Online Learning Session – Competence Center Europe - Smart Buildings

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From home office to home office
Agenda

Introduction
Couplers and ETS filter table entries
IoT Dashboard Tool software
  Control elements (shutter, DALI RGB, trend viewer, scene, scheduler, …)
IoT Dashboard web user interface
  Device registration in “MyBuildings Portal”
  DALI Manager application

Practical demonstration
KNX IoT Dashboard Server DBS/S - Further Functions and Features

Introduction
KNX IoT Dashboard Server DBS/S - Further Functions and Features
Online Learning Session

Training Material
This presentation is the continuation of the Online Learning Session “KNX IoT Dashboard Server DBS/S – Basic Commissioning” in July 2020

Link presentation ➔
Link recording ➔

Training & Qualification Database
- The database contains extensive training content
  • https://go.abb/ba-training
  • www.abb.com/knx (➔ Services & Tools ➔ Training and Qualification ➔ Training Database)

YouTube
- Channel “ABB Home and Building Automation”
  • https://www.youtube.com/user/ABBibusKNX
Control all building functions with the IoT Dashboard

- It is a way to control Smart Buildings from any device, anywhere and at any time
- User-friendly dashboard to make life easier for electrical installers and end users
- The dashboard is user-friendly and easy to use, giving electrical installers with no pre-knowledge of dashboards or visualization a simple route into the Smart Building market
- The new IoT Dashboard comes with pre-programmed frames and allows strong control and monitoring of all automated building functions
- It helps end users (e.g. facility managers) to monitor and control their building automation solutions
  → Intuitive way: No experience with visualization needed
KNX IoT Dashboard Server DBS/S - Further Functions and Features

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**Overview**

- **IoT Dashboard Server** is the connection between the IP Building Network, ABB Ability™ and KNX
- **IoT Dashboard** is the User-Interface (UI) between the commercial building and the user Cloud connectivity for remote access
- **IoT Dashboard Tool** is a software for the Electrical installer to create the IoT Dashboard
  It includes predefined modules and controls
- **IoT Dashboard ETS App** is the interface between the ETS and the IoT Dashboard Tool to synchronize data
- **ETS5 product file** (*.knxprod) for calculating filter table entries
- Additionally Facility Manager is able to download features (**IoT Dashboard App**, e.g. DALI Manager) from the MyBuildings Portal
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Commissioning steps, couplers and ETS filter table entries
Commissioning steps and ETS filter table entries

- Create a new IoT Dashboard Tool project
  - Select whether you have an existing ETS project whose data you wish to synchronize between ETS and IoT Dashboard Tool
  - Add users (Admin, Facility Manager, …)
  - Configure the operating pages
  - Add controls to the individual operating pages
  - Set parameters of the controls
  - Link group address
  - Upload the configuration to the IoT Dashboard Server
Commissioning steps and ETS filter table entries

- Create a new IoT Dashboard Tool project
  - Select whether you have an existing ETS project whose data you wish to synchronize between ETS and IoT Dashboard Tool
  - Add users (Admin, Facility Manager, …)
  - Configure the operating pages
  - Add controls to the individual operating pages
  - Set parameters of the controls
  - Link group address
  - Upload the configuration to the IoT Dashboard Server
- Start a browser and open the IoT Dashboard
  - Enter IP address, user name and password
  - Operate and view values
  - …
Commissioning steps and ETS filter table entries

- **IoT Dashboard Tool**
  - Synchronize “Building view” and “Group addresses with ETS
  - IoT Dashboard Tool used group addresses are linked to the group objects of the IoT Dashboard Server DBS/S

- **ETS**
  - The ETS automatically creates the filter table entries
  - Download all modified IP Routers IPR/S and Line Couplers LK/S to update the filter table entries
  - …
Commissioning steps and ETS filter table entries – communication via KNXnet/IP

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MyBuildings Portal
Router
WiFi access point

Internal IP network
(technical, e.g. KNXnet/IP Routing)

External IP network

IoT Dashboard Tool
IoT Dashboard ETS App
ETS5

IoT Dashboard Tool
IoT Dashboard ETS App
ETS5

Filter table:

<table>
<thead>
<tr>
<th>Line</th>
<th>0/4/71</th>
<th>0/4/71</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/1/1</td>
<td>0.0.5</td>
<td>0.0.5</td>
</tr>
<tr>
<td>9.1.0</td>
<td>9.1.0</td>
<td>9.1.0</td>
</tr>
<tr>
<td>9.1.6</td>
<td>9.1.8</td>
<td>9.1.8</td>
</tr>
<tr>
<td>9.3.0</td>
<td>9.3.3</td>
<td>9.3.3</td>
</tr>
<tr>
<td>9.3.1</td>
<td>9.3.1</td>
<td>9.3.1</td>
</tr>
<tr>
<td>9.3.8</td>
<td>9.3.8</td>
<td>9.3.8</td>
</tr>
</tbody>
</table>

→ ETS application “DBS/S ….IP”
Commissioning steps and ETS filter table entries – communication via KNX TP

- **IoT Dashboard Server**
  - KNX TP
  - Filter table: 0/4/71
  - KNXnet/IP
  - IoT Dashboard Tool
  - ETS Application "DBS/S ....TP"

- **MyBuildings Portal**
  - ABB
  - WiFi access point

- **External IP network**
  - Router

- **Internal IP network**
  - Router
  - WiFi access point
  - KNXnet/IP

- **IoT Dashboard**
  - ETS App
  - ETS5
  - Filter table: 3/1/1

- **KNX TP**
  - Line 9.3x
  - 9.3.0
  - 9.3.1
  - 9.3.3
  - 9.3.7
  - 9.3.8

- **ETS application “DBS/S ....TP”**
  - Line 9.1.x
  - 0/4/71
  - 3/1/1
  - 9.1.0
  - 9.1.6
  - 9.1.8
  - 9.3.3
  - 9.3.7

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Slide 14
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Practical demonstration
**KNX IoT Dashboard Server DBS/S - Further Functions and Features**

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**Practical demonstration**

- Software version
  - IoT Dashboard Server DBS/S V1.1 (1.20.11)
  - IoT Dashboard Tool 1.1 (1.20.11)
- The IoT Dashboard Server is already programmed, in operation (controls: Rocker switch, temperature and weather) and communicates via twisted pair (TP) to KNX

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*Only one network connection (LAN1) is used*
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Are there any questions in the chat???
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Homepage

www.abb.com/KNX

→ Products and Downloads
   → Visualisation, Display and Signalling
   → Visualisation DBS/S

– Product Manual
– Installation and Operating Instructions
– Tender specification
– ETS Application
– CAD Drawing
– • •
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Product Range Overview

Smarter Solutions for Home and Building Automation
ABB i-bus KNX
Product Range Overview 2019/2020

LINK
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Training Material

Training & Qualification Database
- The database contains extensive training content
  - Presentations
  - Video tutorials
  - Webinar slides and videos
  - and more …
  - https://go.abb/ba-training
  - www.abb.com/knx (→ Services & Tools → Training and Qualification → Training Database)

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Training & Qualification Calendar

In addition to the online modules and the traditional training programs offered by your local ABB sales team, we offer a variety of on-site trainings conducted by our specialists at different ABB training facilities.

In this Training & Qualification Calendar you can find the educational events that are taking place during 2020.

If you are interested in a training please click the training and you will be forwarded to register in “ABB MyLearning”

www.abb.com/knx or https://go.abb/ba-training

→ Services & Tools
→ Training and Qualification
→ Training Calendar
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