ThinKnx UP Configurator

2022/10/13 - rel. 1.3.0.24

Enhancements

- Added possibility to customize background of pages
- Added tool to translate project in multiple languages
- Added tool to search and replace KNX groups automatically
- Added option for enabling OTP and creation of clients
- Added multiple options on MQTT and Ethernet Gateway
- Added option for slider objects
- Added protection to password fields (can be cleared with right button)
- Added support for Alexa and Google Home
- Added support for Upnp Players using Sonos manager
- Added support for Wake On Lan commands
- Added support for FIAS protocol (Beta)

Fixes

- Fixed errors copying objects on logic module
- Fixed threshold filter on logic module
- Fixed several bugs on project export

Works with Server version 1.1.10.22 and later.

2022/05/05 - rel. 1.3.0.23

Enhancements

- Added management of object visibility that allow to hide/show objects basing on command
- Added additional properties to slider widget
- Added Settings pane to customize program behavior
- Added Duplicate shortcut to right button menu for all the objects
- Added option to disable TP KNX bus when not used to route all traffic to network
- Added OpenWeatherMap object
- Added Virtual Input and Output on Ethernet Gateway for interacting with IoT
- Added support for MQTT using server as Subscriber and as Broker (BETA)

Fixes

- Fixed errors when moving multiple objects with scaled environment
- Fixed support for not unary coefficient in slider

- Fixed behavior of image scaling for object (Native/Fit)
- Fixed error on Chart editor
- Fixed some graphic glitches on roller icons
- Fixed background behavior of Extended command object
- Fixed some errors when using usernames with UTF characters

2022/04/01 - rel. 1.3.0.22

Enhancements

- Added fully customizable pop-ups
- · Completely redesigned project handling windows
- Added possibility to create backup points of the projects
- · Added possibility to easily clone projects
- Added slider object for analog values
- Added possibility to show numeric values on circle and bars
- Added possibility to control Velux using network gateway
- Added new feature to the browser object
- Added new commands to navigate between pages and pop-ups
- Added new commands to mute SIP clients ringtone
- Added new commands to change pages in browser (like favorites buttons)
- Added a graphic editor to set main server properties
- Added VNC viewer to connect to Envision screens directly from configurator
- Improved RGB object and added multiple new data types
- Improved ETS window and KNX group handling
- Improved groups of interface objects handling
- Improved logic script editing
- Improved loading speed

Fixes

- Fixed errors on restrictions per Users/Groups
- Fixed error copy/paste of object groups
- Fixed problems on copying pages containg groups
- Fixed error hue object with on/off lamps
- Improved undo/redo of operations with pages

2021/12/13 - rel. 1.3.0.21

- Improved groups of interface objects handling
- Improved logic script editing
- Improved loading speed

- Fixed possible errors on jump page command
- Fixed error on portrait mode when moving groups
- Fixed error on editing roles/pbx users
- Fixed problems on copying pages containg groups

2021/11/28 - rel. 1.3.0.20

Enhancements

- Added possibility to create custom script in the logic engine
- Added support for new Bticino gateways and absolute positioning of rollers

Fixes

- Fixed problem on roller that was preventing KNX group to be loaded back properly
- · Remove a shortcut that was conflicting with text editing
- Fixed flickering on ETS window
- Restored possibility to use ETS window while editing commands
- Other minor fixed

2021/11/21 - rel. 1.3.0.19

Enhancements

- Implemented in Working area Cross-Window selection when selecting items from right to left. Standard Box-Selection is still usable just when selecting items from left to right.
- Added property Biometric protection in interface objects, supports face recognition or finger print.
- Mirror property in interface objects.
- Added possibility to group together interface objects with variables
- Added possibility to view animated images (GIF)
- Added many options in Roller Shutter object to have better pop-ups customization
- Added possibility to connect with multiple KNXnet/IP interfaces at same time
- Added grid view for collection items editing
- Added Memory Node in the logic module
- Improved user experience using ETS Window

Fixes

- Improved Undo/Redo functionality
- Highlight of matched item using search bar in project explorer
- Improved support of High DPI screens

- Added new shortcuts (visit wiki for full list)
- Improved all the graphical objects

2021/04/28 - rel. 1.3.0.18

Enhancements

- Search Bar added in Interface and System Tree.
- Page automatically added when Interface object is added from Function.
- Improved memory management using Web Browser object in order to avoid memory leaks.
- Improved search of a KNX group or command extended for all objects.
- Implemented snap grid for interface objects.

