OSRAM

User Manual DALIeco PC-Software

(For DALIeco PC Software Ver. 1.0.4.xxx)

## Table of contents

0. Introduction

The DALIeco PC software allows a comfortable creation and visualisation of individual configurations for the DALIeco control unit. Configurations can be uploaded to the memory of the DALIeco master remote via USB and subsequently transmitted on a single button press to the control unit by IR telegrams.
In addition to that, buttons of the master remote can be disabled or enabled and the IR code of the control system can be changed.

1. Graphic user interface (GUI) layout
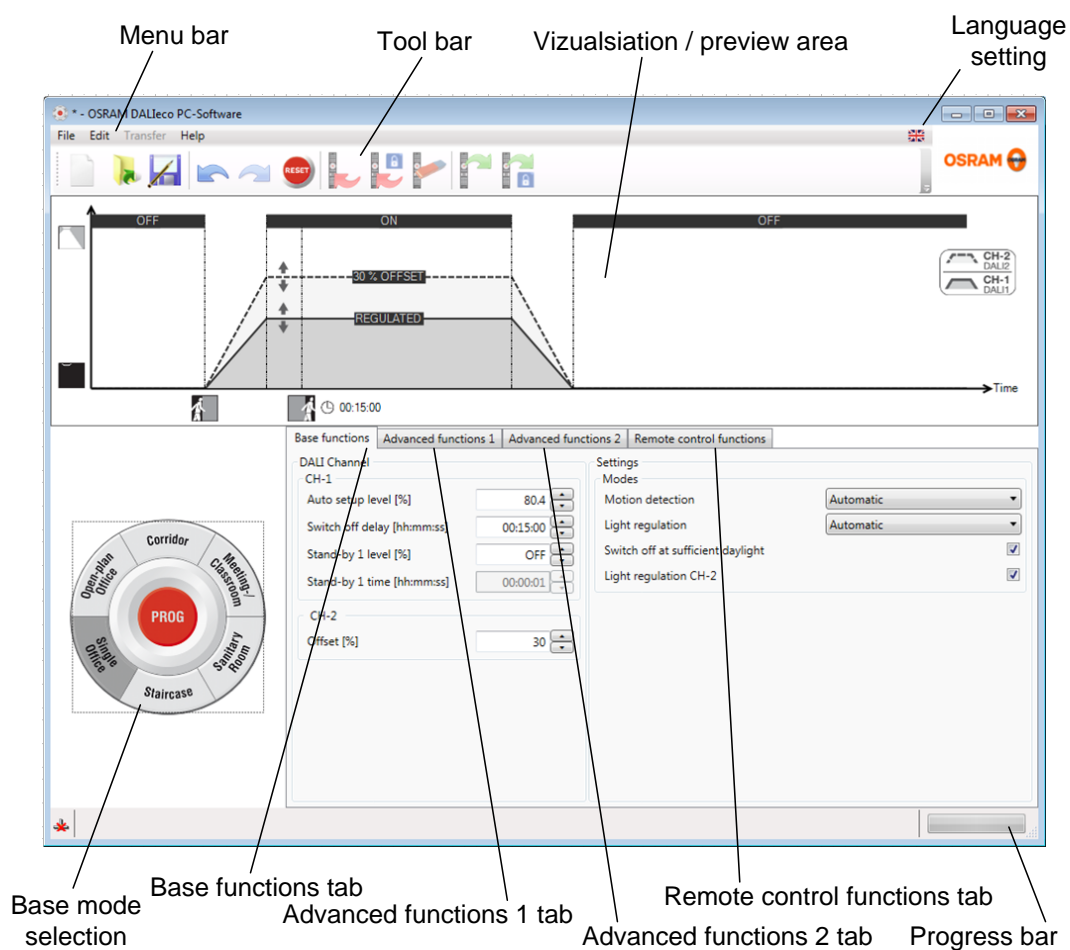
2. Menu bar

2.1. File Menu
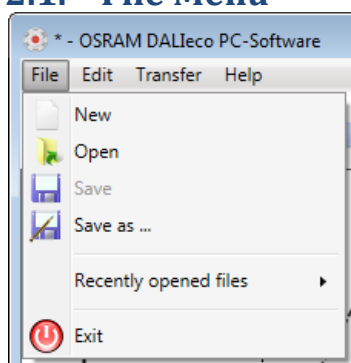
The *File* menu bar offers following options

- Create a *New* project (all settings of the GUI will be reset to default)
- *Open* an existing project:
  A standard file selection window will be displayed and a previously stored DALIeco project file (*.osrde) can be selected
- *Save* current changes to the current project file
- *Save* current settings *as* a new project file
- Select and open one of the *recently opened files*
- Close and *Exit* the DALIeco PC Software

2.2. Edit Menu
