

HORIZONE SERVER

IN00B02WEB

INSTALLATION MANUAL



Product: IN00B02WEB
Description: Horizone Server - Installation Manual
Date: 10/04/2020
Version: 1.4

Any information in this manual may be changed without notice.

This manual can be downloaded free of charge from the website: www.eelectron.com

Exclusion of responsibility:

Although the contents of this manual have been checked to ensure that they correspond to the hardware and software indicated in the title, changes may, however, be made. Therefore, Eelectron assumes no responsibility therein.

© 2020 Eelectron SpA. All rights reserved.

Microsoft, Windows, Windows 2000, Windows XP, Windows 2003, Windows Vista, and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the USA and other countries. Java is a trademark of Sun Microsystems, Inc. in the USA and other countries. All other product names mentioned herein are trademarks or registered trademarks of their respective manufacturers.

Summary

INTRODUCTION	7
Safety Information	7
Copyright	7
FIRST INSTALLATION	8
Introduction	8
Assembly and Connections	8
Network connection	9
First login	11
HTTPS safe browsing	13
Administration and frontend	14
Restoring the factory IP Address	16
Factory Restore	16
OVERVIEW	17
Introduction	17
Graphic administration interface	17
Toolbar	18
Navigation Menu	19
Search	21
Workspace	23
SETUP	24
Introduction	24
Language	24
Network	24
Access with QR code	26
Backup / Restore	29
Updating	30
Date/Time	31
Email	32
Managing licenses and modules	33
Maintenance	33
TECHNOLOGIES	35
Introduction	35
Field bus	35
Video surveillance	36
NFC address	36
Reporting and accounting	36

CUSTOMISATION	37
Graphic themes	37
Navigation Menu	37
Managing Favourites	38
Customise Rendering	39
Creating a custom rendering	40
ROOMS	45
Introduction	45
Creating a new room	45
Choosing the background	47
Inserting Objects	48
Removing a room	49
Customizing the graphic map	50
FUNCTIONS	52
Introduction	52
Assigning the function to an object	52
Customising features	52
Frontend functions	53
WIDGET	55
Introduction	55
Creating a Widget	55
Assigning Objects	57
Generic Template	58
RGB light management	60
SCENARIOS	61
Introduction	61
Creating a new scenario	61
Adding actions to a scenario	63
Timed Scenarios	63
Customising delays	65
Frontend scenarios	66
LINKS	68
Introduction	68
Create a new link	68
Frontend management	69
ADVANCED FEATURES	70
Introduction	70

Programmable events	70
Logics	70
Conditions	71
Variables	72
On-screen notifications	73
Email notifications	75
Push notifications	75
Mathematical operators	76
Clocks	78
Pilot Strings	78
Schedules	79
Status bytes	81
Repeaters	82
EVENTS	83
Introduction	83
Programmable events	83
Adding Objects	84
Connections	86
Widgets in programmable events	89
Removing objects or connections	90
Multiple selection	90
Deleting an event	90
Single connections	90
CLOUD SERVICES	92
Registration	92
Remote cloud accessibility	94
Cloud Sync	95
Voice Assistant Control	97
USERS AND PERMISSIONS	100
Introduction	100
Users and User Groups	100
Creating a new user	100
User groups and access rights	101
OPTIONS	103
Home	103
Notifications	104
Advanced	105

REMOTE ACCESS	106
Introduction	106
REVISIONS	108

INTRODUCTION

Safety Information

This manual contains the information necessary to safely operate the device. Anyone interacting with the device must first have read this documentation, especially this safety information. This document supplements and does not replace any safety laws or directives.

The device has been developed using state-of-the-art technologies and following current safety regulations; it is, however, not possible to totally exclude all possible damage or interaction with other devices during its operation. The device complies with EMC guidelines and harmonised European standards; any changes to the device may affect EMC compatibility.

The supply voltage must be strictly within the range indicated in this manual and on the device; danger of fire or explosion if power is supplied outside this range. The equipment shall be powered by a limited power supply circuit whose isolation from the mains shall be not less than that between the primary and secondary circuits of a safety transformer according to IEC 61558-2-6 or equivalent.

The CE declaration of conformity of the device can be requested from Eelectron SpA, at the contacts on the website www.eelectron.com



In accordance with Directive 2002/96/EC, electronic devices must be disposed of in dedicated facilities and not in the collection of municipal solid waste.

Copyright

HORIZONE SERVER technical instructions, manuals and software are subject to copyright; all rights are reserved. Copying, reproduction, translation and/or modification, even partial, are expressly prohibited unless approved in writing by Eelectron SpA.

FIRST INSTALLATION

Introduction

HORIZONE SERVER is a supervision webserver for home & building automation systems based on the global KNX standard and on some of the most popular proprietary technological systems on the market. The HORIZONE SERVER is configured and used entirely through web pages, through a common browser from any type of device or operating system.

Assembly and Connections

HORIZONE SERVER is designed to be mounted on a DIN rail, like most electrical devices.

the following connections must be provided to ensure the correct operation of HORIZONE SERVER:

- 12V/24V DC power supply (240mA at 12V absorption) using the specific terminal supplied.
- KNX bus with standard red-black terminal supplied
- LAN network using cat. 5 or higher cable and standard RJ45 connector

The front LED identified as “POWER” indicates that power is available, while the “SERVICE” LED normally remains off, unless it indicates specific operations in progress.

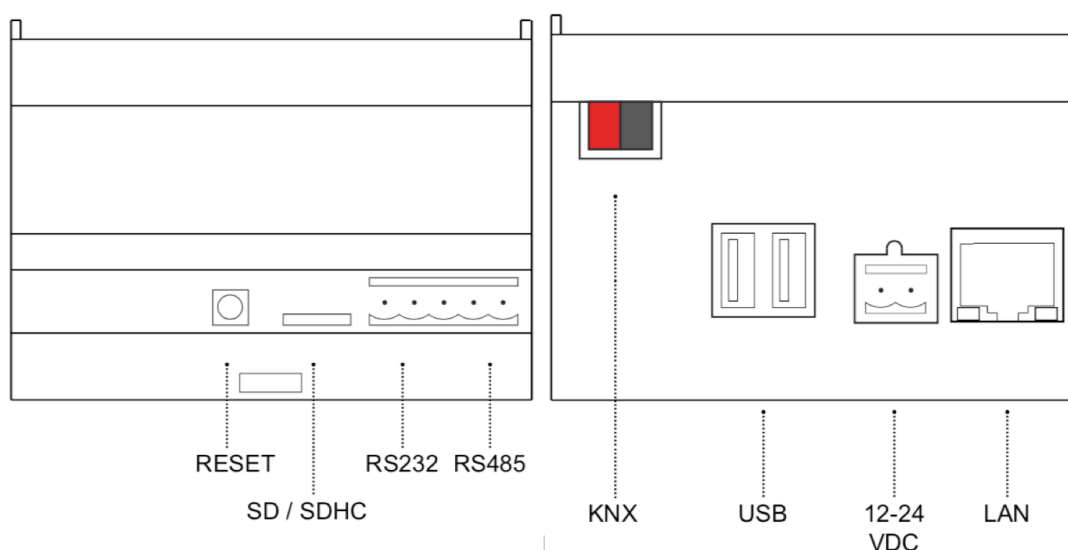
HORIZONE SERVER also features the following ports:

- SD Slot: for the insertion of SD/SDHC memory cards to increase storage space
- RS232, RS485 and 2 USB Serial Ports: available for integrations and advanced applications



connection to the KNX bus is not essential for the configuration of HORIZONE SERVER, however, it is preferable because it is not possible to verify its correct operation without this connection.

The following figures show the location of the ports on both sides of the device.

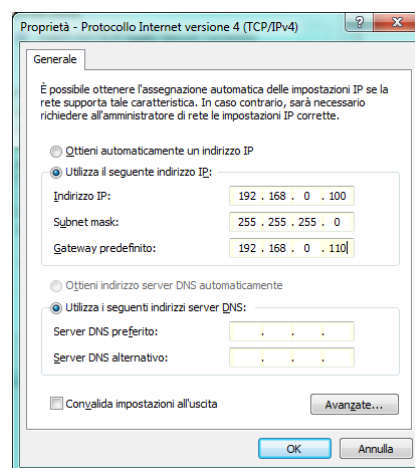
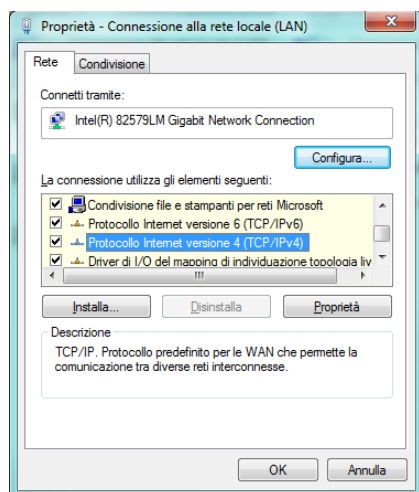


Network connection

The configuration and use of HORIZONE SERVER provide a connection to the home or company network. For the initial configuration of HORIZONE SERVER and if there is no network available during the installation phase, proceed as follows:

- Connect HORIZONE SERVER to your PC via a “cross-over” network cable
- Access your PC's network settings, as described in your operating system documentation
- Change the TCP/IP (version 4) communication protocol settings for the LAN port to which HORIZONE SERVER is connected and manually set the following parameters:
 - IP Address: 192.168.0.100
 - Network mask: 255.255.255.0
 - Default gateway: 192.168.0.110
 - Save and wait for the new settings to take effect. If prompted, reboot the system.

The following illustrations give an example of the network configuration windows for a PC running Windows.



When these operations have finished, open an Internet browser and type the following in the address bar:

http://192.168.0.110

For the best experience, we recommend using the following browsers:

- Google Chrome
- Apple Safari

HORIZONE SERVER is also compatible with the following browsers:

- Mozilla Firefox
- Microsoft Edge
- Opera



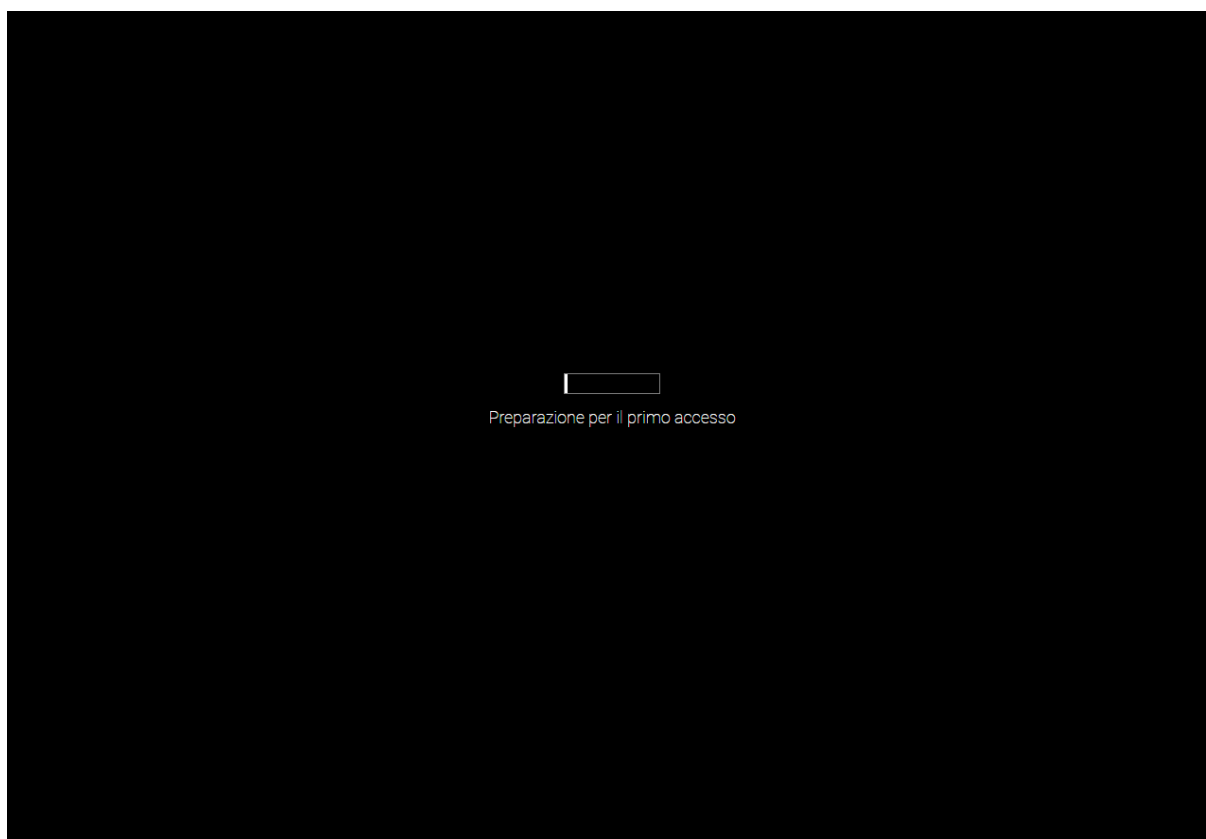
Finally, we do not recommend using the following browsers as they are not fully compatible with the functions provided by HORIZONE SERVER:

- Internet Explorer (version 9.0 or higher, however)

Compatibility with browsers is constantly evolving; it is advisable to periodically consult the updated documentation for any news.

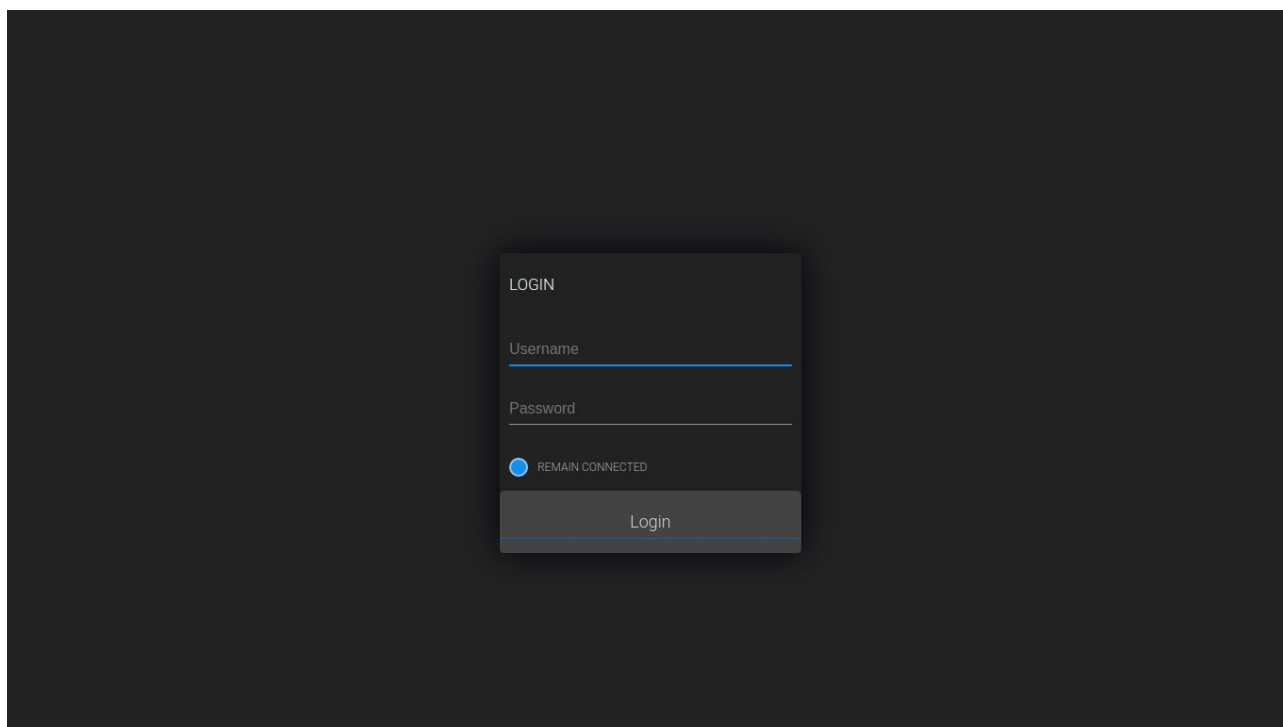
First login

The first time you access HORIZONE, the browser must load some data into the local cache to speed up the next browsing session; during this phase, the percentage of progress is shown, as shown in the following figure:



HORIZONE caching mechanisms may not be compatible with all browsers; in some cases, you may be prompted for permission to store caches locally, in which case you must consent to allow correct operation. You can disable caches as shown in the section of this manual.

You are prompted to enter login credentials when the upload has finished:



HORIZONE SERVER presents the following default users in the factory:

USERNAME	PASSWORD	DESCRIPTION
admin	admin	Building automation system administrator user. This user has the rights to create users, manage their rights and to configure supervision
manager	manager	User dedicated to the installation and configuration of supervision. This user has the rights to configure the project, but does not have the right to perform system configurations.
user	user	Basic user for PC connections. This user has the rights to view the status of the system, browse the WEBSERVER pages and perform the basic commands on the building automation system

Enter the credentials of the “admin” user and confirm to access the main screen of the HORIZONE SERVER administration environment.

HTTPS safe browsing

When accessing HORIZONE remotely, it is mandatory to use the secure HTTPS protocol. You can also force secure HTTPS navigation on the local network by specifying it in the address:

`https://192.168.0.110`

In this case, to make browsing safer, it is advisable to generate a unique SSL certificate, and install the Eelectron SpA CA certificates on your PC/device, as detailed in the chapter. Otherwise, abnormalities or malfunctions may occur due to the security mechanisms of the browser or plug-ins used for specific functions.



If you're using your Google Chrome browser, you should also browse HTTPS locally to take full advantage of the features offered by your voice assistant.

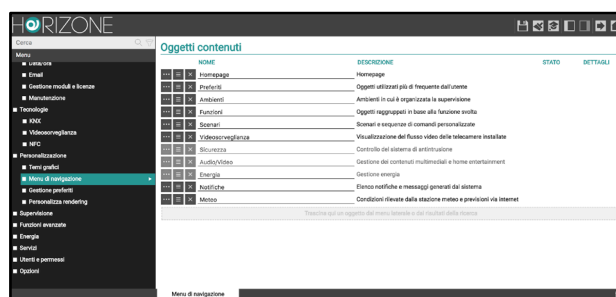
Administration and frontend

HORIZONE SERVER is divided into two distinct environments for its configuration and use by the end user:

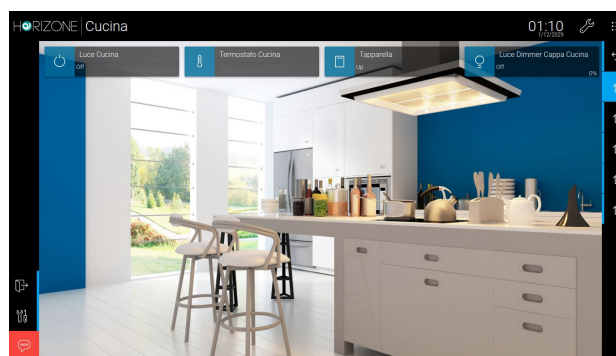
- **ADMINISTRATION:** working environment with which it is possible (according to the user access rights) to configure all aspects of the WEBSERVER and building automation supervision
- **FRONTEND:** graphic environment designed for daily use of supervision by the end user, with which you can navigate through the pages included in the CONFIGURATION section, send commands to building automation devices and view their status in real time

Both environments are based on web technology, so they can be managed entirely through a web browser; however, the graphical setting is different:

The CONFIGURATION environment has been optimized to offer the most graphical tools and information, with simple and functional graphics



Vice versa, every graphical detail of the FRONTEND environment has been taken care of to offer the inexperienced user a pleasant and intuitive browsing and use experience



To switch between sections:



From ADMINISTRATION to FRONTEND
Top right button in toolbar



From FRONTEND to ADMINISTRATION
Bottom-right button in toolbar (not available within apps)

Alternatively, simply “append” the following entries to the address:

SECTION	WRITING	EXAMPLE
Administration	context=configuration	http://192.168.0.110/horizone/modules/system/external/frame.php? context=configuration
Frontend	context=runtime	http://192.168.0.110/horizone/modules/system/external/frame.php? context=runtime



To optimize configuration times, you can simultaneously open the two sections in the same number of browser TABS, and switch between them to preview the result of the configuration work.

NOTE: In some cases, you need to update your FRONTEND environment by simply pressing the UPDATE button on your browser.

Restoring the factory IP Address

If necessary, you can reset the factory IP address of HORIZONE SERVER using the “RESET” button available on the side of the WEBSERVER. To do this:

- Locate the “RESET” button and use a screwdriver or another tool with the correct diameter to press the button through the hole in the case
- Press the button for at least 10 seconds, until the “SERVICE” LED on the front of the device starts flashing, then release the button
- Within the next 5 seconds, press the button for 1 second and release; within a couple of seconds the front LED will light up steadily for a couple of seconds
- When the LED turns off, the WEBSERVER can be reached at the factory IP address (192.168.0.110)

If the LED turns off after pressing for a prolonged period (10 seconds) before pressing it for a short period, repeat the entire procedure.

Factory Restore

If the set configuration makes it impossible to access or correctly use HORIZONE, factory conditions can be restored by resetting the IP address and clearing the supervision project using the “RESET” button located on the side of the WEBSERVER.

To do this, with respect to the recovery procedure for the IP address, proceed as follows:

- Locate the “RESET” button and use a screwdriver or another tool with the correct diameter to press the button through the hole in the case
- Press the button for at least 10 seconds, until the “SERVICE” LED on the front of the device starts flashing, then release the button
- Within the next 5 seconds, press and hold the button for at least 10 seconds
- When the LED turns on steadily, release the button and wait for it to turn off
- When the LED turns off, disconnect and restore power
- Wait about one minute and access HORIZONE with factory IP address (192.168.0.110)

OVERVIEW

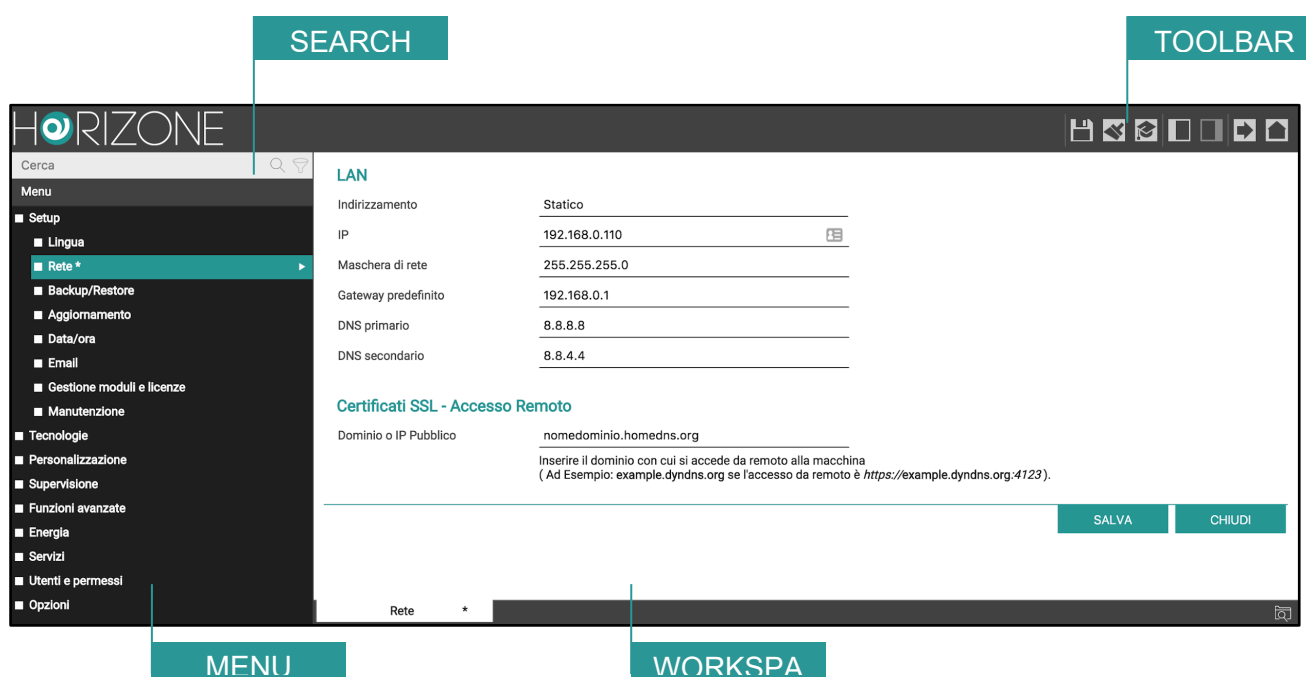
Introduction

This chapter presents an overview of the HORIZONE SERVER configuration environment, describing in detail the various tools made available and allowing you to familiarize yourself with the working environment of the web server.

Graphic administration interface








The ADMINISTRATION screen is divided into the following sections:

SEARCH	Always available at the top left, allowing you to quickly search for objects based on one or more keywords
MENU	A tree menu that provides access to each page or section of the software, as well as to create, edit, or delete objects
TOOLBAR	Always available at the top, providing a series of buttons to perform the most common operations
WORKSPACE	Main section of the page; initially empty, it hosts object tabs or software configuration pages. You can use multiple tabs at the same time by toggling between them with the "TABS" available at the top, when at least one page has been opened.



