SpaceLogic C-Bus Commission

Help Center

Instructions to use C-Bus devices with SpaceLogic C-Bus Commission software

03/2026

www.se.com

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Safety Information

Important Information

Read these instructions carefully and observe the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of a symbol to either a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that accompany this symbol to avoid possible injury or death.

⚠⚠DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

Failure to follow these instructions will result in death or serious injury.

⚠WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

⚠CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

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Safety Precautions

⚠CAUTION

HAZARD OF INCORRECT INFORMATION

- Do not incorrectly configure the software, as this can lead to incorrect reports and/or data results.
- Do not rely solely on software messages and reports to determine if the system is functioning correctly or meeting all applicable standards and requirements.
- Do not rely solely on the software's messages and information for maintenance or service decisions.
- Consider the implications of unanticipated transmission delays or failures of communications links.

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Cyber Security

Windows Updates

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POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

Apply the latest updates and hotfixes to your Operating System and software.

Failure to follow these instructions can result in cyber security breach and data breach.

Be sure that all Windows updates and hotfixes, especially Windows security updates are regularly applied to machines running SpaceLogic C-Bus Commission Software.

If compatibility issues arise from Windows updates, they are considered as high priority by the SpaceLogic C-Bus Commission Software team. They will be evaluated and resolved to deliver patches to enable the continued use of Windows security updates.

Hardening

Observe the following recommendations to optimize cyber security in a protected environment:

- Harden devices according to your company's policies and standards.
- Apply and maintain the SpaceLogic C-Bus Commission Software security capabilities.
- Use an antivirus software and implement updates for the operating system and Microsoft .NET Framework on the machine dedicated to SpaceLogic C-Bus Commission Software tool.
- Follow user account management tasks as described by your organization or contact your network administrator.

NOTICE

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

- Change default passwords to help prevent unauthorized access to settings and information.
- Use Windows Active Directory for user account management and access to network resources.
- Disable unused ports/services and default accounts, where possible, to minimize pathways for malicious attacks.
- Place networked devices behind multiple layers of cyber defenses (such as firewalls, network segmentation, and network intrusion detection and protection).
- Use cyber security best practices (for example: least privilege, separation of duties) to help prevent unauthorized exposure, loss, modification of data and logs, interruption of services, or unintended operation.
- Follow cyber security tasks as described by your organization or contact your network administrator.

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for atleast three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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In recent years, the growing number of networked machines and production plants has seen a corresponding increase in the potential for cyber threats, such as unauthorized access, data breaches, and operational disruptions. You must, therefore, consider all possible cybersecurity measures to help protect assets and systems against such threats.

To help keep your Schneider Electric products secure and protected, it is in your best interest to implement the cybersecurity best practices as described in the Cybersecurity Best Practices document.

Schneider Electric provides additional information and assistance:

- Subscribe to the Schneider Electric security newsletter.
- Visit the Cybersecurity Support Portal web page to:
  - Find Security Notifications.
  - Report vulnerabilities and incidents.
- Visit the Schneider Electric Cybersecurity and Data Protection Posture web page to:
  - Access the cybersecurity posture.
  - Learn more about cybersecurity in the cybersecurity academy.
  - Explore the cybersecurity services from Schneider Electric.

About the Book

Document Scope

This document describes the process of commissioning C-Bus and DALI devices. It is written for users who are familiar with C-Bus and DALI systems.

Technical Support

For technical support reach out to our Customer Care Team in your location or region. If you have any questions or need more details, see contact support

Overview

Introduction to SpaceLogic C-Bus

SpaceLogic C-Bus is a lighting and building automation system in a commercial or residential building. It allows the user to manage lights, shutters, temperature, security and energy usage.

In this document, the term 'software' refers to the "SpaceLogic C-Bus Commission" software.

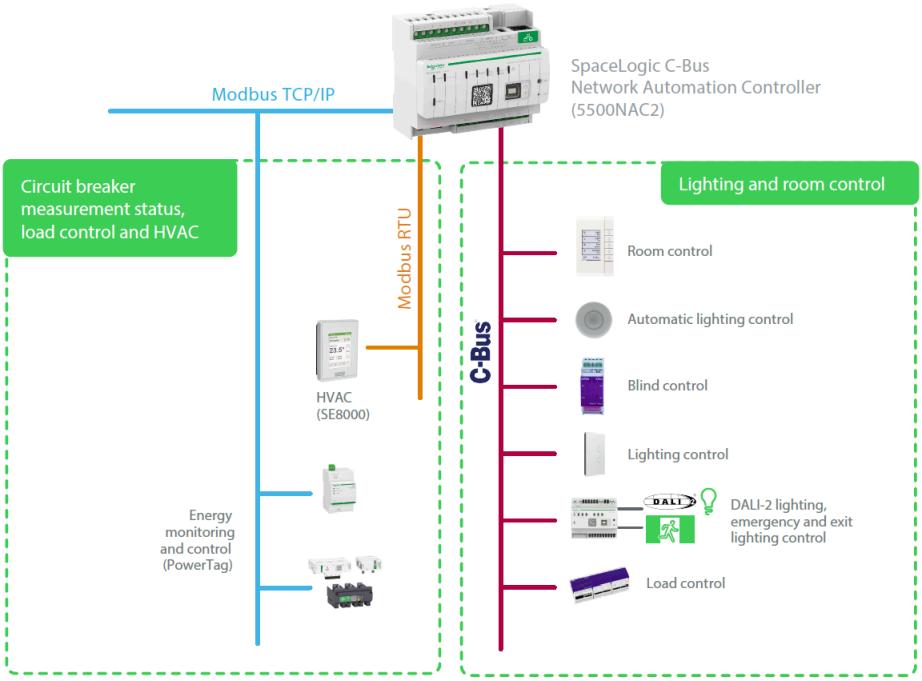
C-Bus Architecture

The C-Bus architecture includes some important components:

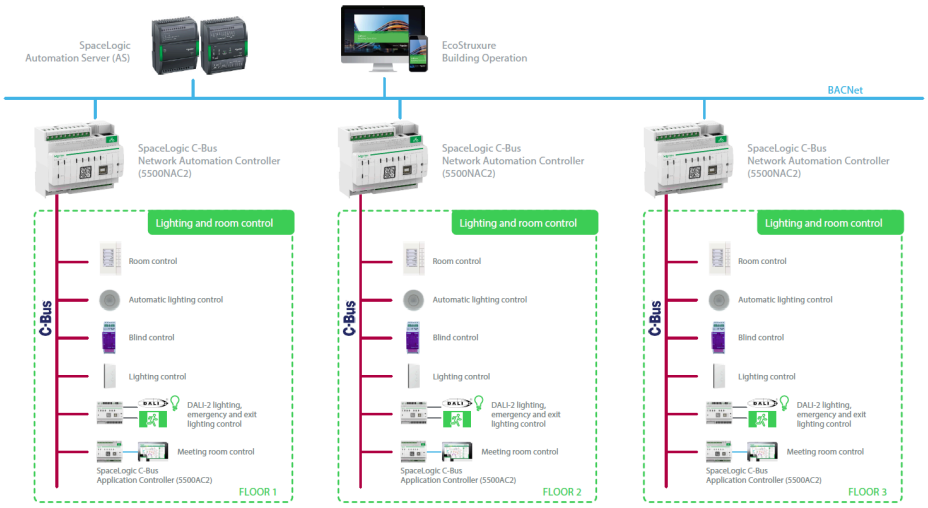
- A messaging protocol that connects building automation applications
- A large set of units which can send and receive one or more building automation applications
- Addressing protocols that identify units, building automation applications, and networks uniquely
- A set of bridges and gateways which allow the transmission of C-Bus messages across C-Bus networks
- A peripheral interface unit (PCI) which transmits configuration information between SpaceLogic C-Bus commission, which is the C-Bus network configuration utility, and C-Bus networks

C-Bus system Architecture for Commercial Buildings

Small Commercial Buildings

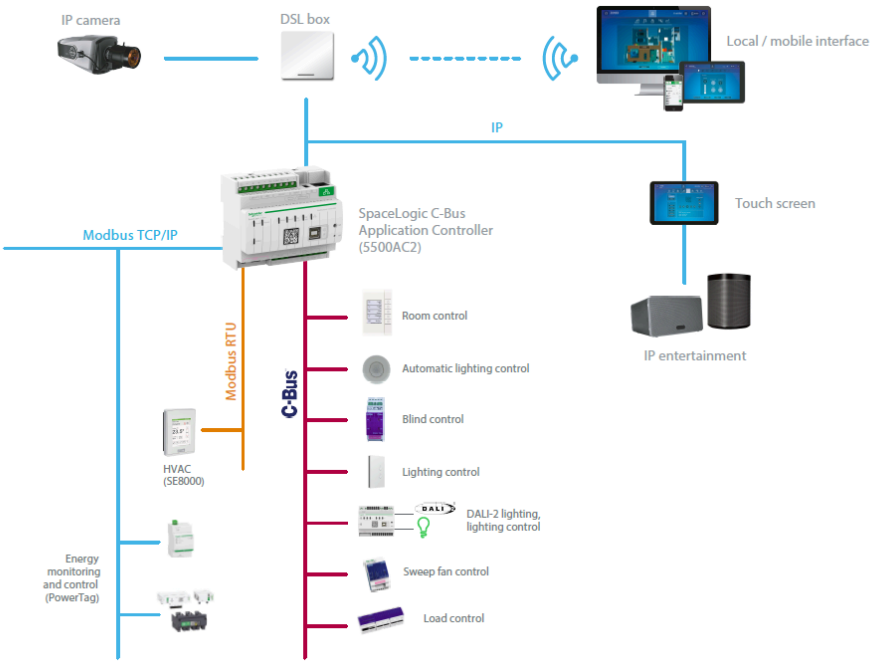


Large Commercial Buildings

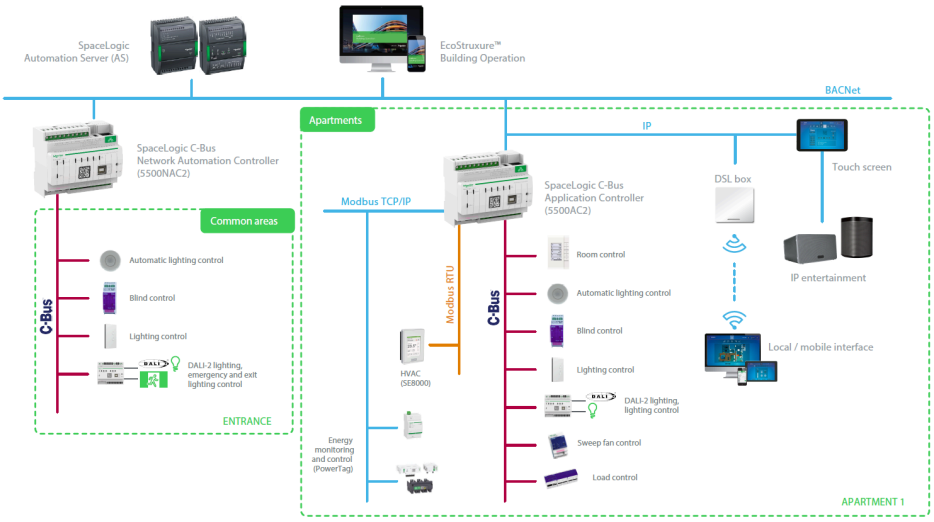


C-Bus system Architecture for Residential Buildings

Single Dwelling Residential Buildings



Multi-Dwelling Residential Buildings



Introduction to SpaceLogic C-Bus Commission

The SpaceLogic C-Bus Commission is a single software tool for designing and commissioning C-Bus and DALI systems, including lighting and emergency lighting applications.

The SpaceLogic C-Bus consists of:

1. Input Devices – Wall plates, Touch panels, Sensors and General interfaces
2. Output Devices – Dimmers, Relays, and Gateways
3. System Devices – Controllers, Interfaces and Bridges
4. Software – For Commissioning and control of devices

The features of the software are as follows:

- Managing C-Bus and DALI devices over single C-Bus network connection

- Defines relation between C-Bus and DALI from a single point

  Deployment queue enables background deployment while configuration is work in progress.

  Provides different DALI device identification methods suitable for varying deployment situations

C-Bus Applications

The C-Bus building automation applications are at the core of the C-Bus architecture. Each applications are defined to :

- Suit a specific building automation activity
- Provide direct or indirect control or integration with electrical load control
- Provide a messaging protocol specific to the type of building automation
- Communicate building automation information between units or peripherals

Lighting Application

The *Lighting* applications are used to control lighting as well as switching and load control. Lighting types are broken down into three groups.

- Lighting Compatible applications such as heating, ventilation, HVAC Actuator, irrigation control, etc. These are applications which are fully compatible with the Lighting application, but have unique application addresses in order to separate differing customer solutions
- Lighting Based applications such as trigger, for supporting the creating of scenes and remote triggering and enable, enabling/disabling various system functions
- Lighting Type applications utilize the same set of C-Bus messages, which are designed to transmit electrical load control information across the C-Bus network

Lighting and Lighting Compatible applications are responsible for controlling electrical loads for a wide range of automation operations. These are the applications which form the basics of most C-Bus building automation.

For more details Click here, page 174

Trigger Application

The *Trigger* application is used to trigger actions or events such as lighting scenes or to start an irrigation program.

For more details Click here, page 191

Enable Application

The *Enable* application is used to enable/disable system functions. The application is capable of enabling and disabling functions such as:

- Schedules
- Irrigation controller
- Keys with keysets on C-Bus wireless input/output units
- Customer solutions can be enabled/disabled. Each application has 255 *Enable Group* address which can be used to enable/disable a range of functions and each of these have 255 *Values*

For more details Click here, page 203

Error Application

The *Error* application is used to report error information detected or generated by C-Bus units over the C-Bus network.

C-Bus units monitor and detect error conditions, and report those conditions using the C-Bus error application.

An error or fault condition report contains information about what caused it, how severe it was, and what its nature was. Events are reported OK, if the monitored events are operating normally. Upon receiving an error message, a device acts on the information accordingly.

Fore more details Click here, page 215

Measurement Application

The *Measurement* application is designed to receive data in the form of voltage, current and resistance, which is converted, scaled and, then transmitted across the C-Bus to accurately represent physical measurement units such as temperature, liquid level, light level and so on.

For more details Click here, page 226

Emergency Exit Light Application

The *Emergency Exit Light* application is used for emergency and exit lighting.

For more details Click here, page 232

Audio Application

The *Audio* Control application control the audio levels such as volume, bass, and treble as well as the selection of audio sources for zones.

For more details Click here, page 245

Media Transport Application

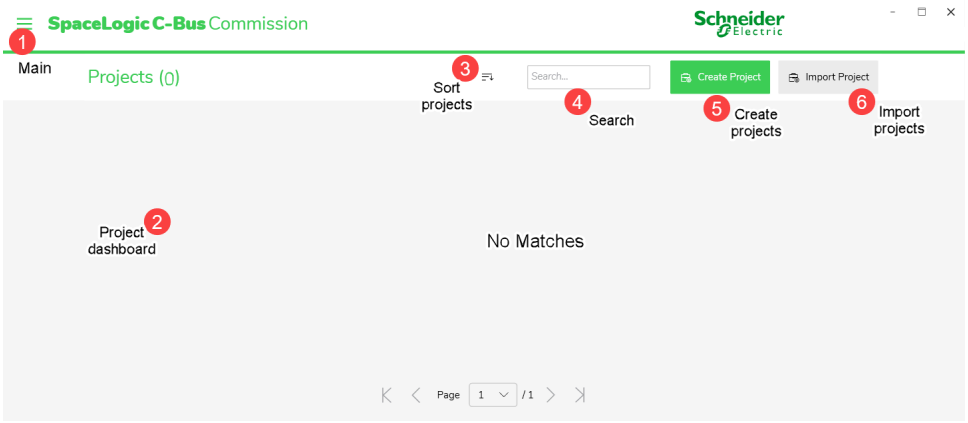
The *Media Transport* Control application is designed to transmit control signals for audio and video equipment used with C-Bus units.

For more details Click here, page 251

Knowing the User Interface

Outline

The home screen of SpaceLogic C-Bus Commission Software after the installation is as below:



Customizing the User Interface Layout

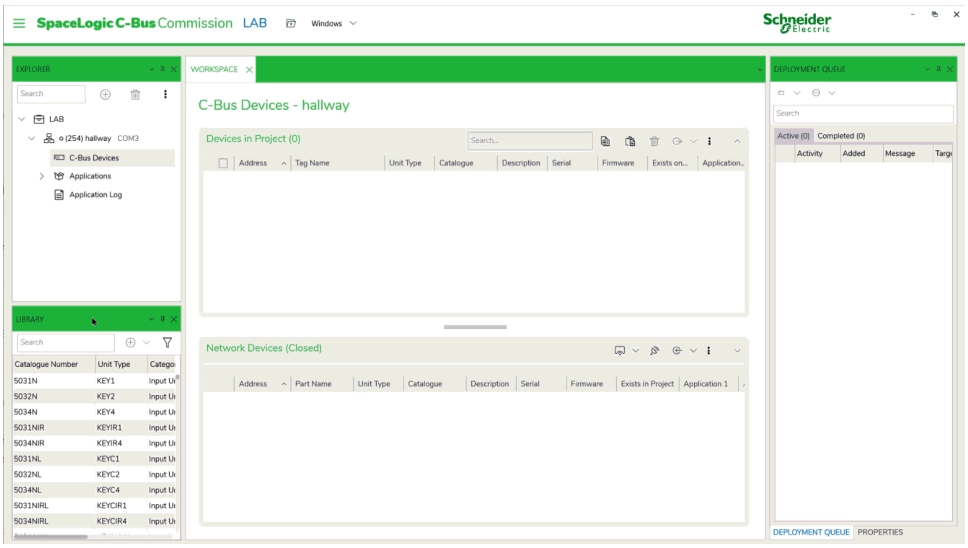
You can customize the appearance of the commission software User Interface by modifying the layout of windows . You can modify their size and also their position.

- Windows can be arranged:
  - Pinned
  - Docked
  - Floating on multiple monitors

The customized layout is saved when you close the commission software.

TIP: To get the default setting, see Reset window layout

The following demonstrates an example of a customized User Interface layout.



Each Window consists of following control buttons:

Button	Description
⌄	Drop-down options • Float • Dock • Dock as document • Auto hide • Close
📌	Auto hide
✕	Close the window

Software Update

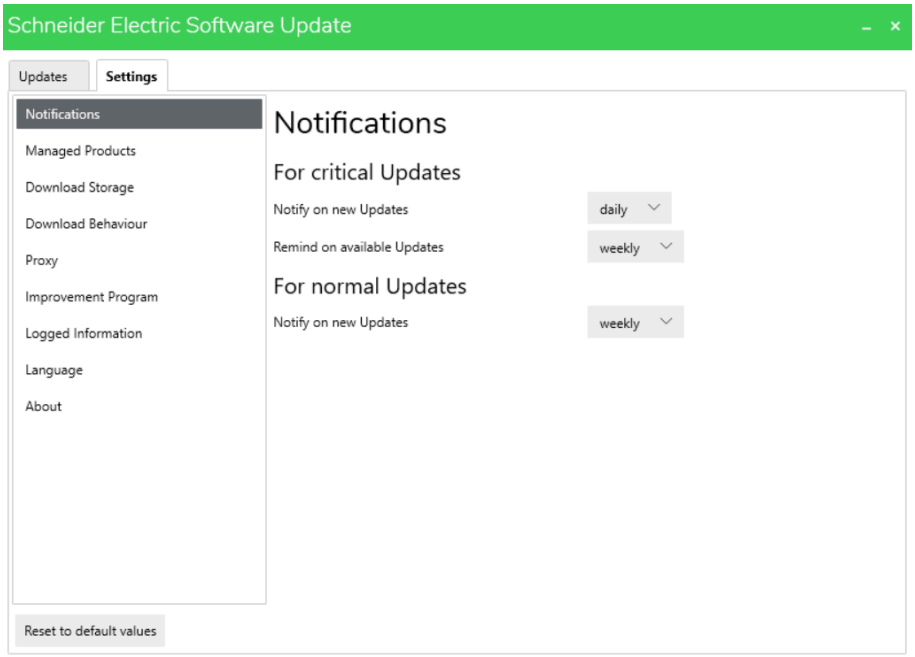
The software update feature enables the use of the most up-to-date software, minimizing downtime/disruptions when commissioning projects. This ensures smooth and efficient operation. Additionally, it also:

- Sends automatic notifications about new software updates/versions.
- Allows you to install the latest updates for the SpaceLogic Commissioning Software (SLCC) application by integrating with the Schneider Electric **Software Update** (SESU) platform.
- Prevents user from clicking the incorrect link on the Schneider Electric website.

To install the software update feature:

1. Double click the

Software Update icon. The **Schneider Electric Software Update** (SESU) application appears.



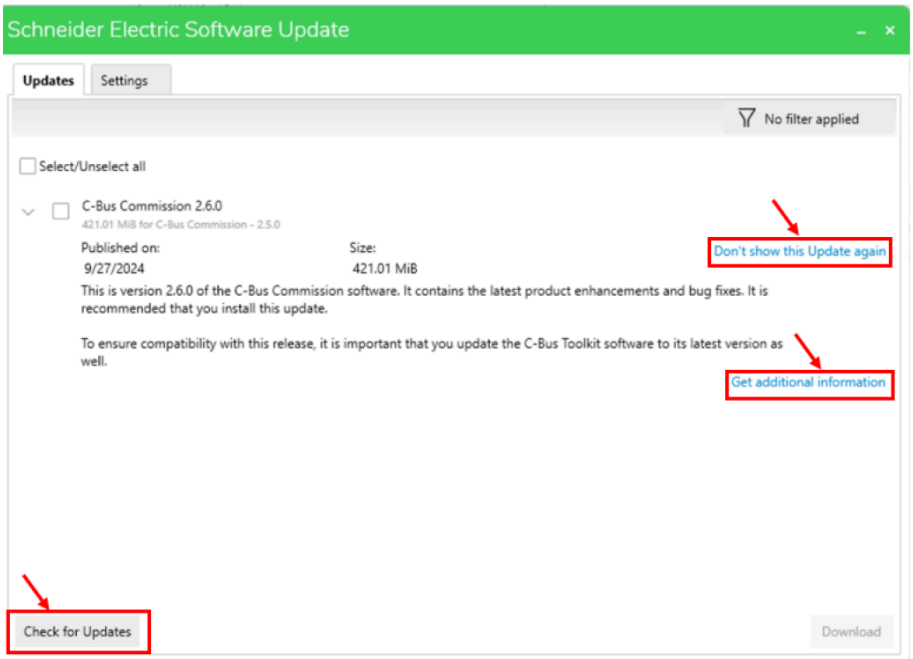
2. Click the **Settings** tab. The **Notifications** section is displayed.

   NOTE: You can only view the frequency of notifications to be received.

   - **For critical Updates**: Weekly reminders on available updates and daily notifications on new updates.
   - **For normal Updates**: Weekly notifications on new updates.

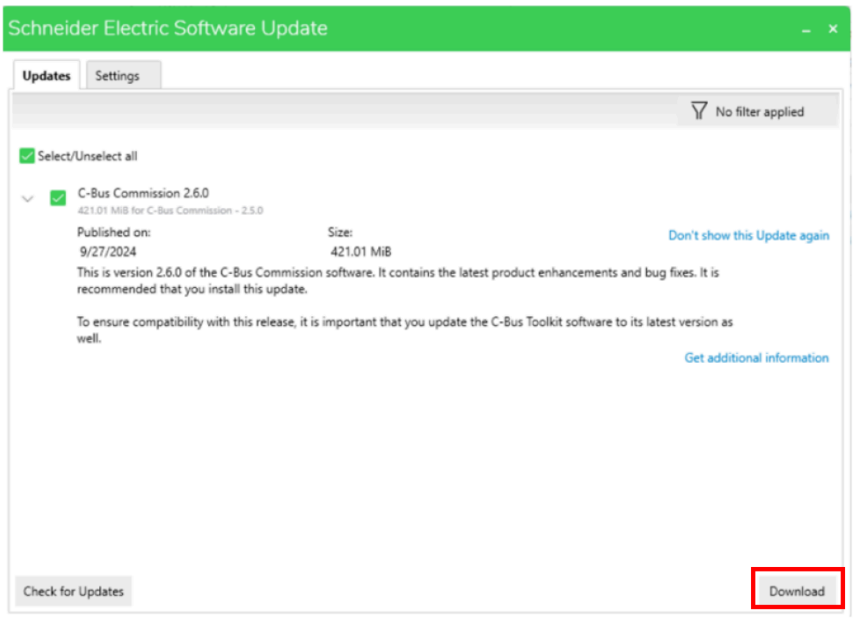
3. Click the **Updates** tab. The SESU application displays all the relevant updates. In case, you missed the updates, click **Check for Updates**.

   NOTE: Click **Don't show this Update again**, to prevent updates from appearing. For more information on the SpaceLogic C-Bus application, click **Get additional information**.

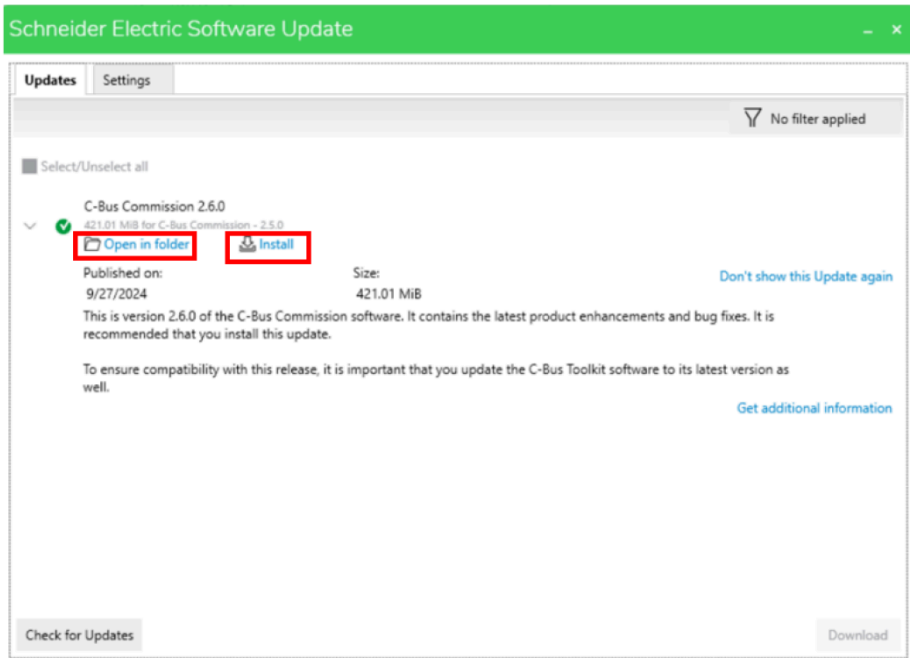


4. To download the new software update, either:
   - Select one or more update and then click **Download**.

     or,
   - Select the **Select/Unselect all** checkbox to select all the updates and then click **Download**. The new update starts to download.



5. Once the download is completed, the below screen is displayed.



6. You can either open the directory containing the downloaded file or directly click **Install** to initiate the installation process. The new updates will be installed.

Workflow of the software

A C-Bus and DALI installation can be programmed in various methods. The workflow defines a possible procedure.

1. Create a new project and fill in the project information in the required fields, see Create project
2. Create and add networks as per project requirement, see Add networks

   NOTE: Each project can have a maximum of 255 networks.
3. Add devices to the network from Library window, see Library Window, page 72

   NOTE: If C-Bus DALI-2 Gateway has been added to the project, the DALI devices must be added into the DALI lines.
4. Create applications, see Add applications, page 167
5. Add group address information to applications from C-Bus Application section.
6. Set properties for the devices using the Properties window, see Properties window, page 163
7. Open and scan the C-Bus network and the DALI line if required, see Network Devices, page 112

   Result: The software searches for the devices in the network.
8. Identify the DALI-2 devices in the network using Auto Identify or Identify functions.

   NOTE: If the C-Bus devices are already addressed, then this step is not required. Verify the flashing lights in the physical device.
9. Extract the fully matching devices from *Network Devices* to *Devices in Project* section, see Extract devices
10. Deploy each configured/reconciled device to the network, see Deploy device to network, page 87

    Result: The device information is displayed in the Deployment Queue window.

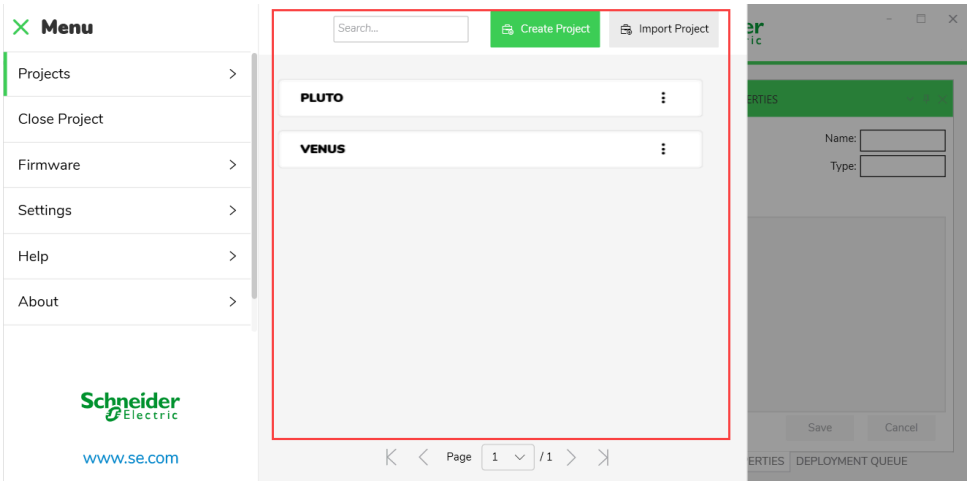
Menu

The ☰ will display all the options available in the SpaceLogic C-Bus commission software. The menu consists of:

- Projects, page 33
- Firmware, page 33
- Setting, page 48
- About, page 52
- Exit, page 53

Projects

The **Projects** section in the settings displays the project dashboard as shown below:



You can :

1. Create new project.
2. Open, edit and delete an existing project using ⋮.
3. Search existing project.
4. Switch between projects.
5. Sort projects.
6. Import projects.

For more details, see Project management, page 54.

Firmware

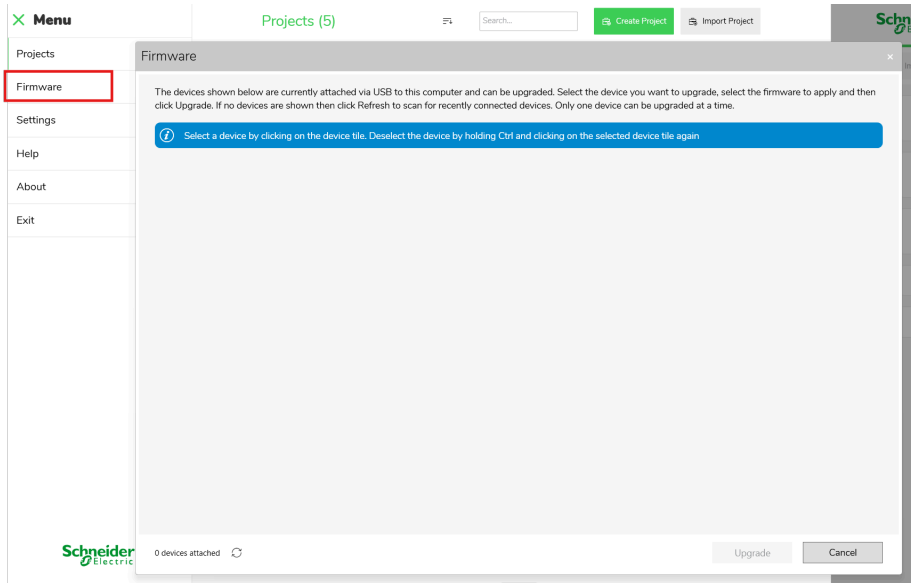
Prerequisites: Make sure you have the SpaceLogic C-Bus Commission software open. Connect the C-Bus unit to your PC using the appropriate USB cable.

The **Firmware** section enables you to easily update the firmware of your C-Bus units. The necessary firmware files for the update process are available within the software.

To upgrade the firmware:

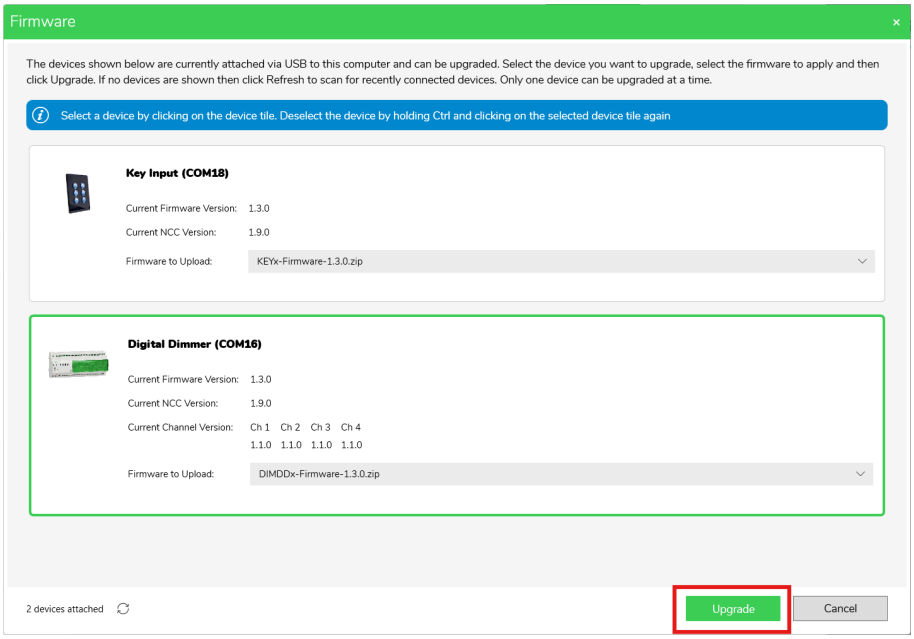
1. Click ☰.

