DALI Professional Controller-4

OSRAM

Software Manual

1.5.0

OSRAM

DALI
PROFESSIONAL
CONTROLLER-4

Introduction

The OSRAM DALI PROFESSIONAL System is a lighting control based on standartized DALI Bus according to IEC 62386 -> *see :* http://www.dali-ag.org/
With this a flexible addressable digital lighting control can be built-up. The central component is the DALI PROFESSIONAL CONTROLLER with 4 DALI lines. These DALI lines can be equipped with DALI suitable ECG for lamp operation and DALI operation units / sensors.
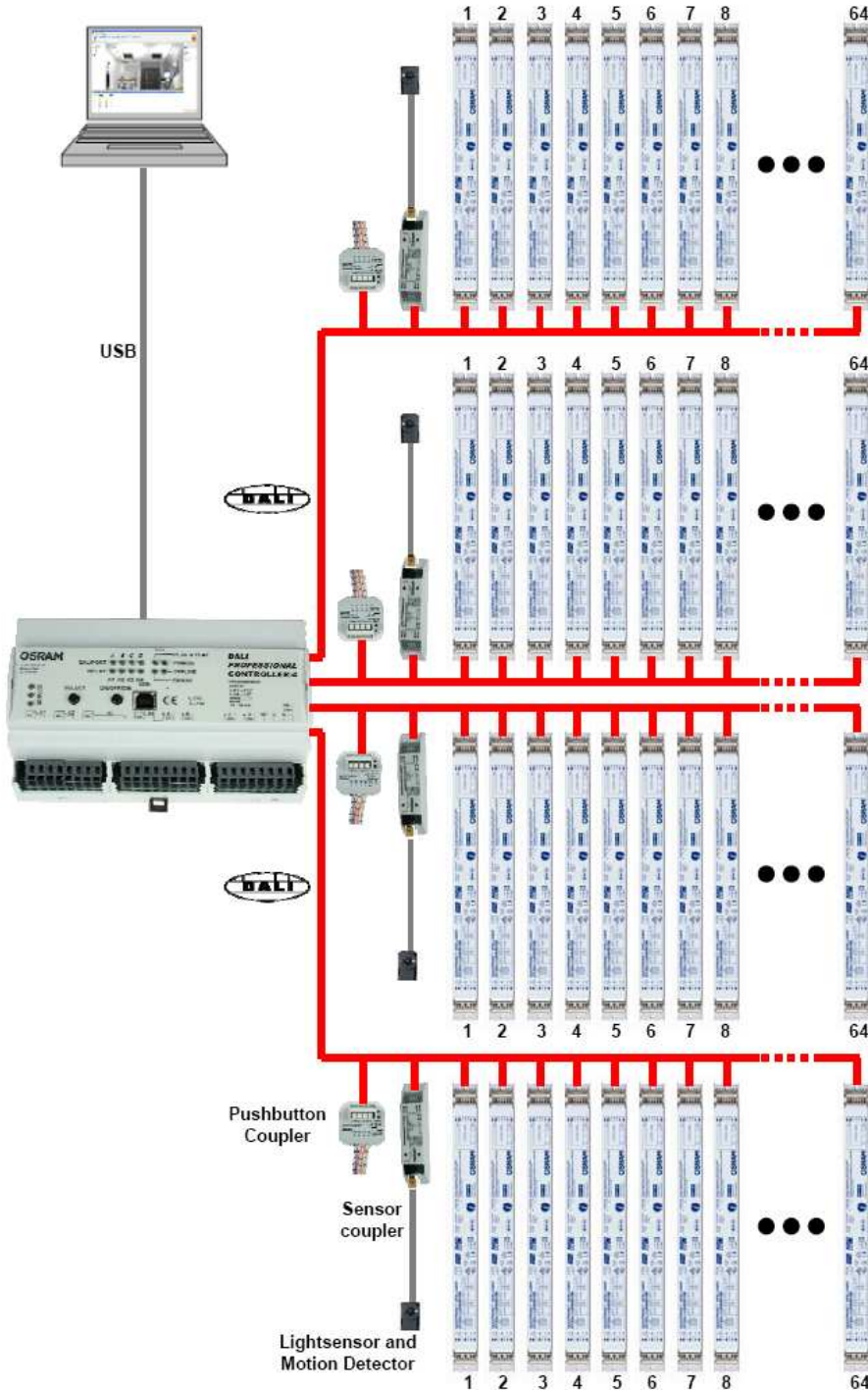
Detailed product descriptions are available for :

- DALI Controller
- DALI Pushbutton Coupler
- DALI Sensorcoupler + Sensors LS/PD
- DALI HIGHBAY Adapter
  + Sensor HIGHBAY or VISION

- DALI LS/PD LI
- DALI e:bus Gateway
- e:bus Glasstouch 6T, 12T, 6TR
- e:bus Touchpanel

Use with PC, first steps

Software Installation

Load software from www.osram.com/software
Extract the .zip file

Install DALI Professional system software by starting
'Setup OSRAM DALI Professional vx.x.x.x.exe'
Default directory for the software : C:\Program Files\OSRAM\DALI Professional\

Establish USB connection Controller - PC

Start program with desktop icon [OSRAM DALI Professional]   or by
Start / Programs / OSRAM / DALI Professional / OSRAM DALI Professional

Start firmware update to controller if requested by the software
(latest firmware is already automatically stored on PC with software installation)

Supported Windows Versions :
successfully tested with Windows XP, Windows Vista, Win7, Win8

Operation, Commissioning

Connect controller to PC via USB
Read out devices / assign names
Define groups and functions
Define scenes
Store settings
Upload configuration / settings to controller
Perform tests
Disconnect USB

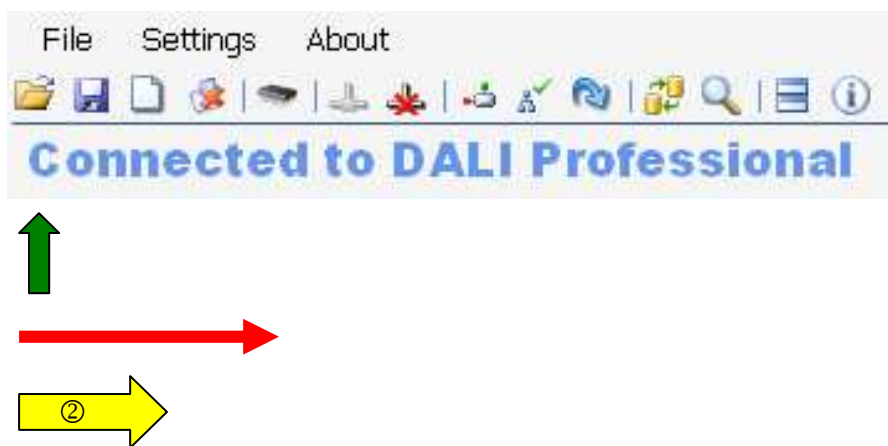---

Caption for Screenshots

Menue line

File   Settings   About

Message line

Connected to DALI Professional

click for action

look here

pull for drawing connection
(use numerical order)

②

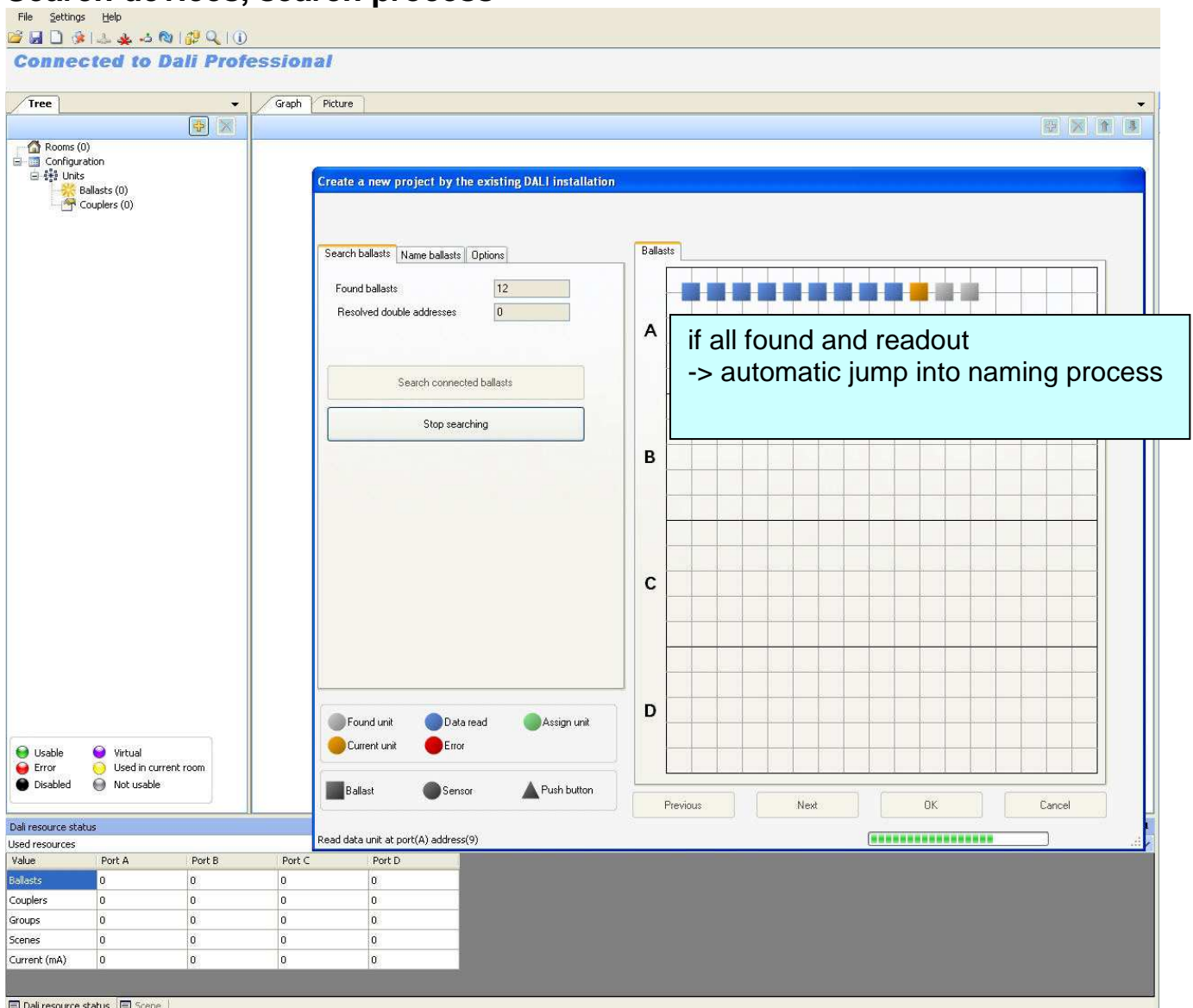| Example application	Office
Components	Controller, Luminaires (ECG), Pushbutton- / Sensorcoupler

Startscreen, connection with Controller, start search devices

connect
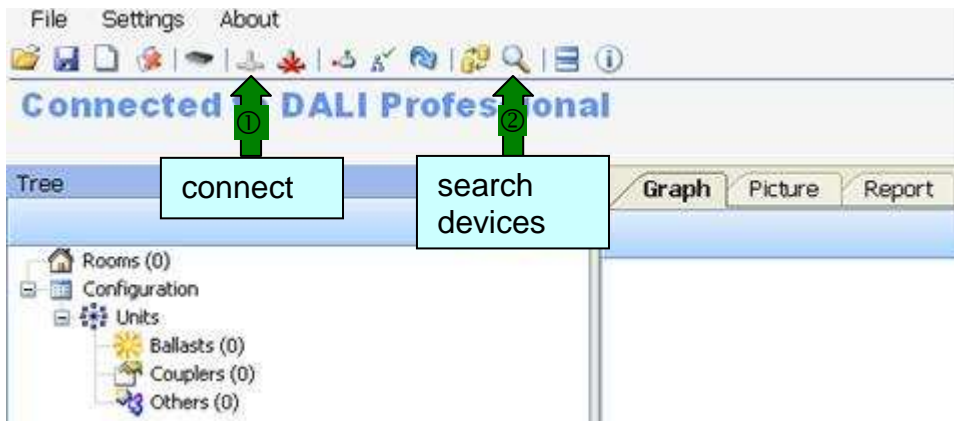
search devices

Search devices, search process

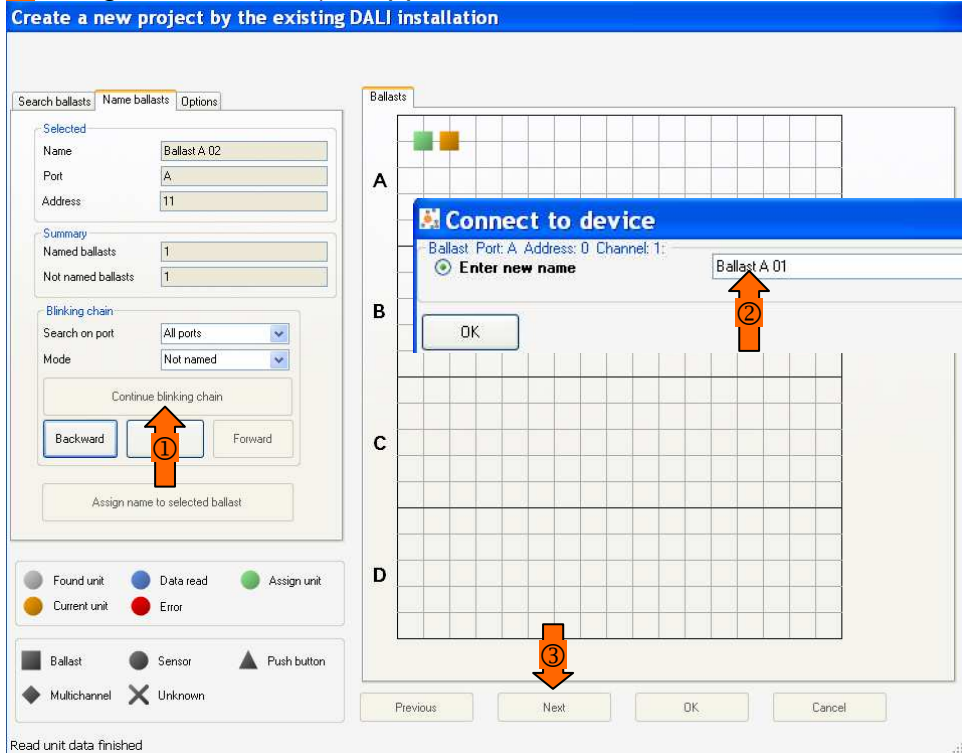if all found and readout
-> automatic jump into naming process

Find devices and assign names to them / Blink Chain

① start search process

In the blink chain different parameters can be changed in 'Options' :

e.g. chain velocity, blinkfrequency, lightlevel before, after ....