Toolbar

The toolbar provides the following buttons at any time:

SAVE ON FLASH		Allows you to force the database to be saved to the HORIZONE SERVER persistent flash memory, ensuring the persistence of the data even when the system shuts down. The button turns red to indicate the presence of unsaved changes; persistent saving occurs automatically every 5 minutes, so it is not necessary to force the save unless the system needs to be shut down before this happens.
CLOUD MANAGER		Allows access to the cloud services integrated with HORIZONE SERVER, subject to registration (free of charge). In particular, it allows you to synchronise supervision objects which can then be monitored through remote services, such as voice assistants
CLEAR CACHE		Force all cache mechanisms to be cleared. Use this button only if necessary, if the video content does not reflect the configuration made.
BASIC/ADVANCED		Allows you to set the visibility level of the functions and properties of objects within the pages; the BASIC level offers access to the most commonly used items and only to those set as "VISIBLE"; the ADVANCED level allows you to manage all parameters and access hidden objects When "ADVANCED" mode is active, this button is red
SHOW PANELS		These buttons allow you to show or hide the side panels, respectively left (containing MENU and SEARCH) and right (additional information depending on the WORKSPACE page)
LOGOUT		Allows you to close the work session and login as a different user
FRONTEND		Allows you to switch to the end-user monitoring environment and see the result of the configuration

Navigation Menu

The navigation menu allows you to access all the admin sections of the WEBSERVER and perform the main operations on the objects. The menu is divided into the following main sections:

SETUP	Contains the configuration and general management pages of the WEBSERVER
TECHNOLOGIES	Allows you to configure the technologies that the WEBSERVER manages: KNX, video surveillance, VoIP, multimedia and security systems, etc.
CUSTOMISATION	Contains the pages with which to customize the graphic appearance of supervision and the specific behaviour of the WEBSERVER
SUPERVISION	Allows you to configure the graphical supervision by the end user: environments, functions, scenarios
ADVANCED FEATURES	Allows you to create and edit different types of objects that can perform advanced logical operations
ENERGY	Allows access to specific functions related to energy and load control
SERVICES	Allows you to control some services used by the WEBSERVER to operate it
USERS AND PERMISSIONS	Allows you to configure system access accounts and determine what rights they have over the different supervision functions and sections
CHANGE PASSWORD	Page that allows anyone, even with basic rights, to change their password
OPTIONS	Allows customisation of some WEBSERVER operation options

The menu has the tree menu structure; when loading the administration environment, it displays the first level sections, while the upper level sections can be accessed by “expanding” the sections that contain them. All navigation operations within the menu can be done with the mouse.

By clicking on a menu item, it is highlighted in blue; if the item includes sub-items, they are loaded and shown below, effectively expanding the selected item. To close the section, click on it again (when it has been selected).

If the selected menu item includes one or more operations, they are made available in the “TOOLBAR” at the bottom of the screen through special buttons; the operations include (from left to right):



CREATE NEW	Creates a new object within the selected section. Specific types of objects can be created depending on the specific section; if more than one type is available, a context menu is displayed
EDIT	Allows you to edit the properties of the selected object by opening the relevant tab in the “WORKSPACE”

DELETE	Deletes the selected item from the project
DUPLICATE	Allows you to copy the selected object and create a new one with the same characteristics and relationships with the other objects

If the selected item allows editing, when it is selected, three “dots” appear on the right, which represent a shortcut instead of pressing the relevant edit button in the TOOLBAR.

When an item is open in the WORKSPACE, an arrow appears on the right; when the corresponding TAB is closed, the arrow is hidden and the three edit dots appear next to the menu item again, if selected.

Some sections of the menu allow you to create new objects within them; an “ADD” button is available in the toolbar at the bottom of the screen for this purpose: when you press it, a new object is created (the type depends on where you are located in the tree) and automatically selected; if you press the “EDIT” button now (or the “three dots” next to the menu item), you access the relevant tab to change its properties.

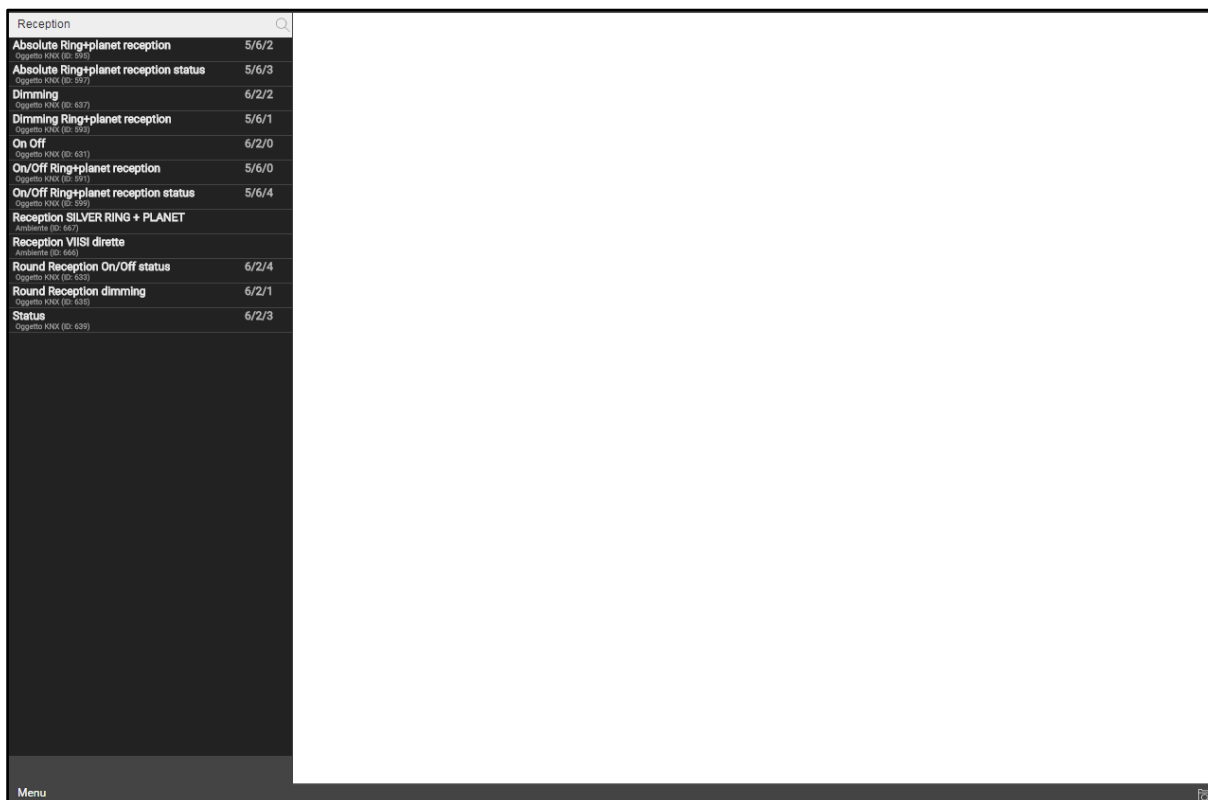
To create a new room, for example, simply select “ROOMS” and press the “ADD” button; the new room is created and placed at the bottom of the list of rooms that may already exist.

In the case of rooms (as detailed below), it is also possible to create sub-rooms of entries already present in the project, simply by selecting them and then pressing the “ADD” button.

You can delete previously created objects by selecting them and pressing the “DELETE” button; this is not allowed by selecting system entries.

Search

When you type one or more keywords in the search field, a search is carried out for all objects within the software which contain those words in the name or one of the main properties; the results are displayed on the left side of the screen which temporarily occupies the space normally allocated to the navigation menu:



The search results provide the following information:

NAME	Identifier name of the object within the database
TYPE	Object type; available under name
ID	Indicated in brackets next to the type; this is the unique identifier of each object, useful in some particular situations or for particular applications
PARENT ATTRIBUTE	Where available, the most significant parameter of the object is shown on the right (e.g. address for KNX objects)

If you click on an item in the results, it is highlighted in light grey; as already seen in the case of the main menu, if you are allowed to perform operations, they are displayed in the TOOLBAR at the bottom of the screen. Here again, if the object allows it, three dots are shown on the right as a shortcut to open the edit tab within the WORKSPACE.



You can change the name of an object directly from the search results by double-clicking on it, typing the new name and clicking elsewhere on the page (or alternatively by pressing the [ENTER] button on the keyboard)

You can do the following on your search results:

EDIT	Opens the tab of the selected objects
DELETE	Removes selected objects from the project
DUPLICATE	Create a copy of the selected objects

In particular, the DUPLICATE command allows you to make an exact copy of one or more objects in the project; at the end of the operation, the search is reloaded, which also contains the new objects (which include the words “copy of ...” in the name).



Duplicating an object creates a copy not only of the object itself, but also of all its relationships with other objects. This implies that the object will be present in the same rooms where the original object was present, in the same scenarios, logics etc. When duplication is complete, check that the existing relationships are still valid for the new object, otherwise remove them.

NOTE: If the original object was placed on a GRAPHICS MAP, the new object will be placed on the same graphics map superimposed on the first; in this case, modify the graphics map and move the new object to another location.

The search engine also allows **multiple selection** by pressing the CTRL key when clicking on the objects; in this case, the operations will be carried out on all the selected objects.

dimming	
100 - Dimming	6/0/2
200 - Dimming	5/7/2
Dimming	5/1/2
Dimming	5/2/2 ...
Dimming	5/3/2
Dimming	5/4/2
Dimming	5/5/2
Dimming	6/1/2
Dimming	6/2/2
Dimming	6/1/1
Dimming Albero	5/1/1
Dimming Brooklyn	6/0/1
Dimming Brooklyn 100	5/7/1
Dimming Brooklyn round 200	5/3/1
Dimming GRing 300+180	5/6/1
Dimming Ring+planet reception	5/5/1
Dimming Sopralco Ingresso	5/2/1
Dimming Vial	5/4/1
On/Off Dimming Brooklyn Ingresso	6/2/1
Round Reception dimming	

Search results can be filtered based on a certain type of object; this happens when you access an object's tab, and then press the title of a section of the tab (e.g.: “rooms to which the current object belongs”).

In this case, the search engine is automatically opened and a search is performed for all objects of a certain type, compatible with drag & drop in the section in question; you can always type one or more keywords to narrow the search.

The presence of an active filter is highlighted by the filter symbol and a message on the screen. To turn off the filter, press the filter symbol next to the search field.

Workspace

The WORKSPACE is the main admin workspace. It allows you to work simultaneously on more than one TAB or on multiple configuration pages; these pages open when you EDIT an object from the MAIN MENU or SEARCH.

The open TABS are displayed in the TAB-BAR at the bottom; if there are a large number of open TABS, you can access the hidden tabs using the relevant button.



To close an open TAB, simply move over it with the mouse and click the close button (shown only when the mouse is on it). The corresponding window is closed; if there are any unsaved changes, confirmation is requested before closing, resulting in loss of data.

SETUP

Introduction

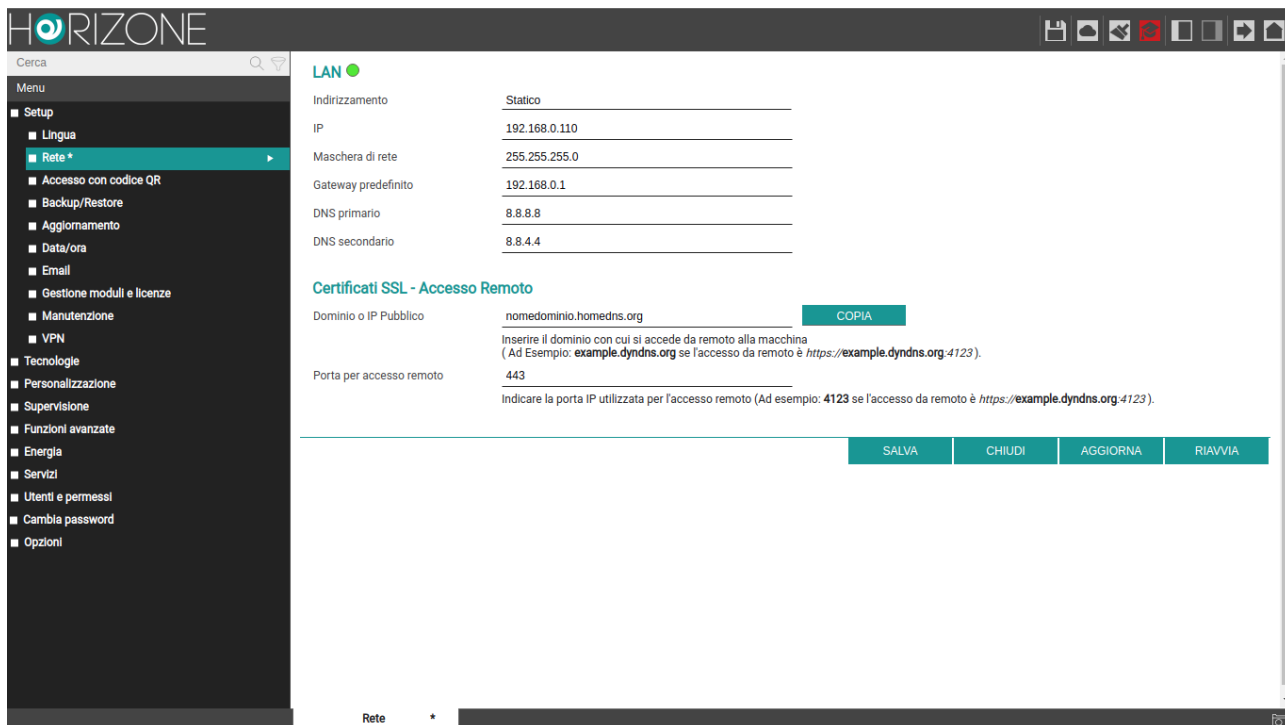
This chapter explores the administration tools offered by HORIZONE SERVER for its correct installation and maintenance. All the pages described in this chapter are accessible via the “SETUP” section of the navigation menu; some of them may not be available depending on the user rights of the login used.

Language

This page allows you to set the language to be used in the different graphical themes; the themes are used in the CONFIGURATION environment or in the FRONTEND to generate the graphical interface. Select a language from those available for the themes, then press the “SAVE” button to confirm the changes; after saving, the page will be reloaded using the new language settings.

Network

This page allows you to set the network parameters of HORIZONE SERVER:



The screenshot shows the HORIZONE web interface for network configuration. The left sidebar contains a menu with options like Setup, Lingua, Rete (selected), and others. The main content area is titled 'LAN' and shows network settings for a static IP configuration. Below this, there is a section for 'Certificati SSL - Accesso Remoto' with fields for domain and port.

LAN	
Indirizzamento	Statico
IP	192.168.0.110
Maschera di rete	255.255.255.0
Gateway predefinito	192.168.0.1
DNS primario	8.8.8.8
DNS secondario	8.8.4.4

Certificati SSL - Accesso Remoto	
Dominio o IP Pubblico nomedominio.homedns.org	COPIA
Inserire il dominio con cui si accede da remoto alla macchina (Ad Esempio: example.dyndns.org se l'accesso da remoto è https://example.dyndns.org-4123).	
Porta per accesso remoto 443	
Indicare la porta IP utilizzata per l'accesso remoto (Ad esempio: 4123 se l'accesso da remoto è https://example.dyndns.org-4123).	

Buttons: SALVA, CHIUDI, AGGIORNA, RIAVVIA

The parameters required are:

IP ADDRESS	Address to be assigned to HORIZONE SERVER; it must be unique in the network and the first three numbers must be the same as those of the other network devices (unless otherwise indicated by LAN administrators)
NETWORK MASK	Set "255.255.255.0" unless otherwise indicated by LAN administrators
DEFAULT GATEWAY	Provide the IP address of the Internet router (if any) or network reference server, unless otherwise indicated by LAN administrators. NOTE: To allow remote access to HORIZONE SERVER, it is essential that this parameter is set to the exact network address of the Internet router (e.g.: ADSL) with which you want to manage access from outside the LAN network. For more information, please refer to the appropriate section of this manual.
PRIMARY DNS SECONDARY DNS	DNS addresses to allow HORIZONE SERVER to access the internet (if there is a network connection). Ask your network administrators for indications or leave the factory settings in case of doubt.
DOMAIN OR PUBLIC IP	If the WEBSERVER can be accessed remotely, you can enter one of the following in this field: <ul style="list-style-type: none"> • The public IP address, if static • The name of the DYNDNS domain (e.g. "test.dyndns.org")
REMOTE ACCESS PORT	If you need to use a port for remote access other than 443 (for specific router settings), indicate it in this field

Once the network parameters have been changed, press the "SAVE" button to make them effective; the save operation takes a few seconds, during which time a progress window is displayed. If you have changed the IP address, the page will reload to the new address at the end. If you also need to change your PC's network connection in the meantime, manually reload the page.



Double check the data to make sure it is accurate before saving, as it may no longer be possible to correctly reach HORIZONE SERVER through your network. If this happens, reset the factory IP address via the reset button following the instructions given on page

If HORIZONE is connected to the Internet, a new SSL certificate is automatically generated when saving network parameters, containing the local IP address and – if it has been specified in the "domain or public IP" field - the one for remote access.

In this way, if the Eelectron SpA certificate is installed on your PC or client device, you can eliminate browser security alerts, and ensure 100% functionality even by browsing HTTPS.



You can also generate a new SSL certificate without changing the IP address through the MAINTENANCE page, as detailed below.

Access with QR code

From version 1.3.0 of HORIZONE SERVER or above, you can speed up access from the Horizone Web Server app for IOS and ANDROID by generating a user-specific QR code that contains all login information, eliminating the need to configure the app.

You must first fill in the information required in section the first time, or if you change the network configuration of HORIZONE SERVER specifically:

SYSTEM DETAILS

DEFAULT LABEL	Name that will be assigned to the system in the app
---------------	---

LOCAL SETTINGS

IP ADDRESS	HORIZONE SERVER IP address on local network If two network adapters (LAN and WIFI) are used, specify which one you want to use
PORT	IP port for accessing HORIZONE SERVER If nothing is specified, port 80 will be used for HTTP access, 443 for HTTPS
USE SECURE CONNECTION	Determines whether the secure HTTPS protocol or (default) HTTP access should be used on the local network
HOME NETWORK(S)	Enter one or more WIFI network names (SSIDs) that are to be considered as local networks, i.e. HORIZONE SERVER is reachable via local address. Networks should be in the format suggested on the screen, such as: ["network1"] ["network1","network2"] ["network1","network2","network3"]

REMOTE SETTINGS

SERVER ADDRESS	Specify the public IP address or domain name (without "https://" and without the port number) for remote access If the Remote Cloud Service is enabled on HORIZONE SERVER, this field is not writable and the public address assigned by the Cloud Service is displayed
PORT	Specify the IP port for remote access, if different from 443
USE SECURE CONNECTION	This field must normally remain active because HORIZONE SERVER does not support unsafe remote connections (HTTP). <i>Under particular network conditions, however, you may need to remove this flag; in this case, the IP port must be 80 or another HTTP (non-SSL) port that can be customised at network / router level</i>

ADVANCED OPTIONS

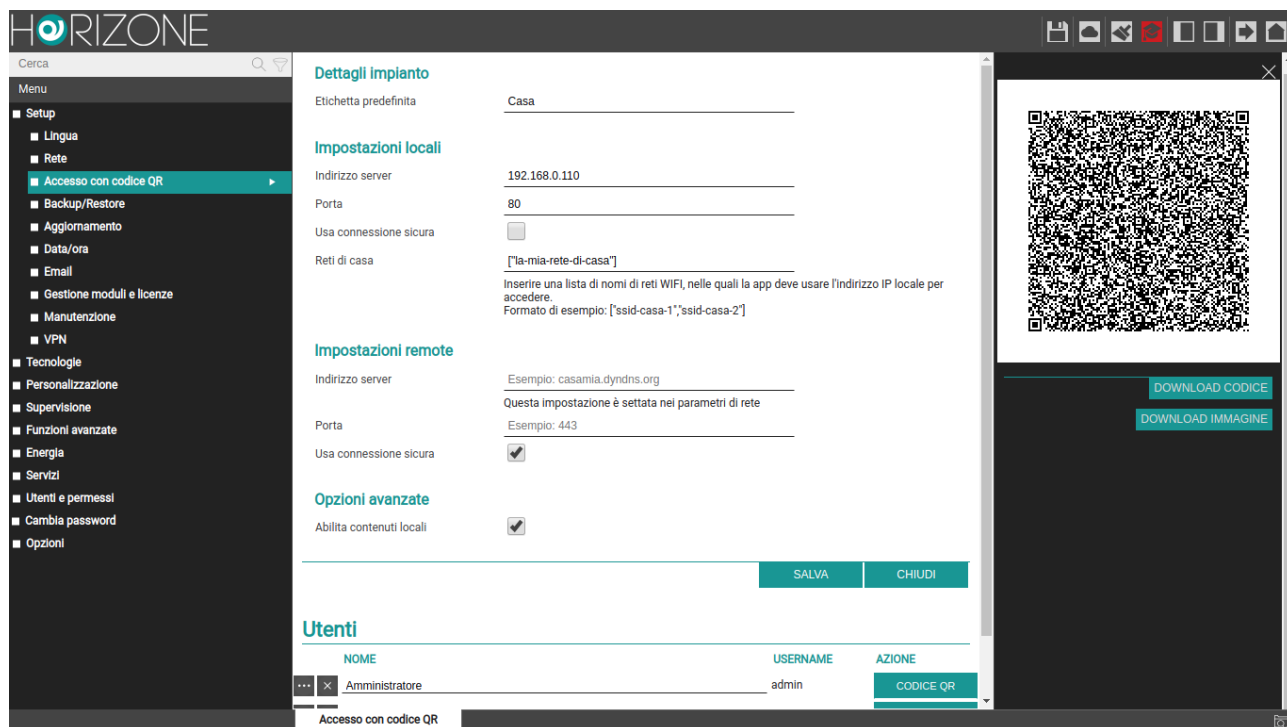
ENABLE LOCAL CONTENTS	Specifies whether or not to use the contents suite first downloaded from the server in the Horizone Web Server apps, to optimise browsing. <i>This option is enabled by default; if disabled, apps may show an error on SSL certificates if the Eelectron CA certificate has not been installed on the device.</i>
-----------------------	---

Once all the fields have been filled in, press SAVE and wait a few seconds, after which the page can be edited again.

At this point, a list of all HORIZONE SERVER users appears in the section below.

It is possible to generate a unique QR code for each of them, containing all the data and login credentials, to be shared with the user in question, thus allowing quick and secure access (because the content is encrypted) via the Horizone Web Server apps. To do this:

- ☐ Identify the user for whom you want to generate the code
- ☐ Press the QR CODE button
- ☐ Wait a few seconds for the code to appear in the side panel
- ☐ Print or scan the QR code directly on screen, if you have the app when you generate it
- ☐ Download the code using the DOWNLOAD button and send it via email / WhatsApp or another similar app, which allows file sharing



Once you have installed the Horzone Web Server app on the IOS or ANDROID mobile device, proceed as follows to access HORIZONE SERVER:

- ❑ If you received the file via mail / WhatsApp / another application, simply tap on it. The Horzone Web Server app opens automatically and a new on-the-fly system is created
- ❑ Alternatively, press the QR symbol in the app in the SYSTEMS section and line up the printed or on-screen code

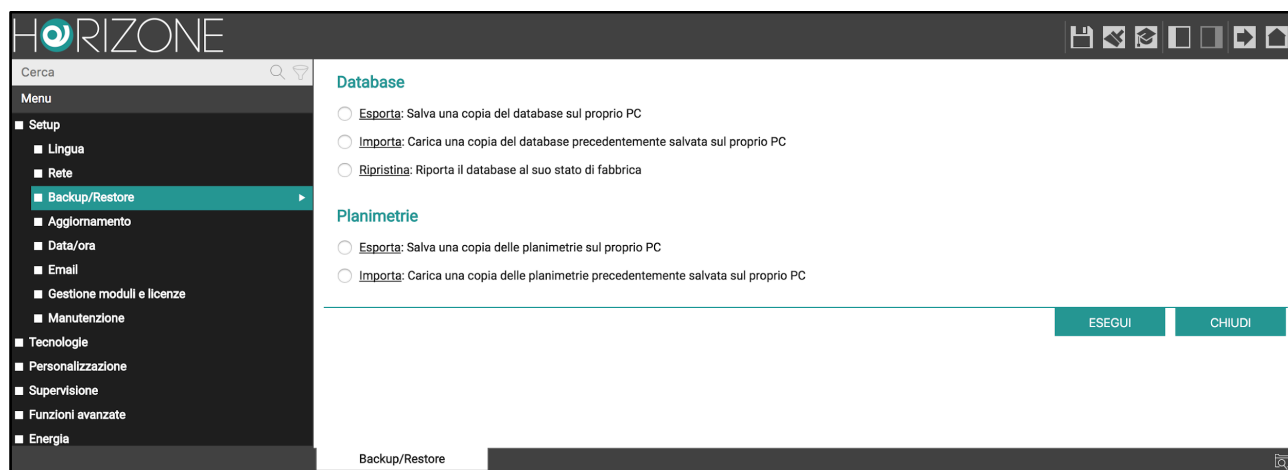


If you change the login details to HORIZONE SERVER or a user's credentials, you must create a new QR code and repeat the procedure, because the previous code will no longer be valid.

You can, however, always manually modify the automatically generated project parameters through QR from within the Horzone Web Server app.

Backup / Restore

This page allows you to make a backup copy of your supervision project or, conversely, to import a previously saved backup (even on a different HORIZONE SERVER or in HORIZONE PDK). You can also return HORIZONE SERVER to the factory settings by choosing the appropriate menu item (the network address is not changed).



Once you have chosen the operation you want to perform (and selected the backup file in the case of import), press the “EXECUTE” button and wait for the end of the operations, indicated by a relevant message on the screen. Do not interrupt the procedure by performing other operations in the browser or closing it, otherwise it may malfunction.

Similarly, you can import or export graphical maps that are used as backgrounds in the supervision project.

Updating

This item allows you to update the HORIZONE SERVER software; only use official installation packages to avoid malfunctions. To update HORIZONE SERVER, proceed as follows:

- Save the update package (downloaded from the site or received via email) to your PC **without unpacking it**
- Open the update page
- Select the update package using the “BROWSE” button (or similar, depending on your browser)
- Make sure you don't already have the same software version (indicated at the top of the page)
- Click on the “UPDATE” button



For Mac users: If you download the package using the SAFARI browser or EMAIL client, the package is automatically unpacked; this causes the update to fail. In this case, download the package using a different browser and/or email client.



Only use Google Chrome (Windows) or Apple Safari (Mac OSX) browsers to perform upgrades; other browsers may cause problems and make the web server unusable

The update procedure is completely automatic; wait for the procedure to complete without performing any other operation on the browser and without closing it (otherwise the webserver may malfunction). The procedure may take several minutes, depending on your software version and configuration.

At the end, a summary of the operation is displayed indicating the new software version; to complete the procedure, press the “RESTART” button that restarts the HORIZONE SERVER operating system.

If the update procedure is accidentally interrupted (e.g. power outage, loss of network connection with your PC), perform the following steps:

- Turn the webserver off and on again
- Wait one minute, then open your browser at the HORIZONE IP address
- Wait for the automatic recovery procedure to complete and for the webserver to restart again



The automatic reset procedure can also be started by performing a complete reset via the button reset.

