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# ABB i-bus® Tool

A professional Service Tool for  
KNX System Integrators and Installers

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Busch-Jaeger



# Agenda

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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<sup>®</sup> Tool

General Features, Functions and Advantages

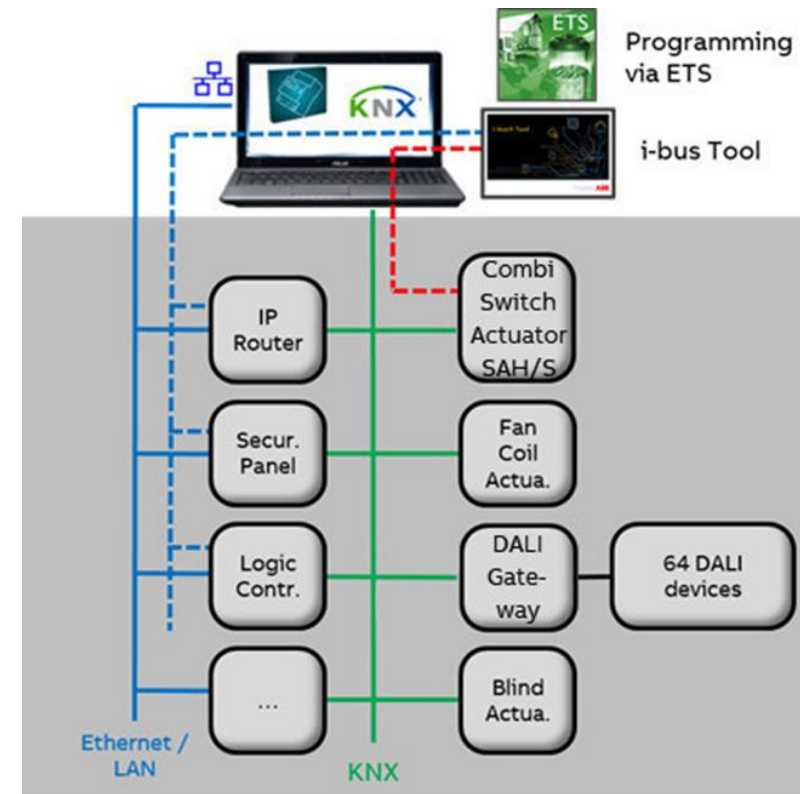
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# ABB i-bus® Tool

## 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 Busch-Jaeger/ABB KNX devices
- » It supports system integrators and installers during commissioning and service
- » Internal information and states of the device hardware and software applications are available in a transparent manner
- » Functions per channel are carried out directly from the tool
- » The i-bus® Tool is optional, i.e. the 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 Busch-Jaeger/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

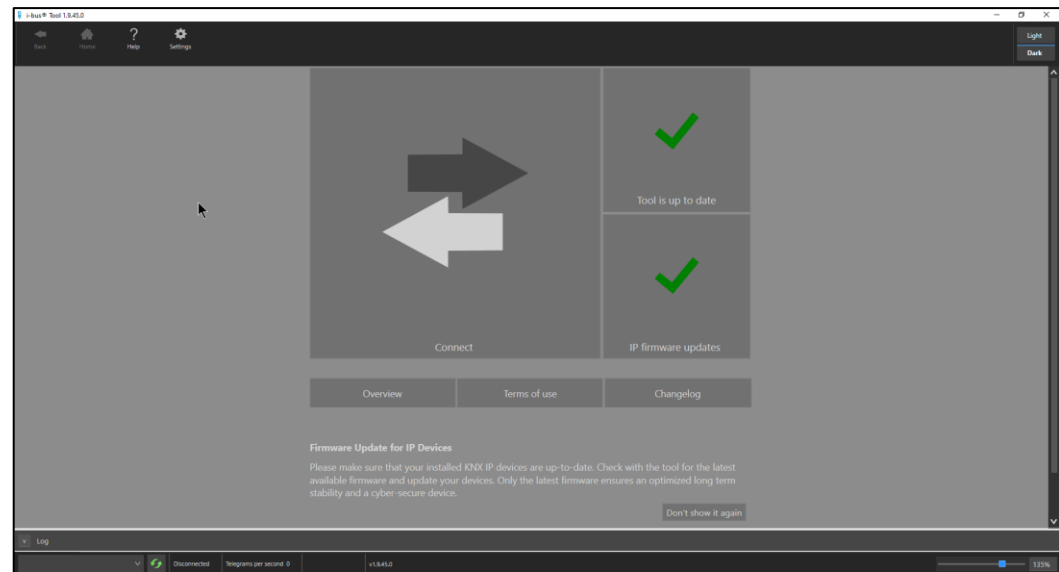


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### General Features

- » The ABB i-bus® Tool accesses a 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

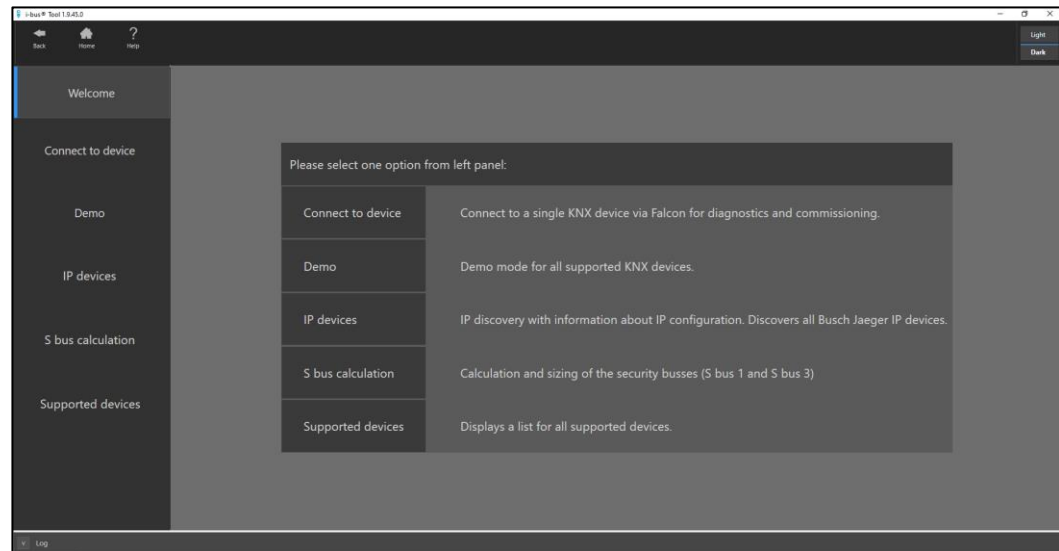


# ABB i-bus® Tool

## 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
- » Firmware update for IP-Router, IP Interface and Logic Controller, 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

