APRIL 2020

KNX ETS5 and Group Addresses

Online Learning Session – Competence Center Europe – Smart Buildings

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Online Learning Session – Competence Center Europe - Smart Buildings

NEW !!!

From home office to home office

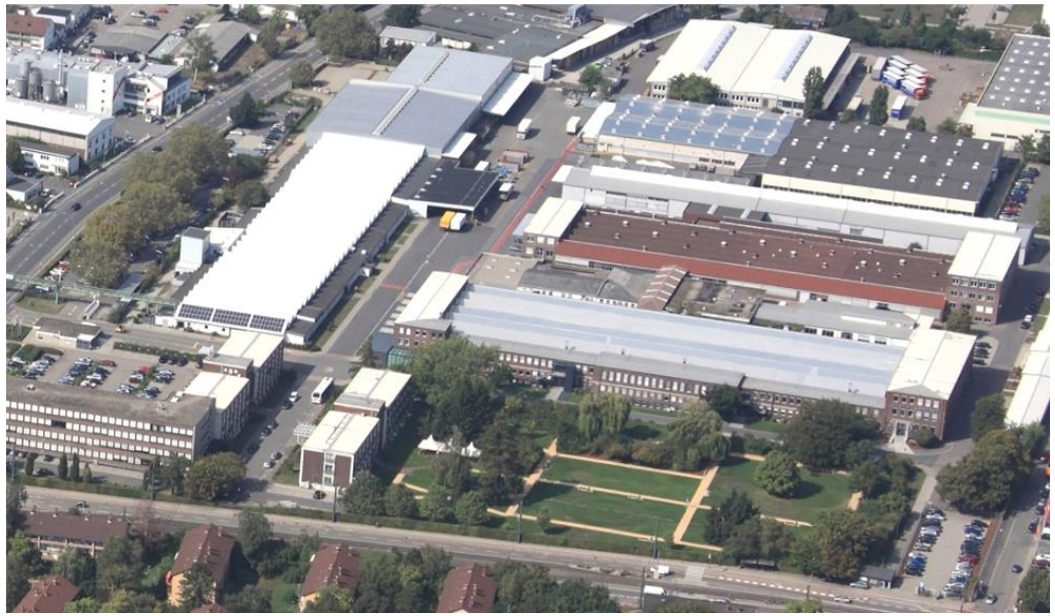
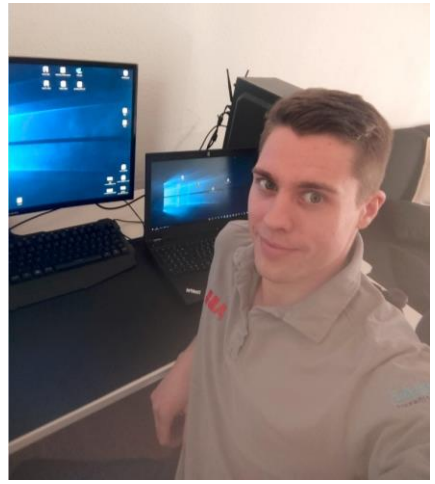


ABB STOTZ-KONTAKT GmbH
Heidelberg / Germany



Agenda

Introduction group addresses

Free group address style in ETS

Conversion between levels

Export group address, generate conveniently outside ETS and re-imported again

Broadcast group address

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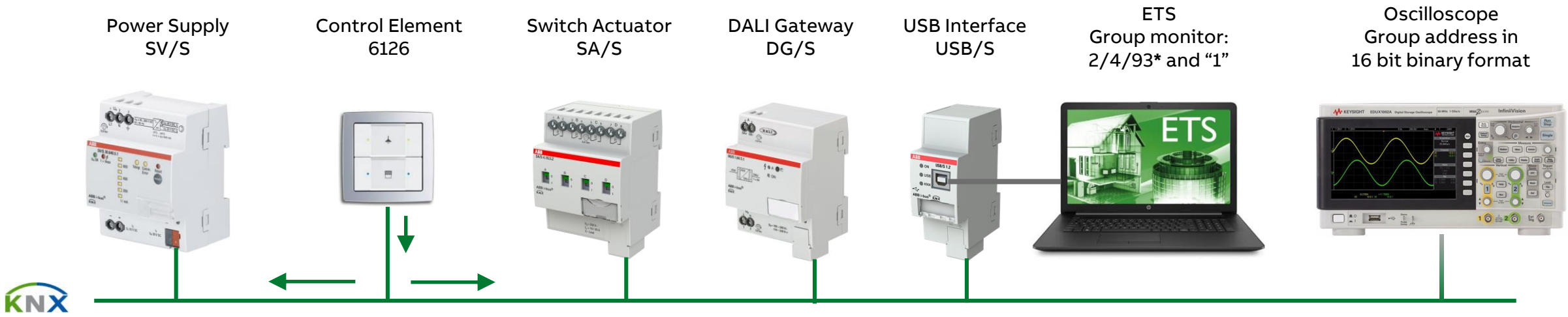
KNX ETS5 and Group Addresses

Online Learning Session

KNX ETS5 and Group Addresses

Sending a KNX telegram

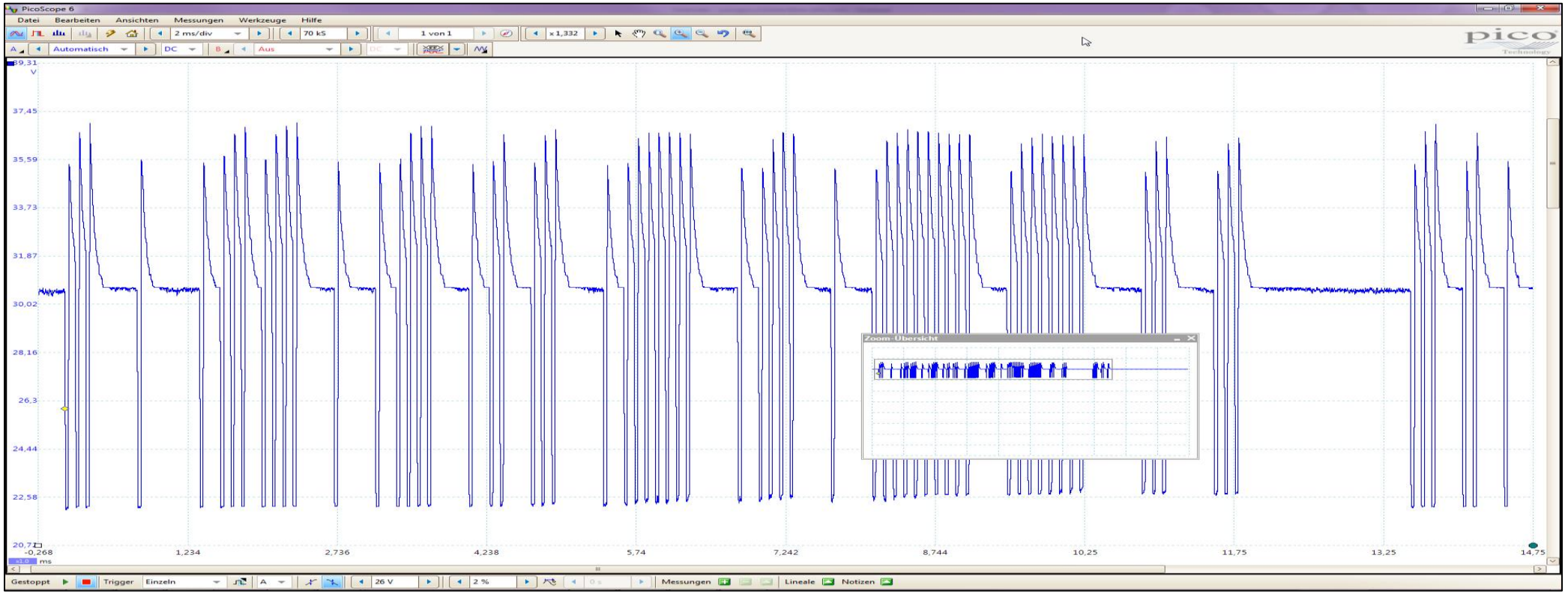


KNX telegram:
Light “ON” (value “1”)
Group address 2/4/93

* depending on the
group address structure

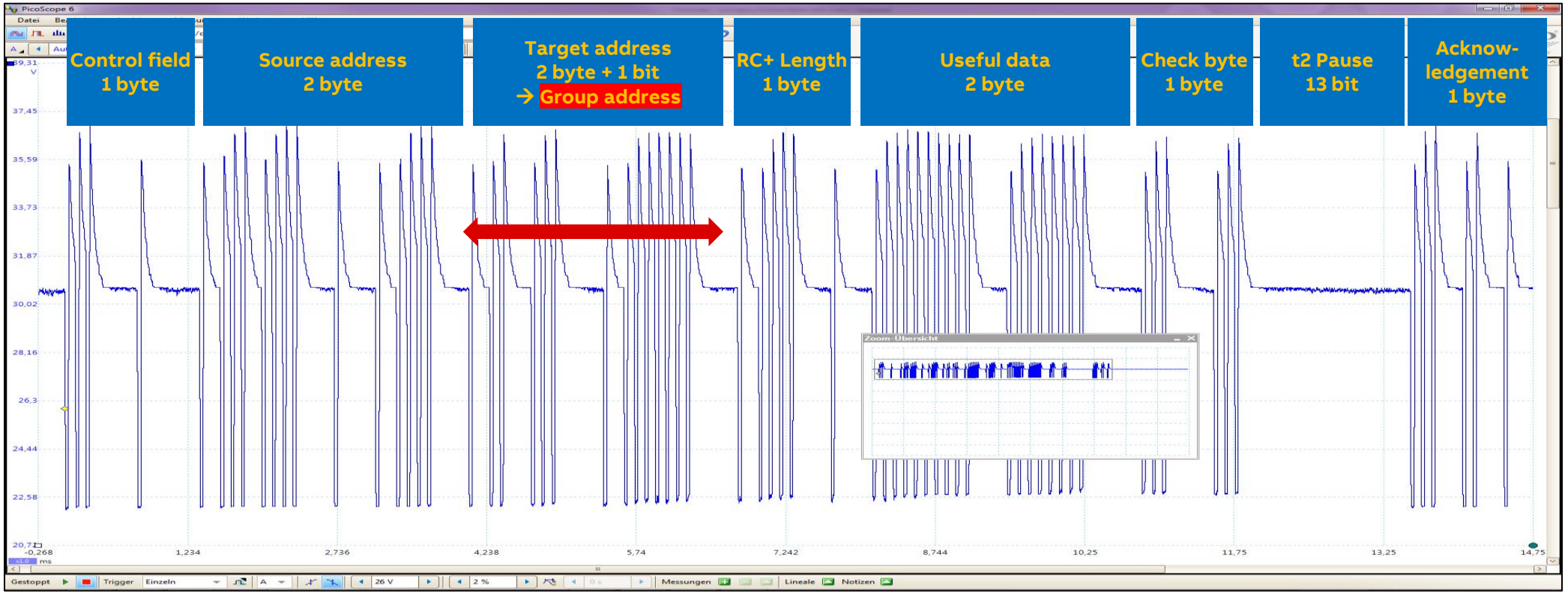
KNX ETS5 and Group Addresses

Complete KNX Telegram (sequence of characters)



KNX ETS5 and Group Addresses

Complete KNX Telegram (sequence of characters) → Group address is transmitted in 16 bit binary format



KNX ETS5 and Group Addresses

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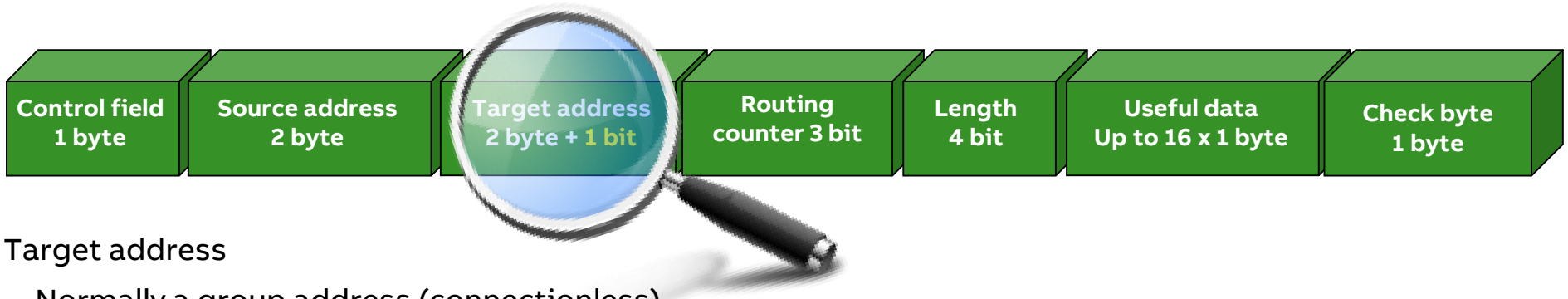

Target address

- Normally a group address (connectionless)
- Bit after target address defines the type of the target address

Number of group addresses

- 16 bit → max. 65,535 (as from ETS 4)

Classification in levels (2-level, 3-level or free)

- **For a better visual representation in ETS, Visu, …**
- **Group addresses are always transmitted and stored in 16 bit binary format in devices (no levels!)**

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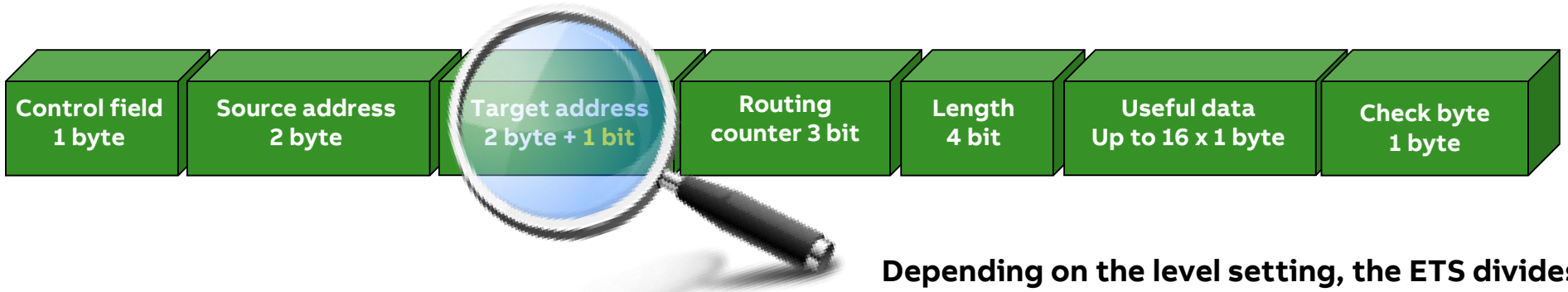
KNX ETS5 and Group Addresses

Complete KNX Telegram (sequence of characters) → Group address is transmitted in 16 bit binary format



3-level structure 0 1 0 0 0 / 1 0 1 / 1 0 0 0 0 0 0 1

0…31 0…7 0…255

2-level structure 0 1 0 0 0 / 1 0 1 1 0 0 0 0 0 0 1

0…31 0…2047

Free structure 0 1 0 0 0 1 0 1 1 0 0 0 0 0 0 1

1…65535

Depending on the level setting, the ETS divides the 16 bits into:

- 3-level: Main group 5 bits / middle group 3 bits / group address 8 bits
  8/5/129
- 2-level: Main group 5 bits / group address 11 bits
  8/1409
- Free: 16 bits
  17793

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KNX ETS5 and Group Addresses

General

Up to 65,535 different group addresses can be assigned in one project (ETS1 to ETS3 max. 32,767)

Almost always only the 3-level structure is used → fixed range

The levels can be divided as required

– Main group “floors”, middle group “trades” (light, shutter, …)

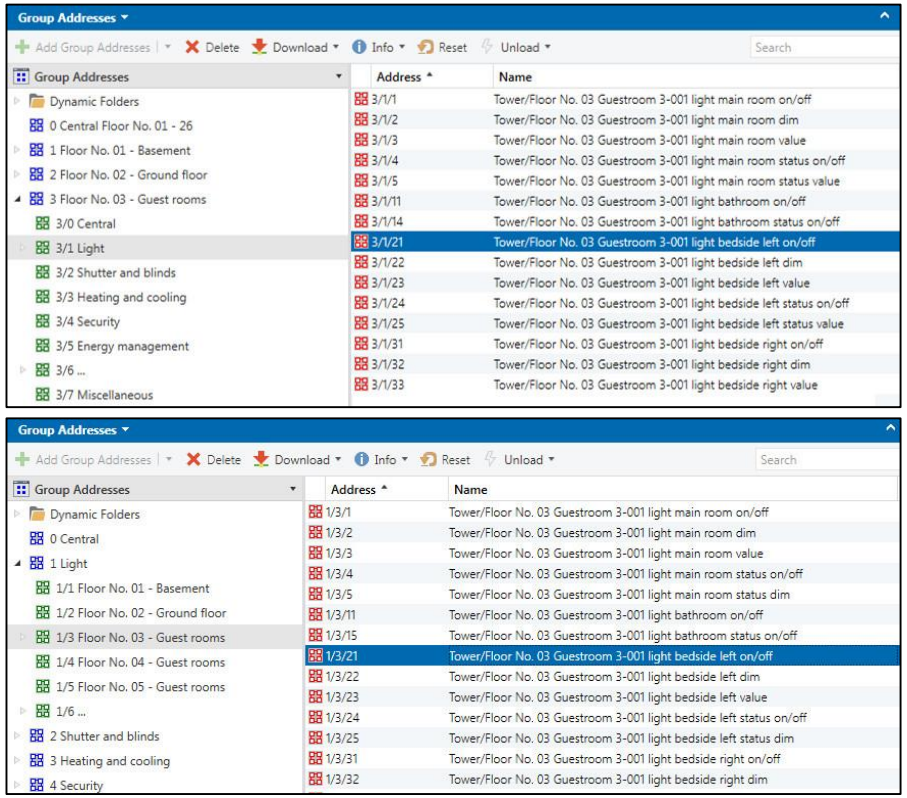
– Main group trades (light, shutter,…), middle group floors

It should contain abbreviations with all the necessary information about

– Location of the function, e.g. Building-floor-room

– Controlled equipment or equipment group (e.g. Light 1)

– Type of function (e.g. dimming, switching, value, shutter)
→ Example: ToWi_Fl3_Guest_3-021_light bed on/off means “Tower Wing, 3rd floor, guest room 321, light bed on or off”



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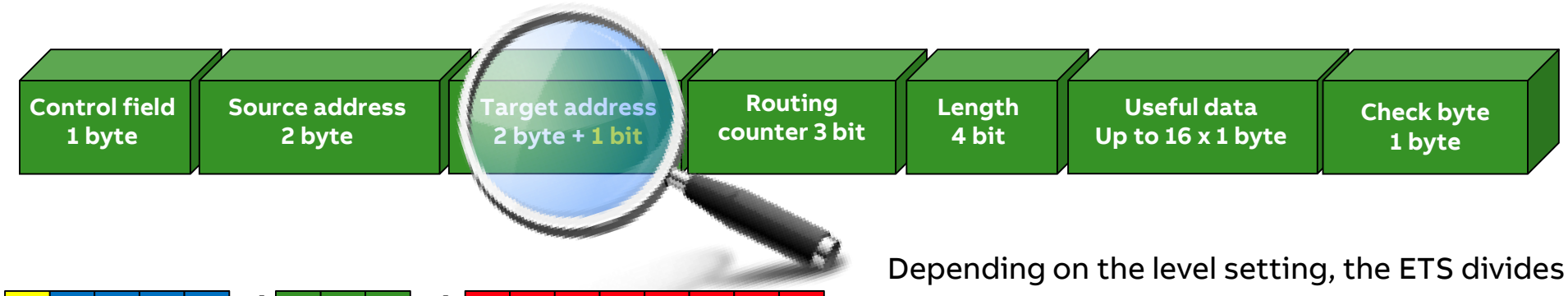
KNX ETS5 and Group Addresses

