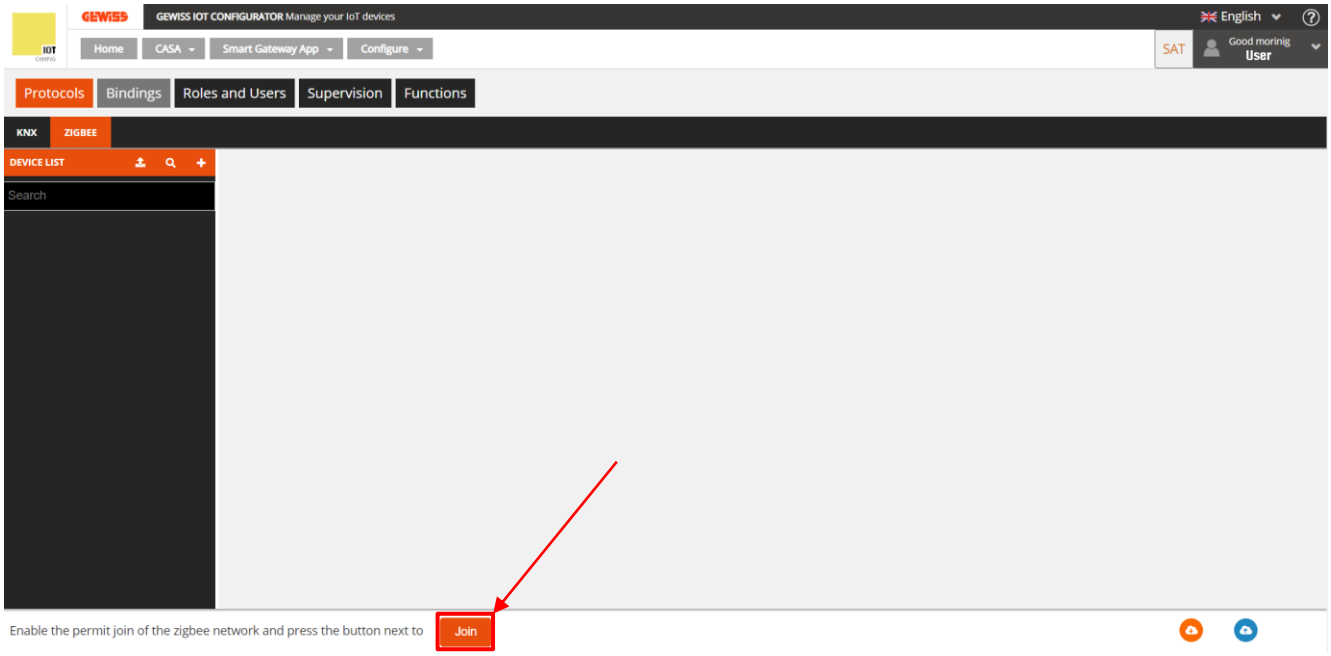
Click the “Configure App” icon located on the “Details” page next to: “SMART GATEWAY App” to access the actual configurator.

Select “Protocols”, then “ZigBee”:



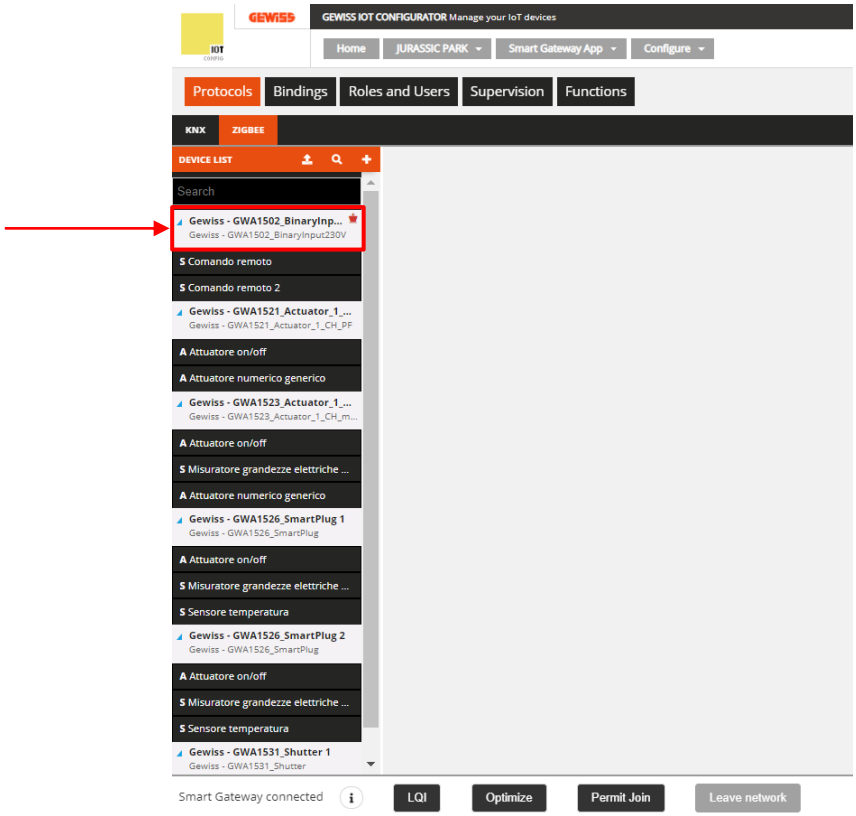
To join the Smart Gateway to the desired ZigBee system, proceed as follows:

1. Activate Permit Join using the device elected as the Coordinator (for Gewiss devices (GWA1502, GWA1521, GWA1522, GWA1523, GWA1531) it is necessary to briefly press the local button; the leds on all the router devices will flash red, whereas the leds on the coordinator will flash green)
2. Press the “Join” button key at the bottom of the configurator page



With the PComfort GWA1916 device, Permit Join can be activated using the procedure described in the device's manual.

As soon as the Smart Gateway joins the ZigBee network, the device that was elected network coordinator is detected. It appears in the left column and is identified by the icon located next to the name of the device



There are five push-buttons at the bottom of the page, each of which has a different function:

Smart Gateway connected	Reports the current status of the Smart Gateway: connected to or disconnected from the ZigBee network

	Returns information about the Smart Gateway and the ZigBee network of which it is part. The only data that can change over time in this table are the short address (except in the case of the Coordinator. In that case, the short address will always be 0000), the radio channel (in the case of interference, the coordinator could decide to migrate to a different channel) and the Pan ID.

Info

Communication	
Port	//
Baud rate	115200
Connected Serial	true
Info	
Role	Router
Short address	0x6796
IEEE address	CC34D700000FB706
Radio channel	12
Pan ID	0x4D7B
Extended Pan ID	5B99C9E144A2E070
Network key	28 18 E0 CD 41 11 44 76 A6 E9 79 A5 B9 53 C3 DA
Running	true
Device status	Device_in_Router_Running_state

Smart Gateway: Router

Info

Communication	
Port	//
Baud rate	115200
Connected Serial	true
Info	
Role	Coordinator
Short address	0x6796
IEEE address	CC34D700000FB706
Radio channel	12
Pan ID	0x4D7B
Extended Pan ID	5B99C9E144A2E070
Network key	28 18 E0 CD 41 11 44 76 A6 E9 79 A5 B9 53 C3 DA
Running	true
Device status	Device_in_Router_Running_state

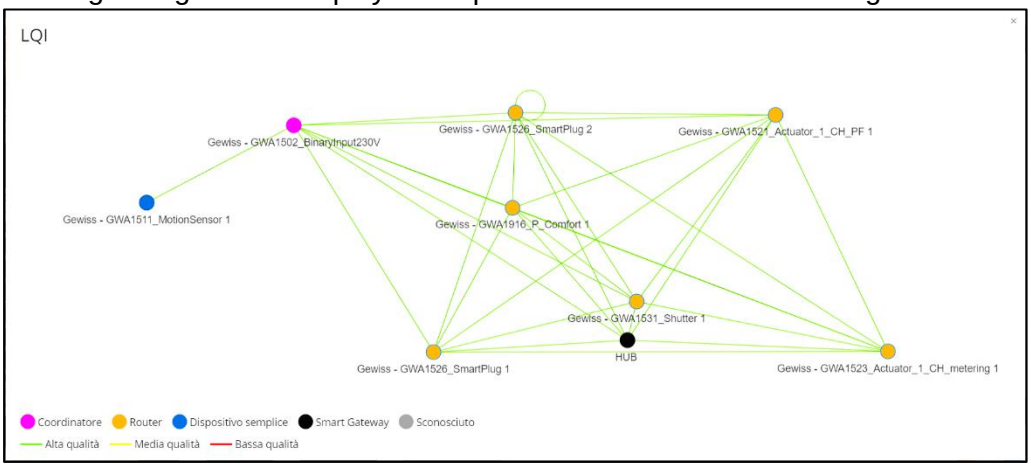
Smart Gateway: Coordinator

LQI

Level-Quality-Indicator indicates the quality of the radio signal between the various nodes of the ZigBee network

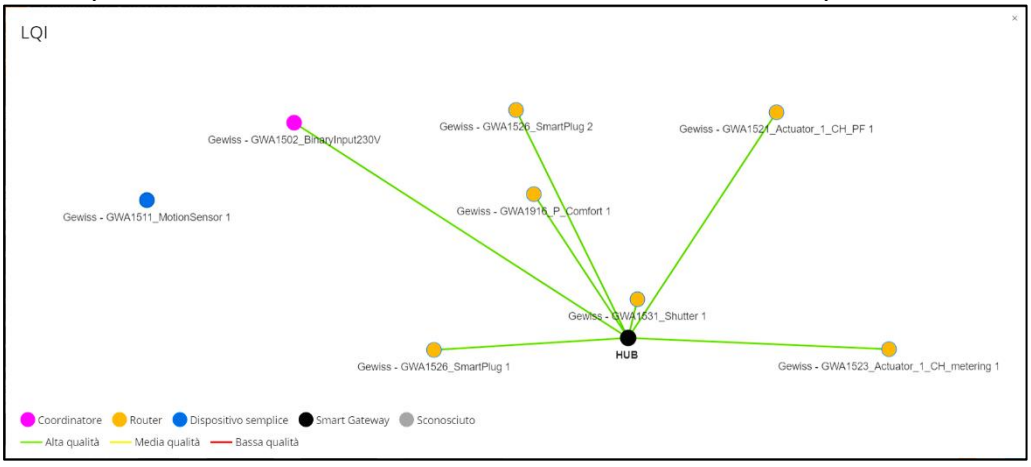
Green line:	Optimal signal
Yellow line:	Good signal
Red line:	Poor signal

By moving the cursor closer to one of these lines, a number is displayed in the window. This number indicates the intensity of the signal.
Clicking a single node displays the specific connections for that single node.



The entire ZigBee network

In the case of a battery-operated device, the connection identifies its parent router (in this case it is GWA1502, which is also the coordinator).



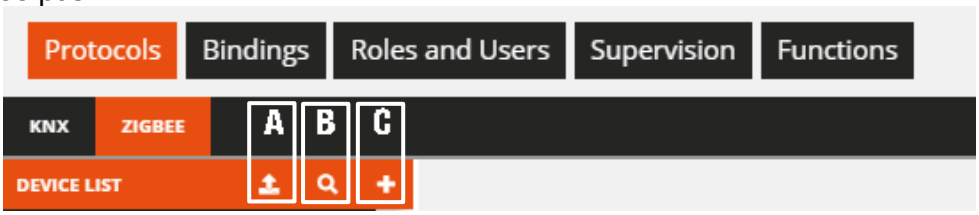
	The connections specific to a single device (In this case, the Smart Gateway)

Optimize	It permits to extend the periodic wake-up time of battery-operated ZigBee devices, if the device supports the Poll Control cluster (0x0020). This cluster is not implemented in the battery-operated device GWA1501 but is present in other Gewiss codes (GWA1511, GWA1512, GWA1513, GWA1514).

Permit Join	This button broadcasts the command in the ZigBee network that permits a new device to join that network. If Permit Join is already active in the ZigBee network, the push-button will turn orange and the label becomes “Deactivate Permit Join“, interrupting the opening of the network for the association of new devices.

Leave network	This push-button authorises the Smart Gateway to exit the ZigBee network.

There are three push-buttons in the “Device List” column:

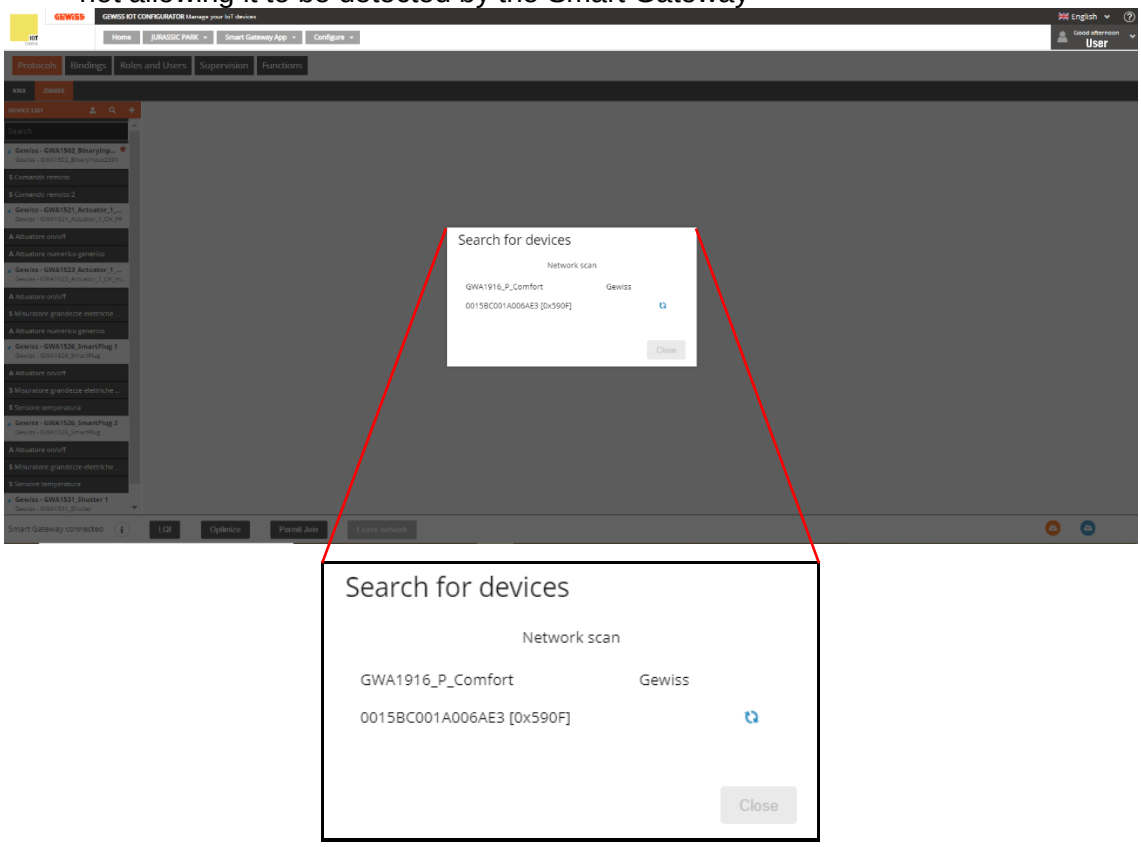


A This command is used to import a ZigBee project created with the “Gewiss ZigBee Configurator” software, if the system was initially programmed with that software, and afterwards if it was decided to add the Smart Gateway to the installation (set as router), without having to repeat the configurations that were already made.
This mode cannot be used if the Smart Gateway is set as the coordinator of the ZigBee network.

B This command is used to detect devices that already joined the ZigBee network.
Attention: the command may take a few minutes to find and acquire all the devices in the network. The time needed depends on the quantity and type of the devices part of the network.
The router devices that are part of the network must be powered, whereas battery-operated devices will be required to be woken up in order to detect them. They can be woken up in accordance with the procedure indicated on the device's instruction sheet (GWA1501: 10 closures/opening within 10 seconds on one of the two inputs until the LED flashes; for codes GWA1511, GWA1512, GWA1513, GWA1514: press the programming push-button for approx. 5 seconds until the LED flashes).
If not all the joined devices are detected, for example in complex ZigBee networks or in the case of devices with poor radio coverage, it is recommended to acquire the devices one at a time as follows:

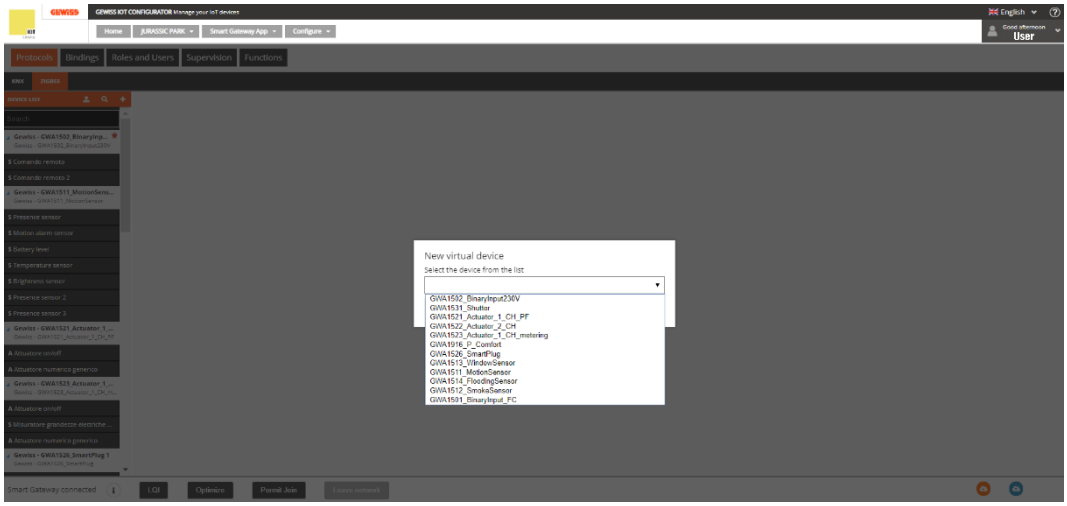
1. Go to the section "Protocols/ZigBee” of the configurator
2. Turn the router device in question on/off; at this point, the Smart Gateway should detect the new device and after about 30 seconds, it should appear in the "device list”. If, after waiting at least two minutes, the device does not appear on the list, repeat the operation
3. If the device is a battery-operated end device GWA1501, it must be woken up as previously indicated. The Smart Gateway should detect the new device, and after about one minute, it should appear on the "device list”; if, after waiting at least two minutes, the device does not appear on the list, repeat the operation
4. In the case of battery-operated devices GWA1511, GWA1512, GWA1513, GWA1514 it is recommended to remove the battery and put it back in to detect the new device, even if this operation could change the parent router that permits the

battery-operated device to communicate in the ZigBee network. This change could cause communication problems with the battery-operated device for a few minutes, not allowing it to be detected by the Smart Gateway

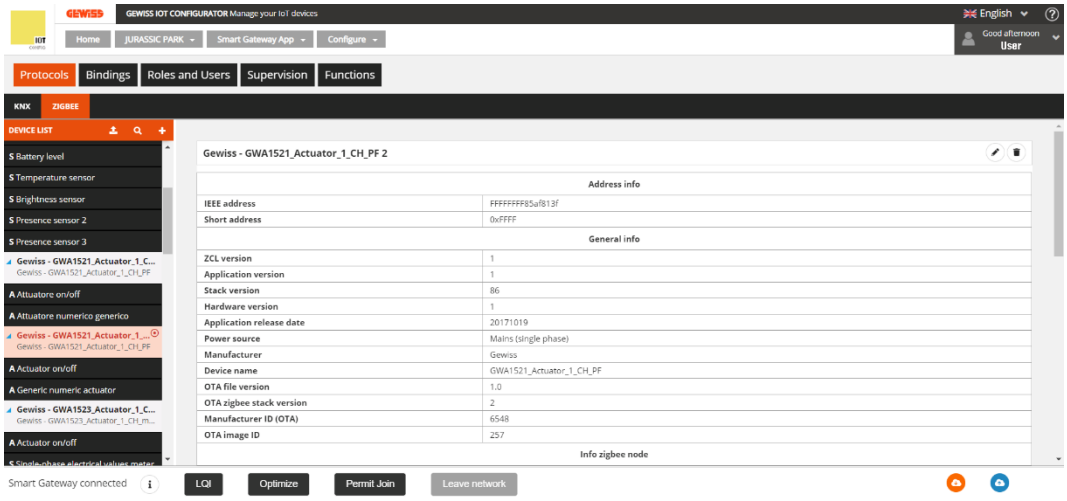


C This push-button is used to add virtual devices, from a predefined list, that are not yet associated with the ZigBee network.
Once the virtual device is added, proceed as follows to transform it into a real device:

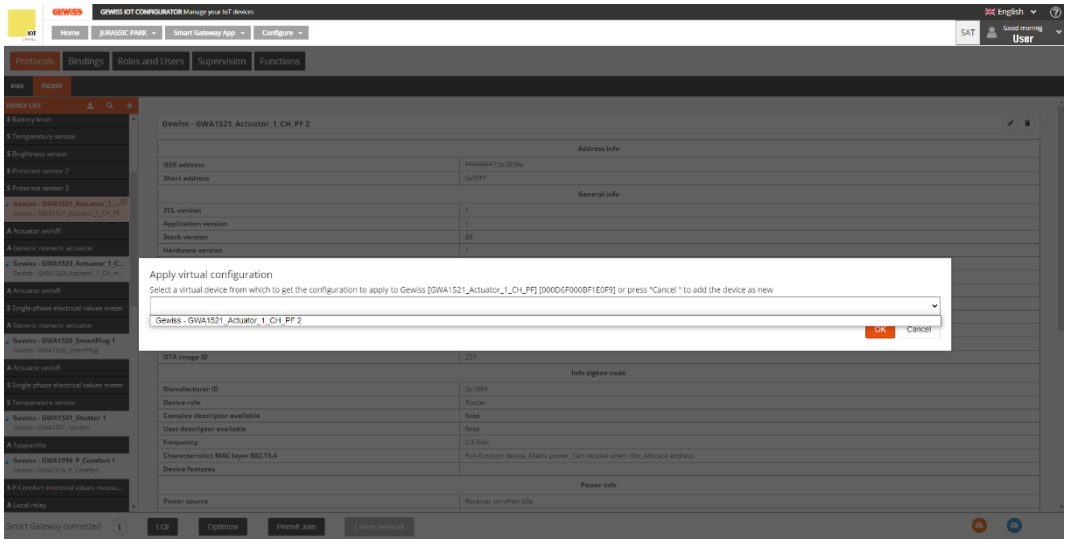
1. To join that type of device to the ZigBee network (in the example it is GWA1521)
2. Go to the section "Protocols/ZigBee" of the configurator
3. Turn the device in question on/off. The Smart Gateway should detect the new device and display a screen that is used to pair the new device that is found with the virtual one, using a drop-down menu.
4. If the association operation is successful, the virtual device is converted into a real device



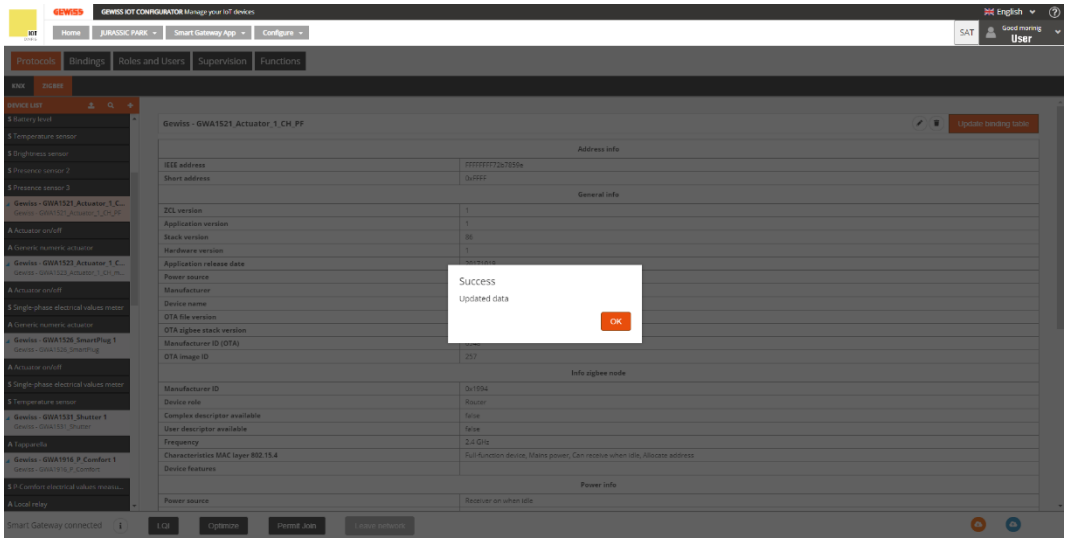
1


GEWISS IOT CONFIGURATOR Manage your IoT devices
Home
JURASSIC PARK
Smart Gateway App
Configure
English
Good afternoon
User
Protocols
Bindings
Roles and Users
Supervision
Functions
KNX
ZIGBEE
DEVICE LIST
Gewiss - GWA1521_Actuator_1_CH_PF 2
Address info
IEEE address
FFFFFFFF85af813f
Short address
0xFFFF
General info
ZCL version
1
Application version
1
Stack version
86
Hardware version
1
Application release date
20171019
Power source
Mains (single phase)
Manufacturer
Gewiss
Device name
GWA1521_Actuator_1_CH_PF
OTA file version
1.0
OTA zigbee stack version
2
Manufacturer ID (OTA)
6548
OTA image ID
257
Info zigbee node
Smart Gateway connected
LQI
Optimize
Permit Join
Leave network

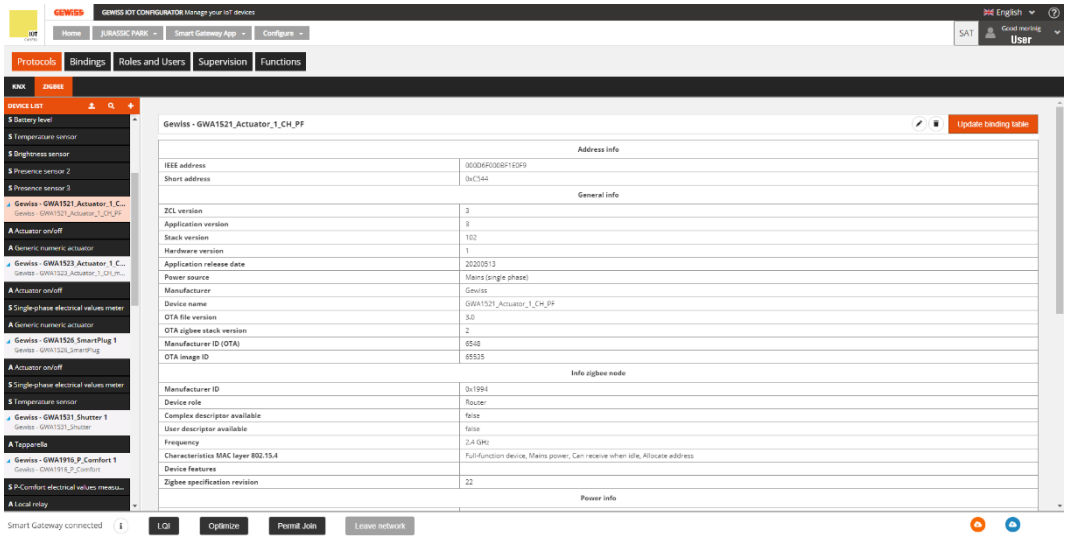
1


Apply virtual configuration
Select a virtual device from which to get the configuration to apply to Gewiss [GWA1521_Actuator_1_CH_PF] [000D6F000BF1E0F9] or press "Cancel " to add the device as new
Gewiss - GWA1521_Actuator_1_CH_PF 2
OK
Cancel

3


Success
Updated data
OK

4



4

ASSOCIATION AND DETECTION OF NEW ZIGBEE DEVICES

If you want to add new devices to the ZigBee network, first check if:

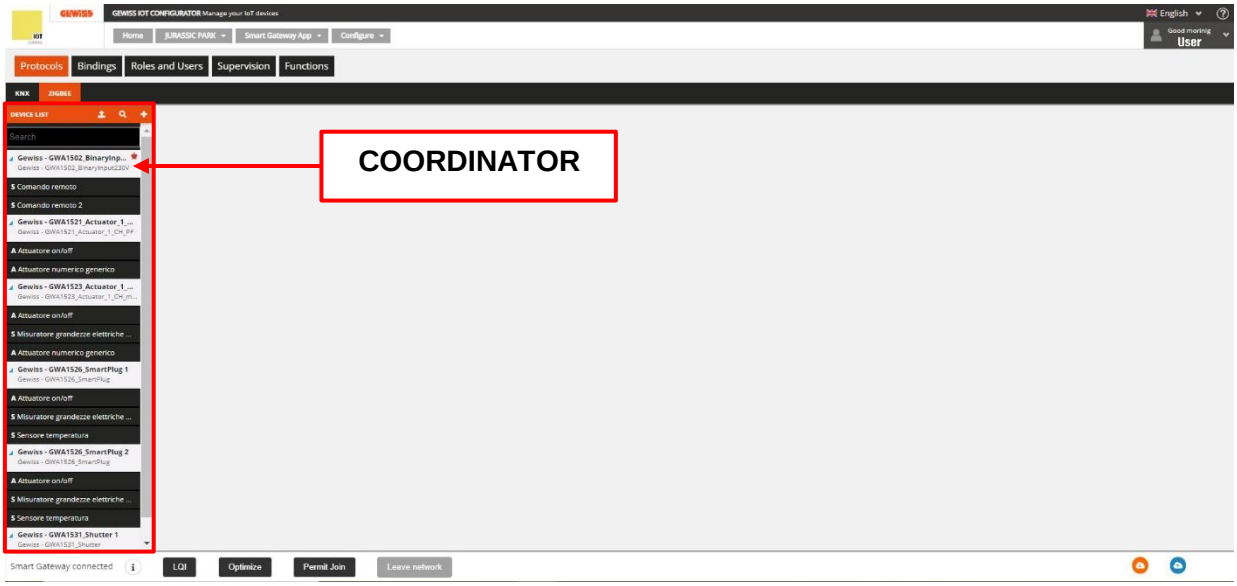
- The devices to be added are already joined/associated with the network
- The devices to be added are not already joined/associated with the network

In the first case, it is recommended to acquire the new devices via the command “Search” on the “Protocols/ZigBee” page.

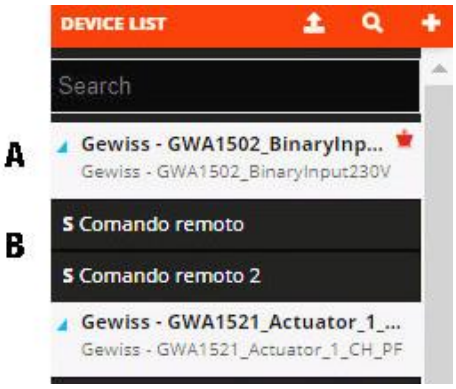
In the second case, instead, the following procedure is recommended:

1. Go to the section "Protocols/ZigBee” of the configurator.
2. Activate Permit Join in the ZigBee network by pressing the push-button “Permit Join” on the configurator or a network device that permits it.
3. Power a router device one at a time. The Smart Gateway should detect the new device and after about 30 seconds, it should appear on the "device list”. If this does not happen after waiting a couple of minutes, check if the device was correctly joined by checking the status of the LED and comparing it with what is indicated in the installation manual provided with the device. If the device was correctly joined, proceed as indicated in the paragraph “Search” on the “Protocols/ZigBee” page, otherwise make sure that Permit Join is active in the ZigBee network and that the coordinator is powered.
4. If the device is a battery-operated end-device (GWA1501, GWA1511, GWA1512, GWA1513, GWA1514), it is powered by inserted the battery; only at this point can the Smart Gateway detect its presence and, after waiting about three minutes, it should appear on the “device list”. If the operation is not successful, check that it is joined correctly, checking the status of the LED and comparing it with what is indicated in the installation manual provided with the product.
   If the device was correctly joined, proceed as indicated in the paragraph “Search” on the “Protocols/ZigBee” page, otherwise make sure that Permit Join is active in the ZigBee network and that the coordinator is powered.

The following image shows the ZigBee devices correctly acquired by the configurator. The device marked with the symbol is the device elected as the ZigBee network coordinator.



In the "Device list" column, the devices have a white background (image A), whereas the relative functional blocks are identified by a black background (image B).



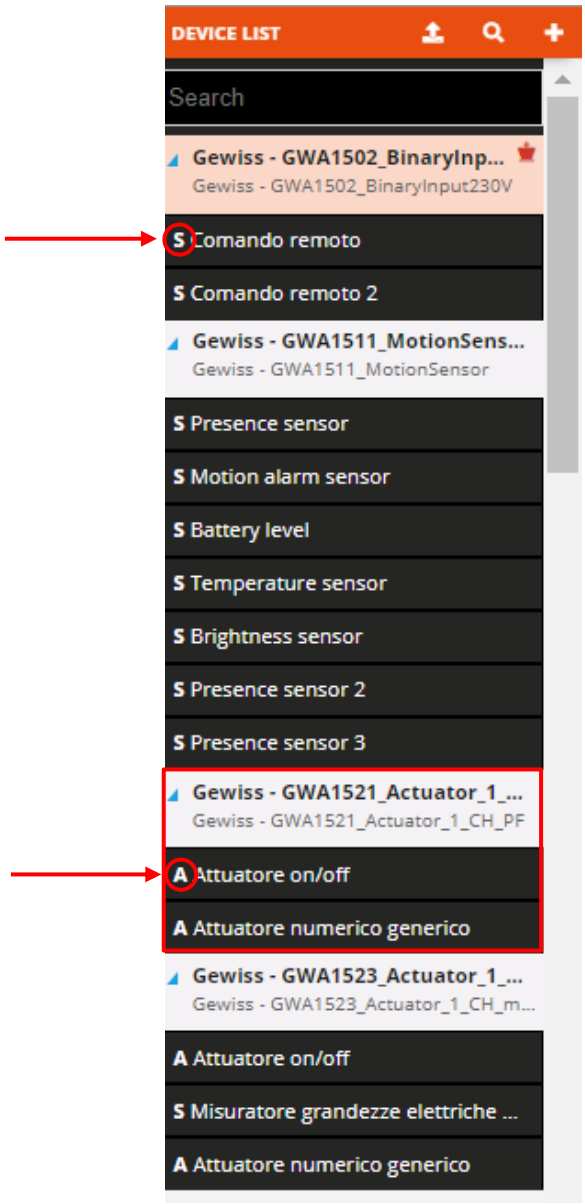
Each device can be renamed using the "pencil" symbol located to the side of the default name given by the configurator.

The “trash” icon for eliminating a device refers to the procedure explained in the paragraph Delete or replace a ZigBee device.

FUNCTIONALITY OF THE ZIGBEE DEVICES

After adding the ZigBee devices as described in paragraph Association and detection of new ZigBee devices it is possible to check their functions.

For each ZigBee device, based on their functions that depend on the clusters present in the endpoints of the device, the configurator creates functional blocks that can be a sensor (indicated with the letter “S”) or actuator (indicated with the letter “A”) type.



Type of function	Characteristics
Functional block “S”:	identifies the functions that allow the device to send ZigBee commands/reports
Functional block "A":	Identifies the functions that allow the device to receive commands/report to perform an action

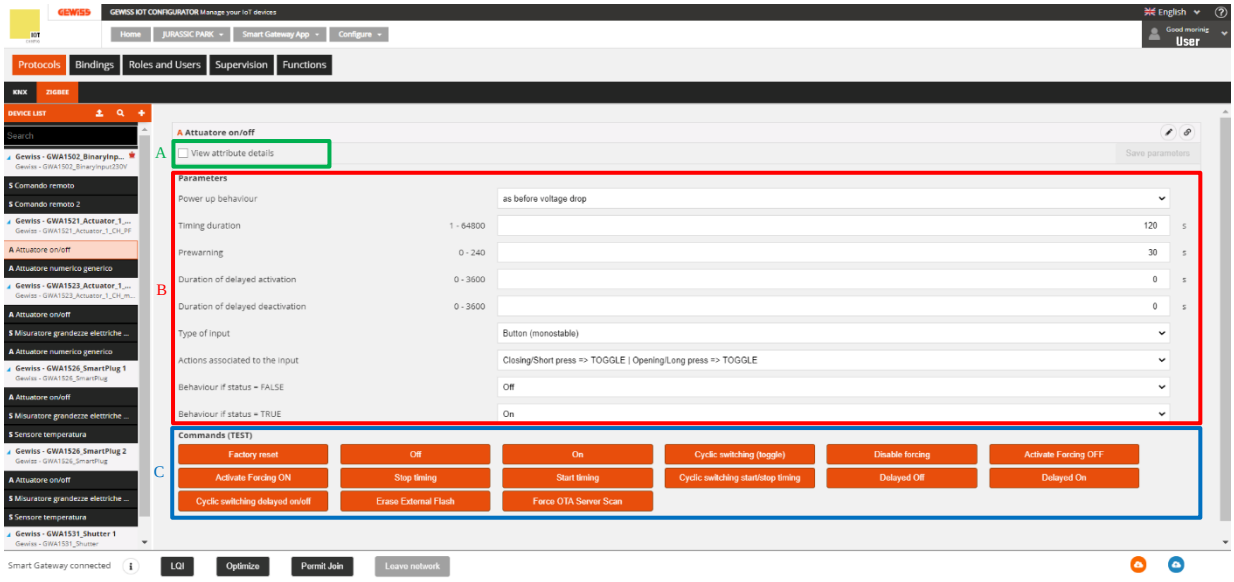
As shown in the image, a device such as the GWA1523 (actuator with meter relay), has both type “A” functional blocks, which permit receiving commands/reports for moving the relays on board, as well as an “S” functional block for sending electrical measurements.

The details for each functional block can be accessed by clicking the relative item and based on the characteristics it can contain:

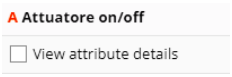
- Attributes that permit parametrising the device (typically write access)
- Attributes that return statuses (typically read access)

- For some type “A” function channels, commands for activating the device

The following example shows the three types indicated above:



A



Checking this box displays the attributes that return the statuses:

The value can be read by pressing the Upgrade push-button

B

The “Parameters” item contains the attributes that permit the parametrisation of the device. The values can be changed via the drop-down menu or by directly entering a valid value where possible. Once at least one parameter has been changed, the “Save parameters” push-button turns orange. Clicking it, the changes made are sent via the cloud to the device, and the push-button turns grey (If the push-button cannot be clicked, this means that there are no changes to send to the device).

C

The push-buttons in this section of the page permit sending the commands directly to the device. The type of commands shown depends on the type of device and the functional block in use.

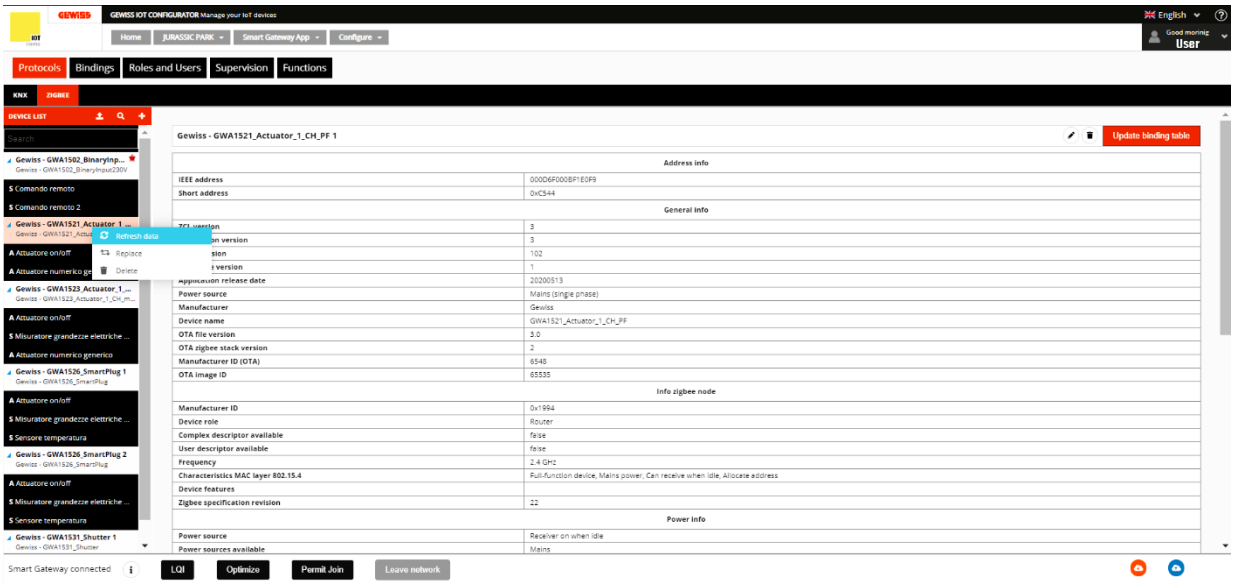
The commands shown below are common to almost all Gewiss ZigBee devices:

- Factory reset: this resets the attributes of the function channel to the default value (more precisely of the endpoint to which the function channel refers).

- Delete external flash: permits deleting the device flash that possibly contains OTA versions. This operation is typically not necessary as when the OTA upgrade is complete, the device loads the new image and then automatically deletes the file saved in the external flash.
- Force OTA server search: forces the device to search for an OTA server in the ZigBee network. Attention: this operation does not start the OTA upgrade process, but is used to store the OTA server in the device if this is present in the system. This operation is usually not necessary as each device searches for the OTA server periodically.

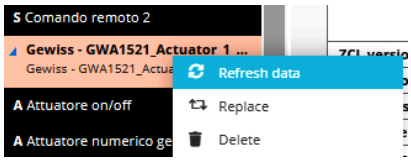
INFORMATION ABOUT THE ZIGBEE DEVICE AND BINDING TABLE MANAGEMENT

Remaining on the “Protocols/ZigBee” page, and selecting one of the devices joined to the ZigBee network taken into consideration, it is possible to view the information regarding the device itself and the content of the binding table.

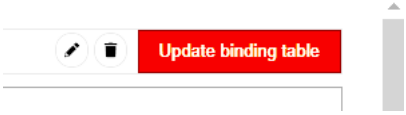


The image above shows an example of a GWA1521 that shows the device information and characteristics.

The information can be upgraded by pressing the “Refresh data” push-button available via the context menu (activated using the right mouse button), which is useful, for example, after an OTA upgrade to check that the version was actually changed.



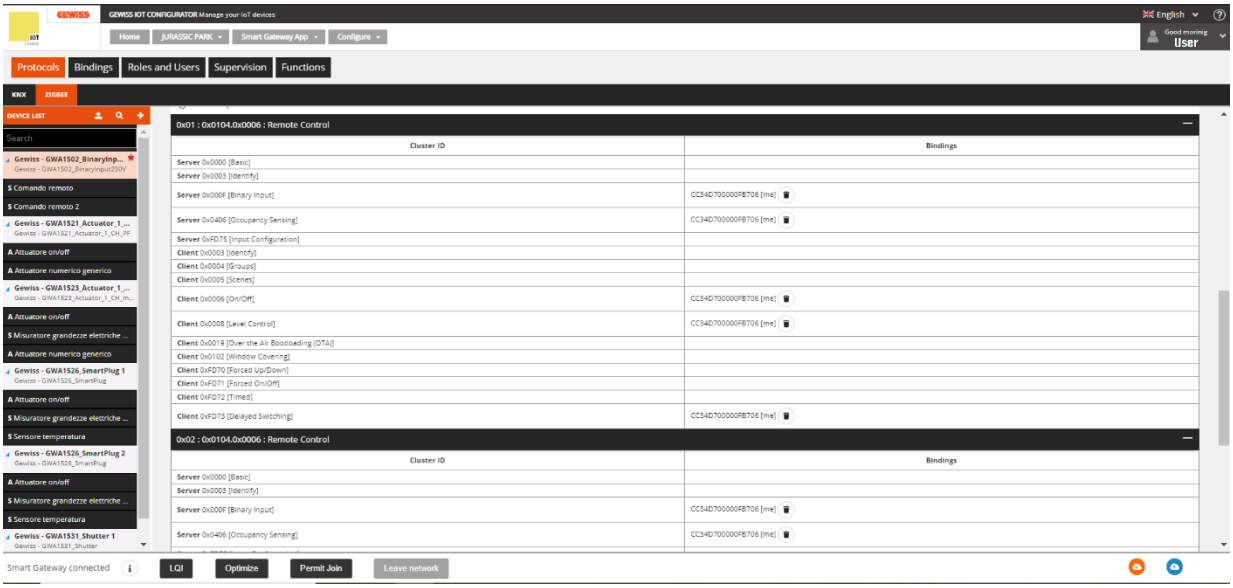
The “Update binding table” push-button is used to read the device's binding table and upgrade the display with the displayed content.



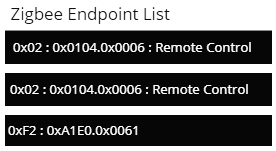
The binding table contains a list of the recipients of the sent device commands and/or reports for each cluster.

Example:

A GWA1502 device part of a ZigBee network to which a Smart Gateway is also associated, commands a GWA1521 via input_2 of the device via the On/Off commands (cluster 0x0006).



The image shows the “List of ZigBee Endpoints” of the GWA1502 device. There are three in this specific case:



- **0x01: 0x0104.0x0006: Remote Control**:
  - 0x01: this is the hexadecimal number of the endpoint that corresponds to input_1 of the device
  - 0x0104: identifies the ZigBee profile to which it belongs, in this case Home Automation
  - 0x0006: identifies the functionality of this endpoint, in this case it is Remote Control

- **0x02: 0x0104.0x0006: Remote Control**
  - 0x02: this is the hexadecimal number of the endpoint that corresponds to input_2 of the device
  - 0x0104: identifies the ZigBee profile to which it belongs, in this case Home Automation
  - .0x0006: identifies the functionality of this endpoint, in this case it is Remote Control

- **0XF2: 0XA1E0.0x0061: Remote Control**
  - 0xF2: this is the hexadecimal number of the endpoint that, in this case, does not correspond to a physical input of the device, rather to one of its functions
  - 0xA1E0 identifies the ZigBee profile to which it belongs, in this case Green Power
  - .0x0061: identifies the functionality of this endpoint, in this case GP Proxy Minimum

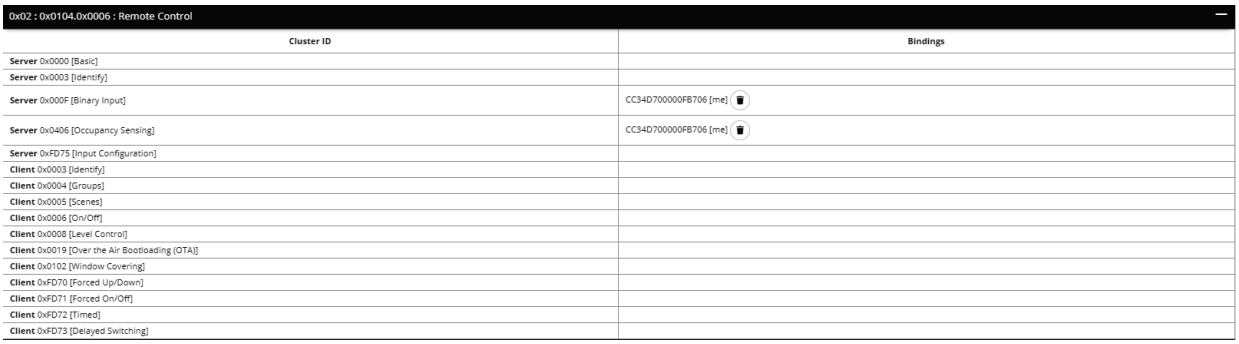
In general:

Each endpoint contains client (out) or server (in) clusters in order to perform all the functions offered by the device. Using endpoint_2 of GWA1502 as an example:

- in(server) cluster: 0x0000 (Basic): standard cluster that contains device information
- out(client) cluster: 0x0003 (Identify): standard cluster for starting up the device
- in (server) cluster: 0x0003 (Identify): standard cluster for starting up the device
- out(client) cluster: 0x0004 (Groups): standard cluster for sending group commands
- out(client) cluster: 0x0005 (Scenes): standard cluster for sending scenes
- out(client) cluster: 0x0006 (On/off): standard cluster for sending OnOff commands
- out(client) cluster: 0x0008 (Level Control): standard cluster for sending dimming commands
- in(server) cluster: 0x000F (Binary Input (Basic)): standard cluster for sending reports about the generic numeric channel of an actuator
- out(client) cluster: 0x0019 (Over the Air Bootloading): standard cluster for supporting the upgrade of OTA firmware
- out(client) cluster: 0x0102 (Window Covering): standard cluster for sending roller shutter/blind commands
- in (server) cluster: 0x0406 (Occupancy Sensing): standard cluster for sending reports with the function of sensor presence to an actuator
- out(client) cluster: 0xFD70 (Forced up/down): proprietary cluster for sending forcing commands to roller shutter/blind actuators
- out(client) cluster: 0xFD71 (Forced on/off): proprietary cluster for sending On/Off forcing commands
- out(client) cluster: 0xFD72 (Timed): proprietary cluster for sending timing commands
- out(client) cluster: 0xFD73 (Delayed switching): proprietary cluster for sending delayed On/Off commands
- in(server) cluster: 0xFD75 (Input configuration): proprietary cluster for configuring the parameters of input_2 of the device

Now the previous image should be clearer, which shows the recipient devices contained in the binding table for the selected device.

The following image shows instead the only segment in the table showing endpoint_2 that corresponds to input_2 of the device.

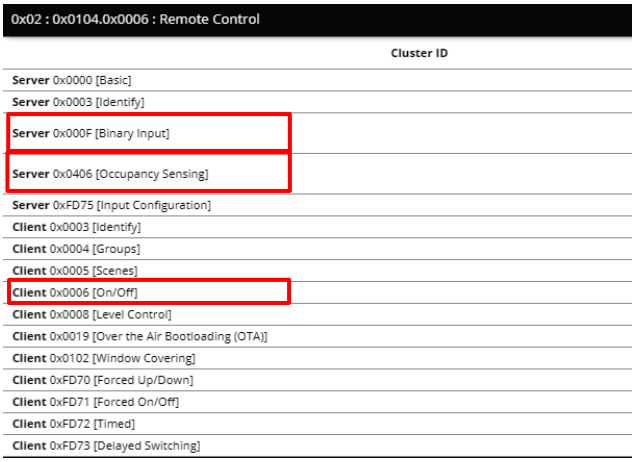


0x02 : 0x0104.0x0006 : Remote Control

Cluster ID	Bindings
Server 0x0000 [Basic]	
Server 0x0003 [Identify]	
Server 0x000F [Binary Input]	CC34D700000FB706 [me]
Server 0x0406 [Occupancy Sensing]	CC34D700000FB706 [me]
Server 0xFD75 [Input Configuration]	
Client 0x0003 [Identify]	
Client 0x0004 [Groups]	
Client 0x0005 [Scenes]	
Client 0x0006 [On/Off]	
Client 0x0008 [Level Control]	
Client 0x0019 [Over the Air Bootloading (OTA)]	
Client 0x0102 [Window Covering]	
Client 0xFD70 [Forced Up/Down]	
Client 0xFD71 [Forced On/Off]	
Client 0xFD72 [Timed]	
Client 0xFD73 [Delayed Switching]	

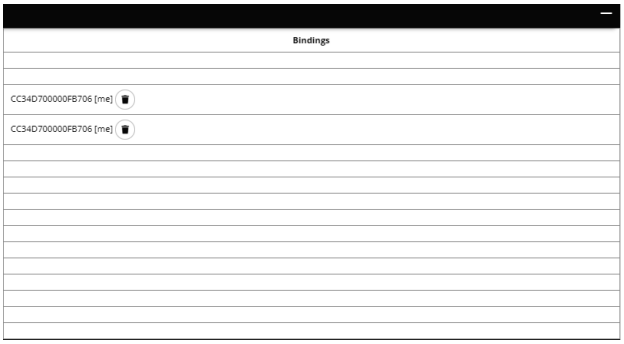
It can be seen in the image that the device sends three commands/reports for input_2:

- Cluster 0x000F: with the recipient Smart Gateway
- Cluster 0x0406: with the recipient Smart Gateway
- Cluster 0x0006: with the recipient actuator GWA1521



This page can also be used to remove any recipients that remained in the device binding table by mistake.
ATTENTION: This operation must only be performed by expert ZigBee users or after consulting with Gewiss technical service.

To delete a recipient from the binding table, press the adjacent push-button . The configurator does not permit deleting the Smart Gateway from the recipients.



MANAGING BATTERY-OPERATED END DEVICES

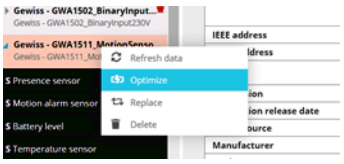
The ZigBee battery-operated end devices are characterised by the fact that they remain in sleep mode for the majority of their use. Usually, they keep the radio off to save energy and activate it only if needed or at regular intervals to transmit and/or receive ZigBee packages.

A battery-operated device can support the Poll control 0x0020 cluster that permits changing the device's periodic wake-up time. The Gewiss devices that offer this option are: GWA1511, GWA1512, GWA1513 and GWA1514.

The device GWA1501 is an exception.

When a ZigBee device with a Poll Control cluster joints the network with the configurator active, as described in the paragraph Association and detection of new ZigBee devices, the periodic wake-up time is shortened to facilitate the configuration of the battery-operated device; otherwise it would be necessary to wake up the device, as in the case of GWA1501 (10 closures/openings within 10 seconds on one of the two inputs until the LED flashes), to be able to configure it.

Once the device has been acquired by the configurator and the configurations have been completed, it is recommended to optimise the use of the battery using the command that appears when right clicking the device:

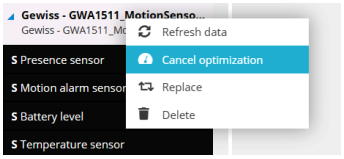


Optimising the battery use increases the interval of time that passes between device wake-ups (extended Poll control).

The configurator also permits optimising the use of the battery of all end devices with a shortened Poll control in the ZigBee network at the same time. Simply press the “Optimise” push-button at the bottom of the page.

If the device has an elongated Poll Control, it is necessary to wake it up so the configurator can interact with the device. It must be woken up as indicated on the instruction sheet that accompanies the device (for codes GWA1511, GWA1512, GWA1513, GWA1514: press the programming push-button for approx. 5 seconds until the LED flashes).

If instead the Poll Control is not extended, right clicking the name of the device displays a drop-down menu that includes the item: “Cancel optimisation”, which starts the procedure for shortening the device's wake-up time. It will be necessary to wake up the device manually as described in the previous paragraph in order to complete the operation.



If instead the battery-operated device has already been joined to the network, it is necessary to perform a “Search device” and, once the battery-operated device is identified, it must be woken up manually so that the configurator can acquire it and, if necessary, set a brief Poll control for it as described in this paragraph.

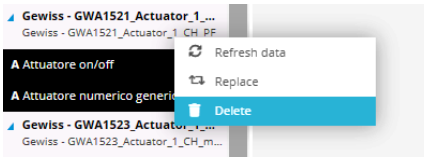
DELETE OR REPLACE A ZIGBEE DEVICE

If it is necessary to delete a ZigBee device or replace it because it is faulty, simply right click the name of the device to activate the relative procedure.

Delete a device

The procedure for deleting a ZigBee device has two steps, in which the configurator requests the user:

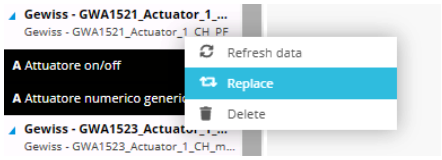
1. Confirm that the device should be deleted from the project
2. If you want the device to also leave the network, use the command “Leave Network”. However, not all ZigBee devices support this option. In this second case, it will be necessary to perform a local factory reset using the procedure described on the instruction sheet for the device.



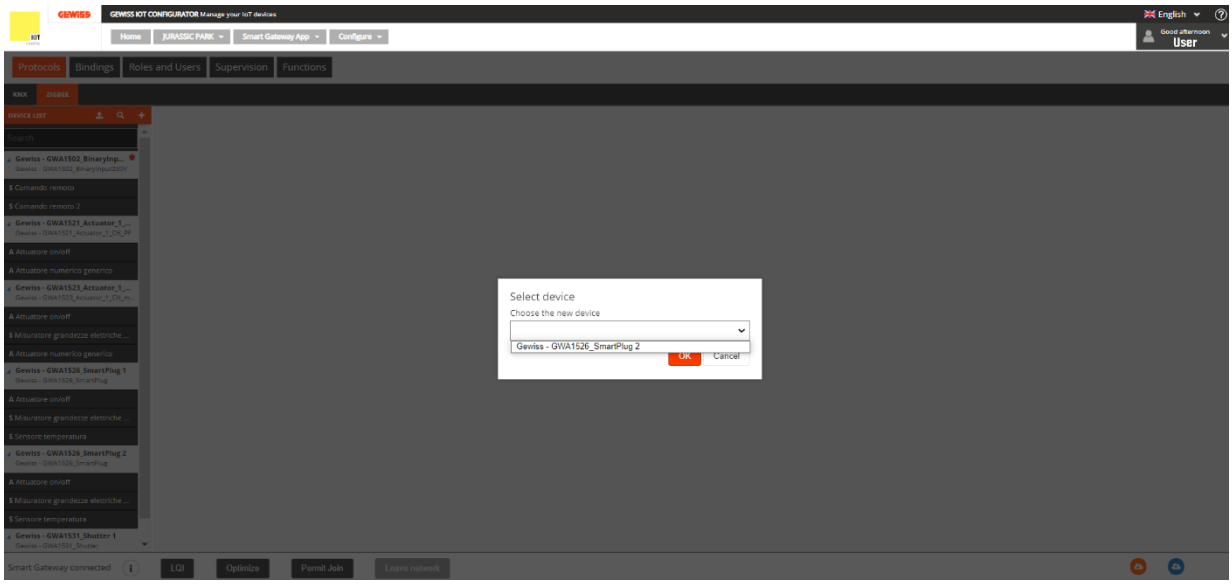
Attention: It is not possible to delete and above all to make the coordinator abandon the network using the configurator!

Replace a device

The procedure for replacing a ZigBee device is to be used if a device is faulty and therefore must be replaced. When the configurator is not able to communicate with a device, the fault is shown by the application next to the name with a red triangle that contains a white exclamation point. Supposing that the radio part of the device is faulty and it is not that the device is off or sleeping, in the case of battery-operated end devices, it can be replaced.



The configurator searches the already acquired ZigBee devices for those analogous to the device that must be replaced. The devices found in this manner are listed in a drop-down menu where it is possible to select the new one that will replace the faulty one.



Currently, the replacement of a ZigBee device does not imply the removal of the connections/binds towards the faulty device and does not automatically reproduce the same connections/binds towards the new device. Therefore, they must be changed manually as described in the section Connections.

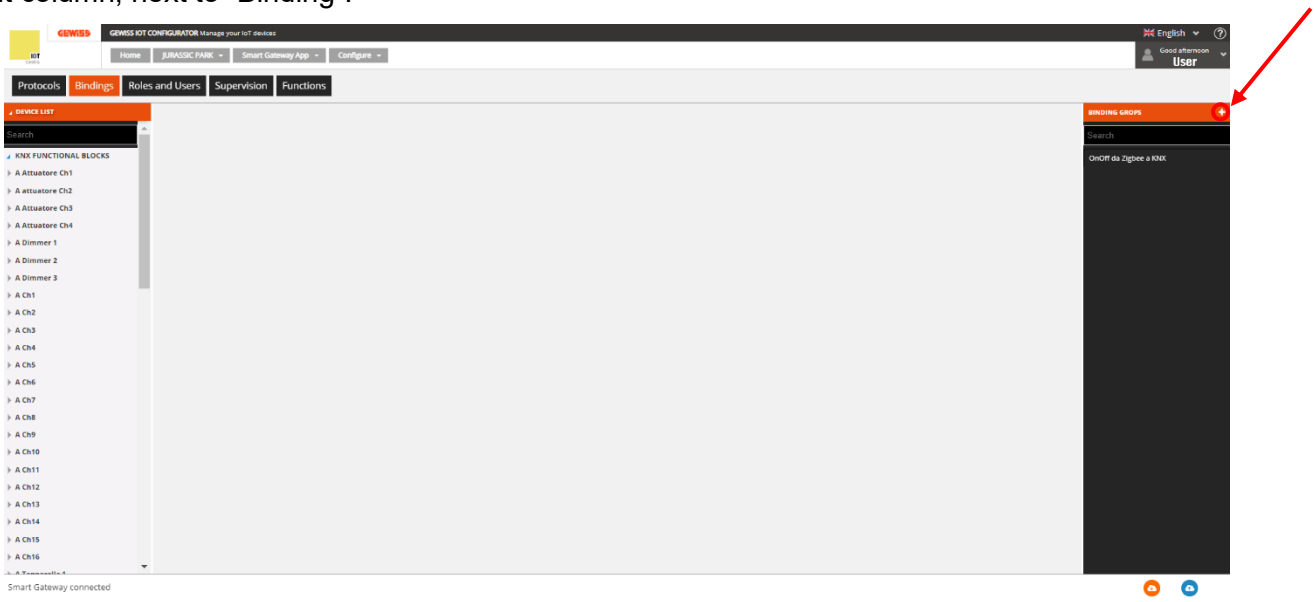
Connections

In this section it is possible to create, rename, modify and delete the relationships between devices so that they can communicate.

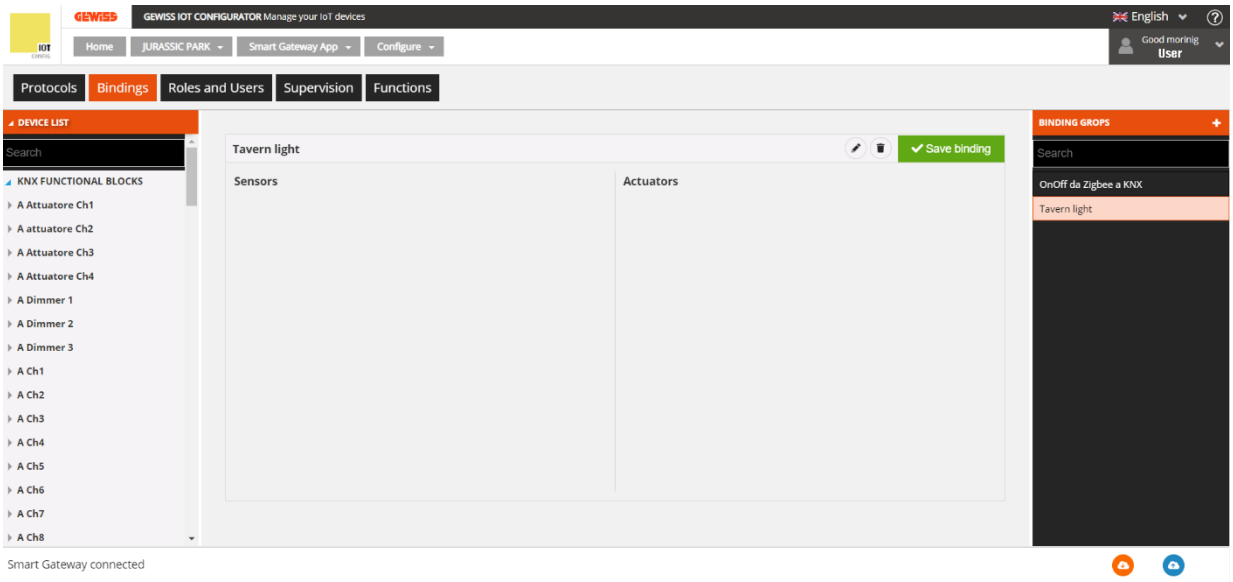
CREATING A CONNECTION (BIND)

In this section, it is possible to create the functions (binds) for which a sensor sends commands/reports to an actuator. For example, when pressing a push-button connected to a GWA1502, it will send a toggle command to an OnOff actuator, for example to a GWA1521.

To make this connection, open the “Connections” section of the configurator and click on “+” , in the right column, next to “Binding”.



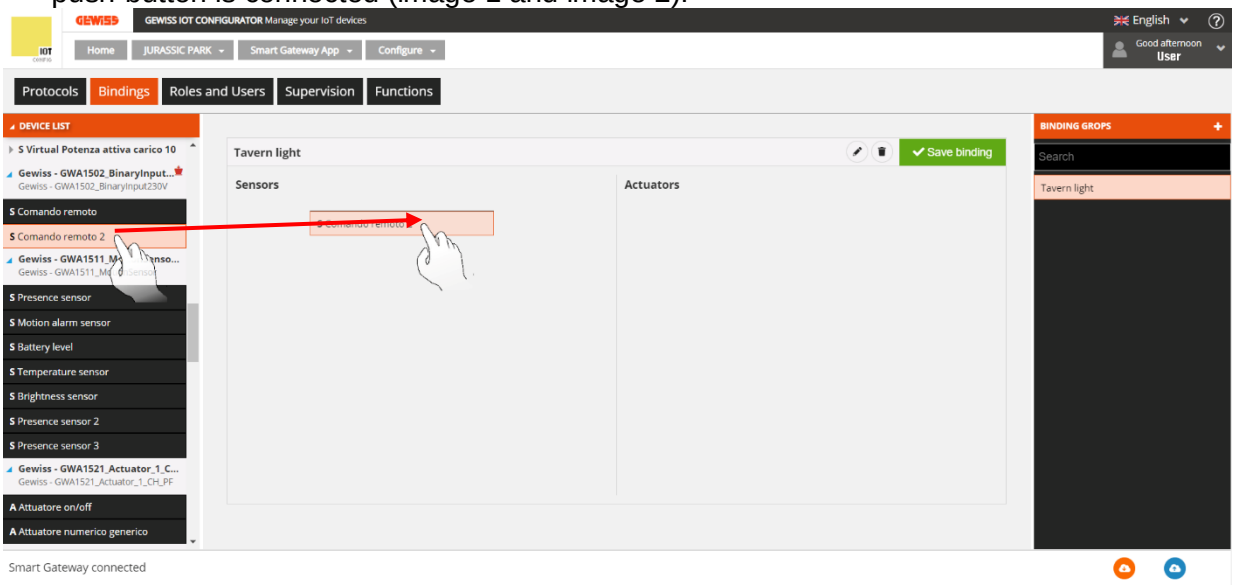
At this point, after giving the function a name (Tavern light in this example), the function that was just created will appear in the centre of the screen:



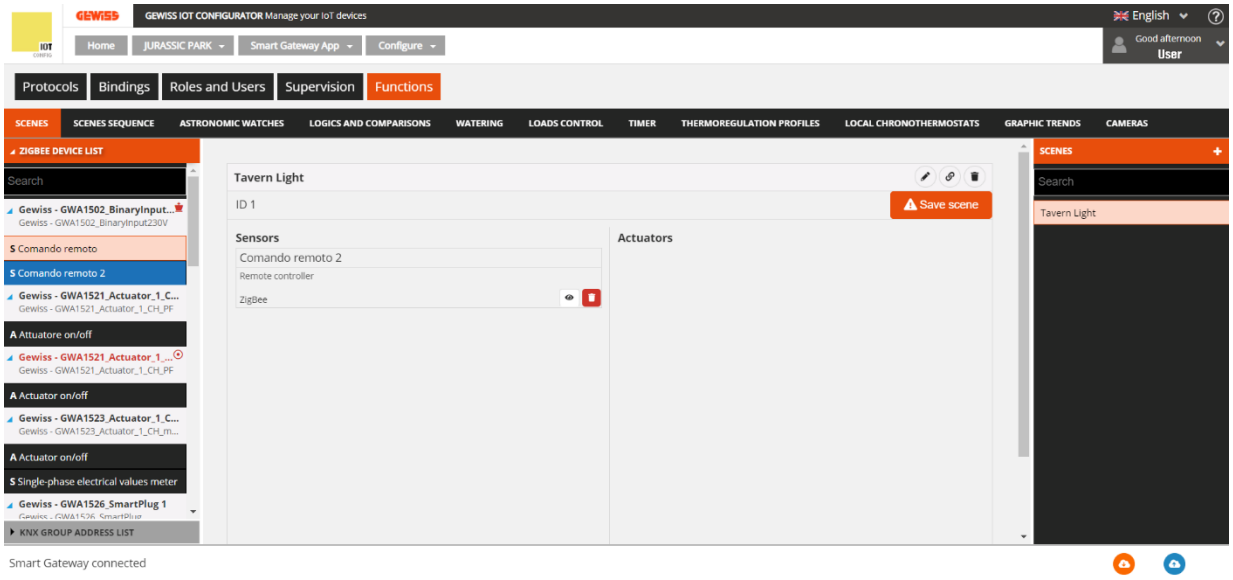
At this point, the connection (bind) can be created between a sensor and an actuator.

The actions listed below are necessary for the parametrisation of the devices, by writing attributes and creating the connection, that is creating the bind, in this case between the sensor GWA1502 device, which permits commanding the actuator GWA1521.

1. Drag the channel function of the sensor that must command the actuator GWA1521 to the “Sensors” box. In this case, the sensor channel that is dragged is related to input_2 to which a push-button is connected (image 1 and image 2).

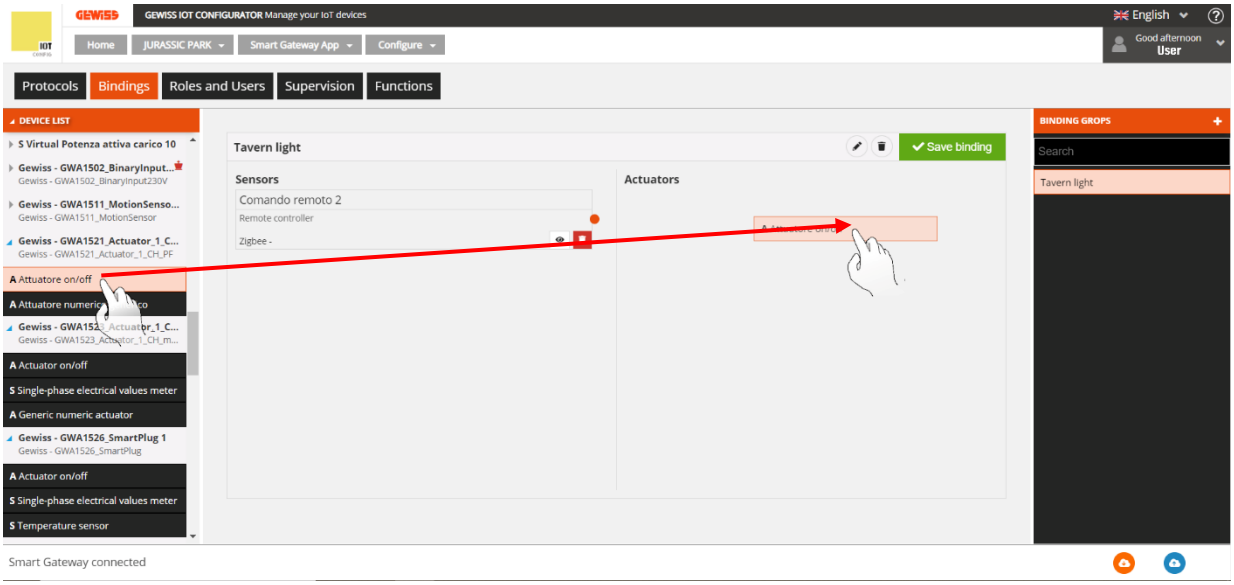


1

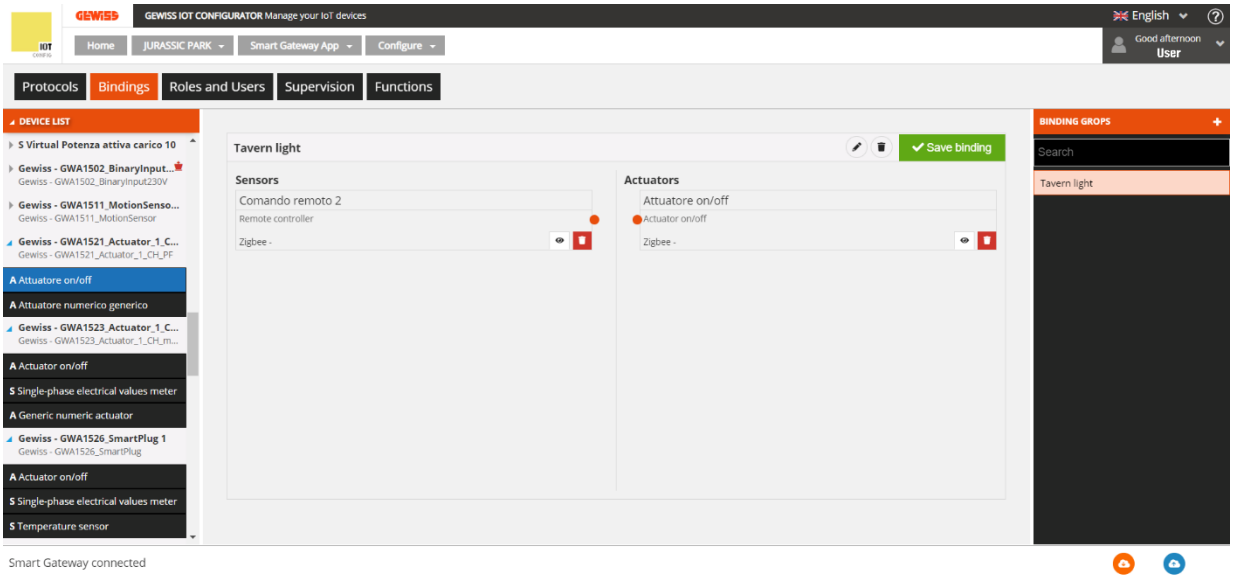


2

2. Drag the function channel of the actuator that must receive the command from the sensor GWA1502 to the “Actuators” box. In this case, the “Actuator on/off” channel is dragged and not the function channel “Generic numeric actuator” (exclusively for cluster 0x000F and not suitable or the purpose). (Image 3 and image 4).

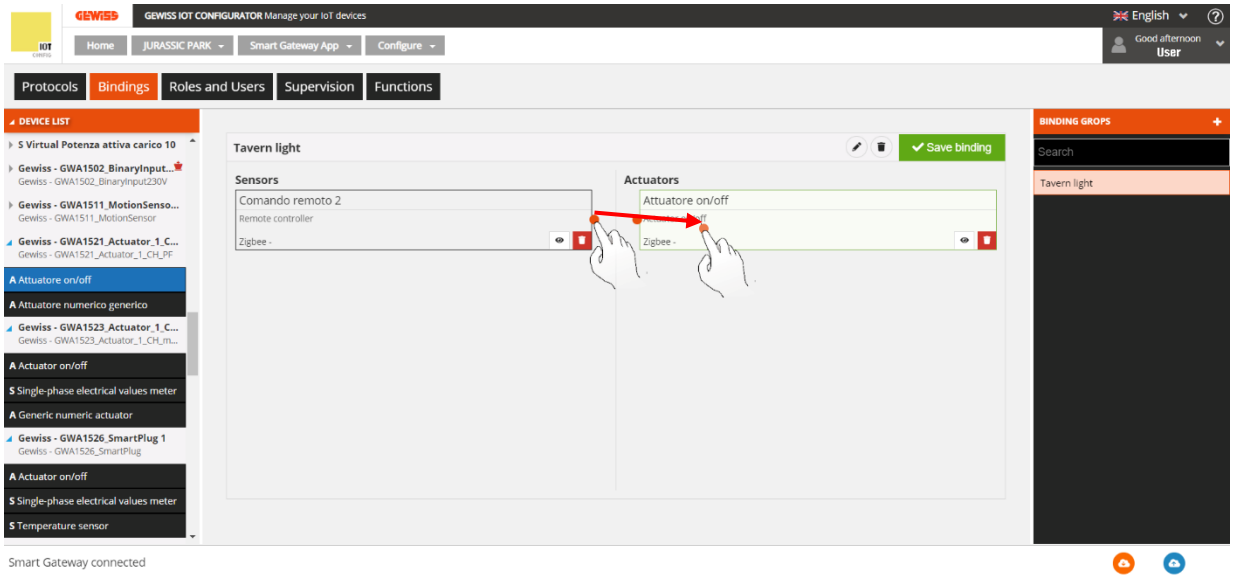


3



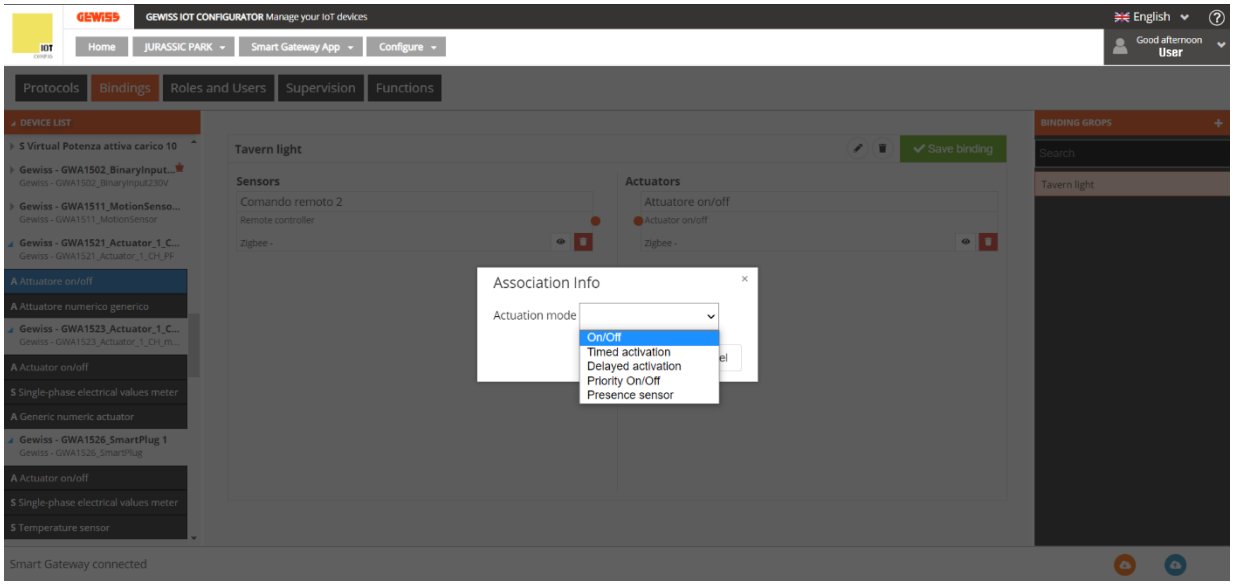
4

3. Make the connection, dragging from the orange dot of the sensor's function channel to the function channel box of the actuator (image 5).



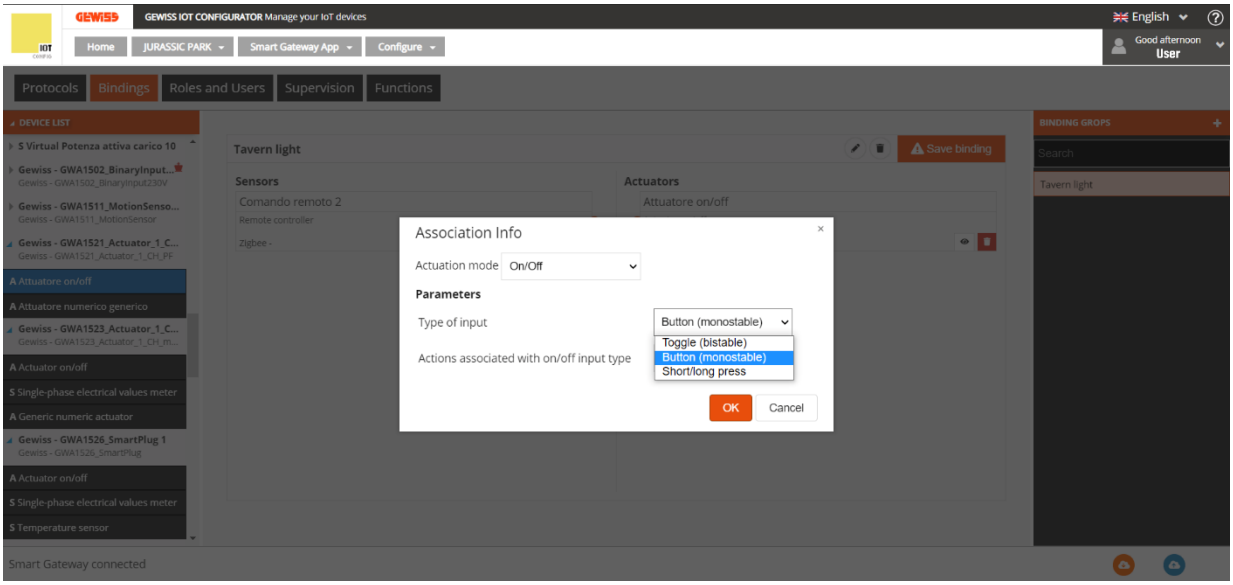
5

4. At this point, a pop-up appears that is used to select the type of function to adopt for commanding the actuator. A drop-down menu displays the functions that are compatible between the two devices. In this example, the “On/Off” function is selected.



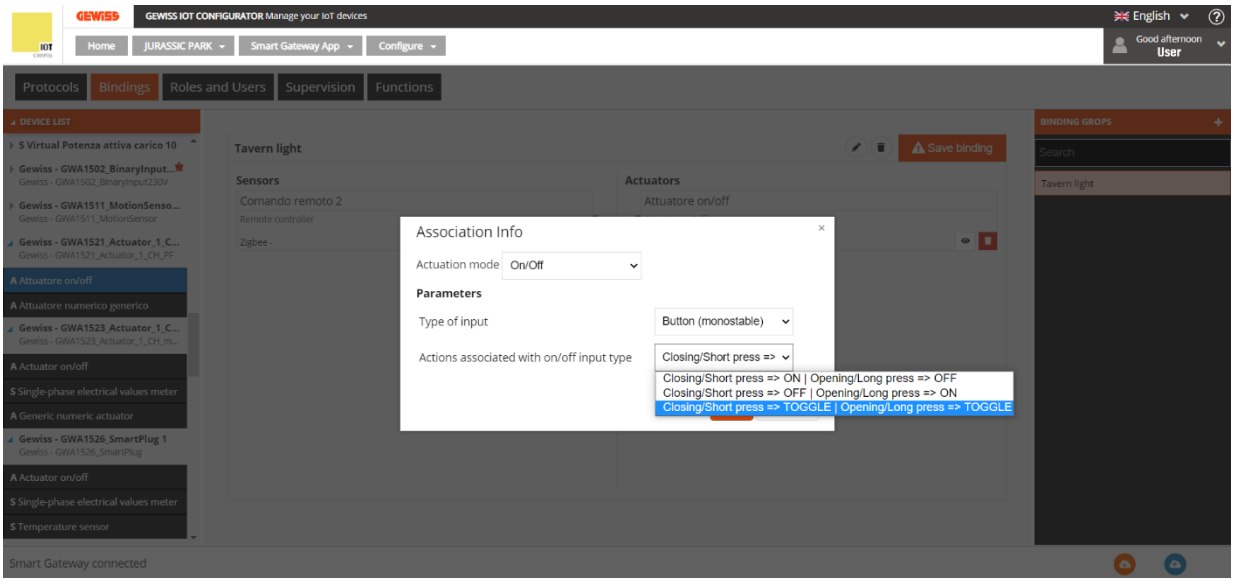
6

5. Therefore, it is possible to parametrise input _2 of the sensor GWA1502 using a drop-down menu in which the following parameters are defined:
    a. Type of input: in this case a "Push-button (monostable)”



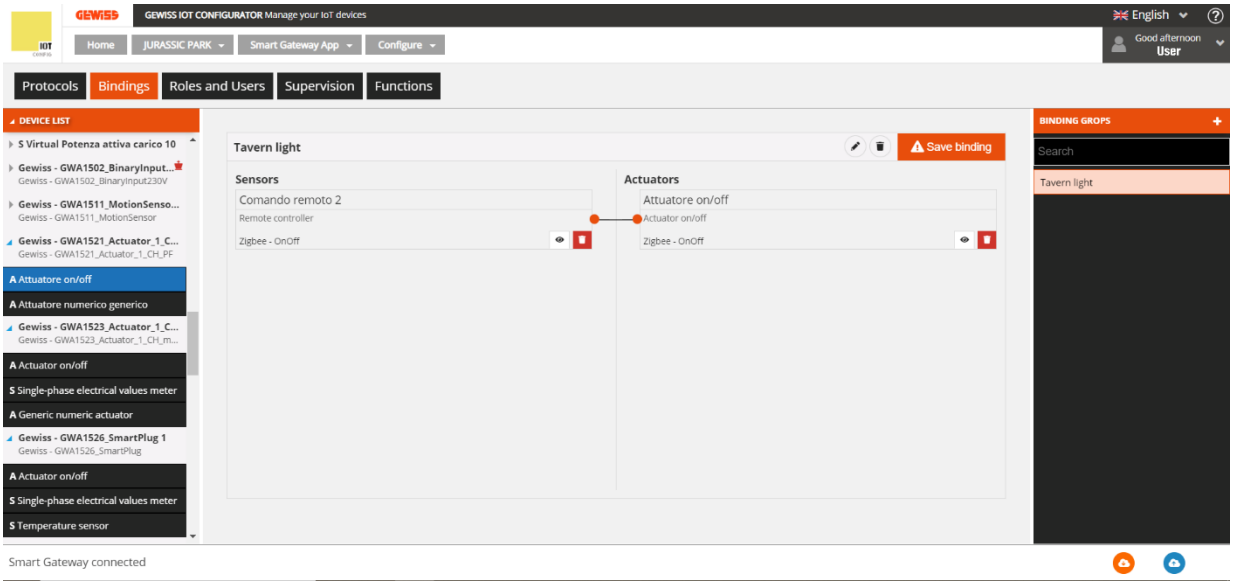
7

b. Actions associated with the on/off type input: in this case “TOGGLE” which will be applied to the device only when the contact is closed, and not when opened, therefore when the push-button is pressed the device will send a Toggle command and will not send a command when the push-button is released



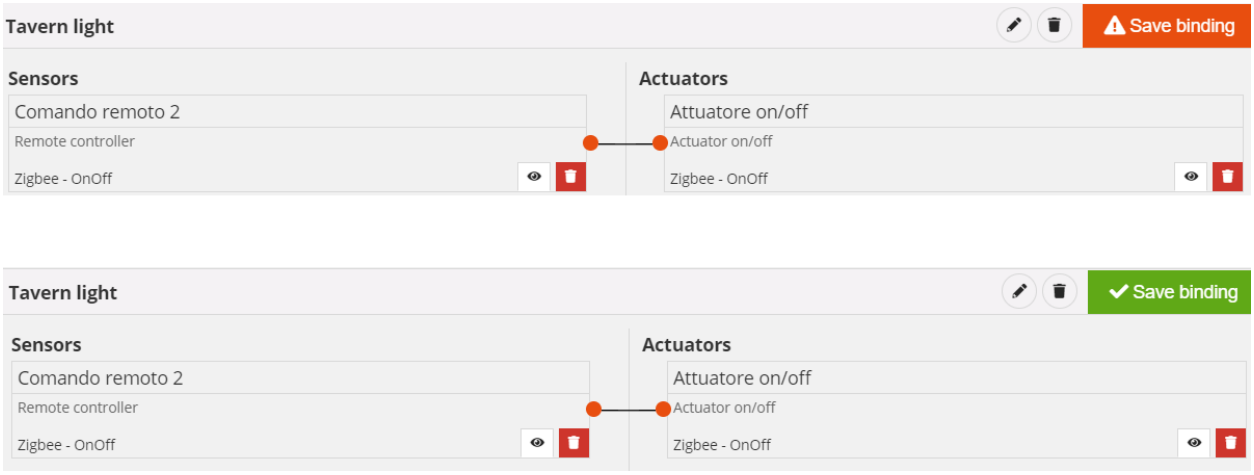
8

6. When the settings are complete, the configurator displays the connection between the two function channels. At the same time, by means of the Smart Gateway, the configurator writes the attributes to the cluster 0xFD75 of endpoint_2 to the device GWA1502 that configure the above-described points “a” and “b”.