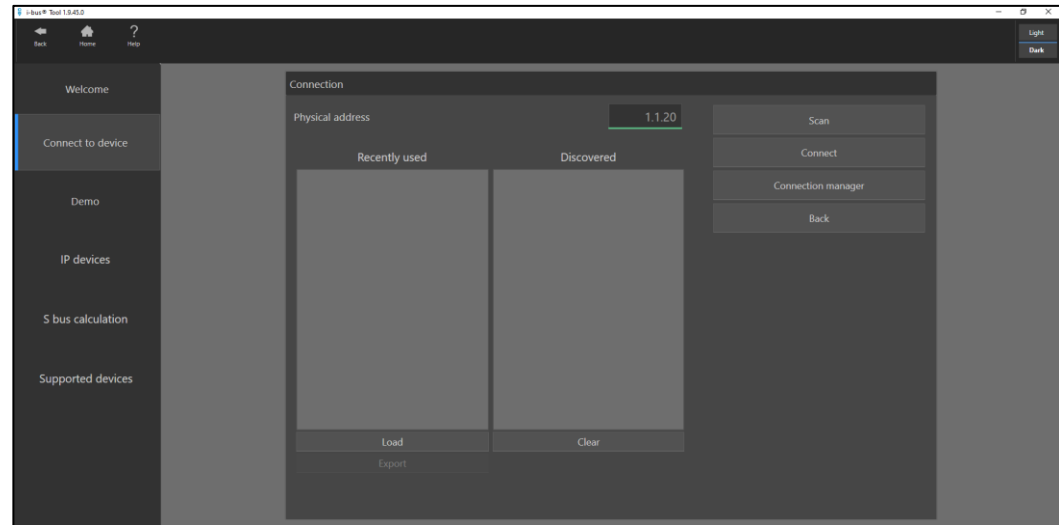


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### General Features

- » Connection Manager: Create USB/IP connection and test it
- » S bus calculation: Support for KNX Security Panel GM/A 8.1 for internal security 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 KNX 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 Busch-Jaeger's and ABB's homepage for download, but works only for with KNX devices from Busch-Jaeger and ABB



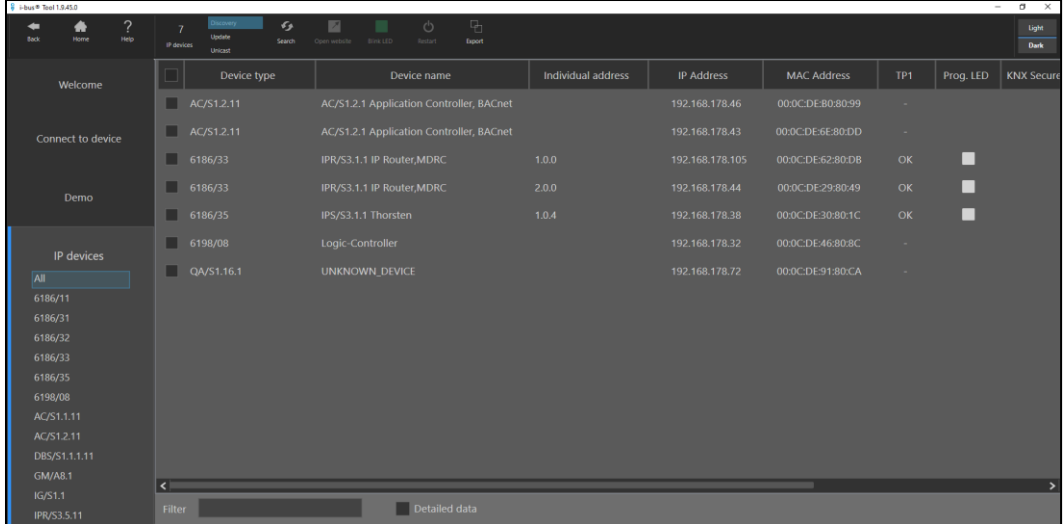


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### 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



The screenshot shows the ABB i-bus Tool interface with a list of IP devices. The left sidebar has a menu with 'IP devices' selected. The main area displays a table with columns: Device type, Device name, Individual address, IP Address, MAC Address, TP1, Prog. LED, and KNX Security. The table lists several devices, including AC/S1.2.11 Application Controller, BACnet, and IPR/S3.1.1 IP Router, MDRC.

Device type	Device name	Individual address	IP Address	MAC Address	TP1	Prog. LED	KNX Security
AC/S1.2.11	AC/S1.2.1 Application Controller, BACnet		192.168.178.46	00:0C:DE:B0:80:99	-		
AC/S1.2.11	AC/S1.2.1 Application Controller, BACnet		192.168.178.43	00:0C:DE:6E:80:DD	-		
6186/33	IPR/S3.1.1 IP Router, MDRC	1.0.0	192.168.178.105	00:0C:DE:62:80:DB	OK	■	
6186/33	IPR/S3.1.1 IP Router, MDRC	2.0.0	192.168.178.44	00:0C:DE:29:80:49	OK	■	
6186/35	IPS/S3.1.1 Thorsten	1.0.4	192.168.178.38	00:0C:DE:30:80:1C	OK	■	
6198/08	Logic-Controller		192.168.178.32	00:0C:DE:A6:80:8C	-		
QA/S1.16.1	UNKNOWN_DEVICE		192.168.178.72	00:0C:DE:91:80:CA	-		