ETS1, 2 and 3 – 15 bit address range → max. 32,767 group addresses



3-level structure 0 1 0 0 0 / 1 0 1 / 1 0 0 0 0 0 0 0 1

0…15 0…7 0…255

2-level structure 0 1 0 0 0 / 1 0 1 1 0 0 0 0 0 0 1

0…15 0…2047

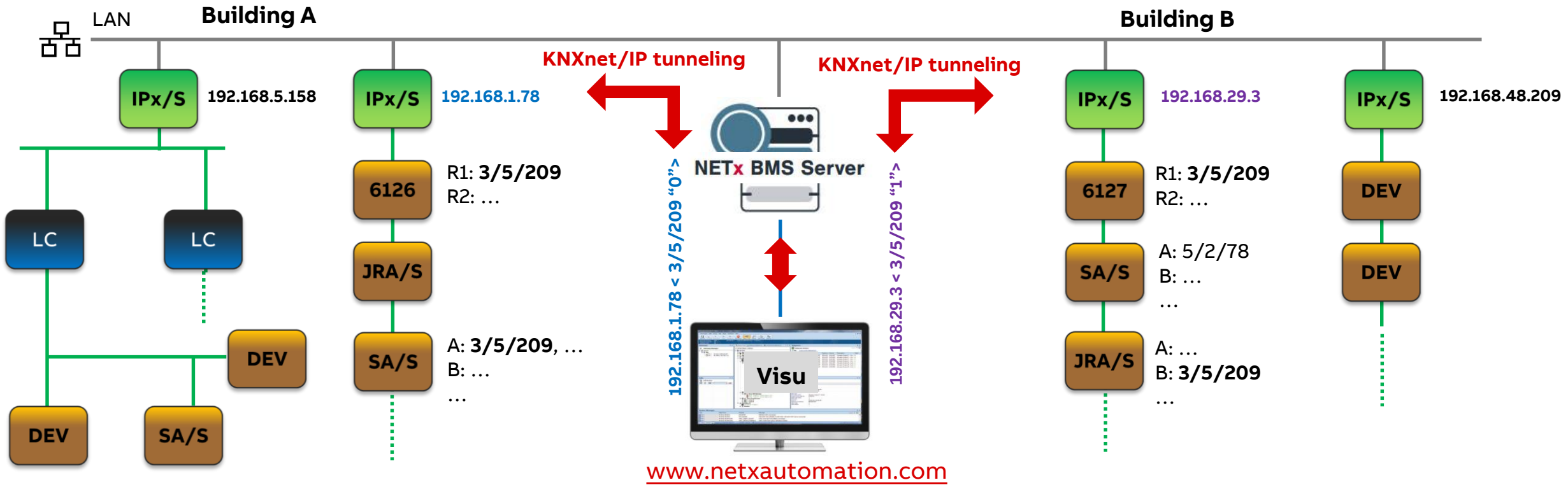
Bit not used – always “0”

Depending on the level setting, the ETS divides the 15 bits into:

- 3-level: Main group 4 bits / middle group 3 bits / group address 8 bits
  8/5/129
- 2-level: Main group 4 bits / group address 11 bits
  8/1409

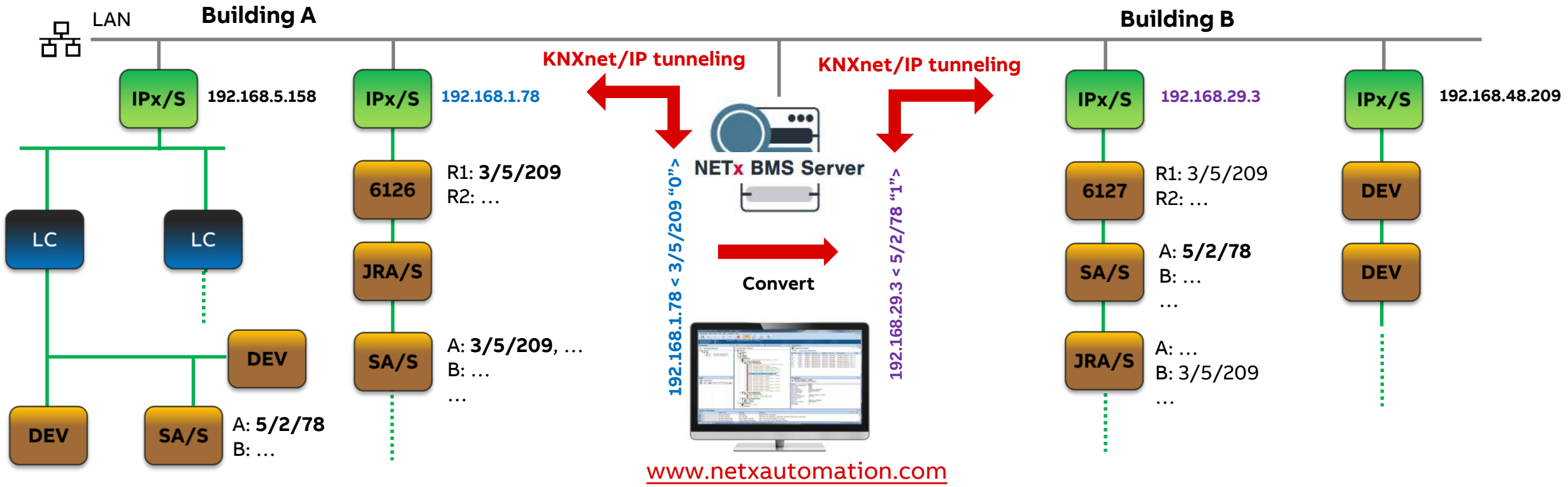
KNX ETS5 and Group Addresses

More than 65,535 group addresses: BMS Server → Tunneling connections to IP Router IPR/S or IP Interface IPS/S
Group address 3/5/209 is used in building A and B → The added IP address means that they do not influence each other



KNX ETS5 and Group Addresses

More than 65,535 group addresses: BMS Server → Tunneling connections to IP Router IPR/S or IP Interface IPS/S
"3/5/209 building A" is converted into "5/2/78 "building B" → No influence to 5/2/78 "building A"



KNX ETS5 and Group Addresses

KNX Project Preparation of the KNX Assoc.

The project guidelines support KNX partners in realizing their systems in a clear and structured manner

They contain important basics and ideas for a successful project design

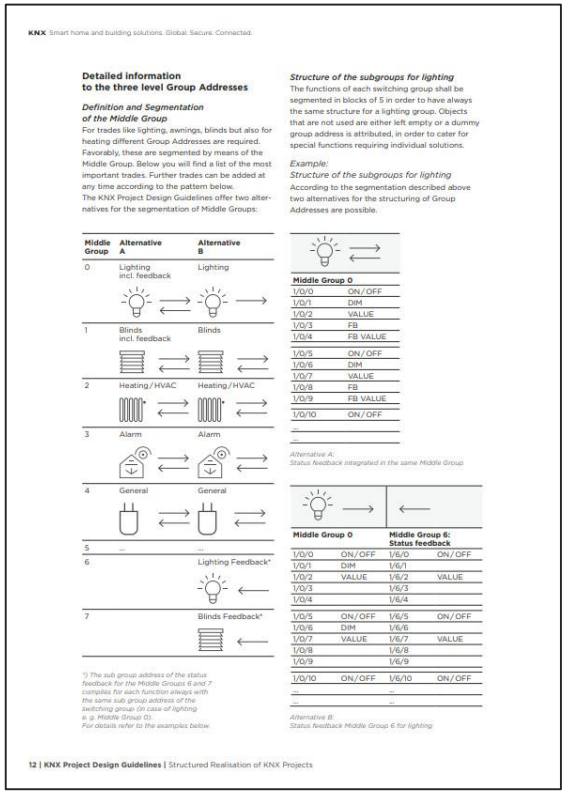
This helps newcomers as well as companies who are already familiar with system integration

The structuring of a KNX system is an important factor for the successful completion of a project

- Project structuring
- Structure of the group addresses
- Standardized description

www.knx.org → For professionals → Downloads → Marketing → Flyers → KNX-Project-Preparation

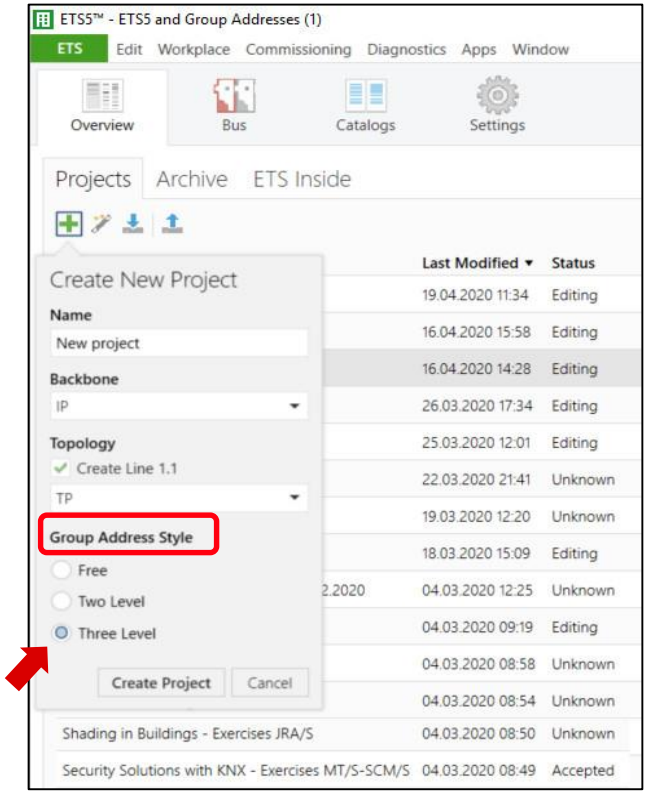
https://www.knx.org/wAssets/docs/downloads/Marketing/Flyers/KNX-Project-Preparation/KNX-Project-Preparation_en.pdf



KNX ETS5 and Group Addresses

ETS – create a new project

- Name
- Backbone
- Topology
- Group address style
  - Free
  - Two level
  - Three level (default)



KNX ETS5 and Group Addresses

Free group address style

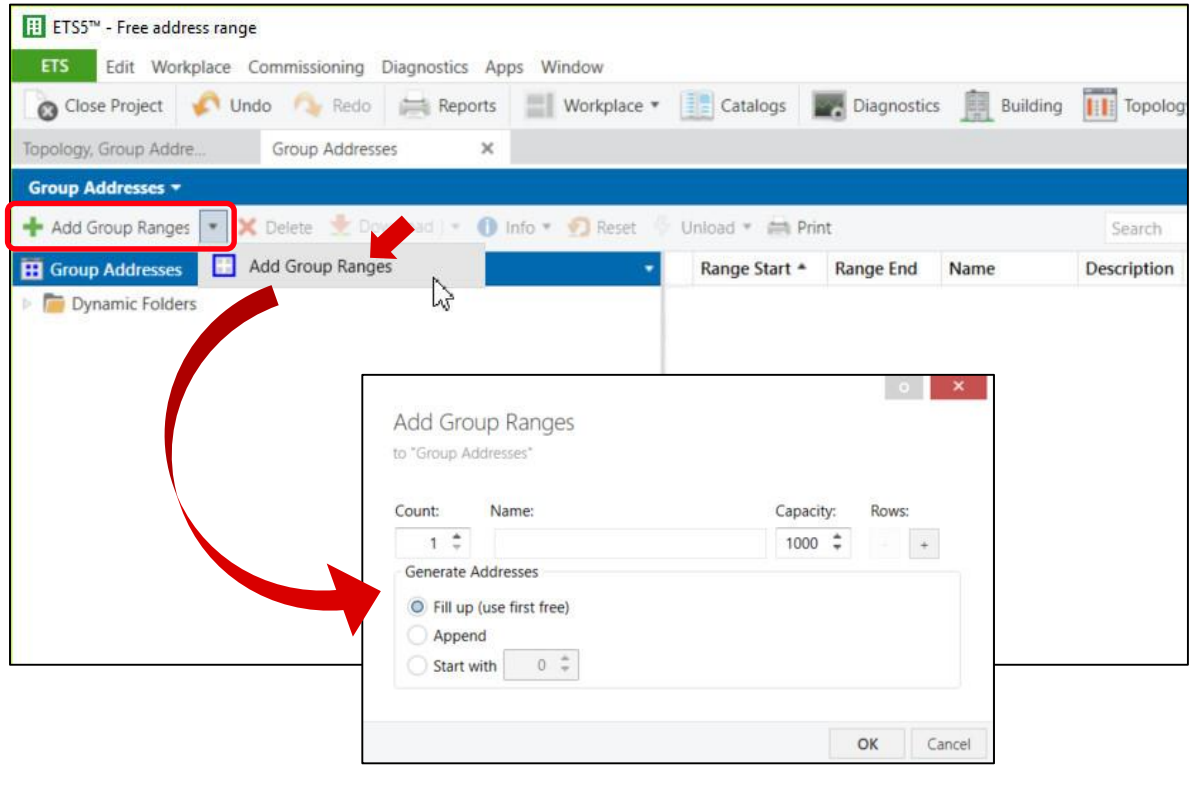
The free group address structure is not limited with regard to the number of levels

→ Possibility to structure group addresses completely free

Multiple levels with group address ranges can be added

Clear representation through a decimal division

Free group addresses are linked to the group objects just like three level group addresses

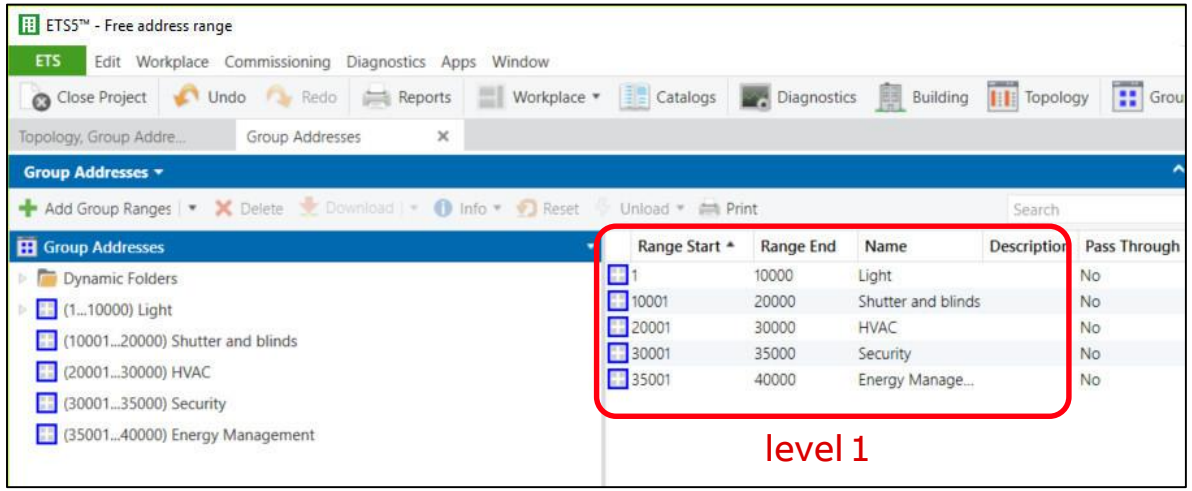


KNX ETS5 and Group Addresses

Free group address style

Group addresses from 1 to 65,535

- 1 to 10,000 Light
- 10,001 to 20,000 Shutter and blinds
- 20,001 to 30,000 HVAC
- 30,001 to 35,000 Security
- 35,001 to 40,000 Energy Management
- … to 65,535 xxx

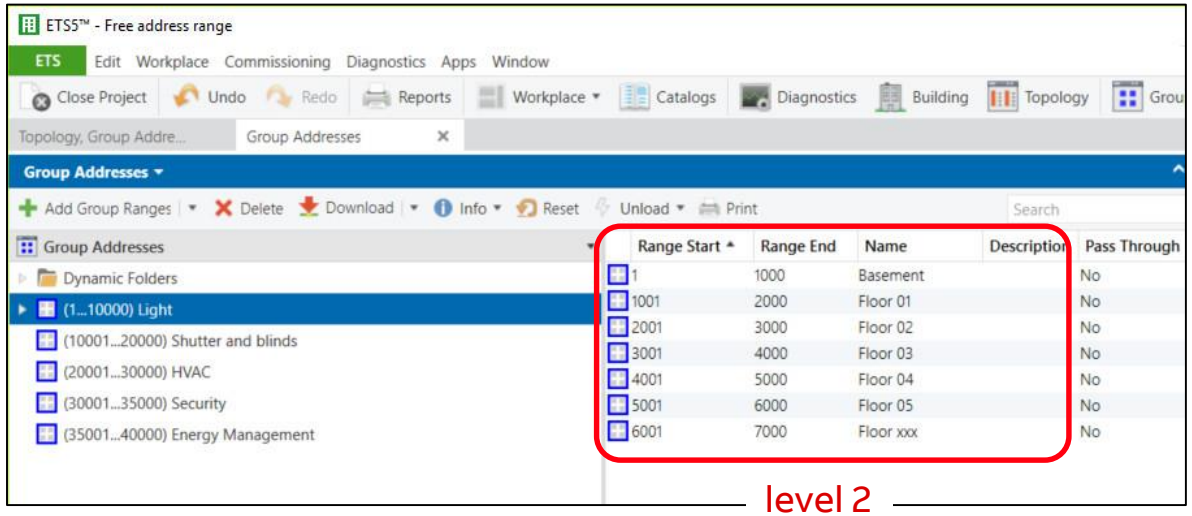


KNX ETS5 and Group Addresses

Free group address style

Group address range 1 to 10,000 Light (level 1)

- 1 to 1,000 Basement
- 1,001 to 2,000 Floor no 01
- 2,001 to 3,000 Floor no 02
- 3,001 to 4,000 Floor no 03
- 4,001 to 5,000 Floor no 04
- 5,001 to 6,000 Floor no 05
- … to 10,000 xxx



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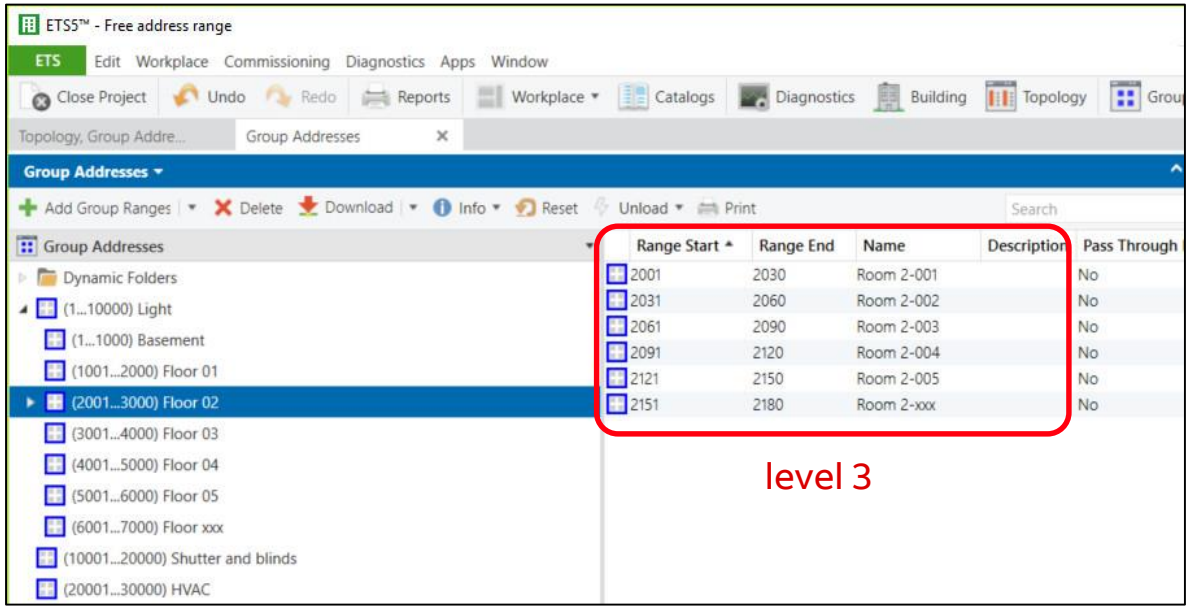
KNX ETS5 and Group Addresses

Free group address style

Group address range 1 to 10,000 Light (level 1)
→ 2,001 to 3,000 Floor no 02 (level 2)

- 2,001 to 2,030 Guestroom 2-01
- 2,031 to 2,060 Guestroom 2-02
- 2,061 to 2,090 Guestroom 2-03
- 2,091 to 2,120 Guestroom 2-04
- 2,121 to 2,150 Guestroom 2-05
- … to 3,000 xxx