Fixes

- Clipboard fixed problem using resources, import and export functionalities and display order of items.
- Fixed various problems related to Clone functionality in collection items.
- Fixed various issues about custom licenses storage and country-base licenses.
- Fixed unhandled exception using shortcut CTRL+A.
- Fixed thermostat limits with relative temperature.

2021/03/31 - rel. 1.3.0.16

- Added Clipboard feature to store or track recently copied UI objects or Pages. This permits to copy from one project to another and export to another PC.
- Added missing translations and updated the description for various objects.
- Added a mechanism to share and load projects. For each user, it is now possible to display a data summary that can be sent directly via email or exported as PDF document. This summary also contains a QR code that permits to load projects onto customers smartphones.
- Enforced security policies for Name and Password in Users and Groups.
- Added the possibility to import projects created with Theben TheServa Configurator and to update Theben server with the latest Thinknx UP firmware.
- Added the possibility to convert all Thinknx Legacy servers (Classic) to Thinknx UP.
- Added the "Notifications" area that allows user to:
 - Update the configurator to the latest version.
 - Check that Thinknx UP Configurator has been correctly added to the windows Firewall exclusions.
 - See latest new about the product.
- 8. Several enhancements have been added to the Logic Module.
 - Improved name and position of pasted elements after copying them. Connection arrows in copied nodes are preserved.
 - Added a customizable snap grid.
 - Added Arrange butons.

- Improved the logic connection when dragging the arrow from one input connector to an output.
- 9. Updated content of Licenses area. Default licenses are automatically selected depending on the server model and serial number.
- 10. Added Security Passwords for storing passwords that can be used to protect the Camera object.
- 11. Removed the limit on the number of KNX variables.

- Changed setpoint type from "Base + Relative (DPT5) to "Base + Relative (DPT6)".
- Solved various issues in Colors Dialog. Custom colors are now saved.
- Fixed various issues in Copy/Paste function in Logic Module. Values of nodes properties are now preserved after loading previously saved project.
- Fixed the Clone button. Modifying the cloned item will no longer affect the original element.
- Fixed the saving of the Text background size after modifying another parameter.
- Fixed calculation of Date and Time objects in Logic Module and Math Expressions.
- Fixed some bugs in Logic Module such as saving of IR commands.
- Fixed saving of parameters in Database object.
- Fixed HVAC feedback issues with same groups on multiple objects.
- Fixed search of certain KNX group addresses configured into the Thermocomfort object with relative setpoint and in many other cases.
- Fixed export for server functionality to include also logic schemes.
- Fixed issues when properties of multiple Analog Values change.
- Fixed issue in reverse functioning of Load Control after closing and opening the project again.
- Fixed recovery of projects after unexpected crash and other various crashes.

2020/08/27 - rel. 1.3.0.14

After a lot of work, a long awaited update with many fixes and improvements:

- Added math expression to transform KNX float to 2 raw bytes
- Added math expression to shift right or left bits in bytes
- Added math expression to extract some bytes from a bigger number
- Added support for Modbus ASCII
- Added support for Modbus Slave gateway
- Added support for many new Modbus data types
- Added support for write Mobdus value from KNX
- Added support for cyclical writing on Modbus
- Added "clone" button to clone objects in list editors (scene action, modbus datapoint etc.)
- Added status feedbacks for home theaters
- Added customizable threshold (via KNX) for Load Module
- Added possibility to hide scheduler icon for specific users
- Added additional options for SIP clients to resolve problems in nested networks
- Improved speed on startup and when opening projects
- Added shortcuts to support Shift+Del/Shift+Ins for copy/paste
- Added support for full screen Web browser and Audiofy

• Added variable max and min on Range verifier in logic module

Fixes

- Fixed portrait view to reorder objects in list
- Fixed support for 4bits, date and time values in math expression
- Fixed some bugs on Lutron QS object that was preventing to read config file
- Fixed a problem with second DNS on server manager
- Fixed a problem on Sonos Manager that was preventing identification by IP
- Fixed a several bugs in Logic Module elements
- Fixed some other minor bugs and translations

Other Notes

- Works with Server version 1.1.10.16 and later.
- Installation may require computer restart
- On some Intel graphic cards it may be mandatory to update the drivers to the latest available