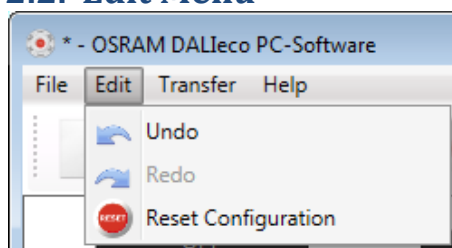
The *Edit* menu bar offers following options

- *Undo* last action
- *Redo* last action
- *RESET* current configuration settings to default

2.3. Transfer Menu
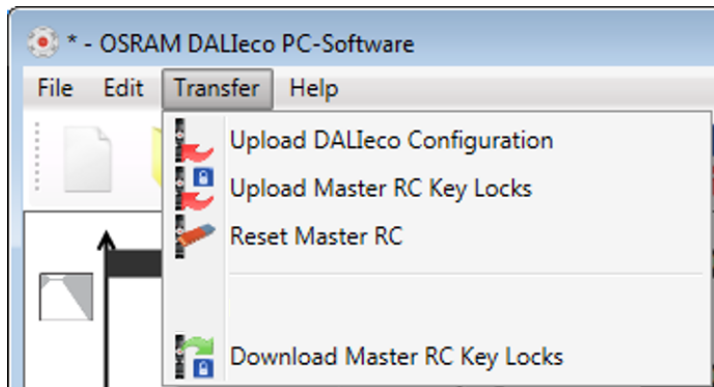
The *Transfer* menu bar offers following options

- *Upload* the current *DALIeco Configuration* to the memory of the master remote
- *Upload* the current enabled / disabled *Key* settings to the *Master R*emote *C*ontrol
- *Reset* the enabled / disabled Key settings to the *Master R*emote *C*ontrol (= all keys enabled)
- *Download* *t*he enabled / disabled *Key* settings from the *Master R*emote *C*ontrol to the PC

Remark:
The *Transfer Menu* is only fully accessible if a Master Remote is connected to a USB port of the PC via the red OSRAM Original equipment USB cable.

2.4. Help menu
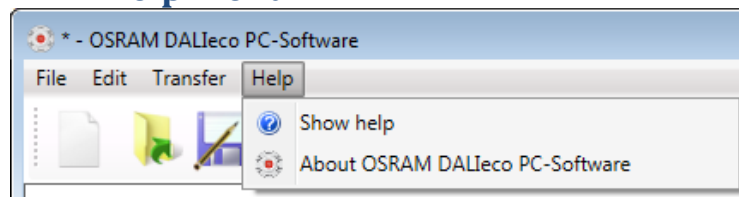
The *Help* menu bar offers following options
- *Show help* file via PDF reader
- Display information *About* the *OSRAM DALIeco PC-Software*

2.5. Change language
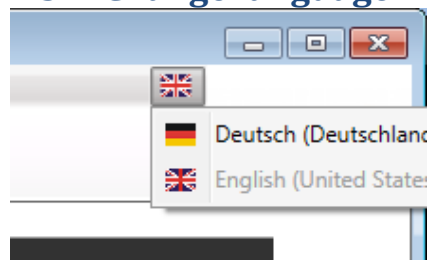
The language of the GUI can be changed by clicking onto the flag icon on the right side of the menu bar.

