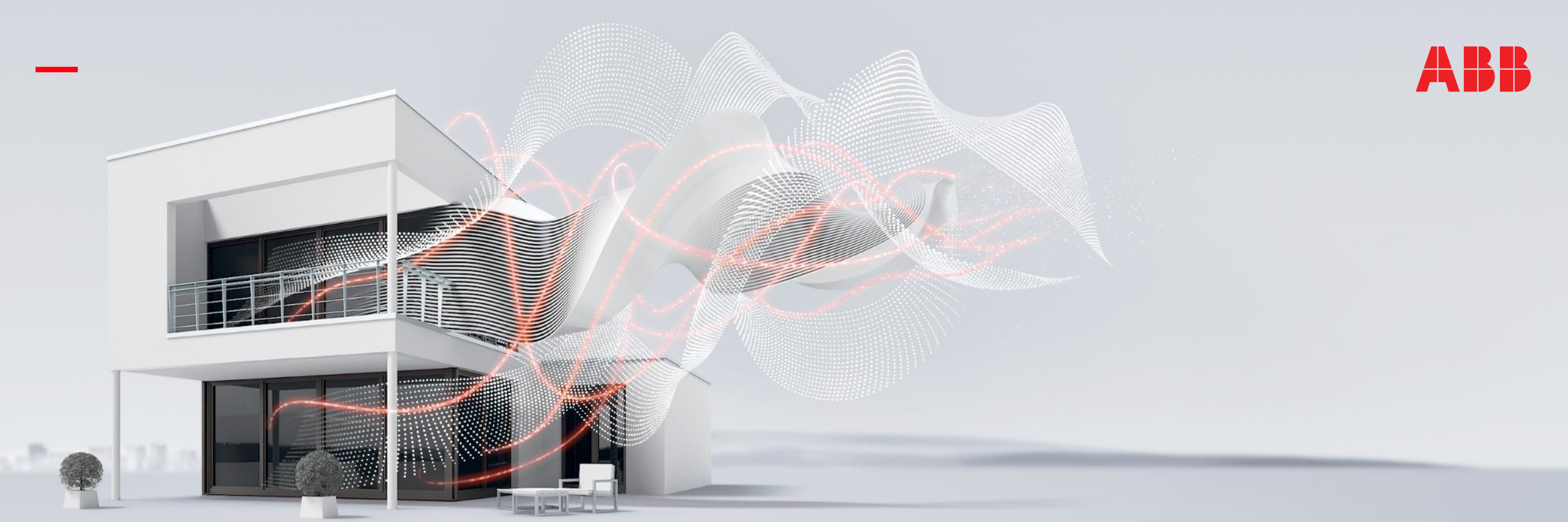


KNXperience, SEPTEMBER 2021

ABB i-bus® Tool

A professional Service Tool for KNX System Integrators and Installers

Thorsten Reibel, Training and Qualification Building Automation, ABB

 Document ID.: Rev.:

Agenda

General Features, Functions and Advantages

Supported Devices

Main Functions for the involved KNX Components

Where to get the ABB i-bus® Tool?

ABB i-bus® Tool

General Features, Functions and Advantages

ABB i-bus® Tool

A professional Service Tool for KNX System Integrators and Installers

General Features

ABB i-bus® Tool is an additional software tool to make life easier when working with ABB i-bus® KNX devices

It supports system integrators and installers during commissioning and service

Internal information and states of the device hardware and software applications are now available in a transparent manner

Functions per channel can be carried out directly from the tool

The i-bus® Tool is optional, i.e. the ABB i-bus® KNX devices must still be commissioned using just the ETS

An important principle is that no divergences to the ETS project can result through the ABB i-bus® Tool

Most of the KNX products from ABB are supported by the ABB i-bus® Tool

Devices e.g. with webserver or powerful DCA (Device Configuration App) in ETS with preview like displays need no support by this tool

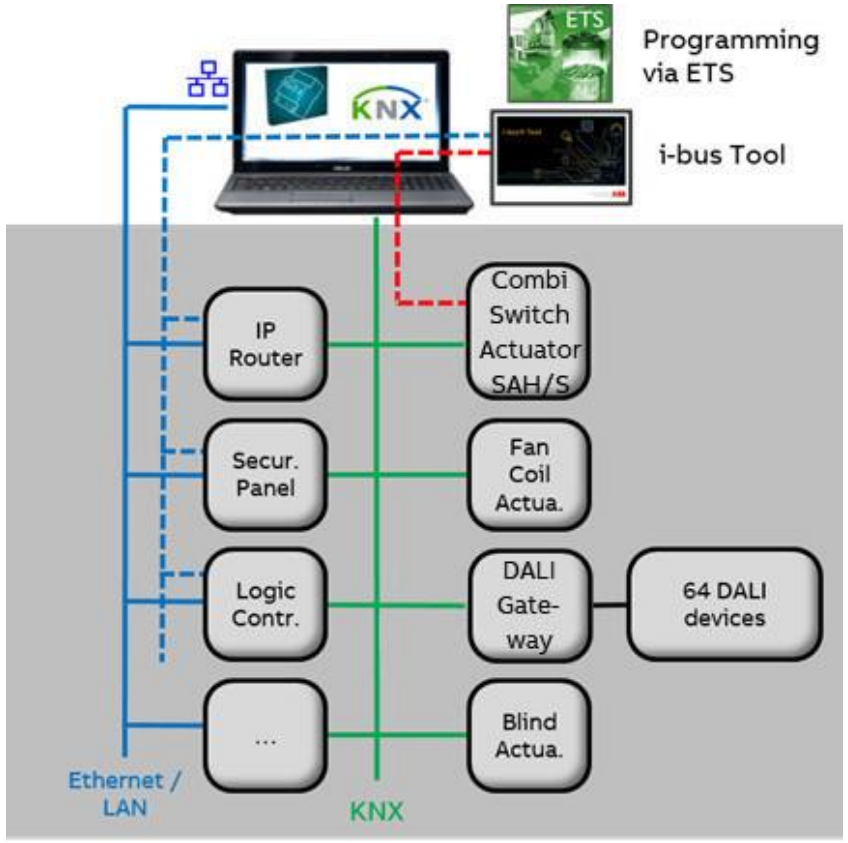


ABB i-bus® Tool

A professional Service Tool for KNX System Integrators and Installers

General Features

The ABB i-bus® Tool accesses an ABB i-bus® KNX device via a standard KNX interface (USB, IP) with the assistance of the individual address

Only one device can be connected at a time, then the device-specific plug-in displays the functions that are possible for this device type depending on ETS programming with individual pages per channel

The user can trigger the desired functions, read values, simulate states, make settings for the connected device (e.g. scenes)

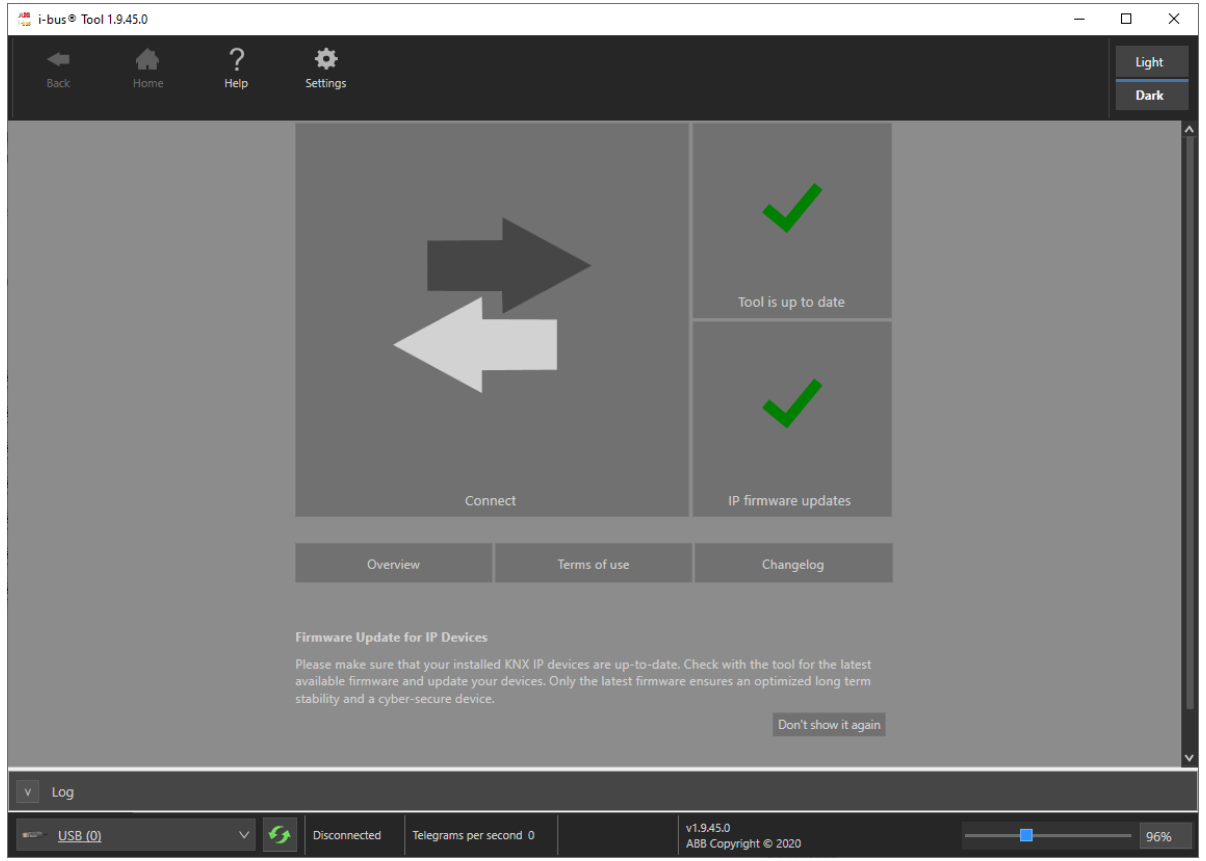
Functions are only available if they have been enabled in the ETS, disabled functions are greyed out or not visible

Selection between display and configuration mode

A comprehensive help file is integrated in the tool

Access to a device via the tool can be restricted in the ETS application at the product

– Options: Full access, read only or blocked



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A professional Service Tool for KNX System Integrators and Installers

General Features

The presentation language can be changed

– Dutch, English, French, German, Italian, Polish, Russian, Spanish

Software will be continuously updated with new products and new functions for existing ones

– Update directly in the tool, information appears on the starting page and changelog
  Status September 2021 Version 1.9.45.0

Further functions:

– Firmware update for IP-Router IPR/S, IP Interface IPS/S and Logic Controller ABA/S, other devices now via App “Bus update” in ETS