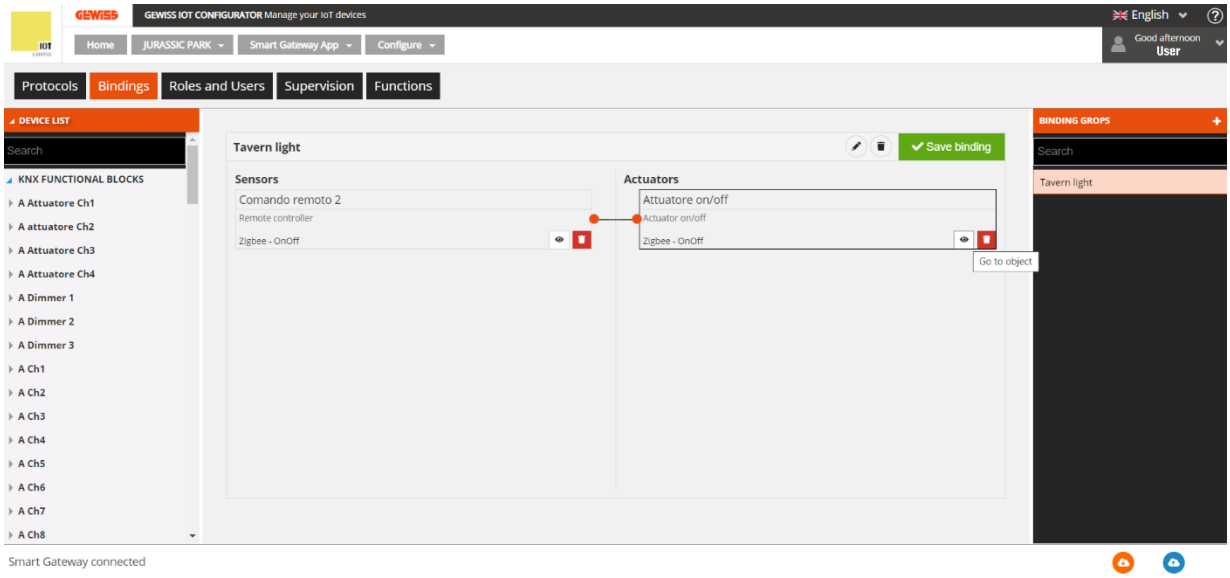
9

7. To complete the function, it is necessary to create the bind on the cluster 0x0006 of endpoint_2 in the sensor GWA1502 that will have the recipient GWA1521. Perform the following operations: press the orange “Save binding” push-button located to the top right. The Smart Gateway will create the bind and, if the operation is successful, the “Save binding” push-button will turn green.

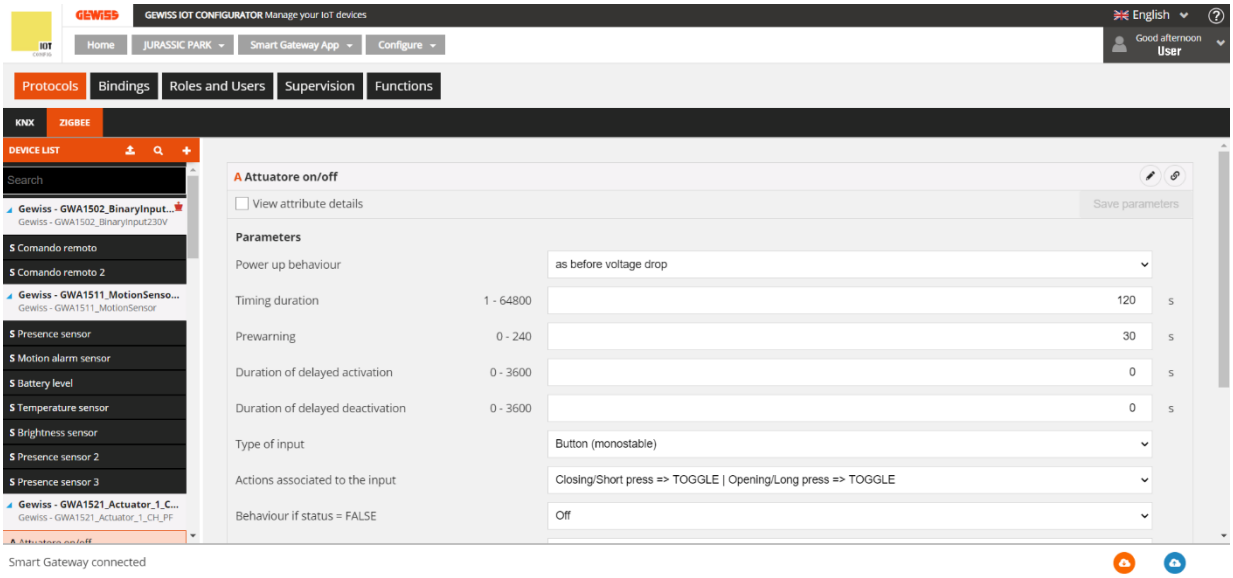


10

8. Pressing the push-button connected to input_2 of GWA1502 sends a Toggle command to GWA1521 to invert the status of the contact.
9. If you also want to connect a local push-button or circuit breaker to the actuator GWA1521 (the command is sent directly to the device and therefore a ZigBee command is not sent), it is possible to do so clicking the “eye” icon 👁 for the function channel of the actuator that refers to its parameters (image 11 and image 12), therefore it is necessary to:
    a. Configure the “Input type”
    b. Configure "Actions associated with the on/off type input"
    c. Write the modified parameters/attributes (cluster 0x0FD74 of endpoint_1) using the orange “Save parameters” push-button (image 13), when complete, the text will turn grey.


GEWISS IOT CONFIGURATOR Manage your IoT devices
English
Home
JURASSIC PARK
Smart Gateway App
Configure
Good afternoon
User
Protocols
Bindings
Roles and Users
Supervision
Functions
DEVICE LIST
Search
KNX FUNCTIONAL BLOCKS
A Attuatore Ch1
A attuatore Ch2
A Attuatore Ch3
A Attuatore Ch4
A Dimmer 1
A Dimmer 2
A Dimmer 3
A Ch1
A Ch2
A Ch3
A Ch4
A Ch5
A Ch6
A Ch7
A Ch8
Tavern light
Save binding
Sensors
Comando remoto 2
Remote controller
Zigbee - OnOff
Actuators
Attuatore on/off
Actuator on/off
Zigbee - OnOff
Go to object
BINDING GROPS
Search
Tavern light
Smart Gateway connected

11


GEWISS IOT CONFIGURATOR Manage your IoT devices
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Smart Gateway App
Configure
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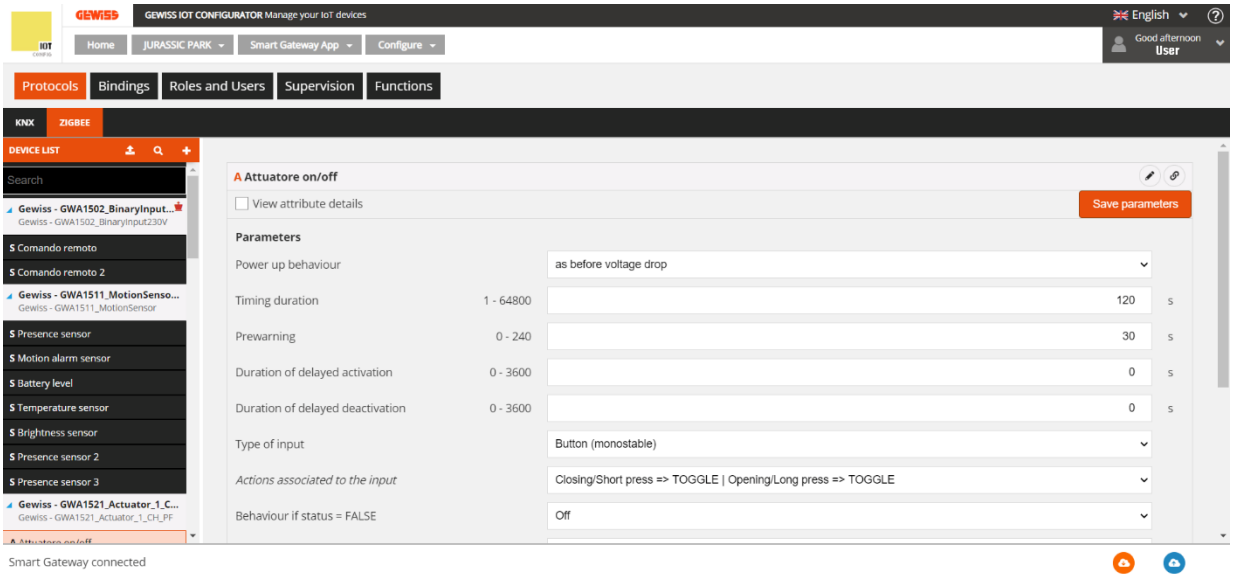
User
Protocols
Bindings
Roles and Users
Supervision
Functions
KNX
ZIGBEE
DEVICE LIST
Search
Gewiss - GWA1502_BinaryInput...
Gewiss - GWA1502_BinaryInput230V
$ Comando remoto
$ Comando remoto 2
Gewiss - GWA1511_MotionSenso...
Gewiss - GWA1511_MotionSensor
$ Presence sensor
$ Motion alarm sensor
$ Battery level
$ Temperature sensor
$ Brightness sensor
$ Presence sensor 2
$ Presence sensor 3
Gewiss - GWA1521_Actuator_1_C...
Gewiss - GWA1521_Actuator_1_CH_PF
A Attuatore on/off
View attribute details
Save parameters
Parameters
Power up behaviour
as before voltage drop
Timing duration
1 - 64800
120
s
Prewarning
0 - 240
30
s
Duration of delayed activation
0 - 3600
0
s
Duration of delayed deactivation
0 - 3600
0
s
Type of input
Button (monostable)
Actions associated to the input
Closing/Short press => TOGGLE | Opening/Long press => TOGGLE
Behaviour if status = FALSE
Off
Smart Gateway connected

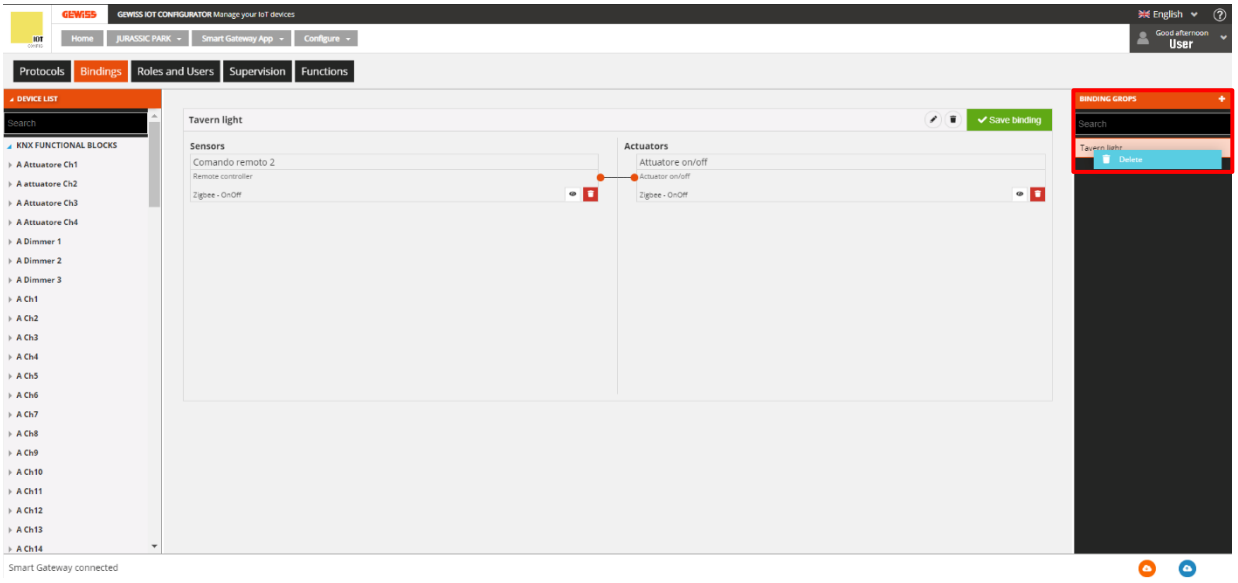
12



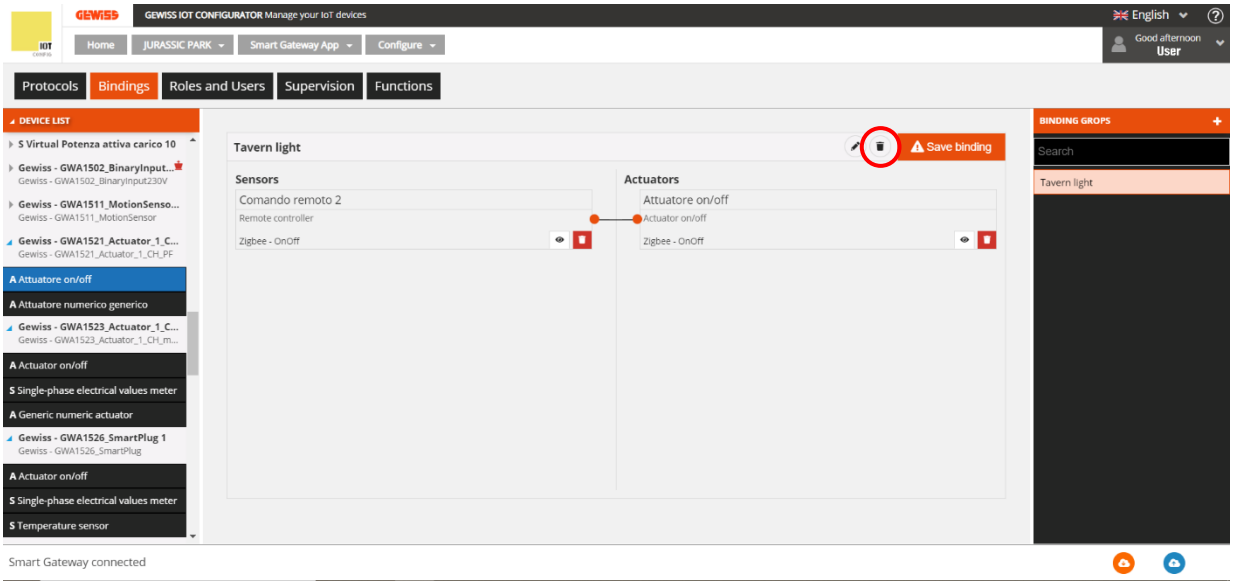
DELETING A CONNECTION (UNBIND)

It is possible to remove a connection (unbind), which removes the binding table. A connection can be removed in two different ways:

- Right clicking the connection to be deleted (In the “Binding groups” column)



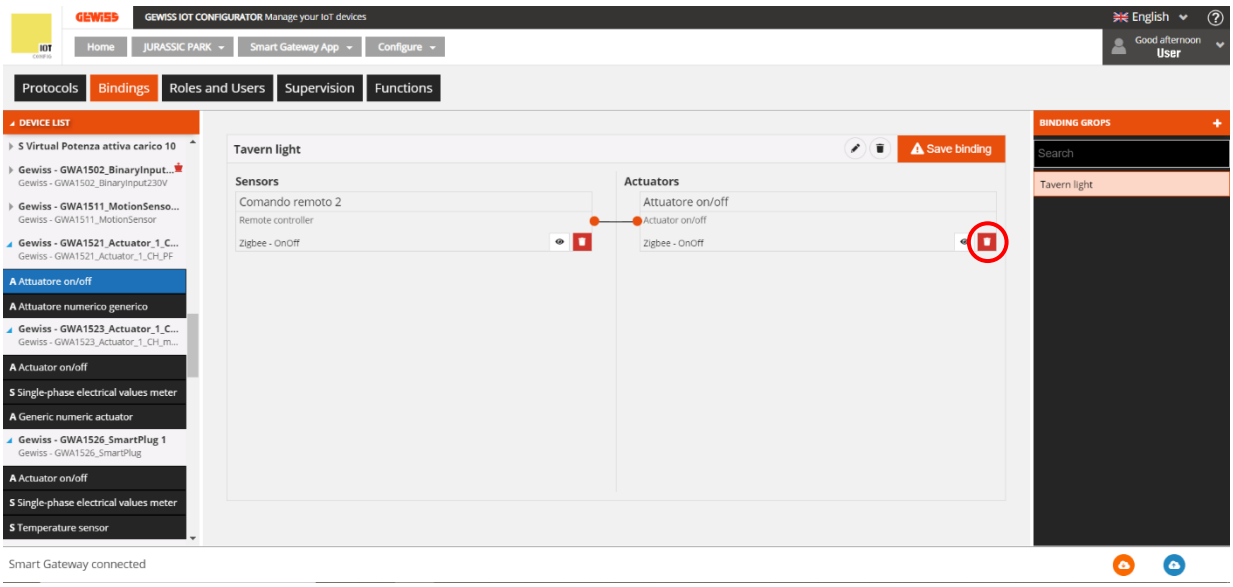
- Clicking the “trash”

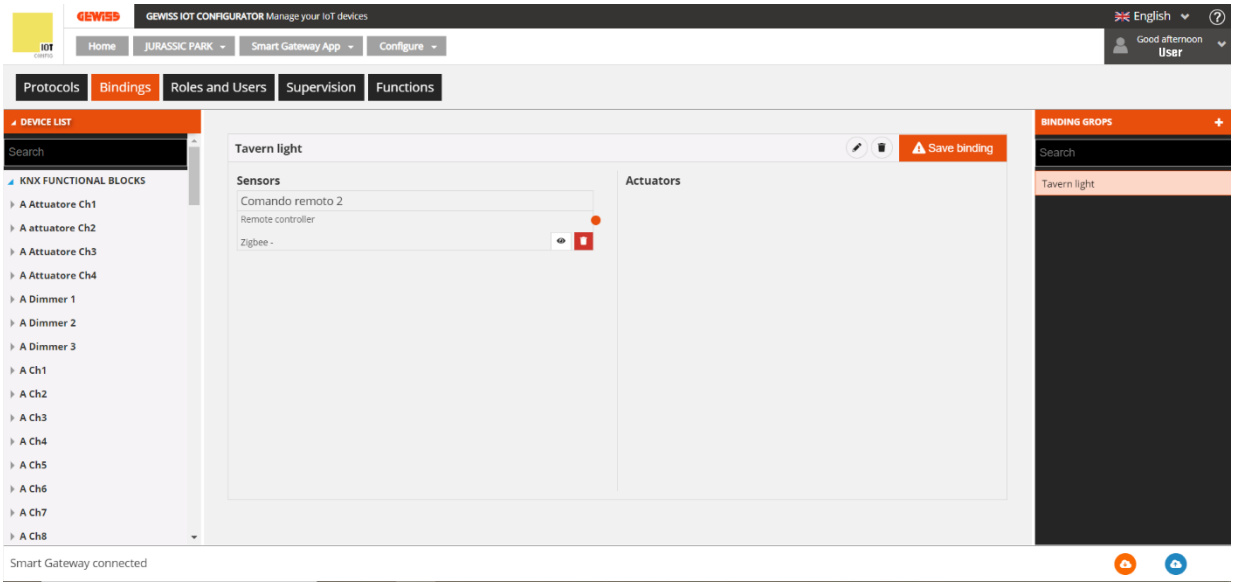


CHANGING A CONNECTION (UNBIND AND BIND)

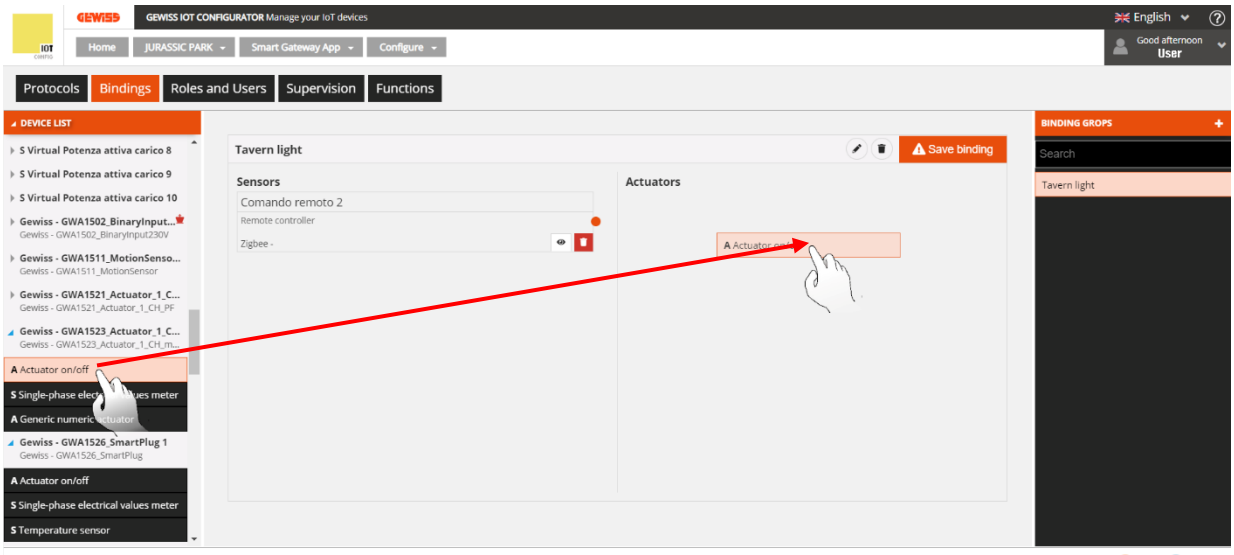
If the connection is changed, it is possible to remove the function channel of the device that must no longer participate in the function and add the new one.
In the following example, the actuator GW1521 for commanding a GWA1523 is removed.

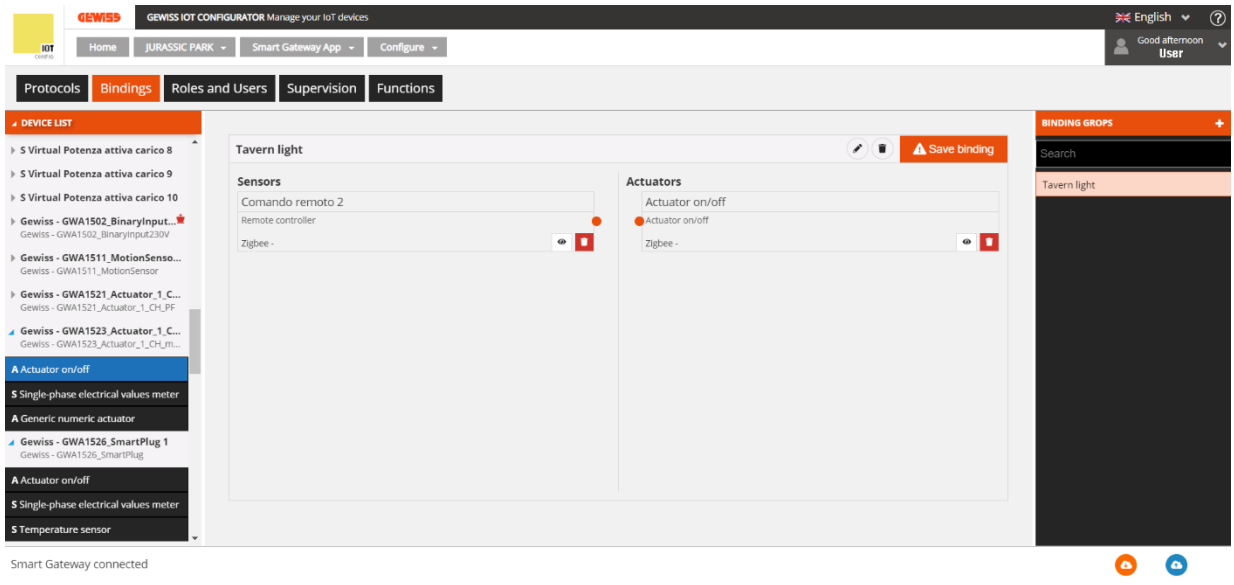
1. Click the “trash with a red background” icon from the function channel of the actuator GWA1521



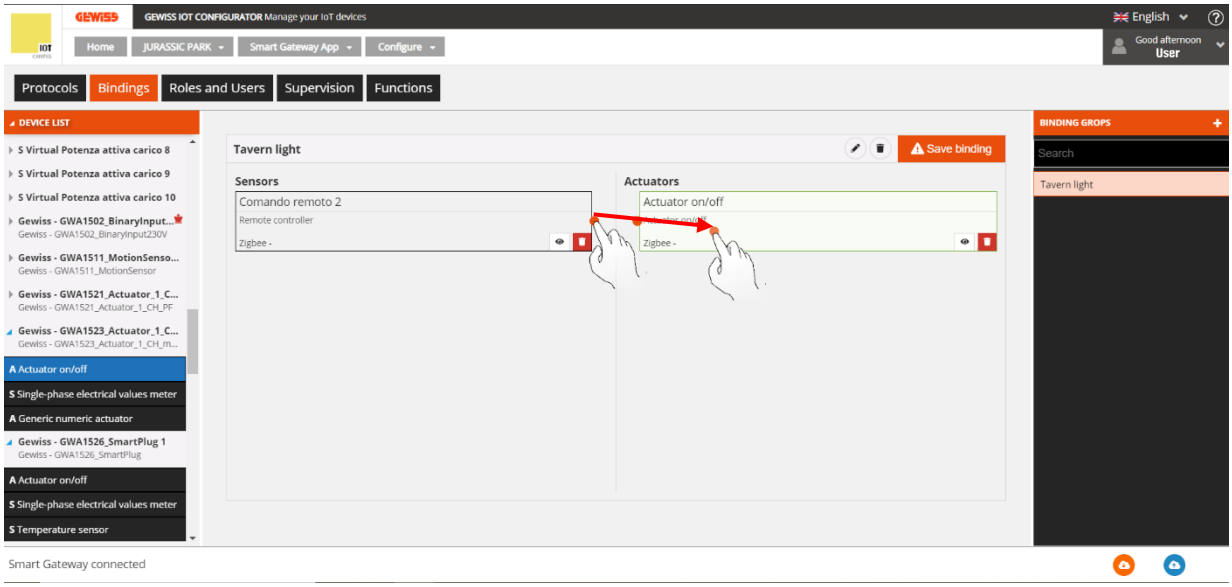


2. Drag the function channel of the new actuator to the "Actuators" box (in the example, the GWA1523 that must receive the command from the sensor GWA1502). In this case, the “Actuator on/off” channel is dragged and not the function channel “Generic numeric actuator” (exclusively for cluster 0x000F and not suitable or the purpose).

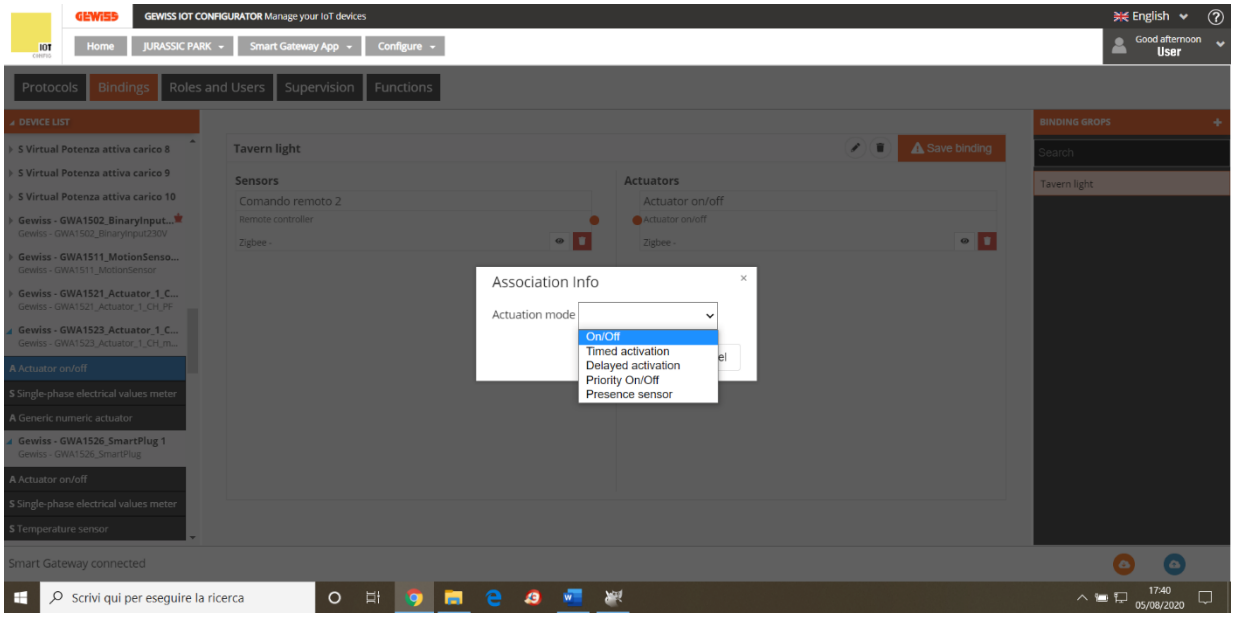




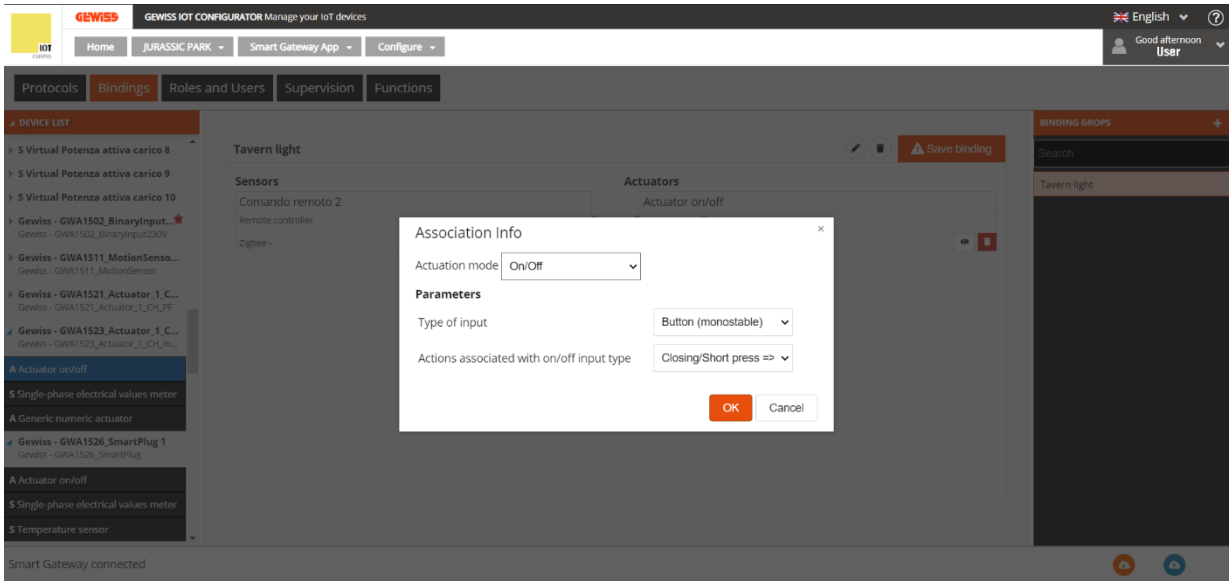
3. Make the connection, dragging from the orange dot of the sensor's function channel to the function channel box of the actuator.



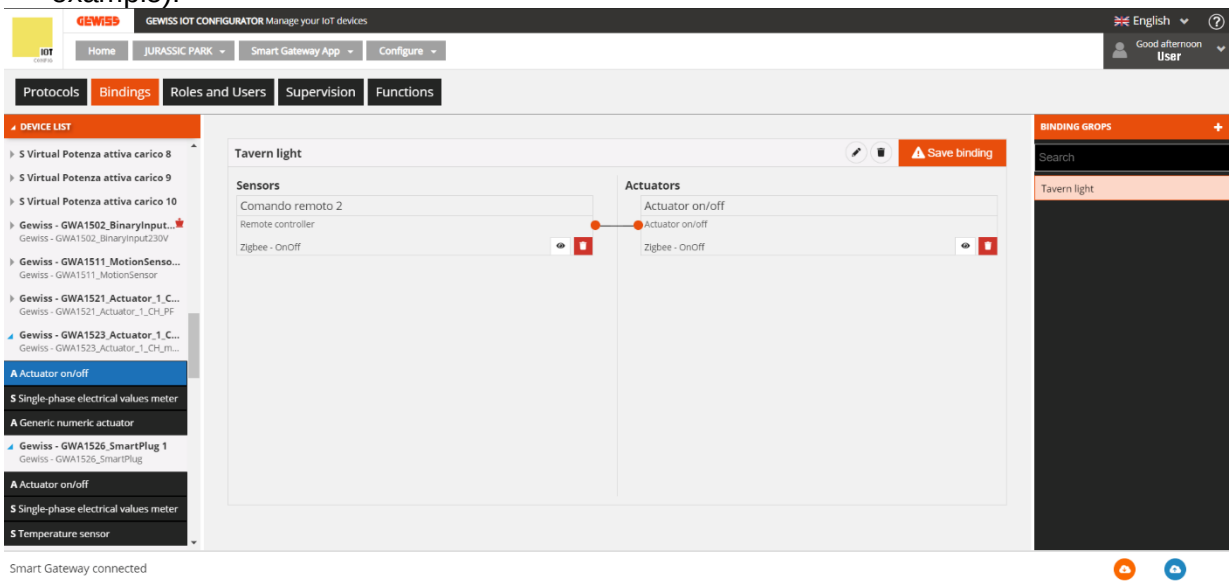
4. At this point, a pop-up appears that is used to select the type of function to adopt for commanding the actuator. A drop-down menu displays the functions that are compatible between the two devices (in the selected example, the “On/Off” function was chosen).



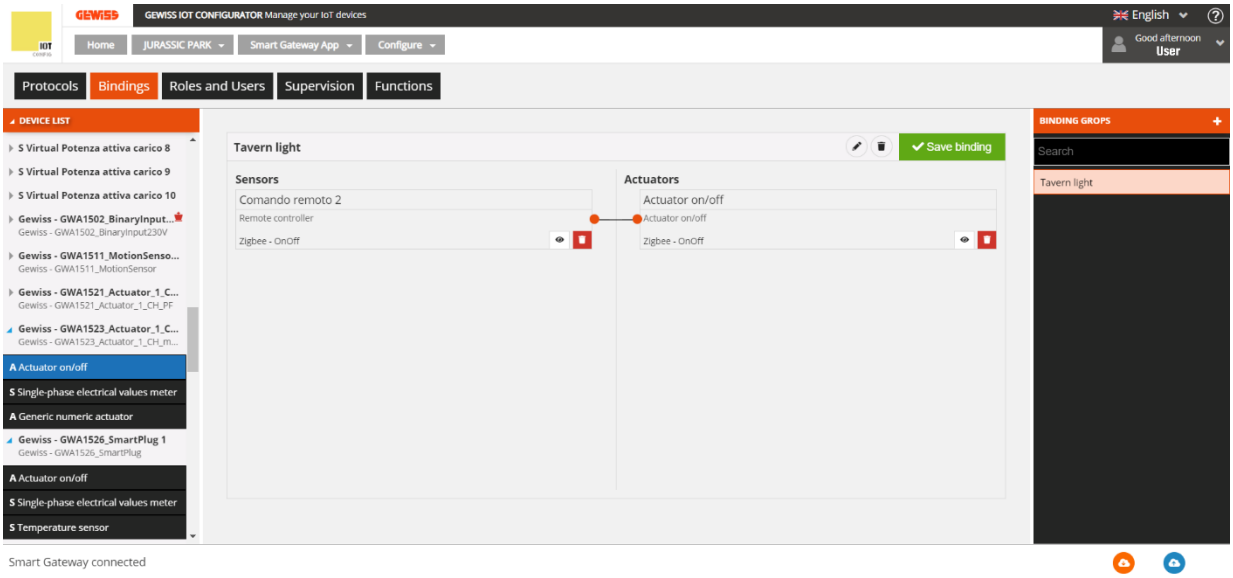
5. Then it is possible to reparametrise input_2 of the sensor GWA1502 via the drop-down menu.



6. Once all the settings are entered, the configurator displays a connection between the two function channels and at the same time, the configurator, by means of the Smart Gateway, writes the attributes to the cluster 0xFD75 of endpoint_2 to the device GWA1502 (in this example).



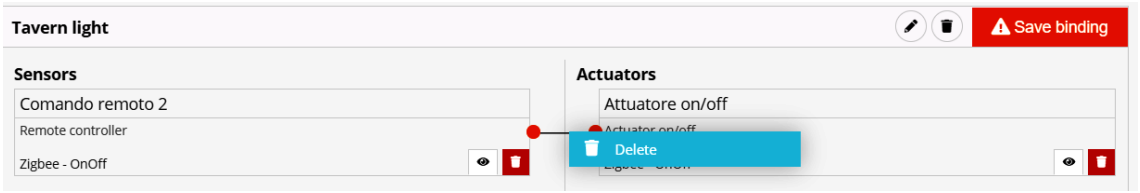
7. To complete the function, it is necessary to remove (unbind) the connection to the previous actuator and make the bind towards the new actuator on the cluster 0x0006 of endpoint_2 in the sensor GWA1502, which will have the new recipient GWA1523 in this example; to do so, press the orange push-button at the top right, “Save connection”. The Smart Gateway will perform the unbind operation and, if it is successful, the “Save binding” push-button will turn green.



8. Pressing the push-button connected to input_2 of GWA1502 sends a Toggle command to GWA1523 to invert the status of the contact and no longer to GWA1521.

DEACTIVATING AN ACTUATOR FROM THE CONNECTION

If you want to deactivate the command towards an actuator without deleting the connection completely, this can be done by right clicking the section that connects the function channel of the sensor with that of the actuator.

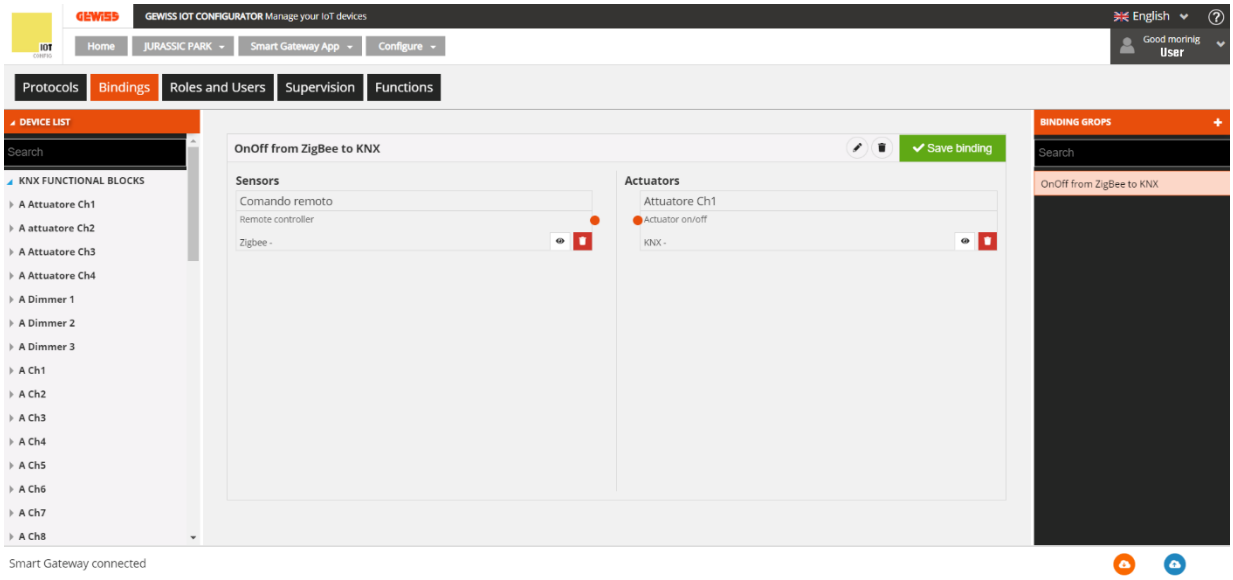


After clicking “Delete”, the “Save connection” push-button turns orange. Clicking it removes the binding (unbind). the push-button turns green to indicate that the operation was successful.

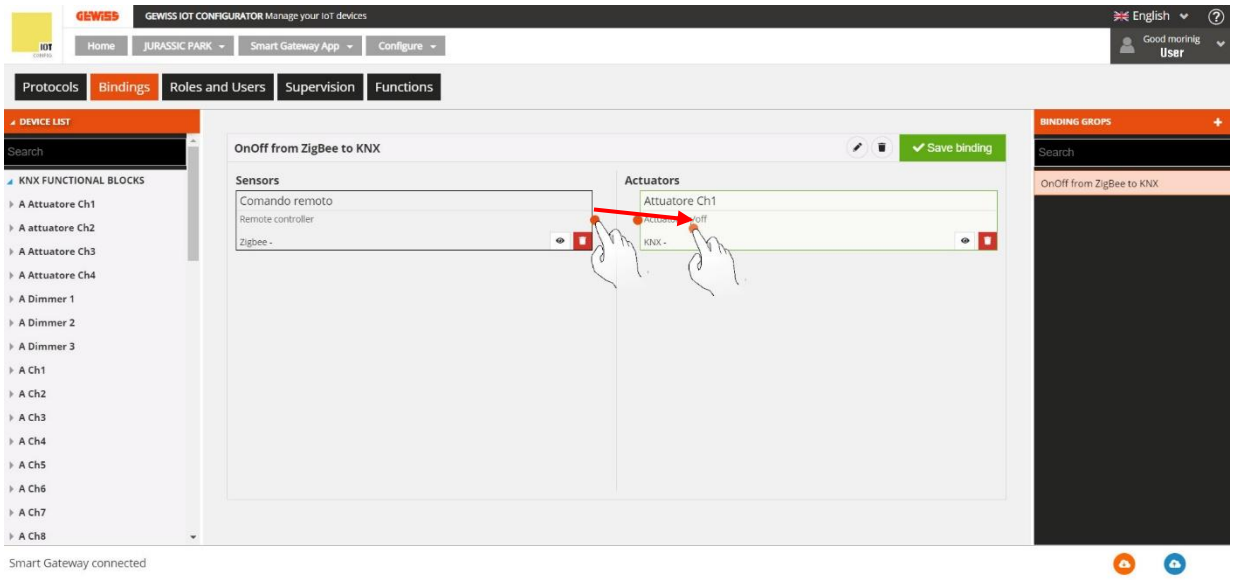
CROSS-PROTOCOL CONNECTIONS

With Smart Gateway it is possible to perform cross-protocol functions among KNX, ZigBee and Wi-Fi devices: the section used to perform these functions is “Bindings”. It is not possible to make the connections between KNX devices only because this functionality is executed by means of KNX Association ETS software.
The example below shows a ZigBee GWA1502 input interface that commands a KNX OnOff actuator.
Unlike the connections between ZigBee devices only, which is made the moment the connection is saved, in this case the configuration towards the ZigBee device takes place only after sending the configuration by pressing the “Send configuration” push-button (to the bottom right); after receiving the new configuration, the Gateway applies it, but it is not known when the ZigBee device adopts it. If the cross protocol involves battery-operated ZigBee devices such as GWA1501, the Smart Gateway waits for the device to wake up periodically to be able to configure it and therefore more than 30 minutes may pass.
The main steps for this example are as follows:

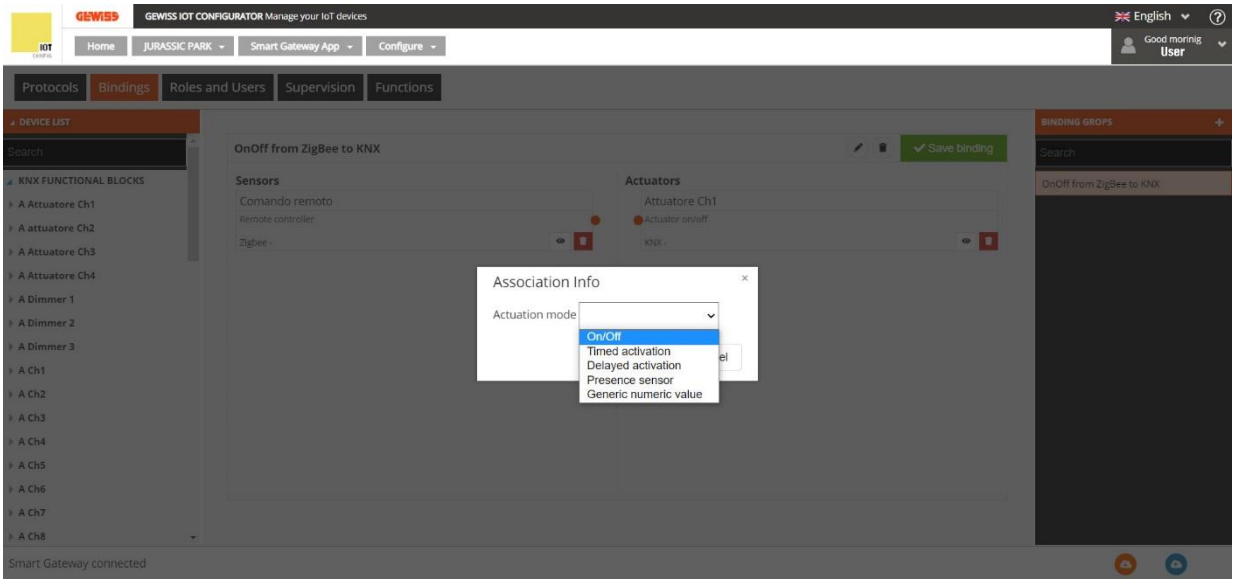
1. Press the push-button “+” to add the connection; in this example, it was called “OnOff from ZigBee to KNX”.
2. Drag the “Remote control” function channel corresponding to input_1 of GWA1502 (ZigBee control device) and the “Ch1 actuator” function channel of a KNX functional block.



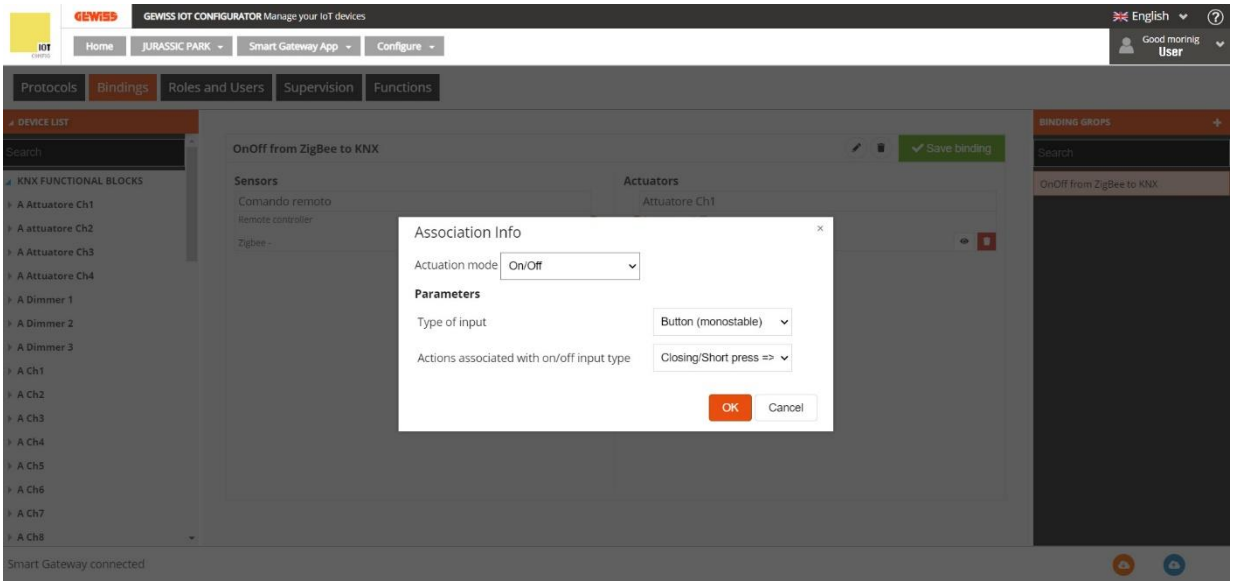
3. Drag the dot of the sensor towards the centre of the actuator channel.



4. The screen will display a series of windows, inside of which it is necessary to select the desired function (in this case “On/Off”) and then the parametrisation of the GWA1502 input.

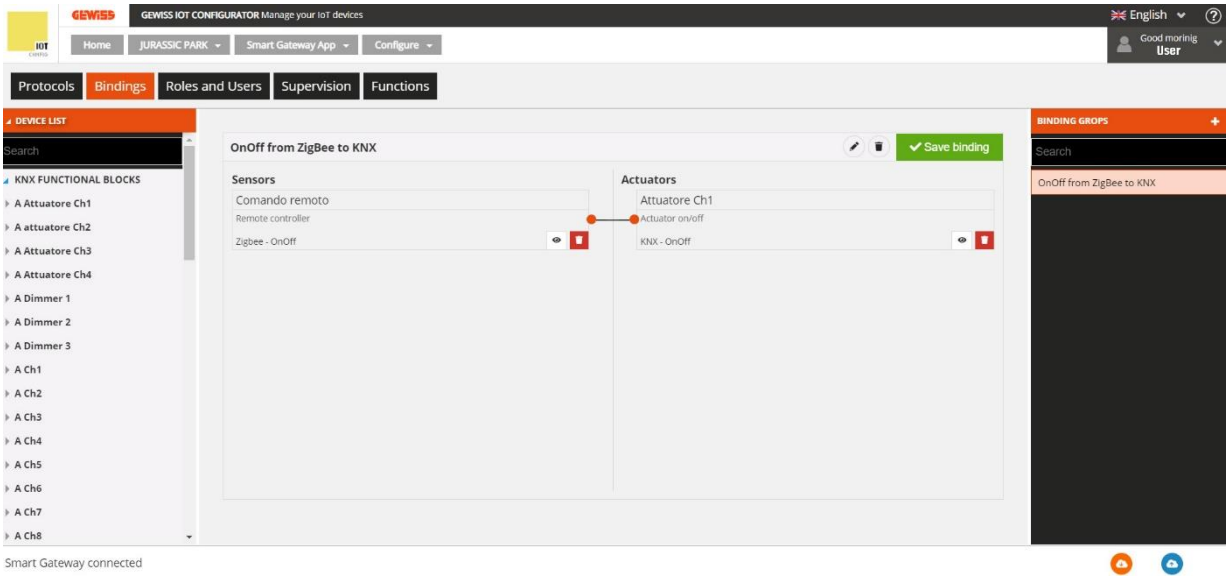


1

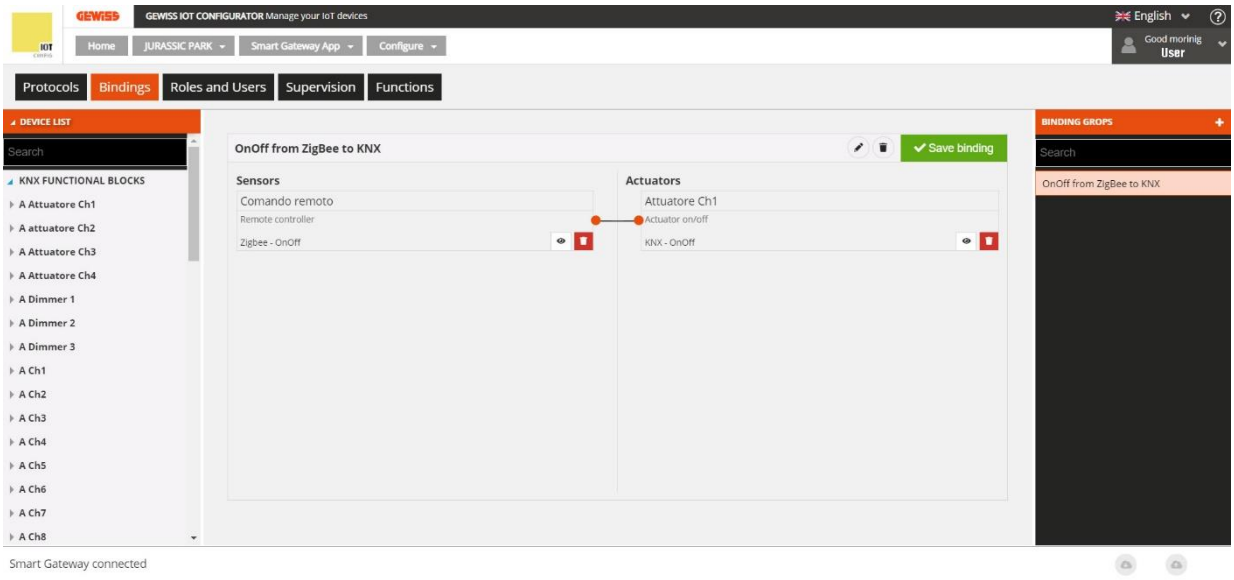


2

5. When the previous operations are complete, the configurator connects the sensor to the actuator by means of a line, but the connection is made only after sending the configuration, that is by pressing the “Send configuration” push-button , located to the lower right, which will then turn green .


GEWISS IOT CONFIGURATOR Manage your IoT devices
English
Home
JURASSIC PARK
Smart Gateway App
Configure
Good morning
User
Protocols
Bindings
Roles and Users
Supervision
Functions
DEVICE LIST
Search
KNX FUNCTIONAL BLOCKS
A Attuatore Ch1
A attuatore Ch2
A Attuatore Ch3
A Attuatore Ch4
A Dimmer 1
A Dimmer 2
A Dimmer 3
A Ch1
A Ch2
A Ch3
A Ch4
A Ch5
A Ch6
A Ch7
A Ch8
OnOff from ZigBee to KNX
Save binding
Sensors
Comando remoto
Remote controller
Zigbee - OnOff
Actuators
Attuatore Ch1
Actuator on/off
KNX - OnOff
BINDING GROPS
Search
OnOff from ZigBee to KNX
Smart Gateway connected

1


GEWISS IOT CONFIGURATOR Manage your IoT devices
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A Attuatore Ch1
A attuatore Ch2
A Attuatore Ch3
A Attuatore Ch4
A Dimmer 1
A Dimmer 2
A Dimmer 3
A Ch1
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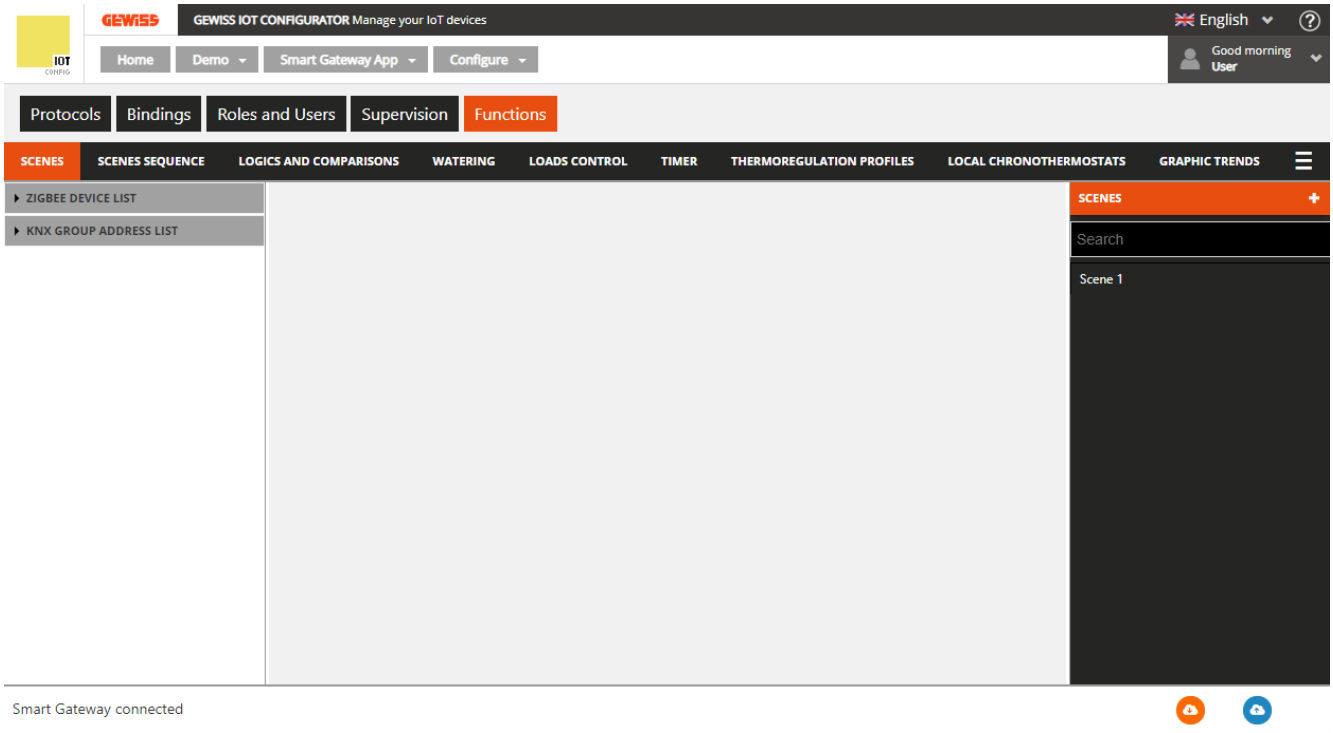
OnOff from ZigBee to KNX
Save binding
Sensors
Comando remoto
Remote controller
Zigbee - OnOff
Actuators
Attuatore Ch1
Actuator on/off
KNX - OnOff
BINDING GROPS
Search
OnOff from ZigBee to KNX
Smart Gateway connected

2

Field scenes (pre-set)

In a pre-set scene, the objects or devices belonging to the scene are predefined in the configuration or initial start-up phase, and the commands are all implemented at the same time.
When the **Functions → SCENES** menu is selected, the list of SCENES appears (on the right) along with the list of elements that can be used in those scenes.



To create a new scene, press the "**+**" icon in the right-hand column ("SCENES").
Enter the name and ID (from 0 to 63) that you want to associate with the scene. Depending on the elements included, the ID will be used as:
- the number of the scene to be called up or learnt (for the KNX part)
- the ID of the receivers of the commands (for the ZigBee part); the scene ID is fixed at 1

Once the ID has been set, it cannot be modified.

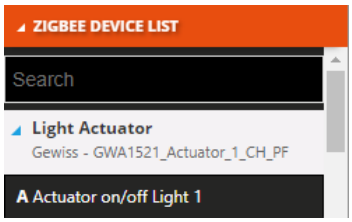
After confirming your choice, the central part of the page will show:
- two columns - Sensors and Actuators (as for the Connections) - relating to the ZigBee functional blocks
- a line at the bottom for the KNX group addresses

Next to the name of the scene you will see:

- **Rename** push-button for modifying the name of the scene
- **View connections** push-button for displaying all the pages where the scene is used (select the required page to gain direct access)
- **Delete** push-button for eliminating the scene

The left-hand column shows:

- **LIST OF ZIGBEE DEVICES**



A tree structure showing:

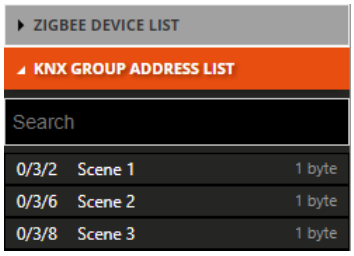
i. the name of the ZigBee device (taken from the “ZIGBEE” menu)

ii. the device functional block, with name and category - Actuator (A) or Sensor (S).

If a functional block (sensor) is highlighted in grey, this means it has already been used in another scene or application function, and can no longer be used.

If a functional block is highlighted in blue, it has been inserted in the scene you are editing; when you bring the cursor onto a functional block shown in the central area, that functional block will be highlighted in green in the LIST OF ZIGBEE DEVICES.

- **LIST OF KNX GROUP ADDRESSES**

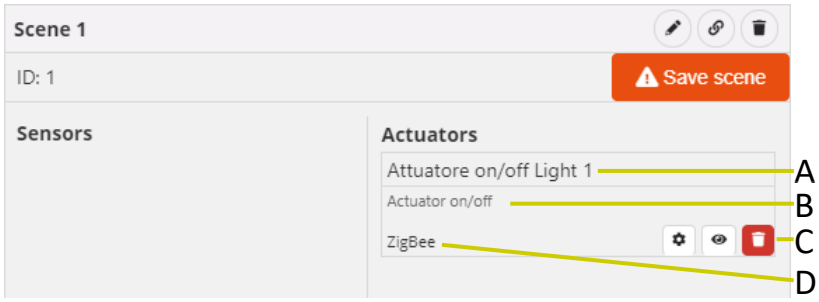


A complete list of the addresses, in ascending order (visualisation at three levels), of 1 byte dimension. For each address, you can see the name, size and Data Point Type (if specified in ETS).
At the head of the list there's a text search field for filtering the contents: the search can be made on the basis of address name or Data Point Type.
The group addresses associated with the scene you are editing are highlighted in grey.

Select a ZigBee functional block and drag it into the central area in order to associate it with the scene you are editing; if it's an Actuator type functional block, a pop-up menu will appear so you can select:

- the cluster of the functional block involved in the scene
- the initial value of the attributes of the cluster selected
- the transition time - i.e. the time, in seconds, that the ZigBee device must take to switch from its current status to the one requested by the scene execution command; this is a parameter of the ZigBee protocol, managed directly by the device itself

The functional block will be visualised in the central part of the page, in the Sensors or Actuators column depending on its category.



A. the name of the device functional block (taken from the “ZIGBEE” menu)
B. the name of the functional block model
C. contextual functions:

- Modify the parameters of the actuator functional block (the same ones visualised when the functional block is inserted in the scene)
- View the details of the functional block (connection to the ZIGBEE menu with the functional block selected).
- Delete a functional block from the scene

D. the type of functional block

There's no limit to the number of ZigBee functional blocks that can be associated with a scene, apart from the physical memory of the ZigBee devices that have to memorise the programming.

When there is at least one ZigBee functional block in the scene, the **Save scene** push-button is visualised, allowing you to write the programming on the physical ZigBee devices:

the scene modifications have not been programmed on the devices; press the push-button to send the programming

the scene configuration has been transferred

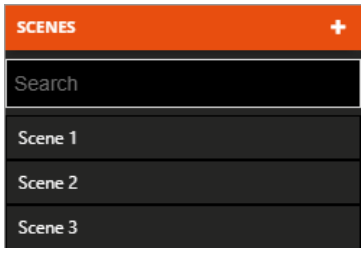
To associate a KNX group address with a scene, just select the address from the list (left-hand column) and drag it onto the centre of the page. The address will then be visualised on the line at the bottom - **KNX group addresses**. In the LIST OF KNX GROUP ADDRESSES, the group addresses connected to the scene are highlighted in grey.

To delete a group address from a scene, press the “x”

icon alongside.

A scene is valid if at least one ZigBee actuator functional block or a KNX group address is present.

All the scenes created are listed, in the order they were created, in the SCENES column (on the right).



To remove a scene from the list, just activate the context menu and select the “Delete” command.
ATTENTION: a scene can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the scene won't be deleted.

To create a copy of a scene, just activate the context menu and select the “Copy” command. You will be asked to enter the name and ID of the new scene in the pop-up that appears. When the settings have been confirmed, a new scene will be created with the same functional blocks/communication objects used in the original one.

SCENARIOS BETWEEN ZIGBEE DEVICES

ZigBee scenarios make it possible to send commands to a group of actuators, therefore acting on different clusters.

For example: pressing a push-button connected to a GWA1502 sends the command Scene_1 to Group_0 which executes the OFF operation in some actuators in the cluster 0x0006 (On/Off) and in other actuators it calls a percentage position of the roller shutters via the cluster 0x0102 (Window Covering).

In this section, it is possible to create, rename, copy, modify and delete scenarios between ZigBee devices. The rename function can be accessed after making the connection using the "pencil" icon located next to the name of the connection.

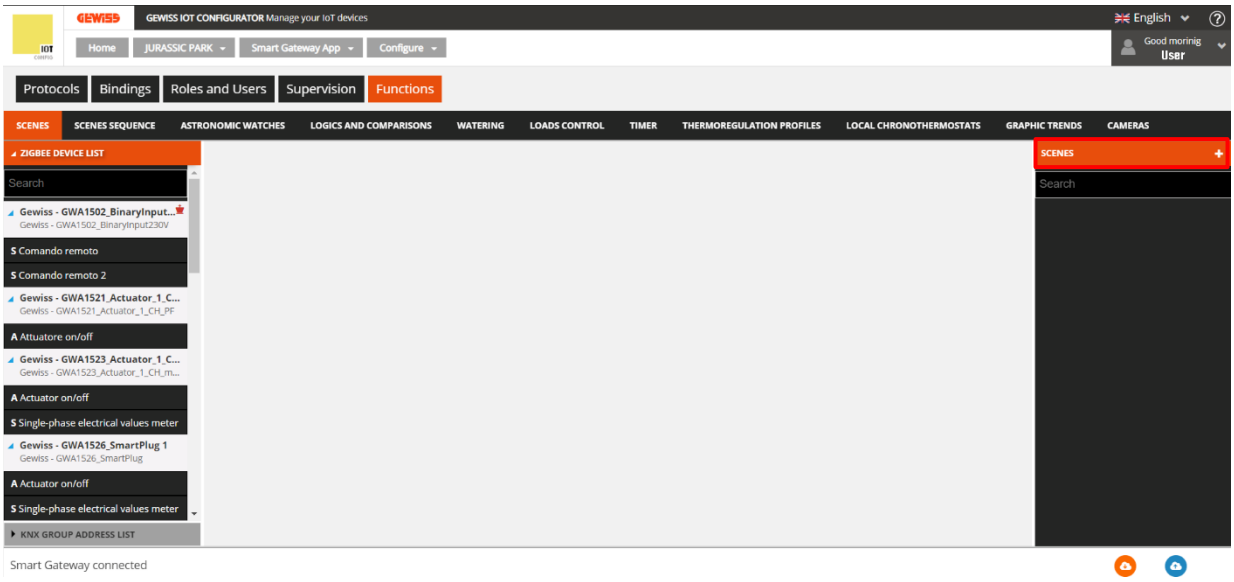
CREATING A SCENARIO

To create this scenario go to the section “Functions/Scenes” of the configurator and click on “+” as shown below in the figure (image 1).

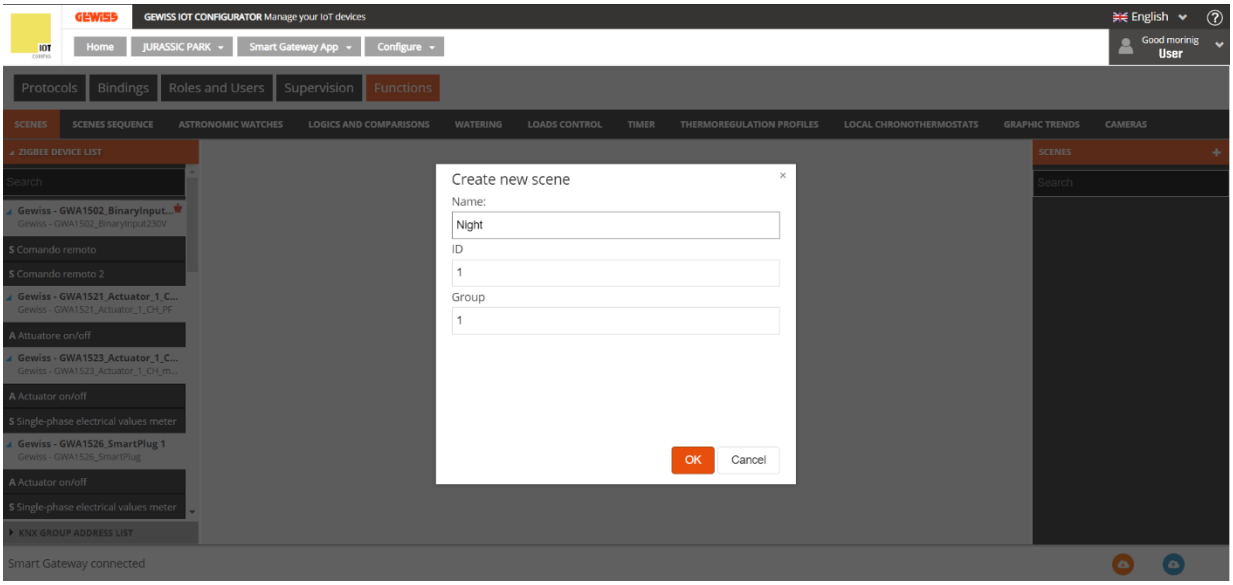
To make the following steps easier to understand, a sample scenario was created in which, when pressing a push-button connected to a GWA1502, it sends a Scenario command to an OnOff actuator (for example to a GWA1521) and to a roller shutter actuator GWA1531.

The following will then be necessary (image 2):

- Give a name to the scenario (“Night” in this example)
- Enter the “Id” for the scene, a number between 0 and 63 (“1” in this example)
- Enter the number that identifies the “Group” of actuators, a number between 0 and 255 (“0” in this example)



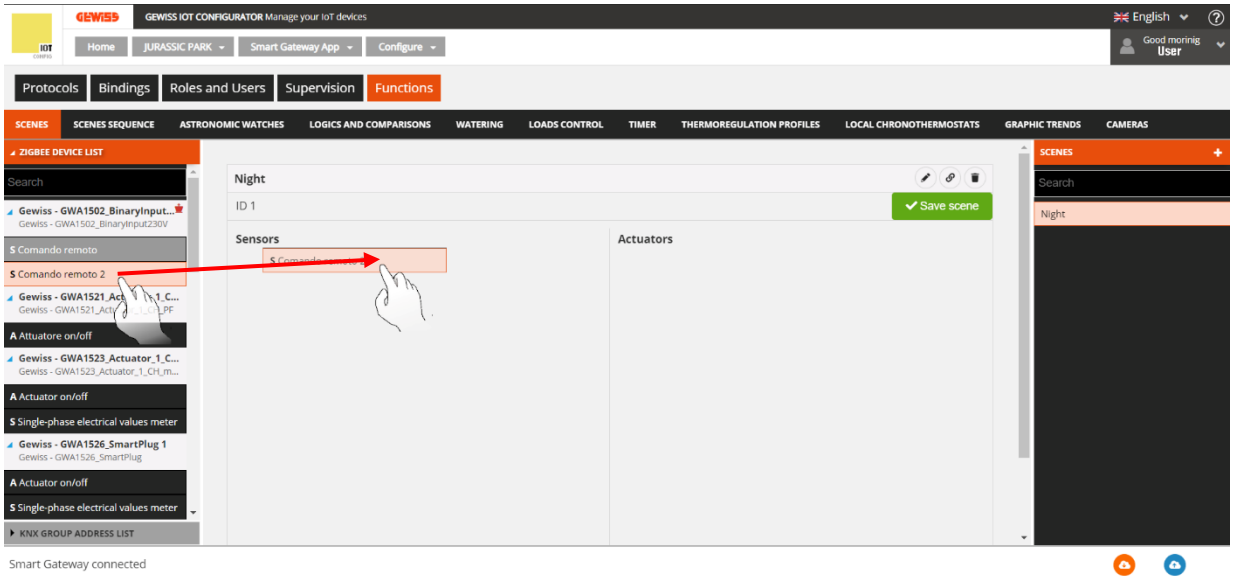
1



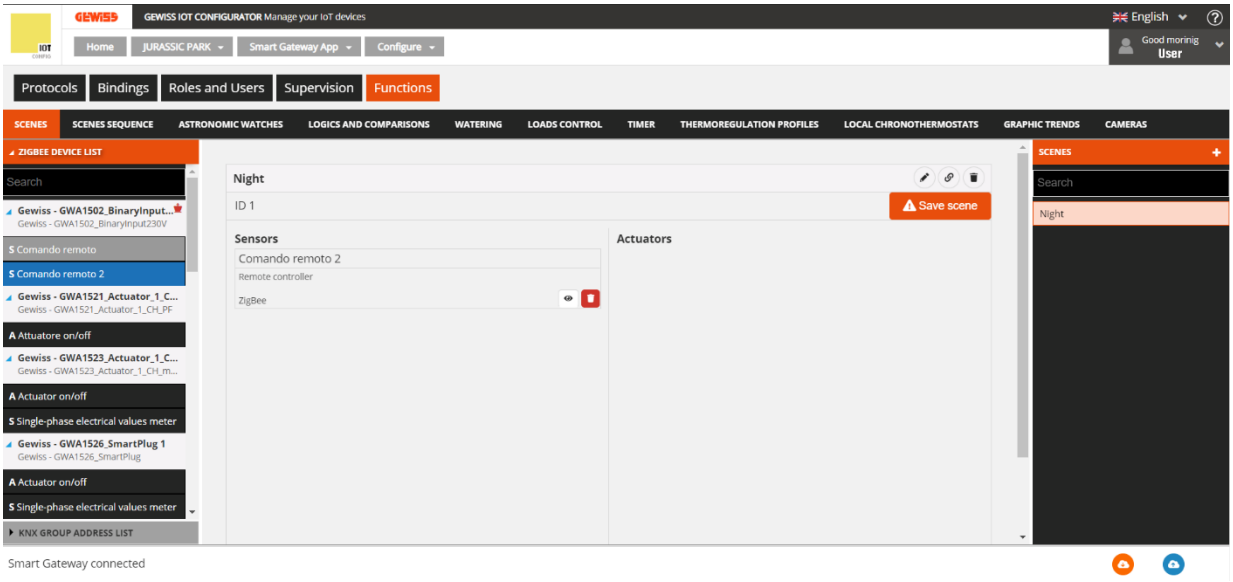
2

The operations listed here are necessary for creating the Group, the scene and the parametrisation of the devices by writing attributes, that is everything that allows a sensor GWA1502 to command the actuator GWA1521 and the actuator GWA1531.

1. Drag the channel function of the sensor that must command the actuators to the “Sensors” box. In this case, the sensor channel dragged is the one relative to input_1 to which a push-button is connected.



1

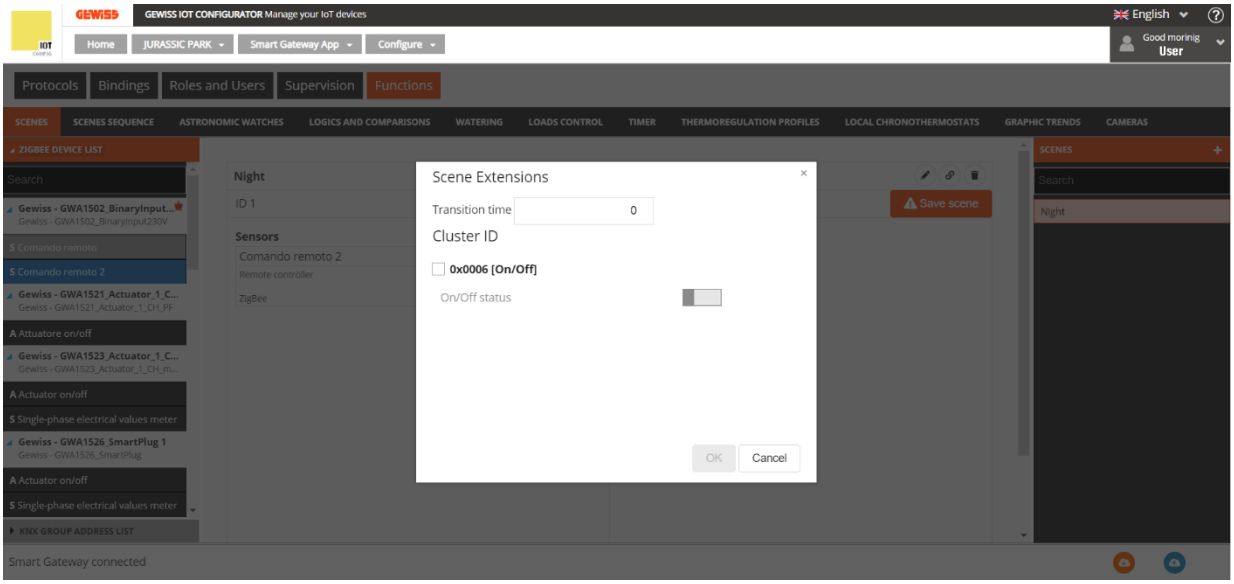


2

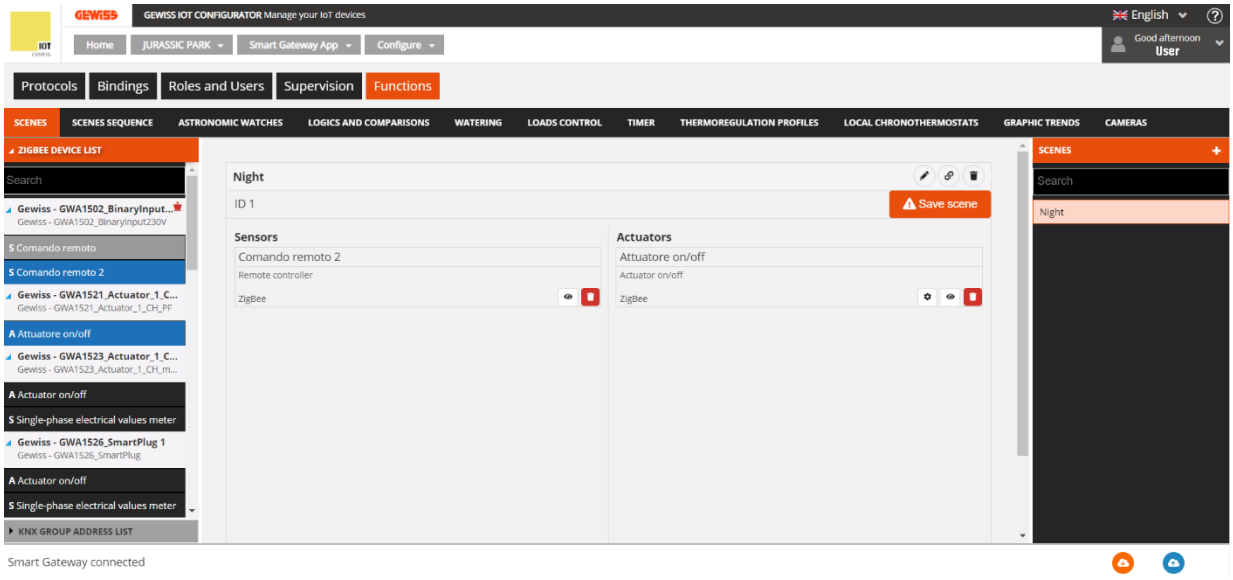
2. Drag the function channel of the actuator GWA1521 to the "Actuators" box. The following must be set:

    a. The transition time: normally enter the value “0”

    b. The value that the actuator must adopt via the cluster 0x0006, using the slider: in this example the value is OFF

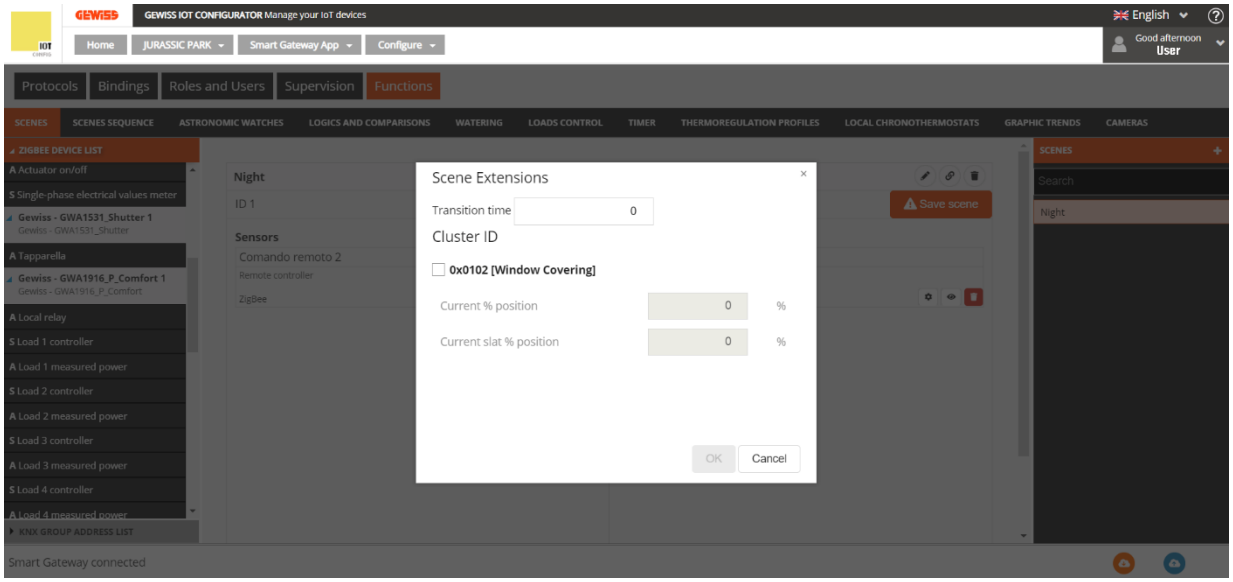


At the end of these operations, the functional channel of the actuator GWA1521 is entered.