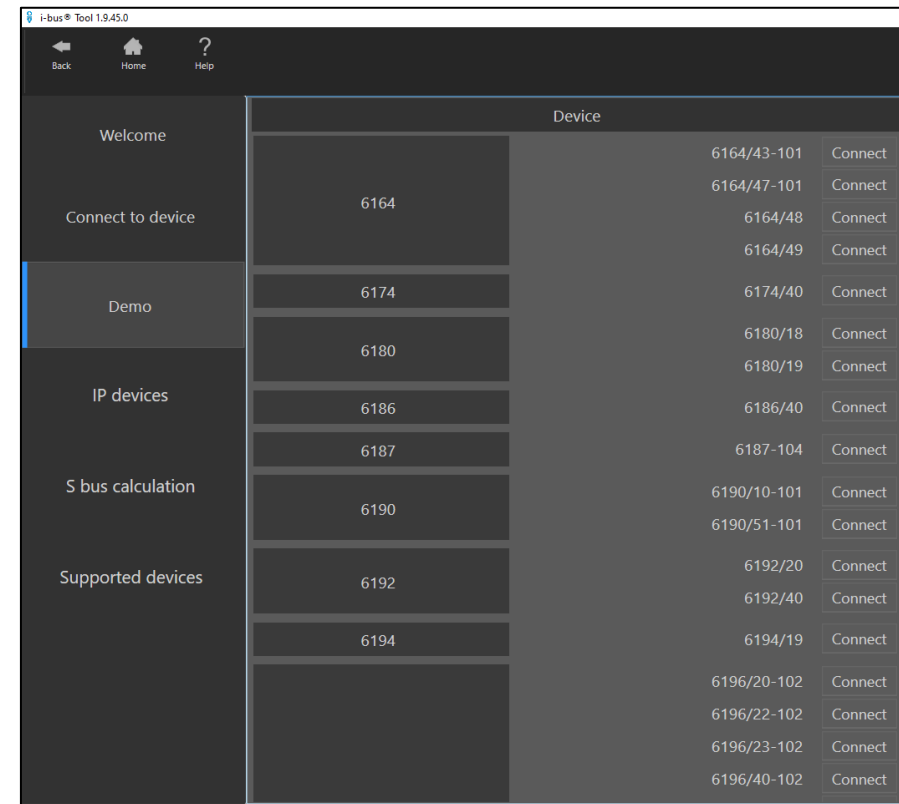


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### 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

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# ABB i-bus® Tool


A professional Service Tool for KNX System Integrators and Installers


## Supported Devices

- » Analogue Actuators
  - Logic Controller
  - Analogue Inputs
  - DALI Gateways
  - Energy Module
  - EnOcean Gateway
  - HVAC Devices
  - Blind/Roller Shutter Act.
  - Line Coupler
  - Light Controller
  - Energy Actuator
  - Power Supplies
  - Dim Actuators
  - Weather Station/Unit
  - IP Devices
- » ... and new devices are added continuously

i-bus® Tool 1.9.45.0

Back

Home

Help

Welcome	Category	Device	Supported firmwares
	6164	6164/43-101	Application version ≥ 1.0
		6164/47-101	Application version ≥ 1.0
		6164/48	Application version ≥ 1.0
6164/49		Application version ≥ 1.0	
Connect to device	6174	6174/40	Application version ≥ 1.4
Demo	6180	6180/18	Application version ≥ 1.0
		6180/19	Application version ≥ 1.0
IP devices	6186	6186/40	Application version ≥ 1.0
S bus calculation	6187	6187-104	All
Supported devices	6190	6190/10-101	Application version ≥ 1.0
		6190/51-101	Application version ≥ 1.0
	6192	6192/20	Application version ≥ 1.0
		6192/40	Application version ≥ 1.0
	6194	6194/19	Application version ≥ 1.2
		6196/20-102	Application version ≥ 1.0
		6196/22-102	Application version ≥ 1.0
		6196/23-102	Application version ≥ 1.0

# ABB i-bus® Tool

Main Functions for the integrated KNX Components

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# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### Power Supply with Diagnostic

- » 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

The screenshot displays the ABB i-bus Tool 1.9.45.0 interface. The top navigation bar includes icons for Back, Home, Help, and Select Configuration mode. The main content area is divided into a left sidebar with menu items (Welcome, Connect to device, Demo, IP devices, 5 bus calculation) and a central panel titled 'Device status'. The right sidebar shows device information: Device type 0xA084, Application Power Supply, Diagnosis, 640 mA/1.1, Physical address 1.1.249, and Device SV/S 30.640.5.1. The 'Device status' panel lists various parameters with their current values and status indicators (green for OK, grey for warning, red for error).

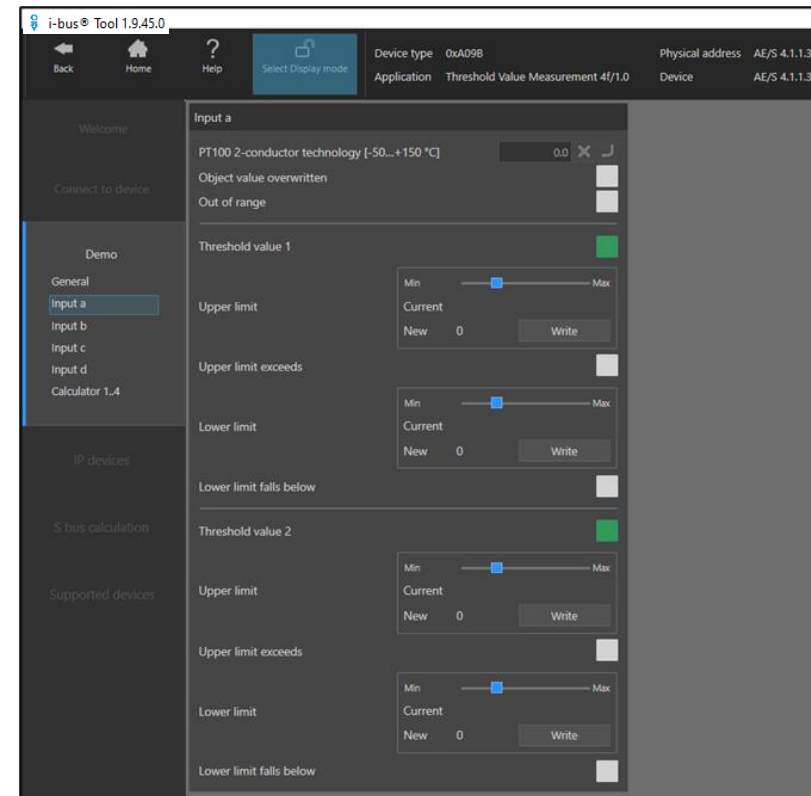
Device status	
Supply voltage $U_s$ OK	<span style="color: green;">■</span>
Overload $I > I_{max}$	<span style="color: grey;">■</span>
Total current $I > I_{nominal}$	<span style="color: grey;">■</span>
Bus voltage $U_n$	30.47 V DC
Bus current $I_1$	0.05 A
Current $I_2$ (voltage output without choke)	0.00 A
Total current $I = I_1 + I_2$	0.05 A
Operating hours	5080 h
Operating hours since last start up	3 h
Number of start ups	356

# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### Analogue Input

- » 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. comparison of two input values or mathematical calculation, e.g. mean value of two input values

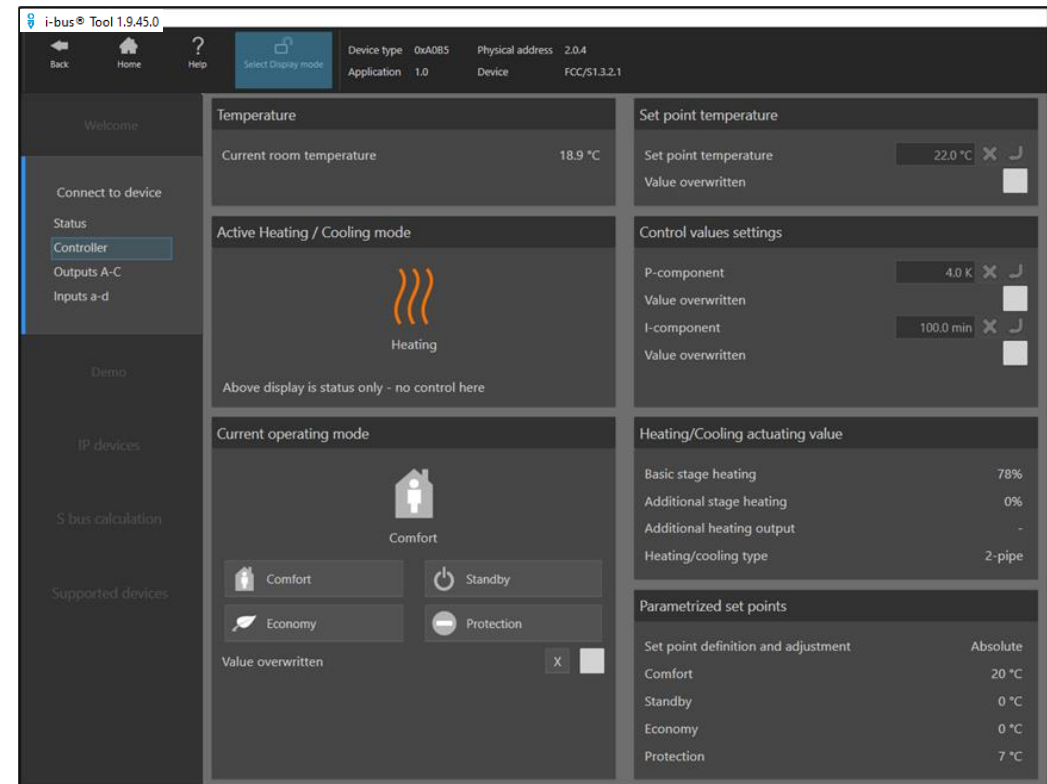


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### Fan Coil Controller

- » 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



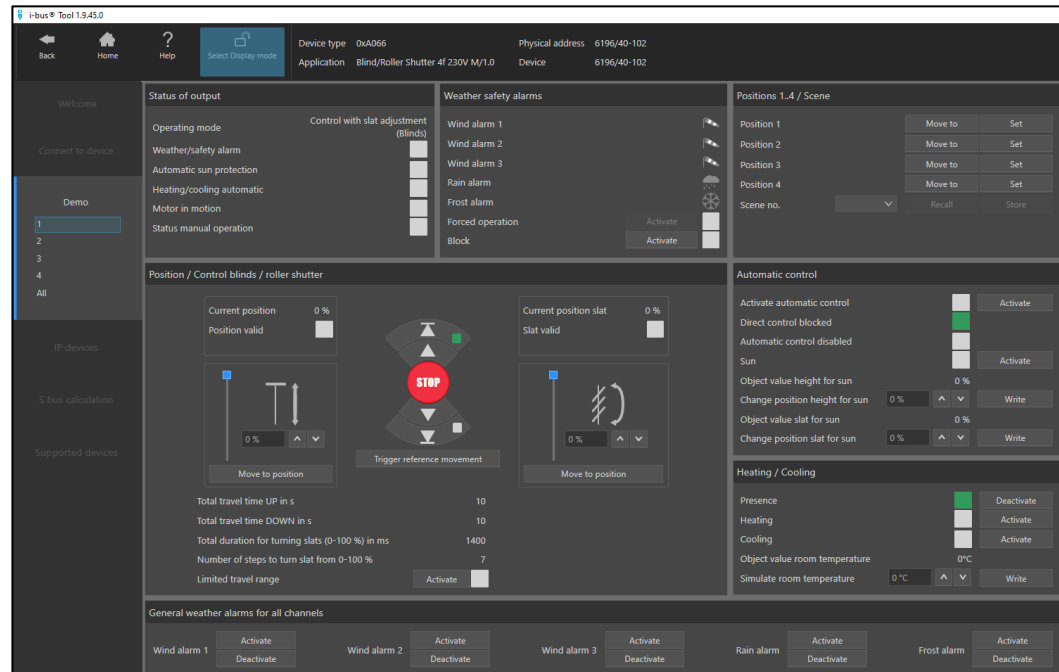


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### Shutter/Blind Actuator

- » 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

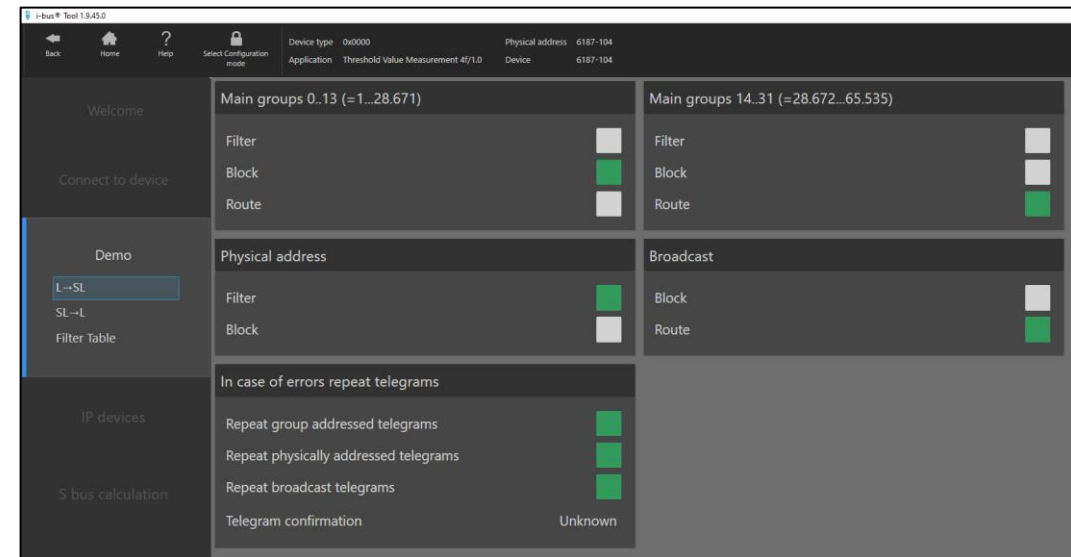


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### Line Coupler

- » 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

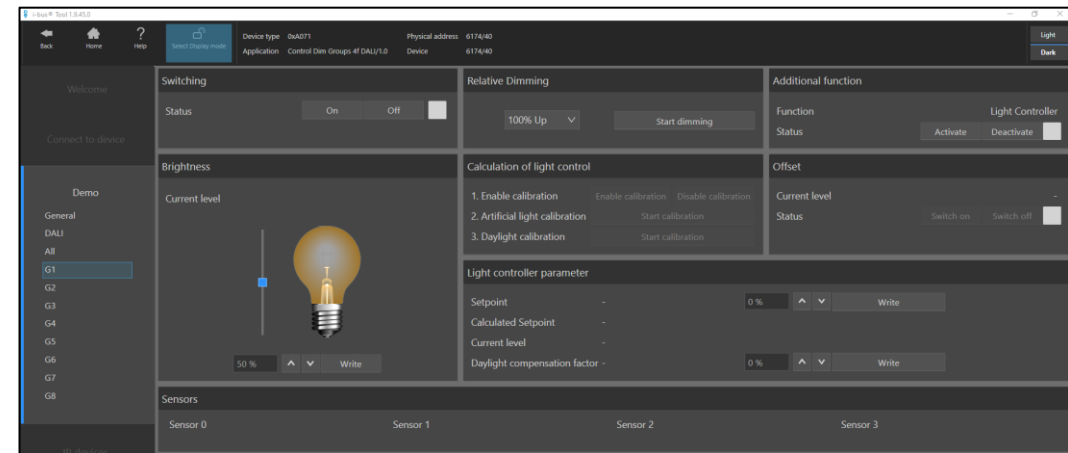


# ABB i-bus® Tool

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### Constant Light Controller

- » Light Controller (1-10V)
- » DALI Light Controller 6174/40
- » 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