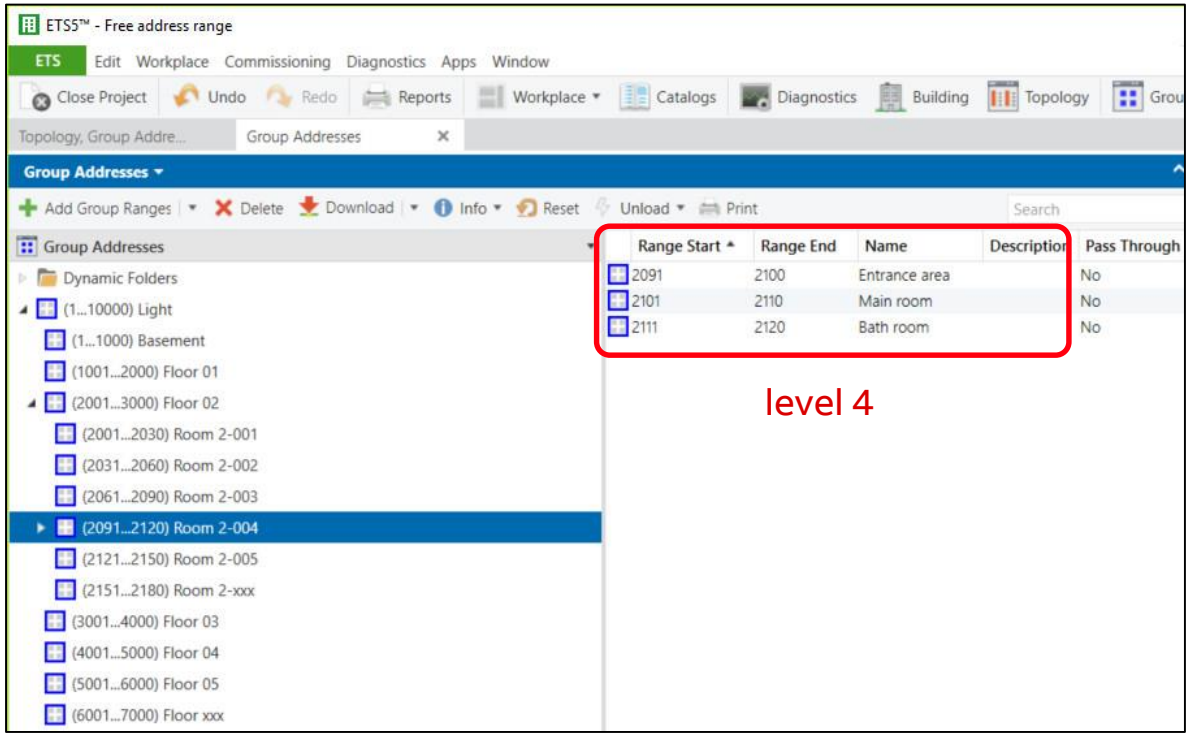


KNX ETS5 and Group Addresses

Free group address style

Group address range 1 to 10,000 Light (level 1)
→ 2,001 to 3,000 Floor no 02 (level 2)
→ 2,091 to 2,120 Guestroom 2-04 (level 3)

- 2,091 to 2,100 Entrance area
- 2,101 to 2,110 Main room
- 2,111 to 2,120 Bathroom



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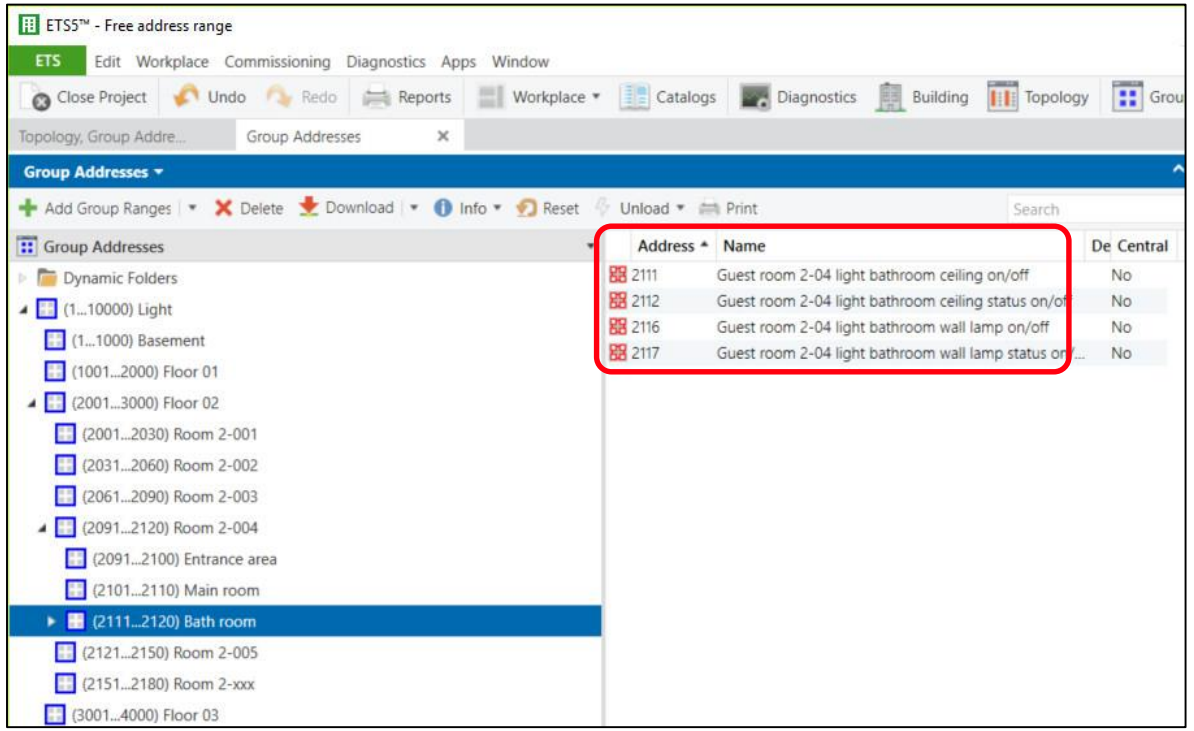
KNX ETS5 and Group Addresses

Free group address style

Group address range 1 to 10,000 Light (level 1)
→ 2,001 to 3,000 Floor no 02 (level 2)
→ 2,091 to 2,120 Guestroom 2-04 (level 3)
→ 2,111 to 2,120 Bathroom (level 4)

Group address

- 2,111 “Guest room 2-04 light bathroom ceiling on/off”
- 2,112 “Guest room 2-04 light bathroom ceiling status on/off”
- 2,116 “Guest room 2-04 light bathroom wall lamp on/off”
- 2,117 “Guest room 2-04 light bathroom wall lamp status on/off”



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KNX ETS5 and Group Addresses

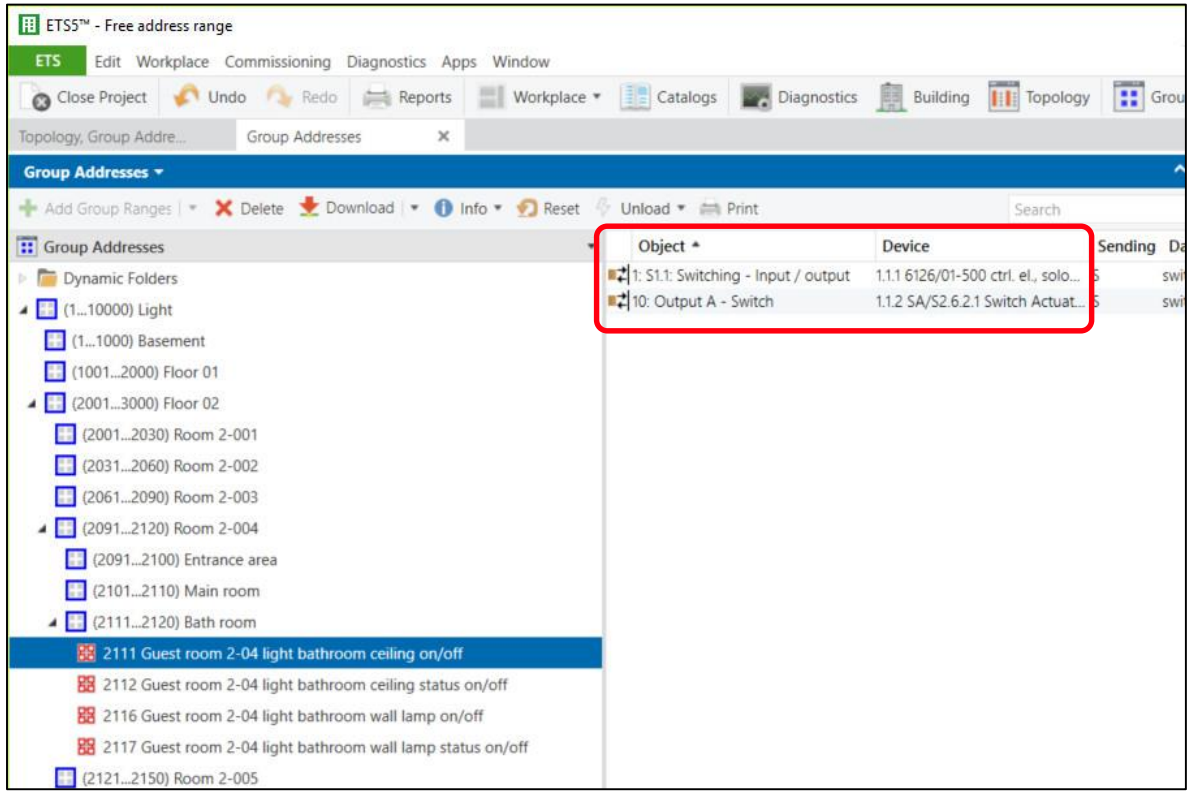
Free group address style

Group address range 1 to 10,000 Light (level 1)
→ 2,001 to 3,000 Floor no 02 (level 2)
→ 2,091 to 2,120 Guestroom 2-04 (level 3)
→ 2,111 to 2,120 Bathroom (level 4)

Group address 2,111 “Guest room 2-04 light bathroom ceiling on/off”

– Control Element: Rocker 1

– Switch Actuator: Channel A



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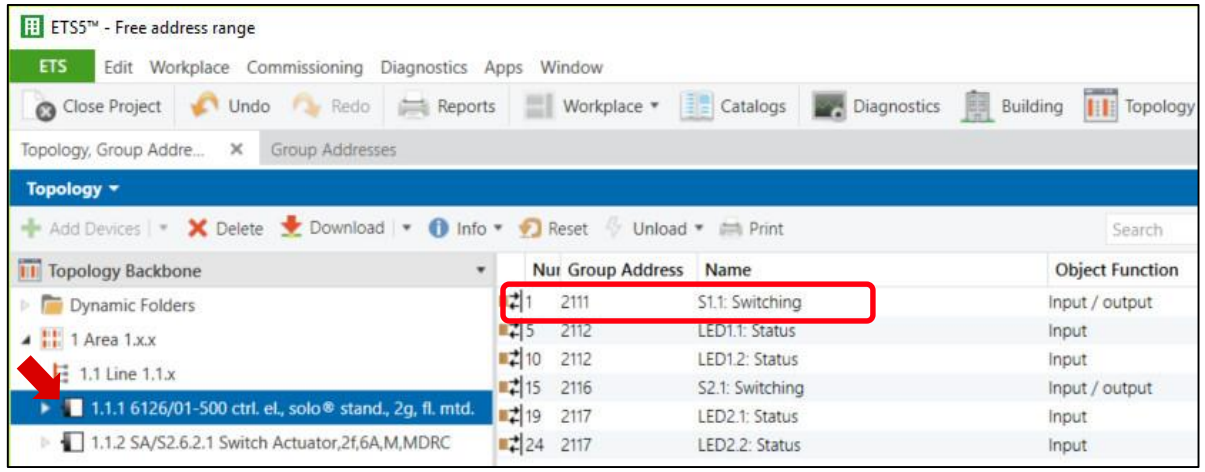
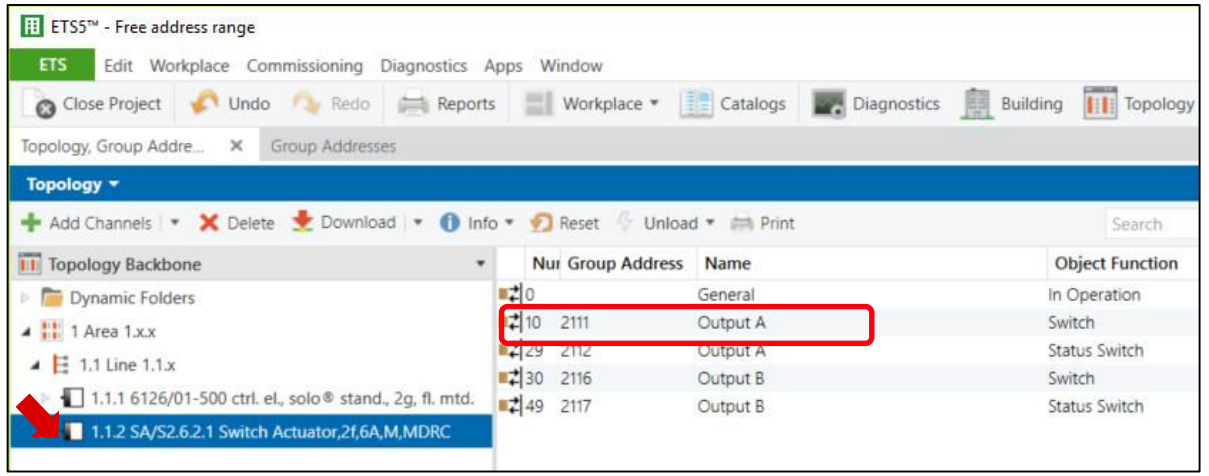
KNX ETS5 and Group Addresses

Free group address style

Group address 2,111 “Guest room 2-04 light bathroom ceiling on/off”



Control Element: Rocker 1



Switch Actuator: Channel A

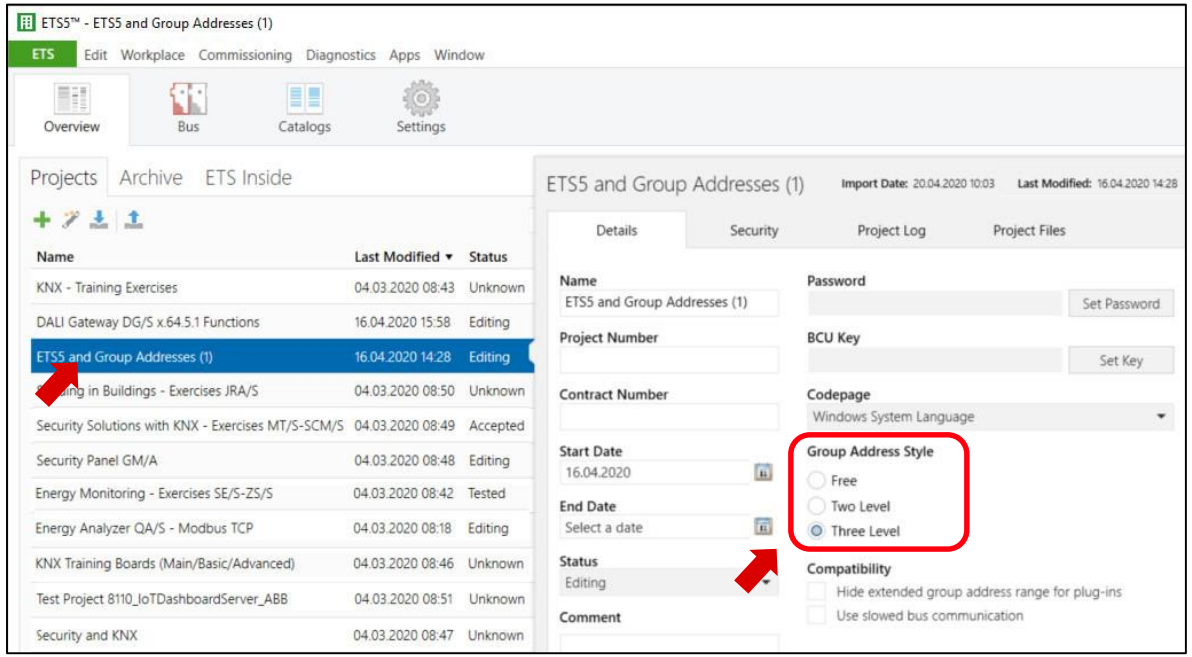
KNX ETS5 and Group Addresses

ETS overview: Switch between levels

You can switch between the different levels in the project overview

The change is limited!

- Three level to two level
  - All texts, properties and security settings from the middle groups are lost
- Two level to three level
  - All middle groups get the text “New middle group”
- Three level or two level to free
  - You can not switch back to two or three level
- Free to three level or two level
  - Not possible



KNX ETS5 and Group Addresses

Conversion between levels

	2^{15}	2^{14}	2^{13}	2^{12}	2^{11}	2^{10}	2^{9}	2^{8}	2^{7}	2^{6}	2^{5}	2^{4}	2^{3}	2^{2}	2^{1}	2^{0}
	32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1
Transmitted 16 bit	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	1

KNX ETS5 and Group Addresses

Conversion between levels

	2^{15}	2^{14}	2^{13}	2^{12}	2^{11}	2^{10}	2^{9}	2^{8}	2^{7}	2^{6}	2^{5}	2^{4}	2^{3}	2^{2}	2^{1}	2^{0}
	32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1
Transmitted 16 bit	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	1
Free structure	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	1

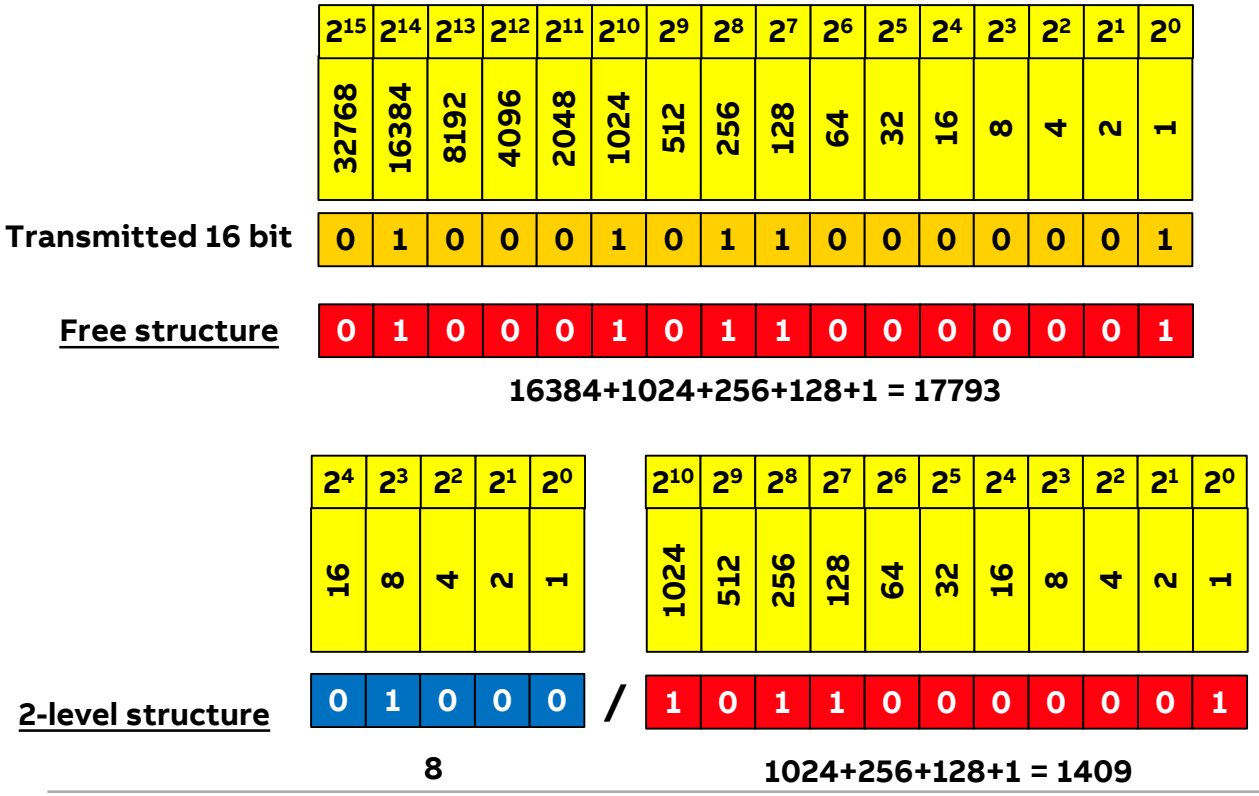
16384+1024+256+128+1 = 17793

Depending on the level setting, the ETS divides the 16 bits into:

- Free: 16 bits
  17793

KNX ETS5 and Group Addresses

Conversion between levels



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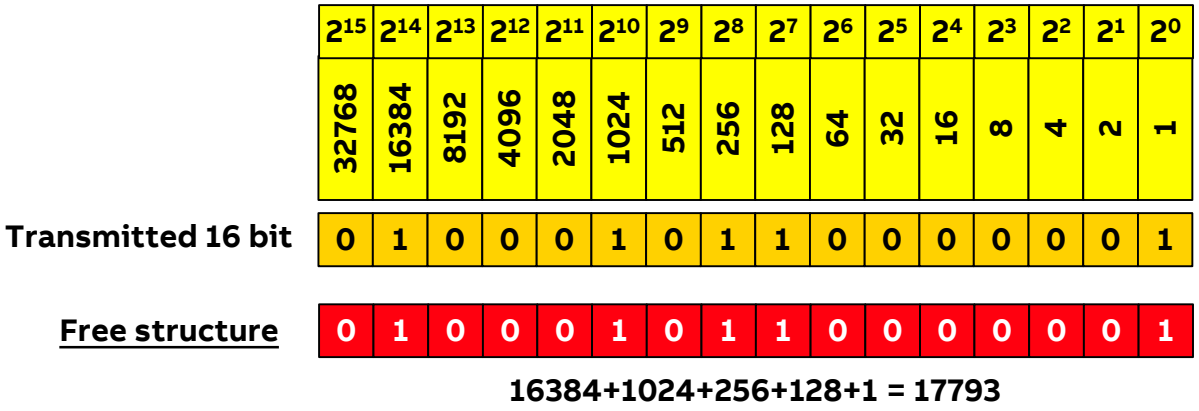
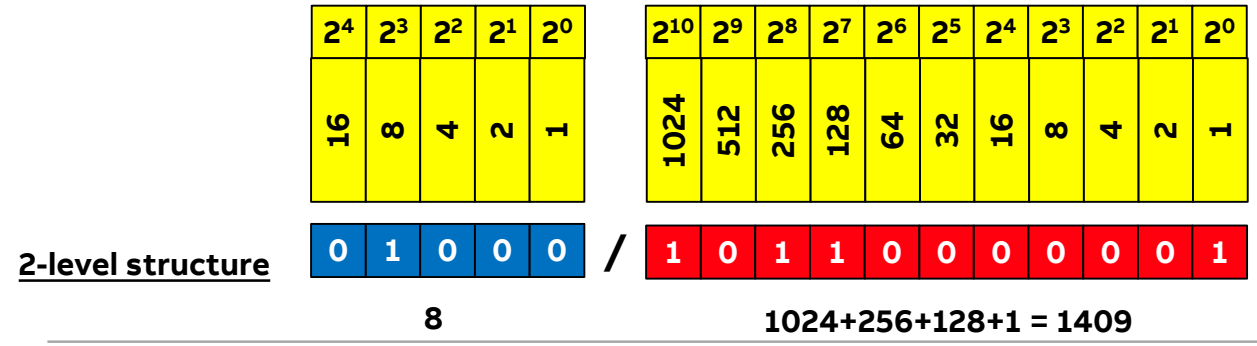
  17793
- 2-level: Main group 5 bits / group address 11 bits
  8/1409

KNX ETS5 and Group Addresses

Conversion between levels





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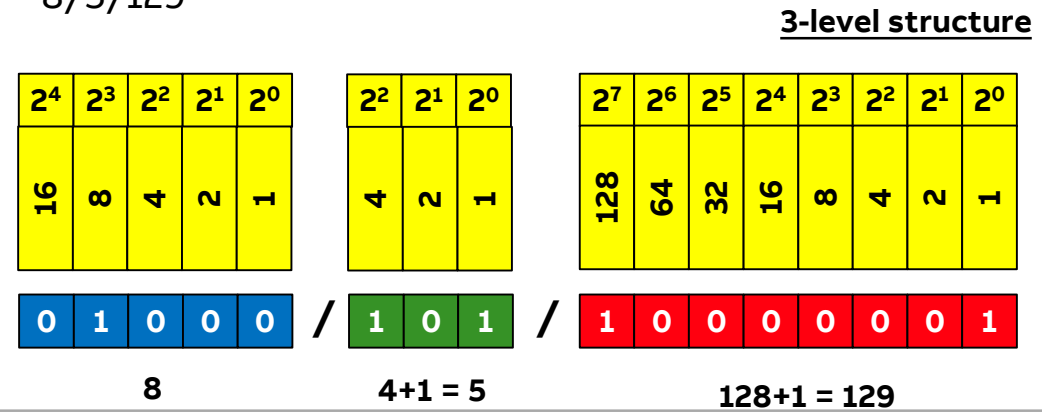
- Free: 16 bits
  17793
- 2-level: Main group 5 bits / group address 11 bits
  8/1409
- 3-level: Main group 5 bits / middle group 3 bits / group address 8 bits
  8/5/129

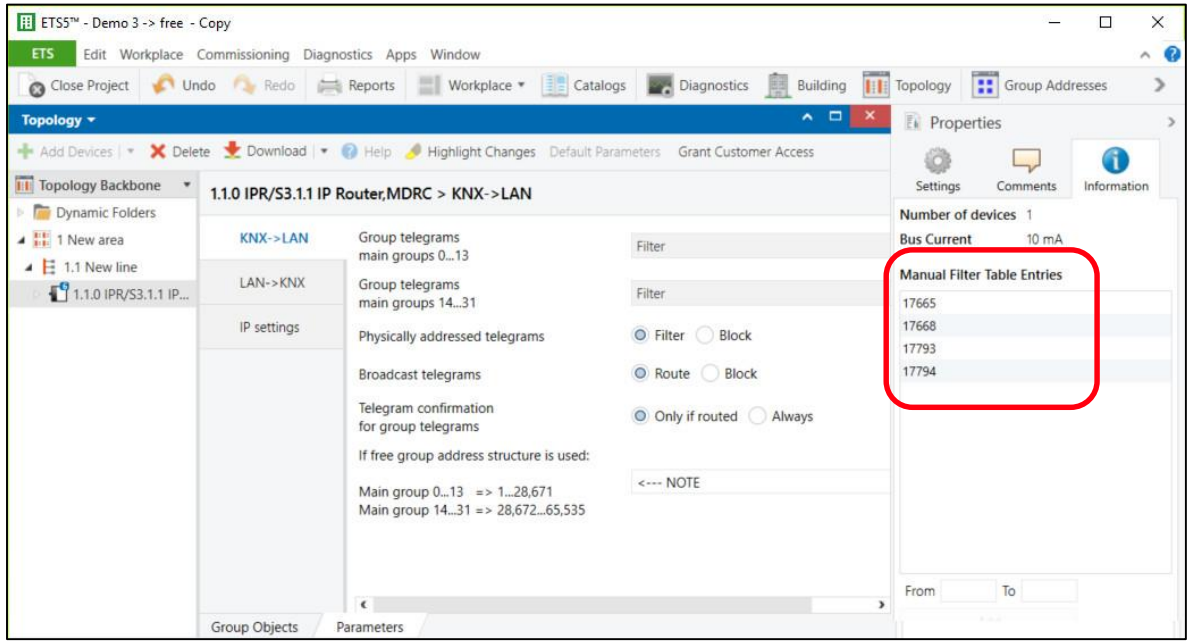


KNX ETS5 and Group Addresses

Free level notes

You can not switch back to two or three level group addresses and the export/import can only be done in the XML-format

The group addresses are stored in the filter tables of the Line Couplers LK/S and IP Routers IPR/S as 16 bits and are therefore independent of the levels



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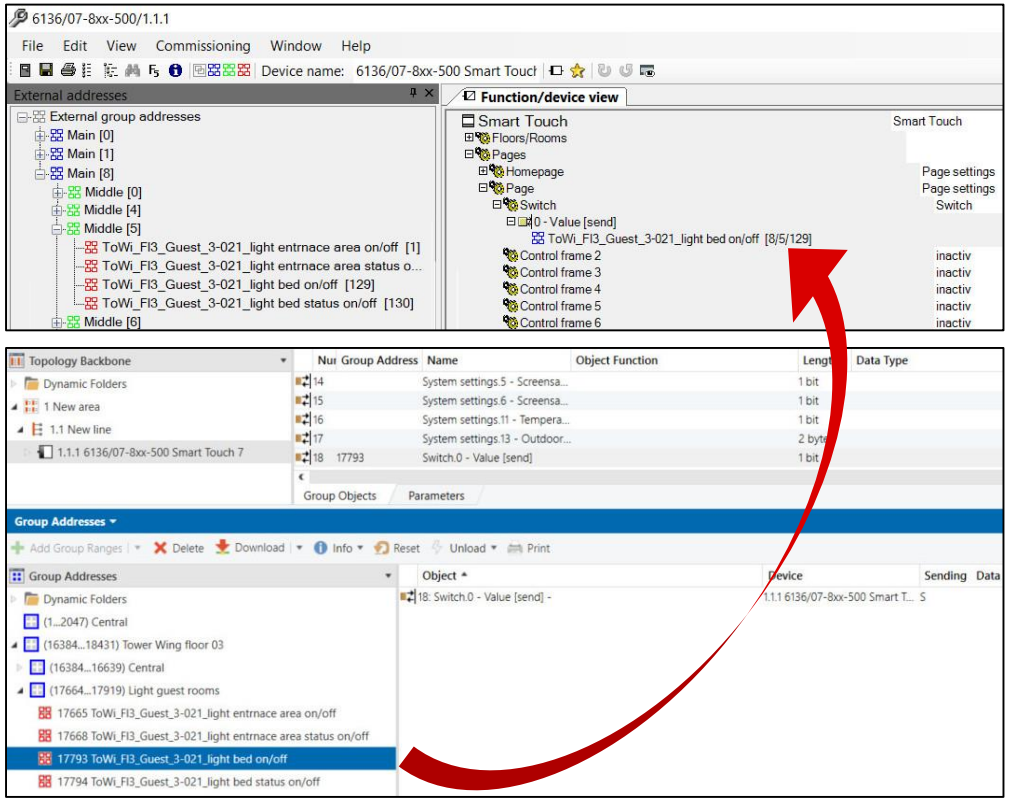
Some devices which use product specific software (plug in) to link group objects cannot display the free group address structure

– ABB PowerTool (e.g. 6136/07 Smart Touch 7)

– The free group address structure cannot be used and the group addresses are displayed in the three levels



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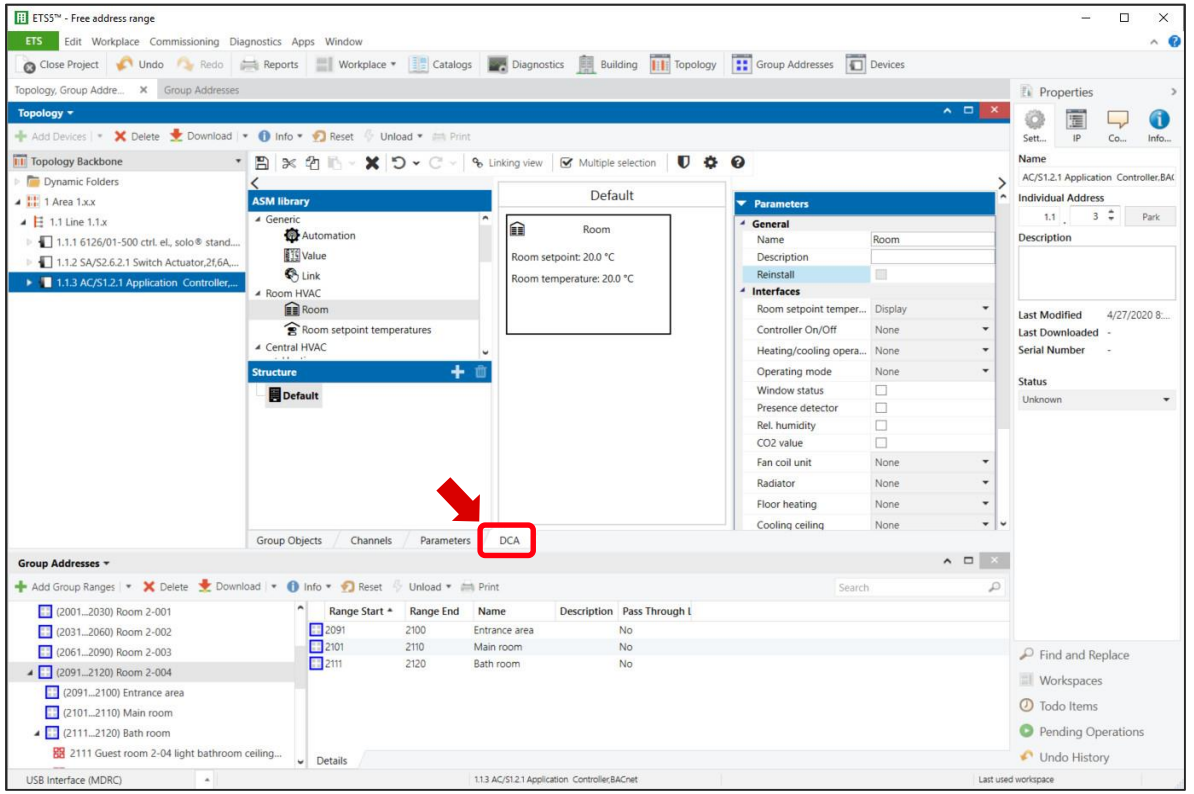
According to the KNX guidelines, since 2018 such devices may only be parameterized using the DCA concept (device configuration app), e.g. Application Controller AC/S

The ABB "MyBuildings Portal" only uses the 3 levels group addresses



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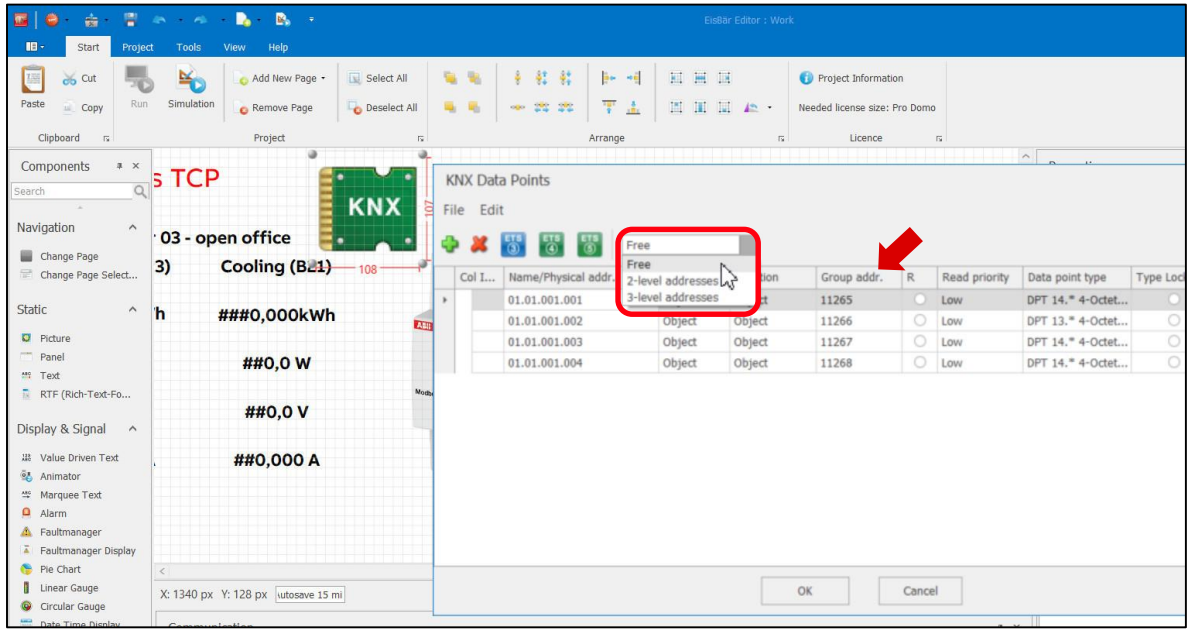
The ABB "MyBuildings Portal" only uses the 3 levels group addresses

Common visualizations allow an import and the use of free level



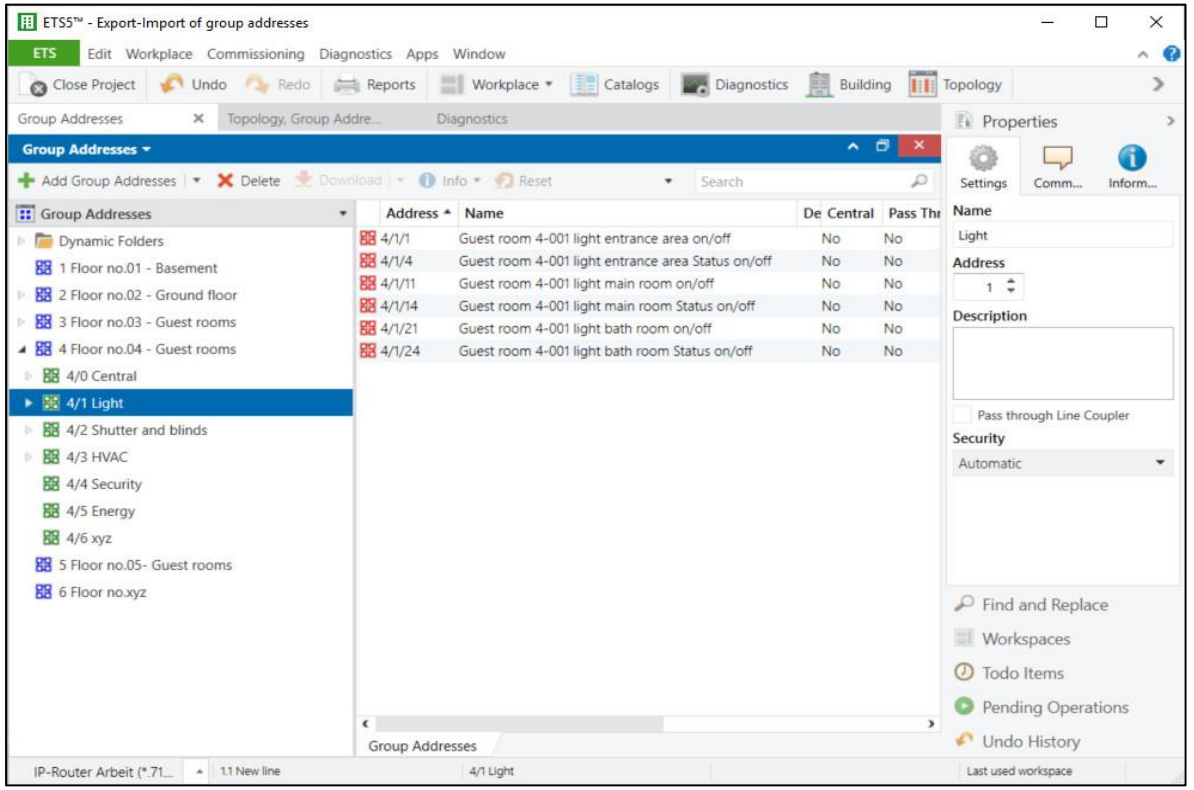
KNX ETS5 and Group Addresses

Creating group addresses

There are different ways to create group addresses

- Creating directly in ETS via the planning wizard
- Creating directly within ETS in the group address window
- Creating by export/import to/from a spreadsheet calculation

No strategy can be called “the best” for all cases, as its advantages and disadvantages are dependent on the project



KNX ETS5 and Group Addresses

Creating group addresses

There are different ways to create group addresses

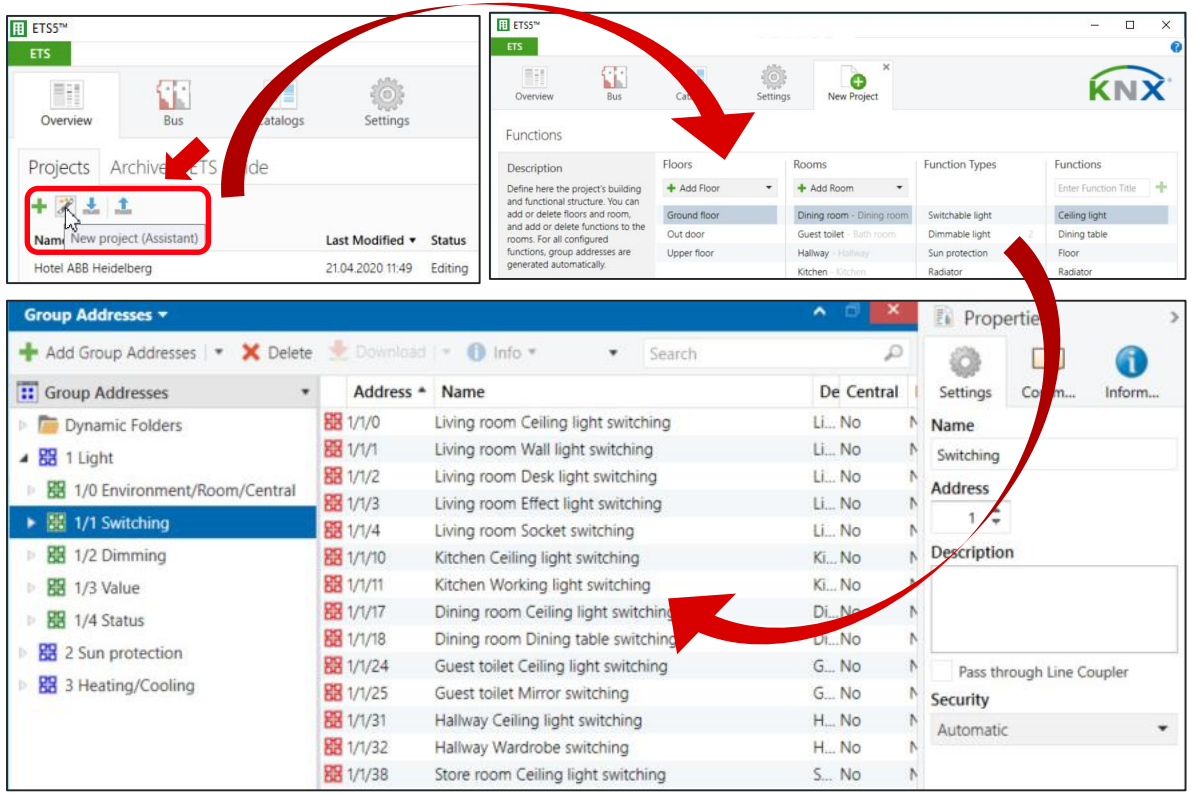
- Creating directly in ETS via the planning wizard
- Creating directly within ETS in the group address window
- Creating by export/import to/from a spreadsheet calculation

