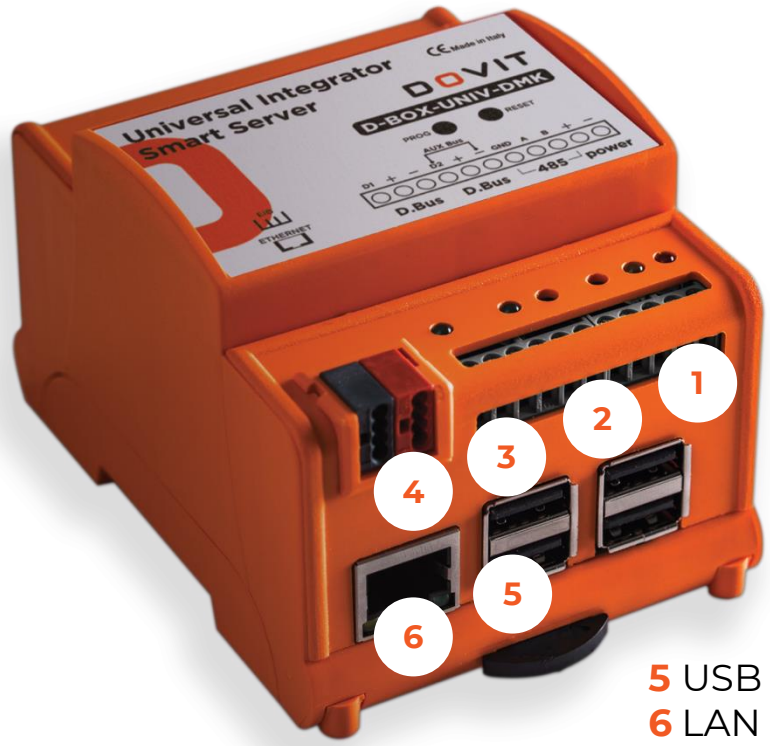
DOVIT

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D-BOX-UNIV



1 Power supply
2 ModBus 485
3 Dovit BUS
4 KNX TP

5 USB extension
6 LAN and KNX IP

Features:

- Dimensions: 70x60x90 mm (4 DIN modules)
- Standardized mounting on DIN rail
- Interface and specifications :
  1. Dedicated 13.8V power supply(supported range 12..24 vdc)
  2. ModBus 485 connection
  3. Double Dovit BUS terminal (in parallel)
  4. KNX TP
  5. 4 x USB for connecting Aux gateways (DO.Key, 485 and 232 aux, media, ModBus)
  6. RJ45 LAN Ethernet 10/100/1000 Mbit (ModBus IP, KNX IP, Alarm et TVCC Security IP control, DO.NET)
- Maximum power consumption : 950mA
- Operating temperature(°C) -0° ÷ +40°
- Operating humidity without condensation <90%

CE

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Safety- L.V. – SAFETY REQUIREMENTS: Directive 2014/35/EU

EMC - emission specification: EN 55032:2012/AC:2013
Information technology equipment. Radio disturbances Characteristics. Limit and methods of measurement

L.V. - safety specification: EN 62368-1:2014/AC:2015
Information technology equipment. Safety. General requirement

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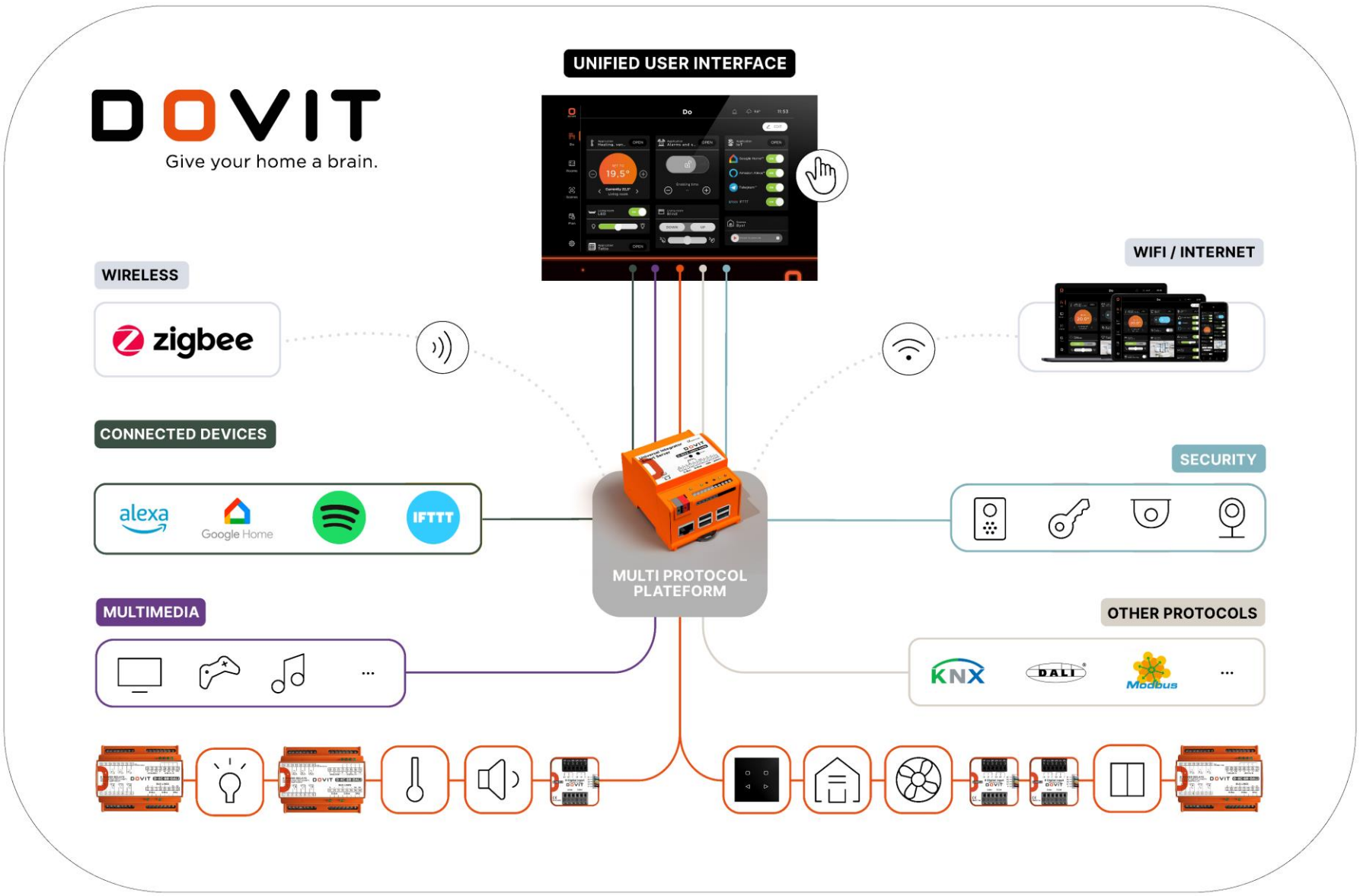
D-BOX-UNIV

Universal home control and integration unit for controlling and supervising multi-systems, multi-technologies, and multi-standards.



Description - features:

The Universal Integrator (D-BOX-UNIV-xx) can simultaneously manage all types of systems and technologies supported by the DOVIT integration platform (lighting, climate, irrigation, motorisation, intrusion detection, video surveillance, fire prevention, audio/video and multimedia, energy control, photovoltaic production systems, etc.). It is an integration and supervision control unit with fully modular and expandable system logic. The Universal integrator is a powerful and flexible tool, particularly suitable for those who want to compose their own home automation integrator tailored to the project, optimising costs without giving up a professional product that is always expandable in the future.



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D-BOX-UNIV

Configuration, flexibility :

Range and main functions

3 different types of servers to manage from 100 to 5,000 control points, from 3 up to 32 simultaneous IP client connections regardless of the number of user profiles (max 16) and the number of authorized devices (without limitations).
The client connections (DO.APP, Android, iOS, Win, Apple, Dovit touch screen - DO.Touch) are via IP with direct access both locally and remotely, even without the need for the cloud. Each server supports up to 250 programmable scenarios, 2,000 logic events, and 24 weekly schedulers, calendar and time for each controlled point.

D-BOX-UNIV-DMK-100	Manages up to a maximum of 100 control points. Supports simultaneous connection (from DO.Touch and DO.App) up to a maximum of 3 devices. Manages up to 16 different user profiles. **Dimensions: 4 DIN modules.**
D-BOX-UNIV-DMK-500	Manages up to a maximum of 500 control points. Supports simultaneous connection (from DO.Touch and DO.App) up to a maximum of 6 devices. Manages up to 16 different user profiles. **Dimensions: 4 DIN modules.**
D-BOX-UNIV-DMK-5000	Manages up to a maximum of 5,000 control points. Supports simultaneous connection (from DO.Touch and DO.App) up to a maximum of 32 devices. Manages up to 16 different user profiles. **Dimensions: 4 DIN modules.**

KIT for native management of KNX TP and IP and Wireless ZigBee products.

D-BOX-UNIV-KDM-200

KNX IP and TP management, supervision, and universal integration unit. Manages up to 200 points and up to 6 simultaneous IP client connections, regardless of the number of user profiles and the number of authorized devices, and natively supports DOVIT DO.Connect bus devices.

Dimensions: 4 DIN modules.

KIT CONSISTS OF:
- D-BOX-UNIV-DMK-100 (base server for 100 control points and 3 clients)
- D-V-DPT-100 (extension of 100 points and 3 additional clients)
- D-KNX-INT-FULL (TP and IP driver for supervision and control of KNX devices)

This kit can always be expanded in the number of points, simultaneous client connections, and all DO.CONTROL licenses and accessories.

D-BOX-UNIV-AIR-200

Hybrid server unit with Wireless ZigBee coordinator, management, supervision, and universal integration. Manages up to 200 points and up to 6 simultaneous IP client connections, regardless of the number of user profiles and the number of authorized devices. Coordinates up to a maximum of 50 ZigBee devices and natively supports DOVIT DO.Connect bus devices. Includes a data logger and an engine for calculating daily, weekly, monthly, and annual statistics.

Dimensions: 4 DIN modules.

KIT CONSISTS OF:
- D-BOX-UNIV-DMK-100 (base server for 100 control points and 3 clients)
- D-V-DPT-100 (extension of 100 points and 3 additional clients)
- D-IOT-W-ZB (antenna and ZigBee 3.x.0 coordinator)
- D-ENERGY-LOG (data logger with charts and statistics)

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D-BOX-UNIV

Modularity and flexibility:

Thanks to DO.Control Smart Servers, accessories, and expansion licenses, it is possible to manage most of the subsystems of a modern and smart building, including heating and cooling systems, thermal power plants, irrigation, alarms, video surveillance, fire prevention, energy consumption, photovoltaic production, charging stations, multimedia entertainment, and much more. DO.Control supports standard protocols (KNX, ModBus, Zigbee, Dmx, Dali, etc.) as well as the most widespread proprietary technologies on the market. All versions of the Smart Servers from the DO.Control line are expandable in terms of the number of control points, the number of simultaneous connections, and support all accessories and expansion licenses.



Some examples of expansions, accessories, and licenses:

- **Power extensions:**

Increase in the number of control points and the number of simultaneous client connections.

- **Other expansions and accessories:**

Licenses for native integrations of security systems, energy data control, multimedia, etc.

RISCO GROUP · RUS electronics · DO.Energy · TUTONDO get your sound · Spotify · ...

Integrations with the most widespread protocols on the market, both wired and wireless.

KNX · DALI · M-Bus · BACnet · Modbus · zigbee · ...

Integration of cloud-to-cloud services for voice control and interaction with smart messaging.

amazon alexa · Google Home · ...

Advanced HVAC control and integration, and management of consumed and produced energy.

SAMSUNG · DAIKIN · AIRZONE · AERMEC · Panasonic · MITSUBISHI ELECTRIC · ...

For more advanced services such as scheduled maintenance management, connection with "smart city" services, Dovit offers a data exchange platform and a "community" available to all customers, partners, maintainers, and service providers. To learn more, register in the reserved area at www.dovit.eu or submit your innovative project idea to us!