3. Tool bar

Create a new project

Open a new project

Safe current project to a new location

Undo last action

Redo last action

RESET all settings to default

Upload configuration to the master remote

Enable all keys of the master remote

Upload key lock setting to the master remote

Download the key lock setting to the PC

4. Visualization area

Light is on

States

Dimming level axis

Light is off

Event

Timer setting

Dimming level DALI channel 1

Dimming level DALI channel 2

Time axis

The visualization area provides a preview of the "light over time behaviour" of the two DALI channels. While the Y-axis shows the dimming level, the X-axis reflects the progressing time.
Triggered by events (e.g. detected motion or an expired timer), the control unit changes between different states. Types and number of the depicted states depend on the selected base mode and the individual configuration.

5. Individual functions setting

5.1. Base functions

The base functions represent the most important and most common parameter settings.

5.1.1. DALI channel

- **Auto setup level**
  The auto setup level is the percentage of the artificial light that the controller will choose as set point for the daylight dependent close loop control, when the *Auto setup* button of the master remote is pressed during programming mode or the sensor integrated button is pressed for more than 10s.
  Remark: This parameter is only available if the *Light regulation* is activated (= set to *Automatic* or *Semi automatic*).

- **On level**
  The *On level* is the dimming level of channel 1 respectively of channel 2 that the controller will establish when it changes to the *ON-state*.
  Remark: This parameter is only available if the *Light regulation* is set to *OFF*

- **Switch off delay**
  The *switch off delay* is the time after that the controller will leave the *ON*-state.
  The *switch off delay* time is retriggered by each motion signal or manual user operation.

- **Stand-by 1 level**
  This level will be established after leaving the *ON-state*. If the light regulation is activated the percentage value is not an absolute dimming level but a relative value to the set point. If the *Stand-by 1 level* for both channels is set to *OFF,* the controller will skip the *Stand-by 1* state and directly change to the *OFF-state*.

  Example for a relative stand-by level: If the stand-by level is set to 50%, the controller will reduce the regulation down to 50% of the regulation level choosen for the *ON-state*.

  Remark:
  - If light regulation is enabled channel 1 and 2 are linked by the choosen offset.
  - If light regulation is set to *OFF*, the stand-by levels are absolute values and can be set differently for channel 1 and 2.

- **Stand-by 1 time**
  This is the time after that the controller will leave the *Stand-by 1* state and either change to *Stand-by-2* or *OFF-state*.

- **Offset**
  The *Offset* is the percentage difference in light output between channel-1 and channel-2. Example: If the offset is set to 30%, the dimming level of channel 2 is 30% higher than the dimming level of channel-1.
  Remark:
  An offset can only be configured if the light regulation is set to automatic or semi automatic and the *Light regulation CH-2* is enabled.

5.1.2. Modes

- **Motion detection**
  Three different settings are possible:

  o **Automatic**
     Light will switch on if somebody enters the detection area and will switch off if no motion is detected and the delay time expired.
     Remark:
     If daylight regulation is active and the amount of incoming daylight is sufficient, the light will <u>not</u> be switched on by motion signals.

  o **Semi automatic**
     Light will <u>not</u> switch on if somebody enters the detection area, switch on requires a manual action by the user, e.g. pressing the push button. Light will switch off if no motion is detected and the delay time has expired.

  o **OFF**
     Motion detection is disabled

- **Light regulation**
  Three different settings are possible:

  o **Automatic**
     Light will be regulated according to incoming daylight and the stored set point. It will be switched off, if the amount of daylight is sufficient. If the amount of daylight decreases below set point light will switch on automatically.
     Remark: If motion detection is enabled, automatic switch on by decreasing daylight is disabled when no persons are within the detection area and the delay timer has expired.

  o **Semi automatic**
     Light will <u>not</u> switch on if the amount of daylight falls below the regulation set point. Switch on requires a manual action by the user e.g. pressing the push button.
     Remark: If motion detection is enabled, light will switch on by decreasing daylight automatically when persons are within the detection area or the delay timer has not expired yet.

  o **OFF**
     Light regulation is disabled.