2020/03/20 - rel. 1.3.0.12

Enhancements

- Added support for Philio gateway
- Improved Thinknx Access Control System
- Added option on KNX variables to decide if read at startup is needed
- Added option on KNX variables to decide if write back stored value at startup

Fixes

- Fixed server updater to support Rack server
- Fixed read group at startup for temperature setpoint command
- Fixed logic editor storage for some blocks (timers, statistics)
- Fixed some other minor bugs and translations

Other Notes

- Works with Server version 1.1.10.15 and later.
- Installation may require computer restart
- On some Intel graphic cards it may be mandatory to update the drivers to the latest available

2020/01/14 - rel. 1.3.0.11

- Added support for KNXnet/IP on servers
- Improved Thinknx Access Control System
- Added Thinknx Sensors for interfacing Envision sensors with KNX
- Added intToDouble to Math Expressions to convert 32bits integer to double

- Added 8 bytes double as data type for Modbus
- Added feedbacks to Tutondo audio matrix
- Improved ETS import with different codepages

- Fixed firewall rules for configurator
- Fixed lost season group on Comfort Object
- Fixed an error on Generic Counter properties
- Fixed an error on optimizing images for Universal command
- Fixed some other minor bugs and translations

Other Notes

- Works with Server version 1.1.10.13 and later.
- Installation may require computer restart
- On some Intel graphic cards it may be mandatory to update the drivers to the latest available

2019/08/09 - rel. 1.3.0.10

Enhancements

- Added command to reset KNX device by phisycal address
- Added possibility to customize setpoint temperature ranges for thermostat and HVAC controls
- Added slider step for HVAC setpoint
- Added full support of Lutron QS system with virtual outputs and virtual keypads on KNX
- Added many more functions for HUE gateway towards KNX (dimm, value and RGB groups)
- Added switch feedback/command from/to KNX for RGB elements to switch driver On/Off
- Added possibility to trigger scenes with a specific bit value (0,1 or both)
- Added support for 4bits and 14bytes DTPs to objects that were not supporting them
- Improved startup speed
- Improved Ctrl-C/Ctrl-V behaviour
- Added Thinknx Access Control System (BETA)
- Improved support for DuoTecno system
- Added support for Russian language

Fixes

- Fixed logic matrix block into logic engine
- Fixed math output filtering into logic engine
- Fixed import of Classic project that was losing chronoswitches
- Fixed a bug on firmware updater regarding connection to servers
- Fixed isbitset function
- Fixed some other problems translation related

Other Notes

- Works with Server version 1.1.10.11 and later.
- Installation may require computer restart

• On some Intel graphic cards it may be mandatory to update the drivers to the latest available

2019/04/30 - rel. 1.3.0.9

Enhancements

- Added support for ELMO/IESS security panels
- Added support for virtual keypads on Lutron systems
- Improved support for thermostat with relative temperature setpoint
- Added slider step for thermostat setpoint
- Added possibility to invert Fan Manual/Auto values on thermostat
- Added support for 2bits DPT2 and 4bits DPT3 on buttons and commands
- Added possibility to read back KNX variables value from other KNX devices

Fixes

- Fixed problems when creating project with wizard
- Updated list of tone for audio notification
- Fixed properties displayed on blind object when roller was not enabled
- Fixed some other problems translation related

Other Notes

- Works with Server version 1.1.10.9 and later.
- Installation may require computer restart
- On some Intel graphic cards it may be mandatory to update the drivers to the latest available

2019/04/03 - rel. 1.3.0.8

Enhancements

- Added integration with DuoTecno system
- Added support for actions on Lutron buttons events
- Added support for Virtual inputs on Paradox Evo panel

Fixes

- Fixed problems when creating chrono switches for dimmers
- Fixed errors on fan creation and association for comfort object
- Fixed a problem with data type on RGB gateway White groups
- Fixed a description problem for circle analog value (german only)
- Added a description problem for RGB values on Zwave gateway
- Fixed a problem when disabling cloud on a project to prevent that clients still use cloud
- Fixed a issue that was preventing use of bticino thermostat with voice gateway

Other Notes

• Works with Server version 1.1.10.8 and later.