If the automatic reset does not unlock (wait at least 15 minutes to be sure), please contact our technical support.

Date/Time

This page allows you to set a number of system clock options.

You can manually enter the system time in the **date and time** section; a page with an alert message is displayed while saving the time and consequently restarting all communication services.



Under some conditions, saving a time different from the one previously set in the webserver may result in a “gateway timeout” error page being displayed.

In this case, simply reload the page; if the problem persists, turn the webserver off and on again and wait about one minute before reconnecting.

The **time zone** section allows you to set the working time zone for HORIZONE SERVER, if different from the default.

The **synchronize date/time to KNX** section allows you to send the HORIZONE SERVER date/time on the KNX bus, to a suitably selected group address. If the KNX license is active and at least one date/time address has been imported, choose it from the drop-down menu and specify when to send the data on the bus.

The **synchronize date/time from** section allows you to automatically update the HORIZONE SERVER time via an internet service or a KNX clock. If updating from the Internet (“NTP server”), specify a *time server* (if different from the default) and after how many minutes to synchronise. If updating from a KNX clock, select the group address for the time and date using the appropriate drop-down menus (after importing a project containing these addresses from ETS). In this case, the system clock is updated whenever the date/time information transits on the bus.

Finally, the **scheduled services restart** section allows you to automatically restart the communication services based on HORIZONE SERVER, by choosing on which days of the week and at what time to perform this operation. You do not normally need to do this, so we recommend leaving the factory settings unchanged unless you have specific requirements.



The screenshot shows the HORIZONE web interface. On the left is a dark sidebar menu with options like 'Menu', 'Setup', 'Lingua', 'Rete', 'Backup/Restore', 'Aggiornamento', 'Data/ora' (highlighted), 'Email', 'Gestione moduli e licenze', 'Manutenzione', 'Tecnologie', 'Personalizzazione', 'Supervisione', 'Funzioni avanzate', and 'Energia'. The main content area is titled 'Fuso Orario' and contains several sections: 'Area' (Europe) and 'Città' (Rome); 'Sincronizza data/ora verso KNX' (Nessun indirizzo KNX di data ora importato); 'Sincronizza data/ora da' (Tipo sincronizzazione: Server NTP, Server NTP: pool.ntp.org, Ogni (Minuti): 20); and 'Riavvio Pianificato dei Servizi'. At the bottom, there is a 'Data/ora' section.

Email

This page allows you to configure the connection parameters of HORIZONE SERVER to an SMTP server for sending email messages:

SMTP SERVER	Address or name of SMTP server to support sending emails
PORT	Port to communicate with the SMTP server
SSL PROTOCOL USAGE	Enabling SSL encryption, as required by the SMTP server
ENABLE AUTHENTICATION ON SERVER	Enabling or disabling authentication on the server (usually required)
USERNAME PASSWORD	Credentials for authentication on the SMTP server
SENDER ADDRESS	Specify the sender address with which emails should be displayed if different from the one with which you authenticate on the server (if allowed by the SMTP server)

GMAIL configuration example:

SMTP SERVER	smtp.gmail.com
PORT	465
SSL PROTOCOL USAGE	Yes
ENABLE AUTHENTICATION ON SERVER	Yes
USERNAME PASSWORD	<i>Enter your full Gmail address and login password</i>
SENDER ADDRESS	<i>Please re-enter your full Gmail address, or leave blank</i>

In order to send email notifications through a GMAIL account, you must also do the following:



- Log in to your PERSONAL ACCOUNT section
- Identify the ACCESS and SECURITY entry
- Go to the APP AND LINKED SITES section
- Within it, enable the ALLOW LESS SECURE APPS entry (setting it to ON)

Managing licenses and modules

This page allows you to enter the licenses required to operate HORIZONE SERVER correctly; the webserver normally already has a license when sold, however, certain optional content not purchased at the same time as HORIZONE SERVER may need an additional license key to work.

If you need to change the basic license of the product, enter it in the “PRODUCTS” section, replacing the existing one.

If you want to activate a new optional module instead, locate it in the list (the available modules are grouped by category) and enter the license in the corresponding box.

Once you have entered all the necessary licenses, press the “SAVE” button and wait a few seconds. When the operation is complete, the page is completely refreshed to make the new features available.

Maintenance

This page allows you to monitor the operating status of the webserver and perform a series of recovery operations.

The **system status** section displays the following information:

TIME FROM LAST BOOT	Webserver power-on time
FREE RAM RAM USED	Free or used RAM, respectively

You can also download the communication services log file to your PC / MAC; this file can provide our customer service team with useful information to troubleshoot any problems.

Conversely, the following activities can be carried out in the **operations** section:

RESTART COMMUNICATION SERVICES	<p>It forces the restart of the communication services which manage the dialogue with the technologies and carry out logical operations.</p> <p>Try using this operation if there are problems communicating with the technologies or if any configuration changes have not been automatically incorporated.</p>
RESTART THE SYSTEM	Forces the device to restart without having to manually switch on and off
RESTART WEB SERVICES	<p>Forces the web interface and related services to restart.</p> <p>Try this operation if there are problems with the graphical interface, possibly from a specific client device.</p>
REGENERATE WEB CERTIFICATES	Generates a new custom SSL certificate, which is necessary to secure communication and eliminate browser security warnings.

	<i>Note: requires internet access.</i>
REGENERATE LOCAL CONTENT FOR MOBILE DEVICES	<p>Allows you to regenerate the software suite being downloaded from IOS and Android apps on first access, in order to reduce subsequent data transfers, and thus significantly speed up access and browsing.</p> <p>Under normal conditions, this suite is generated after each software update. In particular situations, however, it may be necessary to regenerate this archive; in this specific case, once the operation has been carried out, the cache in the app must also be cleared, specifically:</p> <p>Horizone FOR IOS</p> <ul style="list-style-type: none"> • Press the clear cache button <p>Horizone FOR ANDROID</p> <ul style="list-style-type: none"> • SETTINGS > CLEAR CACHE ARCHIVES • SYSTEMS > System selection > CLEAR CACHE

TECHNOLOGIES

Introduction

HORIZONE SERVER allows you to manage numerous technologies, integrating the respective communication protocols and making them available in the form of objects, which the user can insert into the supervision and make interact with each other using the methods and tools described later in this manual.

For each of the technologies managed by HORIZONE SERVER, a dedicated installation and configuration manual is available; this chapter, therefore, only offers an overview of the technologies. Please refer to the specific details in the respective manuals. Manuals are available for download in the SUPPORT area of the website www.eelectron.com

The technologies are managed by the same number of *modules*, which may or may not be active on your HORIZONE SERVER; administration menu entries and module functions are only available if a module is active. To activate a module, you must enter the corresponding activation license, as described above. To request a module activation license, please contact our customer service team.

Field bus

HORIZONE SERVER can handle the following field buses:

TECHNOLOGY	DESCRIPTION
KNX	World standard for building automation. HORIZONE SERVER can interact directly with the KNX bus through the built-in interface; simply connect the two bus wires to the corresponding connector.
MODBUS address	Standard protocol widely used for industrial automation and for the management of numerous technological systems. HORIZONE SERVER can interact directly with one or more Modbus lines via TCP/IP or via RS485 port (or via RS232 port and RS232-RS485 adapter for HORIZONE versions that do not have a built-in RS485 port).

For more details, please refer to the manuals dedicated to the configuration of the supervision of these technologies.

Video surveillance

HORIZONE SERVER provides the ability to view IP camera streams within supervision.

For more details, please refer to the manual dedicated to configuring video surveillance within HORIZONE SERVER.

NFC address

HORIZONE SERVER allows you to automate actions on the building automation system through the interaction of your mobile devices with appropriately configured NFC tags.

This module is available in limited form, with support for up to 5 NFC tags for all versions of HORIZONE SERVER, after entering the activation code; you can request the code for your HORIZONE SERVER free of charge by contacting our customer service.

For more information, refer to the manual for configuring and using this technology.

Reporting and accounting

HORIZONE SERVER offers a powerful reporting and accounting system, which can store data from different technologies, process them and present them in the form of graphs or export files.

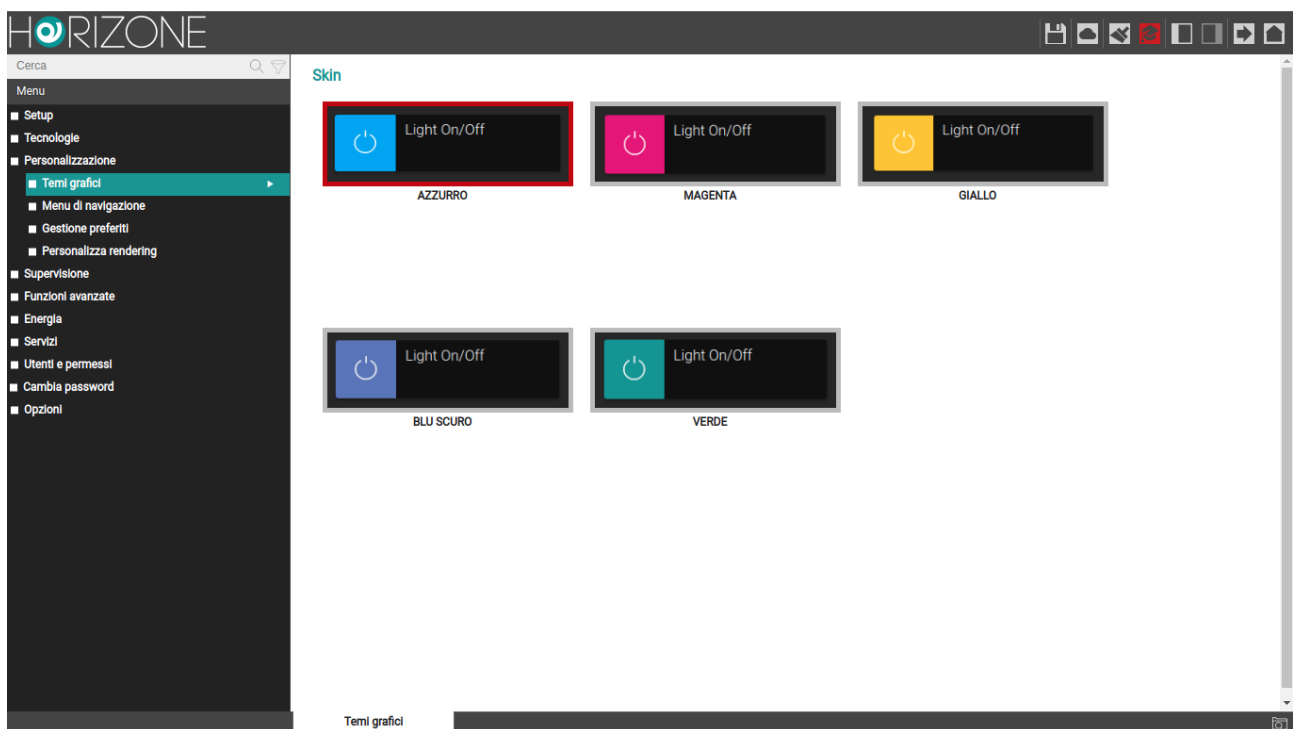
This module is present in a limited form (to support energy management) in all versions of HORIZONE SERVER and requires an activation code for the custom generation of graphs and reports.

For more details, refer to the manual for configuring and using reporting and accounting in HORIZONE SERVER.

CUSTOMISATION

Graphic themes

HORIZONE SERVER provides multiple graphic themes for displaying content in the FRONTEND; this page allows you to select which theme to use from those available:



Press on the preview of the theme you want to use; the setting is immediately made operational and you can view the new graphics by accessing the FRONTEND with the appropriate button at the top right.

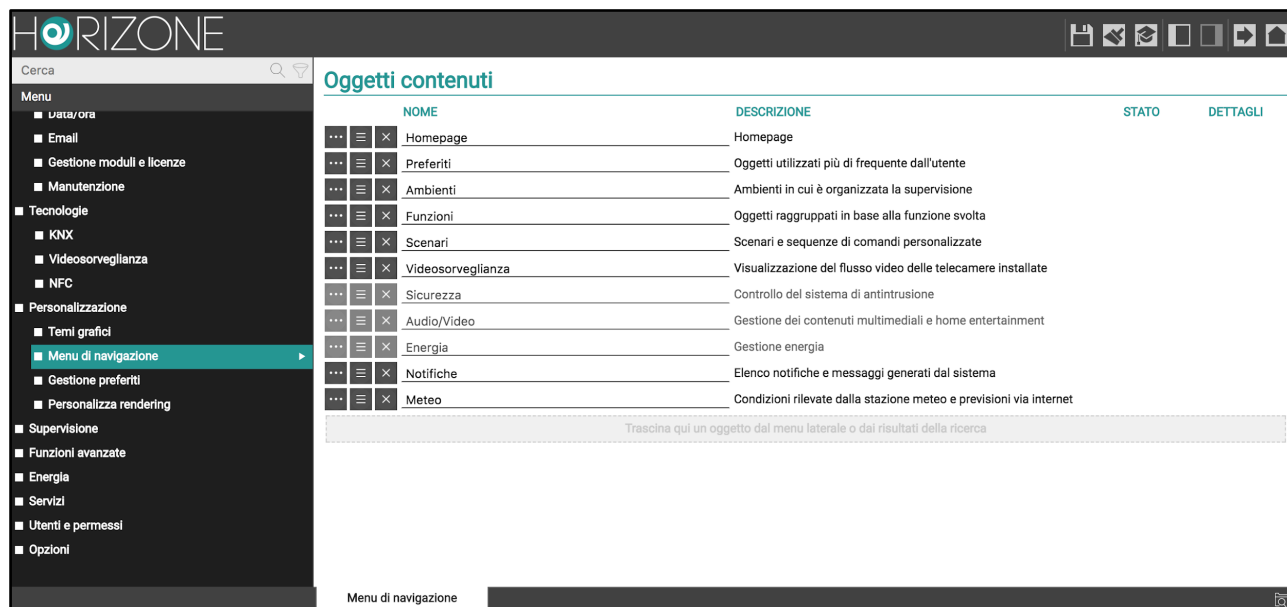
Navigation Menu

This page allows you to customize the entries in the FRONTEND NAVIGATION MENU, determine which are visible, add new entries and decide in what order they should be displayed.

By activating the “ADVANCED” display mode (button in the toolbar at the top), you can determine which default entries should be visible in the FRONTEND; to hide an entry, remove the flag in the “VISIBLE” column. To change the order in which items appear, drag them to the top or bottom of the list, using the sort button.

You can also change the label of one of the predefined entries by simply changing the name of the corresponding text box.

Finally, you can add a new menu entry by dragging a ROOM or LINK object from the side tree or search engine (as outlined below).



Managing Favourites

This page allows you to manage objects marked as FAVOURITES in the FRONTEND; this list is initially empty and can be populated directly by the end user by selecting one or more objects and inserting them in FAVOURITES. FAVOURITES can be accessed from the MAIN MENU and the HOME page.

You can edit the list of objects in FAVOURITES on this configuration page; in particular:

- To remove an item from FAVOURITES, select the corresponding “REMOVE” button from the list
- To change the display order of the objects, select the light blue “SORT” button and drag the objects one at a time to the desired new position
- To add new objects, search for them with the SEARCH ENGINE and drag them into this list

Customise Rendering

This section allows you to modify the graphic appearance of objects, increasing the basic library of so-called “renderings”, i.e. the sets of icons and attributes that regulate the way HORIZONE SERVER displays and manages the different types of object in the user interface.



This feature is intended for advanced users. To avoid possible problems in using the software, you cannot change the basic library *renderings*, but only duplicate and modify them.

As this is an advanced topic, please refer to the relevant section later in this manual.

Rendering is a set of icons and attributes used by HORIZONE SERVER to determine the graphic appearance and the way in which the user interacts in the FRONTEND with the different types of object. HORIZONE SERVER has a basic *rendering* library that can be increased by duplicating one or more basic *renderings* and modifying their properties.

To access *rendering* management page, select "CUSTOMISATION" from the ADMINISTRATION MENU, then "CUSTOMISE RENDERING". The page looks like the following example:

[illegible]

The list of available *renderings* shows the following information:

NAME	<i>Rendering</i> identifier label which is shown in the rendering selection pop-up windows/icons in the respective object tabs
IMAGE	Icon representing <i>rendering</i> , often used as a preview image to make it easier to choose the <i>rendering</i>
OBJECT TYPES	Object types with which <i>rendering</i> can be associated
ENCODING	Where available, it highlights the <i>rendering</i> data encoding
VALUES	Where specified, minimum / maximum / step <i>rendering</i> values
LEVEL	Highlights whether the <i>rendering</i> is system-generated or user-customised

The buttons next to each entry allow you to perform the following operations:

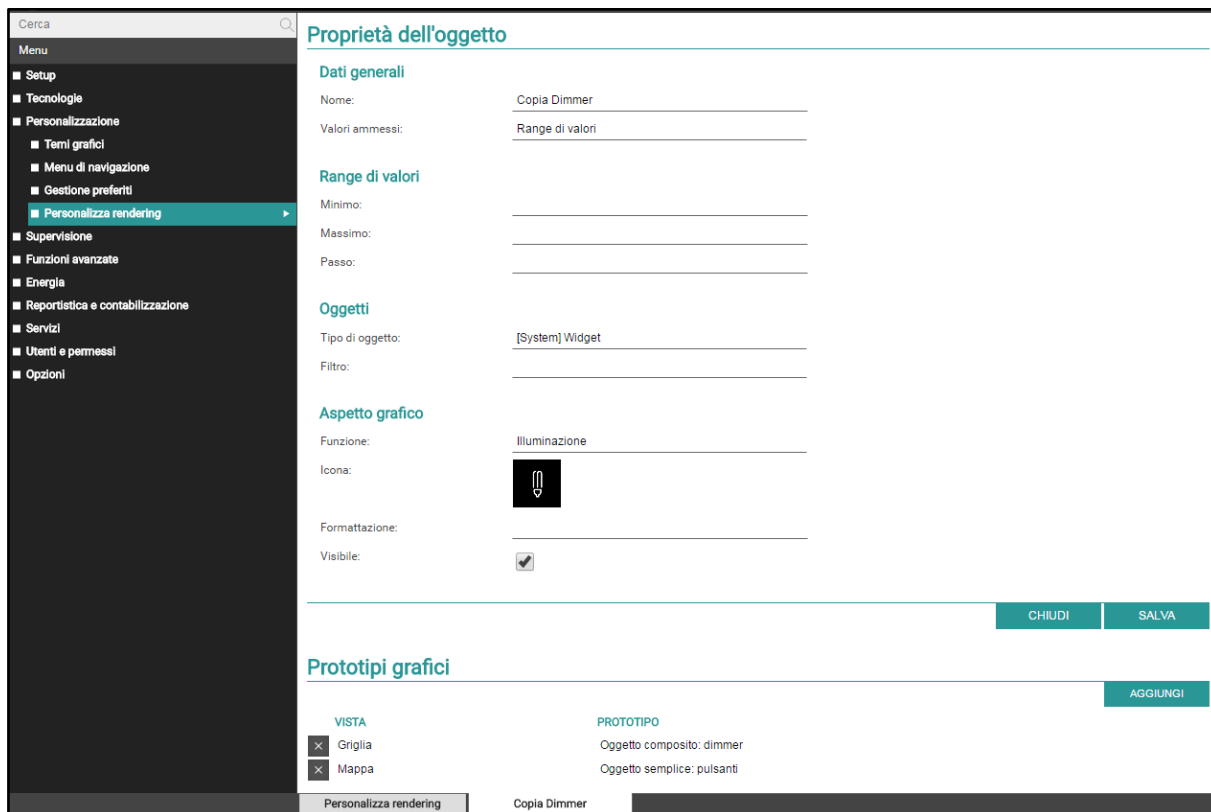
EDIT	Allows you to access the <i>rendering</i> tab and modify its properties. This is only possible for USER-level <i>renderings</i>
DUPLICATE	Allows you to duplicate a <i>rendering</i> in order to edit it, starting from the properties of the original <i>rendering</i>
DELETE	Removes the rendering from the database. This is only possible for USER-level <i>renderings</i> .



If you want to create your own custom *rendering*, it is recommended that you always start with the *renderings* in the basic library that is as close as possible to the desired result, so that you have to change the fewest settings.

Creating a custom rendering

To create a new rendering, you must duplicate an existing rendering. Once the list has been reloaded (custom renderings are always at the top of the list) you can access its tab:



In the **PROPERTIES** section, you can specify the following:

NAME	<i>Rendering</i> identifier label
PERMITTED VALUES	It allows you to decide whether the <i>rendering</i> should include a limited set of options (“LIST OF OPTIONS”) or a range of possible values (“RANGE OF VALUES”) between a minimum and maximum.
MINIMUM MAXIMUM STEP	If you specified “RANGE OF VALUES” in the previous point, you must establish the limits of the range and the step to use to vary the values in them. This last option typically allows you to establish the “discretization” or “granularity” of the <i>rendering</i> (typically used by the +/- buttons in the FRONTEND)
OBJECT TYPE	Allows you to choose the type of object to which the <i>rendering</i> can be assigned; select one of those available in the drop-down menu
FILTER	If the chosen object allows it, this field lets you set an additional filter on the data type or encoding. For example, in the case of KNX objects, this field allows you to select the length (in bits/bytes) of the data passing on the bus
FUNCTION	Allows you to choose which FUNCTION should be assigned to objects so that the <i>rendering</i> can be chosen in the appropriate pop-up selection window
ICON	Allows you to assign an icon to represent the <i>rendering</i> , by choosing it from those available in the basic library, i.e. by uploading it from your PC/MAC using the UPLOAD button.

	NOTE: If <i>renderings</i> have a LIST OF OPTIONS, this icon simply identifies the <i>rendering</i> , since the icon used to represent the object status is chosen on a case-by-case basis from the list (below) of options, depending on the value of each object.
FORMATTING	<p>Allows you to assign a particular format to the numeric value of objects; formatting must be specified using so-called “printf placeholders”, such as:</p> <ul style="list-style-type: none"> • %s → String without formatting (implicit if not specified) • %0.2f → Numeric value with 2 decimal places • %s kWh → String followed by unit of measure “kWh” • %s %% → String followed by character “%” <p>For more information about printf format placeholders, see: http://it.wikipedia.org/wiki/Printf#Segnaposti_del_formato_printf</p> <p>NOTE: This option is only used for rendering with a RANGE OF VALUES</p>
VISIBLE	Allows you to decide whether the <i>rendering</i> should be visible in selection pop-up windows, or hidden

If *rendering* with a **list of** options, the next section of the same name allows you to set the characteristic attributes of each possible value managed by the *rendering*:

LABEL	Label used to represent the current value of the object as text (e.g. “on”, “off”)
VALUE	Numeric value corresponding to the current option (e.g. 1.0)
ICON	A graphic icon used to visually represent the object status. You can choose an icon from the basic library, or upload a custom one using the UPLOAD button
STYLE	Allows you to determine the style of the button, choosing it from those available. This parameter only affects the BUTTONS in the GRID and GRAPHIC MAP and can, therefore, be omitted for <i>renderings</i> that do not include this type of graphic representation (e.g. all <i>renderings</i> that include a “slider”, a text box, +/- buttons, etc. do not need it)
ACTION	Allows you to choose the specific command to send to the object when you choose the current option. Under normal conditions, do not select any entries: this way, the <i>rendering</i> will use the default action for all values for the previously selected object type

You can add new options using the ADD button; in this case, the new option is automatically generated by increasing the last available value by 1, subject to the possibility of modifying it later according to your needs.

Similarly, you can remove an option by using the corresponding button at the beginning of the line.

Cerca
Menu

- Setup
- Tecnologie
- Personalizzazione
 - Temi grafici
 - Menu di navigazione
 - Gestione preferiti
 - Personalizza rendering
- Supervisione
- Funzioni avanzate
- Energia
- Reportistica e contabilizzazione
- Servizi
- Utenti e permessi
- Opzioni

Massimo: 1
Passo: 1

Oggetti

Tipo di oggetto: [KNX] Oggetto KNX
Filtro:

Aspetto grafico

Funzione: Illuminazione
Icona:
Formattazione:
Visibile:

CHIUDI

SALVA

Opzioni

ETICHETTA

- Off
- On

VALORE

- 0
- 1

ICONA

- Pulsante OFF
- Pulsante ON

STILE

AGGIUNGI

Prototipi grafici

VISTA

- Griglia
- Mappa
- Pulsanti

PROTOTIPO

- Oggetto semplice: pulsanti
- Toggle
- Oggetto semplice: toggle

AGGIUNGI

Personalizza rendering

Copia Luce (ON/OFF)

Finally, you must associate the *rendering* with one or more **graphical prototypes** for the different FRONTEND views. *Graphical prototypes* contain the definition of the HTML used to generate elements on pages – in different views - and in pop-up windows. Different *renderings* can use the same *prototypes* for viewing on a page: just think of all the renderings, for example, for ON/OFF lights, which all appear in the same way (same *prototype*) but have different icons.

The section at the bottom of the tab allows you to associate the *rendering* with the different prototypes according to the different views; the available views are:

GRID	Used to display objects in ROOMS, FUNCTIONS, and FAVOURITES
GRAPHICAL MAP	Used for displaying objects in ROOMS after choosing the corresponding template
BUTTONS	Used for displaying objects in ROOMS after choosing the corresponding template
POP-UP WINDOW	Used for displaying objects as pop-up windows; this view can only be used for composite objects

Once the view has been chosen, a list of possible PROTOTYPES that can be used is proposed; select the best one according to your needs.



A *rendering* cannot be used in a page / pop-up window without having been previously associated with a *graphical prototype* for that view. When you duplicate a *rendering*, the system automatically associates the new *rendering* with the *graphical prototypes* of the original rendering. It is, therefore, not necessary to modify these associations unless there are special requirements; however, you should make sure that these associations are present in the tab of the new *rendering*.

ROOMS

Introduction

This chapter explains how to create and customize the rooms in which to structure the end user browsing in the supervision of the building automation system. The user is typically offered a view of the building automation functions as close as possible to their actual layout inside the building, so that it is intuitive to search for them in the supervision software.