→The planning wizard is only suited for smaller projects

→The building structure, group addresses, ... are created automatically

→None of the standard addresses are lost

→Typing errors are absolutely avoided



KNX ETS5 and Group Addresses

Creating group addresses

There are different ways to create group addresses

- Creating directly in ETS via the planning wizard
- Creating directly within ETS in the group address window
- Creating by export/import to/from a spreadsheet calculation

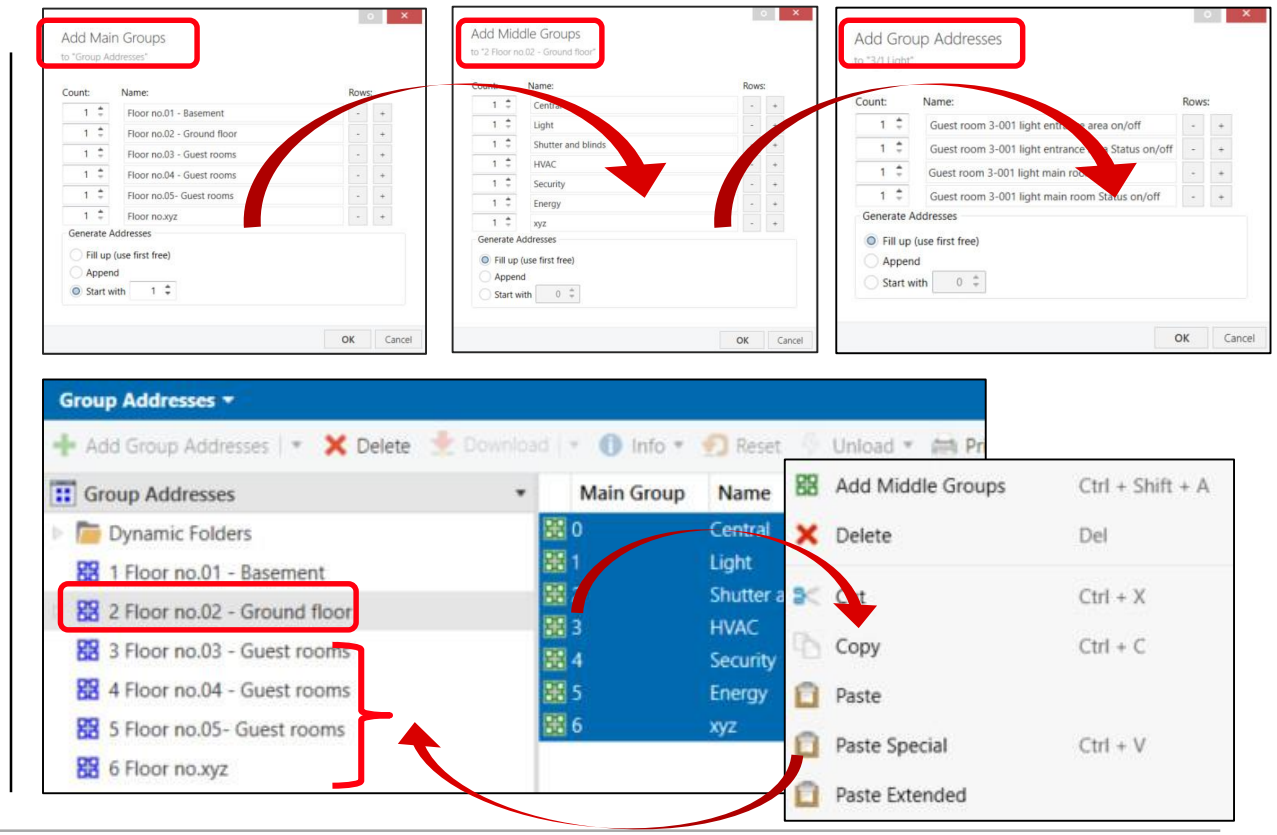
→Create each main and middle group and group address individually and assign a text

→ Copy an existing structure from a main or middle group into another

→Copy and paste group addresses

→The text must still be edited

→The number may need to be adapted



KNX ETS5 and Group Addresses

Creating group addresses

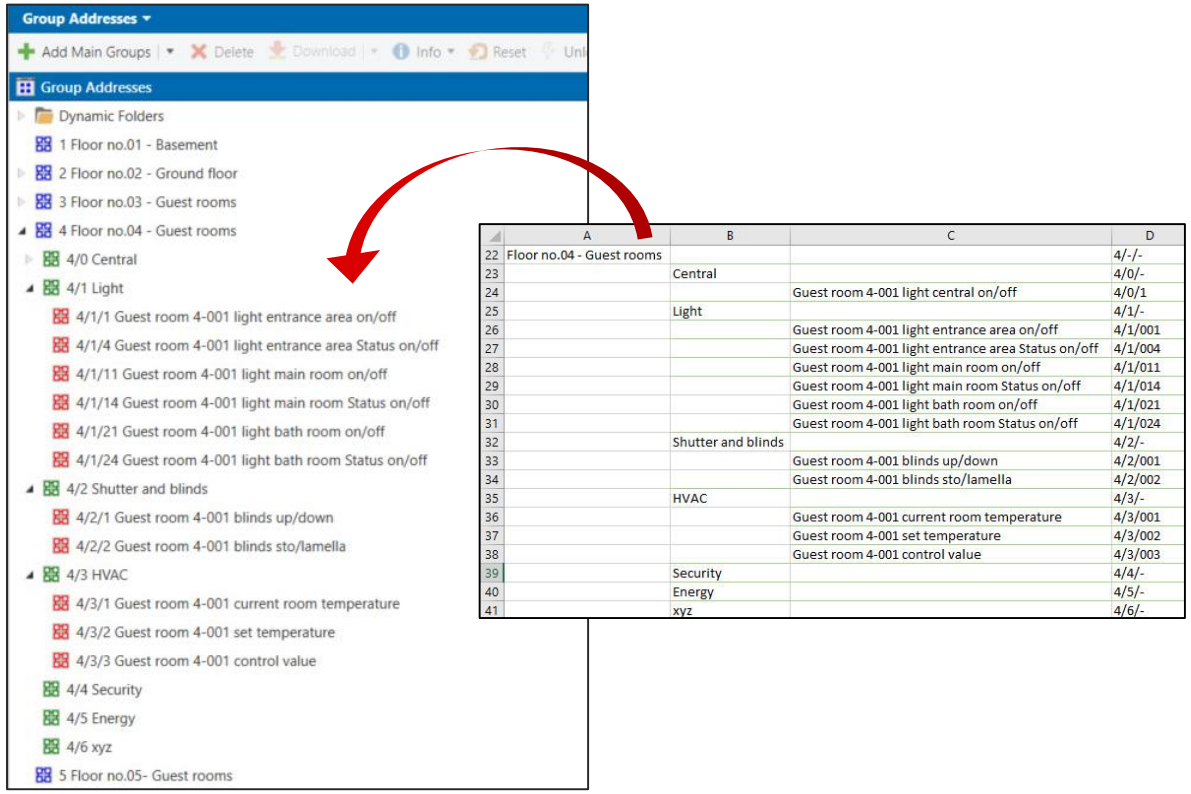
There are different ways to create group addresses

- Creating directly in ETS via the planning wizard
- Creating directly within ETS in the group address window
- Creating by export/import to/from a spreadsheet calculation

→Group addresses can be directly exported from the group addresses window and then re-imported

→Professionals can use this to generate the address lists conveniently outside ETS e.g. in a spreadsheet program such as Microsoft EXCEL

→The group addresses can be exported in XML (editor, knowledge in XML,…) or CSV format (tabulator, semicolon,…)



	A	B	C	D
22	Floor no.04 - Guest rooms			4/-/-
23		Central		4/0/-
24			Guest room 4-001 light central on/off	4/0/1
25		Light		4/1/-
26			Guest room 4-001 light entrance area on/off	4/1/001
27			Guest room 4-001 light entrance area Status on/off	4/1/004
28			Guest room 4-001 light main room on/off	4/1/011
29			Guest room 4-001 light main room Status on/off	4/1/014
30			Guest room 4-001 light bath room on/off	4/1/021
31			Guest room 4-001 light bath room Status on/off	4/1/024
32		Shutter and blinds		4/2/-
33			Guest room 4-001 blinds up/down	4/2/001
34			Guest room 4-001 blinds sto/lamella	4/2/002
35		HVAC		4/3/-
36			Guest room 4-001 current room temperature	4/3/001
37			Guest room 4-001 set temperature	4/3/002
38			Guest room 4-001 control value	4/3/003
39		Security		4/4/-
40		Energy		4/5/-
41		xyz		4/6/-

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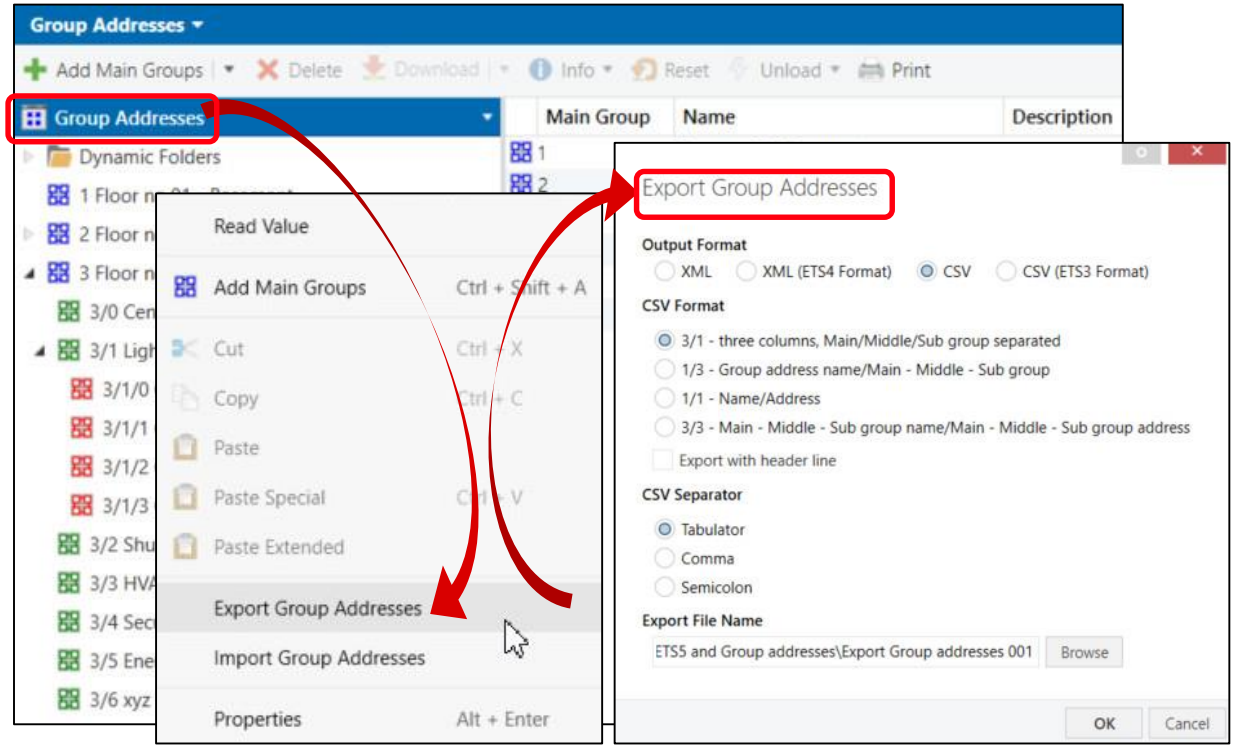
KNX ETS5 and Group Addresses

Export/import to/from in CSV format

- In order to obtain a suitable CSV file for further processing as a template, a small starting group address structure should first be generated
- Select “Group Addresses” (root), right mouse click and click on “Export Group Addresses”
- Set the parameter “CSV”, “3/1” format, export without a header line, “Tabulator” as CSV separator and enter a file name
- In EXCEL, it is important that separators are clearly recognized
- “Tabulator” being the most suitable, so that EXCEL also creates columns required for a 3-level group address structure
- The export file also contains information about data point types



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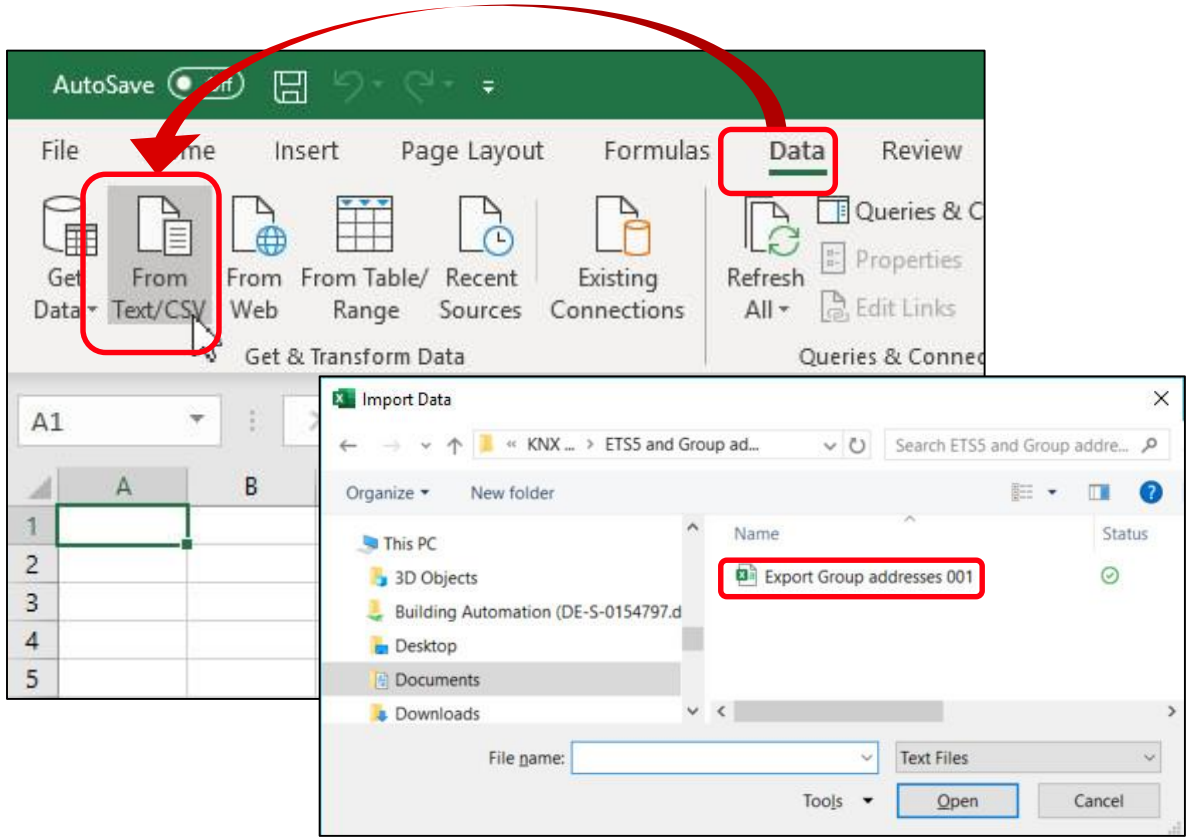
KNX ETS5 and Group Addresses

Export/import to/from in CSV format

The ETS export file must be imported in the correct format (tabulator, ...)

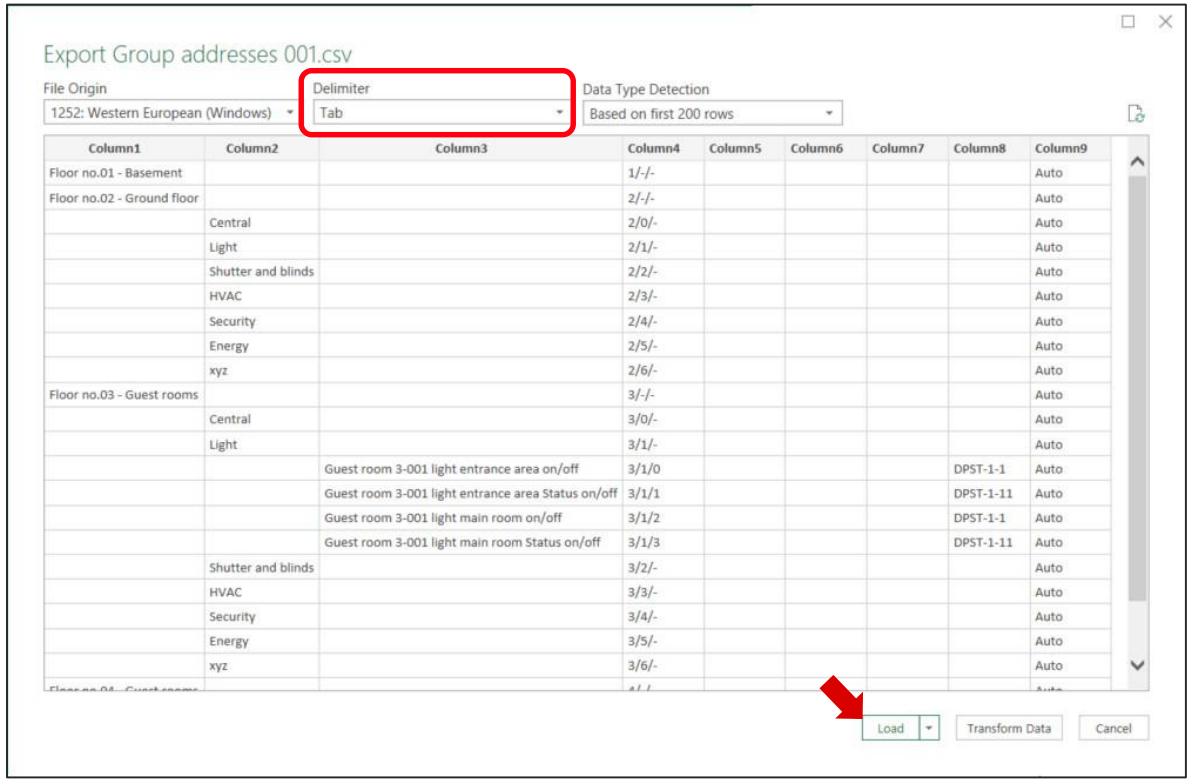
- Start Microsoft EXCEL
- Create and save a new blank workbook
- Go to “Data”
- Click on “From Text/CSV”
- Select the exported group address file and click on “Open”



KNX ETS5 and Group Addresses

Export/import to/from in CSV format

- The import wizard starts
- Select “Tab” as a delimiter
- Click on "Load" to import the data



Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9
Floor no.01 - Basement			1/-/-					Auto
Floor no.02 - Ground floor			2/-/-					Auto
	Central		2/0/-					Auto
	Light		2/1/-					Auto
	Shutter and blinds		2/2/-					Auto
	HVAC		2/3/-					Auto
	Security		2/4/-					Auto
	Energy		2/5/-					Auto
	xyz		2/6/-					Auto
Floor no.03 - Guest rooms			3/-/-					Auto
	Central		3/0/-					Auto
	Light		3/1/-					Auto
		Guest room 3-001 light entrance area on/off	3/1/0				DPST-1-1	Auto
		Guest room 3-001 light entrance area Status on/off	3/1/1				DPST-1-11	Auto
		Guest room 3-001 light main room on/off	3/1/2				DPST-1-1	Auto
		Guest room 3-001 light main room Status on/off	3/1/3				DPST-1-11	Auto
	Shutter and blinds		3/2/-					Auto
	HVAC		3/3/-					Auto
	Security		3/4/-					Auto
	Energy		3/5/-					Auto
	xyz		3/6/-					Auto