• Z-Wave database updated to support much more devices

2019/02/01 - rel. 1.3.0.7

Fixes

- Fixed installation issues
- Fixed problems on universal commands with images from URLs
- Added 2 bytes signed on Modbus gateway
- Fixed problems when deleting commands from objects
- Fixed Lutron output selection

2018/12/02 - rel. 1.3.0.5

Enhancements

- Editing of multi-selected objects
- Lock functionality
- New project managing form
- New feedback group when scene is running
- Improved KNX group search utility
- New wizard window

Fixes

- Improved overall stability
- Improved rendering on high DPI screens
- Fixed image import on creation of new project
- Minor bugs fixed

Other Notes

- Works with Server version 1.1.10.5 and later.
- Z-Wave database updated to support much more devices

ThinKnx Configurator (Classic)

10/22/2018 - rel. 1.2.25.0

Fixes

- Fixed Logic Module exportation in Configurator projects
- Minor bugs fixed

Other Notes

• Z-Wave database updated to support much more devices

This version requires Thinknx server firmware 1.1.9.15

04/15/2018 - rel. 1.2.23.0

Fixes

- Fixed Logic Module upload to server by means of Cloud.
- Fixed Logic Matrix in Logic Module
- Fixed a problem on Math Expression with iif function inside Logic Module
- Fixed a problem on Modbus datapoint type list
- Fixed some problems on Generic Counter statistic
- Fixed some problems with IRoom IBezel devices
- Fixed a problem with users saving in WebUI

Enhancements

- Added auto-update to Time counter block in Logic Module
- Added filter to each logic input of nodes in Logic Module
- Improved PID block in Logic Module
- Added CoolAutomation CoolMaster driver
- Added counter with variable factor in Generic Counter to measure calories with simple binary inputs
- Added counter value in Generic Counter to get the cumulated counter value
- P1 added fault indication and total energy consumed and delivered summing both tarifs
- P1 added support for DSRM 5 with traffic rate limiting
- Added Paradox Evo and Arrowhead SX support
- Added power fault and battery fault for Bentel KyoUnit
- Added support for KNX group in free format
- Added support for internal groups on HVAC
- Added possibility to import ZWave DB from web without upgrading whole configurator

Other Notes

• Z-Wave database updated to support much more devices (Aeotec, Fibaro etc.)

This version requires Thinknx server firmware 1.1.9.13

- Cloud connection improved
- Client disconnection solved
- Fixed errors on HVAC
- Fixed errors on email sending
- Improved connection to TCP Modbus Gateway
- Improved Generic counter reliability
- Many other littler improvements for system stability

11/30/2017 - rel. 1.2.21.0

- Changing user names from uppercase to lowercase generates errors during project download from Cloud in ThinKnx apps
- UTF8 characters in push notification messages are not displayed correctly
- In Chronothermostat object, the status feedback group property is visible only if the temperature mode is enabled
- Fixed KNX 4bit dimming for Z-Wave devices

Enhancements

- New Logic Module!!! The new logic module has been released. It allows to create block diagrams to manage complex logic flows inside Thinknx, for more information visit the dedicated Wiki
- Added SSH command on Ethernet Gateway object
- New predefined functions for Complex Math Expressions: **exponential**, **logarithm**, etc.
- KNX gateway in **Hue Gateway** object improved, functioning of 4bit dimming fixed and 1 byte value added
- Added Function22 in Modbus Gateway to write with bitmask
- Improved thermoregulation integration for MyHome BTicino
- Added yearly value in stats of Generic Counter object
- New integrations in Video Matrix object: HDAnywhere HUB and Blustream
- KNX gateway in Mitsubishi HVAC device improved, added control and feedback group addresses for **fan** and **modality**
- Inverted logic (NC Normally Closed) added for Load Control object
- In Voip PBX object, a **customizable command** to perform when an incoming call occurs towards a specific ring group or PBX account has been added
- Improved ThinKnx compatibility with **Z-Wave battery powered devices**
- In **Analog value**, for Z-Wave source type, it is now possible to select two different Z-Wave instances, one for reading and one for writing or, as an alternative, to select one Z-Wave instance to read and one command to write
- New integration for IR Transmitter object: now ThinKnx supports **Global Cache** devices!
- Online Help link inside Configurator