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Licenses for expansion of the number of control points; alarm management, KNX, ModBus, and energy

D-V-DPT-100	DO.Control Universal expansion for management of control points and integration. Allows for the integration, supervision, scheduling, storage, and creation of logical relations for up to 100 additional points, regardless of the subsystems and integrated technologies. Furthermore, it allows for the addition of 3 simultaneous users.
D-V-DPT-200	DO.Control Universal expansion for management of control points and integration. Allows for the integration, supervision, scheduling, storage, and creation of logical relations for up to 200 additional points, regardless of the subsystems and integrated technologies. Furthermore, it allows for the addition of 3 simultaneous users.
D-V-DPT-500	DO.Control Universal expansion for the management of control points and integration. Allows for the integration, supervision, scheduling, storage, and creation of logical relations for up to 500 additional points, regardless of the subsystems and integrated technologies. It also allows for the addition of 3 simultaneous users.
D-V-DPT-2000	DO.Control Universal expansion for the management of control points and integration. Allows for the integration, supervision, scheduling, storage, and creation of logical relations for up to 2,000 additional points, regardless of the subsystems and integrated technologies. It also allows for the addition of 16 simultaneous users.
D-SECURITY-IP	Control driver for IP integration of supported intrusion panels: Risco Prosys, Prosys Plus, LightSys, LightSys2 LightSys Plus, and Agility via IP card, AVS with eWeb card. The driver provides the status of each zone, partition, or sector, sector and zone alarm; allows for arming and disarming sectors/partitions and for bypassing zones. Every intrusion function is available to the platform for supervision and graphical user management, for the creation of scenarios and additional logics that include all systems connected to the platform.
D-SECURITY-3IP	Driver for IP integration of alarm systems up to a maximum of 3 simultaneously (even multi-site), making it possible to supervise, from a single app, and enable communication among multiple panels, even when distributed across different sites.
D-KNX-INT-FULL	Integration driver with no limits on EIB/KNX group addresses. Already included on the D-BOX-UNIV-KDM-200.
D-KNX-INT-50	Integration driver for up to 50 EIB/KNX points.
D-MODBUS-FULL	Integration driver for up to all EIB/KNX points.
D-MODBUS-50	Integration driver for up to 50 ModBus registers (ModBus Master).
D-MODBUS-SV	Integration driver with ModBus Slave function for the control and management of the Dovit server from external ModBus Master systems or for interfacing with other Dovit servers without ModBus point limits.
D-MEDIA-DRV	Multimedia integration driver (license already included with the purchase of a DO.media product)
D-ENERGY-LOG	Memory and driver for recording and displaying energy data, temperature, and all points managed by the integrator.

DO.Control expansion accessories

D-IOT-W-ZB	Zigbee 3.0 coordinator antenna and driver, complete with connection and installation accessories. Manages up to a maximum of 50 Zigbee end-points.
DC-BIO-KEY	Biometric fingerprint reader 485. Up to 99 fingerprints can be stored. Possibility to use different scenarios based on the recognized fingerprint. For connection with the smart server, the D-USB-BKEY interface is required.
D-INT-DMX-DALI	IP Interface - Dmx (512 channels) and Dali (max 63 channels). Dimensions: 4 DIN modules. Power supply 12-24 Vdc Ethernet connection (DO.Net).
D-MR-A-01	ModBus RTU 485 to 4 analog outputs 0-10V converter, max 5mA active (current sourcing, typically used in HVAC, for example, in VMC systems).
D-IR-TRANS	Programmable infrared transmitter with integrated "IR Learner" (programming up to 900 different IR codes). Connection via Ethernet DO.Net.
D-USB-MODB	USB/ModBus 485 cable for connecting D-BOX-UNIV with ModBus RTU 485.
D-USB-BKEY	USB/ModBus 485 interface for connecting D-BOX-UNIV-DMK with DC-B1O-KEY biometric readers.

Networking for dedicated network infrastructure: DO.Net

DO-N-EASY-WP	Router with preconfigured firewall to set up a DO.Net network dedicated to home automation, 4 Lan ports 70/700 Mbps Fast Ethernet, 1 WAN port, 1 Access point (max 70 Wifi accesses on Lan), 1 port for SIM modem "dongle" (SIM and "dongle" not included). Routing throughput of 90 Mbps with WI-FI, VPN Tunneling.
DO-N-EASY-W	Router with preconfigured firewall designed to establish a DO.Net network dedicated to home automation, featuring 4 LAN ports, 1 WAN port, and 1 Access point (max 10 WiFi accesses on LAN). It has a routing capacity of 90 Mbit/s with WI-FI.
DO-N-SWITCH	Managed Switch 16 porte con montaggio Rack per espansione rete DO.Net Gigabit.
DO-ALM-POE	PoE power supply for video intercoms and DO-TOUCH-4-W touch screens.

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D-BOX-UNIV

Integration of third-party HVAC systems

Centralized thermal management

Integration and regulation of advanced third-party thermal power installation for radiant heating and/or cooling (floor, wall, or ceiling) through Dovit kits for managing mixing valves.

HVAC for indoor machines

ModBus RTU 485 Gateway to be installed on every split or ducted indoor unit available for the brands Mitsubishi Electric, Toshiba, Daikin, Sanyo, Fujitsu, and many others.

HVAC: VRV, VRF

Accessories for the integration of third-party VRV, VRF Bus systems. With a single accessory, it's possible to control every individual indoor and outdoor machine connected to the system, for example in systems from Samsung NASA, Daikin, Mitsubishi, etc.

HVAC for indoor units

ModBus RTU 485 gateway to be installed on each indoor split or gaineble unit, available for brands like Mitsubishi Electric, Toshiba, Daikin, Sanyo, Fujitsu, and many others.

Integration and regulation of advanced third-party thermal power plants

D-CT-GCM-KPM30	Heating and/or cooling system regulation kit with 3-way 0-10V valves featuring consent input/output with ModBus card for interfacing with DOVIT Smart Server. The kit consists of KPM30 and KPM36Y001, including supply temperature sensor, outdoor temperature sensor, and connector kit.
D-CT-GCM-KPM30-2V	Heating and/or cooling system regulation kit with two 3-way valves of type 0-10V featuring consent input/output with ModBus card for interfacing with DOVIT Smart Server. The kit is composed of KPM30Y002 (Central Unit) + KPM36Y001 (ModBus Board) + K497Y001 (Connector Kit) + K465PY001 (Outdoor Temperature Sensor) + 2 x K463PY001 (Supply Temperature Sensor).

Gateway for integrating third-party HVAC systems: VRV, VRF (MITSUBISHI, DAIKIN, SAMSUNG, LG, FUJITSU)

Accessories for integrating third-party VRV, VRF Bus systems. With a single accessory, it's possible to control every individual indoor and outdoor machine connected to the system.

DC-INT-MITBE-IP-M	Mitsubishi Electric IP connection with EW-50, GB-50A, AG-150A, AE200
DC-INT-MITBH-MBS	Mitsubishi Heavy Industries ModBus RTU 485 connection
DC-INT-LG-MBS-M	LG ModBus RTU 485 connection
DC-INT-SMG-MBS-x	Samsung NASA ModBus RTU 485 connection, X=8, 16, 32, 64 maximum number of indoor units
DC-INT-DKN-M	Daikin USB-LONTALK connection with DCS601C51 (available for D-BOX-UNIV-10000)

Gateway for HVAC integration of indoor units (MITSUBISHI, DAIKIN, FUJITSU, TOSHIBA, SANYO)

ModBus RTU 485 gateway to be installed on each indoor split or ducted unit, available for the following brands:

DC-INT-MITBE-MBS-1	for Mitsubishi Electric DOMESTIC & MR.SLIM indoor units
DC-INT-DKN-MBS-1	for indoor units of Daikin split systems, residential line
DC-INT-FJT-MBS-1	for Fujitsu indoor units
DC-INT-TSH-MBS-1	for Toshiba indoor units
DC-INT-SNY-MBS-1	for Sanyo indoor units

NOTE: Integration gateways are available for many other brands. For more information, contact your Dovit representative.

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D-BOX-UNIV

Some features available in the DOVIT platform:

- Voice access to all home automation functions and integration of all connected devices thanks to DOVIT's compatibility with smart speakers (e.g., Google Home Assistant);
- Multimedia: control with cloud libraries like Spotify Connect;
- Integration with instant messaging systems, such as "Telegram".



D-IOT-GHOME	Activation license	Integration driver for the Google Home voice control system. Requires the control and integration unit D-BOX-UNIV.	
D-IOT-ALEXA	Activation license	Integration driver for the Alexa voice control system. Requires the control and integration unit D-BOX-UNIV.	
D-INT-MSNG	Activation license	Driver for receiving instant messages in the cloud with "Telegram BOT". Requires the control and integration unit D-BOX-UNIV.	
D-IoT-SPOTIFY	Activation license	Integration driver for controlling Spotify Premium accounts. Requires the control and integration unit D-BOX-UNIV.	

For increasingly practical and connected smart systems!

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D-BOX-UNIV

Technical functional specifications

DO.Control D-BOX-UNIV-x allows integration between KNX, DMX, Dali, Modbus, Zigbee, LonTalk, BACnet, M-Bus, SIP, H264, H265, RTSP, and many other proprietary protocols natively integrated such as, for example: Mitsubishi, Aermec, Daikin, Risco, Tutondo, KODI, etc. DO.Control, D-BOX-UNIV-x can be connected via KNX TP, RS485, and Ethernet/IP ports to Modbus RTU/IP devices, KNX TP/IP, etc. or, through appropriate expansion interfaces, also to Lon TP/FT-10, BACnet MS/TP networks.

Multi-platform scenarios
With the Scenario engine integrated into DO.Control D-BOX-UNIV-x, it's possible to create up to 200 scenarios and timed sequences of multi-platform actions that include actions on any device of any system (e.g., raise blinds, disarm alarm, color gestion RGB, room temperature 21°, audio 30%)

Time scheduler
DO.Control D-BOX-UNIV-x provides a universal time scheduler that allows setting up to 24 lines of programming for each device of any connected technological system. Thanks to a simple and device-independent language for programming (thermostats, irrigation, alarms, audio/video, video streams, light colors and intensity, opening/closing curtains and blinds, etc.), it allows setting dates, days, time slots, and actions independently. Multi-platform scenarios can also be programmed with the same time scheduler, ensuring perfect programming flexibility by combining execution time and action timing.

Event/Action
DO.Control's (D-BOX-UNIV-x) event/action engine can handle up to 2,000 complex multi-platform relationships, meaning it can relate different devices and protocols on different networks and evaluate any actions on any system connected to DO.Control with conditional logics.

Messaging
With D-BOX-UNIV-x, it's possible to send notifications via email, Telegram, on-screen alerts, sound alerts, and other types of notifications. It's possible to manage different distribution lists, divided by the type of desired message.

Advanced supervision with DO.APP, DO.Touch technology
All connected systems can be managed and supervised in real-time through the multiplatform interface DO.APP, DO.Touch, supervision already included in the smart server, downloadable app from stores (play and apple store) or from the website www.dovit.eu also PC, MAC version.

Third-party client supervision via Modbus Slave
The DO.Control server allows, even to Modbus masters and in general to third-party client applications, to supervise and manage simultaneously all connected systems and all configured devices, via IP connection.

Easy configuration of all functions and supervision with DO.Control Config
The DO.Control Config software allows a simple mapping of all devices connected to different technologies and configuring the multiplatform supervision interface DO.APP, DO.Touch, Hi Vision (included) with the intuitive Drag&Drop method, simply by dragging the icons to the desired position. And setting the properties of each icon. Standard default properties are already pre-configured.

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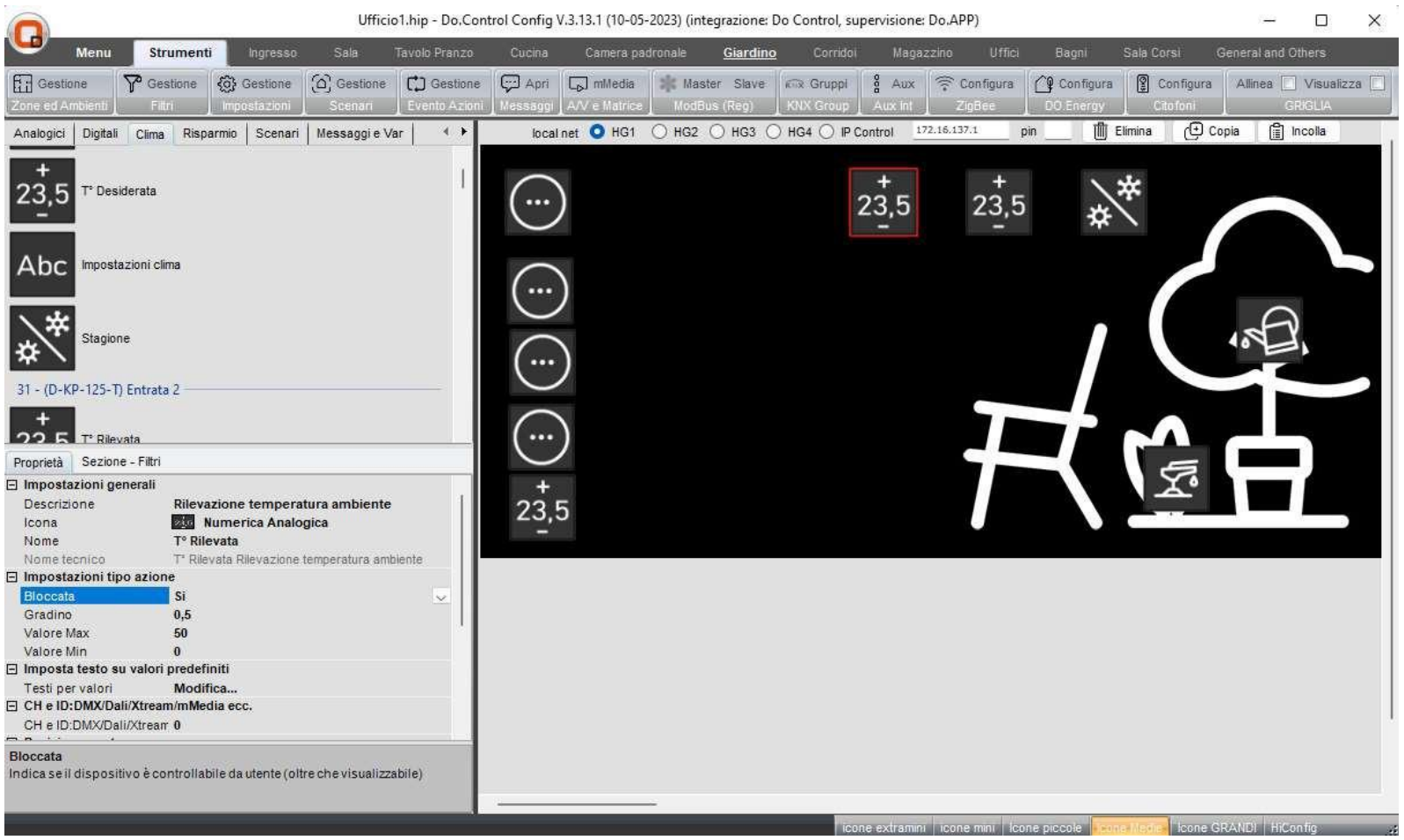
D-BOX-UNIV

Configuration software

The configuration of supervision, scenarios, and graphics of D-BOX-UNIV is done through the use of the DO.Control Config available for free to all certified installers of the 'Dovit Team'.