– Demo Mode for each device: see how it works and looks like without connected hardware

– IP Device: Detection of KNX IP device and ABB EQmatic QA/S components with name, type, IP address, individual address and status information

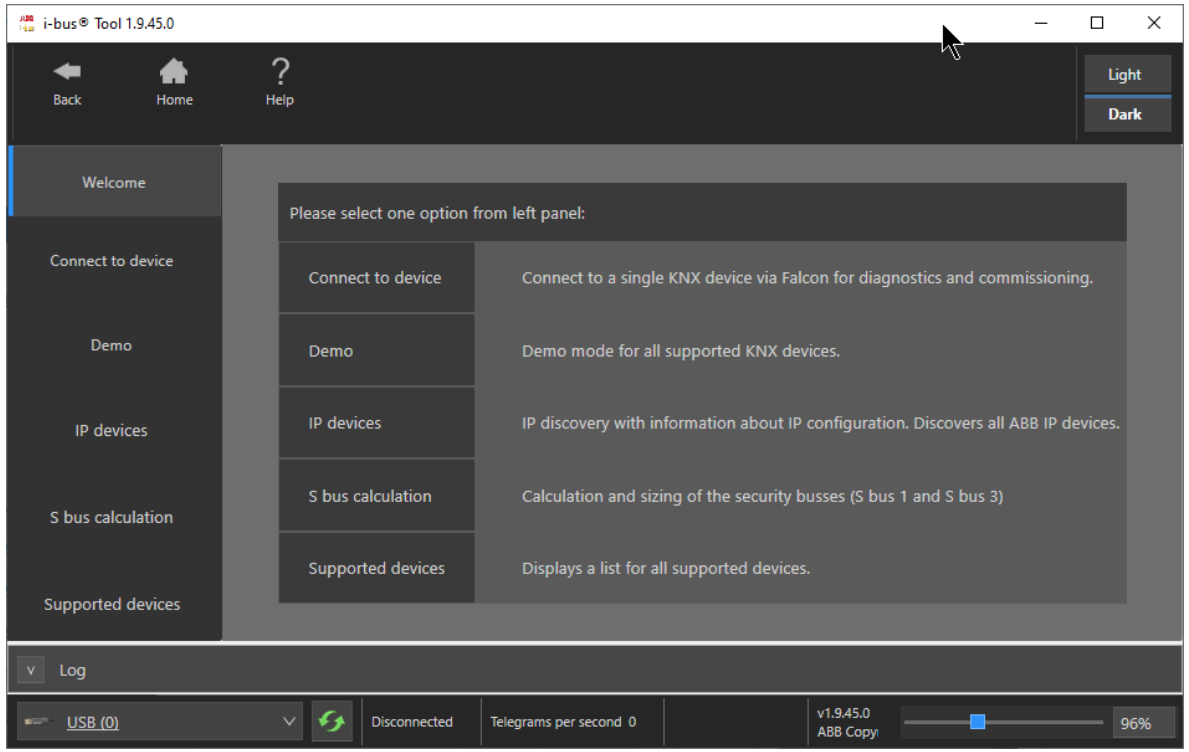


ABB i-bus® Tool

A professional Service Tool for KNX System Integrators and Installers

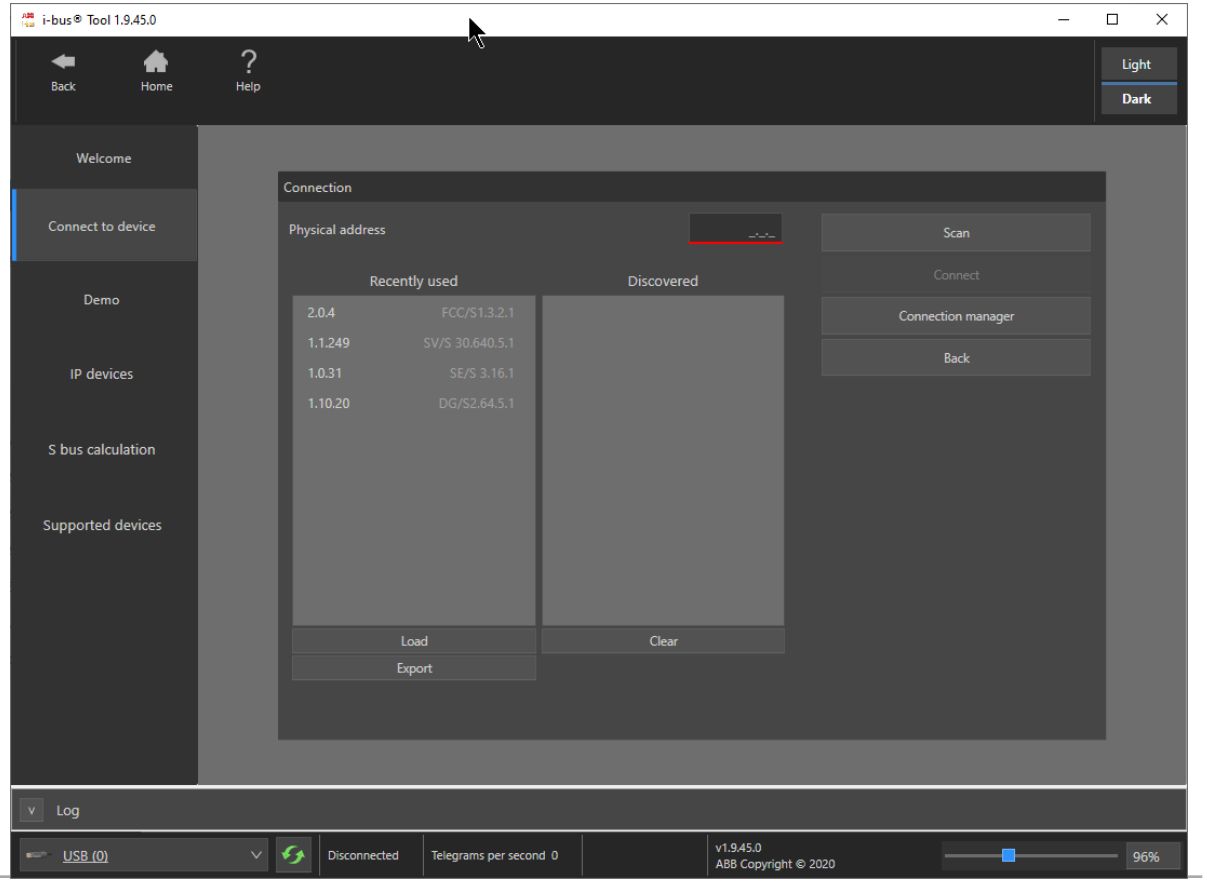
General Features

- Connection Manager: Create connection via USB or IP and test it
- S bus calculation: Support for KNX Security Panel GM/A 8.1 for internal security bus (S bus) to create the correct topology
- Logfile for history and slider to adjust the size of the screen, change between light and dark mode
- Supported devices: Overview of all components accessible via ABB i-bus® Tool, contains also older components

Please note: Connection to KNX installation increases the telegram traffic (continuous polling), telegrams per second adjustable between 2 and 20

Disconnect a device from ABB i-bus® Tool if your work is done, it is not made for 24/7 operation. Automatic disconnection after maximum 60min (adjustable)

It is free of charge, available on ABB's homepage for download, but works only for with KNX devices from ABB and Busch-Jaeger



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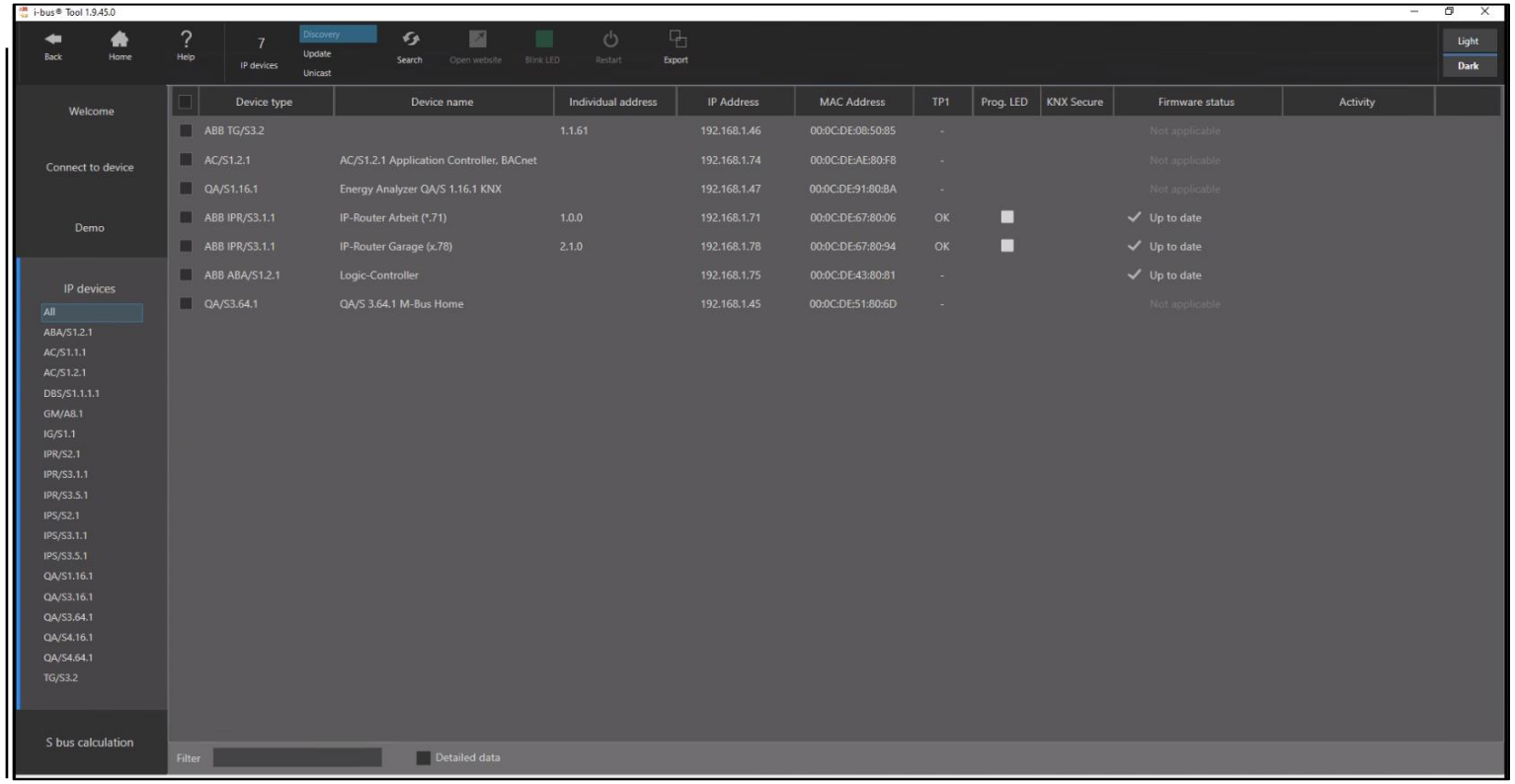
IP Devices