- **Switch off at sufficient daylight**
  If this check box is true, the daylight dependent regulation will switched off the channel-1 and 2, if the amount of daylight or ambient light is sufficient. If the corresponding check box is false, the artificial light will stay at the configured *Min Level* (see *Advanced functions 2* tab) as long as the control unit is in *ON-state*, *Stand-by 1 state* or *Stand-by 2 state*.
  Remark:
  - Setting of this parameter is disabled when the light regulation is set to OFF
  - If *Light regulation CH-2* is disabled, channel-2 will <u>not</u> switch off due to sufficient daylight.

- **Light regulation CH-2**
  If this check box is true and daylight regulation is active, CH-2 is linked to CH-1 by the *Offset*. If the check box is false, light regulation of CH-2 disabled and all values for CH- 2 are absolute static values (= channel is in a pure control mode, not linked to CH-1).
  Remark:
  - Setting of this parameter is disabled when the light regulation is set to OFF.
  - If light regulation of CH-2 is disabled and therefore CH-2 is not linked to CH-1 by *Offset*, a manual dimming of CH-2 will <u>not</u> interrupt daylight regulation of CH-1.

5.2. Advanced functions

5.2.1. Advanced functions 1

5.2.1.1. Settings DALI Channel

- **Stand-by 2 level**
  This level will be established after leaving the *Stand-by 1-state*. If the light regulation is activated, the displayed percentage value is not an absolute dimming level but a relative value of the set point. If the *Stand-by 2 level* for both channels is set to *OFF*, the controller will skip the *Stand-by 2* state and will directly change to the *OFF-state*.

  Example for a relative stand-by level: If the stand-by level is set to 50%, the controller will reduce the regulation down to 50% of the regulation level choosen for the *ON-state*.

  Remark:
  - If light regulation is enabled, CH-1 and CH-2 are linked by the choosen offset.
  - If light regulation is disabled for CH-2 only, a separate static absolute value can be set for CH-2.
  - If light regulation is set to *OFF*, the stand-by levels are absolute static values and can be   set for channel 1 and 2 differently.
  - Configuration of a *Stand-by 2-state* is only possible, if a *Stand-by 1-state* exists.

- **Stand-by 2 time**
  This is the time after that the controller will leave the *Stand-by 2 state* and change to *OFF- state*.

5.2.1.2.   Settings General

- **100h burn in**
  If this function is enabled, the controller will block dimming for 100h.
  A burn in is recommended especially for low pressure discharge fluorescent lamps to achieve proper dimming quality and the full lamp lifetime. As long as the burn in procedure is active the Sensor LED is permanently lit red.
  <u>Important Remark:</u>
  During the burn in process the DALIeco control unit will not react to the Remote or push button operations. The process can only be interrupted by either entering the programming mode and pressing the burn in button of the master remote or by disabling this function via the PC software and transfer this setting to the controller by the master remote.

- **Autosetup delay**
  The auto setup reveres to the nominal light output of the luminaire. Fluorescent lamps need a certain time until the full luminous flux is established; therefore by setting this check box to true, a 3 minutes delay, where the light output is set to 100%, can be activated before the automatic set point storage is performed.