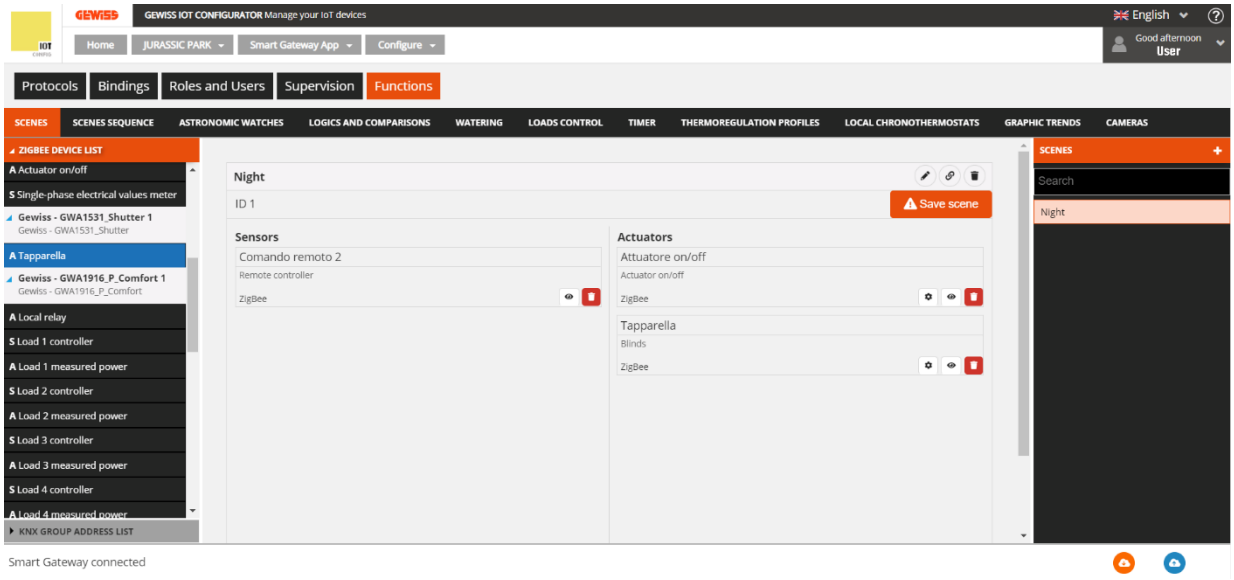


3. Drag the function channel of the actuator GWA1531 to the "Actuators" box. The following must be set:

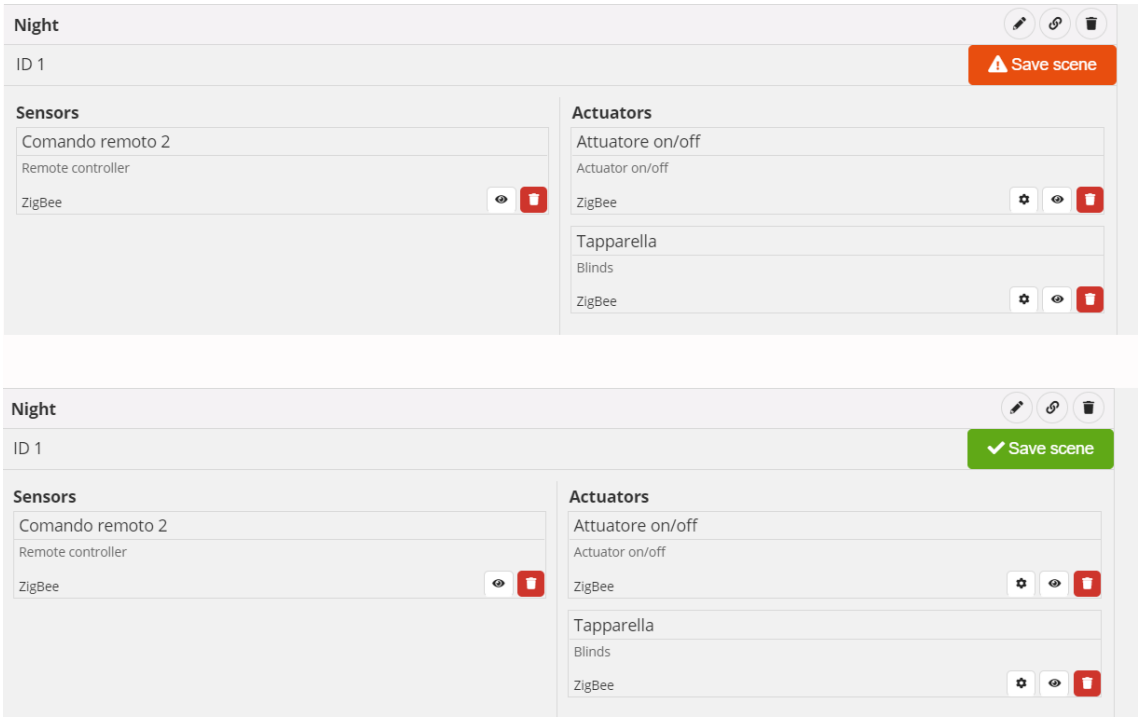
    a. The transition time: normally enter the value 0
    b. Activating the cluster 0x0102, the position of the roller shutters and the inclination of the slats (in this example 0% which means roller shutters completely lowered)



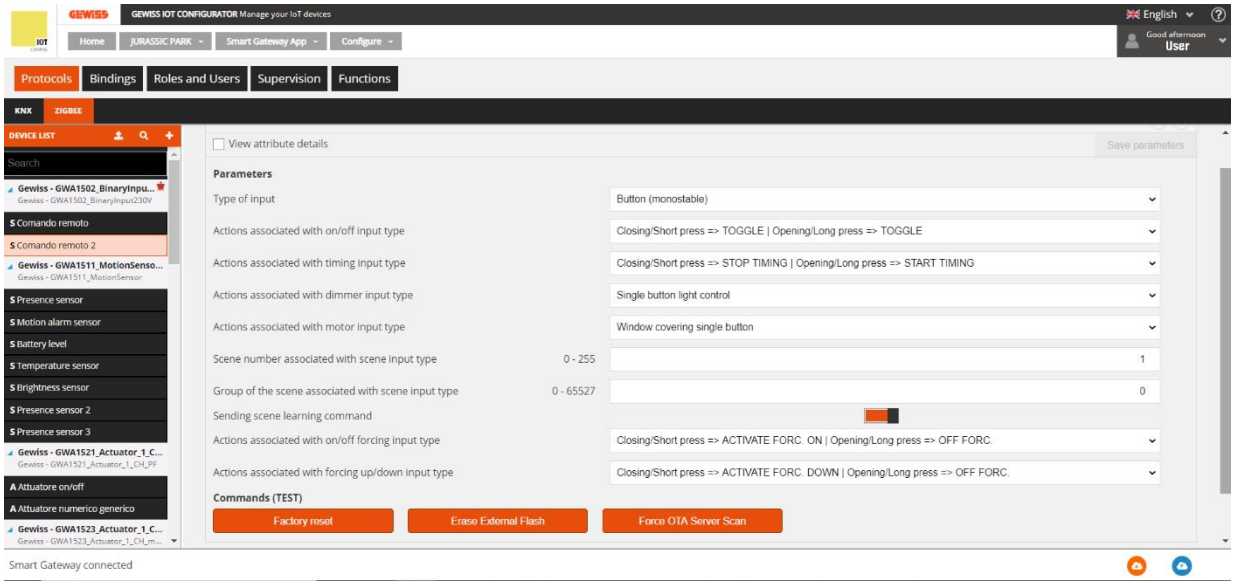
At the end of these operations, also the functional channel of the actuator GWA1531 is entered.



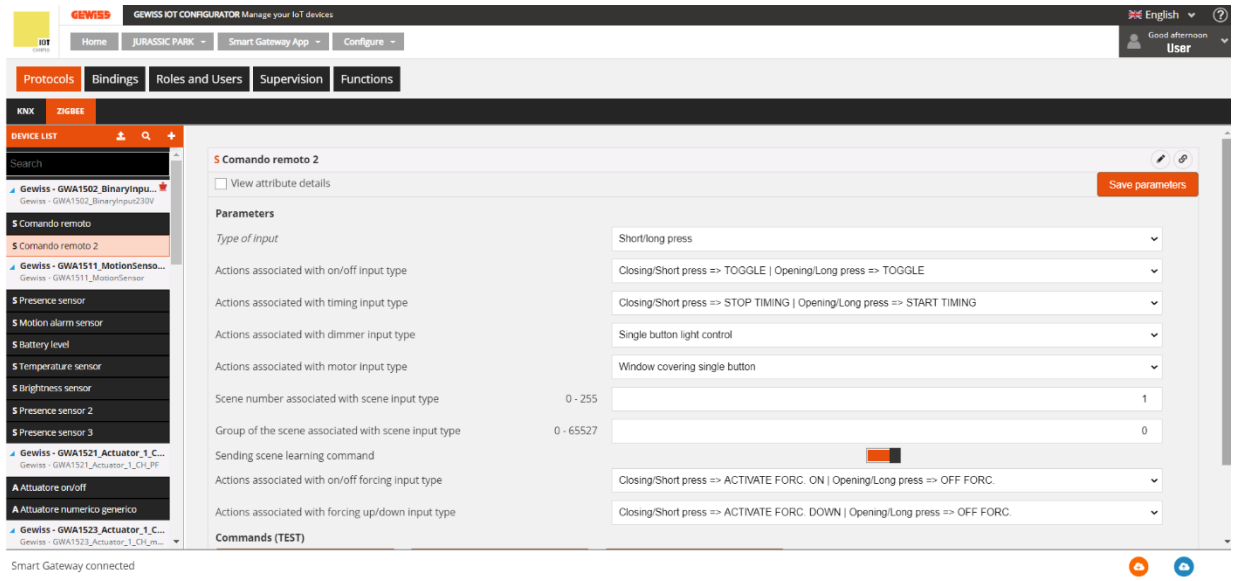
4. To complete the scenario, press the orange “Save scene” push-button to write the group in the actuators in the cluster 0x0004 and create the bind in the cluster 0x0005 of the endpoint_1 in the sensor GWA1502 which will have the group as the recipient. If the operation is successful, the push-button turns green.

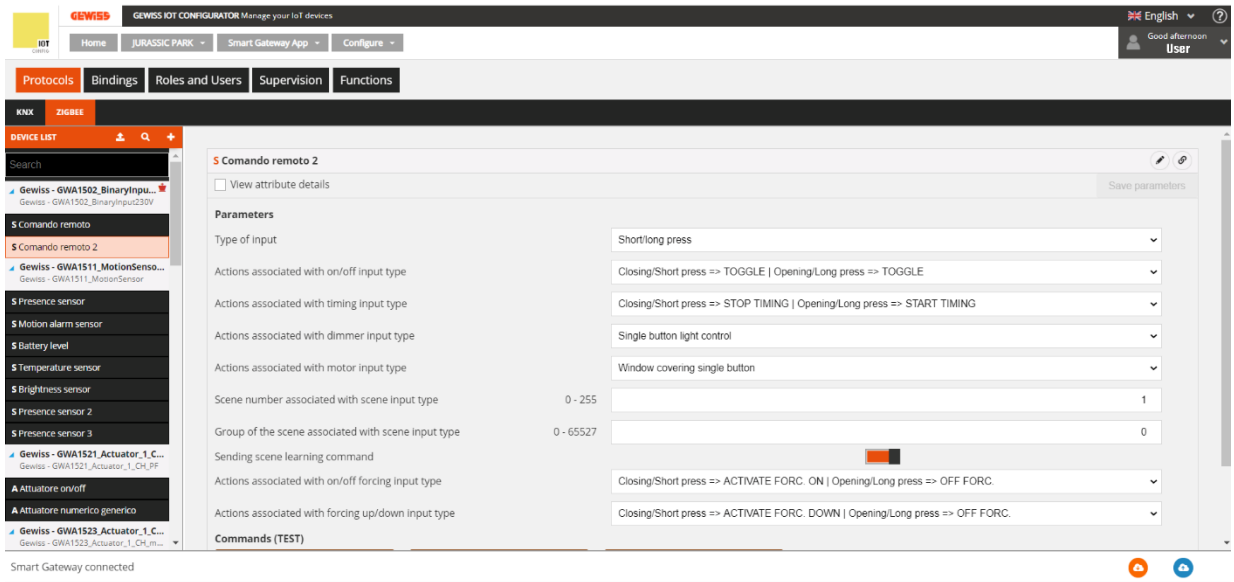


5. Then it is necessary to parametrise the input_1 of the sensor GWA1502 (via the icon 👁 that refers to the parameter page), as follows:
    a. Type of input: in this case “Short/long press”.
    b. Scene number associated with scene input type: in this case 1 (It is the same value entered when creating the scenario)
    c. Group of the scene associated with scene input type: in this case 0 (It is the same value entered when creating the scenario)
    d. Send scene learning command: it is possible to disable the possibility to learn a scene by means of a long press, in this example the function has remained active.



Once all the necessary fields are completed, the changes must be saved in the device: press the “Save parameters” push-button. Once the changes have been saved, the push-button turns grey.





6. A brief press on the push-button connected to input_1 of GWA1502 sends a command to call Scene_1 on Group_0 and at this point the actuator GWA1521 must switch to the OFF status and GWA1531 to 0% (roller shutter completely lowered).

CHANGING THE SCENE VALUES

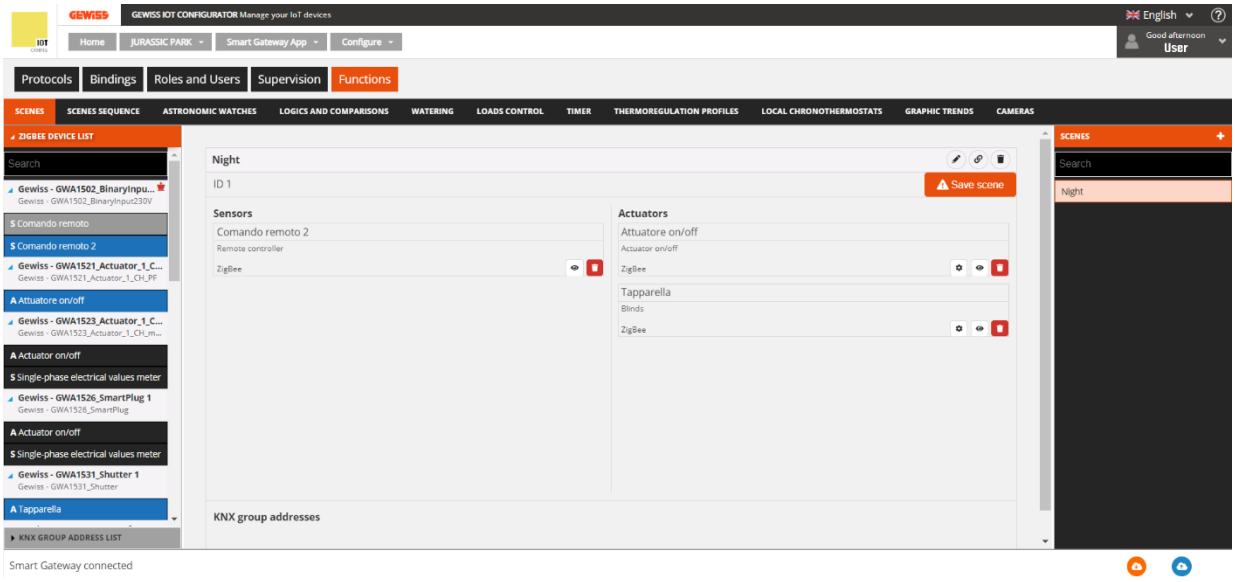
The values that the actuators adopt when they receive the scenario command can be changed in three ways:

1. By means of a long press of the push-button of GWA1502, which saves the new values for the scene in question; for example, if at the moment of the long press, the status of GWA1521 is ON and the roller shutter is at 70%, when the scene is called by means of a brief press, the actuators implement the new stored values (in reference to the example used in the previous paragraph).

   The function is possible if the “Send scene learning command” parameter is enabled.

2. Via the App, it will be possible to store the new scene values, also in this case, only if the “Send scene learning command” parameter is enabled.

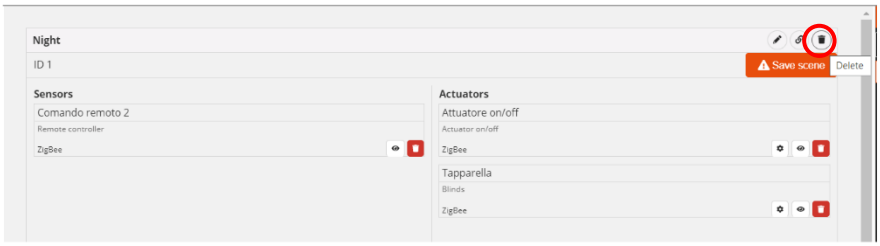
3. Via the configurator, clicking the “gear” icons ⚙ located in the function channel of the respective actuator changes the scene, as described in points 2, 3 and 4 of the previous paragraph “Creating a scenario”.



DELETING A SCENARIO

It is possible to delete a scenario with the “trash” icon located on the row that contains the name given to the scenario (in the image, no. 1), or by right clicking the scenario list (in the image, n. 2).

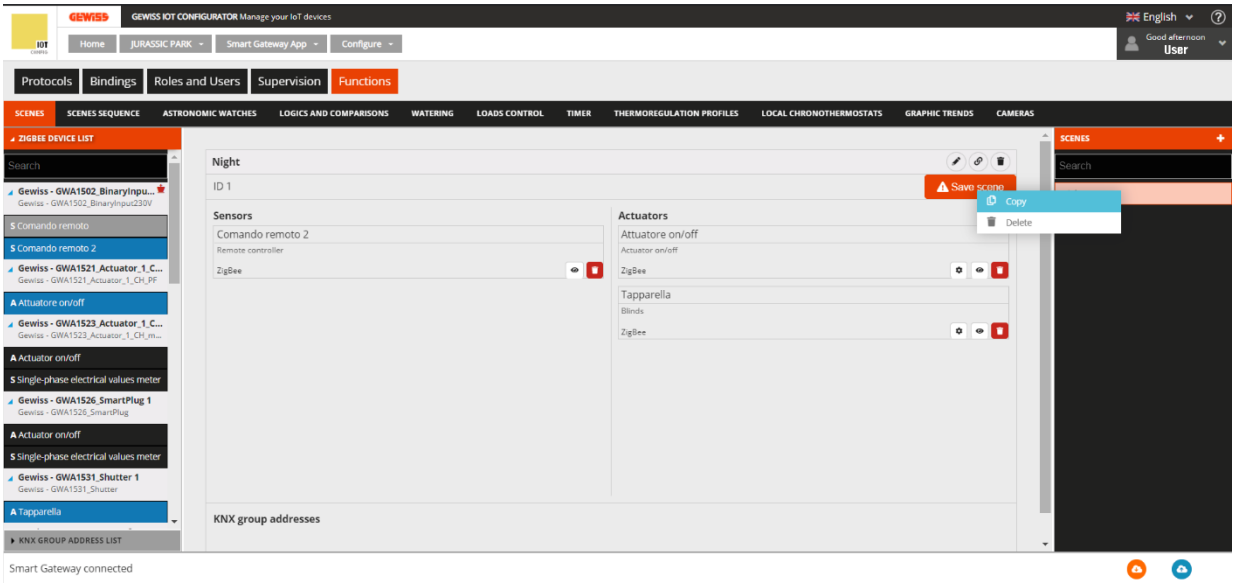
1



2

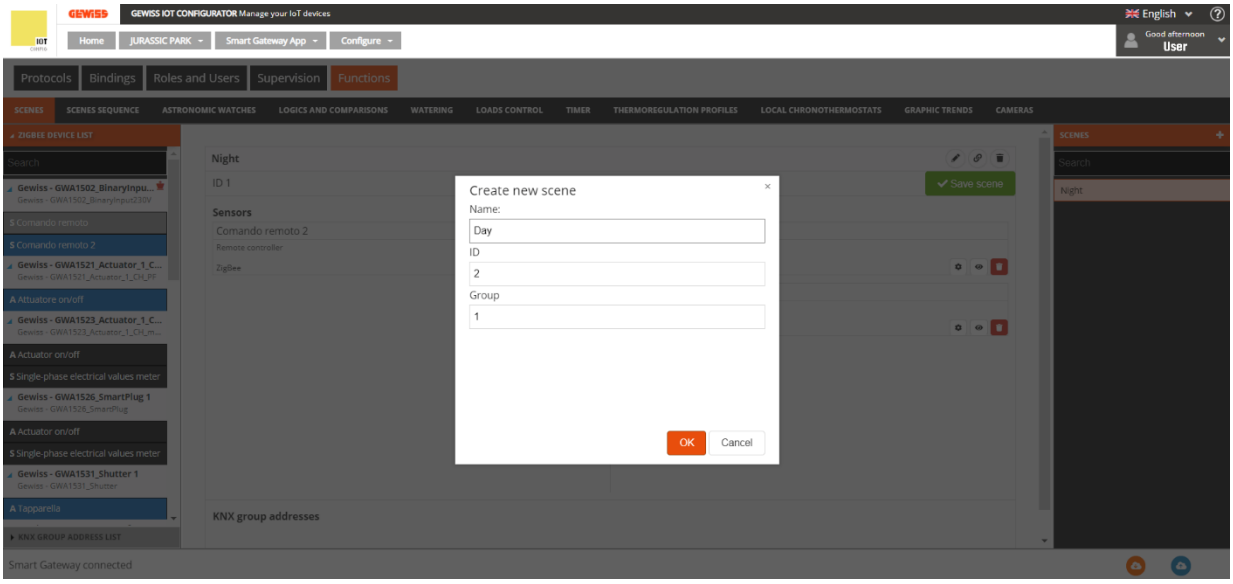
COPY A SCENARIO

The copy scene function is accessed by right clicking the scene you want to copy.

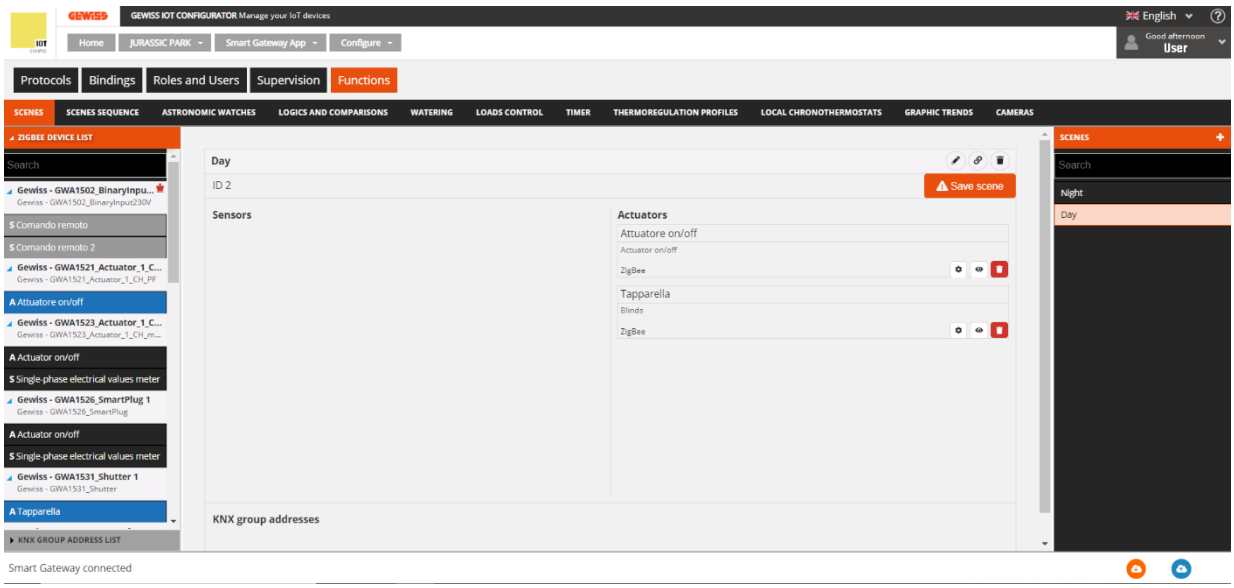


The screen shows a tab where the following is necessary:

- Change the “Name” field: in the example it was changed from “Night” to “Day”.
- Change the scene number (even if an incremental value is already displayed): in the following example, the value 2 was automatically entered by the configurator in the “ID” field.
- Change the “Group” even if the same can be used considering that it is presumed that the same actuators are used: in the following example, Group_0 is maintained.



Once the tab is completed, the user is requested to complete the scenario by entering a functional channel of a sensor whereas in the “actuator” field, the actuators from the scenario that was copied are entered, but that does not mean that we can't add others or remove those that were already entered.



The next steps for completing the creation are described in the paragraph “Creating a scenario”.

CHANGE A SCENARIO

To change a scenario, simply select it from the “Scenario” list (Right column on the “Functions/Scenarios” page) and make the changes in the box that shows the functions associated with that scenario (it is possible to change the function channel of sensors or actuators).

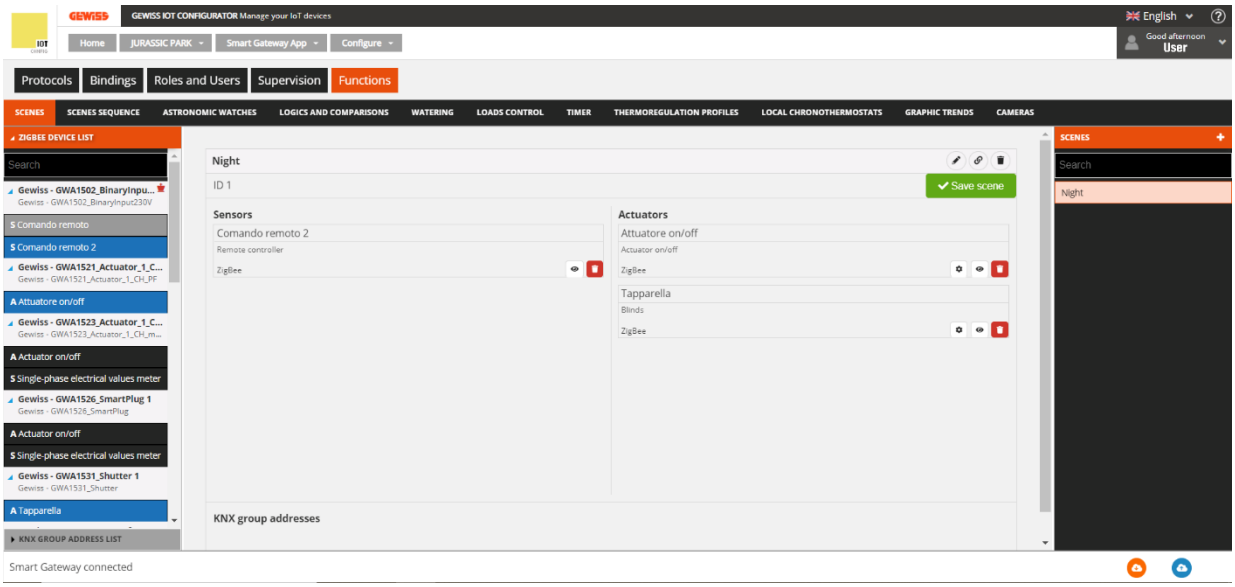
In the following example the function channel of input_1 for GWA1502 is added to the scenario “Night” (images 1 and 2).

To confirm the change, click the orange “Save scene” push-button

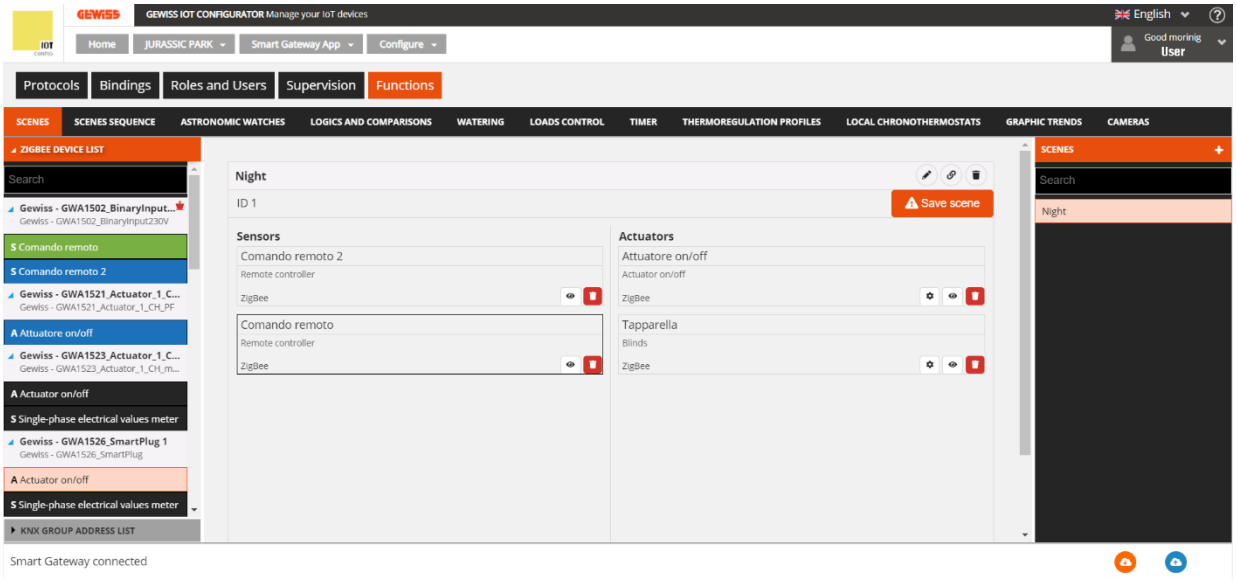
that will create the binding in a similar manner to what is described in the paragraph “Creating a scenario” with particular reference to the parametrisation of the input (point 5 of that paragraph).

If the operation is successful, the “Save scene” push-button turns green

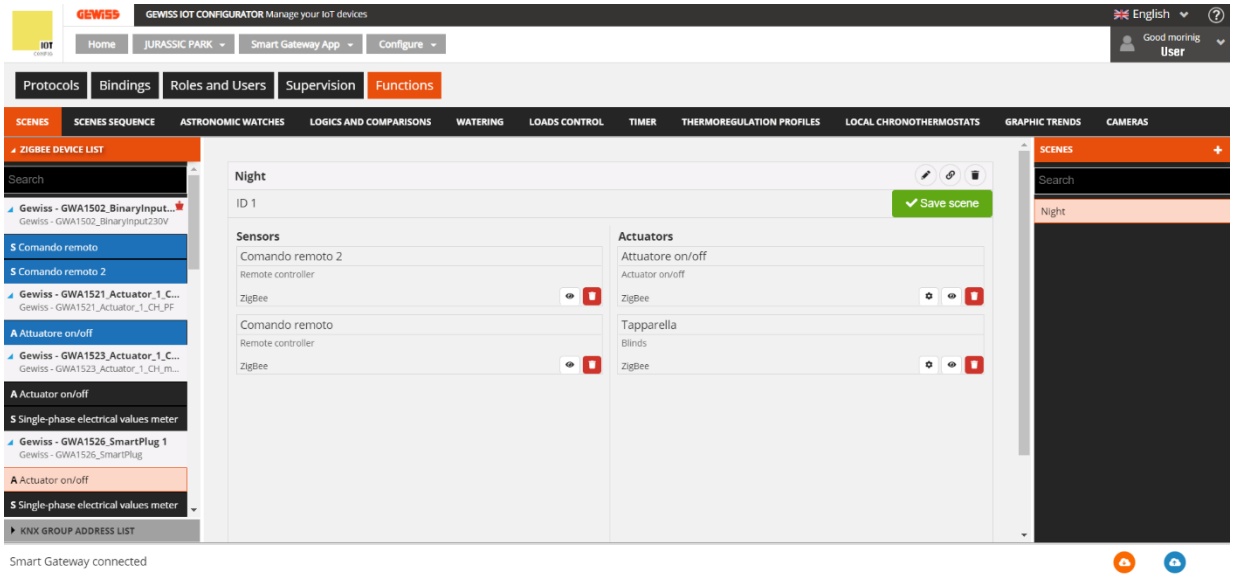
(image 3).



1



2


GEWISS IOT CONFIGURATOR Manage your IoT devices
English
Home
JURASSIC PARK
Smart Gateway App
Configure
Good morning
User
Protocols
Bindings
Roles and Users
Supervision
Functions
SCENES
SCENES SEQUENCE
ASTRONOMIC WATCHES
LOGICS AND COMPARISONS
WATERING
LOADS CONTROL
TIMER
THERMOREGULATION PROFILES
LOCAL CHRONOTHERMOSTATS
GRAPHIC TRENDS
CAMERAS
ZIGBEE DEVICE LIST
Search
Gewiss - GWA1502_BinaryInput...
Gewiss - GWA1502_BinaryInput230V
S Comando remoto
S Comando remoto 2
Gewiss - GWA1521_Actuator_1_C...
Gewiss - GWA1521_Actuator_1_CH_PF
A Attuatore on/off
Gewiss - GWA1523_Actuator_1_C...
Gewiss - GWA1523_Actuator_1_CH_m...
A Actuator on/off
S Single-phase electrical values meter
Gewiss - GWA1526_SmartPlug 1
Gewiss - GWA1526_SmartPlug
A Actuator on/off
S Single-phase electrical values meter
KNX GROUP ADDRESS LIST
Night
ID 1
Save scene
Sensors
Comando remoto 2
Remote controller
ZigBee
Comando remoto
Remote controller
ZigBee
Actuators
Attuatore on/off
Actuator on/off
ZigBee
Tapparella
Blinds
ZigBee
SCENES
Search
Night
Smart Gateway connected

3

Creating roles and a role/user association

In the structure of the Gewiss application, each specific “role” can have different rights of access to the supervision views - i.e. the possibility to access zones, environments, functions, specific control elements (e.g. an object command).
In the Roles and Users section, you can create different roles within the installation and associate them with users. A user can have one role only within a single system.
The system envisages two roles that are always present and can't be deleted: Installer and System Administrator.
The first user associated with the Smart Gateway adopts the role of Installer (see Creating a new system); the other users are associated during the configuration phase.

The rights associated with the roles are as follows:

INSTALLER
This role is present by default (it doesn't need to be created and can't be deleted).
This role can only be covered by one user on each system.
The role must always be covered by a user; it's impossible to have a system without an Installer.
The Installer role gives the following rights:

1. View the system details
2. Update the software of the IoT devices
3. Enable the system: create, view, modify and delete the system configuration (Supervision and Smart Gateway functions)
4. Create, view, modify and delete user roles and specify a list of users who will cover that role for that system
5. Assign a user with the System Administrator role (one user only); this user cannot be one of the specific physical users of each user role, and must not already be associated with the Smart Gateway in another role
6. Create, view, modify and delete the supervision of each role
7. Enable/Disable the possibility for new users to associate themselves with a Smart Gateway
8. Enable/Disable the possibility of remote intervention on the system configuration by Gewiss Service
9. Change the roles of the physical users already associated with the system
10. Replace or delete the user associated with the System Administrator role
11. Change the user associated with the Installer role for a new user already registered on the GEWISS IoT Configurator; after making the replacement, the Installer will lose all configuration rights and will be redirected to the list of systems
12. Disassociate the physical users associated with the Smart Gateway
13. Disassociate himself from the Smart Gateway (before doing this, he must indicate another user for the role of Installer)

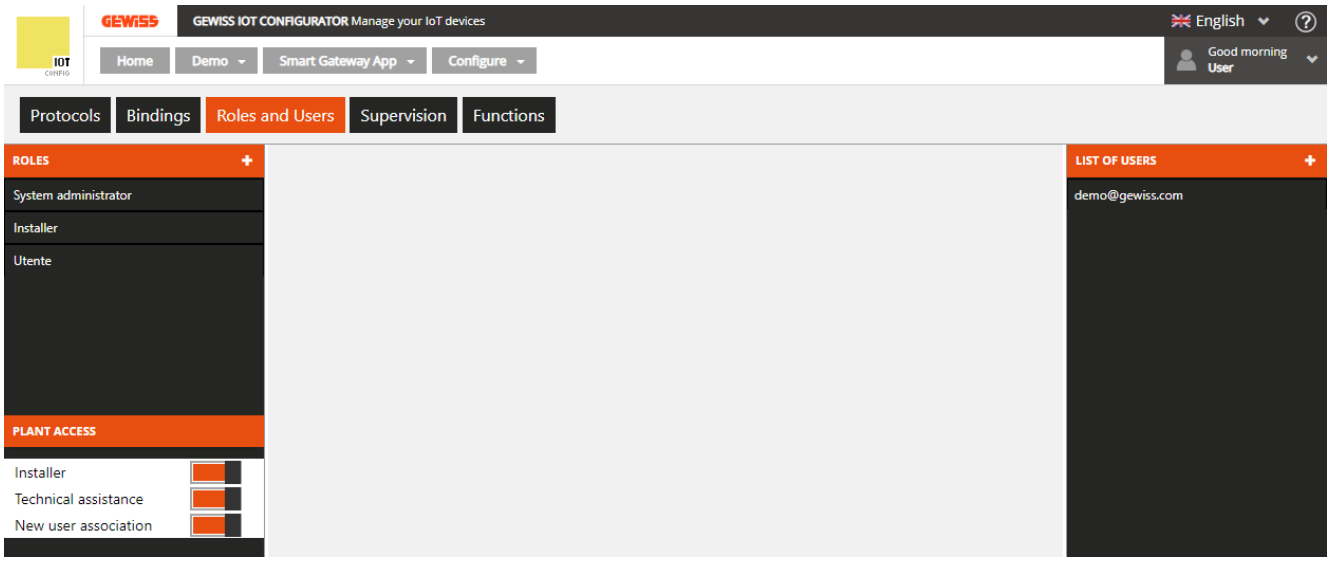
SYSTEM ADMINISTRATOR
This role is present by default (it doesn't need to be created and can't be deleted).
This role must be defined because the system administration rights must be assigned to a user other than the Installer at the end of the start-up. This role is usually adopted by the system owner.
The System Administrator role gives the following rights:

1. View the system details
2. Modify the system configuration: create, view, modify and delete the system configuration (Supervision and Smart Gateway functions)
3. Create, view, modify and delete user roles and specify a list of users who will cover that role for that system
4. Assign/Remove system modification rights to/from the Installer (this can also be done via the app): this operation takes away the Installer's right to access the system supervision function and all the other rights of the role, apart from the possibility to view the system details.
5. Change the user associated with the Installer role

6. Enable/Disable the possibility for new users to associate themselves with a Smart Gateway
7. Enable/Disable the possibility of remote intervention on the system configuration by Gewiss Service
8. Change the roles of the physical users already associated with the system
9. Disassociate the physical users associated with the Smart Gateway
10. Disassociate himself from the Smart Gateway

USER / END USER:
No limits to the User roles, that can be created by the Installer or System Administrator.
Users with a "User" role have no access to the App configuration section.
User roles can be utilised to differentiate supervision, in terms of visualisation/access to environments and command elements and the right (via the app) to create functions.

Once the “Roles and Users” menu has been selected, the LIST OF USERS is displayed on the right, while in the left are displayed the list of roles available and the access permissions to the plant.



To create a new User Role, press the “**+**” icon in the right-hand column (“ROLES”).

Enter the name you want to associate with the role, and specify whether the role is open or closed:
- open

a role that can be covered by any user once the Smart Gateway ID code has been entered (as long as the new user association flag is enabled)

- closed

a role that can only be covered by users specified by the Installer or System Administrator on this page
Examples:

case a) Open “Child” role and no user specified
All the new physical users that associate themselves with the Smart Gateway can assume the “Child” role.

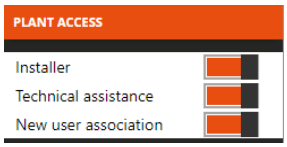
case b) Open “Child” role and 2 physical users - “Giovanni@demo.com” and “Fabio@demo.com” specified
All the new physical users that associate themselves with the Smart Gateway can assume the “Child” role. The users “Giovanni@demo.com” and “Fabio@demo.com” will automatically assume the “Child” role for that specific system once they have accessed the GEWISS IoT Configurator.

case c) Exclusive “Child” role and 2 physical users - “Giovanni@demo.com” and “Fabio@demo.com” specified
Apart from the physical users “Giovanni@demo.com” and “Fabio@demo.com”, no other new users who associate themselves with the Smart Gateway can assume the role of “Child”.
The physical users “Giovanni@demo.com” and “Fabio@demo.com” will automatically assume the “Child” role once they have accessed the GEWISS IoT Configurator.
To add another user (“Maria@demo.com”) to the “Child” role, the Installer or System Administrator must associate the user with that specific role (indicating the user “Maria@demo.com” for the role of “Child”).

case d) Exclusive “Child” role and no user specified
No new users who associate themselves with the Smart Gateway can assume the role of “Child”.
To associate a user with the role of “Child”, the Installer or System Administrator must associate that user with that specific role (indicating the user for that role).

Once the setting has been confirmed, the new User role will be added to the Roles list (left-hand column).

In the bottom of the left column, are present the parameters to enable/disable the access permissions to the system of:

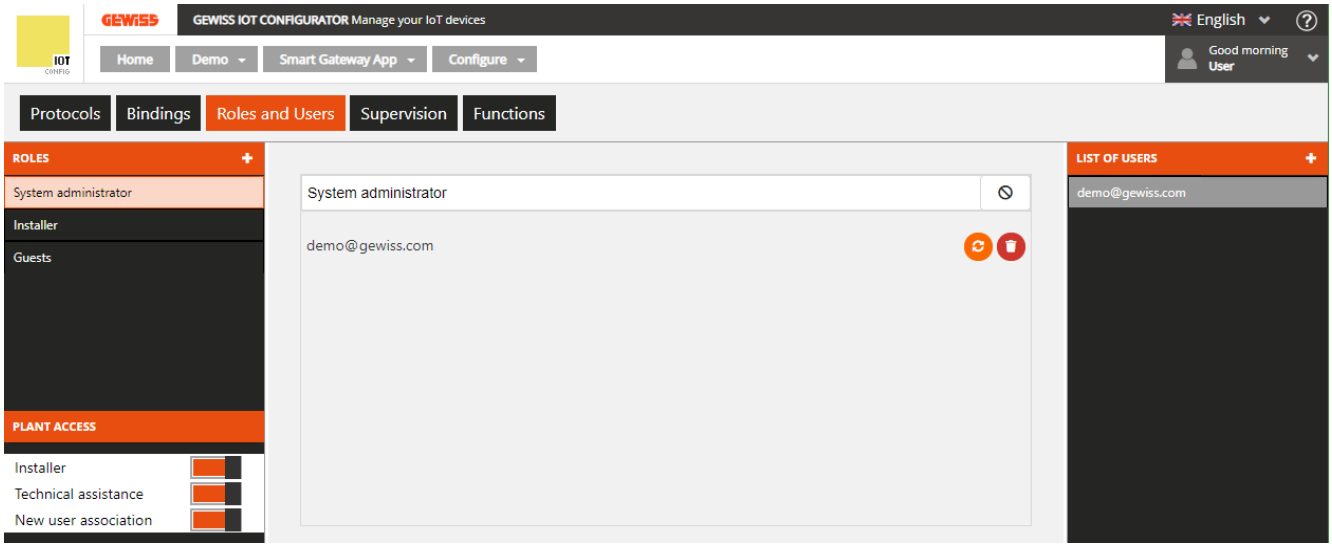


- **Installer** → It enables the installer to access the system (parameter visible only if the user has the role of system administrator). If disabled, the user who covers this role can no longer access the supervision and configuration of the system while remaining the installer
- **Technical assistance** → It enables the GEWISS technical assistance to access to the system
- **New users association** → It enables the association of new users to the system. If disabled, no user can be added to the system even if open roles have been foreseen

To create a new User to be associated with one of the associated roles, press the “**+**” icon in the right-hand column (“LIST OF USERS”).

Enter the User name (valid e-mail address) and select the role you want to associate the name with. The new user will be informed of the association by means of an automatic e-mail.
The LIST OF USERS shows all the users associated with the system.
In the LIST OF USERS (right-hand column), all the users associated with the role you are editing are highlighted in grey.

Once you have created a new role or selected one from the “ROLES” list (left-hand column), the central part of the page will show all the information relating to that role.



Next to the name of the role, you can see:

- **Modify** push-button for changing the name of the role and its type (open or closed); this push-button isn't available if the role selected is Installer or System Administrator
- Icon showing that the role is closed
- Icon showing that the role is open

Below the name of the role, there is a list of all the associated users. Next to each name on the list, you can see:

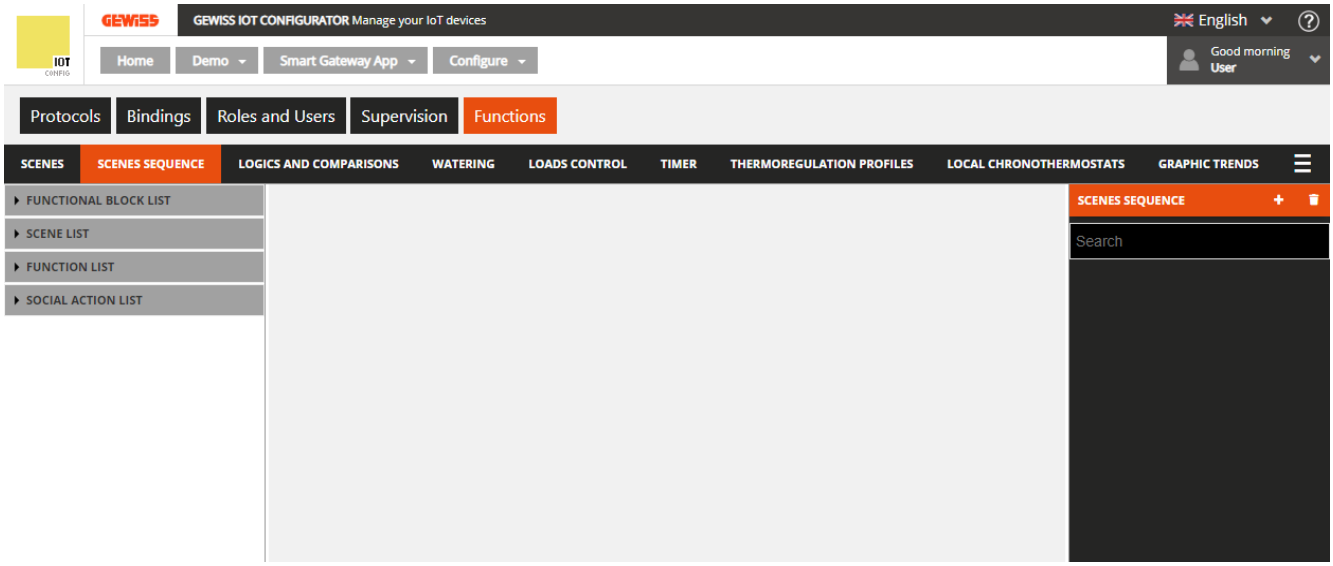
- **Replace user** push-button for changing the user associated with the role; this push-button is only available if the role selected is Installer or System Administrator
- **Remove user** push-button for deleting the user from that role and disassociating him from the system; this push-button isn't available if the role selected is Installer

A user's role can be modified by simply selecting the user name from the LIST OF USERS and dragging it directly into the list of users associated with the role you are editing; this operation automatically changes the role for that user.

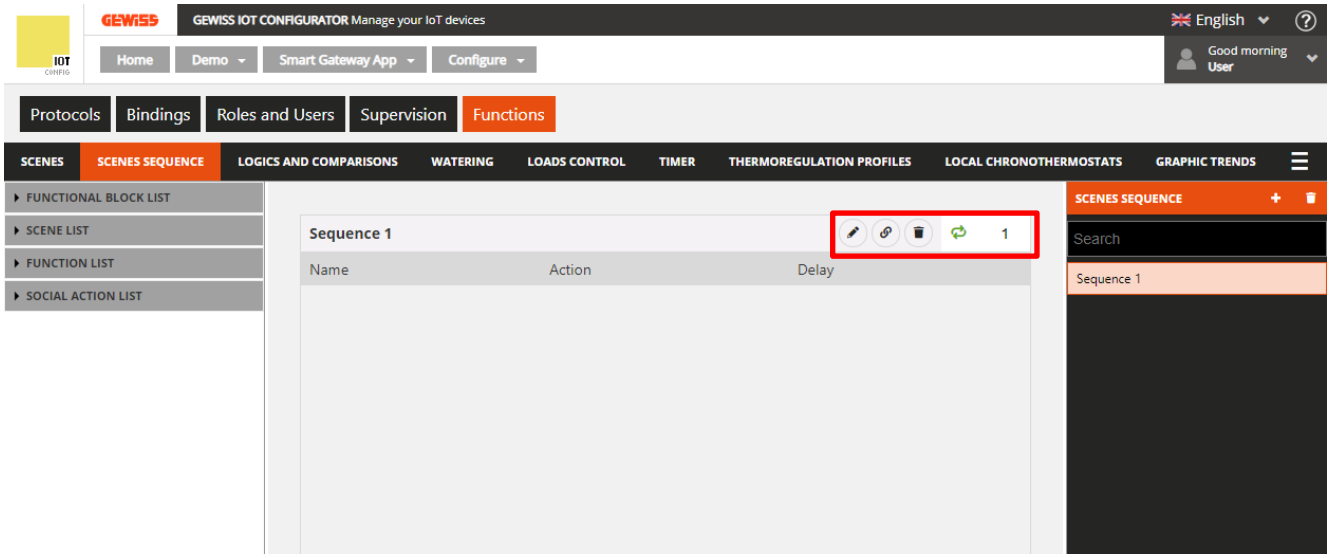
In the LIST OF USERS (right-hand column), all the users associated with the role you are editing are highlighted in grey.

Scene sequence

A scene sequence can group together a series of commands to the devices in the field, with the possibility to delay their implementation; the Smart Gateway manages the implementation according to the settings configured.
After selecting the “Functions” menu on the first line and the “SCENE SEQUENCE” menu on the second, you will see the SCENE SEQUENCE column (on the right) and a list of the elements that can be used in the scenes in the column on the left.



To create a new scene sequence, press the “**+**” icon in the right-hand column (“SCENE SEQUENCE”). Enter the name you want to associate with the scene, then confirm.



The central part of the page will show a list with all the actions (commands) that will be implemented when the scene sequence is activated.

Next to the name of the scene sequence you will see:

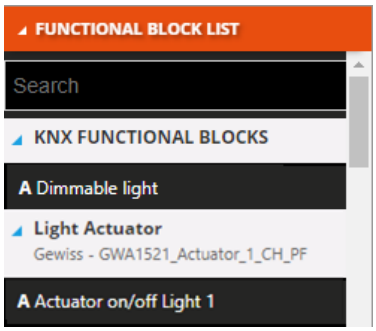
- **Rename** push-button for modifying the name of the scene
- **View connections** push-button for displaying all the pages where the scene is used (select the required page to gain direct access)

Delete push-button for eliminating the scene

1 Numerical field for setting the number of repeats of the sequence of commands in the scene, once it has been activated. Possible values: from 1 to 250

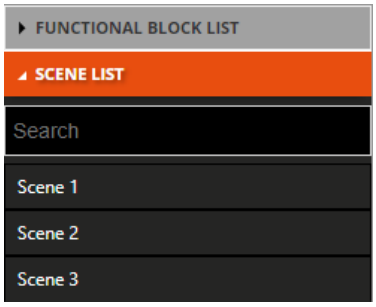
The left-hand column shows:

- **LIST OF FUNCTIONAL BLOCKS**



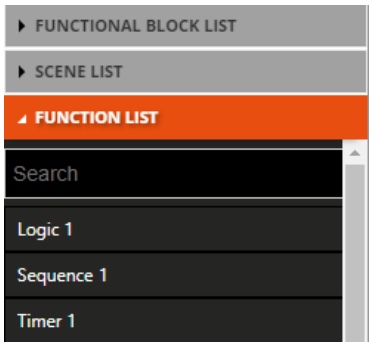
A complete list of the Actuator type functional blocks.
The ZigBee functional blocks are shown with a tree structure:
i. the name of the ZigBee device (taken from the “ZIGBEE” menu)
ii. the device functional block, with name and category ("A" = Actuator)
The KNX functional blocks are grouped in the KNX FUNCTIONAL BLOCKS sub-set and are represented with their name (taken from the “KNX” menu) and category (“A” = Actuator).
At the head of the list there's a text search field for filtering the contents.
The functional blocks already used in the scene sequence you are editing are highlighted in grey.

- **LIST OF SCENES**



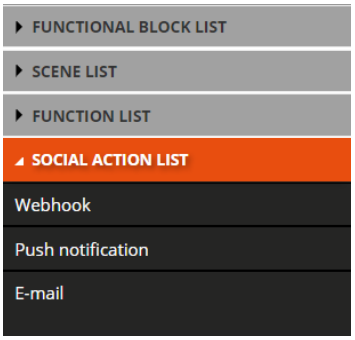
A complete list of the (pre-set) field scenes.
At the head of the list there's a text search field for filtering the contents.
The scenes already used in the scene sequence you are editing are highlighted in grey.

- **LIST OF FUNCTIONS**



A complete list of the elements in the Functions category, with the exception of the preset scenes (separate list) and graphic trends (not managed).
At the head of the list there's a text search field for filtering the contents.
The elements already used in the scene sequence you are editing are highlighted in grey.

- **LIST OF SOCIAL ACTIONS**

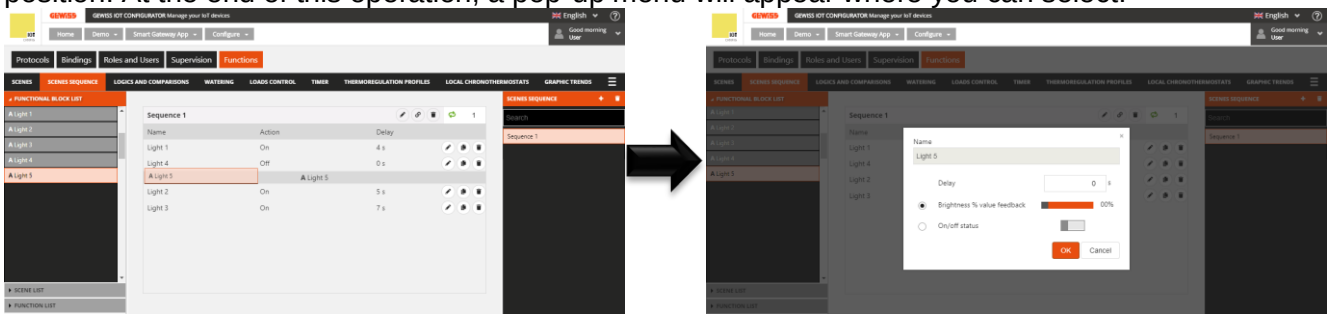


Complete list of available social actions (Webhook, push notification, E-mail).
The social actions can be only used as the output of a logic.

- **INTEGRATION LIST**

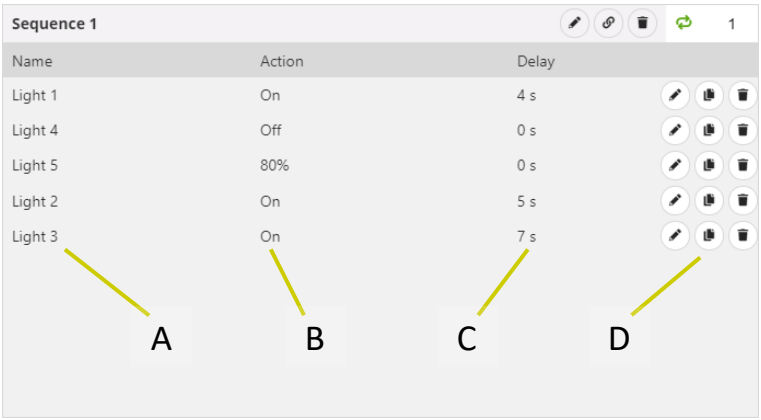
Complete list of elements in the "Integration" category.

Select a functional block, scene or functions element and drag it into the central area in order to add it to the sequence you are editing; release the object in the list of actions, in the required execution position. At the end of this operation, a pop-up menu will appear where you can select:



- the command implementation delay (in relation to the previous action in the list)
- the command you want to send (if several command types are available, you must first of all (before setting the value) select the command by ticking the relative checkbox).

After confirming the settings, the command will be visualised in the central part of the page, in the list of scene actions, in the position defined when you dragged it previously.



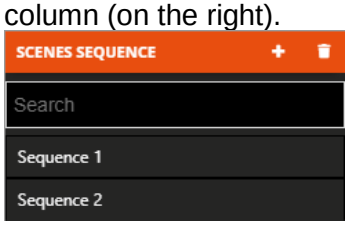
A. name of the functional block/scene/function to be managed via the command
B. command (action) to be implemented
C. implementation delay in relation to the previous action
D. contextual functions

- Modify the object parameters (the same ones visualised when the object was being inserted in the sequence); this function is called up by double clicking on the row that represents the object
- Create a copy of the action
- Delete from the sequence

To move an action that has already been created, just select it and drag it to the required position.

There are no limits to the number of actions that can be associated with a scene sequence.

All the scene sequences created are listed, in the order they were created, in the SCENE SEQUENCE column (on the right).

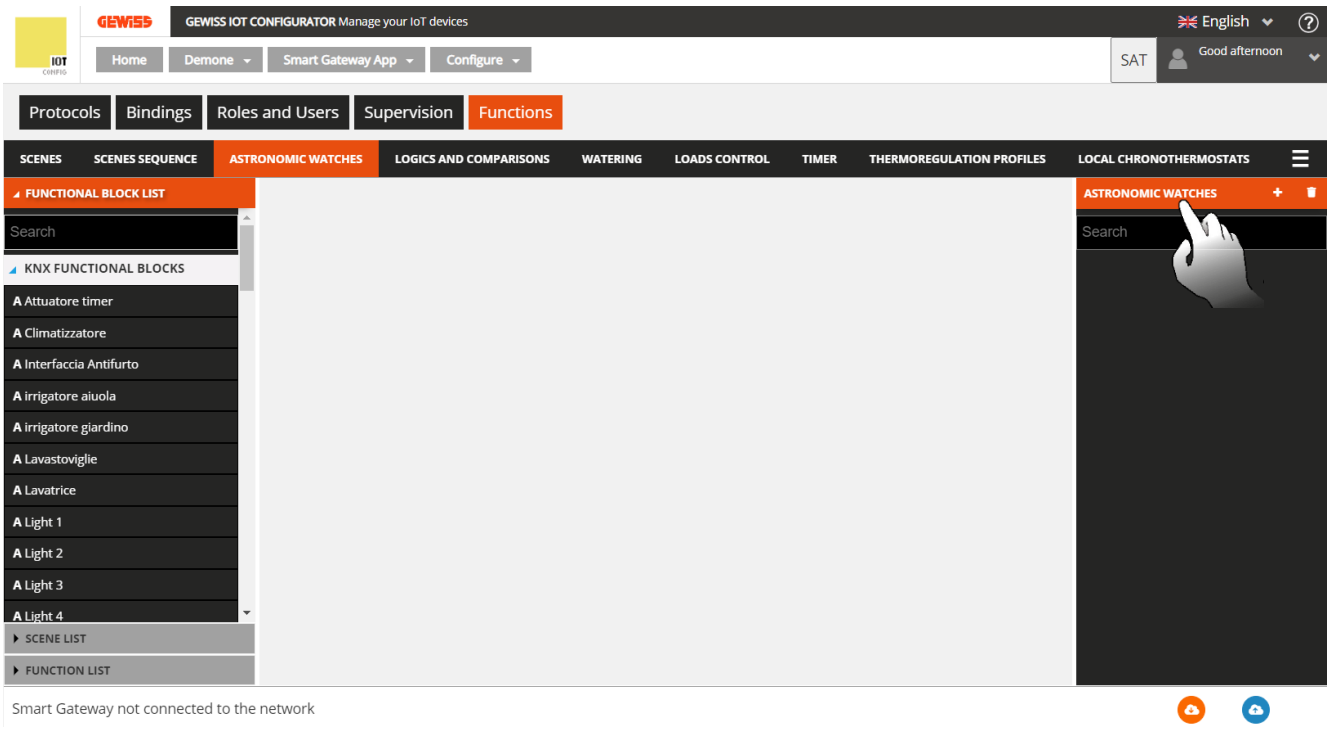


To remove a scene sequence from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the scene sequences simultaneously by pressing the icon in the right-hand column (“SCENE SEQUENCES”).
ATTENTION: a scene can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the scene won't be deleted.

Astronomic watches

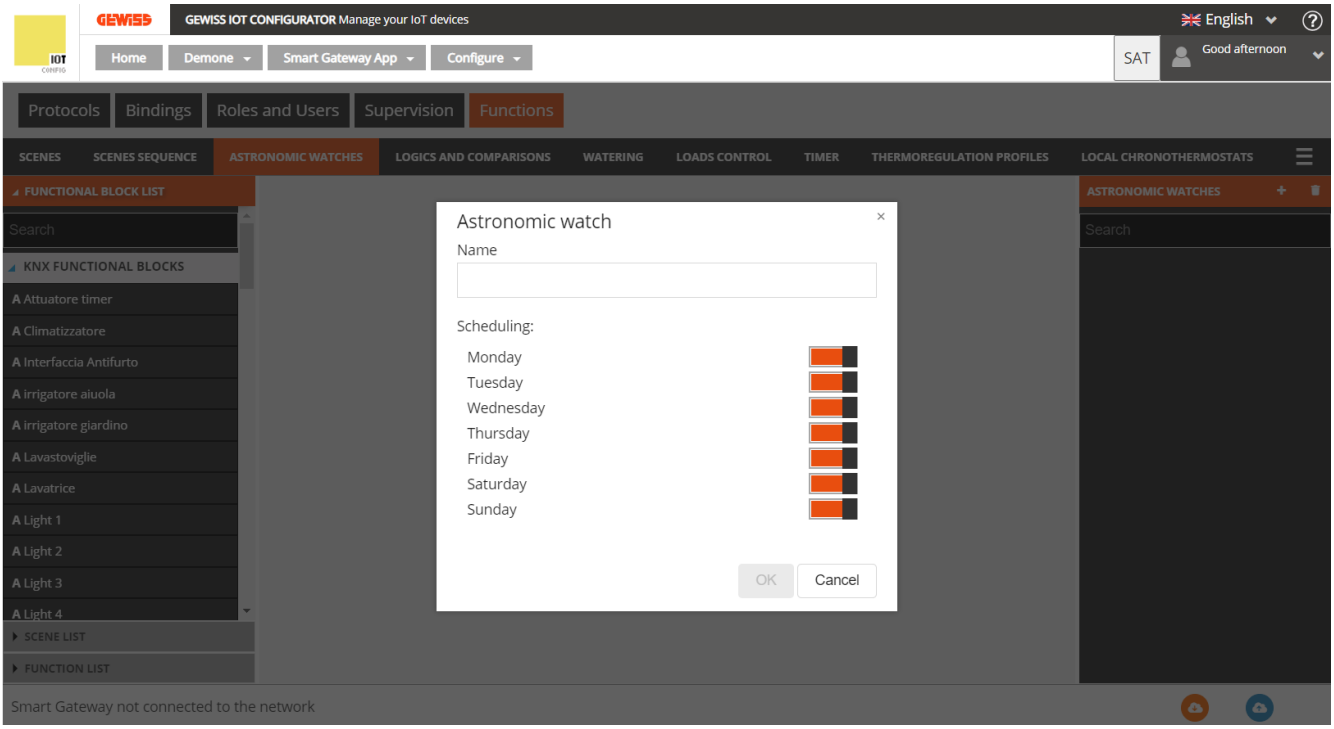
In an astronomic watch, a series of commands can be sent to the field devices based on the time of the sunrise and sunset, which are calculated directly by the Smart gateway based on the geographical coordinates set for the system.
Once the “Functions” menu is selected on the first row and the “ASTRONOMIC WATCHES” menu is selected on the second row, the display shows the ASTRONOMIC WATCHES column (to the right) and the list of usable elements in the left column.

NOTE: The correct operation of the function (calculation of the time of the sunrise and sunset) depends on the setting of the system's geographical localisation coordinates (See System details).



To add a new watch, click the button “+” in the right column

The following pop-up appears on the screen:



Under “Name” enter the name you want to give to the watch being created.
The item “Programming” makes it possible to select which days of the week the watch being created should be operative. the button on the right (orange row) indicates which day is active. the button on the left (grey row) indicates which day is not active. Once the two sections are complete, click “OK”.

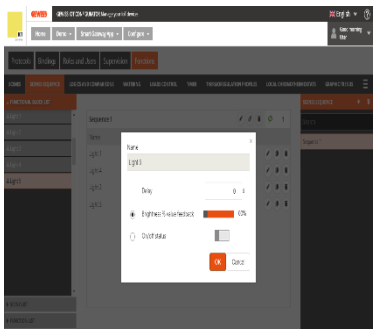
A list appears in the central part of the page that shows all the actions (commands) of the astronomic watch.

The following is located next to the name of the astronomic watch:

- The **Edit** button, which is used to edit the name of the astronomic watch and the days the watch is operative (the same that are displayed upon creation)
- The **Display connections** button, which displays all the pages on which the watch is used and permits direct access when the relative item is selected
- The **Delete** button, which permits deleting the watch

The following is shown on the left column:

- **FUNCTIONAL BLOCK LIST**

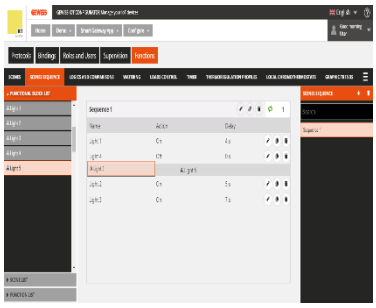


Complete list of the actuator type of functional blocks.
The ZigBee functional blocks are represented by a tree structure:

i. ZigBee device name (taken from the “ZIGBEE” menu)
ii. functional block of the device with name and category (“A” = actuator).

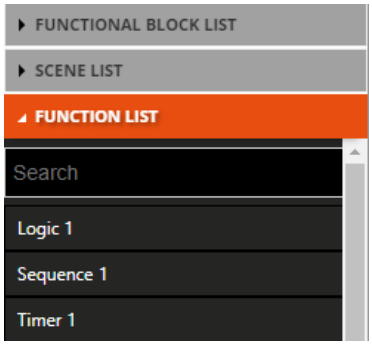
The KNX functional blocks are grouped into the subgroup KNX FUNCTIONAL BLOCKS and are represented with a Name (taken from the “KNX” menu) and category (“A” = actuator).
There is a textual search field at the top of the list that makes it possible to filter the list. The functional blocks already used in the astronomic watch being edited are shown in dark grey.

- **SCENE LIST**



Complete list of all the field scenes (preset).
There is a textual search field at the top of the list that makes it possible to filter the list.
The scenes already used in the astronomic watch being edited are shown in dark grey.

- **FUNCTION LIST**

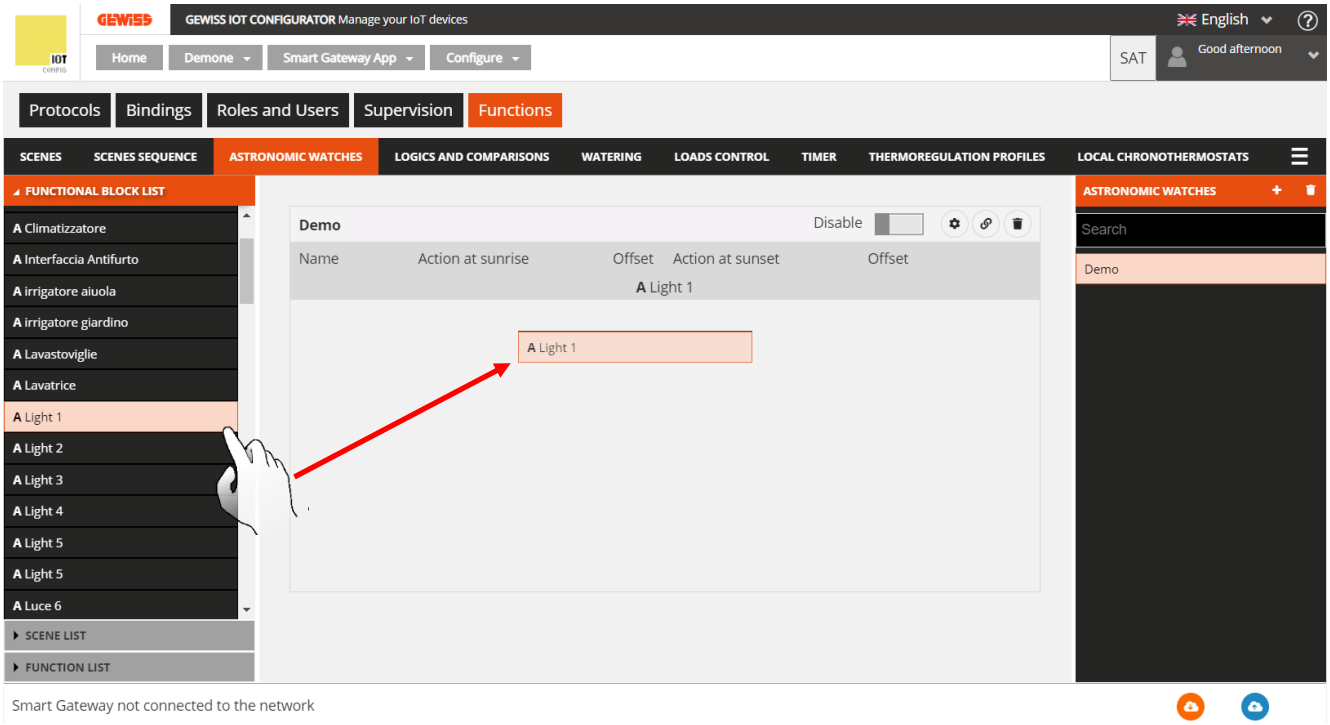


Complete list of the elements in the Functions category, with exception of the preset scenes (separate list) and graphic trends (not managed).
There is a textual search field at the top of the list that makes it possible to filter the list.
The elements already used in the astronomic watch being edited are shown in dark grey.

- **INTEGRATION LIST**

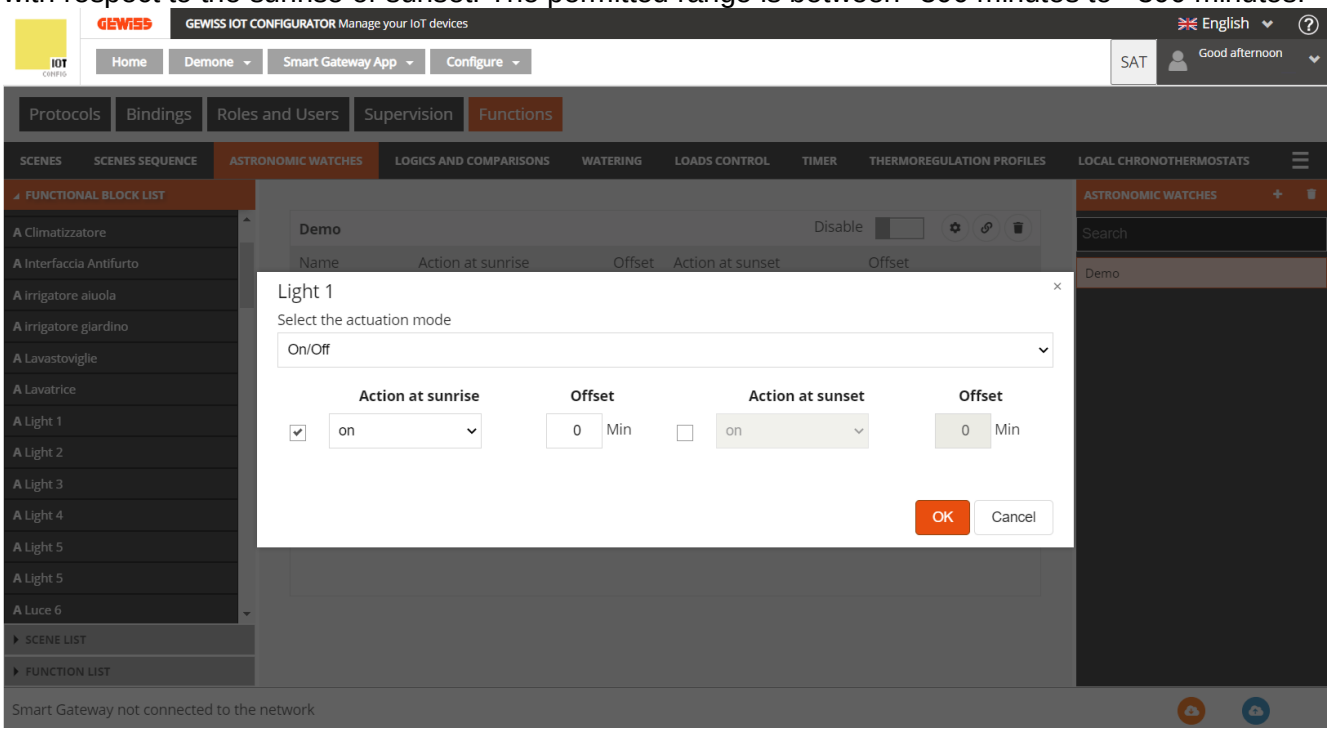
Complete list of elements in the "Integration" category.

Select and drag a functional block, scene or function to the central area to add it to the astronomic watch that is being edited; release the object in the list of actions in the required position.

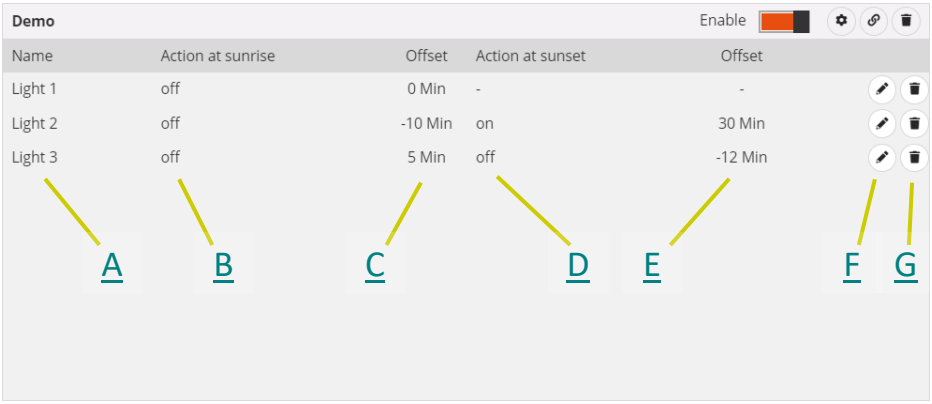


Once the selected element is released, a pop-up appears on the screen that must be completed. The first item to complete is “Select the actuation mode": The options that are available depend on the type of selected channel and how it was configured.

In the row below, it is possible to determine if the astronomic watch should be activated at sunrise, at sunset, or in both cases. The offset menu makes it possible to anticipate or delay the selected action with respect to the sunrise or sunset. The permitted range is between -300 minutes to +300 minutes.



Once the settings are confirmed, the command is shown in the central part of the page in the list of astronomic watch actions, in the position defined when it was dragged.

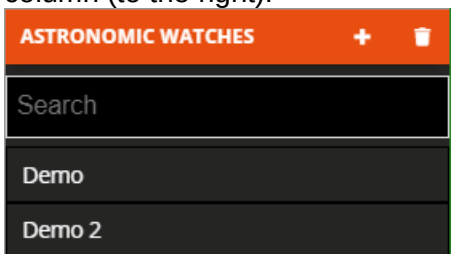


A. Name of the functional block/scene/function to receive the command
B. Command (action) to perform at sunrise; if no action is associated with it, the symbol “-” appears
C. Command execution offset, with respect to time of the sunrise calculated by the Smart Gateway based on the geographical coordinates of the system; negative values indicate actions performed in advance of the time of the sunrise
D. Command (action) to perform at sunset; if no action is associated with it, the symbol “-” appears
E. Command execution offset, with respect to time of the sunset calculated by the Smart Gateway based on the geographical coordinates of the system; negative values indicate actions performed in advance of the time of the sunset
F. Edit object parameters (the same displayed when entering the object in the watch); the same function is opened by double clicking the row that represents the object
G. Delete from the watch

To move an action that was already created, simply select it and drag it to the desired position. NOTE: the order of actions is not relevant for their execution.

There are no limits on the number of actions that can be associated with an astronomic watch.

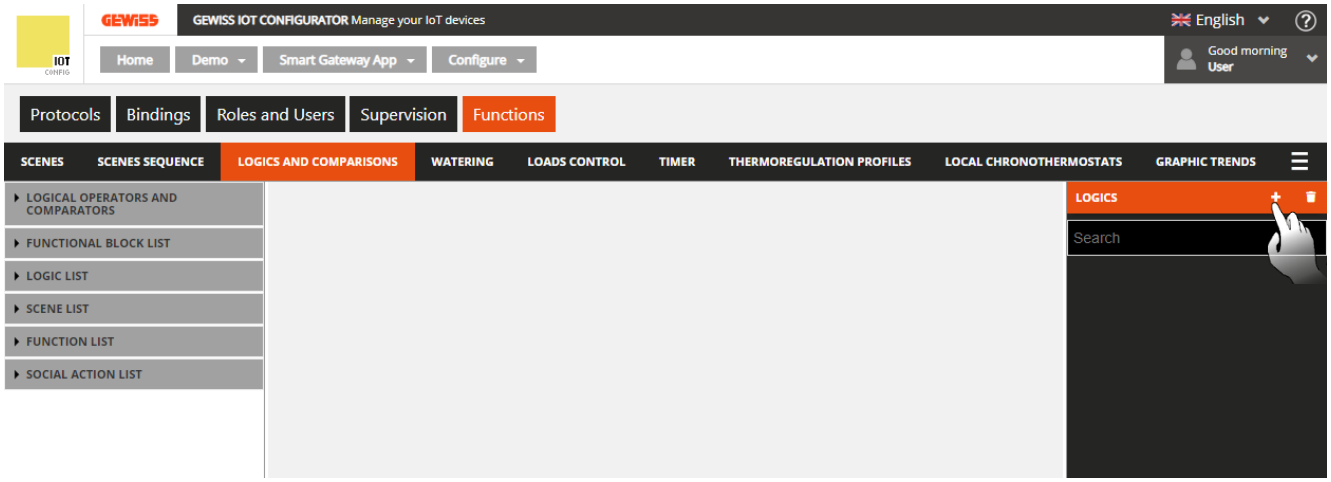
All the astronomic watches creates are listed, in the order of creation, in the ASTRONOMIC WATCH column (to the right).



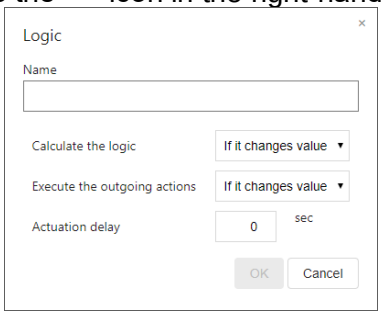
To remove an astronomic watch from the list, simply open the contextual menu of the object and select “Delete”; it is possible to delete all the sequence scenes at the same time by pressing the icon 🗑 in the right column “ASTRONOMIC WATCHES”.
ATTENTION: an astronomic watch can only be deleted if it is not used in any other function (with the exception of supervision); otherwise, an error message is displayed and the watch will not be deleted.

Logic functions and Comparisons

Through the logic functions it is possible to create conditioned actuations, which depend on the status of the various inputs or the result of other logic operations; for example, it is possible to connect the lights so that they are not both on, or raise the roller shutters if the wind becomes too strong. Actions can be associated on the basis of whether the result of the function is TRUE or FALSE.
The Smart Gateway manages the implementation of the actions according to the settings configured.
After selecting the “Functions” menu on the first line, and the “LOGIC FUNCTIONS AND COMPARISON” menu on the second, you will see the LOGICS column (on the right) and a list of the elements that can be used in the logics in the column on the left.

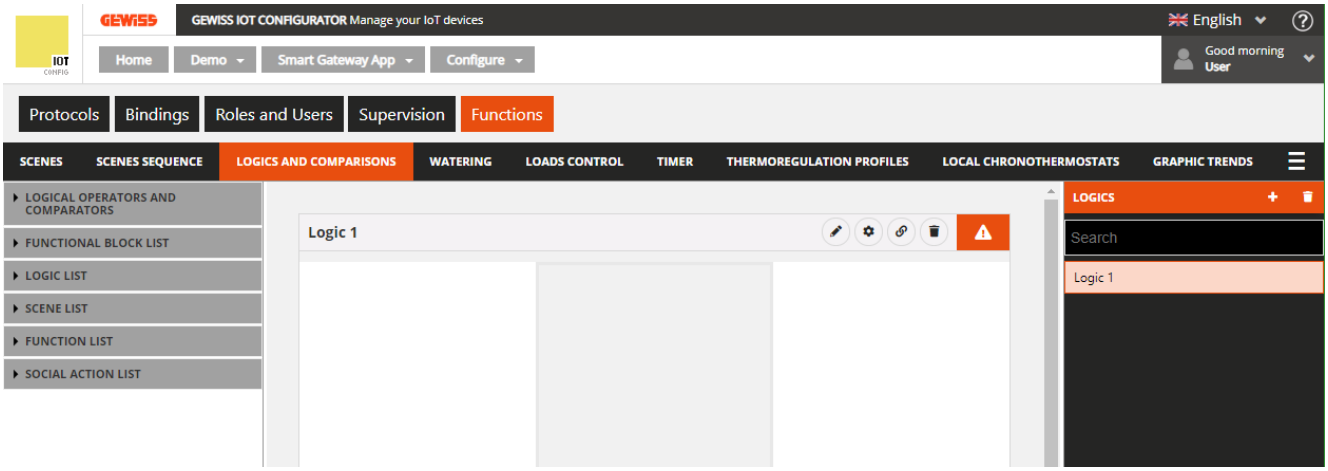


To create a new logic function, press the “**+**” icon in the right-hand column (“LOGICS”).



In the pop-up menu that appears, enter the name and

- the logic calculation conditions (Calculation of the logic)
  a. If the value changes → the logic is calculated when the value changes at least one of the inputs
  b. Periodically → the logic is calculated at pre-fixed time intervals (with the duration defined in the “Calculation period” parameter)
  c. At each update → the logic is calculated each time an input value is received, even if the result does not change the value
- implementation conditions for the actions associated with the result of the logic function (Implement the actions on the output)
  a. If value changes → the actions are only implemented if the result of the logic changes
  b. With every update → the actions are implemented every time the logic is calculated, even if the result doesn't change
- any implementation delay



Once the choice has been confirmed, the central part of the page will show the area representing all the elements of the logic function and the relative connections.

Next to the name of the logic you will see:

Modify push-button for changing the name of the logic and the conditions for calculating and implementing the commands (the same ones visualised when the logic was created)

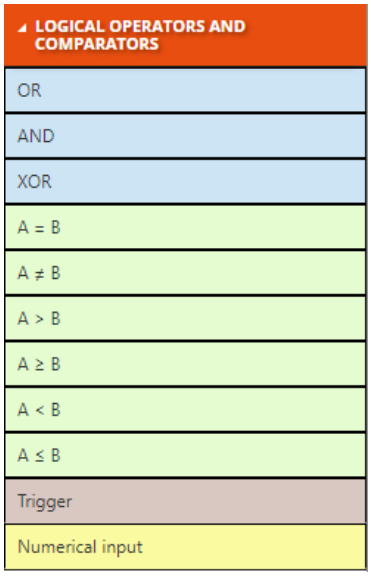
View connections push-button for displaying all the pages where the logic is used (select the required page to gain direct access)

Delete push-button for eliminating the logic

Icon indicating the validity status of the logic: orange if the logic is incomplete and can't therefore be used in the project, green if it's complete and can be used. If the logic is incomplete, click on the orange icon to see the type of error.

The left-hand column shows:

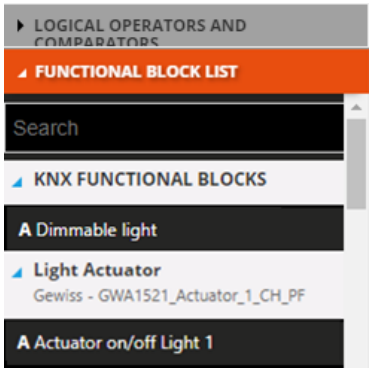
- **LOGIC OPERATORS AND COMPARATORS**



List of the operations:

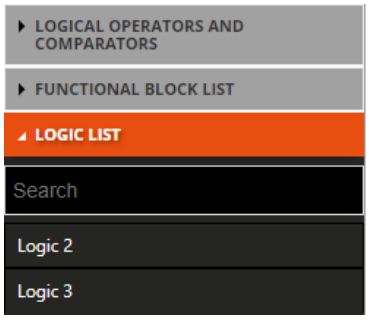
- **Boolean operators (OR, AND, XOR)**, in light blue
  Needs at least two Boolean type inputs (0/1) connected
- **comparators (=, ≠, >, ≥, <, ≤)**, in green
  Needs two inputs connected
- **triggers 0→1|1→0 (switchover)**, in grey
  Needs one Boolean type input (0/1)
- **numerical input for comparisons** (numerical input), in yellow
  This isn't a logic operation; it's an input to all intents and purposes, to be used to compare sizes with predefined values (e.g. temperature > 25).

- **LIST OF FUNCTIONAL BLOCKS**



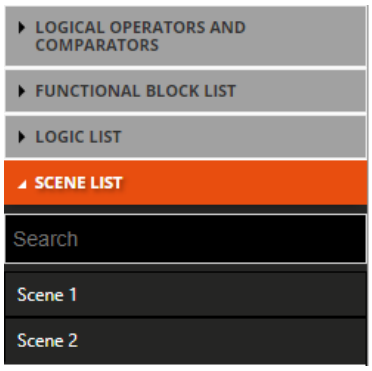
A complete list of the functional blocks.
The ZigBee functional blocks are shown with a tree structure:
i. the name of the ZigBee device (taken from the “ZIGBEE” menu)
ii. the device functional block, with name and category
The KNX functional blocks are grouped in the KNX FUNCTIONAL BLOCKS sub-set and are represented with their name (taken from the “KNX” menu) and category.
At the head of the list there's a text search field for filtering the contents.
The functional blocks can be used as either a logic input or output.
The functional blocks already used in the logic you are editing are highlighted in grey.