Thanks to the DO.Control Config, it's possible to quickly and easily create a customized, sophisticated yet intuitive interface. No programs, scripts, or logical programming codes are required. Once the alarm system to be integrated is defined, it is sufficient to indicate the background images (a photo, a rendering, a floor plan, etc.) and drag the icons onto it: with the simplicity of Drag&Drop, bringing all the devices and functions that need to be monitored to the screen becomes simple and very fast.

All graphic customizations are available to the user directly in DO.App.



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Configuration and integration with third-party systems

SECURITY RISCO DEFAULT
RISCO intrusion panel settings:
Set: IP ACM or Multisocket network card: 172.16.137.251
Subnet Mask: 255.255.255.0
TCP Port 1000 in case of LightSys or Prosys Plus

AVS SECURITY DEFAULT
AVS intrusion panel and eWEB settings:
Set: IP: 172.16.137.251
Subnet Mask: 255.255.255.0
Socket Port 2101

VIDEO SURVEILLANCE
H264 IP CAMERA RTP Protocol IP addresses 172.16.137.101 – 116 (cam1 .. cam 16)
In CASE of installation of the video intercom cam1 is the video stream of the DVR STREAMER video intercom unique IP address for each channel (max 16Ch): IP: 172.16.137.252 Subnet Mask: 255.255.255.0

AUDIO / VIDEO TUTONDO
Setting up the Tutondo multimedia center
Protocol B PORT 232 Speed
19,200 bit/s Source control
Multisource CHANNEL 1,2,3,4 audio
For more details on the configuration and installation of Risco / AVS intrusion panels and Tutondo centers, refer to the specific documentation.

DOVIT CONFIGURATION
USER: "dovit"
PW: to be requested in the reserved area
To make the configuration effective, it is possible to send it via IP (also Wi-Fi) locally and via HTTP remotely.

DO.Net Application Details
The DO.Net network allows DO.APP, DO.Touch, Hi Vision supervisors, and the DO.Control central unit to communicate and exchange information on the management of the entire system.
Through DO.Net, it is also possible to connect the video surveillance system, the intrusion alarm system, the audio/video distribution system, renders and multimedia servers, air conditioning systems, VoIP SIP telephony, and any other systems that require supervision. This network must always remain separate from the user's normal data network (see DO-NET-EASY-x firewall product details).
By assigning the IP addresses indicated in table A to the equipment, the commissioning of the equipment becomes simple and effective with DOVIT.
For the operation in direct connection from the app to the server remotely, it is necessary to configure the modem/router for port forwarding as indicated in table B. For connection via cloud, the purchase of the DO-NET-EASY-x firewall is required.

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Table A: List of static IP addresses for DO-NET network

IP Address	Decription
172.16.137.254	LAN Router DO Net
lunette finalt depends on the end user's data network.	WAN Router Address
172.16.137.1	DO.Control 1, DO-Box-xx integration unit
172.16.137.17	DO.Control 2, DO-Box-xx integration unit
172.16.137.33	DO.Control 3, DO-Box-xx integration unit
172.16.137.49	DO.Control 4, DO-Box-xx integration unit
From: 172.16.137.2 To: 172.16.137.64	Reserved for DO.APP, DO.Touch, Hi Vision clients
172.16.137.80	Primary KNX-IP interface
From:172.16.137.81 To: :172.16.137.96	Universal IR emitter DO-IR-TRANS 1 .. 16
172.16.137.99	PC CONFIGURATOR on local network with DOVIT Config software
172.16.137.101	IP Intercom in case of direct connection within the network (e.g., individual system)
From: 172.16.137.101 To: 172.16.137.116	IP Cameras in case of direct connection to the local network
172.16.137.190	NAS Multimedia
From: 172.16.137.191 To: 172.16.137.206	Multimedia Renders 1~16 (Hi-Mmedia-HD/Hi-Mmedia-RD)
172.16.137.231	ModBus-Tcp /Mitsubishi/Nest/Aermec/Daikin and HVAC in general
From: 172.16.137.232 To: 172.16.137.236	DMX / DALI Interface (DO-INT-DMX/DALI)
172.16.137.246	Reserved for Tutondo Audio/Video
172.16.137.247	RS232 to Ethernet UDP Converter Tutondo HDMI matrix
172.16.137.248	Multi-source (s2r2ut) Tutondo firmware update
172.16.137.249	MondoT Matrix firmware update and Web Server
172.16.137.250	RISCO ACM 2 or NVR/DVR 2
172.16.137.251	RISCO /AVS Aux
172.16.137.252	RISCO / AVS
172.16.137.253	DO.NET AUX network accessories

Table B: List of main TCP ports for the DO-NET firewall. The DO-NET-EASY product automatically manages any connections to the cloud. Remote connection does not require cloud utilization when using port forwarding on the following ports:

Port number	Protocol	Destination IP address
90	TCP	WAN DO-NET (freely configurable)
6060	TCP	WAN DO-NET (freely configurable)
Other ports listed in the specifications of any other integrated devices such as NVRs, DVRs, IP cameras, remote control for security systems, heating systems, etc.		

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DO CONTROL CONFIG

QUICK GUIDE, PROGRAMMING TOOLS

Introduction

This guide provides an overview of all the functions offered by the DO Control Config configuration software. DO.Control Config is a simplified and guided tool for configuring DO Control home integration devices and all DOVIT supervision and management devices.

For the configuration of the DOVIT DO.Connect automation bus, please refer to the dedicated DO.Bus Config guide. DOVIT has always been at the forefront of professional training activities for the network of certified DOVIT technicians and distributors and believes that correct design and implementation of home automation systems cannot rely solely on the theoretical knowledge of products, software, or configuration tools. It must necessarily be accompanied by a "cultural" and specialized education on the quality of the proposed solutions.
The culture of project design cannot be summarized in a manual but can only result from the exchange of experiences and specific professional competencies.

DOVIT trains technicians on product knowledge and configuration software, but above all on the ability to propose and implement effective and appropriate home automation solutions to meet market demand.
For this reason, the use of DOVIT home automation system configuration and design software is only authorized for certified DOVIT personnel. Dovit Team certification is obtained by participating in professional training and updating courses held at the main national distribution centers of the DOVIT network.

System prerequisites and needed drivers

Supported Operating Systems: all Microsoft OS

- Minimum Screen Resolution: 1024x768
- Required Software and Drivers:

  DO Bus USB interface driver or IP software driver

  Microsoft .NET Framework update package

  JRE version 1.8 or higher (already present in almost all OS, available for download in the DOVIT reserved area)

The software includes a simulator for all necessary integrations. In case you want to perform tests online with connected devices, you will also need the following optional drivers or cables:

- KNX/IP driver if you want to integrate a KNX system or the related D-BOX-UNIV-KDM-200 server
- ModBus master driver (D-MODBUS-x) if you want to integrate ModBus registers or Slave (D-MODBUS-SV) if you want to control the system from an external Modbus system
- Network driver if you want to test integration with the intrusion system (D-SECURITY-IP)
- Multimedia cable if you want to test control of the audio/video streaming system (D-MEDIA-USB, DC- MEDIA-232)

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Information technology equipment. Radio disturbances Characteristics. Limit and methods of measurement

L.V. - safety specification: EN 62368-1:2014/AC:2015
Information technology equipment. Safety. General requirement

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General Description

Upon opening the software, after following the guided wizard, the following general screen appears (Figure 1):

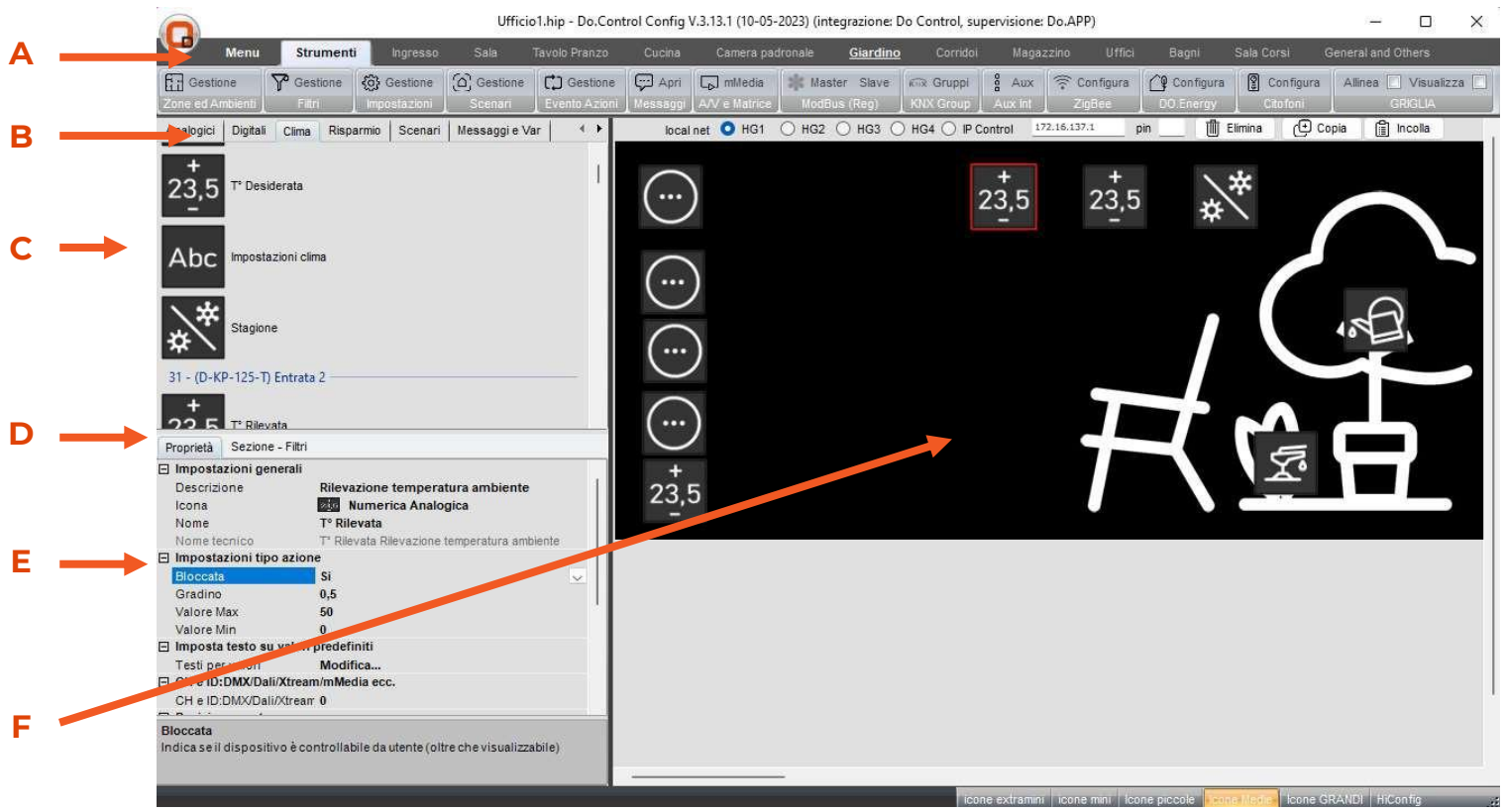


Figura 1: Schermata iniziale

A - Graphic navigation menu and access to different graphical pages and configuration tools.

B - Tab for selecting different users and services available in the overall system.

C - List of icons and available services organized by category.

D - Tab for selecting different properties of each individual management icon.

E - Configurable properties for the graphical management and supervision of all users.

F - Working background of the graphical area being configured.

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Creating a new project

To start a new project, click on the "New" button to access the guided wizard.



Figure 2: Creating a New System

Guided Wizard

The software features a guided wizard for creating the main graphical structure intended for DOVIT monitoring and control devices.

