

'INTERRA

Developer of Uniqueness

DALI Master

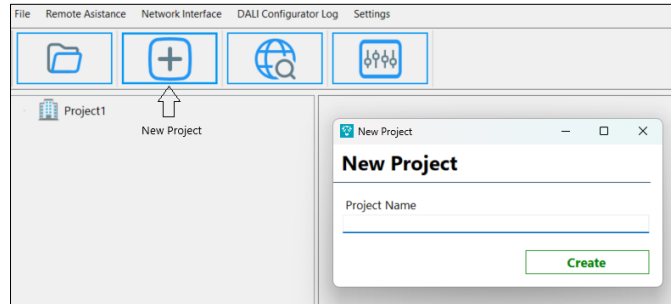
DALI Configurator User Manual

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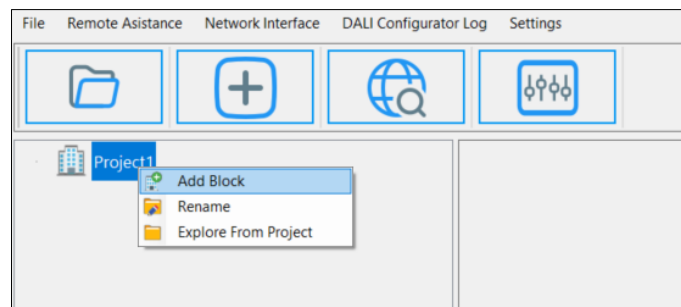
1. Creating a New Project

You can create a new project by DALI Configurator program to add and manage all of DALI masters, DALI input devices and DALI control gears. When you click Add Project icon upper left, you need to give a name to your project as seen Picture 1 below.



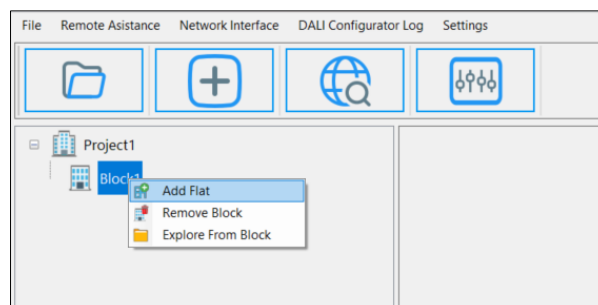
(Picture 1)

Created project is added to left side of configurator program. You can easily add new blocks by right click to project. It is shown in Picture 2.



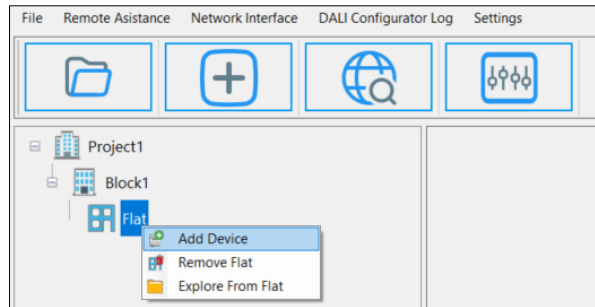
(Picture 2)

After adding new block you need to give it a name. Then you can add new flat by right click to flat. It is shown in Picture 3. You also need to give a name to new added flat.



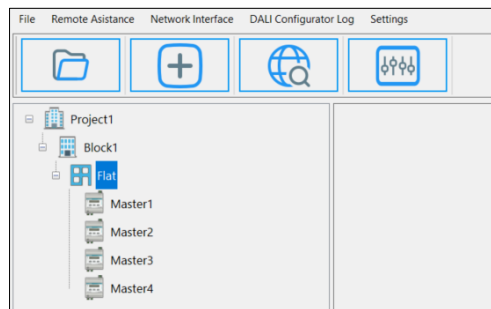
(Picture 3)

After adding a flat, you can add DALI master devices to your project. Right click to flat, then select add device as shown Picture 4 below. You need to enter DALI Master name and IP address.



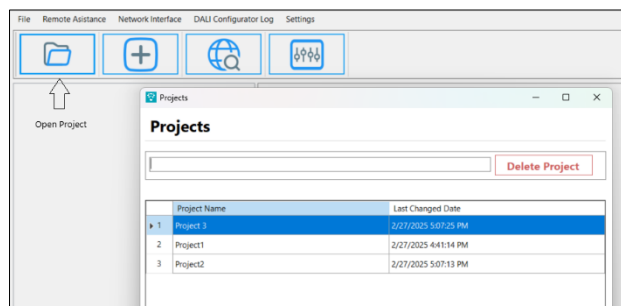
(Picture 4)

After adding DALI masters to your project, project tree in the left side is shown in Picture 5. To remove a DALI master from your project, you can right click DALI master then press Remove Device button. After adding a DALI Master, you are ready to address your DALI line easily to find connected input devices and control gears.



(Picture 5)

You can open previously added projects by click Select Project icon upper left. In this window you can see all created projects. Double click on a project then it will be opened. Also a project can be deleted. Selecting a new project is shown in Picture 6.



(Picture 6)

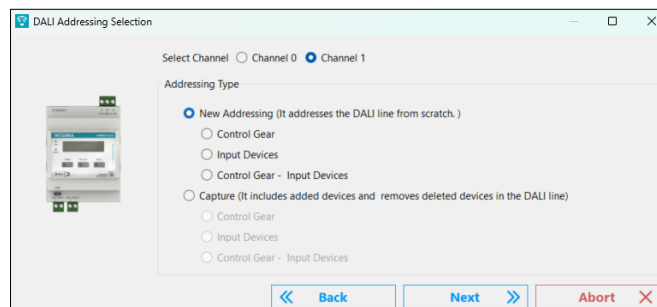
2. Starting Addressing(Commissioning)

After creating a new project then adding a DALI master to your project, you can easily start addressing of DALI line to find control gears and input devices. By double click to DALI master device on project tree, addressing settings section is seen as Picture 7. There are also some DALI Master specific information here.