- **LIST OF LOGIC FUNCTIONS**



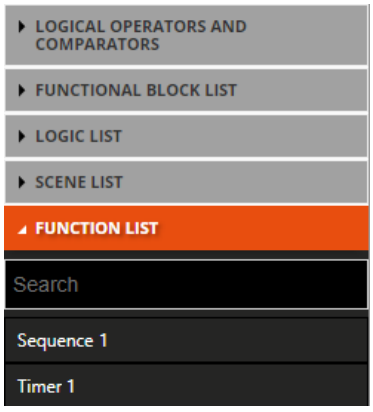
A complete list of the logic functions that have already been created (apart from the one you are editing).
At the head of the list there's a text search field for filtering the contents.
The logic functions can be used as either a logic input or output.
The logic functions already used within the logic you are editing are highlighted in grey.

- **LIST OF SCENES**



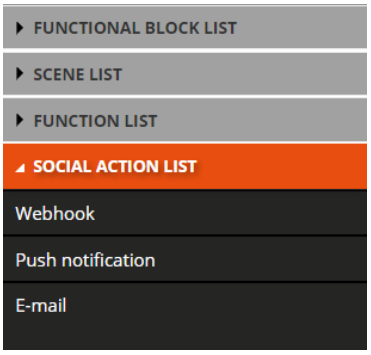
A complete list of the (pre-set) field scenes.
At the head of the list there's a text search field for filtering the contents.
The scenes can only be used as a logic output.
The scenes already used in the scene sequence you are editing are highlighted in grey.

- **LIST OF FUNCTIONS**



A complete list of the elements of the Functions category, apart from Graphic Trends (not managed), Scenes and Logic Functions (separate list).
At the head of the list there's a text search field for filtering the contents.
The elements in this category can only be used as a logic output.
The elements already used in the scene sequence you are editing are highlighted in grey.

- **LIST OF SOCIAL ACTIONS**

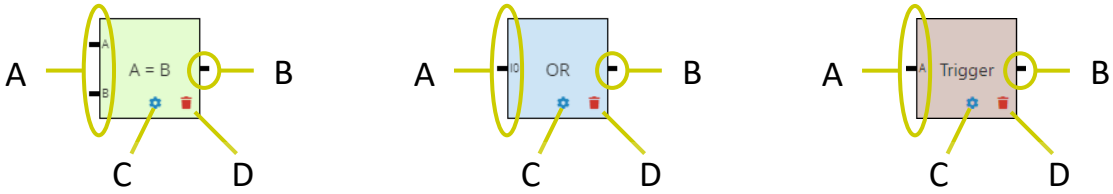


A complete list of the social actions available (Webhock, Push notification, e-mail).
The social actions can only be used as a logic output.

- **INTEGRATION LIST**

Complete list of elements in the "Integration" category.

Select the Boolean logic operator or comparator and drag it into the central area of the page in order to add it to the logic you are editing. The operators are shown in the middle of the logic creation area.

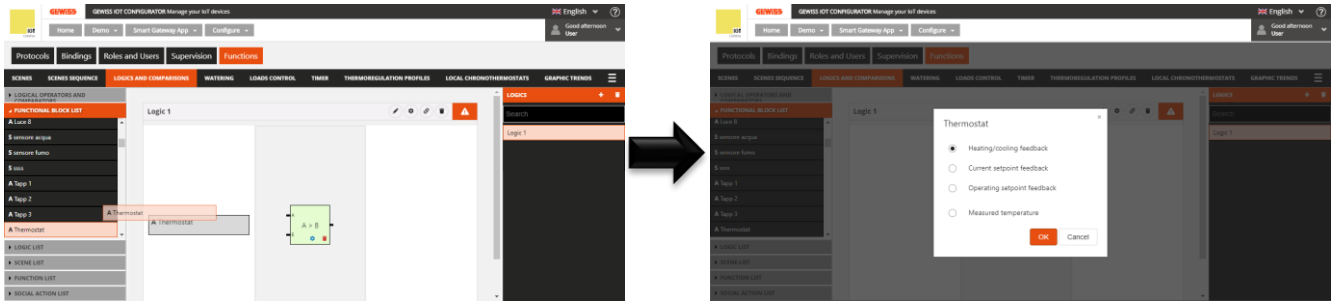


A. Connectors that identify the inputs of the logic operator; an input must be connected with each one of them.
For the comparators, two non-Boolean inputs (A and B) must be connected.
For the Boolean operators, at least two inputs (I0, I1); for each input connected, a new connector is created in order to link the next input (I2, I3, etc.).
For the triggers (Switchover), just one Boolean input is needed.

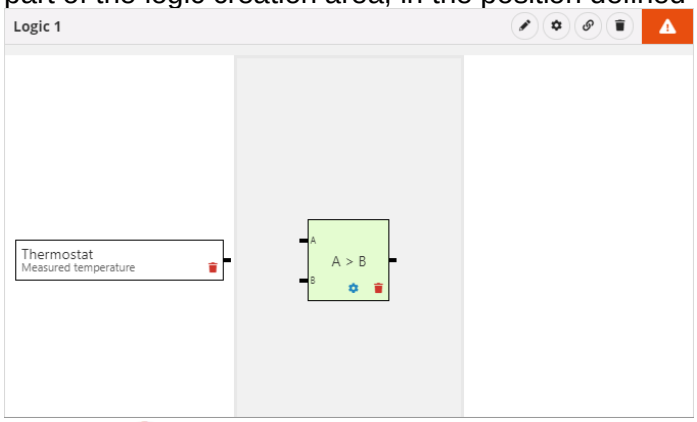
B. Connector identifying the logic operator output.
The following can be connected to the connector:
   - the input of another logic operator (only one), to create cascade operations
   - a functional block/logic/scene/function/social action on which actions can be implemented, without any limit to the number of elements connected

C. Access the logic operator settings (the parameters of the inputs and outputs that are connected). Alternatively, the settings can be activated by double clicking inside the graphic object that represents the operator.
D. Delete a logic operator

To insert an input, select the element (functional block, logic or numerical input) and drag it onto the left-hand part of the logic creation area; during this operation, a grey box will appear with the name of the element, to help you position the object in the creation area. When the element has been released, a pop-up menu appears where you can select the data item you want to use as the input.

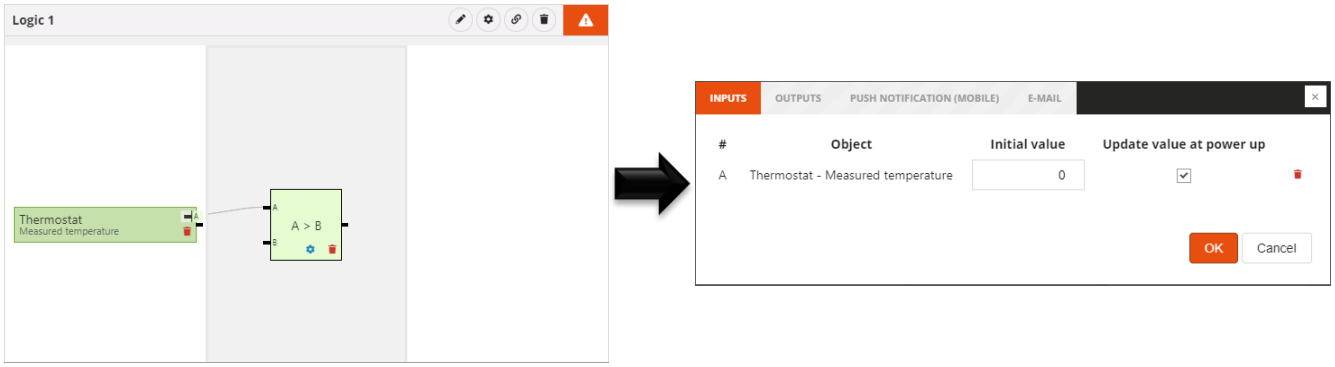


After confirming your choice, the element will be shown (name and data item selected) in the left-hand part of the logic creation area, in the position defined when you dragged it previously.



Press the icon if you want to delete the element (even if it's already connected to an operator).

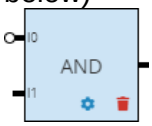
To make the connection between the logic operator and the input, select the connector that identifies the logic operator input and drag it onto the required element; during this operation, the border of the elements that are compatible with the logic operator will turn green. If an element is highlighted in green when the cursor moves onto it, this means the connection can be made.



When the object is released, the logic operator settings relating to the inputs are shown:

→ name of the connector that the element is connected to
Object → name of the element and relative data item to be read

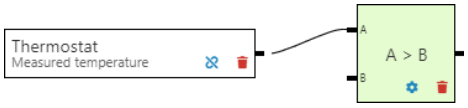
Not → enables the refusal of the value received from the field (FOR BOOLEAN OPERATORS ONLY); when the value of an input is refused, the connector is preceded by a white spot (see “I0” in the example below)



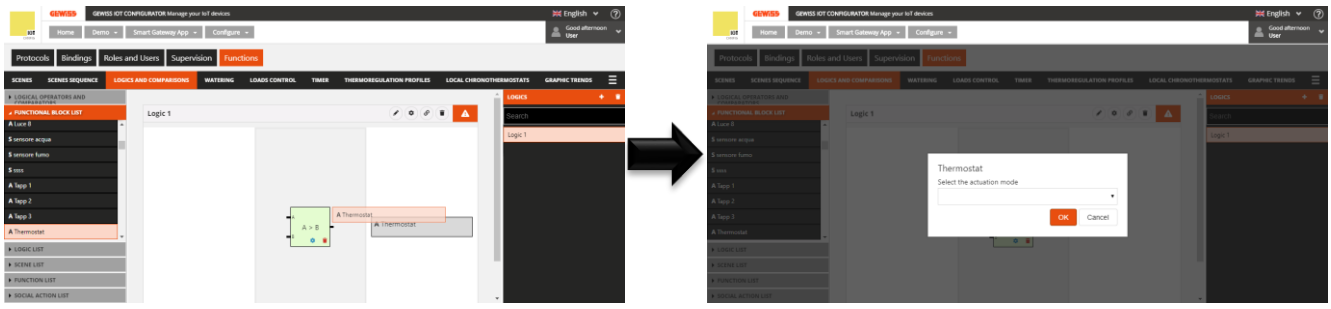
Initial value → Value which must be used for the purpose of the logic if the data from the field is not available; in the case of a “numerical input”, the field is renamed **Value** and it's the value used to make the comparison (it can't be updated from the field).
Update data item at switch-on → enables the use of the data item read following a power supply reset; if this option is disabled, the “Initial value” will be used after the reset.
→ deletes the element from the logic operator input (removes the connection between the two objects)

An input can only be connected to one logic operator. If you want to connect a single element to several logic operators, you must drag it into the logic creation area again and then connect it to the new operator (e.g. if you want to compare a temperature with two threshold values, minimum and maximum, the sensor functional block that measures the temperature must be inserted twice so the two objects can be connected to the two operators).

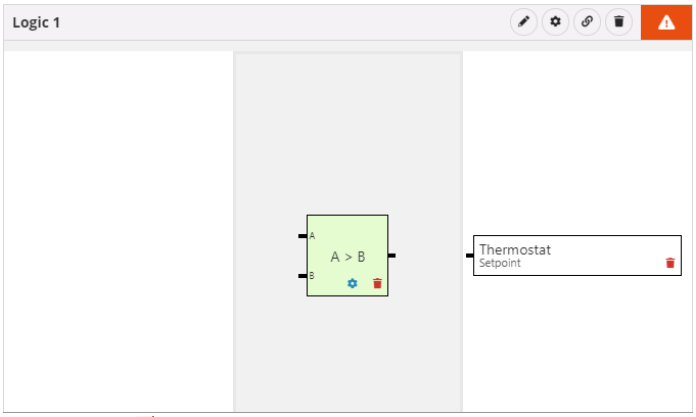
When the object is connected to the logic operator, you can remove the connection by means of the icon.



To insert an output, select the element (functional block, logic, scene or function) and drag it onto the right-hand part of the logic creation area; during this operation, a grey box will appear with the name of the element, to help you position the object in the creation area. When the element has been released, a pop-up menu appears where you can select the type of command you want to use as the action.

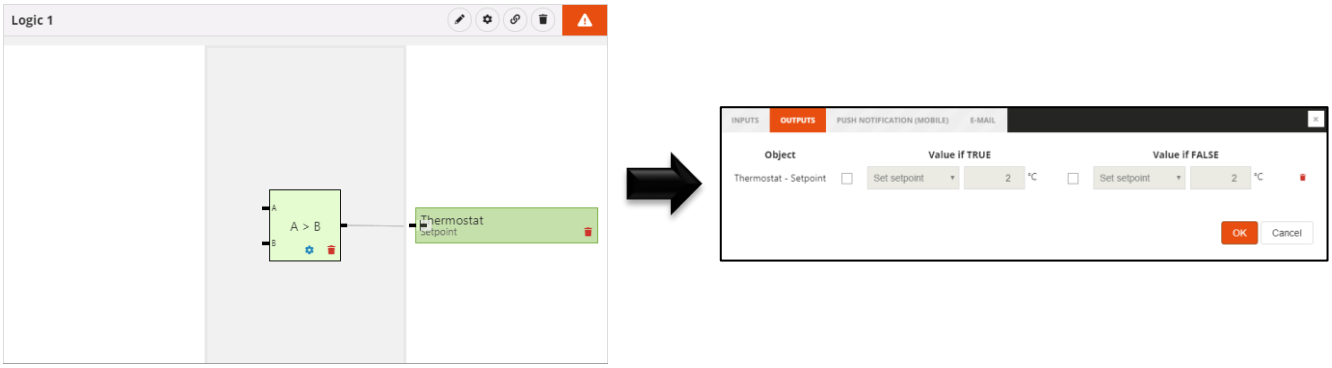


After confirming your choice, the element will be shown (name and command type selected) in the right-hand part of the logic creation area, in the position defined when you dragged it previously.



Press the icon if you want to delete the element (even if it's already connected to an operator).

To make the connection between the logic operator and the output, select the connector that identifies the logic operator output and drag it onto the required element; during this operation, the border of the elements that are compatible with the logic operator will turn green. If an element is highlighted in green when the cursor moves onto it, this means the connection can be made.

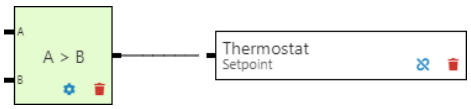


When the object is released, the logic operator settings relating to the outputs are shown:

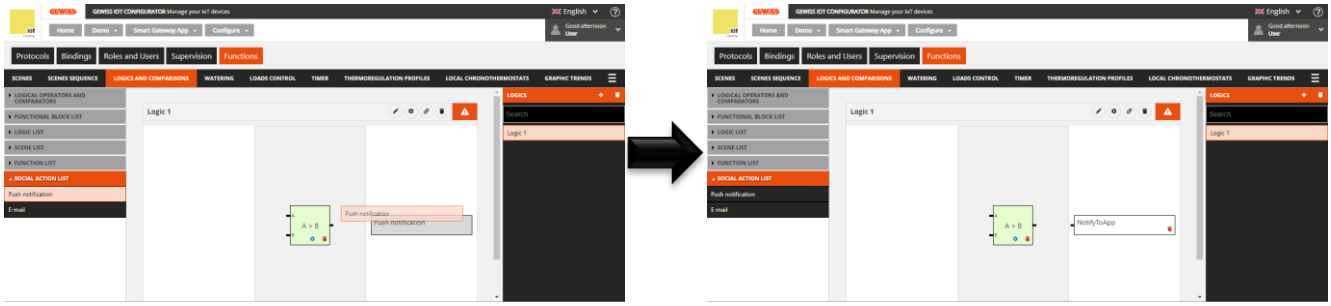
Object → name of the element and relative command type
Value if true → if the checkbox is ticked, this allows you to set the command that will be sent when the result of the logic is TRUE; if the checkbox is disabled, there is no action on the element when the result is TRUE.
Value if false → if the checkbox is ticked, this allows you to set the command that will be sent when the result of the logic is FALSE; if the checkbox is disabled, there is no action on the element when the result is FALSE.
→ deletes the element from the logic operator output (removes the connection between the two objects)

There are no limits to the number of outputs that can be associated with a logic.

When the object is connected to the logic operator, you can remove the connection by means of the icon.

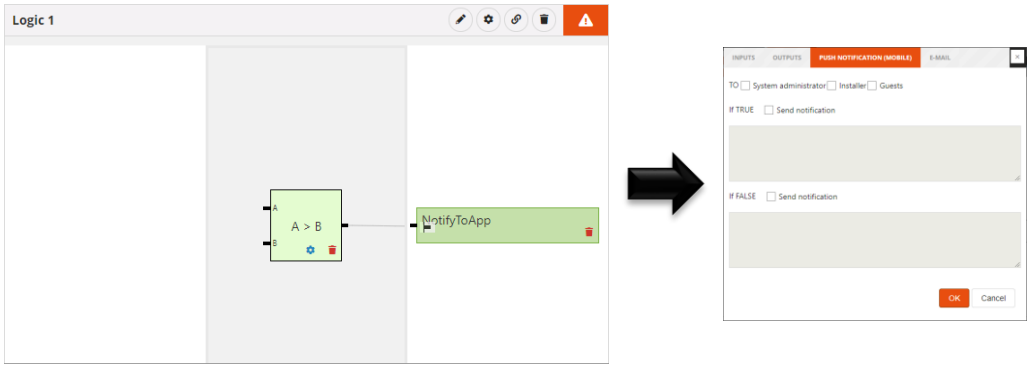


To insert a social action output, select the element (Push notification or e-mail) and drag it onto the right-hand part of the logic creation area; during this operation, a grey box will appear with the name of the element, to help you position the object in the creation area. When the element is released, it's shown (name and type of social action) in the right-hand part of the logic creation area, in the position defined when you dragged it previously.



Press the icon if you want to delete the element (even if it's already connected to an operator).

To make the connection between the logic operator and the social action, select the connector that identifies the logic operator output and drag it onto the required element; during this operation, the border of the elements that are compatible with the logic operator will turn green. If an element is highlighted in green when the cursor moves onto it, this means the connection can be made.



When the object is released, the logic operator settings relating to the Push notifications or e-mails (depending on which object was inserted) are shown:

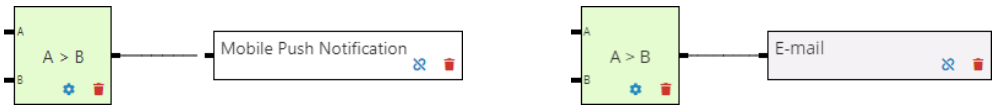
PUSH NOTIFICATIONS
A → list of the project roles that the notification is addressed to
If true → if the previous checkbox is ticked, this allows you to set the text of the push notification that will be sent when the result of the logic is TRUE; if the checkbox is disabled, no notification is sent when the result is TRUE.
If false → if the previous checkbox is ticked, this allows you to set the text of the push notification that will be sent when the result of the logic is FALSE; if the checkbox is disabled, no notification is sent when the result is FALSE.

Only one “Push notification” type object can be inserted in a logic.

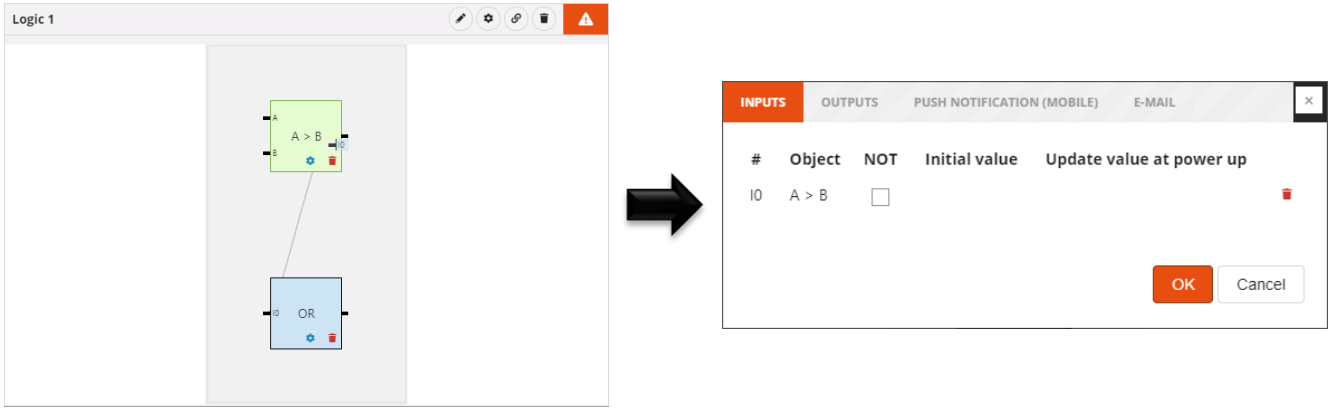
E-MAILS
A → list of the e-mail addresses that the message will be sent to; several e-mail addresses can be inserted, as long as they're separated with “**;**” (e.g. “**demo@gewiss.com; gewiss@gewiss.com**”)
If true → if the previous checkbox is ticked, this allows you to set the text of the push notification that will be sent when the result of the logic is TRUE; if the checkbox is disabled, no notification is sent when the result is TRUE.
If false → if the previous checkbox is ticked, this allows you to set the text of the push notification that will be sent when the result of the logic is FALSE; if the checkbox is disabled, no notification is sent when the result is FALSE.

Only one “E-mail” type object can be inserted in a logic.

When the object is connected to the logic operator, you can remove the connection by means of the icon.

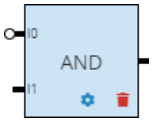


One or more than one operator can be linked to construct more complex logic functions. When the operators are linked, actions can only be associated with the last one in the chain. For linking purposes, all the operators are considered as Boolean inputs.
After dragging the operators into the logic configuration area, to make the connection between the two operators you must select the connector that identifies the logic operator input (the second node of the chain) and drag it onto the other operator (the first of the chain); during this operation, the border of the elements that are compatible with the logic operator will turn green.



When the object is released, the logic operator settings (second node of the chain) relating to the inputs are shown:

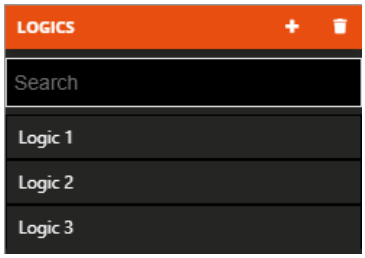
→ name of the connector that the element is connected to
Object → name of the element
Not → enables the refusal of the result of the logic operator input; when the value of an input is refused, the connector is preceded by a white spot (see "I0" in the example below)



Initial value → no setting available
Update data item at switch-on → no setting available
→ deletes the element from the logic operator input (removes the connection between the two objects)

ATTENTION: an incomplete logic isn't saved on the cloud. This means that it will no longer be present when the page is changed, or when the project is closed and reopened, even if the configuration has been sent to the area shared with clients (by pressing the push-button).

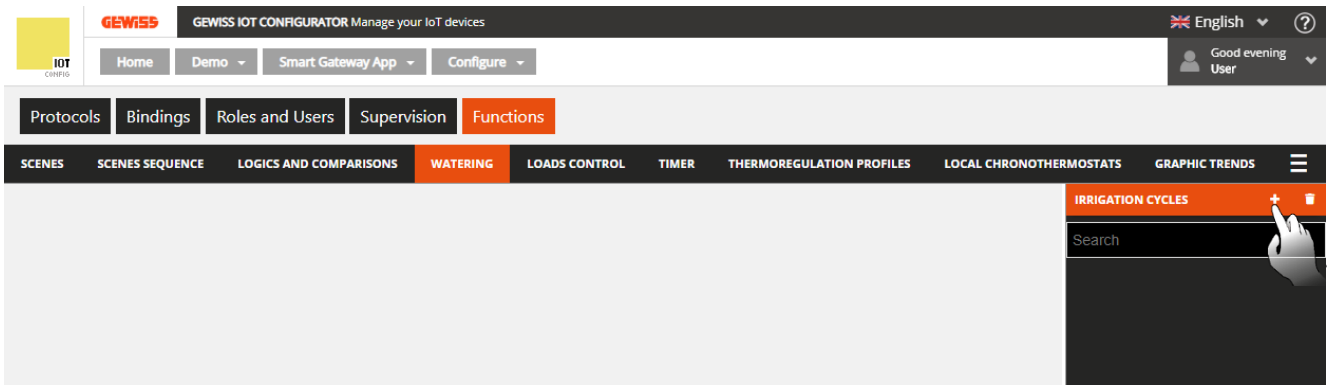
All the valid logic functions created are listed in alphabetical order in the LOGIC FUNCTIONS column (on the right).



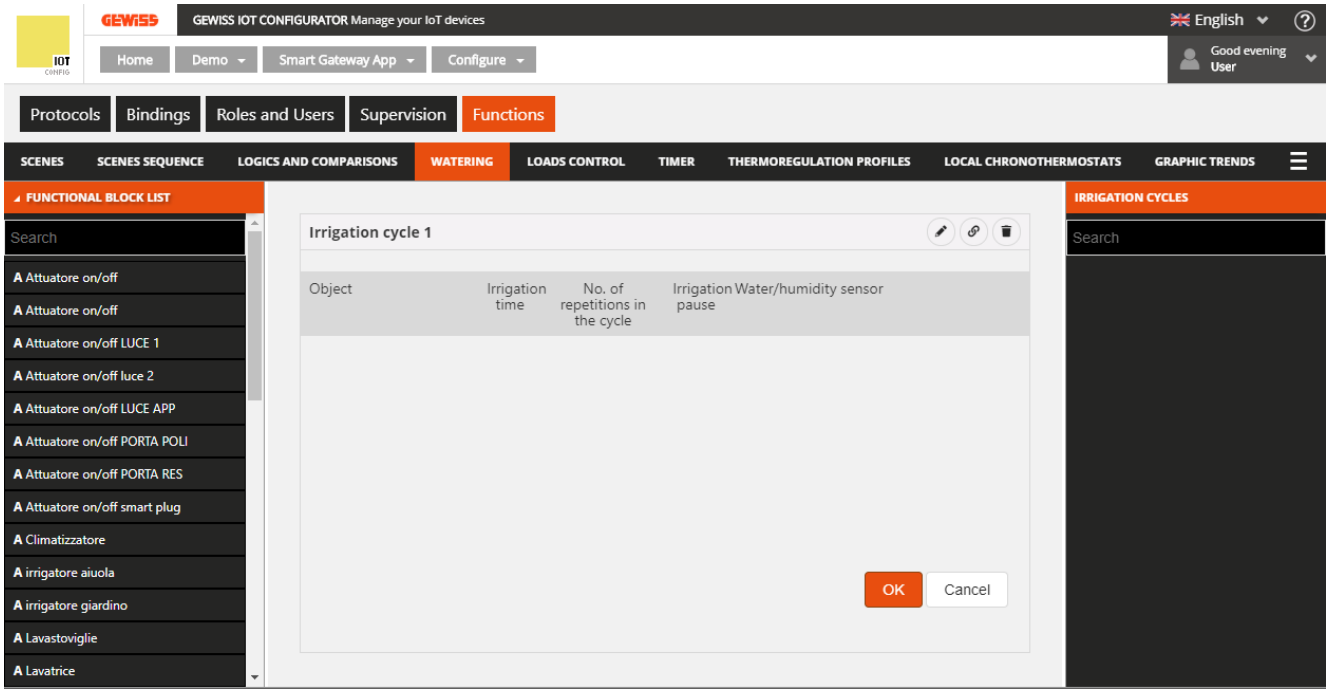
To remove a logic function from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the logic functions simultaneously by pressing the 🗑 icon in the right-hand column (“LOGIC FUNCTIONS”).
ATTENTION: a logic function can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the logic function won't be deleted.

Irrigation

This function is used to define an activation sequence (cycle) for the sprinklers that are usually grouped together in separate zones of the garden.
Each irrigation cycle can be activated independently of the others, and associated with the days of the week and an activation time.
Once you have selected the “Functions” menu on the first row and the “IRRIGATION” menu on the second, the IRRIGATION CYCLES column will appear (on the right).



To create a new irrigation cycle, press the “**+**” icon in the right-hand column (“IRRIGATION CYCLES”). Enter the name you want to associate with the irrigation cycle, then confirm.

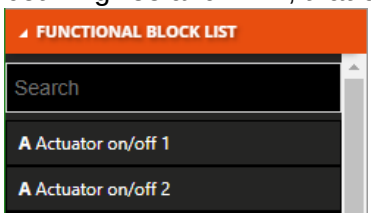


The central part of the page will show a list of all the sprinklers - and the relative parameters - involved in the irrigation cycle.

Next to the name of the irrigation cycle, you can see:

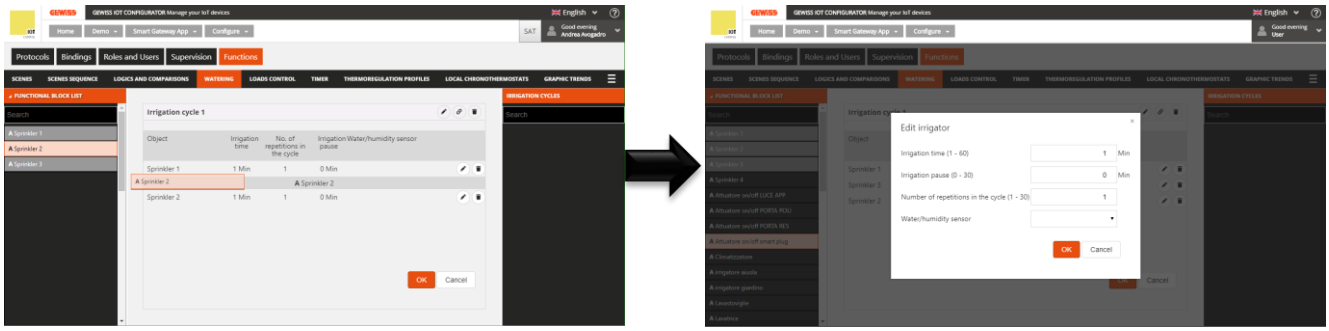
- **Rename** push-button for modifying the name of the cycle
- **View connections** push-button for displaying all the pages where the cycle is used (select the required page to gain direct access)
- **Delete** push-button for eliminating the cycle

The left-hand column (LIST OF FUNCTIONAL BLOCKS) shows all the Actuator type functional blocks, both ZigBee and KNX, that can receive on/off commands (e.g. Actuator on/off).



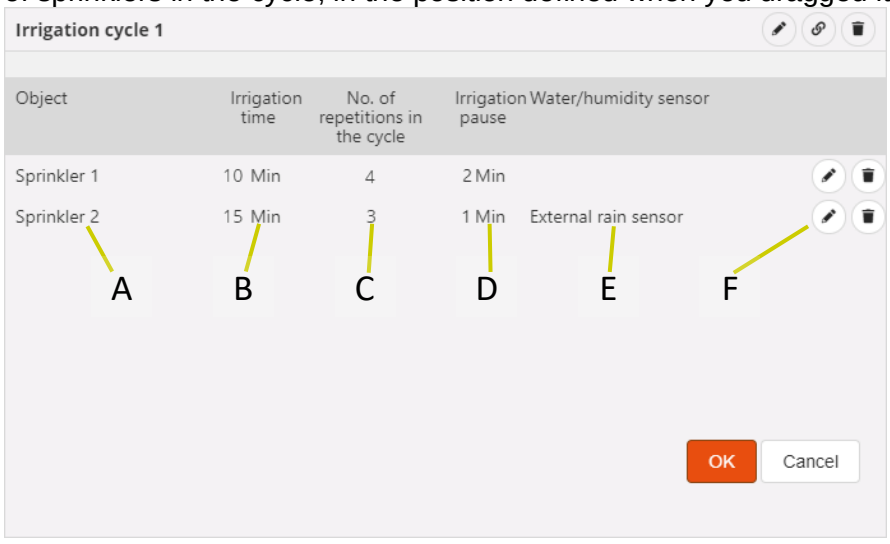
All the functional blocks are shown with their name and category (“A” = Actuator).
At the head of the list there's a text search field for filtering the contents.
The functional blocks already used in the irrigation cycle you are editing are highlighted in grey.

Select a functional block and drag it into the central area in order to add it to the irrigation cycle you are editing; release the object in the list of sprinklers, in the required activation position. At the end of this operation, a pop-up menu will appear where you can select:



- Sprinkler activation time. Possible values: from 1 to 60
- Pause before the activation of the next sprinkler. Possible values: from 1 to 30
- Number of sprinkler activations during the irrigation cycle. Possible values: from 1 to 30
- Selection of the optional humidity/rain sensor that inhibits the sprinkler.

After confirming the settings, the command will be visualised in the central part of the page, in the list of sprinklers in the cycle, in the position defined when you dragged it previously.



A. Sprinkler name
B. Sprinkler activation time
C. Number of sprinkler activations during the irrigation cycle
D. Pause before the activation of the next sprinkler
E. Rain/humidity sensor that inhibits the sprinkler
F. Contextual functions

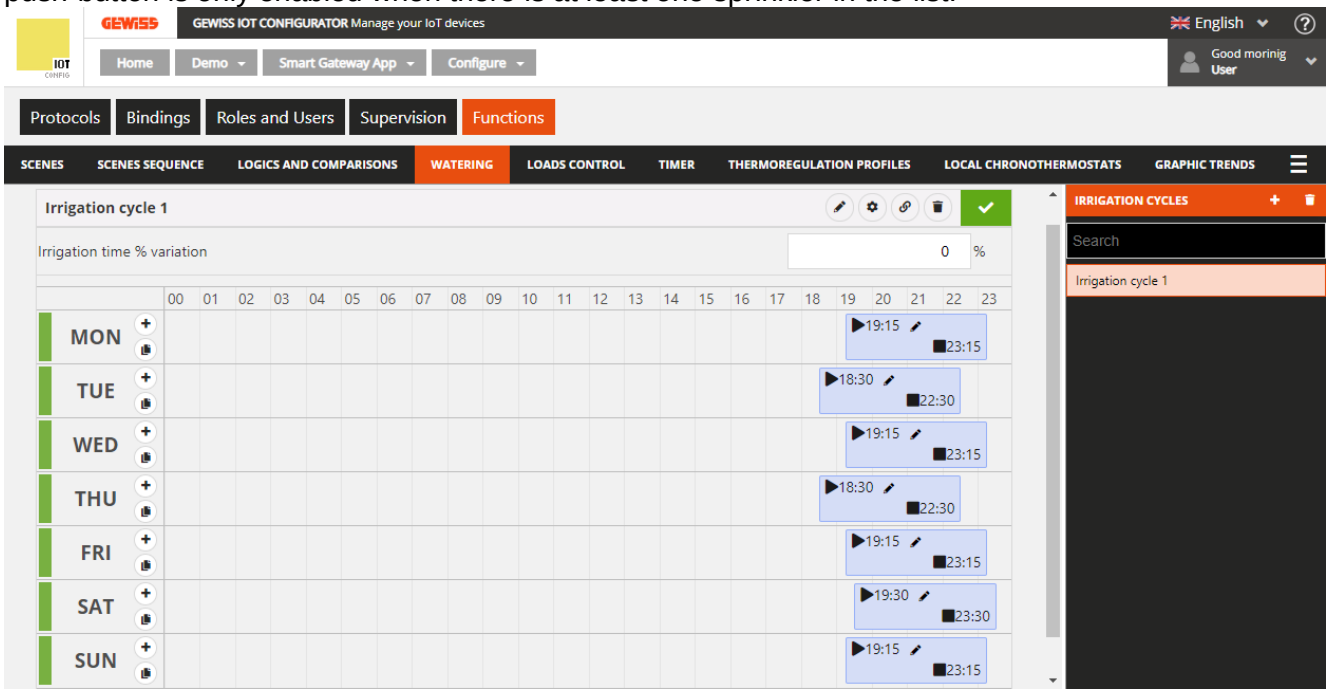
Modify the sprinkler parameters (the same ones visualised when the object was being inserted in the cycle); this function is called up by double clicking on the row that represents the sprinkler

Delete the sprinkler from the list

To move a sprinkler within the list, just select it and then drag it to the required position.

There are no limits to the number of sprinklers that can be associated with a cycle.

Press the “OK” push-button to see the weekly programming for irrigation cycle activation. NOTE: this push-button is only enabled when there is at least one sprinkler in the list.



Below the cycle name, there is the parameter **Irrigation time % variation**

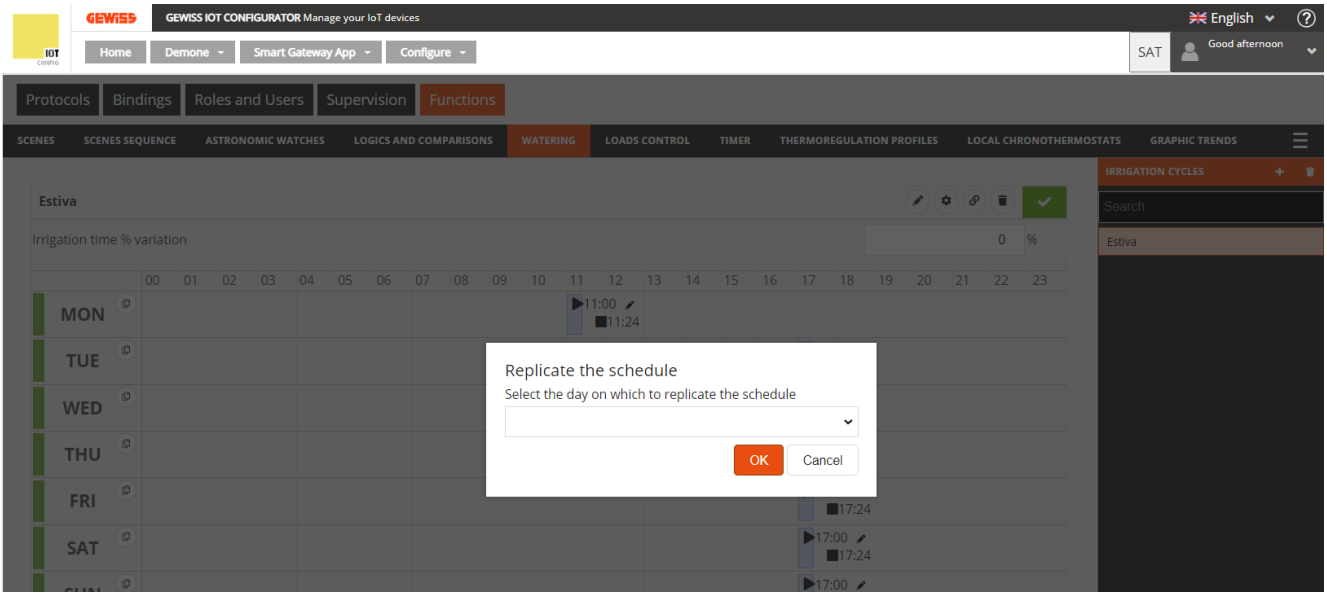
, which allows to set the percentage of increase of water supply with respect to the scheduled times. Modifying this value, the cycle end times will be recalculated too, with consequent update of the profile. Example: by setting "-20%", the duration of the irrigation cycle and all the set times will be reduced by 20%. This value may eventually also be changed by the App.

Underneath the parameter, there's a time line (00-24). To alter the time resolution, bring the cursor inside the programming grid and rotate the mouse wheel upwards (to increase the resolution) or downwards (to reduce it). When the resolution doesn't allow you to see the entire 00-24 scale, you can move along the time axis by selecting any point on it and dragging it to the right or left.

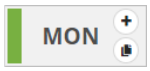
Each row represents one day of the week.

To the left of the name of the day, you can see the enabling status for that day's programming (orange - disabled, green - enabled). Click on the status to change the value.

To repeat the programming of one day on another day, press the icon to the right of the day whose programming you want to repeat; from the pop-up menu that appears, select the day on which you want to copy the programming, then confirm.



To enable/disable the programming of a day of the week, press the coloured band to the left of the name:



Programming enabled

Programming disabled

On the time line for each day, there's a block that represents the total duration of the irrigation cycle.

Inside the block, you can see:

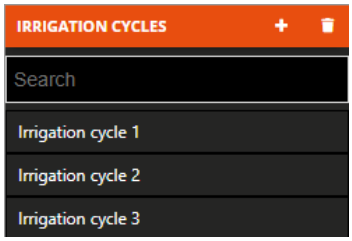
- the cycle activation time, preceded by the ▶ icon
- the irrigation cycle end time (calculated as the total of the various irrigation times), preceded by the ■ icon
- ✎ push-button for modifying the cycle activation time

The cycle activation time can be altered directly from the time grid: select the required block (it will turn yellow), then select the left-hand edge of the block and drag it to the right or left to change the activation time in 15-minute steps (the whole block will move). Release to save the modification.

NOTE: the implementation of an irrigation cycle associated with a specific time period (calendar) isn't defined in programming; it's one of the cycle activation options (disabled, enabled, enabled with calendar) managed via the app. Forced activation, and the % increase of water supply on the basis of the value of the programmed cycle, are also managed via the app (not in programming).

When the weekly programming of irrigation cycle activation is shown in the central area, you will see a new icon ⚙ next to the name of the irrigation cycle: press this icon to see the list of sprinklers (described above).
Every time you select an irrigation cycle from the IRRIGATION CYCLES column, the weekly programming of cycle activation will be visualised; to modify the list of sprinklers or the various irrigation times, press the ⚙ icon next to the name of the cycle.

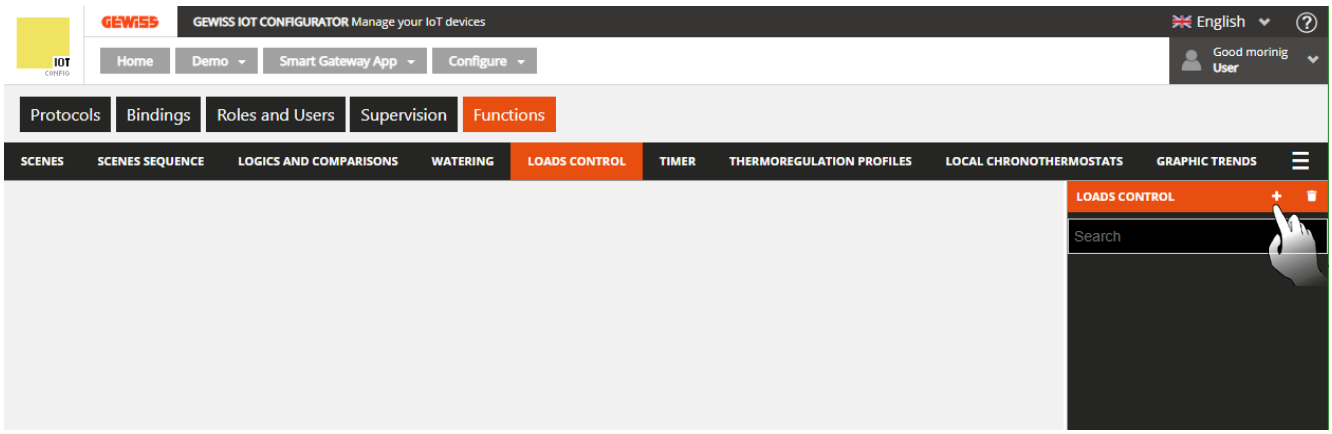
All the irrigation cycles created are listed in alphabetical order in the IRRIGATION CYCLES column (on the right).



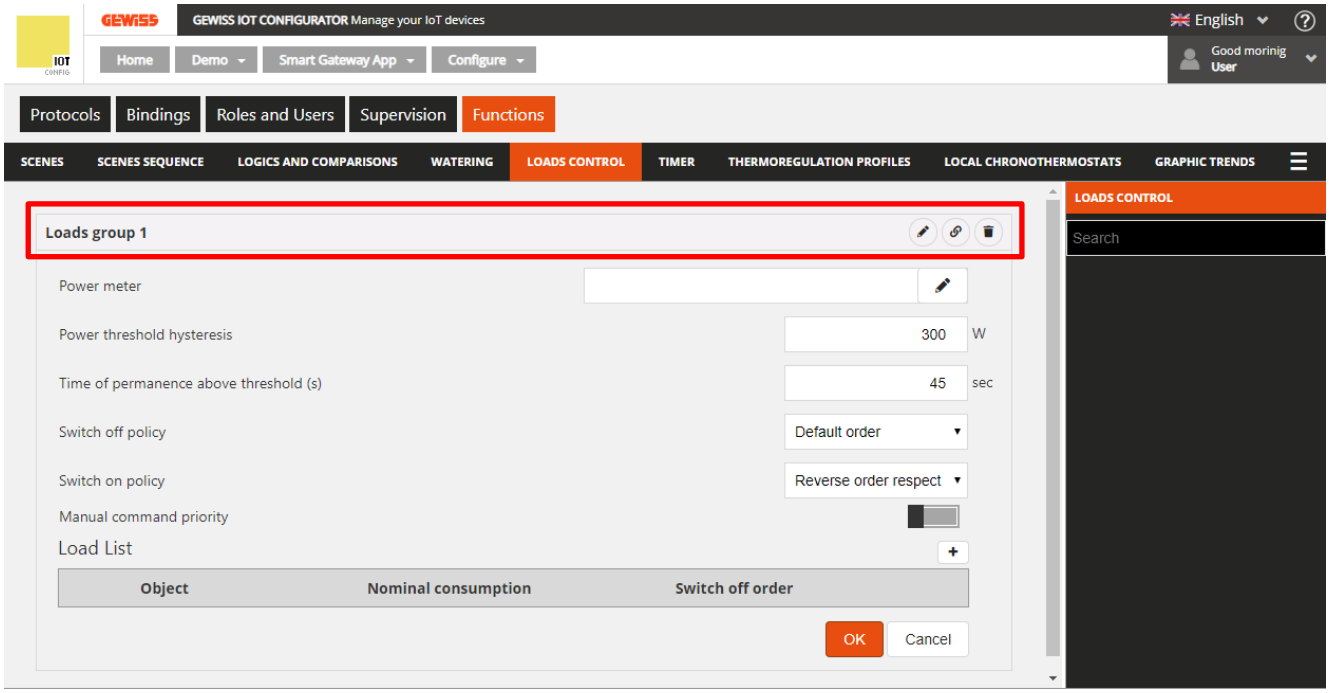
To remove an irrigation cycle from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the irrigation cycles simultaneously by pressing the 🗑 icon in the right-hand column (“IRRIGATION CYCLES”).
ATTENTION: an irrigation cycle can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the cycle won't be deleted.

Load control

The load control function is used to manage the activation/deactivation of electric loads connected to the actuators, to prevent the electricity counter from disconnection if the contractual power level is exceeded.
By monitoring the instantaneous power and the power threshold values, the system generates the gradual disconnection of the loads until the set threshold value is reached.
The control of each load group can be activated independently of the others, and associated with the days of the week and an activation time.
Once you have selected the “Functions” menu on the first row and the “LOAD CONTROL” menu on the second, the LOAD CONTROL column will appear (on the right).



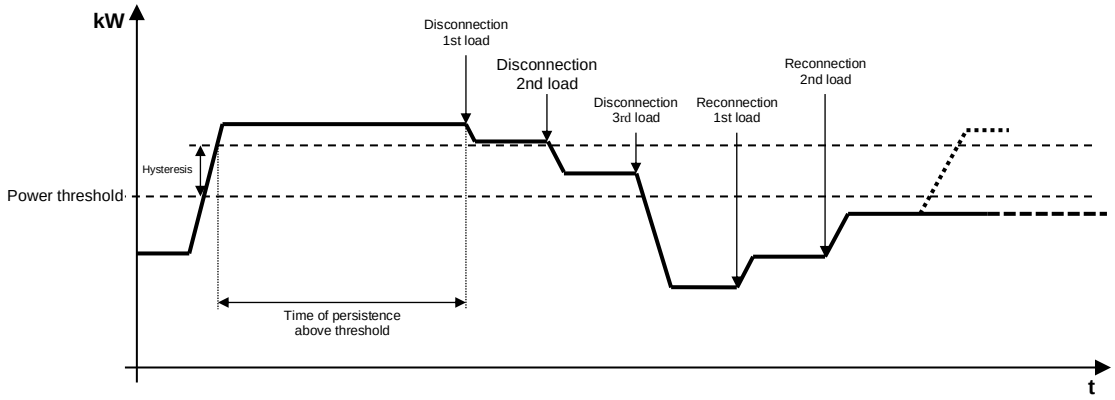
To create a new group of loads, press the “**+**” icon in the right-hand column (“LOAD CONTROL”).
Enter the name you want to associate with the group of loads, then confirm.



Next to the name of the group of loads, you can see:

- **Rename** push-button for modifying the name of the group
- **View connections** push-button for displaying all the pages where the group is used (select the required page to gain direct access)
- **Delete** push-button for eliminating the group

When this function is active, the device begins monitoring the instantaneous active power sent by the gauge and, if the level exceeds the “power threshold + hysteresis” value, it starts the count of the time of persistence before intervening by disconnecting the loads. At the end of the count time (if the power hasn't fallen below the “power threshold + hysteresis” value), the disconnection of the loads begins on the basis of the rule set; the loads are disconnected at 5-second intervals from each other. The disconnection ends when the power falls below the threshold value. Once this condition has been reached, the device begins evaluating the reconnection of the loads.
The reconnection takes place on the basis of the rule set; the loads are reconnected at 5-second intervals from each other. During the reconnection process, the instantaneous power value and nominal absorption (or real load absorption, if available) are evaluated (at the moment of disconnection): if the total of the two values means the disconnection threshold may be exceeded, then load isn't reconnected but the reconnection of the next load is considered (in reconnection order).



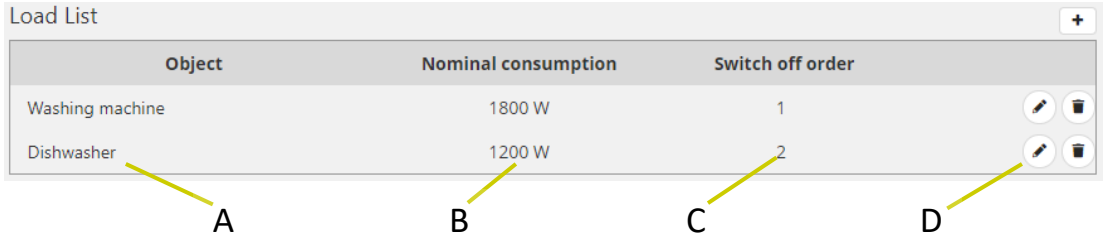
The central part of the page will show the parameters that determine the behaviour of the control algorithm, and the list of all the loads - and relative parameters - involved in the control.
The parameters to be set are:

- Selection of the power gauge that will supply the value to be monitored. Press the icon to see the pop-up with a list of the functional blocks compatible with the function.
- Hysteresis of the power threshold value. Possible values: from 10 to 500W
- Time of persistence of the power value above the threshold, before beginning the disconnection. Possible values: from 10 to 240 seconds
- Load disconnection rule. Possible values:
  1. Predefined order: the disconnection is made in the order defined in the list of loads
  2. From the load that absorbs the most: the disconnection begins with the load that's absorbing the most, down to the one that's absorbing the least
  3. From the load that absorbs the least: the disconnection begins with the load that's absorbing the least, down to the one that's absorbing the most
- Load reconnection rule. Possible values:
  1. Same order as for disconnection: reconnection follows the same order used for disconnection (FIFO logic - the first load disconnected will be the first to be reconnected)
  2. Reverse order compared with disconnection: reconnection follows the reverse of the order used for disconnection (LIFO logic - the last load disconnected will be the first to be reconnected)
  3. No automatic reconnection: the reconnection isn't performed automatically by the algorithm, but must be implemented directly by the user (via the app or from another command point)
- Enabling of the priority of the manual command over the command sent by the disconnection algorithm. If this option is enabled, the Smart Gateway ignores the fact that the load (which, for the load control algorithm, must be disconnected) has been reconnected from another command point, thereby avoiding reconnecting it. Vice versa, if the option is disabled, the Smart Gateway disconnects the load again if it's reconnected from another command point.

To add a load to the group you are editing, press the“+” icon above the list of loads. A pop-up menu will then appear, where you can select:

- the functional block to be added to the list (all the Actuator type functional blocks, both ZigBee and KNX, that can receive on/off commands (e.g. Actuator on/off) and aren't already in the list)
- nominal consumption of the load (used if the instantaneous absorption of the physical device isn't available). Possible values: from 10 to 3000W

Once the settings have been confirmed, the load will be shown in the central part of the page, within the list of group loads.



A. name of the load
B. nominal consumption
C. disconnection order (only visible if the disconnection rule set is “Predefined order”)
D. contextual functions

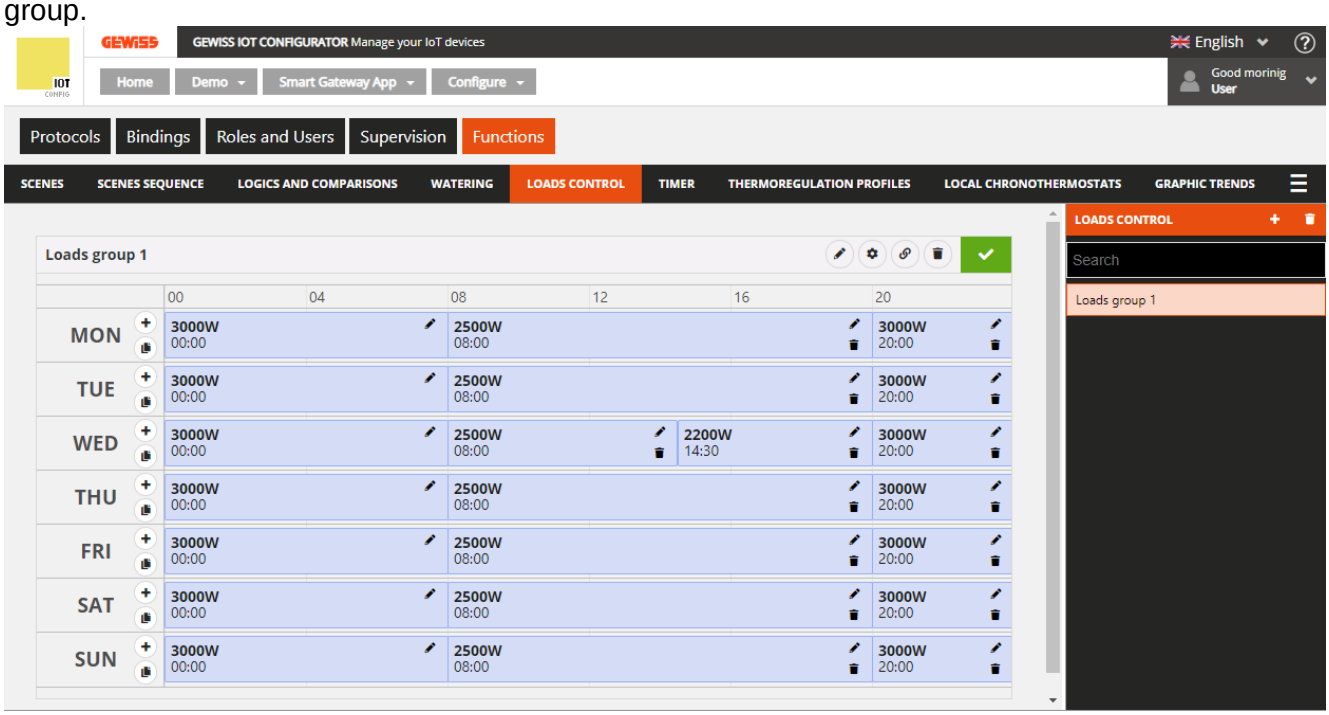
Modify the load parameters (the same ones visualised when the load was being inserted in the group)

Delete the load from the list

To move a load within the list, just select it and then drag it to the required position.

There are no limits to the number of loads that can be associated with a group.

Press the “OK” push-button to see the weekly programming of the power threshold associated with the group.

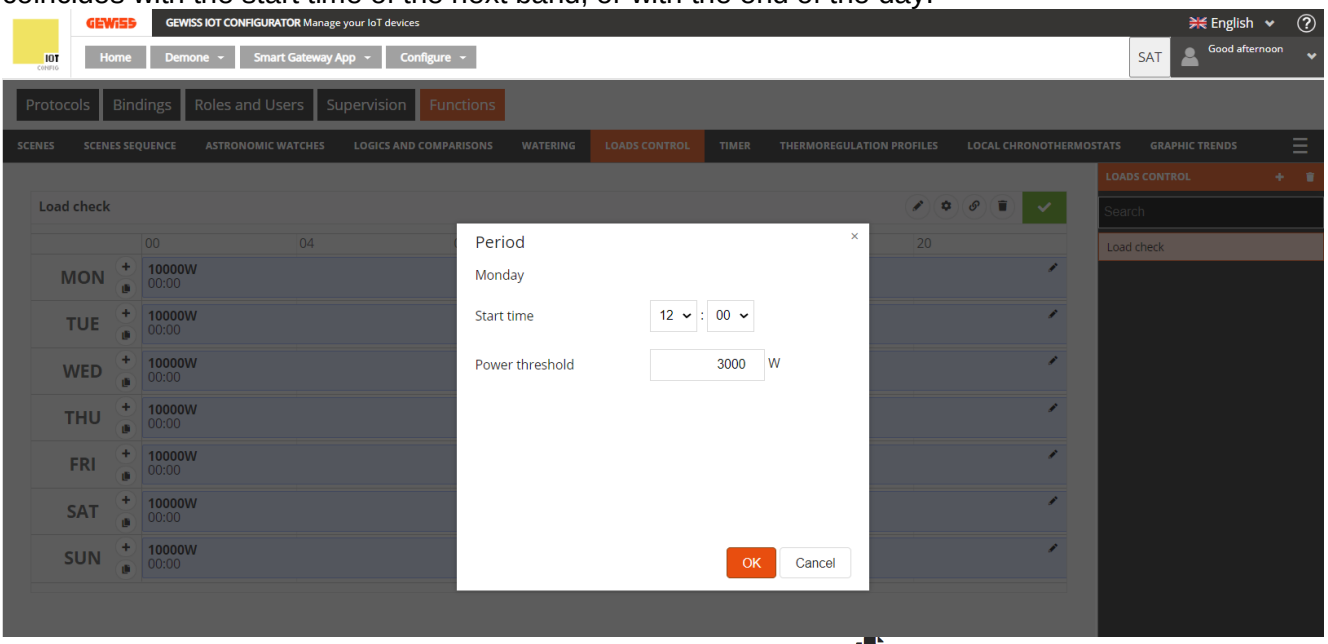


At the top there's a time line (00-24). To alter the time resolution, bring the cursor inside the programming grid and rotate the mouse wheel upwards (to increase the resolution) or downwards (to

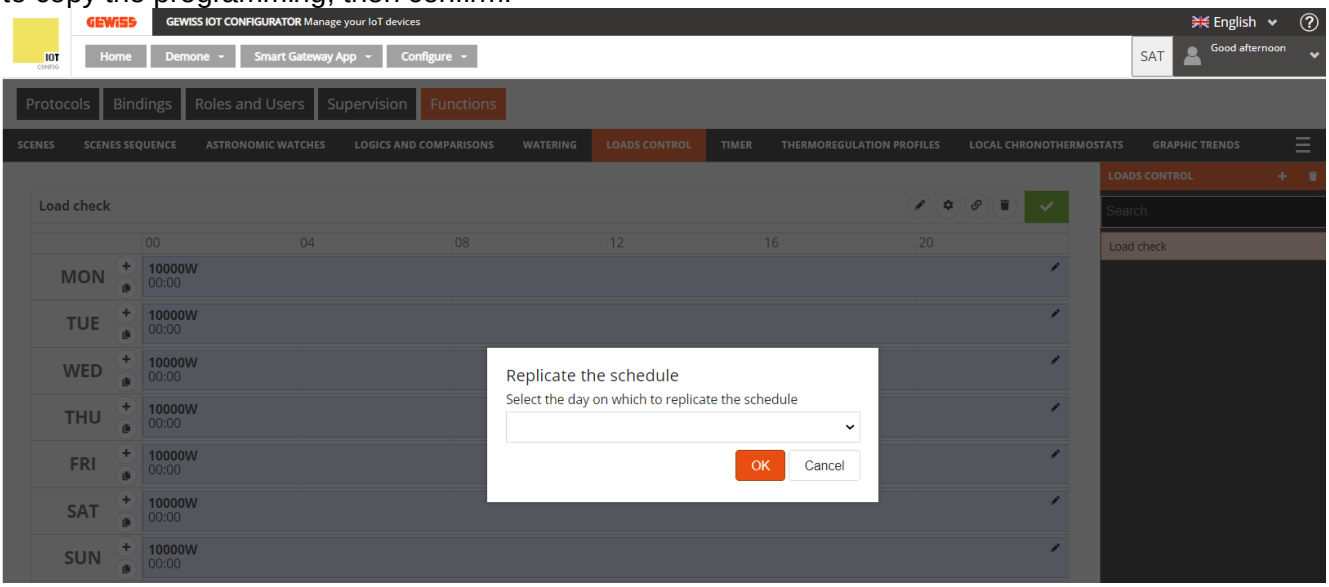
reduce it). When the resolution doesn't allow you to see the entire 00-24 scale, you can move along the time axis by selecting any point on it and dragging it to the right or left.

Each row represents one day of the week.

To add a new time band in a specific day, press the **+** icon on the right of the name of the day concerned. In the pop-up menu that appears, select the band start time and the threshold value the band end time coincides with the start time of the next band, or with the end of the day.



To repeat the programming of one day on another day, press the icon to the right of the day whose programming you want to repeat; from the pop-up menu that appears, select the day on which you want to copy the programming, then confirm.



On the time line for each day, there are the time bands with the start time and relative power threshold value. Daily programming can never be blank - there must be at least one band (the band that begins at 00:00 can't be deleted).

Inside the band, you can see:

- the value of the power threshold in that time band
- the band start time (underneath the power value)
- push-button for modifying the band start time and threshold value
- push-button for deleting the band

The start and end times of a band can be modified directly from the time grid: select the required band (it will turn yellow), then select the left-hand edge of the band and drag it to the right or left to change the start time in 15-minute steps, or select and drag the right-hand edge to change the end time. Release to save the modification.

NOTE: the implementation of the load control algorithm associated with a specific time period (calendar) isn't defined in programming; it's one of the algorithm activation options (disabled, enabled, enabled with calendar) managed via the app.

When the central area shows the weekly programming of the power threshold, a new icon will appear next to the name of the load group, along with the validity status of the element.

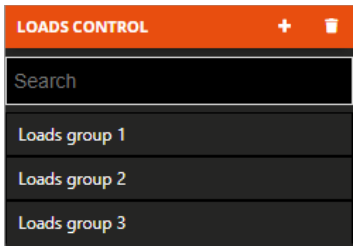
Icon indicating the validity status of the load group: orange if it's incomplete and can't therefore be used in the project, green if it's complete and can be used. If the group is incomplete, click on the orange icon to see the type of error.

Press this icon to see the parameters that determine the behaviour of the control algorithm and the list of loads (described above).

ATTENTION: an incomplete group isn't saved on the cloud. This means that it will no longer be present when the page is changed, or when the project is closed and reopened, even if the configuration has been sent to the area shared with clients (by pressing the push-button).

Every time you select a load group from the LOAD CONTROL column, the weekly programming of the group power threshold will be visualised; to modify the list of loads or the algorithm parameters, press the icon next to the name of the group.

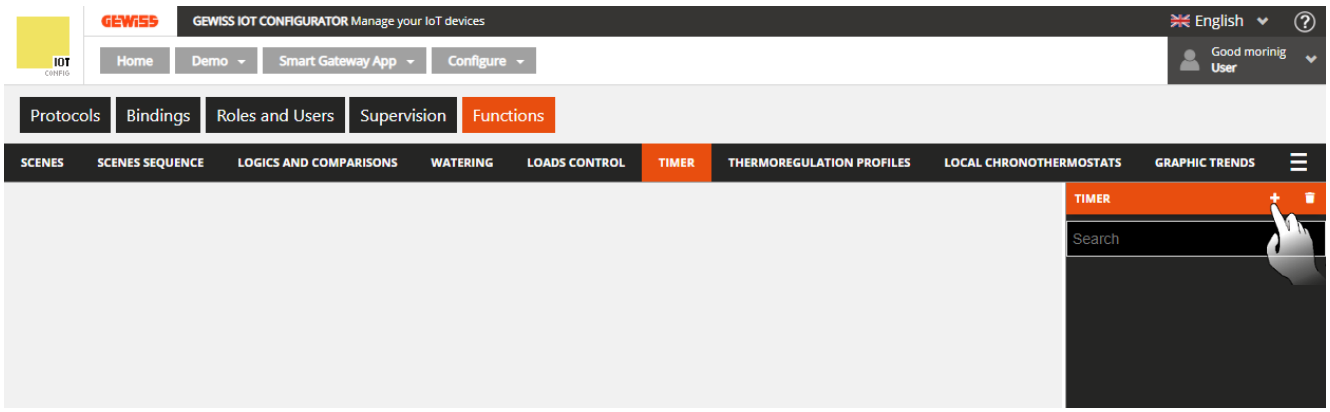
All the load groups created are listed in alphabetical order in the LOAD CONTROL column (on the right).



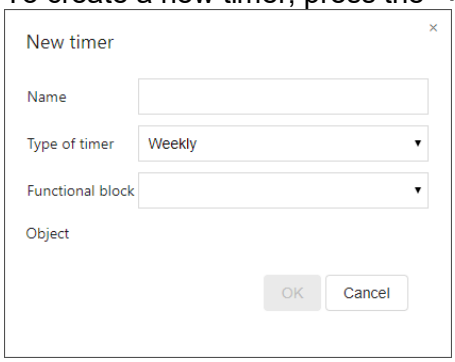
To remove a load group from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the groups simultaneously by pressing the icon in the right-hand column (“LOAD CONTROL”).
ATTENTION: a load group can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the group won't be deleted.

Daily/Weekly timer

A timer identifies a daily/weekly profile associated with a specific action (light command, scene application, roller shutter command, etc.) to automate periodic actions; For instance, the slates can be opened/closed in defined periods to protect the room from sunlight, or the "wake-up" scene can be activated every day at the same time.
NOTE: for this function to operate correctly, the correct time zone must be set. See "Smart Gateway parameter setting".
The Smart Gateway manages the programmed implementation of the actions according to the settings configured.
Once you have selected the "Functions" menu on the first row and the "TIMER" menu on the second, the TIMER column will appear (on the right).

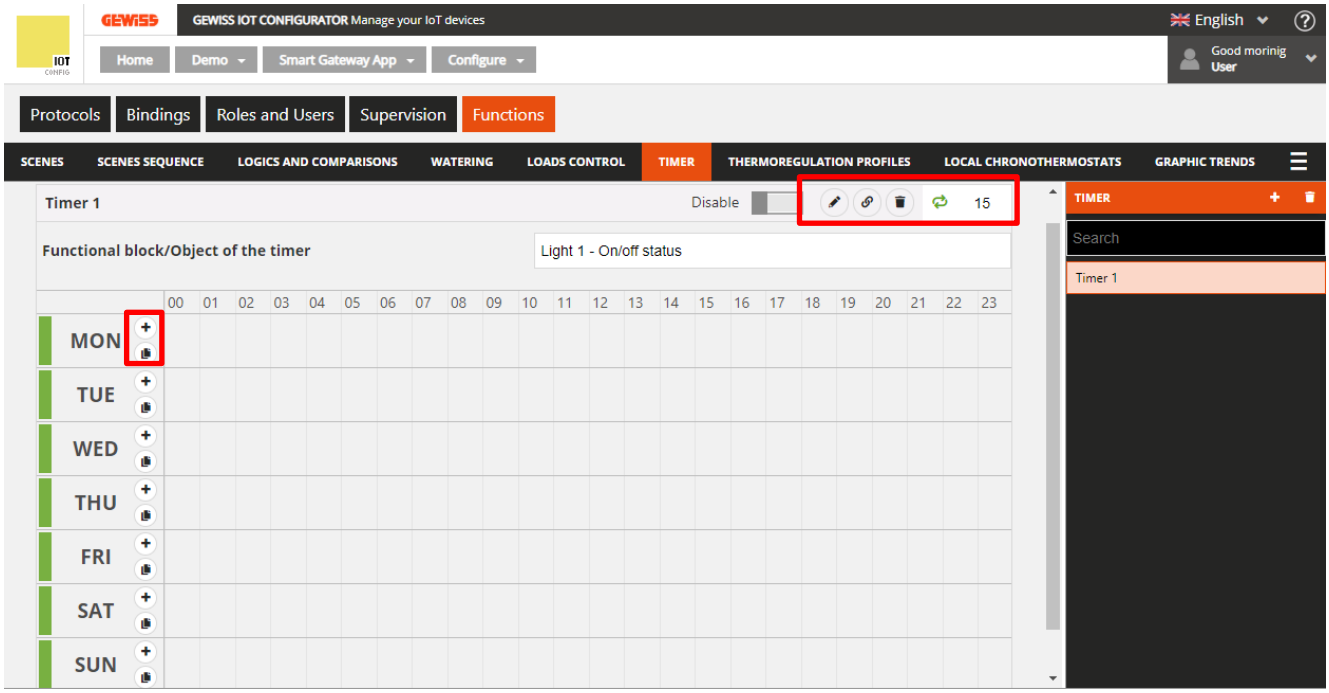


To create a new timer, press the "**+**" icon in the right-hand column ("TIMERS").



In the pop-up menu that appears, enter the name and

- the type of time profile (Timer type)
  a. Daily → the time profile is a daily one, so the actions can be programmed for a single day
  b. Weekly → the time profile is a weekly one, so the actions can be programmed for all 7 days of the week
- selection of the functional block/scene/scene sequence/logic rule that you want to associate the time profile with
- selection of the type of action of the selected element that you want to control with the profile (Object); the options will depend on the element you've selected



Next to the name of the timer, you can see:

Rename push-button for modifying the name of the timer

View connections push-button for displaying all the pages where the timer is used (select the required page to gain direct access)

Delete push-button for eliminating the timer

1 Numerical field for setting the command repeat period for the time bands on which value repetition is enabled. Possible values: from 1 to 45 minutes

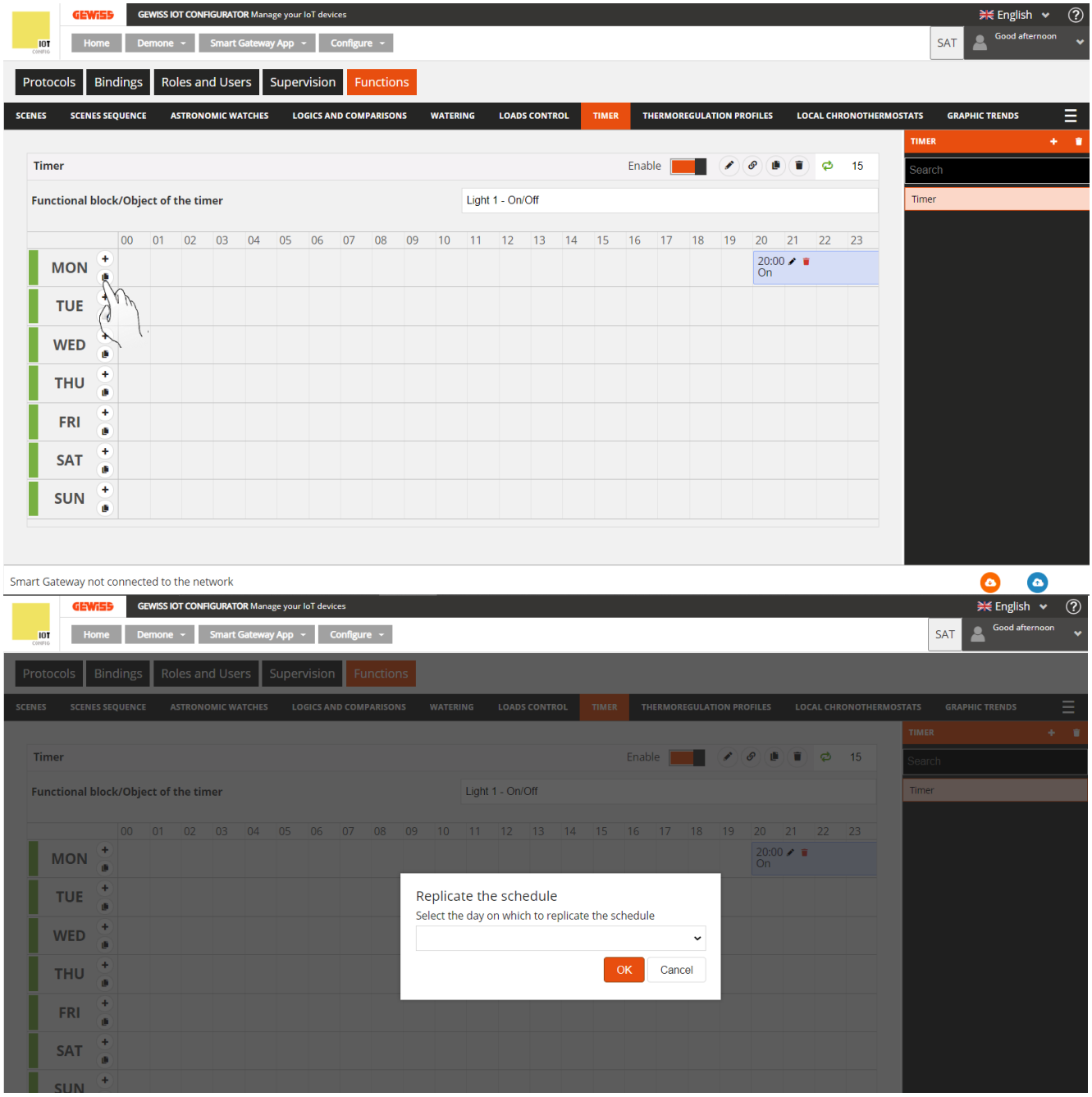
The central part of the page will show the weekly (or daily) programming of the object selected.
At the top there's a time line (00-24). To alter the time resolution, bring the cursor inside the programming grid and rotate the mouse wheel upwards (to increase the resolution) or downwards (to reduce it). When the resolution doesn't allow you to see the entire 00-24 scale, you can move along the time axis by selecting any point on it and dragging it to the right or left.

If the profile is weekly, each row represents one day of the week; if it's daily, there is only one row.

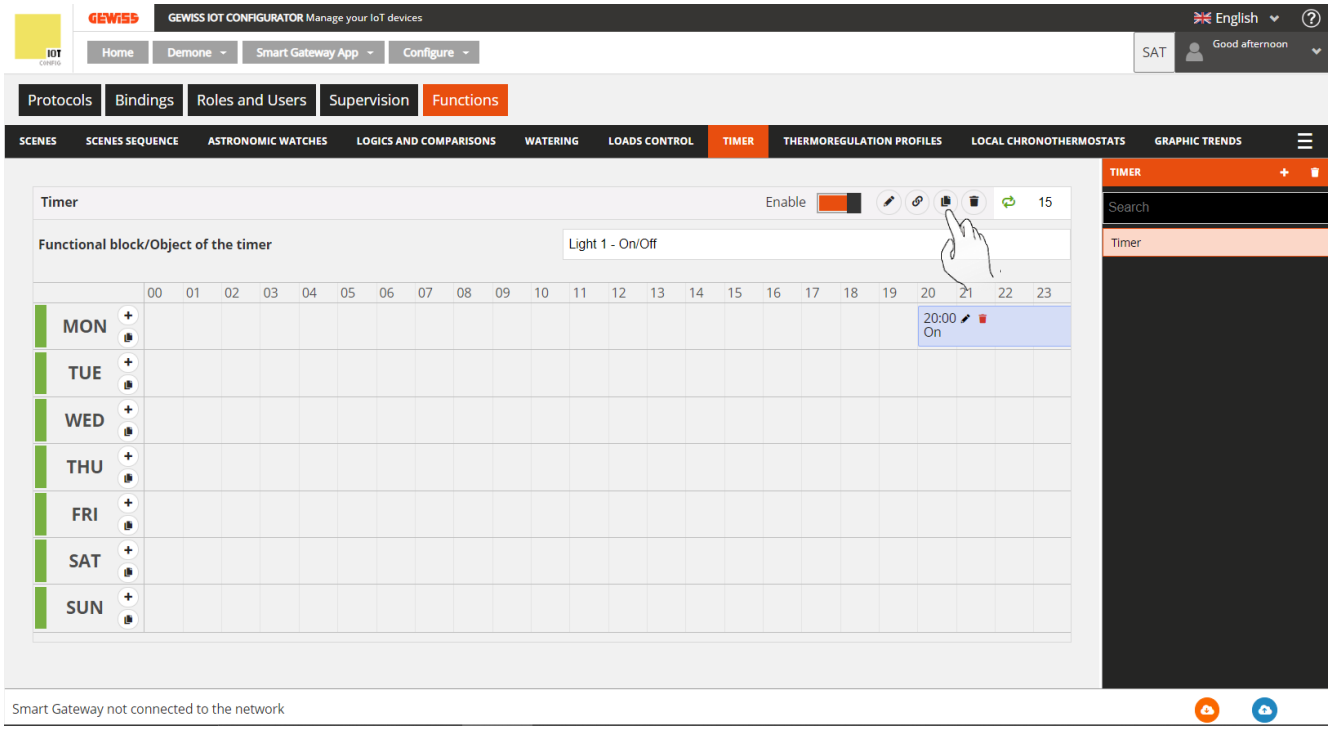
To add a time band in a specific day, press the **+** icon on the right of the name of the day concerned. From the pop-up menu that appears, select:
- the band start time
- the enabling of command repetition within the time band (if enabled, the set value will be repeated cyclically until the end of the band)
- the command to send

the band end time coincides with the start time of the next band, or with the end of the day.

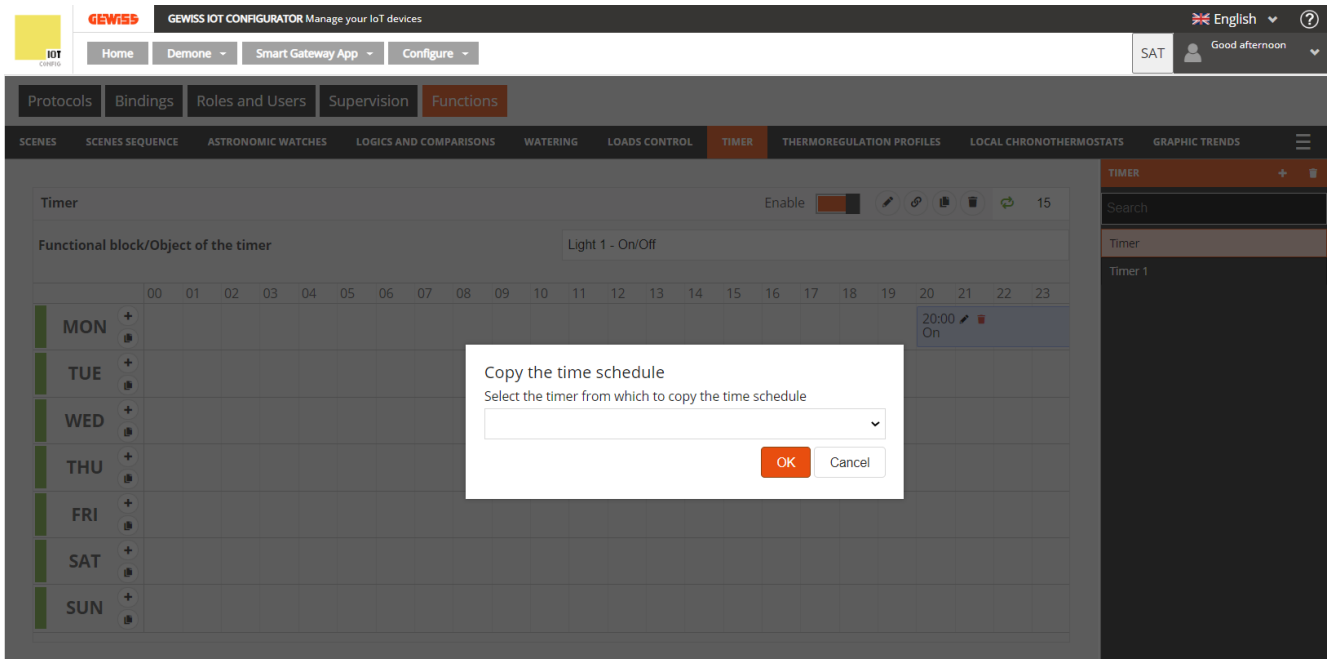
To repeat the programming of one day on another day, press the icon to the right of the day whose programming you want to repeat; from the pop-up menu that appears, select the day on which you want to copy the programming, then confirm.



Furthermore, the entire programming can be copied from another timer that was already configured by pressing the button key “Replicate the schedule” to the right of the name of the system being programmed.

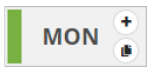


Once the button is pressed, a pop-up appears on the screen that shows all the timers from which the programming can be copied; the compatible timers are those that have the same type (daily or weekly) and the same action to control (e.g. light on/off) of the timer being edited.



Once OK is pressed, the programming of the selected timer is replicated to the timer being edited.

To enable/disable the programming of a day of the week, press the coloured band to the left of the name:



Programming enabled

Programming disabled

On the time line for each day, there are the time bands with the start time and relative value to be sent to the functional block.

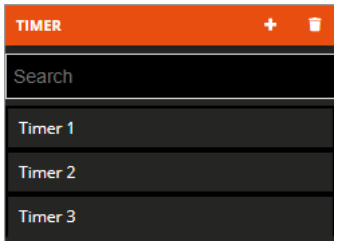
Inside the band, you can see:
- the band start time
- the command to send to the functional block selected (underneath the band start time)
- ✎ push-button for modifying the start time, the value to send, and the command repetition
- 🗑 push-button for deleting the band

If value repetition has been enabled within the time band, the background will be light blue; if the value isn't repeated, the background remains white.

The time band start time can be altered directly from the time grid: select the required band (it will turn yellow), then select the left-hand edge of the band and drag it to the right or left to change the start time in 5-minute steps. Release to save the modification.

NOTE: the implementation of a timer associated with a specific time period (calendar) isn't defined in programming; it's one of the timer activation options (disabled, enabled, enabled with calendar) managed via the app.

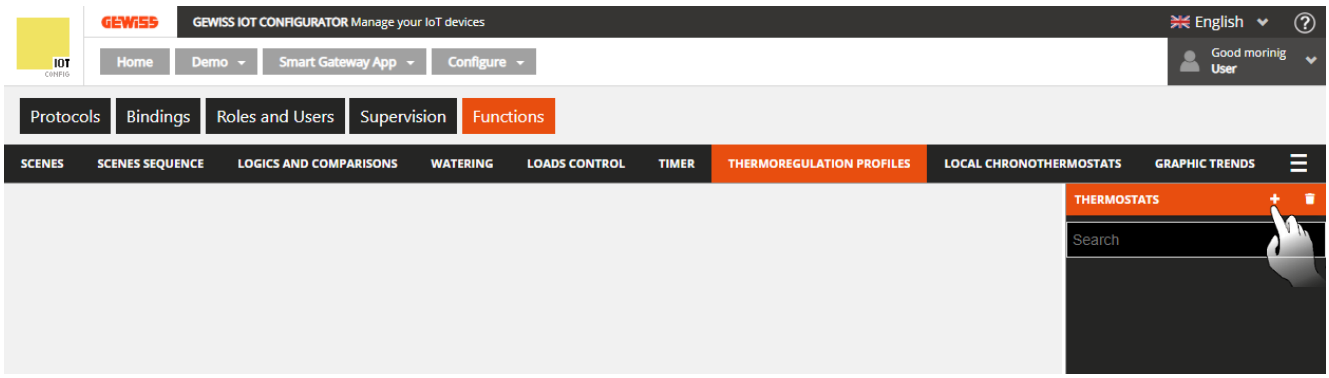
All the timers created are listed in alphabetical order in the TIMERS column (on the right).



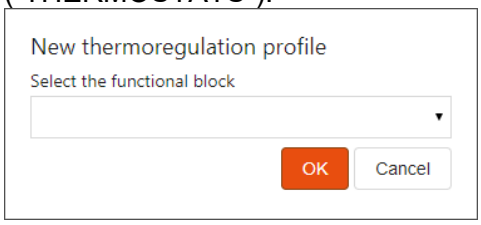
To remove a timer from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the timers simultaneously by pressing the 🗑 icon in the right-hand column (“TIMERS”).
ATTENTION: a timer can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the timer won't be deleted.