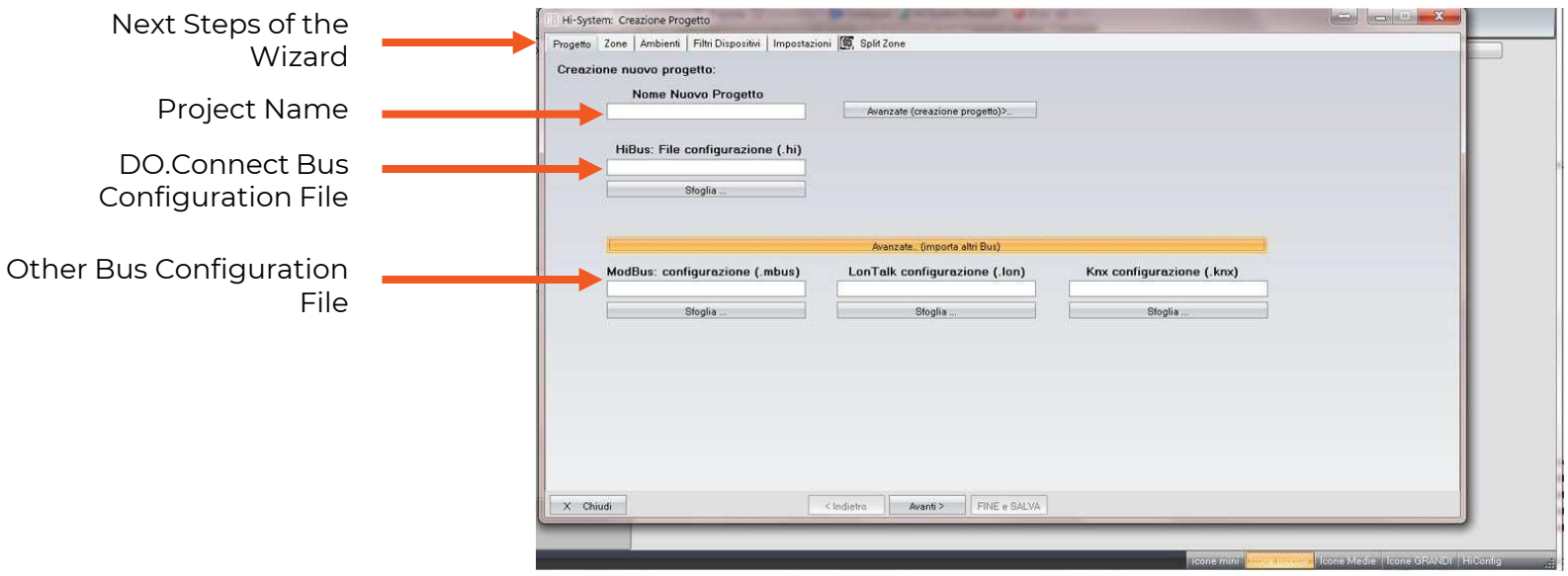


Figure 3: Guided Project Creation Wizard

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It is possible to create up to a maximum of 128 different graphic zones for each device.
For each graphic zone, it is possible to assign a background image to facilitate navigation and organization of project icons. From the user App, it is always possible to modify the name and images of each environment, and it is also possible to group them into macro environments (for example, floors or buildings).

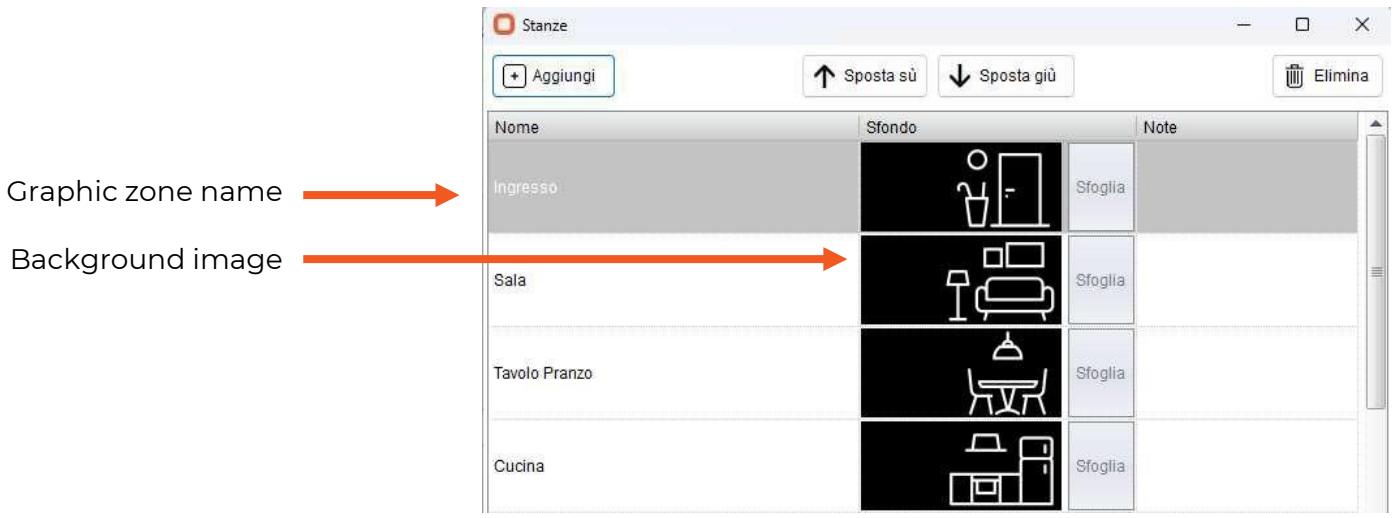
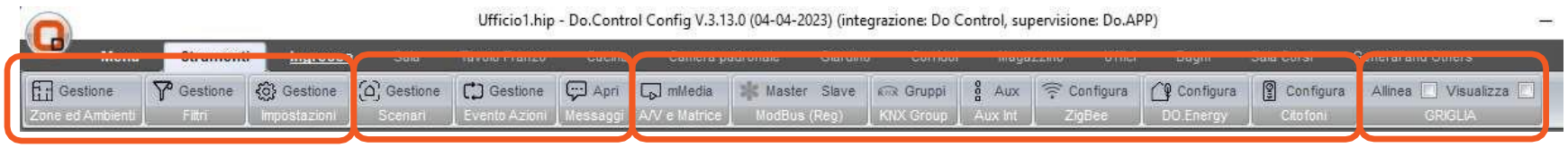


Figura 4: Gestione delle stanze

Main tools



Tools for interface organization

Tools for configuring home automation functions (Scenarios, logical events, and warning messages)

Tools for integration and configuration of technologies including, for example: KNX, Modbus, Zigbee, data loggers, and more

Tools for icon placement

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Scenarios

This section allows you to create integrated scenarios. Scenarios represent a sequence of actions to be executed organized along a timeline.

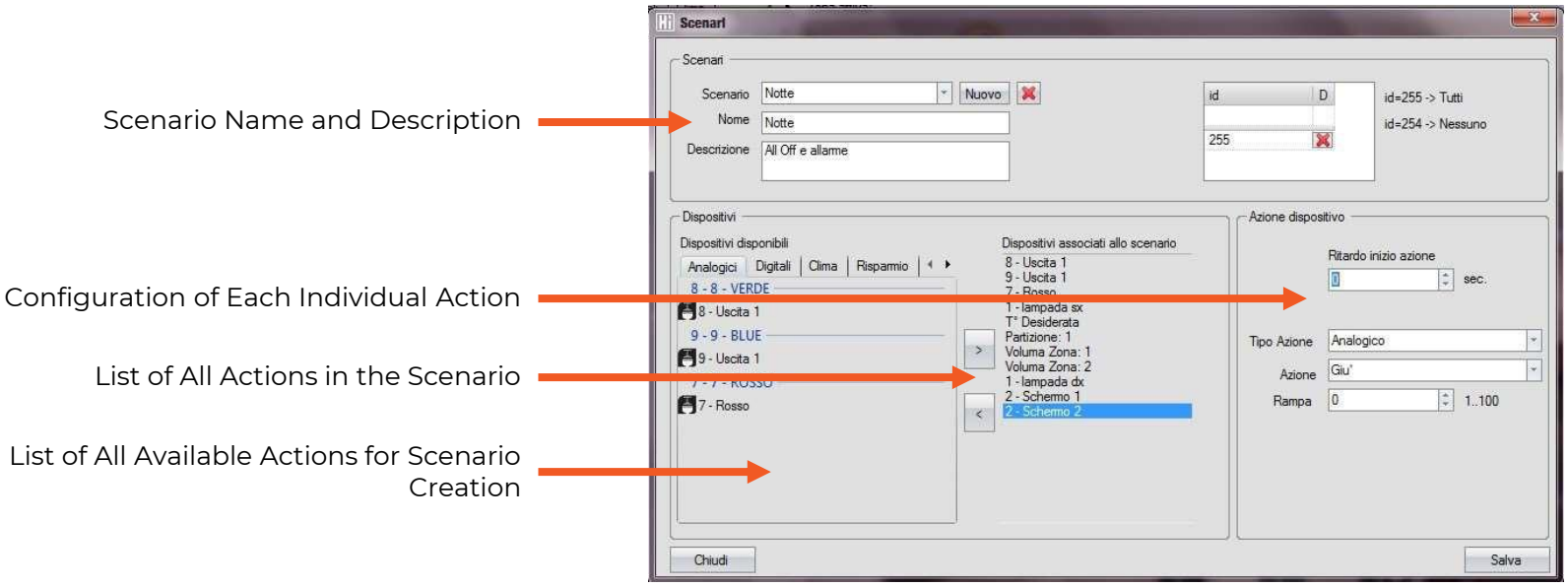


Figure 6: Integrated Scenario Creation and Management Tool

Scenarios created with this tool can then be triggered by any button, directly from the touch screen, and from the DOVIT App. Furthermore, it's possible to associate the scenario with any logical event, even conditioned, generated by the home automation system (see the "Event Action" section).

Event Action

This tool allows the creation of integrated events conditioned by "IF" logics in "AND," new events in "OR," and negations "NOT." Each event can be associated with the execution of an action or a scenario (a sequence of actions).