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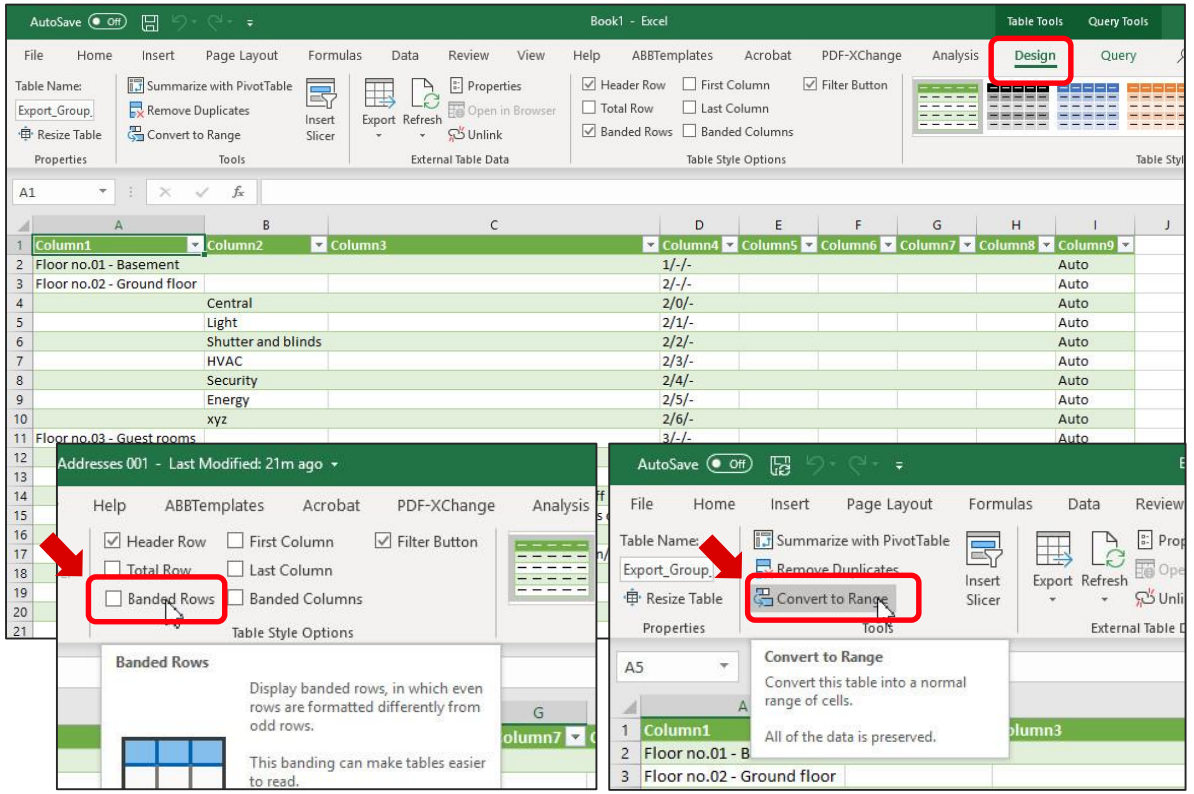
KNX ETS5 and Group Addresses

Export/import to/from in CSV format

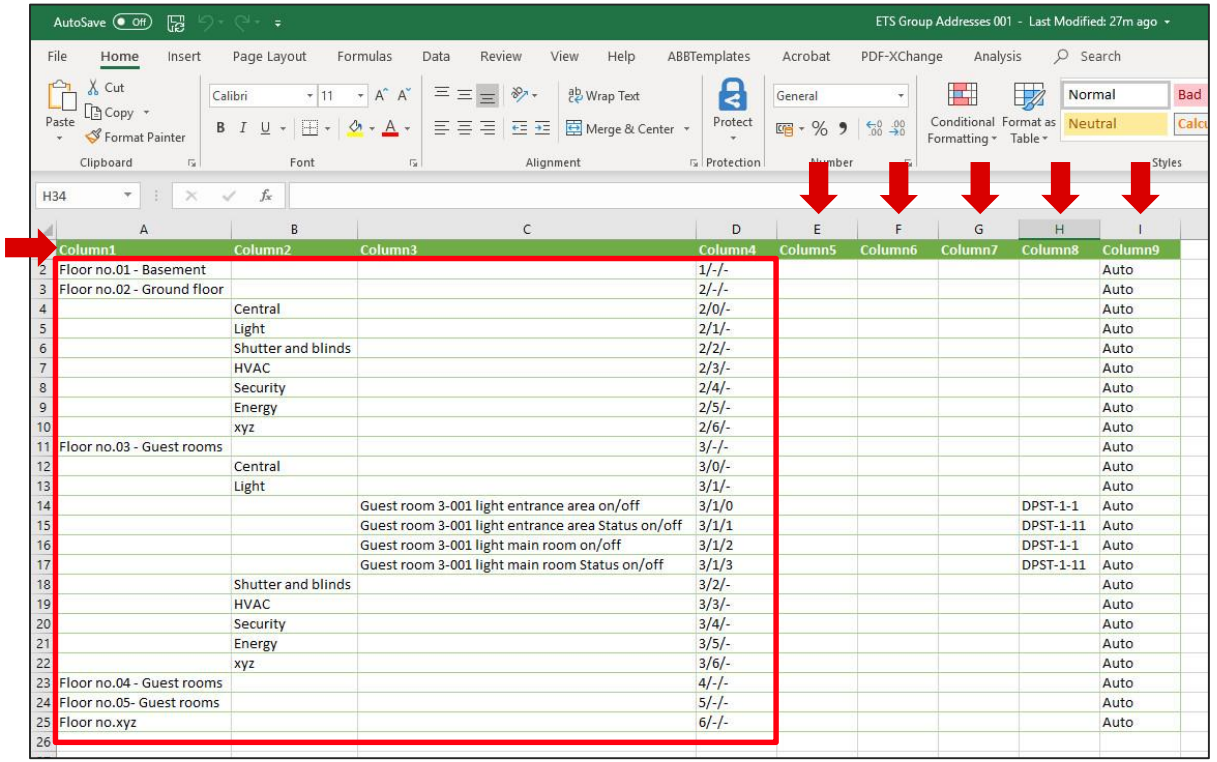
- The data is imported as a table with further information (header row, banded rows, filter buttons,…)
- Go to “Design”
- Remove the tick from “Banded rows”
- Click on “Convert to range”
  - The table is converted into a normal range of cells
  - Further information (header row, filter buttons,…) are removed



KNX ETS5 and Group Addresses

Export/import to/from in CSV format

– Some information has to be removed for later import
  - Delete row 1 “text column1”,…
  - Delete column “E” to “I”



	A	B	C	D	E	F	G	H	I
1	Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9
2	Floor no.01 - Basement			1/-/-					Auto
3	Floor no.02 - Ground floor			2/-/-					Auto
4		Central		2/0/-					Auto
5		Light		2/1/-					Auto
6		Shutter and blinds		2/2/-					Auto
7		HVAC		2/3/-					Auto
8		Security		2/4/-					Auto
9		Energy		2/5/-					Auto
10		xyz		2/6/-					Auto
11	Floor no.03 - Guest rooms			3/-/-					Auto
12		Central		3/0/-					Auto
13		Light		3/1/-					Auto
14			Guest room 3-001 light entrance area on/off	3/1/0				DPST-1-1	Auto
15			Guest room 3-001 light entrance area Status on/off	3/1/1				DPST-1-11	Auto
16			Guest room 3-001 light main room on/off	3/1/2				DPST-1-1	Auto
17			Guest room 3-001 light main room Status on/off	3/1/3				DPST-1-11	Auto
18		Shutter and blinds		3/2/-					Auto
19		HVAC		3/3/-					Auto
20		Security		3/4/-					Auto
21		Energy		3/5/-					Auto
22		xyz		3/6/-					Auto
23	Floor no.04 - Guest rooms			4/-/-					Auto
24	Floor no.05- Guest rooms			5/-/-					Auto
25	Floor no.xyz			6/-/-					Auto
26									

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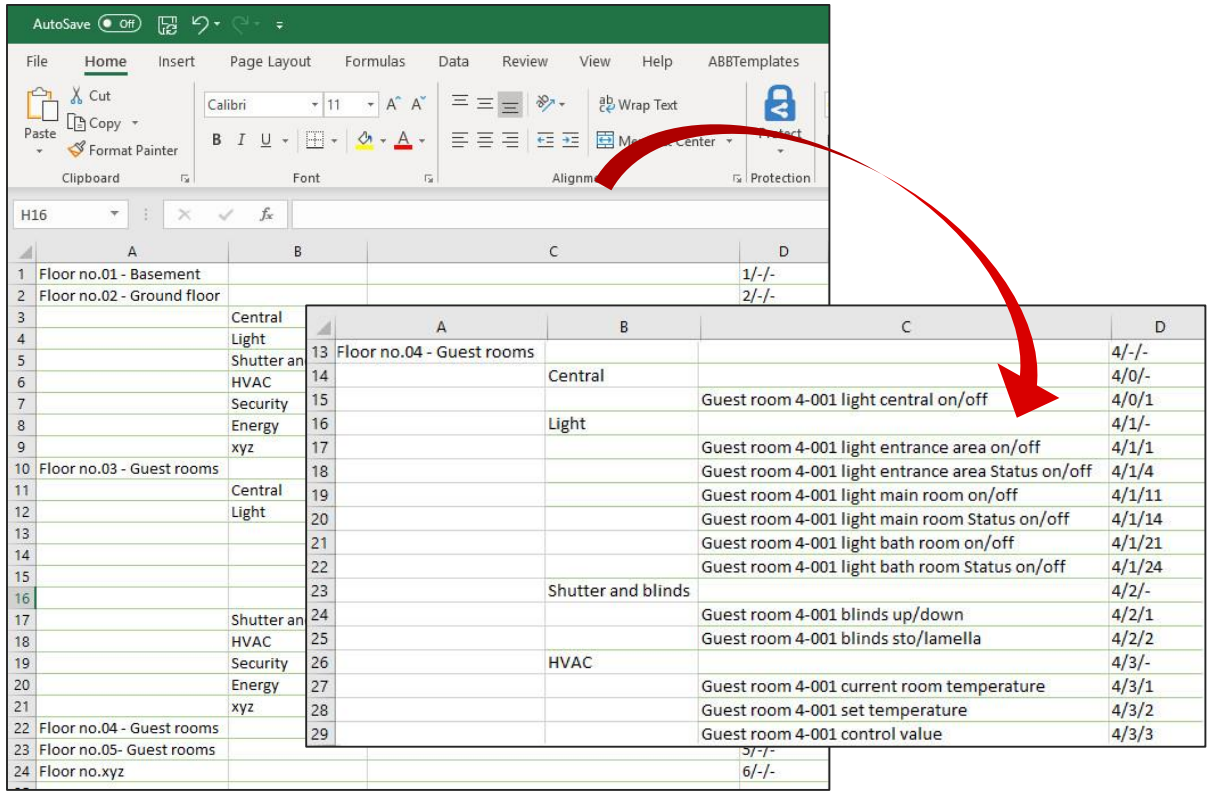
KNX ETS5 and Group Addresses

Export/import to/from in CSV format

- The columns contain the following information
  - A – Text “Main group”
  - B – Text “Middle group”
  - C – Text “Group address”
  - D – Number group address

  Note: The ETS import is limited to a maximum of 50 characters!
- Further main groups, middle groups and group addresses can now be created (insert, copy, paste, replace …)
- The table format must be respected
  - A – Text main group → D – group address “X/–/–”
  - B – Text “Middle group” → D – group address “X/Y/–”
  - C – Text “Group address” → D – group address “X/Y/Z”



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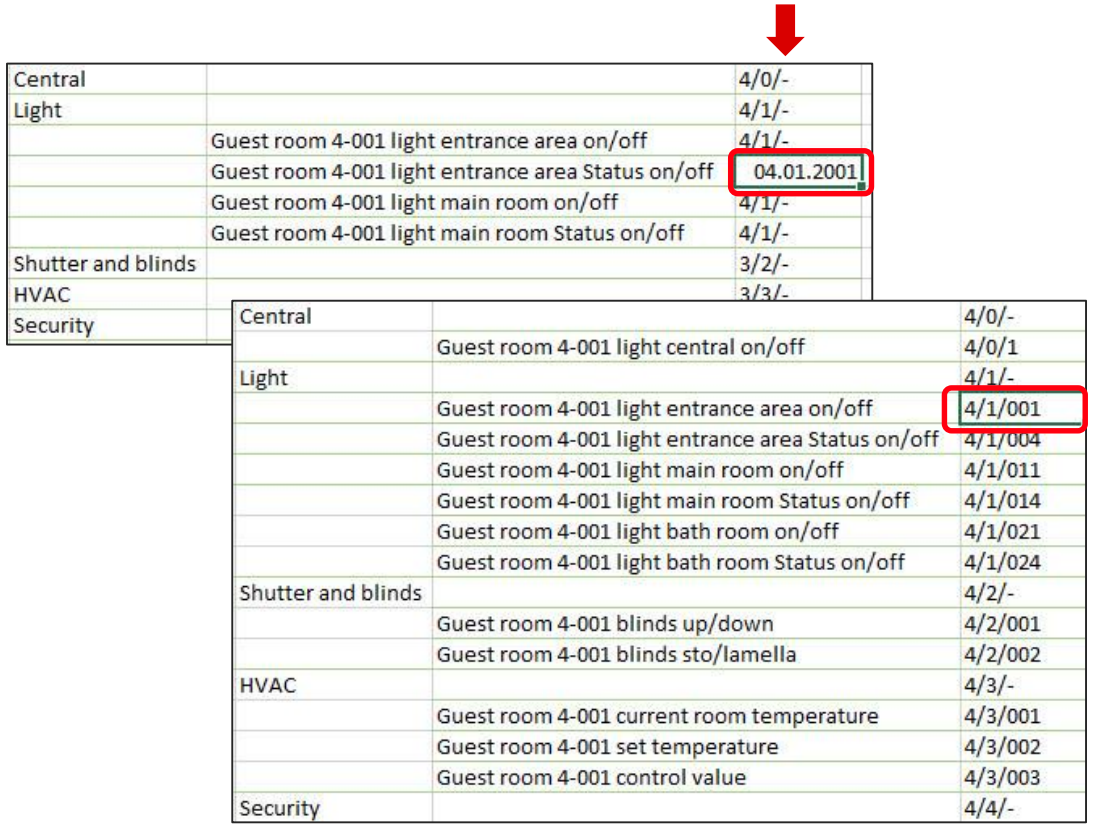
KNX ETS5 and Group Addresses

Export/import to/from in CSV format

– When entering the group addresses, Excel can interpret the 3-level structure as a date, e.g. 4/1/1 → 04.01.2001
  - The group address must be entered in three digits (with zeros)
    e.g. 4/1/1 → 4/1/001



Central		4/0/-
Light		4/1/-
	Guest room 4-001 light entrance area on/off	4/1/-
	Guest room 4-001 light entrance area Status on/off	04.01.2001
	Guest room 4-001 light main room on/off	4/1/-
	Guest room 4-001 light main room Status on/off	4/1/-
Shutter and blinds		3/2/-
HVAC		3/3/-
Security		

Central		4/0/-
	Guest room 4-001 light central on/off	4/0/1
Light		4/1/-
	Guest room 4-001 light entrance area on/off	4/1/001
	Guest room 4-001 light entrance area Status on/off	4/1/004
	Guest room 4-001 light main room on/off	4/1/011
	Guest room 4-001 light main room Status on/off	4/1/014
	Guest room 4-001 light bath room on/off	4/1/021
	Guest room 4-001 light bath room Status on/off	4/1/024
Shutter and blinds		4/2/-
	Guest room 4-001 blinds up/down	4/2/001
	Guest room 4-001 blinds sto/lamella	4/2/002
HVAC		4/3/-
	Guest room 4-001 current room temperature	4/3/001
	Guest room 4-001 set temperature	4/3/002
	Guest room 4-001 control value	4/3/003
Security		4/4/-

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KNX ETS5 and Group Addresses

Export/import to/from in CSV format: Work faster and merge cells with delimiters

	F	G	H	I	J	K
2	**Building**	**Floor**	**Room**	**Function**	**Feature**	**Merged Name (max 50 characters)**
3	Tower Wing	3rd floor	guest room 301	light main room	on/off	Tower Wing 3rd floor guest room 301 light main room on/off
4	Tower Wing	3rd floor	guest room 301	light main room	Status on/off	Tower Wing 3rd floor guest room 301 light main room Status on/off
5	Tower Wing	3rd floor	guest room 301	light entrance area	on/off	Tower Wing 3rd floor guest room 301 light entrance area on/off
6	Tower Wing	3rd floor	guest room 301	light entrance area	Status on/off	Tower Wing 3rd floor guest room 301 light entrance area Status on/off
7	Tower Wing	3rd floor	guest room 301	light bath room	on/off	Tower Wing 3rd floor guest room 301 light bath room on/off
8	Tower Wing	3rd floor	guest room 301	light bath room	Status on/off	Tower Wing 3rd floor guest room 301 light bath room Status on/off
9	Tower Wing	3rd floor	guest room 301	blinds	up/down	Tower Wing 3rd floor guest room 301 blinds up/down
10	Tower Wing	3rd floor	guest room 301	blinds	stop/lamella	Tower Wing 3rd floor guest room 301 blinds stop/lamella

	A	B	C	D
2	**Main group**	**Middle group**	**Group address**	**Merged address**
3	3	1	1	3/1/001
4	3	1	4	3/1/004
5	3	1	11	3/1/0011
6	3	1	14	3/1/0014
7	3	1	21	3/1/0021
8	3	1	24	3/1/0024
9	3	2	1	3/2/001
10	3	2	2	3/2/002

KNX ETS5 and Group Addresses

Export/import to/from in CSV format: Work faster and merge cells with delimiters

	F	G	H	I	J	K
2	**Building**	**Floor**	**Room**	**Function**	**Feature**	**Merged Name (max 50 characters)**
3	Tower Wing	3rd floor	guest room 301	light main room	on/off	Tower Wing 3rd floor guest room 301 light main room on/off
4	Tower Wing	3rd floor	guest room 301	light main room	Status on/off	Tower Wing 3rd floor guest room 301 light main room Status on/off
5	Tower Wing	3rd floor	guest room 301	light entrance area	on/off	
6	Tower Wing	3rd floor	guest room 301	light entrance area	Status on/off	
7	Tower Wing	3rd floor	guest room 301	light bath room	on/off	
8	Tower Wing	3rd floor	guest room 301	light bath room	Status on/off	Tower Wing 3rd floor guest room 301 light bath room Status on/off
9	Tower Wing	3rd floor	guest room 301	blinds	up/down	Tower Wing 3rd floor guest room 301 blinds up/down
10	Tower Wing	3rd floor	guest room 301	blinds	stop/lamella	Tower Wing 3rd floor guest room 301 blinds stop/lamella

=F3&" "&G3&" "&H3&" "&I3&" "&J3

on/off

	A	B	C	
2	**Main group**	**Middle group**	**Group address**	**Merged address**
3	3	1	1	3/1/001
4	3	1	4	3/1/004
5	3			
6	3			
7	3			
8	3	1	24	3/1/0024
9	3	2	1	3/2/001
10	3	2	2	3/2/002

=A3&"/"&B3&"/"&"00"&C3

KNX ETS5 and Group Addresses

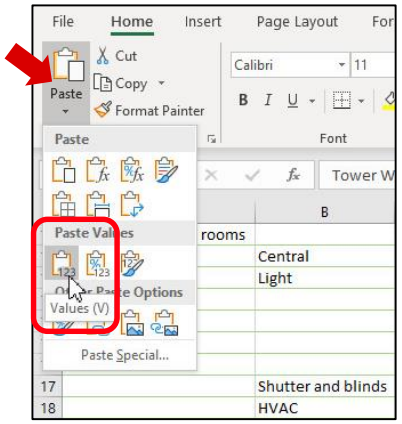
Export/import to/from in CSV format: Work faster and merge cells with delimiters

	F	G	H	I	J	K
2	**Building**	**Floor**	**Room**	**Function**	**Feature**	**Merged Name (max 50 characters)**
3	Tower Wing	3rd floor	guest room 301	light main room	on/off	Tower Wing 3rd floor guest room 301 light main room on/off
4	Tower Wing	3rd floor	guest room 301	light main room	Status on/off	Tower Wing 3rd floor guest room 301 light main room Status on/off
5	Tower Wing	3rd floor	guest room 301	light entrance area	on/off	
6	Tower Wing	3rd floor	guest room 301	light entrance area	Status on/off	
7	Tower Wing	3rd floor	guest room 301	light bath room	on/off	
8	Tower Wing	3rd floor	guest room 301	light bath room	Status on/off	Tower Wing 3rd floor guest room 301 light bath room Status on/off
9	Tower Wing	3rd floor	guest room 301	blinds	up/down	Tower Wing 3rd floor guest room 301 blinds up/down
10	Tower Wing	3rd floor	guest room 301	blinds	stop/lamella	Tower Wing 3rd floor guest room 301 blinds stop/lamella