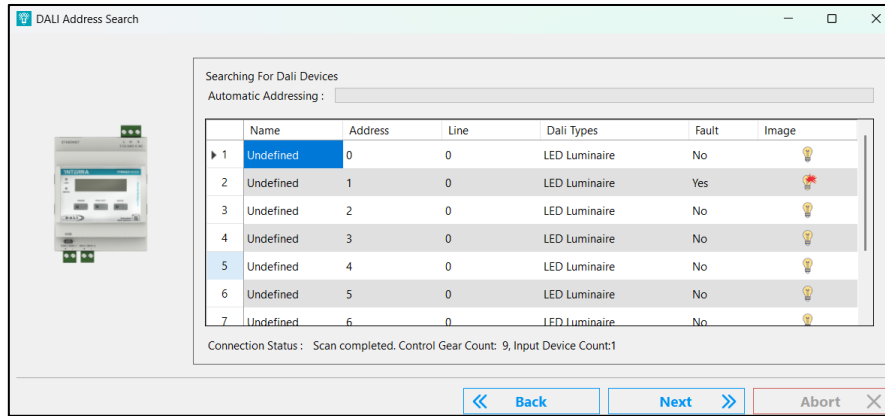
(Picture 7)

When you press addressing button, new window is appeared as shown in Picture 8. First parameter we need to take care is channel selection. We can address both DALI lines with DALI Configurator program. There are two addressing types. First one is new addressing. In this type of addressing, DALI short address, groups etc...parameters are deleted and previous configurations will be deleted for every device on this DALI line. We have to be careful so much while new addressing. Second addressing type is capture. In this type, previously addressed device's parameters are kept. If there are some removed devices, DALI master can understand it. If we add a new device which was addressed before or not doesn't matter, it is assigned a new available short address. If there are some deleted devices, their short address is assigned to a new added device. If there is no deleted device its address is set to last device's address plus one. Those two addressing type is supported for control gears and input devices. After we decide which addressing type is used, we can also select what kind of devices will be addressed; control gear, input device or both.



(Picture 8)

Press Next button to start addressing. While DALI master is addressing, DALI Configurator program shows every found devices. The lamp of a control gear can fail. It is also observed in DALI Address search window. Fault column shows lamp is fault or not. After addressing process is done, found control gear and/or input device count is shown below in Picture 9. All found devices are listed in project tree on left side. You can configure a device by double click on it. It may take little bit duration of time while getting DALI parameters. In the next section it is described that which parameters are used for which purpose.



(Picture 9)

3. LED Driver Parameters

LED drivers are commonly used control gear type. There are some basic actions that you can perform;

- To identify LED drivers form each other.
- Setting actual light level.
- Call maximum and minimum light level.
- Turn off the lamp.

There are 2 buttons which are Read and Save in the top left corner. To load parameters to control gear, use save button. Also you can read control gear information by click Read button. Some actions like assign and remove group, change short address don't need to press Save button. They effect immediately. Programing Scenes and DALI parameters needs to press Save button. LED driver parameters are explained in Table 1 and shown in Picture 10.

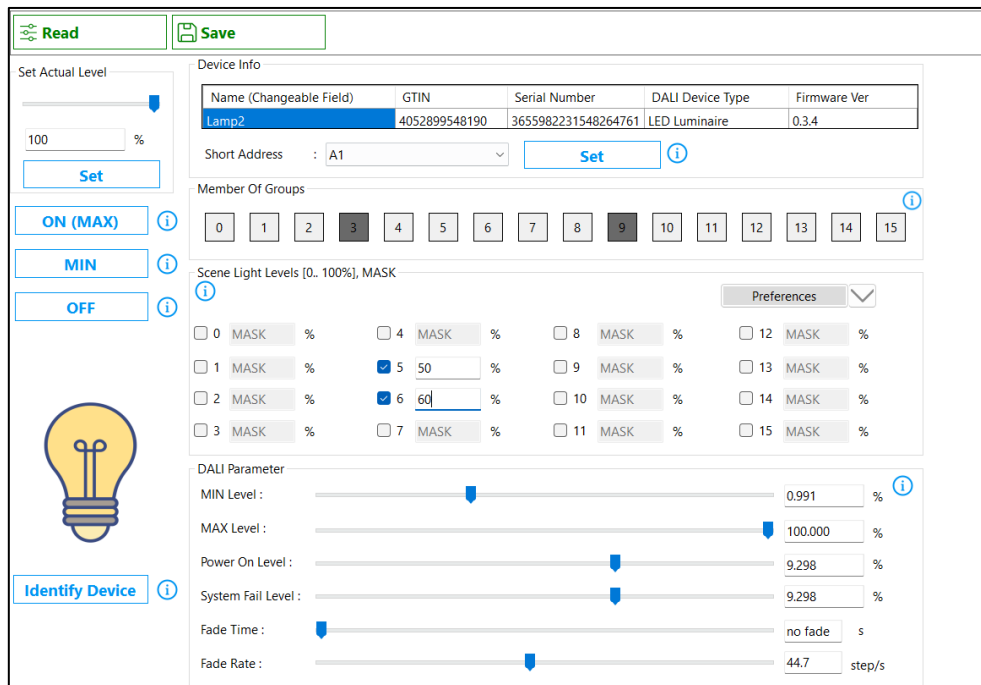
Parameter	Description
Short Address	Every DALI control gear has a unique address. It can be changed by Set button.
GTIN	Unique identifier for every LED driver used to identify products in the global supply chain.
Serial Number	Factory written number based unique id. Manufacturer related data.
DALI Device Type	DALI standarts described control gear types. LED driver, emergency lighting...
Firmware Version	Firmware version stored in memory bank of the control gear.
Name	Human readable name for LED Drivers. Maximum allowed character count is 10.
Group	Groups are used to access multiple LED drivers. There are 16 control gear groups in a DALI line. Click on a group button to assign or remove the group.