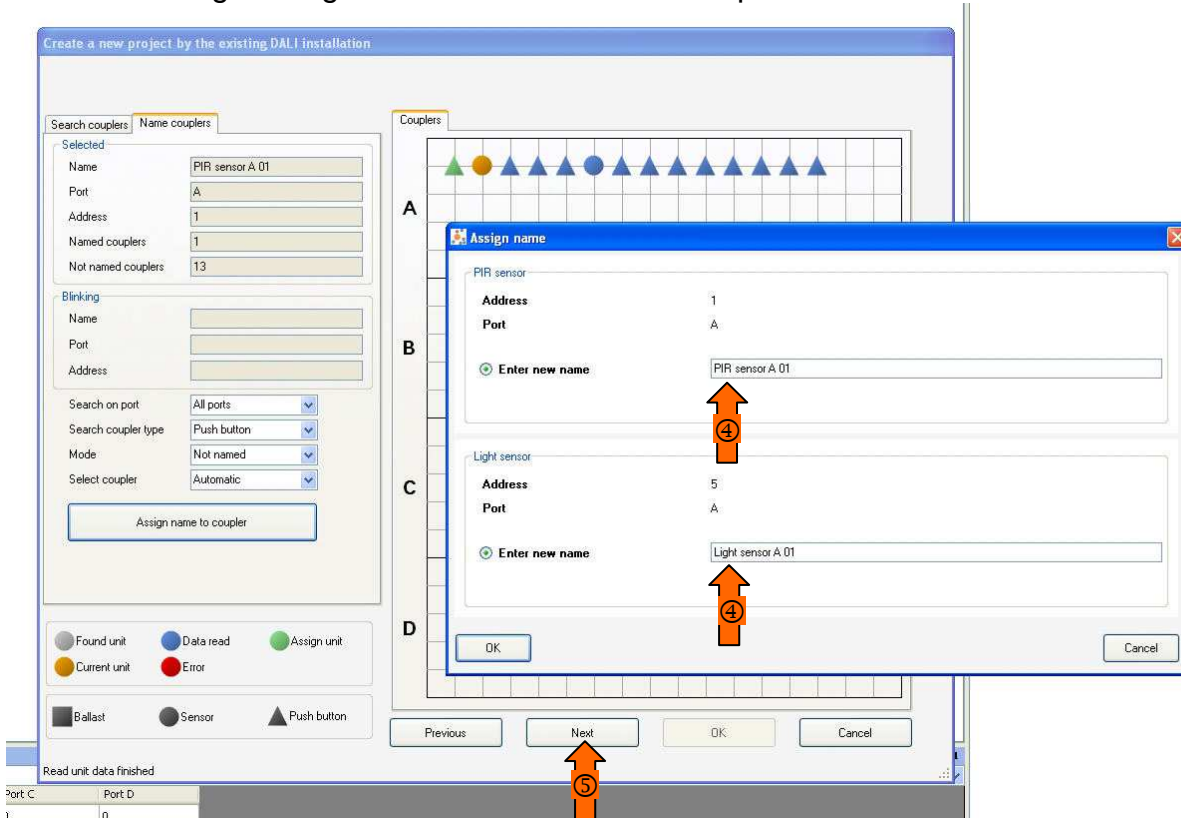② assign ECG name (if skipped automatic name definition = devicetype port# (device#)

③ If all ECGs identified -> continue with Next

Then proceed analog for coupler devices :

④ Select in 'Search coupler type' between Pushbutton or PIR- and Lightsensor.

Due to the fix mechanical connection between PIR- and Lightsensor,

these devices get assigned names in same workstep.

⑤ continue with Next and complete

Identification Result - Identification of Devices

Create a new project by the existing DALI installation

Finish unit assigment

Ballasts

Not changed	0
Replaced	0
Added	4
Removed	0
Data changed	0
Skipped	0
Error	0

Couplers

Not changed	0
Replaced	0
Added	6
Removed	0
Data changed	0
Skipped	0
Error	0

✅ Unchanged
⚠️ Detected Differences
❌ Error

Summary

	Address	Port	Channel	Name	Type	Difference	Error
⚠️	0	A		Ballast A 01	Ballast	added	
⚠️	1	A		Ballast A 02	Ballast	added	
⚠️	2	A		Ballast A 03	Ballast	added	
⚠️	3	A		Ballast A 04	Ballast	added	
⚠️	0	C	1	PB C 0-0-5-146 D white	Push button	added	
⚠️	1	C	1	PB C 0-0-5-146 C orange	Push button	added	
⚠️	2	C	1	PB C 0-0-5-146 A violet	Push button	added	
⚠️	3	C	1	PB C 0-0-5-146 B pink	Push button	added	
⚠️	4	C	1	PIR sensor C 01	PIR sensor	added	
⚠️	5	C	1	Light sensor C 01	Light sensor	added	

Previous   Next   OK   Cancel

after OK all identified devices will show up in device tree


Tree

- 🏠 Rooms (0)
- 🗔 Configuration
  - Units
    - Ballasts (4)
      - Ballast A 01
      - Ballast A 02
      - Ballast A 03
      - Ballast A 04
    - Couplers (6)
      - Light sensor C 01
      - PB C 0-0-5-146 A violet
      - PB C 0-0-5-146 B pink
      - PB C 0-0-5-146 C orange
      - PB C 0-0-5-146 D white
      - PIR sensor C 01

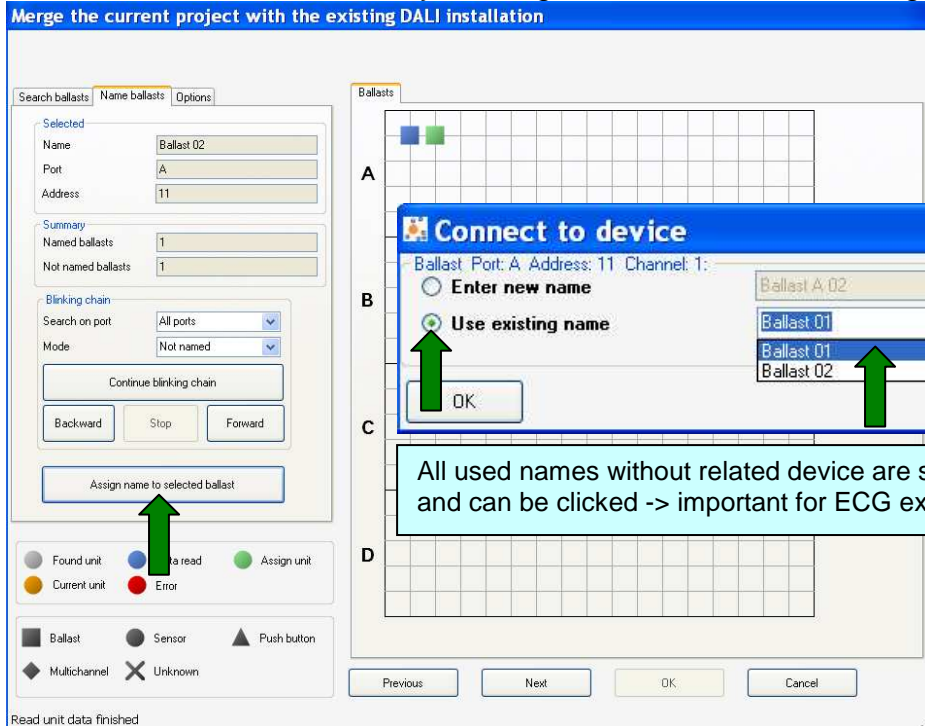# Merge of configuration with existing system / new devices

Combine project with existing DALI installation

Runs similar as search process in first setup, but additional choice of already exisiting names.
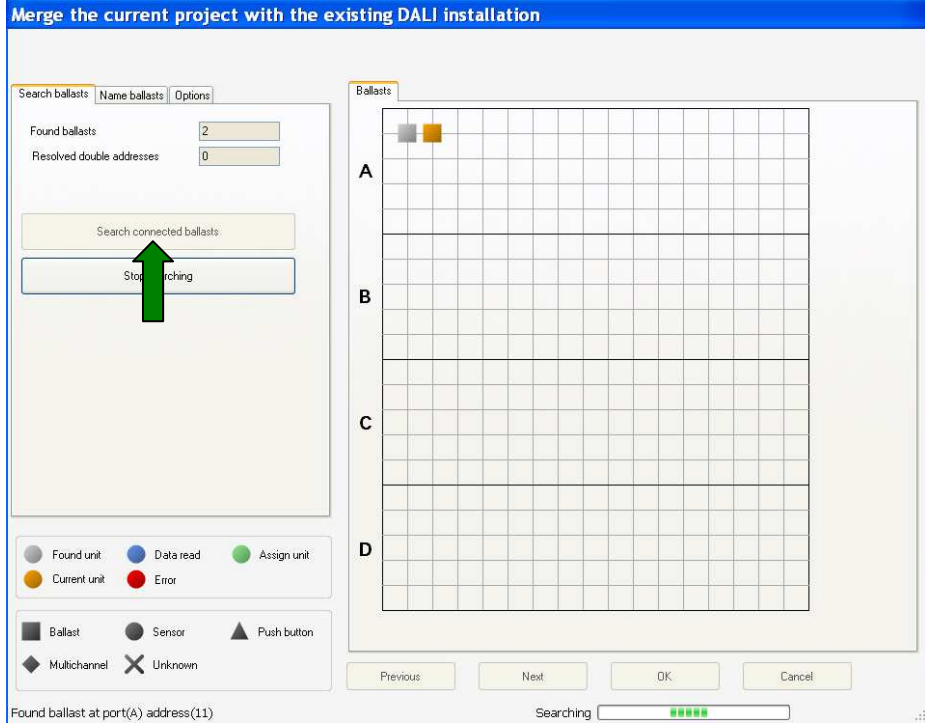
Goto Blinkchain und find the related ECGs / coupler
New devices are blue, already existing and named devices are green.

All used names without related device are shown in pull-down menu
and can be clicked -> important for ECG exchange

Result -> replaced units shown in difference row

Merge the current project with the existing DALI installation

Finish unit assigment

Ballasts

Not changed	0
Replaced	2
Added	0
Removed	0
Data changed	0
Skipped	0
Error	0

Couplers

Not changed	0
Replaced	4
Added	0
Removed	0
Data changed	0
Skipped	0
Error	0

Unchanged
Detected Differences
Error

Summary

Address	Port	Channel	Name	Type	Difference	Error
0	A		Ballast 01	Ballast	Replaced	
11	A		Ballast 02	Ballast	Replaced	
0	A	1	PB 01 B pink	Push button	Replaced	
1	A	1	PB 01 C orange	Push button	Replaced	
2	A	1	PB 01 A violet	Push button	Replaced	
3	A	1	PB 01 D white	Push button	Replaced	

Previous | Next | OK | Cancel

View of merged project

File Settings About

Connected to D... Professional

Tree

- Rooms (1)
  - Room 1
- Configuration
  - Units
    - Ballasts (2)
      - Ballast 01
      - Ballast 02
    - Couplers (4)
      - PB 01 A violet
      - PB 01 B pink
      - PB 01 C orange
      - PB 01 D white
    - Others (0)

Graph | Picture

Room: Room 1

Function 1
Push button
PB 01 A violet
PB 01 C orange

Group 1
Ballasts
Ballast 01

Function 2
Push button
PB 01 B pink
PB 01 D white

Group 2
Ballasts
Ballast 02

Properties

Function (Function...

General

Short press

Action 01	
Time to actio	0
Action	Toggle on/off
Type	Goto last level
Fade in time (	<Global setting>
Fade out time	<Global setting>
Action 02	
Action	<No selection>

Final upload merged project to controller

Upload project

Send (80,6%)

Cancel

Graph View - Define Functions and Parameters

① pull Ballast with into Graph window
into empty area -> new group will be opened
into group -> added to group

② pull Sensor into Graph window
into empty area -> new function will be opened
into function -> added to function

①②a observe ressource status

③ click into function field and draw a line to according group field -> connected

④ define parameters of function (optional, only neccessary if presets shall be changed)
   define actions, default for finish sequence is with Action ..= <none>

Finish Setup
⑤ Store configuration 🖫

⑥ Upload configuration to controller 🔄

Close software program and disconnect USB

-> installation ready for use

Light Regulation - include lightsensor and set value

① Pull lightsensor into a function, add activation device (pushbutton and/or PIR sensor).
② Configure a shortpress / movement to action = regulation.

up to 10 lightsensors per regulation

set regulation value
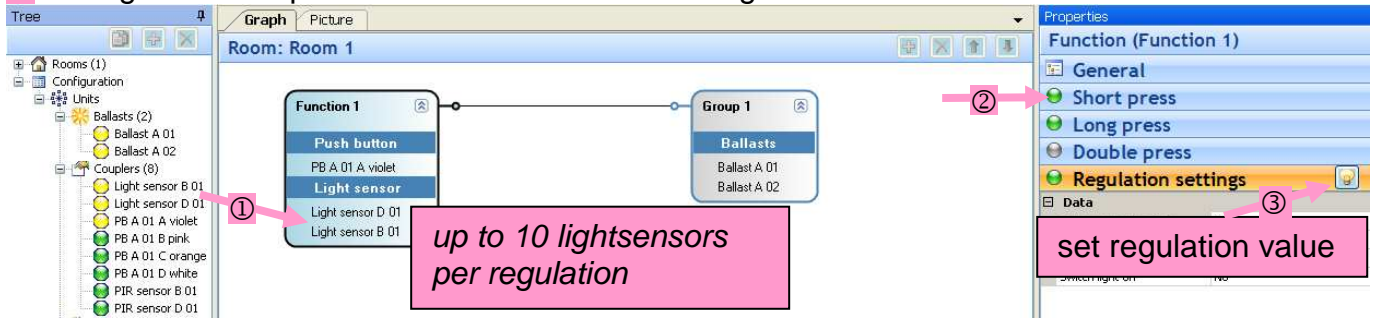
③ Press button for 'regulation setting'
④ Adjustment window shows up

Procedure without room calibration (standard for all applications)
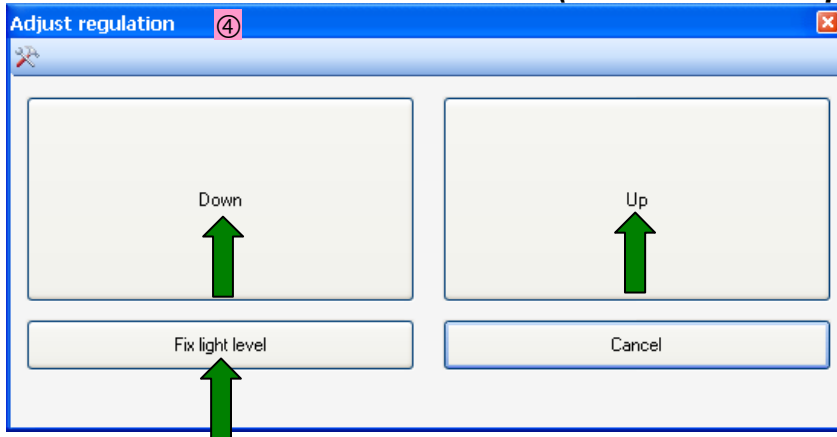
set requested illumination level by pressing Down / Up
store value - according group flashes -> value saved
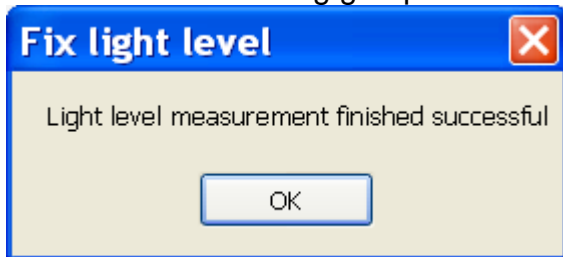
-> Upload to controller , then start regulation via related pushbutton or PIR

We recommend to set the lightregulation levels at a time of the day when the lightinfluence from outside is low to avoid sensor overflow. If not there could happen a error message :
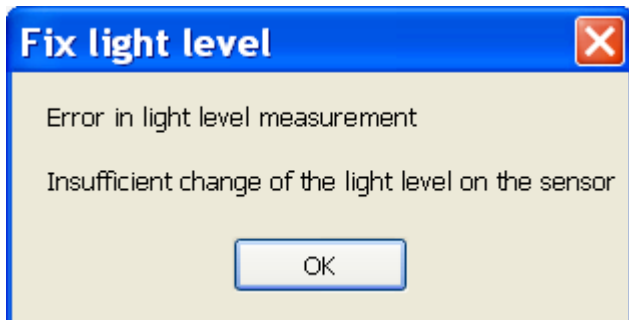
(OPTIONAL) Extended functions for light regulation