Temperature adjustment profiles

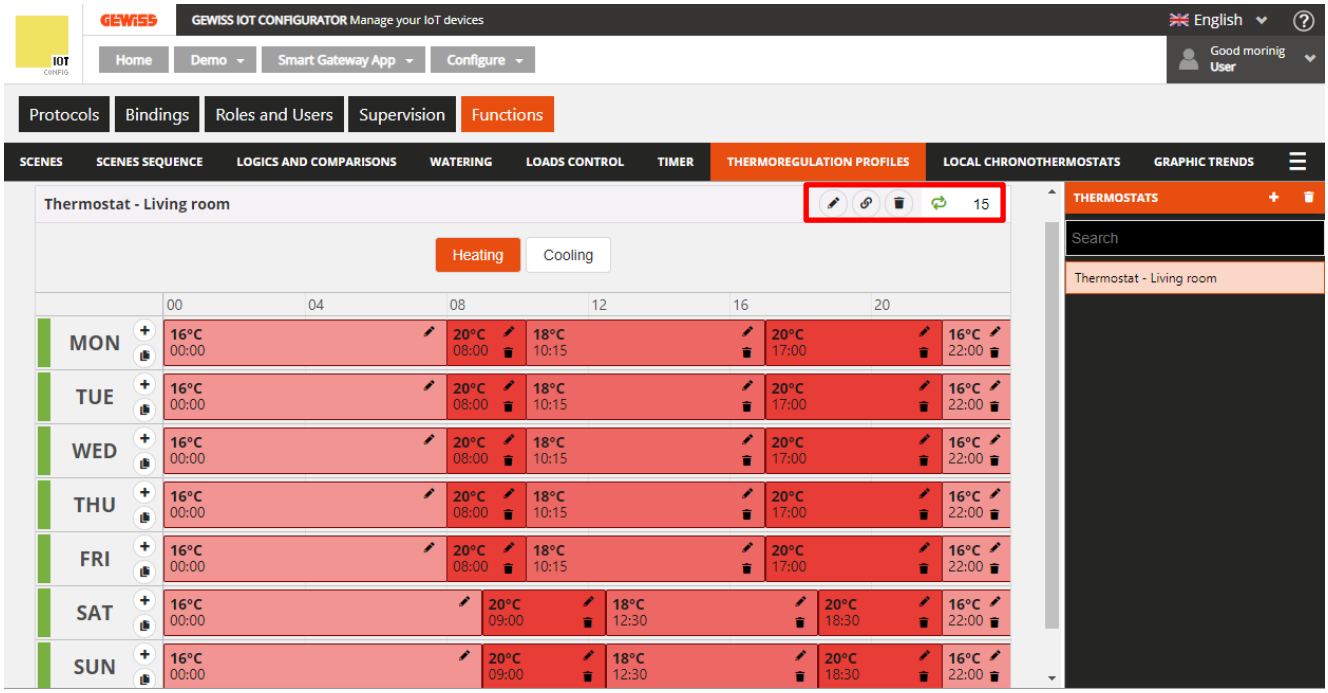
One particular timer function is the temperature adjustment profile. This profile sends (weekly and hourly - 0-24) the HVAC mode or temperature setpoint
to the thermostats or temperature adjustment probes configured as Slaves. Specific profiles for heating/cooling can be defined.
The Smart Gateway manages the programmed implementation of the actions according to the settings configured.
Once you have selected the “Functions” menu on the first row and the “TEMPERATURE ADJUSTMENT PROFILES” menu on the second, the THERMOSTATS column will appear (on the right).



To create a new temperature adjustment profile, press the “**+**” icon in the right-hand column (“THERMOSTATS”).



Select the functional block whose hourly profile you want to activate (the list shows all the “HVAC thermostat” or “Setpoint thermostat” functional blocks for which no temperature adjustment profile is active.
Press “OK” to see the weekly programming of the temperature adjustment profile associated with the functional block selected.



Next to the name of the functional block whose profile has been activated, you can see:

Rename push-button for modifying the name of the temperature adjustment profile

View connections push-button for displaying all the pages where the profile is used (select the required page to gain direct access)

Delete push-button for eliminating the profile

1 Numerical field for setting the command repeat period within the time bands. Possible values: from 1 to 45 minutes

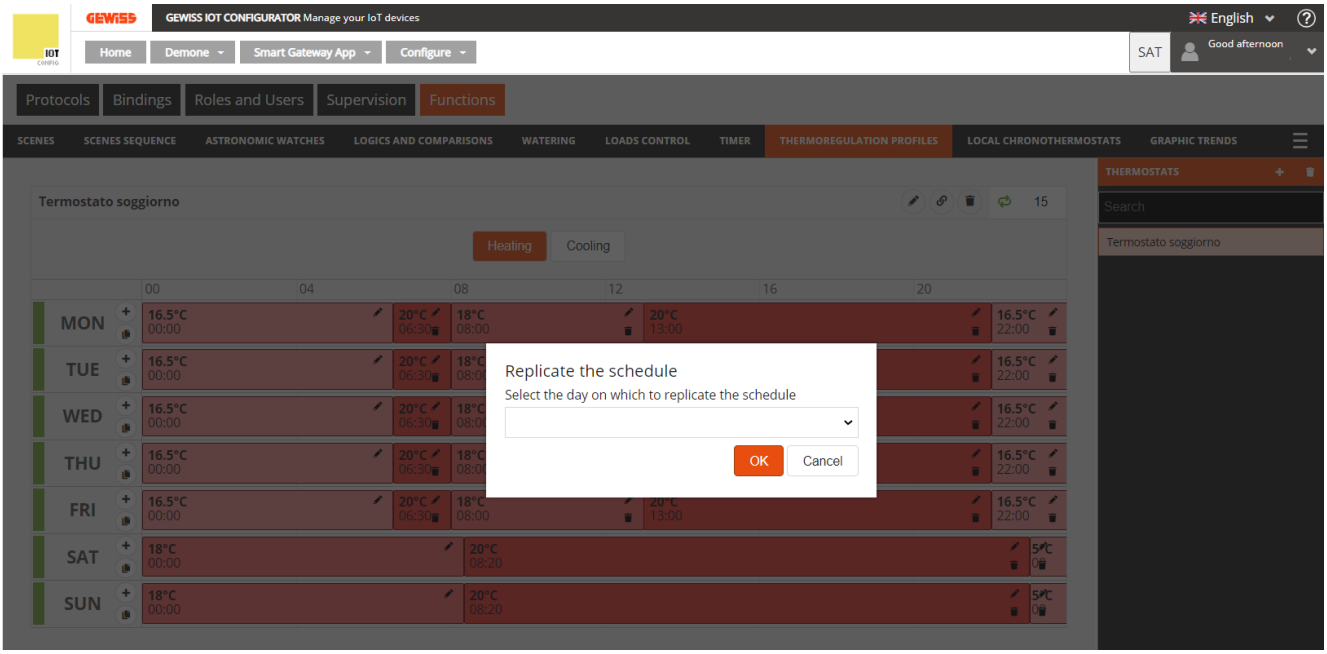
Underneath the name of the profile, there are two push-buttons for selecting the profile to be programmed: heating or cooling; in fact, two separate profiles are reserved for each functional block for the two types of operation. The Smart Gateway sends the correct commands based on the type of operation active on the controlled device.

The central part of the page will show the weekly programming of the functional block selected.
At the top there's a time line (00-24). To alter the time resolution, bring the cursor inside the programming grid and rotate the mouse wheel upwards (to increase the resolution) or downwards (to reduce it). When the resolution doesn't allow you to see the entire 00-24 scale, you can move along the time axis by selecting any point on it and dragging it to the right or left.

Each row represents one day of the week.

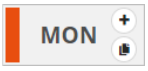
To add a new time band in a specific day, press the **+** icon on the right of the name of the day concerned. In the pop-up menu that appears, select the band start time and the threshold value (HVAC or setpoint mode, depending on the type of functional block); the band end time coincides with the start time of the next band, or with the end of the day.

To repeat the programming of one day on another day, press the icon to the right of the day whose programming you want to repeat; from the pop-up menu that appears, select the day on which you want to copy the programming, then confirm.



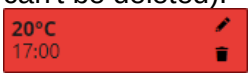
To enable/disable the programming of a day of the week, press the coloured band to the left of the name:

Programming enabled



Programming disabled

On the time line for each day, there are the time bands with the start time and relative value to be sent. Daily programming can never be blank - there must be at least one band (the band that begins at 00:00 can't be deleted).



Inside the band, you can see:

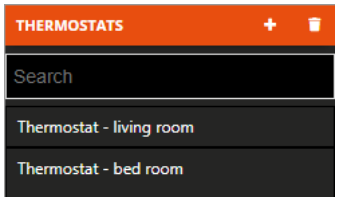
- the value (HVAC or setpoint mode) to be sent in that time band
- the band start time (underneath the value to be sent)
- push-button for modifying the start time and the value to send
- push-button for deleting the band

If the profile is "heating", the various time bands are coloured in different shades of red according to their value; the same for the "cooling" profile, but in blue.

The start and end times of a band can be modified directly from the time grid: select the required band (it will turn yellow), then select the left-hand edge of the band and drag it to the right or left to change the start time in 15-minute steps, or select and drag the right-hand edge to change the end time. Release to save the modification.

NOTE: the implementation of a temperature adjustment profile associated with a specific time period (calendar) isn't defined in programming; it's one of the profile activation options (disabled, enabled, enabled with calendar) managed via the app. Once activated, the associated profile will be activated/visualised depending on whether the Slave device is in heating or cooling mode (without the user having to select it).

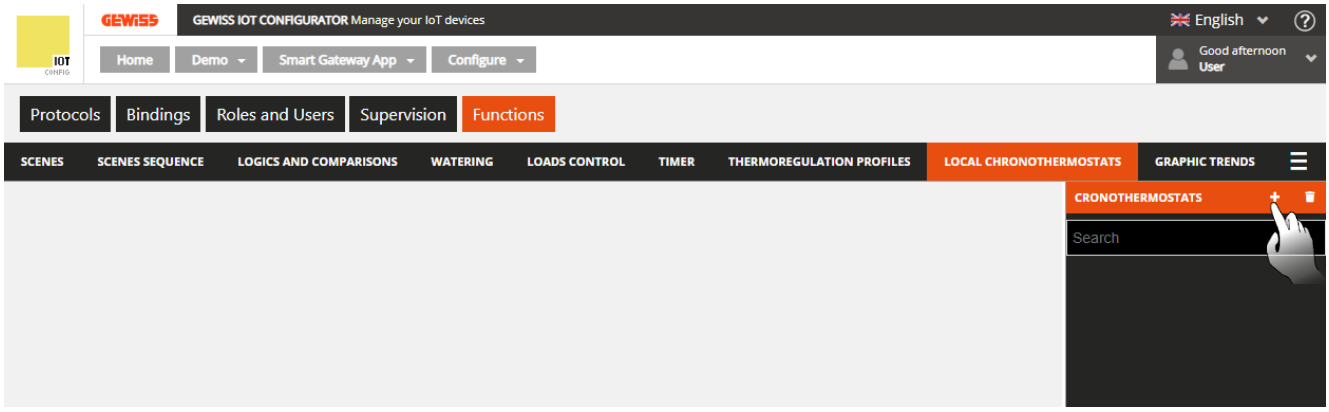
All the temperature adjustment profiles created are listed in alphabetical order in the THERMOSTATS column (on the right).



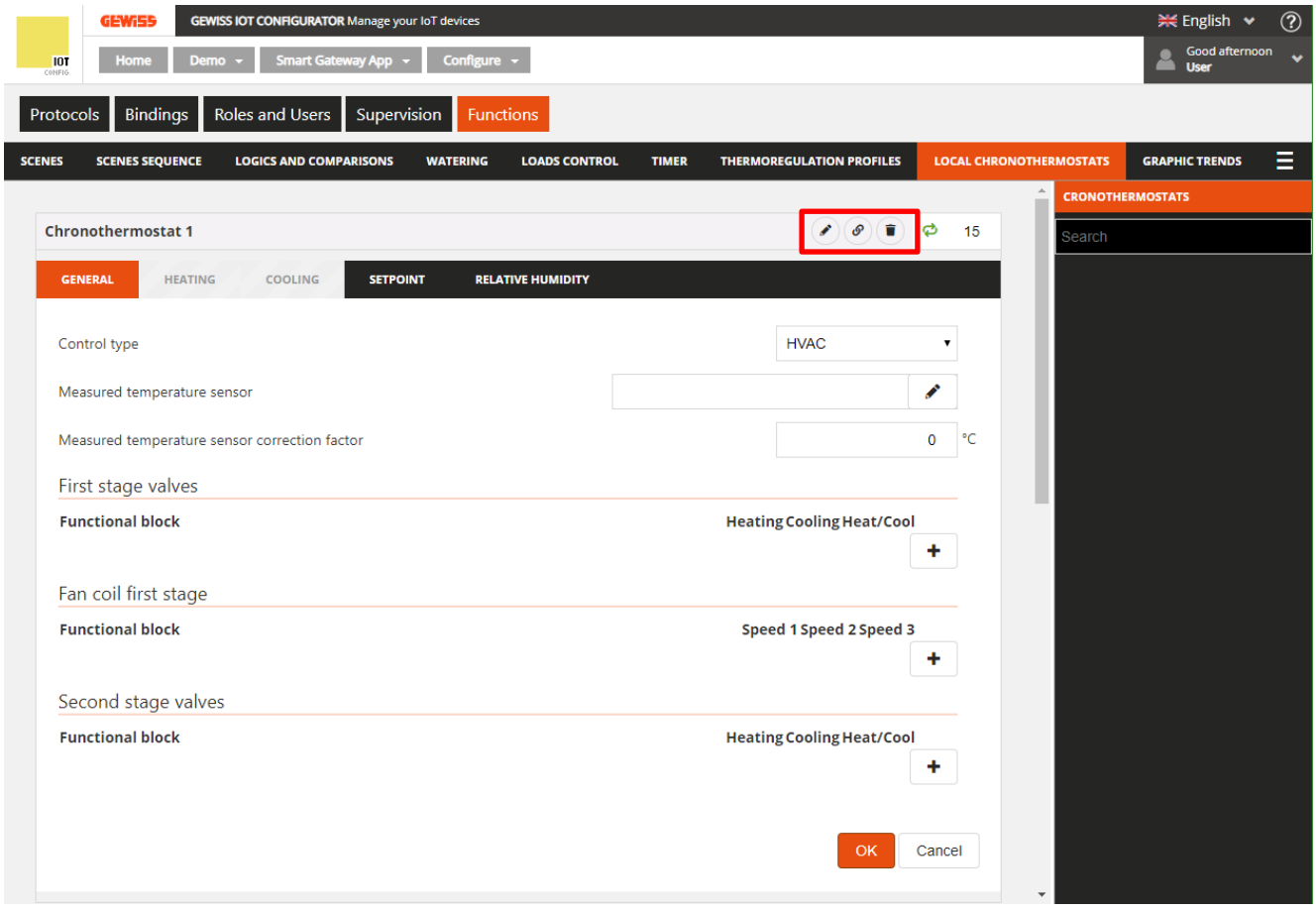
To remove a profile from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the temperature adjustment profiles simultaneously by pressing the 🗑 icon in the right-hand column (“THERMOSTATS”).
ATTENTION: a temperature adjustment profile can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the profile won't be deleted.

Local timed thermostats

The Smart Gateway implements the temperature adjustment control logic directly, with the possibility to receive the temperature from an external sensor, parametrize setpoints and regulation differentials, and then regulate the valves and/or fancoils as necessary.
The Gateway doesn't have its own temperature sensor. The integrated control function relates to the possibility to manage temperature adjustment (via a linked temperature adjustment profile), but using temperature values received from an external sensor.
Once you have selected the “Functions” menu on the first row and the “LOCAL TIMED THERMOSTATS” menu on the second, the TIMED THERMOSTATS column will appear (on the right).



To create a new timed thermostat, press the “**+**” icon in the right-hand column (“TIMED THERMOSTATS”).
Enter the name you want to associate with the timed thermostat, then confirm.

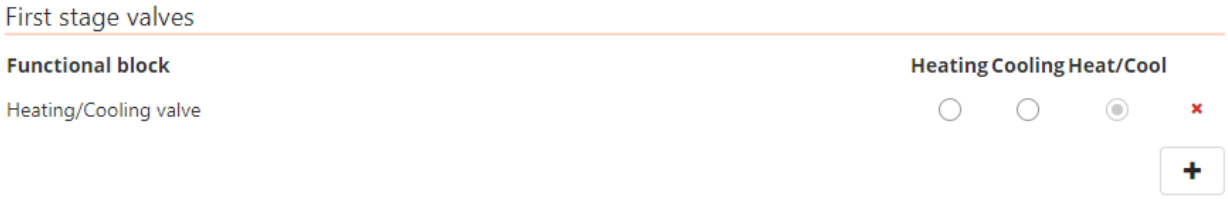


Next to the name of the timed thermostat, you can see:

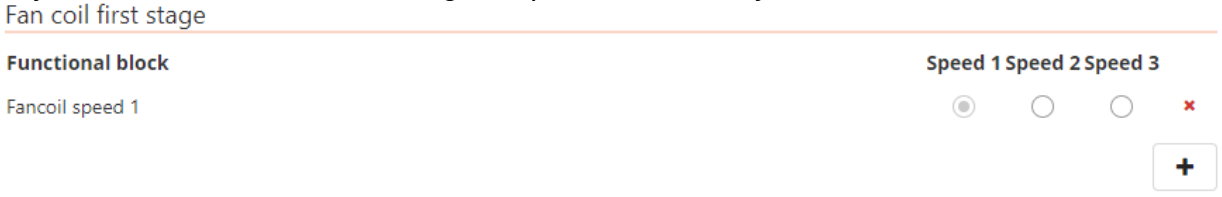
- **Rename** push-button for modifying the name of the timed thermostat
- **View connections** push-button for displaying all the pages where the timed thermostat is used (select the required page to gain direct access)
- **Delete** push-button for eliminating the timed thermostat

The central part of the page will show the parameters that determine the behaviour of the timed thermostat, sub-divided into various sub-sections.
In the GENERAL section, the parameters to be set are:

- The type of timed thermostat control (HVAC or setpoint), which determines the general operation of the thermostat (the choice also affects the parameters that will be visible in the SETPOINT section)
- Selection of the temperature sensor that will provide the value to be monitored; press the icon to see the pop-up with a list of the functional blocks compatible with the function (and not already used in the other timed thermostats created)
- Static correction of the temperature value received from the temperature sensor (if it's influenced by other factors). Possible values: from -5°C to 5°C
- List of the implementation functional blocks of the valves of the first stage control algorithm (heating and/or cooling). To add a valve implementation functional block, press the “+” icon in the “First stage valves” area; a pop-up will appear with a list of all the Actuator type functional blocks (both ZigBee and KNX) that can receive on/off commands (e.g. Actuator on/off) or General actuator commands (with on/off commands or a percentage value) and aren't already in the list of valves or the list of fancoil speeds for the timed thermostat you are editing, or for others already created. Once the choice has been confirmed, the functional block is shown in the list with three adjacent check boxes for selecting the functional block function: heating and cooling valve control (2-way system), heating valve control (4-way system or heating-only system) or cooling valve control (4-way system or cooling-only system).

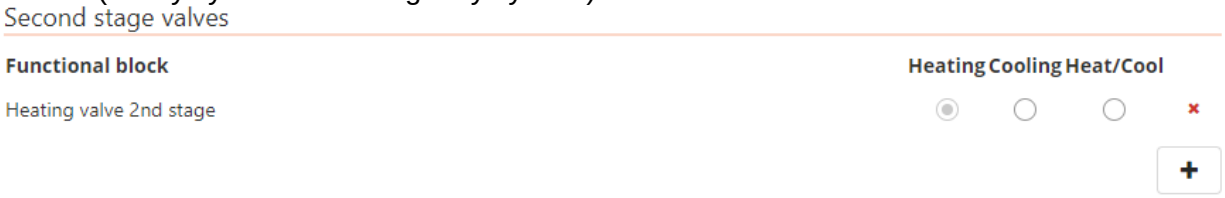


  The list must contain at least one functional block, but maximum two.
  When two functional blocks are present, the “Heat/Cool” option can't be selected.
  To remove a functional block, press the ✖ icon on the right-hand side of that row.
  The control algorithms that can be selected for heating and cooling will depend on the type of valve inserted (refer to the dedicated sections).
- List of the implementation functional blocks of the fancoil speeds of the first stage control algorithm (heating and/or cooling). To add a fancoil speed implementation functional block, press the “+” icon in the “First stage fancoils” area; a pop-up will appear with a list of all the Actuator type functional blocks (both ZigBee and KNX) that can receive on/off commands (e.g. Actuator on/off) or General actuator commands (with on/off commands or a percentage value) and aren't already in the list of valves or the list of fancoil speeds for the timed thermostat you are editing, or for others already created. Once the choice has been confirmed, the functional block is shown in the list with three adjacent check boxes for indicating the speed controlled by the functional block.



In order for you to be able to select the “fancoil” algorithm for heating and/or cooling, there must be three functional blocks in the list; otherwise, the algorithm can't be selected.
To remove a functional block, press the ✖ icon on the right-hand side of that row.

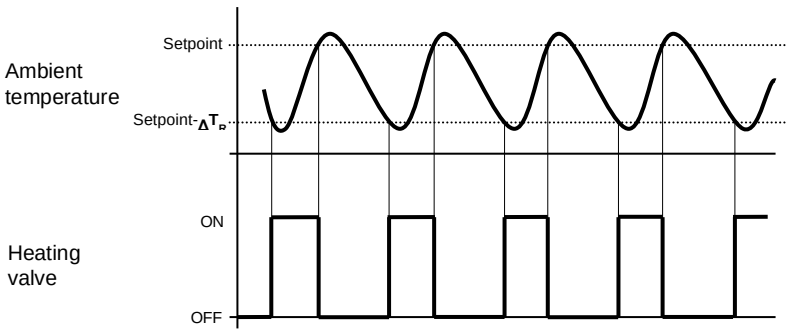
- List of the implementation functional blocks of the valves of the second stage control algorithm (heating and/or cooling). To add a valve implementation functional block, press the “+” icon in the “Second stage valves” area; a pop-up will appear with a list of all the Actuator type functional blocks (both ZigBee and KNX) that can receive on/off commands (e.g. Actuator on/off) and aren't already in the list of valves or the list of fancoil speeds for the timed thermostat you are editing, or for others already created. Once the choice has been confirmed, the functional block is shown in the list with three adjacent check boxes for selecting the functional block function: heating and cooling valve control (2-way system), heating valve control (4-way system or heating-only system) or cooling valve control (4-way system or cooling-only system).



The list can contain no more than two functional blocks.
When two functional blocks are present, the “Heat/Cool” option can't be selected.
To remove a functional block, press the ✖ icon on the right-hand side of that row.

In the HEATING section (that can be accessed if the list of first stage valves of the GENERAL section contains one associated with this type of operation), the parameters to be set are:

- the first stage control algorithm, that determines the rule used by the Gateway to control the functional block associated with the heating valve; the options available will depend on the type of valve connected (on/off or % value) and the possible presence of the three fancoil speed functional blocks.
  a. *two ON - OFF points (visible with an on/off functional block)*
  The algorithm used for controlling the temperature adjustment system is the classic type, called "2-point control". This type of control involves the turning on and off of the temperature adjustment system following a hysteresis cycle. This means there isn't a single threshold that discriminates between the turning on and off of the system, but two.



When the measured temperature is lower than the value “setpoint-ΔT_R “(where ΔT_R identifies the value of the heating regulation differential), the device activates the heating system, sending the relative command to the functional block that manages it; when the measured temperature reaches the fixed setpoint value, the device deactivates the heating system, sending the relative command to the functional block.

  b. *proportional integral PI (visible with an on/off or % value functional block)*
  The algorithm used to control the temperature adjustment system allows you to drastically reduce the thermal inertia times introduced by the 2-point control, called proportional integral (PI) control. This type of control involves the modulation of the temperature adjustment system power (duty cycle of the ON-OFF command, or % value) on the basis of the difference between the fixed setpoint and the temperature measured. Two components are needed to calculate the output function: the proportional component and the integral component.

$$u(t) = K_p e(t) + K_i \int_0^t e(\tau)\, d\tau$$

Proportional component

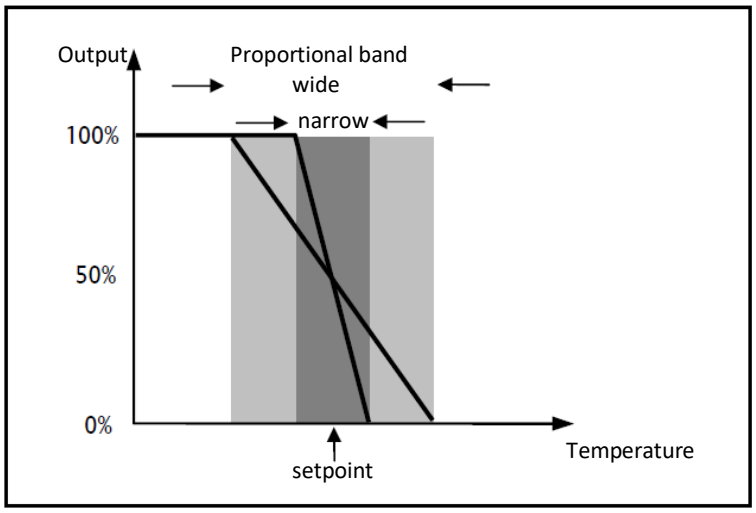
In the proportional component, the output function is proportional to the error (difference between setpoint and measured temperature).

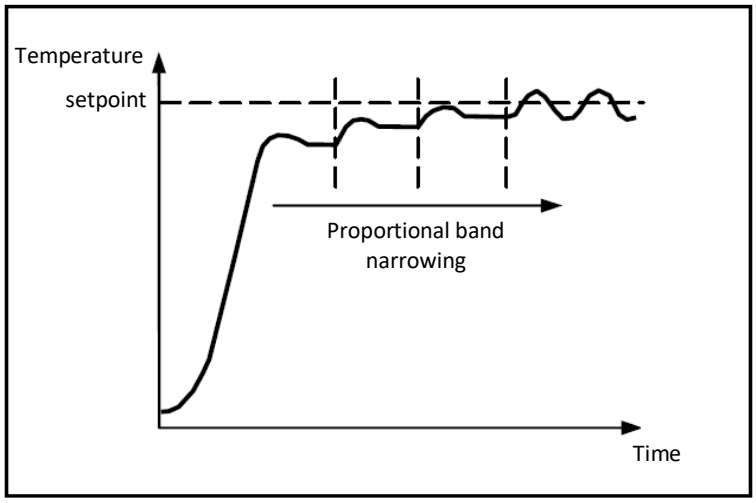
$$P_{out} = K_p\, e(t)$$

Once the proportional band has been defined, the system power within the band varies between 0% and 100%; outside the band, the power will be maximum or minimum depending on the reference limits.

The width of the proportional band determines the extent of the response to the error. If the band is too “narrow”, the system oscillates as it's more reactive; if the band is too “wide”, the control system is slow. The ideal situation is when the proportional band is as narrow as possible without causing oscillations.

The diagram below shows the effect of narrowing the proportional band until the oscillation point of the output function. A "wide" proportional band results as a straight line in the control, but with an initial error between the setpoint and the actually perceptible temperature. As the band becomes narrower, the temperature approaches the reference value (setpoint) until it becomes unstable and starts to oscillate around it.



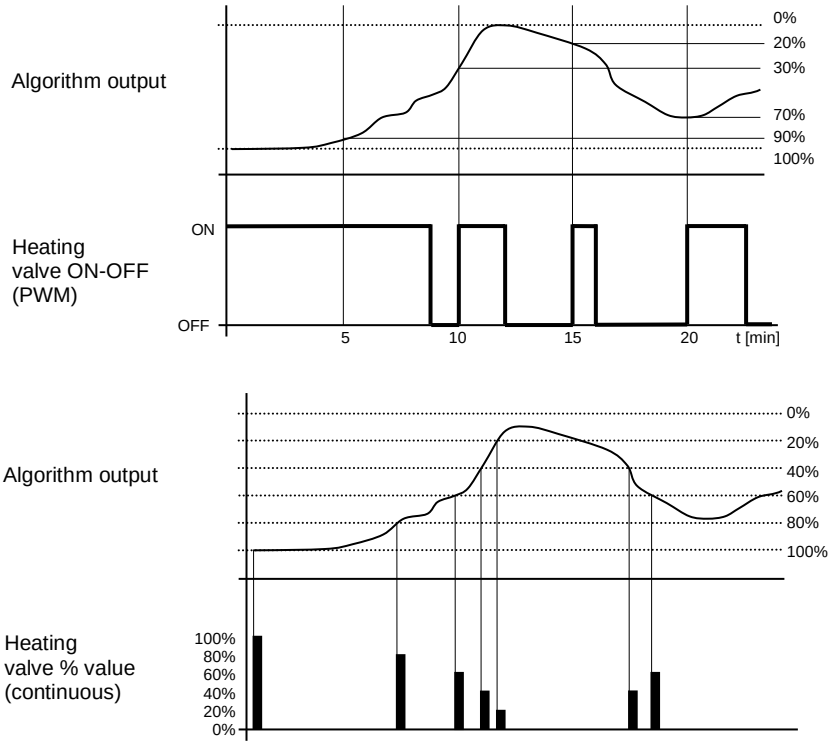


Integral component

The contribution of the integral period is proportional to the error (difference between the setpoint and the measured temperature) and its duration. The integral is the sum of the instantaneous error for every moment of time and provides the accumulated offset that should have been previously corrected. The accumulated error is then added to the regulator output.

$$I_{\mathbf{out}} = K_i \int_0^t e(\tau)\, d\tau$$

The integral period accelerates the dynamics of the process towards the setpoint and eliminates the residuals of the stationary error status that takes place with a pure proportional controller.
The integration time is the parameter that determines the action of the integral component. The longer the integration time, the slower the modification of the output and hence the slower the system response. If the time is too short, the threshold value will be exceeded (overshoot), and the function will swing around the set-point.
The following example shows how the algorithm works with an ON-OFF valve and a percentage valve:

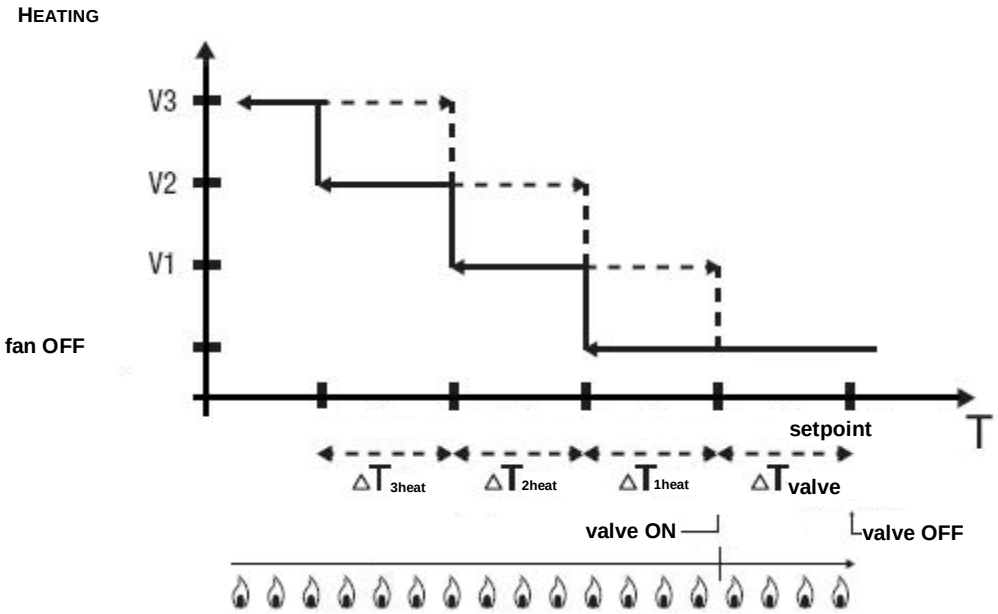


The device continuously adjusts the heating system, modulating the power on the basis of the value calculated by the control algorithm.
If the valve is ON-OFF, the device modulates the system on-off times with a duty-cycle (shown on the right, along the vertical axis) that depends on the output function value calculated at every time interval equal to the cycle time. If the valve is of the percentage type, the device continuously adjusts the heating system, sending the solenoid valve percentage activation values (shown on the vertical axis) that depend on the output function of the algorithm.
With this type of algorithm, there is no longer a hysteresis cycle on the heating device, so the inertia times (system heating and air cooling times) introduced by the 2-point control are eliminated. This produces energy savings because the system does not remain switched on when it is not needed and, once the required temperature has been reached, it continues to provide a heat limited contribution to compensate for the environmental heat dispersion.

c. *3-speed ON-OFF fancoil (visible if the three functional blocks are present in the list of fancoil speeds)*

The type of control that is applied when the fancoil control is enabled is similar to the 2-point control analysed in previous sections, which is to turn the fancoil speed on /off based on the difference between the setpoint that was set and the measured temperature.
The basic difference compared with the 2-point algorithm is that, in this case, there isn't just one stage in which the hysteresis cycle is performed to fix the speed on/off thresholds; there are three. In short, this means that each stage corresponds to a speed and when the difference between the measured temperature and the setpoint that was set causes a certain speed to be

turned on, this means that before turning on the new speed, the other two must absolutely be turned off.



The figure refers to the control of the three fancoil speeds for heating. The chart shows that each speed has a hysteresis cycle, and each speed is associated with two thresholds that determine its activation and deactivation. The thresholds are determined by values set for the various regulation differentials, and can be summarised as follows:

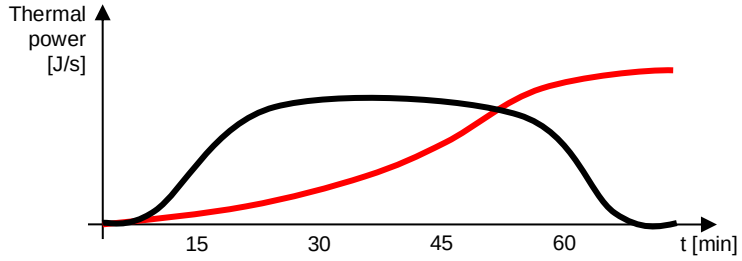
- Speed V1: this speed is activated when the temperature is lower than the value "setpoint-$_{\Delta}T_{valv}$-$_{\Delta}T_{1\ heat}$" and deactivated when the temperature reaches the value "setpoint-$_{\Delta}T_{valv}$" (or the "setpoint" value if $_{\Delta}T_{1\ heat}$=0). The first speed is also turned off when a higher speed needs to be activated
- Speed V2: this speed is activated when the temperature is lower than the value "setpoint-$_{\Delta}T_{valv}$-$_{\Delta}T_{1\ heat}$-$_{\Delta}T_{2\ heat}$" and deactivated when the temperature reaches the value "setpoint-$_{\Delta}T_{valv}$-$_{\Delta}T_{1\ heat}$". The second speed is also turned off when the V3 speed needs to be activated
- Speed V3: this speed is activated when the temperature is lower than the value "setpoint-$_{\Delta}T_{valv}$-$_{\Delta}T_{1heat}$-$_{\Delta}T_{2heat}$-$_{\Delta}T_{3heat}$" and deactivated when the temperature reaches the value "setpoint-$_{\Delta}T_{valv}$-$_{\Delta}T_{1heat}$-$_{\Delta}T_{2heat}$".

With regards the heating solenoid valve, once the measured temperature is lower than the value "setpoint-ΔTvalv", the thermostat sends the activation command to the solenoid valve that manages the heating system; the solenoid valve is deactivated when the detected temperature reaches the fixed setpoint value. In this way, the heating of the fancoil can also be exploited for irradiation, without any speed being activated.

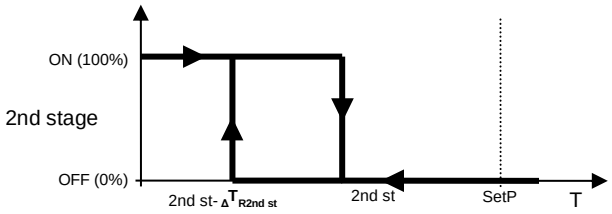
- value of the valve regulation differential (mentioned above). Possible values: from 0.1°C to 2°C.
  This parameter can only be edited if the control algorithm selected is "two points ON - OFF" or "3-speed fancoil ON-OFF".
- width of the proportional band (mentioned above). Possible values: from 1°C to 10°C.
  This parameter can only be edited if the control algorithm selected is "proportional integral PI"
- contribution of the integral action in the proportional integral control, in the form of an integration time. Possible values: from 1 to 240 minutes.
  This parameter can only be edited if the control algorithm selected is "proportional integral PI"
- value of the period within which the device performs the PWM modulation, modifying the duty cycle of the proportional integral PWM (with on-off valve). Possible values: from 5 to 60 minutes.
  This parameter can only be edited if the control algorithm selected is "proportional integral PI" and the valve associated with the first heating stage is of the on-off type.
- minimum variation of the system power value, calculated by the algorithm, for generating a new command to the proportional valve. Possible values: from 1% to 20%.

This parameter can only be edited if the control algorithm selected is “proportional integral PI” and the valve associated with the first heating stage is of the proportional (% value) type.

- value of the regulation differential for fancoil speed 1. Possible values: from 0.1°C to 2°C.
  This parameter is only visible, and can only be edited, if the control algorithm selected is “3-speed fancoil ON-OFF”
- delay between the deactivation of fancoil speed 1 and the activation of the new speed calculated by the algorithm. Possible values: from 0 to 30 seconds.
- value of the regulation differential for fancoil speed 2. Possible values: from 0.1°C to 2°C.
  This parameter is only visible, and can only be edited, if the control algorithm selected is “3-speed fancoil ON-OFF”
- delay between the deactivation of fancoil speed 2 and the activation of the new speed calculated by the algorithm. Possible values: from 0 to 30 seconds.
- value of the regulation differential for fancoil speed 3. Possible values: from 0.1°C to 2°C.
  This parameter is only visible, and can only be edited, if the control algorithm selected is “3-speed fancoil ON-OFF”
- delay between the deactivation of fancoil speed 3 and the activation of the new speed calculated by the algorithm. Possible values: from 0 to 30 seconds.
- limit threshold for the intervention of the supplementary heating system (i.e. second stage). Possible values: from 1°C to 10°C.
  This parameter is only visible, and can only be edited, if the list of second stage valves includes a functional block associated with heating.
  Some heating systems (for example, floor heating) have very high thermal inertia levels and require a considerable amount of time to bring the room temperature into line with the required setpoint. In order to reduce this inertia, another heating system with less inertia is often installed to help the main system to heat the room when the difference between the setpoint and the measured temperature is particularly large. This system, known as 2nd stage, helps to heat the room during the initial phase, then it stops working when the difference between the setpoint and the temperature can be managed faster by the main system (1st stage).



The control algorithm of the second stage is two points ON-OFF, and the intervention thresholds are as follows:

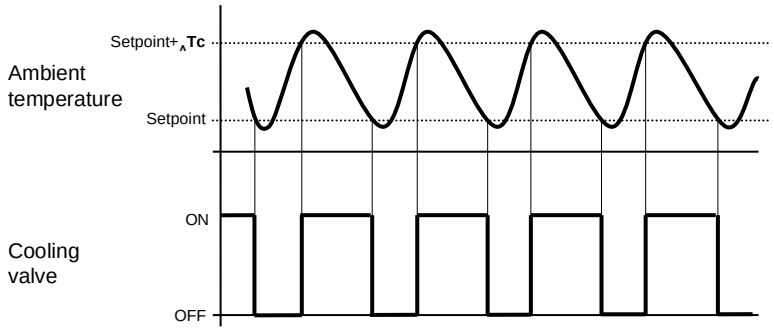


When the measured temperature is lower than the value “2nd st- ΔTR2nd st” (where ΔTR2nd st identifies the value of the regulation differential of 2nd stage heating), the device activates 2nd stage heating by sending the relative command to the valve that manages it. When the measured temperature reaches the value “2nd st” (defined by the setpoint intervention limit 2nd stage), the device deactivates 2nd stage heating.
This makes it clear that there are two decision thresholds for activating and deactivating the 2nd heating stage, the first consists of the value “2nd st- ΔTR2nd st” below which the device turns on the system, and the second consists of the value “2nd st” above which the device switches off the system.

- value of the second stage valve regulation differential (mentioned above). Possible values: from 0.1°C to 2°C.

In the COOLING section (that can be accessed if the list of first stage valves of the GENERAL section contains one associated with this type of operation), the parameters to be set are:

- the first stage control algorithm, that determines the rule used by the Gateway to control the functional block associated with the cooling valve; the options available will depend on the type of valve connected (on/off or % value) and the possible presence of the three fancoil speed functional blocks.
  a. *two ON - OFF points (visible with an on/off functional block)*
     The algorithm used for controlling the temperature adjustment system is the classic type, called "2-point control". This type of control involves the turning on and off of the temperature adjustment system following a hysteresis cycle. This means there isn't a single threshold that discriminates between the turning on and off of the system, but two.



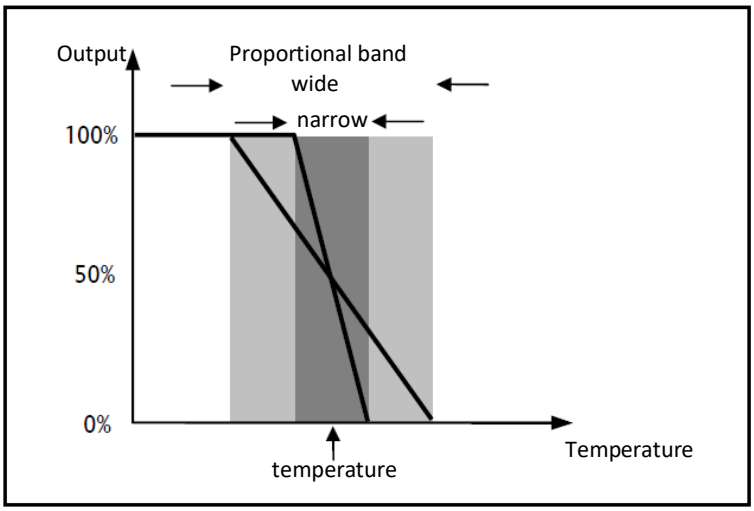
     When the measured temperature is higher than the value “setpoint+**ΔTc**” (where **ΔTc** identifies the value of the cooling regulation differential), the device activates the cooling system by sending the relative command to the functional block that manages it; when the detected temperature reaches the fixed setpoint value, the device deactivates the cooling system.
  b. *proportional integral PI (visible with an on/off or % value functional block)*
     The algorithm used to control the temperature adjustment system allows you to drastically reduce the thermal inertia times introduced by the 2-point control, called proportional integral (PI) control. This type of control involves the modulation of the temperature adjustment system power (duty cycle of the ON-OFF command, or % value) on the basis of the difference between the fixed setpoint and the temperature measured. Two components are needed to calculate the output function: the proportional component and the integral component.

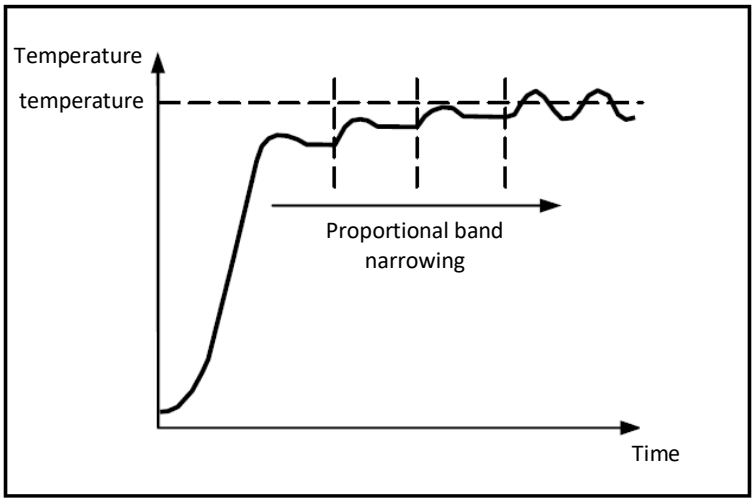
$$\mathrm{u}(t) = K_p e(t) + K_i \int_0^t e(\tau)\,d\tau$$

     Proportional component
     In the proportional component, the output function is proportional to the error (difference between setpoint and measured temperature).

$$P_{\mathrm{out}} = K_p\, e(t)$$

     Once the proportional band has been defined, the system power within the band varies between 0% and 100%; outside the band, the power will be maximum or minimum depending on the reference limits.
     The width of the proportional band determines the extent of the response to the error. If the band is too “narrow”, the system oscillates as it's more reactive; if the band is too “wide”, the control system is slow. The ideal situation is when the proportional band is as narrow as possible without causing oscillations.
     The diagram below shows the effect of narrowing the proportional band until the oscillation point of the output function. A "wide" proportional band results as a straight line in the control, but with an initial error between the setpoint and the actually perceptible temperature. As the band becomes narrower, the temperature approaches the reference value (setpoint) until it becomes unstable and starts to oscillate around it.



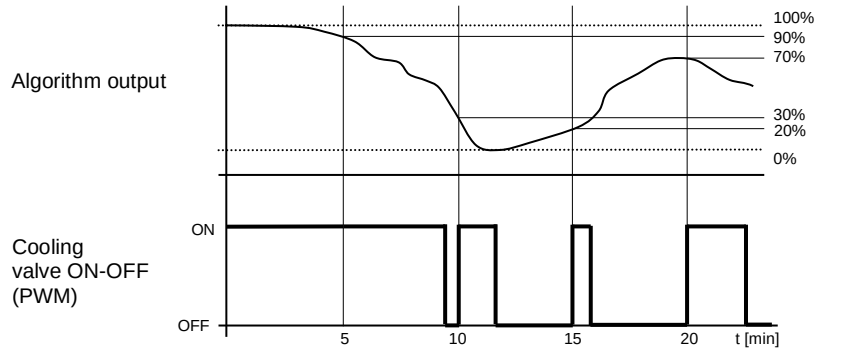


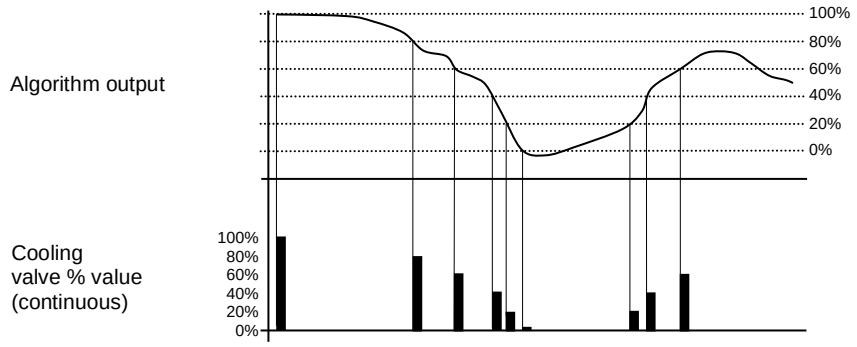
Integral component

The contribution of the integral period is proportional to the error (difference between the setpoint and the measured temperature) and its duration. The integral is the sum of the instantaneous error for every moment of time and provides the accumulated offset that should have been previously corrected. The accumulated error is then added to the regulator output.

$$I_{\text{out}} = K_i \int_0^t e(\tau)\, d\tau$$

The integral period accelerates the dynamics of the process towards the setpoint and eliminates the residuals of the stationary error status that takes place with a pure proportional controller.
The integration time is the parameter that determines the action of the integral component. The longer the integration time, the slower the modification of the output and hence the slower the system response. If the time is too short, the threshold value will be exceeded (overshoot), and the function will swing around the set-point.
The following example shows how the algorithm works with an ON-OFF valve and a percentage valve:

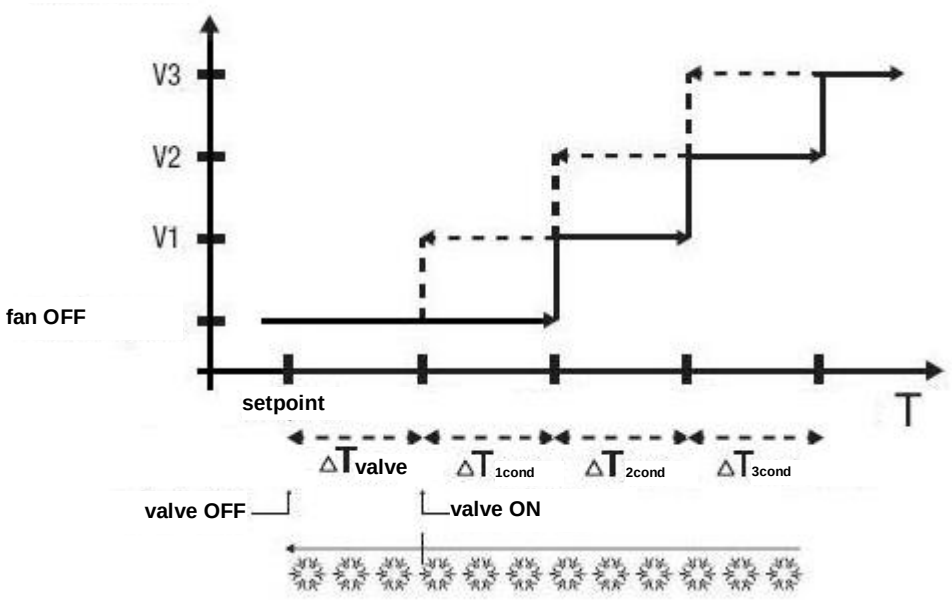




The device continuously adjusts the cooling system, modulating the power on the basis of the value calculated by the control algorithm.
If the valve is ON-OFF, the device modulates the system on-off times with a duty-cycle (shown on the right, along the vertical axis) that depends on the output function value calculated at every time interval equal to the cycle time. If the valve is of the percentage type, the device continuously adjusts the heating system, sending the solenoid valve percentage activation values (shown on the vertical axis) that depend on the output function of the algorithm.
With this type of algorithm, there is no longer a hysteresis cycle on the cooling device, so the inertia times (system cooling and heating times) introduced by the 2-point control are eliminated. This produces energy savings because the system does not remain switched on when it is not needed and, once the required temperature has been reached, it continues to provide a limited contribution of cold air to compensate for the contribution of environmental heat.

c. 3-speed ON-OFF fancoil (visible if the three functional blocks are present in the list of fancoil speeds)

The type of control that is applied when the fancoil control is enabled is similar to the 2-point control analysed in previous sections, which is to turn the fancoil speed on /off based on the difference between the setpoint that was set and the measured temperature.
The basic difference compared with the 2-point algorithm is that, in this case, there isn't just one stage in which the hysteresis cycle is performed to fix the speed on/off thresholds; there are three. In short, this means that each stage corresponds to a speed and when the difference between the measured temperature and the setpoint that was set causes a certain speed to be turned on, this means that before turning on the new speed, the other two must absolutely be turned off.



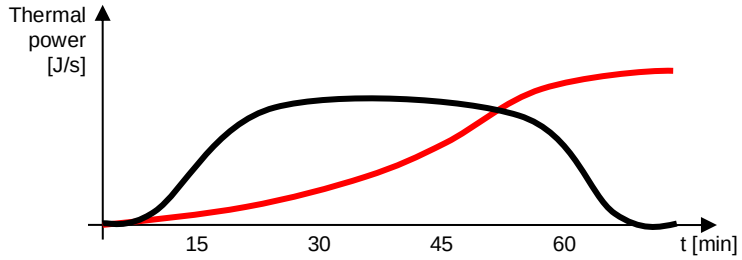
The figure refers to the control of the fancoil speeds for cooling. The chart shows that each speed has a hysteresis cycle, and each speed is associated with two thresholds that determine its activation and deactivation. The thresholds are determined by values set for the various regulation differentials, and can be summarised as follows:

- Speed V1: this speed is activated when the temperature is higher than the value "setpoint+$_{\Delta}T_{valv}$+$_{\Delta}T_{1cond}$" and deactivated when the temperature reaches the value "setpoint+$_{\Delta}T_{valv}$" (or the "setpoint" value if $_{\Delta}T_{1\,cond}$=0). The first speed is also turned off when a higher speed needs to be activated
- Speed V2: the speed is turned on when the temperature value is higher than the value "setpoint+$_{\Delta}T_{valv}$+$_{\Delta}T_{1\,cond}$+$_{\Delta}T_{2\,cond}$" and turned off when the temperature value reaches the value "setpoint+$_{\Delta}T_{valv}$+$_{\Delta}T_{1\,cond}$". The second speed is also turned off when the V3 speed needs to be activated
- Speed V3: the speed is turned on when the temperature value is higher than the value "setpoint+$_{\Delta}T_{valv}$+$_{\Delta}T_{1\,cond}$+$_{\Delta}T_{2\,cond}$+$_{\Delta}T_{3\,cond}$" and turned off when the temperature value reaches the value "setpoint+$_{\Delta}T_{valv}$+$_{\Delta}T_{1\,cond}$+$_{\Delta}T_{2\,cond}$"

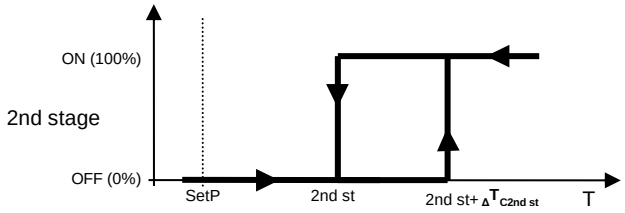
With regards the air cooling solenoid valve, once the measured temperature is higher than the value "setpoint+$_{\Delta}T_{valv}$", the thermostat sends the activation command to the solenoid valve that manages the air cooling system; the solenoid valve is deactivated when the detected temperature reaches the fixed setpoint value. In this way, the air cooling of the fancoil can also be exploited for irradiation, without any speed being activated.

- value of the valve regulation differential (mentioned above). Possible values: from 0.1°C to 2°C.
  This parameter can only be edited if the control algorithm selected is "two points ON - OFF" or "3-speed fancoil ON-OFF".
- width of the proportional band (mentioned above). Possible values: from 1°C to 10°C.
  This parameter can only be edited if the control algorithm selected is "proportional integral PI"
- contribution of the integral action in the proportional integral control, in the form of an integration time. Possible values: from 1 to 240 minutes.
  This parameter can only be edited if the control algorithm selected is "proportional integral PI"
- value of the period within which the device performs the PWM modulation, modifying the duty cycle of the proportional integral PWM (with on-off valve). Possible values: from 5 to 60 minutes.
  This parameter can only be edited if the control algorithm selected is "proportional integral PI" and the valve associated with the first heating stage is of the on-off type.
- minimum variation of the system power value, calculated by the algorithm, for generating a new command to the proportional valve. Possible values: from 1% to 20%.
  This parameter can only be edited if the control algorithm selected is "proportional integral PI" and the valve associated with the first heating stage is of the proportional (% value) type.

- value of the regulation differential for fancoil speed 1. Possible values: from 0.1°C to 2°C.
  This parameter is only visible, and can only be edited, if the control algorithm selected is “3-speed fancoil ON-OFF”
- delay between the deactivation of fancoil speed 1 and the activation of the new speed calculated by the algorithm. Possible values: from 0 to 30 seconds.
- value of the regulation differential for fancoil speed 2. Possible values: from 0.1°C to 2°C.
  This parameter is only visible, and can only be edited, if the control algorithm selected is “3-speed fancoil ON-OFF”
- delay between the deactivation of fancoil speed 2 and the activation of the new speed calculated by the algorithm. Possible values: from 0 to 30 seconds.
- value of the regulation differential for fancoil speed 3. Possible values: from 0.1°C to 2°C.
  This parameter is only visible, and can only be edited, if the control algorithm selected is “3-speed fancoil ON-OFF”
- delay between the deactivation of fancoil speed 3 and the activation of the new speed calculated by the algorithm. Possible values: from 0 to 30 seconds.
- limit threshold for the intervention of the supplementary cooling system (i.e. second stage). Possible values: from 1°C to 10°C.
  This parameter is only visible, and can only be edited, if the list of second stage valves includes a functional block associated with cooling.
  Some cooling systems have very high inertia levels and take a long time to bring the room temperature into line with the required setpoint. In order to reduce this inertia, another cooling system with less inertia is often installed to help the main system to heat the room when the difference between the setpoint and the measured temperature is particularly large. This system, known as 2nd stage, helps to cool the room during the initial phase, then it stops working when the difference between the setpoint and the temperature can be managed faster by the main system (1st stage).



The control algorithm of the second stage is two points ON-OFF, and the intervention thresholds are as follows:



When the measured temperature is higher than the value “2nd st+ $_{\Delta}T_{C2nd\ st}$” (where $_{\Delta}T_{C2nd\ st}$ identifies the value of the regulation differential of 2nd stage cooling), the device activates 2nd stage cooling by sending the relative command to the valve that manages it. When the measured temperature reaches the value “2nd st” (defined by the setpoint intervention limit 2nd stage), the device deactivates 2nd stage cooling.
This diagram clearly shows that there are two decision thresholds for activating and deactivating 2nd stage cooling. The first is the value “2nd st+ $_{\Delta}T_{C2nd\ st}$”, above which the device activates the system, and the second is the value “2nd st”, below which the device deactivates the system.

- value of the second stage valve regulation differential (mentioned above). Possible values: from 0.1°C to 2°C.

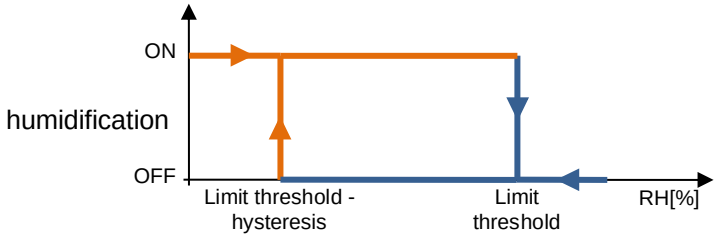
In the SETPOINT section, the parameters to be set are:

- The value of the **comfort** mode setpoint for **heating**. Possible values: from 10°C to 35°C.
  This parameter is only visible, and can only be edited, if the type of timed thermostat control set in the GENERAL section is HVAC mode.
  ATTENTION: when setting this value, make sure it's higher than the value set in the “Pre-comfort setpoint” parameter for heating.
- The value of the **pre-comfort** mode setpoint for **heating**. Possible values: from 10°C to 35°C.
  This parameter is only visible, and can only be edited, if the type of timed thermostat control set in the GENERAL section is HVAC mode.
  ATTENTION: when setting this value, make sure it's higher than the value set in the “Economy setpoint” parameter for heating.
- The value of the **economy** mode setpoint for **heating**. Possible values: from 10°C to 35°C.
  This parameter is only visible, and can only be edited, if the type of timed thermostat control set in the GENERAL section is HVAC mode.
- The value of the **off (antifreeze)** mode setpoint for **heating**. Possible values: from 2°C to 10°C.
- The value of the **comfort** mode setpoint for **cooling**. Possible values: from 10°C to 35°C.
  This parameter is only visible, and can only be edited, if the type of timed thermostat control set in the GENERAL section is HVAC mode.
  ATTENTION: when setting this value, make sure it's lower than the value set in the “Pre-comfort setpoint” parameter for cooling.
- The value of the **pre-comfort** mode setpoint for **cooling**. Possible values: from 10°C to 35°C.
  This parameter is only visible, and can only be edited, if the type of timed thermostat control set in the GENERAL section is HVAC mode.
  ATTENTION: when setting this value, make sure it's lower than the value set in the “Economy setpoint” parameter for cooling.
- The value of the **economy** mode setpoint for **cooling**. Possible values: from 10°C to 35°C.
  This parameter is only visible, and can only be edited, if the type of timed thermostat control set in the GENERAL section is HVAC mode.
- The value of the **off (high temperature protection)** mode setpoint for **cooling**. Possible values: from 35°C to 40°C.

In the RELATIVE HUMIDITY section, the parameters to be set are:

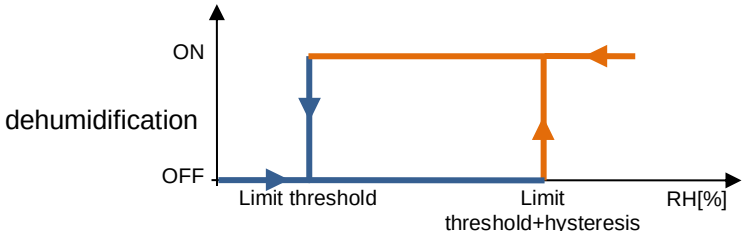
- Selection of the relative humidity sensor that will provide the value to be monitored; press the icon to see the pop-up with a list of the functional blocks compatible with the function (and not already used in the other timed thermostats created). Once the sensor has been selected, all the other parameters (see below) will appear. Press the ✖ icon to delete the functional block associated with the humidity sensor.
- Static correction of the relative humidity value received from the humidity sensor (if it's influenced by other factors). Possible values: from -20% to +20%
- Selection (optional) of the possible functional block that manages room humidification; press the icon to see the pop-up with a list of the functional blocks compatible with the function (and not already used in the other timed thermostats created). Press the ✖ icon to delete the functional block associated with the humidifier.

The humidification algorithm works on the basis of an ON-OFF hysteresis:



When the relative humidity measured by the sensor is lower than the “Limit threshold - hysteresis” value, the device activates the humidification system; when the reference relative humidity level reaches the limit threshold value, the device deactivates the system.

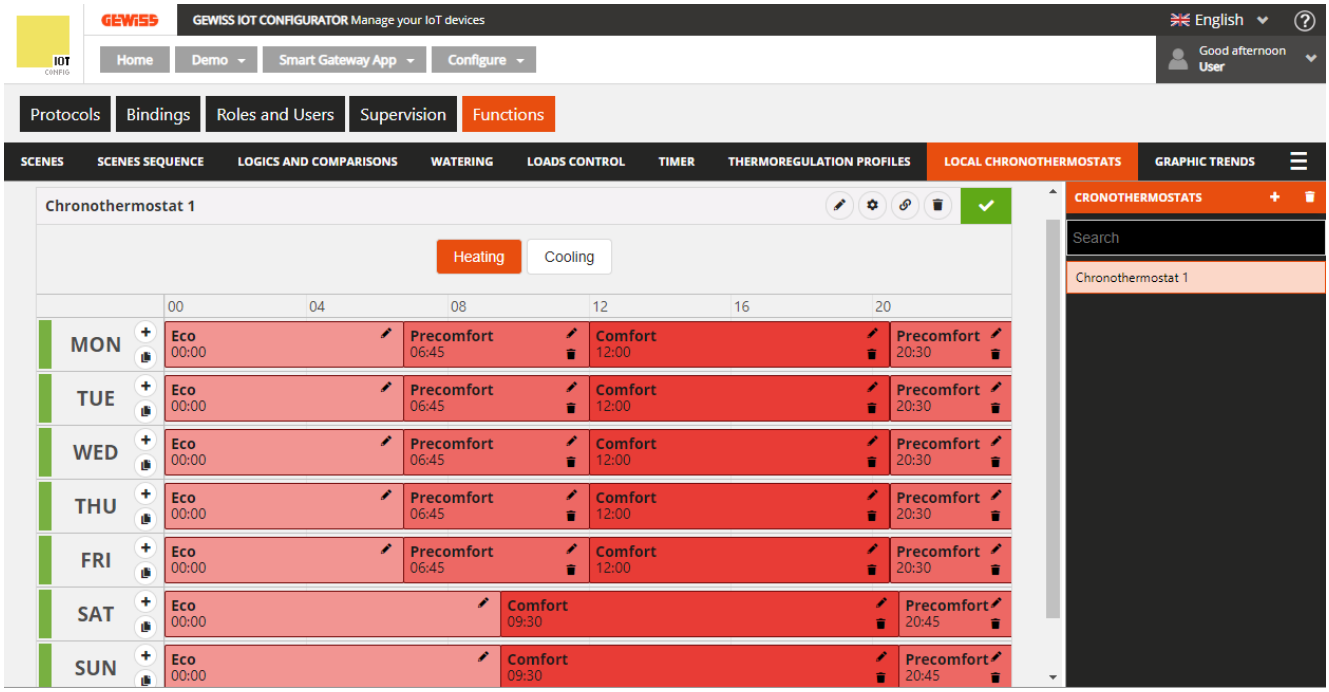
- Value of the limit threshold associated with humidification. Possible values: from 0% to 100%.
  This parameter can only be edited if a functional block has been selected for the humidification phase.
- Value of the hysteresis that, when subtracted from the limit threshold, helps to define the deactivation threshold of the humidification system. Possible values: from 1% to 20%.
  This parameter can only be edited if a functional block has been selected for the humidification phase.
- Selection (optional) of the possible functional block that manages room dehumidification; press the ✎ icon to see the pop-up with a list of the functional blocks compatible with the function (and not already used in the other timed thermostats created). Press the ✖ icon to delete the functional block associated with the dehumidifier.
  The dehumidification algorithm works on the basis of an ON-OFF hysteresis:



When the relative humidity measured by the sensor is higher than the “Limit threshold + hysteresis” value, the device activates the dehumidification system; when the reference relative humidity level reaches the limit threshold value, the device deactivates the system.

- Value of the limit threshold associated with dehumidification. Possible values: from 0% to 100%.
  This parameter can only be edited if a functional block has been selected for the dehumidification phase.
- Value of the hysteresis that, when added to the limit threshold, helps to define the activation threshold of the dehumidification system. Possible values: from 1% to 20%.

Press the “OK” push-button to see the weekly programming of the temperature adjustment profile associated with the timed thermostat, heating and/or cooling (depending on the controls enabled).



Underneath the name of the timed thermostat, there are two push-buttons for selecting the profile to be programmed: heating or cooling; (for each timed thermostat, in fact, there are two distinct profiles for the two types of operation). If one type of operation hasn't been enabled, the relative push-button will be disabled.

The central part of the page will show the weekly programming of the timed thermostat.
At the top there's a time line (00-24). To alter the time resolution, bring the cursor inside the programming grid and rotate the mouse wheel upwards (to increase the resolution) or downwards (to reduce it). When the resolution doesn't allow you to see the entire 00-24 scale, you can move along the time axis by selecting any point on it and dragging it to the right or left.

Each row represents one day of the week.

To add a new time band in a specific day, press the **+** icon on the right of the name of the day concerned. In the pop-up menu that appears, select the band start time and the threshold value (HVAC or setpoint mode, depending on the type of timed thermostat); the band end time coincides with the start time of the next band, or with the end of the day.

To repeat the programming of one day on another day, press the icon to the right of the day whose programming you want to repeat; from the pop-up menu that appears, select the day on which you want to copy the programming, then confirm.

To enable/disable the programming of a day of the week, press the coloured band to the left of the name:

Programming enabled

Programming disabled

On the time line for each day, there are the time bands with the start time and relative value. Daily programming can never be blank - there must be at least one band (the band that begins at 00:00 can't be deleted).

Inside the band, you can see:
- the value (HVAC or setpoint mode) active in that time band
- the band start time (underneath the value)
- push-button for modifying the start time and the value
- push-button for deleting the band

If the profile is "heating", the various time bands are coloured in different shades of red according to their value; the same for the "cooling" profile, but in blue.

The start and end times of a band can be modified directly from the time grid: select the required band (it will turn yellow), then select the left-hand edge of the band and drag it to the right or left to change the start time in 15-minute steps, or select and drag the right-hand edge to change the end time. Release to save the modification.

NOTE: the implementation of the profile associated with a specific time period (calendar) isn't defined in programming; it's one of the profile activation options (disabled, enabled, enabled with calendar) managed via the app. Once activated, the associated profile will be activated/visualised depending on whether the timed thermostat is in heating or cooling mode (without the user having to select it).

When the central area shows the weekly programming of the timed thermostat, a new icon will appear next to the name of the timed thermostat, along with the validity status of the element.

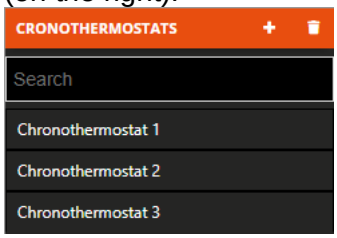
Icon indicating the validity status of the timed thermostat: orange if it's incomplete and can't therefore be used in the project, green if it's complete and can be used. If the timed thermostat is incomplete, click on the orange icon to see the type of error.

Press this icon to see the parameters that determine the behaviour of the timed thermostat (described above).

ATTENTION: an incomplete timed thermostat isn't saved on the cloud. This means that it will no longer be present when the page is changed, or when the project is closed and reopened, even if the configuration has been sent to the area shared with clients (by pressing the push-button).

Every time you select a timed thermostat from the TIMED THERMOSTATS column, the weekly programming of the timed thermostat profile will be visualised; to alter the parameters that determine the behaviour of the timed thermostat, press the icon next to the name of the group.

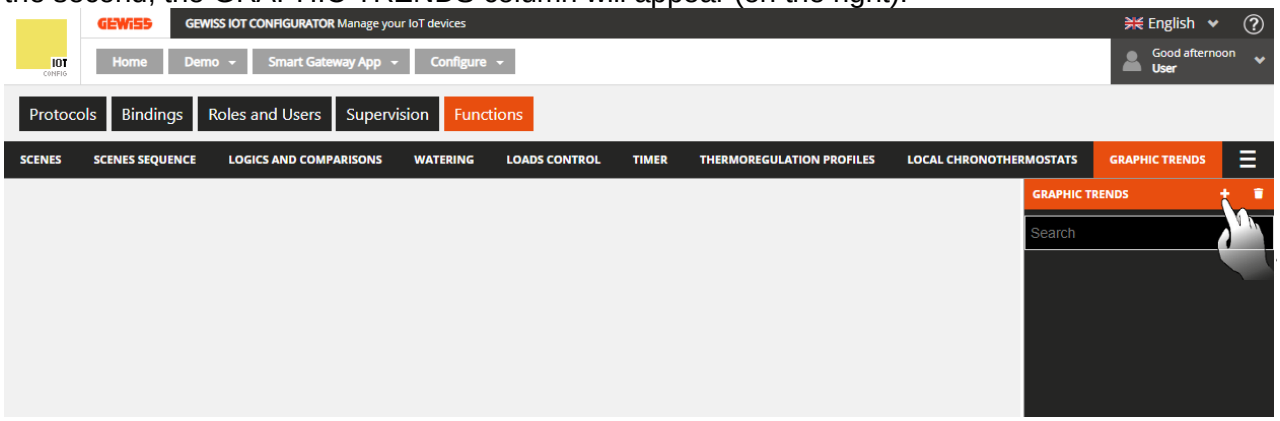
All the timed thermostats created are listed in alphabetical order in the TIMED THERMOSTATS column (on the right).



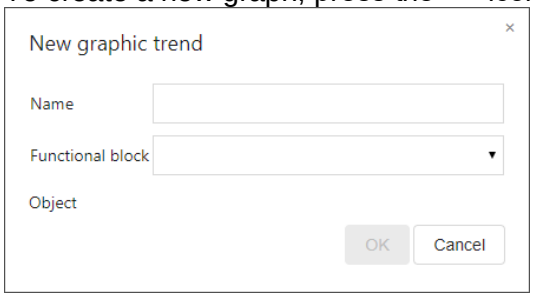
To remove a timed thermostat from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the timed thermostats simultaneously by pressing the icon in the right-hand column (“TIMED THERMOSTATS”).
ATTENTION: a local timed thermostat can only be removed if it isn't used in other functions (apart from supervision); otherwise, an error message will appear and the profile won't be deleted.

Graphic trends

A graphic trend shows the values of specific variables (statuses or analogue sizes) in a time diagram, with daily/monthly/yearly time resolution, and offers the possibility to make comparisons with previous periods.
The Smart Gateway sends the status variations of all the field variables in the system, on the basis of predefined rules. When a graphic trend is configured, the app is instructed to download the data from the cloud and to show the values in a chart.
Once you have selected the “Functions” menu on the first row and the “GRAPHIC TRENDS” menu on the second, the GRAPHIC TRENDS column will appear (on the right).

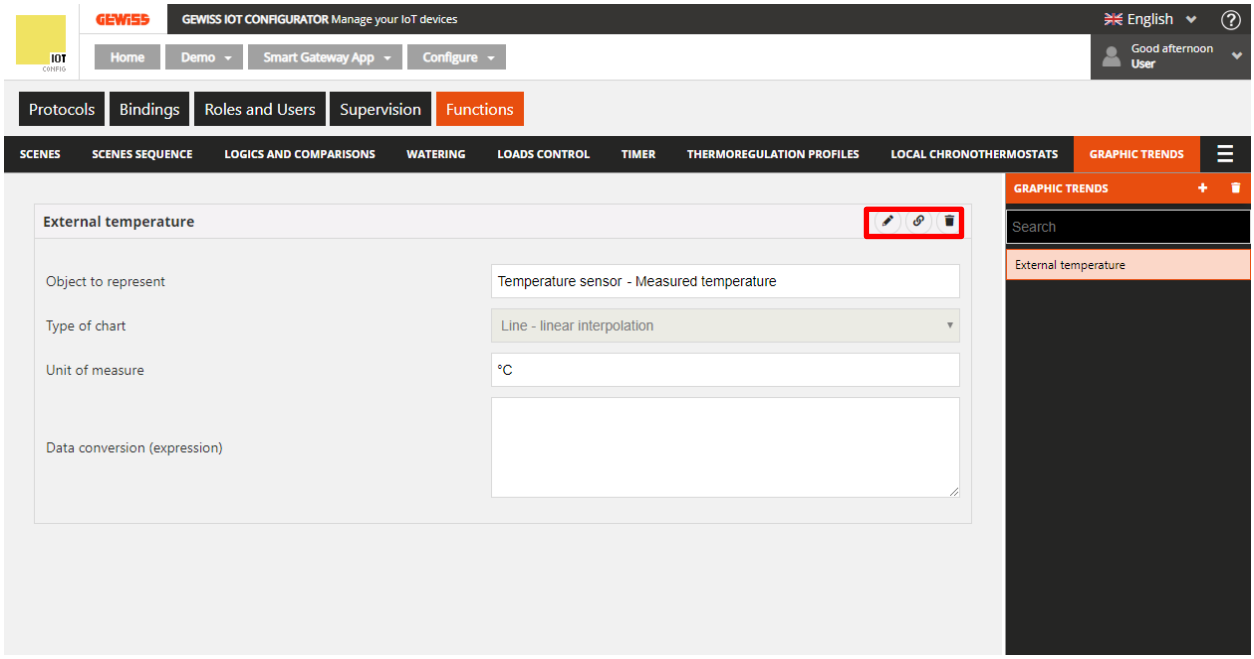


To create a new graph, press the “**+**” icon in the right-hand column (“GRAPHIC TRENDS”).



In the pop-up menu that appears, enter the name and

- select the functional block of the size for which you want to show the graph.
- select the variable (of the selected functional block) for which you want to show the trend over time; the options will depend on the functional block you've selected

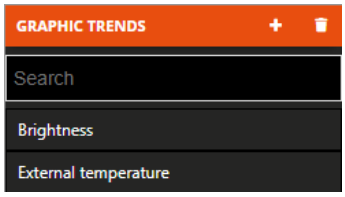


Next to the name of the graphic trend, you can see:

- **Rename** push-button for modifying the name of the graphic trend
- **View connections** push-button for displaying all the pages where the graphic trend is used (select the required page to gain direct access)
- **Delete** push-button for eliminating the graphic trend

The central part of the page will show the parameters that determine the type of graph you want to use to show the value.
The parameters to be set are:
- the type of graph (the options that are visible will depend on the size selected).
- the measurement unit of the size (X axis) shown on the graph (pre-set automatically on the basis of the size selected)

All the trends created are listed in alphabetical order in the GRAPHIC TRENDS column (on the right).



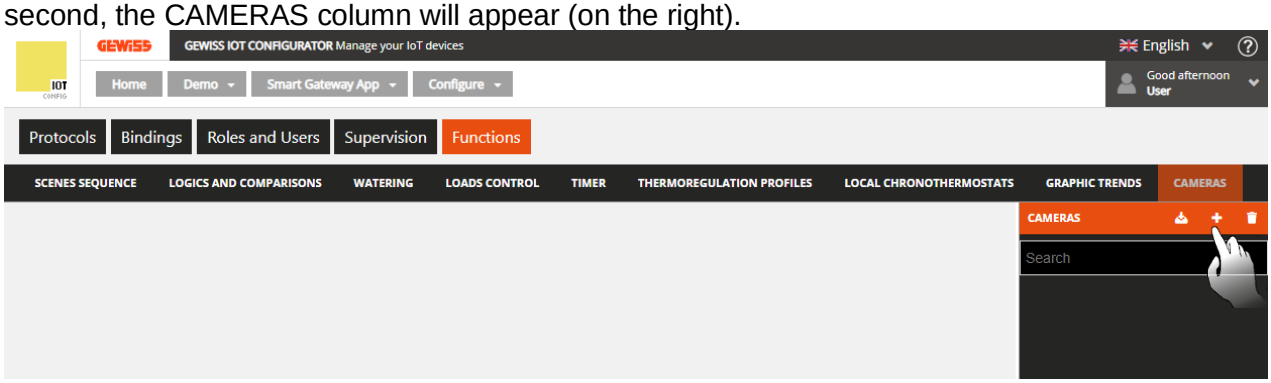
To remove a trend from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the graphic trends simultaneously by pressing the icon in the right-hand column (“GRAPHIC TRENDS”).

IP cameras

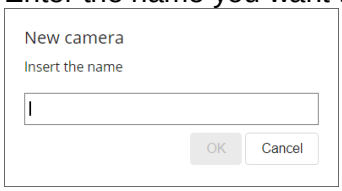
The app is able to visualise the video flow - in high and low resolution - of IP cameras that can be reached via an http or rtsp address, or that support the ONVIF communication protocol.
In addition, the following commands are available (only for the ONVIF camera models that support them):

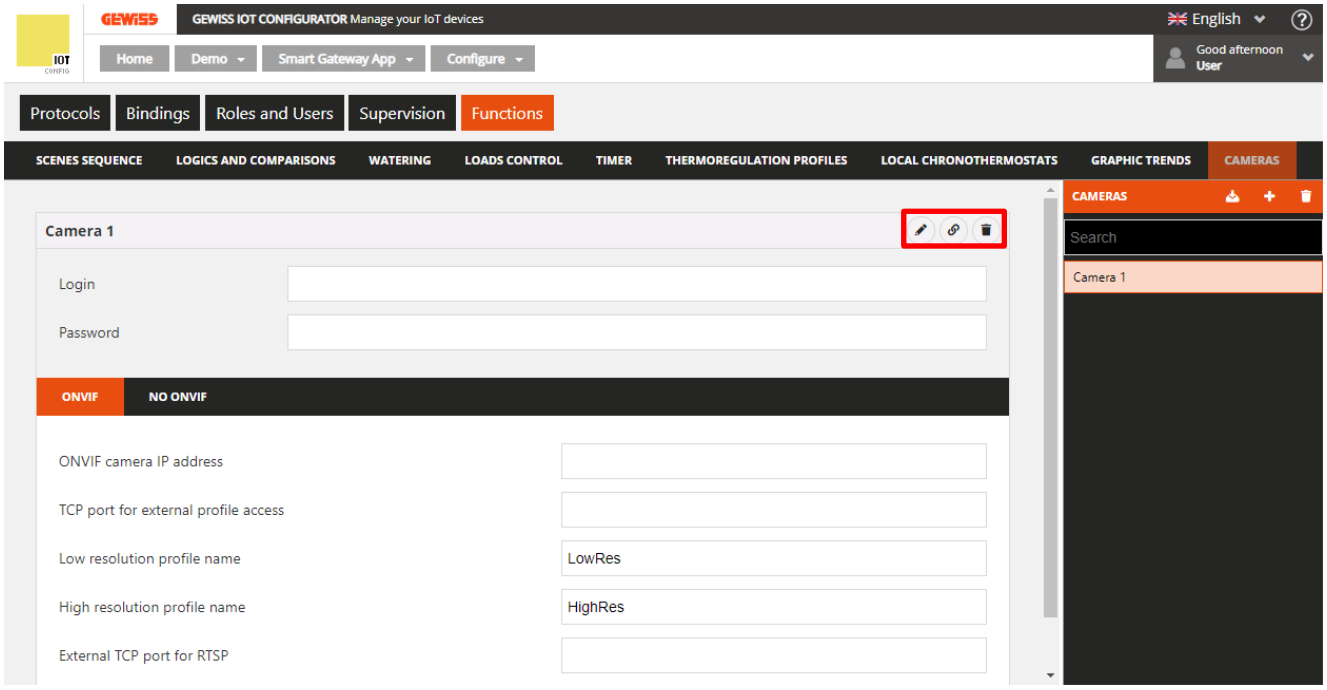
- PTZ regulation (Pan, Tilting, Zoom)
- image regulation (light intensity, contrast, colour)
- IR filter setting (night-time or daytime mode)
- activation/deactivation of the local video recording function of the camera

Unlike the procedure for other functions, video flow transmission isn't via the cloud: the connection with the camera is point-point.
A camera can be added to the system by directly entering the parameters, or by importing the configuration made via the dedicated **IP CAMERAS CONFIGURATOR** software.
Once you have selected the “Functions” menu on the first row and the “CAMERAS” menu on the second, the CAMERAS column will appear (on the right).



To create a new camera, press the “**+**” icon in the right-hand column (“CAMERAS”).
Enter the name you want to associate with the camera, then confirm.





Next to the name of the camera you will see:

Rename push-button for modifying the name of the camera

View connections push-button for displaying all the pages where the camera is used (select the required page to gain direct access)

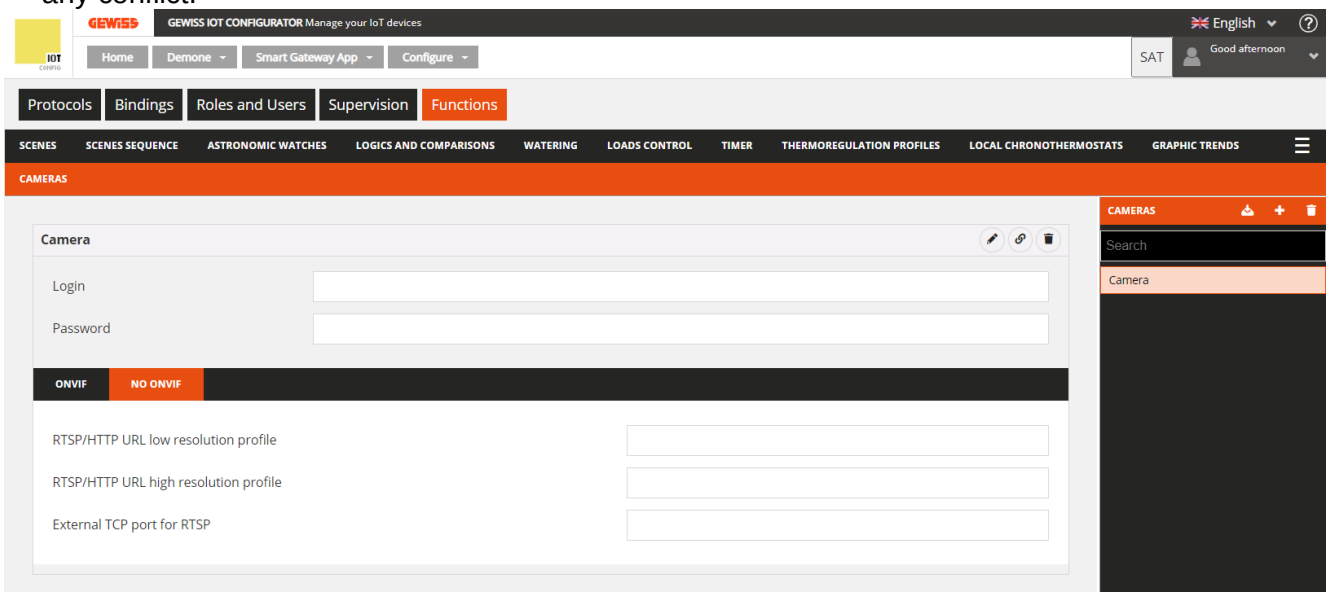
Delete push-button for eliminating the camera

The central part of the page will show the parameters for the local and remote connection to the camera. The parameters to be set are:

- Login and Password needed to authenticate the camera (if required).
  NOTE: the access credentials requested are often (but not always) the same ones used to access camera configuration via the web.
- Select the type of camera used - ONVIF if the IP camera in question implements the ONVIF communication protocol, or NON ONVIF if it doesn't implement it. The configuration parameters will change according to the type selected.