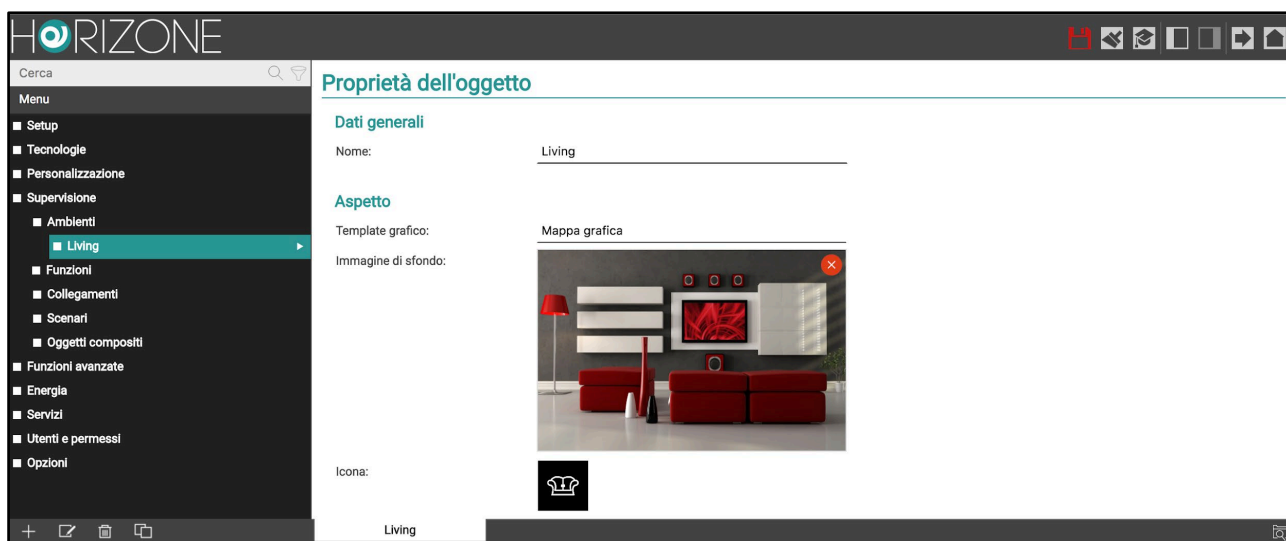
However, this criterion is not strictly necessary: HORIZONE SERVER allows you to configure as ROOMS also free groupings of objects, not necessarily associated with a room or a part of the building.

Creating a new room


To create a new room in HORIZONE SERVER, you just need to:


- Go to the CONFIGURATION section
- Select SUPERVISION → ROOMS from the navigation menu
- Press the “ADD” button in the toolbar below

The new room is created under ROOMS; if you want to create the new room within another room, select the new room before pressing the “ADD” button. The new room tab appears as shown in the following figure:



The properties made available for the new room are:

NAME	Name identifying the room, used in all points of the software that allows browsing in it
GRAPHICAL TEMPLATE	<p>Allows you to choose the graphical layout with which the content of the room will be displayed in the FRONTEND. The following templates are provided:</p> <ul style="list-style-type: none"> • GRID: objects are shown in the table; you can show an evocative image of the room at the top, right or left of the objects • GRAPHIC MAP: Objects are placed directly on a background image
BACKGROUND IMAGE	<p>If the chosen template displays a background image, you can choose one of the available ones by clicking on this item:</p>  <p>You can upload new images by pressing the “UPLOAD” button and selecting a file on your PC; after a few seconds (in which the file is transferred to the webserver), it will be available in the list.</p> <p>Clicking on a thumbnail, selects the corresponding image as the background for the room.</p>

ICON	<p>Allows you to assign an icon to the room by, selecting it from those available:</p>  <p>Clicking on an icon assigns it to the room and closes the selection window.</p>
ENABLE AUTO-SIZING	Allows you to automatically resize the page (if in “map” mode) based on the client resolution

By activating the “ADVANCED” access level, you can also set the following information:

VISIBLE	Establishes whether or not the room should be visible in the FRONTEND
OPEN IN NAVIGATION MENU	Determines whether, by accessing this room, the FRONTEND navigation menu should open or remain at the previous level. This option is automatically changed based on the presence of sub-rooms or other objects in the room that are displayed in the menu, but can be forced manually
ENABLE PIN CONTROL	Protects access to the room with a numeric PIN
NEW PIN REPEAT PIN	If PINS are enabled, it allows you to set the protection PIN



The view may be different when accessing with mobile devices, such as smartphones and tablets; HORIZONE SERVER automatically adapts the layout to better adapt to the graphical possibilities of these devices. Refer to the “User Manual” for further details.

Choosing the background

The image chosen as the background must have a format compatible with viewing from a browser; we recommend the JPG format or alternatively PNG (if you want to take advantage of the transparency effect offered by the latter graphic format). Image sizes must be calibrated (with graphics software, before uploading to HORIZONE SERVER) bearing in mind that:

- In GRAPHIC MAP view, the background is displayed in real size, without resizing; the image is aligned at the top left
- In GRID view, the background is adjusted in width or height (depending on the position of the image) so that it always takes up all the optimal space dedicated to the image



Uploading large images (e.g. high-resolution photographs), therefore, has the dual disadvantage of slower upload (having to travel over the network whenever the browser accesses the room) and, in the case of the GRAPHIC MAP, only a portion of the image itself is displayed.

In the case of MAP templates, the graphics can be resized automatically to fit the width of the background image, by enabling the AUTO SIZING option. The size of the objects will be scaled proportionally, so that they are always positioned the same way on the graphics.



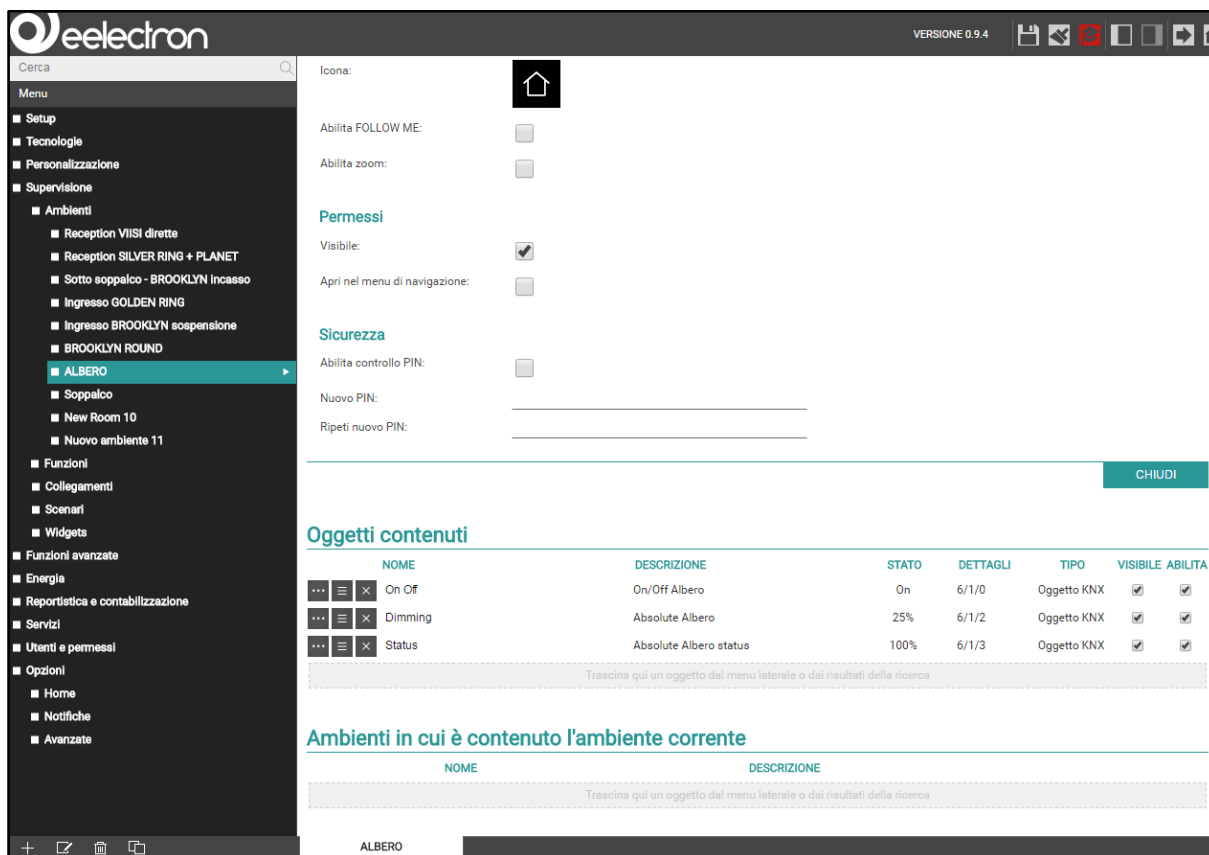
You should **disable** the AUTO SIZING option when configuring the graphic map, so that it works as closely as possible to native background resolution. Only enable the option to adapt the page to the various clients afterwards.

To ensure correct use and proper display, the zoom is limited between two minimum and maximum values, which for default settings are set to 70% and 130% respectively. You can change these limits in the CUSTOMISATION → OPTIONS → GRAPHIC MAP section; to prevent, for example, the map from being enlarged on large screens, but vice versa, it is only resized in the case of small screens, you can force the maximum zoom factor to 100%.

Inserting Objects

Once a room has been created, it is possible to insert objects in it, for example, to send commands to the building automation system, run scenarios, etc. To do this:

- Open the room tab
- Search for objects that you want to insert in the room using the search engine or locate them in the side tree
- Drag the objects into the list (using multiple selection of search results, if required)
- If necessary, move the objects to get the sort order you want



The order of items in a room has the following effect:

- In GRID view, it determines the order in which objects are displayed, starting from top left to bottom right
- In MAP view, it determines the “depth” of the objects with respect to the user; the last objects in the list are drawn in the foreground.

It is always possible, at any time, to remove an object from a room by pressing the corresponding “REMOVE” button; this operation does not delete the object from the project but simply removes it from the room.



Any sub-rooms of a room are indicated in the same list along with other object types; however, in the FRONTEND, they are not visible in the GRID view, but only in the navigation menu. To change the order in which they are listed, change the sort order on the room tab.

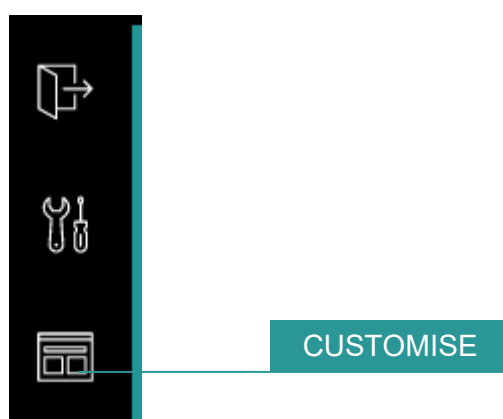
Removing a room

To remove a room from your project, simply select it from the CONFIGURATION menu or the search results, and press the DELETE button (like any other type of object).

Deleting a room does not delete the objects in it that are still available in the project (they can be accessed in the other rooms in which they were placed, or in FUNCTION views).

Customizing the graphic map

The customisation of a room with GRAPHIC MAP display occurs directly from the FRONTEND environment; if the user has the necessary rights, an icon is available in the toolbar with which to activate edit mode:

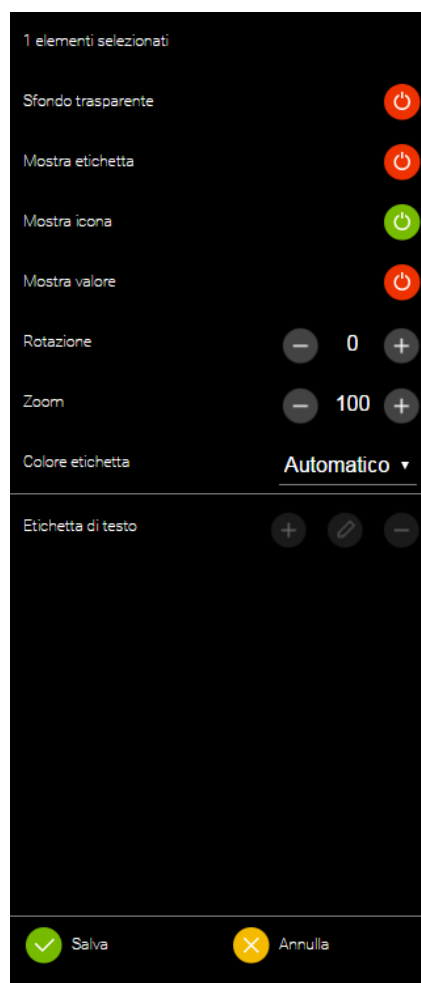


In this mode you can:

- Drag objects to the desired position (they are all initially overlapped on the top left)
- Customise the appearance of each object
- Insert any text labels

It is also possible to insert sensitive areas to navigate within the sub-rooms simply by placing the rooms on the graphic map, and appropriately resizing the transparent area to match the elements of the background image that “refer” to the room itself.

When in edit mode, the side menu is temporarily replaced by the following toolbar:



The menu entries are visible or not depending on the selection; to select an entry, simply click on it. To select multiple entries, hold down the CTRL key.

To insert a text label, deselect all items (using the CTRL key and clicking on all previously selected items), then press the “+” button in the “text label” section. A new *label* is inserted at the top left.

Then, drag it to the desired point on the page, adjust the size of the text (using the “zoom” option), the colour and any rotation; to highlight the text further, remove the transparent background option.

To edit the text, click the edit label icon, then type the new text, and press OK to confirm (or CANCEL, vice versa, to restore the previous content).

When you have finished editing the page, press SAVE to confirm or CANCEL to restore the objects to their original position and appearance.

FUNCTIONS

Introduction

HORIZONE SERVER allows you to assign each object a “function”, or a category to which they belong. Regardless of the reference technology, objects with the same function can be managed uniformly by the user, through a special section of the FRONTEND.

Assigning the function to an object

Objects that can be associated with a function, provide a drop-down menu with the same name in their tab:



The screenshot shows the HORIZONE SERVER interface. On the left, there is a list of objects under the 'dimming' category. The right panel shows the 'Proprietà dell'oggetto' (Object Properties) for a selected object. The 'Dati generali' (General Data) section includes fields for 'Nome' (Name), 'Nome ETS', 'Codifica ETS', and 'Indirizzo di gruppo'. The 'Aspetto' (Appearance) section includes a 'Funzione' (Function) dropdown menu, which is currently set to 'Illuminazione'. The 'Rendering' section shows a preview of the object. The 'Formattazione' (Formatting) section is empty. The 'Permessi' (Permissions) section shows a 'Visibile' (Visible) checkbox.

FUNCTION

Customising features

You can determine which functions should be visible in the FRONTEND by selecting SUPERVISION → FUNCTIONS in the side menu, and activating ADVANCED mode (top right button in the toolbar):



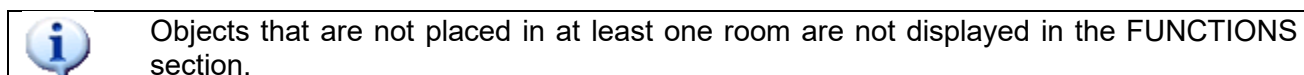
The list allows you to:

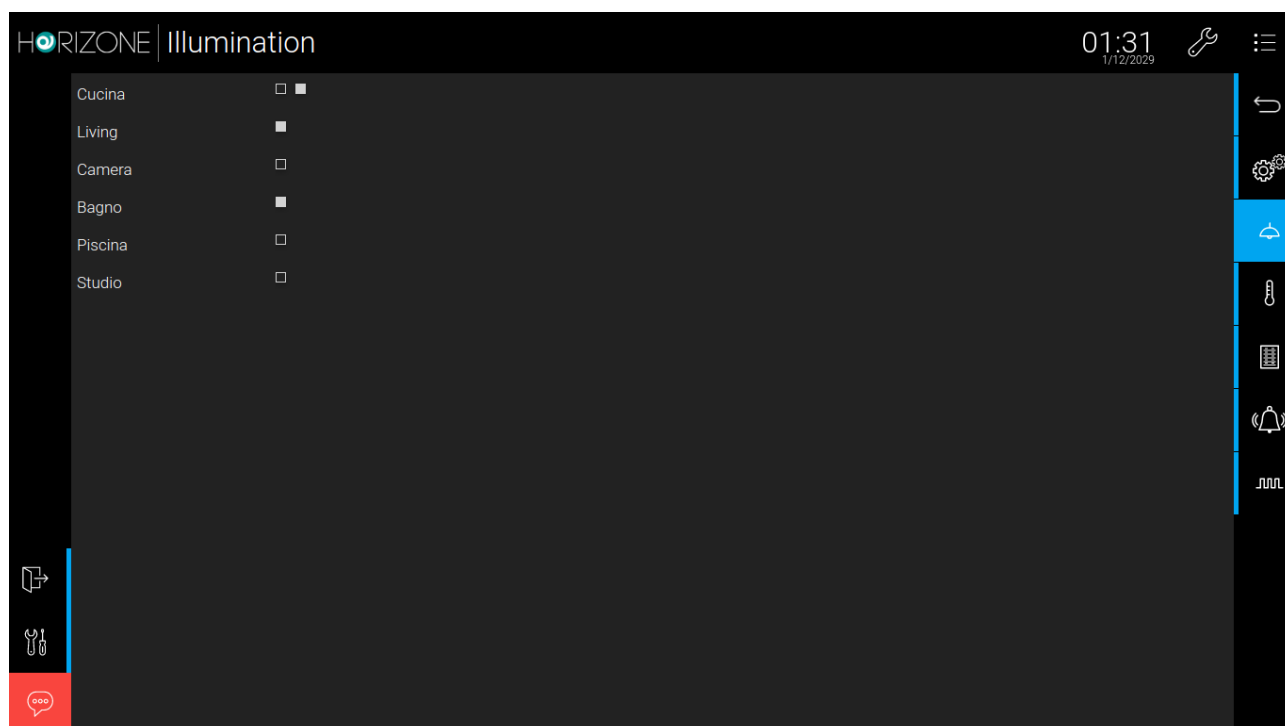
- Edit the function description in the FRONTEND menu
- Change the order of the functions in the FRONTEND navigation menu by dragging them in the chosen order
- Hide some functions that are not used in supervision or that you do not want to be accessed from the FRONTEND navigation menu

Frontend functions

By selecting the FUNCTIONS entry from the navigation menu in the FRONTEND, the list of visible functions is displayed; if you select one of these, a page is displayed containing all objects of that type, divided by room.

Initially the rooms are closed; in this mode, the objects are represented by “squares”, coloured if the objects are switched on (the “on” status depends on the specific function). Pressing the name of a room expands it to show all the objects inside it (of the current function), as in this example:





WIDGET

Introduction

Some technologies have separate objects for individual commands or states on a device, that you would like, however, to be aggregated into a single graphical *widget*. For example, (for KNX technology):

DIMMER	<ul style="list-style-type: none"> • On/Off • Brightness adjustment
SHUTTERS	<ul style="list-style-type: none"> • Up/down movement • Stop the movement • Percent adjustment, if any • Slat adjustment, if any
THERMOSTAT	<ul style="list-style-type: none"> • Measured temperature • Controlled setpoint (one or more, depending on the mode and season) • Current Setpoint • Operating mode • Season • Heating/cooling status • Auto/Manual Mode • Fancoil speed • ...

To place all these objects into a single *widget*, HORIZONE SERVER provides the WIDGET tool.

Creating a Widget

To create a new WIDGET, proceed in the same way as seen for other types of object, i.e.:

- Access the appropriate section in the CONFIGURATION menu (SUPERVISION → WIDGETS)
- Press the ADD button
- Access the tab of the new object to set its properties

The widget tab has the following properties:

NAME	Widget identification name
TEMPLATE	Graphic layout used to aggregate sub-objects
FUNCTION	Function to which the widget belongs (optional)

The TEMPLATE is a critical choice for the next configuration of the widget, as it affects not only the final graphical appearance, but also the sub-object assignment criteria. The templates provided in the basic configuration of HORIZONE SERVER are:

DIMMER	Allows the ON/OFF commands and the PERCENTAGE VALUE of a dimmer actuator to be associated in a single object.
SHUTTERS UP/DOWN/STOP	Allows the UP/DOWN and STOP commands of an actuator for shutters / KNX motor controllers to be combined into a single object.
SHUTTER UP/DOWN/PERCENTAGE	Similar to the previous one, it allows the percentage control of the motorisation instead of STOP
VENETIAN BLINDS	Allows you to manage actuators for Venetian blinds, sending UP/DOWN commands and OPENING/CLOSING of the SLATS
THERMOSTAT	<p>Allows you to group all the commands and statuses of a thermostat in a single pop-up window; different types of templates are available depending on the type of thermostat.</p> <p>Pressing on the widget opens a pop-up window containing all the details of the climate zone.</p>
RGB	<p>Allows you to simultaneously manage the commands of an RGB controller, consisting of the individual colour commands and any switching on or adjustments of intensity</p> <p>Pressing on the widget opens a pop-up window that allows you to create one or more favourite colours (using the toolbar below) to be recalled later, in addition to selecting the colour and adjusting the intensity.</p>
TEMPERATURE COLOUR	<p>Allows you to manage the choice of temperature colour through the continuous adjustment of two dimmers characterised by a different white temperature.</p> <p>Pressing on the widget opens a pop-up window that allows you to select the intensity of the light (increasing upwards) on a colour map and its temperature, from cold white (left) to hot white (right).</p> <p>In addition to the two control objects of the respective dimmers, it is also possible to associate/create two objects (typically variable – see specific section of this manual below) for entering the minimum and maximum temperature value in the pop-up window: in this case, the value can be entered directly in the “LABEL” column of the page under administration</p>
WEATHER STATION	<p>Allows you to aggregate all objects related to a weather station into a single pop-up window.</p> <p>This particular template, in addition to being able to be inserted into the rooms, is automatically displayed by selecting the item “WEATHER” from the navigation menu in the FRONTEND.</p>
MULTI-ROOM AUDIO AREA	Allows you to combine the control objects of a multi-room audio system area in a single pop-up window.

	Pressing on the widget opens a pop-up window that allows you to control the playback and volume of the audio transmission area.
GENERIC	Allows you to configure a free aggregation of objects within a single pop-up window (see specific section below)

Depending on the choice of the TEMPLATE, the widget provides a series of filters and rules with which to identify the sub-objects; it is essential that the widget “knows” the role of each of the associated objects so that it can be placed in the exact and correct position of the graphic template.

Assigning Objects

Once you have chosen the template, you must drag the objects that are to make up the widget to the “sub-objects” section (from the side tree or from the search engine).

For each object, the so-called IDENTIFIER must be chosen, i.e. the “role” of the individual object must be established. The drop-down menu, which contains possible choices, is filtered by object type to prevent incompatible sub-objects from being assigned.



By selecting an IDENTIFIER for a sub-object, it is automatically assigned the *graphical rendering* provided by the template, in order to ensure maximum graphical consistency. It is, however, possible to change the *rendering* of a sub-object later through its tab; this choice is maintained provided that a different IDENTIFIER is not assigned to the same object again within a widget.

It is also possible to add new sub-objects, not yet present in the project, using the ADD button; in this case, the same number of variables are created (see the ADVANCED FUNCTIONS chapter of this manual for further details), which can subsequently be associated with supervision functions (building automation commands, custom scripts, logics, etc.)

The “VISIBLE ELSEWHERE” checkbox is a shortcut to hide all objects belonging to a widget from the supervision pages; in fact, normally, once these objects are associated with a widget, you only want to see the widget again in rooms and (especially) in the function pages.

Finally, you can determine which of the listed objects should be enabled for calendar scheduling by the end user. It is not mandatory to select an object for the schedule: if you do not select any object, you will not be able to schedule the composite object.

Generic Template

Among the TEMPLATES made available for creating widgets, there is also the “GENERIC” entry, which allows you to create free and flexible aggregations of objects within the same number of pop-up windows.

Selecting the “GENERIC” entry as a TEMPLATE displays the following general properties that are otherwise unavailable:

TAB 1 LABEL TAB 2 LABEL TAB 3 LABEL	Label to be assigned respectively to “tabs” in which it is possible to organize sub-objects (maximum 3) – Leave blank to show no label
---	--

The GENERIC template allows you to display sub-objects in a pop-up window (as seen for some types of predefined templates) in the following sections:

The DISPLAY is an area intended to display status information of one or more sub-objects; it contains the following areas:

CENTRAL VALUE	Value shown in the centre of the display, with font size increased compared to other status indications
HIGH/LEFT VALUE HIGH/RIGHT VALUE LOW/LEFT VALUE LOW/RIGHT VALUE	Value shown in the 4 corners of the display respectively Each value can be accompanied by a custom LABEL that can be configured in administration
SUBTITLE	Value shown in the centre of the display, below the central value

The MAIN SECTION can contain up to 10 objects, which are shown one below the other; depending on the type of widgets, they can be presented in the form of buttons, sliders, increase/decrease buttons etc. just as they are in the object display BOXES in the GRID and MAP pages. You can also associate a custom LABEL. Even for these objects that, if present, is shown above the objects themselves.

The lower part of the pop-up window allows you to organise other objects (up to a maximum of 30 objects, divided into 3 groups of a maximum of 10 objects each) into visible sections by alternatively selecting the corresponding TAB. The TAB header label can be customised in the widget tab as seen above; TABS without objects are not displayed. The objects in the TABS, like those inserted in the MAIN SECTION, can also be given a custom LABEL.

To associate the objects with the generic widget, simply proceed as previously described for any other type; in this case, the “IDENTIFIER” drop-down menu allows you to determine whether the object should be inserted in the DISPLAY (and, in particular, in what position) in the MAIN SECTION (numbered from 1 to 10) or in the 3 TABS (again, for each of them, numbered from 1 to 10).

For each of the sub-objects, you can also specify the custom LABEL that, if set, is shown printed on top of the objects, as previously highlighted.



Be careful not to associate more than one object with the same IDENTIFIER; otherwise, not all the objects may be displayed in the pop-up window.

Conversely, the same object can be associated several times with the widget, to make it appear in several places (e.g. in the DISPLAY as status information and in the sections below to be controlled).

The object associated as “DISPLAY – CENTRAL VALUE” is used to build the widget graphics in GRID and GRAPHIC MAP; in particular, both the icon and the value shown to the left of the pop-up window open button refer to this object.

RGB light management

In addition to real-time colour control, RGB light management widgets allow the end user to set one or more FAVOURITES (or "PRESETS") which can be retrieved at a later time.