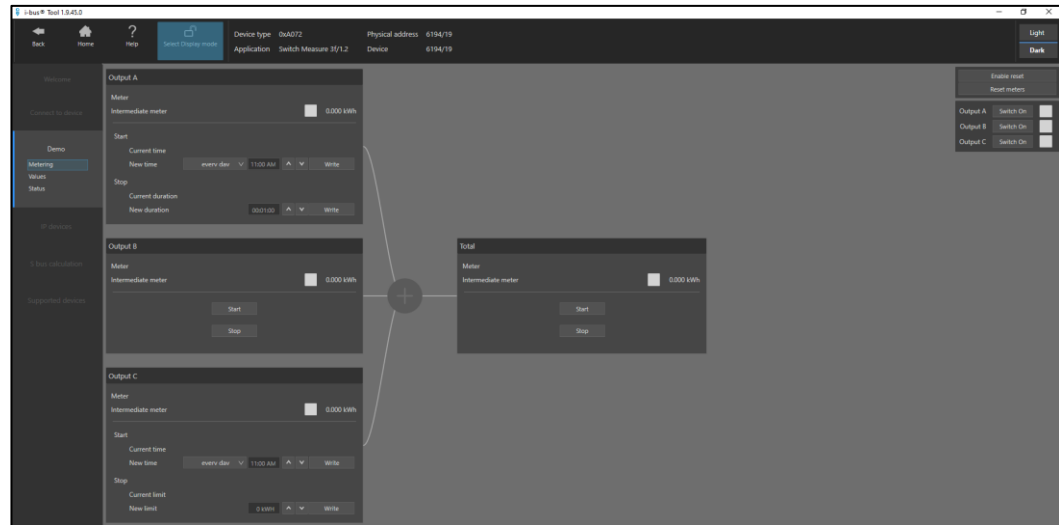


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### Energy Actuator

- » 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

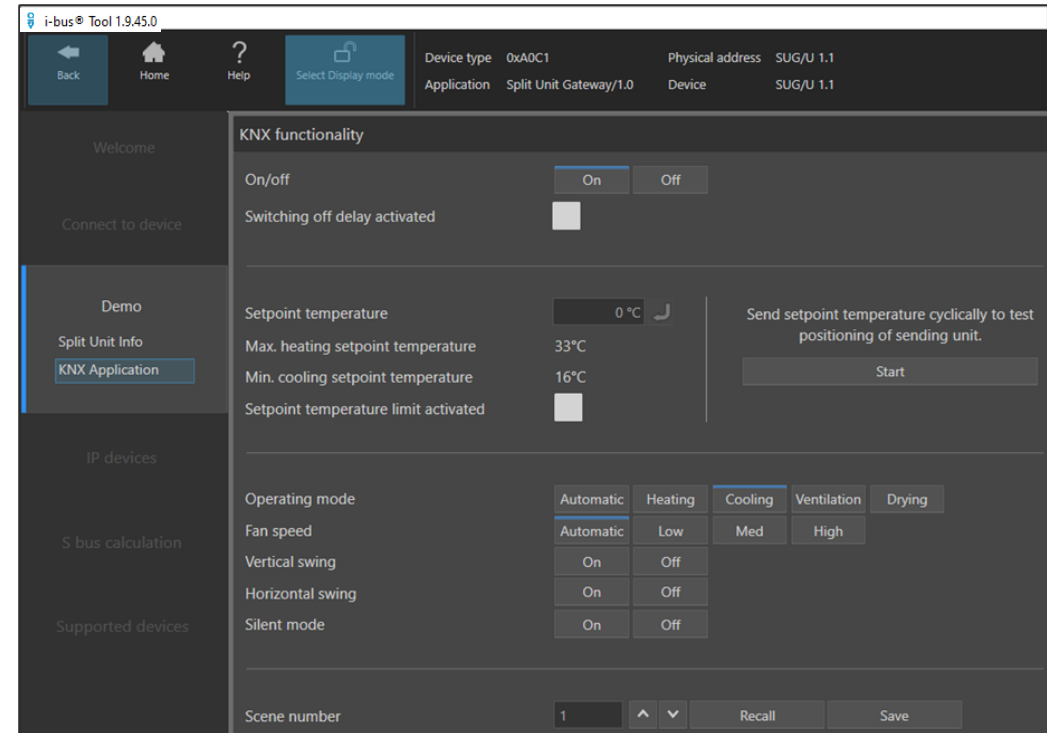


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### Split Unit Gateway

- » 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

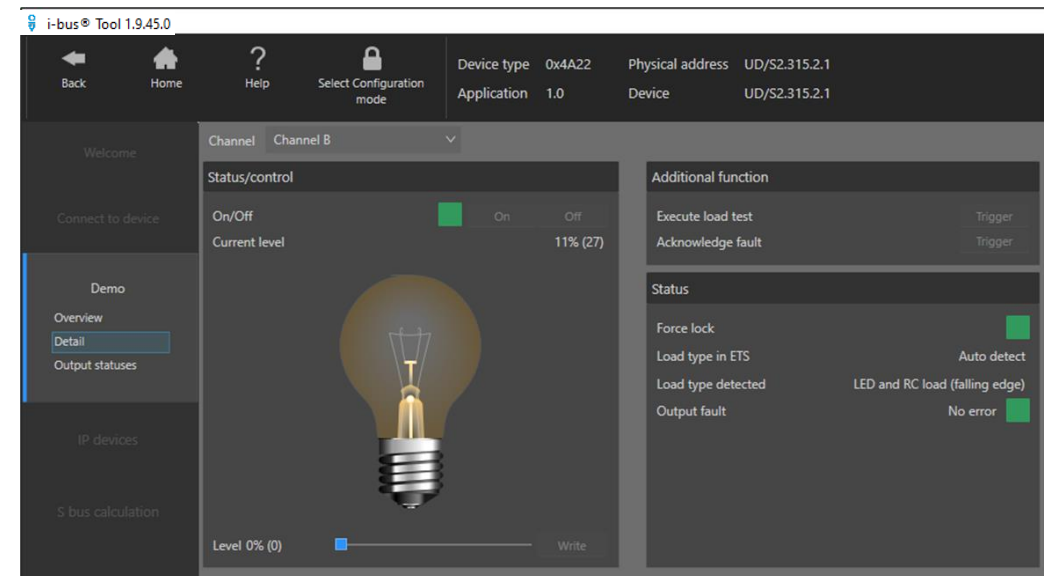


# ABB i-bus® Tool

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### LED Dimmer

- » Information about detected load type, brightness value, faults like mains or overtemperature
- » Operation of each channel with dimming and trigger of load test

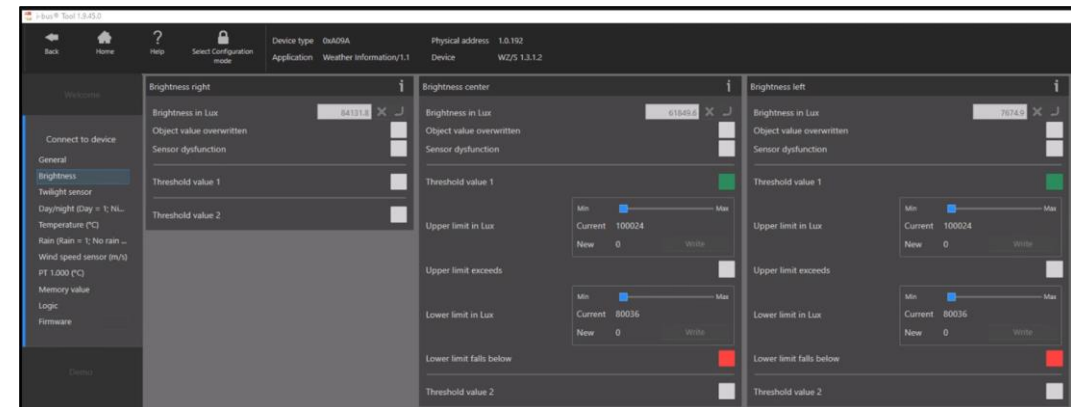


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### Weather Unit

- » Status information like sensor communication ok, firmware version with update, GPS data, time and date
- » For each weather sensor in the connected multi sensor one page with related data and operating functions exist
- » Example brightness sensor: current value with option to overwrite, info threshold value exceeded or sensor malfunction