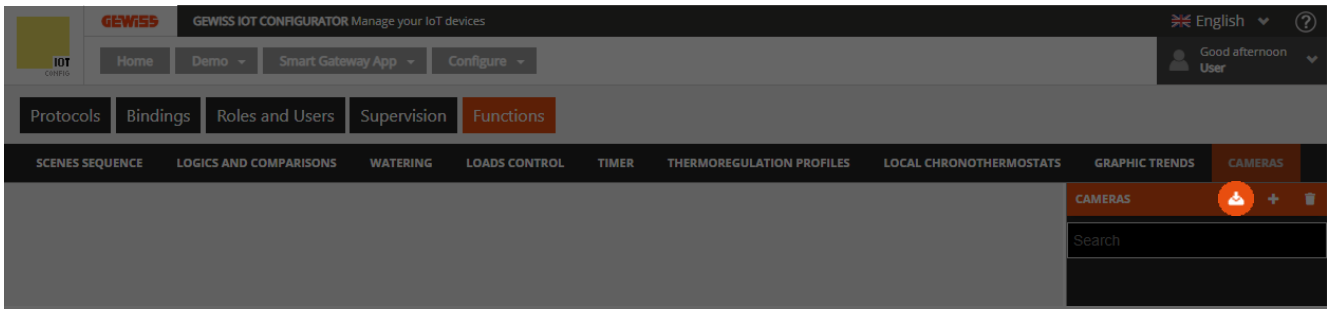
In the ONVIF section, the parameters to be set are:

- IP address of the camera in the local network it's installed in, and possible access port (if different from the standard one). Example: “address”:”port” → **192.168.1.20:80**
- External TCP port defined in the port forwarding rule created on the domestic Internet router (if a VPN connection isn't used) for ONVIF channel; if the port is not specified, the one used for internal communication will be used (usually port 80).
- Name of the profile (implemented by the camera) that you want to use to view the flow in low resolution. Every ONVIF camera implements different profiles with different resolution formats, audio/video source and frame rates, so you can choose the video flow best suited to your own needs. Some cameras also allow you to create new profiles. To complete this field, you need to know the list of profiles available, and the relative name. At least one of the two profiles for low or high resolution must be specified in order to view the camera.
- Name of the profile (implemented by the camera) that you want to use to view the flow in high resolution. At least one of the two profiles for low or high resolution must be specified in order to view the camera.
- External TCP port defined in the port forwarding rule created on the domestic Internet router (if a VPN connection isn't used) for the RTSP or HTTP video flow; if the port isn't specified, the one used for internal communication will be used (usually port 554 for RTSP and port 80 for HTTP).
  NOTE: when controlling several cameras, it's necessary to configure different external ports to avoid any conflict.



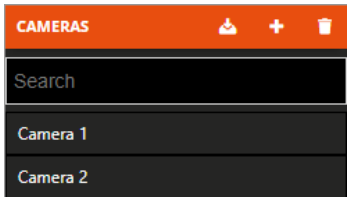
In the NON ONVIF section, the parameters to be set are:
- URL address (http or rtsp) of the camera for viewing the video flow in low resolution. At least one of the two addresses for low or high resolution must be specified in order to view the camera.
- URL address (http or rtsp) of the camera for viewing the video flow in high resolution. At least one of the two addresses for low or high resolution must be specified in order to view the camera.
- External TCP port defined in the port forwarding rule created on the domestic Internet router (if a VPN connection isn't used) for the rtsp or http video flow; if the port isn't specified, the one used for internal communication will be used (usually port 554 for RTSP and port 80 for HTTP).
  NOTE: when controlling several cameras, it's necessary to configure different external ports to avoid any conflict.

For the correct configuration of the camera access parameters, you are advised to use the **IP CAMERAS CONFIGURATOR** tool designed to manage the cameras.
The configuration made with the external tool can be imported in the IoT Configurator by pressing the **Import camera configuration** icon in the CAMERAS column (on the right).



Select the file and then confirm its opening.
The IoT Configurator will begin processing the file and, at the end, you will see all the cameras imported along with the relative parameters.

All the cameras created are listed, in order of creation, in the CAMERAS column (on the right).



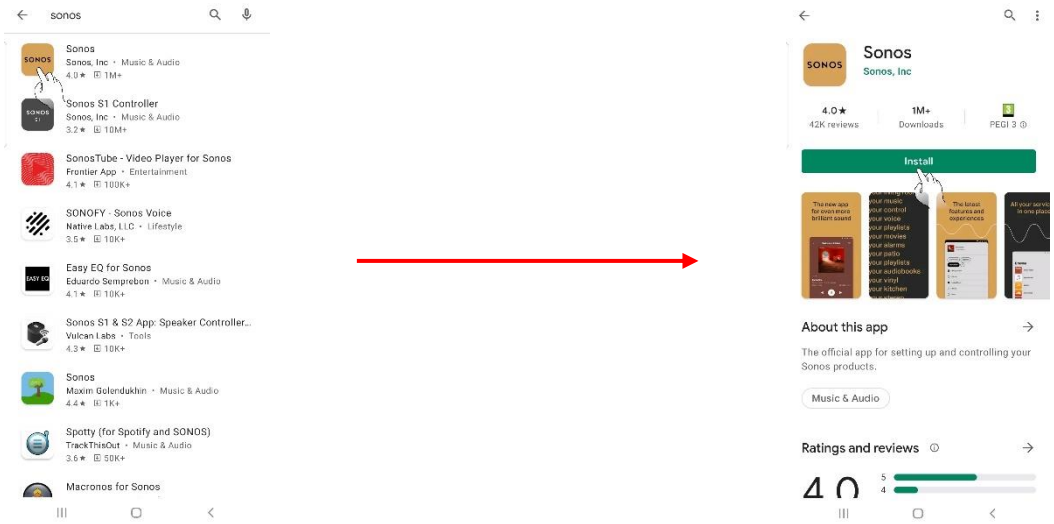
To remove a camera from the list, just activate the context menu of the object and select the “Delete” command. You can even eliminate all the cameras simultaneously by pressing the icon in the right-hand column (“CAMERAS”).

SONOS DEVICE INTEGRATION

This chapter explains how to integrate SONOS devices in the Smart Gateway so it is possible to control them directly via the Smart Gateway APP and so they can participate in the scenarios prepared using the IoT configurator.

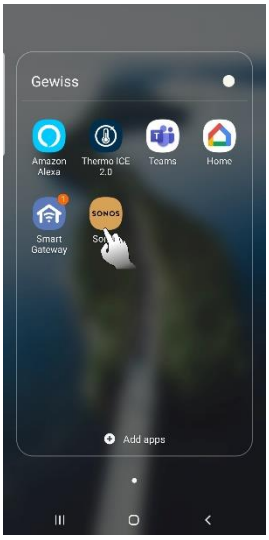
First phase: installation of the Sonos App, creation of the user and device associations

Download the Sonos App from the App Store or Play Store:

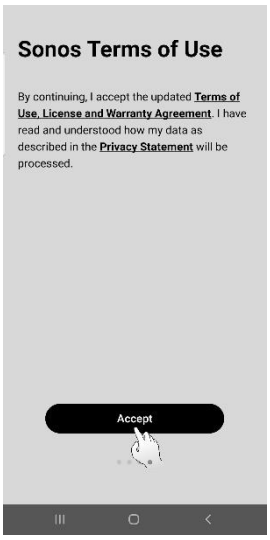


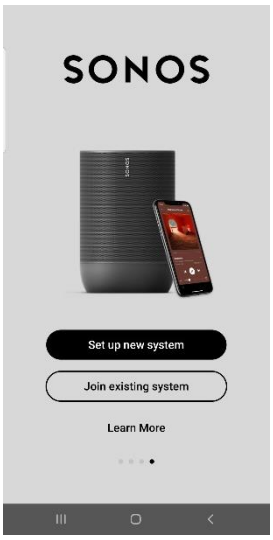
Attention: the images are provided for illustrative reasons only! The following screens may not correspond to what is actually displayed when these procedures are carried out!

Open the App:

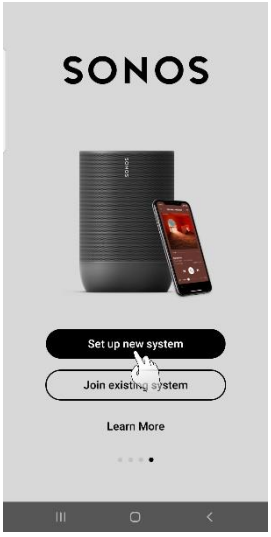


Accept the conditions of use:

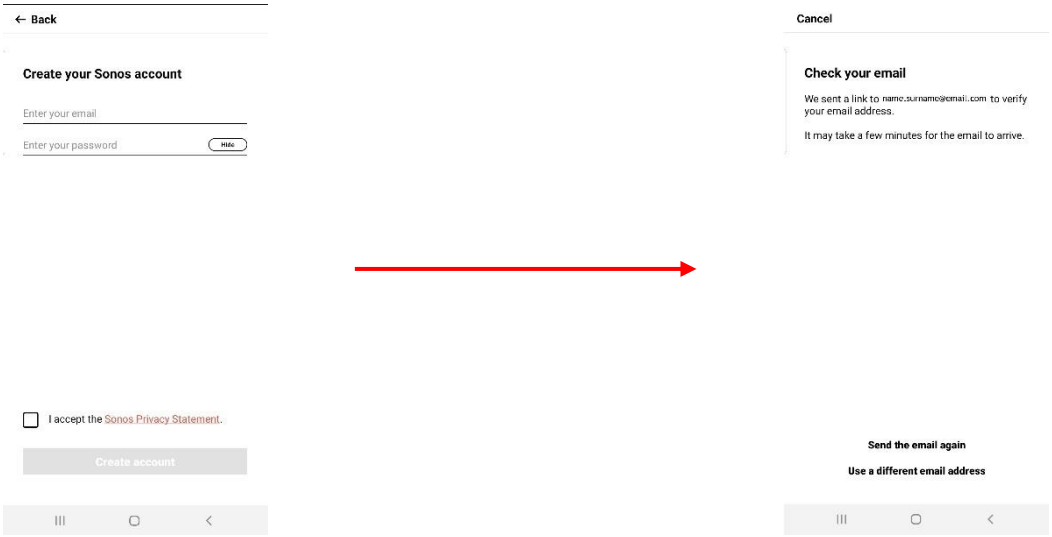




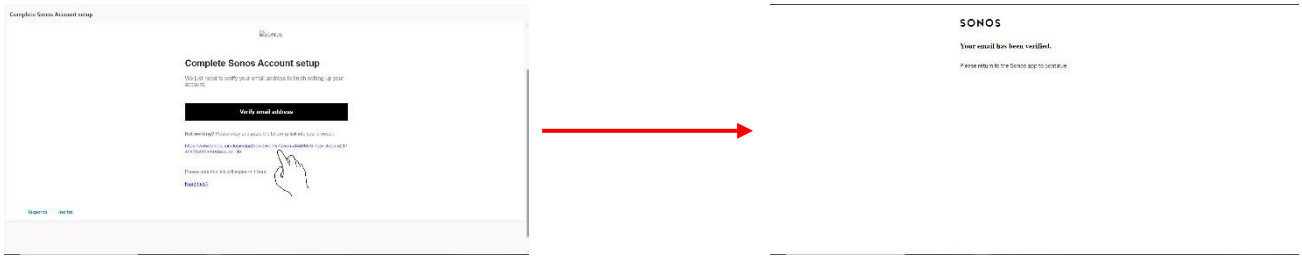
Create a new system and a new user:



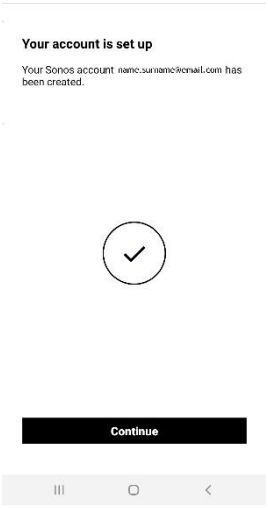
Complete the fields and check the box to accept the terms:



Click the link contained in the email sent to the email address indicated when creating the credentials:



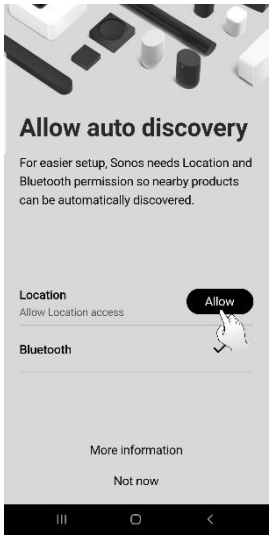
The new user is created:

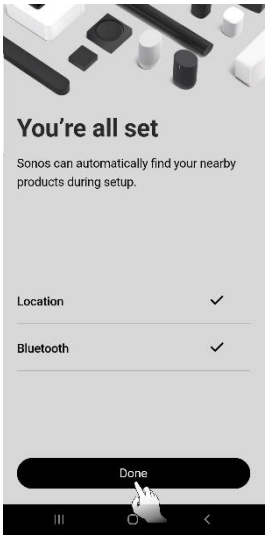


To proceed with the next phase, the Sonos devices must be installed correctly and connected to the internet (via an Ethernet cable or WiFi).

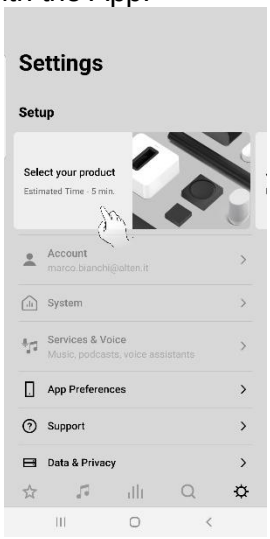
Second phase: associate the physical devices to the App

It is therefore possible to launch the exploration function, which will automatically detect any Sonos devices nearby and will associate them with the App:

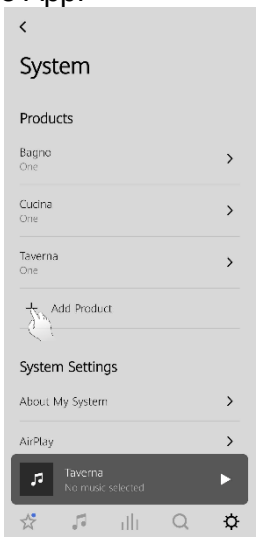


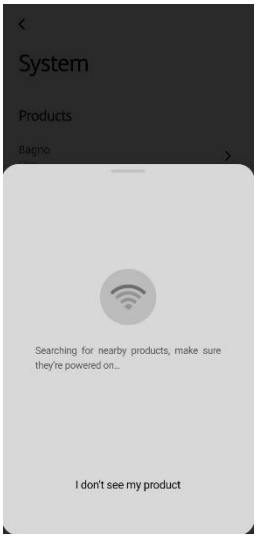


If there aren't any devices associated yet with the App:

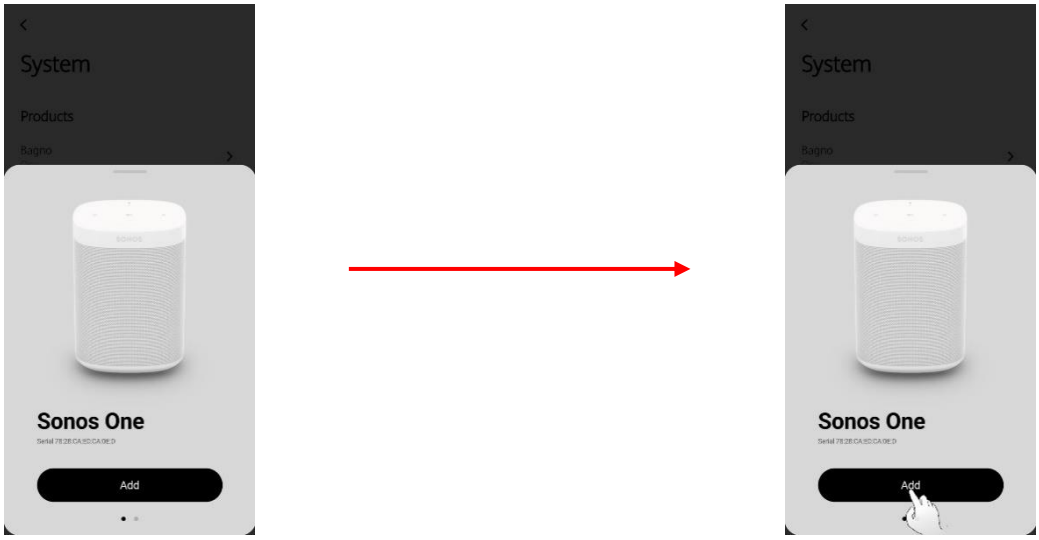


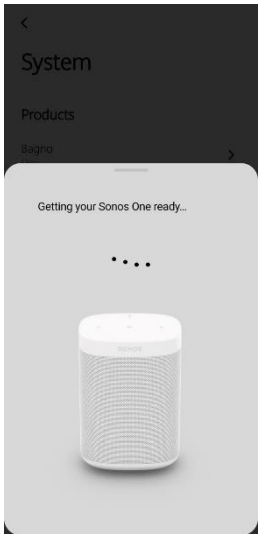
If there is at least one device associated with the App:



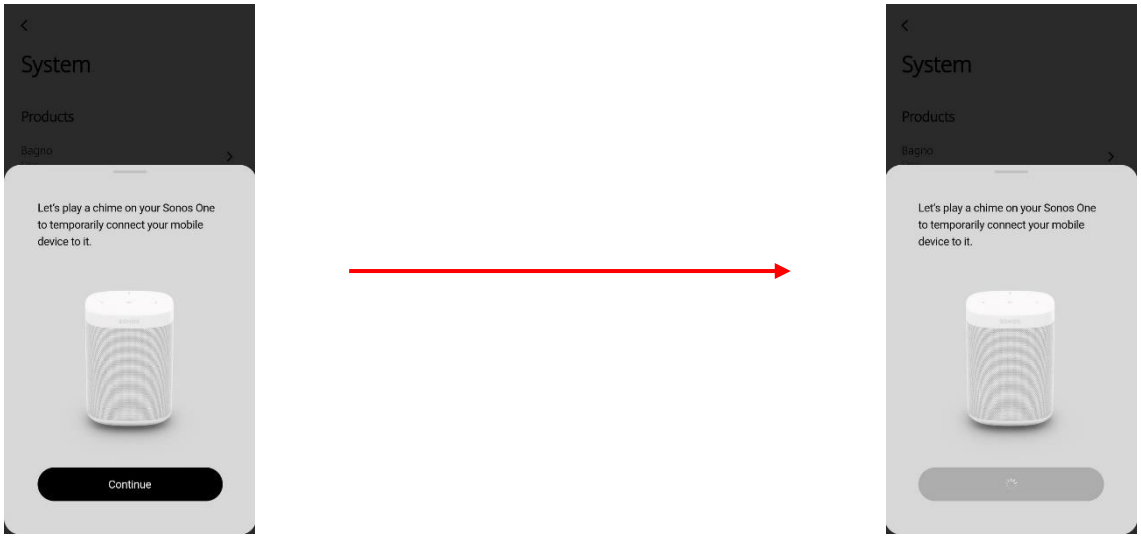


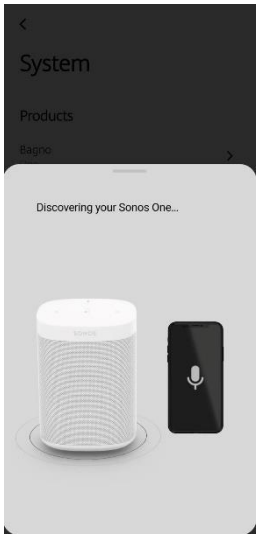
When the search is complete, the detected devices are displayed in the App. They must be added.



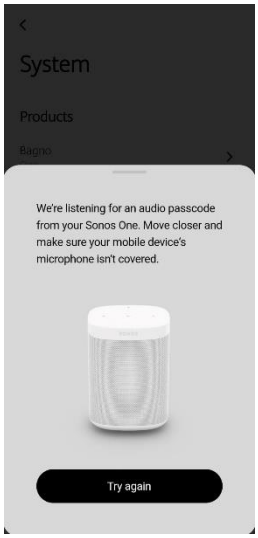


Sonos asks to move the mobile device close to the Sonos device being associated. Press "**Continue**":

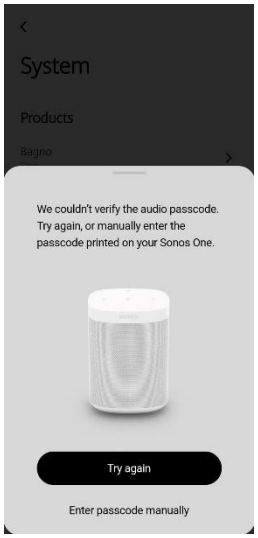




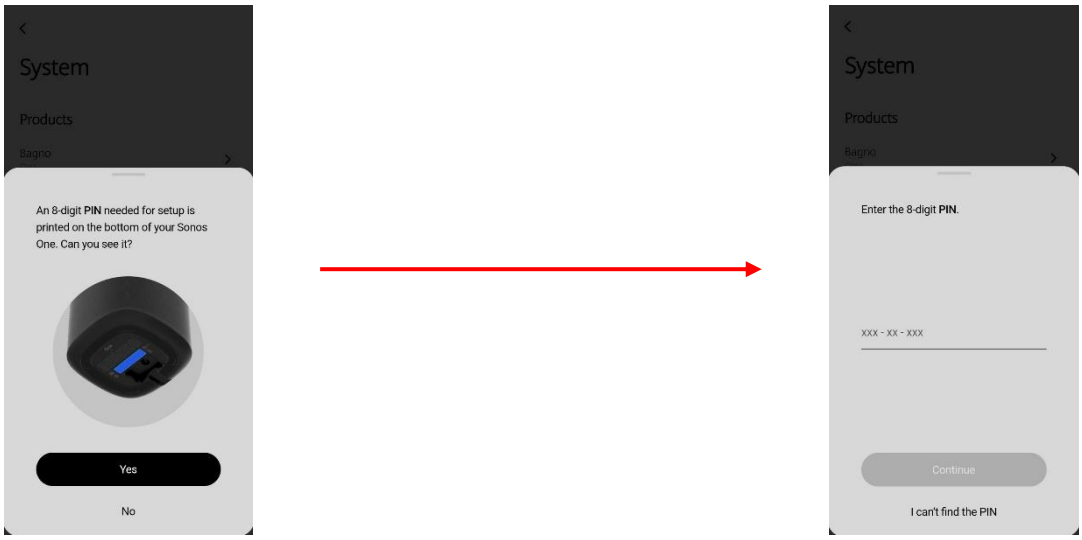
If the device is not able to decode the acoustic message sent by the mobile device, this message will appear on the screen:



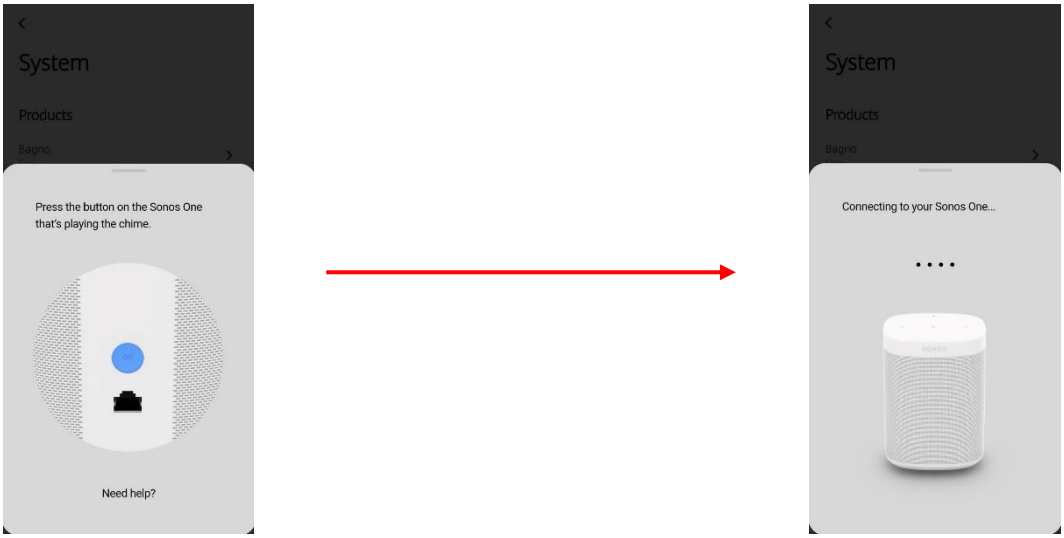
Press "**Try again**" to make a second attempt. If also this attempt fails, two options are presented: retry a third time or enter the code manually.

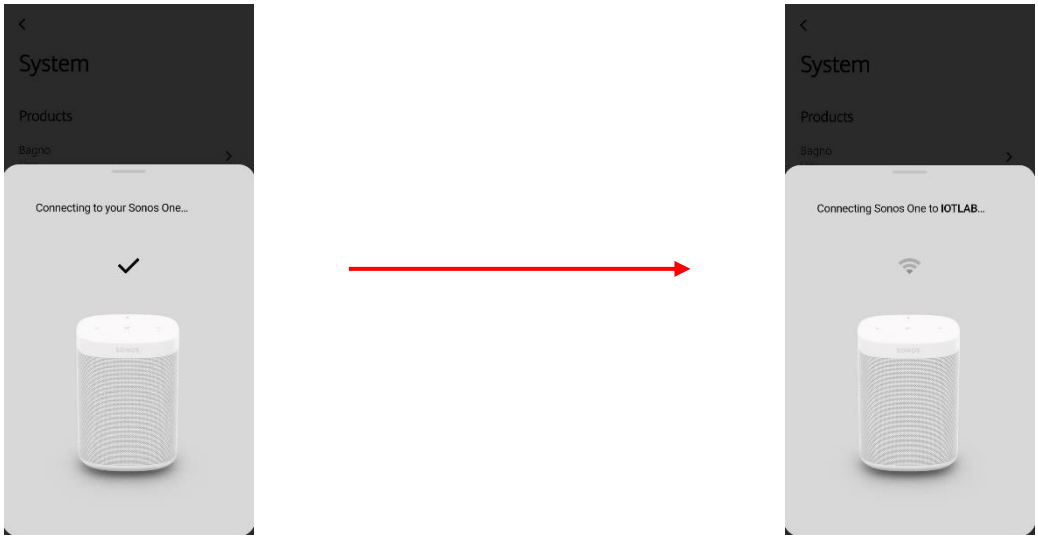


The code to be entered can be found below the Sonos device being associated with your account:

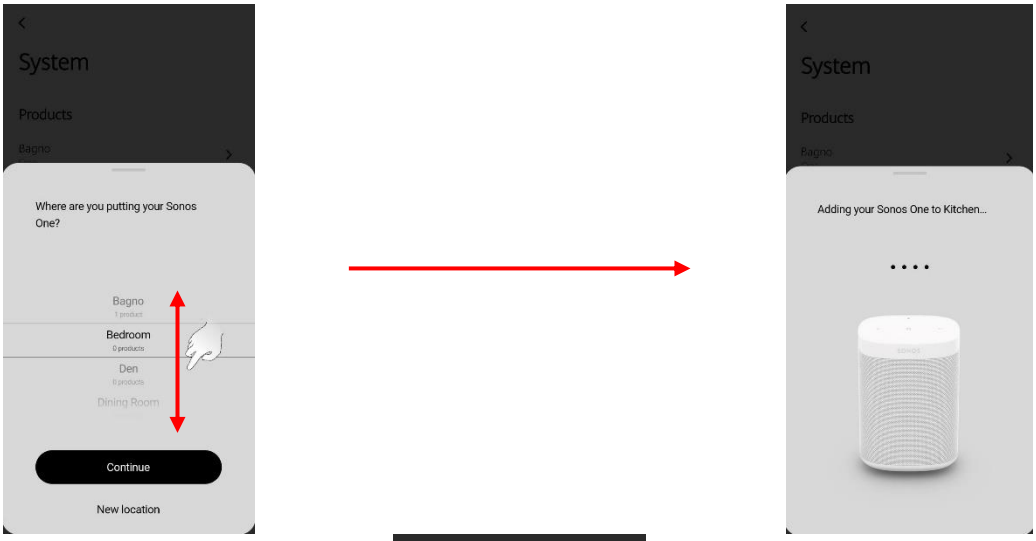


At this point, press the button on the Sonos device being registered:

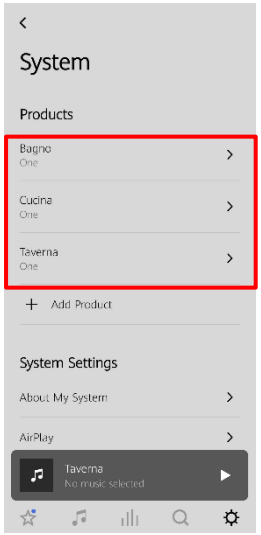




The device added in this manner must be inserted in one of the App environments:

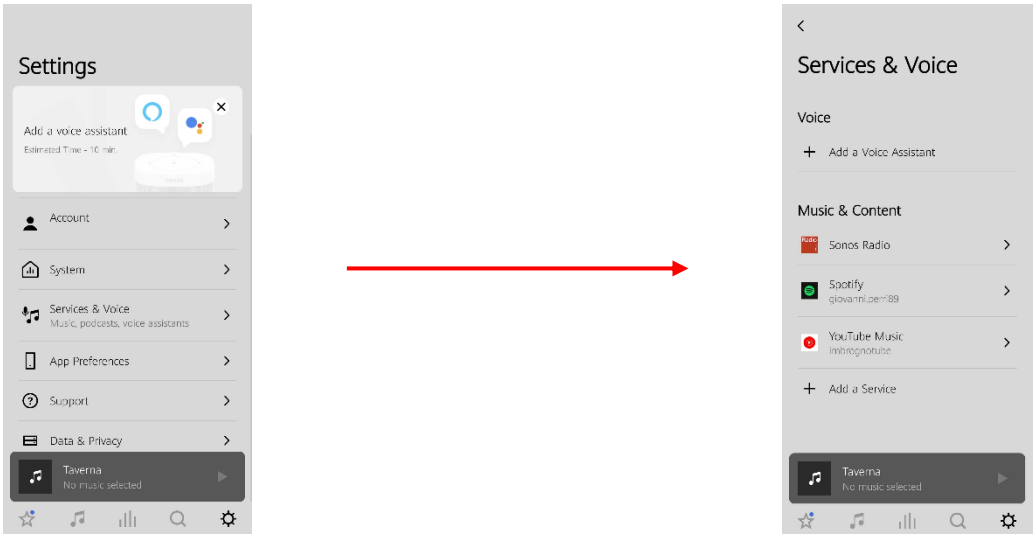


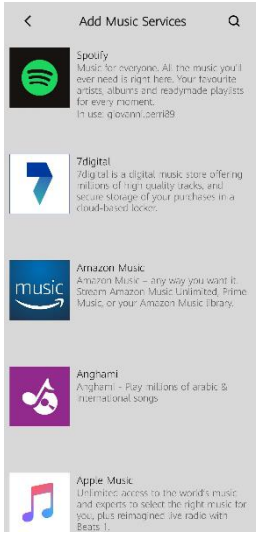
The device will now appear in the environment with which it was associated:



Third phase: associate the musical service accounts

It is possible to associate the Sonos App with existing music service accounts you have such as Spotify, iTunes, YouTube Music etc.



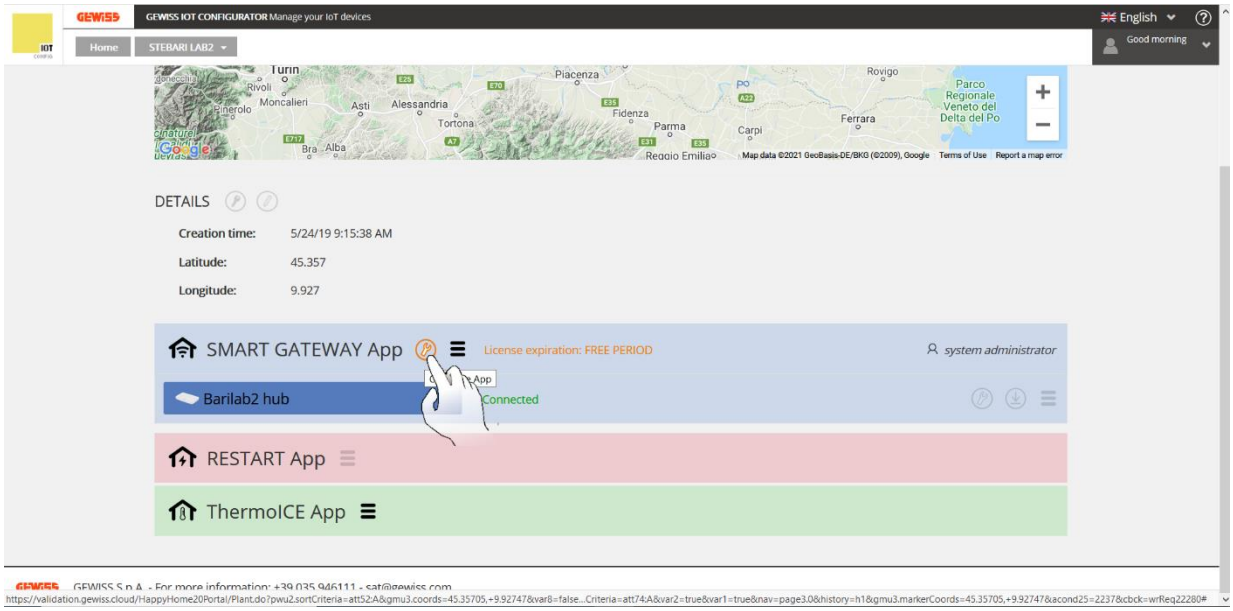


Associating Sonos devices with the Smart Gateway

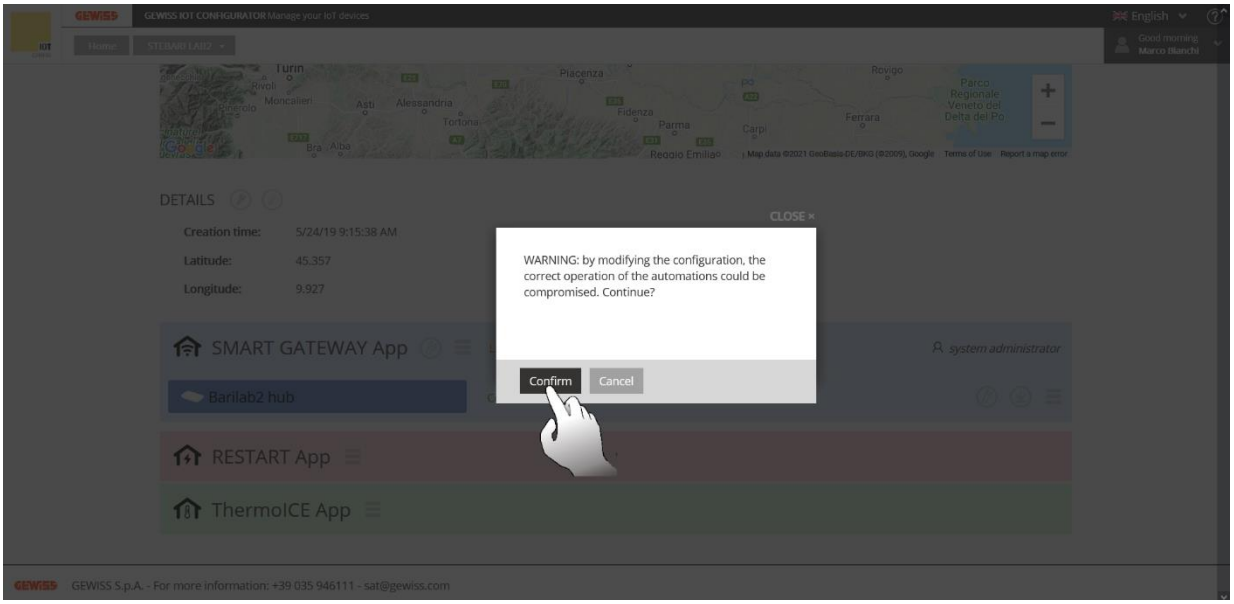
Once the Sonos App is installed, the physical devices have been associated with the App, the groups created and the music player accounts have been associated, the Sonos system must be associated with the Smart Gateway.

Proceed as follows:

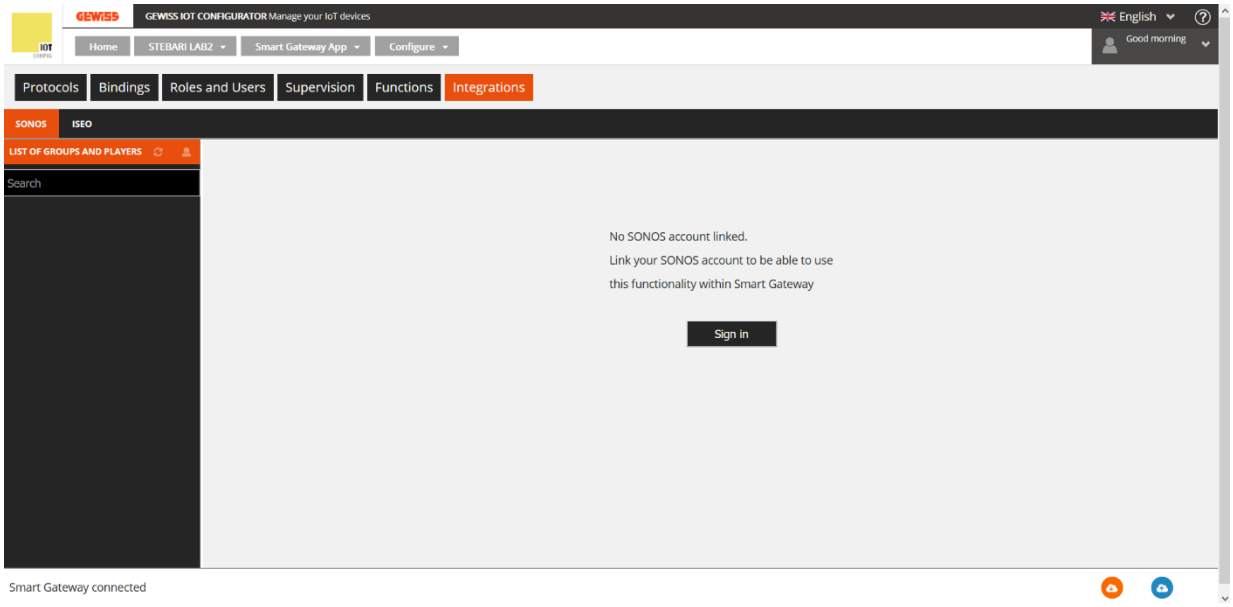
1. Connect to the IoT Portal (https://iotconfig.gewiss.cloud)
2. Log in
3. Open the “Details” page for the system to be associated with the Sonos system
4. Click on next to the “Smart Gateway” app



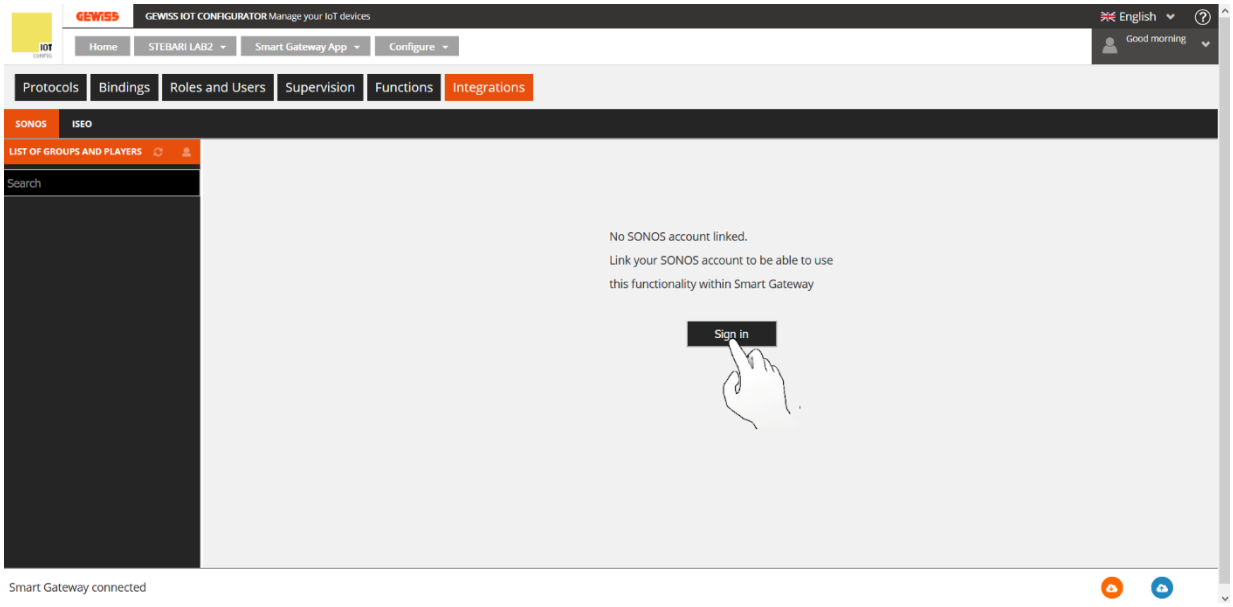
5. Click “**Confirm**” when the message appears on the screen

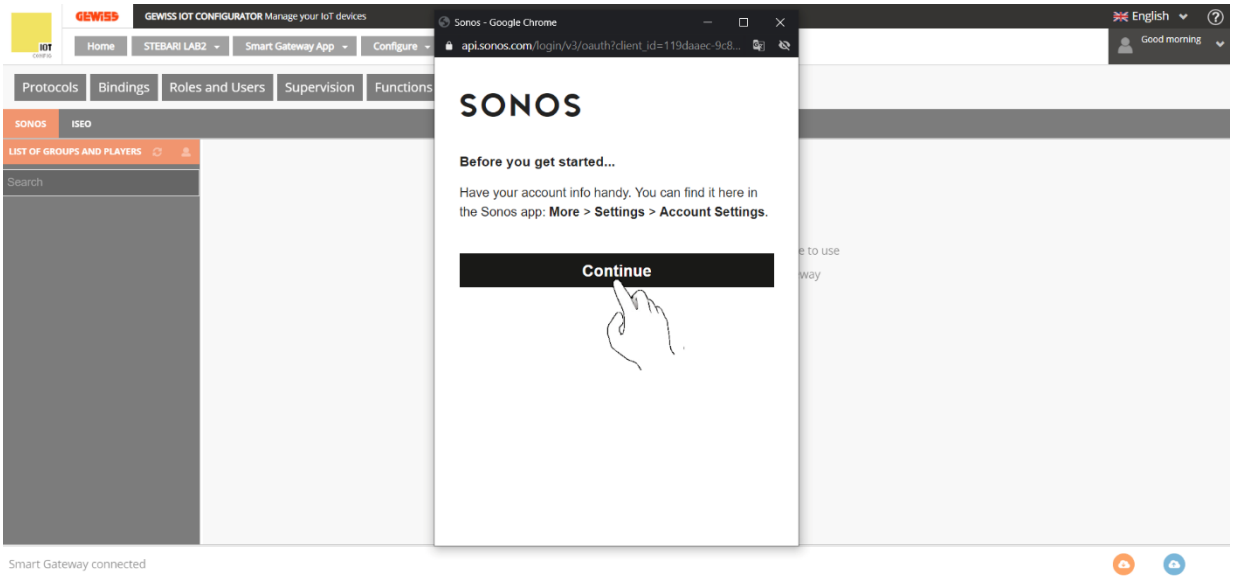


6. Select the “Integrations” page
7. Select Sonos in the left column

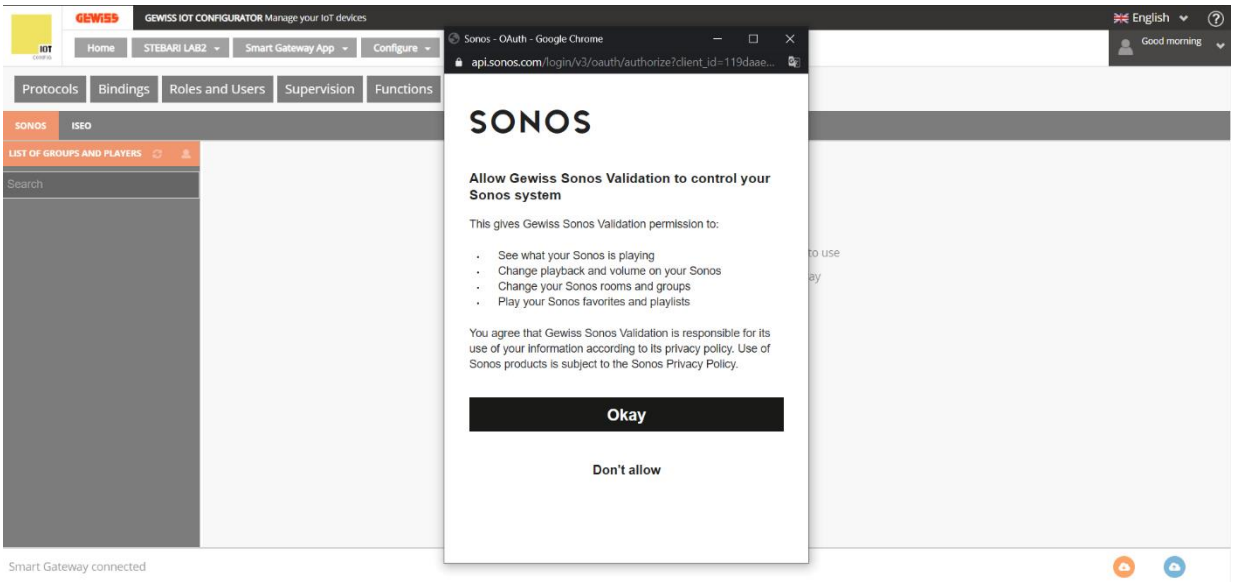


8. Here it is possible to perform account linking between the account of the IoT configurator and the account created for the Sonos App
9. Click “**Sign in**” in the centre of the screen
10. The “Sonos” tab appears on the screen

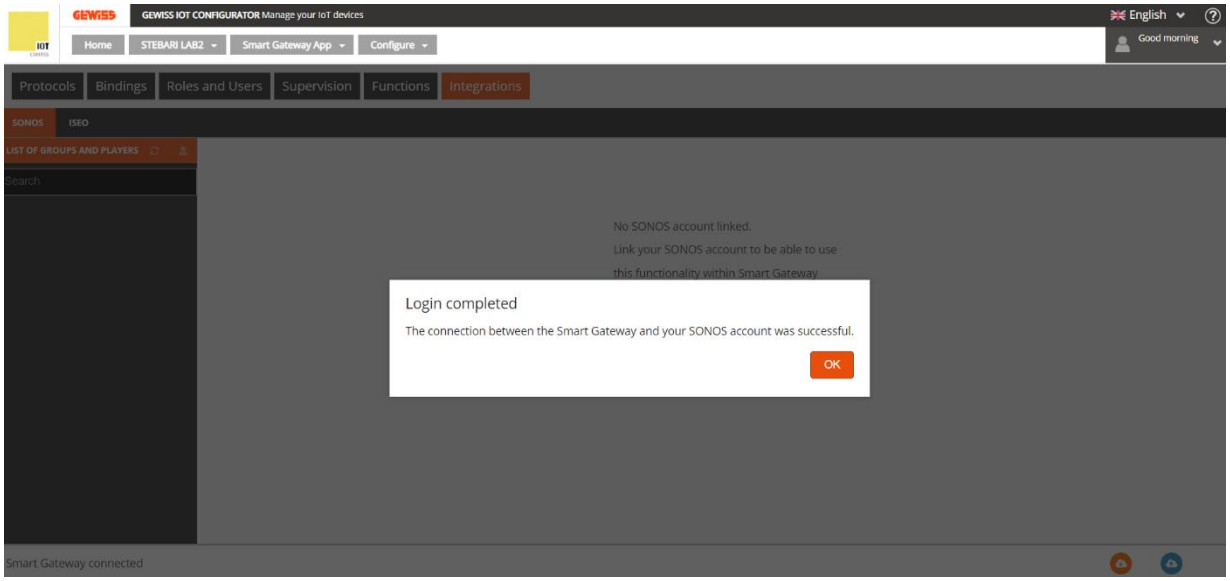




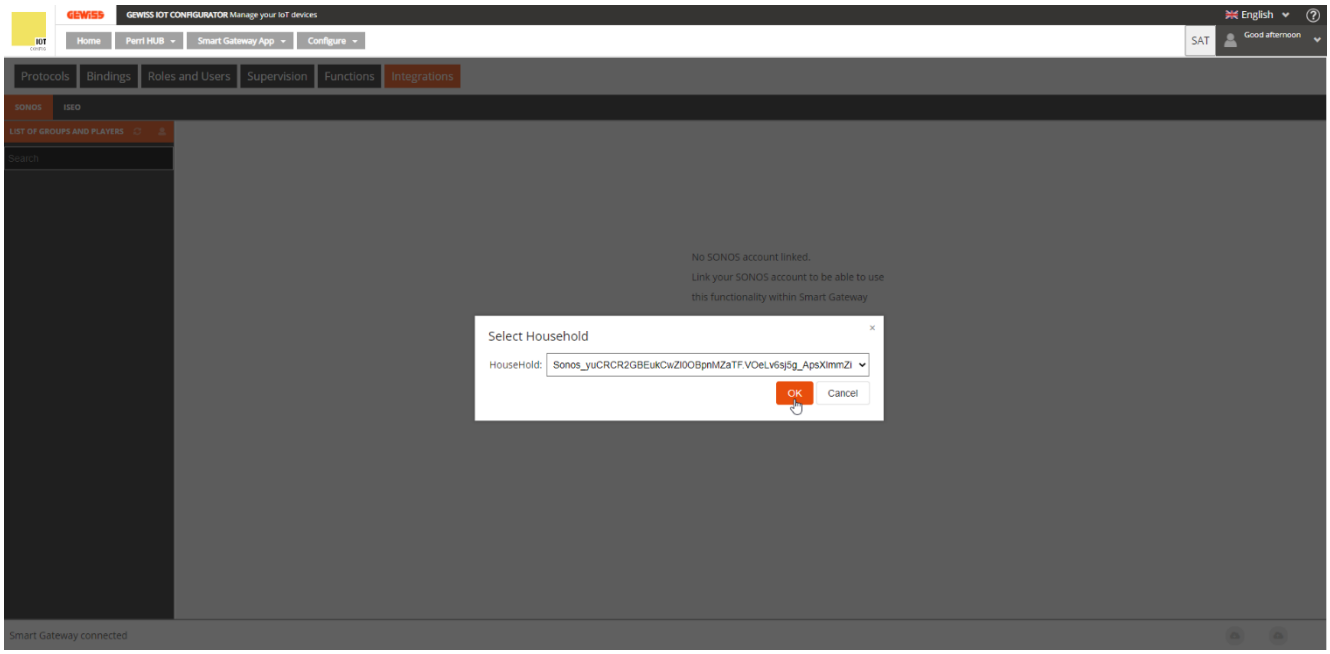
11. Click “**Continue**”. Enter the credentials used to create the account for the Sonos App
12. Click “**Okay**” to give permission

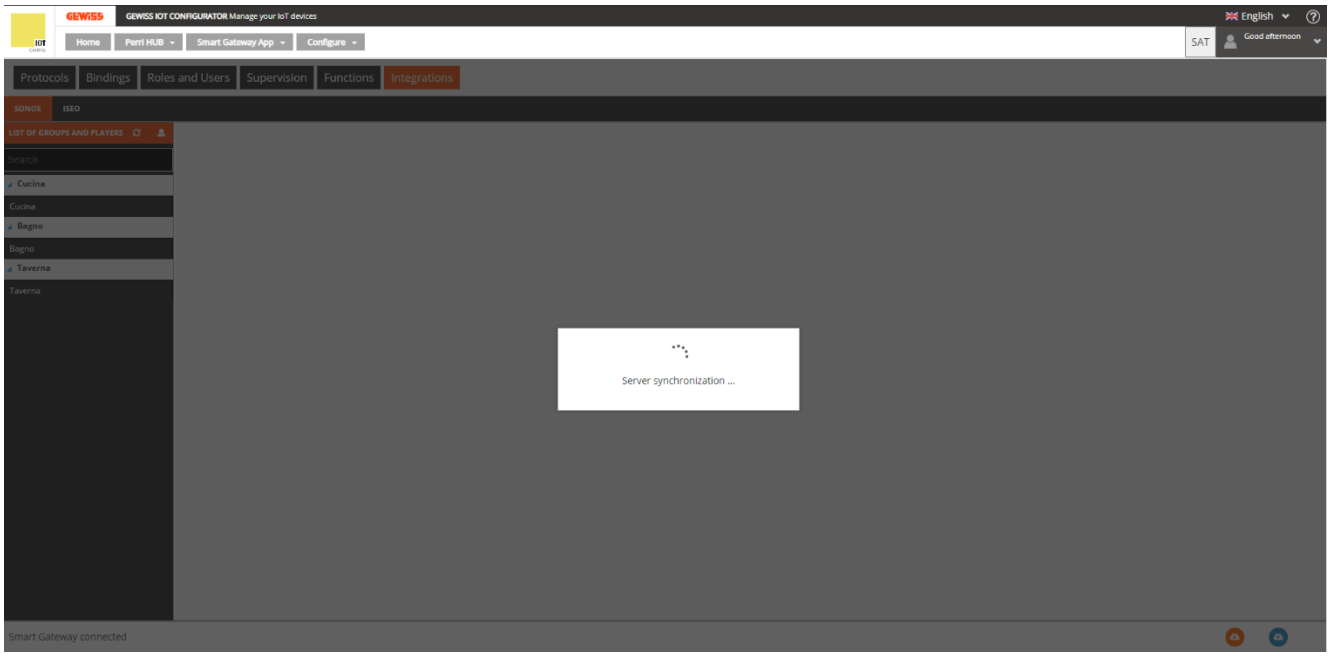


13. A message appears on the screen informing that the connection between the two accounts was successful

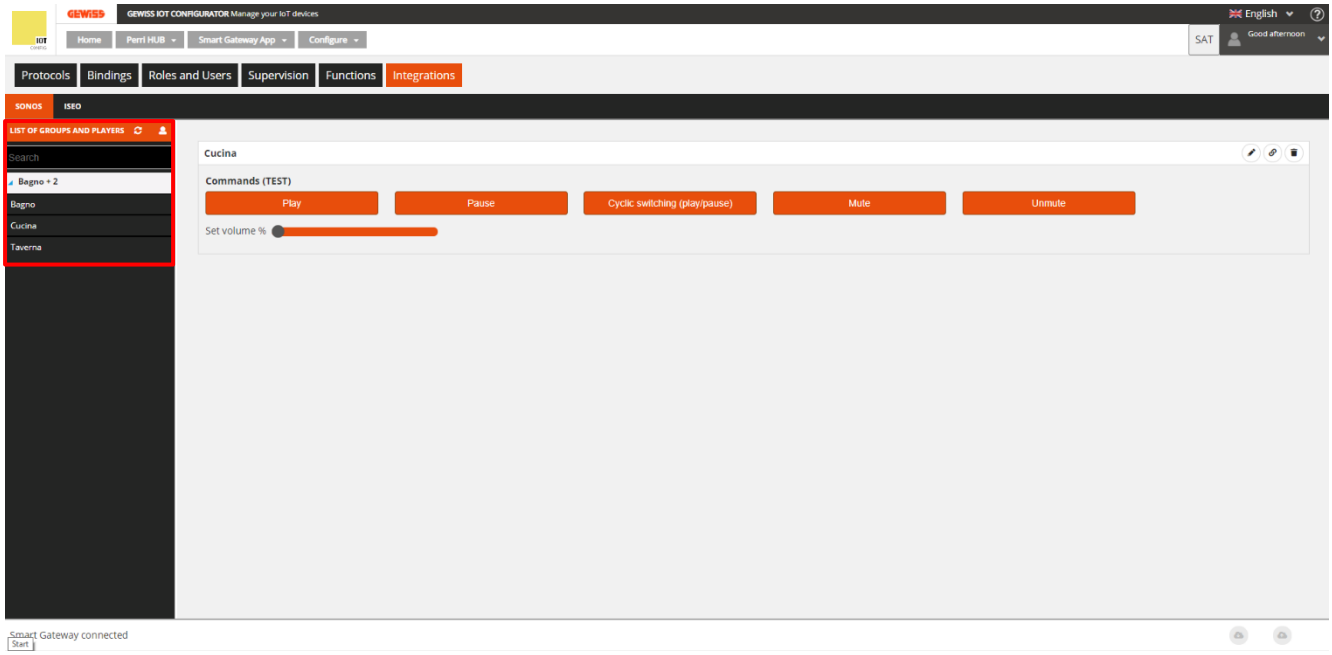


14. The “Select household” window appears on the screen, which has a drop-down menu from where the system associated with your Sonos account must be selected



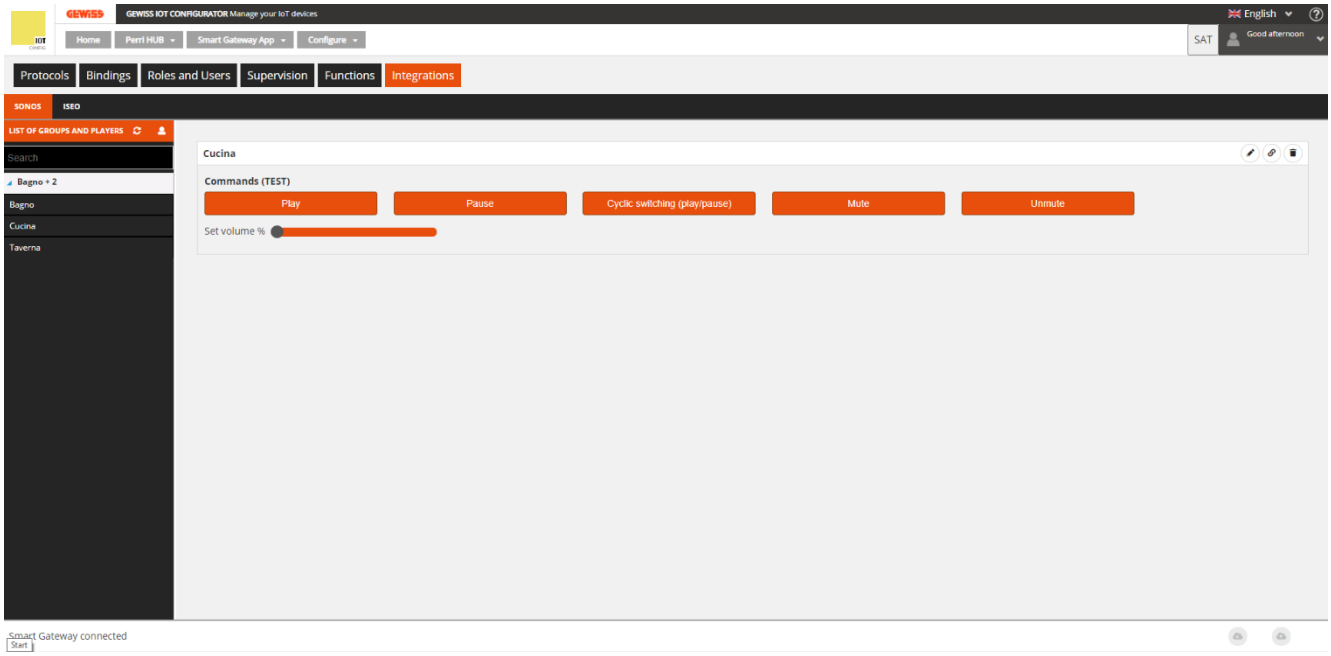


15. When synchronisation is complete, the groups and players associated with it, configured in the Sonos App, appear in the “List of groups and players” column



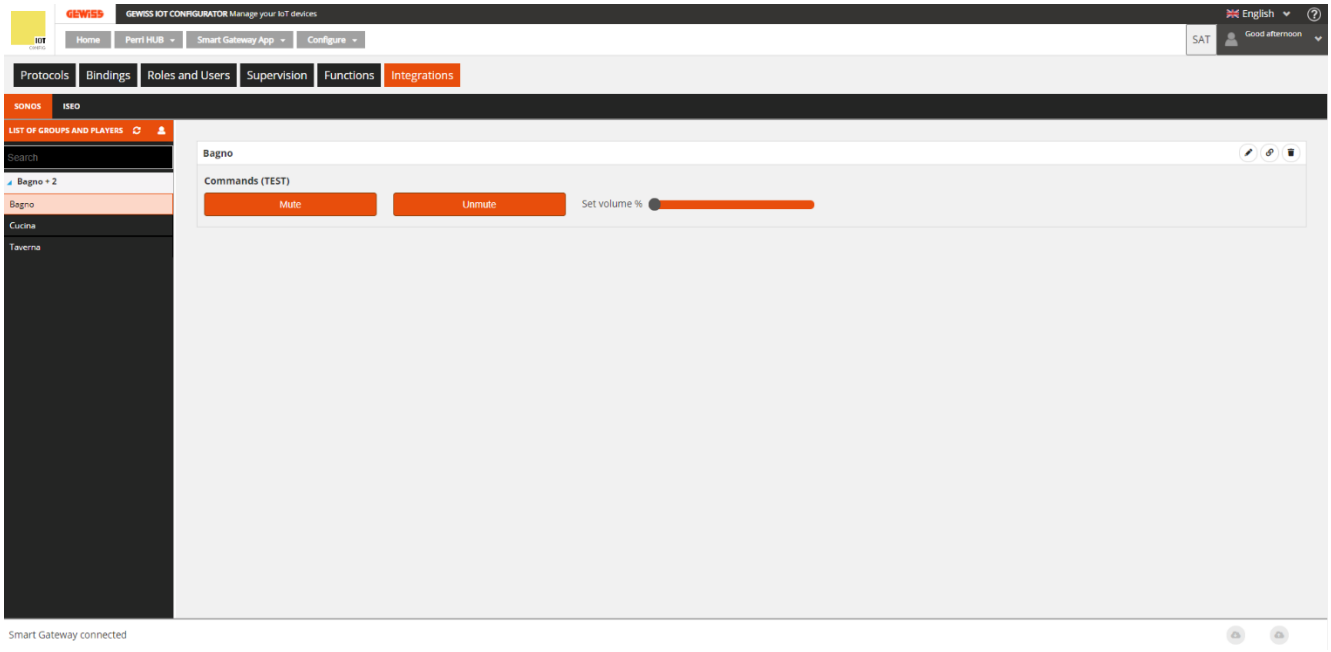
16. Using the controls that appear, selecting the group (in this case “Guest room + 2”) commands are sent to the entire group and to all players part of it. Using the controls that appear, selecting the single player (“Guest room” or “Kitchen”), commands are sent only to it.

Commands to the group:



- Play: plays the song or the playlist associated with the system in that moment in the Sonos App
- Pause: pauses the playback
- Cyclical switching (play/pause): plays and pauses cyclically the playback
- Mute: silences the Sonos devices
- Reactivate audio: reactivates the Sonos devices
- Sets the volume %: adjusts the volume of the Sonos devices

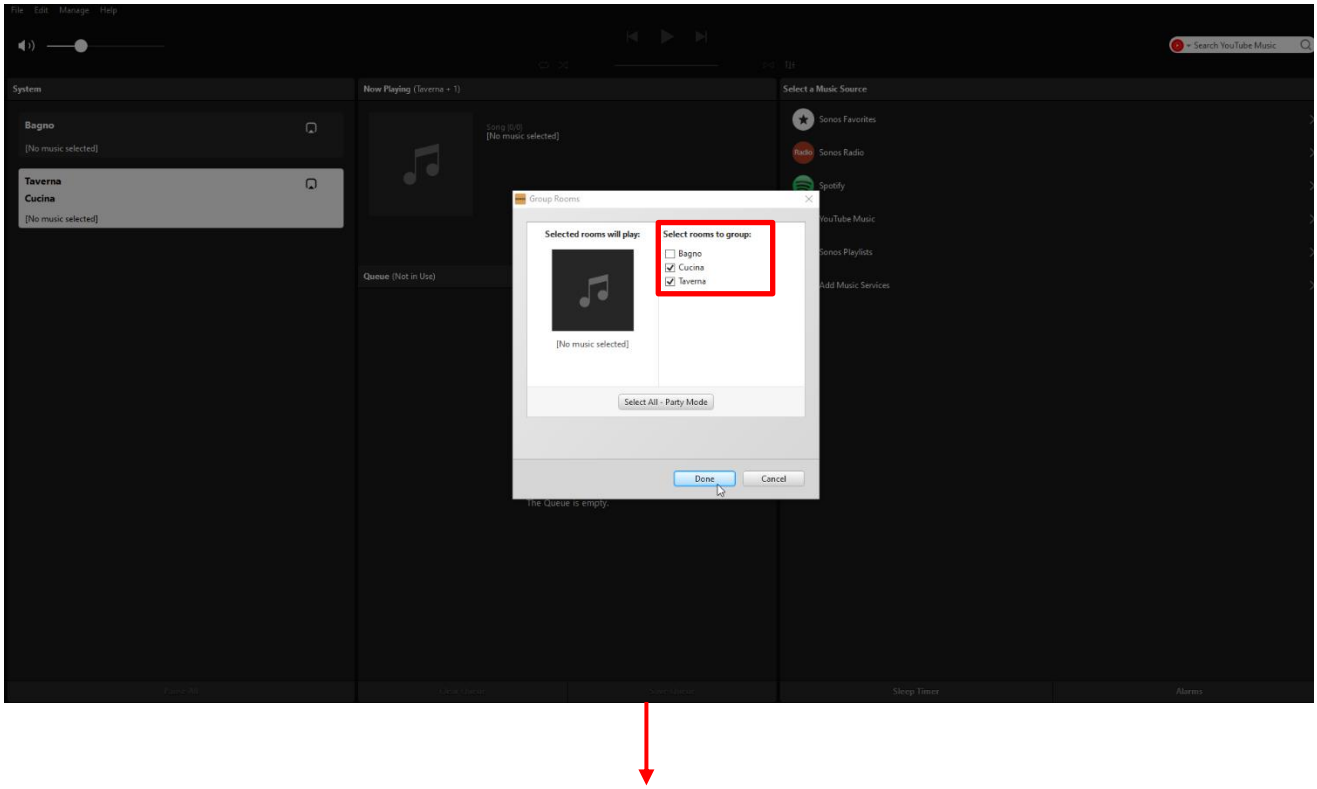
Commands to the single players:

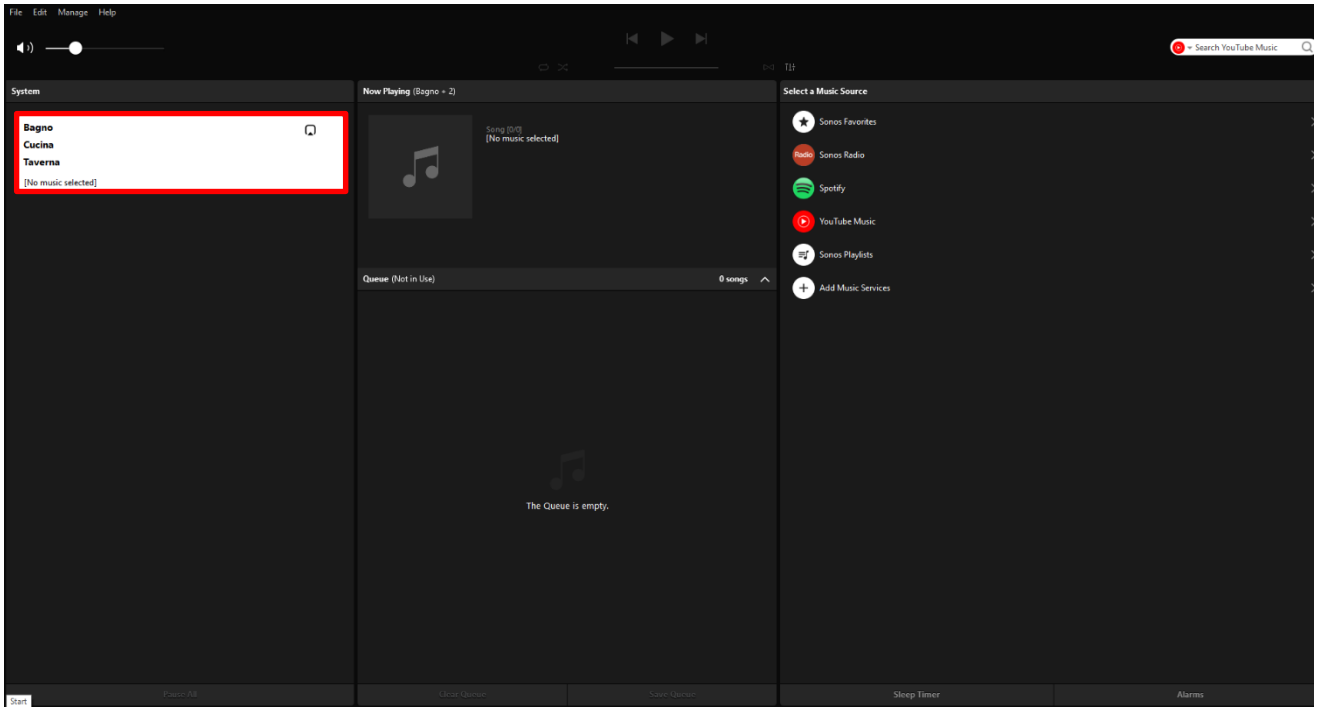


- Mute: silences the Sonos devices part of that group
- Reactivate audio: reactivates the Sonos devices part of that group
- Set volume %: adjusts the volume of the Sonos devices part of that group

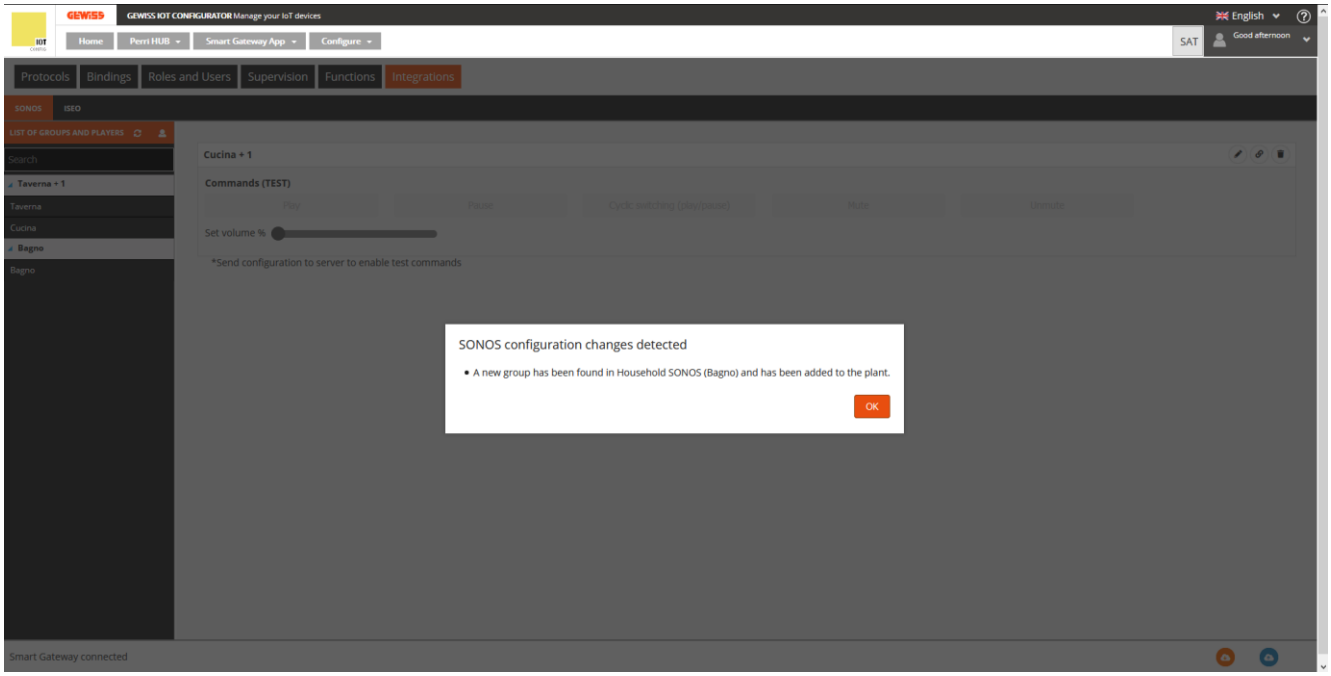
Synchronisation of the Sonos configuration

If you change the configuration in the Sonos App (for example, deleting or adding one of the players from the current playback), this change will be recorded in the configurator only by clicking the synchronisation button key .

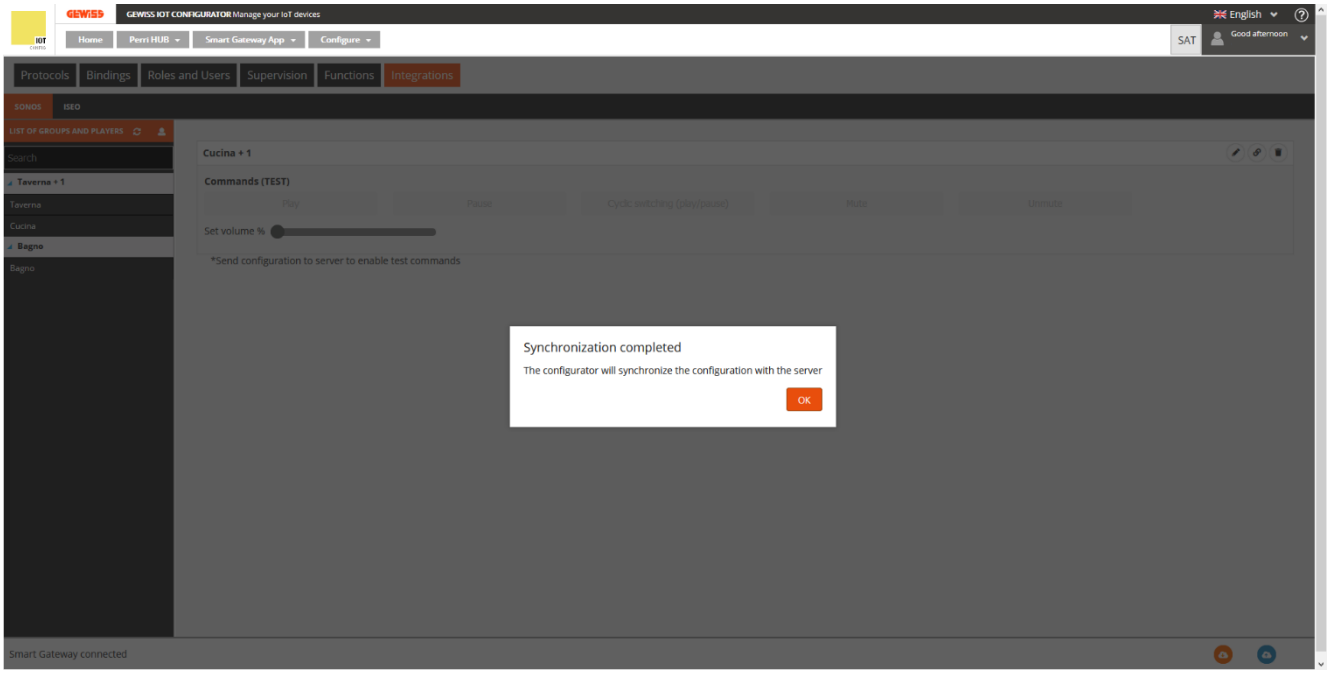




It is possible to change the names attributed to the group and the individual players by selecting them and clicking . However, these changes will not be made in the Sonos App. Therefore, each time synchronisation is performed between the Sonos App and the Smart Gateway, the configurator will detect this discrepancy and will signal it. A message will appear on the screen that asks if you want to keep the current name or if you want to synchronise it with what is found in the App.



Click on “OK”. Synchronisation is complete and a message appears on the screen.


GEWISS IOT CONFIGURATOR Manage your IoT devices
English
Home
Perri HUB
Smart Gateway App
Configure
SAT
Good afternoon
Protocols
Bindings
Roles and Users
Supervision
Functions
Integrations
SONOS
ISEO
LIST OF GROUPS AND PLAYERS
Search
Taverna + 1
Taverna
Cucina
Bagno
Bagno
Cucina + 1
Commands (TEST)
Play
Pause
Cyclic switching (play/pause)
Mute
Unmute
Set volume %
*Send configuration to server to enable test commands
Synchronization completed
The configurator will synchronize the configuration with the server
OK
Smart Gateway connected

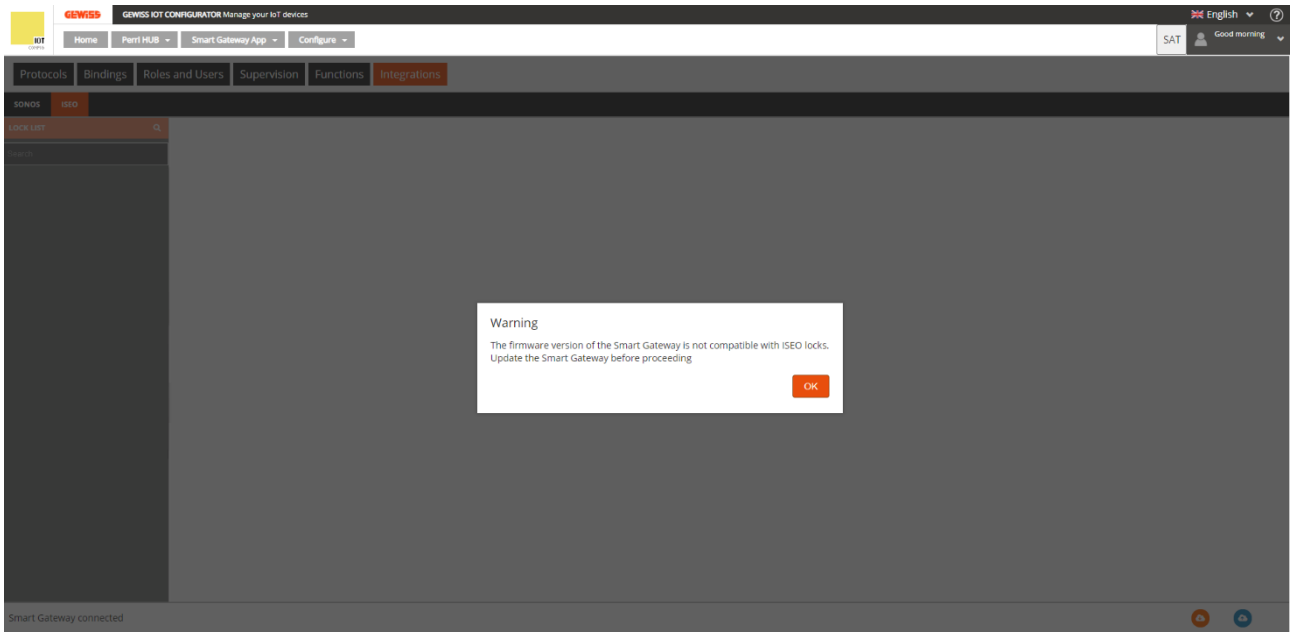
INTEGRATION OF ISEO LOCKS (MINIMUM REQUIRED FIRMWARE VERSION 2.0.2101.2805)

This chapter explains how to integrate the ISEO locks in the Smart Gateway so that it is possible to open them and, if applicable, control their state directly from the Smart Gateway APP.

First phase: Preliminary operations

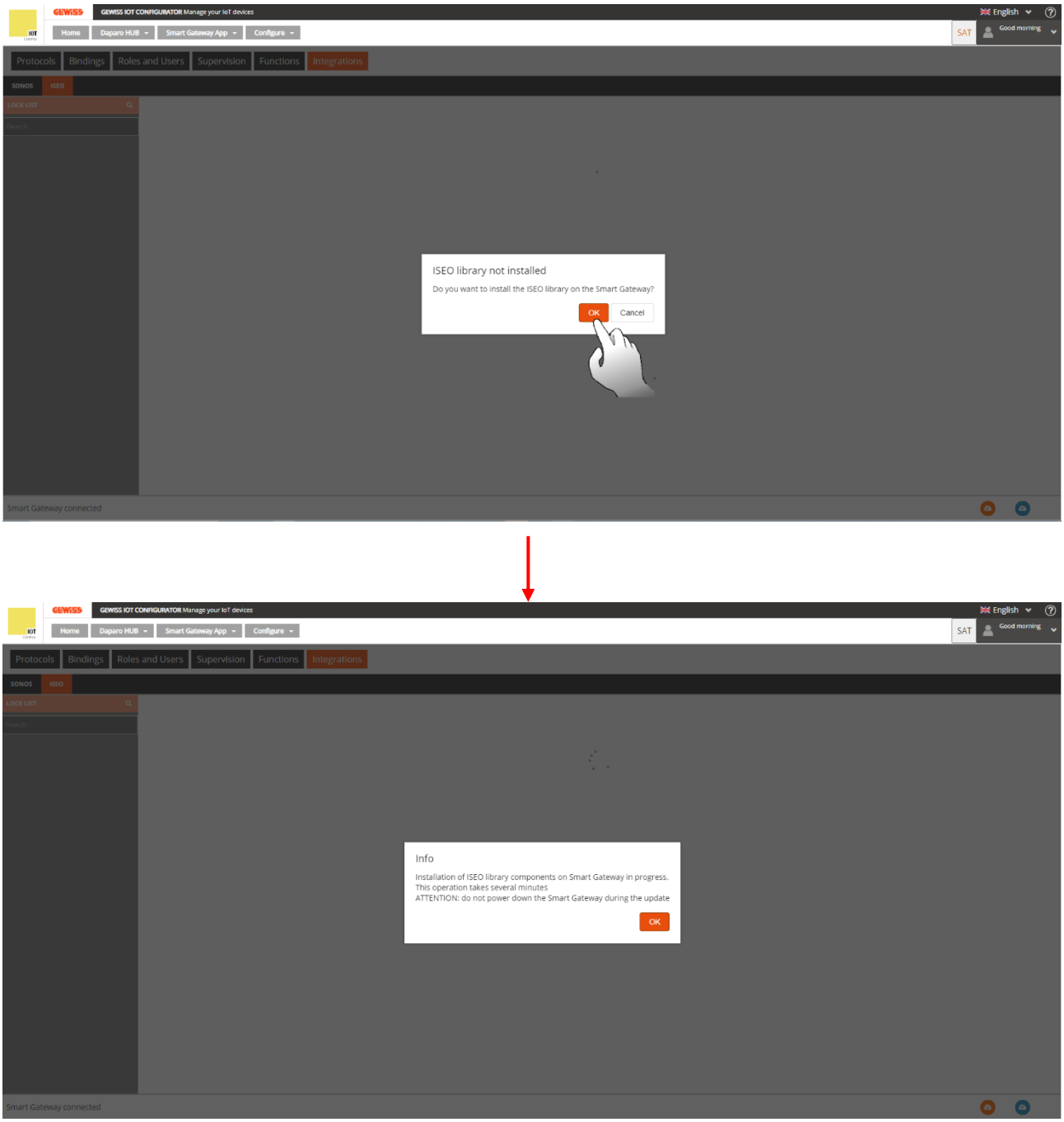
Before starting the association procedure between an ISEO lock and the Smart Gateway, make sure that:

- The Smart Gateway to which the ISEO lock(s) should be connected is located at a maximum distance of approx. 5 metres from each lock, keeping in mind that this distance could be reduced if there are obstacles and/or sources of disturbance between the Smart Gateway and the Smart Locks. These limits are due to the Bluetooth connection
- The version of the firmware that is installed on the hub is the minimum required (see "Smart Gateway Updates"). If the installed version is not the minimum required (2.0.2101.2805), a message appears on the screen:



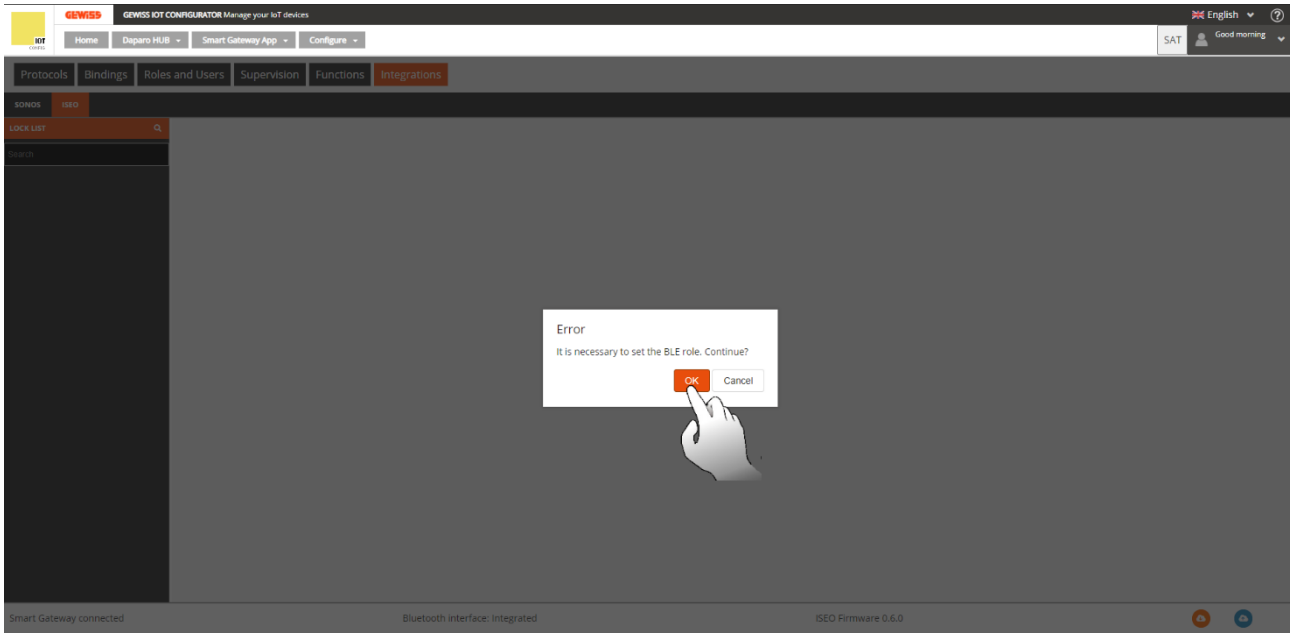
Once the firmware version of the compatible hub is updated, it is possible to return to the "Integrations" page and the Iseo tab. A message appears on the screen informing that the ISEO components are ready to be installed.