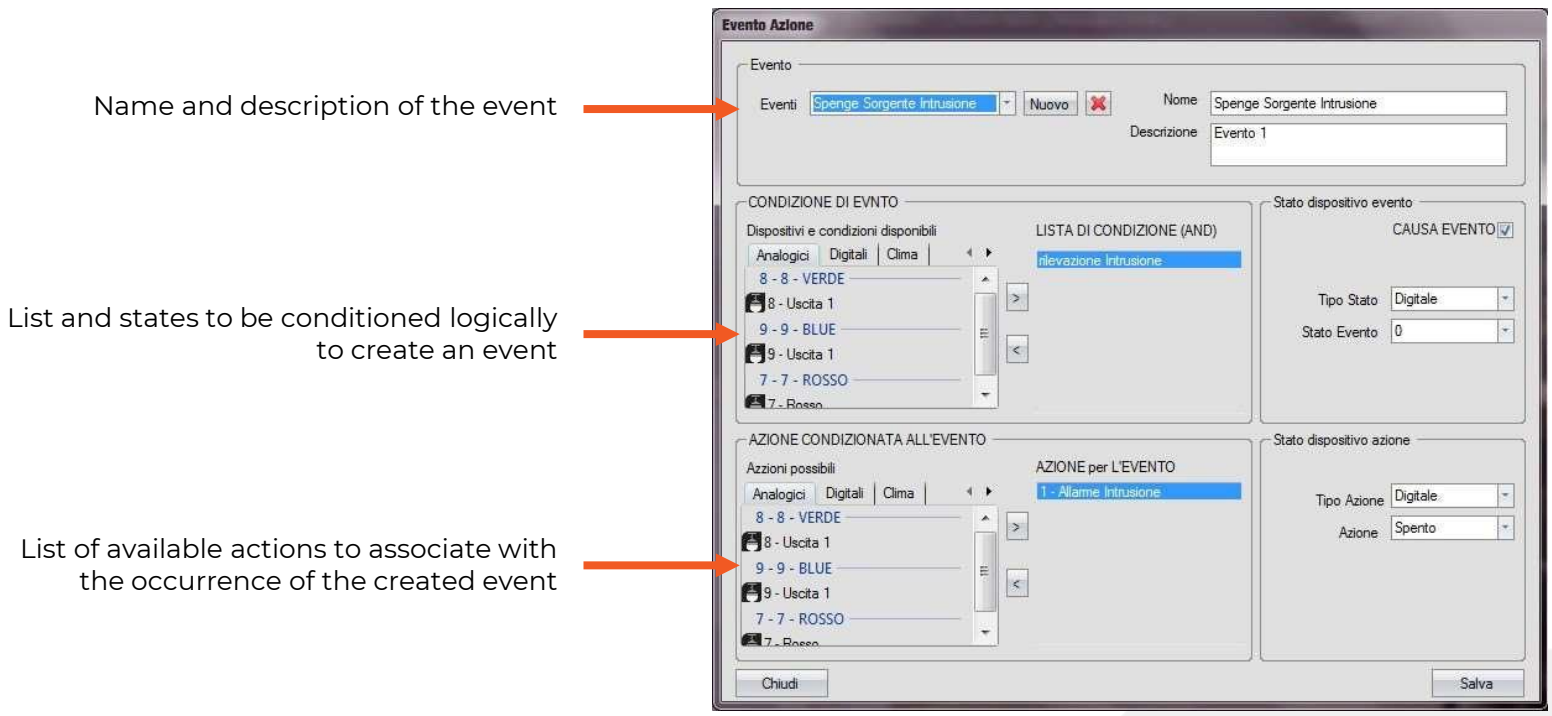


Figure 6: Tool for creating and managing Events and associations with actions

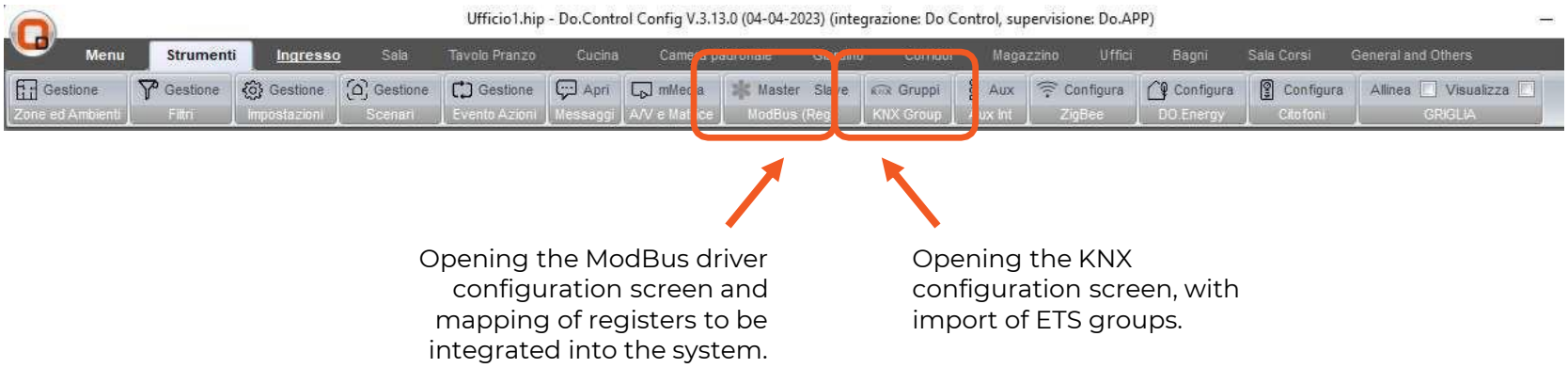
Thanks to this tool, it's possible to associate actions to conditions. This tool serves as an intra-system integration tool, enabling communication between all subsystems installed in the overall home automation system (Security, Audio Video, Automation, Video Intercom, Video Surveillance, etc.).

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Integration and Import of Groups from KNX ETS 4, 5, 6, and ModBus Projects

This section allows for the creation of integrated scenarios. Scenarios represent a sequence of actions to be executed organized according to a timeline.

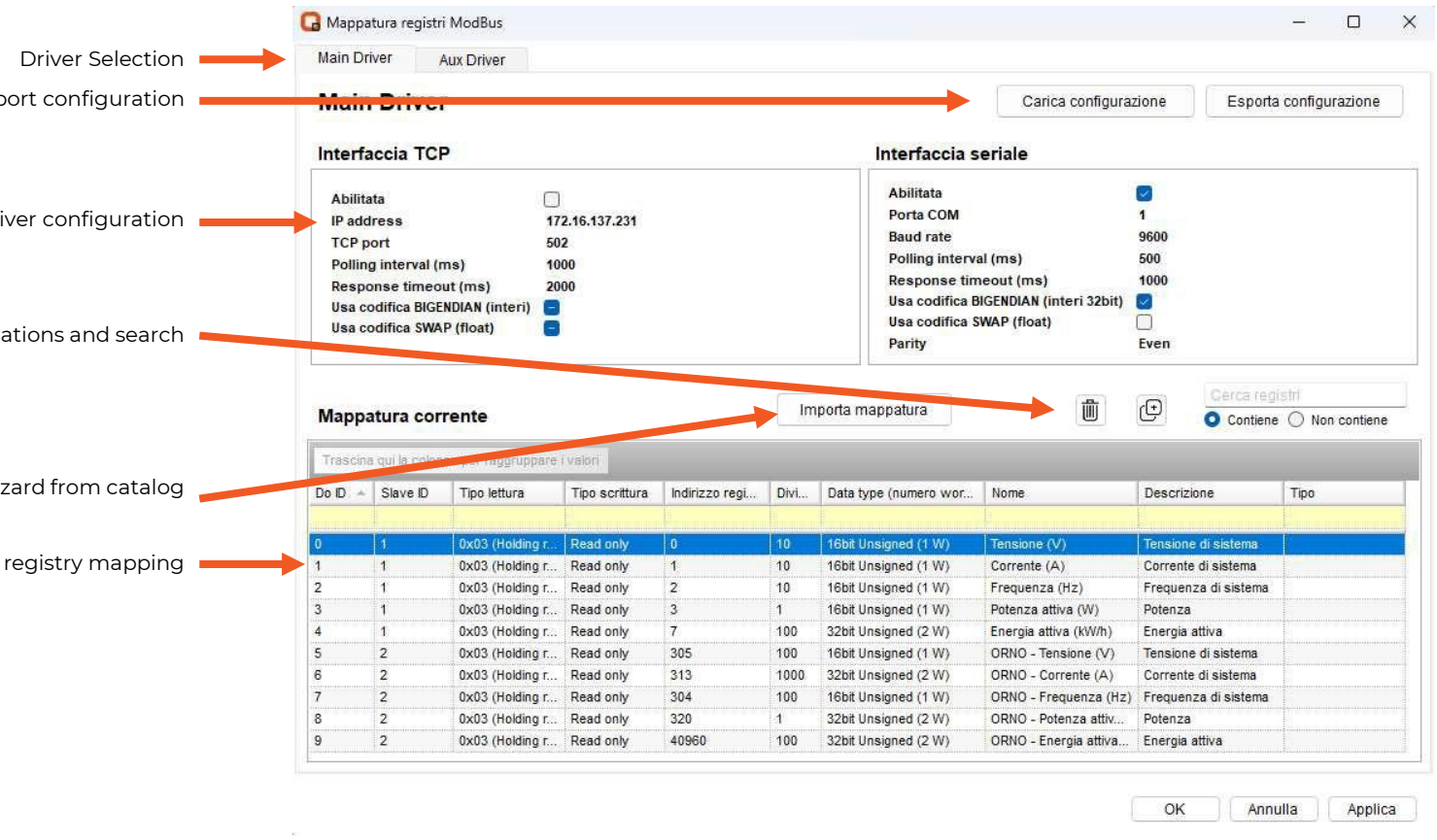


Opening the ModBus driver configuration screen and mapping of registers to be integrated into the system.

Opening the KNX configuration screen, with import of ETS groups.

ModBus Master TCP/485 RTU – Register Mapping and Driver Management

In the Dovit platform, it is possible to have two ModBus TCP drivers (RTU protocol) or serial (485, 422, and 232). For each driver, it is possible to map up to a maximum of 5,000 registers from 250 different slaves.
Timeout, polling, Big and Little Endian encodings, and Float Swap (registers from 1, 16 to 64 bits) times can be customized according to the peripherals you wish to integrate.



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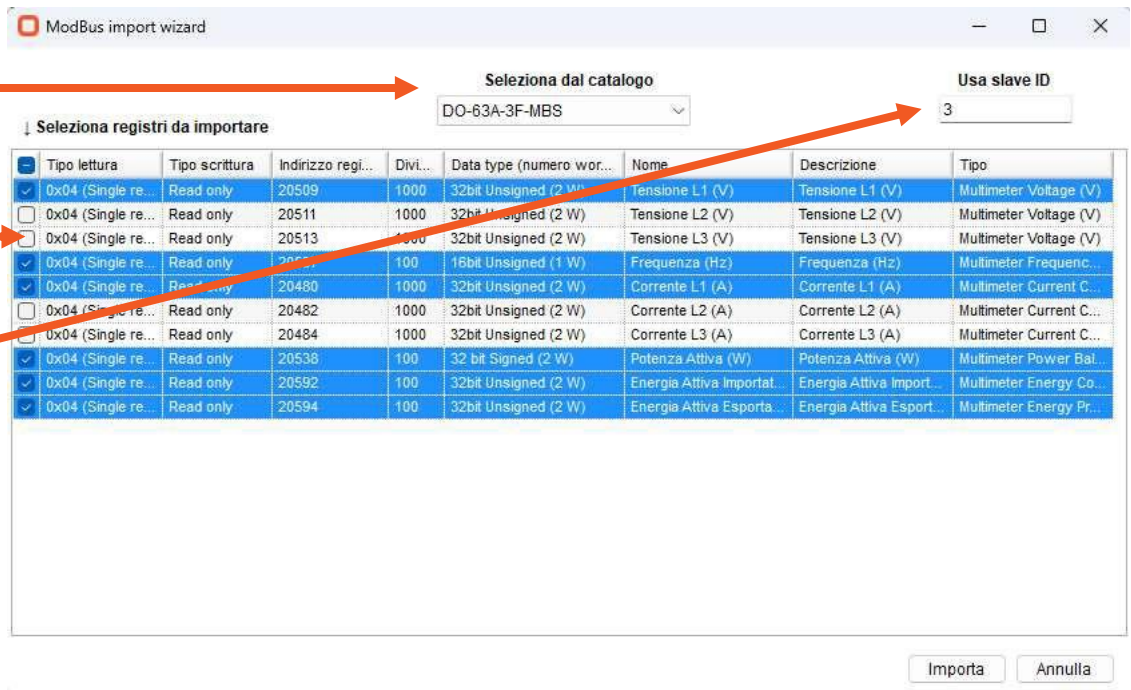
ModBus Master Mapping Import Wizard from Catalog

Through the ModBus import wizard, you can import pre-set mappings for items available in the catalog.

Selection of Items from Catalog

Selection of Individual Registers to Import

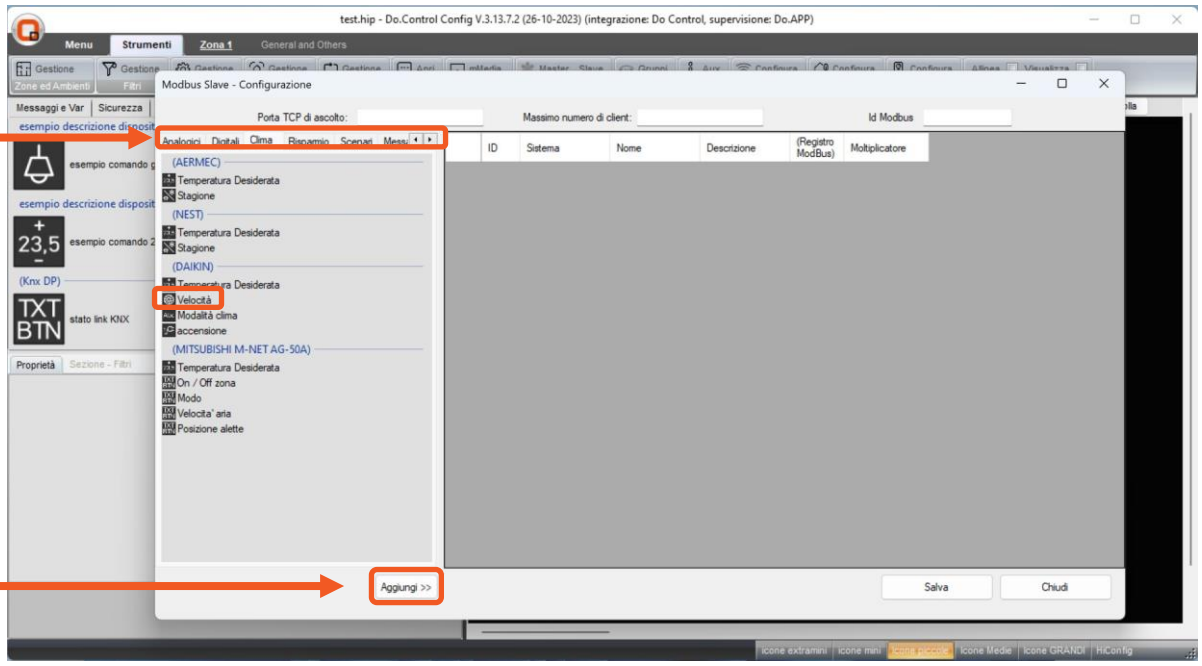
Slave ID with which to Import the Registers



ModBus Slave Mapping Creation Wizard

Select the device type from the menu that you intend to map.

Choose the individual devices to make available for control from a third-party ModBus Master IP system.