Procedure with room calibration

Recommended in case of critical light environments where the standard method provides unsufficient accuracy e.g. caused by direct sunlight influence. Checks the geometric paramenters of the room and positioning of the lightsensor, but needs a light measurement device (Luxmeter).
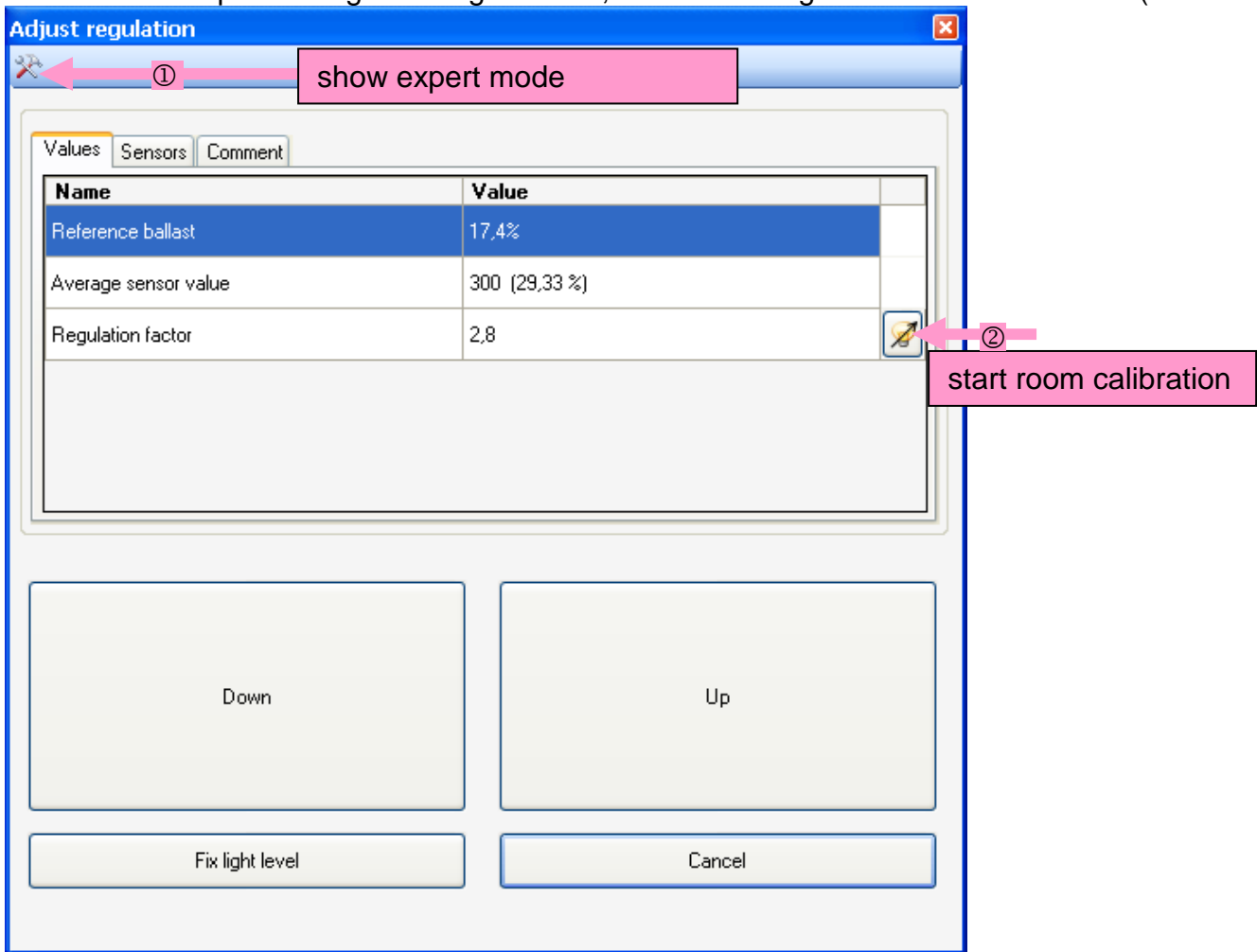
2x input measurement value for light ON and light OFF
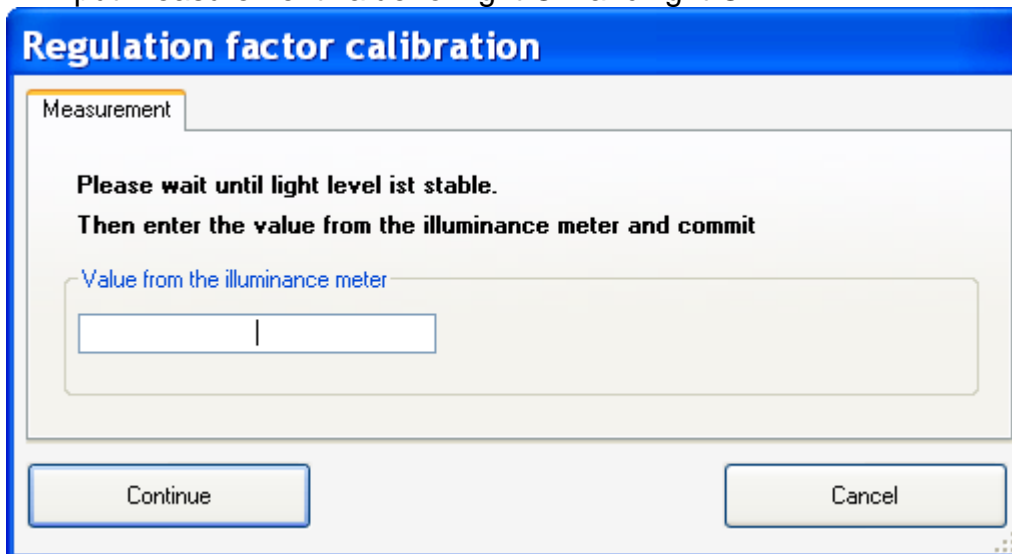
After this inputs set lightlevel as decribed in standard procedure without calibration.

Then Upload to controller 🔃 (to save all created regulation values there)

Creating and Calling Scenes

DALI scenes can be created on screen and called via pushbutton.

① Click to function
② Add new scene with ⊞
③ Define light levels for each ballast
④ Define scene to be called with this button
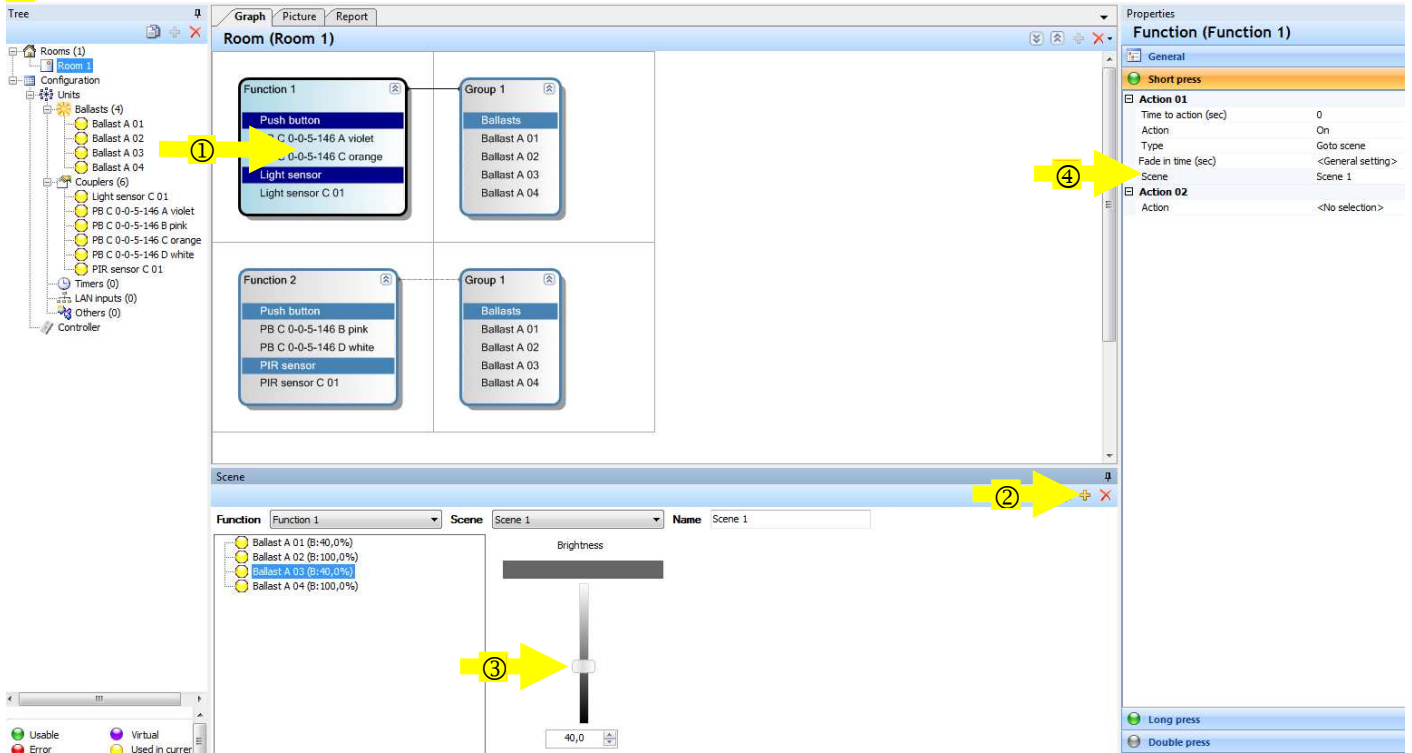
Goto Next Scene - Call Several Scenes with one Single Pushbutton

Feature to go through several scenes with only one pushbutton.

- Each shortpress on pushbutton calls next scene in list
- If full scene loop has been called through - loop starts again with first scene in list
- Max. 16 scenes can be used
- Each scene can be used only one time in the order
- Works only in Action type = On
- If power failure occurs first scene in order will be recalled
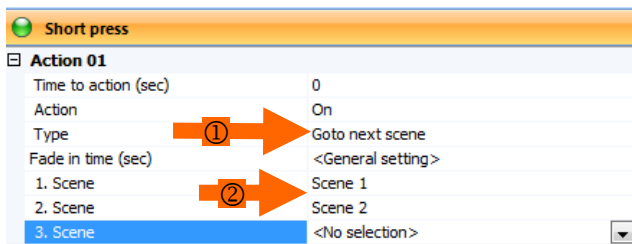
Configuration :

Scene configuration as usual with scene creation in Scene window

Then start design of scene order :

① select 'goto next scene'
② add scene# from pull-down menue to select order of scenes

(OPTIONAL) Picture View - Arrange Devices and Create Scenes

①a,b Select room, import room picture as .jpg or .bmp
Picture can be removed again by selecting and delete.
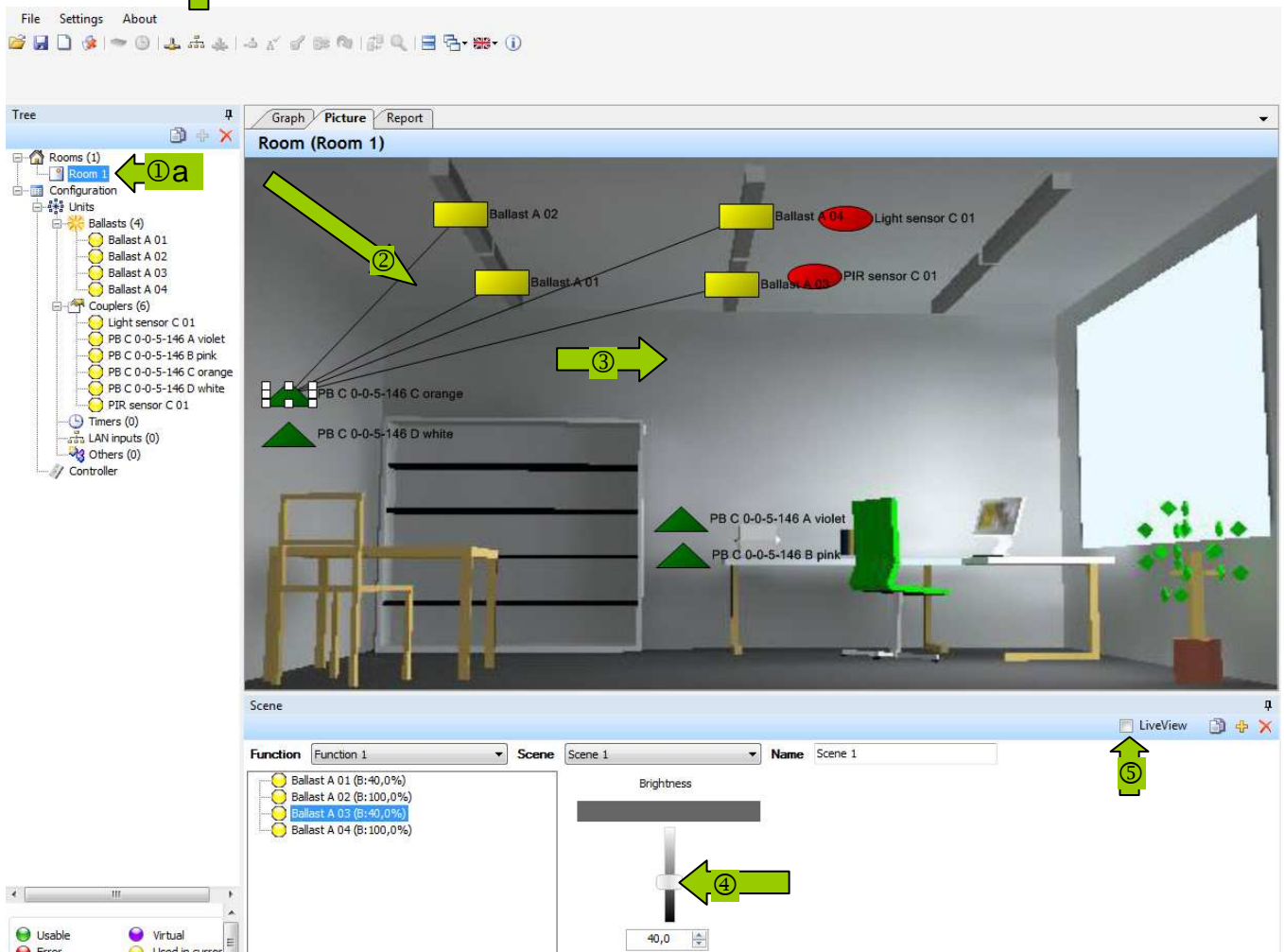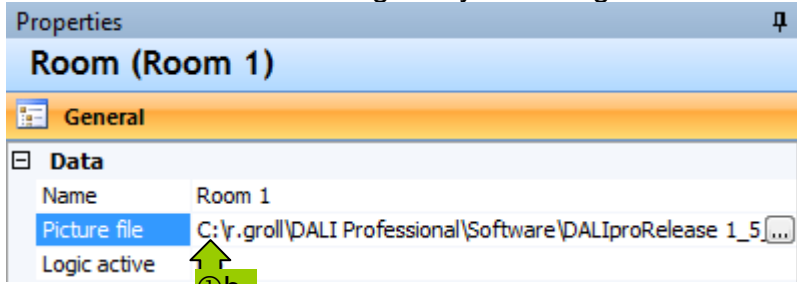
② Pull ballast symbols (yellow rectangle) to luminaire
Analog pull sensors, pushbuttons to requested position

③ Check connection lines
In example above all devices which are functional connected with the button

④ Create scenes (with slider) and store by 'Add'. Multiple selection of luminaires is possible.

⑤ Check screen luminaire against real luminaire with 'Live view'.
Do not forget to remove 'Live view' afterwards to avoid DALI traffic reduction.