=F3&" "&G3&" "&H3&" "&I3&" "&J3

	A	B	C	D
2	**Main group**	**Middle group**	**Group address**	**Merged address**
3	3	1	1	3/1/001
4	3	1	4	3/1/004
5	3			
6	3			
7	3			
8	3	1	24	3/1/0024
9	3	2	1	3/2/001
10	3	2	2	3/2/002

=A3&"/"&B3&"/"&"00"&C3



Copy and paste → Values

	A	B	C	D
22	Floor no.03 - Guest rooms			3/-/-
23		Central		3/0/-
24			Tower Wing 3rd floor guest room 301 light central on/off	3/0/001
		Light		3/1/-
			Tower Wing 3rd floor guest room 301 light main room on/off	3/1/001
			Tower Wing 3rd floor guest room 301 light main room Status on/off	3/1/004
28			Tower Wing 3rd floor guest room 301 light entrance area on/off	3/1/0011
29			Tower Wing 3rd floor guest room 301 light entrance area Status on/off	3/1/0014
30			Tower Wing 3rd floor guest room 301 light bath room on/off	3/1/0021
31			Tower Wing 3rd floor guest room 301 light bath room Status on/off	3/1/0024
32		Shutter		3/2/-
33			Tower Wing 3rd floor guest room 301 blinds up/down	3/2/001
34			Tower Wing 3rd floor guest room 301 blinds stop/lamella	3/2/002

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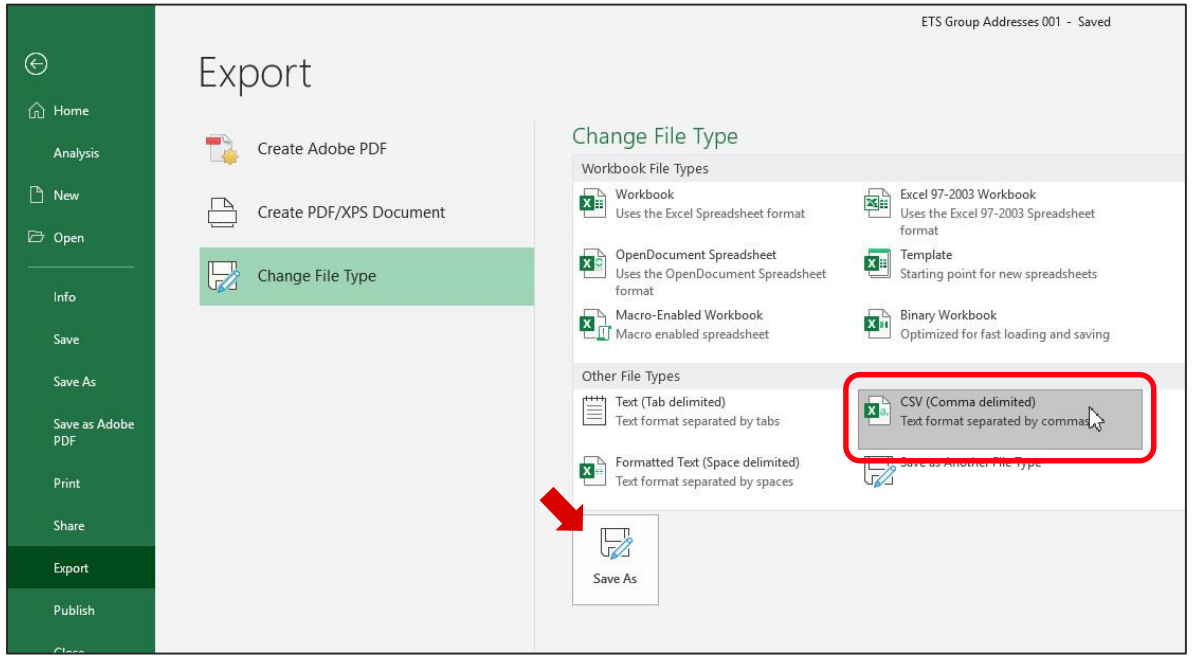
KNX ETS5 and Group Addresses

Export/import to/from in CSV format

– Export the finished Excel sheet in “CSV – comma delimited” format



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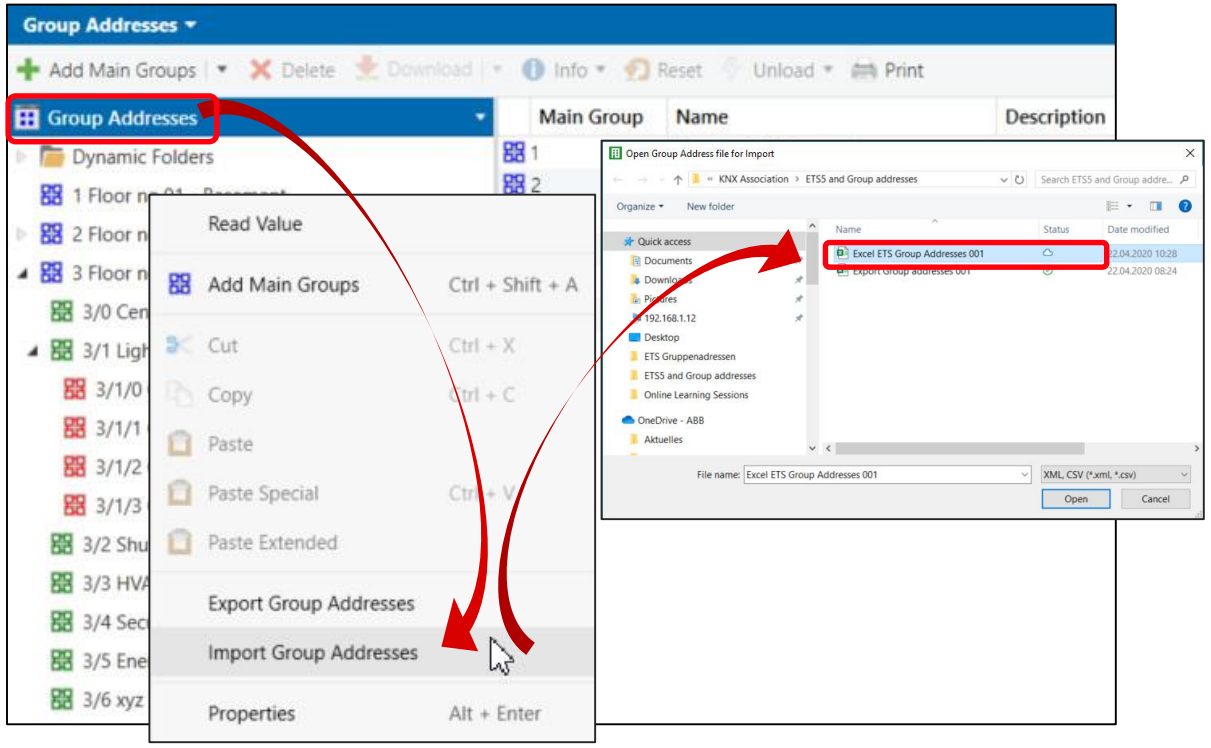
KNX ETS5 and Group Addresses

Export/import to/from in CSV format

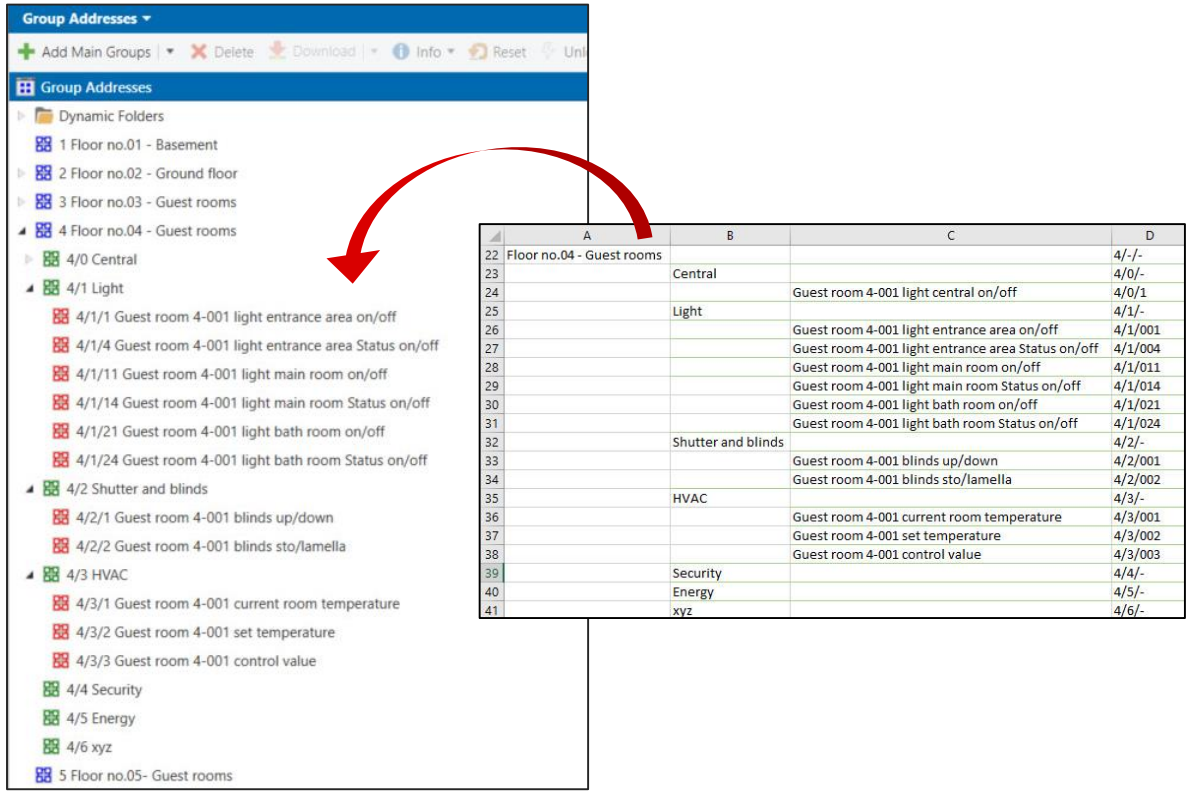
- Select “Group Addresses” (root), right mouse click and click on “Import Group Addresses”
- Select the exported Excel file and click on “Open”



KNX ETS5 and Group Addresses

Export/import to/from in CSV format

Successful import of the group addresses created in Excel



	A	B	C	D
22	Floor no.04 - Guest rooms			4/-/-
23		Central		4/0/-
24			Guest room 4-001 light central on/off	4/0/1
25		Light		4/1/-
26			Guest room 4-001 light entrance area on/off	4/1/001
27			Guest room 4-001 light entrance area Status on/off	4/1/004
28			Guest room 4-001 light main room on/off	4/1/011
29			Guest room 4-001 light main room Status on/off	4/1/014
30			Guest room 4-001 light bath room on/off	4/1/021
31			Guest room 4-001 light bath room Status on/off	4/1/024
32		Shutter and blinds		4/2/-
33			Guest room 4-001 blinds up/down	4/2/001
34			Guest room 4-001 blinds sto/lamella	4/2/002
35		HVAC		4/3/-
36			Guest room 4-001 current room temperature	4/3/001
37			Guest room 4-001 set temperature	4/3/002
38			Guest room 4-001 control value	4/3/003
39		Security		4/4/-
40		Energy		4/5/-
41		xyz		4/6/-

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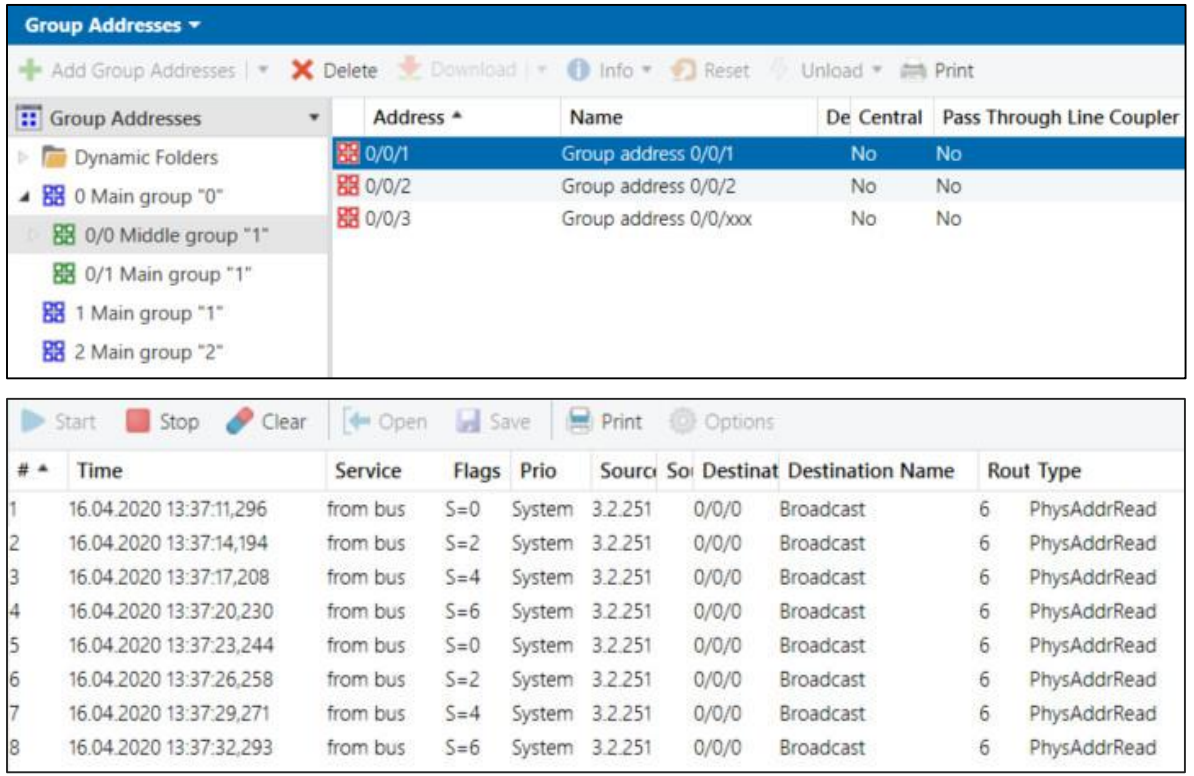
KNX ETS5 and Group Addresses

Broadcast group address “0/0/0”

The group address “0/0/0” is designated as a “broadcast group address” and has special properties

Broadcast group address “0/0/0”

- Cannot be created in the Group Address view and cannot be linked to a group object
  → First possible group address is “0/0/1”
- Is sent with the highest priority “System"
- Passes all Line Couplers and IP Routers regardless of the filter tables entries and the value of the routing counter is not decremented
- ETS Diagnostics:
  “Device in Programming Mode”(PhysAddrRead)
- Used to download a individual address



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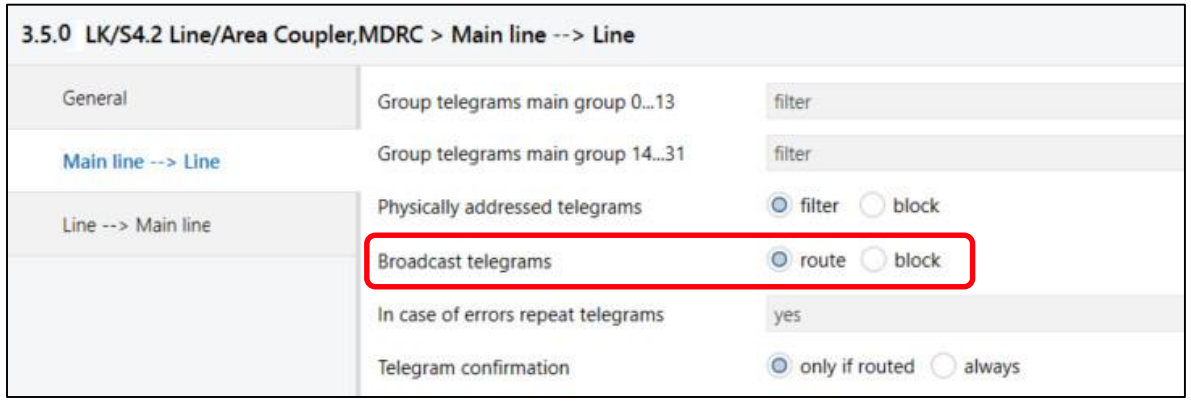
KNX ETS5 and Group Addresses

Broadcast group address “0/0/0”

The group address “0/0/0” is designated as a “broadcast group address” and has special properties

Broadcast group address “0/0/0”

- Cannot be created in the Group Address view and cannot be linked to a group object
  → First possible group address is “0/0/1”
- Is sent with the highest priority “System"
- Passes all Line Couplers and IP Routers regardless of the filter tables entries and the value of the routing counter is not decremented
- ETS Diagnostics:
  “Device in Programming Mode”(PhysAddrRead)
- Used to download a individual address



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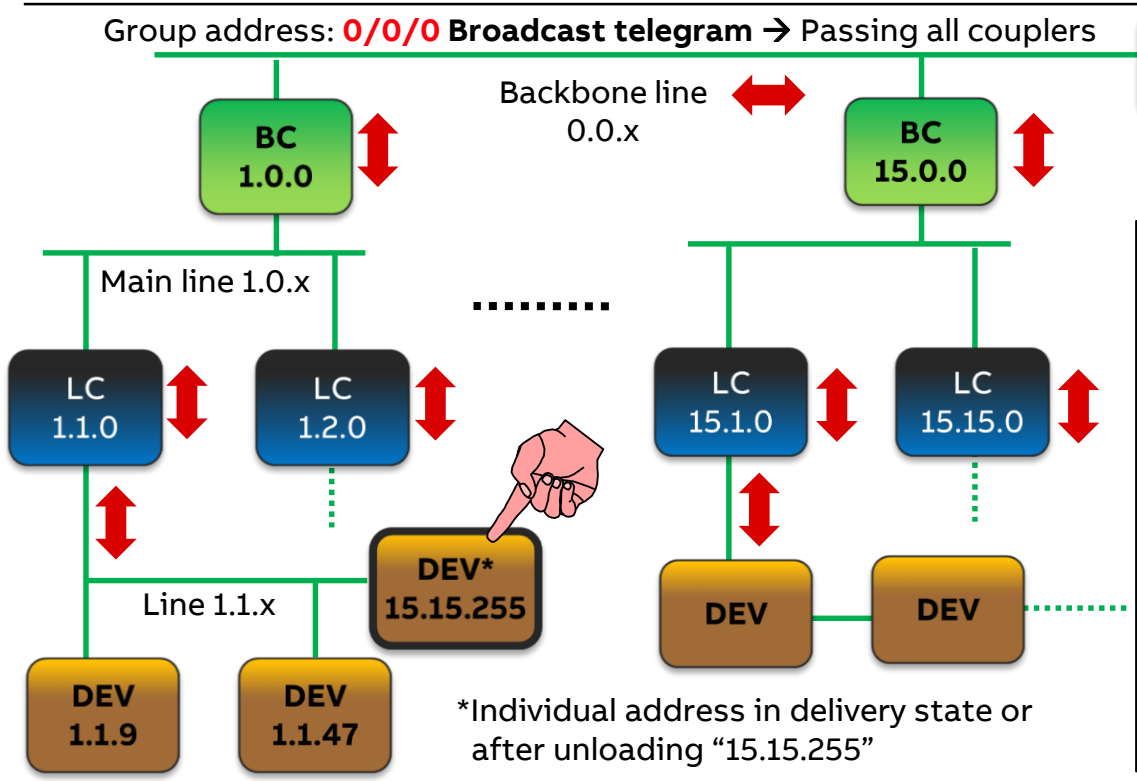
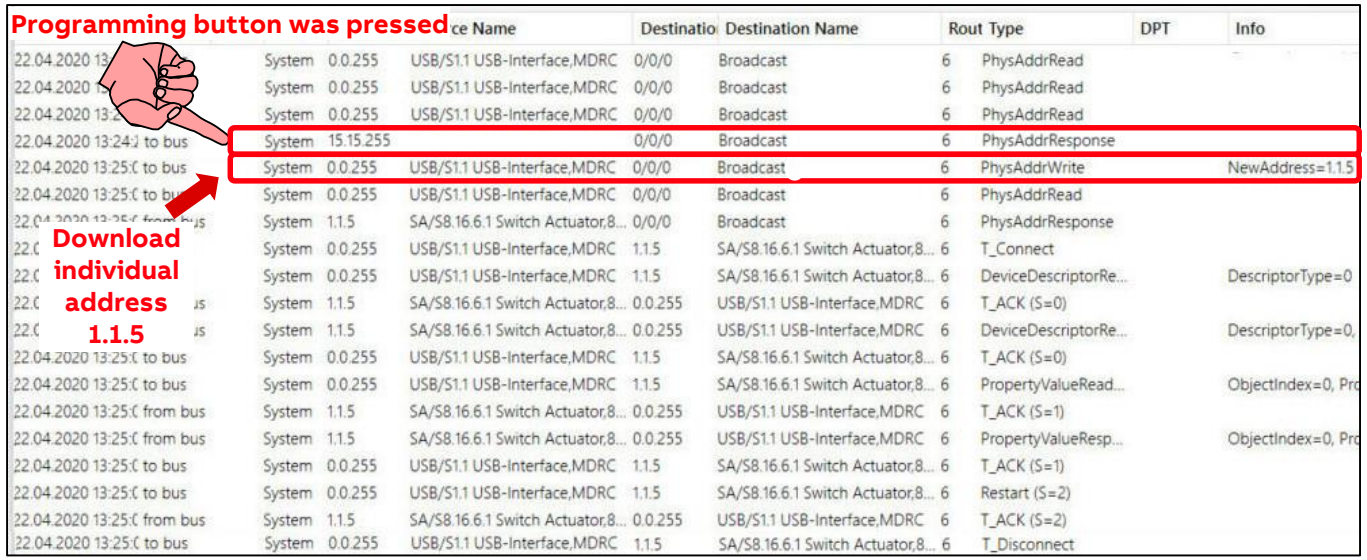
KNX ETS5 and Group Addresses