To store a new favourite colour, simply press the "+" button; then select the desired colour using the selector at the top and press the "MEMO" button. To recall the colour at a later time, simply click on it. Finally, the delete button clears a preset that is no longer in use.

These objects can be renamed and/or inserted within scenarios, events or logics; each time they are controlled, the corresponding colour will be set in the RGB device.

SCENARIOS

Introduction

HORIZONE SERVER allows you to create custom command sequences, separated by timed intervals as well, which can then be retrieved from the graphics of the FRONTEND or through logics, schedules, events, etc.

Scenarios can be created in administration or directly in the FRONTEND. In the first case, scenarios can be protected to prevent them from being modified or deleted by the end user.



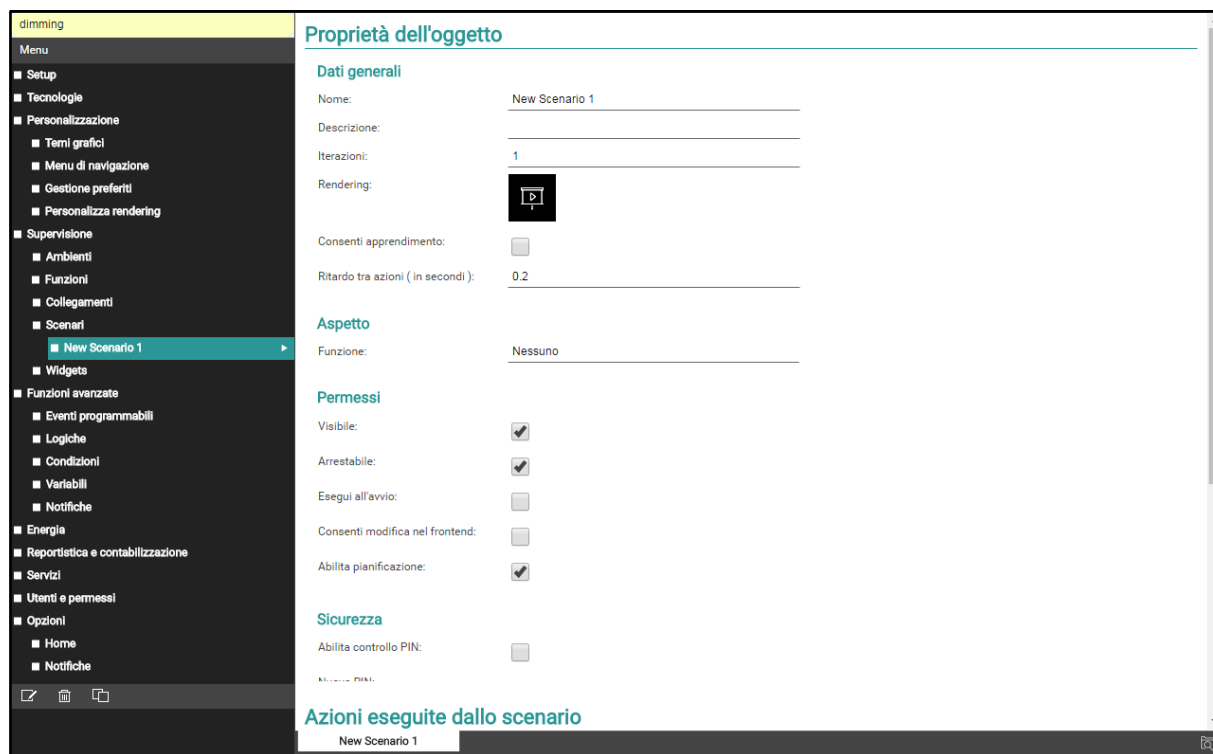
Despite the same name, the HORIZONE SERVER scenarios are not the same as so-called "KNX scenarios" configurable through ETS; HORIZONE SERVER scenarios do not correspond to the ETS project since they are software functions only. HORIZONE SERVER scenarios are also much more flexible than ETS ones; they can incorporate different types of commands and delays between commands.

Creating a new scenario

To create a new scenario in ADMINISTRATION, follow these steps:

- Access the HORIZONE SERVER CONFIGURATION environment
- Select SUPERVISION → SCENARIOS from the navigation menu
- Press the "ADD" button to create a new scenario

The new scenario is available in the (initially empty) list of scenarios; accessing its tab later shows a page similar to the following:



When the “BASE” access level is selected, you can set the following scenario properties:

NAME	Scenario identifier name
RENDERING	Graphic set used for the graphical representation of the scenario in the supervision pages
FUNCTION	Function to which the scenario belongs
VISIBLE	Determines whether or not the scenario should be visible in the FRONTEND
RUN ON STARTUP	If checked, the scenario runs when the system is started
ALLOW FRONTEND EDIT	Determines whether or not the scenario can be edited (or deleted) by the end user in the FRONTEND

With the “ADVANCED” level, you can also specify:

ITERATIONS	The number of times the sequence of commands, which makes up the scenario, must be repeated. Normally the number of iterations is “1”; specify a higher value if you want to create a loop.
ALLOW LEARNING	Enables the end-user scenario learning feature. By pressing the "LEARN" button, the actual statuses of the objects associated with the scenario are stored as actions, so that they can be prompted again the next time they are executed
DELAY BETWEEN ACTIONS	Specifies a delay in seconds between scenario actions. This type of delay is fixed between all actions, for custom delays see below
STOPPABLE	Allows you to determine whether or not the scenario can be stopped once executed (only for timed scenarios - see below)

ENABLE SCHEDULE

Allows you to schedule the scenario in the frontend. If you do not select this option, you cannot schedule the scenario.



The new scenarios are automatically inserted in the FRONTEND navigation menu item of the same name; however, they can be inserted in one or more rooms by dragging them inside the relevant tab.

Adding actions to a scenario

Once you have created a scenario, you must associate one or more actions to it. To do this:

- Expand the “ASSOCIATED ACTIONS” section in the scenario tab
- Search for the objects you want to control with the scenario using the SEARCH ENGINE
- Drag the objects into the “ASSOCIATED ACTIONS” list, taking care to place them in the same order in which you want the sequence of commands to occur
- For each object dragged, specify the ACTION to take and, if required, the VALUE to send. In the case of KNX objects, select “WRITE” as the action and the value – among those proposed, depending on the type of object – to be sent on the bus when the scenario is followed

Timed Scenarios

You can place one or more wait commands between the command actions of a scenario, which delay the execution of subsequent actions (depending on the point in the sequence in which the delay is placed) and thus, allow you to create stepped sequences.

Wait commands are basically objects and as such they can be inserted into the command sequence of a scenario by dragging them into the “ASSOCIATED ACTIONS” list after they have been searched for using the search engine. HORIZONE SERVER has a series of “standard” delays that can be concatenated to achieve the desired timing:

- 1 second
- 2 seconds
- 5 seconds
- 10 seconds
- 15 seconds
- 20 seconds
- 30 seconds
- 1 minute
- 2 minutes
- 5 minutes
- 10 minutes
- 15 minutes
- 20 minutes
- 30 minutes
- 1 hour
- 2 hours
- 3 hours

- 6 hours
- 12 hours
- 24 hours

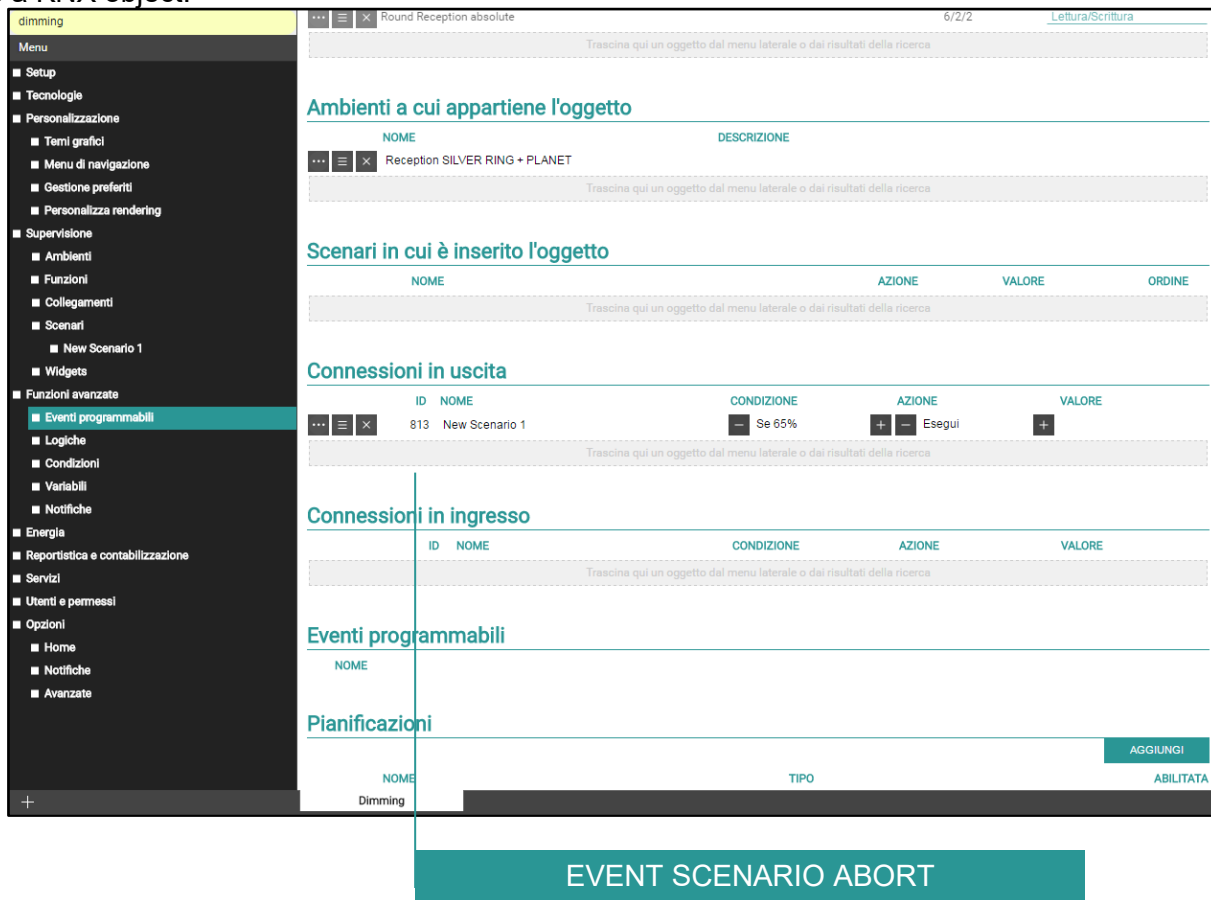
All wait commands have the name “Wait (...)” where the relevant wait time is indicated in brackets; they can then be searched for by indicating “wait” as the keyword.



Since the wait commands are system objects, they are stored in the database with the words in English; they cannot be searched for by specifying the exact Italian word that appears on the screen; if you want to search for a particular wait command, type the number corresponding to the wait time, followed by the suffixes “sec”, “min” or “hour” if possible, in addition to “wait”.

The timed scenarios, once executed, can be stopped, while they are in a wait state; there is a “STOP” button in the graphical interface to do this. Stopping a running scenario interrupts its sequence which is; therefore, not completed; the system, however, is not restored to its original state before executing the scenario, it is, therefore, necessary to prepare other commands and/or scenarios.

Stopping a timed scenario can also be set as an action to change the status of another object, such as a KNX object:



The screenshot shows the Horizon software interface for configuring a timed scenario. The left sidebar contains a menu with categories like Setup, Tecnologie, Personalizzazione, Supervisione, Funzioni, Collegamenti, Scenari, Widgets, Funzioni avanzate, and Energia. The main area displays the configuration for 'Ambienti a cui appartiene l'oggetto' (Reception SILVER RING + PLANET) and 'Scenari in cui è inserito l'oggetto' (New Scenario 1). Below this, there are sections for 'Connessioni in uscita', 'Connessioni in ingresso', 'Eventi programmabili', and 'Pianificazioni'. A red box highlights the 'Eventi programmabili' section, and a red arrow points to the 'EVENT SCENARIO ABORT' button.

Customising delays

“DELAY” type objects, with which you can insert timings within scenarios, can be customised as follows:

- Search for the desired delay command using the search engine
- Duplicate it if it is a standard delay and/or used in other scenarios (otherwise, changing the timing would also impact other parts of the software)
- Select the object (possibly duplicated) and edit it like other objects

The DELAY objects tab allows you to enter the number of HOURS, MINUTES and SECONDS with which to delay the execution of the scenario; you can only enter integers, so that the delay is between 1 second and 23 hours, 59 minutes, and 59 seconds.

The tab also shows a summary of the scenarios in which the DELAY object is inserted. However, you cannot associate the delay with scenarios from this list; instead, drag the DELAY into the scenario tabs where you plan to use it.

Frontend scenarios

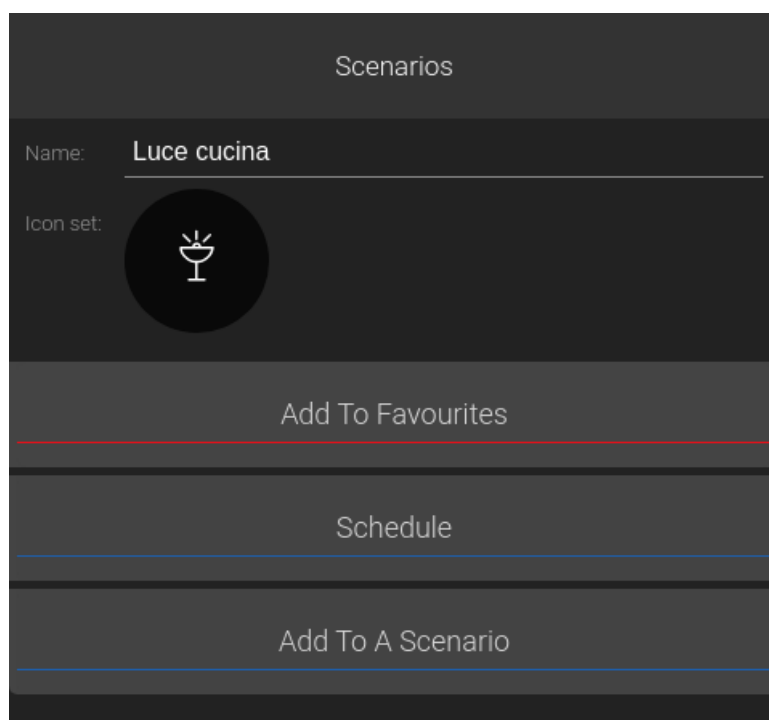
You can also create, edit, or delete scenarios directly from the FRONTEND, without accessing ADMINISTRATION.

Proceed as follows to create a new scenario:

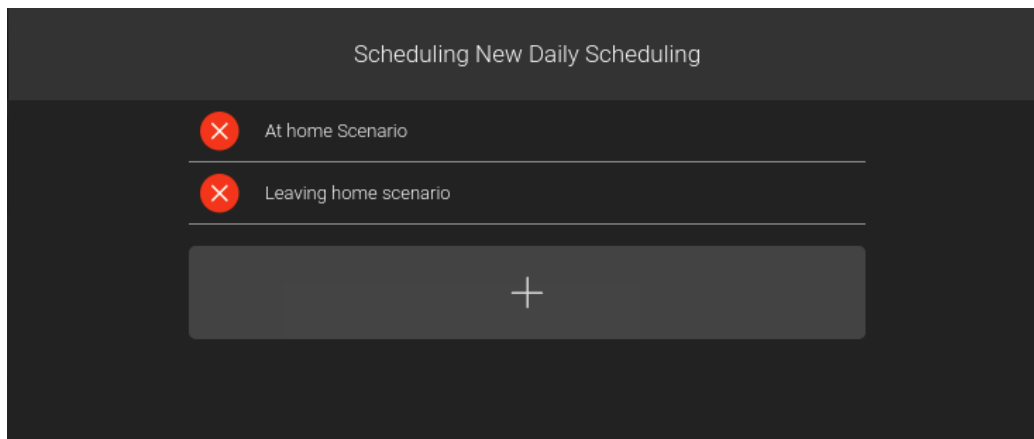
- Enter a room or function page that contains the objects that you want to place in a scenario
- Press the EDIT button in the toolbar at the top right



- Select the object to include in the scenario
- Press the ADD TO A SCENARIO button



A list of existing scenarios is displayed, with the possibility of creating a new one:



By pressing the name of a scenario, you can access its edit pop-up window, which allows you to:

- Change the name of the scenario
- Change the order of actions
- Insert one or more timings between actions
- Add additional actions or remove existing actions
- Remove scenario

For each object added to the scenario, you must choose the action or value to send; you can also remove the action from the scenario (the corresponding object is not deleted) or delay the execution of the action (compared to the previous ones) by adding a timing.



You can add the same object more than once to a scenario, to do different actions (e.g. turn on a light, wait a certain time and then turn it off)

There are two ways to add a new action:

- If the new object is on the same page that you started from, press the ADD button, select the new object, and do so for all the actions required
- Conversely, if the new object is on another page, close this pop-up window, navigate to the desired page and repeat all the previously-mentioned operations

You can simulate the scenario using the PLAY and STOP buttons, as well as schedule it to run on a calendar using the same button.

LINKS

Introduction

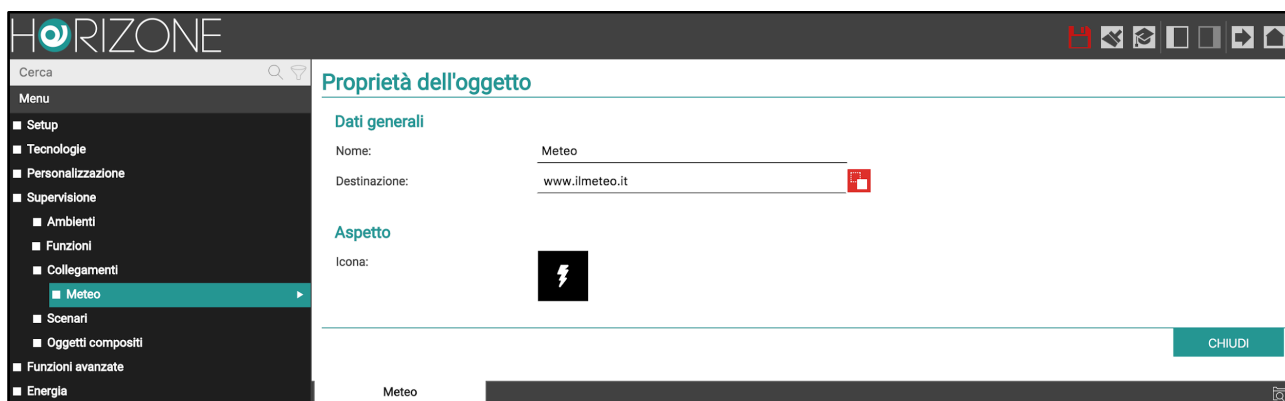
LINK-type objects allow you to configure graphical shortcuts for loading supervision pages or resources available on the LAN/Internet network within the HORIZONE SERVER RUNTIME, without necessarily respecting the hierarchy of room navigation.

Create a new link

To create a new link object, follow these steps:

- Access the HORIZONE SERVER CONFIGURATION environment
- Select SUPERVISION → LINKS from the navigation menu
- Press the “ADD” button to create a new link

Selecting the new object at this point and accessing its tab (using the “three dots” next to the name or the EDIT button on the toolbar, as already seen for other types of object) displays a page similar to the one shown in the following figure:



You can specify the following properties:

NAME	Link identifier name, used at RUNTIME
DESCRIPTION	Link description
DESTINATION	Page displayed when the LINK is selected; it can be a manual path (URL) or a supervision object, as detailed below
ICON	Select an icon to attribute to the link, choosing it from all those available in the HORIZONE SERVER graphics library

The DESTINATION can be one of two types:

- A path (URL) to a web page on the network: in this case, type the address in the text field
- A ROOM type supervision object: in this case, drag the object after searching with the search engine

To switch between the two modes, simply click on the icon next to the DESTINATION field: alternatively, a text field or an area in which to drag the object is shown.

Once the LINK object has been created, you can do the following by drag & drop from the tree or search engine:

- Insert it into a ROOM:
- open the ROOM tab
- locate the LINK using the search function
- drag it to the "CONTENT" section of the room tab

You can insert it in the FRONTEND NAVIGATION MENU:

- select the "NAVIGATION MENU" item in the "CUSTOMISATION" section
- locate the LINK using the search function
- drag it into the list of entries on the navigation menu, determining (by dragging) in what order to display it compared to the other entries

Frontend management

Once inserted in one or more points of supervision, the LINK appears as an entry in the side NAVIGATION MENU. Selecting this entry loads the desired page; in the case of network resources, they are displayed in the BROWSER pop-up window.

ADVANCED FEATURES

Introduction

This section presents a series of advanced features made available by HORIZONE SERVER to enhance the automation functions within the building automation system. Unless otherwise indicated, these functions are performed through software objects intended to be managed through the CONFIGURATION environment only and, therefore, not visible to the end user in the FRONTEND.

Programmable events

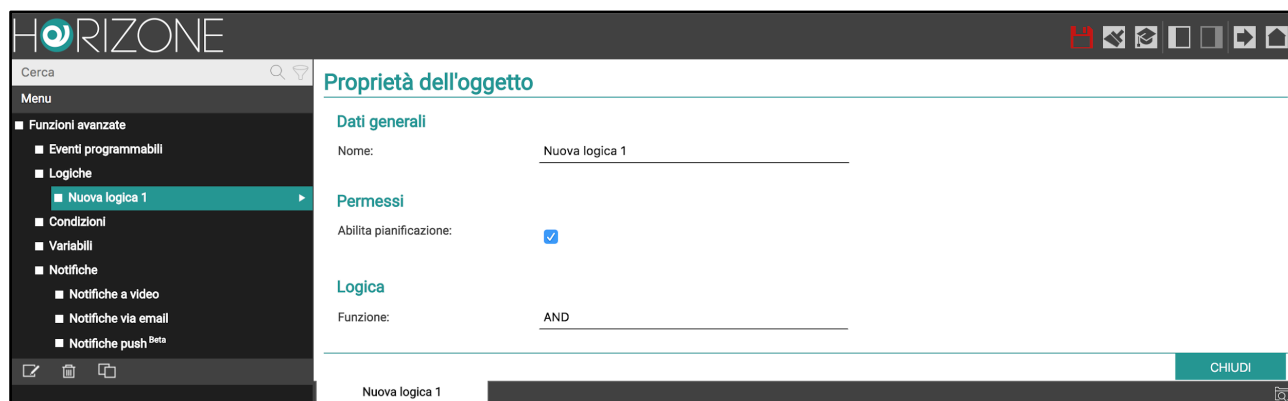
This particular section allows you to create complex logical networks between objects, as better illustrated in the relevant section below. We recommend that you learn more about this topic after reviewing the other advanced features, because these are typically used within programmable events.

Logics

HORIZONE SERVER allows you to configure one or more LOGICAL objects, the value of which is calculated based on an AND/OR type expression between two or more other objects in the system. You can cascade other operations on the same number of objects in the software depending on the result of the logical expression.

To create a new logic, you must:

- Go to the HORIZONE SERVER CONFIGURATION section
- Select ADVANCED FUNCTIONS→ LOGICS in the navigation menu
- Press the “ADD” button to create a new logic, then access its tab
- Name the new logic



Drag the objects into the "INPUT CONNECTIONS" section, on which you want to perform the logic, taken from the side tree or locating them with the search function.

You must now determine the type of logical expression to use, choosing from:

- AND
- OR
- NOT
- Free expression

In the first 3 cases, the chosen operator is applied to the input objects (in the case of NOT, only one input is used).

In the latter case, the logical expression can be entered manually, using the input IDs, bearing in mind the following criteria:

- The logical expression is calculated on the inputs “two by two”, i.e. the result of the expression between the first two inputs is put in AND/OR with the third and so on
- The logical expression should be entered by concatenating input IDs with the keywords “AND”, “OR”, or “NOT” (in capital letters) separated by a space

To refuse an input, place the keyword “NOT” before its ID

Once the expression has been set, you must enter at least one “output” so that the LOGIC object plays an active role in the system; the status of the LOGIC object changes automatically whenever one of its inputs changes status, but you must create an EVENT that guides other objects to have a tangible reflection of this change of status.

To do this, simply drag one or more objects that you want to control to change the status of the logic in the “OUTPUT CONNECTIONS” section; for each of them specify:

CONDITION	Value which the LOGIC must reach to determine the execution of the EVENT – Specify “AT EVERY VALUE CHANGE” to pass the logic status to the object whenever it changes, or filter the execution only on the “VERIFIED” or “UNVERIFIED” logic status
ACTION	Action to take on the object – Depends on the type of object
VALUE	The value to pass to the object during the action (if any). You can choose a specific value (from those available depending on the type of object chosen) or the “special” values “CURRENT VALUE” and “CURRENT VALUE DENIED” that dynamically depend on the status of the LOGIC

Conditions

CONDITIONS are objects that allow you to compare the value of one or more objects, and run events based on the result of the comparison.

To create a new condition, you must first:

- Go to the HORIZONE SERVER CONFIGURATION section
- Select ADVANCED FEATURES → CONDITIONS in the navigation menu
- Press the “ADD” button to create a new condition, then access its tab
- Name the new condition

You must now drag an object into the REFERENCE OBJECT field, choose one of the available conditions and enter one or more comparison terms (depending on the type of condition), doing one of two things:

- Manually enter a value with which to make a comparison
- Enable drag & drop mode (with the button on the right) and drag an object whose value will be used for comparison



Whenever the value of the reference object and comparison objects if any are updated, the condition is recalculated and outputs are triggered based on the result.

Variables

VARIABLES are particular “virtual” objects that can be used within supervision to store values and execute events without having to resort to “real” objects.

Variables can be placed in rooms (after customising their graphic appearance) or used as a starting or arrival point for CONNECTIONS and EVENTS; when the status changes, however, they do not perform any particular action, other than those envisaged specifically as OUTPUT CONNECTIONS. For more information, see section .