! no configuration changes possible in this view, only in Graph view

Tunable White with Glasstouch Wheel

Use Glasstouch 6TR for continous change of colour temperature
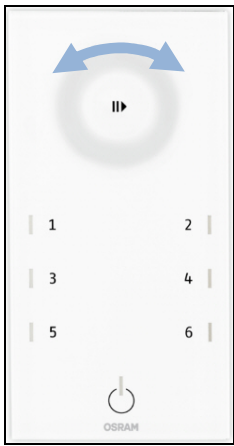
Glass Touch 6TR

GT 6T R 01 bottom

GT 6T R 01 left top

GT 6T R 01 right top

GT 6T R 01 left middle

GT 6T R 01 right middle

GT 6T R 01 left bottom

GT 6T R 01 right bottom

GT 6T R 02 Top

830

DALI 2-lamp luminaire

840

Configure 'Left Long press' to Dimm down and 'Right Long Press' to Dimm up for one ECG and 'Left Long press' to Dimm up and 'Right Long Press' to Dimm down for the other

Tree

- Rooms (1)
  - Room 1
- Configuration
  - Units
    - Ballasts (2)
      - Ballast 01
      - Ballast 02
    - Couplers (1)
      - GT 6T R 01 Top
    - Timers (0)
    - LAN inputs (0)
    - Others (0)
  - Controller

Graph | Picture | Report

Room (Room 1)

Function 1	Group 1
Encoder	Ballasts
GT 6T R 01 Top	Ballast 01

Function 2	Group 2
Encoder	Ballasts
GT 6T R 01 Top	Ballast 02
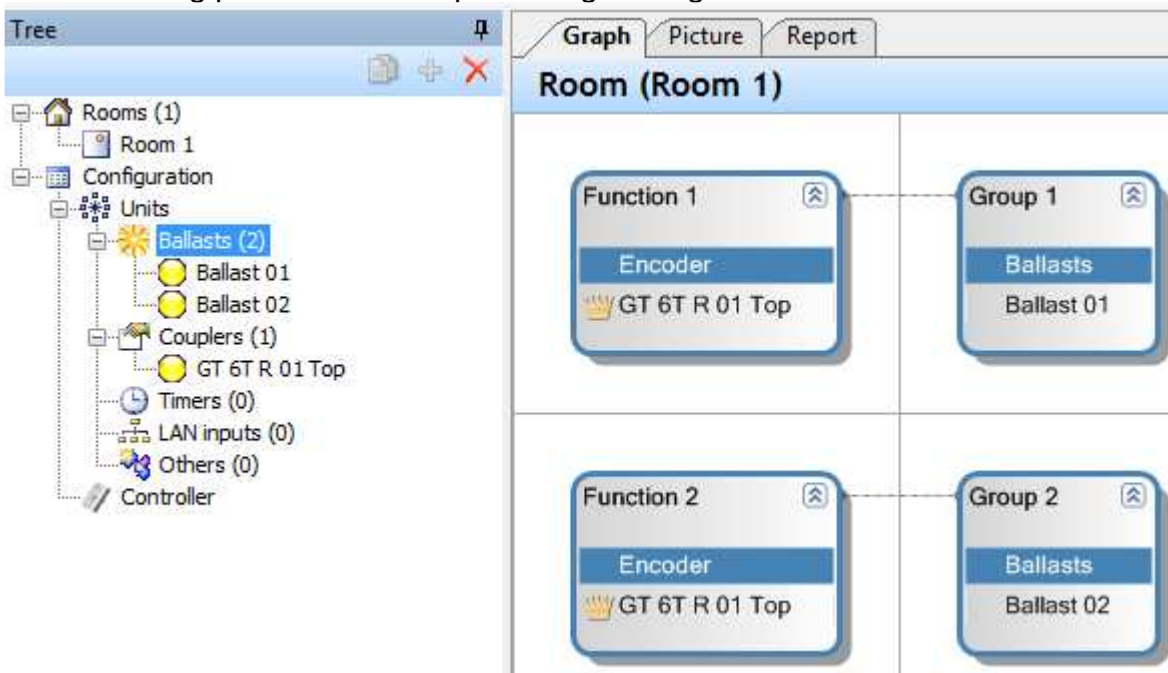
The crown occurs as reminder because same input device button is used in different functions

Properties

Function (Function 1)

- General
- Short press
- Long press
- **Left Long Press**   Ballast 01
  - **Action 01**
    - Time to action (sec)   0
    - Action   Dimm down
- **Right Long Press**
  - **Action 01**
    - Time to action (sec)   0
    - Action   Dimm up

Properties

Function (Function 2)

- General
- Short press
- Long press
- **Left Long Press**   Ballast 02
  - **Action 01**
    - Time to action (sec)   0
    - Action   Dimm up
- **Right Long Press**
  - **Action 01**
    - Time to action (sec)   0
    - Action   Dimm down

Disable Shortpress, Longpress, Doublepress for the button 'Top' to avoid unwanted activation during wheel turn by the button in the middle.

Use of internal relay

The 4 internal relais K1...4 can be switched with pushbutton / PIR or used in action lists.
How to use : click 'Relay' in Action

```
<None>
Off
On
Toggle on/off
Relay
```
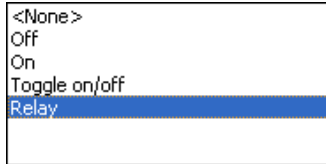
Define a function e.g. with ECG and add the relay (here : ON immediately, OFF after 5 minutes)
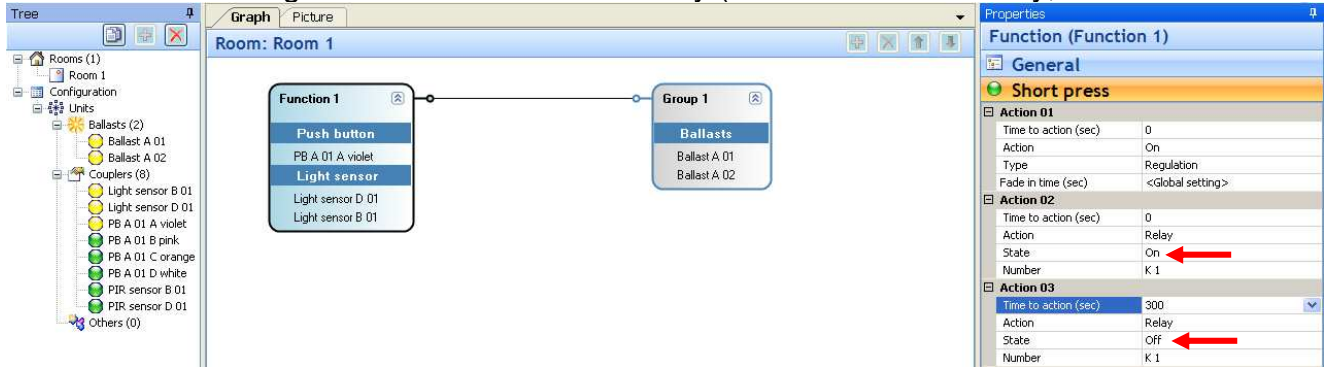
Multiple use of Pushbutton (Crown Function)

Start several functions from one pushbutton e.g. regulation ON for one group + lightlevel 30% for other group. With this a crown appears 👑 PB A 01 A violet to show the multiple use of the button
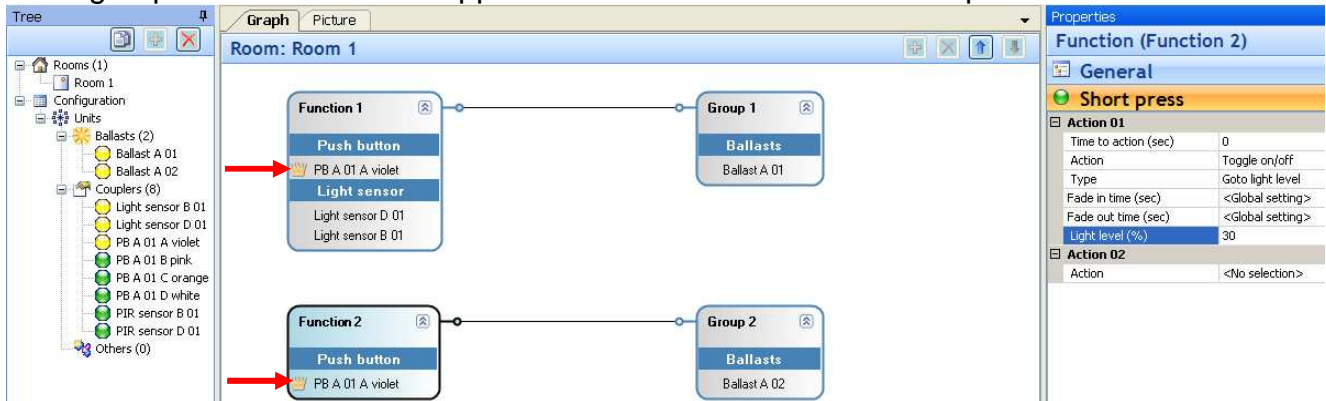
Change Pushbutton to Switch Input

If a switch is connected
Click pushbutton in device tree, change properties from pushbutton to switch
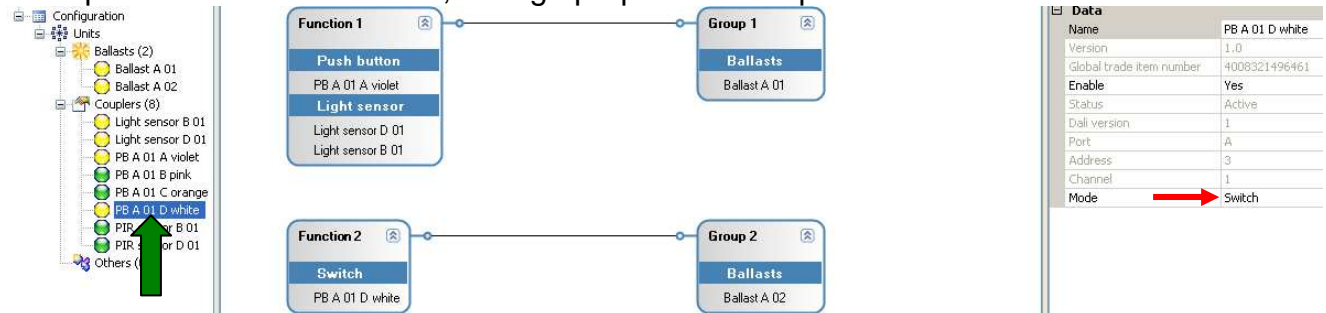
Now new handling parameter occur: Opening + Closing
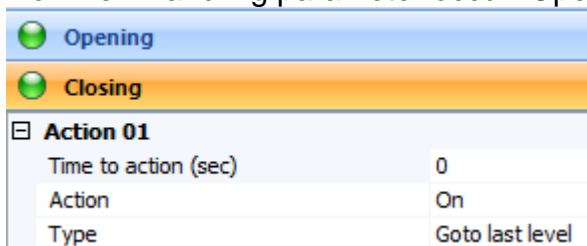
Switch Interactions - Parallel / Serial Connection of Switches

The switch interactions functionality enables the configurator to set the behaviour of the actions for the open/close event.

- Works only for devices configured as switches
- The maximum number of switches in this function is 16
- The switch interactions are only valid for the function where it is configured
- Three types of switch interaction are defined
- The default behaviour is toggle

Configuration of the switch linkage in 'Function / General'
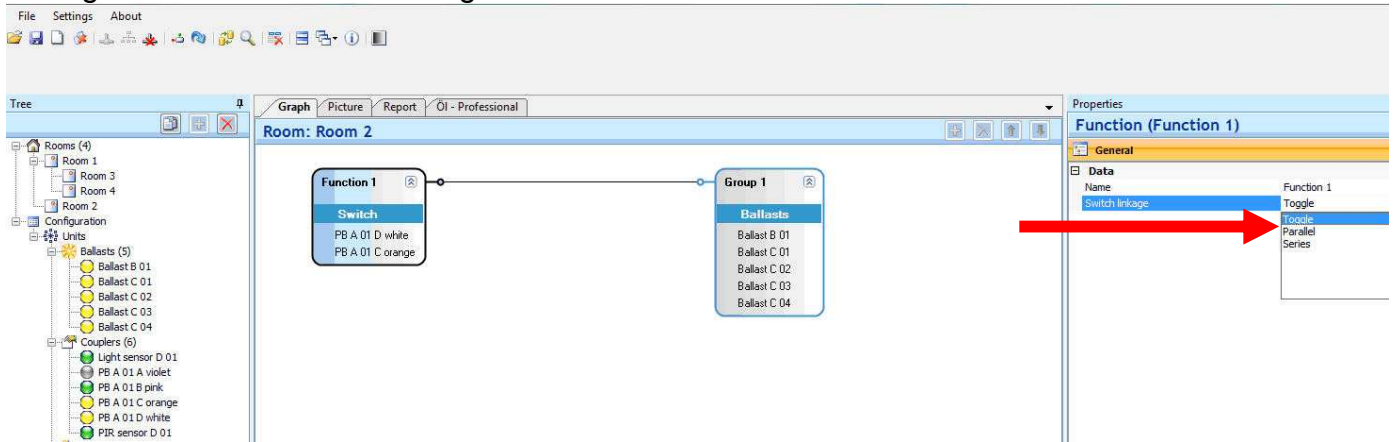
- o **Toggle** (default setting)
  - Independent behaviour of each switch, triggered by event (opening/closing)

- o **Parallel** (only off if all off)
  - *Logic Table Parallel = OR*

switch status	s1	s2	s3	Result
1	0	0	0	**0**
2	1	0	0	**1**
3	0	1	0	**1**
4	0	0	1	**1**
5	1	1	0	**1**
6	0	1	1	**1**
7	1	0	1	**1**
8	1	1	1	**1**
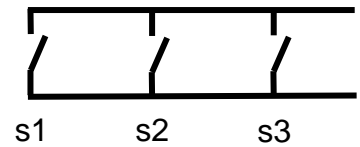
  - 0 = open / off, 1 = closed / on
  - Every closing event from any switch (s1,s2,s3) will re-trigger the action list

- o **Serial** (only on if all on)
  - *Logic Table Serial = AND*

switch status	s1	s2	s3	Result
1	0	0	0	**0**
2	1	0	0	**0**
3	0	1	0	**0**
4	0	0	1	**0**
5	1	1	0	**0**
6	0	1	1	**0**
7	1	0	1	**0**
8	1	1	1	**1**
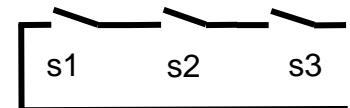
  - 0 = open / off, 1 = closed / on
  - Every opening event from any switch (s1,s2,s3) will re-trigger the action list

Preselect Lightlevel- Option of Several Lightlevel for Events

Enables to store user defined light levels for all groups connected with a function into the controller. This lightlevels can be recalled at any time.

- 2 types of level can be used:
  - Fix light levels stored with configuration
  - Current light level.
    If the ballasts have different levels the maximum from all levels will be used.
- The last value stored will be recalled with 'Goto stored light level' command.
- Does NOT work for scene single ballast values, NOT for regulation values
- The default value is 80% (DALI value 246)
- New action:
  - Store light level:
    Selects light level (fixed or current) for the connected groups and stores it on the controller. But no change in the current light situation of the project
- New action type (to be used in On or Toggle action):
  - Goto stored level:
    Recall the stored lightlevel to the ballasts of all connected groups.
    The 'Goto stored level' command uses the latest value that has been saved.

Select FIX light level and store the value to controller:
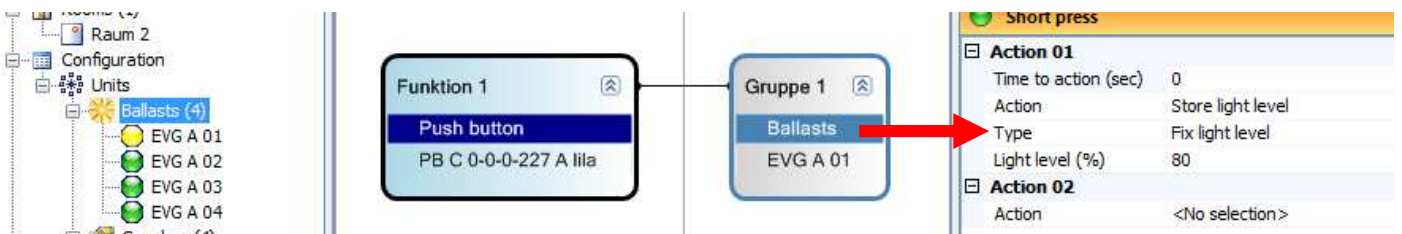
Select CURRENT light level and store the value to controller:
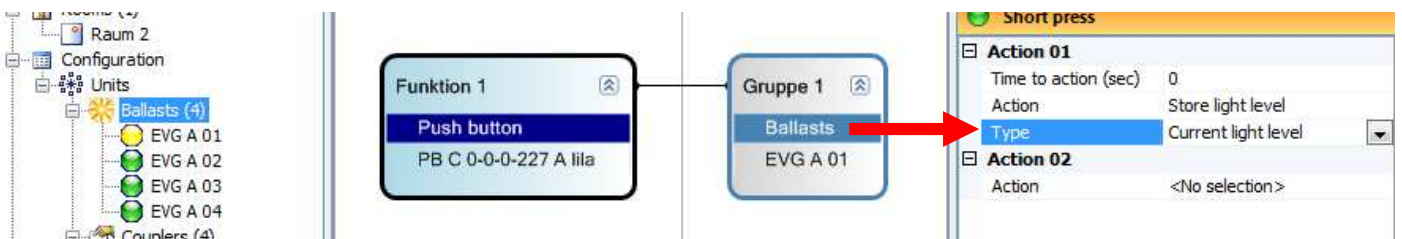
RECALL light level from controller:
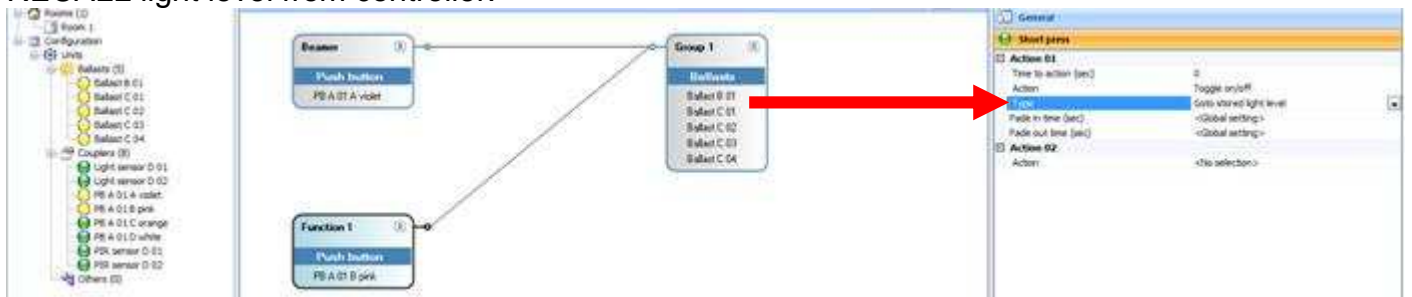
PIR Sleep Mode - Option to Disable Occupancy Sensor

The PIR sleep mode allows to enable and disable the PIR sensor in a function.