Attention: the installation takes between 15 and 20 minutes! Do not power down the Smart Gateway during the installation process! This would compromise the operation of the entire system!



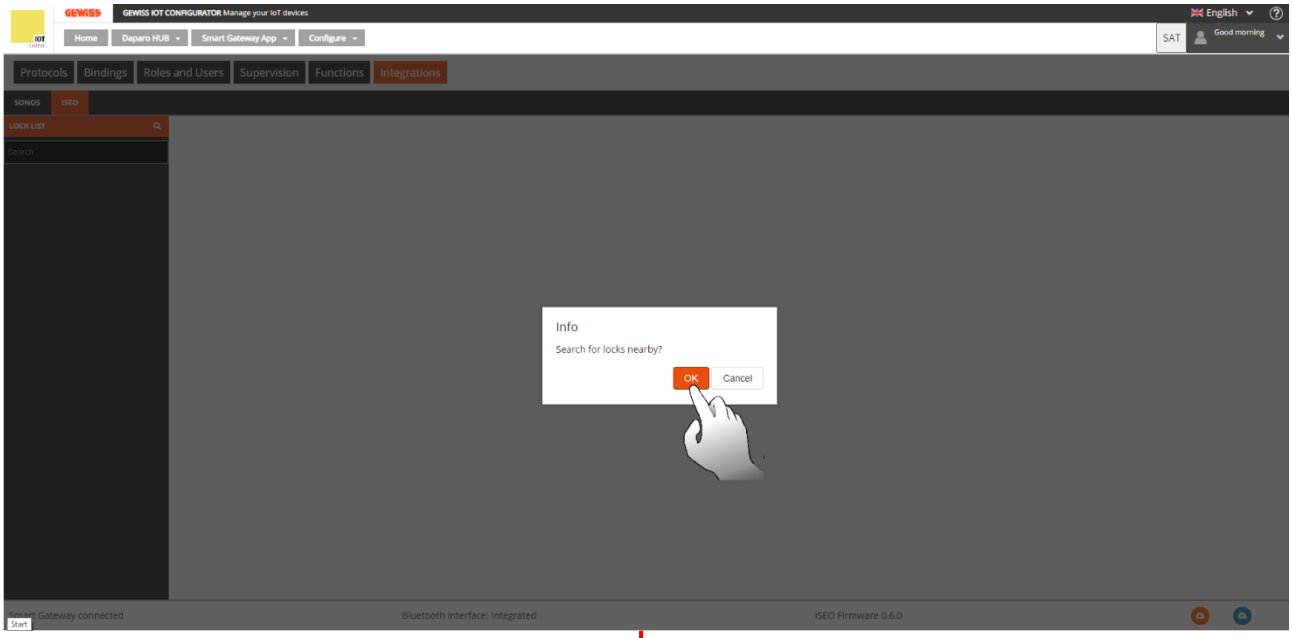
While the installation procedure is in progress, the other configurator functions can be used. Returning to the Iseo tab, a message appears that informs that the installation of the ISEO components is in progress.

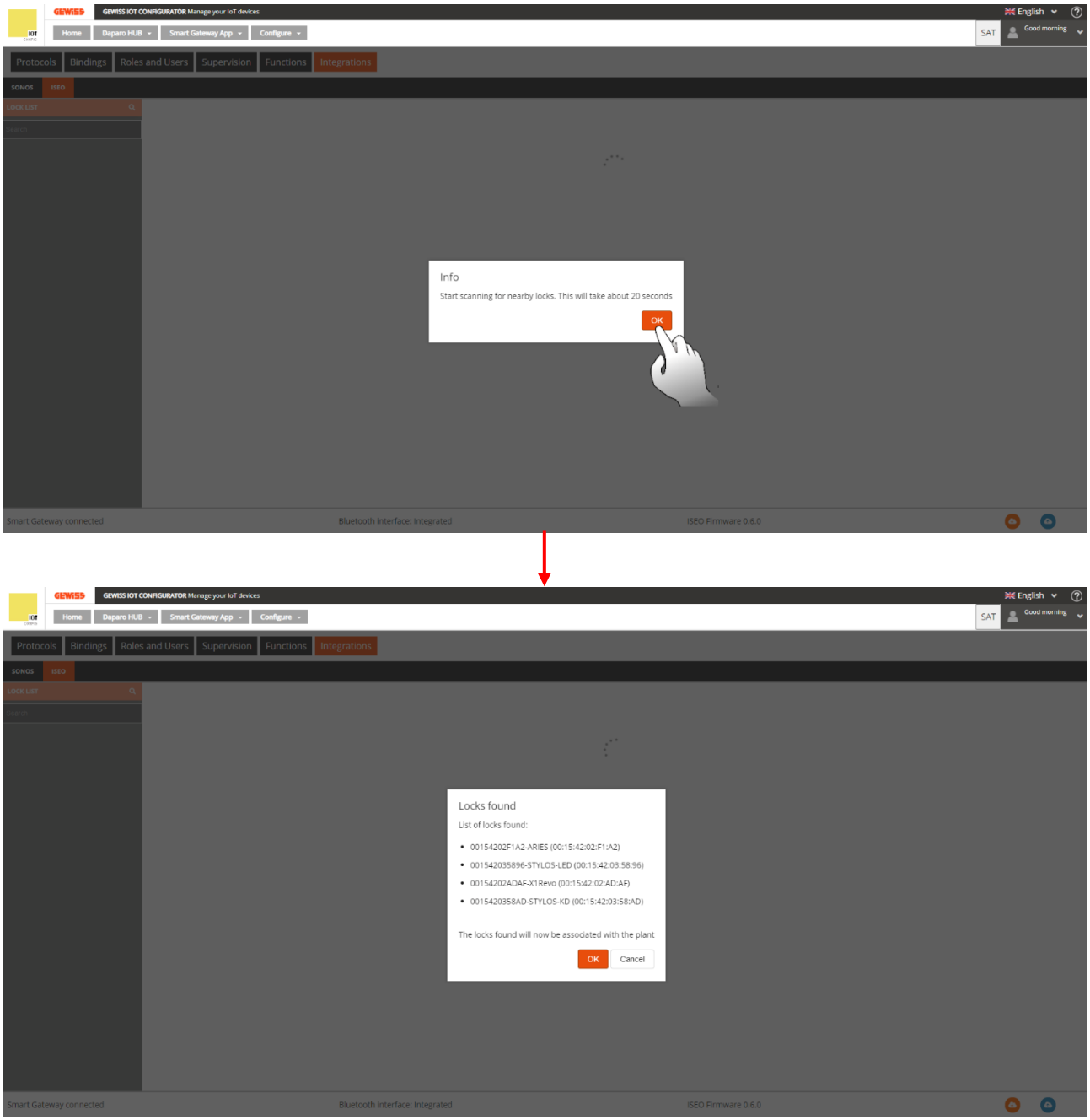
Once the ISEO components are installed, a message appears on the screen that requests authorisation to change the BLE role. The Smart Gateway BLE Role is set, by default, to “WiFi by BLE”. Proceeding with the ISEO configuration, this switches from “WiFi by BLE” to “Iseo”.



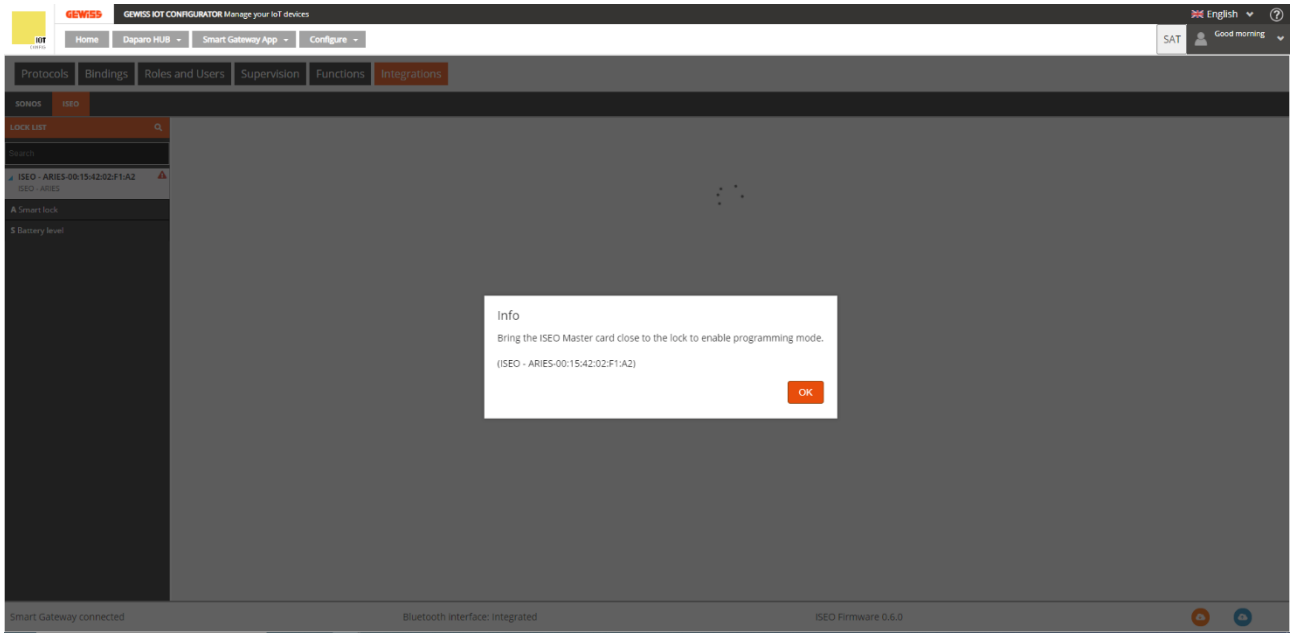
Second phase: detection of the lock and association with the Smart Gateway

Once the BLE Role is changed, a new message appears on the screen that asks if you want to look for ISEO locks nearby (keep in mind that, due to the fact that this search uses the Bluetooth network, the distance between the laptop and the lock you want to associate may not exceed 5 metres).

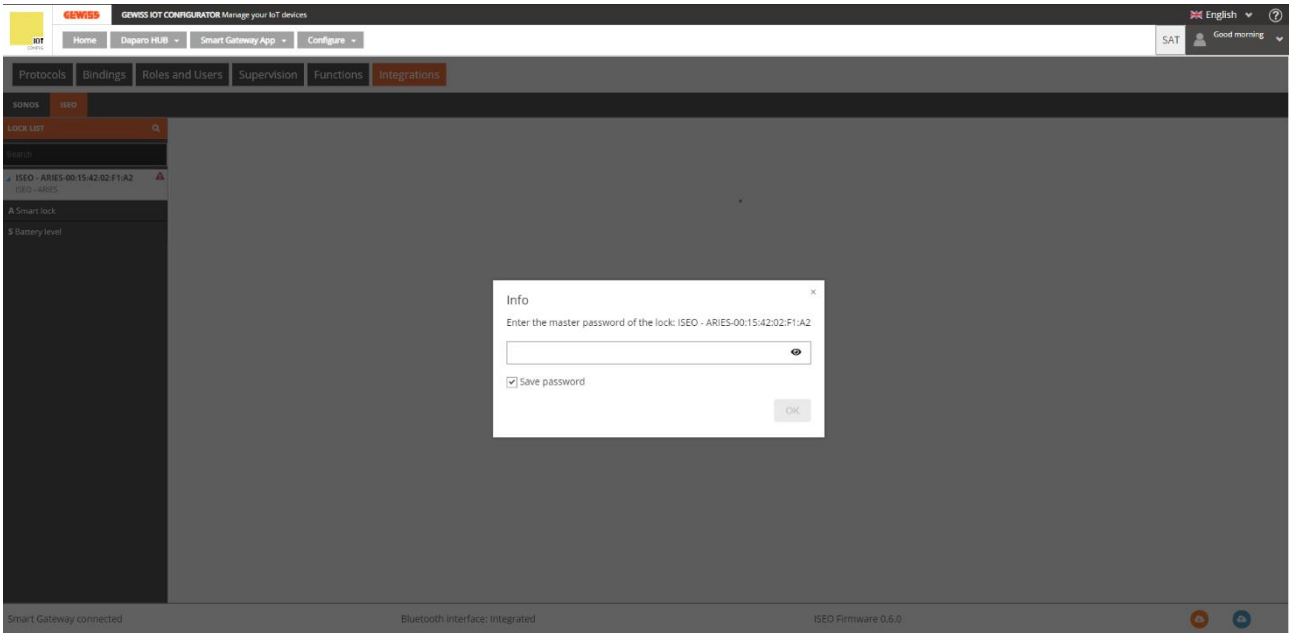


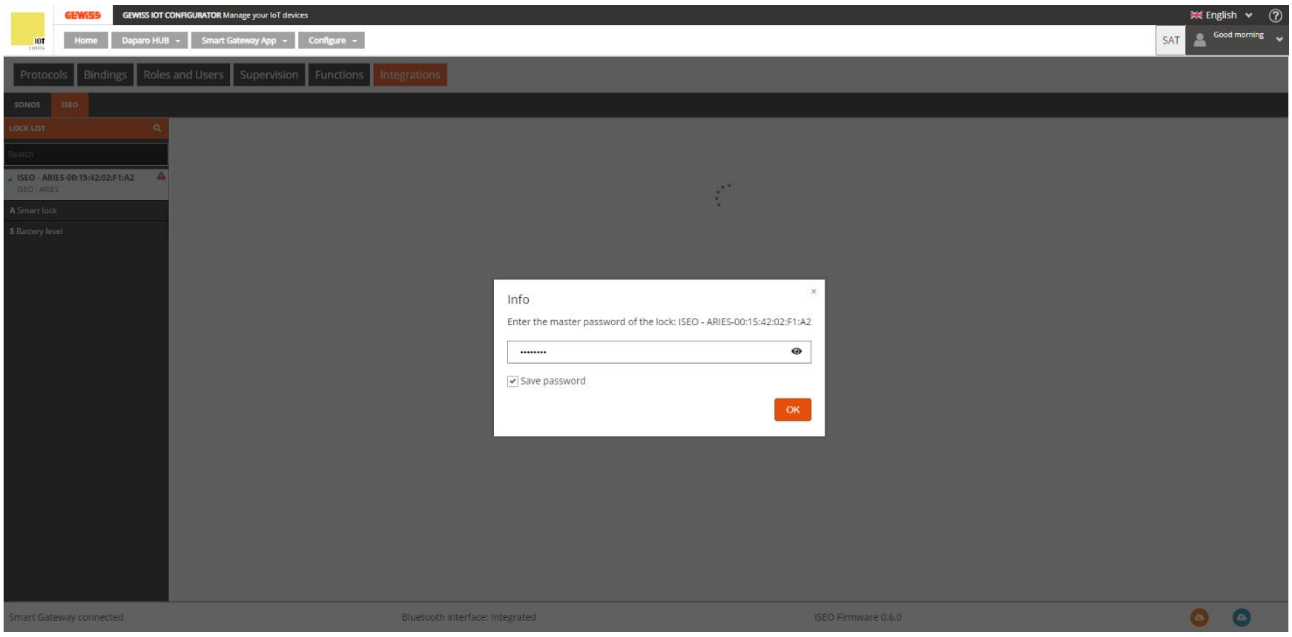


At this point, the configurator asks to move the Master Key near the lock you want to associate with the Smart Gateway. Press “OK” and move the Master Key close to the lock:

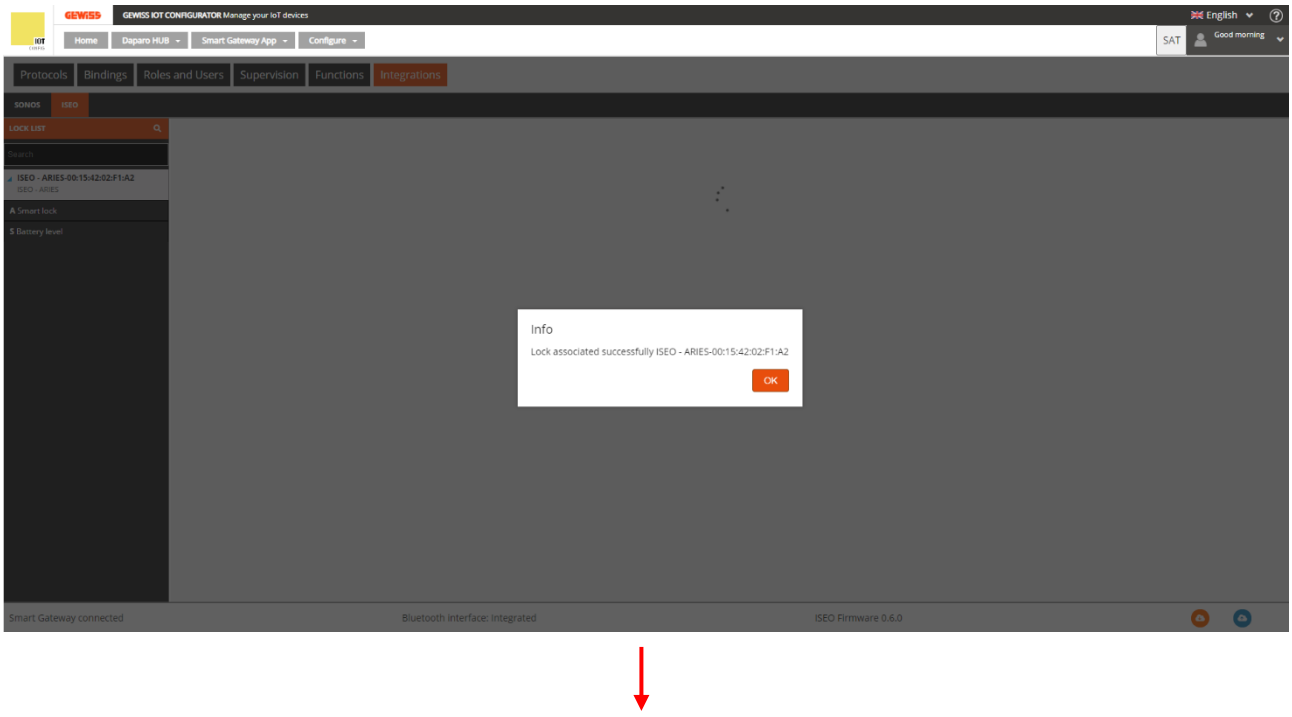


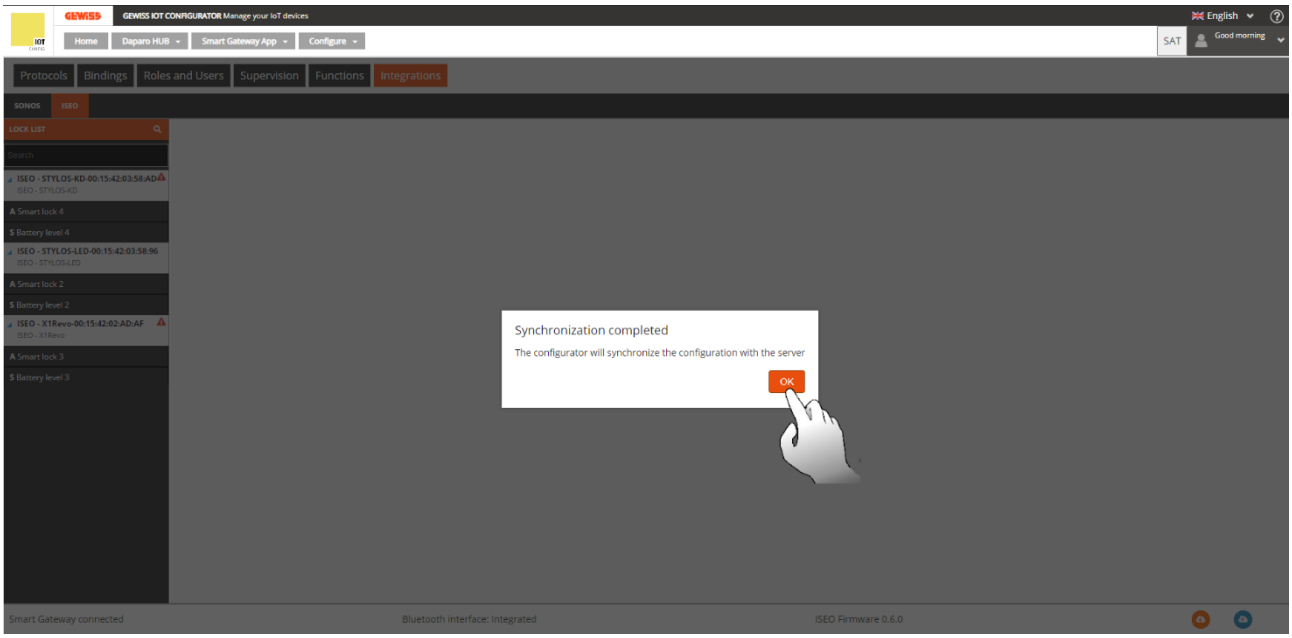
A new window appears on the screen that asks to enter a password to be associated with the lock being configured. By checking the “Save password” option, the configurator stores the set password and will not request it again at the next log ins.



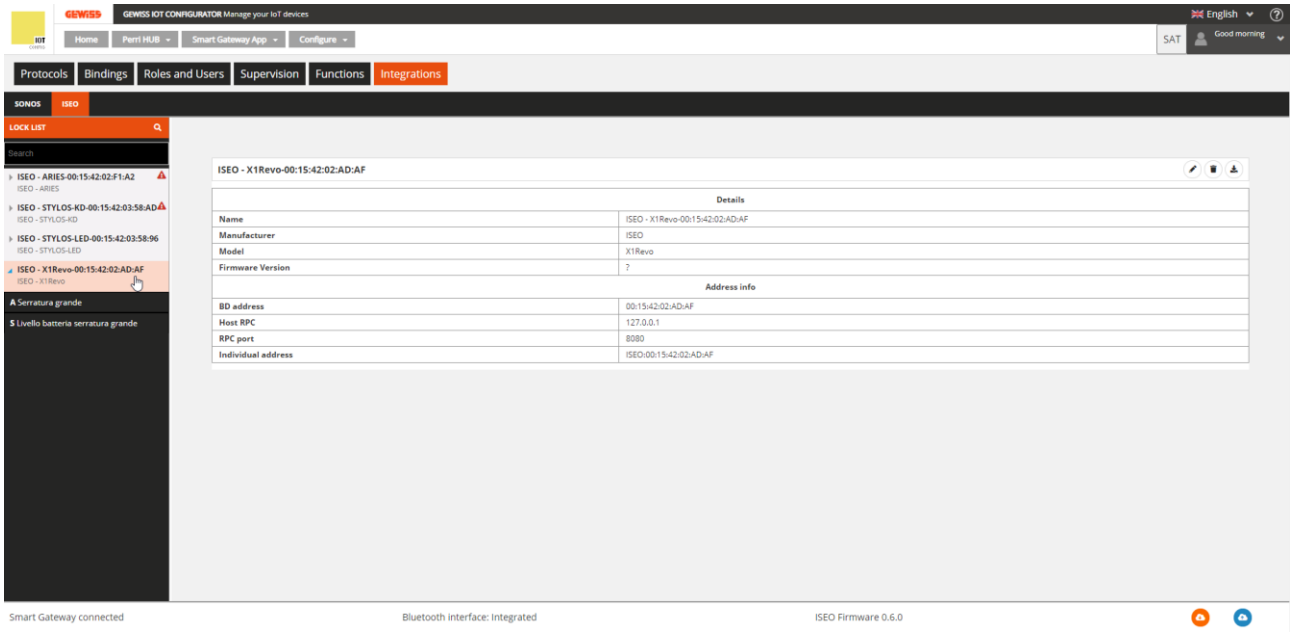


When the association is complete, a message appears on the screen announcing that synchronisation was successful. Click “OK” to save the change on the server.

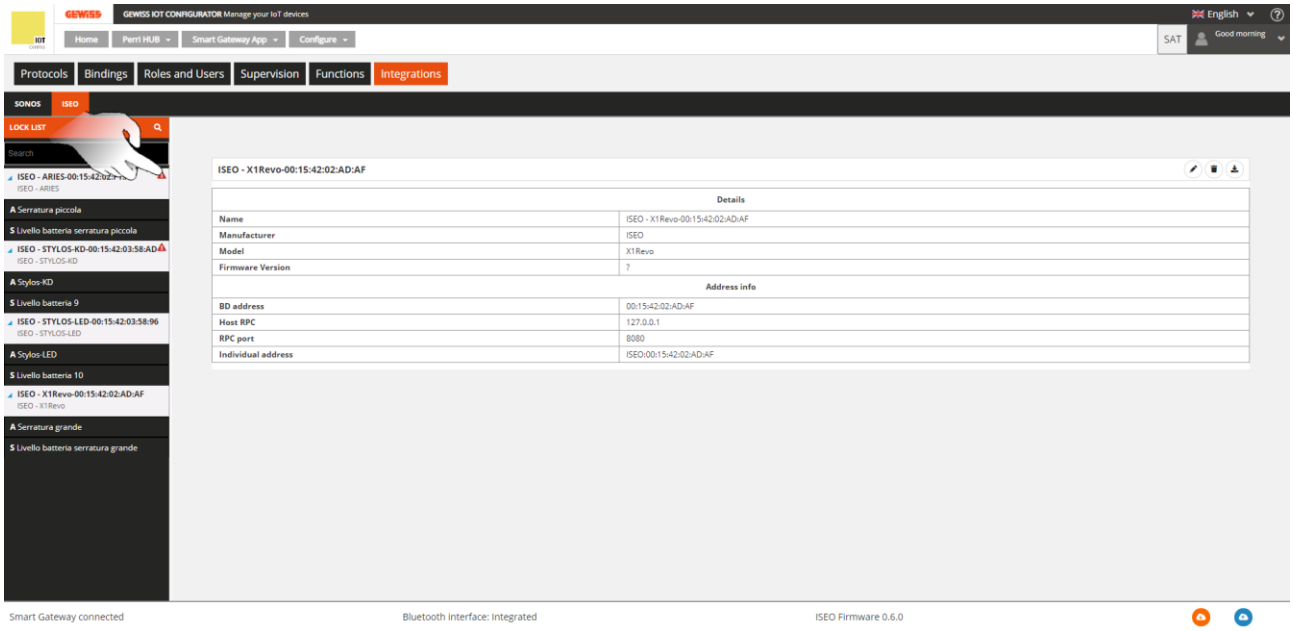




The left column, “Lock list”, displays the locks registered on the configurator.



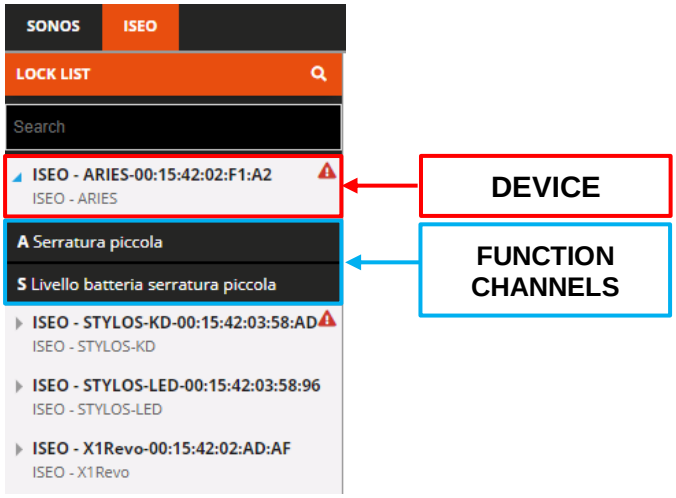
If there are problems with synchronisation, the logo ⚠ will appear next to the name of the lock. By moving the cursor close to it, a brief explanation appears about the problem that the configurator found.

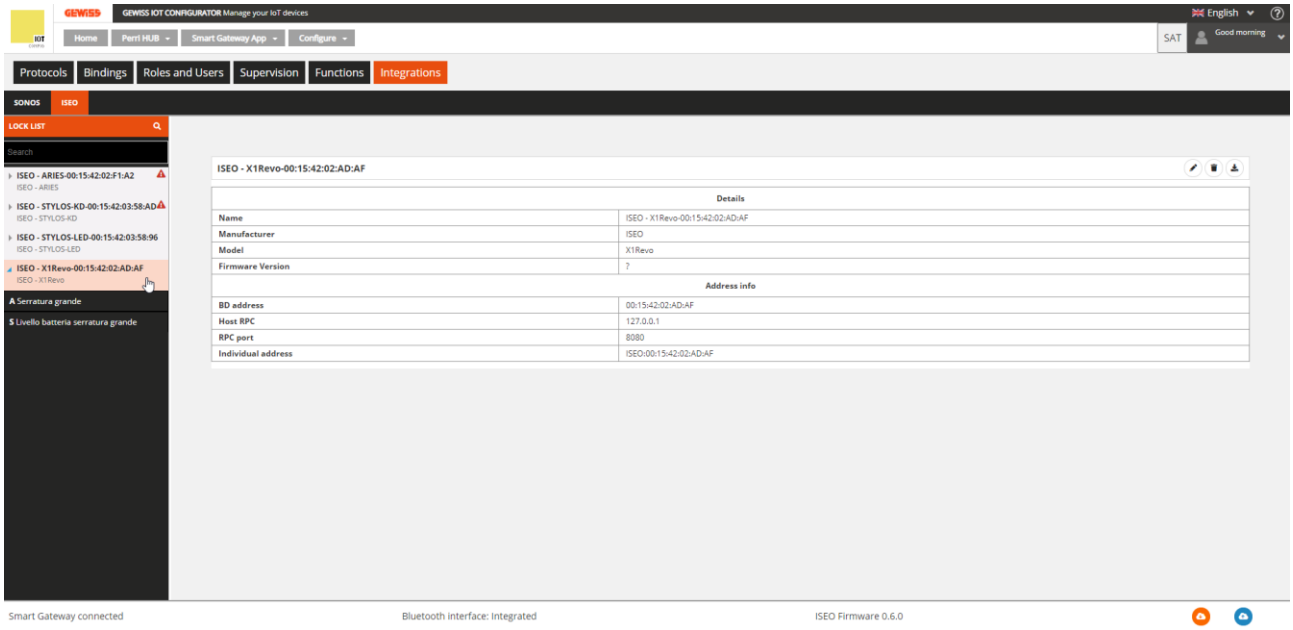


Third phase: opening of the lock and possible display of the state

The left column, “Lock list" therefore lists all the ISEO locks associated with the Smart Gateway. The locks are indicated with a light-coloured background and by the presence of a light-blue triangle . Click the latter to display the list of the function channels associated with the device: “Smart Lock” and “Battery Level”.

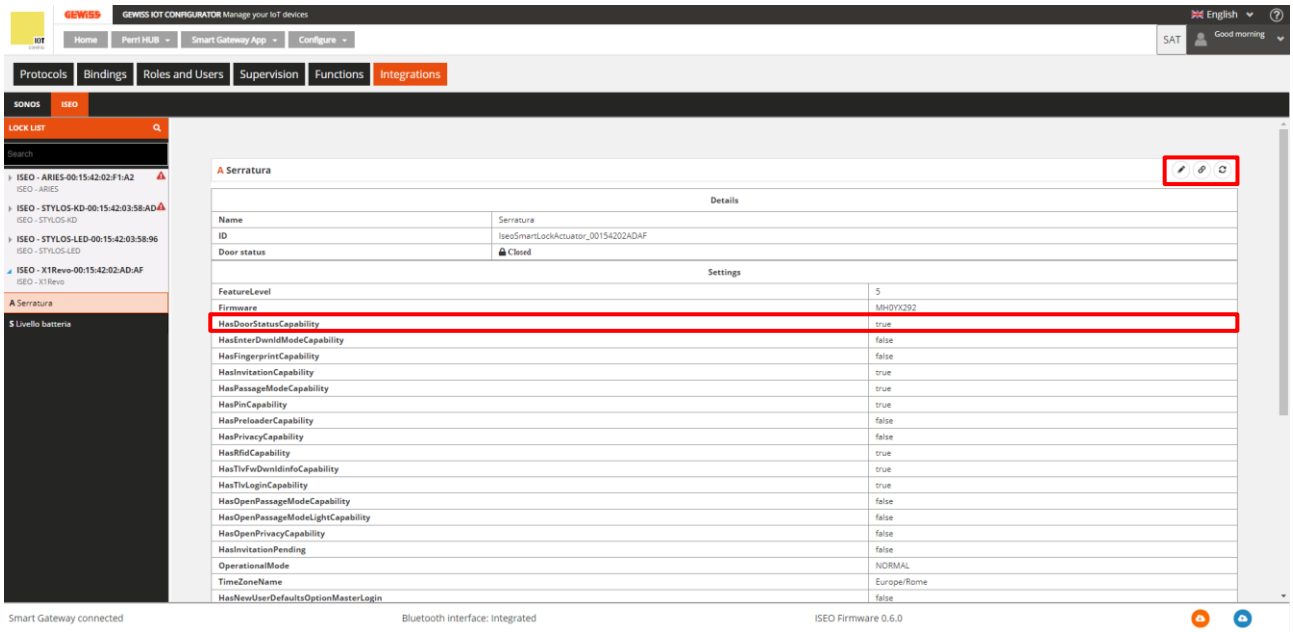
Click the name of the lock, in the centre of the screen, to display a table that contains the name of the selected lock, the manufacturer, model, firmware version, BD address, RPC host and port as well as the individual address. Click to rename the lock. Click to delete the lock. Finally, click to register the Smart Gateway on the lock to allow it to be opened.



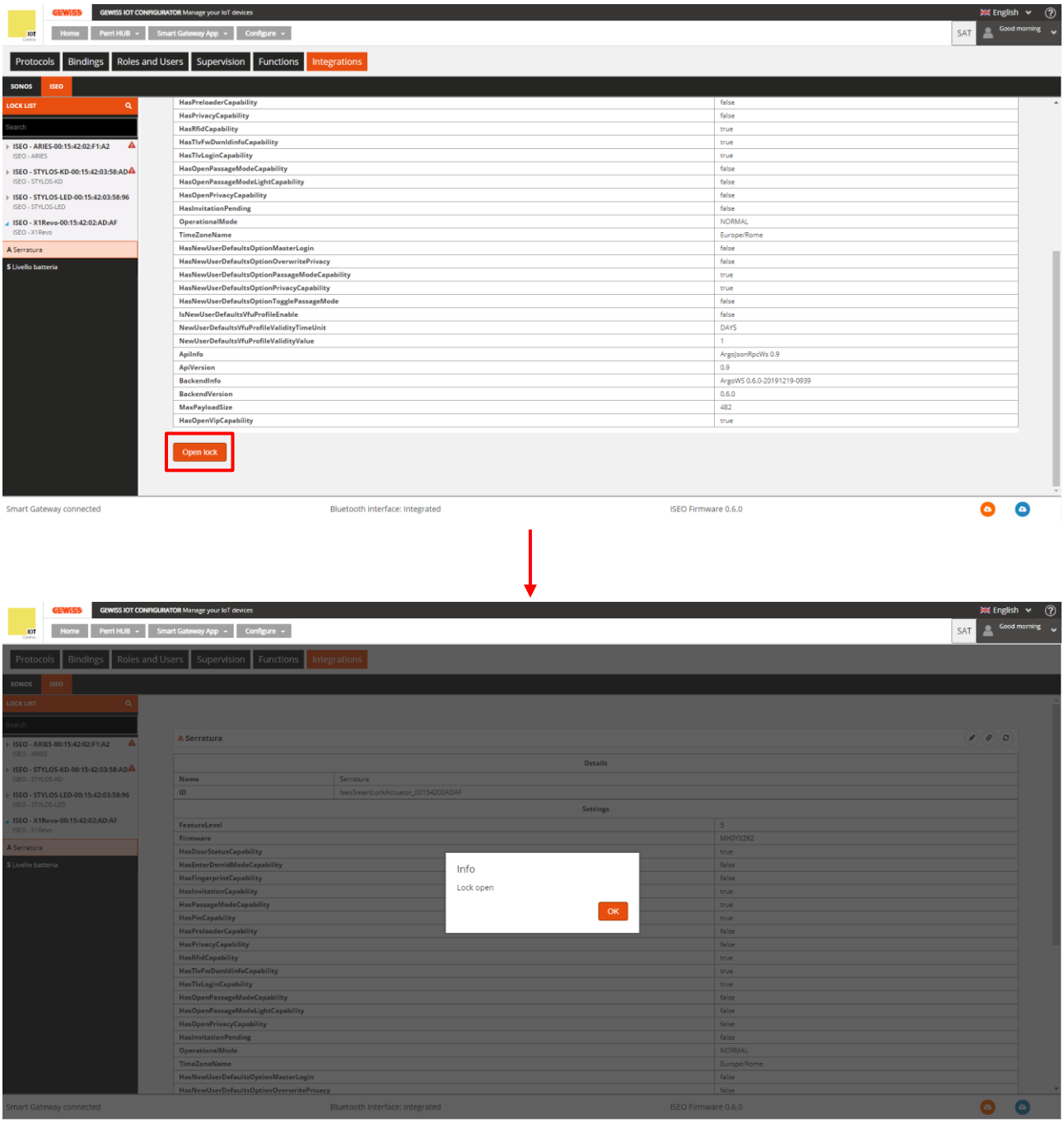


The “Smart Lock” function channel shows the capabilities of the lock. In particular, here it is possible to check if the door in question communicates its status or not to the Smart Gateway. If the value of the item “*Has door status capability*” is set to “*True*”, this capability is present. Otherwise, if the value is “*False*” this capability is not present. In the first case, using the Smart Gateway App, it will be possible to know if a lock is open or closed, in the second case it is not possible.

Click to change the name of the function channel. Click to check if the channel is related to a function (e.g. it will be possible to check if the function channel participates in a scenario). Click to update the state of the function channel (e.g. if the lock has been opened in the meantime, the state change will not be displayed automatically. The button must be pressed to check for this change).

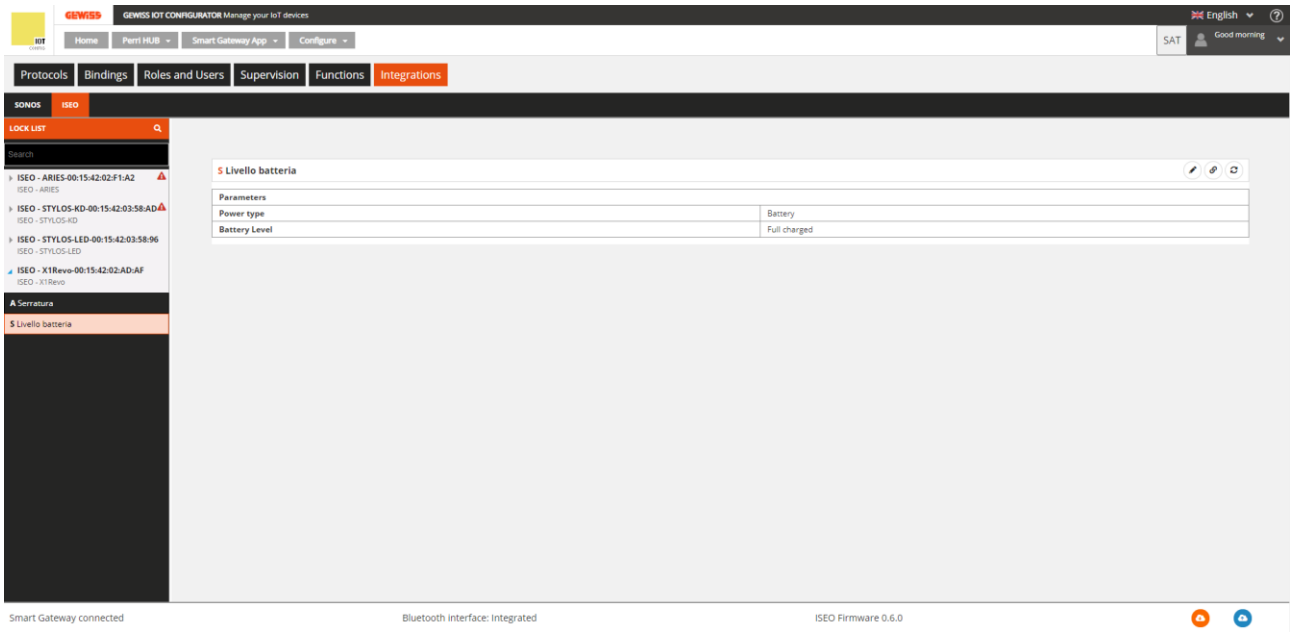


By scrolling down the page, below the table containing the capabilities of the lock, there is the “Open lock” button. Press this button to check if the lock is functioning correctly and its remote control.



If the lock cannot be reached, a message appears on the screen. In the same way, if the lock was already open, a message appears informing that it is open. Finally, if the opening command arrives from two different users at the same time, a message informs of the fact that the device is already in use.

The “battery level” function channel indicates the type of power supply for the lock and the charge level of the battery.

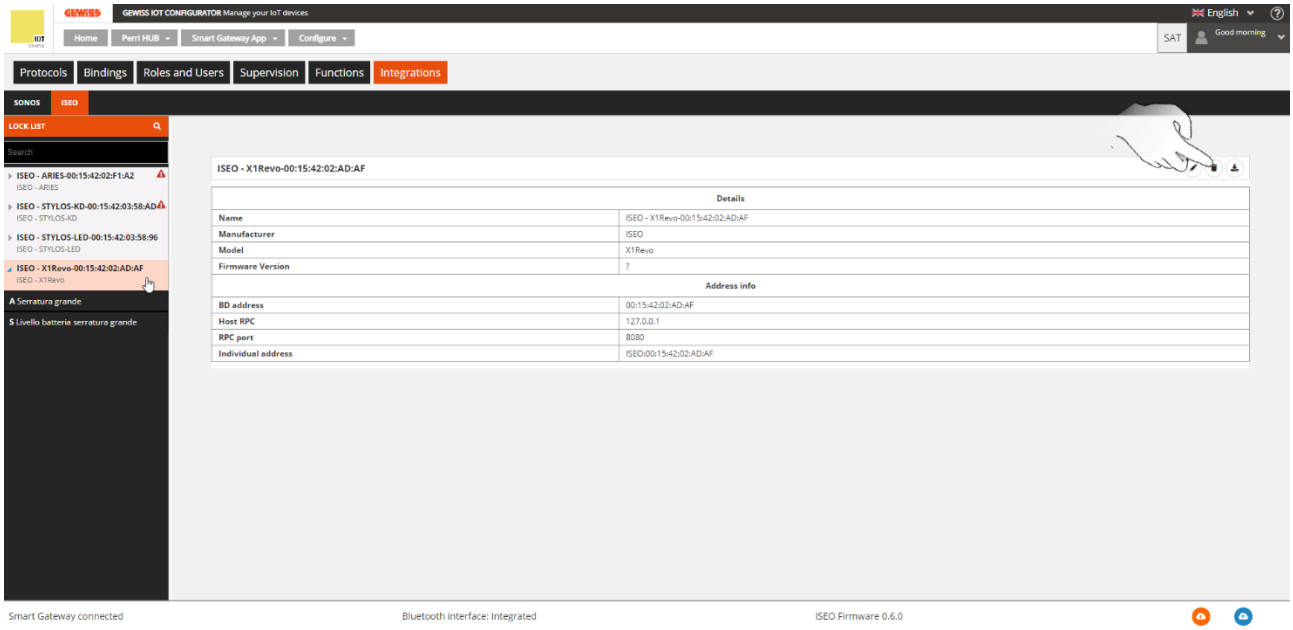


Delete a lock, register Smart Gateway on the lock and change the Master password

There are two different ways to delete a lock registered on the Smart Gateway:

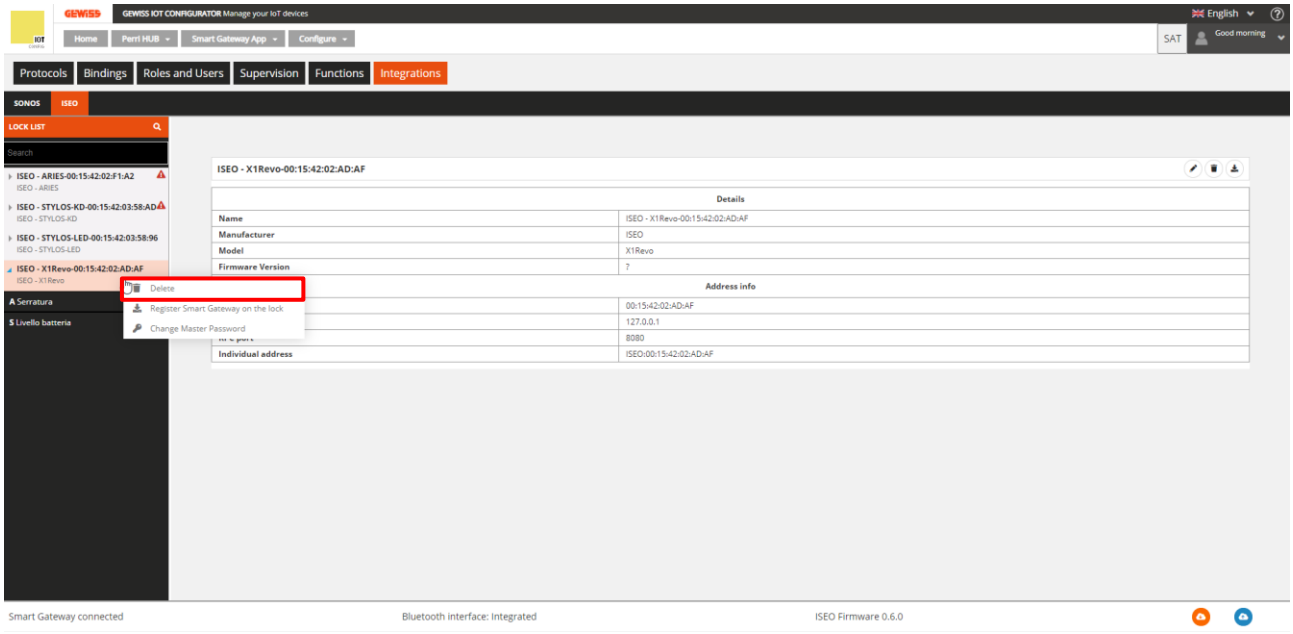
First method:

Select the lock from the “Lock list”. Delete it by clicking , to the top right.



Second method:

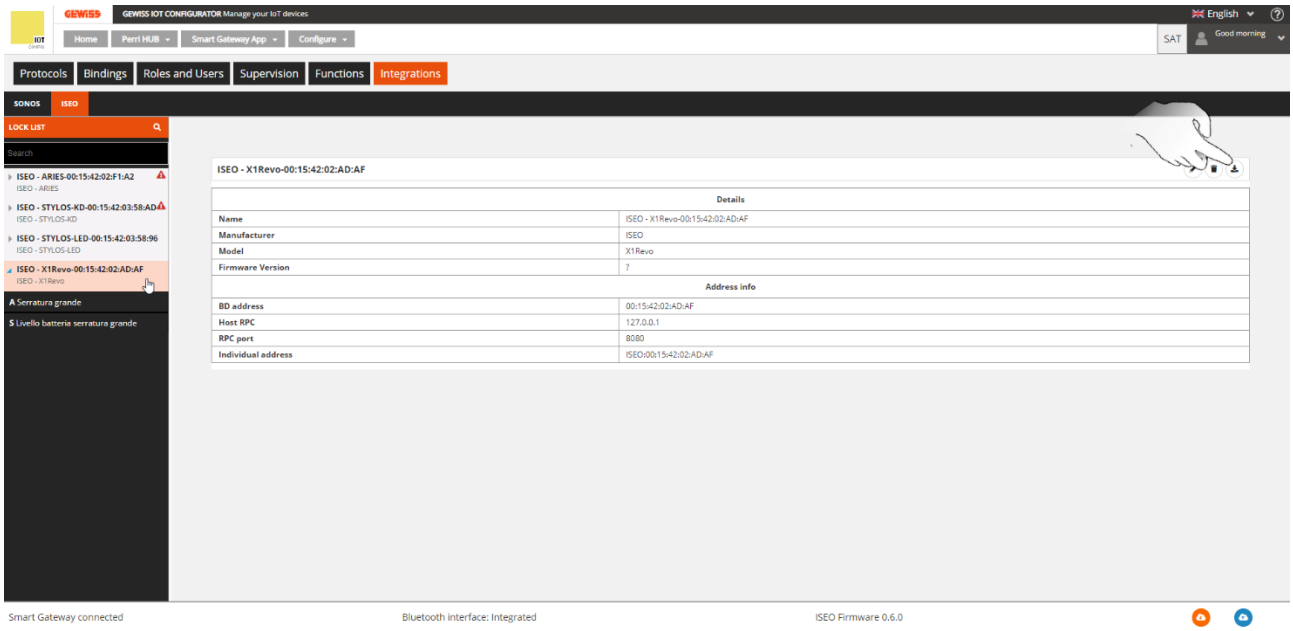
Select the lock from the “Lock list”. Right-click on it with the mouse. A drop-down menu appears on the screen. Click the option “Delete”


GEWISS IOT CONFIGURATOR Manage your IoT devices
English
Home
Perri HUB
Smart Gateway App
Configure
SAT
Good morning
Protocols
Bindings
Roles and Users
Supervision
Functions
Integrations
SONOS
ISEO
LOCK LIST
Search
ISEO - ARIES-00:15:42:02:F1:A2
ISEO - ARIES
ISEO - STYLOS-KD-00:15:42:03:58:AD
ISEO - STYLOS-KD
ISEO - STYLOS-LED-00:15:42:03:58:96
ISEO - STYLOS-LED
ISEO - X1Revo-00:15:42:02:AD:AF
ISEO - X1Revo
A Serratura
S Livello batteria
Delete
Register Smart Gateway on the lock
Change Master Password
ISEO - X1Revo-00:15:42:02:AD:AF
Details
Name
ISEO - X1Revo-00:15:42:02:AD:AF
Manufacturer
ISEO
Model
X1Revo
Firmware Version
?
Address info
00:15:42:02:AD:AF
127.0.0.1
8080
Individual address
ISEO:00:15:42:02:AD:AF
Smart Gateway connected
Bluetooth interface: Integrated
ISEO Firmware 0.6.0

If you want to register the Smart Gateway on the lock, there are two ways to do so.

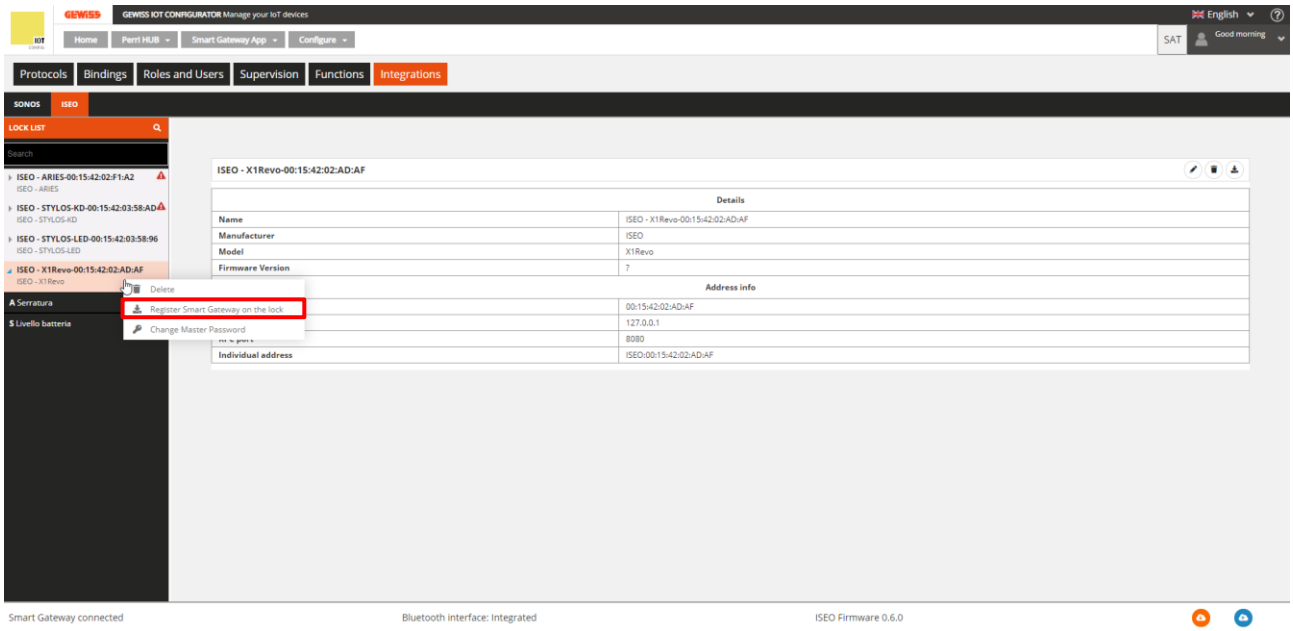
First method:

Select the device in the “Lock list”, then click on to the top right

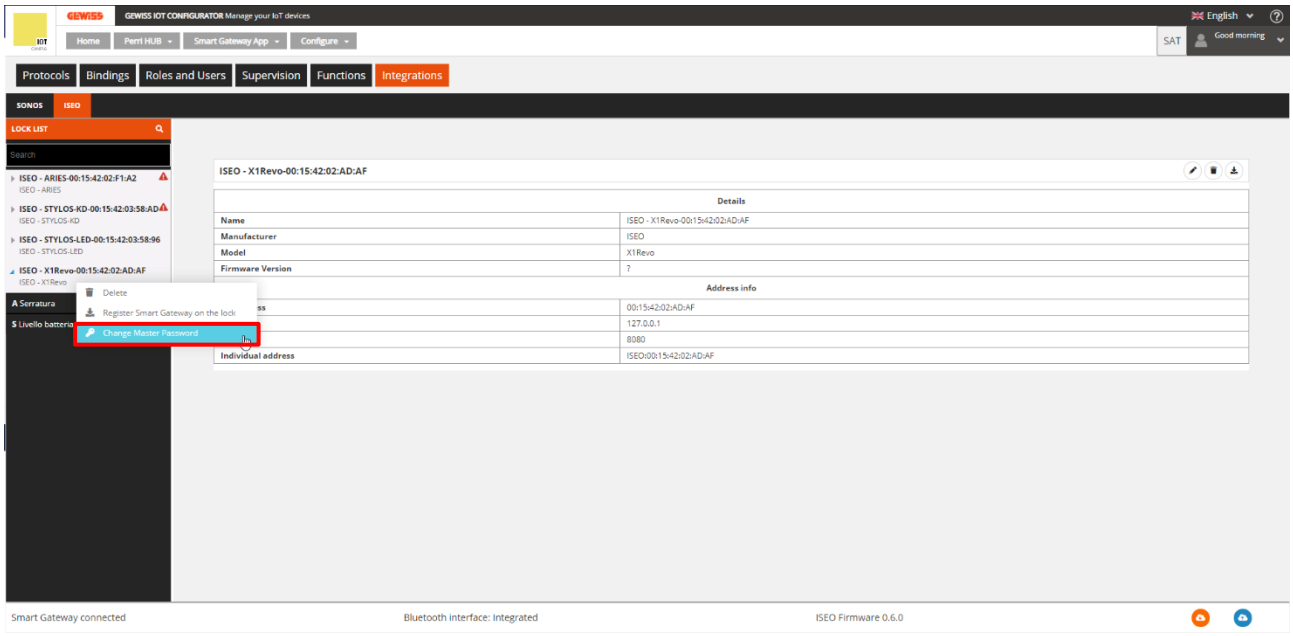


Second method:

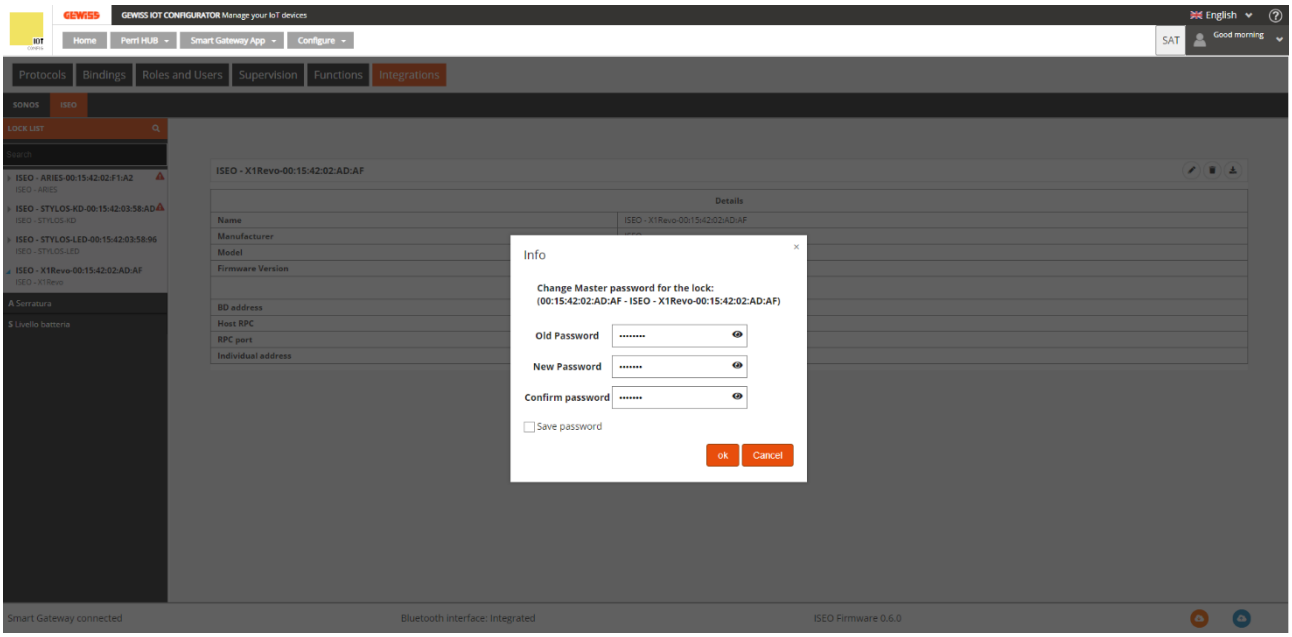
Select the lock from the “Lock list”. Right-click on it with the mouse. A drop-down menu appears on the screen. Click the option “Register Smart Gateway on the lock”

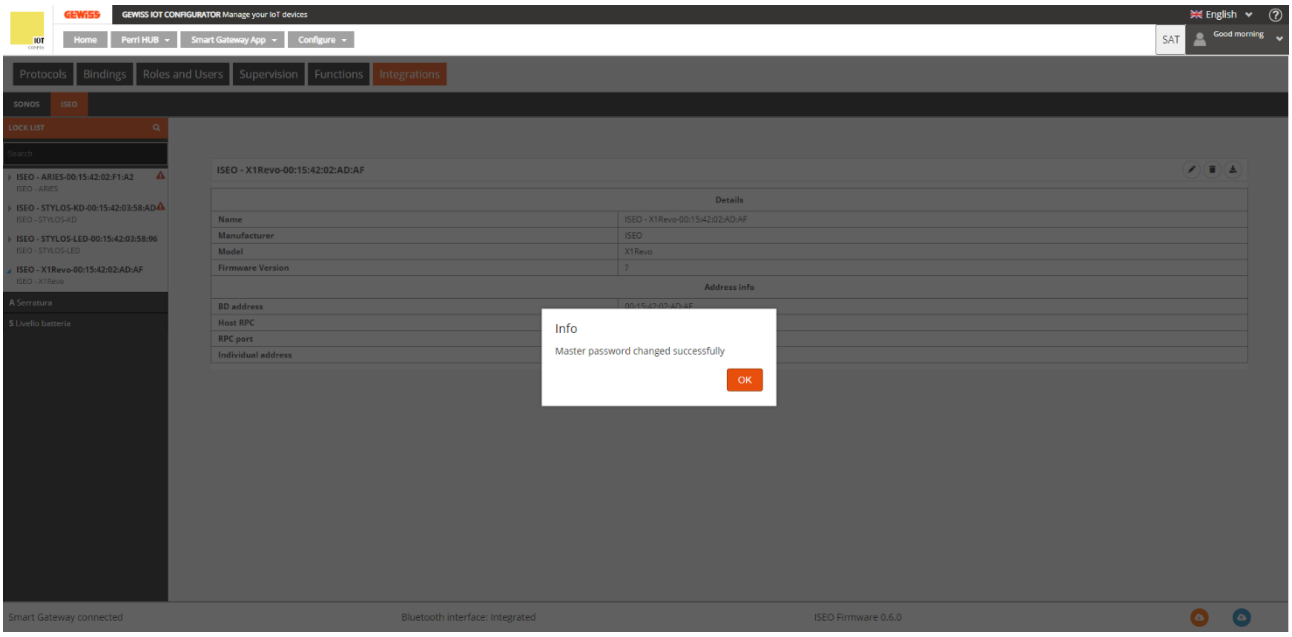


If you want to change the Master Password, select the lock in the “Lock list”. Right-click on it with the mouse. A drop-down menu appears on the screen. Click the option “Change Master password”



A window appears on the screen where it is necessary to enter the old password and enter the new password two times




GEWISS IOT CONFIGURATOR Manage your IoT devices
English
Home
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Smart Gateway App
Configure
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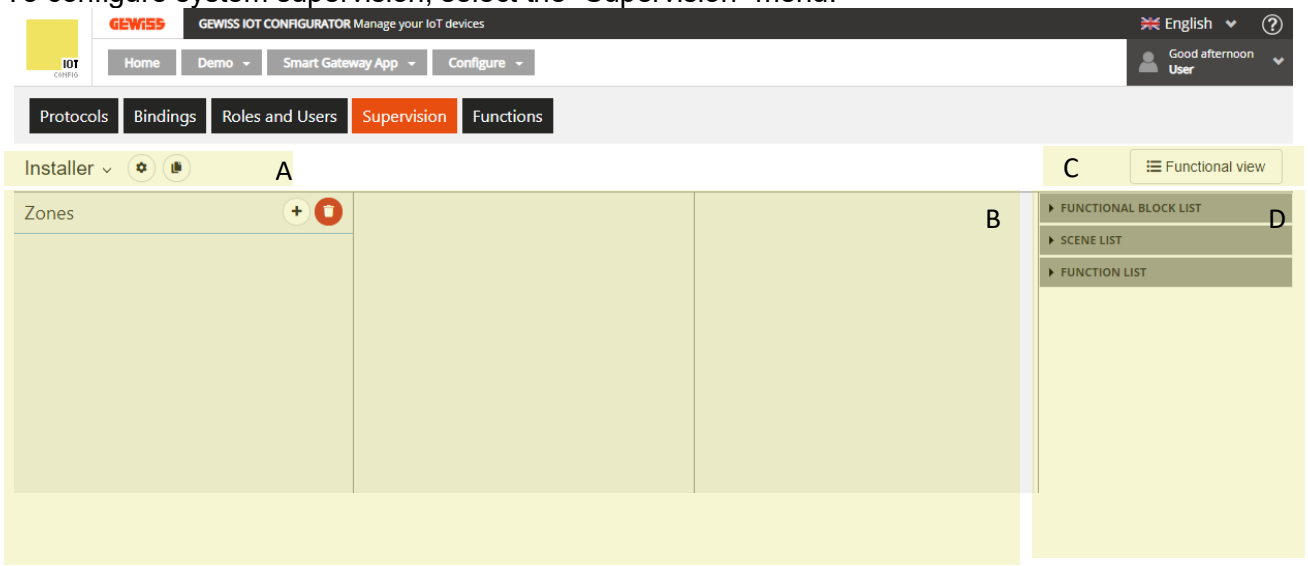
Good morning
Protocols
Bindings
Roles and Users
Supervision
Functions
Integrations
SONOS
ISEO
LOCK LIST
ISEO - ARIES-00:15:42:02:F1:A2
ISEO - STYLOS-KD-00:15:42:03:58:AD
ISEO - STYLOS-LED-00:15:42:03:58:96
ISEO - X1Revo-00:15:42:02:AD:AF
A Serratura
S Livello batteria
ISEO - X1Revo-00:15:42:02:AD:AF
Details
Name
ISEO - X1Revo-00:15:42:02:AD:AF
Manufacturer
ISEO
Model
X1Revo
Firmware Version
?
Address info
BD address
Host RPC
RPC port
Individual address
Info
Master password changed successfully
OK
Smart Gateway connected
Bluetooth interface: Integrated
ISEO Firmware 0.6.0

SUPERVISION

Supervision via the app offers a structured way of accessing and interacting with the commands and the visualisation of the statuses of objects or devices (lights, roller shutters, thermostats, etc.) in the system, regardless of the communication protocol used.
There are three types of navigation logic:

- Zones/Environments (both in list format)
  The element/object controlled is represented within the environment in list mode, without any reference to its real position in the system/environment visualised.
- Zones/Environments with the elements in the environment represented on a map/planimetry (tablet version only)
  The elements of each environment can be represented on a planimetry map where the object's position represents its real physical position in the system.
- Functional categories (Lighting, Roller shutters, Temperature adjustment, Energy, etc.)
  The system elements/objects are automatically sub-divided on the basis of their functional category (lighting, roller shutters, temperature adjustment, energy, etc.). When the elements are represented in this way, they can be accessed and commanded in the same way as for Zones/Environments navigation.

To configure system supervision, select the “Supervision” menu.



A. Role for which you are editing the supervision and general settings
In this section, you can select the role for which you want to edit the supervision. Press on the name shown to see a list of all the roles in the project; select the required item to see the navigation tree for the supervision of that role.
Press the ⚙ icon next to the name of the role to see a pop-up with its general supervision settings; in particular, you can enable the consent (for users covering that role) to create certain functions via the app.
Use the 🗐 icon to copy the supervision from another role; this greatly speeds up the creation process.

B. Supervision design area
Zones/Environments and Functional navigation is constructed in this area, by defining the elements you want to view/command. It will be described in detail later on.

C. See elements associated with the functional view
This push-button allows you to pass from the programming of Zones/Environments navigation to that of Functional navigation.
The design area will differ according to which type of navigation you are programming.

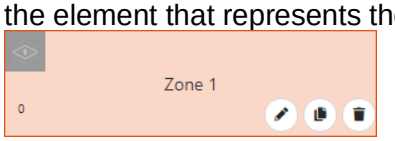
D. List of the elements that can be used in the design area

This area contains all the elements that can be inserted in the supervision of the current role; to ensure that a specific user associated with a role can access the commands/statuses of the functional blocks or the created functions, you must insert the relative element in the Zones/Environments navigation tree or in the Functional view.
The elements are sub-divided into: Functional blocks (KNX, ZigBee and WiFi), Scenes, Integration, Functions, Cameras (functional only) and graphical trends (functional only). In each sub-section there's a search field for filtering the elements.
The elements highlighted in grey are inserted in the environment or Functional view selected.

Creating the Zones/Environments structure

The design area for creating Zones/Environments navigation consists of three columns:
- list of zones
- list of environments in the selected zone
- list of elements in the selected environment

To add an zone, press the + push-button next to the name “Zones”; once the name has been inserted, the element that represents the zone will be created.



In the middle of the element you can see the name assigned to the zone that will be visualised in the supervision via app.

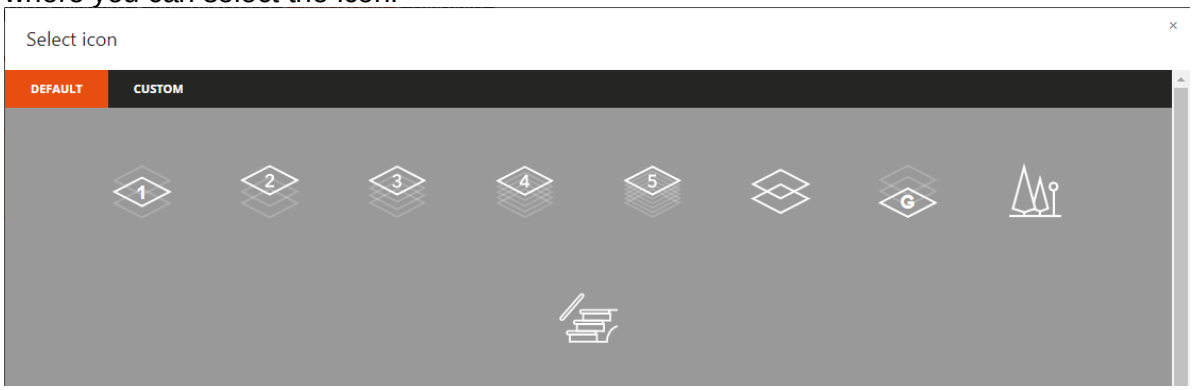
Modify push-button for modifying the name of the zone

Copy push-button for creating an identical copy of the zone (including environments and the elements inside them)

Delete push-button for eliminating the zone (and all the environments and the elements inside them)

At the bottom left, you can see the number of environments contained in the zone.

At the top left, there's the icon representing the zone in the supervision via app. If no icon is defined, the default one will appear during configuration; when the push-button is pressed, a pop-up appears where you can select the icon.



The pop-up is formed of two menus: DEFAULT and CUSTOM.

The first menu contains the icons made available by GEWISS.

The second menu shows all the icons imported in the system.

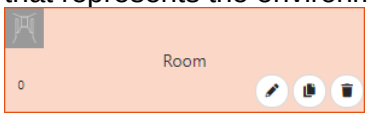
To import an icon, press the “Import icon” push-button and then select the required icon.
Maximum file size: 1 MB
File extensions supported: svg/png/jpeg

The order in the list of zones determines the order of visualisation in the app (it can be modified directly from the app); to move a zone, just select it and drag it to the required position.

To delete all the zones simultaneously, press the icon next to the name “Zones”.

There are no limits to the number of zones that can be created.

To add an environment to a zone, select the required element from the “Zones” column and then press the push-button next to the name “Environments”; once the name has been inserted, the element that represents the environment will be created.

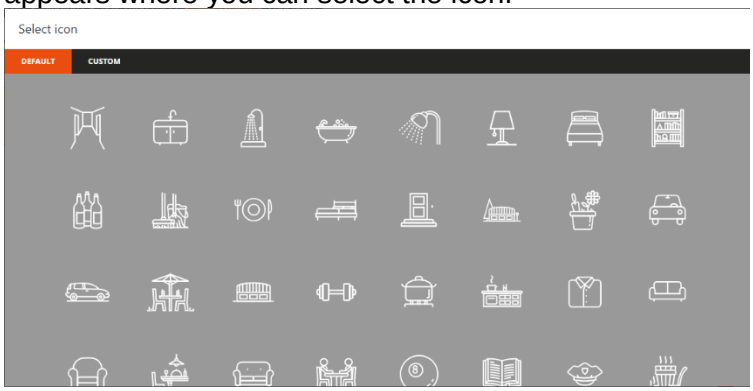


In the middle of the element you can see the name assigned to the environment that will be visualised in the supervision via app.

- **Modify** push-button for modifying the name of the environment
- **Copy** push-button for creating an identical copy of the environment (including the elements inside it)
- **Delete** push-button for eliminating the environment (and all the elements inside it)

At the bottom left, you can see the number of elements contained in the environment.

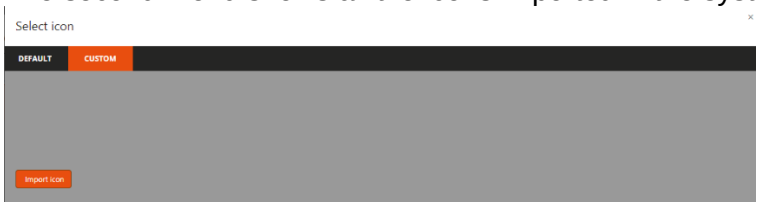
At the top left, there's the icon representing the environment in the supervision via app. If no icon is defined, the default one will appear during configuration; when the push-button is pressed, a pop-up appears where you can select the icon.



The pop-up is formed of two menus: DEFAULT and CUSTOM.

The first menu contains the icons made available by GEWISS.

The second menu shows all the icons imported in the system.



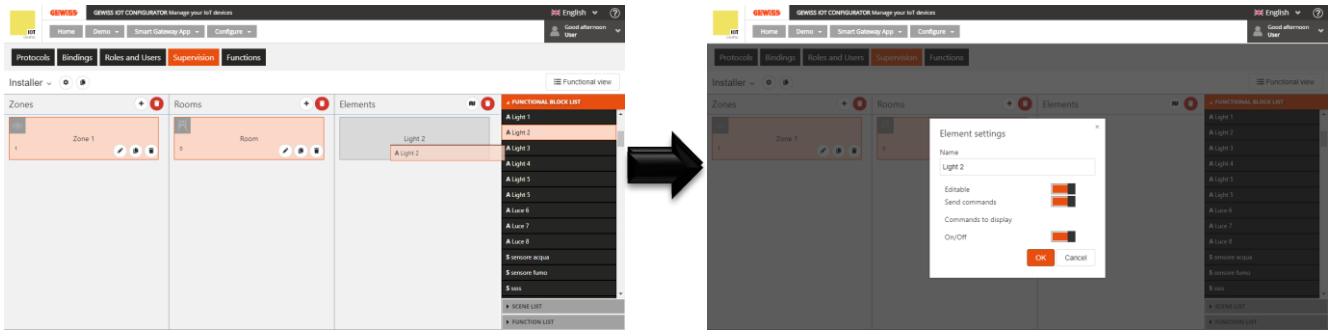
To import an icon, press the “Import icon” push-button and then select the required icon.
Maximum file size: 1 MB
File extensions supported: svg/png/jpeg

The order in the list of zone environments determines the order of visualisation in the app (it can be modified directly from the app); to move an environment, just select it and drag it to the required position.

To delete all the environments of a zone simultaneously, press the icon next to the name “Environments”.

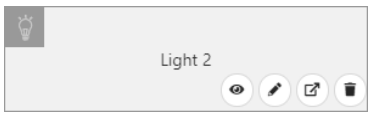
There are no limits to the number of environments that can be created in a zone.

To add an element (functional block, scene, function) in the environment of a zone, select the required zone from the “Zones” column and the required environment from the “Environments” column, then select the element from the list (right-hand column) and drag it into the supervision design area; release the object in the “Elements” section, in the required visualisation position. At the end of this operation, a pop-up menu will appear where you can select:



- name of the element that will be visualised in the supervision via app (can be different from the name used in configuration)
- enabling of the modification of the element via app: if the **Modifiable** box is ticked, the element can be modified via the app; otherwise, the element will be visible but its configuration can't be altered
- enabling of the sending of element-related commands from the app: if the **Send commands** box is ticked, all the graphic widgets of the element that involve the sending of commands will be enabled to do so; otherwise, the widgets will indicate the status but it will be impossible to send commands.
- Selection of the element commands/statuses that you want to make available on the app; the list of commands available will depend on the type of element you are configuring

Once the settings have been confirmed, the element will be shown in the list of the Elements of the environment, in the position defined when you dragged it, and it will be automatically shown in the Functional view as well.



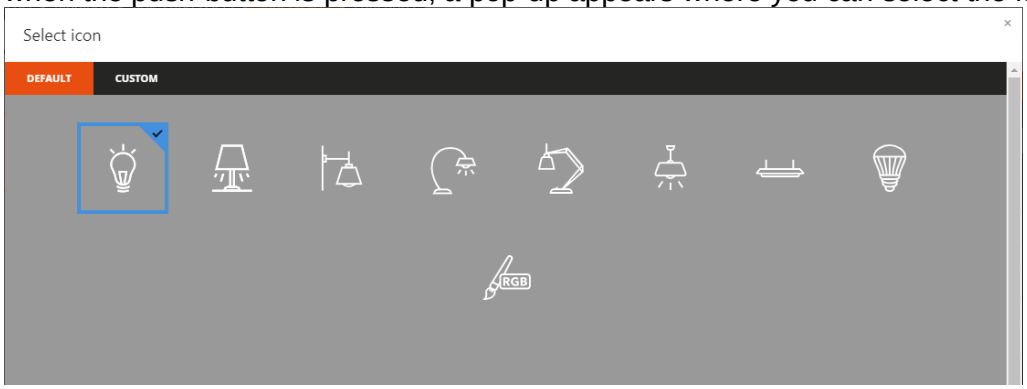
In the middle of the element you can see the name assigned to it and visualised in the supervision via app.

Go to the object push-button for passing directly to the page dedicated to the element (for making quick modifications)

- **Modify** push-button for reactivating the pop-up where you can modify the name, enable the modification and sending of commands, and select the commands to be visualised
- **Generate Webhook** button, which permits the activation of the element via any device able to send http commands
- **Delete** push-button for eliminating the element (along with the possible copy shown in the Functional view)

ATTENTION: if a function element has been inserted in the supervision of a specific role, but not the object controlled by the same function, you won't be able to modify its configuration via the app even if the modify box has been ticked. Example: if you insert a timer that controls a light, but not the light itself, you can't modify the timer via the app.

At the top left, there's the icon representing the element in the supervision via app. If no icon is defined, the default one will be uploaded in the app and the + push-button will appear during configuration; when the push-button is pressed, a pop-up appears where you can select the icon.



The pop-up is formed of two menus: DEFAULT and CUSTOM.

The first menu contains the icons made available by GEWISS.

The second menu shows all the icons imported in the system.

To import an icon, press the “Import icon” push-button and then select the required icon.
Maximum file size: 1 MB
File extensions supported: svg/png/jpeg

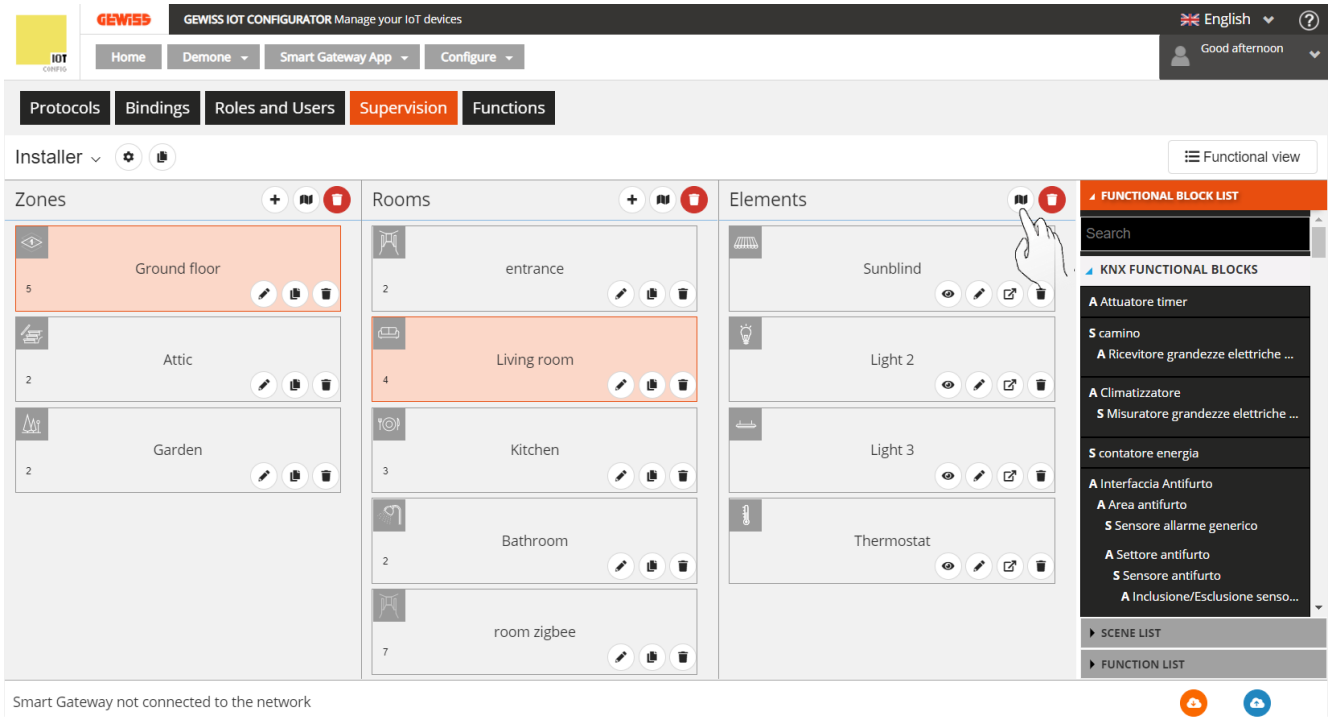
An element can be inserted in several environments within the supervision of a specific role; the first request inserted will be automatically shown in the Functional view as well, speeding up the configuration phase (the element can be removed from the Functional view, if you prefer).

The order in the list of an environment elements determines the order of visualisation in the app (it can be modified directly from the app); to move an element, just select it and drag it to the required position.

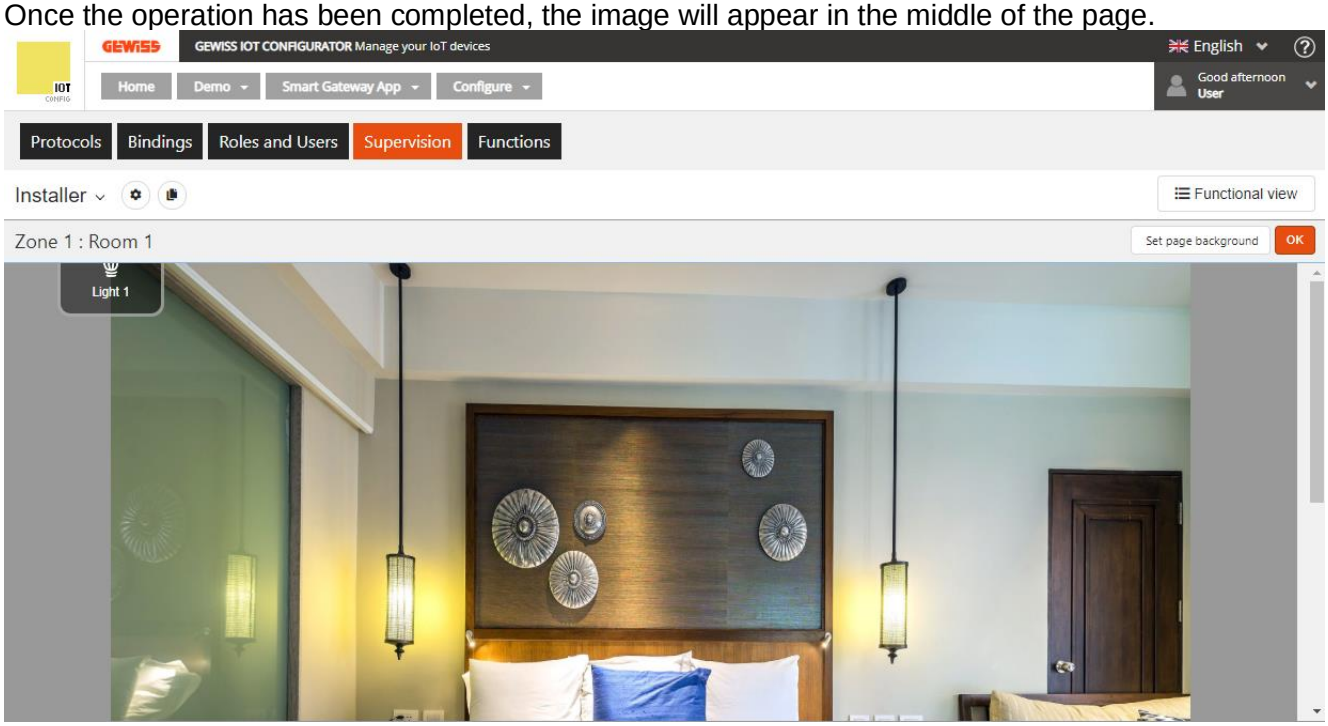
To delete all the elements of an environment simultaneously, press the icon next to the name “Elements”.

Environments with elements represented on a planimetry (Tablet)

In supervision via a tablet, the elements can be viewed in list format, or arranged on an image (planimetry view).
In the IoT Configurator, you can upload the background image for each environment and arrange the elements on the images. In any case, you can still modify the organisation of the elements on the page via the app.
To configure the planimetry view of an environment, select the required zone from the “Zone” column and the required environment from the “Environments” column, then press the icon in the “Elements” column.



Press the “Set page background” push-button to upload the image you want to associate with the environment.
Maximum file size: 1 MB
File extensions supported: svg/png/jpeg
Once the operation has been completed, the image will appear in the middle of the page.