Scene

Scenes are pre-defined light levels. There are 16 scenes in a control gear. To set scene light level, click the checkbox then type the light level between 0 and 100. To remove a scene, make check box unchecked.

Minimum Level	Light level can't be lower than minimum level. There is also physical minimum level, so minimum level can't be lower than physical minimum level.
Maximum Level	Light level can't exceed maximum level.
Power On Level	After LED driver is powered up, light level goes to power-on level.
System Fail Level	Internal failure can be happened for LED driver. At that time light level goes to system fail level.
Fade Time	Sets how fast light level changes based on time.
Fade Rate	Sets how fast light level changes based on step.

(Table 1)



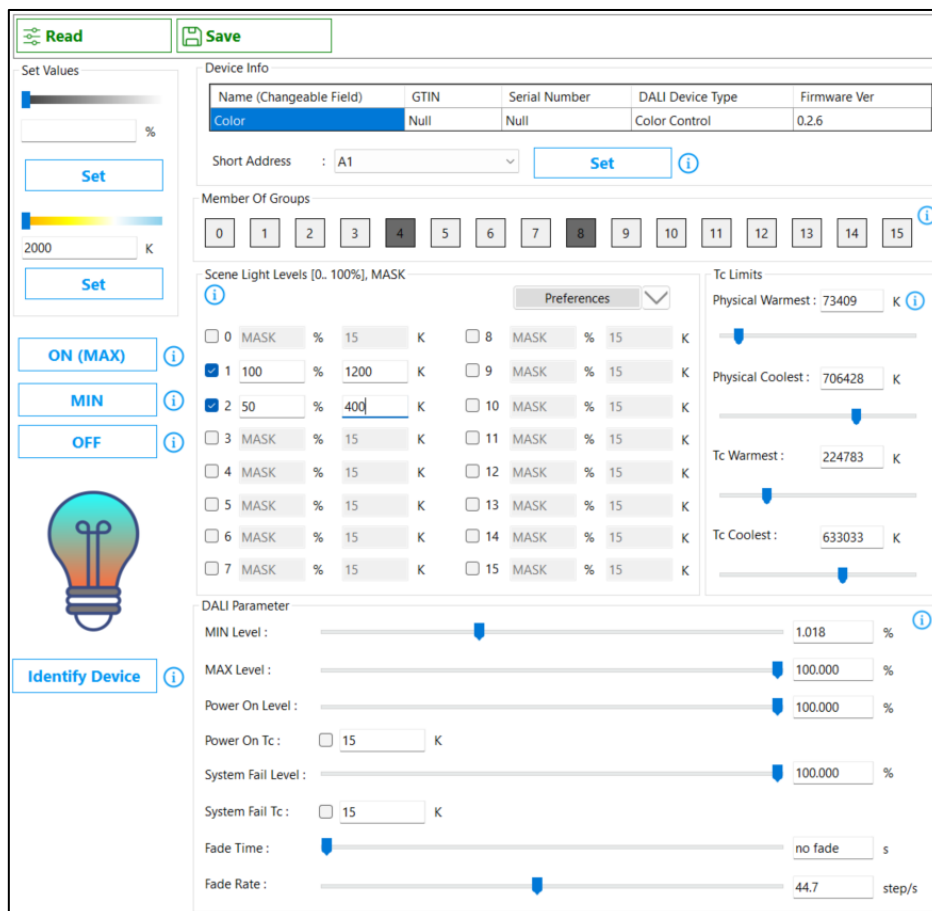
(Picture 10)

4. Color Temperature Parameters

Color temperature is a control gear type. Every LED driver parameters are valid for color temperature devices. There are also some additional parameters specific for color temperature. Actual color temperature can be set from here. The unit of color temperature is kelvin. Color temperature parameters are explained in Table 2 and shown in Picture 11.

Parameter	Description
Scene Color Temperature	In addition to light level, light colors can be stored in a scene for color temperature devices.
Power On Tc	After color temperature device is powered up, light color goes to power-on color.
System Fail Tc	Internal failure can be happened for color temperature device. At that time light color goes to system fail color.
Physical Warmest	Physical limitation for Tc warmest.
Physical Coolest	Physical limitation for Tc coolest.
Tc Warmest	Minimum light color coolness. Tc warmest can't be lower than physical warmest.
Tc Coolest	Maximum light color coolness. Tc coolest can't be higher than physical coolest.

(Table 2)



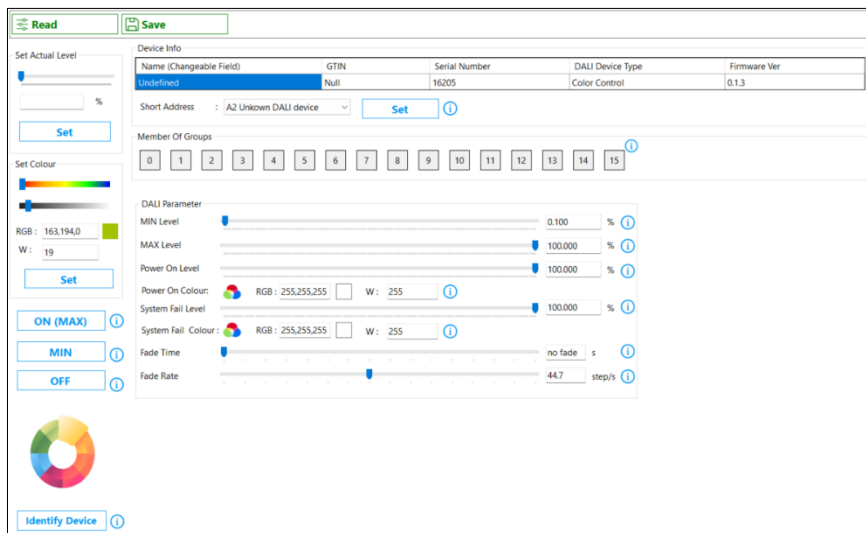
(Picture 12)

5. RGBWAF Color Parameters

RGBWAF is a control gear type. Every LED driver parameters are valid for RGBWAF color control devices. Every color channel(R, G, B, W, A, F) doesn't need to be supported. Actual RGBWAF color can be set from here. RGBWAF color control parameters are explained in Table 3 and shown in Picture 12 and 13.