2. Click **Firmware**.

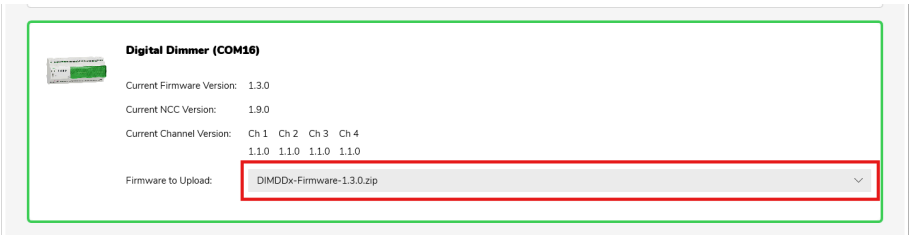


NOTE: When no devices are connected, the **Firmware** upgrade page is displayed with **Refresh** icon enabled and **Upgrade** disabled.

3. Connect a Unit device and click **Refresh**. Once devices are detected, **Upgrade** is enabled.

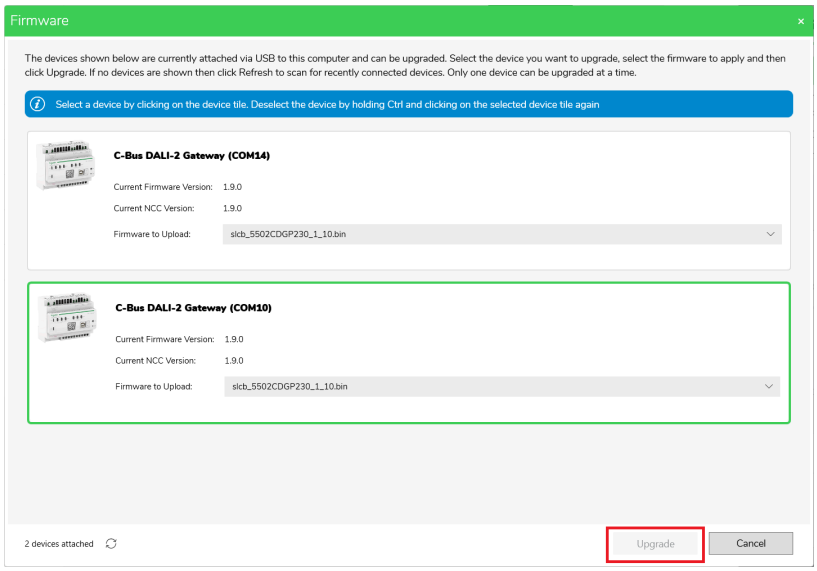


4. Click the **Firmware to Upload** drop-down menu to change the firmware version of any connected device.

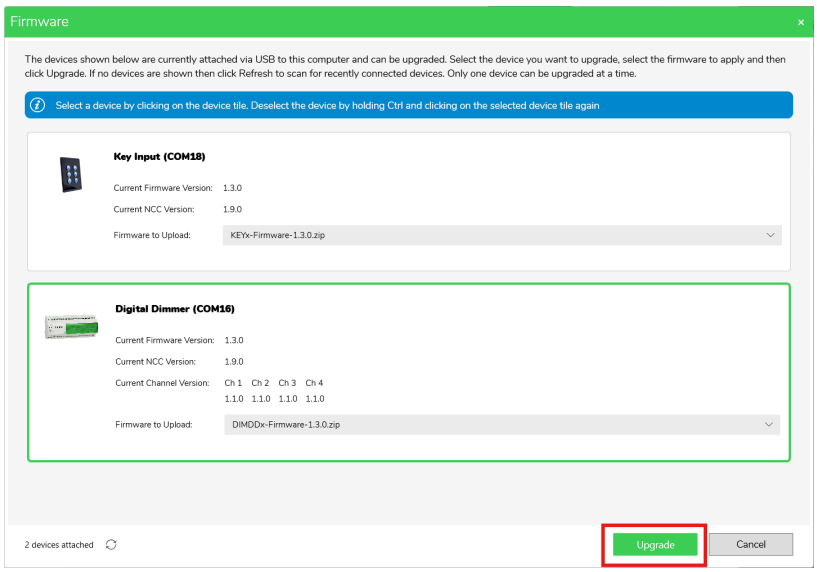


IMPORTANT:

- User can upgrade only one device of the same type at a time. For example, one DALI 2 Gateway at a time out of two DALI–2 Gateways.



- User can upgrade multiple devices of different type at a time. For example, one Key Input device and one Digital Dimmer.



5. Click **Upgrade**.

For product specific firmware upgrade, refer Unit type firmware upgrade, page 36.

Unit Firmware Upgrade

SpaceLogic C-Bus Firmware Upgrade

This section describes how to update the firmware for devices using normal and bootloader modes.

Firmware Update for Devices Connected in Normal Mode

The following procedure is applicable for the below listed SpaceLogic C-Bus units.

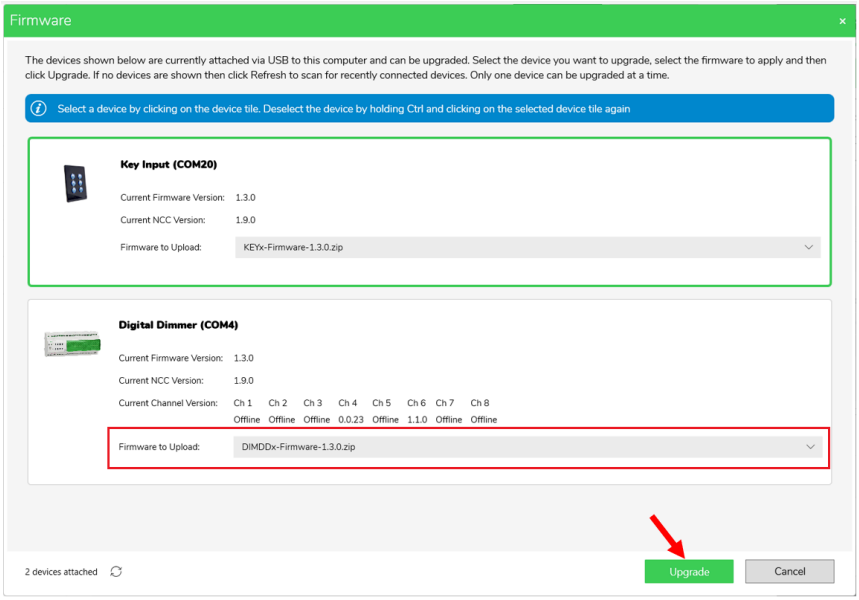
- DALI-2 Gateway
- Digital Dimmers
- High Power Dimmers
- Key Input Unit
- Relays

Prerequisites: For more details, refer the SpaceLogic C-Bus product instructions.

To update the firmware using normal mode:

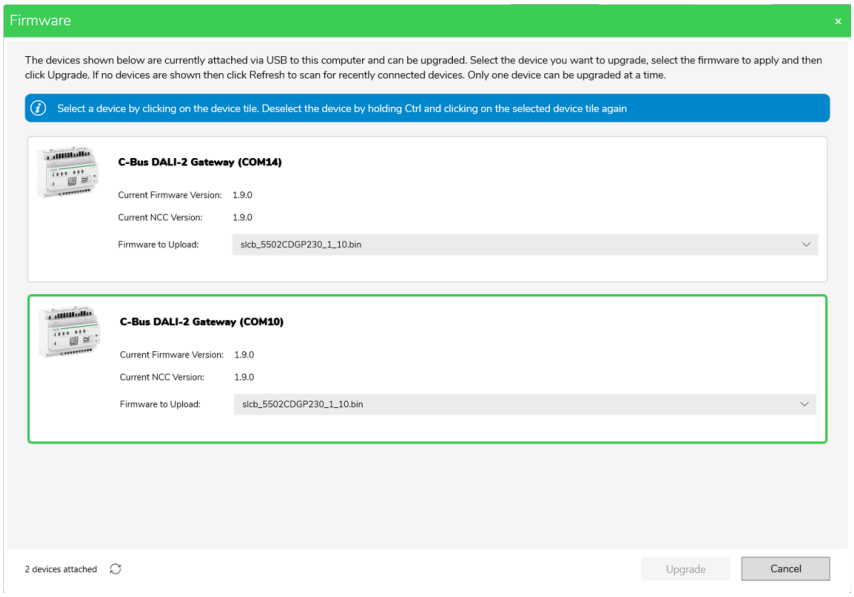
1. Connect the unit to the system through an appropriate USB cable.
2. Click ☰.
3. Click **Firmware**.
4. Select the unit (Key Input/Relay/Digital Dimmer/High Power Dimmer/DALI-2 Gateway).

5. Select the firmware version to upgrade, from the **Firmware to Upload** drop-down menu.
   - At a time, only one device can be selected for firmware upgrade.

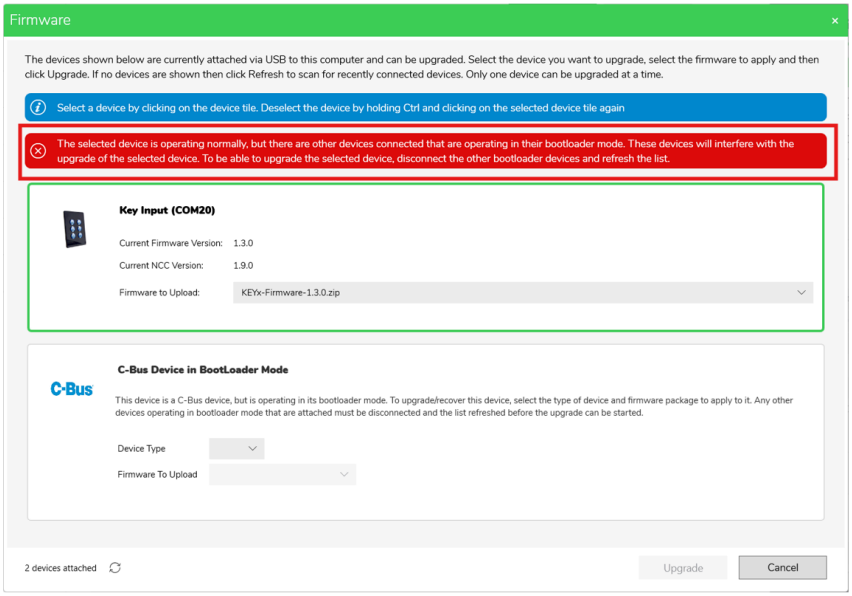


   - Only one unit type (Example: If multiple DALI-2 Gateway devices are connected, other devices of the same unit type must be disconnected, except for the unit that requires an upgrade).

     Upgrade is disabled when two same unit types (Example: Two DALI-2 Gateways/Dimmers/Key Input) are connected.

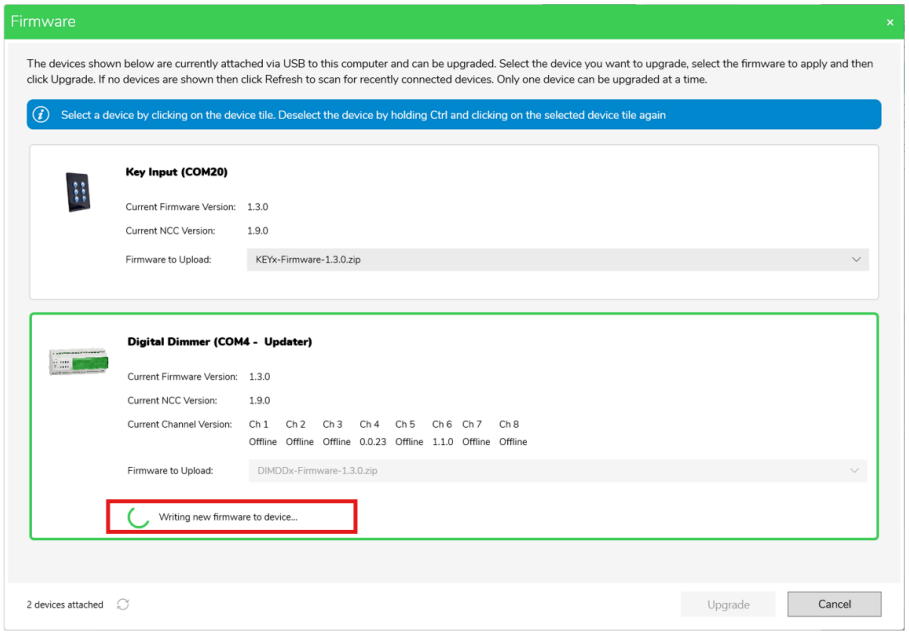


   - If any of the devices listed in the above SpaceLogic C-Bus units is in bootloader mode, the below error message is displayed.

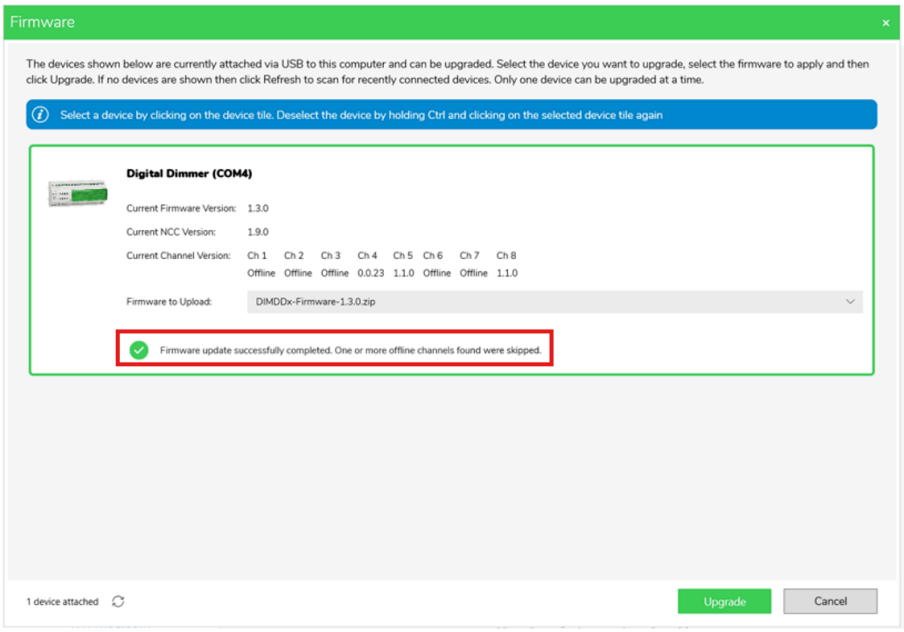


IMPORTANT: DO NOT close the application or switch between views while the unit firmware upgrade is in progress, as this may cause the application to stop abruptly.

6. Click **Upgrade**.



7. Once the upgrade is completed, success message is displayed.



IMPORTANT:

For Dimmers

- The firmware upgrade process also updates the dimmer core firmware version for each channel, if required.
- Each channel and unit indicator blinks when respective channel upgrade is in-progress. Once the channel upgrade is completed, the channel indicator turns green.

eDLT Wall Plates Firmware Upgrade

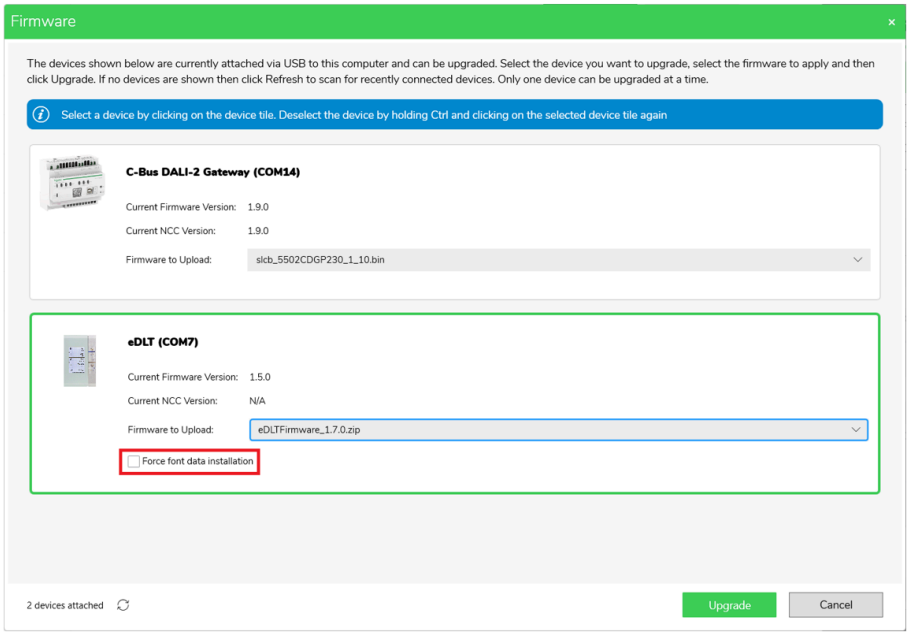
Prerequisites: For more details, refer the SpaceLogic C-Bus product instructions.

To update the firmware for eDLT Wall Plates:

1. Connect the eDLT unit to the system through an appropriate USB cable.
2. Click ☰.
3. Click **Firmware**.
4. Select the eDLT unit.
5. Select the firmware to upgrade, from the **Firmware to Upload** drop-down menu.

   NOTE: An additional option, **Force font data installation** is available only for eDLT units, by default it is unchecked.

6. Select the checkbox to install the latest eDLT font file along with the firmware upgrade.



IMPORTANT: DO NOT close the application or switch between views while the unit firmware upgrade is in-progress, as this may cause the application to stop abruptly.

7. Click **Upgrade**. Once the upgrade is completed, success message is displayed.

NOTE: Only one eDLT can be upgraded at a time. **Upgrade** is disabled, when two eDLT units are connected.

Firmware Update for Devices Connected in Bootloader Mode

Sometimes, during the firmware upgrade process, the files may fail to work, the device cable may be unplugged, or the device may fail to switch to normal mode. In such cases, the device remains in the bootloader mode. The following procedure is applicable only for the below listed NCC SpaceLogic C-Bus units:

- Digital Dimmers
- High Power Dimmers
- Key Input Unit
- Relays

Additionally, the user:

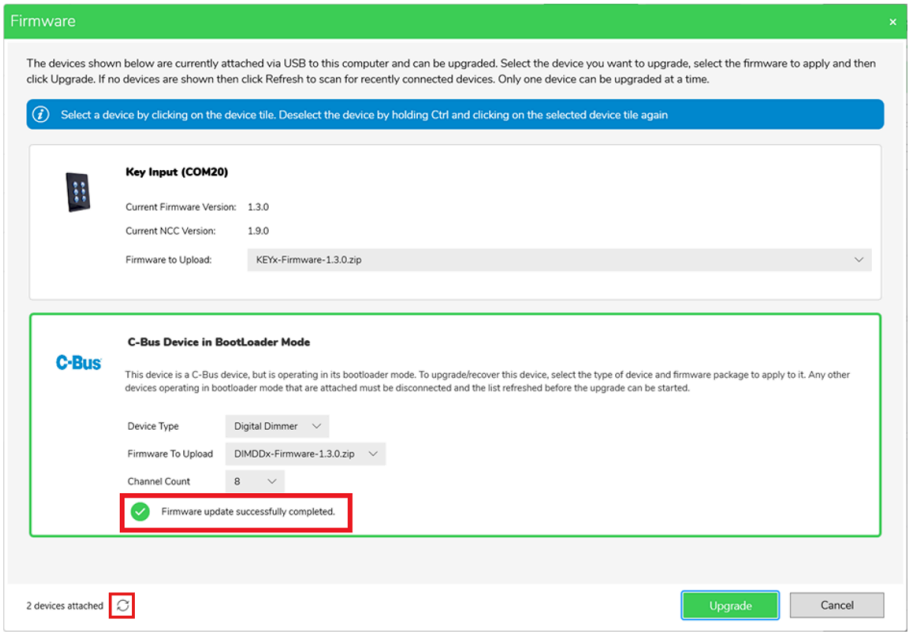
- Does not need to power cycle the device.
- Does not believe that the device is faulty.
- Can easily and quickly restart the upgrade operation.

Prerequisites: For more details, check the SpaceLogic C-Bus product instructions.

To update the firmware for devices in bootloader mode:

1. Connect the unit to the system through an appropriate USB cable.
2. Click ☰.
3. Click **Firmware**.
4. Select the unit (Key Input/Relay/Digital Dimmer/High Power Dimmer).

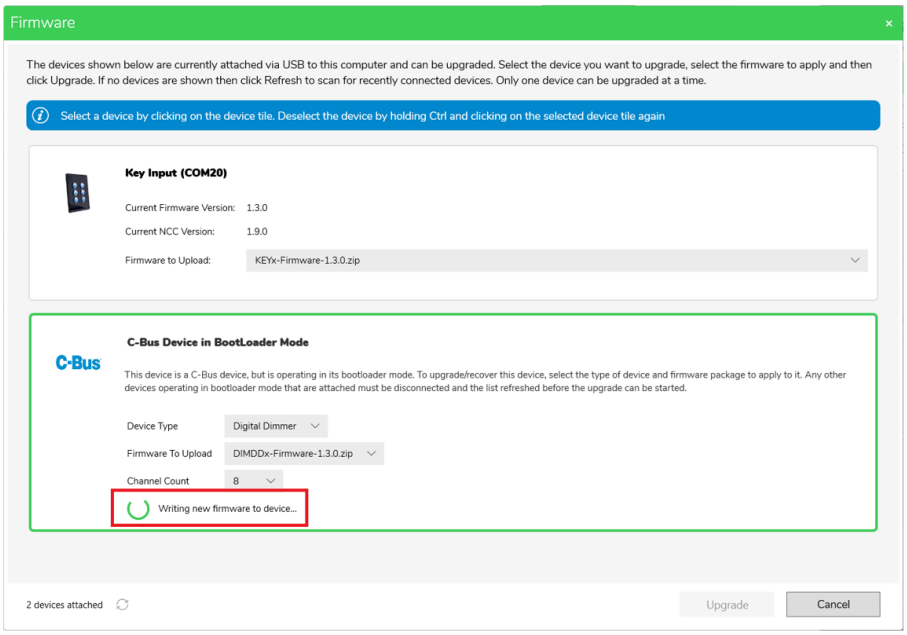
5. Select the firmware to upgrade, from the **Firmware to Upload** drop-down menu.



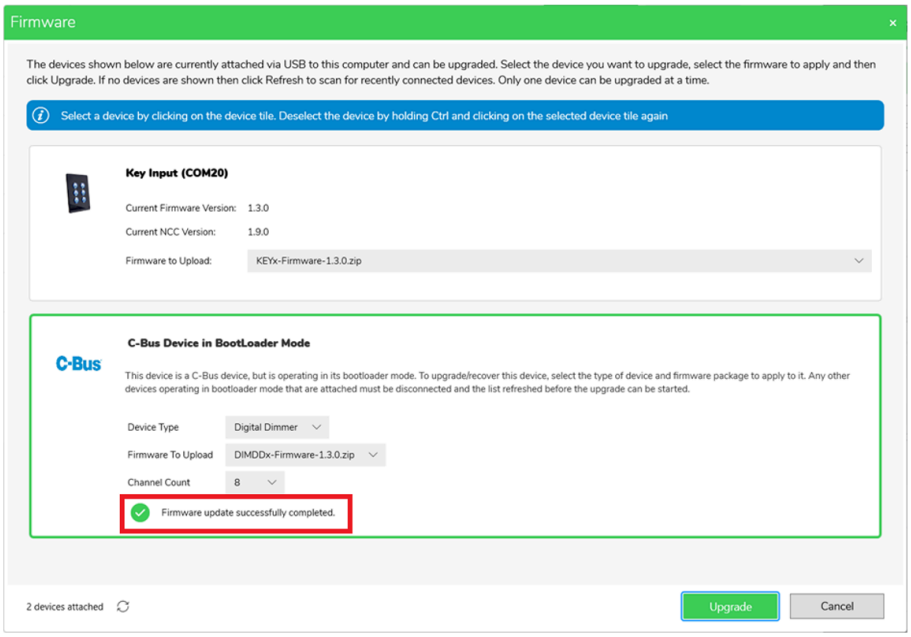
NOTE: The **Channel Count** drop-down list is applicable only for Relays and Dimmers.

IMPORTANT: DO NOT close the application or switch between views while the unit firmware upgrade is in-progress, as this may cause the application to stop abruptly.

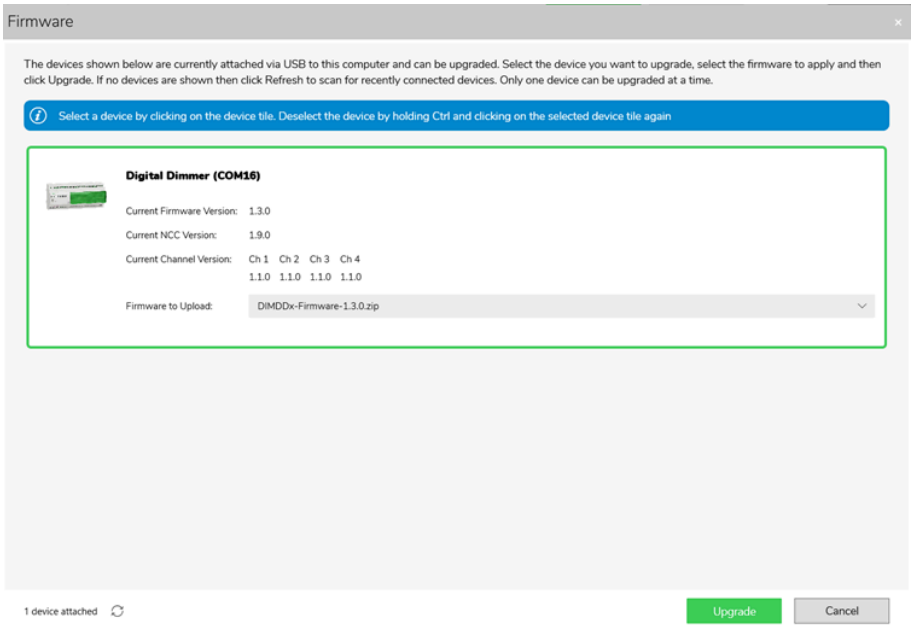
6. Click **Upgrade**.



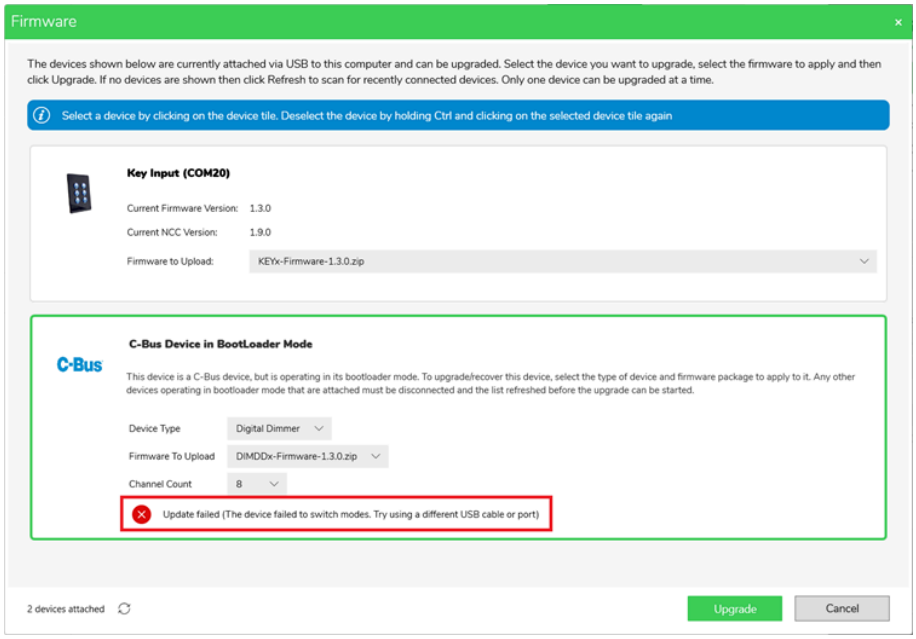
7. Once the upgrade is completed, success message is displayed.



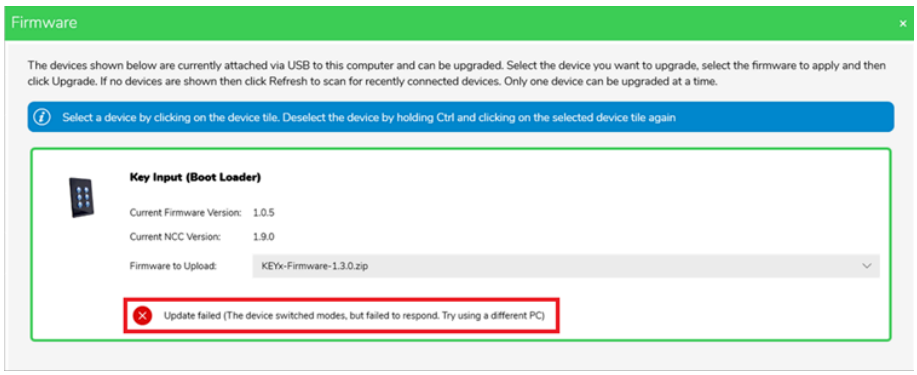
8. Click the **Refresh** icon, the bootloader device tile is replaced with a normal device tile indicating the device is a Digital Dimmer.



9. If the connected device fails to switch modes, the below error message is displayed.



10. If the connected device is not found, the below error message is displayed.



Optimizing the Firmware Update Efficiency for C-Bus Digital Dimmers/High Power Dimmers

If the binary files are already present on the dimmer device, the software will not upload them again when initiating the firmware update process.

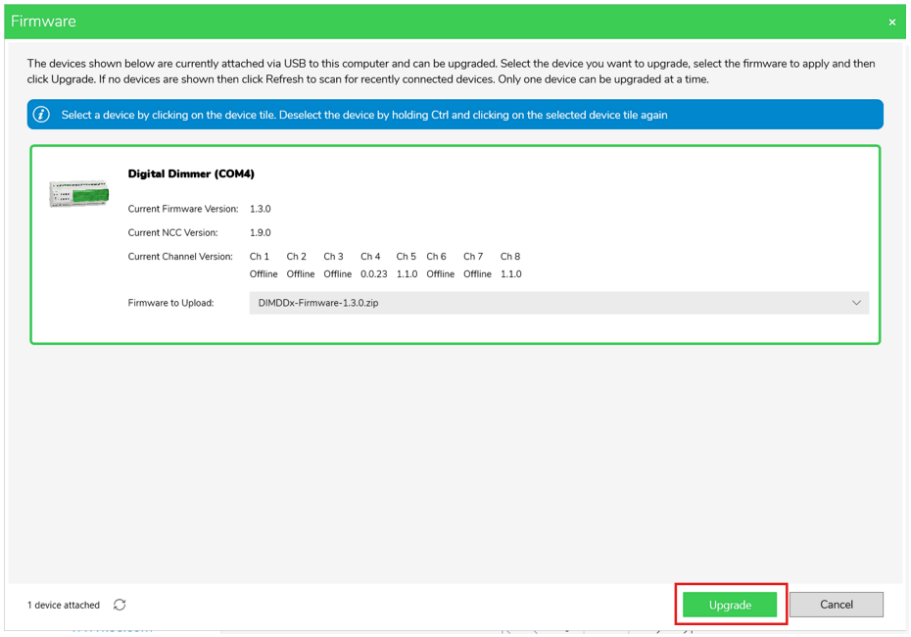
When the firmware update process of a dimmer device begins, the software checks the NCC firmware version and each channel's firmware version. If they match the firmware package, the binary files will not be uploaded.

Additionally, it also:

- Reduces the firmware update time for dimmers by excluding unnecessary NCC firmware and the channel firmware version updates.
  - If the NCC and Channel firmware files are already on the dimmer, skip uploading them.
  - If the NCC and Channel firmware versions are same on the device, skip the upload phase.
- Enables the firmware update process to complete successfully even if a channel bank is unpowered.
- Bypasses the unpowered channel bank to complete the update, upon user confirmation.

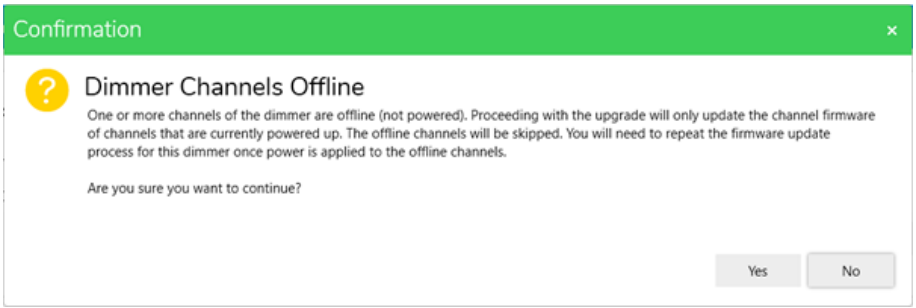
To update the firmware efficiency for C-Bus Digital Dimmer/High Power Dimmer devices:

1. Connect the unit to the system through an appropriate USB cable.
2. Click ☰.
3. Click **Firmware**.
4. Select the unit (Digital Dimmer).
5. Select the firmware to upgrade, from the **Firmware to Upload** drop-down menu.