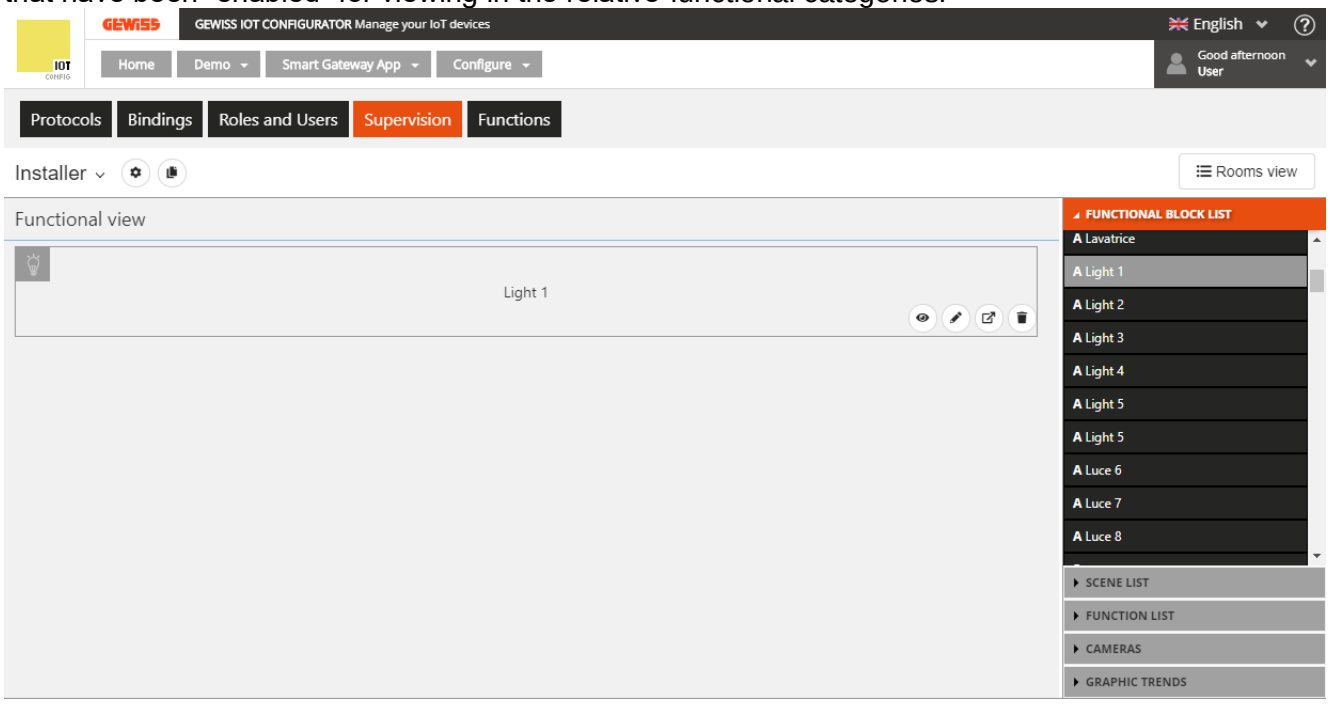
All the elements in the environment are shown in the top left corner; to move them, select the element and drag it to the required position, then release it.
In the planimetry view of an environment, you can't add or remove elements - you can only rearrange them on the page.
After reorganising the elements, press the OK push-button to return to the list view.

Repeat the operation for all the environments of all the zones.

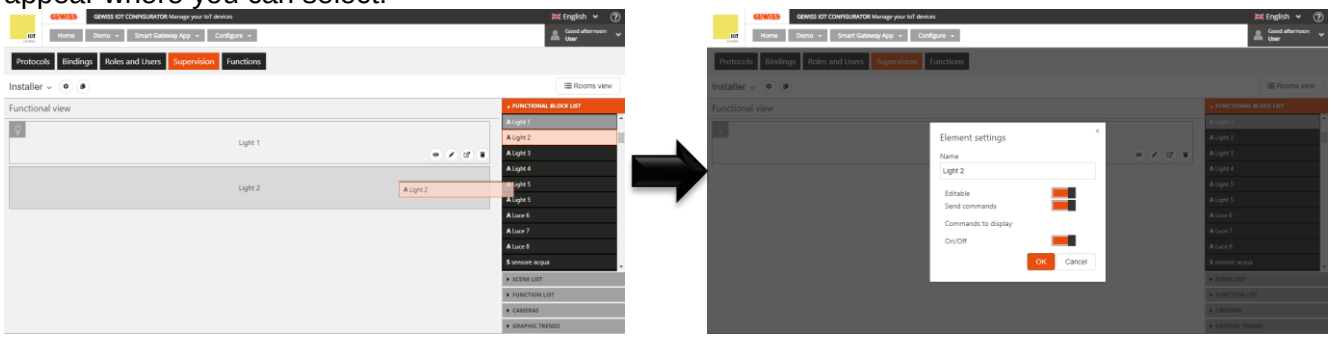
Creating the Functional view

In supervision via the app, apart from navigation based on zones/environments there are also various functional categories that the elements are grouped under.
In particular, for the functions, the modification of the configuration (timer programming, modification of the action of a scene sequence, etc.) can only be accessed in the Functional view.
By default, all the elements inserted in the Zones/Environments structure are automatically associated with the Functional view too; here, you can remove elements or add new ones that you don't want to see in Zones/Environments navigation.
In particular, for the functions that you want to make modifiable, cameras to be visualised, graphic trends and functional blocks (energy meter type) whose consumption trends you want to see, it's essential to insert them in the Functional view because they're only available in the dedicated section.
In the IoT Configurator, the Functional view is represented by a list containing all the elements that belong to it, without any distinction of the type of element (in the app on the other hand, they have dedicated sections). To access the Functional view, just press the **Functional view** push-button.

When you have selected the Functional view, the supervision design area will display all the elements that have been “enabled” for viewing in the relative functional categories.

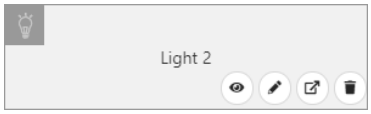


To add an element (functional block, scene, function, cameras, and graphic trends) in the Functional view, select the element from the list (right-hand column) and drag it into the supervision design area; release the object in the required visualisation position. At the end of this operation, a pop-up menu will appear where you can select:



- name of the element that will be visualised in the supervision via app (can be different from the name used in configuration)
- enabling of the modification of the element via app: if the **Modifiable** box is ticked, the element can be modified via the app; otherwise, the element will be visible but its configuration can't be altered
- enabling of the sending of element-related commands from the app: if the **Send commands** box is ticked, all the graphic widgets of the element that involve the sending of commands will be enabled to do so; otherwise, the widgets will indicate the status but it will be impossible to send commands.
- Selection of the element commands/statuses that you want to make available on the app; the list of commands available will depend on the type of element you are configuring

Once the settings have been confirmed, the element will be shown in the list of the Elements of the Functional view, in the position defined when you dragged it.



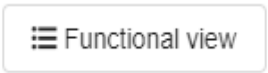
In the middle of the element you can see the name assigned to it and visualised in the supervision via app.

Go to the object push-button for passing directly to the page dedicated to the element (for making quick modifications)

Modify push-button for reactivating the pop-up where you can modify the name, enable the modification and sending of commands, and select the commands to be visualised

Delete push-button for eliminating the element from the Functional view

At the top left, there's the icon representing the element in the supervision via app. If no icon is defined, the default one will appear during configuration; when the push-button is pressed, a pop-up appears where you can select the icon.



The pop-up is formed of two menus: DEFAULT and CUSTOM.

The first menu contains the icons made available by GEWISS.

The second menu shows all the icons imported in the system.

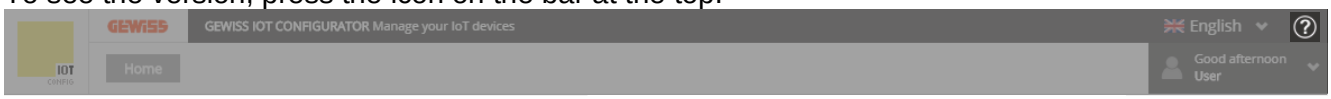
To import an icon, press the “Import icon” push-button and then select the required icon.
Maximum file size: 1 MB
File extensions supported: svg/png/jpeg

An element added to the Functional view can't be added to the Zones/Environments structure; if you want to do this, you must first of all remove it from the Functional view and then add it to an environment (after which it will be automatically reinserted in the Functional view).

The order in the list of elements of the Functional view determines the order of visualisation in the dedicated sections of the app (it can be modified directly from the app); to move an element, just select it and drag it to the required position.

UPDATES

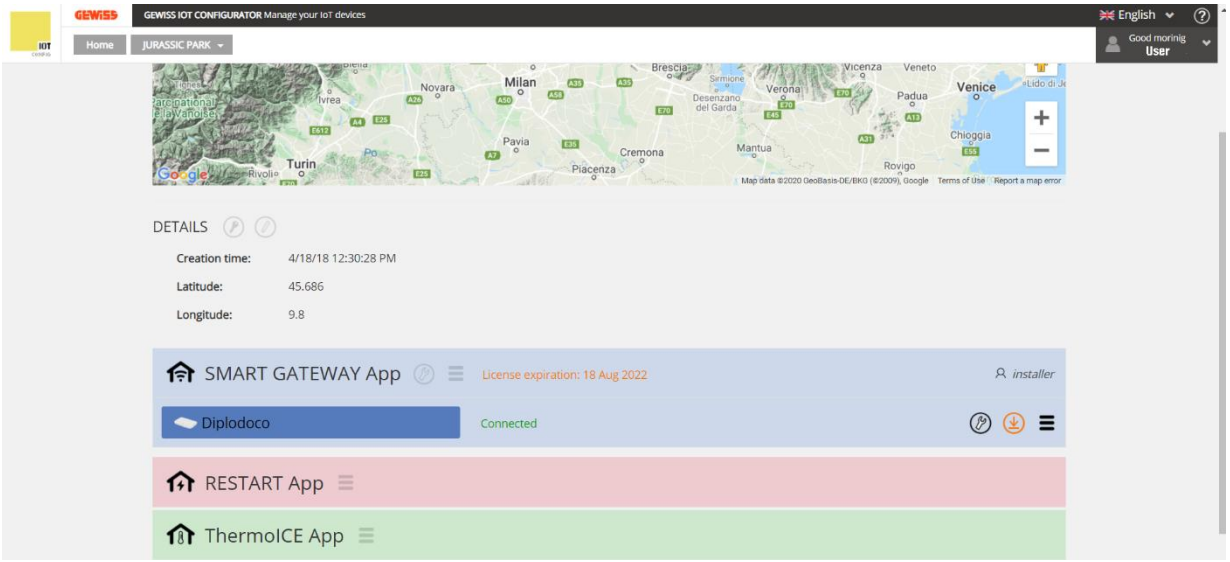
The GEWISS IoT Configurator and the configuration section of the Smart Gateway are automatically updated as soon as a new version is released.
To see the version, press the icon on the bar at the top.



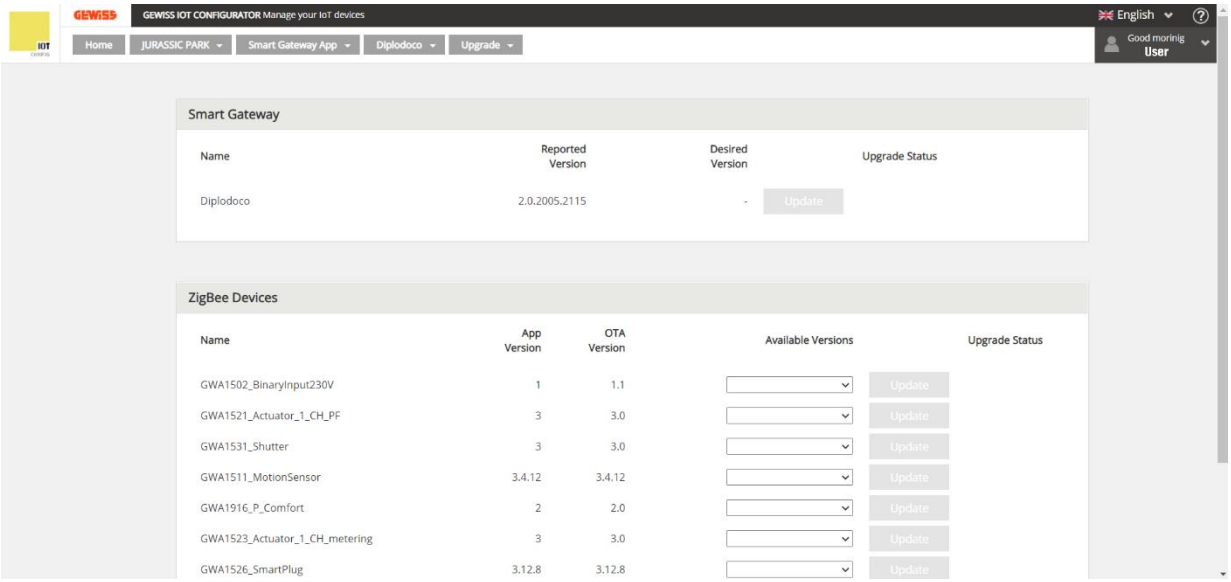
When you press the icon, a drop-down menu will appear with both versions.

Returning to the “Details” page of the system taken into consideration, it is possible to upgrade the firmware of the device and the ZigBee devices by clicking the “Firmware Update” icon .

A screen opens that displays a section dedicated to Smart Gateway and one to Zigbee devices (if they are included in the system configuration).



1



2

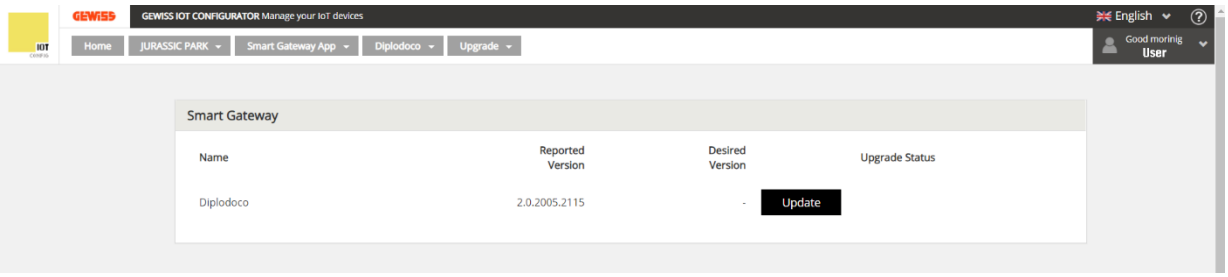
Smart Gateway updates

This section displays the version of the Smart Gateway firmware: if it coincides with the latest available version, the “Update” push-button will not be active Update.

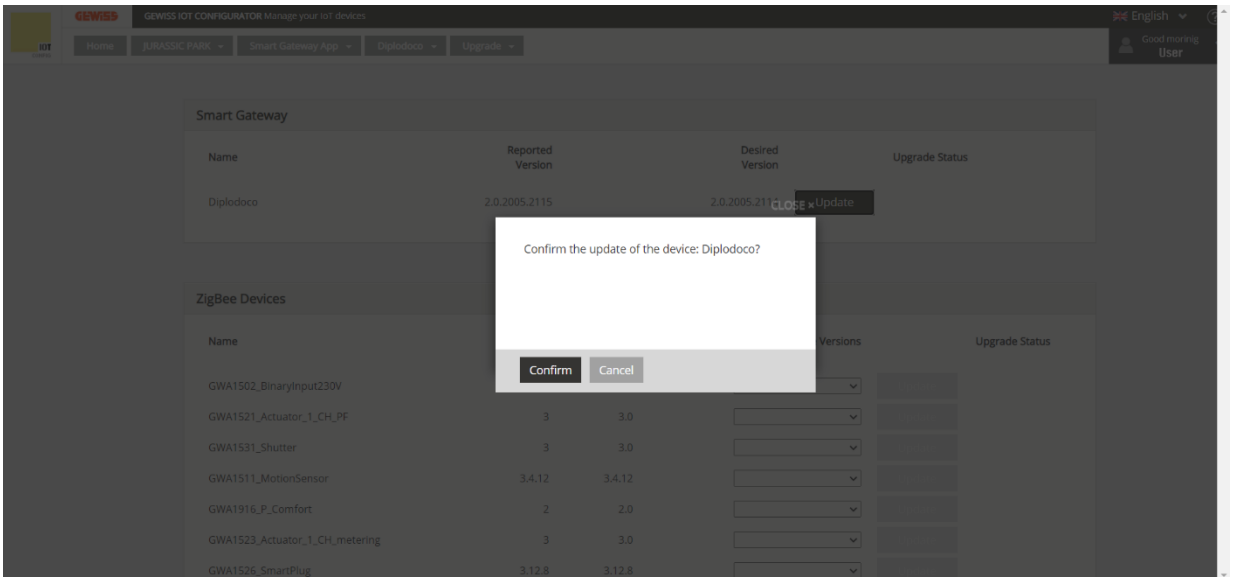
If there is a version available that is different than the current one, the “Update” push-button becomes active Update and it is possible to start the upgrade of the Smart Gateway firmware, which will be monitored by a percentage progress bar, at the end of which the device will apply the new version and will restart automatically.

After an upgrade sequence (during the upgrade, the Smart Gateway must remain on):

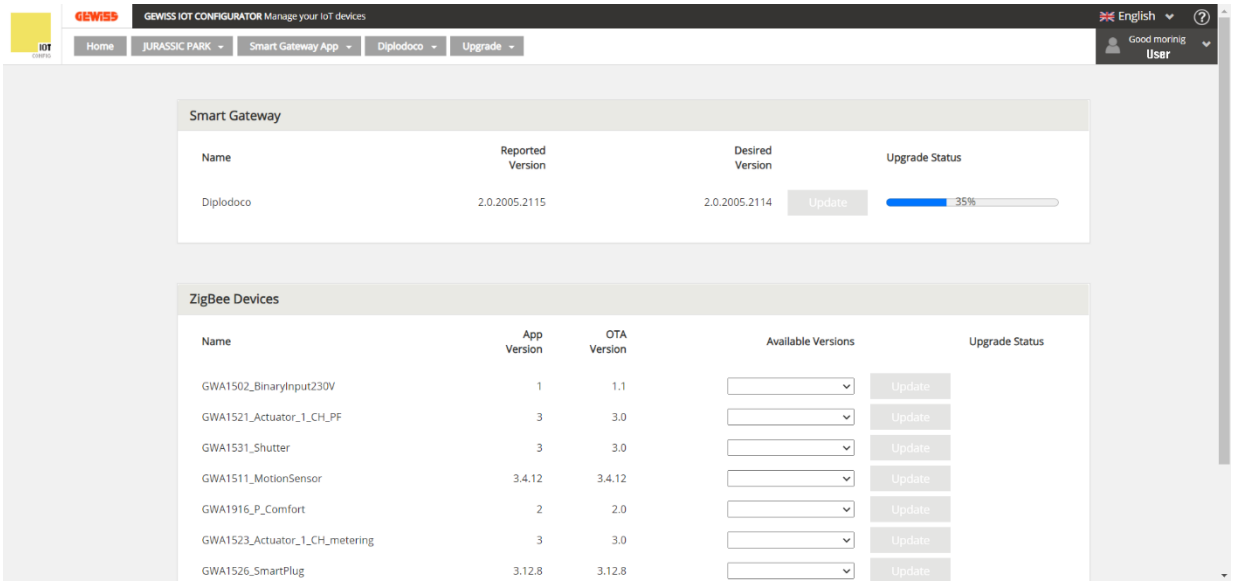
1. A version different than what is installed is displayed, and therefore the “Update” push-button is active



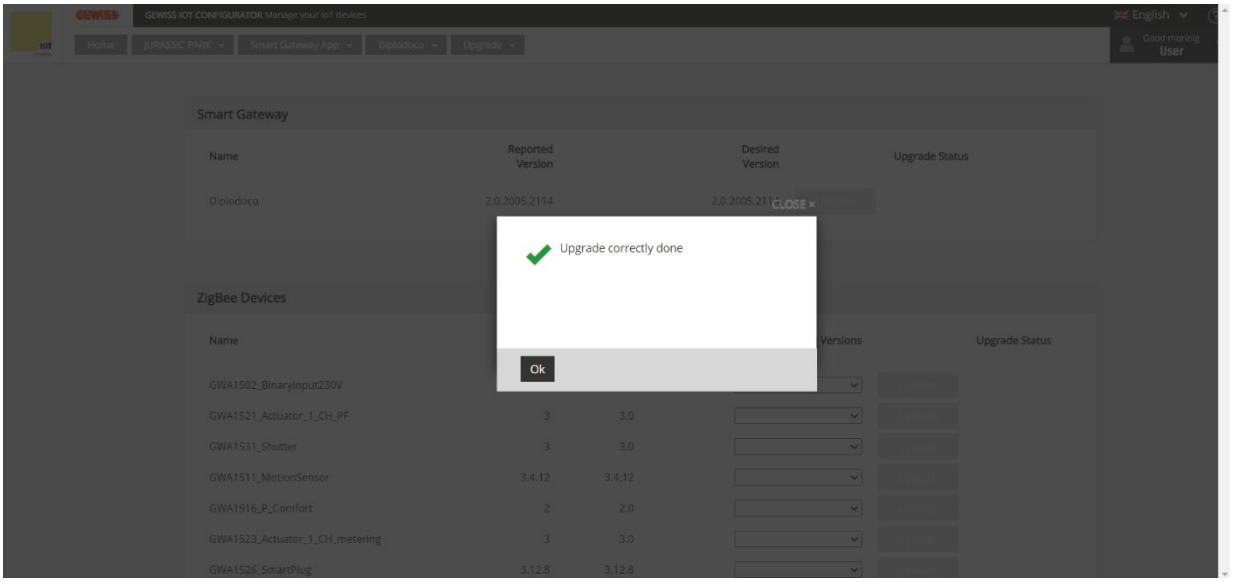
2. When clicking “Update” the system requests confirmation whether to install the new version



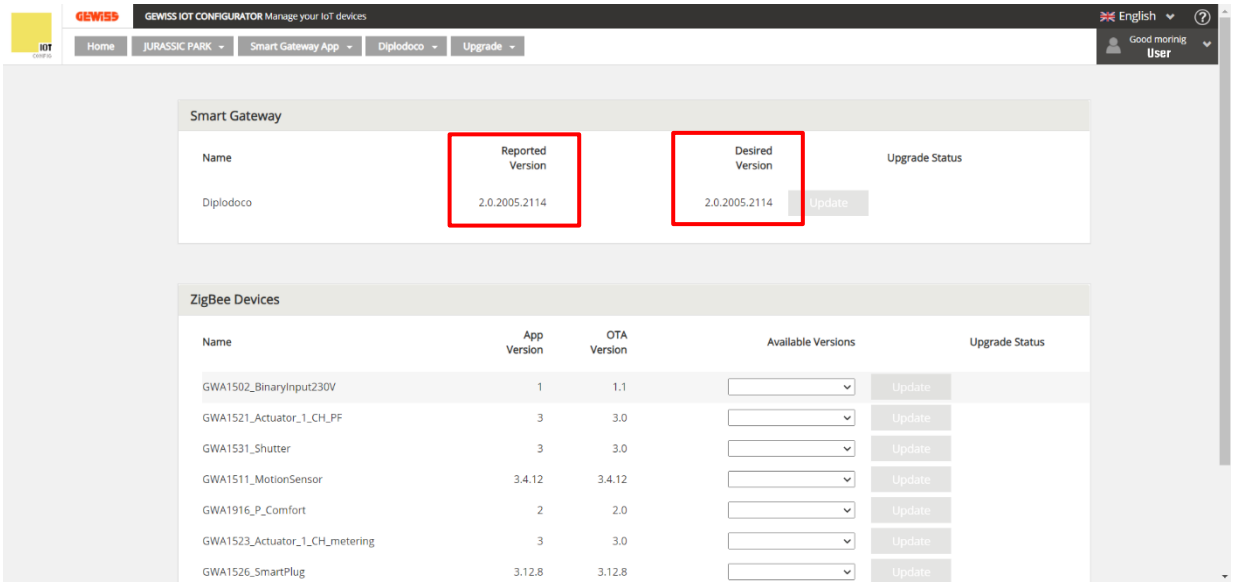
3. The upgrade is monitored by a percentage bar; an upgrade lasts about ten minutes approximately



4. When it is complete, the message “Upgrade correctly done” appears



5. At the end, the current version is the same as the one that is available

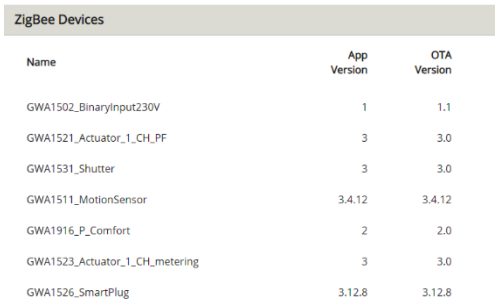


ZigBee Devices updates

This section displays the firmware version of every ZigBee device part of the system configuration.

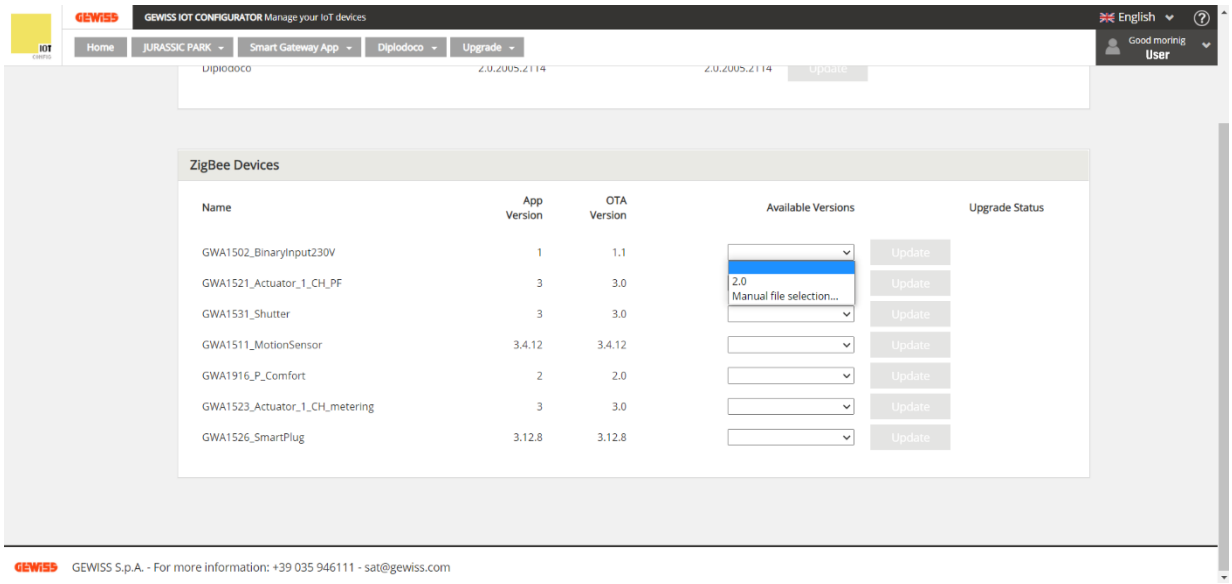
The “Application version” column generally indicates the macro version of the device, whereas the “OTA” version precisely identifies the firmware version currently installed in the device.

To identify the device based on the name assigned in the configuration, simply move the mouse pointer near the device name, as shown in the following image:



The drop-down menu, below the “Available versions” column, displays the versions available for the upgrade or downgrade, as well as the possibility to make the upgrade via “Manual file selection…” (the option should only be used if requested by technical support, providing the upgrade file).

The downgrade options (passing from a higher version to a lower one) are never recommended, unless otherwise indicated by Gewiss technical service.



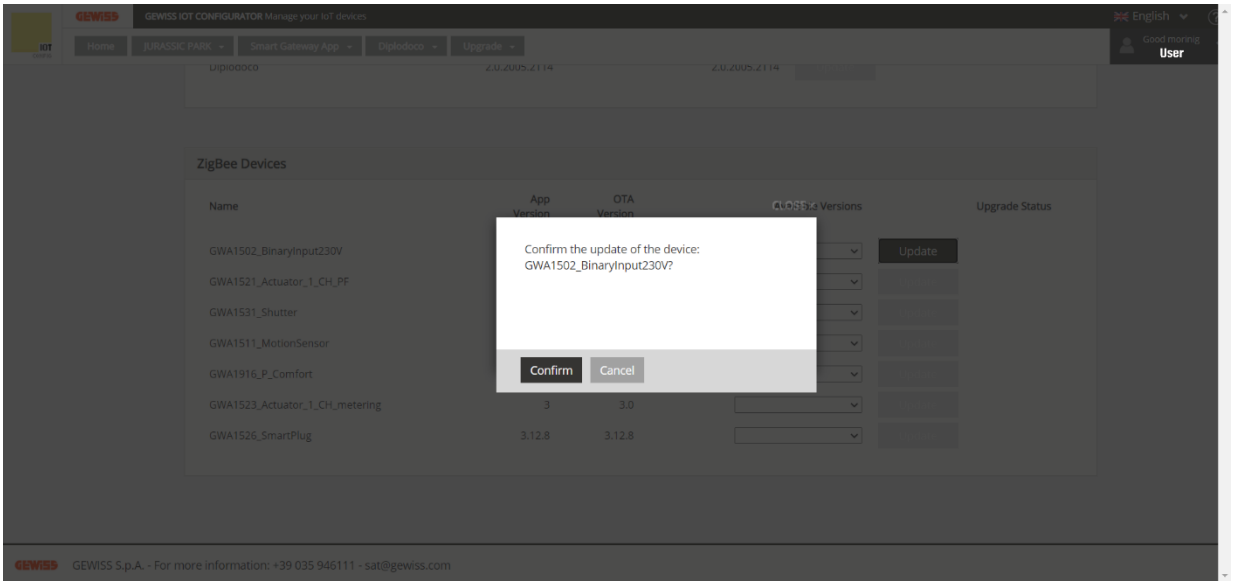
Once a version is selected, which is typically incremental and therefore an upgrade, the “Update” button activates and clicking it, the Smart Gateway acts as the OTA server and starts the procedure to upgrade the ZigBee device. This procedure is monitored by a percentage progress bar and at the end of the upgrade, the ZigBee device will restart; the OTA upgrade usually takes about ten minutes: it is recommended to not block the upgrade (“Stop” push-button) or turn off the Smart Gateway or the concerned devices while the upgrade is in progress.

The OTA upgrade for battery-operated devices is not recommended because it has a considerable impact on the duration of the battery. Furthermore, there is the risk that the battery discharges during the upgrade itself, creating possible device malfunctions. The OTA upgrade of a battery-operated device usually takes about 15 minutes: it is recommended to not block the upgrade (“Stop” push-button)

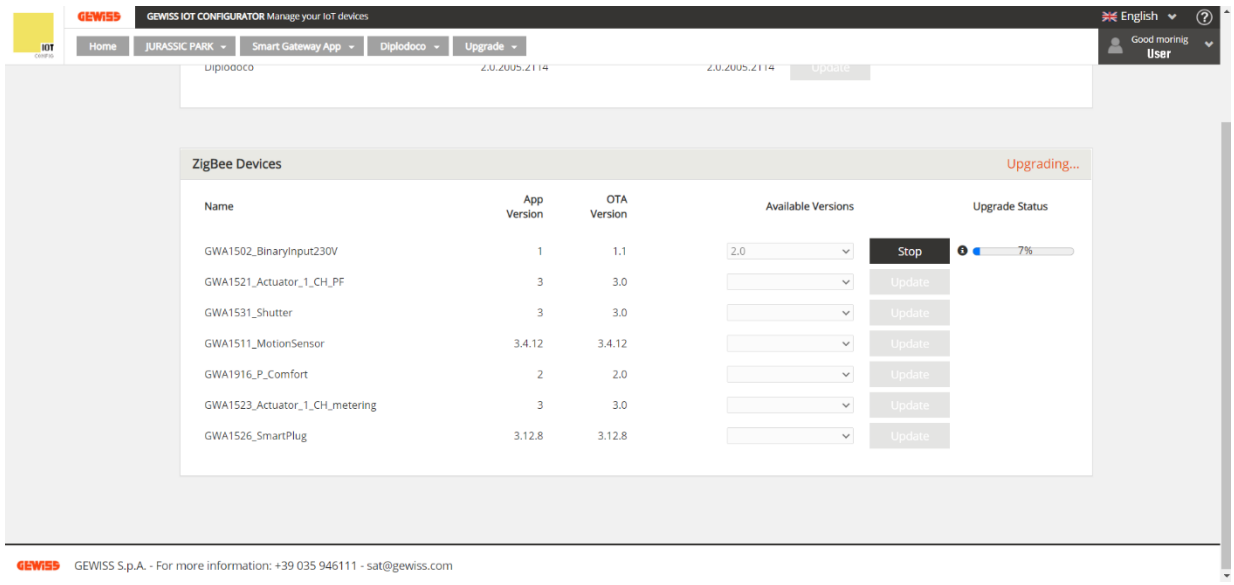
or turn off the Smart Gateway or the concerned devices during the upgrade. To be able to upgrade a battery-operated device, the device must be woken up based on the procedure described in the instruction sheet provided with it (GWA1501: 10 closures/opening within 10 seconds on one of the two inputs until the LED flashes; for codes GWA1511, GWA1512, GWA1513, GWA1514: press the programming push-button for approx. 5 seconds until the LED flashes).

The following images show the upgrade of a SmartPlug GWA1526 from version 3.11.8 to 3.12.8.

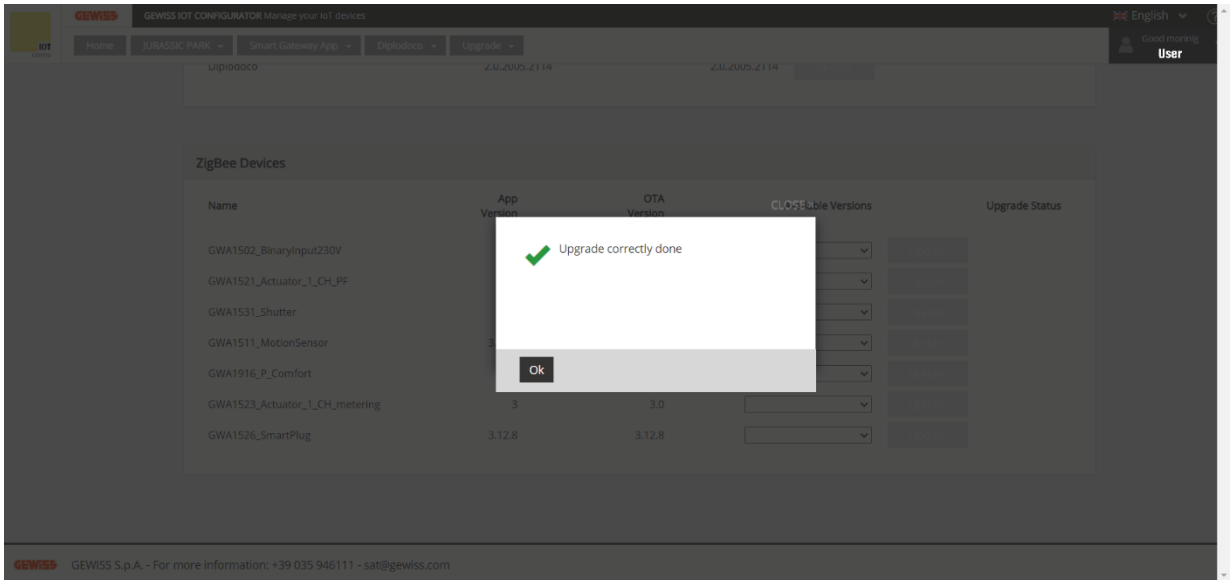
1. Once the file is selected, press “Update” and confirm



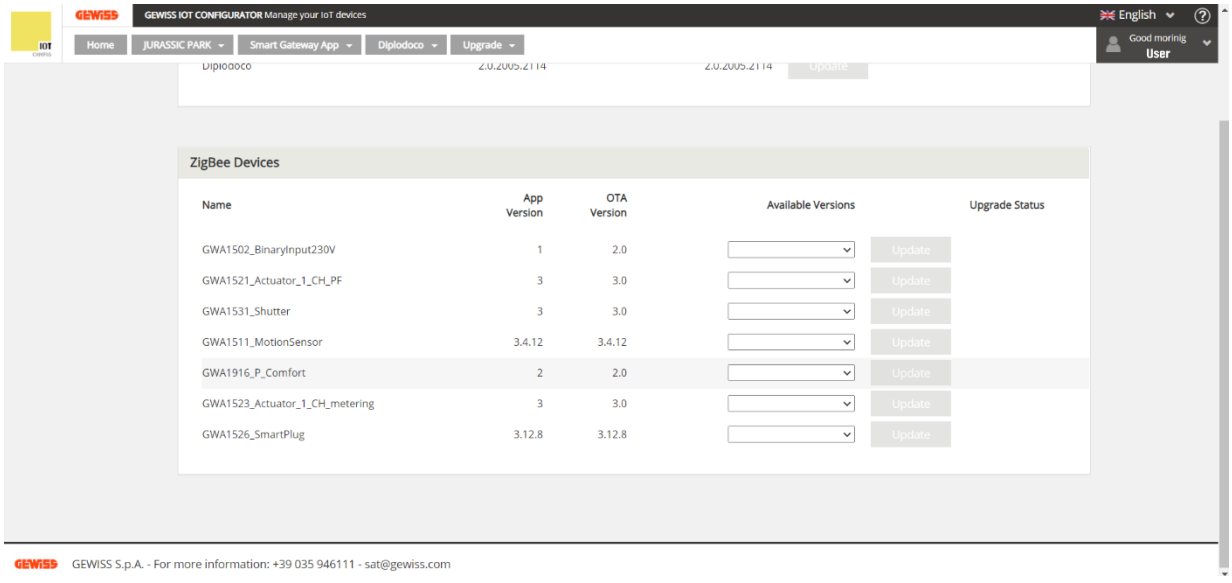
2. The upgrade starts with progress



3. At the end, a screen appears that informs if the upgrade was completed successfully, confirm with “OK”



4. After a few minutes, the index below the “OTA version” should upgrade, displaying the new version; if not, update the web page (browser upgrade push-button or press the F5 button key on the keyboard).



INTEGRATION WITH INTELLIGENT VOCAL/PERSONAL ASSISTANTS (IVA/IPA)

It is possible to integrate vocal assistant devices (Alexa, Google Home) with the Smart Gateway to permit giving a series of vocal commands to the devices connected to the Smart Gateway.

- **Google Home**: a device developed by Google that permits users, via its speakers, to pronounce vocal commands to interact with the services by means of the Google intelligent personal assistant called Google Assistant. Google Home devices also have integrated support for domestic automation, allowing users to control intelligent appliances using their voice
- **Alexa**: an intelligent personal assistant developed by Amazon that is able to interpret natural language and dialogue with humans, providing different types of information and performing different vocal commands. The most common functions include: play music, manage lists (shopping or to-do lists), set reminders and alarms, stream musical tracks and podcasts, play audio books and provide weather forecasts, traffic information and reproduce other information in real time, such as news. Alexa can above all control various intelligent devices, using itself as a domestic automation system for managing domotics

The installer must always make reference to the documentation and instructions provided by the manufacturer of the virtual assistant.

Prerequisites

To be able to link an intelligent virtual/personal assistant with the Smart Gateway, the following is necessary:

- At least one smartphone
- Intelligent assistant (E.g. Alexa, Google Home etc.)
- Gewiss for Smart Gateway tool enabled
- User enabled in Amazon, if the intelligent assistant to integrate is Alexa
  - Alexa App installed in the smartphone

- User enabled in Google, if the intelligent assistant to integrate is Google Home
  - Google Home App installed on the smartphone

Account linking

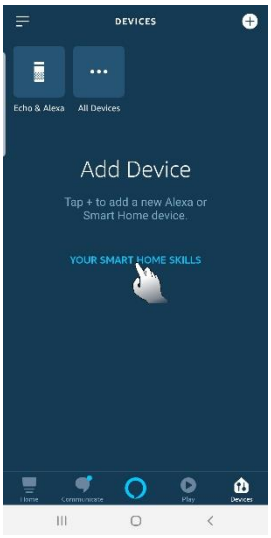
If you want to install an Alexa device, launch the Alexa App on your smartphone.

If instead you want to install a Google Home device, launch the Google Home App on your smartphone.

Linking with the **ALEXA** device
Alexa homepage:

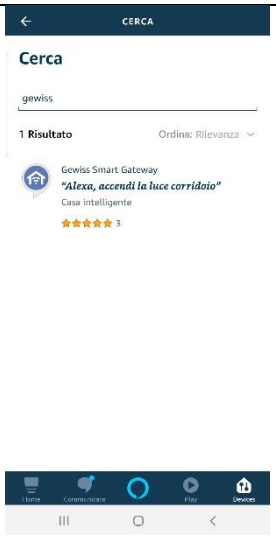
Press the “Devices” button at the bottom right

. Click on: “Your smart home skills” in the centre of the page.



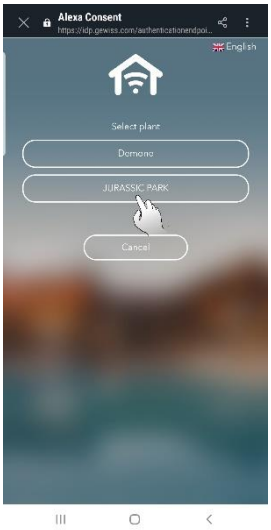
When the new page opens, click “Enable smart home skills” at the bottom of the page.

A page will open that lists all the available skills. Search for Gewiss Smart Gateway and select it.

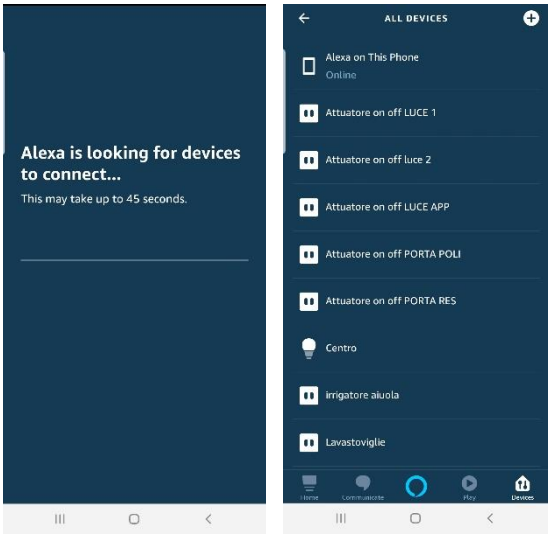


Once Skill Gewiss is selected, the Smart Gateway authentication page opens. Enter the access credentials used to access the Smart gateway portal/app.

Once authentication is complete, select the system that you want to link with Alexa from the list of Smart Gateway systems.

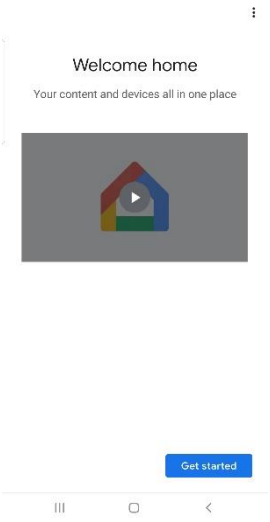


Once the system is selected, launch discovery to register all the various devices linked with the selected system. Returning to the “Devices” page and selecting, to the top right, the “All devices” button key , all the devices linked with the system will be visible.



Linking with the **GOOGLE HOME** device

Google Home homepage:

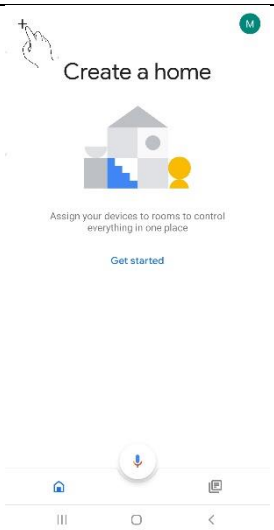


Click the “Get started” button located to the bottom right.

The “Access” page opens where it is necessary to enter the email address used for the Google account in the provided space.

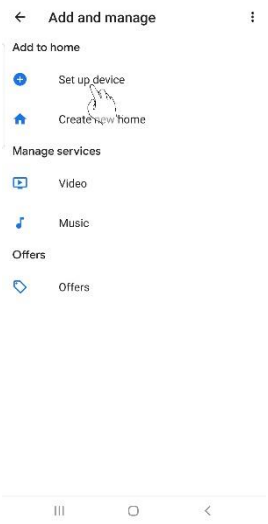
Once the email address is entered, press “Continue” at the bottom right. On the following page, enter the password used for the Google account and press “Continue” to the bottom right.

The following pages request a series of authorisations for data use. Once all the necessary consents have been given, the “Create a home” page opens.



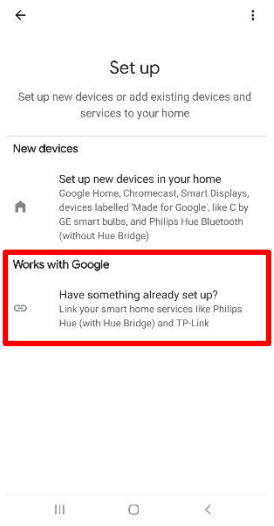
Press on the “+” button you find at the top right of the page. +

The “Open and manage” page opens. Select the “Set up device” option.

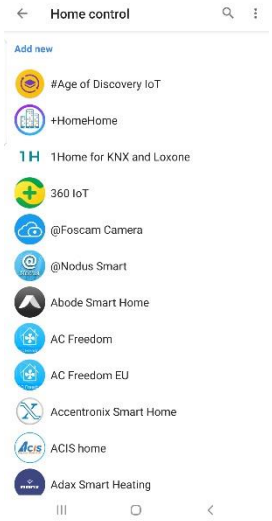


The “Set up” page opens, where it is necessary to select from between two different options:

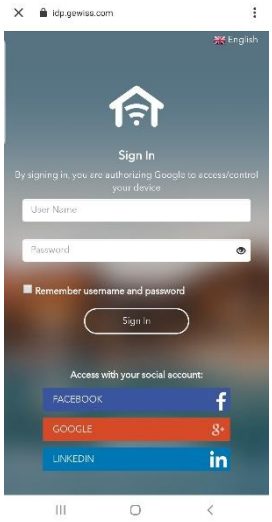
- New devices
- Works with Google



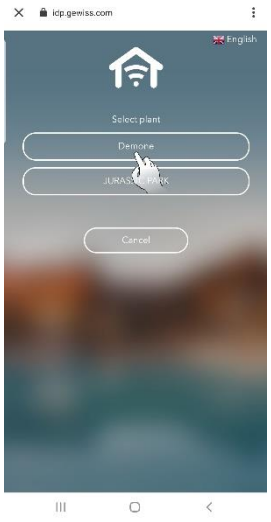
Select the second item “Have something already set up”. A page will open that lists the available skills. Search for Gewiss Smart Gateway and select it.



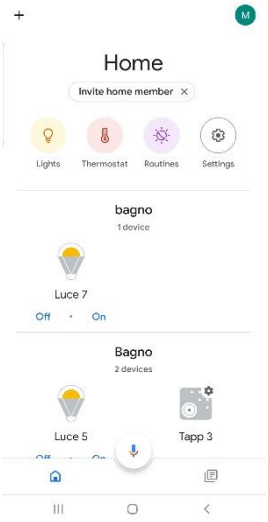
The Gewiss authentication page opens. Use the credential for accessing the Smart Gateway account.



Once authentication is complete, the screen will show the systems linked with the specific Smart Gateway. Select the one you want to link with Google Home.



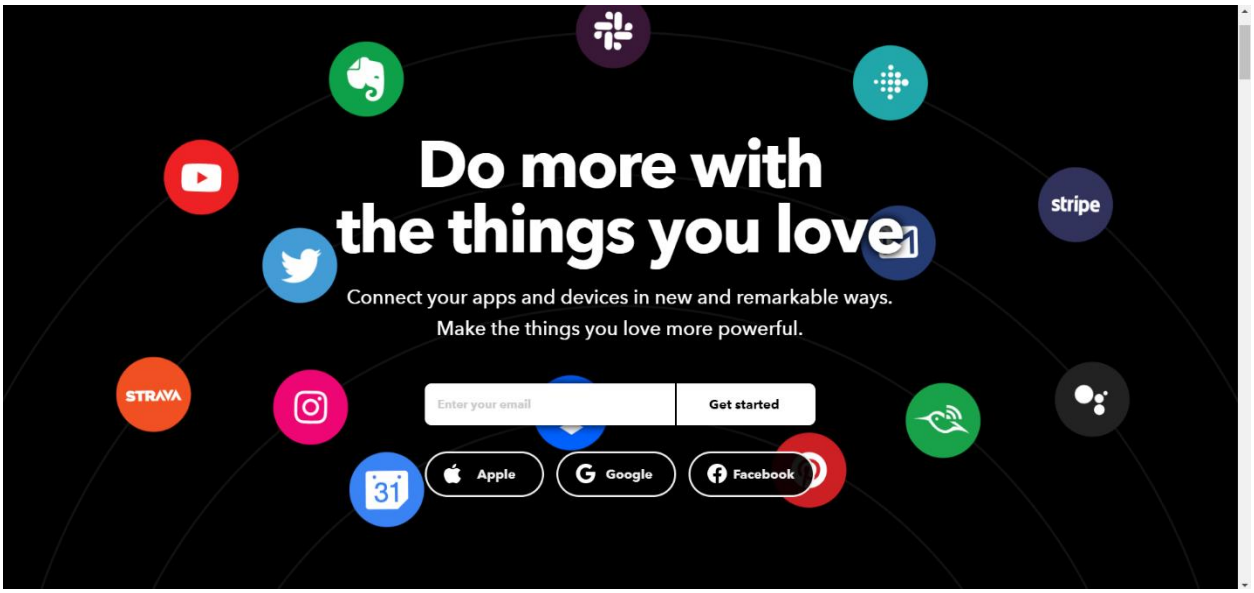
Once the system is selected, return to the homepage. If the devices linked with the system do not appear on the screen, update the page by dragging it downwards.



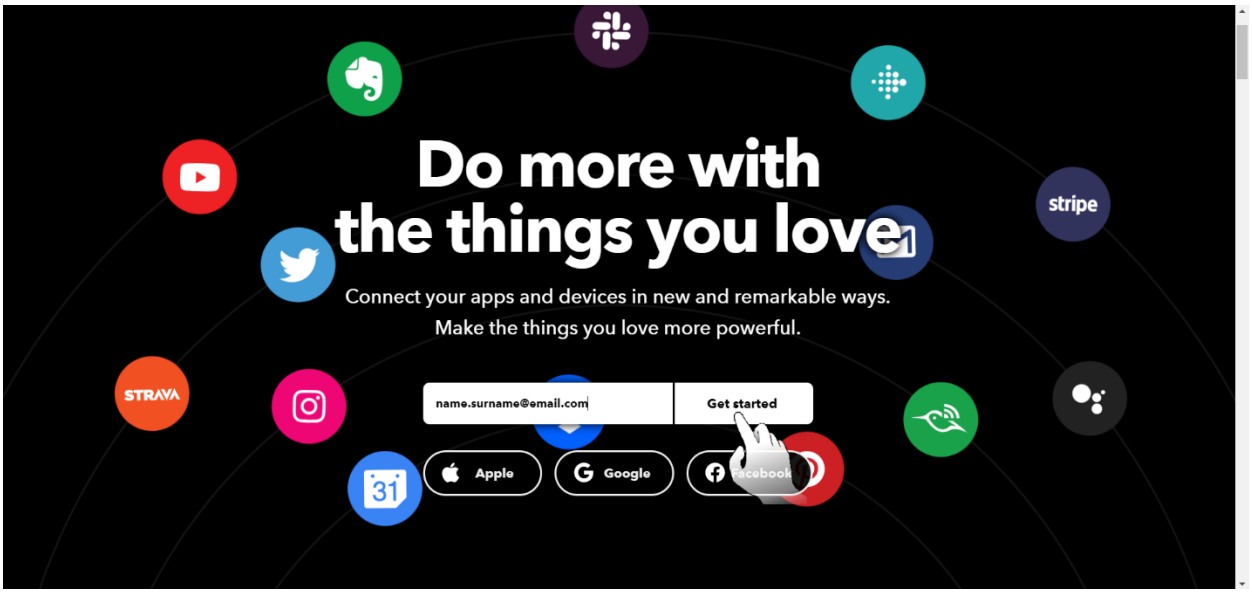
IFTTT INTEGRATION

IFTTT is a free intercommunication service between digital devices that can be configured via web or via App (available both for Android and for iOS). IFTTT is the acronym for If This Then That. Via the relative applet, it is possible to put company products and services in communication that have partnership agreements with IFTTT. In this way, it is possible to create operating logics that, when certain conditions occur, produce preconfigured actions. IFTTT permits the installed apps and the used devices to work in synergy.

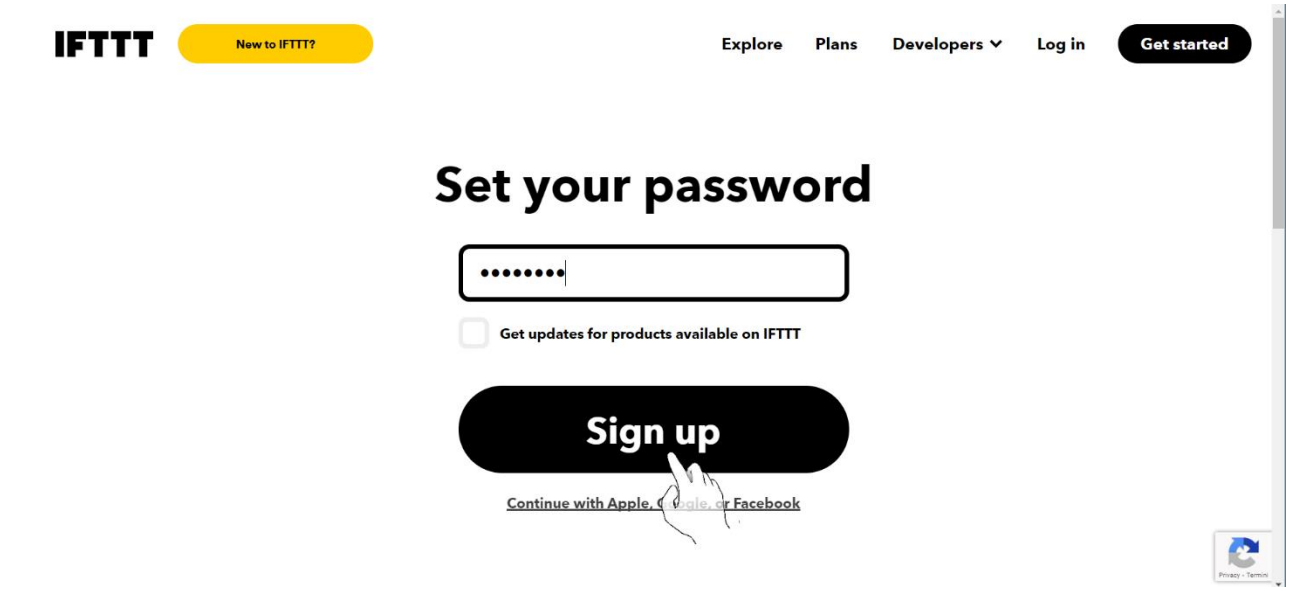
An account must be created on the website https://ifttt.com/.



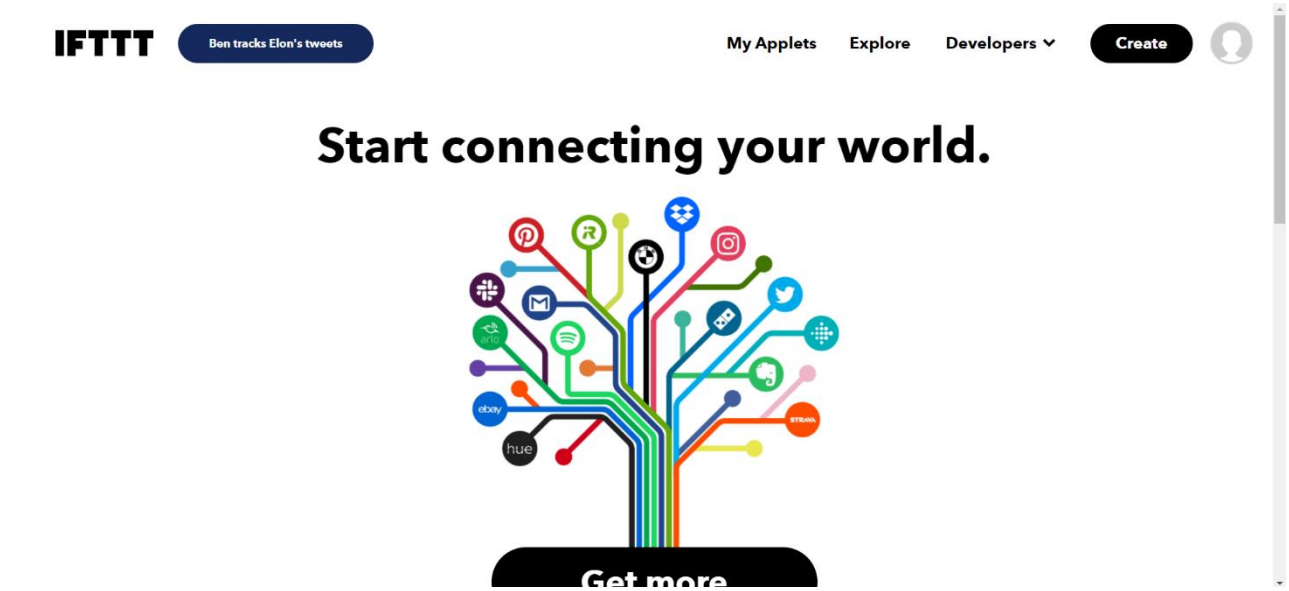
Enter the email address to use to create the account in the text box in the centre of the screen. Then click on "**Get started**":



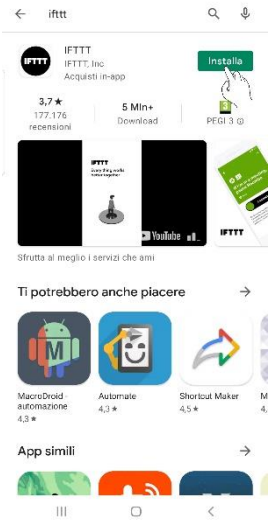
A new page appears where it is requested to enter the password to use for the account being created. Enter the password and then click on "**Sign up**":



At this point, the account is created:



Once the account is created, also the App should be downloaded. Search for IFTTT in the App Store or Play store and install the IFTTT App:

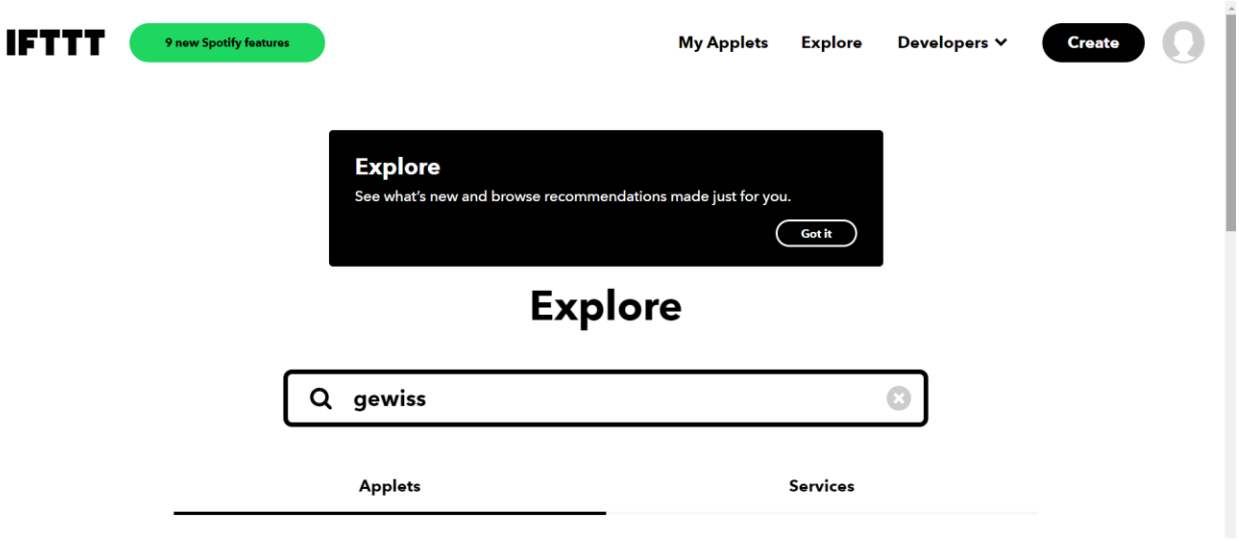


It is important for the end user to install the App. The geolocalisation functions are used by different applets in IFTTT. It is also possible to associate certain commands to a button that can be triggered only by the App.

Create intercommunication between devices

It is possible to use preexisting applets or create new applets.

If you want to use precreated applets, perform a search using the internal “Gewiss” search motor, or use the link: https://ifttt.com/gewiss



A page opens that lists the precreated applets that Gewiss makes available to its customers. There are two types of applets:

- Applets for which if certain situations occur, when some parameters or values change outside of the domotic system, it is possible to order the Smart Home to adopt certain behaviours. The cause of these situations or changes represents therefore the trigger (“*If This*”) that causes the actuation, by the Smart Home, of certain actions (“*Then That*”)
- Applets in which, when certain situations or changes occur in the home, an email or message is sent to the user, informing them of the event. The cause of these situations or changes inside the home represents therefore the trigger (“*If This*”) that generates, as a result, the sending of a message or an email to the user (“*Then That*”)

The applets of the first type are:

- Sends a command with a button
- Executes a scenario when receiving a Telegram message
- Executes a scenario when an event starts on Google Calendar
- It executes a scenario when I exit the house
- It executes a scenario when I enter the house
- It stops the irrigation if it should rain the next day
- Opens/closes the shutters when the wind exceeds X Km/h

The applet of the second type is:

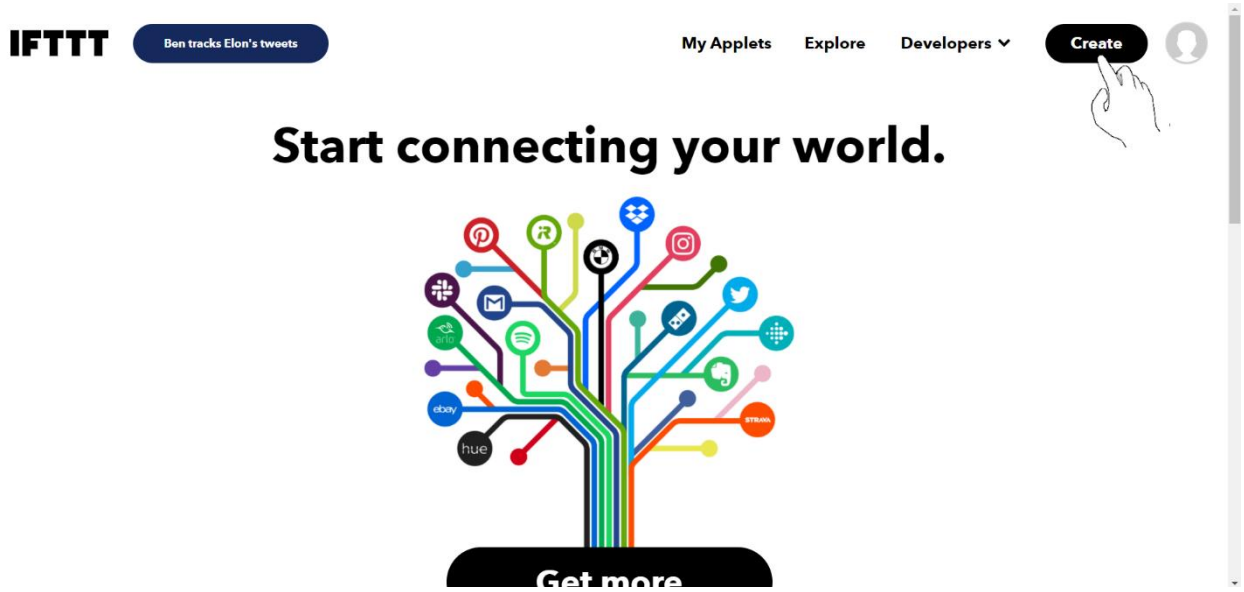
- If something interesting happens, send me a Telegram message

The applets listed here correspond to those on the IFTTT website at the moment of manual publication. Keep in mind that any changes or updates could generate a certain lack of correspondence between the situation described here and what is actually displayed at the moment of using IFTTT.

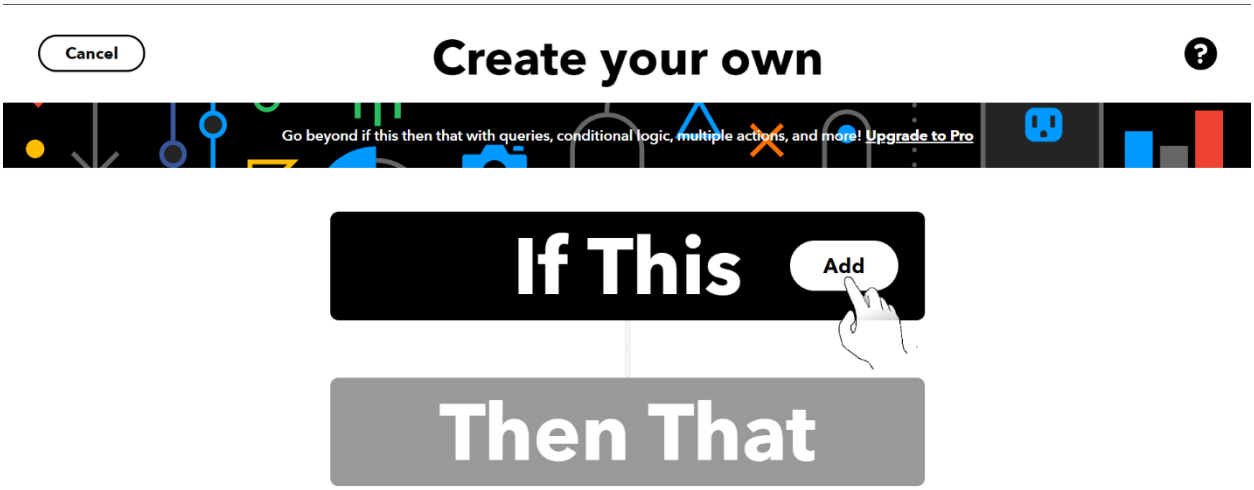
The first time an applet is activated, it is necessary to connect it with the Smart Gateway. Pressing the "**Connect**" button located below the selected applet opens the Smart Gateway login page. The elements that the user sees are those that were entered on the page "Supervision", "Zones", "Environments", "Elements" on the configurator. The elements displayed can also vary based on the role attributed to the user.

Once login is complete, the "Systems" page opens. Select the system to which you want to connect the applet (keep in mind that each IFTTT account can be connected to only one Smart Gateway). Once the first connection is created, authentication will no longer be requested for the subsequent ones. It will be sufficient to click the "**Connect**" button located below the applet you want to use. When the connection is made, the specific page for the selected applet opens. The applet can be configured here. In particular, it will be possible to define the event that triggers the action, as well as the action that should be implemented by the Smart Gateway as a result. The types of actions that can be selected depend both on the type of applet selected as well as on the configuration of the Smart Gateway system to which you are connecting.

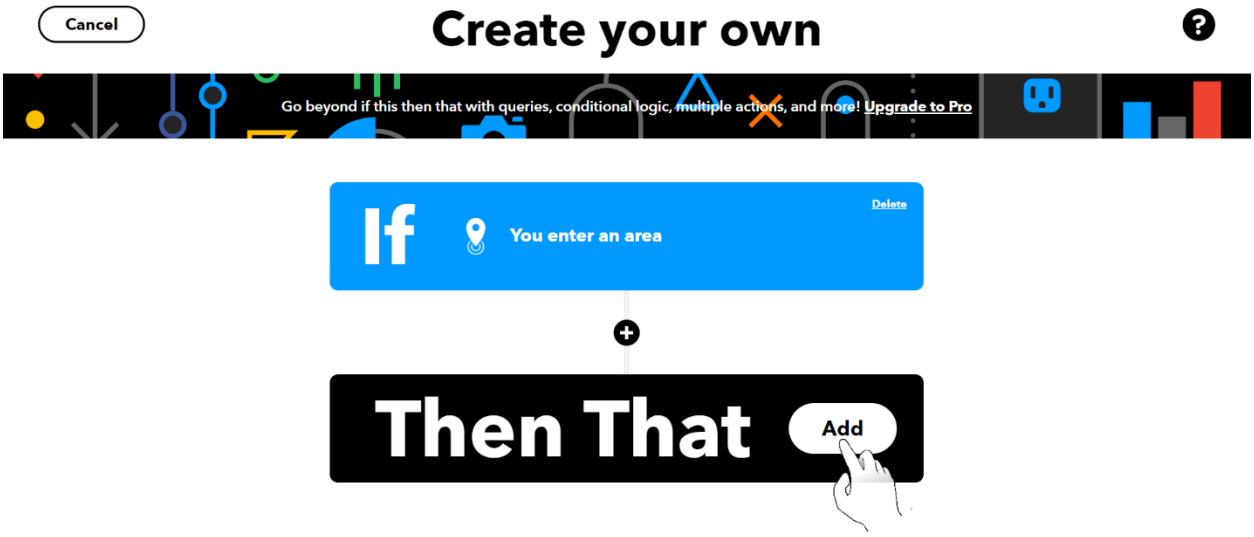
If instead you want to create a new applet, click the "**Create**" button to the top right of the screen:



Click on “**Add**” next to the item “*If This*”:



In this section, it is possible to define, upon occurrence of which situation, circumstance, change (trigger event – “*If This*”) should the resulting action be generated (what will then be indicated in “*Then That*”).



Click on “**Add**” next to “*Then That*” and define what the resulting action must be when the trigger event occurs.

LIST OF DEVICES THAT CAN BE INTEGRATED

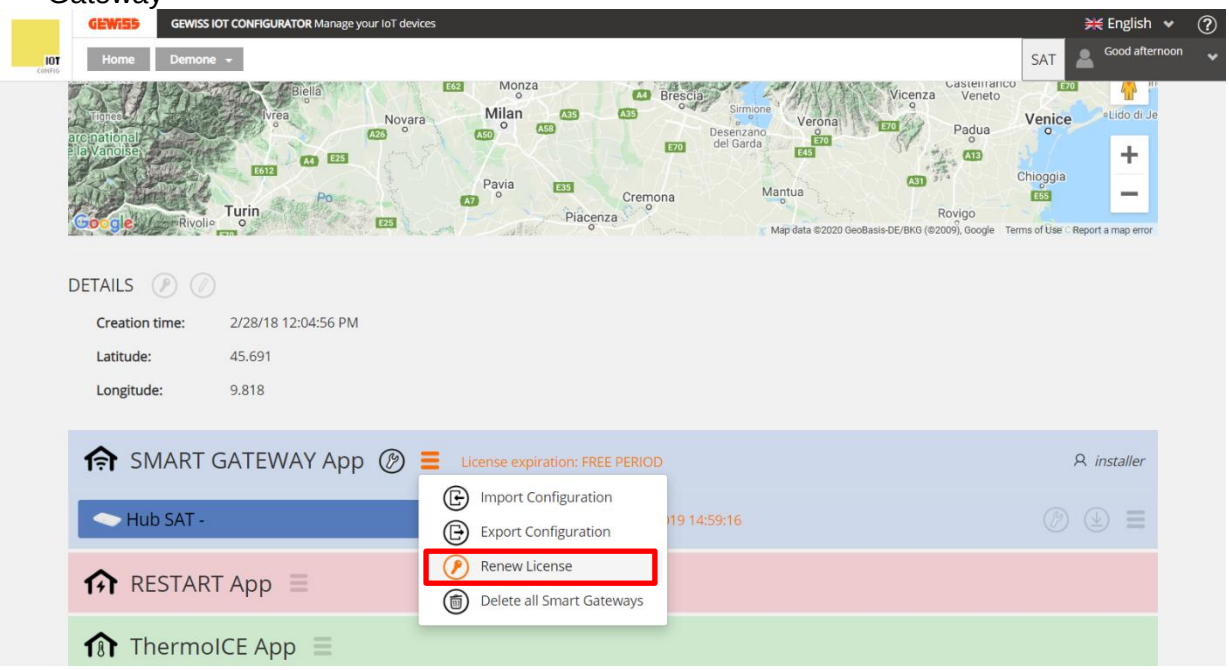
The following table shows the range and products that are compatible with the Smart Gateway applications:

	RANGE	MODELS	FW VERSION (THIRD PARTIES)	SMART GATEWAY FW/SW VERSION	SMART GATEWAY APP VERSION
ISEO	Argo	X1 Revo	-	2.0.2101.2805	3.0.2
	Argo	Aries	-	2.0.2101.2805	3.0.2
	Argo	Libra	-	2.0.2101.2805	3.0.2
		Stylos	-	2.0.2101.2805	3.0.2
SONOS	-	One	-	-	3.0.2
	-	Five	-	-	3.0.2
	-	Beam	-	-	3.0.2

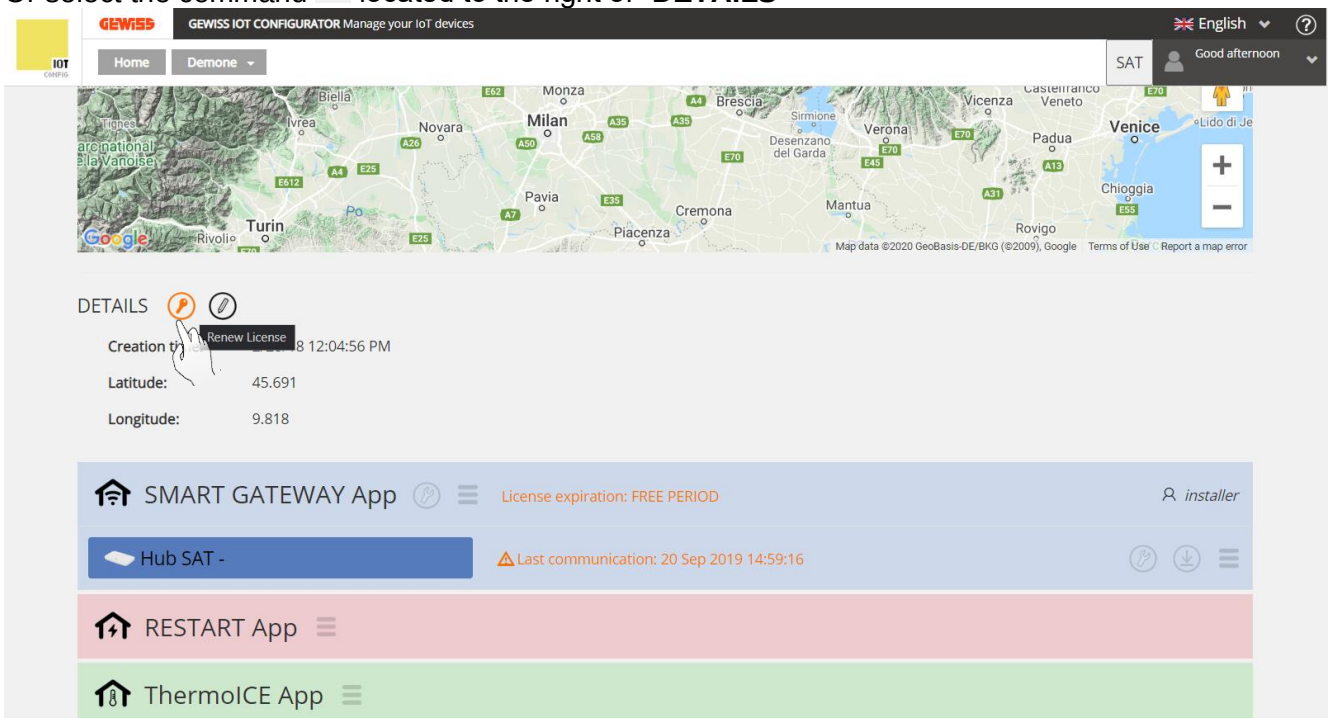
RENEW LICENSE

Smart Gateway permits free use of the cloud services for a certain period of time.
When the free license is about to expire, the users associated with the Administrator and Installer role will be informed by an automatic email that the license will expire soon. The Administrator or Installer can make the payment for the license via App or on the Portal
To renew the license on the portal, proceed as follows:

1. Open the homepage of the Smart Gateway for which you want to renew the license
2. Select "**Renew license**" from the menu ☰ to the right of the name assigned to the Smart Gateway

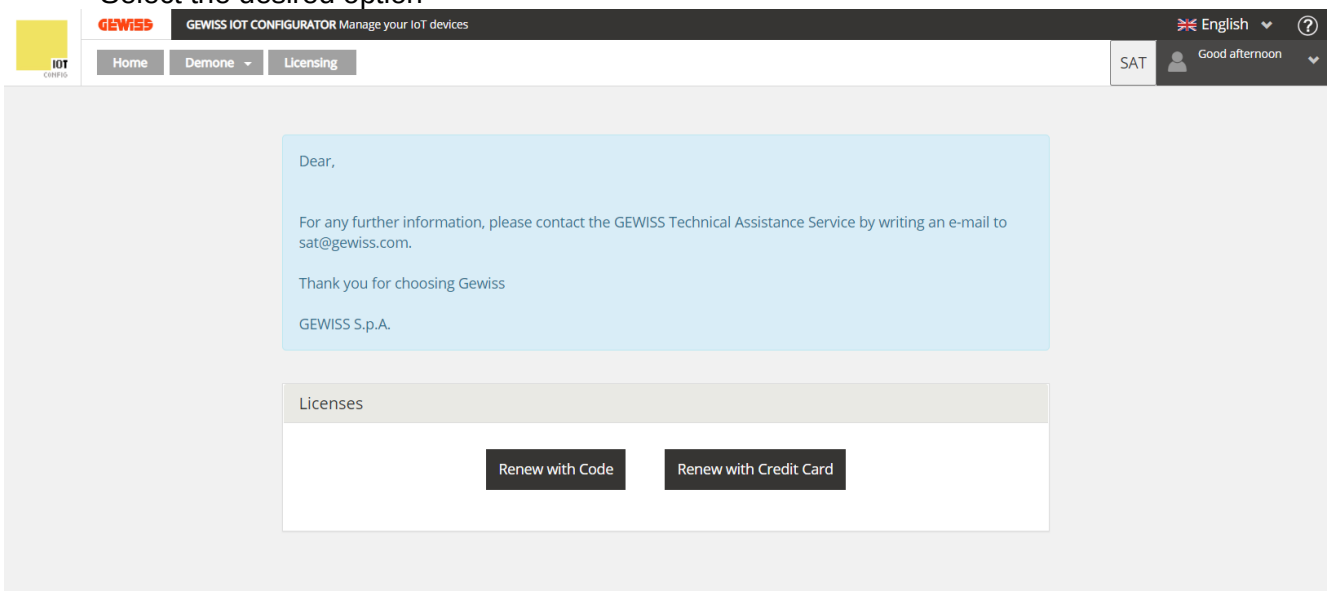


Or select the command ⚿ located to the right of "**DETAILS**"



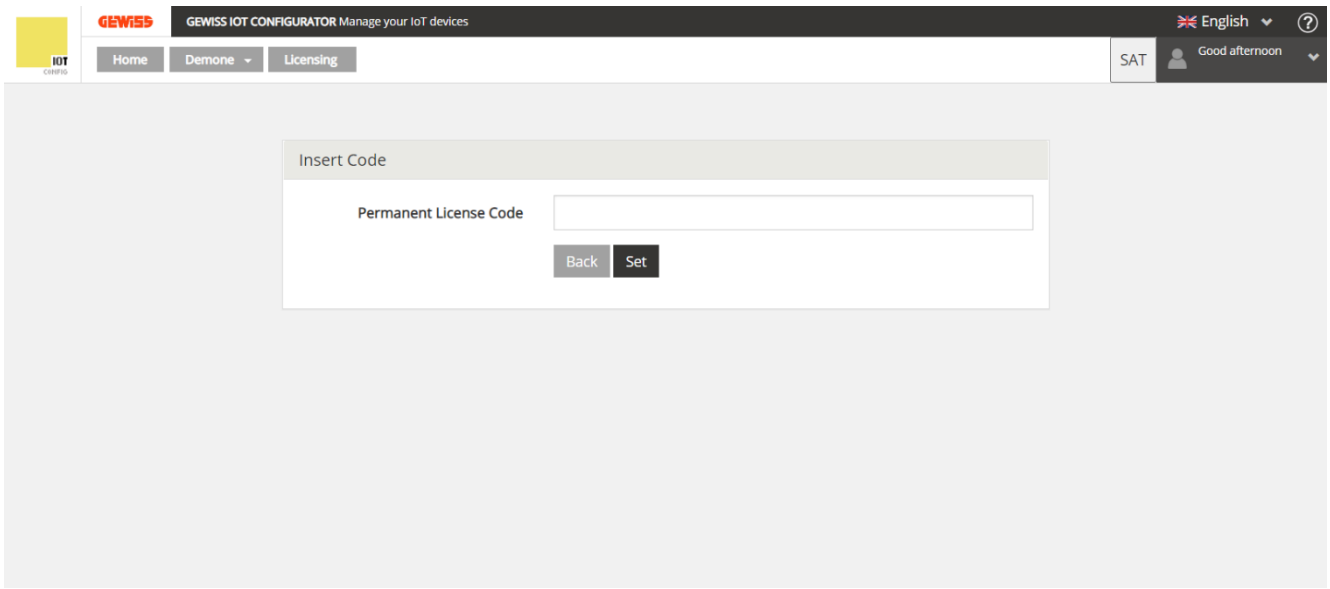
3. The dedicated page opens where two different options are present:
    a. Renew with Code
    b. Renew with Credit Card

   Select the desired option



Renew license with code (GWA9001)

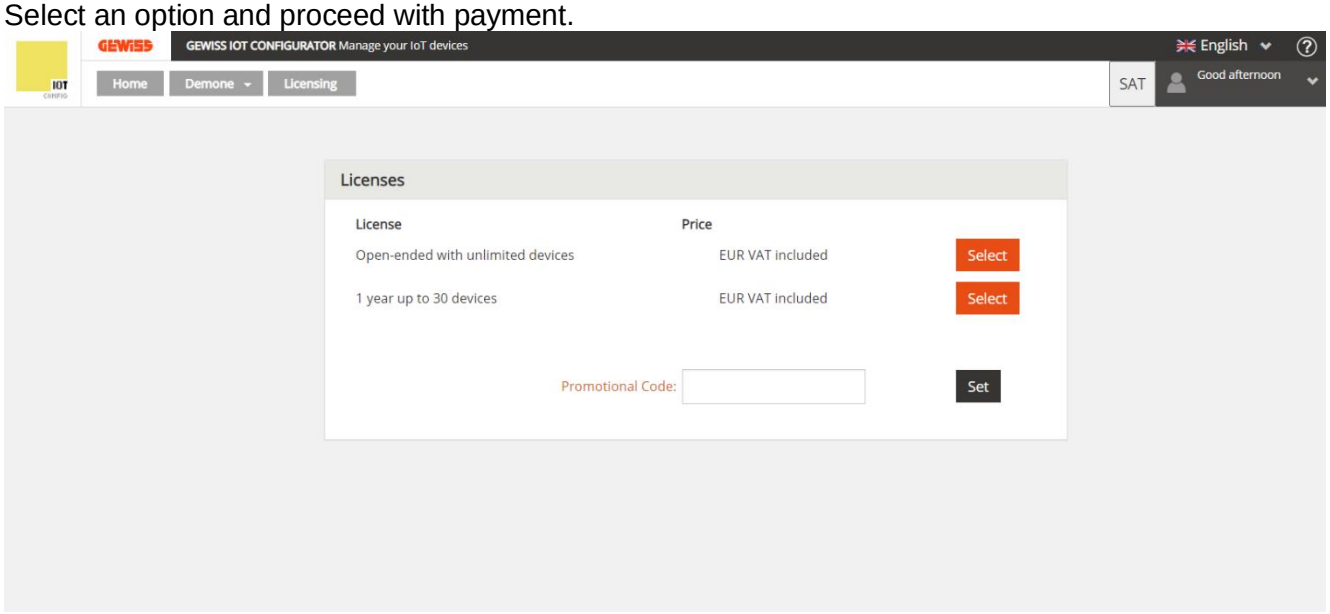
If you have a license renewal code, select the first option.
A new page opens where it is necessary to enter the code printed on the coupon (GWA9001) in your possession. Once the code is entered, press “Set”.



If the code is correct and it was not already used, the message that release was successful appears.

Renew with Credit Card

If you want to renew the license using a credit card, select the second option.
A new page opens where all the renewal options and the relative price are displayed.
At the bottom, you can enter a promotional code if you have one.
Select an option and proceed with payment.



code 7.01.9.916.1

Punto di contatto indicato in adempimento ai fini delle direttive e regolamenti UE applicabili:
Contact details according to the relevant European Directives and Regulations:
GEWISS S.p.A. Via A.Volta, 1 IT-24069 Cenate Sotto (BG) Italy tel: +39 035 946 111 E-mail: qualitymarks@gewiss.com

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8.30 - 12.30 / 14.00 - 18.00
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