By clicking on IP devices all KNX related IP devices are found and displayed with different data

If individual devices or all of them are highlighted (set checkmarks), then actions can be performed using the buttons in the upper toolbar:

- Open website: If the selected device has a web server, it is opened in a browser. Only one device may be selected for this
- Blink LED: The “ON” LED of the selected device flashes for 5 seconds (identify device)
- Restart: The selected devices restart
- Search: Search again for IP devices
- Export: IP address and MAC address exported in text file



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Demo Mode

The demo mode is intended to demonstrate the possible functions without a connection to the KNX product

All the available devices are displayed

The desired device must be selected by clicking on the connect button and the user interface is opened in demo mode, it looks like a real connected component

The display is intended only for demonstration purposes

No functions are available and there is no connection to the bus

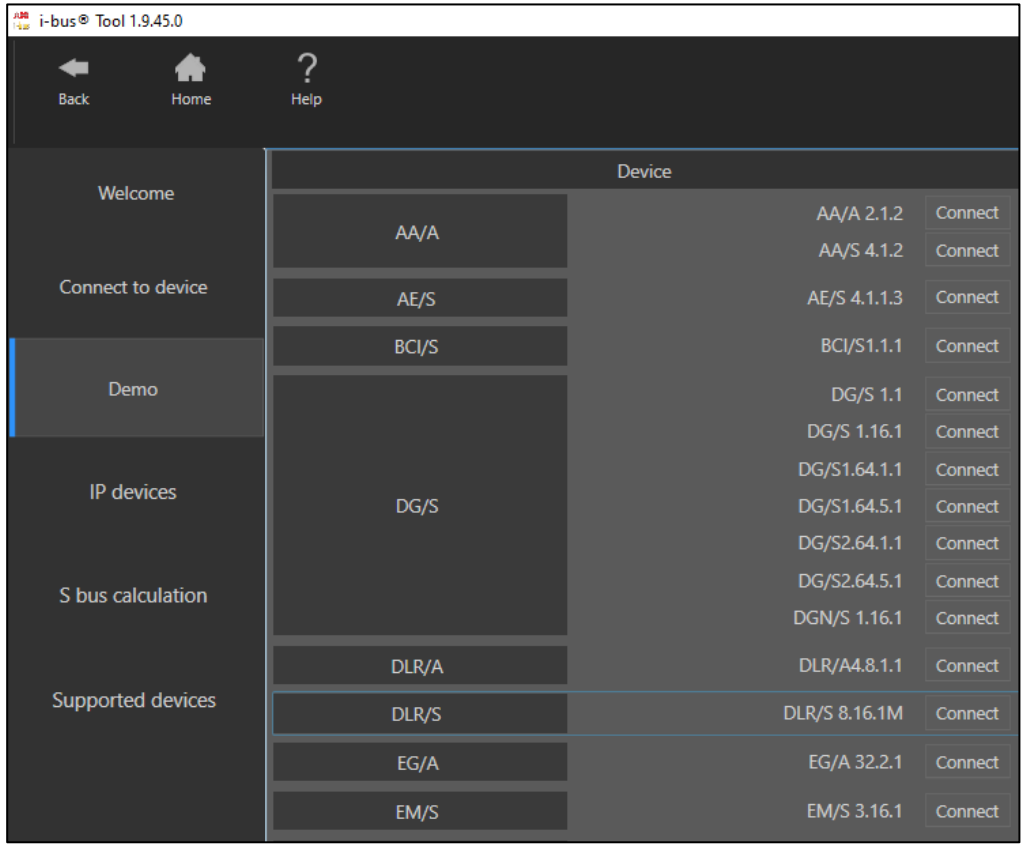


ABB i-bus® Tool

Supported Devices

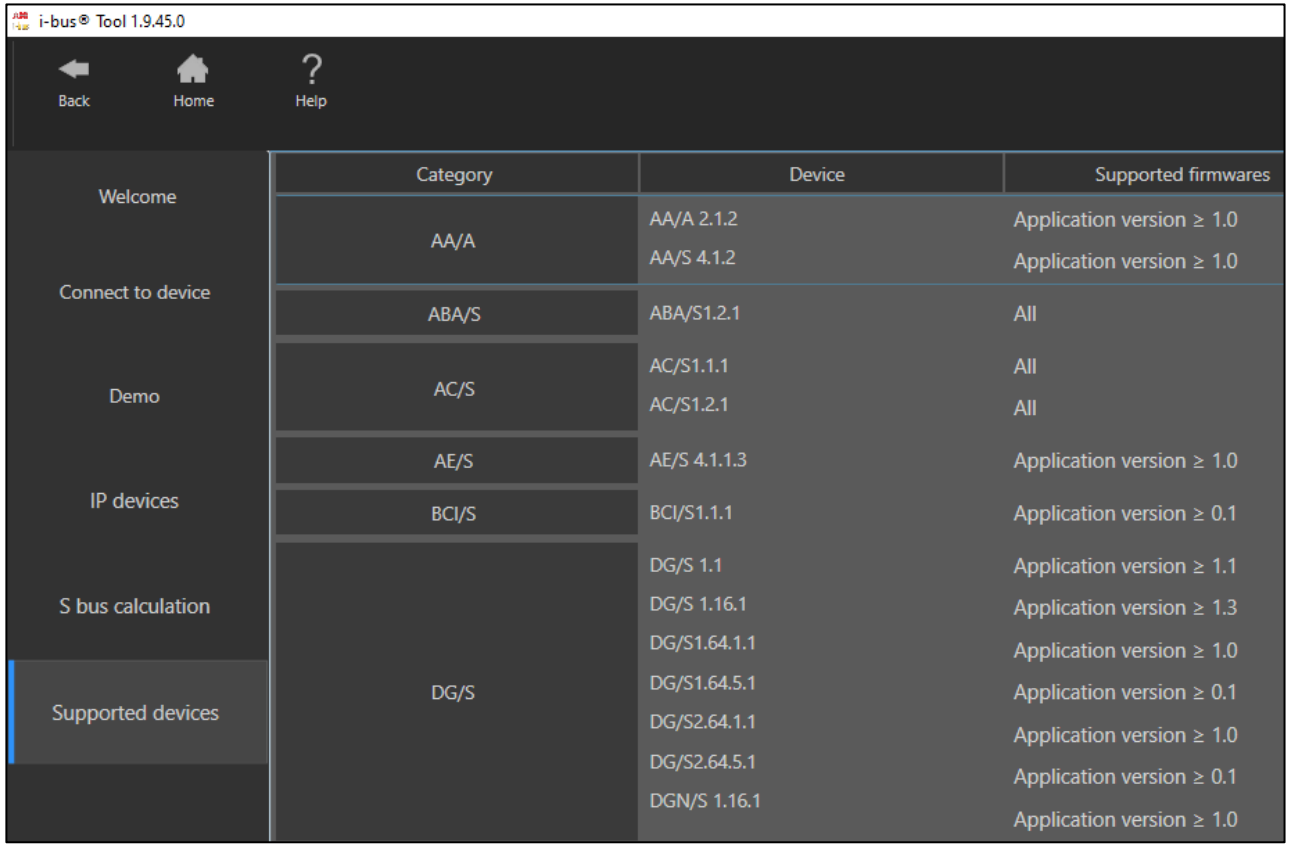
ABB i-bus® Tool

A professional Service Tool for KNX System Integrators and Installers

Supported Devices

Analogue Actuators	AA/x
Logic Controller	ABA/S
Analogue Inputs	AE/S
DALI Gateways	DG/S, DGN/S, DLR/x
Energy Module	EM/S
EnOcean Gateway	EG/A
HVAC Devices	BCI/S, FCx/S, HCC/S, VC/S, SUG/U
Blind/Roller Shutter Act.	JRA/S
Line Coupler	LK/S
Light Controller	LR/S
Energy Actuator	SE/S
Power Supplies	SV/S
Dim Actuators	UD/S
Weather Station/Unit	WS/S, WZ/S
IP Devices	IPR/S, IPS/S, QA/S, AC/S, GM/A

… and new devices are added continuously



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Main Functions for the integrated KNX Components

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Power Supply with Diagnostic SV/S

KNX Power supply with integrated bus coupler for communication

Information about bus voltage, bus current (per output), overload and overcurrent

Operating hours

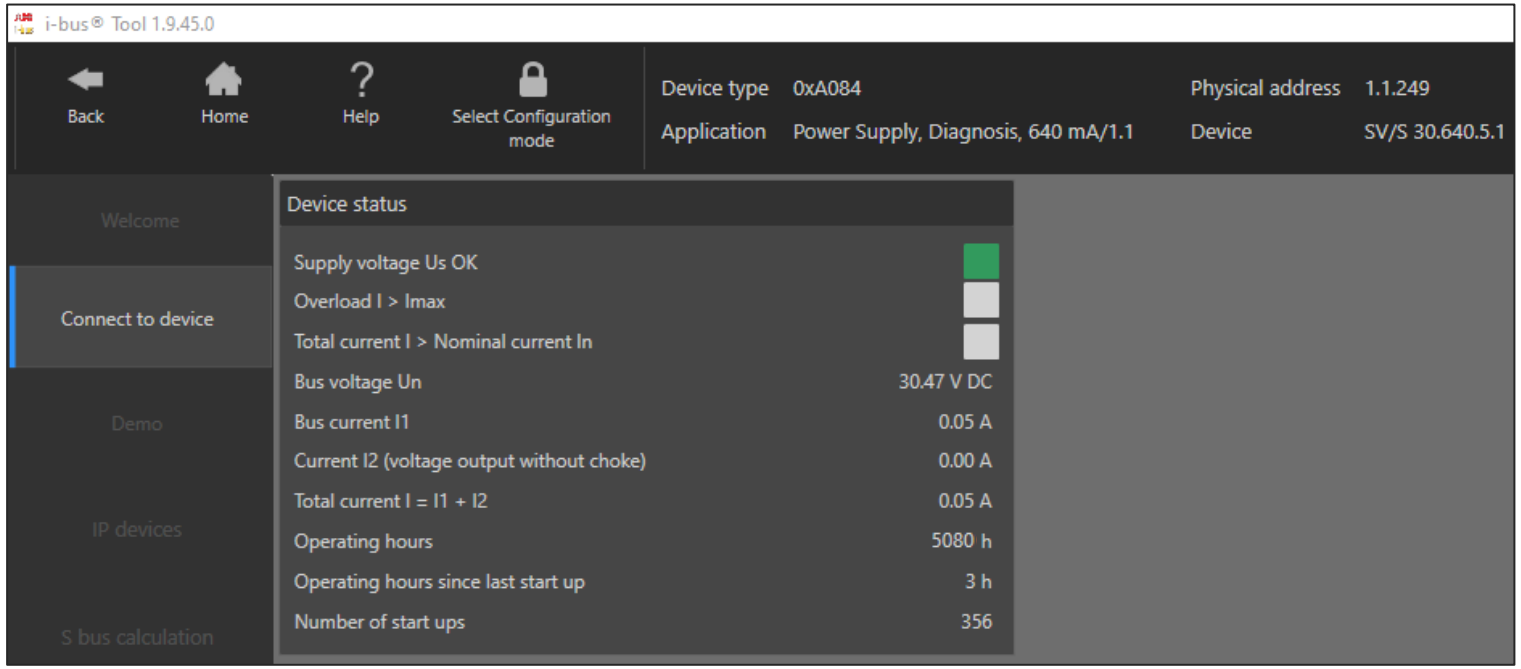
– Displays the total operating hours since first commissioning