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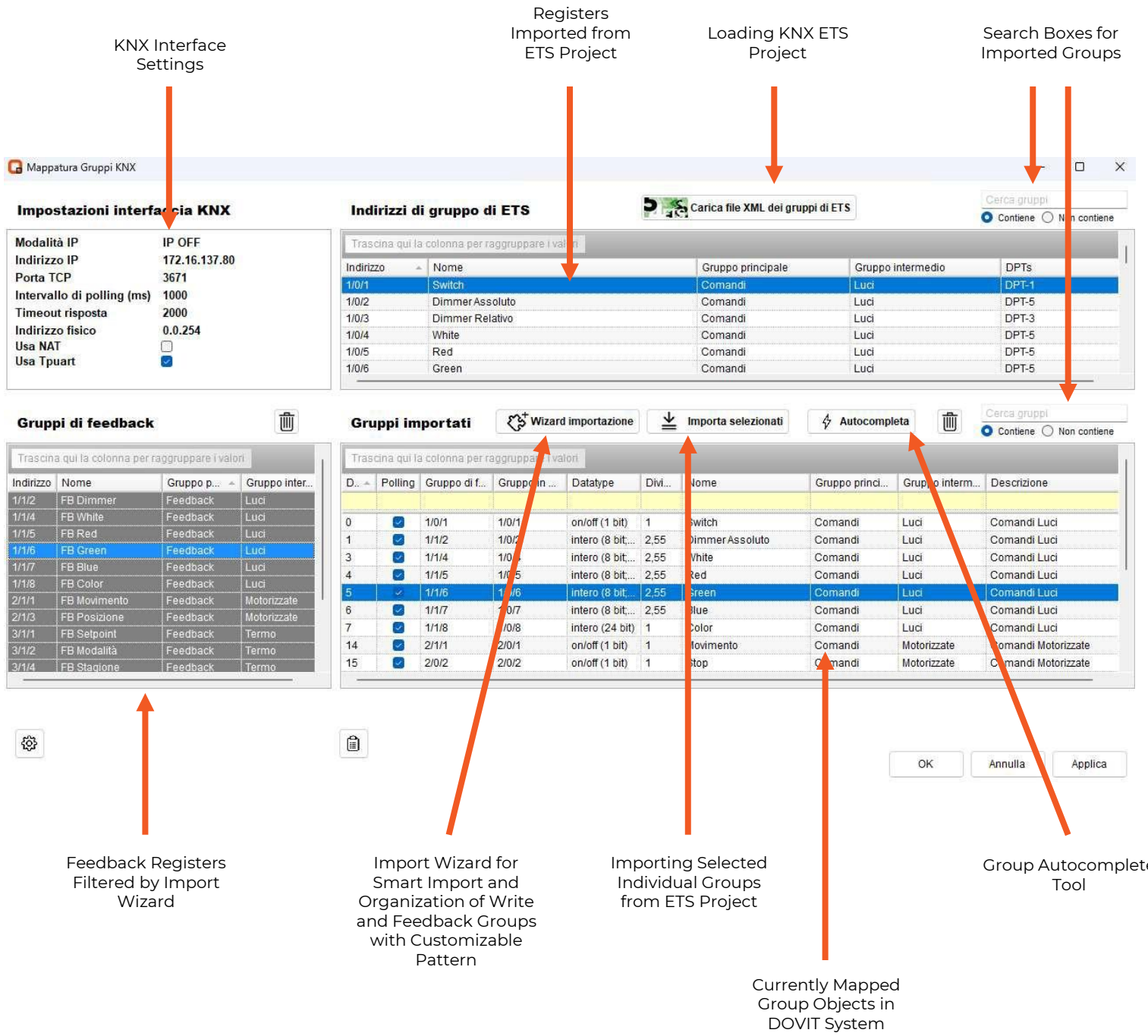
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KNX/EIB Import and Device Mapping

You can add the groups you want to integrate either manually (without needing to go through ETS) or automatically by importing from ETS group exports.

You can also import groups from multiple different projects and create mixed automatic and manual mappings. Below are the main tools available.



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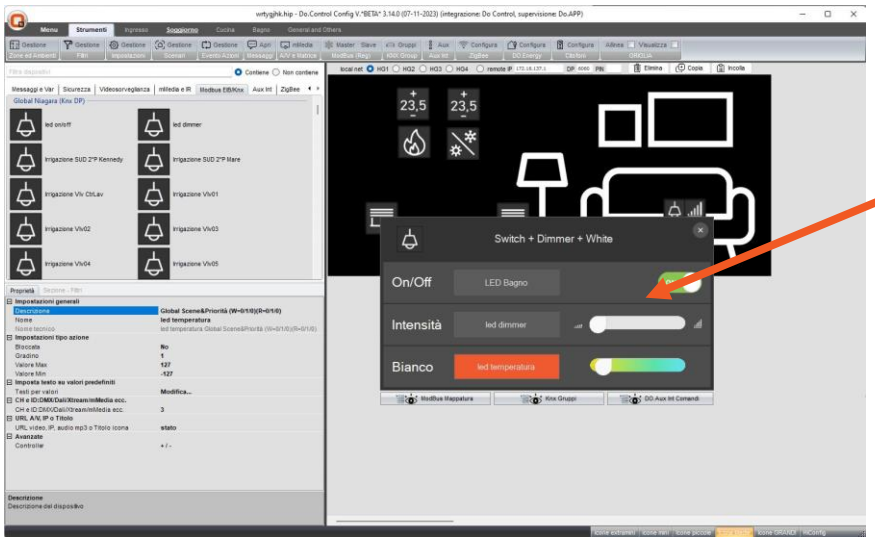
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KNX/EIB CONTAINER: Aggregating multiple control points into a single user icon

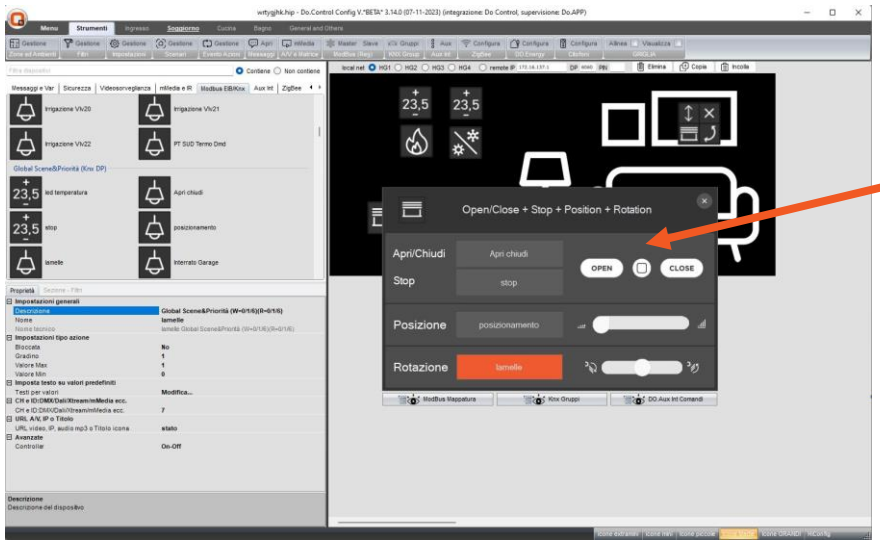
It is possible to insert multiple groups into a single icon to simplify user operation and supervision. For programming, there are several preconfigured templates/containers where it is only necessary to drag the desired group object for each of the subfunctions.

Example container for managing light on/off, dimmer, and white temperature.



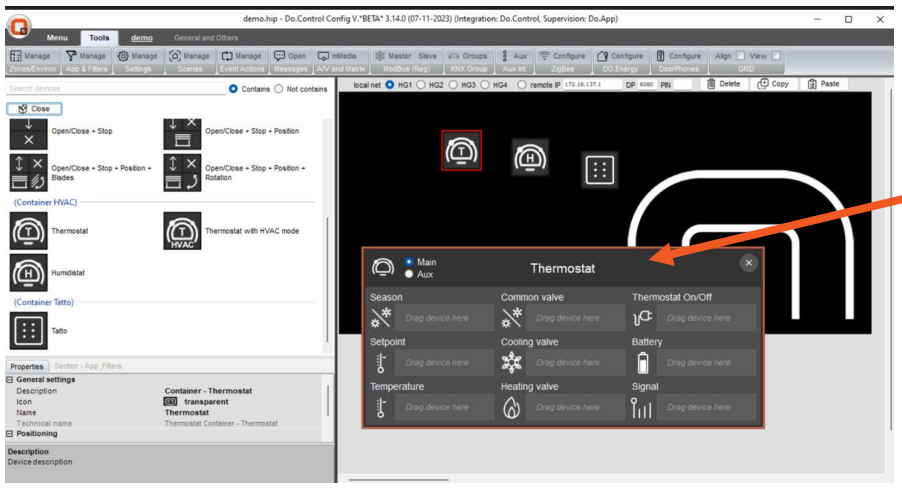
Container for 3 different group objects

Example container for motorization control with open/close, stop, position, and slat orientation



Container for 4 different group objects

Example of one of the containers for thermostat and HVAC functions in general



Example of other containers for thermostat or HVAC

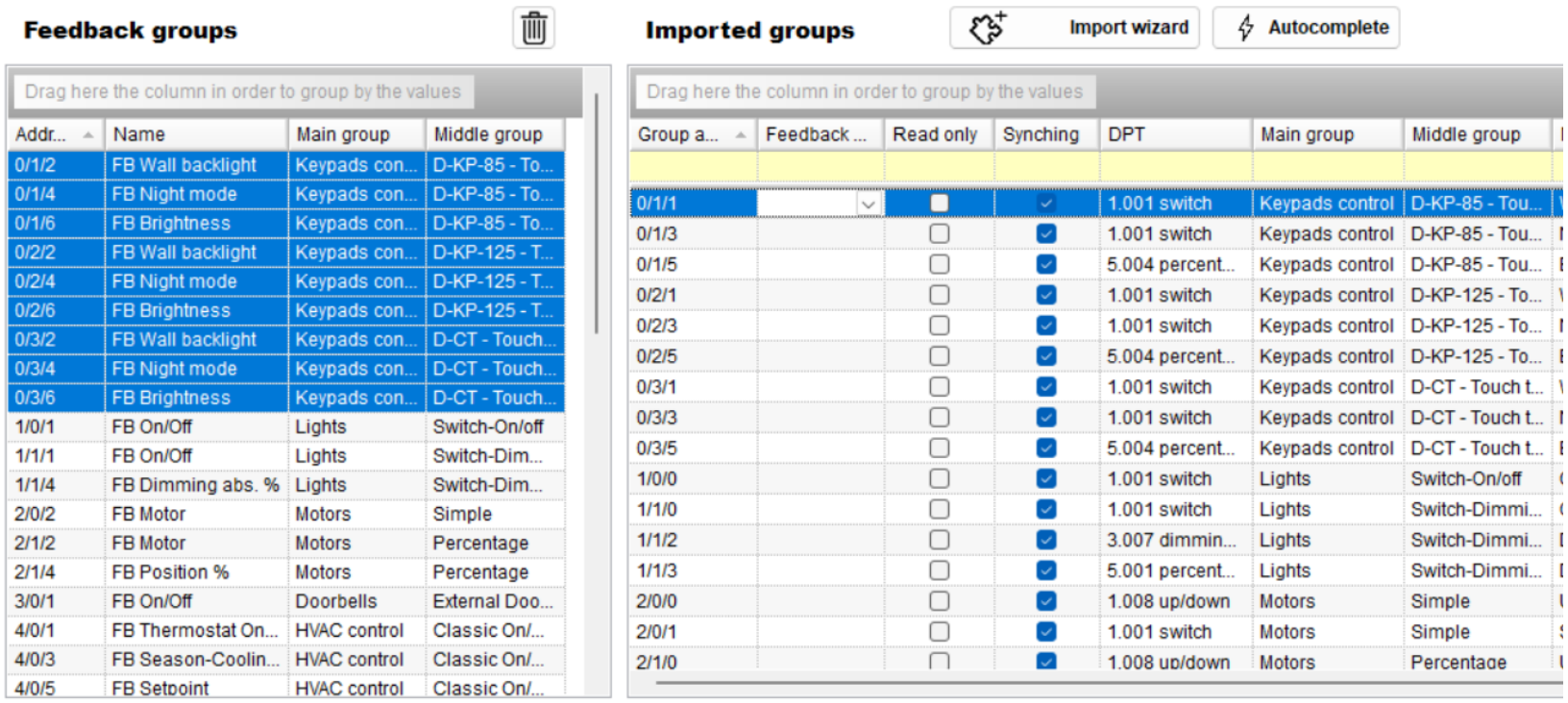
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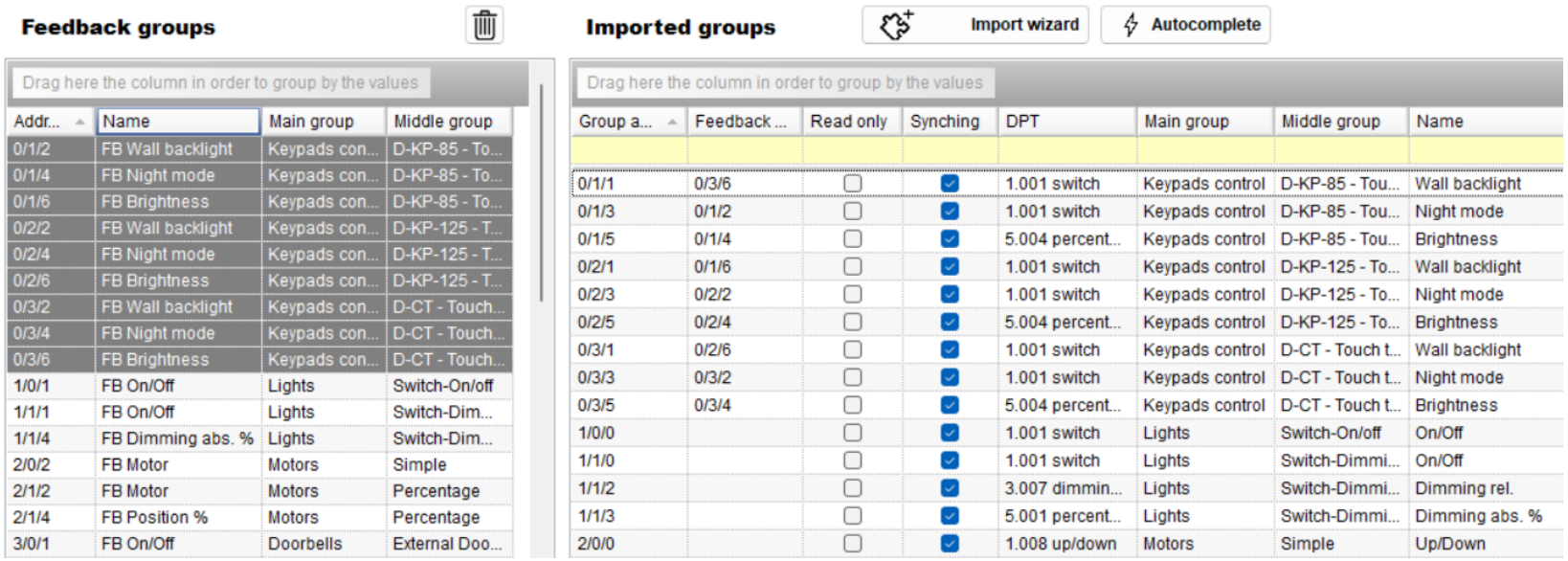
DO CONTROL CONFIG