- **Automatic compensation of lamp aging**
  If this function is enabled <u>and</u> the light regulation is set to *OFF* the controller will increase the DALI levels of all stages periodically by one step until 100%.
  <u>Remark:</u>
  The compensation starts/is reset when new levels for the *ON-state* are programmed.
  The *Automatic compensation* of lamp aging is linked with the parameter *Constant lumen burning hours.*

- **Constant lumen burning hours**
  This are the number of burning hours that will elapse until the Light source will be at end of life and the *ON-level* will reach 100%

  <u>Example for Automatic compensation of lamp aging with Constant lumen burning hours</u>**:**
  The <u>initial</u> light output for an LED fixture to reach the desired lux level on a floor of a manufacturing hall is calculated with 70%. Service lifetime of the fixture is 50.000h.
  → Set the *Constant lumen burning hours* to 50.000 and enable *Automatic compensation of lamp aging.*
  → Set the *ON level* to 70%

  → The control unit will increase all levels periodically. After 50.000h the *ON level* will reach 100%

- **PIR inhibit time**
  This time defines how long motion signals will be ignored and do not lead to a switch on after a manual switch off by the user.
  <u>Remark:</u>
  The PIR inhibit timer is retriggered by every motion signal.

- **State after power failure**
  This setting defines the power up state the controller will establish after a mains interruption.

- **Smoothing of dimming**
  This parameter allows to improve the dimming performance especially of LED solutions by programming a DALI Fade time to the connected ballasts.
  Following settings are possible:
  - o **None** = DALI Fade time 0
  - o **Low** = DALI Fade time 1
  - o **Medium** = DALI Fade time 2
  - o **High** = DALI Fade time 3

  Remark:
  The transfer of the corresponding DALI Fade Time to the ballasts is done in the power up phase of the controller, so a change of this parameter requires/is effective after power interruption of the system.

5.2.1.3. Settings Synchronization

If control units are interconnected, an exchange of information is possible which allows a synchronous behaviour of lighting control installations consisting of multiple DALIeco controllers. The synchronization can be achieved by a 2 wire cable connection or wirelessly by using the DALIeco Swarm Adapter.

- **Motion detection**
  If this function is enabled, the control unit will share own motion signals with the interconnected units and react on motion signals from other units.

- **On via push button coupler**
  If this function is enabled, the control unit will share the switch on event by a press on the push button connected to push button coupler input C and react to corresponding switch on events from push button couplers from other units.

- **Off via push button coupler**
  If this function is enabled, the control unit will share the switch off event by a press on the push button connected to push button coupler input D and react to corresponding switch off events from push button couplers from other units.

5.2.2. Advanced functions 2

5.2.2.1. Settings DALI Channel

- **Max level / Min level**
  To avoid too low or too high levels of artificial light, the dimming range can be restricted by setting an individual *Min level* or *Max level.*
  Remark:
  - These Min and Max setting affect light levels of all states, therefore it is recommended to   first set the required Min and Max level and afterwards configure the light levels of *ON-* and *Stand-by* states.
  - If *light regulation* is enabled, Min and Max levels of CH-1 are valid for CH-2 also.
    If light regulation is set to OFF or disabled for CH-2, different Min / Max setting for the 2 channels are possible.

- **Fade between states**
  If this checkbox is set to false, the change between states takes place instantly without fading.
  Remark:
  - A change to " No fade between states" is only possible, when the light regulation is set to *OFF* .

5.2.2.2. Settings direct connected Push button and Push button coupler

- **Double Click / Set point storage**
  If this check box is true and the light regulation is enabled, setting of a individual regulation set point is possible by dimming the light to the required level and double click on a direct connected push button.
  If this check box is true and the light regulation is disabled, an individual *ON level* can be set by dimming the light to the required level and double click on a direct connected push button.
  If this check box is set to false, double click to direct connected push buttons will be ignored.

- **Use sync. as 2nd push button input**
  If this check box is true the Sync. input of the control unit is unlocked for manual control and can work as 2nd push button input, allowing an individual manual control of CH-2.
  Remark:
  - To activate the push button control for CH-2 a push button has to be connected between push button input and GND, a second push button between Sync. and GND. By pressing   both buttons   simultaneously for 10s the two push button control mode is activated and confirmed by blinking of the lamps.
  - To deactivate the push button control for CH-2 both buttons have to be pressed simultaneously for 20s, deactivation is confirmed by blinking of the lamps.
  - If the check box *Use sync. as 2nd push button input*, the normal Sync. functionality is disabled.