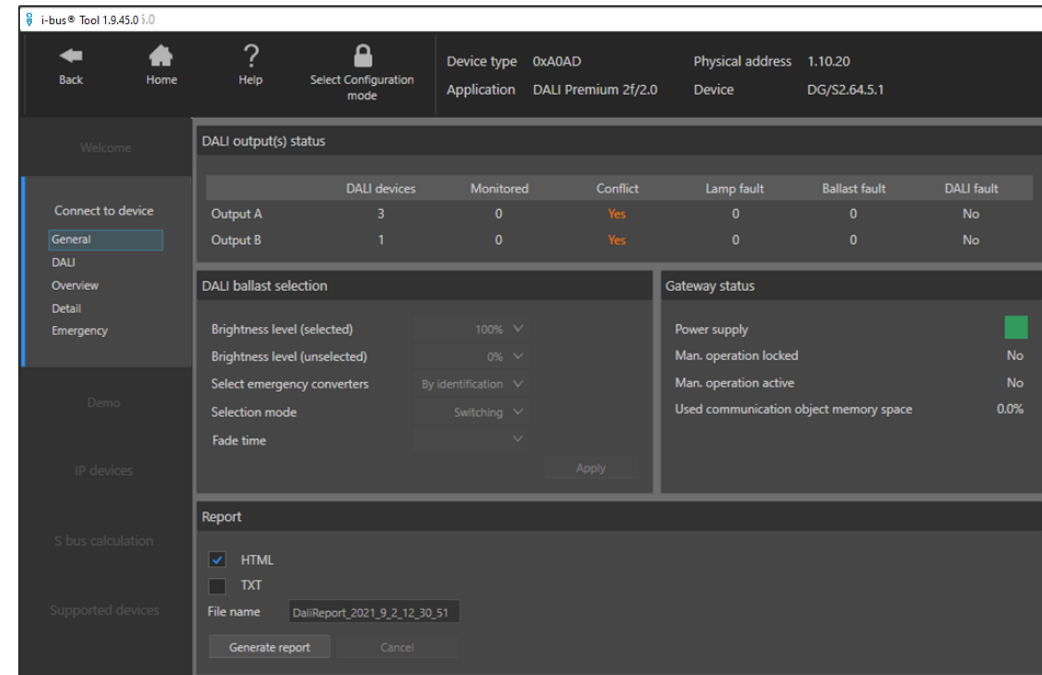


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### DALI Gateways

- » Needed to parametrize the DALI part of Busch-Jaeger's/ ABB's KNX DALI Gateways
- » Unique way to approach the DALI parametrization independent of the ETS in a user-friendly way
- » 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)