Operating hours since last start

– Shows the operating hours since the last time the device was started

Number of restarts

– Indicates how often the mains and bus voltage were reconnected



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Analogue Input AE/S

Display of current input value per channel

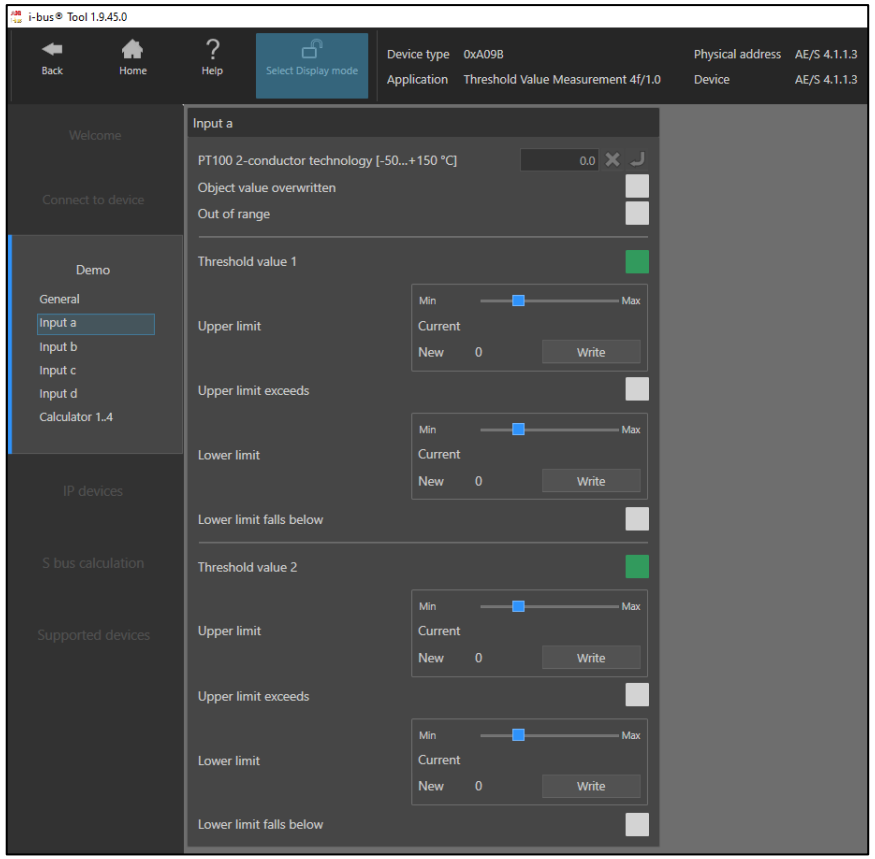
Value can be overwritten for testing

Type of adjusted input values, e.g. 0-20mA

Threshold values, parametrized in the ETS, are visible but can be overwritten temporary

Status when a limit is exceeded

Calculator: Status of calculator function, e.g. comparision of two input values or mathematical calculation, e.g. mean value of two input values



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Fan Coil Controller FCC/S

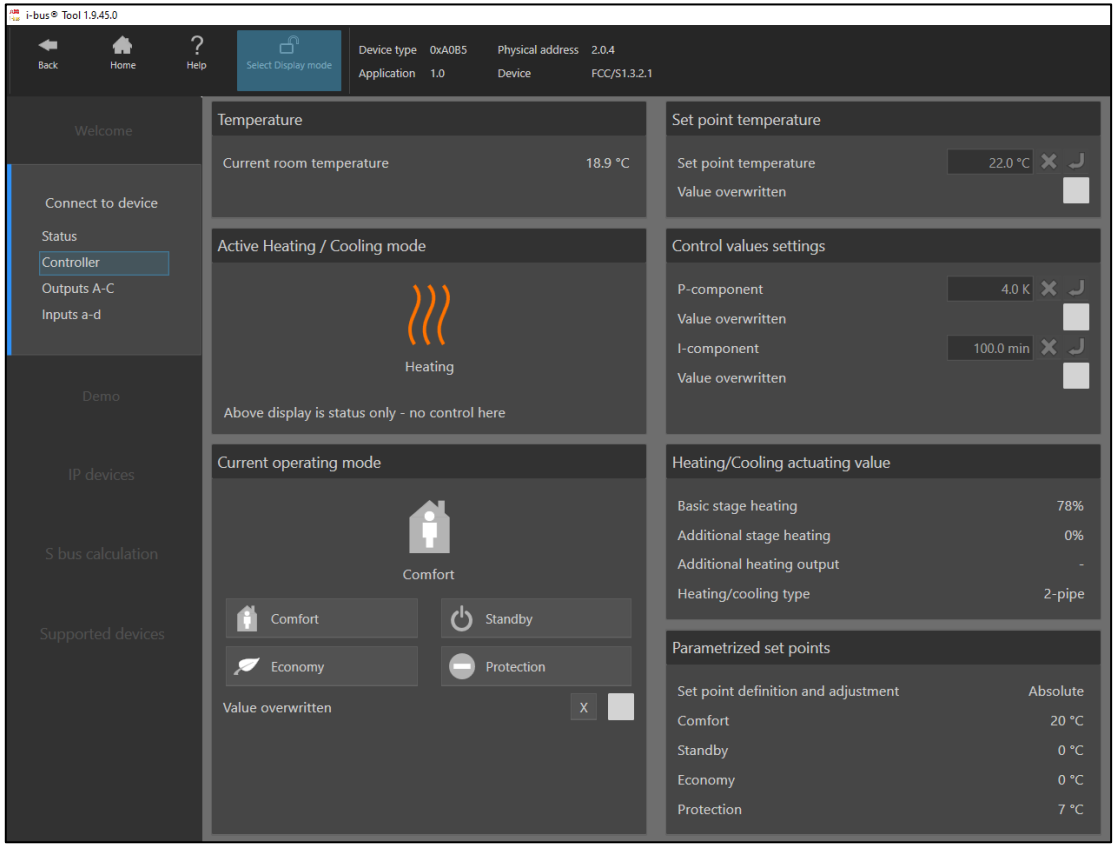
Status of device, e.g. heating or cooling mode, forced operation active and more

Status of inputs, e.g. additional temperature sensor or window contact

Status of outputs (fan and valve)

Controller with alle relevant information like room temperature and setpoint, control value, operating mode

Option to overwrite values temporary, like setpoint, fan and valve outputs or window contact as input for test purposes



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Shutter/Blind Actuator JRA/S

Status of device, e.g. motor in motion, weather alarm, forced operation active and more

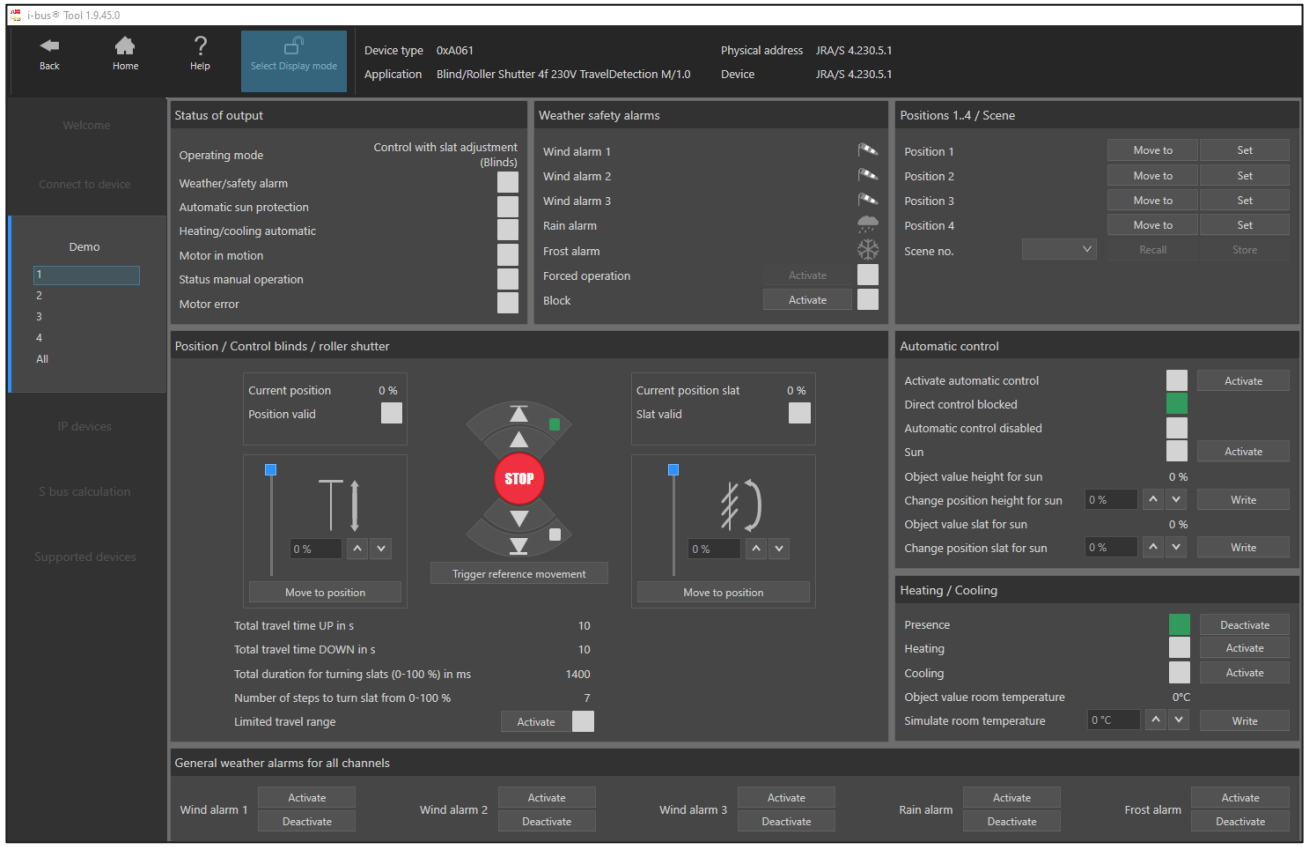
Complete control of each drive with position information