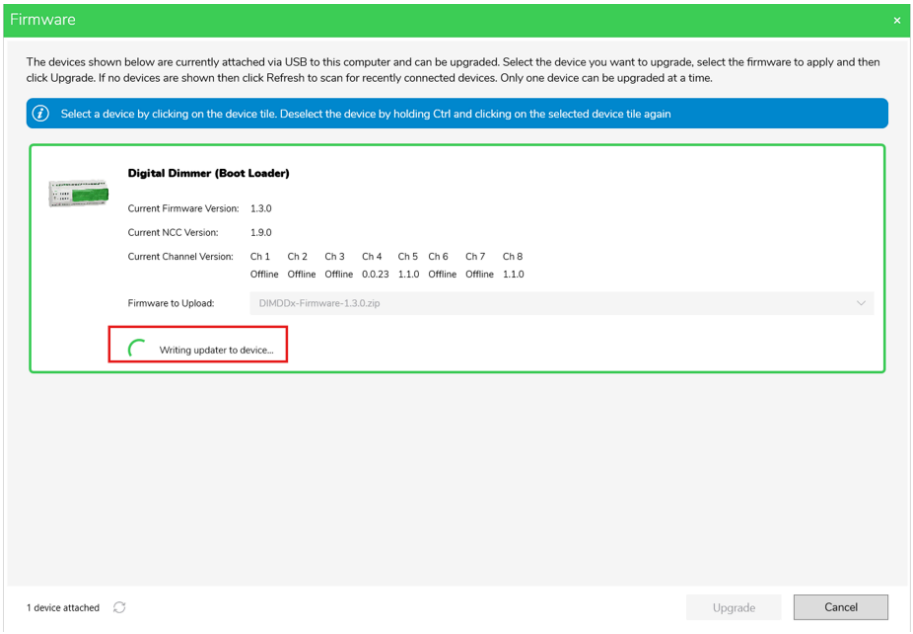


IMPORTANT: DO NOT close the application or switch between views while the unit firmware upgrade is in-progress, as this may cause the application to stop abruptly.

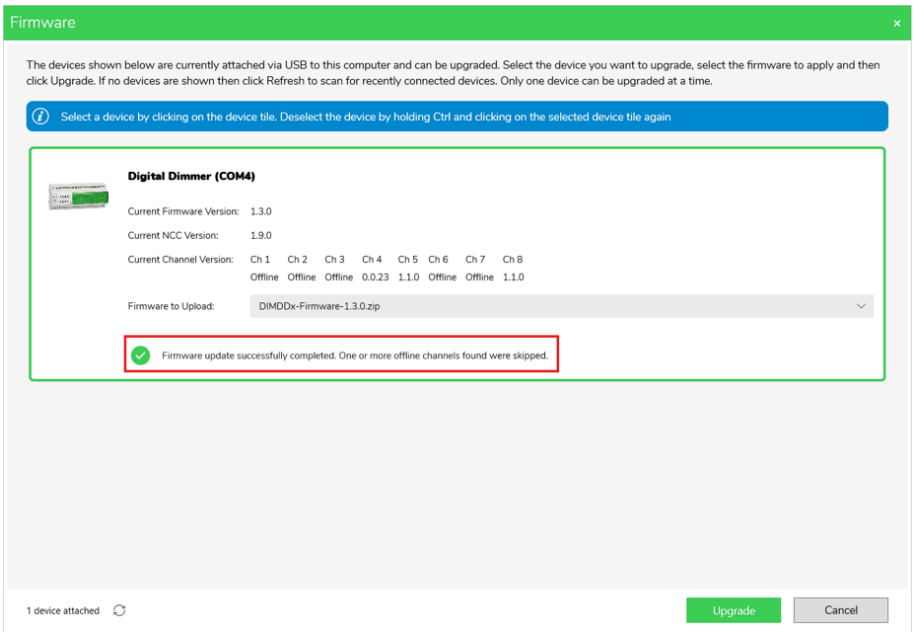
6. Click **Upgrade**. A **Confirmation** pop-up appears.



7. Click **Yes** to proceed.



8. Once the upgrade is completed, success message is displayed.



Important Awareness Method

Prerequisites: Make sure you have the SpaceLogic C-Bus Commission software open. Connect the C-Bus unit to your PC using the appropriate USB cable.

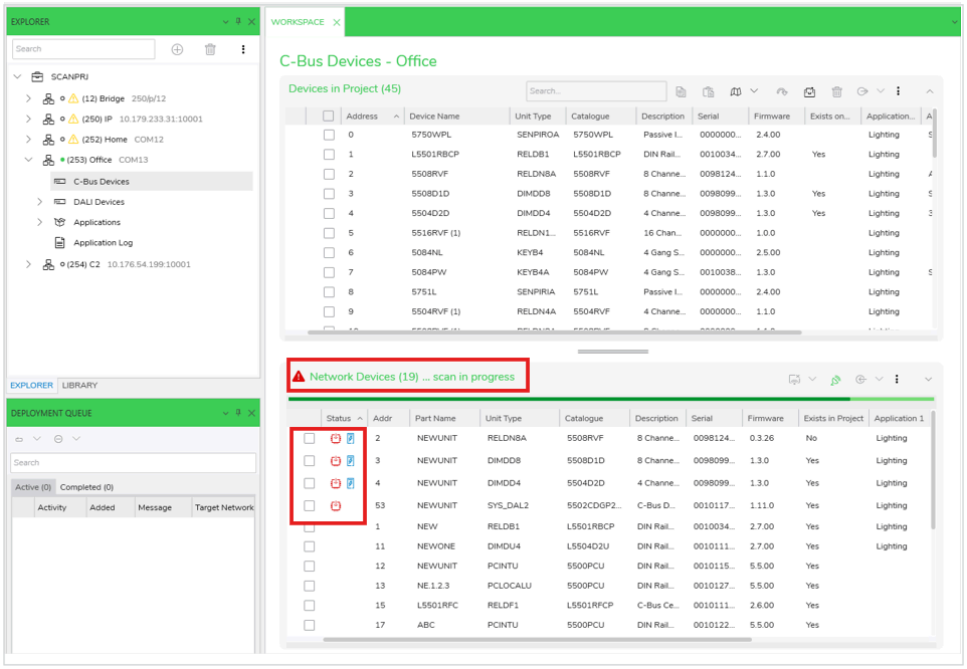
An important firmware update awareness is introduced to notify you when important firmware (FW) updates are available for specific C-Bus devices. This feature ensures that you are promptly informed of any important firmware packages or versions applicable to devices such as:

- 5504D2D (DIMDD4) / 5508D1D (DIMDD8) / 5504DHD (DIMDH4)
- 5504RVF (RELDN4A) / 55048RVF (RELDN8A) / 5516RVF (RELDN16A)
- 5502CDGP230 (SYS_DAL2)
- LSS5500NAC (SYS_NAC) / 5500NAC (SYS_NAC)
- 5500SHAC (SYS_SHAC) / LSS550SHAC (SYS_SHAC)
- 5500NAC2 (SYS_NAC2)

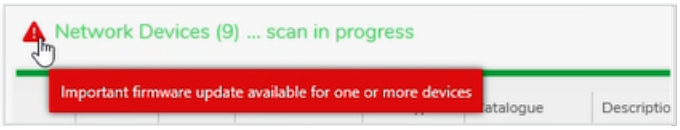
- 5500AC2 (SYS_AC2)

By providing clear alerts within relevant sections of the system interface, you can easily identify devices that require immediate firmware updates and take the necessary action to maintain system reliability and optimal performance.

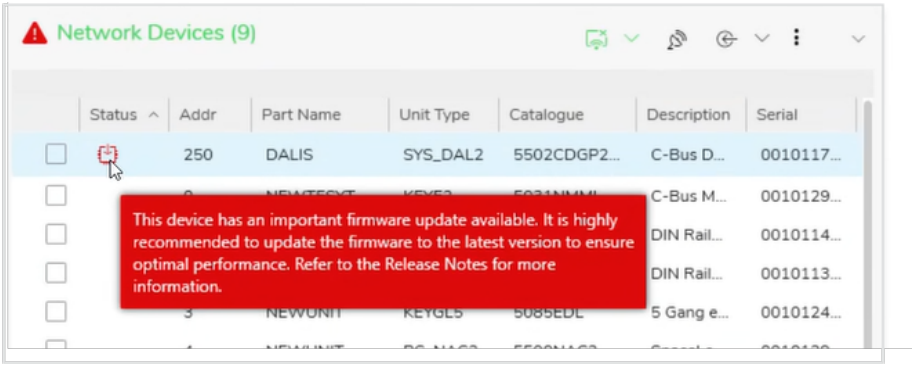
NOTE: When a network scan identifies one or more devices with important firmware updates, an important update icon is displayed adjacent to the **Network Devices** header.



- Mouseover on to view the important firmware update tooltip



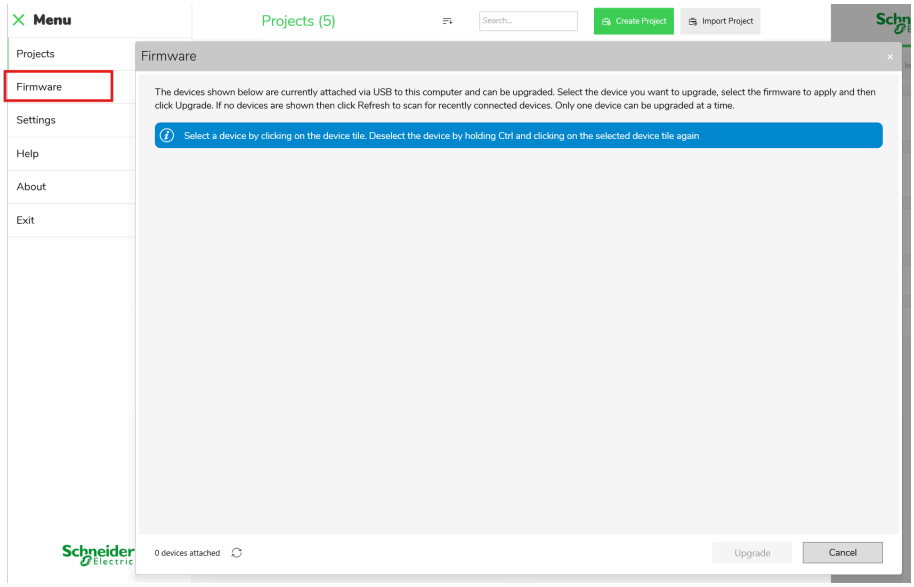
- Mouseover on to view the important firmware update tooltip.



To upgrade the firmware :

1. Click ☰.

2. Click **Firmware**.

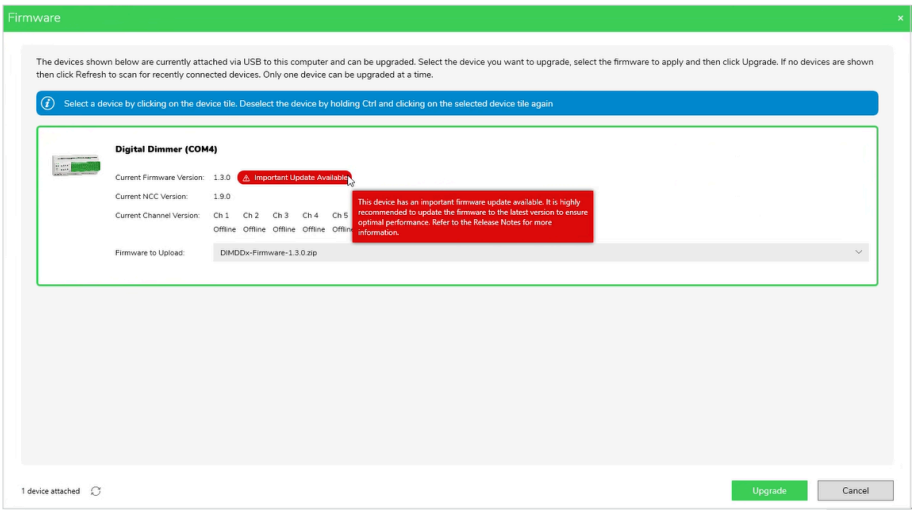


NOTE: When no devices are connected, the **Firmware** upgrade page is displayed with **Refresh** icon enabled and **Upgrade** disabled.

3. Connect a Unit device and click **Refresh**. Once devices are detected, **Upgrade** is enabled.

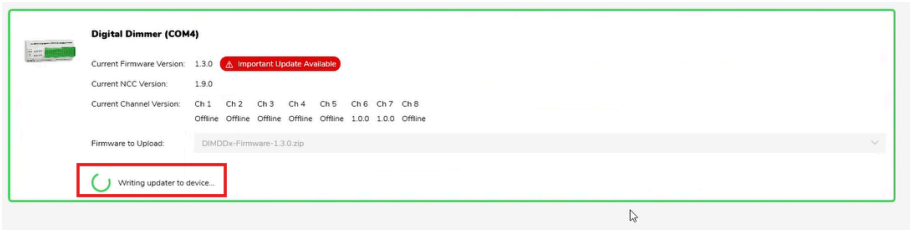
NOTE: Mouseover on

to view the important firmware update tooltip.



4. Click the **Firmware to Upload** drop-down menu to change the firmware version of any connected device.

5. Click **Upgrade**. The firmware is updated and new firmware is written to the device.



Once the upgrade is completed, success message is displayed.

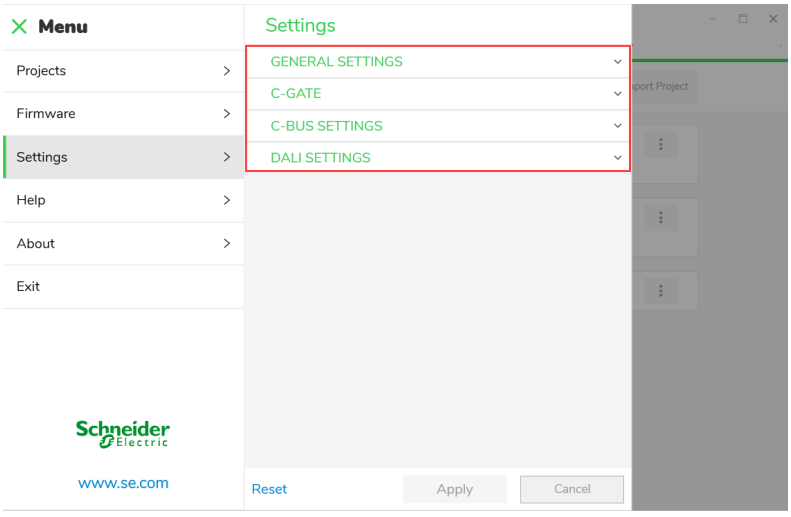
Settings

The **Settings** option allows you to perform general settings for the software, C-Bus and DALI system. The sections in the **Settings** option are as follows:

- General settings, page 49
- C-Gate (To be implemented)
- C-Bus settings, page 51
- DALI Settings, page 52

To Open Settings

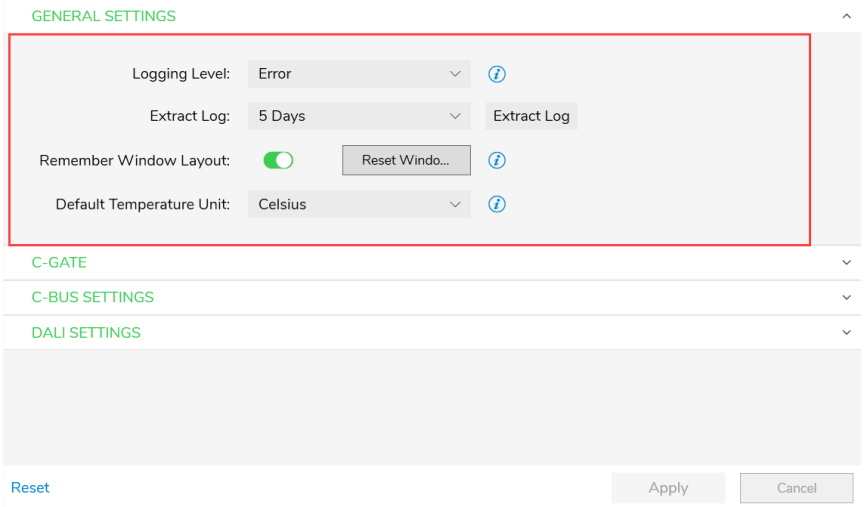
1. Click ☰.
2. Select **Settings**.



General Settings

The operations that can be performed in the *General Settings* section are as follows:

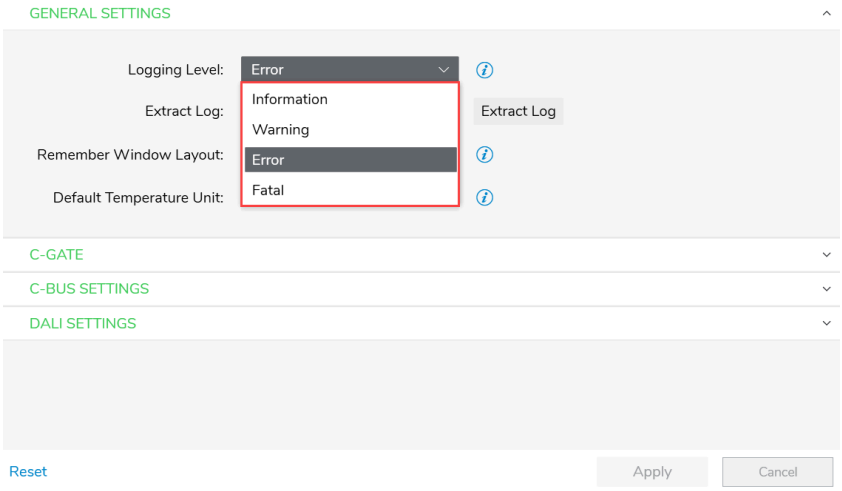
- Logging Level
- Extract Log
- Remember Window Layout
- Default Temperature Unit



Logging Level

Based on the different *Logging Levels* the client and server logs can be extracted. When a logging level is set, it becomes the new default setting and any lower levels are automatically included in the extracted report.

For example: If the Information level is selected, it includes the Warning, Error and the Fatal levels. This feature might be helpful for the debugging purposes.



NOTE:

- Click **Apply** to make the selected *Logging Level* as a user-defined
- Click **Reset** to change the Logging level to the system default, which is the Information logging level

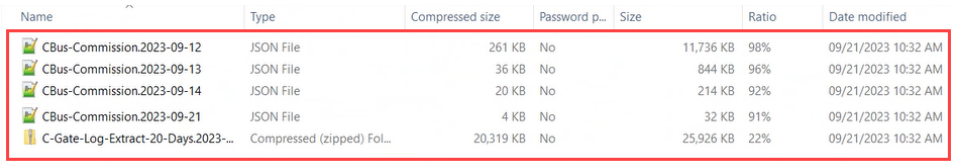
  Confirm **Yes** in the **Confirmation** dialog box.

Logging levels	Purpose	Description
Error	This is a default level and can be used in general day to day usages	This logging level is helpful when an error occurs in the software

		NOTE: This is the default level set in the software
Warning	This level is used based on the need to check any warnings generated	This logging level includes any warnings generated during the configuration
Information	This level is used to capture more information details in the Client logs	This logging level includes the login and session information
Fatal	This level is used based on the need to trace a software crash	This logging level is helpful when the software crashes

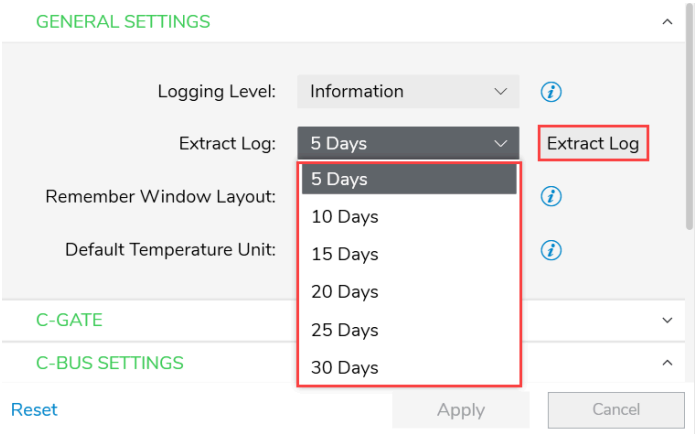
Extract Log

The log events of C-Bus Commission and C-Gate can be extracted using *Extract Log* button.



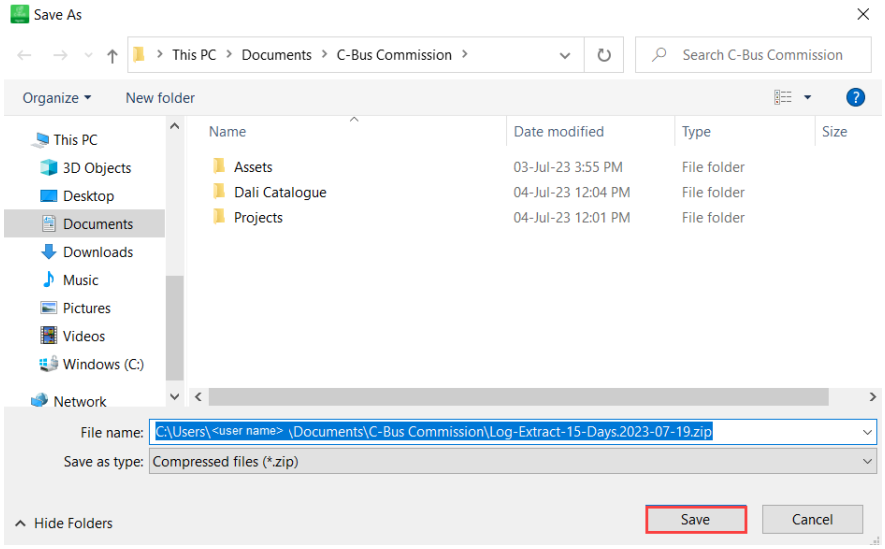
The steps to extract logs for the specified logging level is as explained below:

1. Select the number of days for which the Log has to be extracted and click **Extract Log**



NOTE: The number of days selected will not be saved in the general settings and is only used to extract log.

2. “**Save As**” window is displayed



NOTE: The details are saved in zip file.

Click **Save**

Window Layout

Remember Window layout

Toggle ON, to remember the user-defined layout.

Reset Window layout

To reset the system default setting as windows layout, click **Reset Window Layout**

Temperature Unit

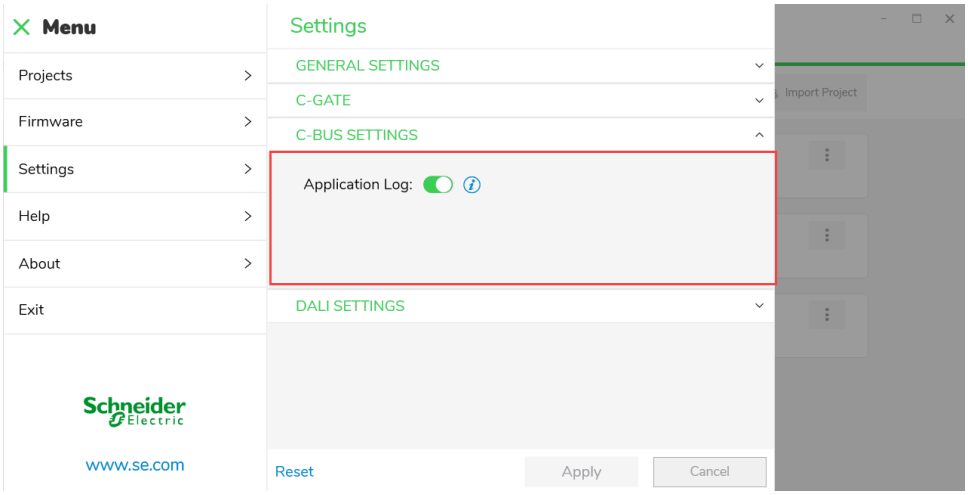
The Default Temperature unit can be set either as Celsius or Fahrenheit.

C-Gate Options

To be implemented.

C-Bus Settings

The operations that can be performed in the General Settings section are as follows:



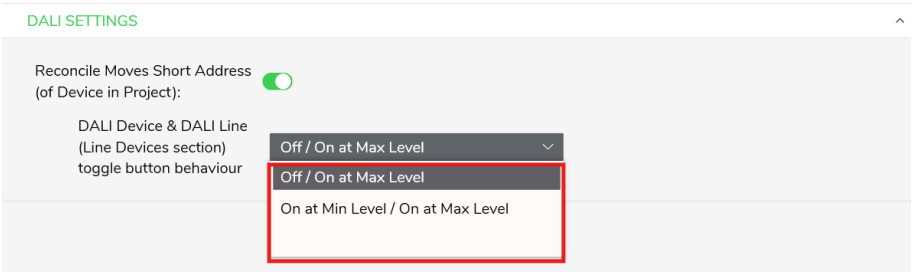
Application Log

The Application Log allows the user to display group activity on the physical network. By default, the application log is toggled ON.

DALI Settings

DALI SETTINGS can be performed by toggling on **Reconcile Moves Short Address (of Device in Project)**.

1. Click ☰ > **Settings** > **DALI SETTINGS**.



NOTE:

While performing reconciliation on DALI devices:

- If the DALI settings is toggled off, the short address and object Id of a device in **Devices in Project** section will not be changed.
- If the DALI settings is toggled on, the short address and object Id of a device in **Line Devices** section will not be changed.

2. Select the option from the **DALI Device & DALI Line (Line Device section) toggle button behaviour** drop-down.

   NOTE: This setting changes the behavior of the toggle off/on button in the DALI **Line Device** section, making it switch between **Off/On at Max Level** and **On at Min Level/On at Max Level** when toggled.

About

The About option displays the version number of the SpaceLogic C-Bus Commission software, which can be helpful during communicating with the technical support team.

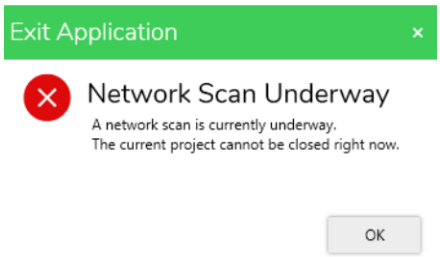
Exit

The Exit option allows to exit from the SpaceLogic C-Bus Commission software.

IMPORTANT:

- Trying to exit a software while deployment activities are in progress is not possible.

- Trying to exit a software while scanning is in progress is not possible.



Projects Management

The management of projects consists of operations that can be performed on projects individually in the software.

The projects tool bar in the project home screen include project name.

Operations performed on project screen.

Icons	Operation
	Close the current project, see Close project, page 59
Windows ▾	Windows Drop-down menu, see Overview of Project space, page 66

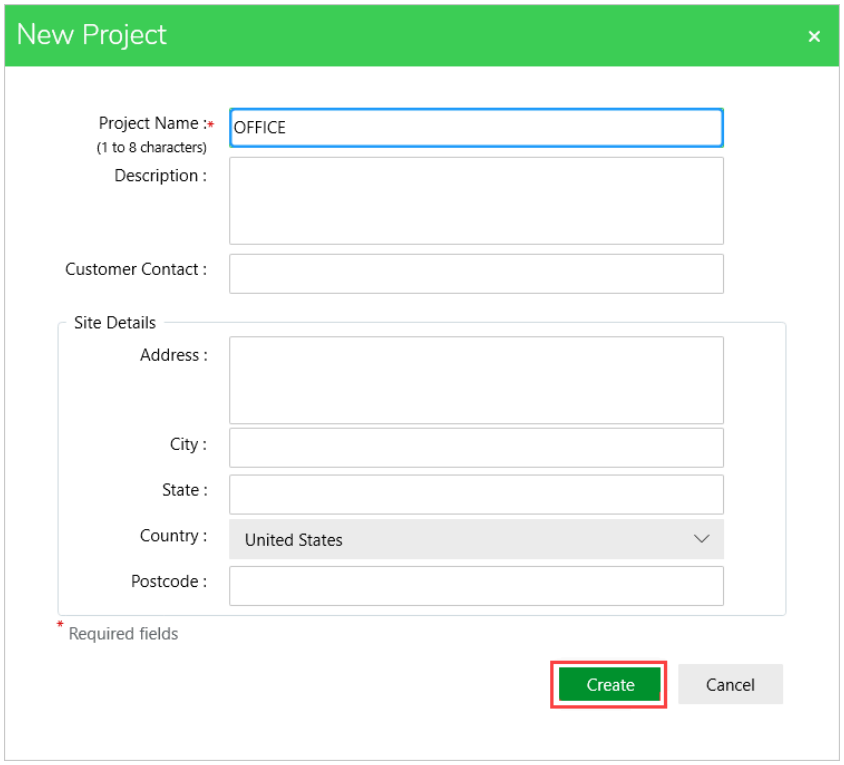
Operations performed on projects dashboard:

- Create a project, page 54
- Switch projects, page 55
- Open an existing project, page 56
- Edit a Project, page 57
- Search a project, page 59
- Sort projects, page 64
- Import projects, page 60
- Export projects, page 61
- Close a project, page 59
- Delete a project, page 60

Create a Project

Prerequisites: The SpaceLogic C-Bus Software must be opened.

1. Click Create Project in the **Projects** dashboard.
   or,
   Click ☰ > Create Project to create a new project.
   The **New Project** pop-up is displayed.



2. Enter the required information about the project and click **Create**.
   A new project is created.

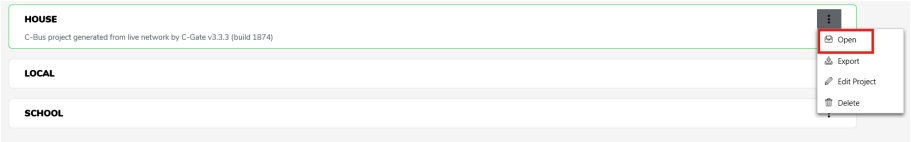
Switch Projects

SpaceLogic C-Bus Commission software allows you to switch between the projects.

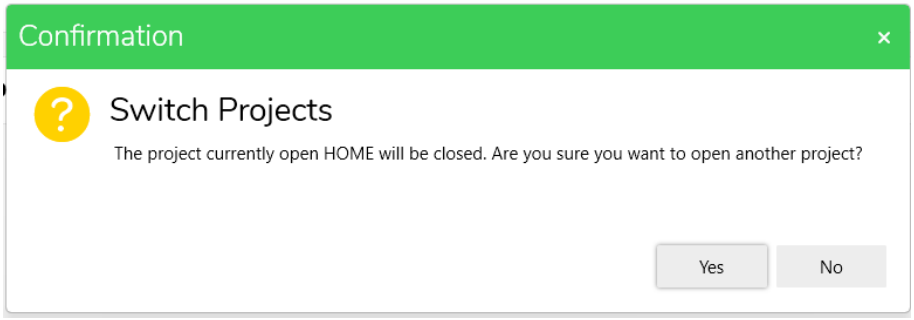
Prerequisites: More than one project must already be created.

1. Click ☰ in the projects dashboard.
2. Click ⋮ of the individual project to be switched.

3. Select **Open**.



Confirmation pop-up appears.



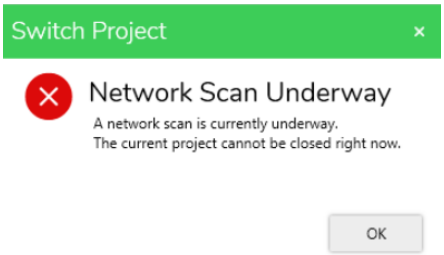
4. Click **Yes** to switch the projects.

   Step result: Your selected project is opened.

   IMPORTANT:

   - Trying to switch a project while deployment activities are in progress is not possible.

   - Trying to switch a project while scanning is in progress is not possible.



Open an Existing Project

Pre-requisites: The project must already be created.

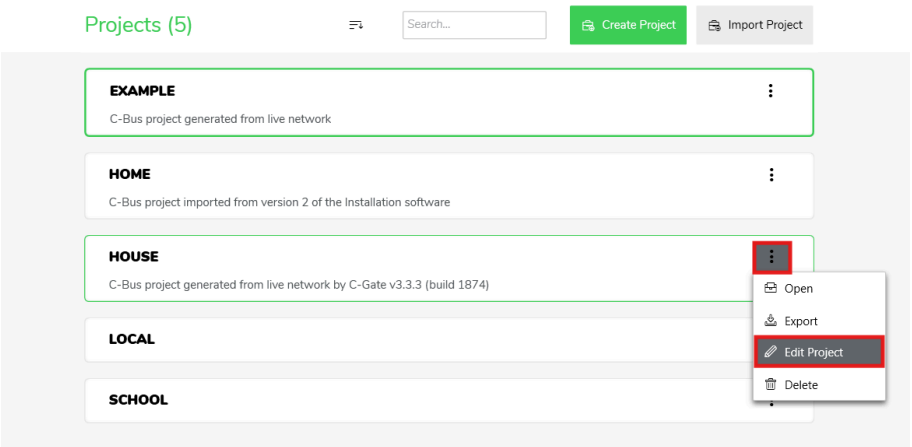
1. Click ☰ in the projects dashboard.
2. Click ⋮ of the individual project to be opened.
3. Select **Open**.
4. Click **Yes** to open the existing project.