Once a new variable has been created (by pressing the “ADD” button after selecting ADVANCED FUNCTIONS → VARIABLES in the CONFIGURATION navigation menu), you can specify the following properties:

NAME	Identifies the variable within supervision
DESCRIPTION	Optional description
RENDERING	Graphic set with which to identify the variable. The complete list of all the icons available for objects of the different technologies is proposed; the user is left the task of choosing a type of icon suitable for the object
VALUE TYPE	Select the type of value to store in the variable, choosing from: BOOLEAN FLAG: only 1 or 0 INTEGER: Number without decimal places RATIONAL NUMBER: Number with decimal digits STRING: Text

In ADVANCED mode, you can also set:

FORMATTING	Allows you to set custom formatting of the numeric value, using the “sprintf” convention. Examples: %s%% → Value followed by symbol “%” %0.2f → Value rounded to 2 decimal places %0.1f°C → Value rounded to 1 decimal place followed by “°C”
VISIBLE	Determines whether or not the object should be visible in supervision
ENABLED IN COMMAND	Removing this option makes the object read-only
ENABLE SCHEDULE	Enables the scheduling of this object in the FRONTEND
ENABLE PIN CONTROL	Protects the object command with a PIN code, to be entered in the appropriate fields (twice for security reasons)

On-screen notifications

On-screen notifications are messages that HORIZONE SERVER displays in the FRONTEND against events expected during configuration.

To create a video notification:

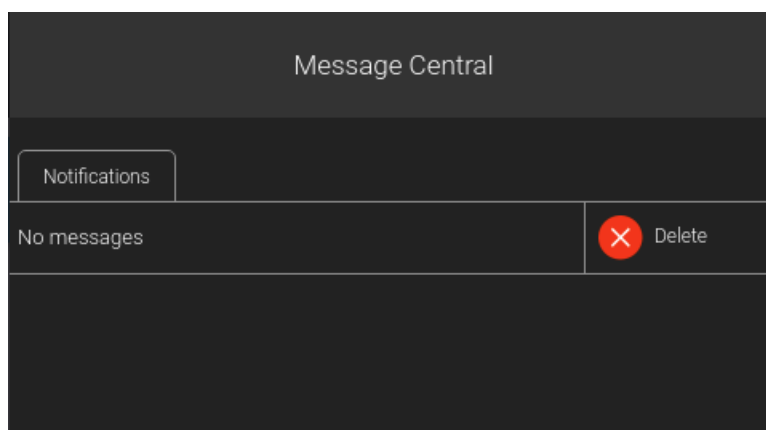
- Login to ADMINISTRATION
- Select ADVANCED FUNCTIONS → NOTIFICATIONS → ON-SCREEN NOTIFICATIONS
- Press the ADD toolbar button
- Access the tab of the new object

The following information is requested:

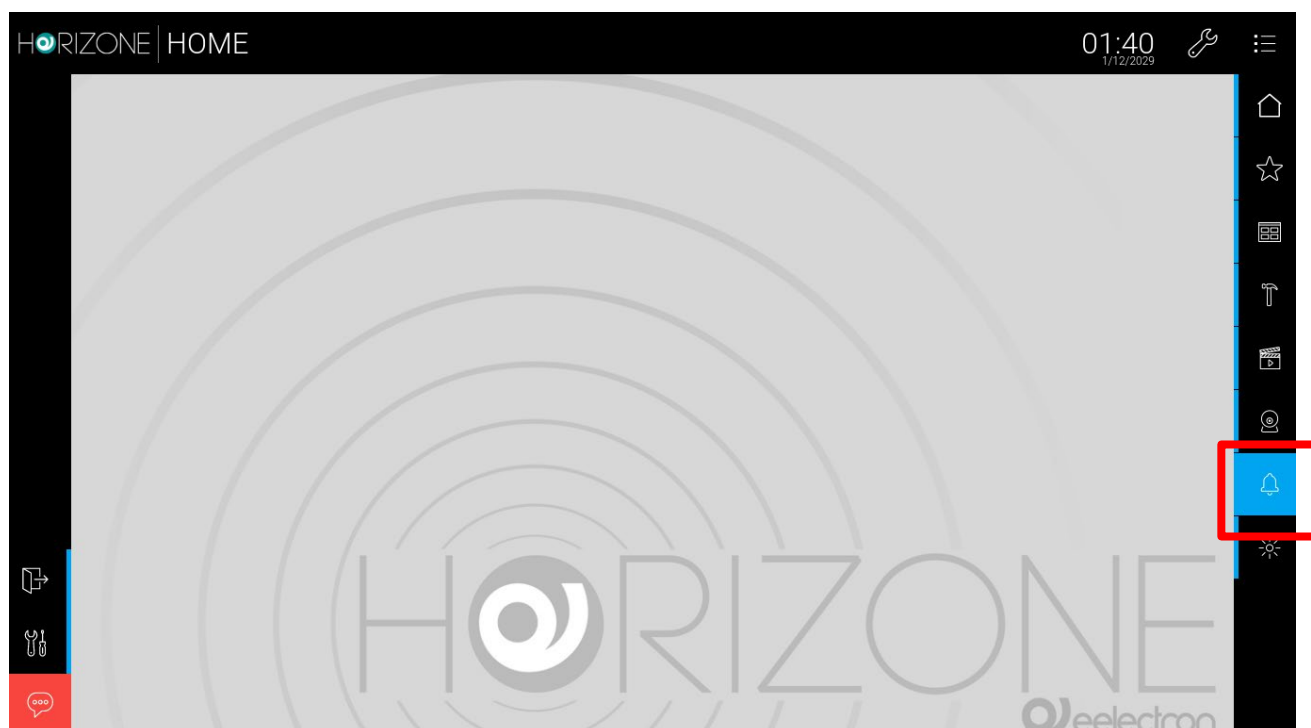
NAME	Identify the notification within the project
MESSAGE TEXT	Message that will be displayed in the FRONTEND
TYPE	Select the type from “alarm”, “warning” or “information”

Once a notification has been created, it must be associated with at least one other object through a PASSIVE CONNECTION, so that the system actually generates the message when the status of the latter changes. Drag objects from the side menu or search engine and select which values should determine whether the message is effectively sent.

Depending on the type chosen, the message centre may or may not be opened automatically in the FRONTEND and a sound effect may be produced, according to what is set in the options (as seen in the section of this manual):



The presence of one or more unread messages is also highlighted in the side menu and on the HOME page:



Email notifications

Email notifications are email messages that HORIZONE SERVER sends to one or more recipients due to predetermined events.

To create an email notification:

- Login to ADMINISTRATION
- Select ADVANCED FUNCTIONS → NOTIFICATIONS → EMAIL NOTIFICATIONS
- Press the ADD toolbar button
- Access the tab of the new object

The following information is requested:

NAME	Identify the notification within the project
RECIPIENTS	One or more email addresses (separated by commas or semicolons) to which to send the notification
EMAIL SUBJECT	Email <i>Subject</i>
MESSAGE	Message in the email

In ADVANCED mode, you can also enter addresses in CC and BCC.

Once a notification has been created, it must be associated with at least one other object through an EVENT (PASSIVE for the notification, ACTIVE for the object in question). so that the system actually generates the message when the status of the latter changes. Drag objects from the side menu or search engine and select which values should determine whether the message is effectively sent.



Sending email notifications is subject to the settings entered in the SETUP → EMAIL section as outlined in the section of this manual.

Push notifications

HORIZONE SERVER can also send messages to the user in the form of push notifications, provided that the HORIZONE app (available for both IOS and ANDROID) has been installed on your mobile device.

To enable a smartphone or tablet to push notifications, just log in once to the HORIZONE SERVER with the HORIZONE app; from then on, notifications will be automatically received, even if the app is off or in the background, and the device is on standby.

By default, all on-screen notifications are also sent in the form of push notifications; to change this setting, simply go to the section

ADVANCED FUNCTIONS → NOTIFICATIONS → PUSH NOTIFICATIONS → OPTIONS

and remove the selection from the option.

You can also manually create notifications that are sent only by push; to do this:

- Select the PUSH NOTIFICATIONS section
- Press the ADD button
- Access the tab of the new object
- Enter the required data

The push notification requires the following information:

NAME	Identify the notification within the project
TITLE	It is used as the notification title on devices that support it
MESSAGE	Message text to send to devices

Mathematical operators

This section allows the installer to perform simple mathematical operations, such as adding, subtracting, multiplying, and dividing other object values. A classic example of this requirement is the calculation of the total power (or energy) of a three-phase system starting from the data of the individual phases.

To create a new mathematical operator, as with all menu items, you must select the entry in the side menu and press the + at the bottom left, after highlighting the section

ADVANCED FUNCTIONS → MATHEMATICAL OPERATORS

The main properties for managing a mathematical operator are:

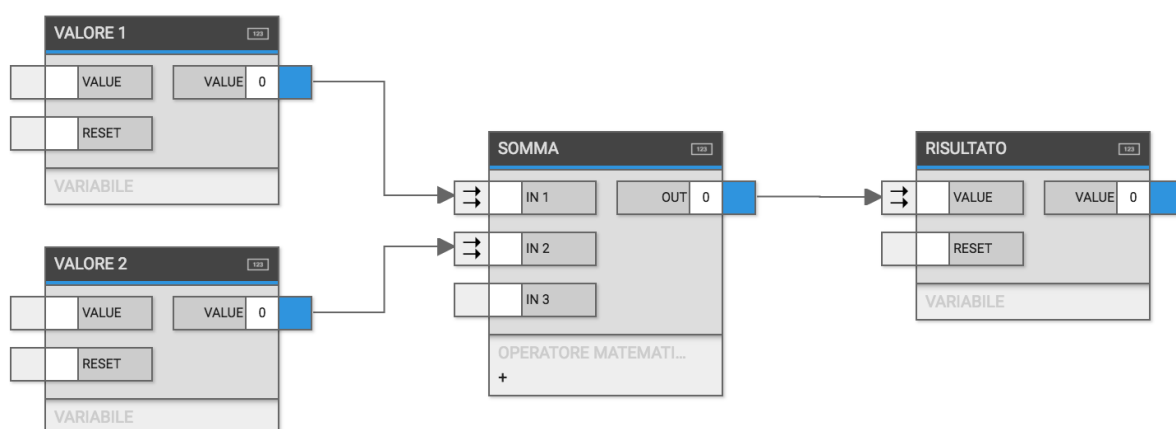
NAME	Mathematical operator identifier label, which is shown in the output/input connections of the associated objects.
OPERATION	An entry that allows you to choose the type of operation to be performed. You can choose from four types of operations: <ul style="list-style-type: none"> <input type="checkbox"/> + addition; <input type="checkbox"/> - subtraction; <input type="checkbox"/> x multiplication; <input type="checkbox"/> : division
TYPE	Indicates the number format used:

	<ul style="list-style-type: none"> <input type="checkbox"/> Numeric - Integer if integers are used; <input type="checkbox"/> Numeric - Rational if you use numbers with a comma. <p>This entry must always be set so the operator works correctly and must be configured consistently with the associated object in OUTPUT CONNECTIONS.</p>
OUTPUT CONNECTIONS	The section where you insert the object on which to perform the previously chosen operation.
INPUT CONNECTIONS	The section where you insert reference objects for mathematical operations.
PROGRAMMABLE EVENTS	Tab showing whether the mathematical operation is part of a programmable event.

To configure a mathematical operator, you must select the OPERATION to be performed and the TYPE of data in which to perform the calculation, if it is an integer or with a comma.

Then enter the objects that will be the calculation factor in the INPUT CONNECTIONS, while the object that must contain the result of the operation is in the OUTPUT CONNECTIONS.

Mathematical operators can also be configured within PROGRAMMABLE EVENTS, by dragging the objects to be used as an operator in input, the one that must contain the result in output and, of course, selecting the operation to be performed:



For more information, please refer to the section on EVENTS.

Clocks

Clocks work like schedules, but unlike schedules, they can be placed within a programmable Event or even just in a simple room; if placed in a single room, they can be used as a collective Schedule of different objects.

The options available for these objects are:

NAME	Clock identifier label which is shown in the output/input connections of the associated objects.
ENABLE SCHEDULE	Allows you to enable or disable clock scheduling; active by default.
ROOMS TO WHICH THE SUBJECT BELONGS	Tab where you enter the room which you can access to schedule the desired objects.
OUTPUT CONNECTIONS	The section where you place the object to be scheduled.

To configure a new Clock, you must place the objects to be scheduled in the output Connections, choosing the appropriate condition to perform an action at a later time, and enter the latter into a Room from where you can modify the schedule.

In the HORIZONE SERVER FRONTEND, the clock is configured as a normal schedule when opened.

These objects can also be used within programmable events.

To change the condition between the clock and the related object, just right-click the link arrow. For more information, please refer to the section on EVENTS.

Pilot Strings

HORIZONE SERVER allows you to control devices over the network by sending strings, thanks to Pilot String objects. These objects can open a TCP, UDP or HTTP connection with a network device and send a command string, arising from an input event, such as changing the status of another object, or the outcome of a logic.

To create a new Pilot String, as with all menu items, you must select the item in the side menu and press the + on the bottom left, after highlighting the section

ADMINISTRATION → ADVANCED FUNCTIONS → PILOT STRINGS

The main properties for managing a Pilot String are:

NAME	Identifies the pilot string within the project
IP ADDRESS IP PORT	Specify the IP address and port of the device to be controlled, respectively (the port depends on the protocol to be used; indicate 80 for HTTP requests)
PROTOCOL	Select the protocol to use from HTTP, TCP or UDP
STRING	Enter the string to send to the device

In the case of HTTP requests, the STRING will be concatenated to the IP address and port; the information entered in the previous example (which allows you to open the lock of a 2N IP video intercom) is concatenated in this request:

`http://192.1680.110:80/api/switch/ctrl?switch=1&action=on`

The pilot string can be placed in a scenario, scheduled or linked to other objects via an INPUT CONNECTION or PROGRAMMABLE EVENT. In this way, sending the string to the device can be automated. Refer to the EVENTS section for more information.

Schedules

You can schedule commands to run on objects both weekly and yearly, creating one or more schedules. You can schedule an object in two ways:

- ☐ In the FRONTEND, by pressing the SCHEDULE button in the toolbar and then selecting the object you want to control (for more details, refer to the USER MANUAL)
- ☐ In ADMINISTRATION, in the relevant detail tab, as detailed below

In the tab of an object in administration, locate the SCHEDULES section and press the + button; a new schedule is created, which can be edited by pressing the corresponding EDIT button.

You can specify the following in the side panel:

NAME	Schedule identifier label; it will also be seen in the FRONTEND
TYPE	Choose whether the schedule should be WEEKLY or ANNUALLY
DAILY ACTIONS PROFILE	<p>Add one or more commands (using the ADD button), specifying the following for each one:</p> <ul style="list-style-type: none"> <input type="checkbox"/> hour and minutes when to send the command <input type="checkbox"/> action to be taken <input type="checkbox"/> value to be passed (if required by the action / object type)

SCHEDULE CALENDAR	<p>For weekly planning, highlight (in red) on which days of the week the action profile should be run.</p> <p>For an annual plan, choose calendar dates instead.</p>
-------------------	--

Once you have confirmed your changes with the SAVE button, enable the schedule by selecting it in the schedule list on the object tab.

You can enable or disable schedules against events by using the **schedule manager** object, available in the menu

ADVANCED FUNCTIONS → SCHEDULES → SCHEDULE MANAGERS

This type of object allows you to receive an event from another object (e.g. logic, scenario, etc.) and enable one or more schedules of one or more associated objects. After creating a new *schedule manager*, you can access its tab to configure it as follows:

NAME	Identifier label of the schedule manager for its subsequent identification in the project
OBJECTS TO BE CHECKED	<p>Drag one or more objects from the side menu or search results into this list.</p> <p>For each dragged object, set the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Condition: Determine when the schedule enable command should be sent (if every time the schedule manager status changes or only if set to ON or OFF) <input type="checkbox"/> SCHEDULE: choose the schedule of the object to enable / disable or the entry "ALL SCHEDULES" to control them all <input type="checkbox"/> VALUE: Specify whether, following a change in the status of the schedule manager, schedules should always be disabled (OFF), always enabled (ON) or aligned with the status of the schedule manager (CURRENT VALUE) or with its inverted status (VALUE DENIED)
INPUT CONNECTIONS	Drag the objects to guide the schedule manager to this section

As an alternative to input connections, you can associate the schedule manager with other objects through PROGRAMMABLE EVENTS, as described in detail in the section dedicated to them.

Status bytes

STATUS BYTES are objects which can receive an input value consisting of sub-information (at the single bit level or bit groupings) that must be “separated” and interpreted individually.

This type of information “aggregated” in a single byte (or byte groups) is often used in both KNX and MODBUS applications.

Once a new STATUS BYTE has been created using the ADD (+) button on the side tree and the following entry has been selected

ADVANCED FUNCTIONS → STATUS BYTES

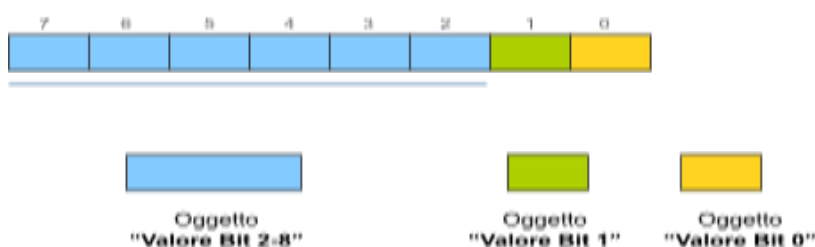
by accessing its tab, you can drag the value to be decoded (in the INPUT CONNECTIONS section) and vice versa, add the sub-objects that will host the sub-information of the input value received in the OUTPUT CONNECTIONS section

Alternatively, you can drag existing objects into OUTPUT CONNECTIONS (instead of creating new ones) because these sub-values must, for example, also be sent on buses (e.g.: KNX).

For each of the objects inserted (or dragged) output, you can specify:

BOOLEAN	Determines whether the object is an ON/OFF or numeric type
OFFSET	Index of the starting bit, with respect to the input value
LENGTH	Number of bits to consider, starting from OFFSET Field only available for non-BOOLEAN objects

After each configuration change, press the UPDATE button; the EXAMPLE column helps identify which bits are taken into account by each sub-object, assuming that the input value is on a single byte. The following figure graphically shows the breakdown of the byte status into the 3 components, to which the previous example screenshot refers:



By trying to simulate sending values to the input object through its STATUS column, you can verify in real time that the sub-objects have the correct value.

Repeaters

In some particular situations, it may be useful to periodically send the value of one or more objects to the respective technologies, to “reiterate” their status (compared to what is present in HORIZONE SERVER) in order to avoid a misalignment occurring for some reason.

A REPEATER can be used for this purpose; this particular object allows you to reiterate the value of one or more linked objects as OUTPUT CONNECTIONS, when one of the following conditions occurs:

- Cyclically, with a certain time (if configured in “loop” mode)
- When a certain condition occurs on an associated object in INPUT CONNECTIONS (“non-loop” mode)

In the first case, it is necessary to enable the “loop” selector and (typically) the execution selector at start-up (so that the execution is started when the webserver is turned on), specifying a repetition time for the cycle (in ms). Once the parameters have been set, the REPEATER must be started with the START button.

In the second case, on the other hand, the loop flag is not set and you must associate at least one object in INPUT CONNECTIONS, specifying a possible filter on the status that will cause the repeater to execute.

In either case, you can set a time (in seconds) between executing one command and the next, in the list of associated objects.



In many ways, the REPEATER behaves similarly to a SCENARIO, being a sequence of commands sent to a predetermined list of objects. However, the SCENARIO always sends the same values set during configuration, while the REPEATER sends the same value that each associated object has at that time.

EVENTS

Introduction

HORIZONE SERVER allows you to connect objects to each other to perform automatic actions when the status changes or, more generally, when certain events occur on technologies managed by supervision. You can connect objects:

- In a PROGRAMMABLE EVENT, i.e. a complex logical network to be configured using a graphics editor
- Directly in its edit tab, through a DIRECT CONNECTION

Programmable events

Programmable events are logical networks that connect two or more objects to implement automatic functions when certain events occur (typically, status changes) in the system. To create a new programmable event, simply press the ADD button after selecting the PROGRAMMABLE EVENTS section in ADVANCED FUNCTIONS; when you then the new object, a blank page is displayed as in the following figure:



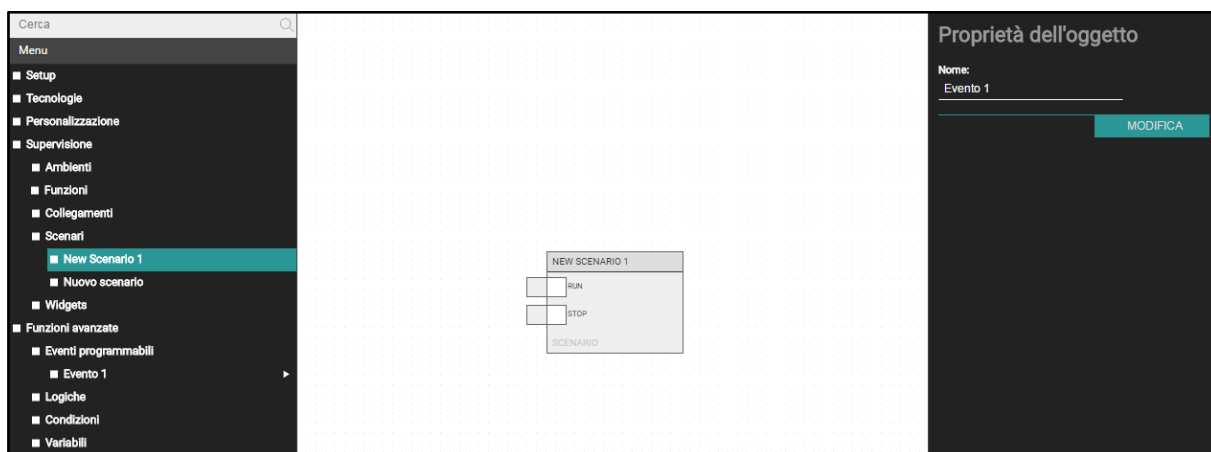
To change the name of the event, just press the right mouse button in any area of the page; the right-side panel is automatically opened, which allows you to change the label associated with the event:



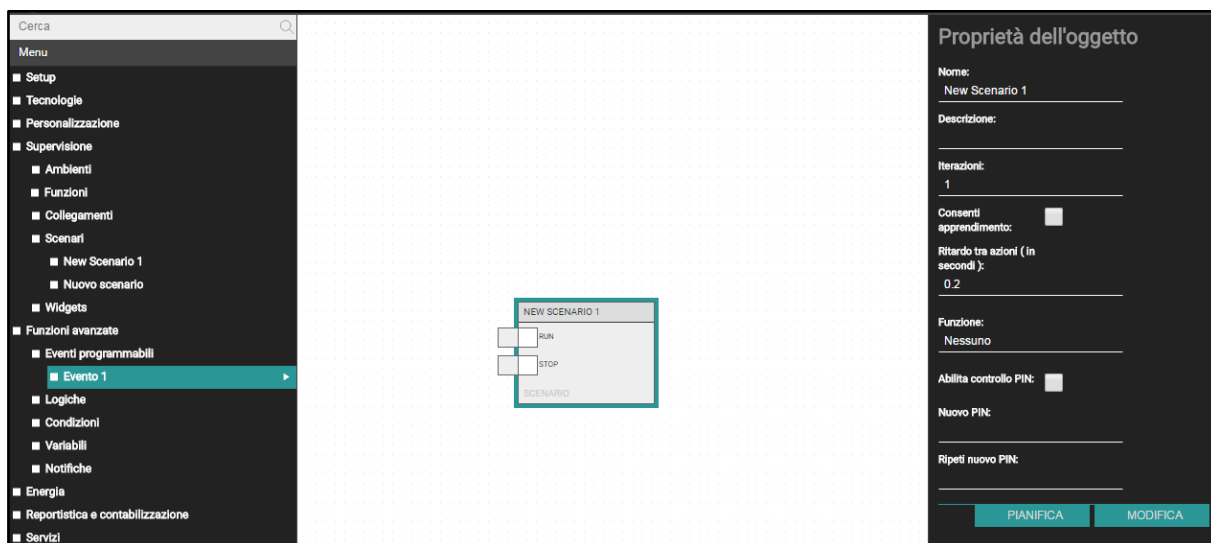
Now you can start dragging the objects you want to connect to a logical network, either from the side tree or from the search results.