- **Dimming (Push button coupler)**
  If this check box is true, a manual dimming / interruption of light regulation via push buttons connected to the push button coupler is possible.

- **Dimming (Direct connected push button)**
  If this check box is true, a manual dimming / interruption of light regulation via push buttons directly connected to the DALIeco control unit is possible.

  Remark:
  Manual dimming by directly connected push buttons or via push button couplers interrupt the automatic daylight regulation.

5.3. Remote control functions

The remote control functions tab allows enabling / and disabling dedicated buttons of the master remote. In a special OEM mode only the PC 1 / PC 2 button is enabled.
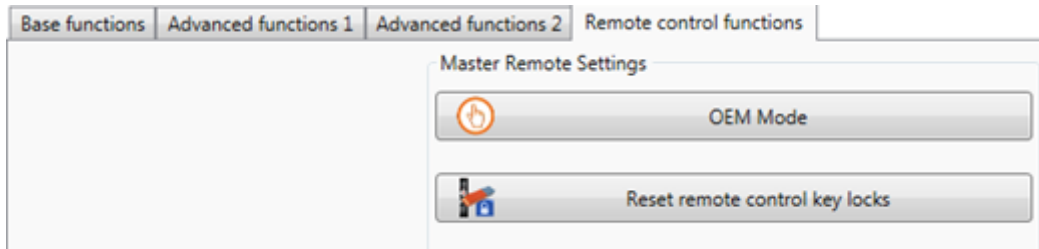
- **Selecting the OEM Mode**
  The OEM mode allows a simplified programming of DALIeco during luminaire production process. Selecting the OEM mode only the two PC mode buttons of the master remote are enabled.
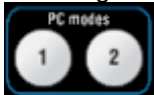

  On demand PC1 or PC2 button can be disabled individually.
  Within the OEM mode the configuration can be transmitted by a single button press onto the PC1 or PC2 button <u>without</u> entering the programming mode.

- **Locking / unlocking master remote keys**
  All keys can be enabled/unlocked or disabled/locked by clicking onto the depicted key of the master remote picture. The lock / unlock status changes at every click.

A disabled/locked key is highlighted in dark grey.

Enabled/unlocked key

Disabled/locked key
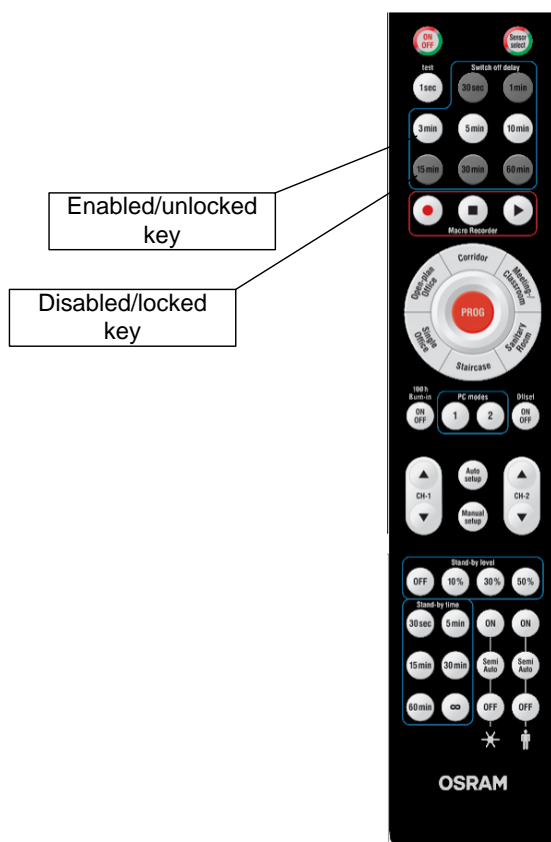
Remark:
All keys can be enabled/unlocked by the *Reset remote control key locks* button