Edit a Project

SpaceLogic C-Bus Commission software allows you to edit an existing project so that you can correct or update the information to keep it accurate and relevant.

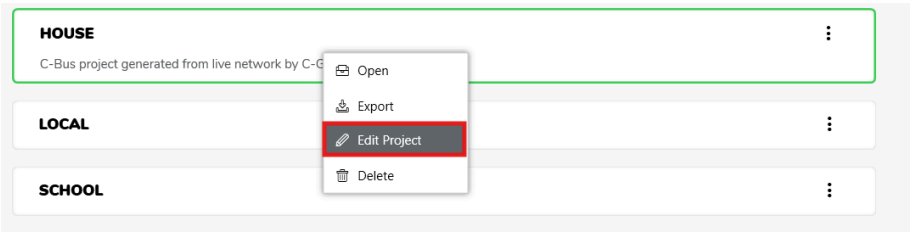
Pre-requisites: The project must already be created.

1. Click ☰ in the **Projects** dashboard.
2. Click ⋮ and select **Edit Project**.

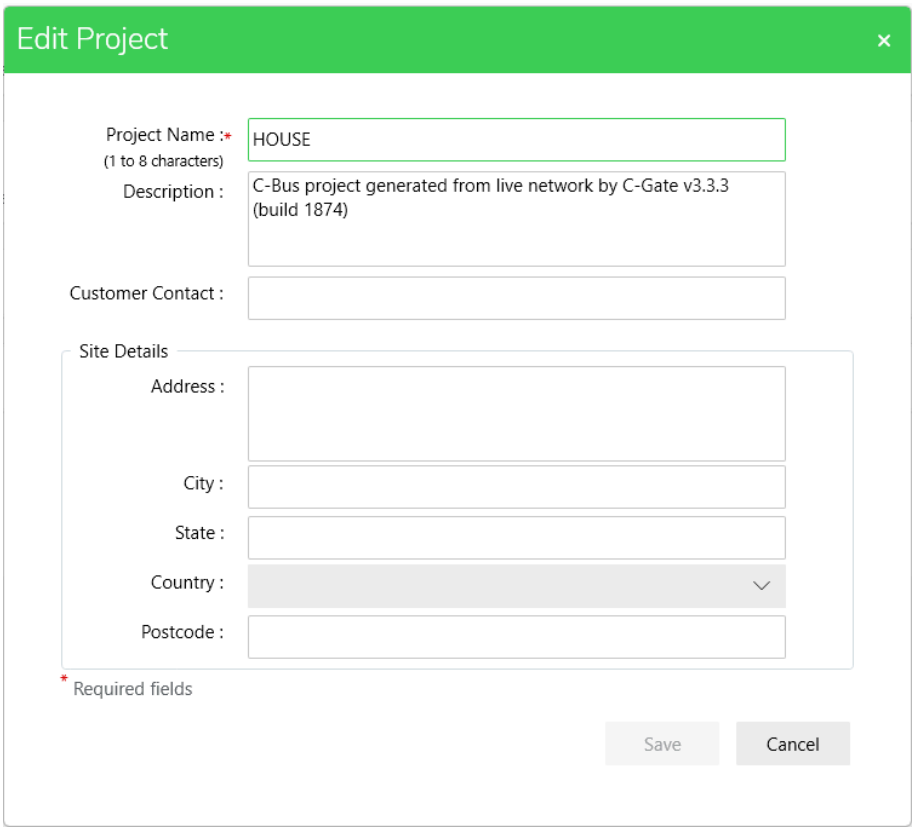


or,

Right-click on the project in the **Projects** dashboard.



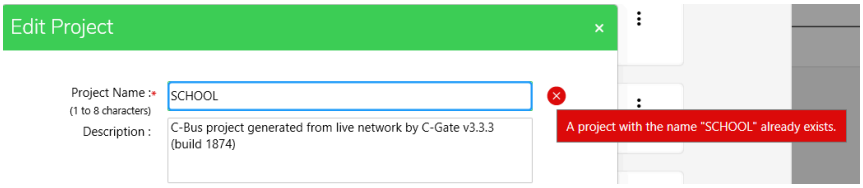
3. Select **Edit Project** to open the **Edit Project** pop-up.



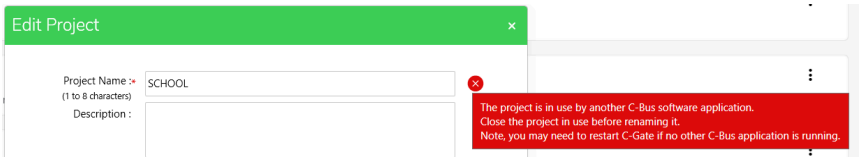
4. Modify the project information.
   - In **Project Name** field, rename the project name. Project name should be unique (between 1-8 characters, uppercase ASCII letters and numbers, and underscores).
   - In **Description** field, enter the description.
   - In **Customer Contact** field, modify if required.
   - In **Address** field, provide the address details.
   - In **City** field, enter the city name.
   - In **State** field, enter the state name.
   - In **Country** field, when you start to type in, the drop-down list automatically filters to display only matching results. The selection updates dynamically based on the input.
     - By default, the **Country** field is populated using the personal computer's windows regional settings to reflect your local country.
   - In **Postcode** field, enter the postcode.

     NOTE: The **Address**, **City**, **State** and **Pincode** fields allows up to 254 characters. Special characters such as #, &, and / are not allowed.
5. Click **Save** to update the changes.

   Below are the error scenarios:
   - An error pop-up appears when you hover on the icon, if the project name already exists.



   - An error pop-up appears when you hover on the icon, if the project is already opened in C-Gate.



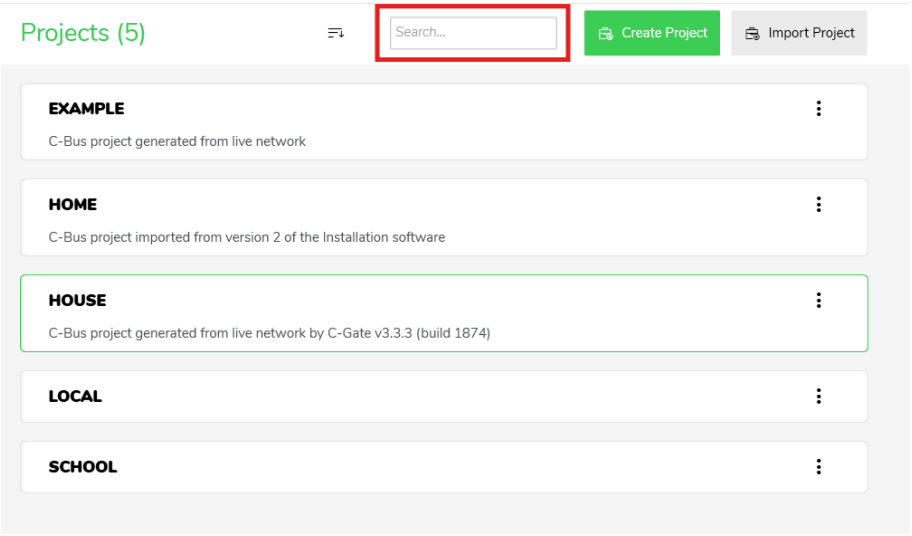
     NOTE: Save button will be disabled.

Search a Project

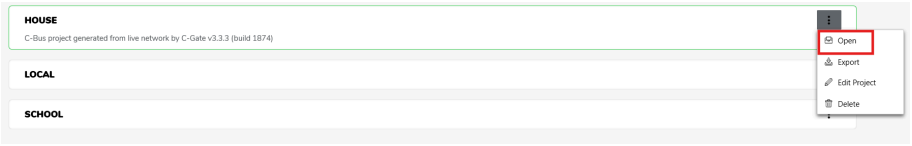
Pre-requisites: The project must already be created.

SpaceLogic C-Bus Commission software allows you to search existing projects.

1. Click ☰.
2. In the **Project** section, enter the name of the project in the **Search** bar.



3. The project matching the search criteria is listed in the **Projects** dashboard.
4. Select the project and click ⋮.

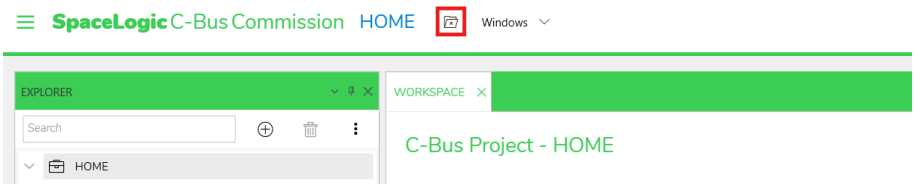


5. Select **Open.**

Close a Project

Pre-requisites: The project must already be opened.

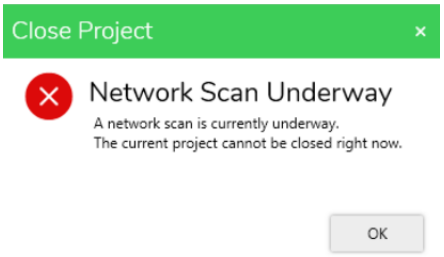
1. Click in the **Projects** tool bar to close a current project.



IMPORTANT:

- Trying to close a project while deployment activities are in progress is not possible.

- Trying to close a project while scanning is in progress is not possible.

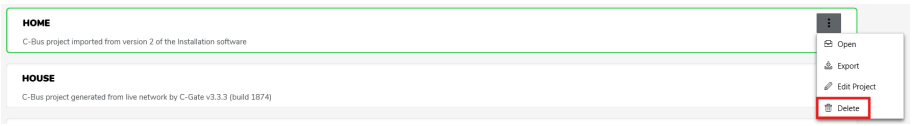


Delete a Project

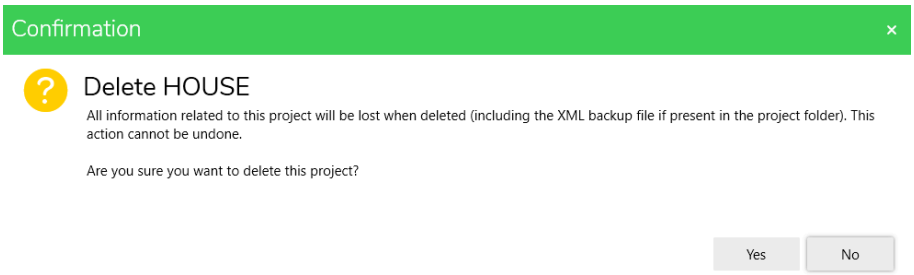
SpaceLogic C-Bus Commission software allows you to switch between the projects. The delete project function deletes a project from the database of the SpaceLogic C-Bus Commission Software.

Prerequisites: The project must already be created.

1. Click ☰ in **Projects** dashboard.
2. Click ⋮ of the project to be deleted from database.



3. Select **Delete**. **Confirmation** pop-up appears.



4. Click **Yes** to delete the project.

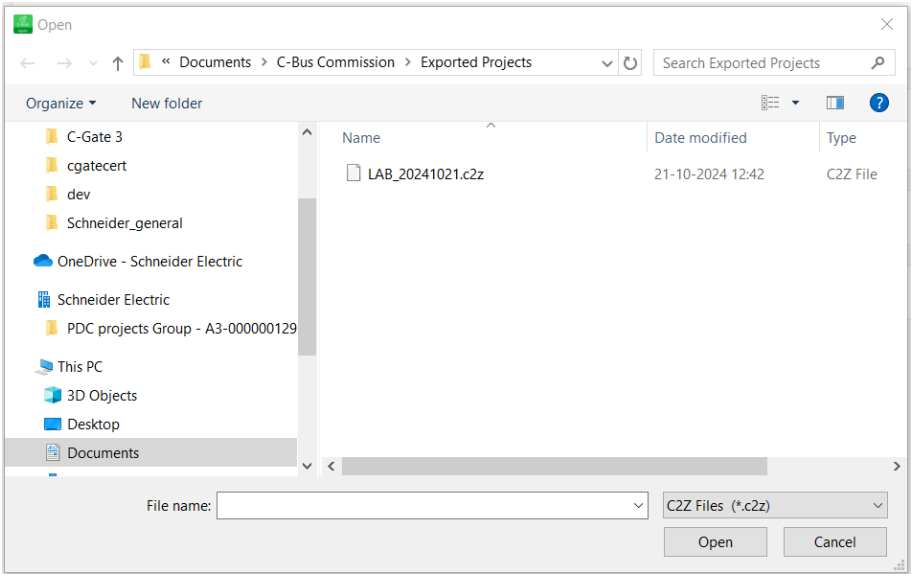
Import Projects

SpaceLogic C-Bus Commission software allows to import projects and all associated files into the software.

The Import function is available in the welcome screen of the software and in the ☰

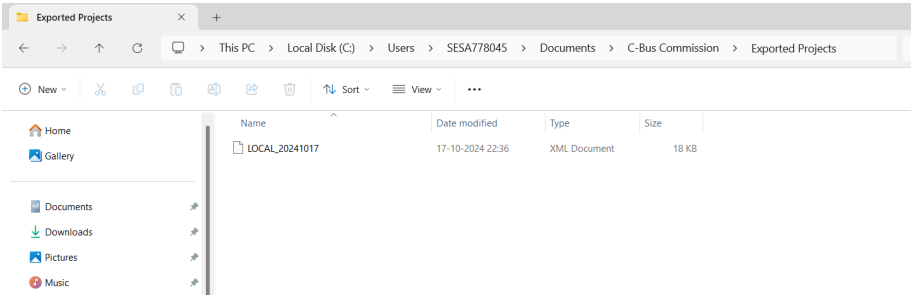
To import projects:

1. Click **Import Project**.
2. Windows file browser dialogue is displayed with default location proposed C:\Users\<UserName>\Documents\C-Bus Commission\Exported Projects



3. Select the project which needs to be imported.

   All the associated project files will be imported (like project file, the eDLT/DLT, BMP and Index TXT files, and so on).



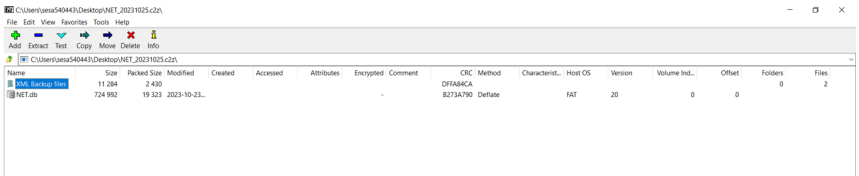
The project files are successfully imported to the software.

Export Projects

Prerequisites: The project must be closed before being exported.

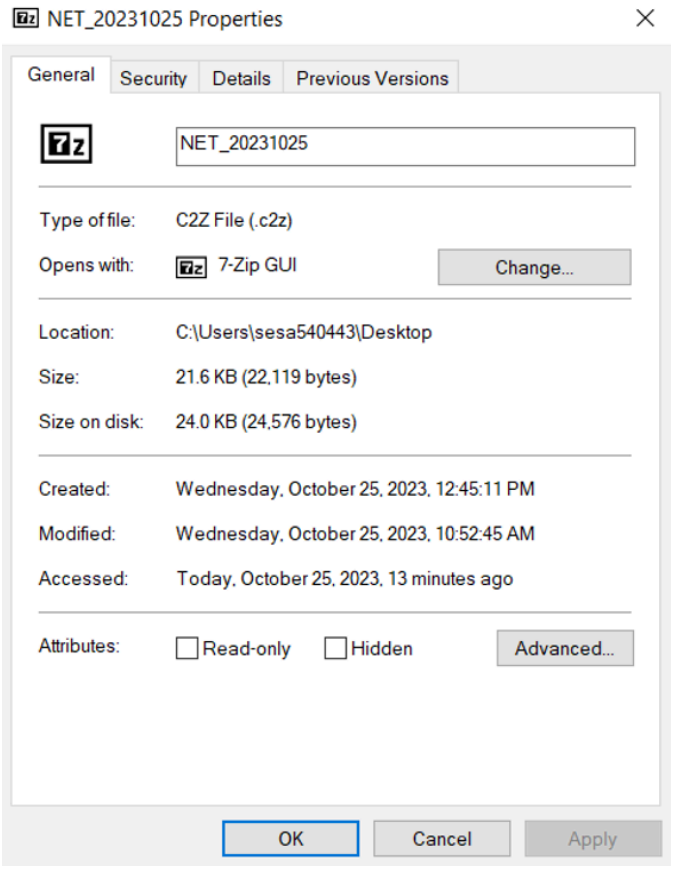
SpaceLogic C-Bus Commission software allows to export project and any associated files from a software as a single file package to save/backup/use elsewhere.

1. Any project/all associated project files are considered together as a single file package, including but not limited to:
   - Files contained within its project file folder.



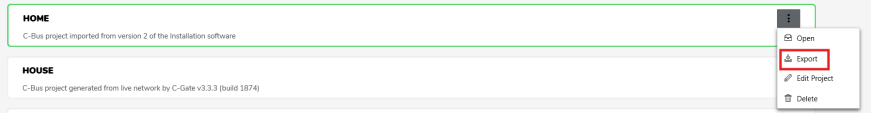
   The file package are named/identified as a ".C2Z" file type.

2. The .C2Z file type are registered with Windows (as per Toolkit .CBZ file type).



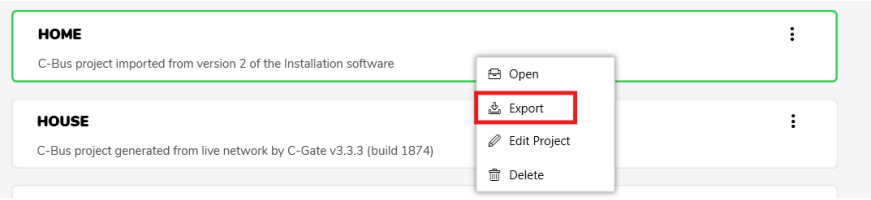
3. You can export the project in any of the two ways described below:

   a. Click ⋮ of a project in the **Projects** dashboard and then select **Export**.



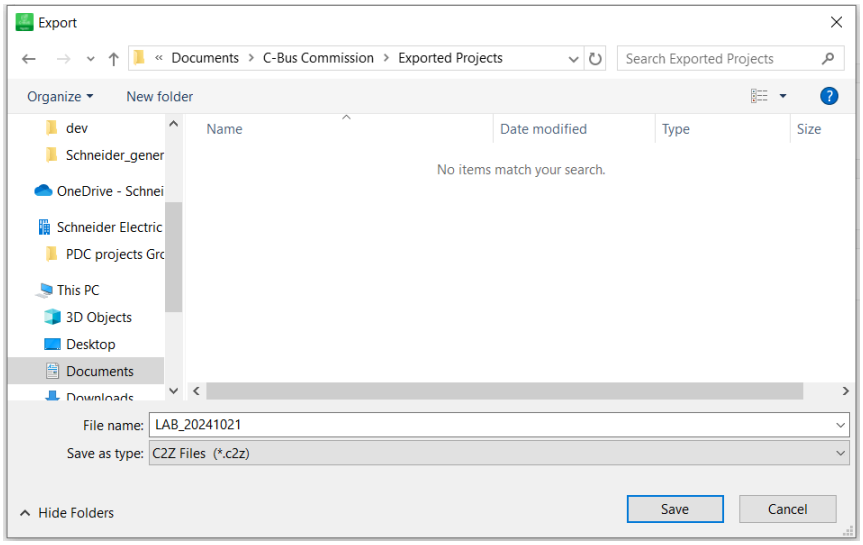
   or,

   b. Right-click on the project in the **Projects** dashboard and then select **Export** option.

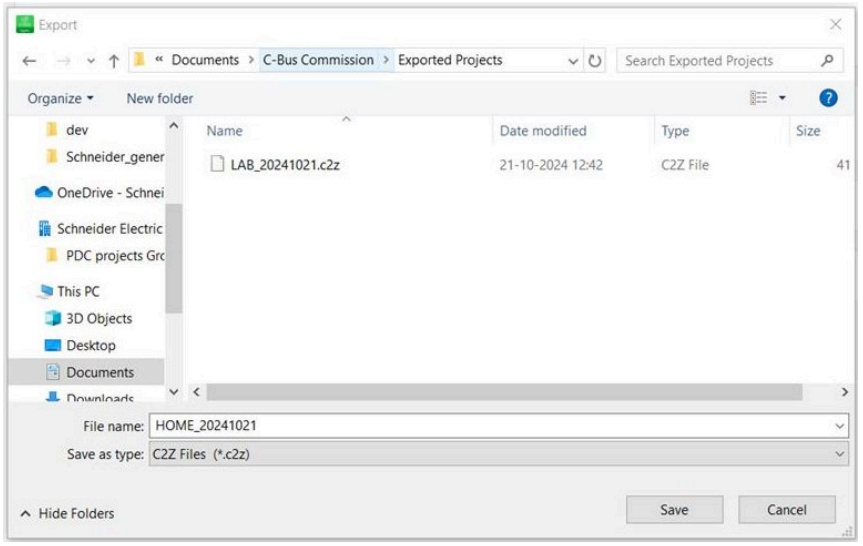


4. You can either export the files in C2Z file type or XML file type.

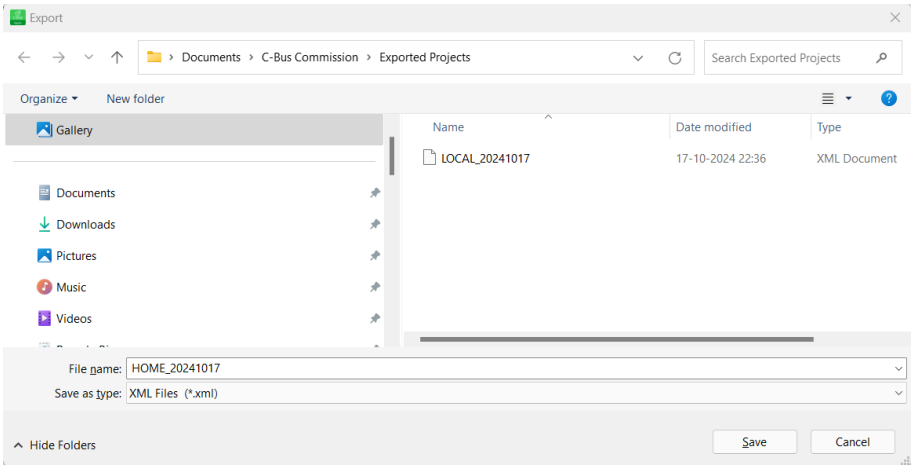
5. When the export function is invoked, the Windows file browser dialog is displayed with a default name and default location proposed.
   - Default name proposed: 'ProjectName'_YYYYMMDD (where YYYYMMDD is the current date). In the **Save as type** drop-down list, by default the C2Z files (*.c2z) is selected.



   - Click **Save**. The file is saved in the default location proposed: C:\Users\<Username>\Documents\C-Bus Commission\Exported Projects.



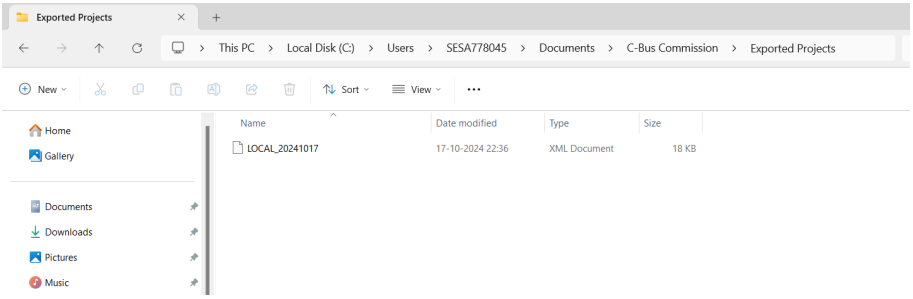
6. Select the XML Files (*.xml) option from the **Save as type** drop-down list to export your C-Bus project to the legacy XML format.



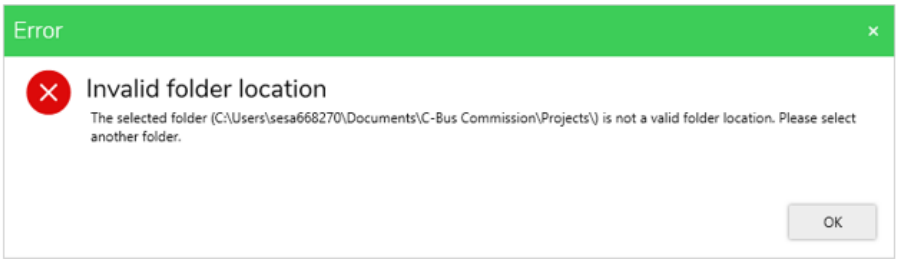
NOTE: XML format is compatible with legacy Toolkit and C-Gate2 or other legacy C-Bus tools as well as for use with third party C-Bus Enabled systems.

7. Click **Save**. The file is saved in the default location proposed: C:\Users\<Username>\Documents\C-Bus Commission\Exported Projects.

   The project and all its associated files are exported successfully from software to the default location.



8. If you try to export and save a project of any file type to the C:\Users\<username>\Documents\C-Bus Commission\Projects" location, **Error** pop-up is displayed.



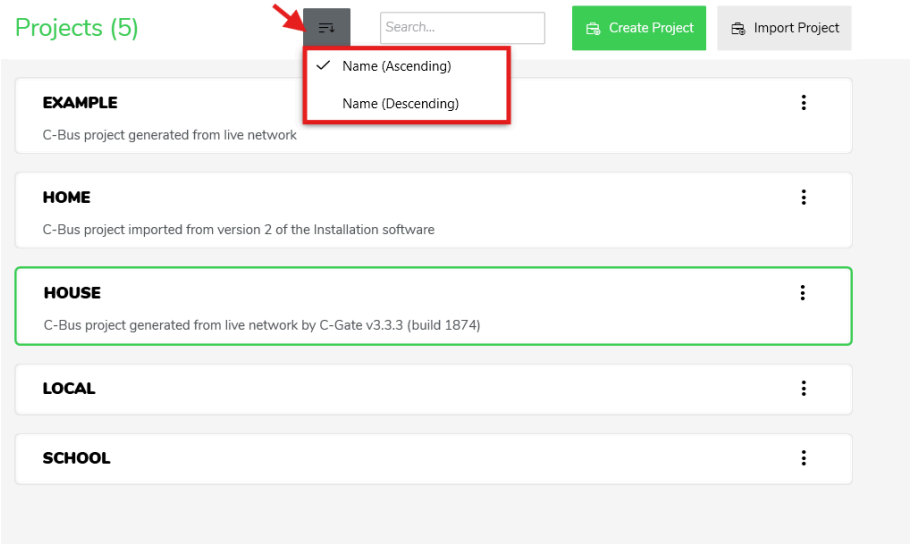
9. Click **OK** to close the **Error** pop-up.

Sort Projects

Prerequisites: More than one project must be created.

SpaceLogic C-Bus Commission software allows you to sort the existing projects. using

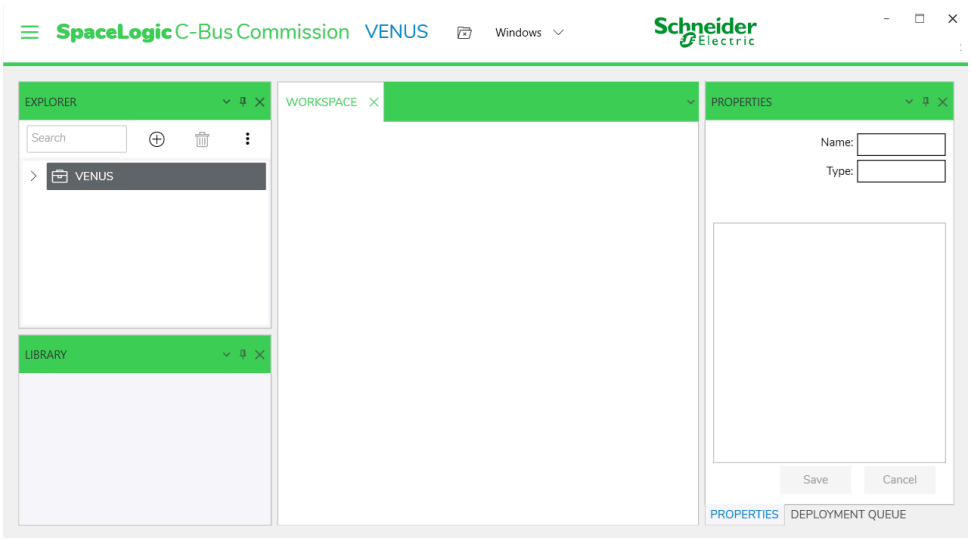
1. Click on **Projects** dashboard.



2. Select either **Ascending** or **Descending** based on your requirement.

Overview of Project Space

The Windows ▾ displays the different windows in the SpaceLogic C-Bus Commissioning software, which consists of:



- Network Management, page 67
- Library window, page 72
- Workspace window, page 80
- Properties window, page 163
- Deployment queue, page 165

Windows	Description
EXPLORER	This window allows to view and manage all the networks created in the current project.
LIBRARY	This window allows to view the device catalogue details and relevant functions.
WORKSPACE	This window is the main area of display for project information which consists list of devices in the projects database and list of devices in the network.
PROPERTIES	This window allows to view the applicable properties of selected device in a single editor window.
DEPLOYMENT QUEUE	This window displays the process of devices being transferred to **Devices in Project** and getting deployed to **Network devices**.

Network Management

The network management is performed in the ***Explorer*** window which allows to Add networks and displays all the available C-Bus networks in the project.

Each network created consists of 3 nodes:

- C-Bus devices
- Applications
- Application Log

The Network is represented with symbol

Operation performed on networks:

- Add network, page 67
- Add Bridge network, page 68
- Search network, page 70
- Delete network, page 71

Each network created consists of the following nodes:

1. C-Bus devices, page 73
2. Applications, page 166
3. Application log, page 173

Add a Network

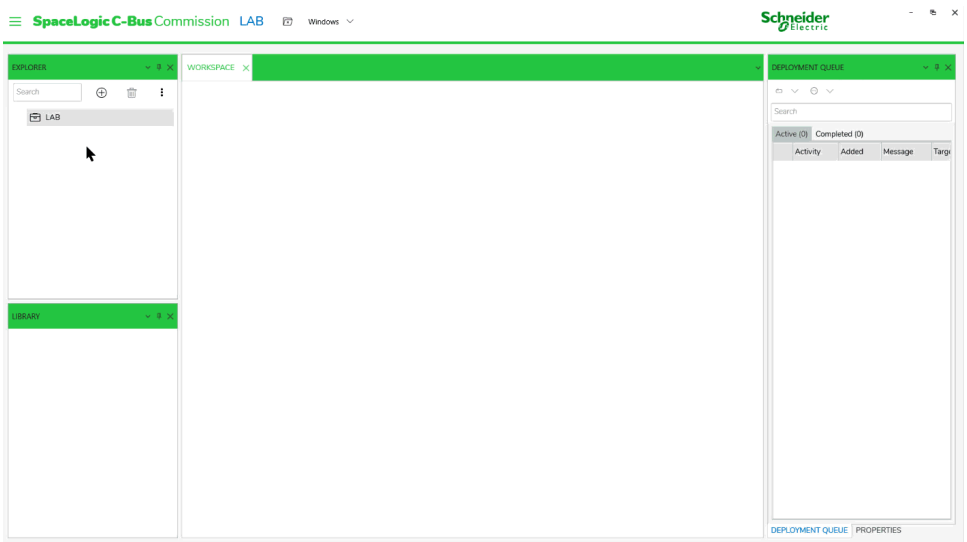
Explorer window allows you to add a C-Bus networks to the project, where each project can have a maximum of 255 networks.

Prerequisites: A Project must already be created and opened.

1. In the **Explorer** window, select the project and click

   Step result: Add Network dialog box is displayed.
2. Fill in the network details in the displayed dialog box and click **create**

The process of creating a network is as demonstrated below:



The Add Network dialog box consists of following fields:

Fields	Description
Network Name	Enter the name of the network maximum of 32 characters

Interface Type	Choose an interface type from the following: • **Ethernet** This interface type is used to connect a network through a Automation controller or a C-Bus Network Interface (CNI) • **Serial** This interface type is used to connect a network through a PC Interface (PCI) • **C-Bus** This interface type is used for interconnection of C-Bus networks using a bridge
Device Type	Enter the type of device: Valid device types for **Ethernet Interface** are: • Application Controller • Automation Controller • C-Bus Network Interface Valid device types for **Serial Interface** are: • PC Interface (PCI) • PC Interface (PCI) USB Valid device types for **C-Bus Interface** is: • C-Bus Network Bridge
COM Port	Communication port which the C-Bus interface device is connected

TIP: Alternate ways to Add a network:

- Click ⋮ and select ADD
- Right click on project name in explorer window and select ADD

Add a Bridge Network

The C-Bus bridges provide connectivity between wired C-Bus networks. Each of the bridge units have a near and far side, which relates to whether the side is connected to a local or remote network.

Prerequisites: The project must already be created and at least one network has to be created to use as an transient network.

The Bridge network consists of components and functions as similar to other networks: *C-Bus Devices, Applications* (Lighting, Enable, Trigger), and *Application log*.