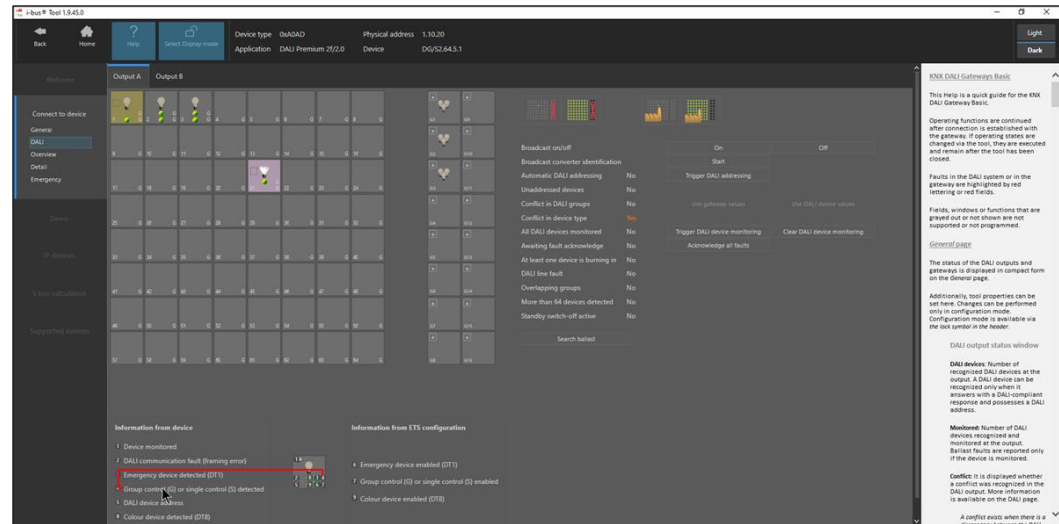


# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### DALI Gateways

- » 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



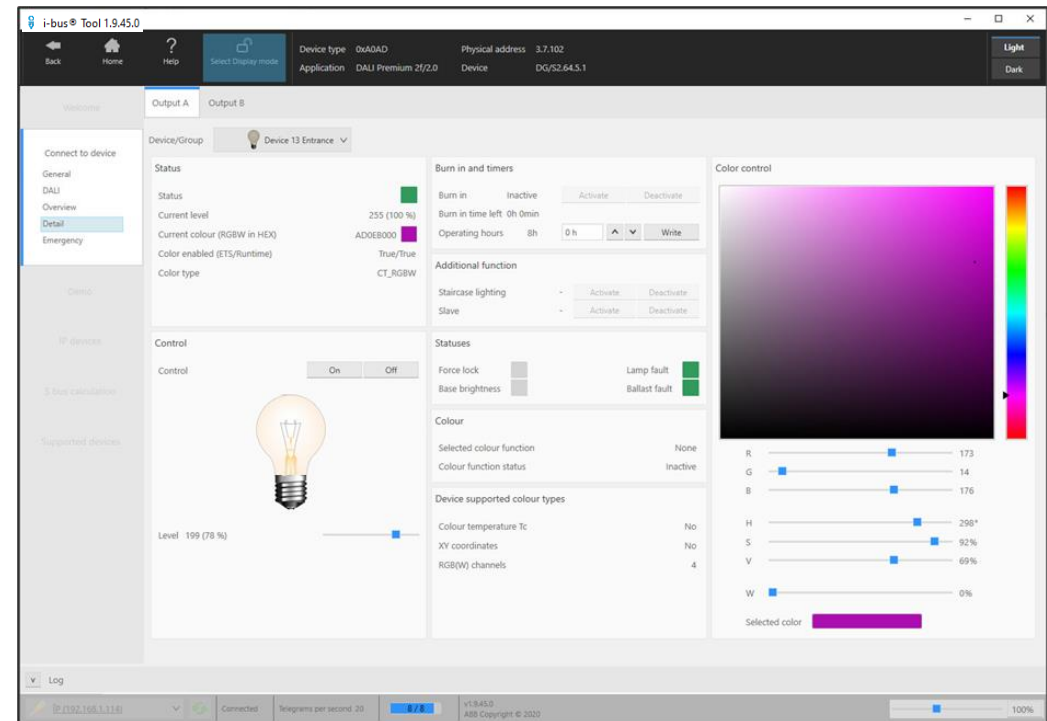
# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### DALI Gateways

- » 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

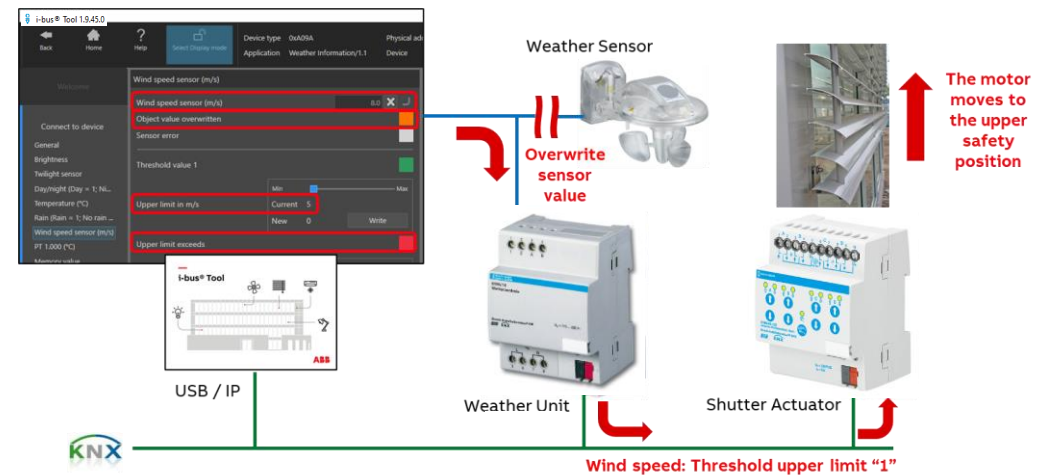


# ABB i-bus® Tool

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### Practical example

- » Weather Unit:
- » 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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# ABB i-bus® Tool

## A professional Service Tool for KNX System Integrators and Installers

### Where to get the ABB i-bus® Tool?

- » [www.abb.com/knx](http://www.abb.com/knx)
- » > Services & Tools
- » > Engineering Tools
- » Benefits at a glance
- » [Download](#)
- » Release notes
- » ... and it is free of charge!

### ABB i-bus® Tool

A professional service tool for KNX system integrators




ABB presents a fully new and innovative software concept with the ABB i-bus® Tool. It supports system Integrators during commissioning and service of KNX installations. The ABB i-bus® Tool accesses one ABB i-bus® KNX device via a standard KNX interface (RS232, USB, IP) with the assistance of the physical address. The Integrator can trigger the desired functions, read values, simulate states and make settings for the connected device. Internal information and states of the device hardware and software applications, which were not available to the Integrators or only available after considerable effort, are now available in a transparent manner and can be specifically retrieved and partly influenced. The information from status bytes can, for example, be represented as plain text.

An important principle is that no divergences to the ETS project can result through the ABB i-bus® Tool. The ABB i-bus® Tool is optional, so that the ABB i-bus® KNX devices are still be commissioned using the ETS.