Parameter	Description
Scene RGBWAF Color	In addition to light level, RGBWAF light colors can be stored in a scene for RGBWAF color control devices.
Power On RGBWAF Color	After RGBWAF color control device is powered up, RGBWAF light color goes to power-on color.
System Fail RGBWAF Color	Internal failure can be happened for RGBWAF color control device. At that time RGBWAF light color goes to system fail color.

(Table 3)



(Picture 12)



(Picture 13)

6. Emergency Lighting Parameters

Emergency lighting is a control gear type. Emergency lighting tests can be started from DALI Configurator program. DALI tests may not start if all conditions aren't met. Control gear fail, minimum battery level, mains related problems, operating mode... can be a possible case that cause test to delay. Partial duration test isn't standart DALI test type. This specialized test type doesn't wait to discharge the battery entirely. It takes less time than normal duration test operation. Emergency test and status information are updated periodically. Emergency lighting parameters are explained in Table 4 and shown in Picture 14.

Parameter	Description
Emergency Test Type	It allows us to perform different types of tests on emergency lighting devices. Due to various reasons, testing operations may not always be possible..
Hardwired Inhibit	Internal input feature added to prevent the device from entering emergency mode.
Hardwired Switch	Internal input feature that allows us to manually turn on/off the lamp while in normal mode.
Converter Mode	Operating mode of the device. Test operations can only start when in normal mode.
Converter Failure	Indicates that there is a device-based error. In this case, test operations cannot start.
Partial Duration Test Pending	Indicates that a pending partial duration test process exists.
Duration Test Pending	Indicates that a pending duration test process exists.
Function Test Pending	Indicates that a pending functional test process exists.
Duration Test Status	Reports the result of the duration test, which allows us to test the battery's discharge process.
Function Test Status	The result of the functional test of emergency lighting.
Partial Duration Test Status	The result of the partial duration test status of emergency lighting.
Duration Test Result	How long the battery's duration test elapsed.
Partial Duration Test Result	How long the battery's partial duration test elapsed.
Last Changed Date	last update date of the data.

(Table 4)

The screenshot shows the 'Emergency Test Type' dropdown set to 'Start Function Test' with a 'Set' button. The interface is divided into two main sections: 'Emergency Status Result' and 'Emergency Test Result'.

Emergency Status Result:

- Hardwired Inhibit: Yes No
- Hardwired Switch: Yes No
- Converter Mode: FUNCTION TEST IN PROGRESS
- Converter Failure: Yes No
- Partial Duration Test Pending: Yes No
- Duration Test Pending: Yes No
- Function Test Pending: Yes No
- Last Changed Date: 28.02.2025 11:29:40

Emergency Test Result:

- Duration Test Status: EMERGENCY UNKNOW
- Function Test Status: EMERGENCY FAILED TEST EXECUTED IN TII
- Part Duration Test Status: EMERGENCY UNKNOW
- Duration Test Result: 0
- Part Duration Test Result: 0
- Last Changed Date: 28.02.2025 11:29:40

(Picture 14)

7. Input Device Parameters

Input devices are responsible with getting physical changes from environment. There are mainly two parts of input device parameters which are general and instances. General parameters are device related parameters and instances are input channels related. Device related parameters are explained in Table 5 and shown in Picture 15.

Parameter	Description
Name	Human readable name for input devices. Maximum allowed character count is 10.
GTIN	Unique identifier for every LED driver used to identify products in the global supply chain.
Serial Number	Factory written number based unique id. Manufacturer related data.
Firmware Version	Firmware version stored in memory bank of the control gear.
Short Address	Every input device has a unique address. It can be changed by Set button. Short addresses are limited between 0 and 19.
Application Controller Enable	Activates the application controller feature, which allows us to control the lamps according to DALI events. Every input device may not support the application controller feature. In supported cases, it can be deactivated.
Power Cycle Notification	DALI input devices sends a power cycle event when they are powered on. It controls this feature.
Groups	Allows us to group input devices together. An input device can belong to up to 32 groups at the same time. It is independent of the groups of control gears.

(Table 5)

The screenshot displays the 'Device Info' section of the DALI Master Configurator. At the top, there are 'Read' and 'Save' buttons. Below this, a table lists device information: Name (Undefined), GTIN (8683690240028), Serial Number (74115932435185664), and Firmware Ver (2.0.3). A 'Short Address' dropdown is set to '(A0⁹)' with a 'Set' button. The 'General' tab is active, showing 'DALI - 2 Control Device Parameters' with checkboxes for 'Application Controller Enable' and 'Power Cycle Notification Enable'. Below this is a 'Membership In Groups For DALI-2 Controls' section with a grid of 32 numbered buttons (0-31). An 'Identify Device' button with a wireless signal icon is also present.