Adding Objects

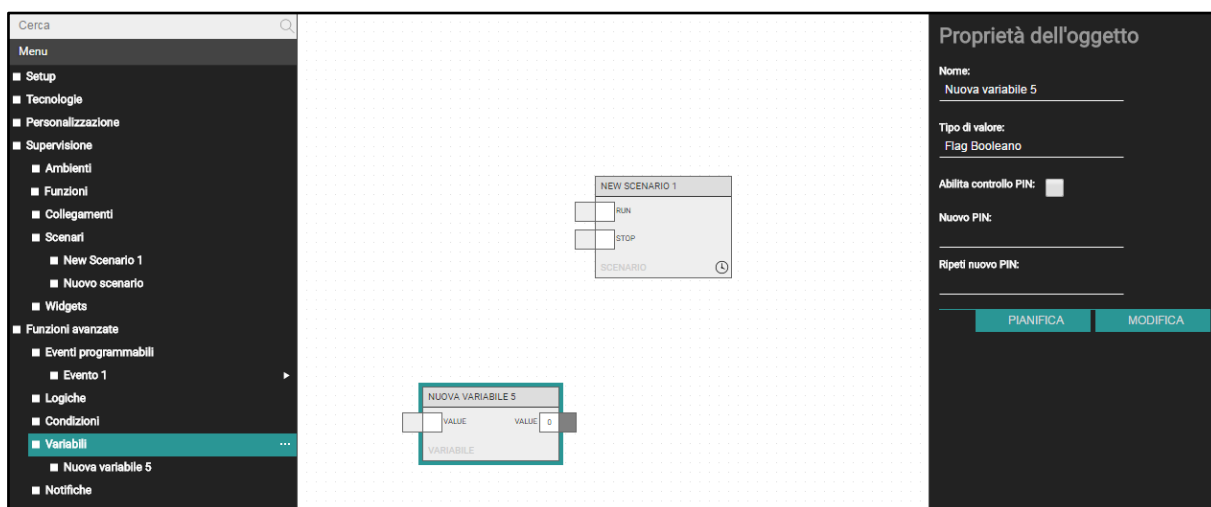
Let's assume, for example, that you want to manage automatic irrigation, for which a scenario has already been prepared; just look for it and drag it anywhere in the work area:



By right-clicking on the object, you can consult its main properties in the side panel (which also allows you to access its detail tab, via the EDIT button):

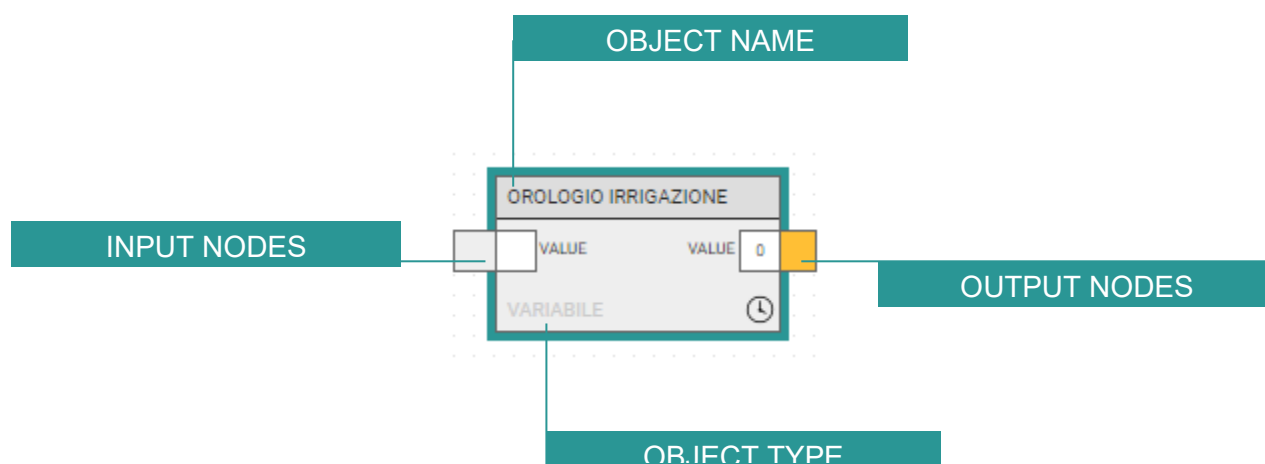


If you want to schedule the execution of the scenario, you can create a new variable (which will then be entered in the FRONTEND and scheduled by the user, as detailed in the USER MANUAL) and drag it into the workspace (it is not necessary to open its detail tab beforehand):

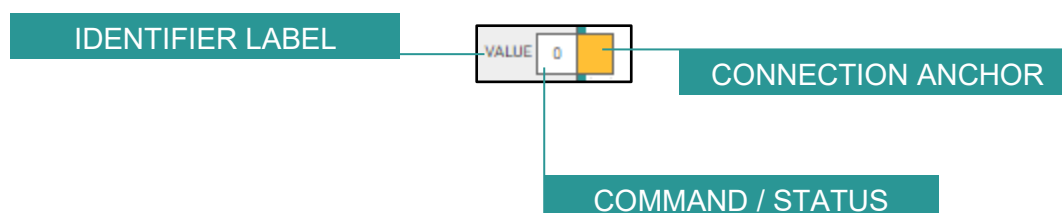


Here again, you can change the main properties of the variable (name and data type) in the side panel.

As can be seen, objects are represented, within programmable events, as “blocks” consisting of one or more lateral “nodes”; nodes represent inputs (left side) and outputs (right side) that can be linked to other objects (or more precisely, with nodes of other objects):



The nodes, in particular, consist of the following elements:

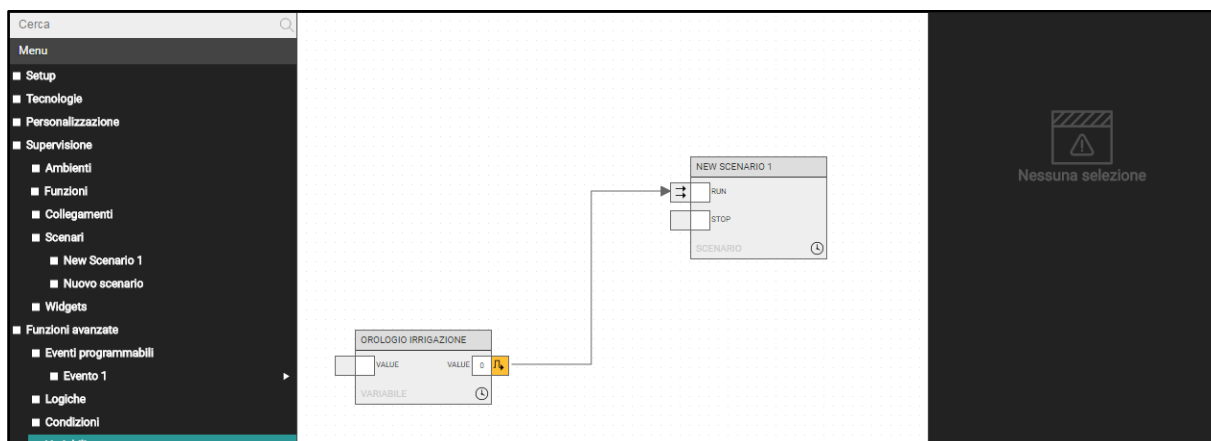


The label (an acronym in English) identifies the node, especially in the case of blocks with multiple nodes. The value shows the state of the object in real time (and can be changed, as shown below) while the connector should be used to create a connection with other objects.









Connections



You can now link the two objects, so that when the clock object changes its status, the scenario is executed. To do this:

- Select the source object of the new connection (i.e. the clock)
- Press and hold (with the left mouse button) the connector of an output node (i.e. the clock value) and connect it with the connector of an input node of another block (e.g. the “RUN” node of the scenario, which executes it)

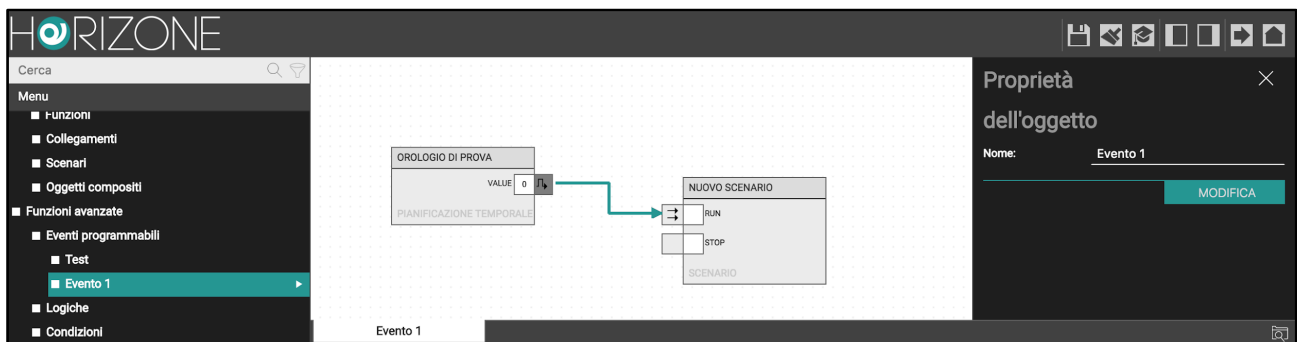


Once connected, the nodes display a symbol in their respective connectors, which represents the connection operation. In particular:

NODE TYPE		OPERATION
Digital output		Both edges The value is passed to the recipient of the connection both in the case of rising and falling edges
		Rising edge The value is passed to the recipient of the connection only on the rising edge
		Falling edge The value is passed to the connection recipient only on the falling edge
Analogue output		All values Whatever value the node assumes, it is passed to the connection recipient
		Filter Only a specific value is passed to the connection recipient
Input (all types)		Current value The value received from the connection source is passed to the node
Digital input		Value refused The inverse value (between 1 and 0) of the connection source is passed to the node
		ON value Only the ON value is passed, regardless of what is received from the connection source object

		OFF value Only the OFF value is passed, regardless of what is received from the connection source object
Analogue input		Specific value A specific value is passed, regardless of what is received from the connection source object

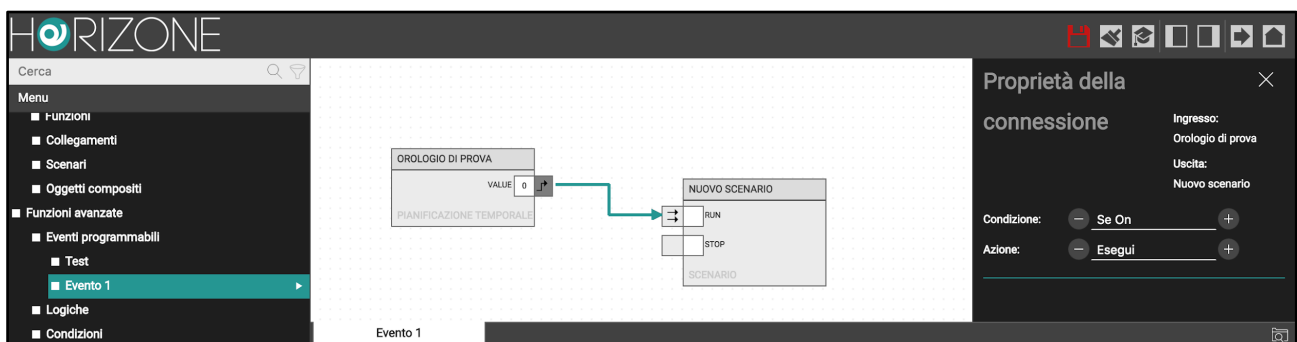
To change the behaviour of a connection, just right-click on it; the parameters of the connection can be changed in the side panel, as in the following example:



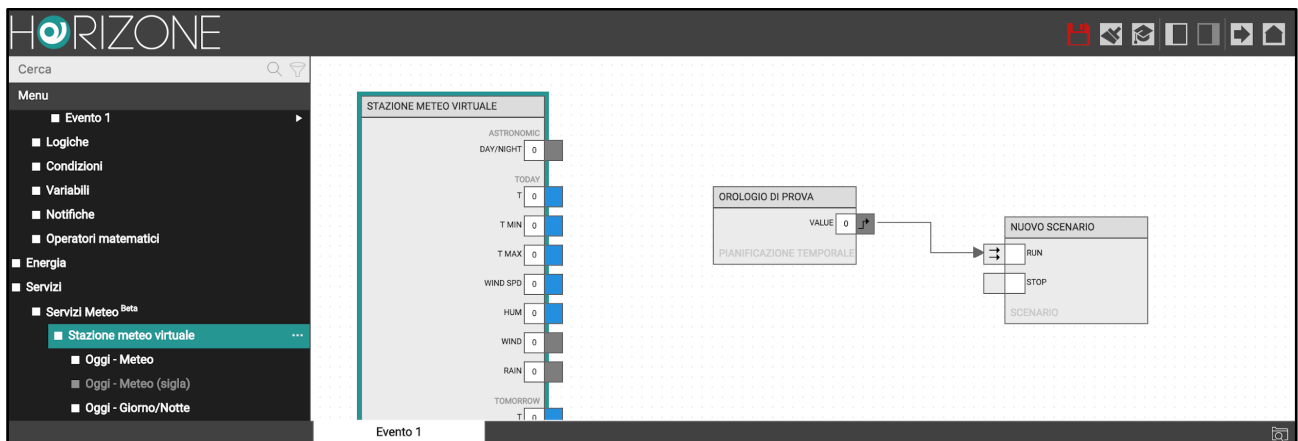
Depending on the type of objects involved, the following properties may be required:

CONDITION	Filter on the value of the connection source object. Select "ALWAYS" so as not to place filters on the value and run along the connection at each change in value
ACTION	What to do on the target object
VALUE	Value to pass to the target object (if applicable)

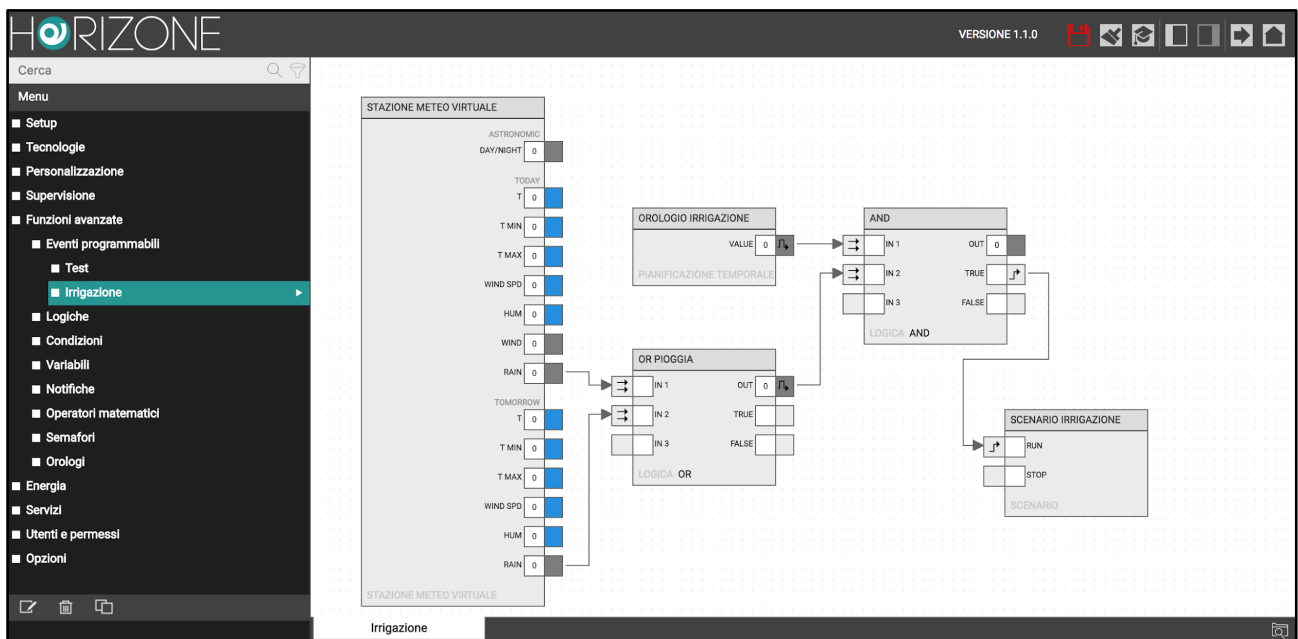
For example, you can change the connection so that the scenario runs only when the clock is ON:



It is possible to structure the programmable event in a more complex way involving other objects; in the example for irrigation, it is, therefore, possible to condition the planned execution of the scenario to the fact that no rain is expected, taking advantage of the integrated weather service of HORIZONE SERVER: first drag the weather service from the side menu...



... and then create LOGICAL objects to combine the rain alarm (for today and tomorrow) and the clock accordingly. The final logic can be structured as in the following figure:



As you can see from the examples, blocks can have multiple nodes both on input and output; some blocks, such as LOGIC, have a variable number of nodes depending on the active connections, so that you always have a free node to be able to connect a new object (up to the maximum allowed).

Widgets in programmable events

Widgets, as well as special objects such as the weather station in the example, have multiple nodes representing the sub-objects, each with its own status; in this case, connecting the node is equivalent to sending commands to the sub-object or associating a change of status of these sub-objects with a command to other objects.

Removing objects or connections

To remove an object from a programmable event, simply select it and press the DELETE key on the keyboard; the object and all its connections are removed. The object is not removed from the project, but only from the programmable event.

Similarly, you can delete a single connection by selecting it and pressing the DELETE key.

Multiple selection

You can select more than one object by holding down the left button and highlighting a rectangular area of the workspace; all objects in the area are selected, and can then be dragged & dropped or deleted.

Deleting an event

You can completely eliminate a programmable event by selecting it from the side menu and pressing the REMOVE button in the toolbar. All connections between objects in the project are cleared; objects in the project remain available for other logics or for supervised viewing.

Single connections

As previously anticipated, you can connect two objects directly without having to create a programmable event. This type of direct connection was called “ACTIVE EVENTS” or “PASSIVE EVENTS” in versions of HORIZONE prior to 2.2

To connect two objects, proceed as follows:

- Access the tab of one of the two objects
- Locate the INPUT or OUTPUT CONNECTIONS section
- INPUT CONNECTIONS allow you to associate another object, whose change of value determines an action on the current object
- Conversely, OUTPUT CONNECTIONS allow you to perform an action on another object when the current object changes its status
- Drag the other object you want to connect from the side menu or search results
- Fill in the properties required for the connection, which - as seen above for connections within a programmable event (section) - depend on the type of objects involved, and can be the following:

CONDITION	Filter on the value of the connection source object. Select “ALWAYS” so as not to place filters on the value and run along the connection at each change in value
ACTION	Operation to be performed on the connection target object
VALUE	Value to pass to the target object (where the action requires it)

An object can simultaneously have direct connections and connections made within programmable events. To distinguish these two types of connection, in the second case there is a symbol, as shown in the following figure:

Connessioni in uscita				
	ID	NOME	CONDIZIONE	AZIONE
...	530	AND	— Sempre	+ Valuta
Trascina qui un oggetto dal menu laterale o dai risultati della ricerca				

Connections created within programmable events cannot be changed from the tab of the objects involved. By pressing the yellow symbol, vice versa, you can open the membership event directly.

CLOUD SERVICES

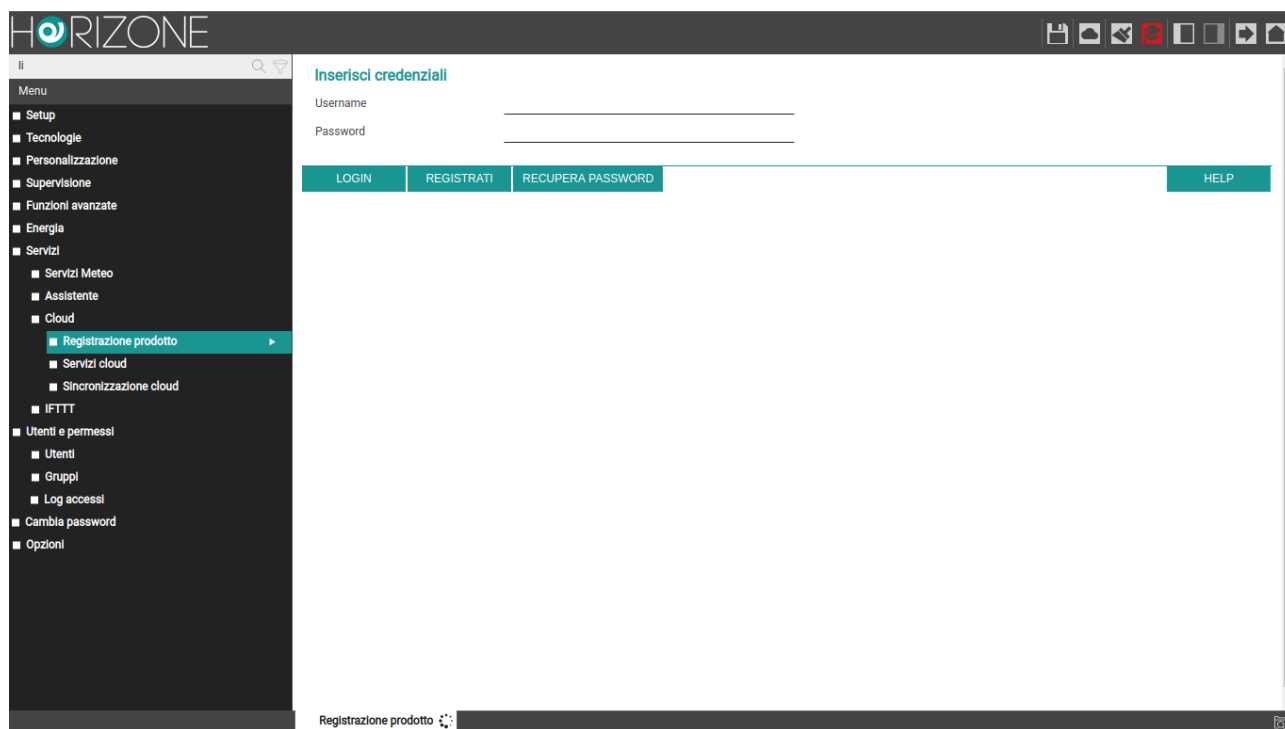
Registration

HORIZONE SERVER can be registered on the *Eelectron* cloud to benefit from exclusive services, which enhance its local operation.

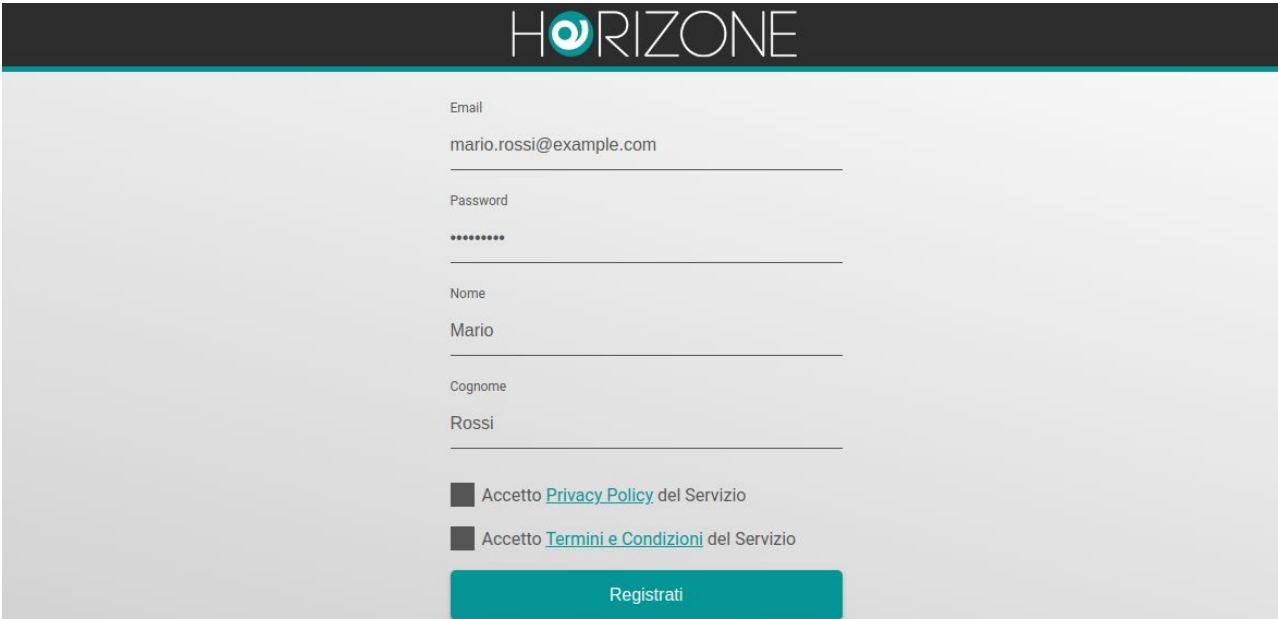
The first step is to create a free account on the cloud. By pressing the cloud icon in the toolbar at the top of the screen or by accessing the admin menu item

SERVICES → CLOUD → PRODUCT REGISTRATION

you can enter your own cloud credentials, if already available...



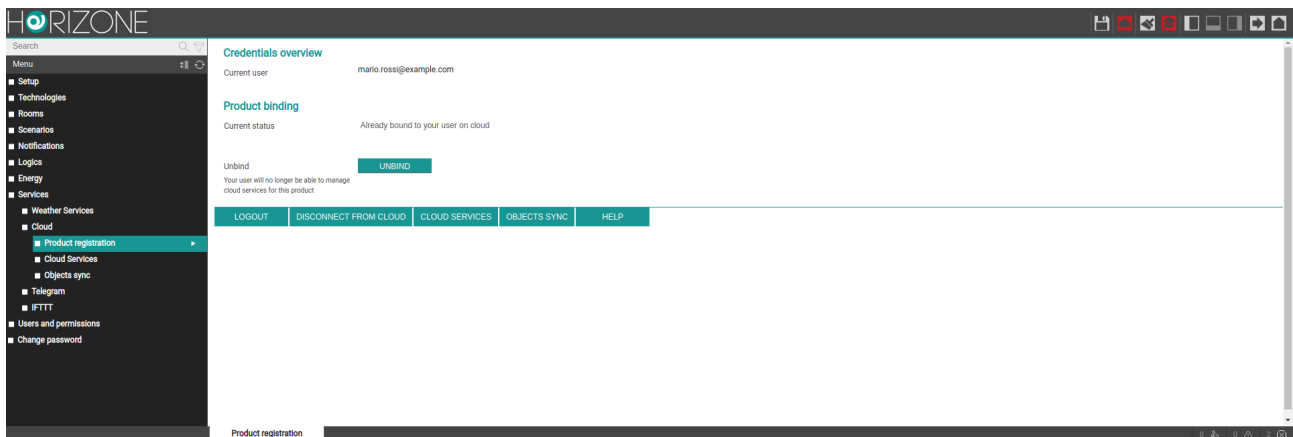
... or by pressing the REGISTER button, create a new account on the fly:



Once you have entered your credentials, you can associate the current user, with which you accessed HORIZONE SERVER, with your cloud account. You can choose two types of association:

OWNER	<p>You will have full rights on HORIZONE SERVER and full management of the services associated with the cloud.</p> <p>It will also be possible to control the functions of HORIZONE SERVER through cloud services and voice assistants</p>
INSTALLER	<p>You will be associated with HORIZONE SERVER as an installation and configuration technician.</p> <p>You will not be able to control objects using voice assistants and the cloud.</p>

By pressing the corresponding button, the current user of this HORIZONE SERVER is matched to the cloud account entered; after a few seconds, the following summary screen is displayed:

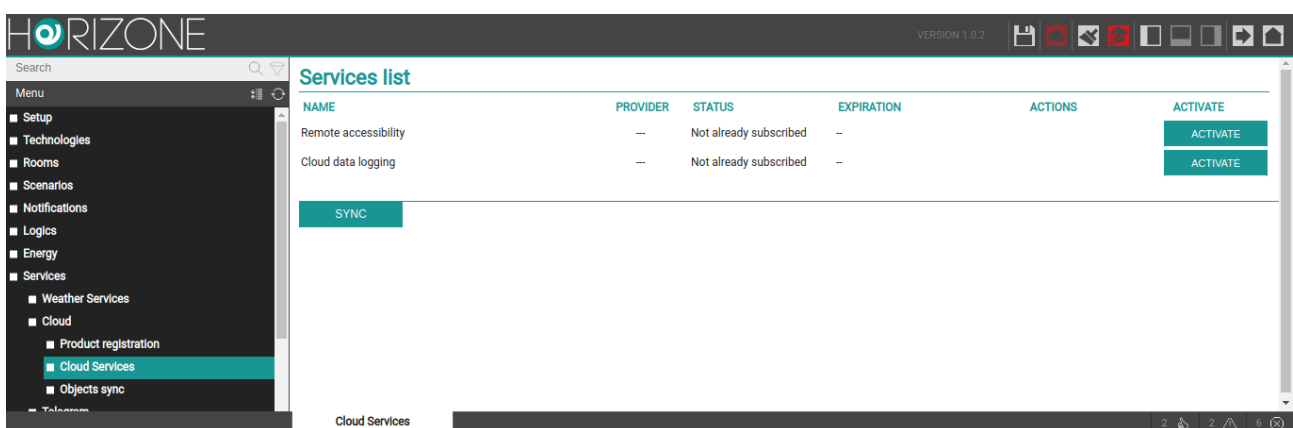


You can now access the following sections:

Cloud Services	Enables cloud-based services on the server, such as remote access without opening ports on the router
Cloud Sync	Allows you to record cloud supervision widgets, so that you can control them through external services, such as Alexa and Google voice assistants

Remote cloud accessibility

The CLOUD SERVICES page allows you to activate the remote service, which allows you to access HORIZONE SERVER without opening IP ports on the Internet router:



By pressing the service activation button, a request is sent to the cloud, which after a few seconds sends a confirmation email to the applicant (the same email address used to access the cloud section) containing:

- The address that can be accessed remotely (to be entered directly in the browser, or in the HORIZONE SERVER app)

Once the service has been activated (it may take a few minutes before it starts and is operational), you can also see the remote IP address of HORIZONE SERVER on the following pages:

- SETUP → NETWORK
- SETUP → ACCESS WITH QR

On both pages, where you could manually enter the references of your public IP or dynamic DNS if the service is not active, in this case you cannot make manual changes but you can, however, copy the cloud address to be used in the browser or apps, or shared with other users.