### Diagnostics and Commissioning Support for the Professional

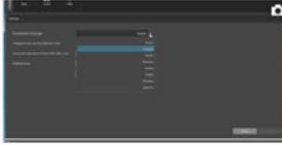






ABB provides a unique user interface within the ABB i-bus® Tool, a so-called plug-in, for every supported device. The device-specific information is displayed via this plug-in, and the required settings can be made. The ABB i-bus® Tool is being expanded continuously with new functions and supported devices. The expansions are automatically made available by an online update and can be installed if required. The ABB i-bus® Tool supports the following languages: Dutch, English, French, German, Italian, Polish, Russian, Spanish. The presentation language can be changed via "Settings" menu. The ABB i-bus® Tool is free-of-charge.

### Latest Plug-In's



DALI Configuration    FAN Coil Controller    IP Discovery    EnOcean Gateway

### Information and Downloads

Free download Latest Version of ABB i-bus® Tool	Webinar Video Webinar on ABB i-bus® Tool	Update Release Note i-bus® Tool
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A woman with long brown hair, wearing a grey coat and black pants, is walking away from a modern building entrance at night. She is carrying two shopping bags, one blue and one grey. The building has a dark wooden facade and a glass door. The entrance is illuminated by two small lights above the door. The woman is smiling and looking back over her shoulder. The text "Thank you for your attention" is overlaid in the center of the image.

Thank you for your attention



A woman with long brown hair, wearing a grey blazer and black pants, is walking from right to left. She is carrying two shopping bags, one blue and one grey. She is smiling and looking back over her shoulder. The background is a modern building with dark wood paneling and a glass door. The scene is lit with warm interior lights and cool exterior lights, creating a sophisticated atmosphere.

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