Broadcast group address “0/0/0”: Download a individual address



Download individual address 1.1.5



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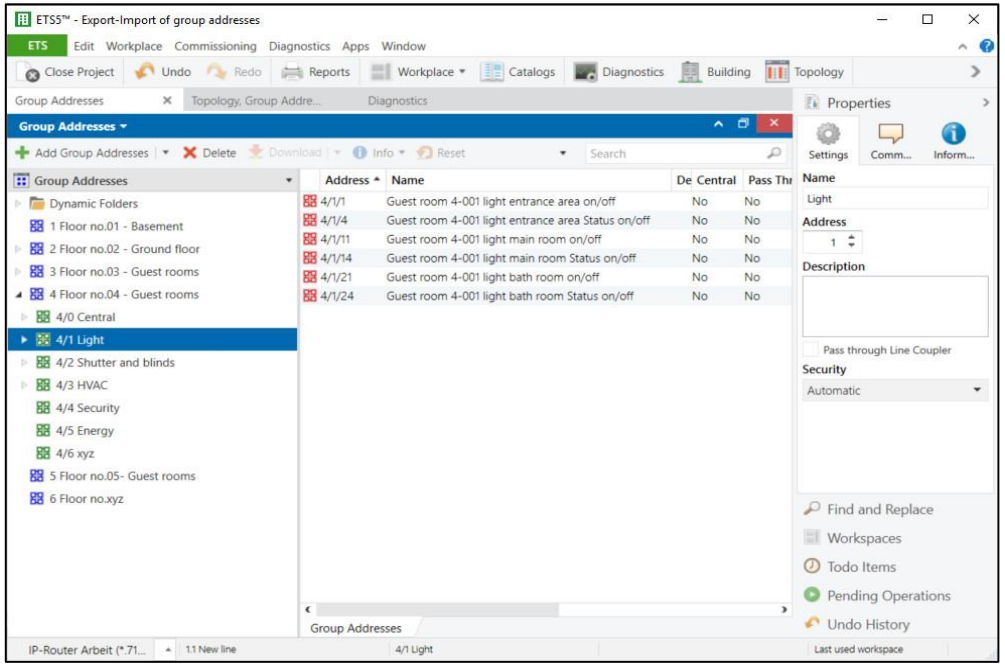
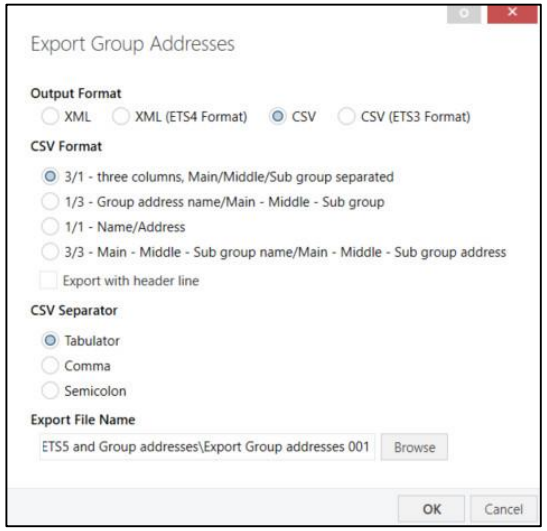
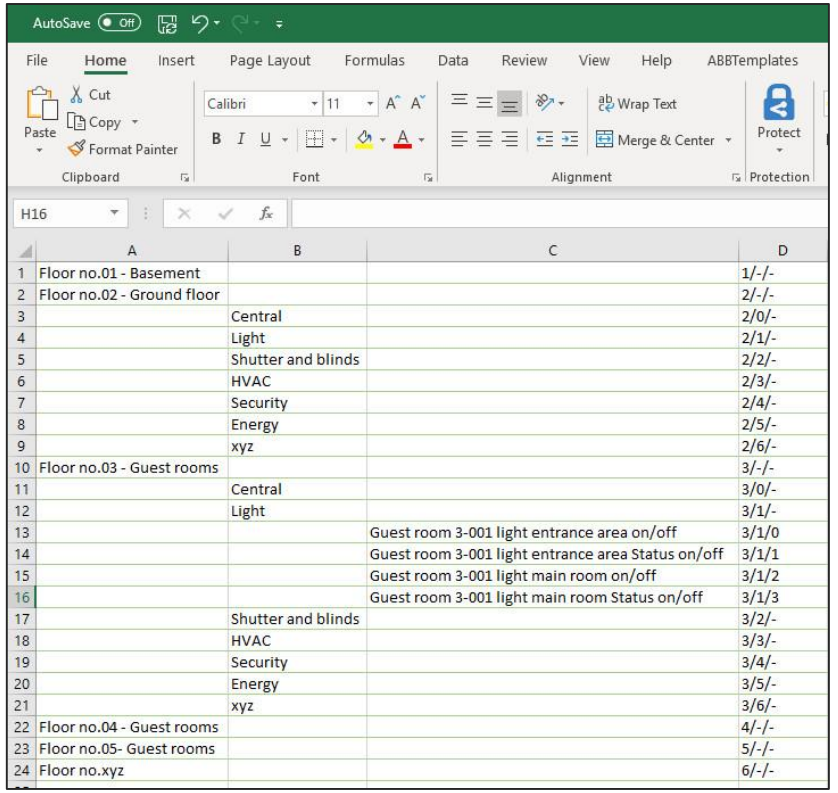
Questions







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Homepage

www.abb.com/KNX

→ Products and Downloads

– Product Manual

– CAD Drawing

– Installation and Operating Instructions

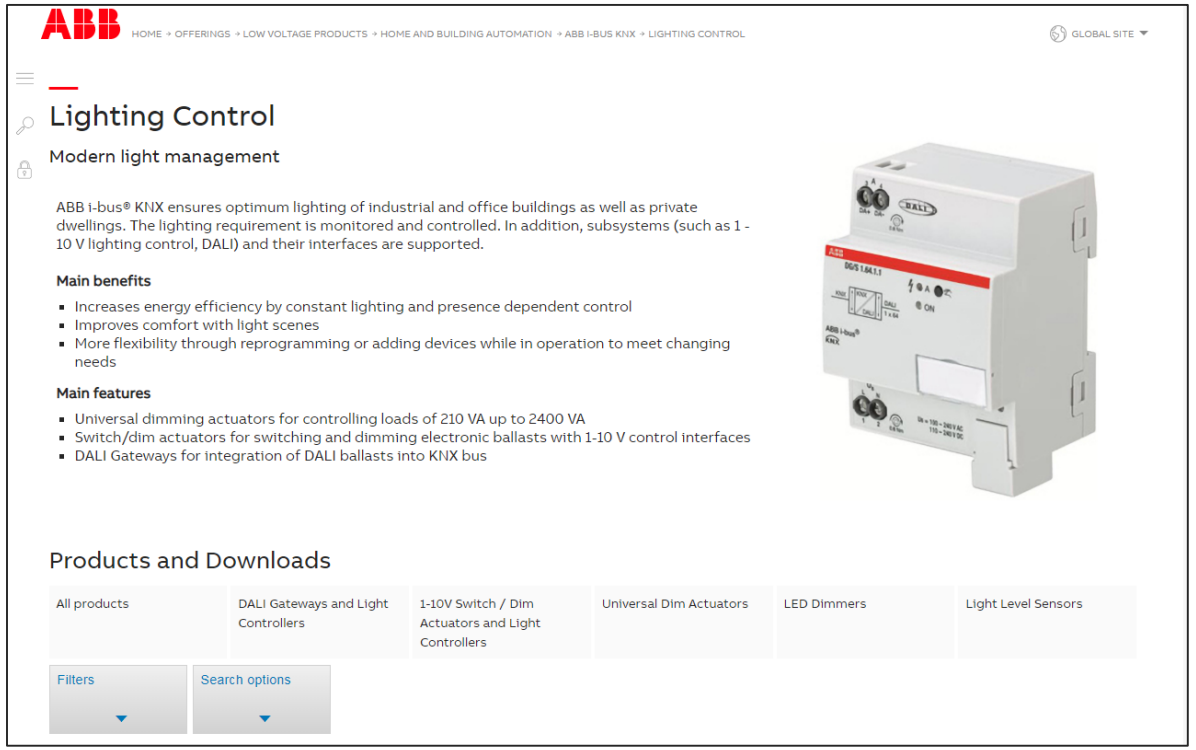
– Specification Text

– ETS Application

– Selection Table

– CE & RoHS Declaration of Conformity

– • • •



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Product Range Overview

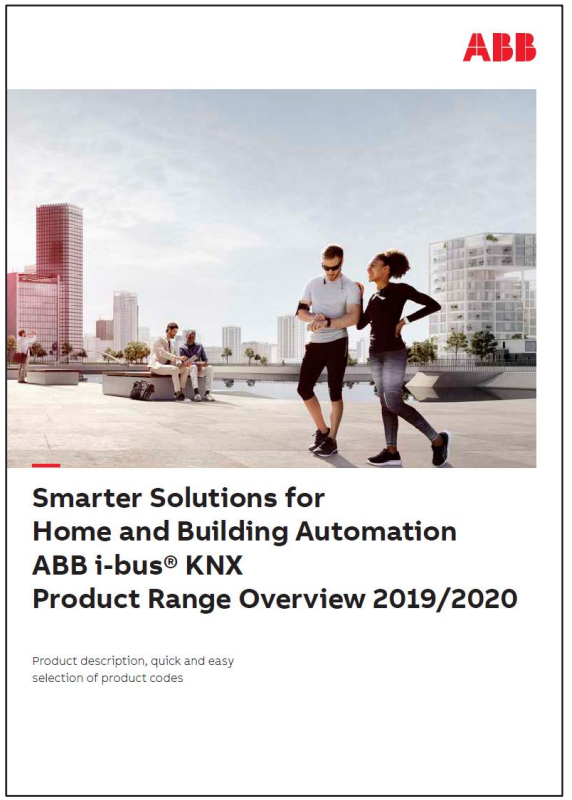
Smarter Solutions for Home and Building Automation

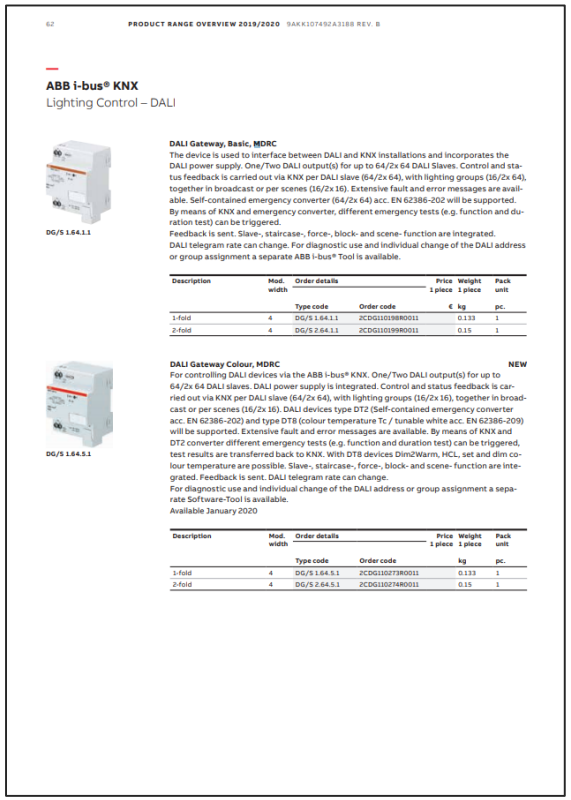
ABB i-bus KNX

Product Range Overview 2019/2020

– Including KNX DALI Gateway Premium DG/S x.64.5.1

LINK





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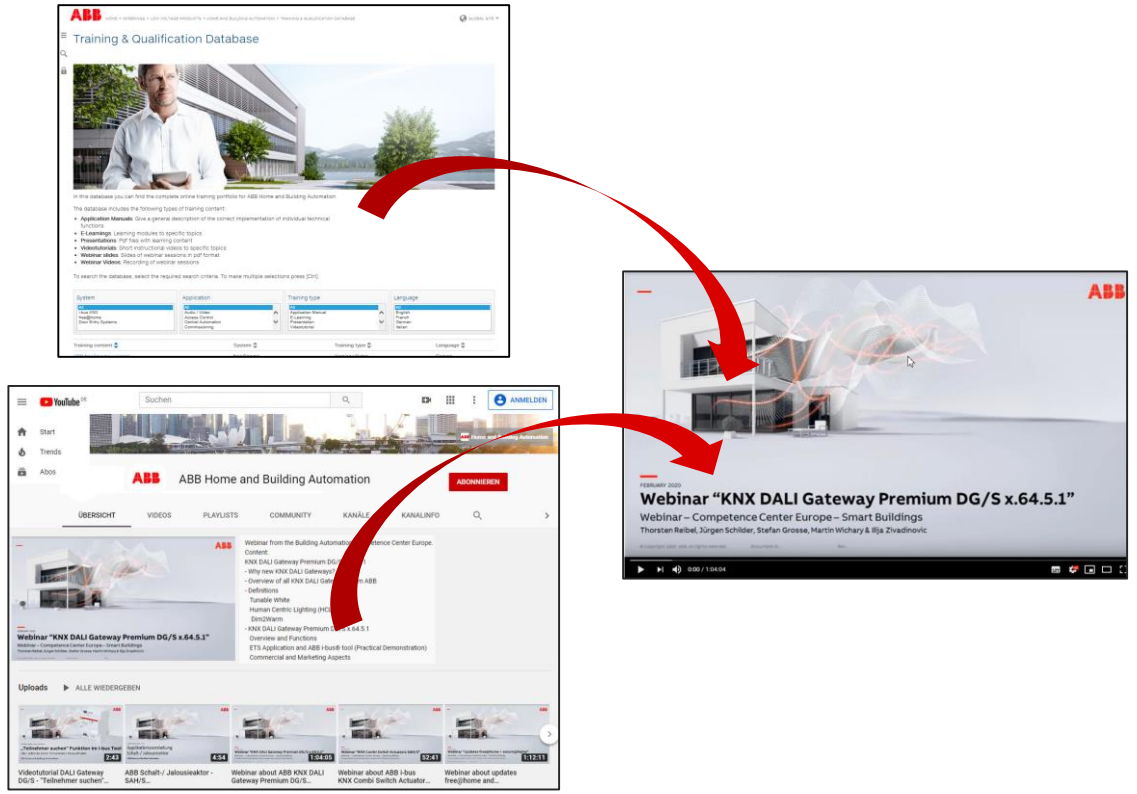
Further information

Training & Qualification Database

– The database includes the following types of training content:
  - Application Manuals
  - E-Learnings
  - Presentations
  - Video tutorials
  - Webinar slides and videos
  - ww.abb.com/knx or https://go.abb/ba-training

Youtube

– Channel “ABB Home and Building Automation”
  - https://www.youtube.com/user/ABBibusKNX



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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

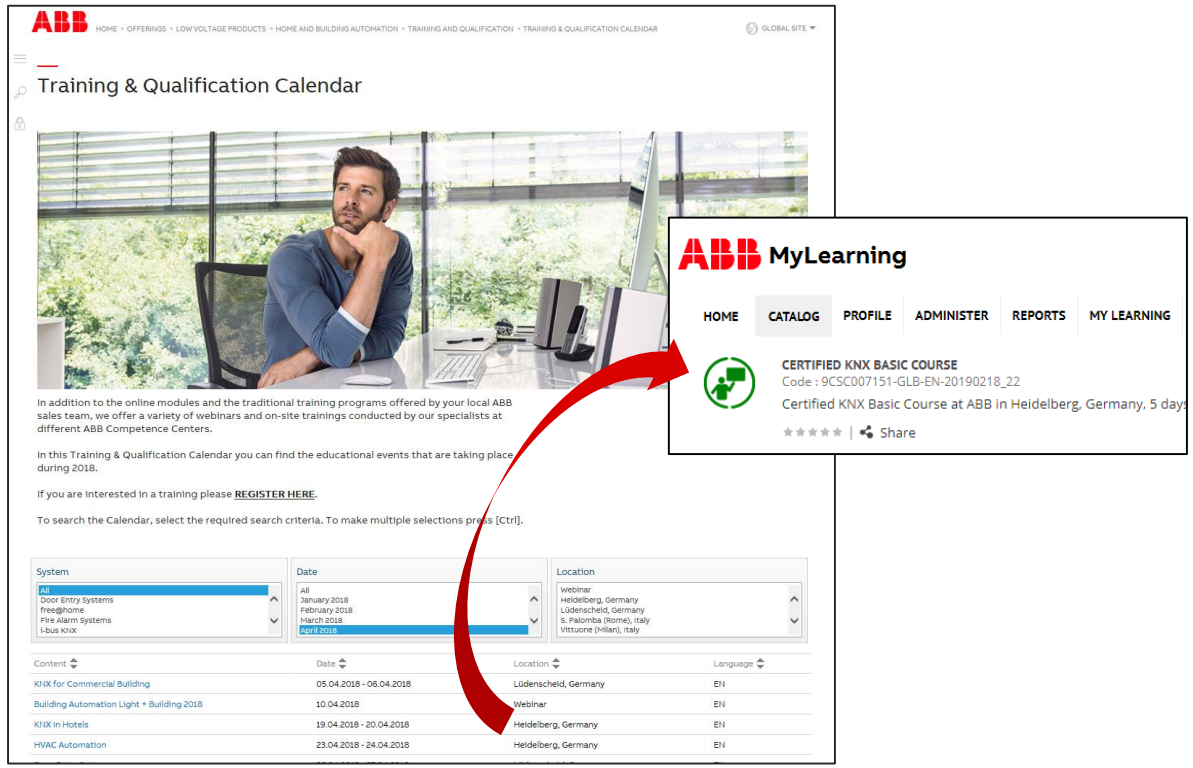
In this Training & Qualification Calendar you can find the educational events that are taking place during 2020

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

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

→ Training and Qualification

→ Training Calendar



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KNX Certified Trainings 2020

Certified KNX Courses in Heidelberg

- Advanced Course: 13th to 17th Jul.
- Tutor Course: 19th to 23rd Oct.
- Basic Course : 16th to 20th Nov.
- Followed by two day application training

Safe the date!!!

And many more training courses in the calendar
“International Training Dates 2020”

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

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Next Webinar

KNX DALI Gateway Premium DG/S x.64.5.1 – Special functions

- Human Centric Lighting (HCL) – Colour temperature curve following daylight
- Dim2Warm – Colour temperature changes proportionally to brightness with the effect like a light bulb
- Standby switch-off – Ballast voltage shutdown via additional switching actuator to save energy
- Scenes – 1 bit recall and 1 byte coded scenes
- ABB i-bus® tool – Search menu for a ballast with unknown address, operating hours, …

Wednesday 6th May 2020

- Morning 09:00 am Europe Time (Berlin, UTC + 2h)
- Afternoon 03:00 pm Europe Time (Berlin, UTC + 2h)

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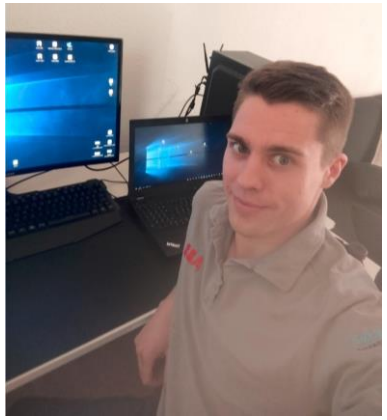
Next online learning sessions

- Tuesday 28th April: ControlTouch – Basic Commissioning (Wizard)
- Thursday 30th April: ControlTouch – Sonos Linking
- Tuesday 5th May: ETS: Presence Detector – Zones, Calibration and Constant Light Control
- Thursday 7th May: Presence Detector – Master/Slave Concept

… and more will follow

NEW !!!

From home office to home office



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