- Two new actions to be created:
  - PIR enable: activates all PIR functionality of these function
  - PIR disable: blocks all PIR functionality
- If the PIR is disabled there has to be at least one enable of the PIR, otherwise there will be an error
- Works only for sensor couplers (NOT for switches, NOT for pushbuttons)
- The function influences all connected groups of the function
- The action can be called by: Short press, Double press, Opening, Closing

Enable PIR
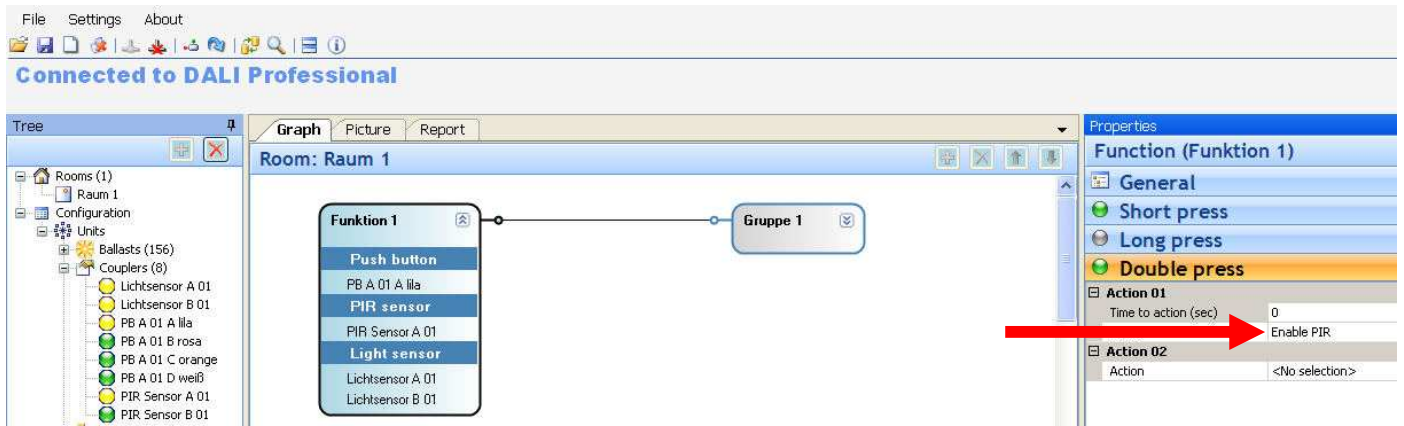
Disable PIR:
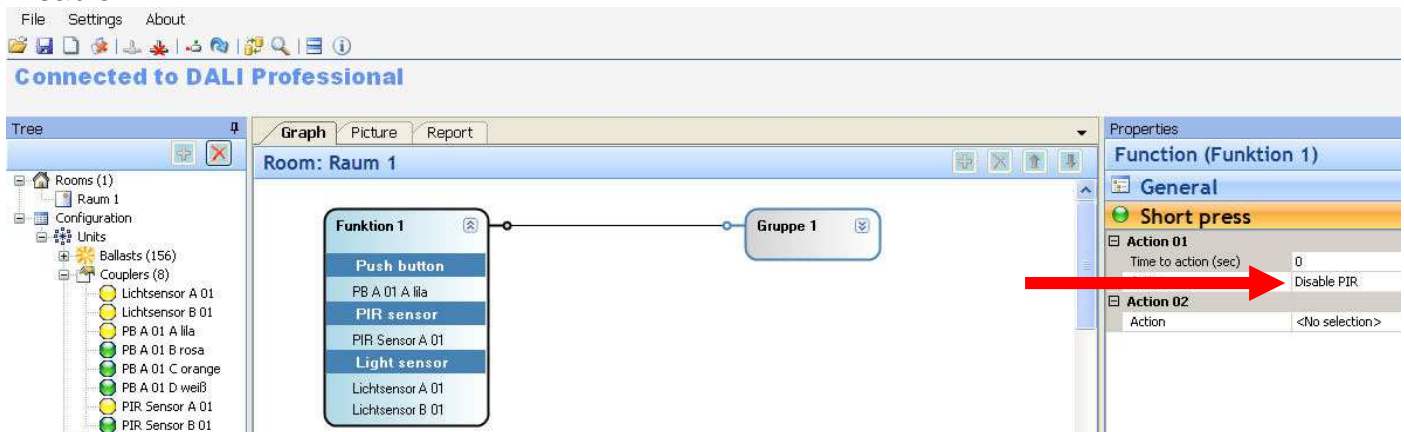
Error when disabled and not enabled:
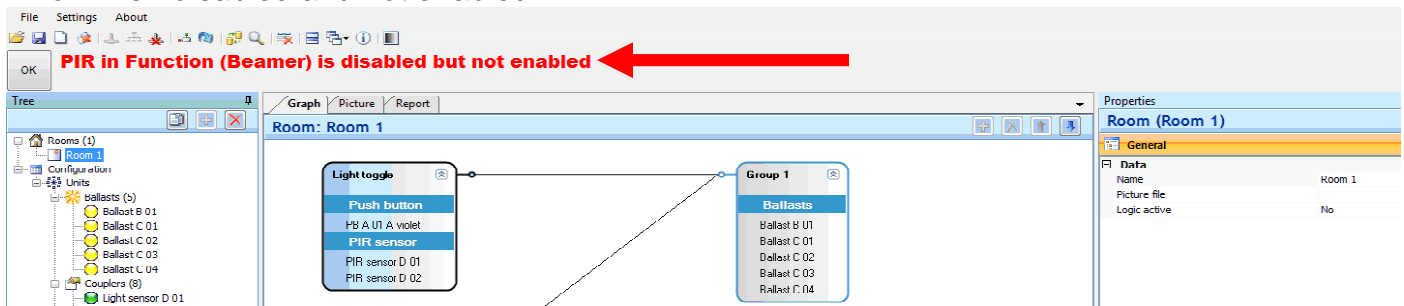
Error when disabled and not enabled (red dot):
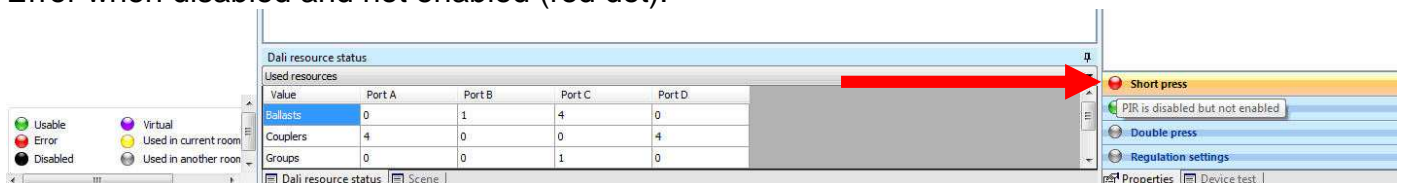
Report Lamp Failure to Relay

The lamp failure reporting allows to connect DALI PROFESSIONAL to a superior BMS.

A lamp failure in DALI line A..D closes the according relay K1..4

- 'Check lamp failure' has to be set to 'Yes'
- Default value = 'No'
- Controller checks all DALI lines every 10 seconds for lamp failure
- DALI line A is related to relay K1, B to K2, C to K3, D to K4
- Contact open if no lamp failure detected
- Contact closed if a lamp failure occurs
- Contact opens again if lamp failure vanishes
- If relay already used for another function a failure message occurs
  'Relay already used to report lamp failure'

Configuration process :

① set 'Check lamp failure' = 'Yes'

② set 'Report lamp failure' = 'Internal Relays'
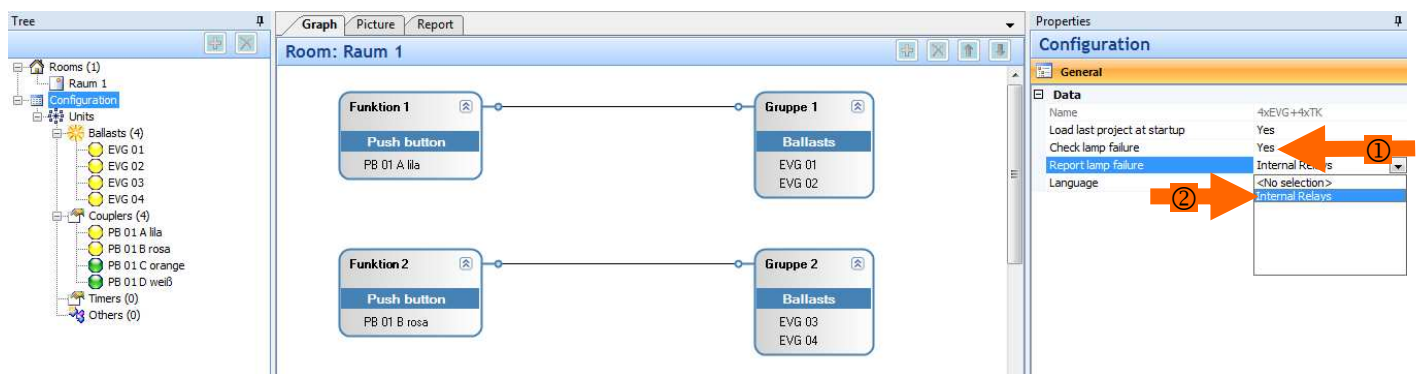
If the relays are already used for lamp failure monitoring
a second use in a function will generate a failure message
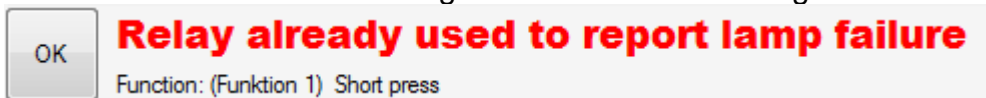
Global Change of ECG Parameters

Change of ECG Parameter is also possible on global level for the whole project at once.
This avoids a lot of extra work during setup if changes for all ECG are necessary.

- ECG Parameters to be set : "SystemFailureLevel" and "PowerOnLevel"
- Default values = ECG factory settings
- The default value for the ballasts will be "General setting"
- When using an old configuration, all ballasts showing DALI value = 254 as "SystemFailureLevel" and / or "PowerOnLevel" will be set to use general settings. Ballasts with other values will be set to their individual settings.

"SystemFailureLevel" and "PowerOnLevel" can be changed global for all ballasts in "Properties/Units/General".
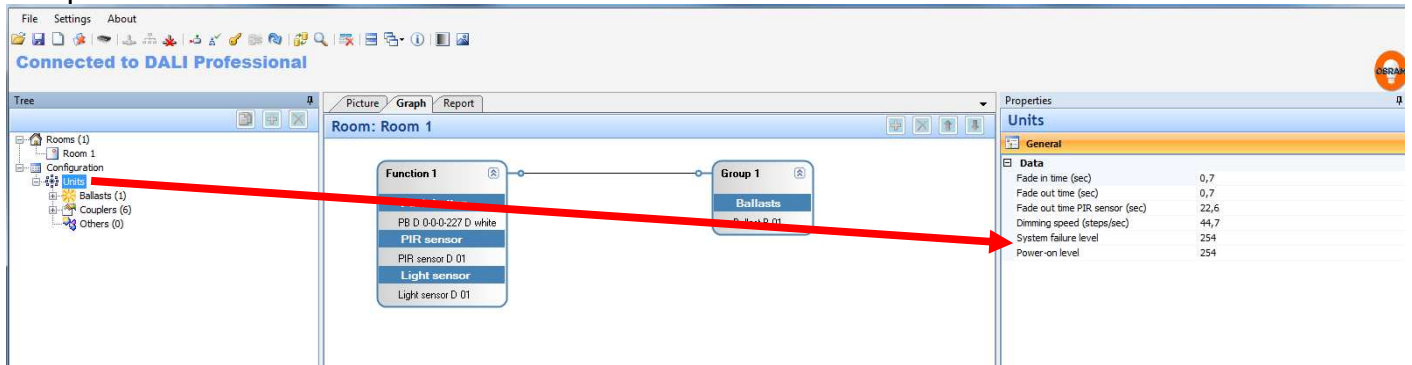
To use the general settings for a individual ballast the "System failure level mode" or the "Power on level mode" has to be set to "General setting". If set to "Individual setting" a ballast specific value can be set.

Attention Message :
Be careful with SystemFailureLevel changes in emergency relevant installations.

Copy Room within Configuration
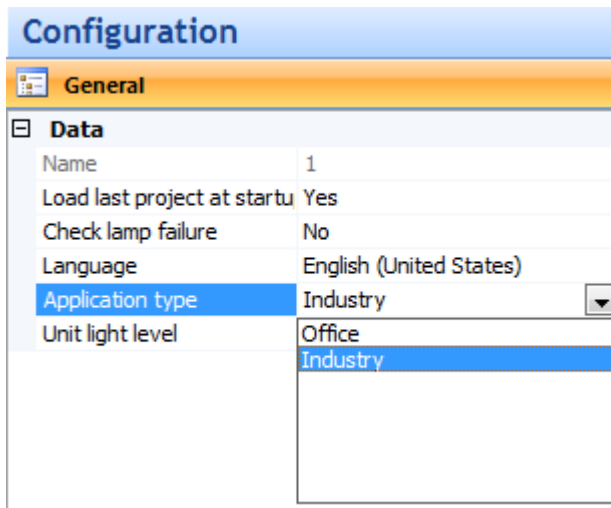
With the copy room functionality it is possible to create a copy of an existing room which contains all devices, functionalities, parameters ..