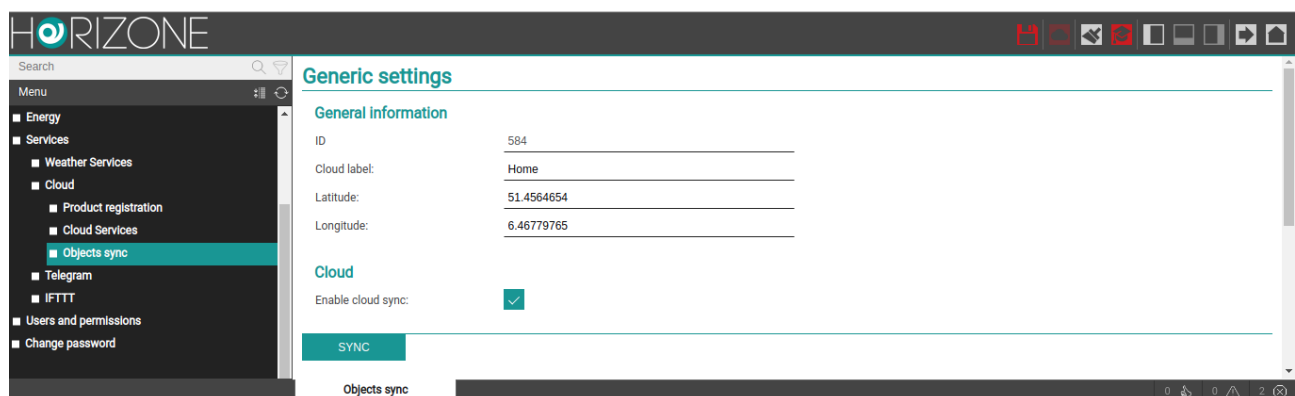
Because the cloud address consists of random characters and is, therefore, not easy to remember, it is recommended that you share access to HORIZONE SERVER via QR, as explained above in the SETUP section

Even if you associate more than one HORIZONE SERVER users with the same number of cloud accounts, you only need to activate remote access once; once activated, in fact, HORIZONE SERVER becomes available for external access, regardless of the user who then materially logs in.

Cloud Sync

Through this section you can sync HORIZONE SERVER to the cloud, identifying a number of *widgets* that can be controlled by external services, such as Alexa and Google voice assistants.

First of all, you should identify your SERVER HORIZONE with a label and the coordinates of the place where it is installed:



This information is not strictly essential, but makes it easier to identify the server on the cloud. The SYNCHRONISE button must be pressed when any changes are made.

Within the configuration pages, whether they are a room, list of widgets of a given technology or the detail tab, you can enable cloud synchronization of one or more widgets / supervision objects.

Initially the selector is orange, indicating that synchronization with the cloud has not yet taken place. Once you have selected all the objects to synchronize, by pressing the cloud indicator again in the toolbar, you can review the summary of the objects, and start the procedure with the SYNCHRONISE button.

At the end of the procedure, all objects are marked in green, until a new change to their configuration occurs; in the latter case, a new synchronization will be required. The status of the cloud indicator in the toolbar – green or red – indicates whether or not there are objects to synchronize.

If an object remains orange after synchronization is completed, you should verify its configuration; for example, composite widgets may lack the minimum number of sub-objects necessary for proper cloud management.

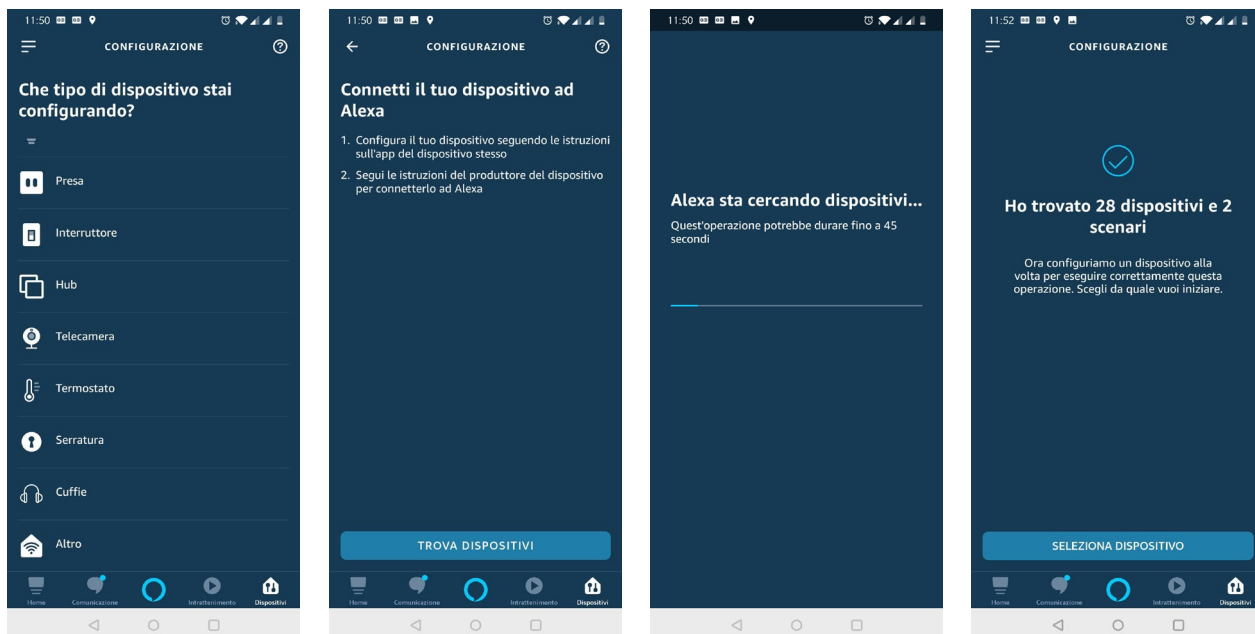
Voice Assistant Control

Once the widgets have been synchronized correctly, you can control them through the Alexa and Google voice assistants, through the *smart home* management of their respective systems (“Alexa” app for Amazon, “Home” for Google). This chapter will describe the procedure for Alexa, by way of example.

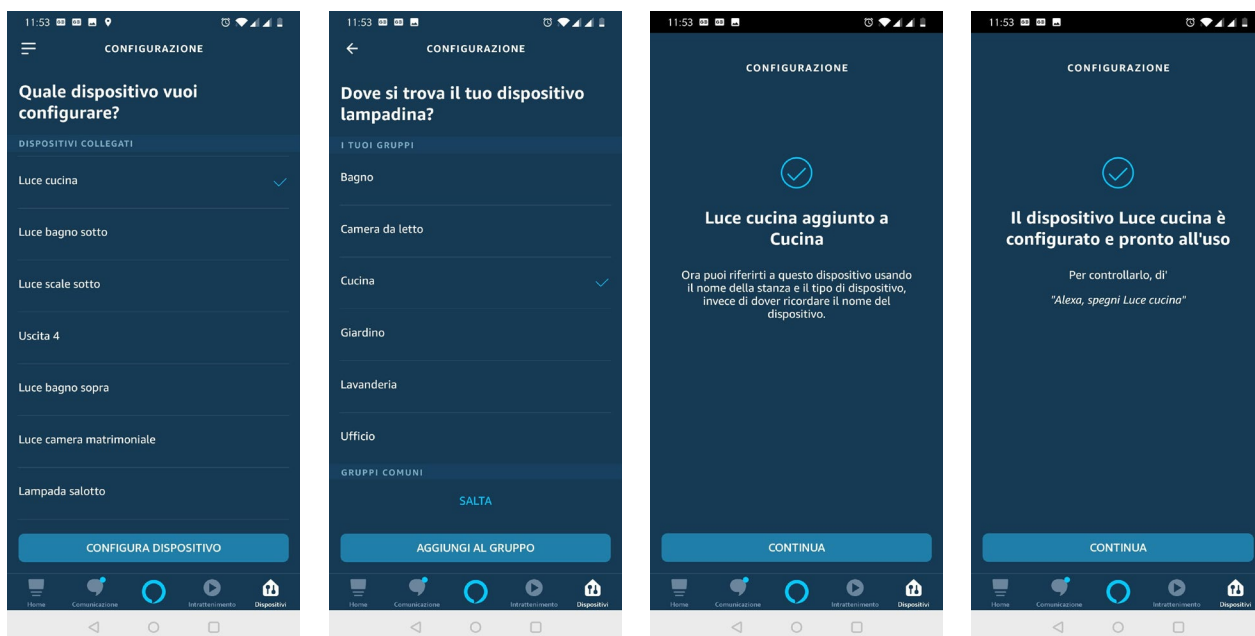
As a first step, it is necessary to activate the Eelectron skill in the Alexa and Google Home apps; during the procedure, you are required to associate the account on the *Eelectron* cloud (with which the procedure described above was carried out):



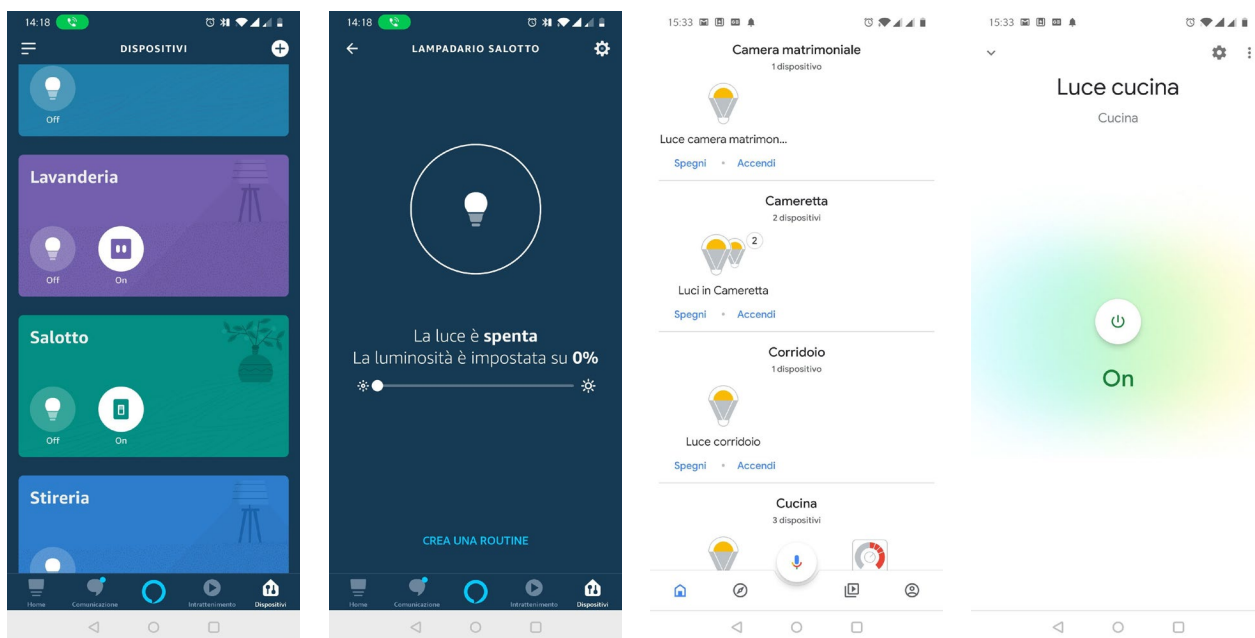
At this point, it is necessary to launch a scan for new devices:



Once the procedure is complete, an association for each of the devices can be created with a group, to identify it more easily (and be able to execute group commands, or refer to by voice with the group name):



At this point, you can control the new features with your voice, or with the graphics of the Alexa/Google Home app:



For a list of specific keywords, please refer to Alexa and Google Assistant documentation; here are some examples of common requests:

Alexa, turn on the light in the kitchen

Alexa, set the temperature in the kitchen to 21 degrees

Alexa, set the light in the living room to 70% *Alexa, tell me the temperature in the living room*

Alexa, increase the light in the bedroom by 20% *Alexa, shut down everything*

Please note that not all HORIZONE SERVER features can be managed with Alexa and Google Assistant because the models of these systems are extremely simplified and basic compared to the features offered by a KNX system.

To this end, an indicator has been introduced in HORIZONE SERVER, which highlights whether a particular widget / object can be controlled by voice or which sub-objects are, in the case of composite widgets.

USERS AND PERMISSIONS

Introduction

This chapter explains the user management of HORIZONE SERVER and how to customize it according to your needs, to ensure secure and versatile access to the supervision pages.

Users and User Groups

Authentication in HORIZONE SERVER is based on two types of objects:

- **USERS:** these are the real supervision access accounts, identified by a “username” and a “password”. Users do not have permissions and privileges, but may belong to one or more USER GROUPS that determine their level of access to the software
- **USER GROUPS:** Hold permissions to access the different functions of the software. Changing a permission to a group simultaneously affects all users who are part of it.

Creating a new user

To create a new user, as with the other object types previously seen:

- Access the HORIZONE SERVER CONFIGURATION environment
- Select USER AND PERMISSIONS → USERS
- Press the “ADD” button and access the newly created object tab

The users tab allows you to set the following properties:

NAME	Label with which the user is identified (<u>not</u> used to log in)
USERNAME	Name used to log on to the system – <u>Must consist of alphanumeric characters without spaces or special characters</u>
PASSWORD	System access password - <u>Must consist of alphanumeric characters with no spaces</u>
TRUSTED IP ADDRESS	Optional – Allows you to specify a LAN IP address on which to be automatically logged in with this user, without requiring the password

The user can then be the subject of events, to automatically manage the following types of actions on all supervision stations where, at a given time, they are authenticated:

- **PAGE BREAK:** allows you to automatically upload a particular page to all browsers (or mobile APPS) to which the user has accessed
- **VOIP CALL:** allows you to make a call to ring all the stations to which the user has accessed (requires VOIP license)

To configure a PAGE BREAK at the user level, you must:

- Drag the object causing the event (e.g. a KNX object) into the INPUT CONNECTIONS section
- Specify the CONDITION in which the action is to be generated (choosing it from the possible values made available by the newly dragged object)
- Specify “REDIRECT” as the action to be performed

At this point, in the “VALUE” column, set the page that the browser must open on the event, specifying:

- The address of any web page outside the supervision
- A supervision room

In the first case, simply type the address in the text field; conversely, press the red button to switch to “drag” mode and drag the ROOM object into the area where you want the browser to go, always on event.



The configuration of events on USERS is very similar to that seen previously for CLIENT-type objects (section of this manual); while, in that case, the events are limited to operating on a single workstation, however, in this case they dynamically affect all workstations to which a given user has accessed when the event occurs.

User groups and access rights

By accessing the tab of a USER GROUP – whether default or created manually – it is possible (in addition to specifying its name) to determine which users are part of it, by dragging them from the tree menu or from the search engine in the appropriate “USERS BELONGING TO CURRENT GROUP” section.

Cerca
Menu

- Setup
- Tecnologie
- Personalizzazione
- Supervisione
- Funzioni avanzate
- Energia
- Reportistica e contabilizzazione
- Servizi
- Utenti e permessi
 - Utenti
 - Gruppi
 - Amministratori
 - Utenti
 - Log accessi
- Opzioni

Proprietà dell'oggetto

Dati generali

Nome:

Descrizione:

CHIUDI

Utenti appartenenti al gruppo corrente

NOME
user
admin

Trascina qui un oggetto dal menu laterale o dai risultati della ricerca

Oggetti di proprietà esclusiva del gruppo corrente

NOME	DESCRIZIONE	TIPO
Trascina qui un oggetto dal menu laterale o dai risultati della ricerca		

Permessi specifici posseduti dal gruppo corrente

NOME	DESCRIZIONE
Trascina qui un oggetto dal menu laterale o dai risultati della ricerca	

You can also assign one or more supervision objects to the USER GROUP, thus making them “private” and accessible only to USERS belonging to that USER GROUP: to do this, simply drag the desired objects to the “OBJECTS OWNED EXCLUSIVELY BY THE CURRENT GROUP” section.



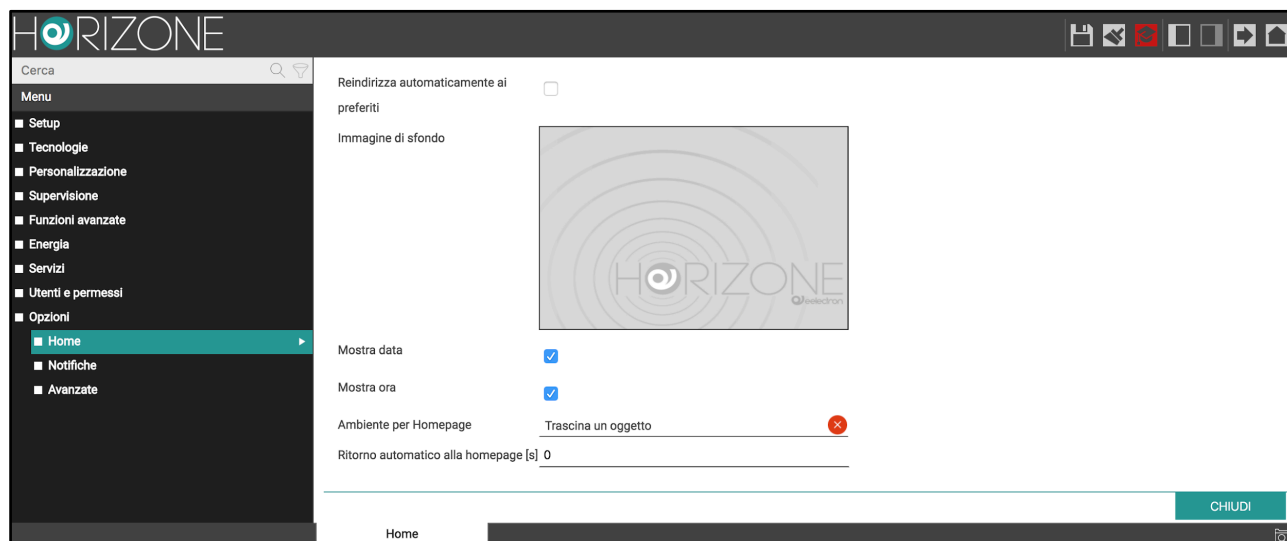
Once an object has been assigned to a user group, it can no longer be used by users outside the group, so it is important to be take care over this to avoid situations where you are no longer able to use objects or change these settings. For this purpose, it is recommended that you always associate “private” objects with the ADMINISTRATORS user group (so that “admin” can always operate on them), and possibly also with the other user groups that you want to have control of these objects.

OPTIONS

Home

Allows you to set the graphic appearance of the HOME page of the FRONTEND section. The options available are:

AUTOMATICALLY REDIRECT TO FAVOURITES	Selecting this item hides the HOME page and replaces it with the FAVOURITE page, which contains the objects most frequently used by the end user
--------------------------------------	--



BACKGROUND IMAGE	Image to use as background
SHOW DATE SHOW TIME	Allows you to enable or disable the date and time display on the HOME page. NOTE: date and time are synchronized with the HORIZONE SERVER internal clock and not with the browser
HOME PAGE ROOM	Drag a supervision room here to use as a home page
AUTOMATIC RETURN TO HOMEPAGE	Time (in seconds) after which, in case of inactivity, you automatically return to the home page

Notifications

This page allows you to set the default options for HORIZONE SERVER on-screen notifications, through which you can alert the user of particular events or anomalies (as better described below, in the “ADVANCED FUNCTIONS” section).

There are three different types of on-screen notifications, in descending order of priority: alarm, warning and information. You can set the following options for each of these levels:

SHOW MESSAGE CENTRE	Select this option to automatically open the message centre (in the FRONTEND) when a new notification of this type arrives
ENABLE SOUND NOTIFICATION	Select this option to play a sound when a new notification of this type arrives
ENABLE CYCLIC SOUND NOTIFICATION	Select this option if the sound effect should continue to play for as long as you have at least one unread message of this type
SOUND NOTIFICATION EVERY	If the above option is active, specify how many seconds the sound effect should play for notifications of this type

Cerca
Menu

- Setup
- Tecnologie
- Personalizzazione
- Supervisione
- Funzioni avanzate
- Energia
- Reportistica e contabilizzazione
- Servizi
- Utenti e permessi
- Opzioni
 - Home
 - Notifiche
 - Avanzate

Mostra centro messaggi per notifiche di tipo 'allarme' ☒
Abilita notifica sonora per notifiche di tipo 'allarme' ☐
Abilita notifica sonora ciclica 'allarme' ☐
Notifica sonora 'allarme' ogni (60 secondi)
Mostra centro messaggi per notifiche di tipo 'avvertimento' ☐
Abilita notifica sonora per notifiche di tipo 'avvertimento' ☐
Abilita notifica sonora ciclica 'avvertimento' ☐
Notifica sonora 'avvertimento' ogni (300 secondi)
Mostra centro messaggi per notifiche di tipo 'informazione' ☐
Abilita notifica sonora per notifiche di tipo 'informazione' ☐
Abilita notifica sonora ciclica 'informazione' ☐
Notifica sonora 'informazione' ogni (0 secondi)

CHIUDI

Advanced

This section allows you to modify settings that determine the operation of the software; it is recommended that these parameters be modified only by experienced users and/or at the suggestion of technical support:

ENABLE CLIENT HTML CACHE	Enable synchronization in the information browser to speed up subsequent accesses (first initial synchronization)
ENABLE HTML SERVER CACHE	Enables saving the most commonly used files to the webserver to speed up subsequent use by PCs / browsers even if they have never browsed the HORIZONE SERVER
ENABLE CLIENT DB CACHE	Enables the saving of information related to the objects on the different pages, during navigation, which speeds up subsequent access to the same content
POLLING TIME	Allows you to change the timing (in seconds) with which object statuses in pages are updated. It is not recommended to use numbers less than 1 (default)
IDLE TIME	Specifies the time (in seconds) after which status polling enters "idle" mode, i.e. slowed down, to reduce the load on the network and client resources. Specify "-1" to disable <i>idle mode</i> . <i>Note: as soon as the user interacts, in any way, with the graphical interface, polling returns to normal mode</i>
IDLE POLLING TIME	Allows you to specify the time between one status update and the next, when in <i>idle mode</i> .
ENABLE "TAP" (QUICK CLICK) ON MOBILE	It speeds up the pressure on graphic elements by mobile devices. Disable in case of compatibility issues with your client device.

REMOTE ACCESS

Introduction

This chapter explains how to configure your network to allow remote access to HORIZONE SERVER, to be able to make the most of supervision even when you are not inside the building.

In order to access HORIZONE SERVER via the internet, you must:

- Ensure that the network configuration of HORIZONE SERVER has as its “DEFAULT GATEWAY” the IP address of the Internet router through which you want to remotely access
- Configure the router with which you access the Internet (typically, an ADSL router) to perform a port forwarding of port 443 and port 22 on the IP address assigned to HORIZONE SERVER, specifying “TCP” as the packet type

If public ports 443 and/or 22 are already occupied by other devices, different ports may be specified in the *port forwarding* rules, provided that these rules address external requests on ports 443 and 22 (respectively) within the LAN.

For more information, please refer to your internet router documentation.

Remote Cloud Accessibility

You can activate a remote service that allows you to access the webserver without opening ports on the router, through cloud support.

After pairing HORIZONE SERVER with your Eelectron cloud account, as explained in the section "CLOUD SERVICES: Registration" of this manual, simply access the

SERVICES → CLOUD → CLOUD SERVICES

page and press ACTIVATE at the REMOTE ACCESSIBILITY service.

Once the service has been enabled by our customer service, it is active in the list and requires no further configuration. By accessing the

SETUP → NETWORK

page, the REMOTE ACCESS section displays the public address assigned by the cloud, which you can use to access HORIZONE SERVER.

If you use the QR LOGIN feature, the QR web server access code for apps automatically contains this public address, so you do not have to enter it manually in the app.

REVISIONS

DATE	REFERENCE	COMMENTS
06/04/2017	IN00B02WEBFI00060101	First draft
06/06/2017	IN00B02WEBFI00060102	Addition of screenshots, minor fixes
15/12/2017	IN00B02WEBFI00060103	Content and screenshot adaptation to software version 1.0.2, layout restyling
10/04/2020	IN00B02WEBFI00060140	Adaptation to software version 1.4
04/11/2020	IN00B02WEBFI00060106	Update Cloud Information

Copyright 2020 Eelectron SpA
All rights reserved
<http://www.eelectron.com>