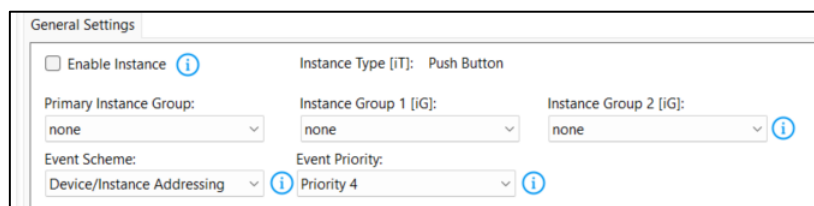
(Picture 15)

8. Instance Parameters

Instances are used to send events of an input device. There are 4 different types of instance which are push button, absolute input, occupancy sensor and light sensor. There are some common instance parameters among different instance types. They are explained in Table 6 and shown in Picture 16

Parameter	Description
Instance Number	There can be more than one instances in an input device. Instance numbers are used to distinguish instances from one another.
Enable Instance	We may not want instances to send events. This allows us to deactivate the instance
Instance Type	It specifies the type of input. There are 4 different instance types. <ul style="list-style-type: none"> • Push button • Absolute Input • Occupancy Sensor • Light Sensor
Instance Groups	Allows us to group instances together. An instance can belong to up to 3 groups at the same time. It is independent from the groups of control gears and input devices.
Event Scheme	Determines what information will be included when sending DALI events. <p>Instance Addressing : Event information is sent with the instance number and instance type.</p> <p>Device Addressing : Event information is sent with the short address and instance type.</p> <p>Device/Instance Addressing : Event information is sent with the short address and instance number.</p> <p>Device Group Addressing : Event information is sent with the input device group and instance type.</p> <p>Instance Group Addressing : Event information is sent with the instance group and instance type.</p>
Event Priority	Specifies the priority of DALI messages leaving the bus. Priority 2 is the highest priority.
Event Filters	Some events can be disabled using event filters.

(Table 6)



(Picture 16)

8.1 Push Button Parameters

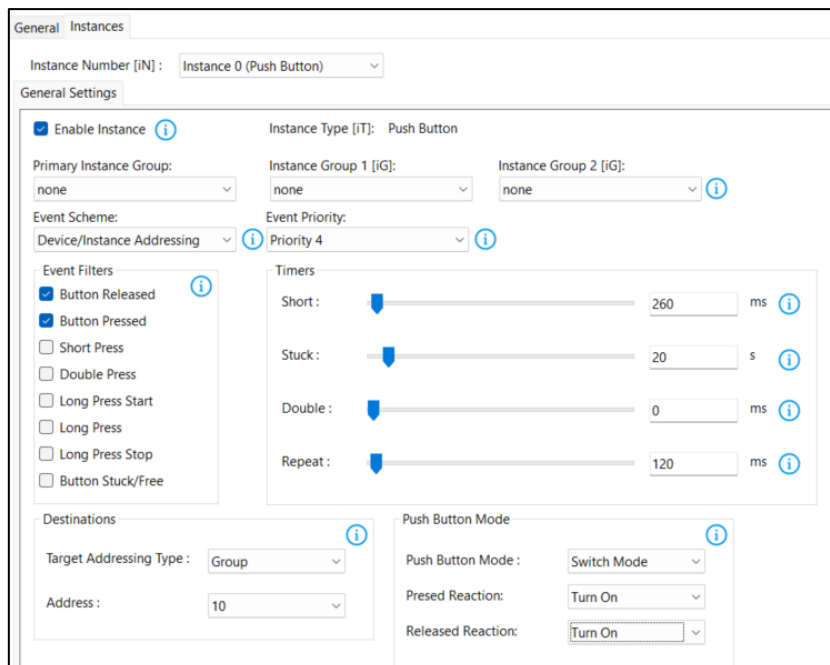
Push button events are designed based on how a button press/released action is performed. Push button parameters are explained in Table 7 and shown in Picture 17.

Parameter	Description
Short Time	Used to distinguish between long press and short press. If the button is held down for longer than the specified time, a long press start event is sent.
Stuck Time	Determines how long duration button is stuck due to a fault. If the button has been held down for the specified time, a button stuck event is sent.
Double Time	Determines the time delay of consecutive presses. If the button is pressed twice within the specified time, a double press event is sent.
Repeat Time	During long press actions, if the button continues to be pressed, a long press repeat event is sent for the specified time.
Destinations	Specifies which lights will be controlled according to lighting logic.
Mode	Push button events are used to control lights in 2 different types of mode. First, enable instance and set Instance scheme to Device/Instance addressing

Switching : Pressed reaction is applied as soon as the button is pressed, short press or long press doesn't matter. Released reaction is also applied as soon as the button is released.

Switching/Dimming : In every short press DALI master toggles lights, in every long press dimming direction changes.

(Table 7)



(Picture 17)

8.1.1 Switch and Dim Mode Parameters

Set parameters as explained below to use switch and dim mode;

- Enable instance
- Set instance scheme to Device/Instance addressing
- Enable the following events
 - Short Press
 - Long Press Start
 - Long Press Repeat
 - Long Press Stop
 - Button Stuck/Free
- Set target addressing type value other than None
- Set push button mode to Switch & Dim mode

8.1.2 Switch Mode Parameters

Set parameters as explained below to use switch mode;

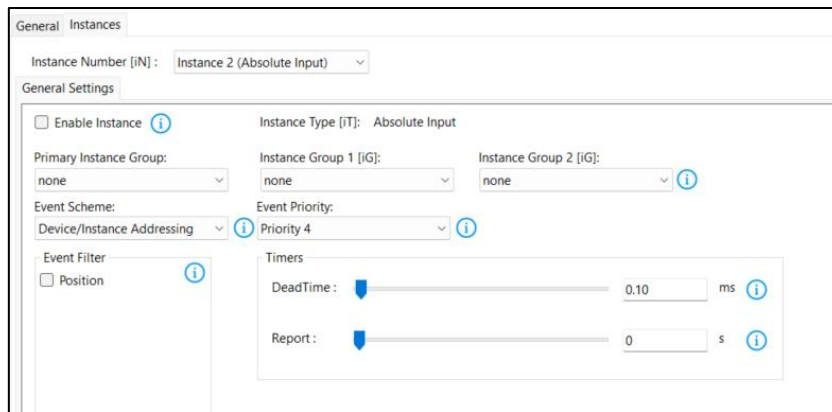
- Enable instance
- Set instance scheme to Device/Instance addressing
- Enable the following events
 - Button Pressed
 - Button Released
- Set target addressing type value other than None
- Set push button mode to Switch mode

8.2 Absolute Input Parameters

Absolute input is a general instance type that can send an analogue value. Absolute input can be used for rotary switches. Interra DALI sensors use absolute inputs as a temperature sensor. The output is only an analogue value, how it is interpreted is up to manufacturer. For Interra DALI Sensors, Event value 0 means, -5 ° and 110 means 50 ° . The change is linear between those values. Absolute input parameters are explained in Table 8 and shown in Picture 18.