- Works for:
  - Standard rooms
  - Logic controlled rooms
- To copy a room select the room to be copied in tree
  and press "Copy button" in toolbar
- These settings of a room will be copied
  - Used devices (ballasts, couplers...).
    All copied devices will virtual status. They have to be merged later in setup with existing installation devices.
  - Groups
  - Functions
  - Scenes
  - Regulation settings
- Copy of a logic room will show all rooms including sub-rooms
- The name of the copied room will be the old name and added *Copy#x*,
  where x is the counter of the copy. E.g. *Room 1* in copy will be *Room 1 Copy#1*
- The name of the copied settings (devices, functions, groups....) will be the name plus the name of the copied room. E.g. *ECG 1* in copy will get *ECG 1 @ Room 1 Copy#1*
- The room drawing in picture view cannot be copied.
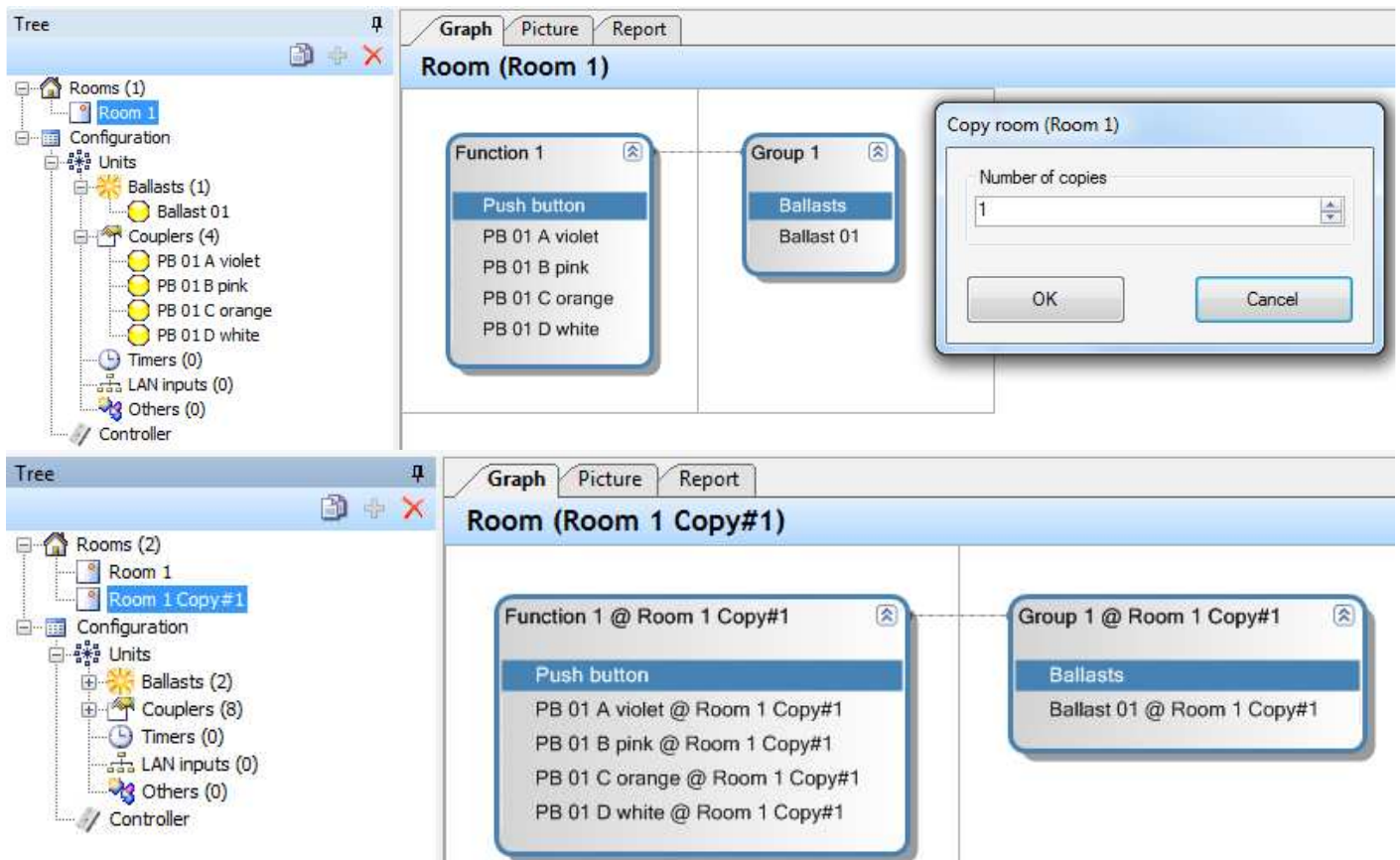
Application Type Setting

In industrial installations the PIR function should work in a different way than in offices.
For this reason the configuration can support different application types:

Application Type Office (default)

As already implemented in former versions

- The first PIR action will work as follows:
  - If not all lights in the group are on, the PIR action will not change the situation
  - When all lights are on the action will not be executed
    (e.g. a manual arranged dimming level will not be changed)
- There is a 30s lock time for PIR actions to give the opportunity to leave the room after switching off the light without new triggering.
- If movement is detected the PIR event is send every 10s.

Application Type Industry

- The first PIR action will work as follows:
  - Even if not all light are on in the group, a PIR action will execute the according action
  - When all lights are on the action will not be executed
    (e.g. a manual arranged dimming level will not be changed)
- There is no 30s lock time for PIR actions, but when movement is detected the event is send only in10s frame.

Check Configuration - Matching Test for Configuration to Components

With the new button it is possible to check a currently used configuration against the connected physical components. Helpful if you are not sure if all ballasts / couplers are currently connected properly during an ongoing installation work.

Limitations :
- if there are unused additional devices there will be no message
- only DALI device connections are checked, for e:bus only the gateway is relevant

New button in Menue Line
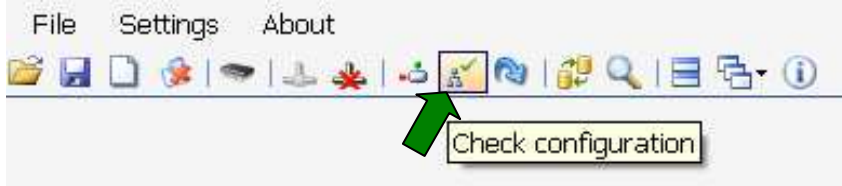
View during Check
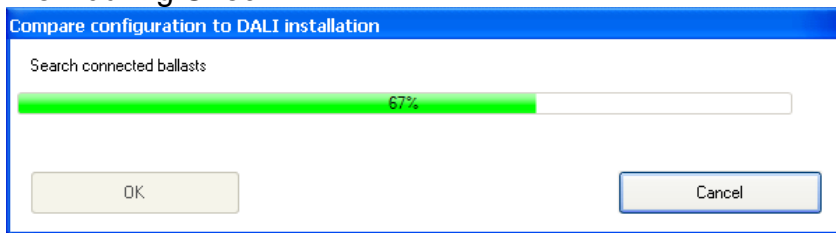
View if all is **o.k.**

View if **mismatches** are existing
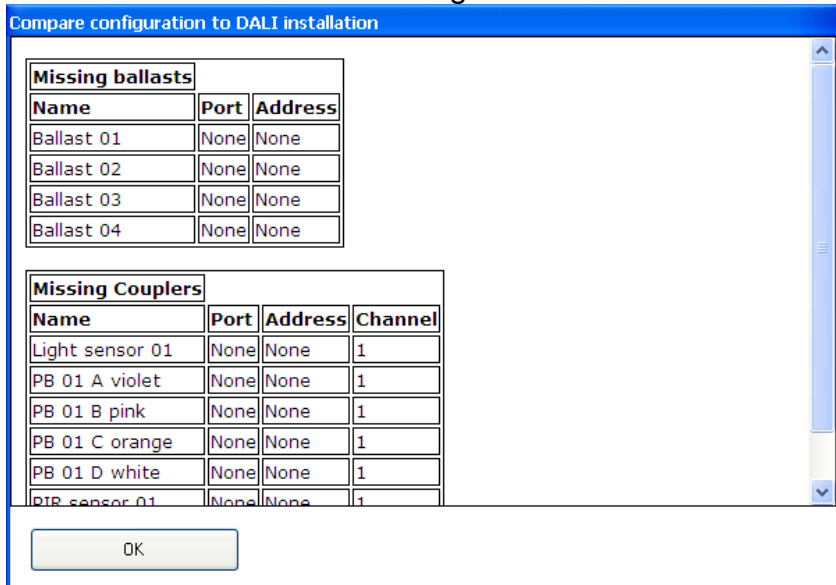
Result in Message Line
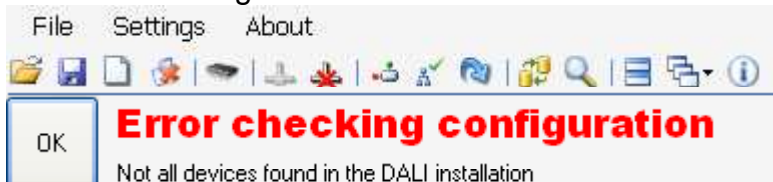
DALI PRO Testfunctions

Single Device Test - Check for Correct Device Assignment

ECG, pushbuttons, lightsensor, PIR can be tested according to correct assignment in the room.

① Click to device in device tree, use 'Device test' in right window [Properties] [Device test]

② Start Test, for input devices the according operation has to be done e.g. pushbutton press

③ A green area will occur and the device name and event type is shown
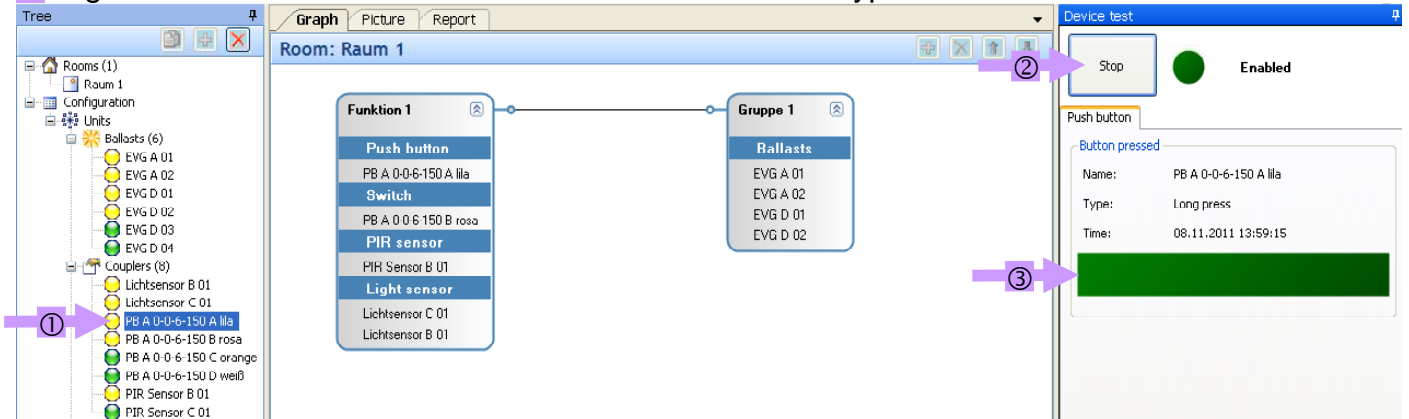
Single Device Test - Button   / PIR Sensor

includes test button to start virtual the according function
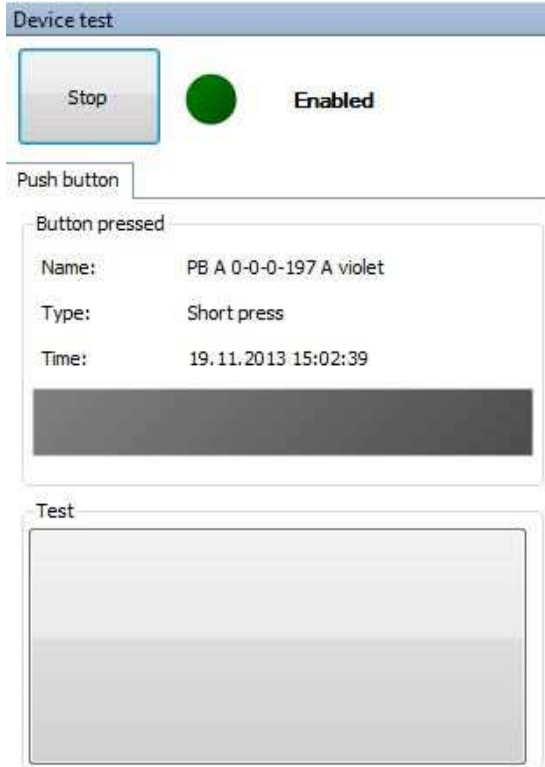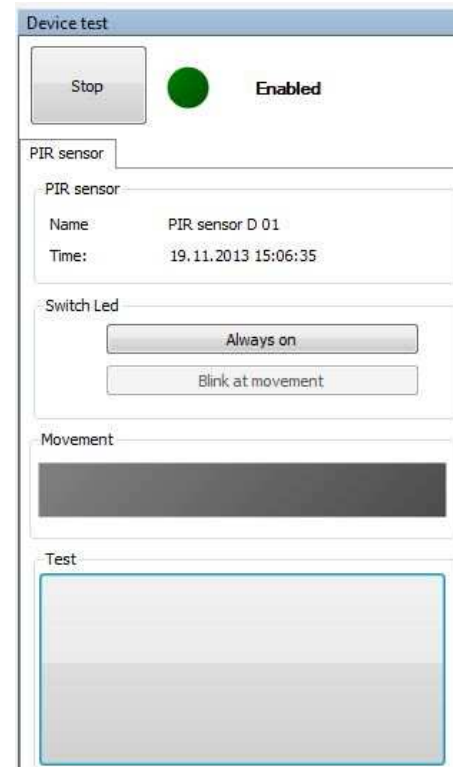
Single Device Test - Lightssensor   / Ballast

includes magic eye for lightlevel / blink function
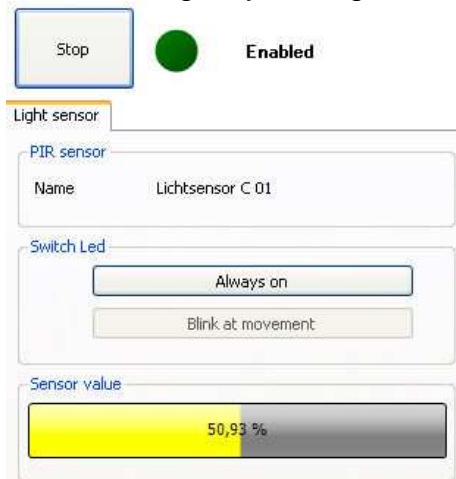
If the next device shall be checked
the test has to be started again with 'Start'

Common Device Test - Check for Correct Device Functionality

ECG, pushbuttons, lightsensors, PIRsensors can be tested together for correct functionality

Common Ballasts Test

① Click to Ballast in device tree, use 'Device test' in right window bottom [Properties] [Device test]

② Start Test
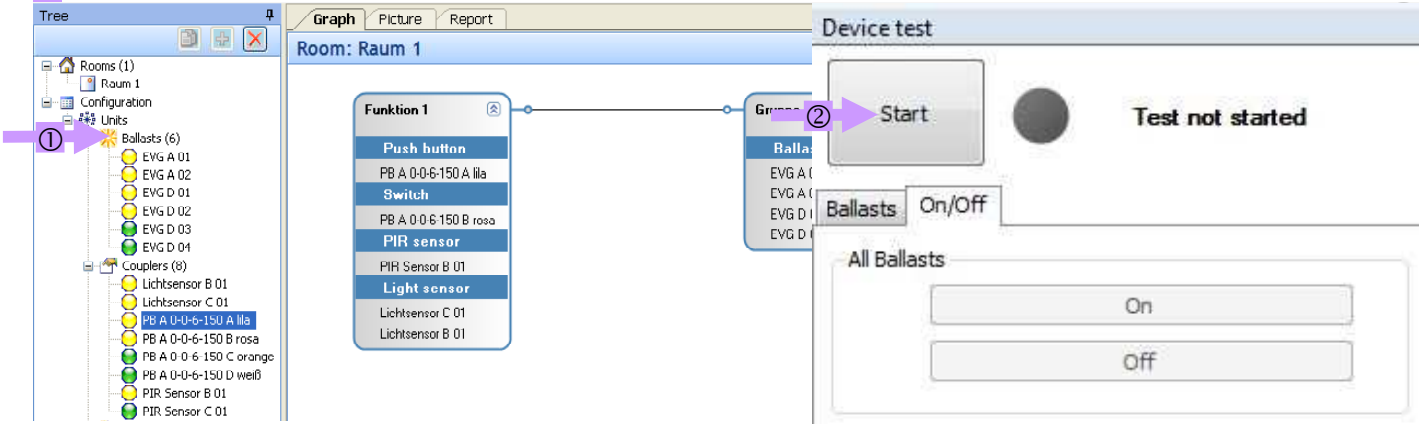
Now all ballast can be switched ON / OFF to localize non reacting luminaires
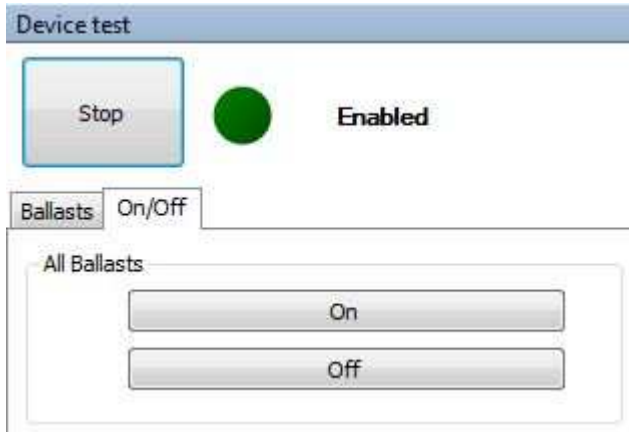
Test result for the luminaires which
- not switch on -> no mains connected
- not switch off -> no DALI connection