Simulation of functions like weather alarm and automatic control

Activation of positions and scenes, saving of new ones

Status overview for all channels together

Support of 24 DC drives and outputs programmed for switching mode



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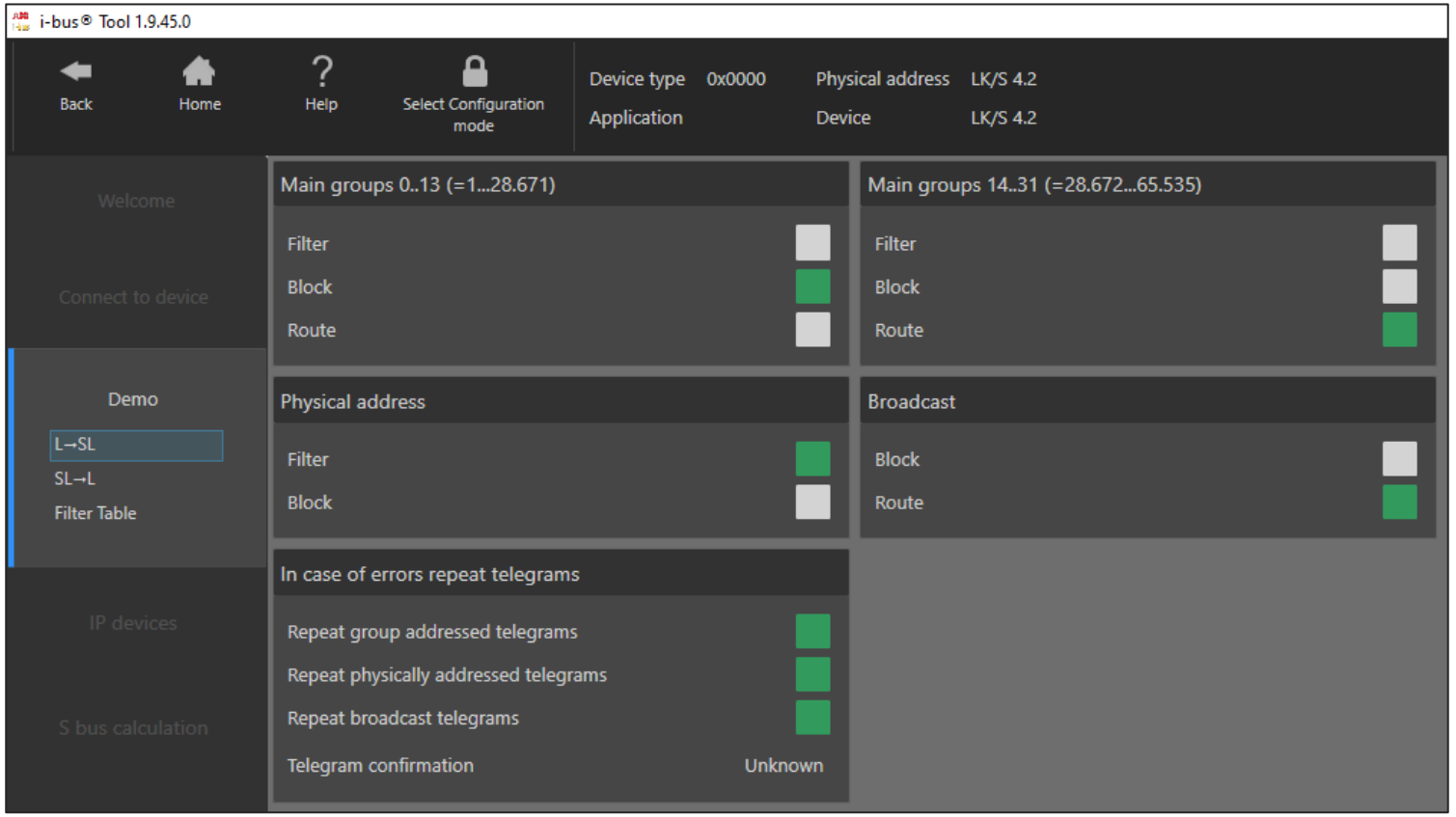
Line Coupler LK/S

The parameterization of the line coupler in the ETS can be checked in both directions
Line → Subline and Subline → Line

- Status of group addresses separately for main group 0…13 and 14…31
  Filter/block/route
- Individual addressed telegrams filter/block (for download ETS application)
- Broadcast telegram block/route (0/0/0 to program individual address of a KNX device or for diagnostics)
- Read out group address entries in filter table without ETS



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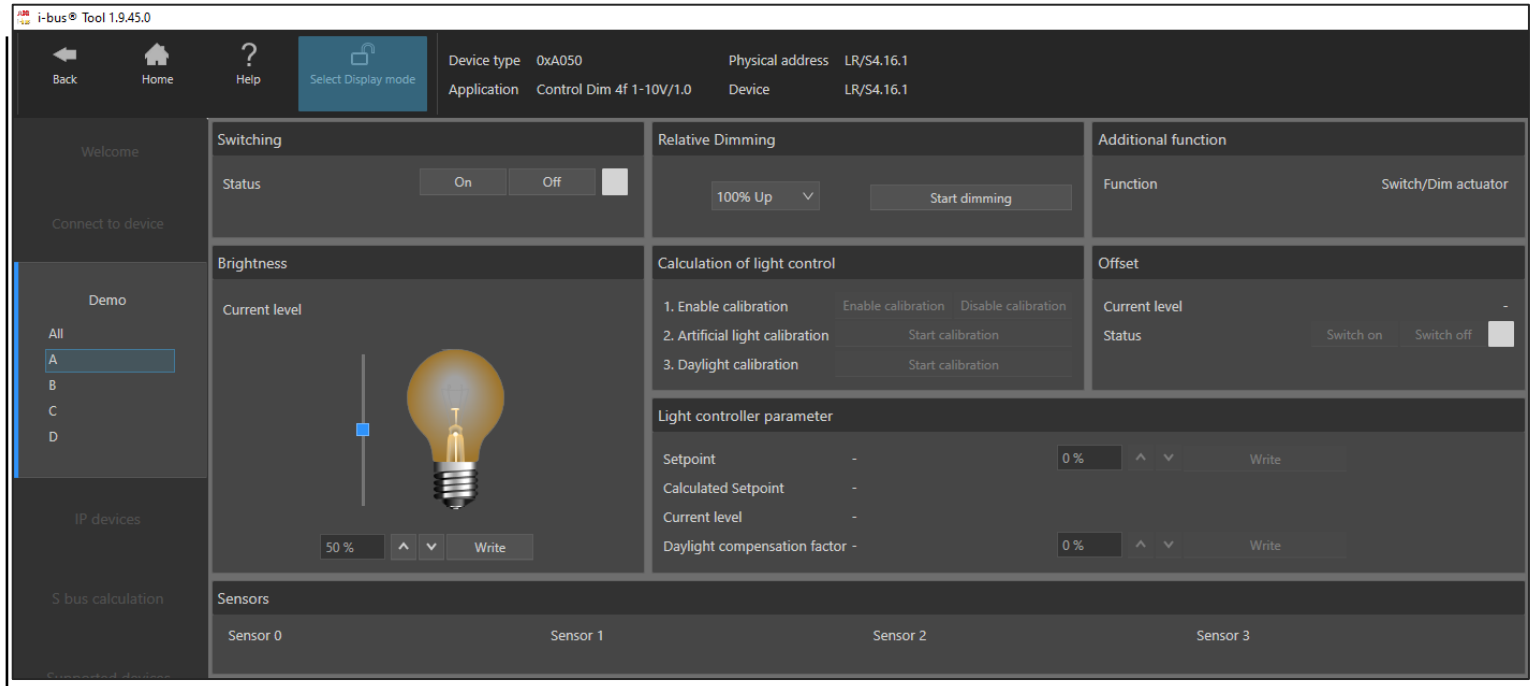
Constant Light Controller

Light Controller LR/S (1-10V)

DALI Light Controller DLR/x

Task: user friendly and easy to do constant light control adjustment instead of manual procedure in the ETS with group monitor

- Set point adjustment is carried out with automatic regulation during day- and artificial light calibration
- All needed values and information are shown during this process to monitor the success