Bridge network can be created in 2 ways:

Method 1

1. Select the network and click ⊕ in the **Explorer** window
2. **ADD NETWORK** dialog box is displayed
3. Select C-Bus as the *Interface type* and fill in the required fields

   NOTE: A transit network is a network that is connected to the current network that is being defined.
4. Confirm **Create**

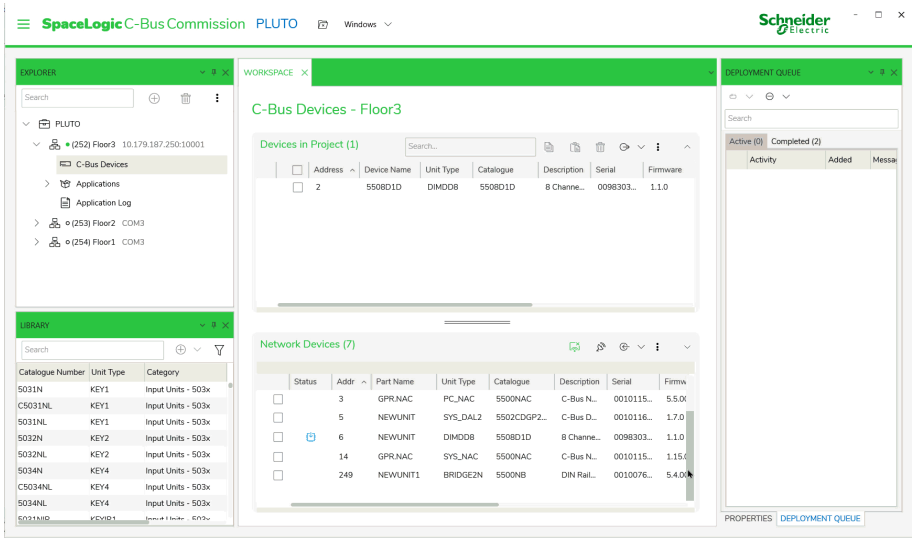
Method 2

Bridge network can also be created from the *Network Devices*. The *Make Network* function creates, configures, and opens a new network corresponding to the other side of the selected bridge or gateway.

1. Open and scan the live *Network Devices*
2. Right-click on the bridge network device

3. Select **Make Network**

   The process to create bridge network is as demonstrated below:



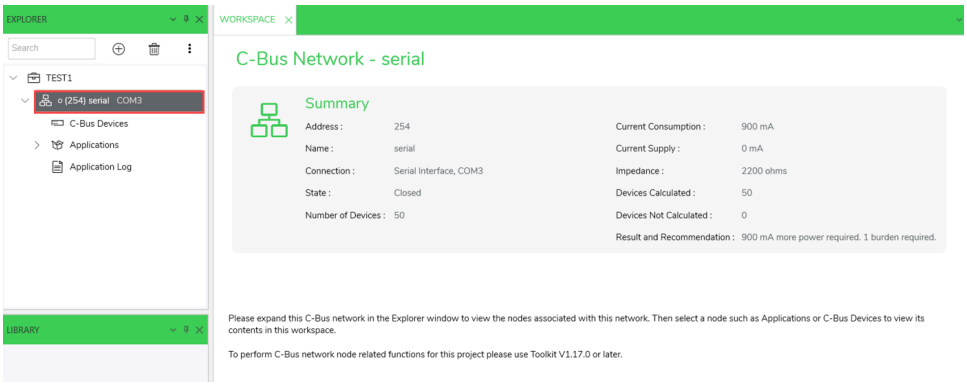
CAUTION: When a Bridge network is deleted, all information related to this network will be lost. Far side bridge devices will also be deleted from adjacent networks. Any remote bridge networks connected to this bridge network will not be accessible.

For more details on bridge devices, see Bridges, page 447

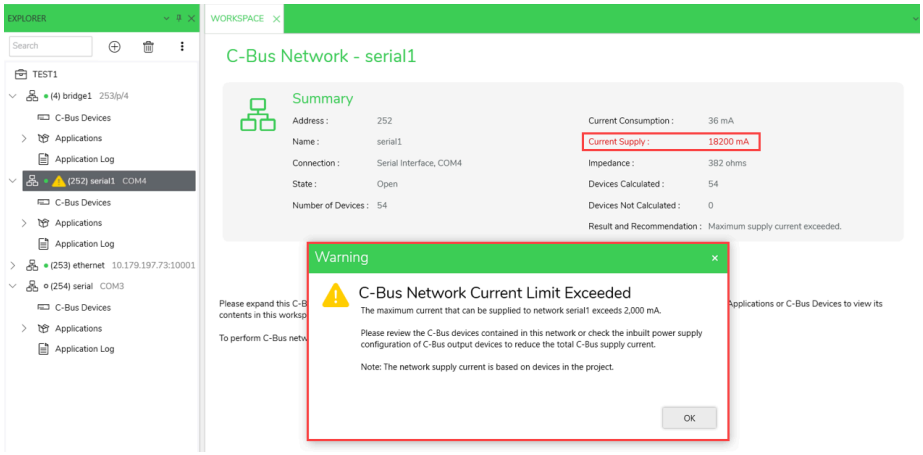
C-Bus Network summary

The created C-Bus network (serial, ethernet, transit, bridge) summary can be viewed by selecting the network, the details are displayed in workspace window.

The summary gives the details of the network as shown below:



NOTE: If the network is overpowered (current supply is => 2,001 mA), current supply and its value is highlighted and a warning message is displayed as shown below:



The C-Bus network displays or attention, if any results and recommendations require action.

The is displayed for following C-Bus network states only:

- Underpowered C-Bus network state (where the "Result and Recommendation" field states the message "XXX mA more power required").
- High impedance C-Bus network state (where the "Result and Recommendation" field states the message "1 burden required").

The is displayed for following C-Bus network states only:

- Overpowered C-Bus network state (where the "Result and Recommendation" field states the message "Maximum supply current exceeded").

The or is not displayed for the following C-Bus network states:

- "okay" C-Bus network state (where the "Result and Recommendation" field states the message "OK").
- "empty" C-Bus network state (no C-Bus devices) (where the "Result and Recommendation" field states the message "None").

NOTE: In the scenario where multiple C-Bus network states exist which include the overpowered network state, then is displayed.

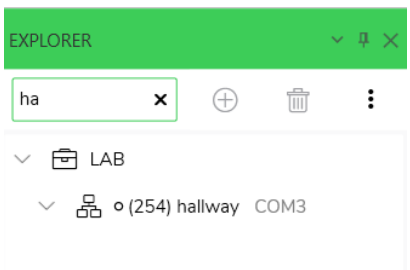
Search a Network

Prerequisites: The network must already be existing in the project.

Explorer Window allows you to search an existing network in the project

The search bar in the **Explorer** window allows searching for the existing networks in the project.

Enter the name of the network in the search bar.



The network matches the search criteria appears on the screen.

Delete a Network

Prerequisites: The network must already be existing in the project.

Explorer Window allows you to delete an existing networks in the project.

1. Click on the network to be deleted
2. Click in the Explorer window
3. Confirm with **Yes** in the **Confirmation** dialog box

   TIP: Alternate ways to delete a network :

   - Click and select Delete
   - Right click on project name in explorer window and select Delete

IMPORTANT: When a Bridge network is deleted, all information related to this network will be lost. Far side bridge devices will also be deleted from adjacent networks. Any remote bridge networks connected to this bridge network will not be accessible.

Library Window

The **Library** window lists the C-Bus Unit and DALI devices available for use in the project. The relevant device types are displayed with respect to whether a C-Bus network or DALI gateway is selected in the **Explorer** window. The operations are performed with regards to a C-Bus device or a DALI device added in the network of the SpaceLogic C-Bus Commission software.

The different operations performed in Library window are:

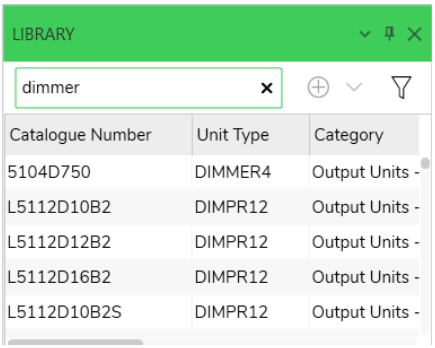
- Search a device, page 72
- Add C-Bus devices, page 73
- Filter, page 72

Search a Device

Prerequisites: A project must already be open in the Explorer window with a network created in the project.

The **Library** window allows searching for a device. The device appears on the list, after the name of the device is entered in the search bar.

1. Select a network in the **Explorer** window
2. In the **Library** window, enter the name of the device in the search bar

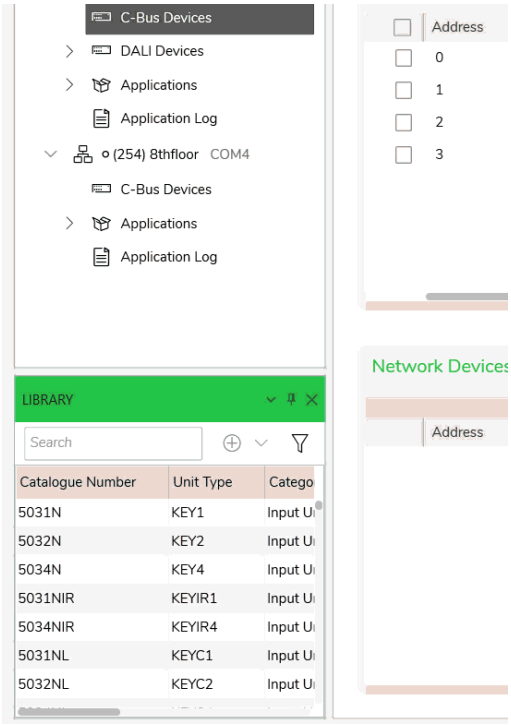


Step result: Related devices are displayed in the **Library** window.

TIP: The device can be searched either by giving catalogue number, unit type or category.

Filter

The displays the devices in the **Library** window based on the categories.



To remove the applied filter, Click and click **Clear All**

Unit Type Categories

C-Bus units can be divided into categories according to their functional role. The general categories are listed below:

- Output Units, page 395
- Support Units, page 447

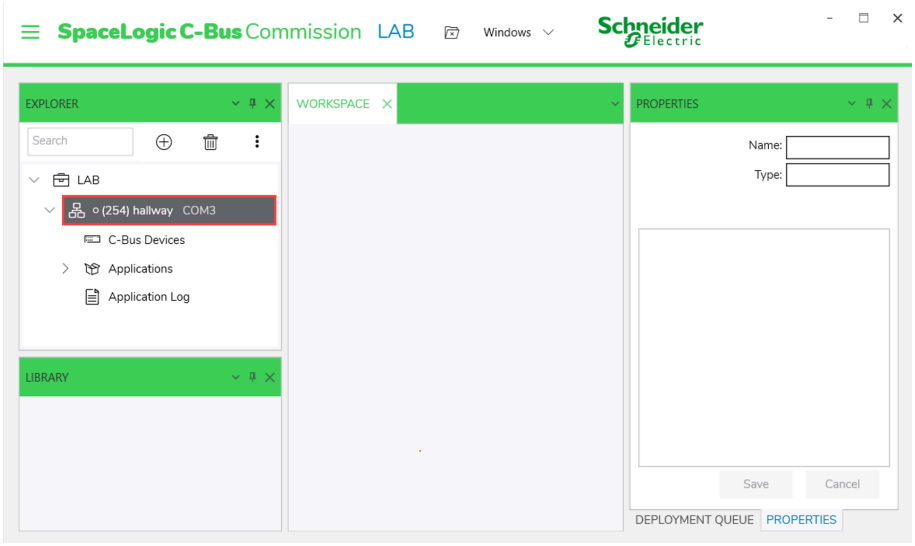
C-Bus Devices

The C-Bus Devices in each network allow you to add C-Bus unit devices in the project.

Add C-Bus Device

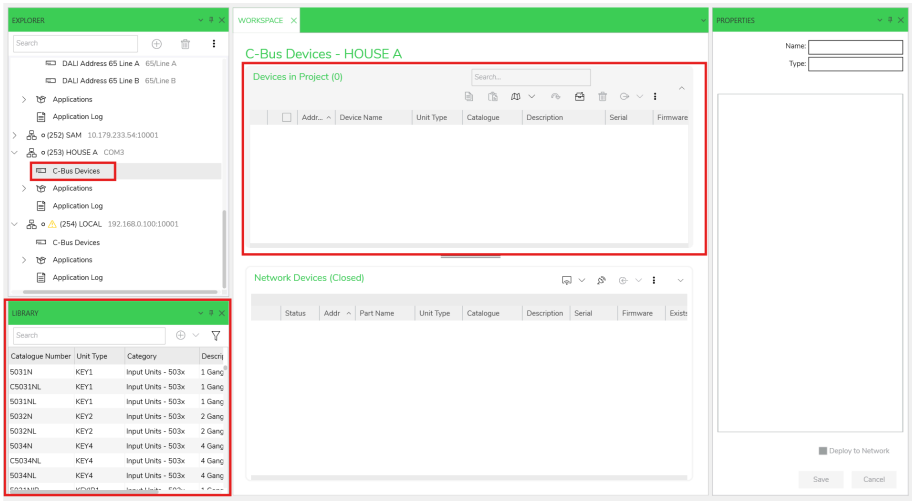
Prerequisites: Make sure your project is Open, and network has been selected.

1. Select the network of the project you want to add unit devices.



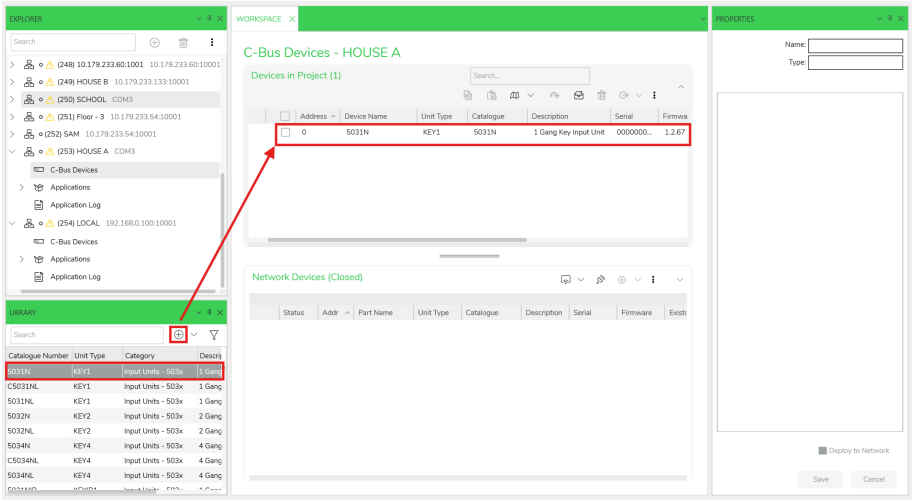
2. On selecting **C-Bus Devices**, **LIBRARY** and **WORKSPACE** window contents are displayed.

   NOTE: Make sure you have **LIBRARY** and **WORKSPACE** windows opened.



3. In the **Library** window, select the unit device and click ⊕ .

   This will add device to the project which is displayed in **WORKSPACE** in **Devices in Project** section.

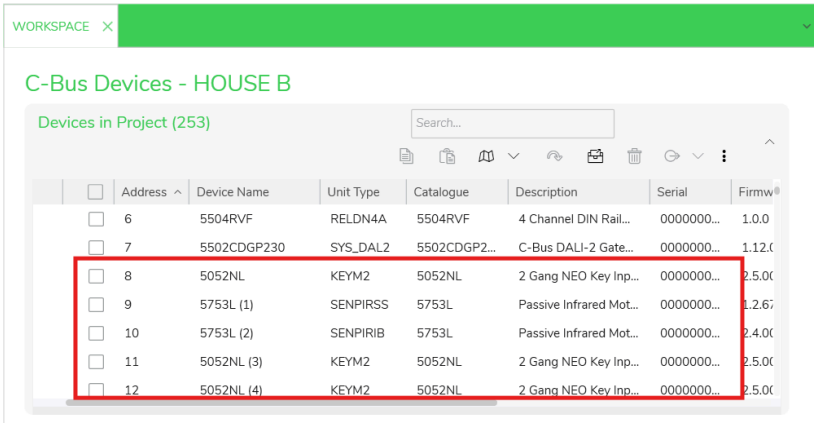


TIP: Alternate ways to add devices:

- Double-click on unit device
- Drag and drop unit device to **Devices in Project**

IMPORTANT:

- When the same unit device is added “N” times, each device postfixes with an incriminated number to maintain the uniqueness.



- Each device can be renamed in their respective **Property** window (It is advised to rename the device appropriately).

Each C-Bus device can be configured by making changes in the respective **Property** window, which can be seen based on the Unit Type categories, page 73.

IMPORTANT: In an existing Project, when a **C-Bus Device** node is clicked the existing device name in **Devices in Project** is assigned automatically as per following:

<table>
<tr><td rowspan="2">If PART NAME is</td><td rowspan="2">”NEW UNIT”</td><td rowspan="2">If TAG NAME is</td><td rowspan="2">“NEW UNIT”</td><td rowspan="2">DEVICE NAME is assigned same as Catalog number</td><td>If DEVICE NAME is unique in network node</td><td>TAG NAME is same as DEVICE NAME</td><td rowspan="2">PART NAME is assigned same as DEVICE NAME (maxi-mum 8 charac-ters)</td></tr>
<tr><td>If DEVICE NAME is not unique in network node</td><td>Numeric 1 is appen-ded to DEVICE NAME</td></tr>
</table>

			not “NEW UNIT”	DEVICE NAME is assigned same as TAG NAME	If DEVICE NAME is unique in network node	PART NAME is assigned same as TAG NAME	
					If DEVICE NAME is not unique in project	PART NAME is assigned same as TAG NAME Numeric 1 is appended to DEVICE NAME and is incriminated for next instance	
	is not ”NEW UNIT”	If TAG NAME is	“NEW UNIT”	If PART NAME is	unique in C-Bus network	DEVICE NAME is assigned same as PART NAME	TAG NAME is assigned same as DEVICE NAME
					not unique in C-Bus network	Numeric 1 is appen-ded to DEVICE NAME and is incrimi-nated for next instance DEVICE NAME is assigned same as PART NAME.	
			not “NEW UNIT”	If TAG NAME is	unique in C-Bus network	DEVICE NAME is assigned same as TAG NAME	
					not unique in C-Bus network	Numeric 1 is appended to DEVICE NAME and is incriminated for next instance DEVICE NAME is assigned same as TAG NAME	

Add multiple C-Bus devices

Prerequisites: The project must already be opened in **EXPLORER** window with a network created in the project.

The **LIBRARY** window allows to add multiple devices at a time.

1. Select the C-Bus Device of a network in the **EXPLORER** window

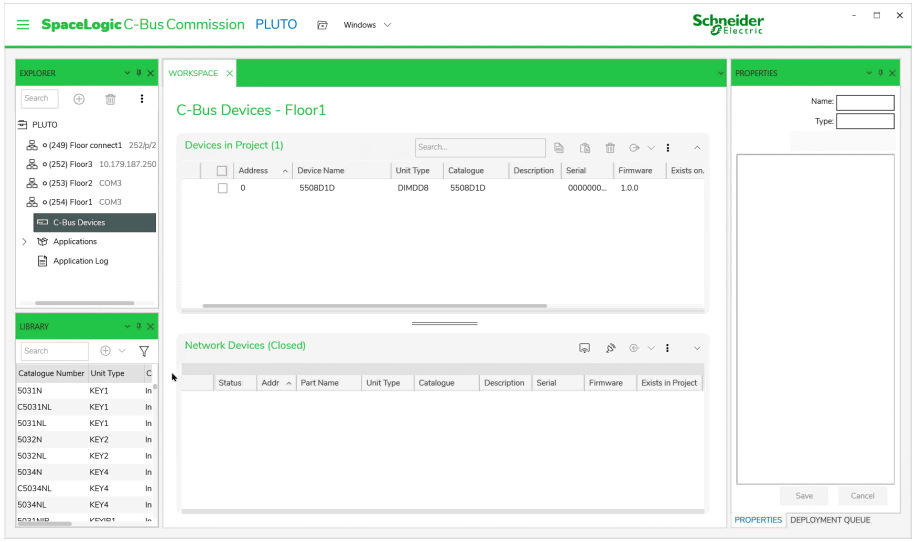
   Step result: The devices that can be added to the network appear in the **LIBRARY** window .

2. Select the device and click ⊕ drop-down, choose **Add Multiple**.

   TIP: Alternate method to add multiple devices:

   - Right click on the device, and select **Add Multiple**.

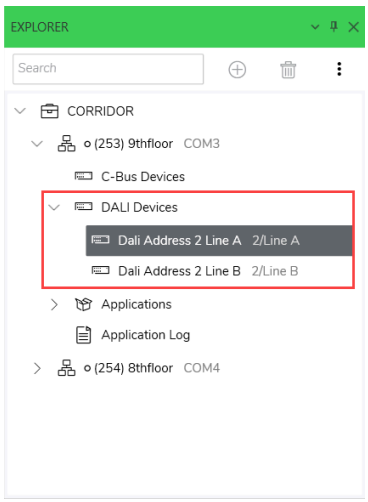
3. Fill in the device information as demonstrated below:



Add Dali Devices

Prerequisites: A project must already be open in the Explorer window. A network must already be created with a DALI-2 Gateway added to the network, see Add DALI-2 gateway, page 235

1. Select a DALI line in the **Explorer** window



2. Select the Dali device and click ⊕ in **Library** window

   TIP: Alternate ways to add DALI devices:

   - Double-click on unit device

     or

   - Drag and drop a unit device to **Devices in Project**

   Step result: Selected device is added to the project.

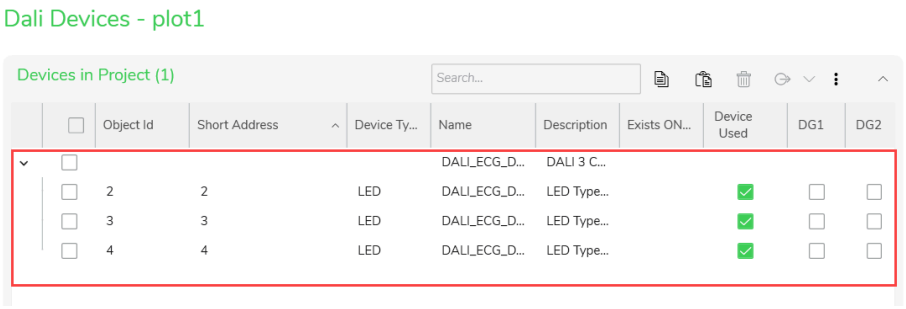
The different DALI ECG devices in each DALI Line are as listed below:

Device Type	Device Name	Meaning
Emergency or Exit Light	DALI ECG DT1 (Generic)	Emergency or Exit Light (Generic)
	DALI ECG DT1 A	Emergency or Exit Light (Switched Maintained Dimmable)

	DALI ECG DT1 B	Emergency or Exit Light (Switched Maintained Non-Dimmable)
	DALI ECG DT1 C	Emergency or Exit Light (Maintained)
	DALI ECG DT1 D	Emergency or Exit Light (Non – Maintained Dimmable)
LED	DALI ECG DT 6	Single Channel LED Device
	DALI 2x ECG DT 6	DALI 2 Channel Device (DT6)
	DALI 3x ECG DT 6	DALI 3 Channel Device (DT6)
	DALI 4x ECG DT 6	DALI 4 Channel Device (DT6)
Channel	DALI ECG	DALI ECG (Generic)
	DALI 2x ECG	DALI 2 Channel Device (Generic)
	DALI 3x ECG	DALI 3 Channel Device (Generic)
	DALI 4x ECG	DALI 4 Channel Device (Generic)
Color Control	DALI ECG DT8	Single Channel Tunable / Color Controllable Device

NOTE: When a DALI channel device is added, based on the number of channels DALI device is added. Each DALI channel device can be collapsed and expanded.

Example, when the DALI 3x ECG DT6 is added the result is as shown below:



To Configure DALI ECG Devices, see DALI ECG devices, page 470

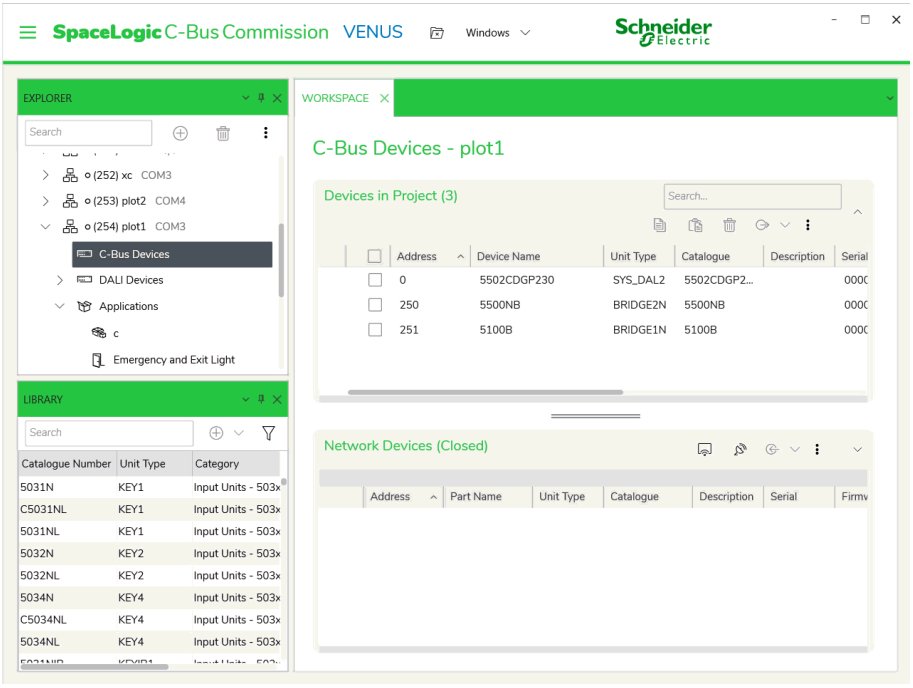
Add multiple Dali devices

Prerequisites: A project must already be open in the Explorer window. A network must already be created with a DALI-2 Gateway added to the network. A DALI Line must already be selected.

1. Select the DALI device and click ⊕ drop-down, choose Add Multiple.

   Step result: Add Multiple DALI Devices dialog box is displayed.

2. Fill in the device information as demonstrated below:

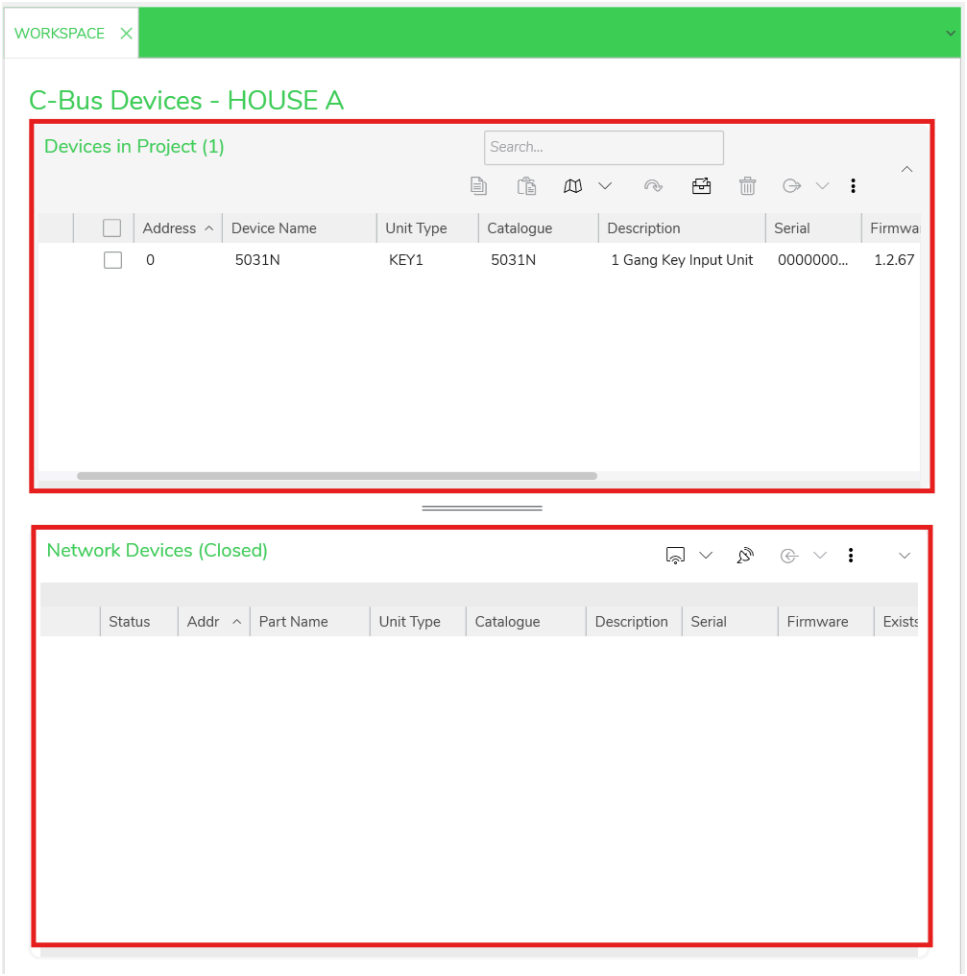


Workspace Window

The **Workspace** window displays the devices in the project and the network. This window allows you to connect your project's devices to the network.

This window consists of two built-in sections for **C-Bus Devices**:

1. Devices in Project, page 81
2. Network Devices, page 112

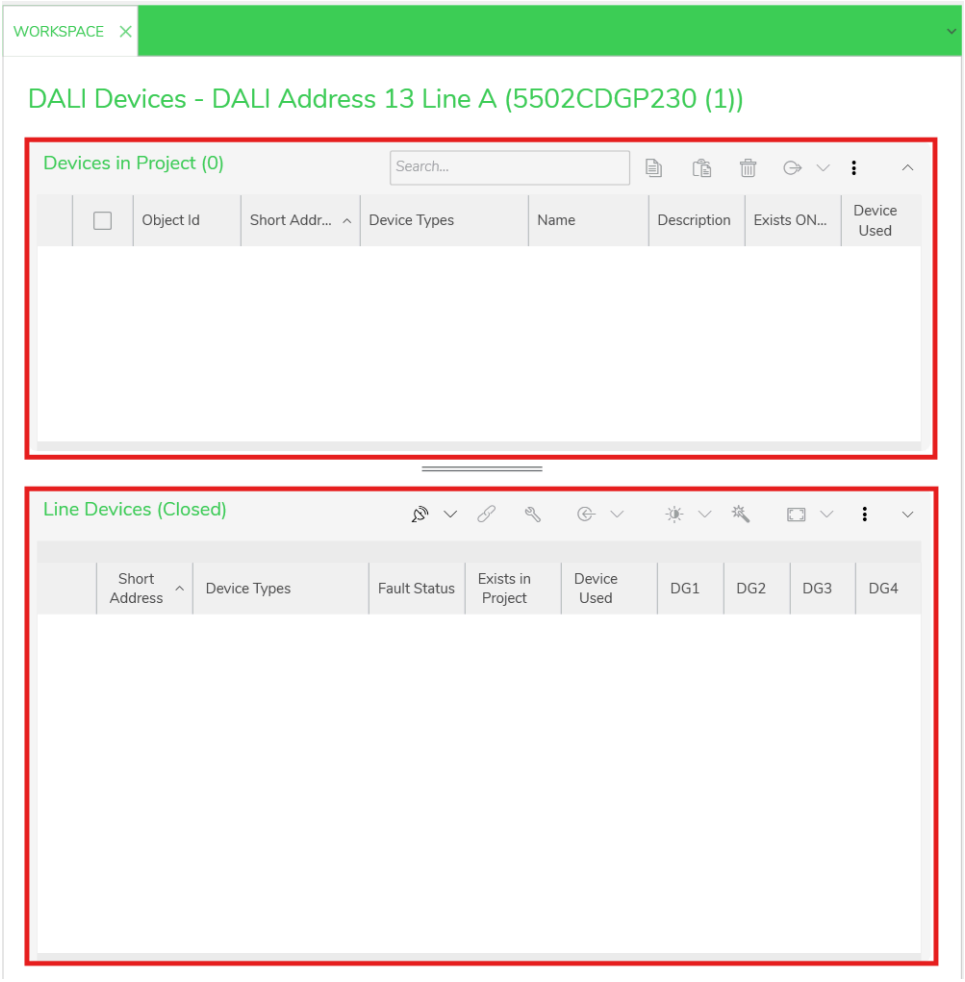


For Dali Devices

Prerequisites: The DALI-2 Gateway must be already added.

This window consists of two built-in sections for Dali Devices:

1. (DALI) Devices in project, page 127
2. Line devices, page 138



Devices in Project

The **Devices in Project** section displays all the devices in the project database.

Fields	Description
Address	Displays the unit address assigned to the device. **NOTE:** • For a C-Bus device, the values vary from 0 to 255. • For a DALI device, the values vary from 0 to 63.
Device Name	Contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only.
Unit Type	Displays the unit type of the device on the network.
Catalogue	Displays the commercial reference for the device.
Description	Displays the description of the device and cannot be edited.
Serial	Displays the serial number which exists on the physical network or which has been assigned to the logical representation of the unit.
Firmware	Displays the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
Exists on Network	Displays whether the device exists on network.
Application	Displays the name of the application being used for the device.

The operations that can be performed on **Devices in Project** section are:

- Search a device, page 82
- Copy and Paste Device, page 83
- Delete device, page 87
- Deploy device, page 87
- Sort device, page 88
- Convert Unit, page 89
- C-Bus Device Template, page 93
- Global Programming, page 99

Search a Device

Prerequisites: The devices must already be added in a **Devices in Project** section of an network.

The **Devices in project** section allows searching of a device in the existing project database by entering the **Device Name** in the **Search** bar of **WORKSPACE** window.