Parameter	Description
Report Time	It determines the period when we want to send the event information periodically. If periodic sending is not used, it should be set to zero.
Dead Time	It specifies the minimum time that should pass between two events in case of high event traffic.

(Table 8)



(Picture 18)

8.3 Occupancy Sensor Parameters

An occupancy sensor event contains occupancy/vacancy and movement/no movement information. Occupancy sensor parameters are explained in Table 9 and shown in Picture 19.

Parameter	Description
Report Time	Determines the period when we want to send the event information periodically. If periodic sending is not used, it should be set to zero.
Dead Time	Specifies the minimum time that should pass between two events in case of high event traffic.
Hold Time	Specifies how many seconds the absence of presence information should be before determining that someone is not present.
Destinations	The DALI Master sets the lights to the Stage A level when presence is detected, and to the Stage B level when vacancy is detected. Destination section specifies which lights will be controlled.

(Table 9)

The screenshot shows the configuration for 'Instance 4 (Occupancy Sensor)'. Under 'General Settings', the 'Enable Instance' checkbox is checked. The 'Instance Type' is set to 'Occupancy Sensor'. The 'Event Scheme' is 'Device/Instance Addressing' and the 'Event Priority' is 'Priority 4'. In the 'Event Filter' section, 'Occupied' is checked, while 'Vacant', 'Repeat', 'Movement', and 'No Movement' are unchecked. The 'Timers' section shows 'Deadtime' set to 0.20 ms, 'Report' set to 0 s, and 'Hold' set to 10 s. The 'Destinations' section shows 'Target Addressing Type' set to 'Broadcast'. The 'Stage A Level' table is as follows:

State	Stay Time sn.	Value (0-100)
State A	258	1
State B		1

(Picture 17)

8.3.1 Occupancy Mode Parameters

Set parameters as explained below to use occupancy sensor events with DALI Master;

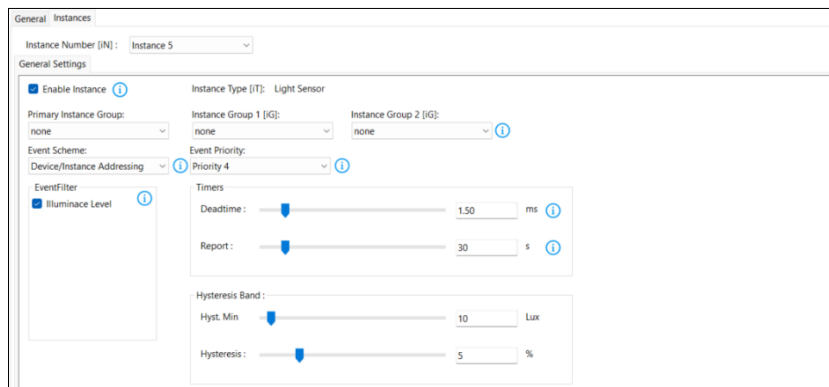
- Enable instance
- Set instance scheme to Device/Instance addressing
- Enable the following events
 - Occupied
 - Vacant
- Set target addressing type value other than None

8.4 Light Sensor Parameters

Light sensors detect light intensity in Lux unit. It sends only light level event. Light sensor parameters are explained in Table 10 and shown in Picture 19.

Parameter	Description
Report Time	Determines the period when we want to send the event information periodically. If periodic sending is not used, it should be set to zero.
Dead Time	Specifies the minimum time that should pass between two events in case of high event traffic.
Hyst. Min	Specifies the minimum light level change value used in the hysteresis algorithm because the data from light sensors is very sensitive.
Hysteresis	Specifies the minimum percentage change value used in the hysteresis algorithm because the data from light sensors is very sensitive.

(Table 10)



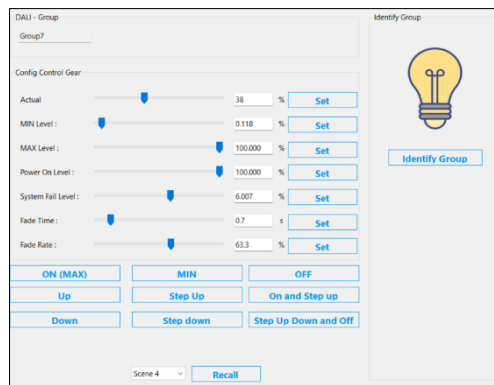
(Picture 18)

9. Group Based Control

As control gears and input devices can be controlled individually, after assigning a device to a group you can control all members from group perspective. It is so important that control gear groups and input device groups are entirely different from each other. Double press on a group that you want to control in project tree to enter group control view.