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Energy Actuator SE/S

Device for switching and metering with three channels

Switching of each channel

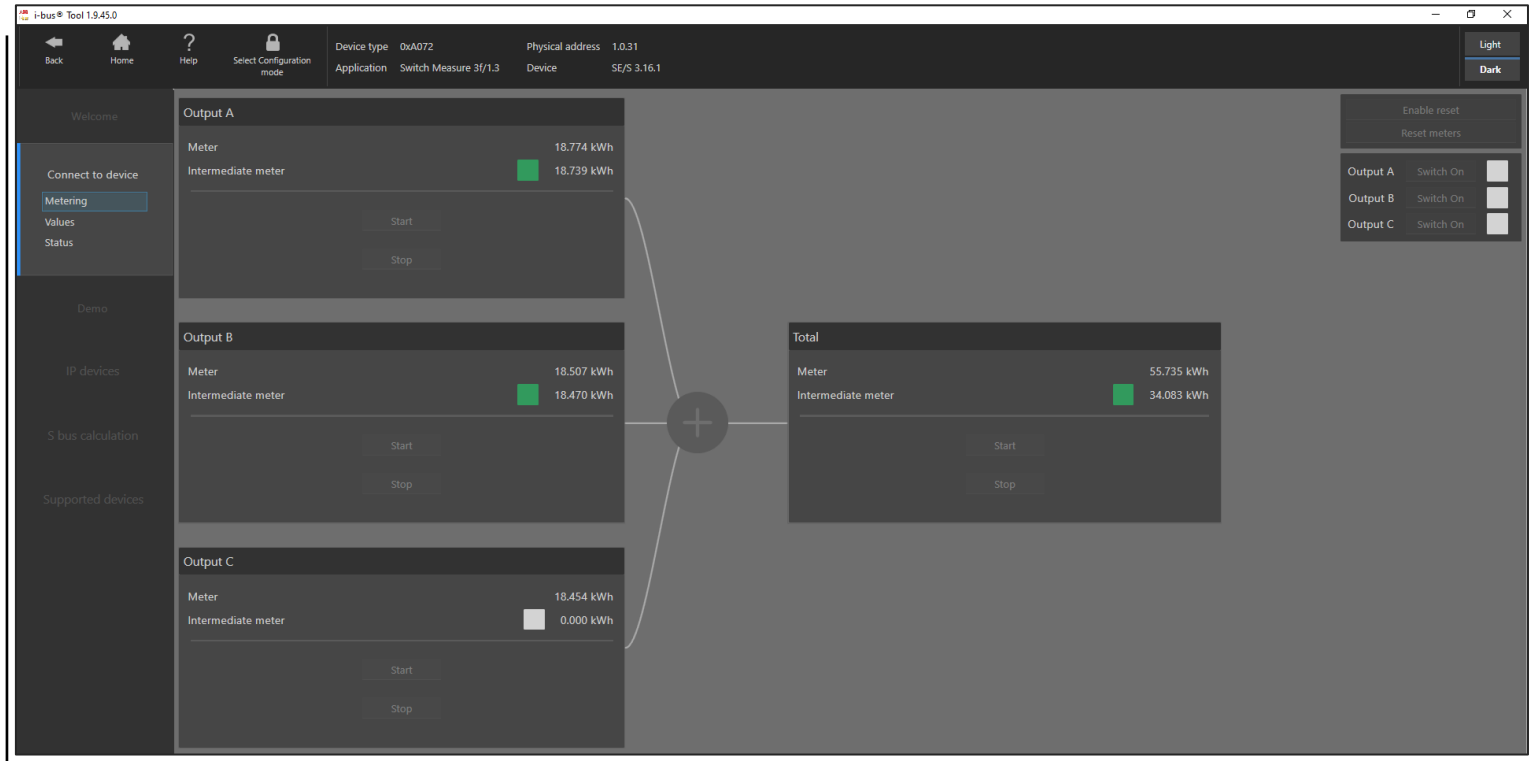
Display of all meter values per channel and in total: Power, current, voltage, frequency, power and crest factor

Display of meter values continuous and intermediate meter, start/stop of intermediate meter

Reset of both meters possible

Status information, e.g. time function active or power negative

Same functionality (except switching) exists for Energy Module EM/S



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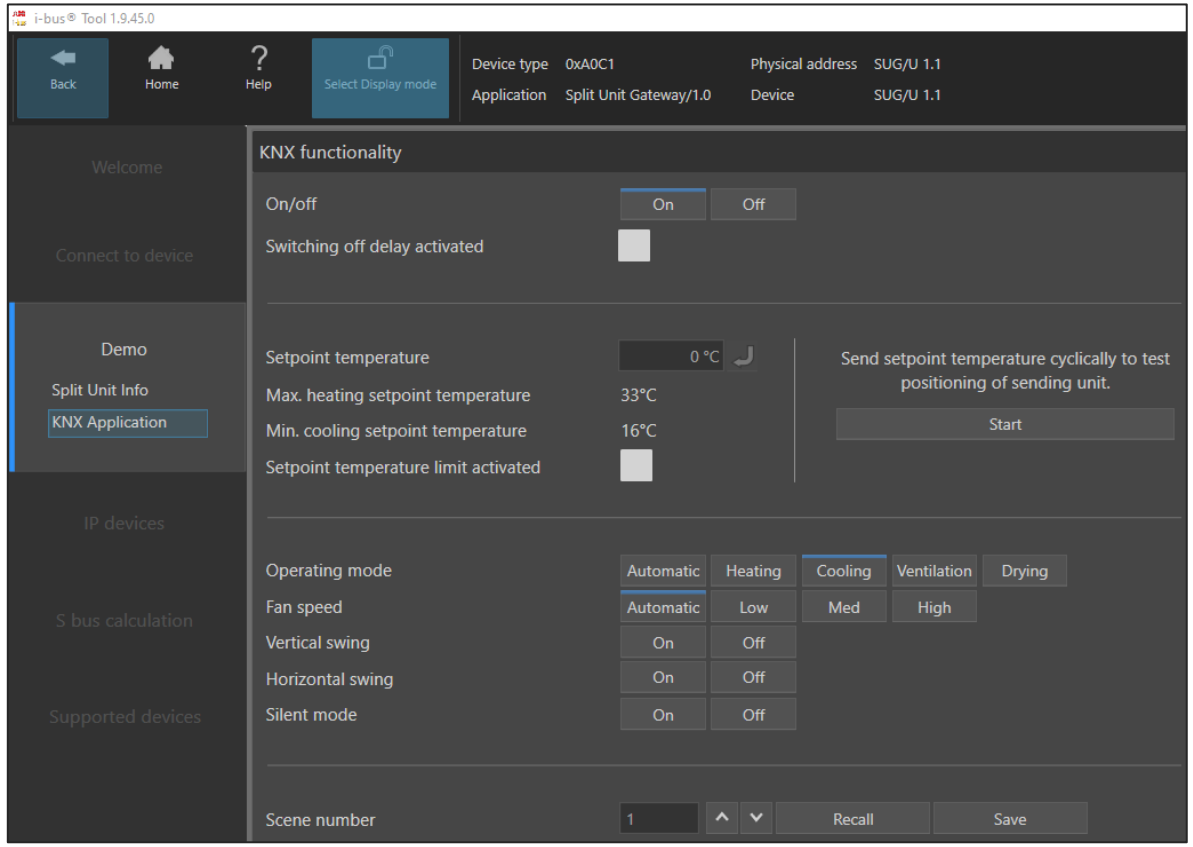
Split Unit Gateway SUG/U

Supported functions of the Split Unit selected in the ETS visible

Operation of all functions like on/off, change setpoint, operating mode, fan speed, recall of scenes and more

Status information for forced operation, window contact or presence

Send setpoint temperature cyclically to test positioning of sending unit (IR sensor) → Split unit confirms with beep when correct



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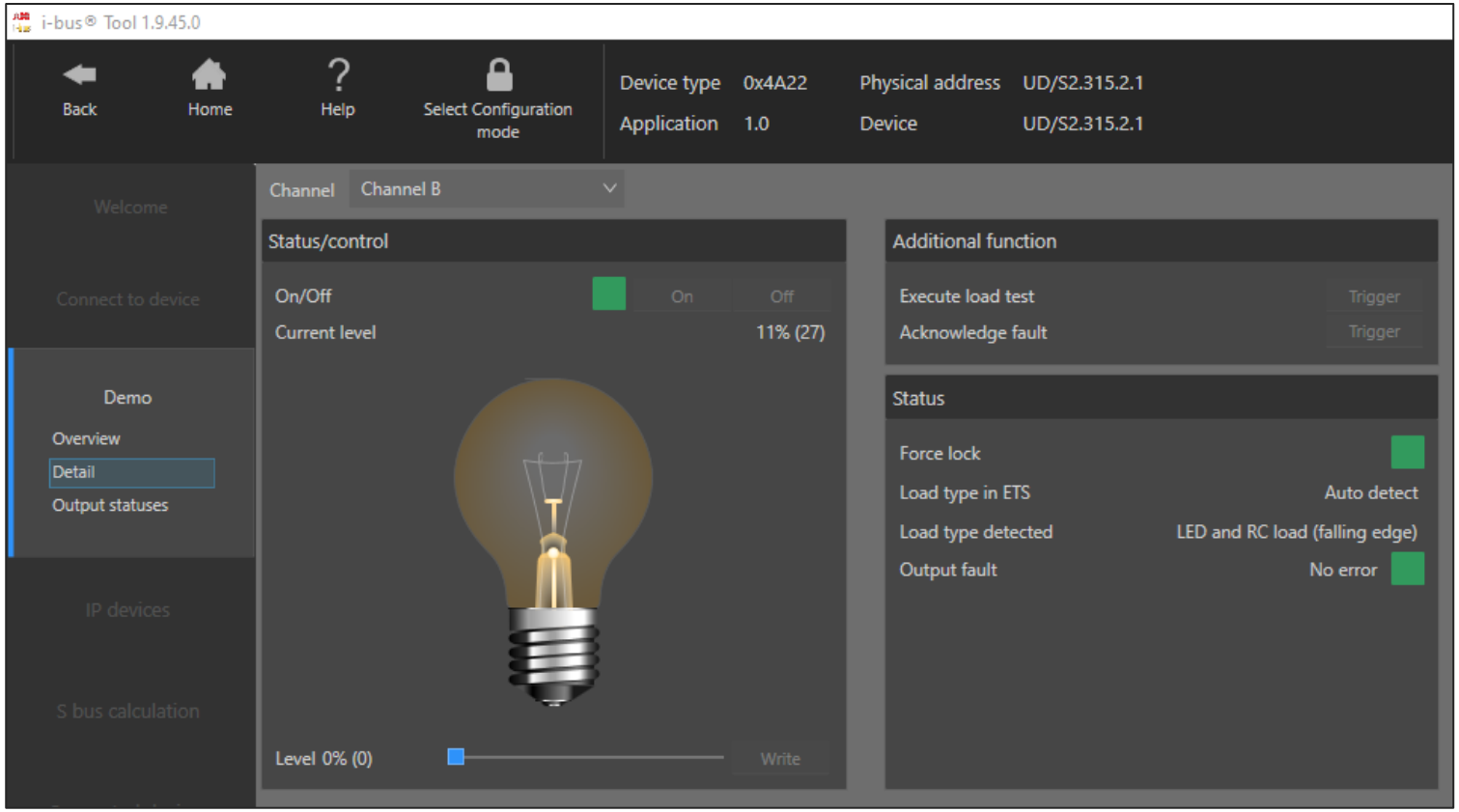
LED Dimmer UD/S

Information about detected load type, brightness value, faults like mains or overtemperature