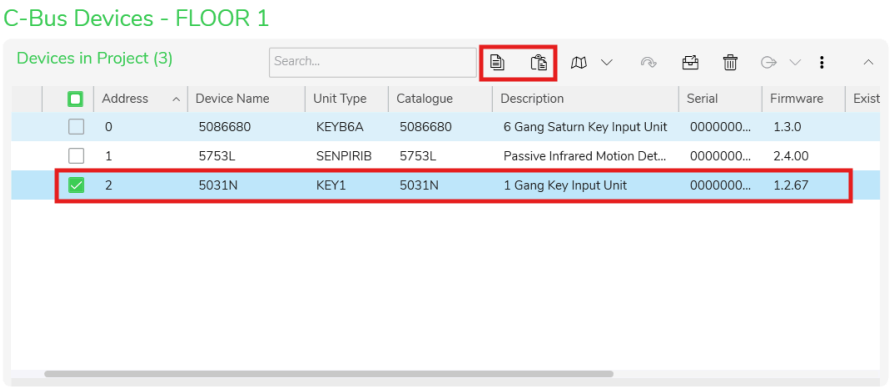
NOTE: You can also search by entering either **Address**, **Unit Type** , **Catalogue**, **Description** and **Serial** number.

Copy and Paste Device

You can copy and paste a device within your project to reuse its configuration on another device of the same type. You can save time during commissioning by reusing the programming from one device on another device with a similar configuration. This is useful when most of the settings are same, and only a few changes such as group addresses or timer values need to be updated.

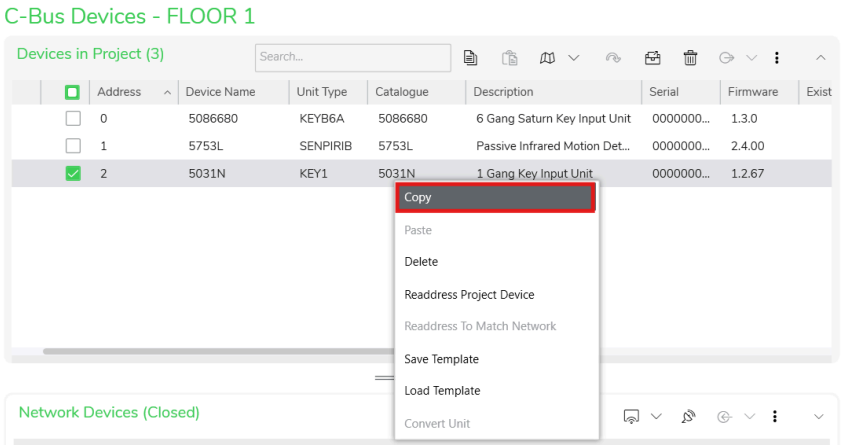
Prerequisites: The devices must already be added in a **Devices in Project** section of an network.

1. Select the device check box you want to copy and click . Once you select the device, icon is enabled on all C-Bus networks of same project.



You can also copy a device using one of these methods:

- Right-click the device and select **Copy**.



The device details are copied.

- Press Ctrl + C on your keyboard.

NOTE:

- Copying multiple devices at once is not supported.
- You cannot copy and paste C-Bus Controller devices (including single PC_ and SYS_ devices, 3-tier Controller devices), DALI lines on a C-Bus DALI-2 Gateway and C-Bus Network Bridge devices (BRIDGE2N and BRIDGE2F).
- You cannot copy and paste a C-Bus device from one project to another project.
- You cannot copy and paste a C-Bus device that is in the project at **Unit Address** 255.
- When you copy and paste a C-Bus device into a C-Bus network, the pasted device also includes its non-device properties. Below table explains the non-device properties.

C-Bus Devices	Non-Device Properties
Relay You can: ◦ Copy and paste to different network ◦ Copy and paste to different network with new address ◦ Copy and paste with existing address in same network	Channel Name

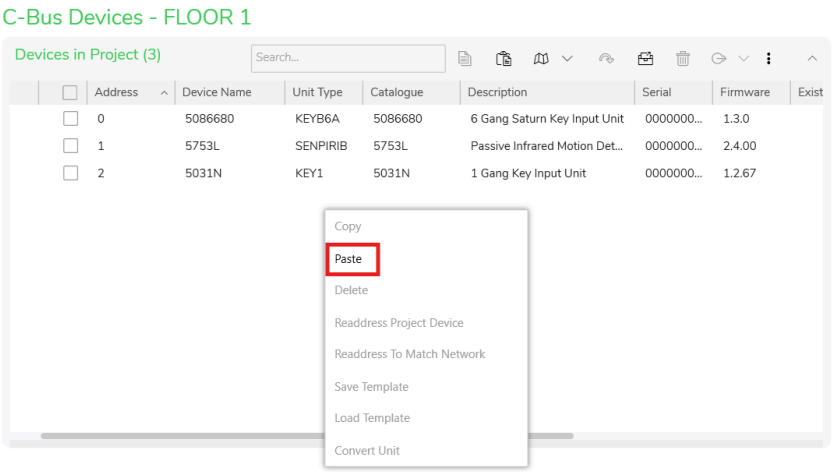
Dimmer You can: ◦ Copy and paste across networks ◦ Copy and paste with new address in same network ◦ Copy and paste in same network ◦ Replace existing address in same network	Channel Name, Custom Profile A, Custom Profile B, Custom Profile C, and Custom Profile D
Key Input Unit You can: ◦ Copy and Paste to different network ◦ Copy and Paste with new address in same network ◦ Copy and Paste with existing address in same network	Scene Manager and Sequence Manager

- When you copy a C-Bus device and paste it into a C-Bus network, any missing applications, groups, or labels used in the device are automatically created in that network during the paste operation.
  - Lighting range 48 to 127 (legacy and NCC)
  - Trigger (NCC only)
  - Enable (NCC only)

2. Choose where you want to paste the device in the project and click .

   You can also paste a device using one of these methods:

   - Right-click on the **Devices in Project** section and select **Paste**.

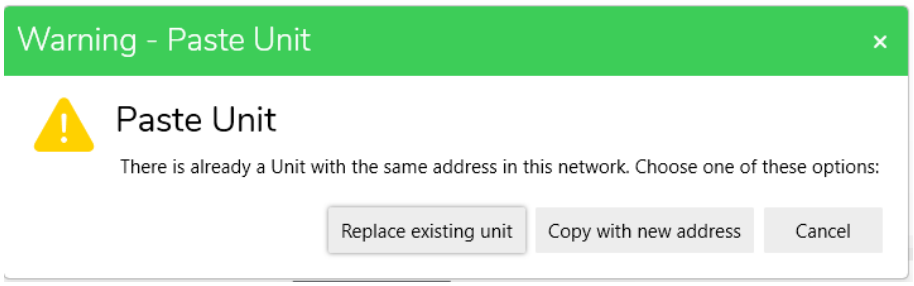


   The device details are pasted.

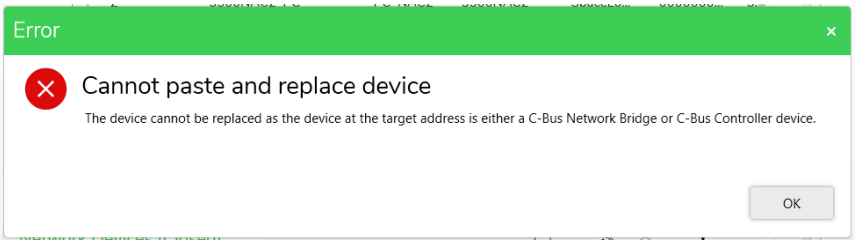
   - Press Ctrl + V on your keyboard.

   NOTE: You cannot paste the device in the **Network Devices** list (live devices).

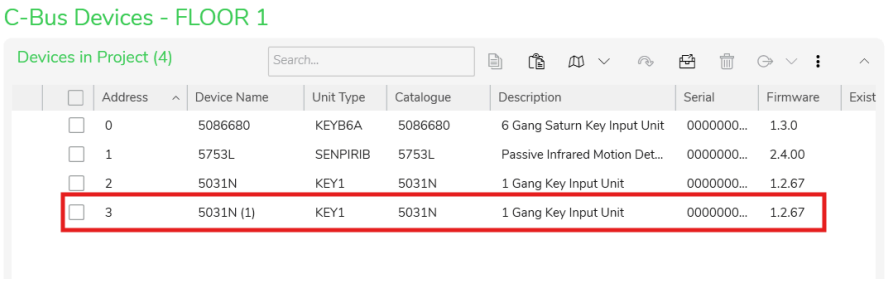
   If a unit with the same address already exists on that network, a **Warning Paste Unit** pop-up is displayed.



3. Click **Replace existing unit** to replace the existing unit in the project at that address.
   - If you try to copy a device from one network address and paste it in another network with same address that includes a C-Bus Network Bridge or C-Bus Controller devices, an **Error** pop-up is displayed.

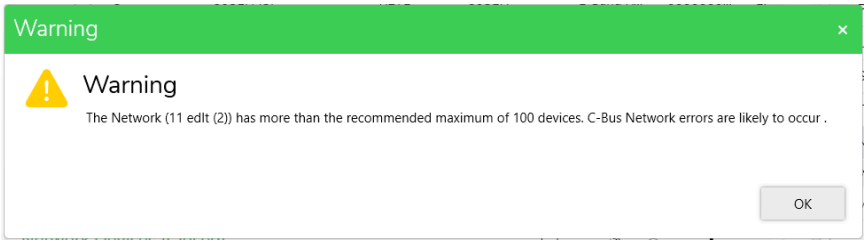


4. If you click **Copy with new address**:
   - The unit is pasted at the next available address. The part name remains the same.
   - The serial number is reset to 0000000000.
   - The device name is updated by appending the next available number (example: (1)).
   - The tag name is updated to include *Copy of [PartName]*.



5. Click **Cancel** to cancel the operation.

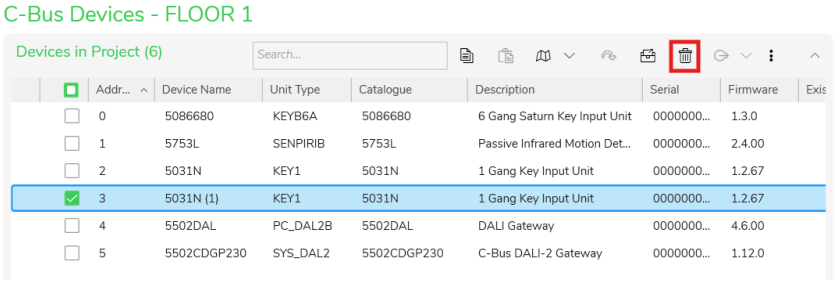
   NOTE: A **Warning** pop-up appears when you try to paste a device into a network that has already reached its maximum device limit.



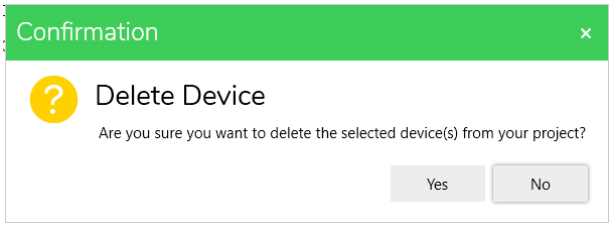
Delete Device

Prerequisites: The devices must already be added in a **Devices in Project** of network and must be fully matched with **Network Devices**.

1. Select the device check box you want to delete.
2. You can either:
   - Click .



   A confirmation pop-up appears.



   - Click **Yes** to delete the device.
   - Click **No** to cancel the operation.

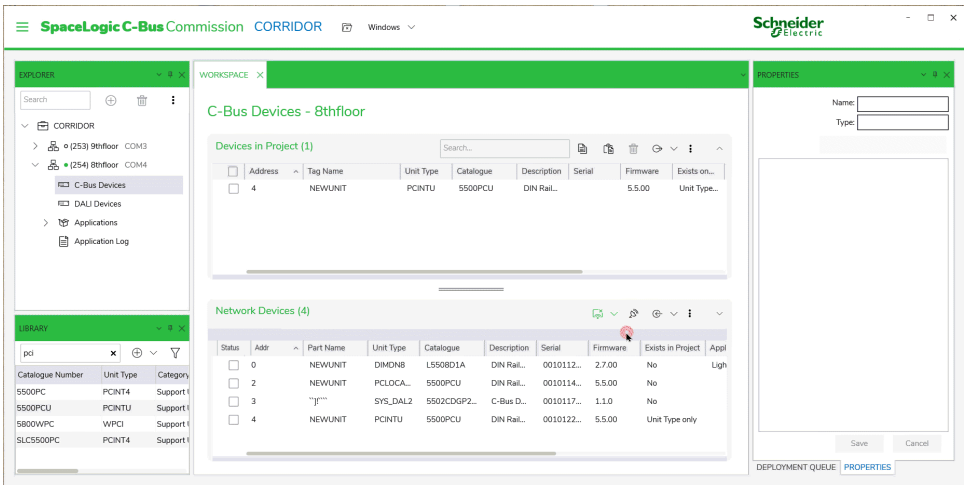
   or,

   - Select the device check box, right click on the device and select **Delete**. The device will be deleted.

Deploy Devices from Project to Network

Prerequisites: The network must be already created. The C-Bus network should be opened and scanned C-Bus devices. The devices must be fully matched, click How to do fully matched devices.

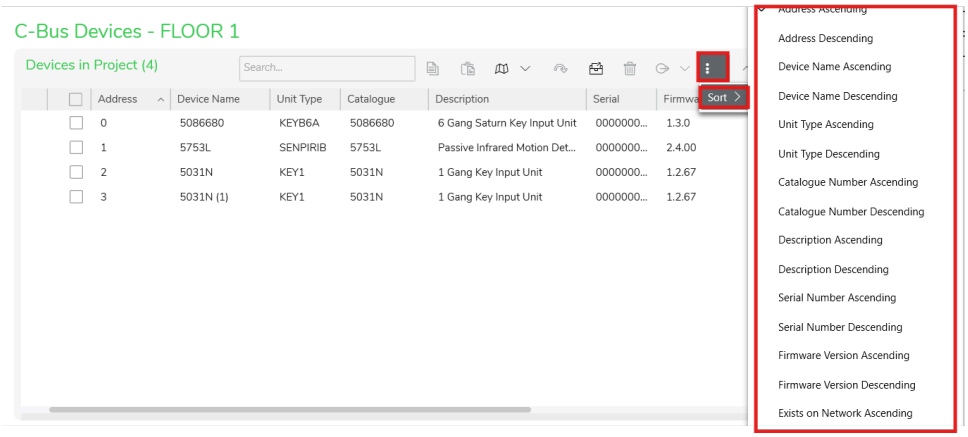
The process to deploy devices is as demonstrated below:



Sort Device

Prerequisites: The devices must already be added in a **Devices in project** of network.

1. Click ⋮ and select an appropriate sort method to sort the devices in the device list.



Readdress

Prerequisites: The C-Bus devices must be already added to the project database.

The Readdress function allows the readdressing of the C-Bus devices within a C-Bus network or project database.

To readdress a network:

1. Select a device and right-click on section **Devices in Project > Readdress Project Device**.

   Readdress Project Device dialog box is displayed.

2. Choose the address and confirm **OK.**

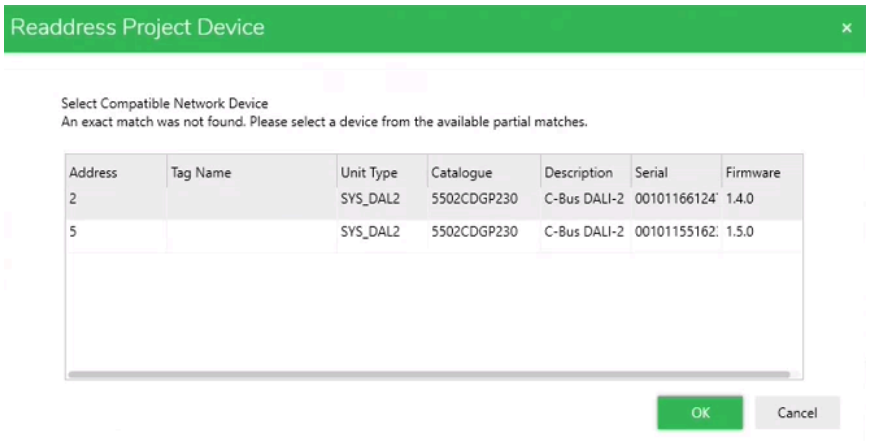
NOTE: Readdressing cannot be performed on Bridge devices.

IMPORTANT:

- Readdress Project Device is used when an existing device address needs to be utilized for another device.
- **Readdress to Match Network** is used to perform fully match, see How to do fully matched devices.

If there are a lot of logical units and want to synchronize a physical unit with one, the Readdress to Match Network function is useful for finding logical units with the same unit type.

The Readdress to Match Network operation searches for a unit/device within the logical list(scanned devices) for any compatible unit types. If none are found, a message box confirms that there is “no match”. If more than one compatible unit types are found, the Readdress Project Device dialog box appears displaying the choice.



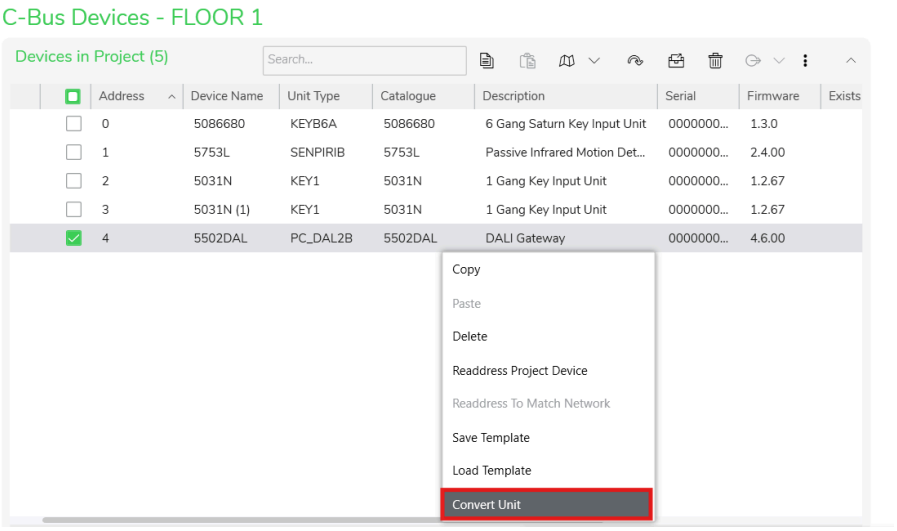
Choose the device and confirm **OK**.

Convert Unit — DALI Gateway Upgrade

You can upgrade an old C-Bus DALI Gateway to a new DALI-2 Gateway to simplify commissioning during device replacement or upgrades on site.

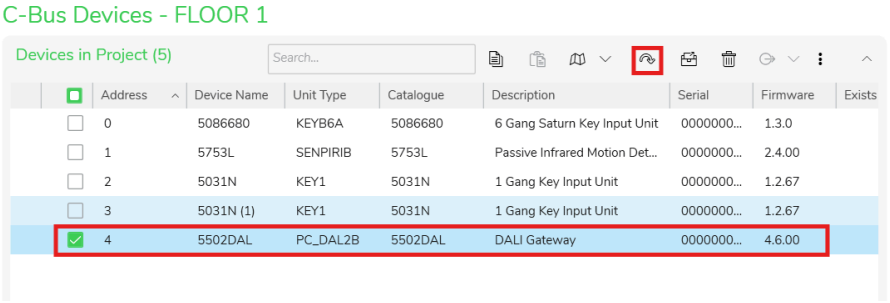
Prerequisites: The devices must already be added in a **Devices in Project** section of an network.

1. Right click the PC_DAL2x device and select **Convert Unit**.

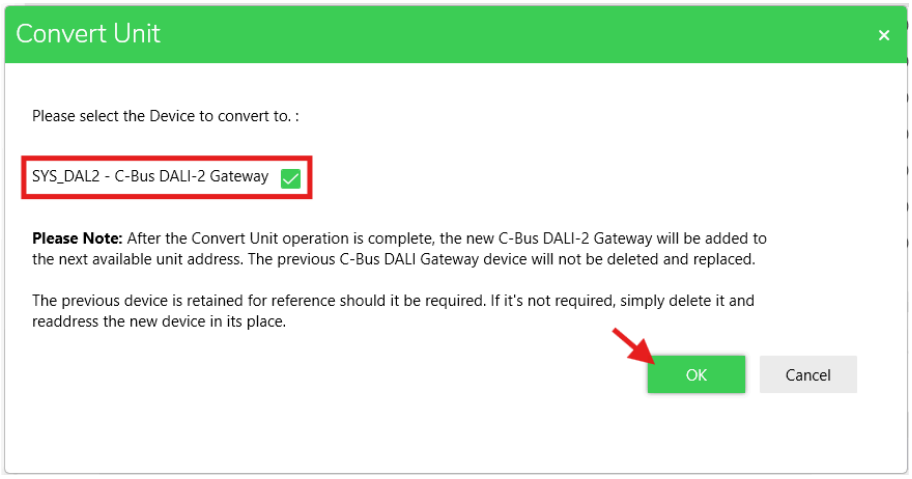


or,

Select the PC_DAL2x and click .



Convert Unit window appears.

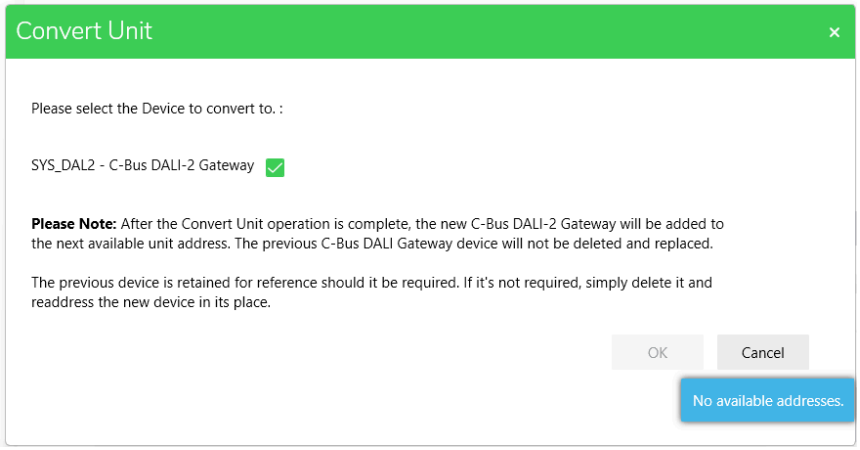


Ensure the check box for **SYS_DAL2 – C-Bus DALI-2 Gateway** is selected. If unchecked, the OK button is disabled.

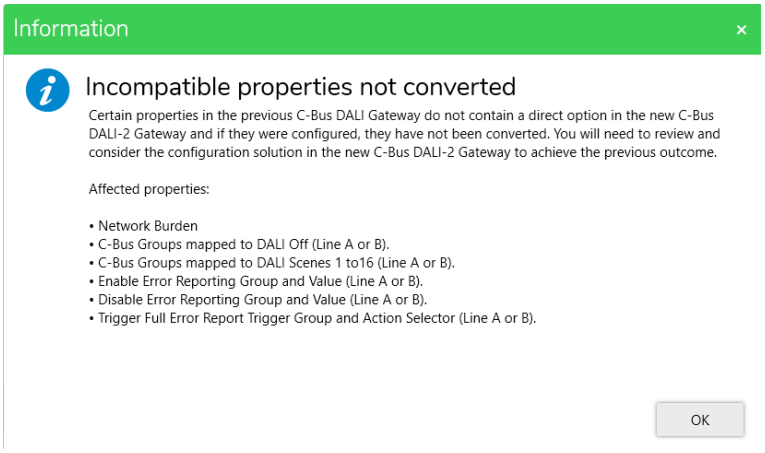
NOTE: Please Note message appears only when converting a C-Bus DALI Gateway.

2. Click **OK** to start the conversion.
   - The new DALI-2 Gateway appears at the next available unit address on the network.

     NOTE: All other operations are blocked while the conversion is in progress.
   - If no unit address is available, **OK** is disabled and a tool tip appears on mouseover to explain the reason.

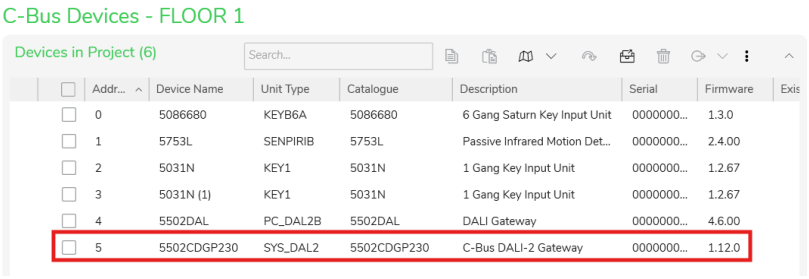


   - All configurations from the PC_DAL2x device are copied into the SYS_DAL2 device.
     - All compatible properties are converted to the new DALI-2 Gateway.
     - Properties that do not exist in the PC_DAL2x device use default values in the SYS_DAL2 device.
   - The latest default firmware of the SYS_DAL2 device is applied during conversion.
   - You can deploy to the SYS_DAL2 device if a matching or partial match device exists on the live network.
   - After successful conversion, **Information** pop-up appears.



   Click **OK** to close it.

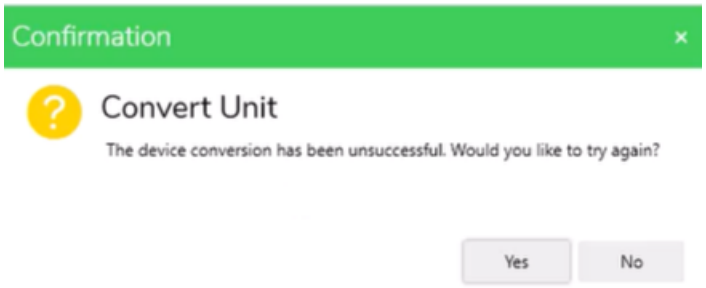
   NOTE: If the device name is the default (*5502DAL*):
   - The converted device is renamed to its catalogue name (*5502CDGP230*) and the uniqueness rule on the network is enforced.



NOTE: If the device name is not the default (*5502DAL*):

- The device name is copied into the new SYS_DAL2 device and the uniqueness rule on the network is enforced.

3. If the conversion process fails, a **Confirmation** pop-up appears.

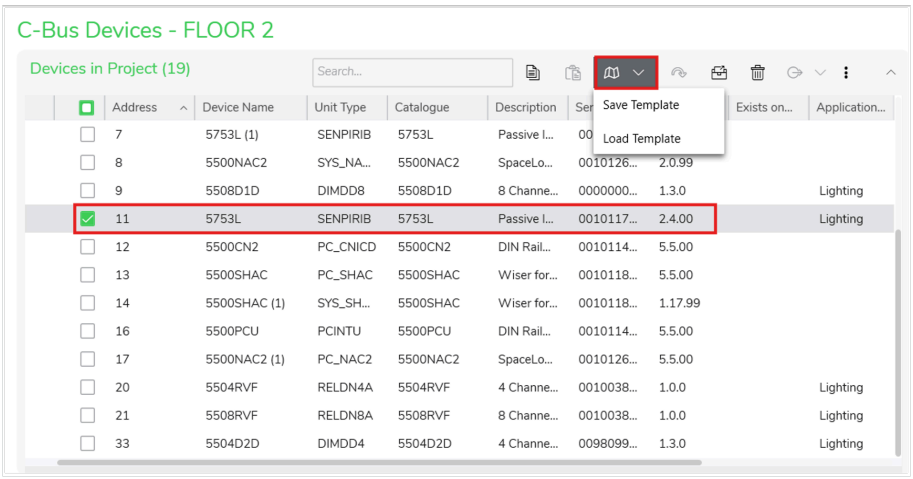


- Click **Yes** to retry.
- Click **No** to cancel.
  - The PC_DAL2x remains unchanged and all data is retained.
  - The new SYS_DAL2 is removed.

C-Bus Device Template

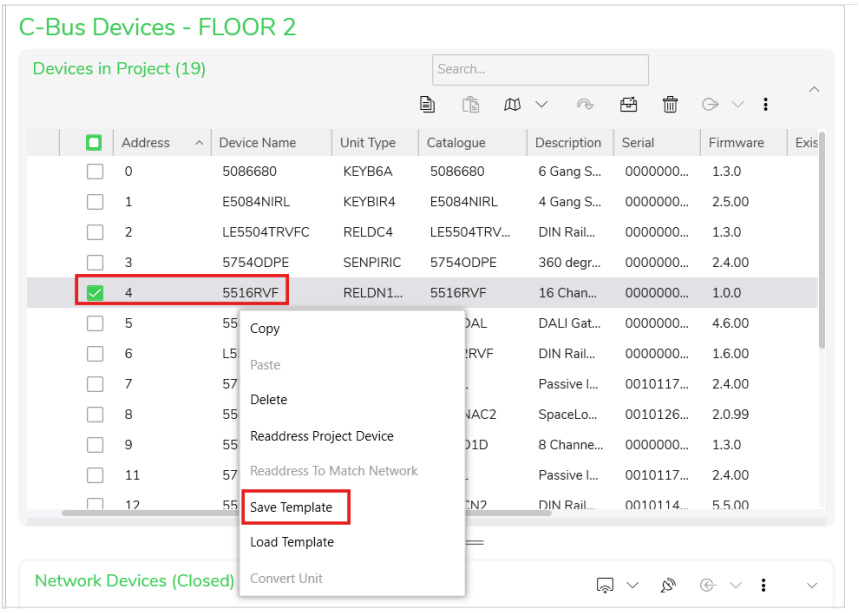
You can save and load a C-Bus device template file to reuse as a baseline configuration for similar devices within the current project, so programming effort is reduced. You can also share the template file with colleagues and reuse it in future projects.

1. Select the device from **Device in Project** section, and click , a sub-menu appears with list of available functions.



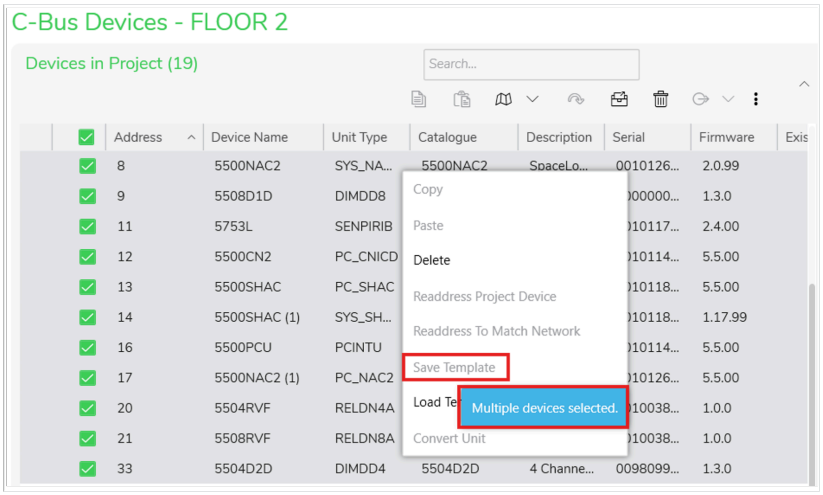
2. You can either:
   - Select any one device and the click **Save Template** from the sub-menu.

     or
   - Right click on the selected device and then select **Save Template**.

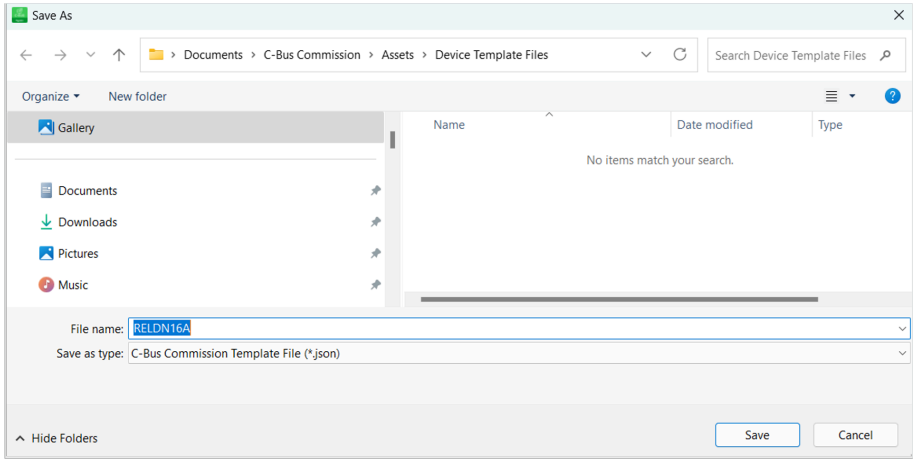


NOTE: When you click **Save Template** option, if the property editor is displaying properties for a selected C-Bus project device, the property editor (unload the device) is cleared before displaying the Windows browser dialog box.

- If multiple C-Bus devices are selected, then the **Save Template** option is disabled.
- Mouse over on the **Save Template** option to view the tooltip message.