Other Notes

• Z-Wave database updated

This version requires Thinknx server firmware 1.1.9.12

- Fixed bug on server detection with Server Manager
- Fixed bug regarding MyHome communication when interface couplers are in use
- Fixed bug on saving procedure of irrigation programs (only on Micro servers)
- Now Calendar feature also works with Philips Hue, Z-Wave and MyHome switch objects

08/22/2017 - rel. 1.2.20.0

Fixes

• When a system object is deleted from the project, the associated commands are still available in the Command Editor

- During scene recording, if the same system command appears in sequence, just the last one is stored in the scene
- Minor bugs fixed

Enhancements

- Push notification rate limit: it is possible to set a limit to the frequency push notifications are sent
- New commands available for Denon/Marantz
- New religious events for Sun times and Events objects
- P1 meter interface now supports new DSM versions and it automatically generates daily, weekly, monthly reports
- Foxun HDMI matrix integrated
- Voice Control now available also for Z-Wave devices and Philips Hue

05/25/2017 - rel. 1.2.19.0

Fixes

- ThinKnx Configurator crashes when the name of a new project contains "&" character
- When the server type is Brickbox, the Deploy button is disabled
- Switch Schedule object doesn't accept scheduling times exceeding midnight
- Minor bugs fixed

Enhancements

- New KNX command: now ThinKnx server can send 4bit telegrams on KNX
- Voice Control improved for Apple HomeKit

03/16/2017 - rel. 1.2.18.0

Fixes

- ThinKnx Configurator loses .esf file in ETS Project object whenever the user open the project
- Minor bugs fixed

Enhancements

- New KNX DPTs: two new DPT for smart metering has been added inside Configurator. DPT 229.001 for smart metering and DPT 29 for electrical energy
- Cloud connection: securely connect to the server from client apps without port forwarding. New "Automatic connection" property added to System node
- Audiofy object: integration of Audiofy device inside ThinKnx supervision
- Voice Control object for Amazon Alexa and Apple HomeKit

Other notes

• Z-Wave database updated

12/15/2016 - rel. 1.2.16.0

Fixes

- Shift key allows to select just two objects
- Minor bugs fixed

Enhancements

• German translation improved for Z-Wave Controller and other system objects

12/07/2016 - rel. 1.2.15.0

Fixes

- Generic counter always returns 0
- Shortcut keys (Ctrl+C, Ctrl+V, etc.) not working properly even if an object is selected
- Minor bugs fixed

Enhancements

- Sun times and events object now computes also religious events.
- German translation improved for Hue Gateway and other system objects

10/18/2016 - rel. 1.2.14.0

Fixes

 Value KNX group in Switch object has inverted behavior. If typed as internal group (with *) is sent on bus and viceversa

- Redesign of Export and Deploy menu: now in the Export menu are available all the functions which allow to generate a file for the deploy, meanwhile in the Deploy menu are collected all the functions to automatically deploy the project (through local network or cloud)
- In the Deploy menu, new Help window to explain the difference between the local deploy and the cloud deploy
- Upload of the project for server on ThinKnxCloud: in the System node, the property "Automatic server update" has been added. If enabled, once the user clicks on "Upload to the cloud" both clients and server projects are loaded on the cloud server. The server (with firmware >= 1.1.9.7) will automatically detect the changes and download the project.
- New authentication method for clients: in the System node, the property "Automatic authentication" has been added. If enabled, the authentication of client devices can be performed directly through the client app without accessing the server web pages. This procedure is available only if the ThinKnxCloud feature is enabled and the project contains users. The final user, the first time it connects to the server, will have to type the

username and cloud password into a popup.

10/06/2016 - rel. 1.2.13.0

Fixes

• Minor bugs fixed on Z-Wave controller

10/05/2016 - rel. 1.2.12.0

Fixes

- HVAC device: the On/Off KNX groups properties are displayed twice if the property "Controller Type" is set to KNX Interface Extended
- Generic command: graphic symbols aren't displayed correctly
- Add object window: by double clicking on the desired object, the interface item below is selected
- Property grid: while editing a text property, the arrow keys doesn't move the cursor in the text field but they move the selected object and the Delete button doesn't delete the text but deletes the selected object
- If the currently open project is renamed from the Open window, the Configurator crashes
- All the properties on MyHome BTicino Automations group are now saved properly
- Hue now works with Chronoswitch
- Calendar settings now are maintained after project change