Tips and Tricks: Useful Shortcuts to Optimize Your Work Time

Selecting Multiple Feedback Groups Simultaneously

When connecting group addresses with their corresponding feedback/status groups, if the group addresses are well organized, you can select multiple feedback groups from the left table and drag them together into the right table simultaneously. To organize the groups, you can always use the filter fields to refine the list.



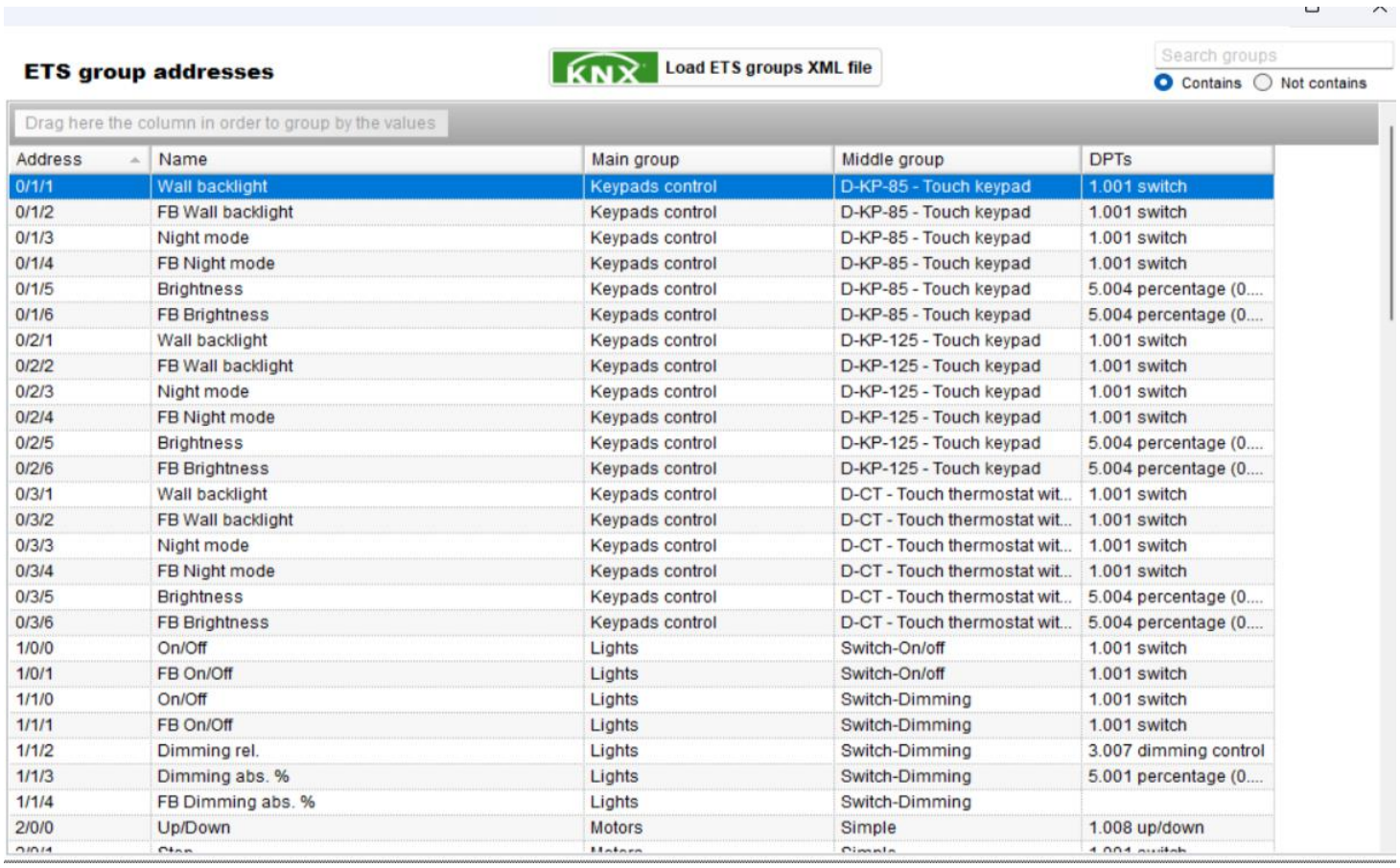


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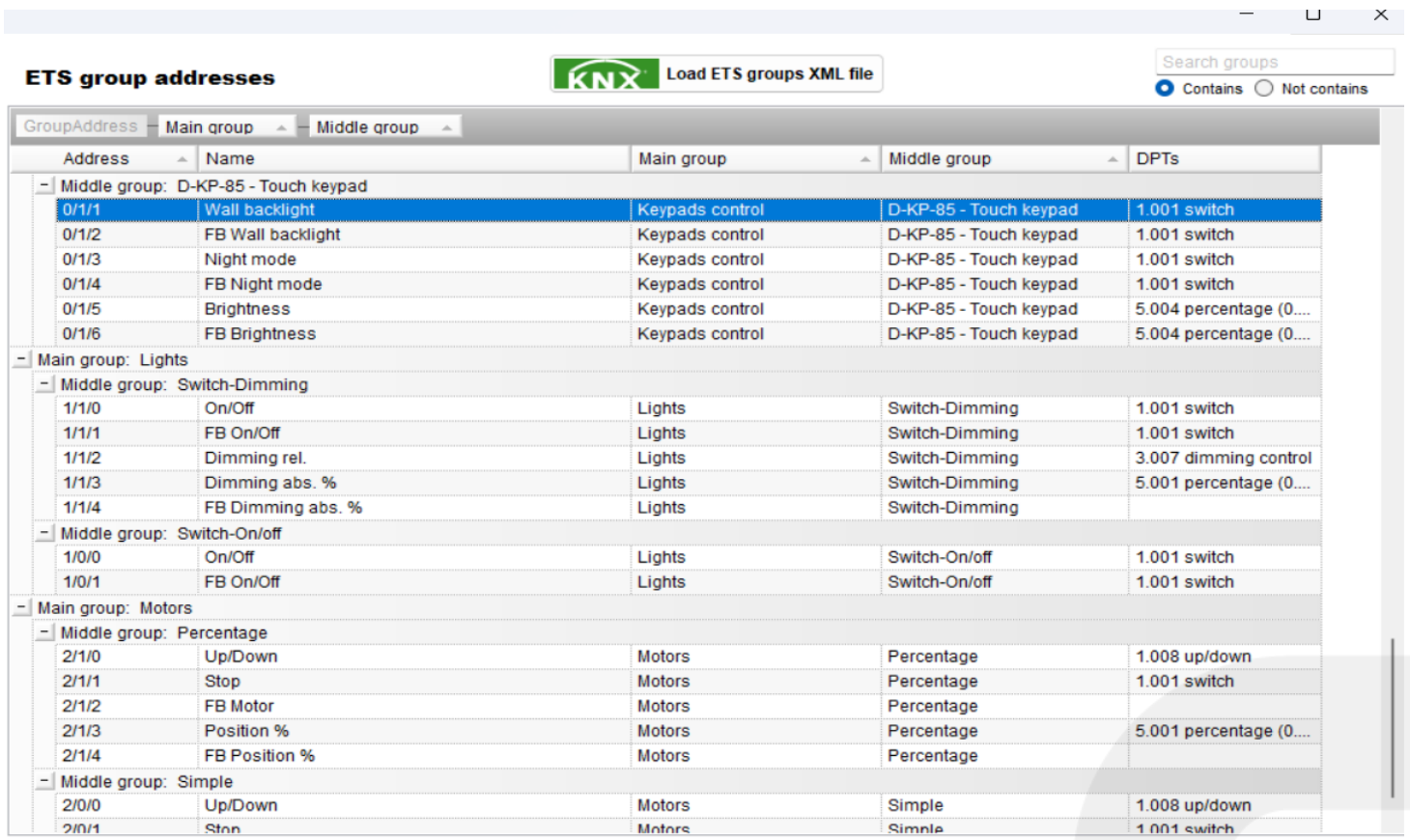
DO CONTROL CONFIG

Viewing Group Addresses Imported from ETS

When you want to view the table of group addresses imported from the ETS project, you can customize the view by grouping the addresses according to their main and intermediate groups (which is more practical) as well as by DPTs (Data Point Types).



Address	Name	Main group	Middle group	DPTs
0/1/1	Wall backlight	Keypads control	D-KP-85 - Touch keypad	1.001 switch
0/1/2	FB Wall backlight	Keypads control	D-KP-85 - Touch keypad	1.001 switch
0/1/3	Night mode	Keypads control	D-KP-85 - Touch keypad	1.001 switch
0/1/4	FB Night mode	Keypads control	D-KP-85 - Touch keypad	1.001 switch
0/1/5	Brightness	Keypads control	D-KP-85 - Touch keypad	5.004 percentage (0....
0/1/6	FB Brightness	Keypads control	D-KP-85 - Touch keypad	5.004 percentage (0....
0/2/1	Wall backlight	Keypads control	D-KP-125 - Touch keypad	1.001 switch
0/2/2	FB Wall backlight	Keypads control	D-KP-125 - Touch keypad	1.001 switch
0/2/3	Night mode	Keypads control	D-KP-125 - Touch keypad	1.001 switch
0/2/4	FB Night mode	Keypads control	D-KP-125 - Touch keypad	1.001 switch
0/2/5	Brightness	Keypads control	D-KP-125 - Touch keypad	5.004 percentage (0....
0/2/6	FB Brightness	Keypads control	D-KP-125 - Touch keypad	5.004 percentage (0....
0/3/1	Wall backlight	Keypads control	D-CT - Touch thermostat wit...	1.001 switch
0/3/2	FB Wall backlight	Keypads control	D-CT - Touch thermostat wit...	1.001 switch
0/3/3	Night mode	Keypads control	D-CT - Touch thermostat wit...	1.001 switch
0/3/4	FB Night mode	Keypads control	D-CT - Touch thermostat wit...	1.001 switch
0/3/5	Brightness	Keypads control	D-CT - Touch thermostat wit...	5.004 percentage (0....
0/3/6	FB Brightness	Keypads control	D-CT - Touch thermostat wit...	5.004 percentage (0....
1/0/0	On/Off	Lights	Switch-On/off	1.001 switch
1/0/1	FB On/Off	Lights	Switch-On/off	1.001 switch
1/1/0	On/Off	Lights	Switch-Dimming	1.001 switch
1/1/1	FB On/Off	Lights	Switch-Dimming	1.001 switch
1/1/2	Dimming rel.	Lights	Switch-Dimming	3.007 dimming control
1/1/3	Dimming abs. %	Lights	Switch-Dimming	5.001 percentage (0....
1/1/4	FB Dimming abs. %	Lights	Switch-Dimming	
2/0/0	Up/Down	Motors	Simple	1.008 up/down