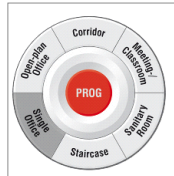# 6. Setup and transfer configurations to the Master Remote

6.1. Setup and transfer a complete new configuration to the Remote

6.1.1. Step 1: Create a new project (optional)

Create a new project by clicking on the icon [icon] of the tool bar or the file menu

6.1.2. Step 2: Select base operation mode
Select the base operating mode that corresponds to the target application by clicking on one of the keys

6.1.3. Step 3: Adjust individual parameters
Change parameters on the *Base functions* or the *Advanced functions* tabs as required (see Chapter 5).

6.1.4. Step 4: Transfer the configuration to the master remote
1. **Check if Master remote is connected to the PC via USB**
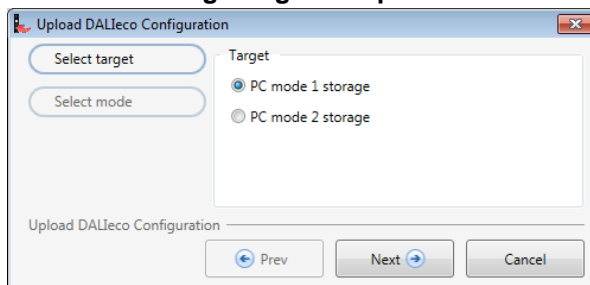   Remark:
   Please use the original OSRAM red USB cable with integrated USB driver Chip only!

2. **Choose the Upload icon from the tool bar or the point *Upload DALIeco Configuration* from the *Transfer menu***
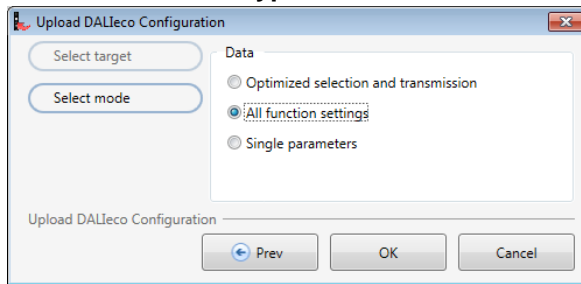

3. **Select the storage target and press *Next***

   Remark:
   PC mode 1 storage corresponds with the PC1 button PC mode 2 storage with the PC 2 button of the master remote.

4. Select the transfer type

- If you do not know the version / build date of the DALIeco control unit, chose "All function settings" which transfers all parameters independent of the chosen function mode
- For DALIeco control units with IC AB3233802G3 / date code 17xx or newer please chose "optimized selection and transmission", which reduces the amount of data and increases reliability and possible distance of the IR transmission

5. Press *OK* to start the transfer.

6.2. Setup and transfer an individual parameter

If only a single or a couple of parameters should be transferred to the DALIeco control unit to change an existing configuration, following steps have to be performed.

6.2.1. Step 1: Select a suitable base operation mode

Select the base operating mode that offers the setting possibility for the corresponding parameters by clicking on one of the keys
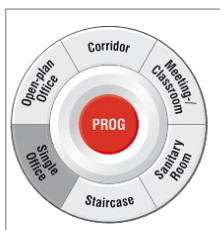
6.2.2. Step 2: Adjust individual parameters

Change the corresponding parameters on the *Base functions* or the *Advanced functions* tabs as required.