9.1 Control Gear Groups

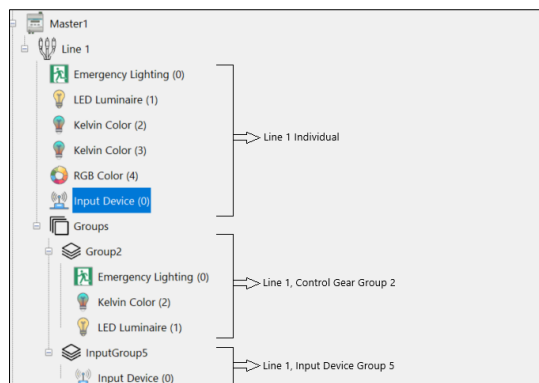
When you add a control gear to a group, you can manage them from groups section in project tree. Actual level, min level, max level etc.. can be controlled from this window. Control gear basic parameters(IEC62386-102) are controlled from this window. You can also identify all members of this group with Identify group button. If there no member of a group, it is deleted automatically. When you expand groups section, you can see which devices are member of this group. Control gear groups are added at the end of the project tree. Control gear group control is shown in Picture 19.



(Picture 19)

9.2 Input Device Groups

As control gears can be controlled group based, input devices can also be controlled. After assign an input device to a group, it is shown in Input group section in project tree. All member input devices are listed below the group. You can set some general and instance specific settings. In general settings you can identify all member input devices with Identify group button. Every instance type can be controlled. You can easily choose which instance type you want to control from Instance type combo box. If members don't support related instance type, it doesn't affect them. Every parameters for different instance type is explained [here](#). Parameters are set to their default value because feedback isn't appropriate in group based control. After setting values, you have to click the save button top left corner to write values to input devices. To prevent confusion between control gear and input device groups in project tree, input device groups are listed as Input group as shown in picture 20.



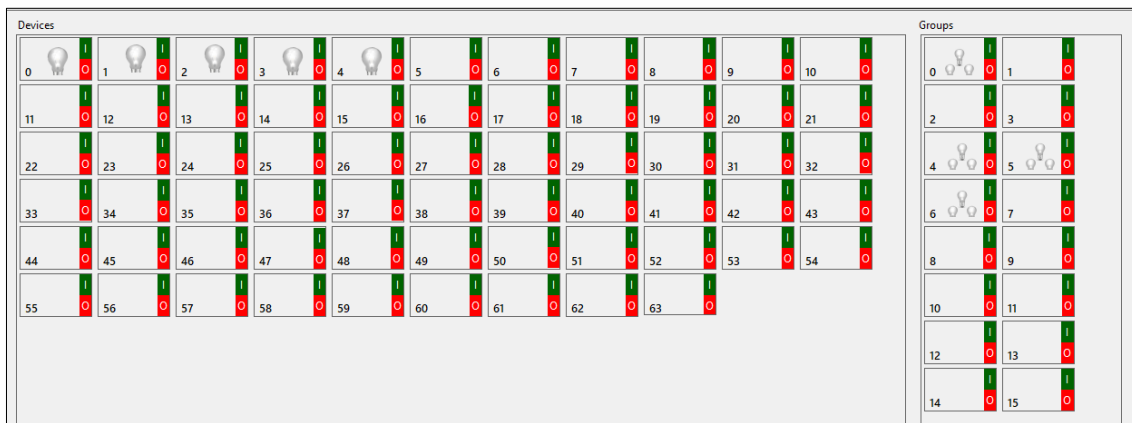
(Picture 20)

10. Channel Based Control

It is introduced that individual and group based control of input devices and control gears is possible. Also all control gears in the same channel can be controlled. Some basic operations like setting minimum, maximum, power on and system fail level, fade time and fade rate are performed for all control gears on the line. There are two ways to open broadcast control view. First one is double press on to which Line you want to control from project tree and second way is that right click on the Line and press Channel general settings. As mentioned in group perspective control, feedback method isn't supported here to. Because, for example light level of all devices doesn't need to be same. Every data will be set to their default value when you open this window. You can also identify all control gear with Identify broadcast button on right side.

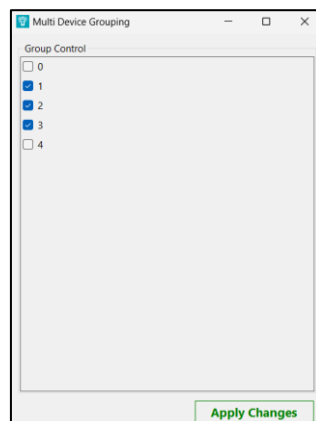
11. Multi Addressing Group

To group control gears with drag and drop method is possible. This feature lets you to speed up your project's design. There is a multi addressing control feature that offers you to group control gears easily. There are 2 parts which are Devices and groups. Press and hold the lamp and drop it into the desired group. Turning on/off is done with green and red buttons. Multi addressing control window is shown in Picture 21.



(Picture 21)

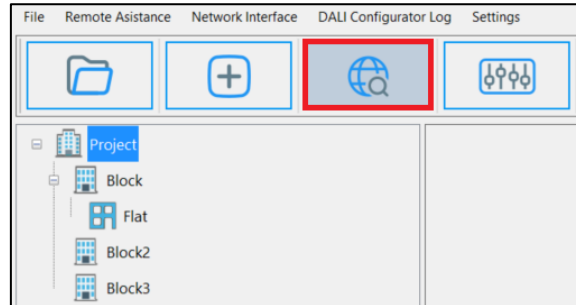
Removing and assigning devices to a group is also possible from group perspective. You can left click on a group then all devices will be listed. Checked devices are member of this group. Make group assignment by checking and unchecking then press Apply Changes button to save them. This window is shown in Picture 22.