Common Device Detail Test

Ballasts can be checked for (temporary) wiring failures

ECG which do not answer to DALI commands will be shown as red dot

Found	Used	State	Name
🔴	⚫	No answer	Ballast C 03
🔴	⚫	No answer	Ballast C 04
🟢	⚫	OK	Ballast C 02
🟢	🟢	OK	Ballast C 01
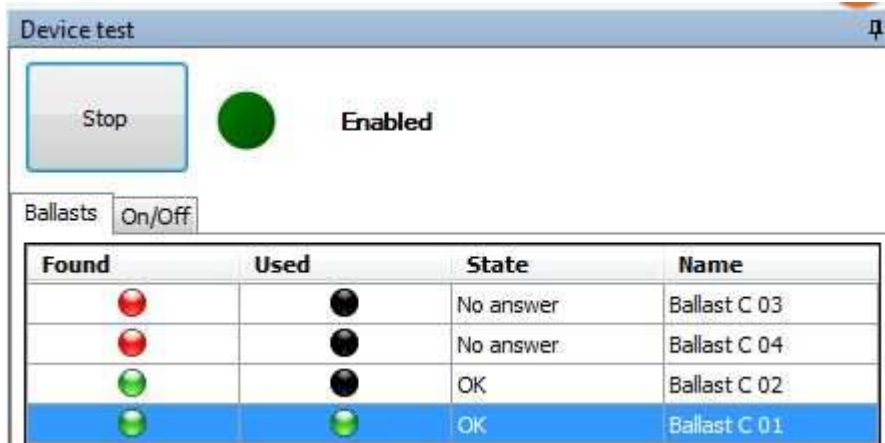
ECG connected to a failed lamp will be shown with red dot

Found	Used	State	Name
🔴	⚫	Lamp failure	Ballast C 04
🟢	⚫	OK	Ballast C 03
🟢	⚫	OK	Ballast C 02
🟢	🟢	OK	Ballast C 01

ECG which temporary lost connection to mains voltage will be found
Power failure message is shown even after recover until next light change (e.g. ON/OFF)

Found	Used	State	Name
🔴	⚫	Lamp failure, Power failure	Ballast C 04
🔴	⚫	Power failure	Ballast C 02
🔴	🟢	Power failure	Ballast C 01
🔴	⚫	Power failure	Ballast C 03

Finally all ECG should show green dots

Found	Used	State	Name
🟢	🟢	OK	Ballast C 01
🟢	🟢	OK	Ballast C 02
🟢	🟢	OK	Ballast C 03
🟢	🟢	OK	Ballast C 04

Button Test
Start Test and press each button to create according events.
Automatic sort concerning failure / no event (red dot) to top of row

Device test

Stop	🟢	Enabled

Buttons | PIR sensors | Light sensors

Found	Event	Used	Name
🟢	🔴	🟢	PB A 0-0-0-197 C orange
🟢	🟢	⚫	PB A 0-0-0-197 B pink
🟢	🟢	⚫	PB A 0-0-0-197 D white
🟢	🟢	⚫	PB A 0-0-0-197 A violet

PIR Sensor Test
Activate all PIR by movement to create events.
Automatic sort concerning failure / no event (red dot) to top of row

Device test

Stop	🟢	Enabled

Buttons | **PIR sensors** | Light sensors

Found	Event	Used	Name
🟢	🔴	🟢	PIR sensor D 01
🟢	🟢	⚫	PIR sensor D 02
🟢	🟢	⚫	PIR sensor D 03

Lightsensor Test

Device test

Stop	🟢	Enabled

Buttons | PIR sensors | **Light sensors**

Found	Light level	Used	Value	Name
🟢	🔴	⚫	37,05% (37,05..37,05%)	Light sensor D 02
🟢	🔴	⚫	6,74% (0,00..7,82%)	Light sensor D 03
🟢	🔴	⚫	8,50% (0,00..8,80%)	Light sensor D 01

Value changes >20% result in green level dot
when sensor reacted on change (e.g. light torch / shadow)

Device test

Stop	🟢	Enabled

Buttons | PIR sensors | **Light sensors**

Found	Light level	Used	Value	Name
🟢	🟢	⚫	19,16% (0,00..100,00%)	Light sensor D 03
🟢	🔴	⚫	8,99% (0,00..9,29%)	Light sensor D 01
🟢	🟢	⚫	0,00% (0,00..100,00%)	Light sensor D 02

DALI PROFESSIONAL Configuration Report
Documentation of Configuration as HTML Report

① Go into menue folder 'Report'
② Use 'Create Report' to generate a HTML file of the current configuration

Then view or store the HTML document for documentation of final project status.
Document also can be printed with right mouse button menue.

Upload Configuration to Controller

Store DALI PROFESSIONAL configuration with ![icon]

With this the controller first will get configured by upload project, then automatically the original configuration file xxxxx.osrdpc will be stored additional on the controller.
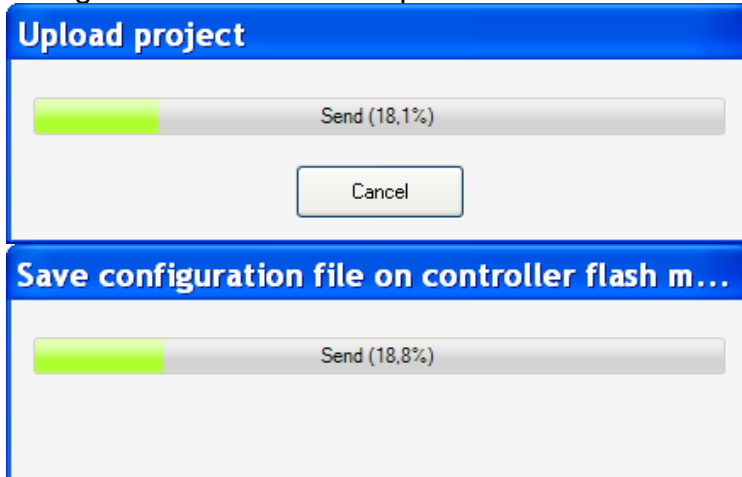
A warning message will occur if the project size will exceed 200K (the largest projects we have created show 70K). If this message occurs the configuration is uploaded to the controller, but the project file is only stored on the PC.

Download current Configuration from Controller

① connect by USB with PC, click to the connection symbol
② click to download existing configuration file from controller
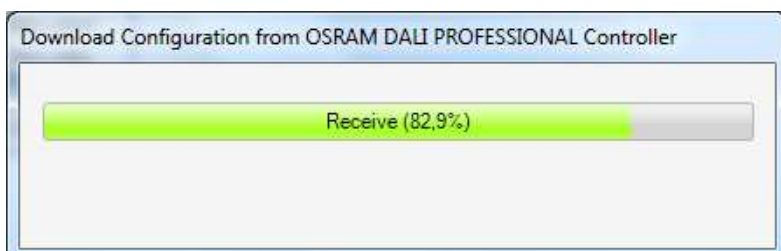
Download only works if project is uploaded before with DALIpro ≥ v1.3.0.0.

Simultaneous View of Picture and Graph - Design of View Window
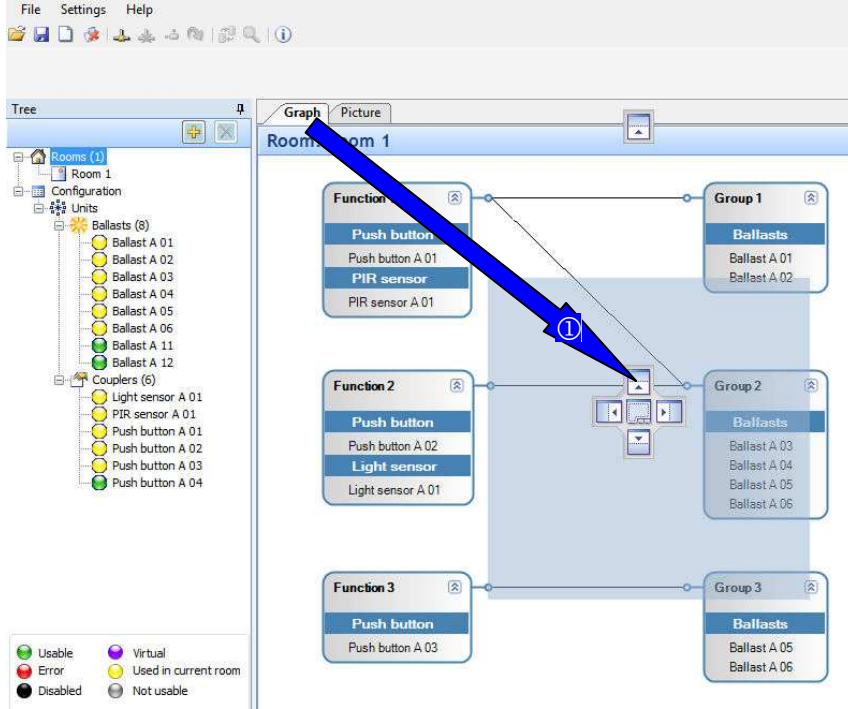
① click marker tab and pull to requested position
in this case above Picture view

② result :
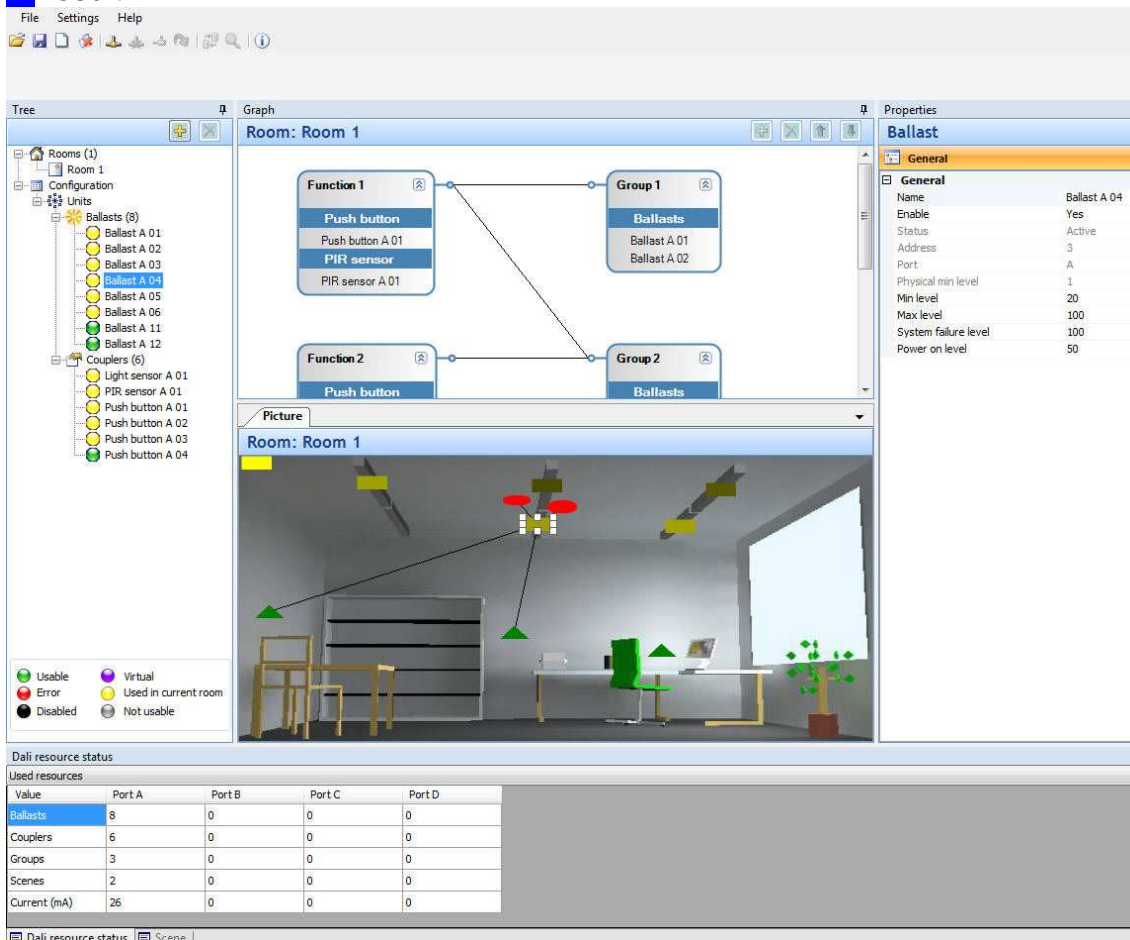
Reset of window design
Click 'Reset layout' symbol, close software and start software again

Firmwareupgrade Controller

With every new GUI-Softwareupgrade e.g. from OSRAM Internet www.osram.com/software)
the latest firmware for the controller is automatically included. The upgrade is done by USB
connection to controller

Open OSRAM DALI Professional software, click ⓘ in menue line
click marker tab "firmware update" -> search, choose, update
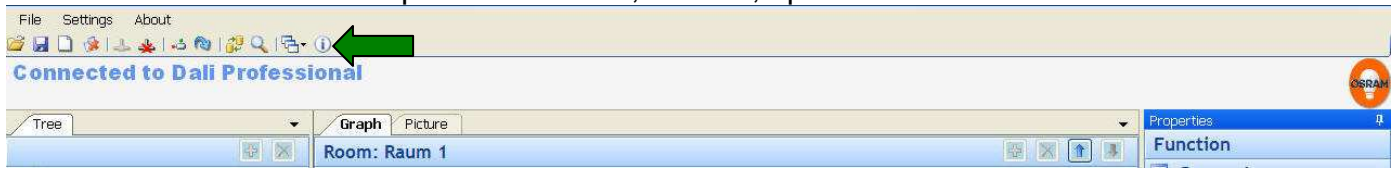
Screens for start of firmwareupgrade
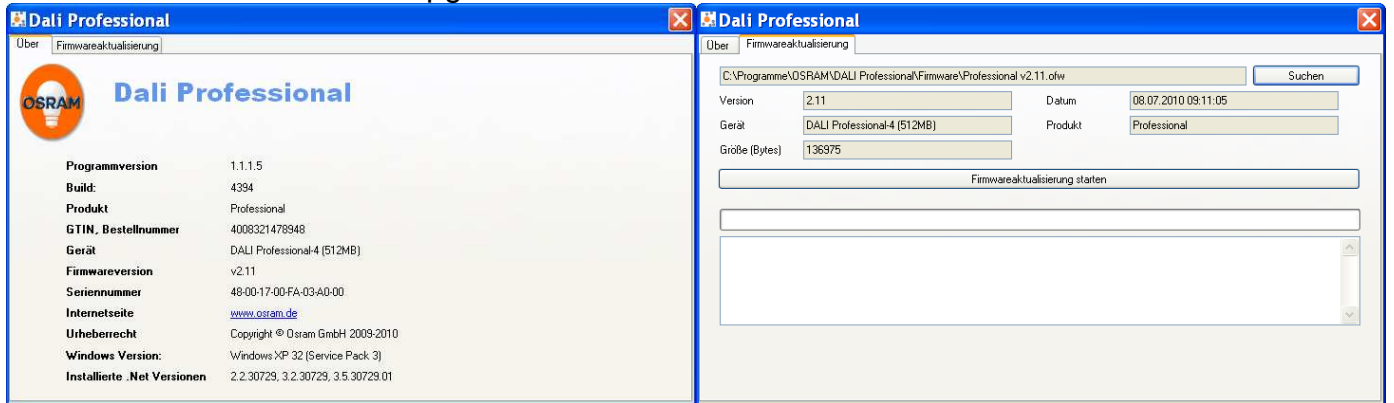
Default path for firmware (stored there with software installation)
C:\Program Files\OSRAM\DALI Professional\Firmware

Screen during installation
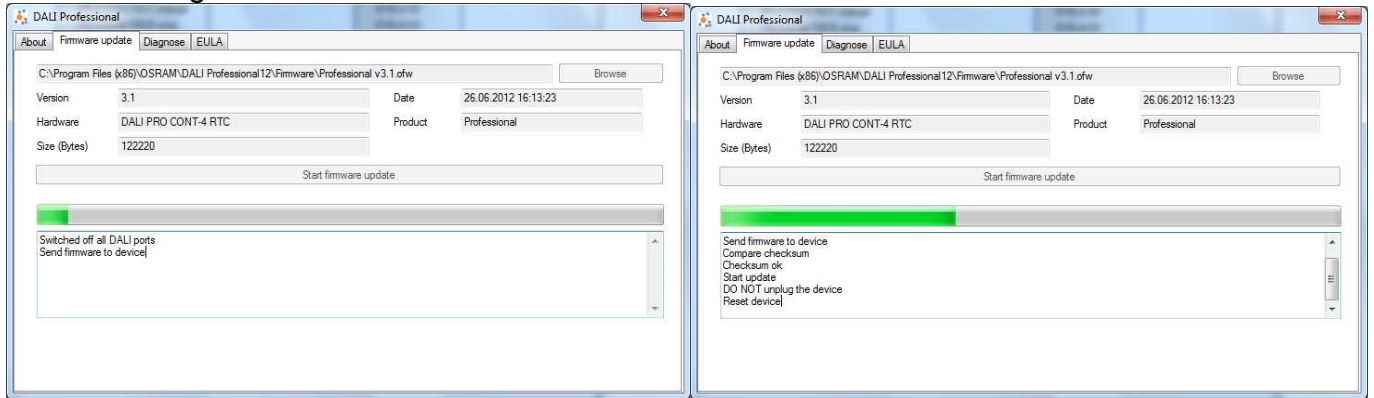
When update finished - close window, reset controller by mains voltage / USB interruption
Wait minimum 10 seconds, connect controller mains voltage / USB again.