Operation of each channel with dimming and trigger of load test



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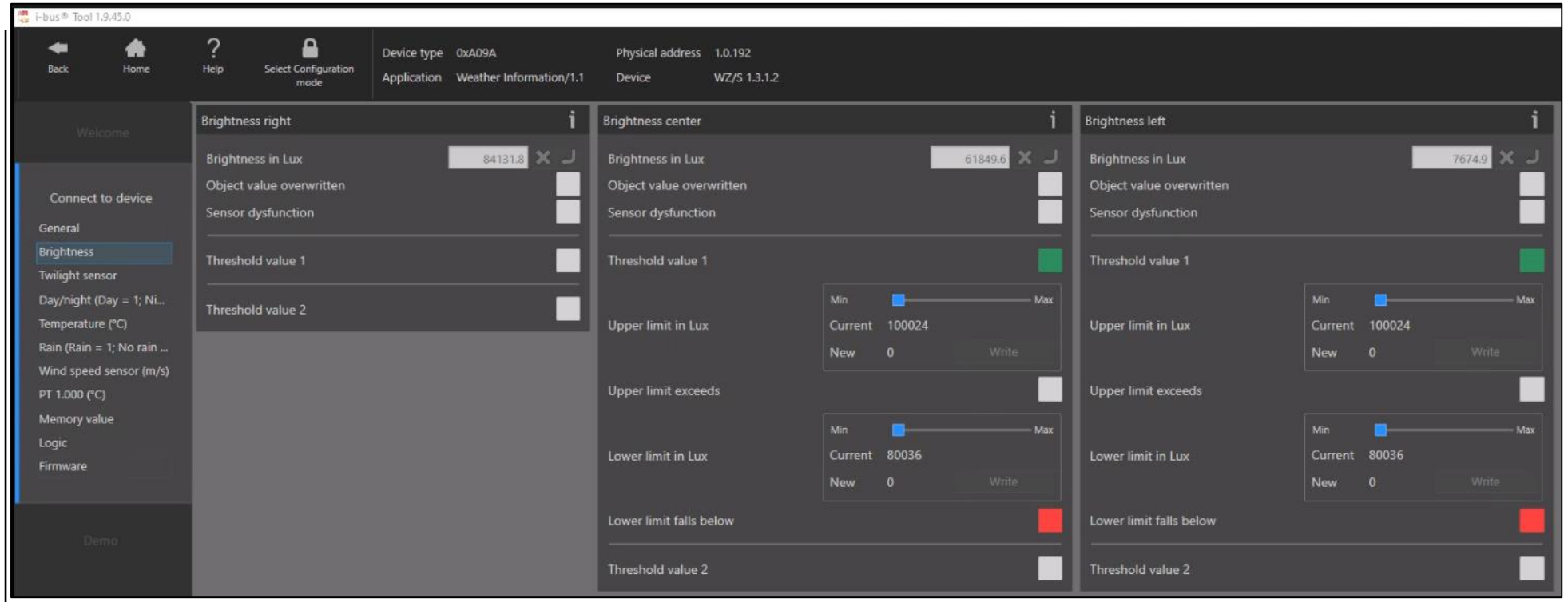
Weather Unit WZ/S

Status information like sensor communication ok, firmware version with update, GPS data, time and date

For each weather sensor in the connected multi sensor WES/A one page with related data and operating functions exist

Example brightness sensor: current value with option to over-write, info threshold value exceeded or sensor malfunction



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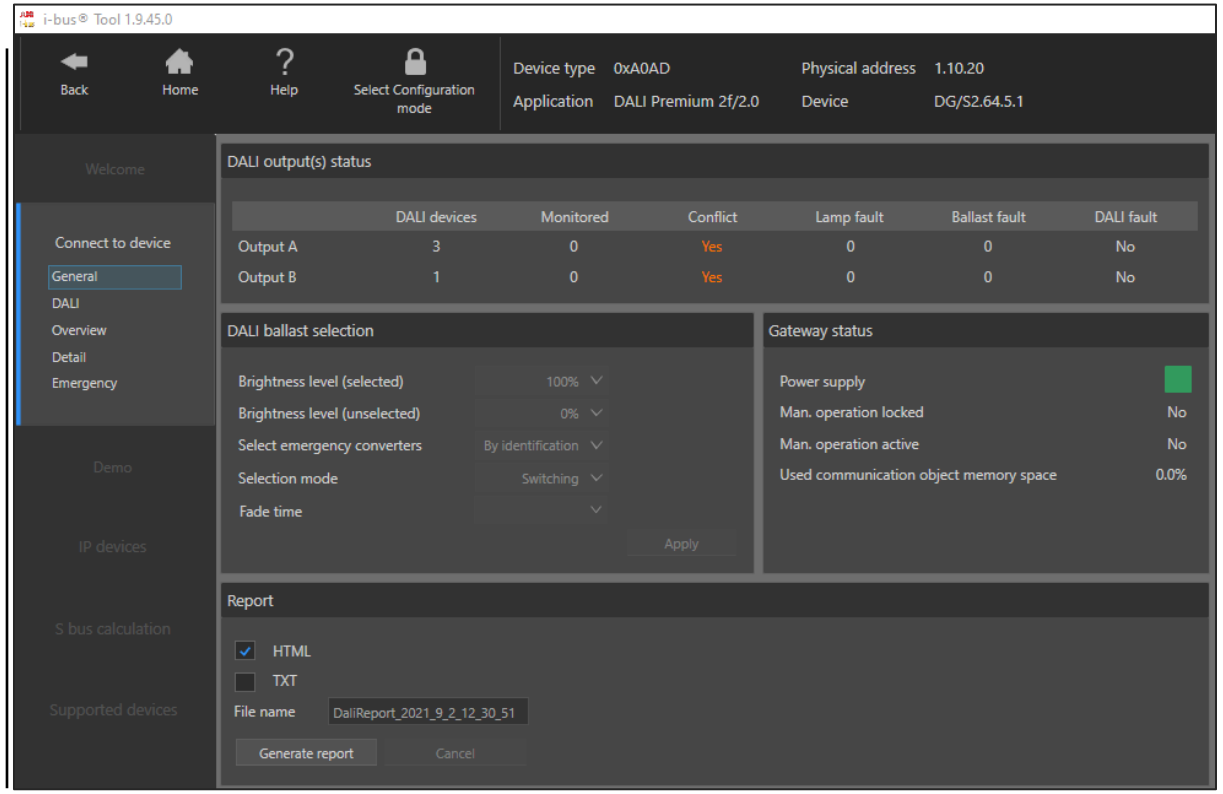
DALI Gateways DG/S

Needed to parametrize the DALI part of ABB‘s KNX DALI Gateways

Unique way to approach the DALI parametrization independent of the ETS in a user friendly way plus a lot of options to make live easier for integrators and installers during commissioning but also during maintenance and troubleshooting

Main features:

- Addressing DALI devices / ballasts
- Assignment of the DALI devices into DALI groups
- Display of all lamp and ballast faults
- Status information and control of individual ballasts or DALI groups
- Tests and monitoring of DALI emergency light
- Commissioning of constant light control (DALI Light Controller)



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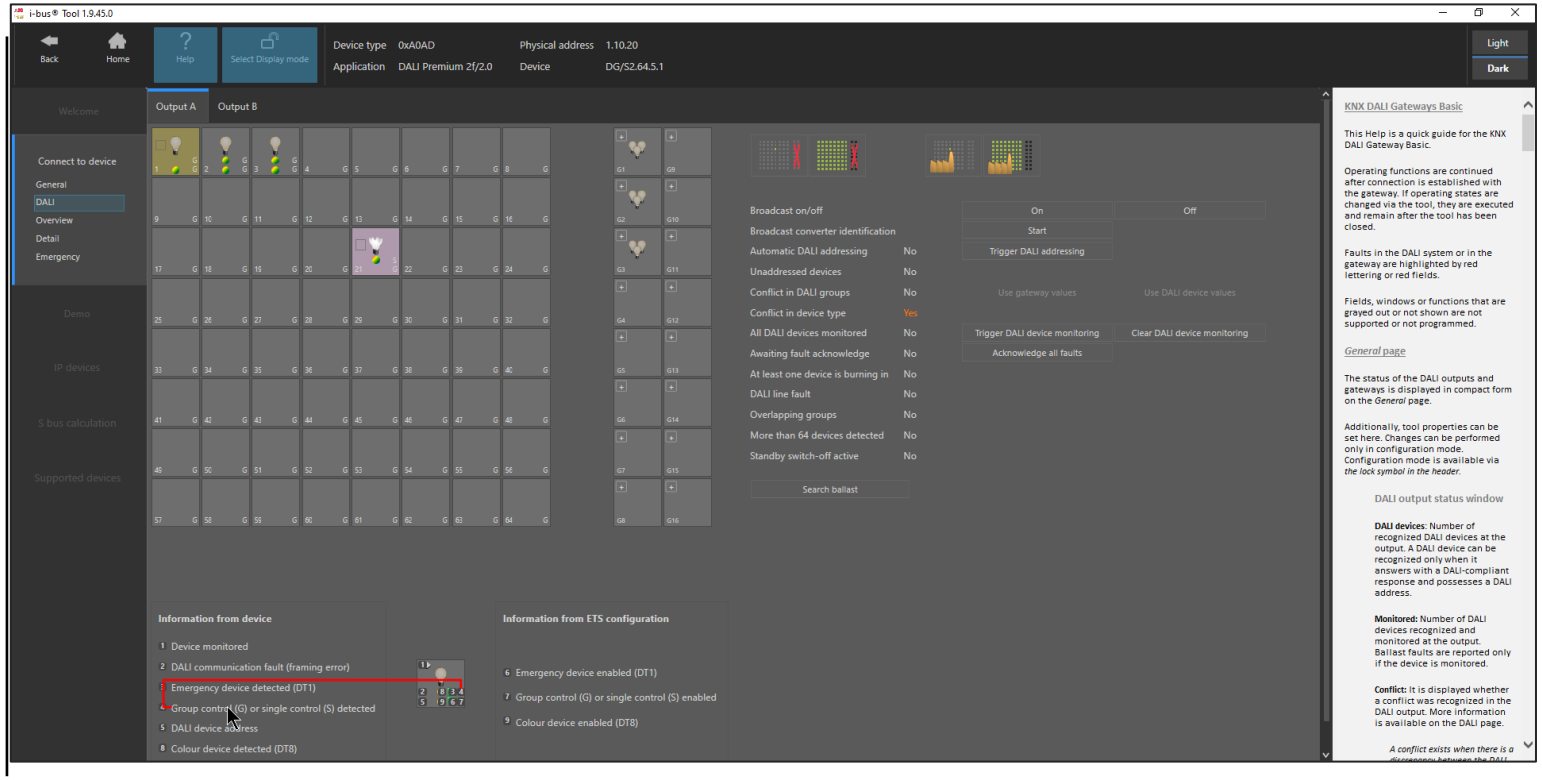
DALI Gateways DG/S

Example page DALI:

- Overview of all detected DALI ballasts with status information, explained in the legend
- Change DALI address via drag and drop
- By clicking on a ballast light is turned on and therefore identified
- Allocation of DALI addresses to one of the 16 DALI groups
- Reset of all or individual ballasts and trigger of new addressing
- Various information like DALI line fault, unaddressed or more than 64 devices detected
- Search menu for ballasts with unknown address