6.2.3. Step 3: Transfer the individual parameters to the master remote

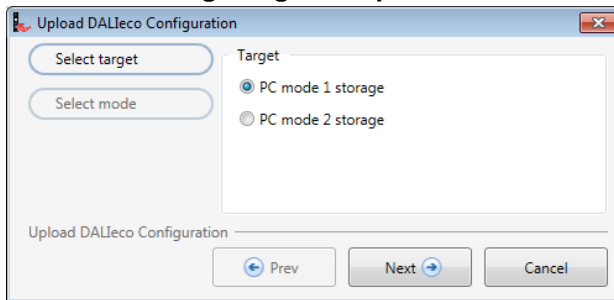## 1. Check if Master remote is connected to the PC via USB
Remark:
Please use the original OSRAM red USB cable with integrated USB driver Chip only!

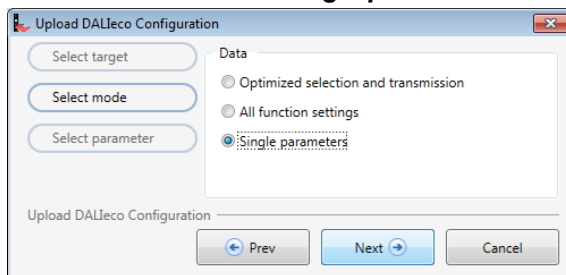## 2. Choose the Upload icon from the tool bar or transfer menu

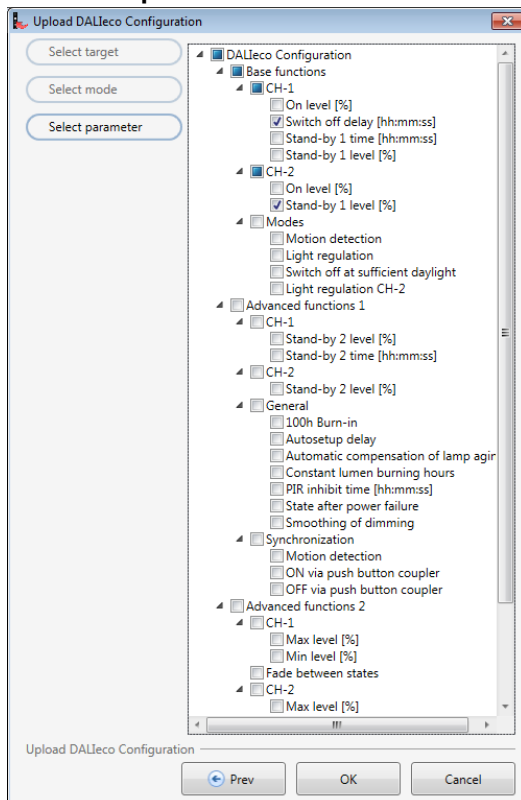**3. Select the storage target and press *Next***

Remark:

PC mode 1 storage corresponds with the PC1 button PC mode 2 storage with the PC 2 button of the master remote.

4. Select the transfer of *Single parameters*

5. Select the parameters that should be transferred

In this example only the *Switch off delay* time and the *Stand-by 1* level will be transmitted.

6.   Press "OK" to start the transfer.

7. Transfer configurations from the Master Remote to the DALI control unit

The configuration stored in the memory of the Master Remote can be transferred via Infra-Red to the DALIeco control unit.

Step 1:
Point with the Master Remote to the DALIeco sensor and make a long press to the "PROG" button of the Remote.
→ Lights will flash 1x to indicate that the DALIeco control unit is in programming mode.

Step 2:
Point with the Master Remote to the DALIeco sensor and make a short press on the "PC mode 1" or on the "PC mode 2" button of the Remote.
→ Lights will flash 2x to indicate that the transmission of the configuration was successful

Remark: if lights do not flash two times please reduce distance between Remote and sensor point straight to the sensor and retry.

Step 3:
Terminate the Programming mode of the DALIeco control unit by a short press to the "PROG" button of the Remote.
→ Lights will flash 1x and go back to last state before the programming mode

8. Miscellaneous

For information about the software version and display of release notes please click on the *About OSRAM DALIeco PC-Software* entry in the *Help* Menu

To open the user manual as PDF document please select the *Show help* entry.