Enhancements

- Irrigation: added KNX groups to control directly the on/off of the pump
- VoIP PBX: generic model added to Doorstation
- New Generic Counter object!!! It can count impulses or work as a differential counter of an input value. It stores daily, weekly, monthly sums and can be used as consumption manager
- Now ETS projects object can import .esf files. The ESF file can be generated in the ETS by clicking on Other \rightarrow Export OPC
- Several improvements on the Z-Wave integration. Better support of the most common command classes inside the graphical objects (lamps, roller, thermostat and value). Also KNX gateway improved for the same command classes.
- New Z-Wave compatible products now available (Sensative strips, Heatlt thermostat and many others)
- Scene object: in the system object Scene the property "Time between actions" has been added, it represent the time the server has to wait before executing an action in the scene's list of actions
- Internal KNX groups are now available also for dimmer and analog value objects
- New command to read a KNX group
- RGB element: it is now possible to save a color and recall it directly by commands.

07/05/2016 - rel. 1.2.10.0

- Generic command: the label text color is wrong after opening the project
- Intercom button: the KNX ring group isn't working
- Irrigation: bug in the scheduling algorithm

Enhancements

- In Complex Math Expressions object, the property "Avoid loop" has been removed and the property "Trigger computation" has been added to each variable in the expression
- Tester object now supports ping of KNX devices!!!
- In the ZWave Controller, updates in the nodes management

06/27/2016 - rel. 1.2.9.0

Fixes

• Unicode characters: now Arabic, Persian, Hebrew and all the other right-to-left languages are correctly displayed in the interface (functions, pages, object names and popups)

Enhancements

 In Complex Math Expressions object, the property "Avoid loop" has been added to prevent loops when the same KNX group address is used in one expression as input and also as output

05/26/2016 - rel. 1.2.7.0

Fixes

- Windows 10 bug on Flash: right clicking on the interface preview the Flash menu appears
- KNX groups in Sonos Manager: opening an existing Sonos Player the KNX groups address appears twice in the property grid
- Impossible to add new Load Control: adding a new Load Control object in the project fails due to an internal error

Enhancements

- Siemens SPC alarm panel is now fully integrated!!!
- TAB key feature improved: by pressing TAB key the user can browse through the treeview and the property grid, by pressing Shift+TAB the user can browse in the opposite direction
- Import/Export feature in the collection's editor is available also for Scene actions, Gateway Modbus datapoints, KNX variables, Database values
- In VoIP PBX object, for each ring group is now displayed the number to use to call it

05/18/2016 - rel. 1.2.6.0

- Undo procedure in collections of objects: for some objects is not possible to open populated collection because the undo procedure generates errors
- Arrange window: when arrange windows loses the focus, the first click on arrange buttons is lost
- Static text object is larger than it seems so it is impossible to select the objects behind
- Alignment of scaled objects: when the objects have a scale different from 100% it is impossible to align them correctly
- Missing Flash library in installer: after installing Configurator for the first time on a PC, if Flash is missing Configurator crashes
- When the server reboots, Philips Hue lamps are turned off
- After blackouts or sudden server reboots, database variables are not stored on cloud

Enhancements

- Users can choose to hide the function label displayed in the bottom of the page
- Improved server detection in Server Manager
- Updated available licenses in the License Editor inside System node
- Added Windows firewall rule for projects deploy: in this way connections to Configurator during the download procedure aren't blocked by the firewall
- Improved Bridge detection in Hue Finder
- New RGB feedback feature for clients, clients app display the actual color and sequence modality feedbacks in the RGB object
- New TESTER object: this system object allows to perform some tests (e.g. ping) and send commands to the plant depending on the result of the test
- Database objects, and consequently Chart objects, now support data coming from Modbus!
- ZWave Controller
 - Improved feedback on operations
 - Optimization of nodes management
 - Nodes routing table
- 10. Improved server's scheduling algorithm for irrigation
- 11. ThinKnx cloud encryption upgraded: the cloud system is currently using SSL 3 protocol but for security reasons it will be moved to TLS 1. After this change, all the Configurator versions lower than 1.2.6.0 won't be able to upload projects anymore

Other notes

• ZWave database updated

From: https://www.thinknx.com/wiki/ - **Learning Thinknx**

Permanent link: https://www.thinknx.com/wiki/doku.php?id=tkx_rel_note_cfg

Last update: 2022/10/14 03:59