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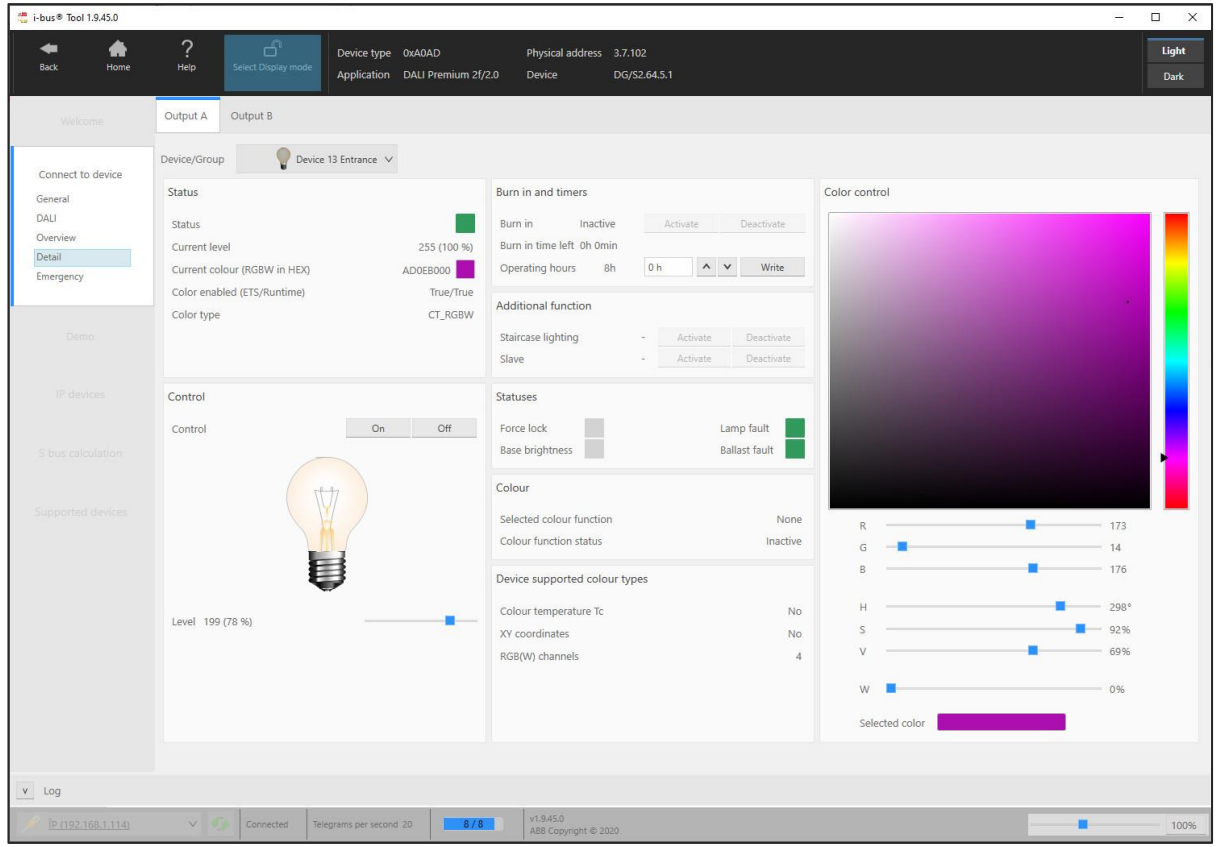
DALI Gateways DG/S

Example page Detail
(DALI Gateway Premium with color functions, for DALI group or individual ballast):

- RGB(W) and HSV(W) color picker analog to the ETS
- Status of current color RGBW and brightness , color enabled in ETS and device (True/True), Color type (CT_RGBW)
- Switching, dimming, color control
- Activation of burn in and staircase lighting
- Operating time status

See also our other presentation KNX DALI Gateway Premium during KNXperience



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Practical example

Weather Unit WZ/S:
Value wind speed can be overwritten temporary, status information and reaction of blinds observed

- Threshold function in the Weather Unit
- Connection of the group address Weather Unit and Shutter Actuator
- Moving the blinds to the safety position
- Telegram via coupler

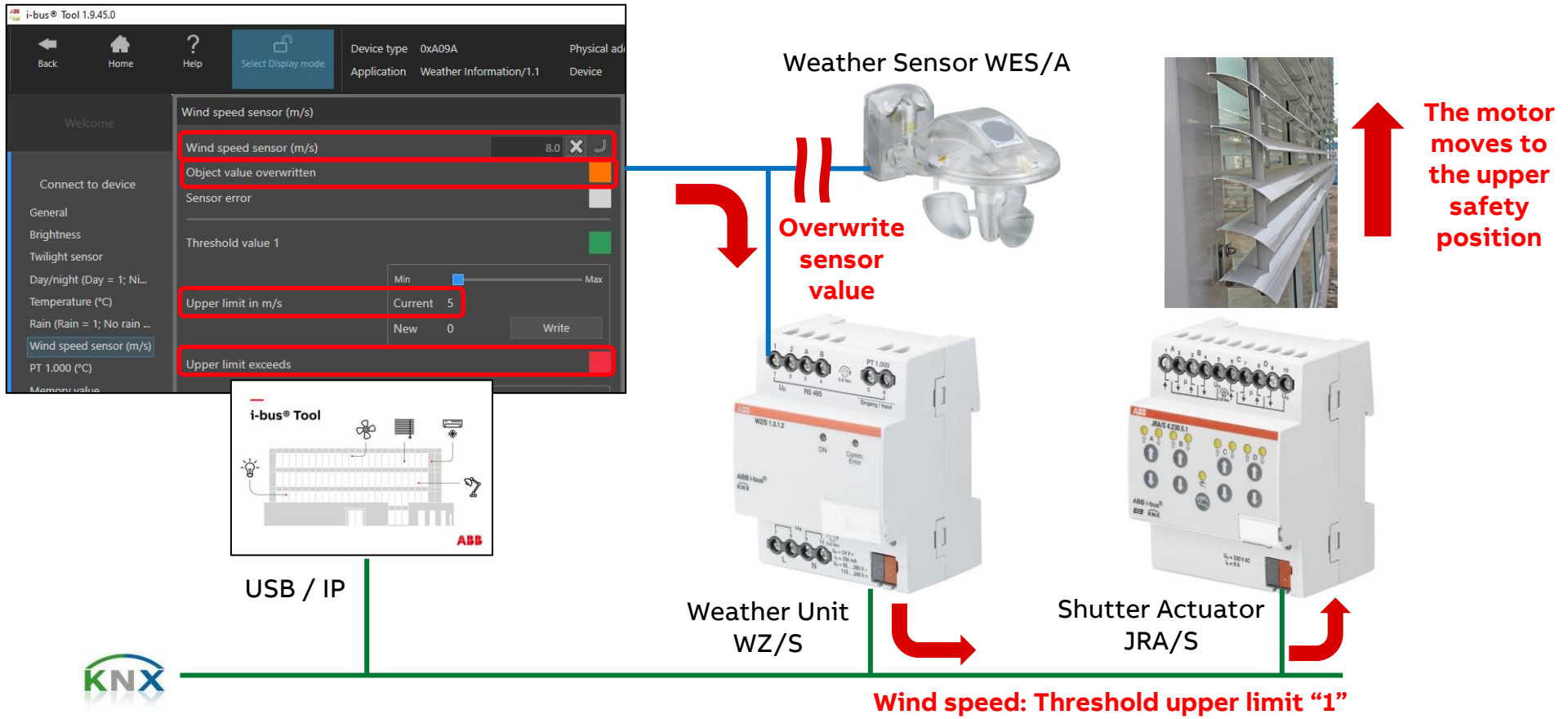

ABB i-bus® Tool

Where to get the ABB i-bus® Tool?

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Where to get the ABB i-bus® Tool?

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Benefits at a glance

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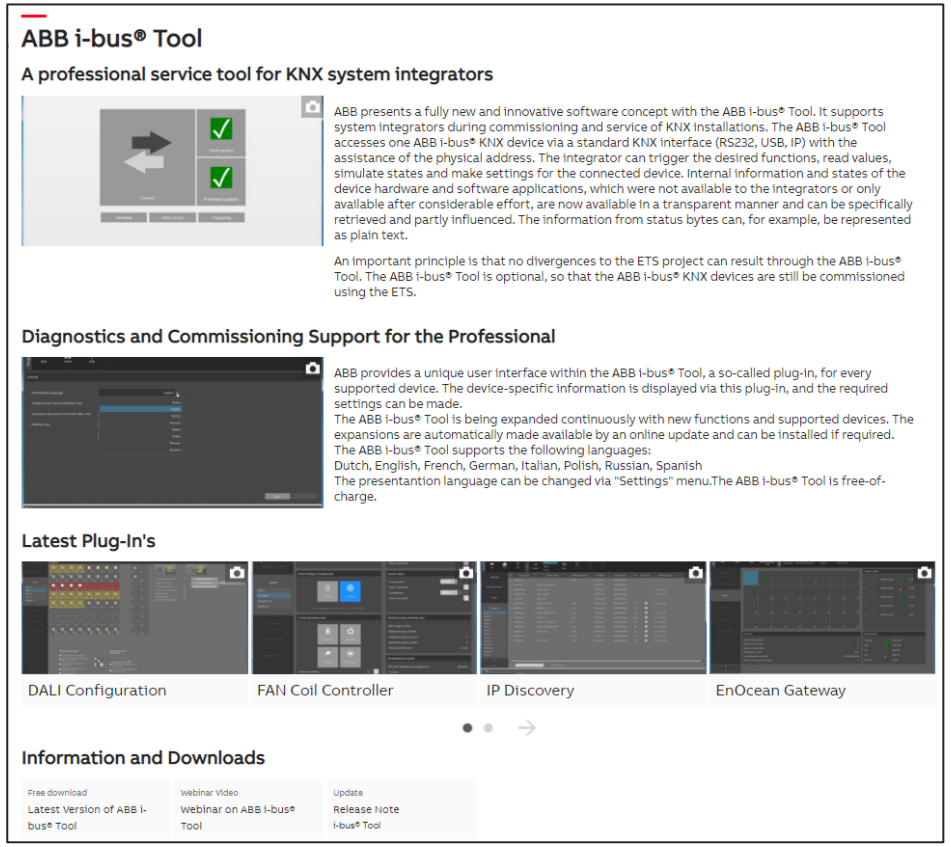
Release notes

… and it is free of charge!



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