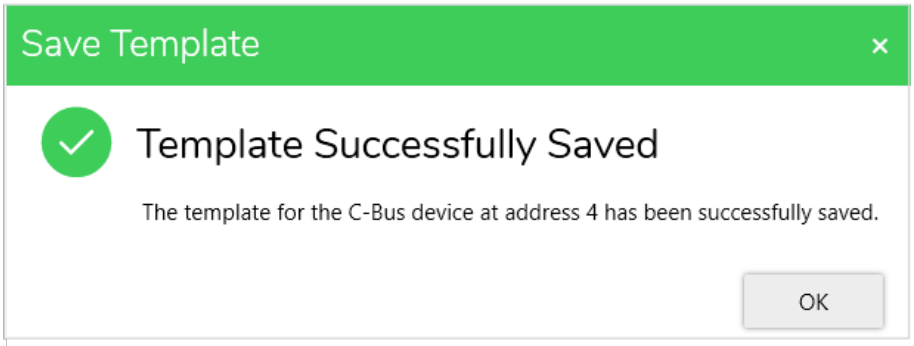


3. Windows browser dialogue box is displayed. You can navigate to the desired folder location on the PC to save the template file.



   - The default folder location is **\Documents\C-Bus Commission\Assets \Device Template Files**.
   - The default file name is <UNIT TYPE>. You can overtype the default name and define a name.

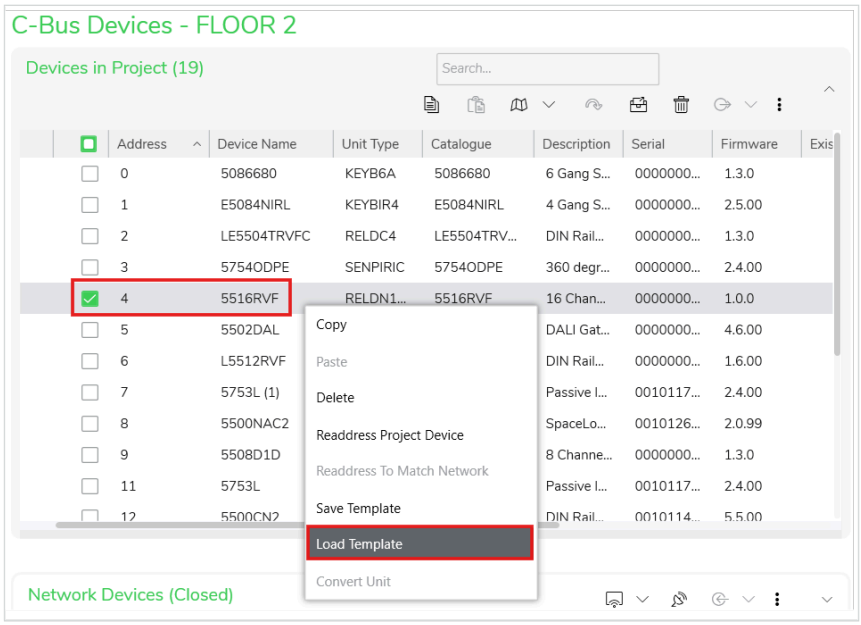
4. Click **Save** to save the new template file for the selected C-Bus device. **Save Template** pop-up is displayed.



5. Click **Cancel** to cancel the save template operation.

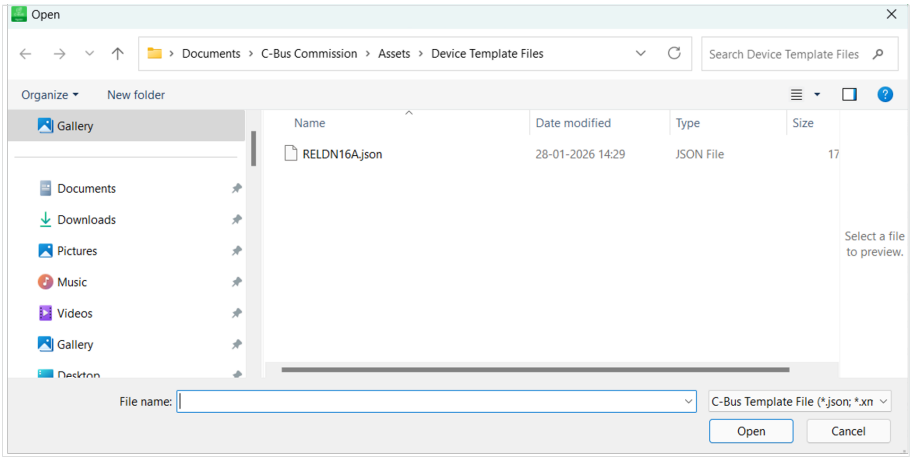
6. To load a C-Bus Device Template file:
   - Select any device and the click **Load Template** from the sub-menu.

     or
   - Right click on the selected device and then select **Load Template**.



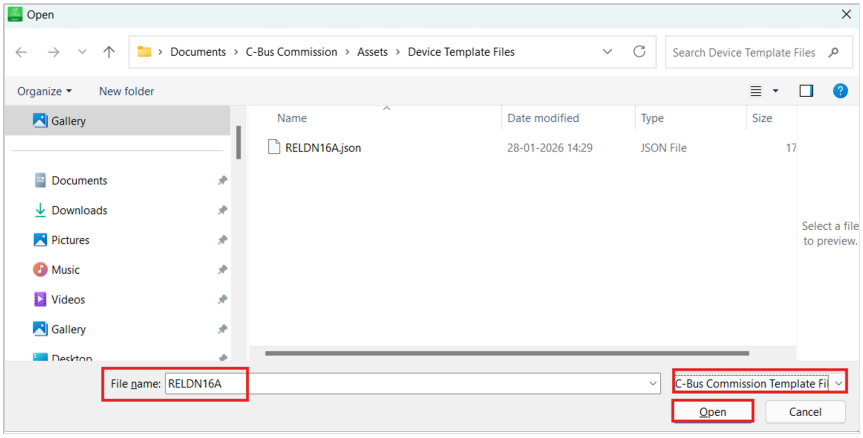
NOTE: You can select one or multiple C-Bus devices.

7. Windows browser dialogue box is displayed. You can navigate to the desired folder location on the PC to load the template file.

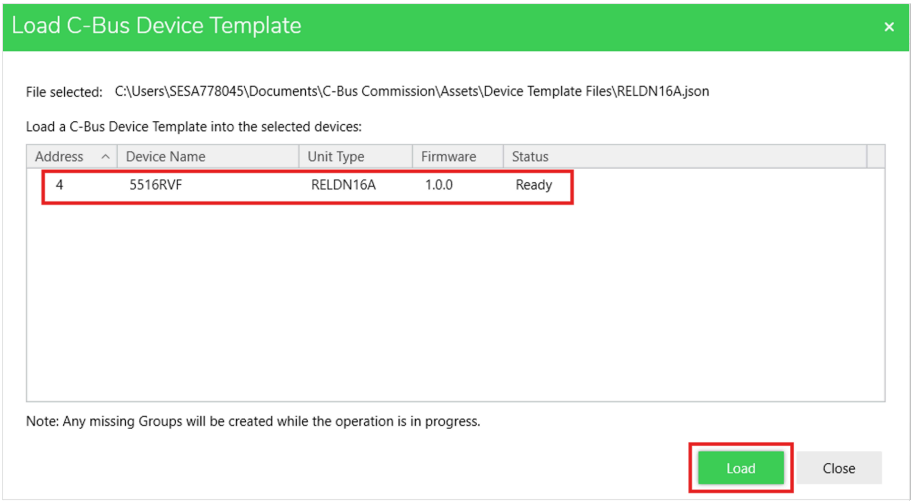


   - The default folder location is **\Documents\C-Bus Commission\Assets \Device Template Files**.

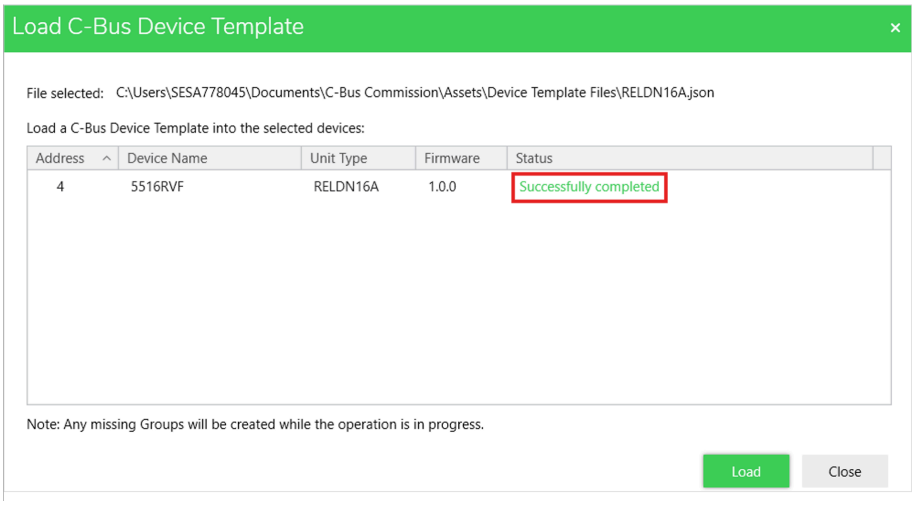
8. Select the file type option from the drop-down list. The available options supported by C-Bus Commission to load a template file are:
   - C-Bus Template File (*.json; *.xml)
   - C-Bus Commission Template File (*.json)
   - C-Bus Toolkit Template File (*.xml)



9. Enter the file name and then click **Open**. The **Load C-Bus Device Template** dialogue box appears.

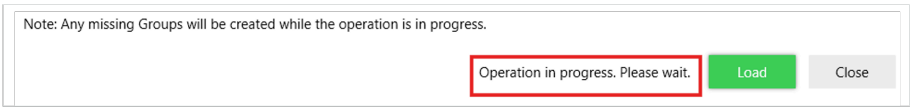


10. Click **Load**. Once the template file is loaded, success message appears.

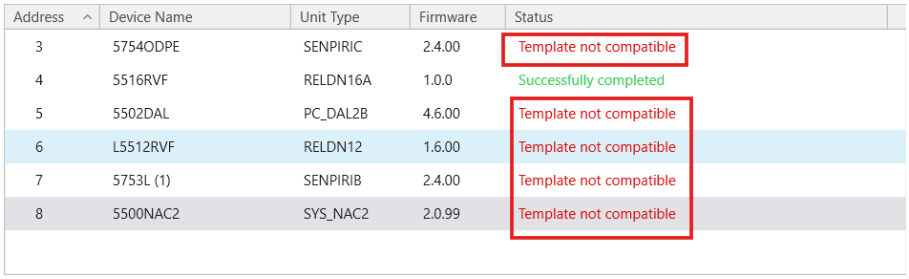


NOTE: For devices where the template loads successfully, the displayed properties are updated to match the template.

11. If you try to close the **Load C-Bus Device Template** dialogue box or click **Close** during the load operation, a message is displayed below the table.

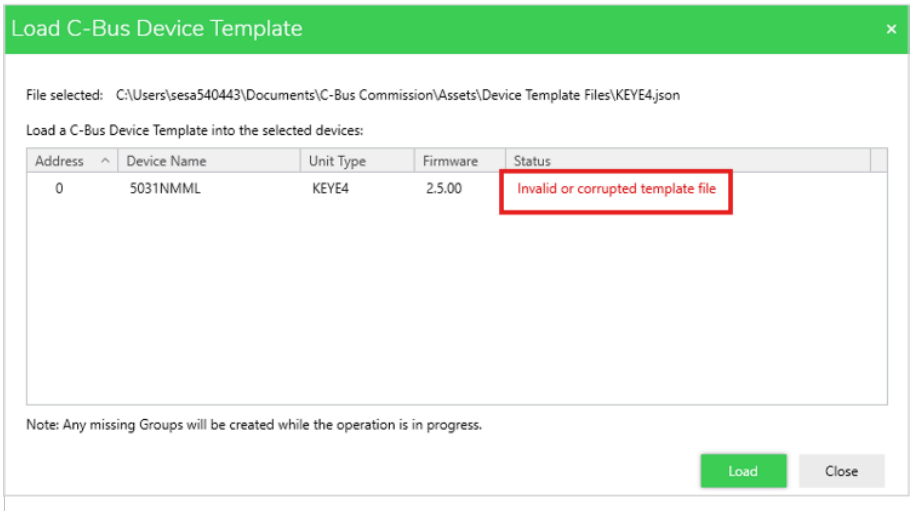


12. When the template file is neither compatible with nor convertible for the device, a warning message is displayed.

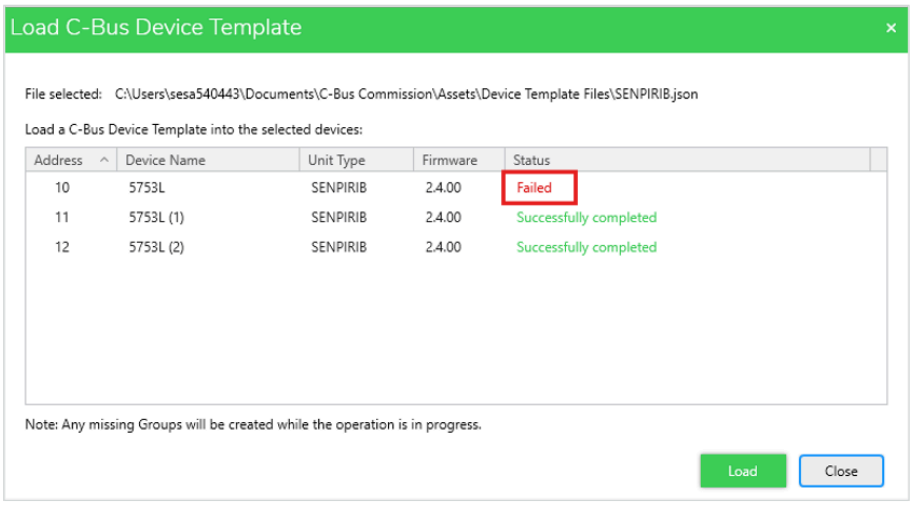


NOTE: Devices are skipped when the template is incompatible, invalid or corrupted, unsupported, or cannot be applied.

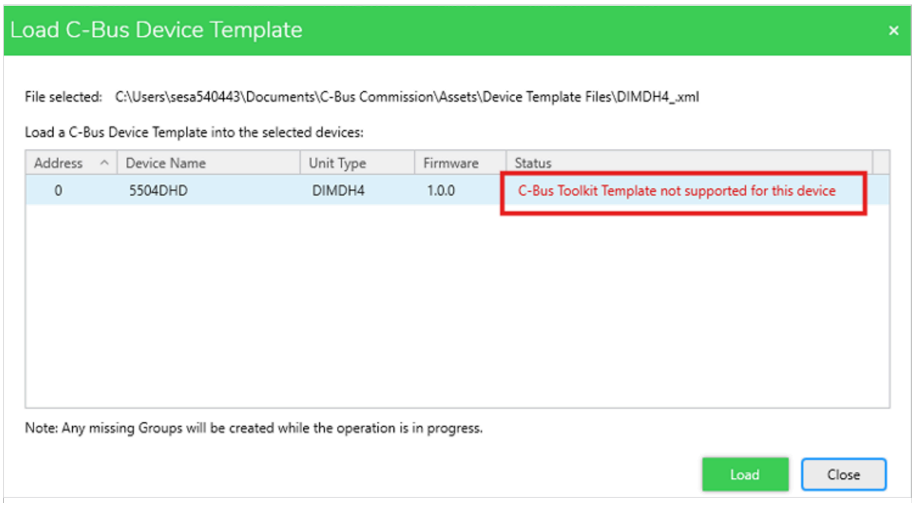
13. If an error occurs during the load operation (for example, a modified file CRC, an invalid file, or other file-related errors), **Invalid or corrupted template file** status is displayed.



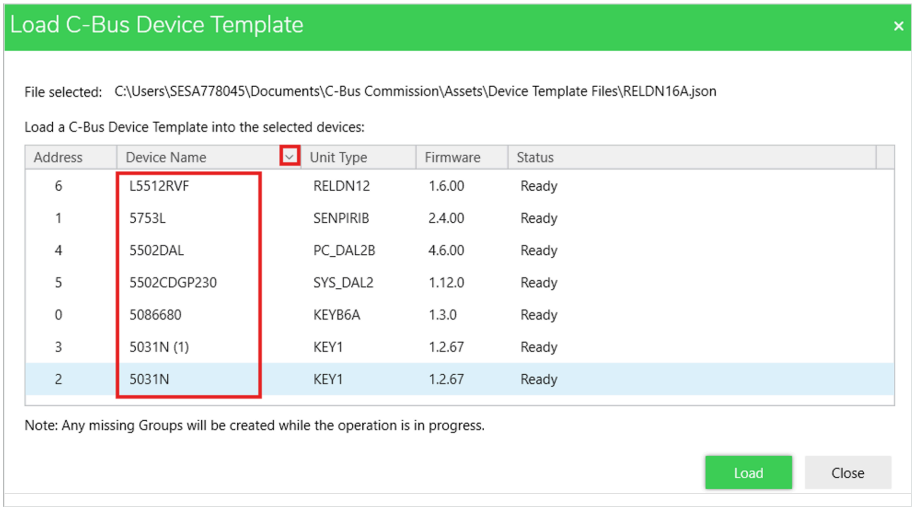
14. If an error occurs during the load operation due to a C-Gate failure (for example, a failed response from C-Gate), **Failed** status is displayed.



15. When an XML template file is loaded for a device which is a new NCC C-Bus device before any operation has started, a warning message is displayed.



16. Click sort arrow on the **Load C-Bus Device Template** columns (**Address, Device Name, Unit Type, Firmware** and **Status**) to sort columns in alphanumeric ascending or descending order.



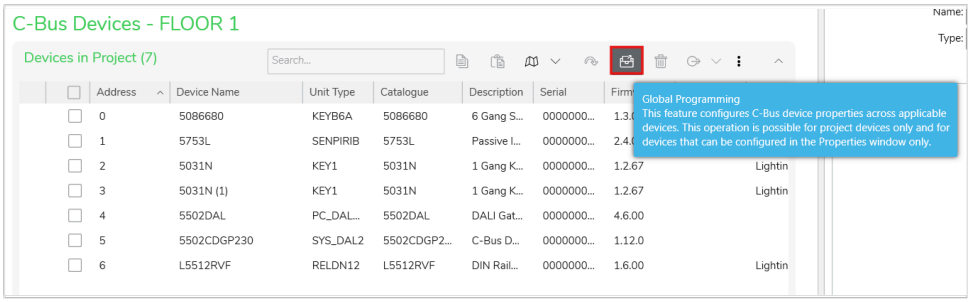
Global Programming

To modify common properties of multiple C-bus devices at once using wizard based workflow. The wizard handles commonly used properties across devices and supports adding or removing wizards based on your needs.

You can modify :

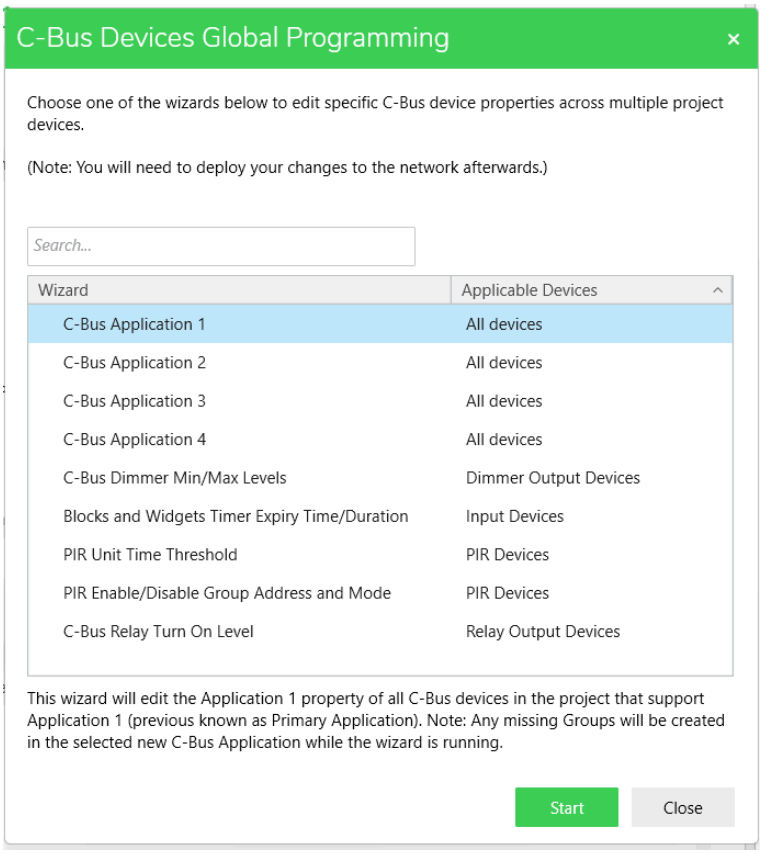
- C-Bus Application 1– 4
- C-Bus Dimmer Min/Max Levels
- Timer expiry property for several C-Bus PIR devices
- Enable/Disable group address and mode properties for several C-Bus PIR devices
- Time threshold property for several C-Bus PIR and multisensor devices
- Turn on level properties for several C-Bus relay devices

This minimizes the time and effort required to repeatedly modify the same properties on multiple devices.

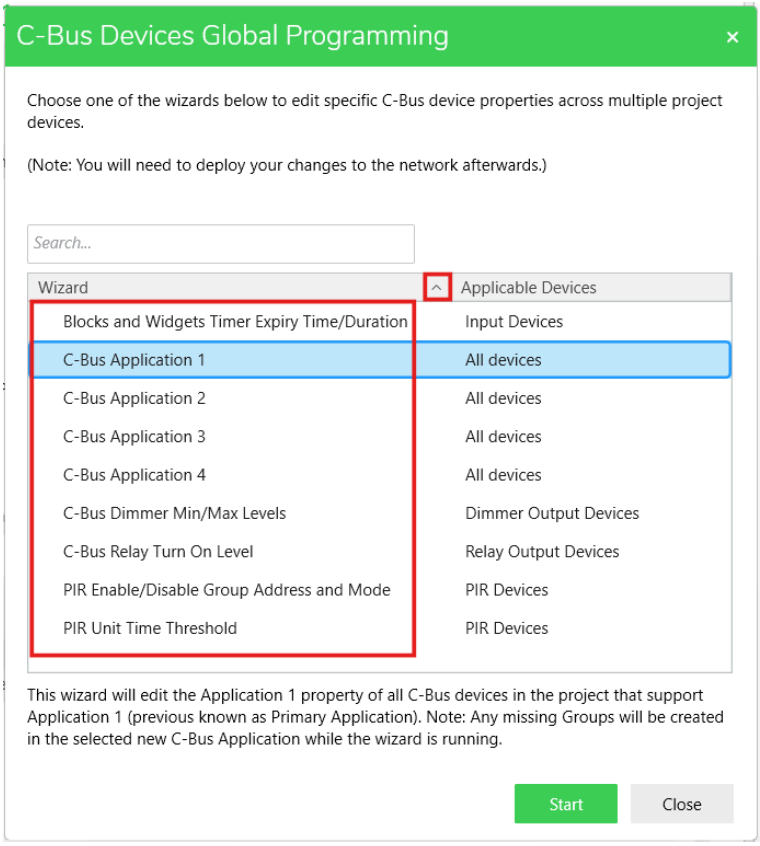


Mouseover on the **Global Programming** icon to view the tooltip.

1. Click to open the **C-Bus Devices Global Programming** window.



2. Click sort arrow on the **Wizard** column to sort columns in alphanumeric ascending or descending order.

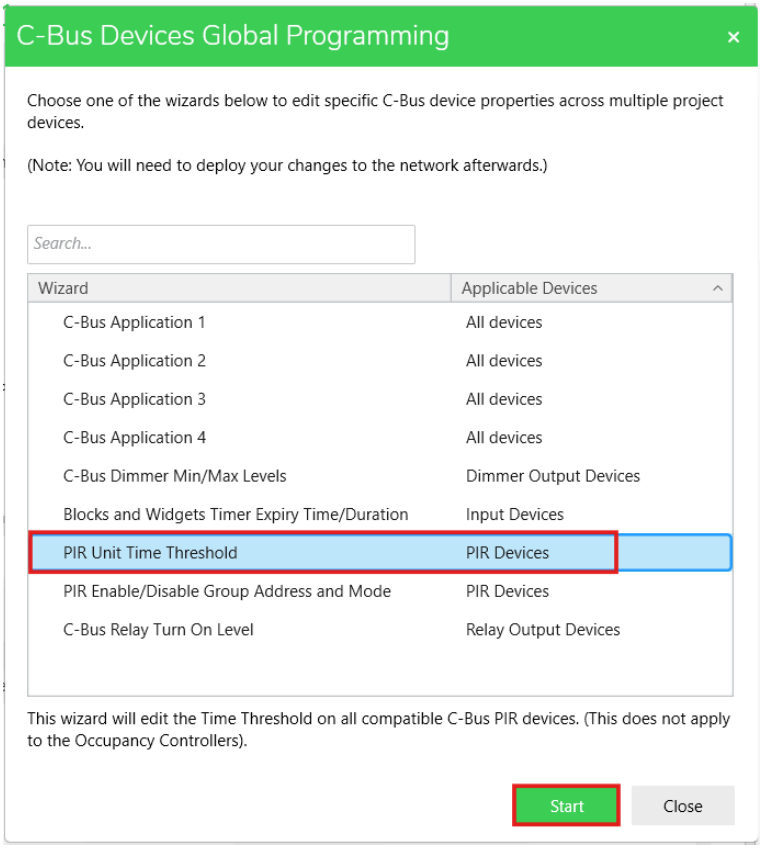


You can also sort **Applicable Devices** columns.

3. Below table explains the details of the wizards that are applicable for the C-Bus devices.

Wizard	Applicable devices
C-Bus Application 2	This wizard will edit the Application 2 property of all C-Bus devices in the project that support Application 2 (previous known as Secondary Application).
C-Bus Application 3	This wizard will edit the Application 3 property of all C-Bus devices in the project that support Application 3 (applicable to new generation C-Bus devices).
C-Bus Application 4	This wizard will edit the Application 4 property of all C-Bus devices in the project that support Application 4 (applicable to new generation C-Bus devices).
C-Bus Dimmer Min/Max Levels	This wizard will edit the Dimmer Minimum/ Maximum Levels on all compatible C-Bus Dimmer devices including the new generation Dimmer devices. (This does not apply to old style Dimmer devices like DIMMER4)
Blocks and Widgets Timer Expiry Time/ Duration	This wizard will edit the Expiry Time of all Blocks on most C-Bus Input devices and Timer widgets on the new generation Key Input Unit devices. (This does not apply to Input devices such as the eDLT, General Input Unit, Scene Controllers. Light Level Sensors, Temperature Sensors and the Current Measurement Unit)
PIR Unit Time Threshold	This wizard will edit the Time Threshold on all compatible C-Bus PIR devices. (This does not apply to the Occupancy Controllers).
PIR Enable/Disable Group Address and Mode	This wizard will edit the Enable/Disable Group Address and the Enable/Disable mode on all compatible C-Bus PIR devices.
C-Bus Relay Turn On Level	This wizard will edit the Relay Turn On Levels on all compatible C-Bus Relay devices including the new generation Relay devices. (This does not apply to the Shutter Relay and the Ceiling Sweep Fan Control Relay)

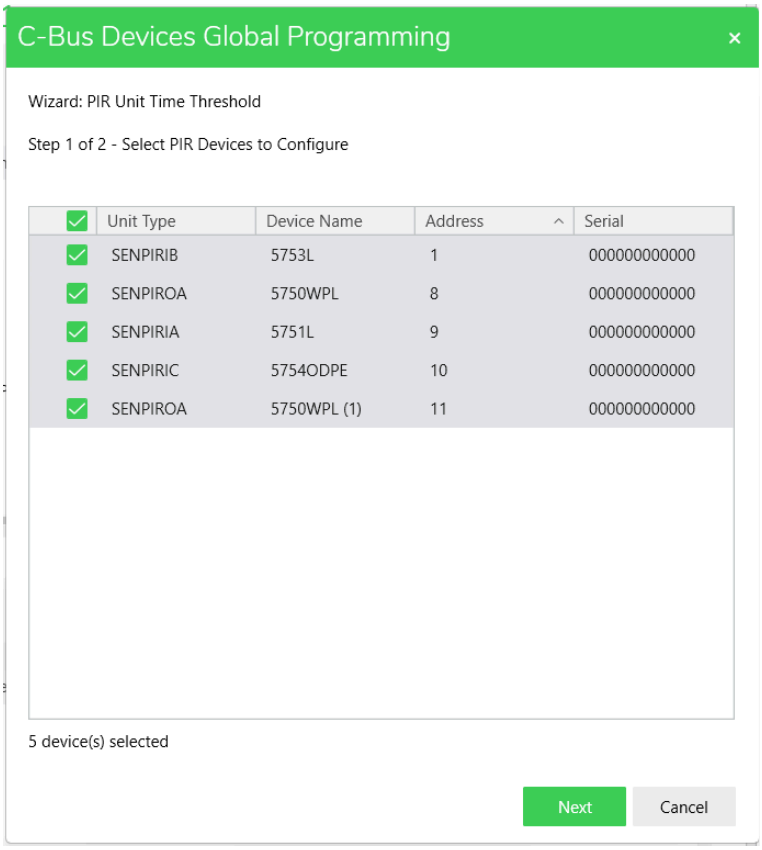
4. Select any one device from the **Device in Project** section and click . The **C-Bus Devices Global Programming** window appears.



5. Select any one wizard and click **Start** to edit C-Bus properties across the multiple devices in the **Devices in Project** section.

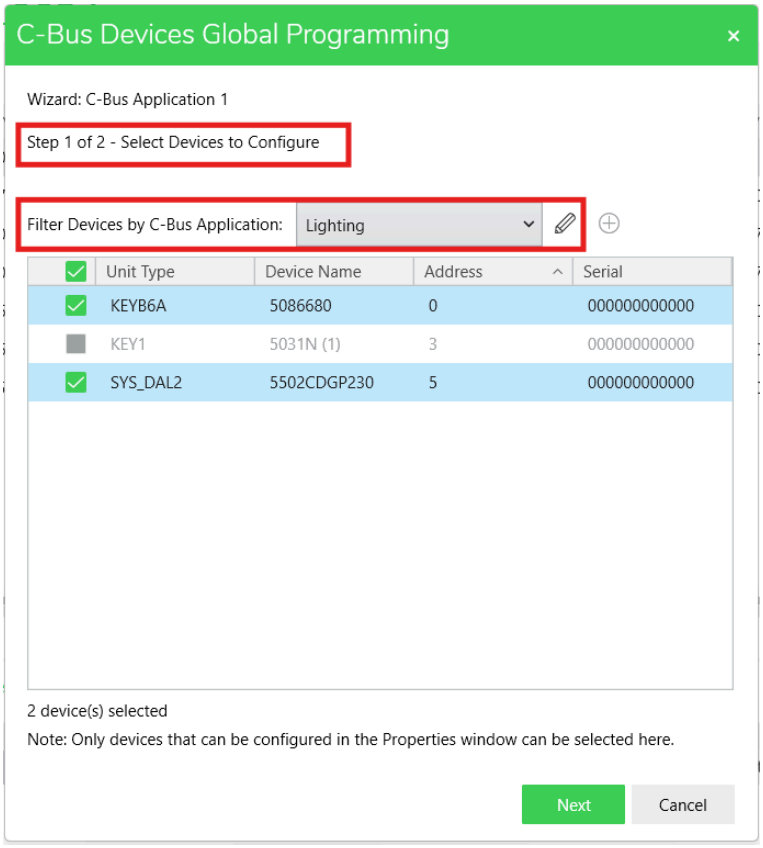
6. You can select a wizard using one of these methods:
   - Directly select the wizard from the table using mouse or up/down keyboard arrows.
   - Type keyword in the **Search** box and then select the wizard.

Step 1 of 2 — Select PIR Devices to Configure table appears.

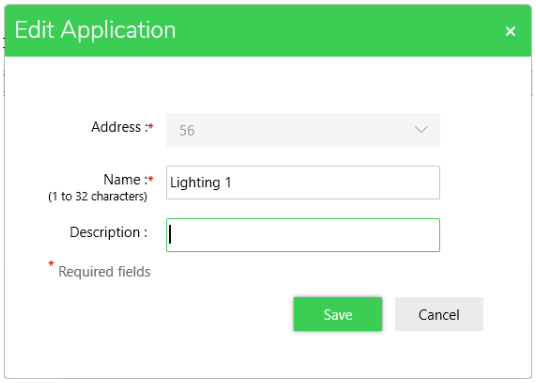


NOTE:

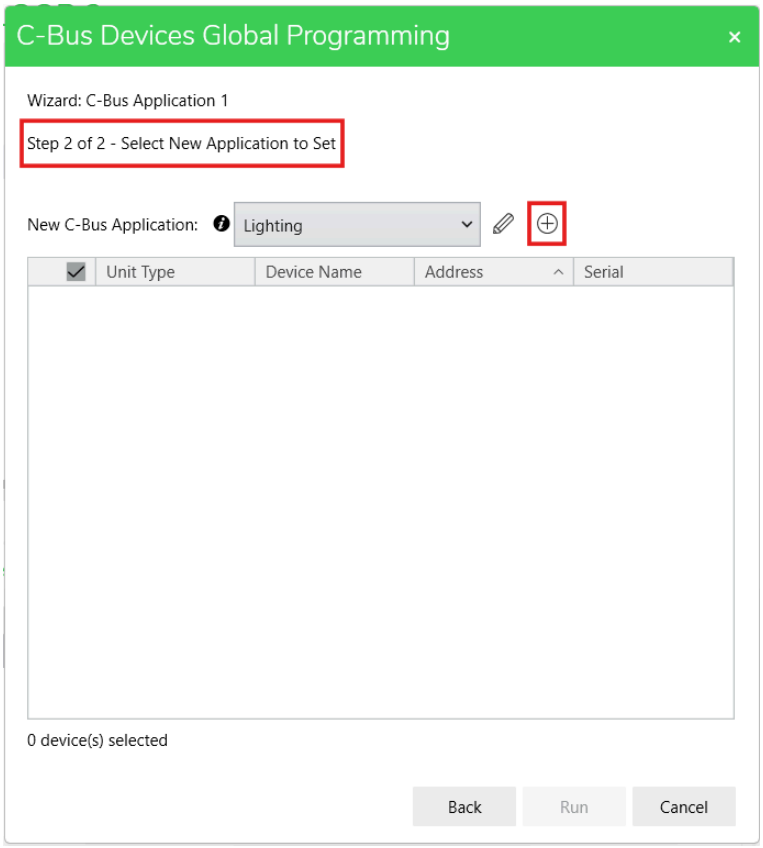
If you select **C-Bus Application 1 – 4** / **PIR Enable/Disable Group Address and Mode** wizards, **Filter Devices by C-Bus Application** drop-down list is displayed.