Now the installation is available with new firmware
with click to ⓘ in menue line the new loaded version number shows up.

Detailed Controller Informations
Click on controller on bottom of device tree - General Controller Data visible

Properties	
Controller	
General	
Data	
Name	Osram
Product	Professional
Hardware	DALI PRO CONT-4 RTC
Global trade item number	4008321710871
Serial number	004800A003FA0C01
Firmware version	3.11
Configuration on Controller	te
Created by	DALI Professional v1.5.0
Date	19.11.2013 15:03:49
Username	w.kaa
Computer name	TRTPC40128
Domain	OSRAM_DE

Tree
- Rooms (1)
  - Raum 1
- Configuration
  - Units
    - Ballasts (8)
    - Couplers (20)
    - Timers (0)
    - LAN inputs (0)
    - Others (0)
  - Controller

Status Messages

Properties	
Controller	
General	
State	
Data	
Controller	Running

Properties	
Controller	
General	
State	
Data	
Controller	No power suppy

Properties	
Controller	
General	
State	
Data	
Controller	OK
Port A	Short circuit
Port B	OK
Port C	OK
Port D	OK

Wiring Check in Ballast Test
Click to Ballasts in Device Tree, Start Device Test.
Shortcut with between DALI lines will be detected (correct polarity required)

OK   **DALI port A connected with DALI port B**
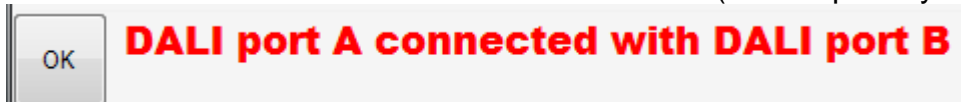
APPENDIX
DALI PROFESSIONAL System and Configuration Software

Wires
We recommend to carry the 2-pole DALI line with the usual electrical installation e.g. NYM 5-wire. The DALI bus is no safety low voltage and has to be handeled like mains voltage.

Mains Interruption
After mains voltage interruption the last project light status will be re-established

Mains Voltage Sensitivity of the DALI Connections
During switch-on the Controller is protected against mains voltage on DALI terminals, but there is no protection during operation. The couplers are not protected against wrong wiring with mains voltage and can be destroyed.

DALI Supply
OSRAM DALI PRO CONT-4 supplies max. 200 mA to each DALI line

DALI Linefailure
In case of a shortcut in a DALI line the according LED of the Controller will show this by flashing.
The remaining DALI lines still have full functionality in a finished project. But during device search DALI shortcuts can cause problems in the whole process -> solve wiring failures first before commissioning.

System Reset
To bring the controller into the delivery status (plug & play functionality) an empty configuration has to be uploaded. After this the connected devices can be reset to delivery status by longpress on button ON/OFF/DIM until PowerLED flashes. With this the function of the system is the same as in a new installation without configuration, means all connected pushbuttons / PIR sensors act parallel to create default action in the according DALI line.

Setup with Plug&Play
see Controller manual

Select Language
Click 'Configuration' in left tree, select language in properties on the right side of the screen
or click on according flag in Menue Line. Then close software and, open it again

Addressing
ECG are addressed and operated according DALI Standard IEC 62386-101, -102
Coupler are used acc. status of IEC 62386 (2010 OSRAM / Siemens proposal)

Groups, Functions
are created visually in Graph view

Scenes
Creation of scenes and visualisation in Picture view

Eventcontrol - Stairway Function, Corridor Function
Use PIR Sensor with function Movement and configure Actions

Sequences see Eventcontrol
Time dependent control see Eventcontrol

Central OFF
Create additional room and group containing all ECGs and connect according pushbutton

Energysaving by Daylight Harvesting
see Light Regulation page 10

ECG Exchange
replace a defect ECG by merging with exisiting configuration (Merge function)

Lampdefect
If ERROR-LED is flashing at the Controller there is a lampfailure (missing or defect lamp).
Related DALI Port and ECG name is reported in message line. Lampfailure message can be disabled by 'Check lampfailure' = 'no' in Configuration / Properties / General.
Lampfailure message can be reported to BMS, details see chapter 'Report Lamp Failure to Relay'

Remote Connection of PC to Controller - USB to LAN / WLAN
successfully tested with BELKIN Hub F5L009 (USB to LAN) and D-Link DAP 1160 (LAN to WLAN)

Supported Windows Versions
Successfully tested with Windows XP, Windows Vista, Win7, Win8.

Use of Competitor Products
Non-OSRAM devices e.g. ECGs can be used if DALI-Standards are fulfilled. But for these devices we cannot ensure the full functionality. For DALI couplers the standartisation is ongoing and not finished (IEC 62386-103,-104 Input Devices), therefore only OSRAM and Siemens products are well defined in this system.

ECG Parameter Setting
Standard DALI ECG parameters e.g. System Failure Level can be set directly within the software

|		
Ballast A 05	Min level	20
Ballast A 06	Max level	100
Ballast A 11	System failure level	100
Ballast A 12	Power on level	50

Also a common change can be created for all ECG on 'Units' level in device tree.

Use of already adressed ECGs
If during setup there are found used ECGs which carry e.g. already a DALI short adress so this will be unchanged. Should there be 2 identical addresses the conflict will be solved by automatical address shift.

Wire Length Pushbutton to Pushbutton Coupler
The maximum wire length of Pushbutton to Pushbutton Coupler is 2 meter. Direct extension is not possible because the power of the coupler and sensor is supplied from DALI line and with this there is a lower EMI tolerance. But the coupler input can be used with a relais dry contact output and the relais is controlled with a mains voltage signal from longer distance.

230V AC
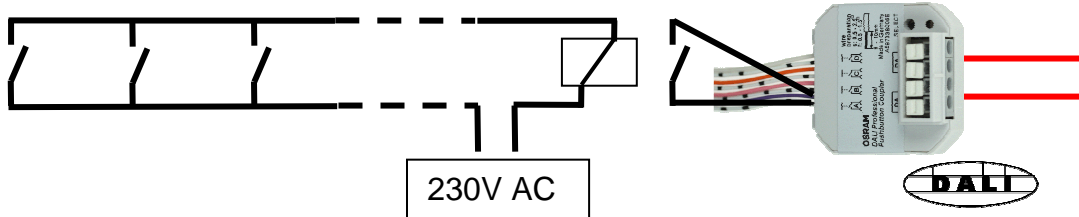
Pushbutton Coupler Connector - Graphic Representation in Tree for Pushbuttons
During a perfect setup a selfexplaining name shall be given e.g. ' Room2_PushbuttonRight'.
The automatic predefined names show :
Coupler type + DALI Linie + Unique serial number of the coupler + Input name (see label) + Color of connected cable.

Couplers (4)
- PB A 0-0-6-150 A violet
- PB A 0-0-6-150 B pink
- PB A 0-0-6-150 C orange
- PB A 0-0-6-150 D white

Only One Sensor per Sensorcoupler
In case of MULTI3 controller up to 4 sensors can be connected because the device is directly conneted to mains voltage. In the DALI Professional system the power of the coupler and sensor is supplied from DALI line. To maximize the total number of possible sensors per DALI line and to avoid additional circuit complication only one Sensor per Sensorcoupler is allowed. But 10 Sensors/Sensorcoupler can be used together in one regulation (level averaging).

Wire Length Sensor
The maximum wire length of LS/PD Sensor to Sensorcoupler is 5 meter. An extension up to 50 m like with MULTI3 is not possible because the power of the coupler and sensor is supplied from DALI line and with this there is a lower EMI tolerance.

Lightsensor Installation
The OSRAM LS/PD MULTI lightsensor is optimized for 2..4 m distance to the measurement area.
With OSRAM DALI HIGHBAY ADAPTER up to 13 m can be achieved.

Sensorcoupler Setup
The configuration software recognizes the requested PIR by movement in the related area.
-> 2 blinking dots (together with combined lightsensor)
for advanced users : naming of PIR / LS also possible after setup with Testfunction

PIR Sensor Application Specialities in Application Type Office (default)
If in a room with PIR sensor the light is already on, the PIR event will not change the current light situation.
Reason : No override for manual changes by movement / occupancy detection.
Furthermore the PIR sensor action is blocked for 30s after manual off to give the chance to leave the room.
Application type setting Industry is different - see chapter 'Application Type Setting'

**Use of MULTIeco functionality in DALI Professional System**
PIR can be inactivated by not using an action in ‚Movement'
PIR only for shut-off can be achieved by setting ‚time to action' e.g. 300 s und Action = OFF.
With this the timer starts with each movement and after 5 minutes without presence the light will switch off.
In both cases a pushbutton should be configured with 'Shortpress' for manual operation.

Energysaver Function by Mains Switching with Controller Integrated Relay
To to be solved by later updates.
New : OSRAM DALI EVG standby power losses reduced to 200 mW (1 and 2-lamp)

Corridorfunction
with OSRAM DALI Sensorcoupler - independent configuration with flexible steps, delays, ramps
with other devices e.g. OSRAM HIGHBAY Sensor use floating contact / input of DALI HIGHBAY Adapter
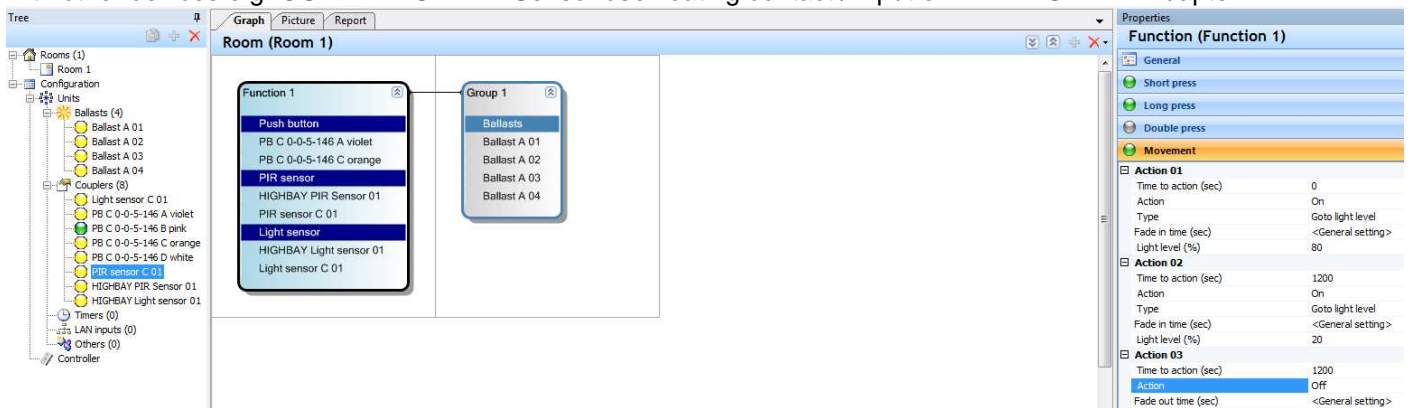
Project Documentation
as whole project date in DALIpro dataformat - xxxxx.osrdpc
as project document incl. all devices and functions - print HTML document from Configuration Report

Create Diagnostic File
To enable a better analysis of problems a diagnostic file can be created und sent via email.
How to use : click ⓘ in menue line, click 'Diagnose' -> create file in predefined folder

DALI Logo
The official DALI Logo ⬬DALI⬭ is not allowed on the product because the standartisation of Input Devices IEC 62386 (Input Devices) is not finally signed by the committee.
Conformity with the requirements to control DALI ECG IEC 62386-101, 102 is already given.

Emergency Lighting
not implemented

Firmwareupgrade Controller
Together with each upgrade of the software (e.g. via OSRAM internetpage www.osram.com/software)
there is transported automatically the latest firmware of the controller. Installation via USB cable to controller
(no mains supply required for this upgrade)

Procedure : open OSRAM DALI Pro Software, click ⓘ in menue line
-> submenue 'update firmware' -> search, select -> Update
-> details see chapter 'Firmwareupgrade Controller'

DALI Professional System features with DALIpro Software 1.5.0
Limits, maximum values per DALI PROFESSIONAL Controller CONT-4 (RTC)

- 4x maximum 64 ECG addresses
- 4x maximum 64 input device addresses (sensors / pushbuttons)
- Current limitation 200mA per DALI port
  -> total limit of number of ECG + input devices depending on mix
- 4x max. 300m DALI line length, wires ≥ 1.5mm^2
- max. 5m Sensor to Sensorcoupler
- max. 5m Lightsensor distance to measurement area (depending on reflection characteristic)
- max. 2m Pushbutton to Pushbutton Coupler
- 4x switch-over relais maximum 5A ohmic load each

System Features

- out-of-the-box plug & play functionality if no configuration loaded
- 4x 16+ Groups, line overlapping allowed
  '+' means additional 'virtual' groups possible by software, but uses addressed commands
  Final max. number of groups only limited by controller memory
- 4x 16 scenes, line overlapping allowed, but then one scene used for each line
- 4x 8 active light regulation loops
  more possible when noticeable delay accepted, limited by reaction times
- full- and semi-automatic energy saver function with occupancy- and light-sensor
- up to 10 lightsensors / sensorcouplers per regulation
- corridor function with unlimited steps
- PIR disable / enable function
- sequences consisting of scenes, fade control, loops
- scene stepping
- visible ressource status message
- switch function e.g. for Highbay Sensor integration
- serial / parallel configuration of grouped switches
- programmable internal relay to be used in action list
- testfunction for all DALI devices
- configuration check against physical available devices
- simple 'failed ECG' replacement
- retrieve configuration by download from controller
- full project documentation in HTML file
- up to 50 timers can be configured (RTC version only)

Perfect for

- industry hall
- warehouse
- classrooms
- single office
- large office
- meeting room
- corridor

Version:
December 2013

Please note:
All information in this manual has been prepared with great care. OSRAM, however, does not accept liability for possible errors, changes and/or omissions. Please check www.osram.com or contact your sales partner for an updated copy of this manual.

Software updates:
To ensure the latest software version is used please consult the OSRAM website www.osram,com in regular intervals (once a month).New versions will be released due to software improvements, additional supported devices and bug fixing.