(Picture 22)

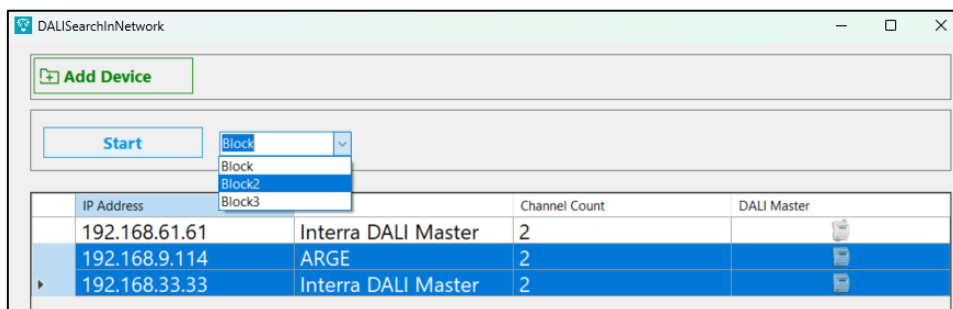
12. Find DALI Masters

It was introduced that how a DALI Master is added to a project. There is also easier way to add multiple DALI masters to a project. You need to press to globe icon at the top as shown in Picture 23.



(Picture 23)

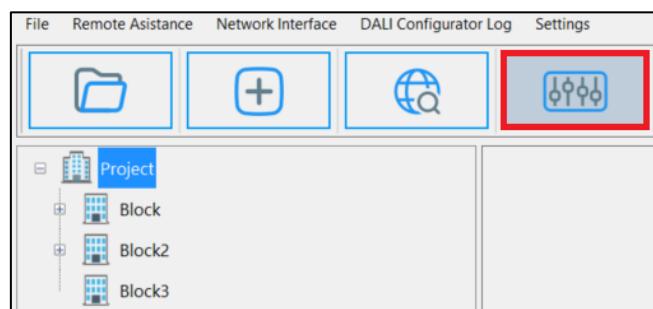
Press Start button to find all online Dali Master devices. You can select multiple DALI Masters with Ctrl+Left Click. Select which block that DALI Masters will be added. Press Add Device button at upper left to complete process. New flats will be created automatically.



(Picture 24)

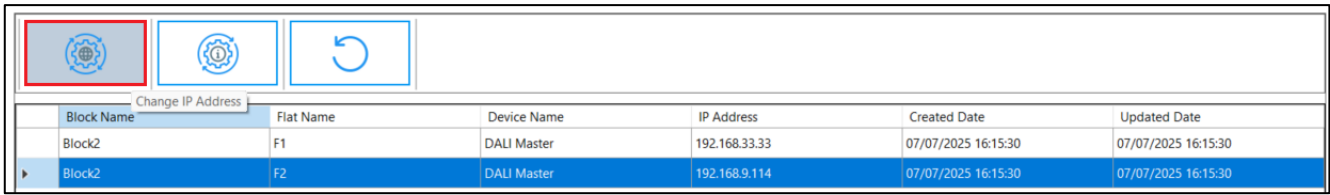
13. Device Map

DALI Masters network settings can be changed from device map window. After pressing the Device Map button top right corner as shown in Picture 25, DALI Masters are listed in selected project.



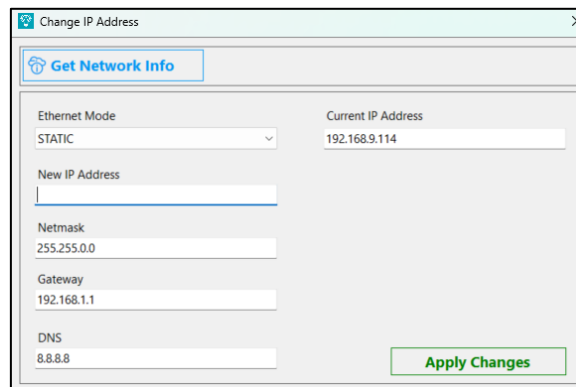
(Picture 25)

You can click on the device that you want to change network settings then use Change IP Address button top left corner to set network settings as shown in Picture 26.



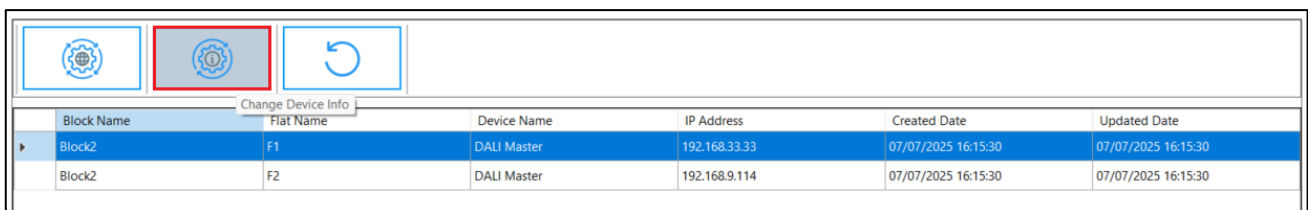
(Picture 26)

You can learn current network settings by pressing Get Network Info button. IP Address assignment mode can be selected from Ethernet Mode. Static and Dynamic(DHCP) IP address can be assigned. If you select static IP address; New IP Address, Network Mask, Default Gateway and DNS addresses are enabled and you can set them. Press Apply Changes button to set network values. Change Network Settings window is shown in 27.



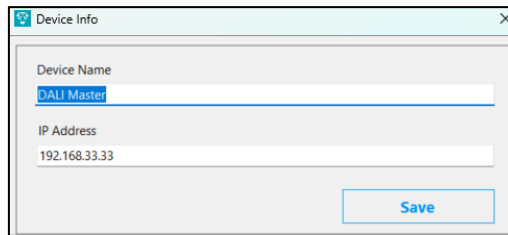
(Picture 27)

If only DALI Master name and IP Address is changed, not so detailed information, there is an easier way to perform it. Press Device Info button in the middle at the top as shown in Picture 28.



(Picture 28)

Device info window is appeared as shown in Picture 29. You can give a name and change IP address of DALI Master from this window.



(Picture 29)

You can also restart DALI Master from Device Map window by using Restart button. It takes approximately 5 seconds to restart device.