Address	Name	Main group	Middle group	DPTs
Middle group: D-KP-85 - Touch keypad				
0/1/1	Wall backlight	Keypads control	D-KP-85 - Touch keypad	1.001 switch
0/1/2	FB Wall backlight	Keypads control	D-KP-85 - Touch keypad	1.001 switch
0/1/3	Night mode	Keypads control	D-KP-85 - Touch keypad	1.001 switch
0/1/4	FB Night mode	Keypads control	D-KP-85 - Touch keypad	1.001 switch
0/1/5	Brightness	Keypads control	D-KP-85 - Touch keypad	5.004 percentage (0....
0/1/6	FB Brightness	Keypads control	D-KP-85 - Touch keypad	5.004 percentage (0....
Main group: Lights				
Middle group: Switch-Dimming				
1/1/0	On/Off	Lights	Switch-Dimming	1.001 switch
1/1/1	FB On/Off	Lights	Switch-Dimming	1.001 switch
1/1/2	Dimming rel.	Lights	Switch-Dimming	3.007 dimming control
1/1/3	Dimming abs. %	Lights	Switch-Dimming	5.001 percentage (0....
1/1/4	FB Dimming abs. %	Lights	Switch-Dimming	
Middle group: Switch-On/off				
1/0/0	On/Off	Lights	Switch-On/off	1.001 switch
1/0/1	FB On/Off	Lights	Switch-On/off	1.001 switch
Main group: Motors				
Middle group: Percentage				
2/1/0	Up/Down	Motors	Percentage	1.008 up/down
2/1/1	Stop	Motors	Percentage	1.001 switch
2/1/2	FB Motor	Motors	Percentage	
2/1/3	Position %	Motors	Percentage	5.001 percentage (0....
2/1/4	FB Position %	Motors	Percentage	
Middle group: Simple				
2/0/0	Up/Down	Motors	Simple	1.008 up/down

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Automatic Recognition of DPT Categories and Subcategories with Export from ETS6

When you export the XML file of group addresses from the ETS project, the Do.Control software automatically recognizes the DPTs used in the project. Depending on the version of ETS you are using, ETS6 provides more data, particularly offering both the primary level DPT (e.g., 1.xxx) and the subcategory (e.g., 1.001), enabling automatic recognition. If you are using ETS5 or earlier versions, only the primary level DPT will be recognized. However, if desired (though not mandatory for configuration), you can later select specific DPTs in the table of imported groups. By selecting certain specific DPTs, the process of creating supervision icons is often preconfigured with typical values for the individual DPT, streamlining the setup process.

Imported groups Import wizard Autocomplete

Drag here the column in order to group by the values

Group a...	Feedback ...	Read only	Synching	DPT	Main group	Middle group	Name
0/1/1	0/3/6	☐	☑	1.001 switch	Keypads control	D-KP-85 - Tou...	Wall backlight
0/1/3	0/1/2	☐	☑	1.001 switch	Keypads control	D-KP-85 - Tou...	Night mode
0/1/5	0/1/4	☐	☑	5.004 percentage (0..255%)	Keypads control	D-KP-85 - Tou...	Brightness
0/2/1	0/1/6	☐	☑	1.001 switch	Keypads control	D-KP-125 - To...	Wall backlight
0/2/3	0/2/2	☐	☑	1.001 switch	Keypads control	D-KP-125 - To...	Night mode
0/2/5	0/2/4	☐	☑	5.004 percentage (0..255%)	Keypads control	D-KP-125 - To...	Brightness
0/3/1	0/2/6	☐	☑	1.001 switch	Keypads control	D-CT - Touch t...	Wall backlight
0/3/3	0/3/2	☐	☑	1.001 switch	Keypads control	D-CT - Touch t...	Night mode
0/3/5	0/3/4	☐	☑	5.004 percentage (0..255%)	Keypads control	D-CT - Touch t...	Brightness

Imported groups Import wizard Autocomplete

Drag here the column in order to group by the values

Group a...	Feedback ...	Read only	Synching	DPT	Main group	Middle group	Name
0/1/1	0/3/6	☐	☑	1.* 1-bit	Keypads control	D-KP-85 - Tou...	Wall backlight
0/1/3	0/1/2	☐	☑	1.* 1-bit	Keypads control	D-KP-85 - Tou...	Night mode
0/1/5	0/1/4	☐	☑	5.* 8-bit unsig...	Keypads control	D-KP-85 - Tou...	Brightness
0/2/1	0/1/6	☐	☑	1.* 1-bit	Keypads control	D-KP-125 - To...	Wall backlight
0/2/3	0/2/2	☐	☑	1.* 1-bit	Keypads control	D-KP-125 - To...	Night mode
0/2/5	0/2/4	☐	☑	5.* 8-bit unsig...	Keypads control	D-KP-125 - To...	Brightness
0/3/1	0/2/6	☐	☑	1.* 1-bit	Keypads control	D-CT - Touch t...	Wall backlight
0/3/3	0/3/2	☐	☑	1.* 1-bit	Keypads control	D-CT - Touch t...	Night mode

Imported groups Import wizard Autocomplete

Drag here the column in order to group by the values

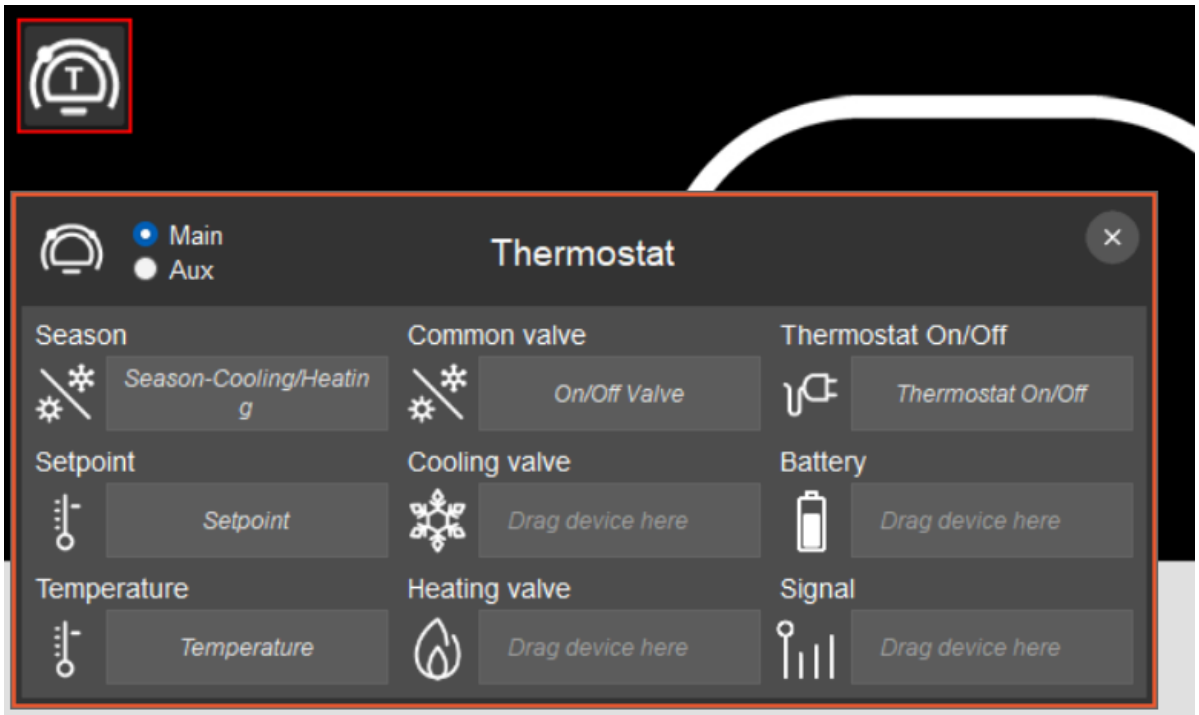
Group a...	Feedback ...	Read only	Synching	DPT	Main group	Middle group	Name	D
0/1/1	0/3/6	☐	☑	1.* 1-bit	Keypads control	D-KP-85 - Tou...	Wall backlight	K
0/1/3	0/1/2	☐	☑	1.* 1-bit	Keypads control	D-KP-85 - Tou...	Night mode	K
0/1/5	0/1/4	☐	☑	5.* 8-bit unsig...	Keypads control	D-KP-85 - Tou...	Brightness	K
0/2/1	0/1/6	☐	☑	1.* 1-bit	Keypads control	D-KP-125 - To...	Wall backlight	K
0/2/3	0/2/2	☐	☑	1.* 1-bit	Keypads control	D-KP-125 - To...	Night mode	K
0/2/5	0/2/4	☐	☑	1.* 1-bit			ghtness	K
0/3/1	0/2/6	☐	☑	1.001 switch			ll backlight	K
0/3/3	0/3/2	☐	☑	1.002 boolean			ht mode	K
0/3/5	0/3/4	☐	☑	1.003 enable			ghtness	K
1/0/0		☐	☑	1.004 ramp			Off	L
1/1/0		☐	☑	1.005 alarm			Off	L
				1.006 binary value				
				1.007 step				

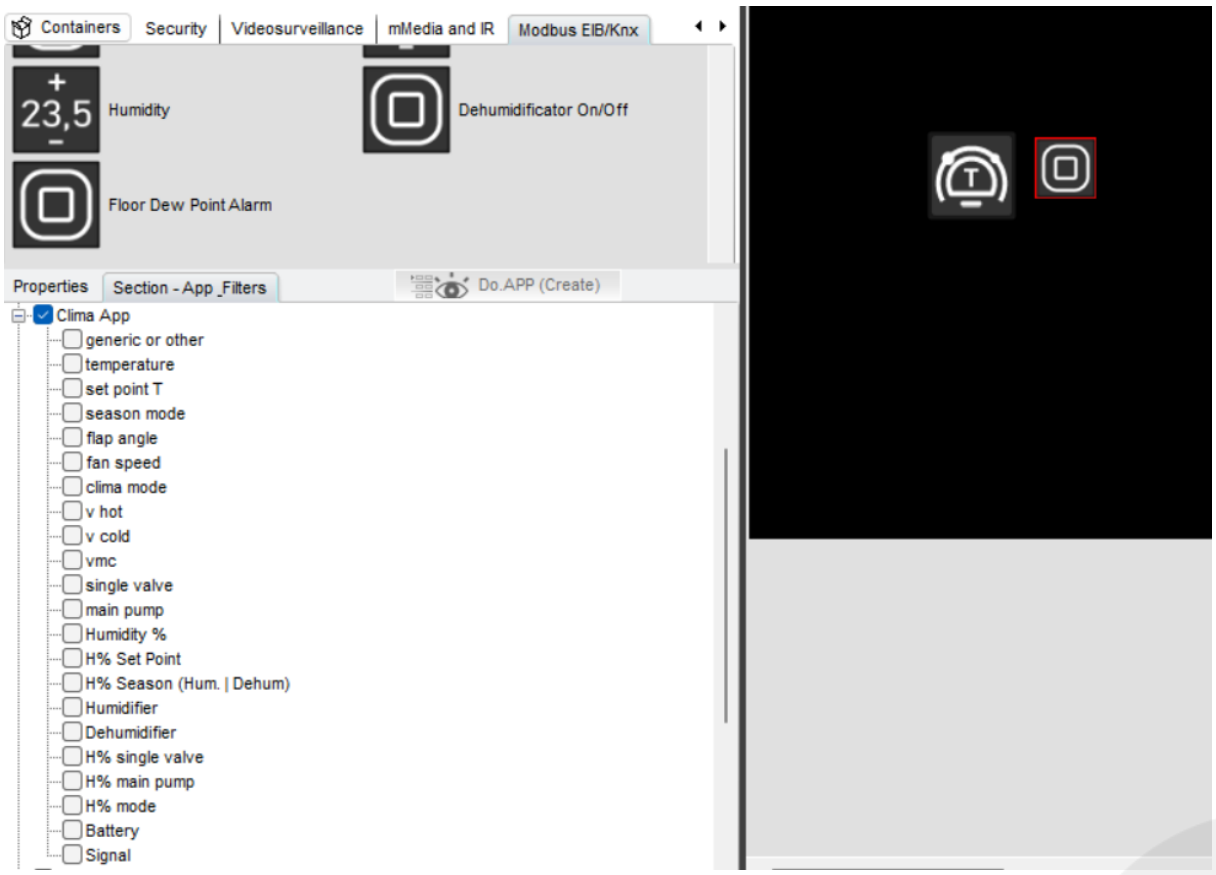
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Non-Movable Custom Icons in a Container

When using containers (which are useful for grouping several common functions into a single user icon), some icons may not have a dedicated section within the container. To display these icons in the same HVAC controller as the other icons moved into the container, simply move the individual icon to the room by placing it outside the container and manually categorize it using the filters section (for an HVAC controller – Climate, Generic App, etc.). This allows the icon to be recognized and controlled within the same system.





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DO CONTROL CONFIG

Copy and Paste Icon Properties

When working with individual icons, after configuring properties such as filters/functions, minimum/maximum values, preset value texts, and other parameters, it is possible to copy and paste all these properties from one icon to another without having to manually configure each property for every icon. Only the properties are copied, preserving the icon's name, position, and the room it is located in. This feature streamlines the process, ensuring consistency across icons while saving time on configuration.