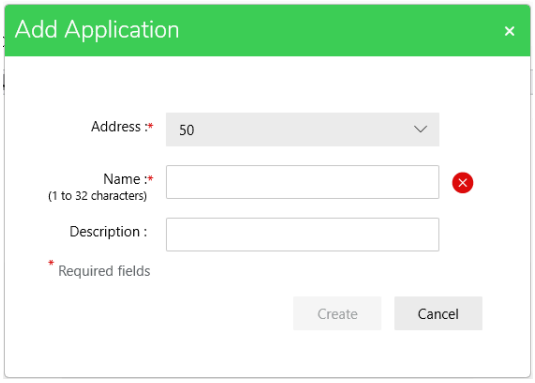
- Select the application from the **Filter Devices by C-Bus Application** drop-down list. Devices are filtered based on the selected application.
- Devices are not displayed in the device table if the selected new application is already configured for any other application property of the device.
- Click to the edit the application name.
- The **Edit Application** pop-up appears.



- Make necessary changes and click **Save**.
- If you select **C-Bus Application 1 – 4** wizard, in **Step 2 of 2 — Select New Application to Set** section, add application is displayed.



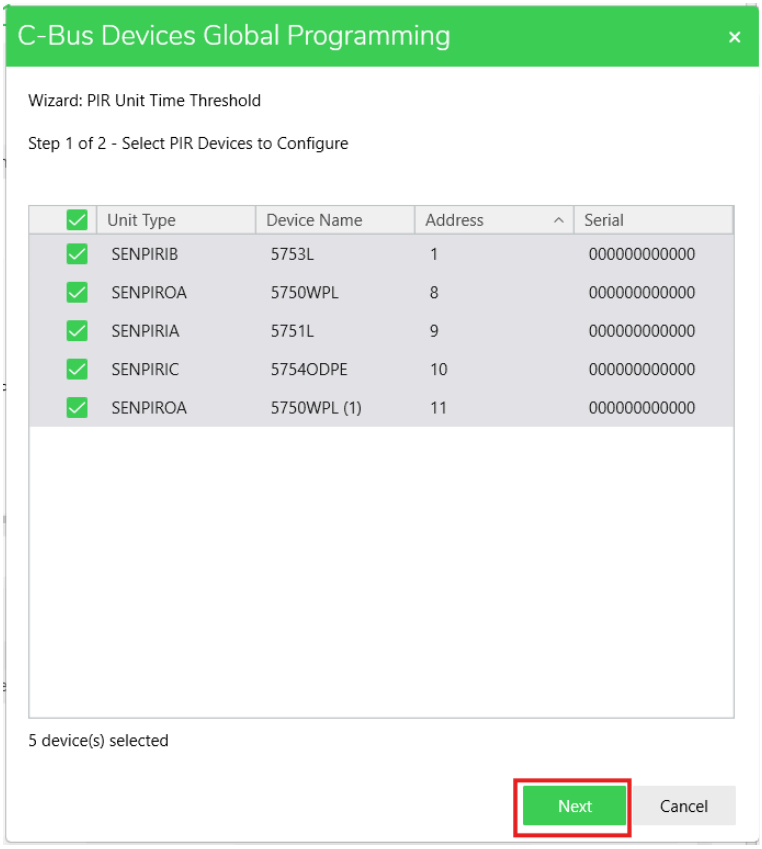
- You can assign different application from the **New C-Bus Application to Set** drop-down list.
- Click ⊕ to add new application. **Add Application** pop-up appears.



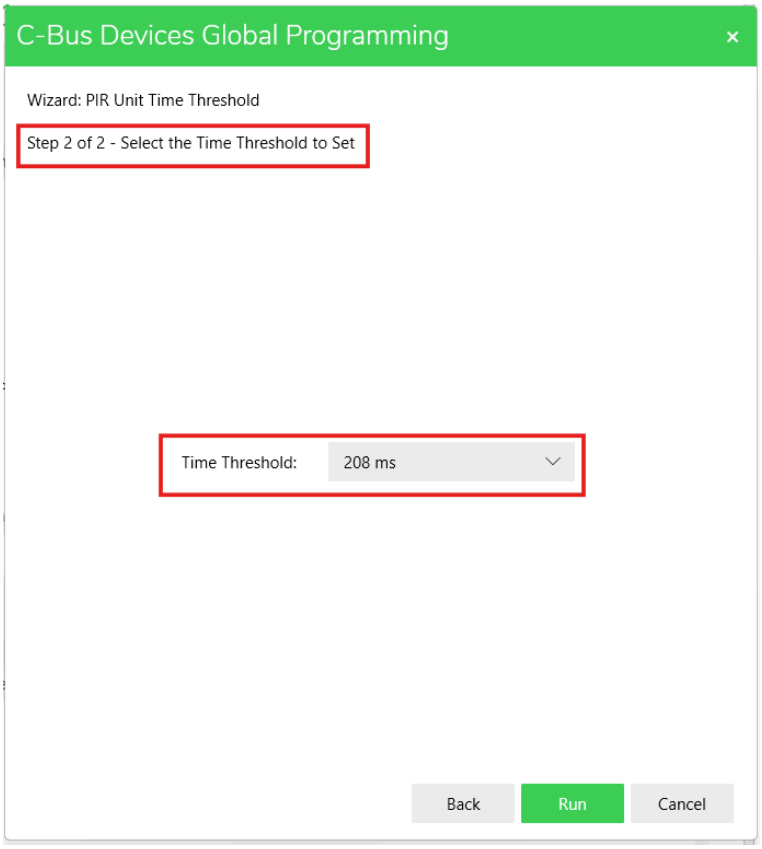
- Enter the name and click **Create**. The created application name is listed in the **New C-Bus Application** drop-down list.
- The application selected in **Application 1** drop-down list will not be listed in **Application 2**, **Application 3** and **Application 4** drop-down lists and vice versa.

7. If no devices are selected, **Next** button will be disabled.

8. Click **Next**.

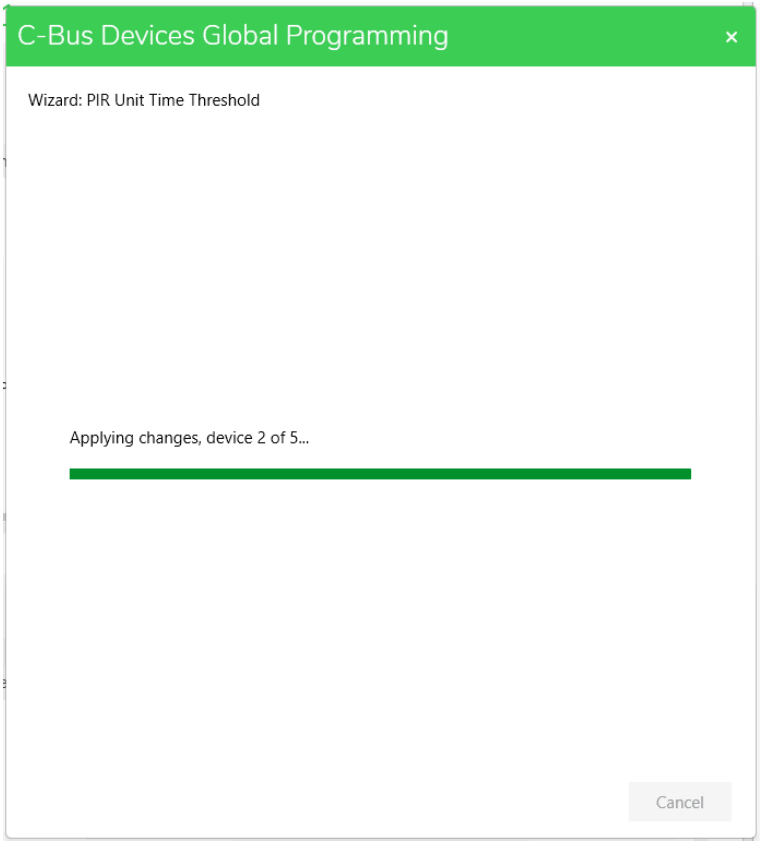


Step 2 of 2 — Select the Time Threshold to Set section appears.

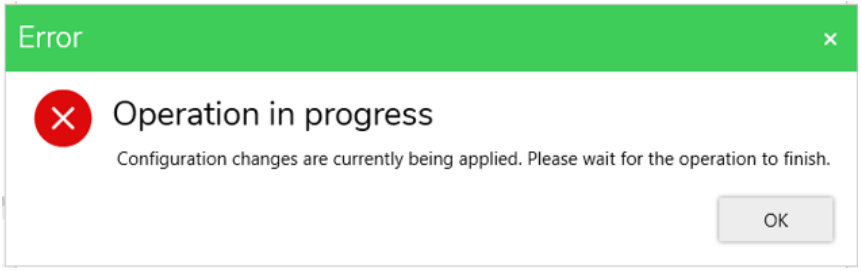


9. Select the required threshold from the **Time Threshold** drop-down list.

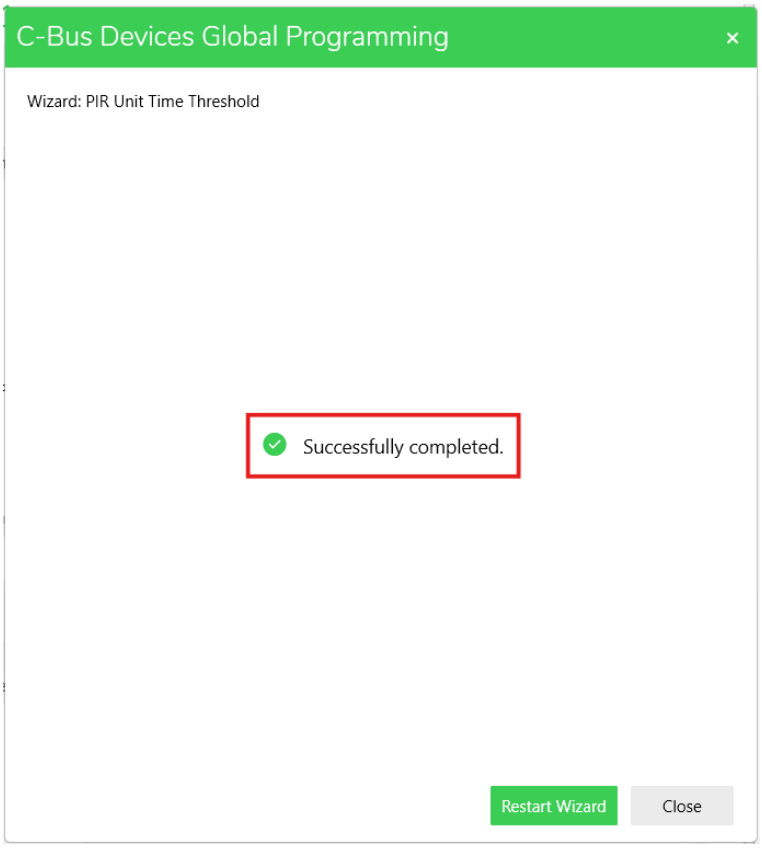
10. Click **Run**. The wizard starts to apply the changes.



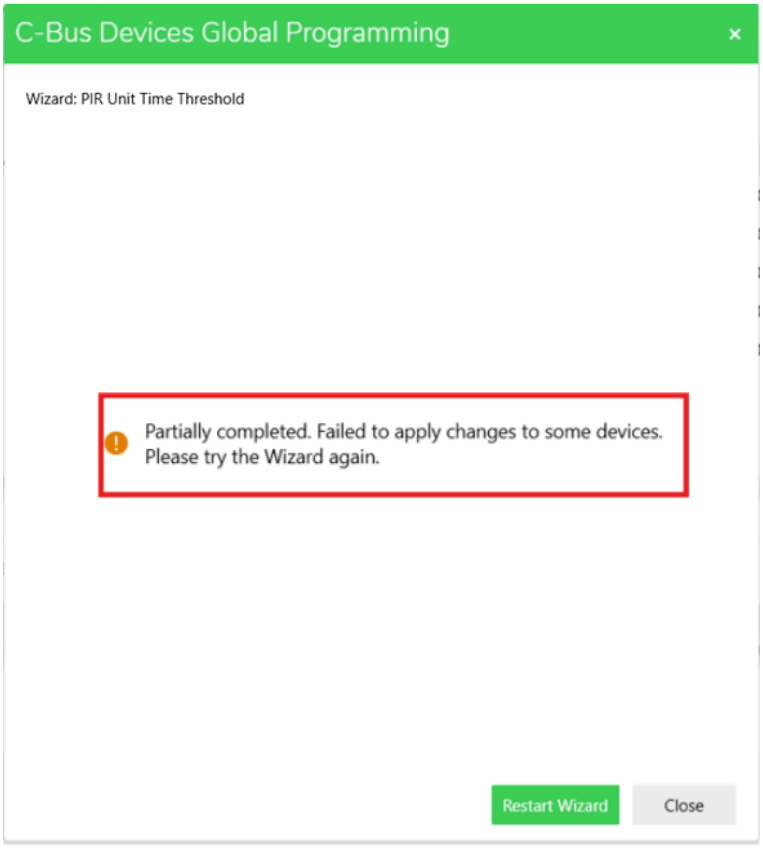
- If you try to close the **C-Bus Devices Global Programming** window during the process, an **Error** pop-up is displayed.



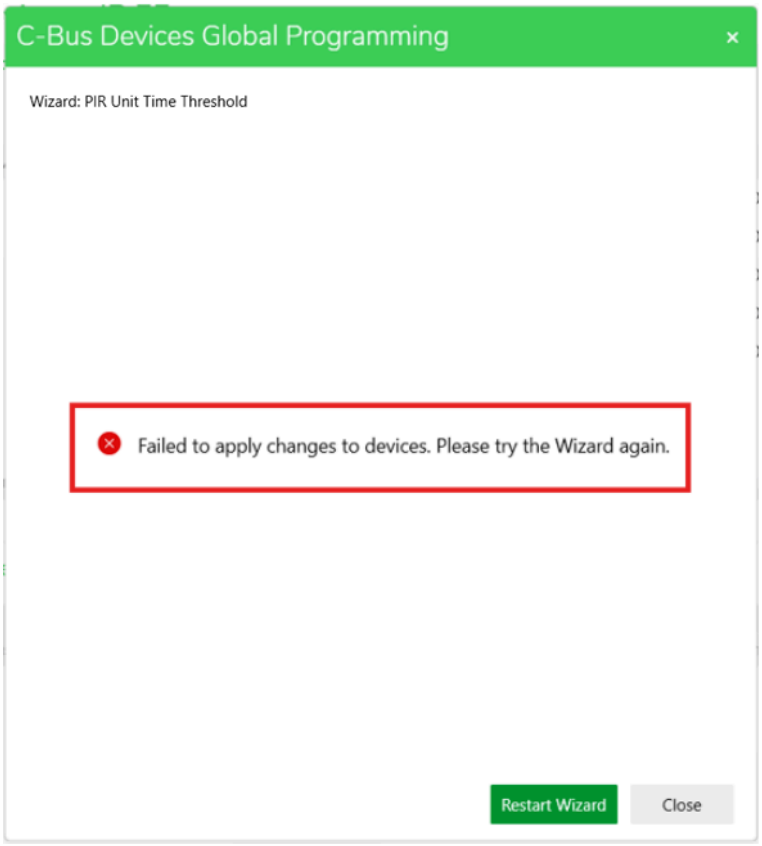
Once the changes are applied, success message appears.



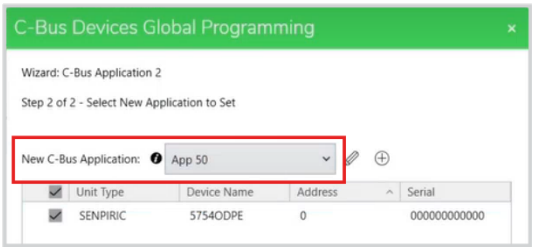
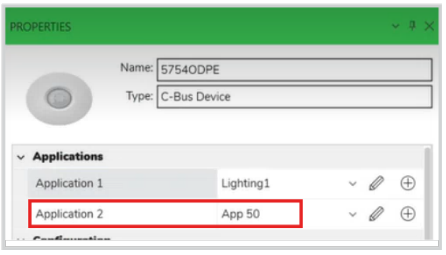
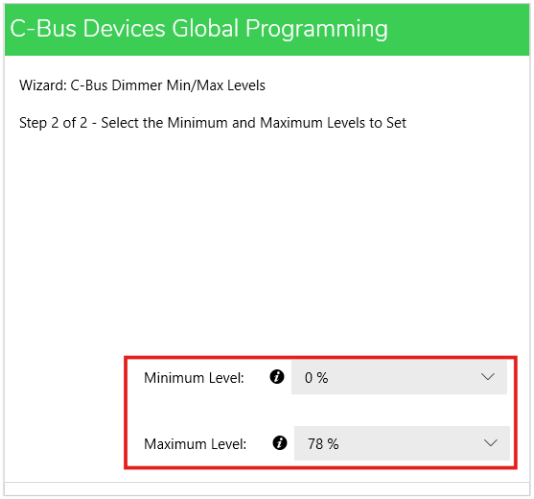
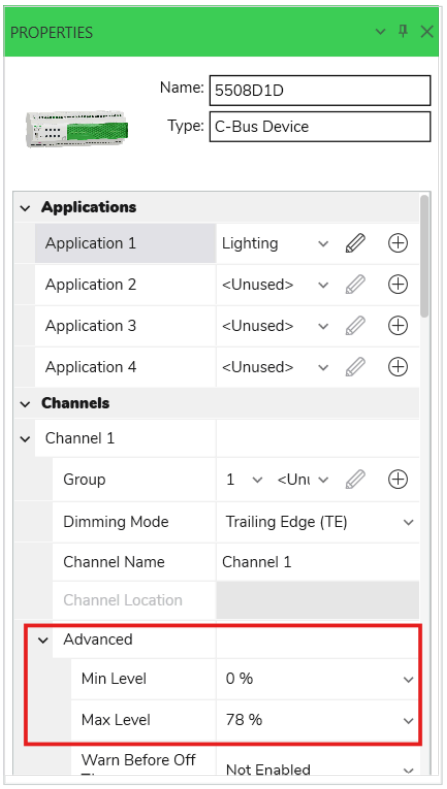
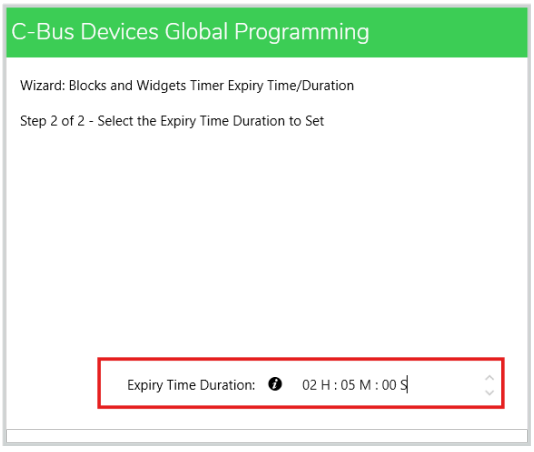
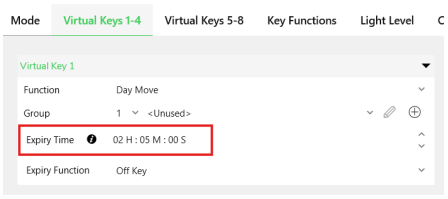
11. Click **Restart Wizard** to navigate to **Step 1 of 2 — Select PIR Devices to Configure** section.
12. Click **Close** to close the **C-Bus Devices Global Programming** window.
13. If the **PIR Unit Time Threshold** wizard finishes with one or more device errors, the **Partially completed** message is displayed.

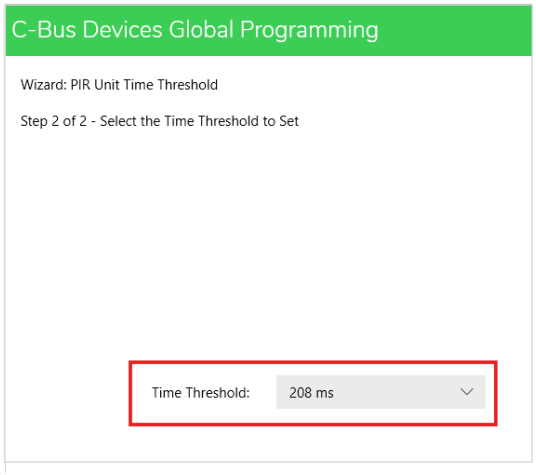
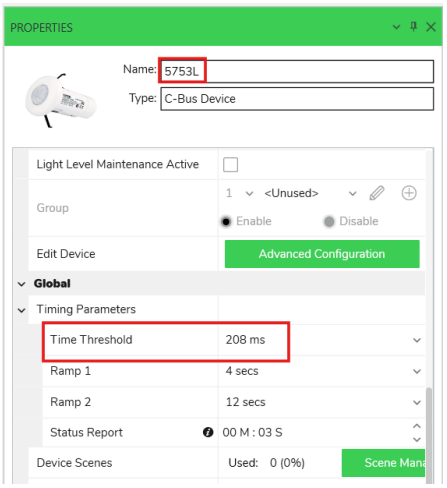
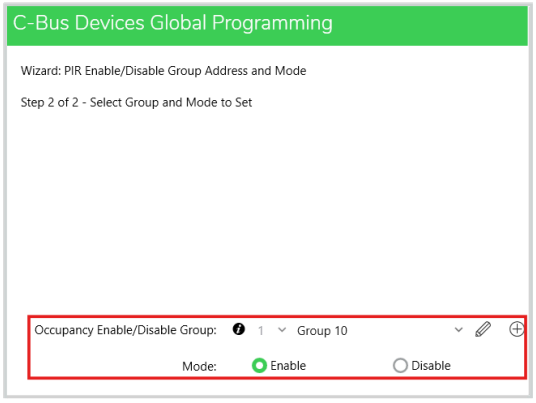
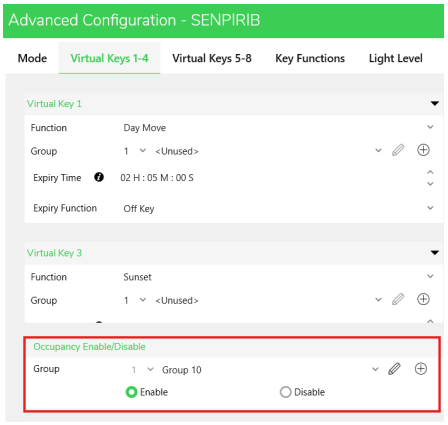
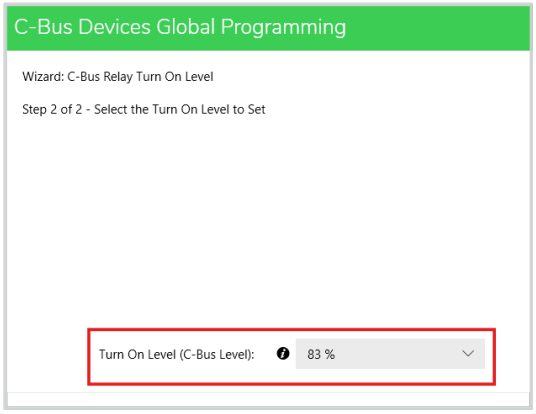
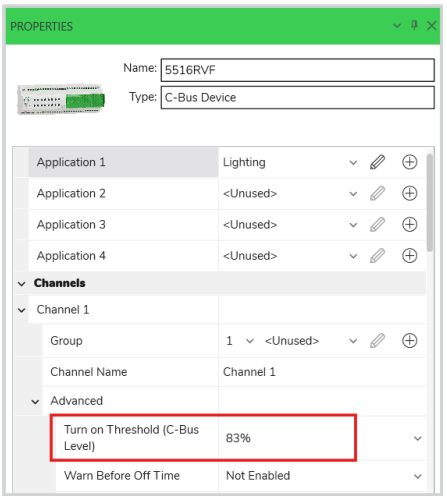


14. If the **PIR Unit Time Threshold** wizard finishes, where an error has occurred and changes were not applied/saved successfully to all devices from a list (including a single device only), then the **Failed** message is displayed.



15. Below are the scenarios when changes are applied and successfully completed, the configuration changes are displayed in the **PROPERTIES** window.

Wizard	Changes Applied	Changes reflected in **PROPERTIES**
C-Bus Application 1– 4		
C-Bus Dimmer Min/Max Levels		
Blocks and Widgets Timer Expiry Time/Duration		

PIR and Multisensor Unit Time Threshold		
PIR Enable/Disable Group Address and Mode		
C-Bus Relay Turn On Level		

Network Devices

The **Network Devices** section displays the devices physically connected to the C-Bus Network, provided a C-Bus Interface is connected to the C-Bus Network and the software is able to communicate to this interface.

The DALI devices will be displayed when a DALI line is selected, provided the C-Bus DALI- 2 Gateway is part of the C-Bus Network.

NOTE:

- The C-Bus Network must be opened and scanned to display the C-Bus Devices on the Network.
- The DALI line must be scanned to display the DALI devices on the selected DALI line (DALI-2 Gateway must be reconciled before scanning the DALI line).

Fields	Description
Status	This field displays firmware update icon for the C-Bus Devices indicating a new firmware is available for a respective C-Bus Device and an upgrade is advised.
Address (Addr)	This field displays the unit address assigned to the device. **NOTE:** • For a C-Bus Device, the values vary from 0 to 255. • For a DALI device, the values vary from 0 to 63.
Part Name	This field displays a 8 characters long name that is stored in the device given by the user.
Unit Type	This field displays the unit type of the device on the network.
Catalogue	This field displays the commercial reference for the device.
Description	This field displays the description of the device and cannot be edited.
Serial	This field displays the serial number that is on the physical device which is unique to all the devices.
Firmware	This field displays the version number of the of the physical device. Some devices have multiple firmware's: interface board, main board. By default, here the software will display the Main board firmware.
Exists in Project	This field displays whether there is a matching device that exist on the network. Matching rules: 1. Yes: Fully matched, where the unit address, serial number, unit type and firmware version are the same in project and on the network. 2. Unit Type Only: Partial matched, where the unity type, firmware and unit address are the same in project and on the network.
Application	This field displays the selected device's application address that the device has been assigned.
Voltage	This field displays the voltage of the device.

The operations that can be performed in this section are:

- Open C-Bus network
- Open C-Bus Network Using Open Using Feature
- Scan C-Bus devices
- Transfer device from network to project
- Sort line/network devices
- Unravel
- Readdressing
- Dynamic Mode Devices

Open C-Bus Network

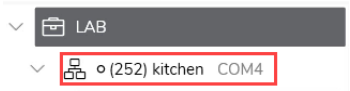
Prerequisites: The C-Bus Interface must be connected to the C-Bus Network and the software must be able to communicate to this interface.

The Open Network option opens a network connection to the C-Bus Commission.

To open the C-Bus Network:

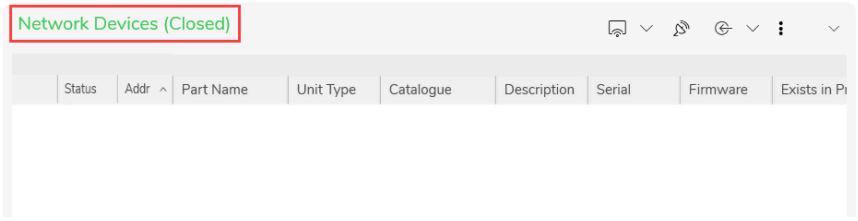
1. Select the network from the project.

   NOTE: When the network is closed, the network appears as shown below:

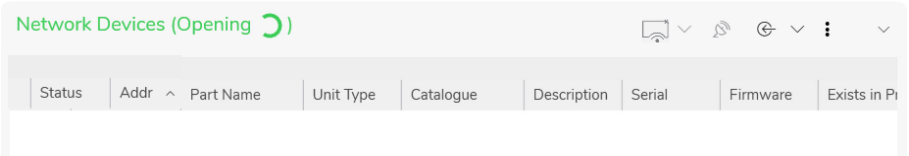


2. Click **C-Bus Devices**.

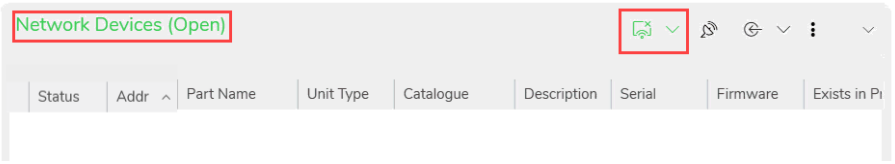
   In the **Workspace** window, the **Network Devices** section appears as shown below before opening the network.



3. Click in **Network Devices** section.



   The network opens.



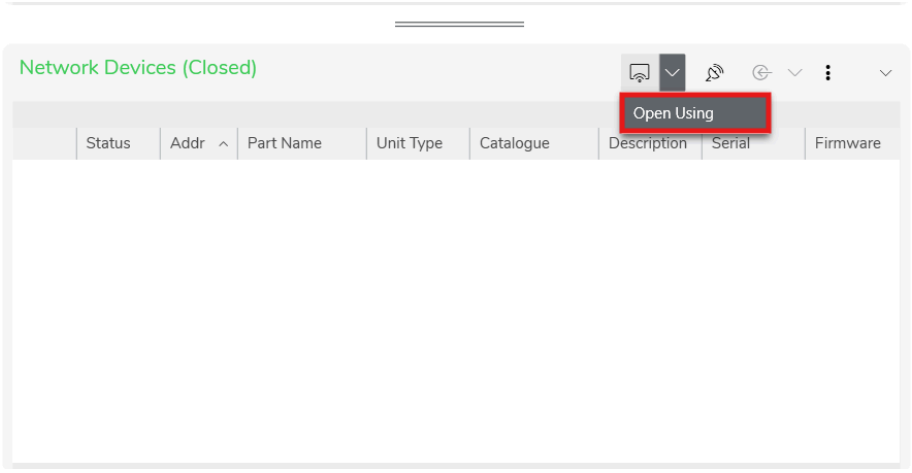
   IMPORTANT: Do not close the network while deployment activities are in progress.

Open C-Bus Network Using Open Using Feature

Open Using can be used on both standalone networks and bridge networks. It serves as a temporary interface that allows for the commissioning of the network without altering the existing network structure/topology. This method does not modify the network's interface within the project. Instead, it provides a temporary connection for commissioning purposes during a specific instance or session.

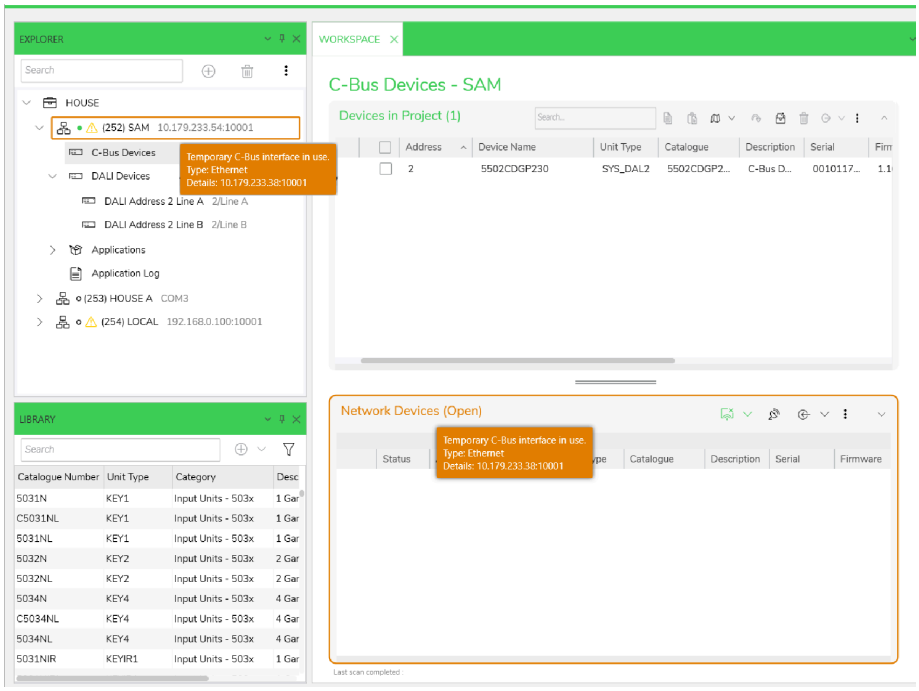
1. Select the network from the project.
2. Click **C-Bus Devices**.

3. In **Network Devices**, click drop-down and select **Open Using**.

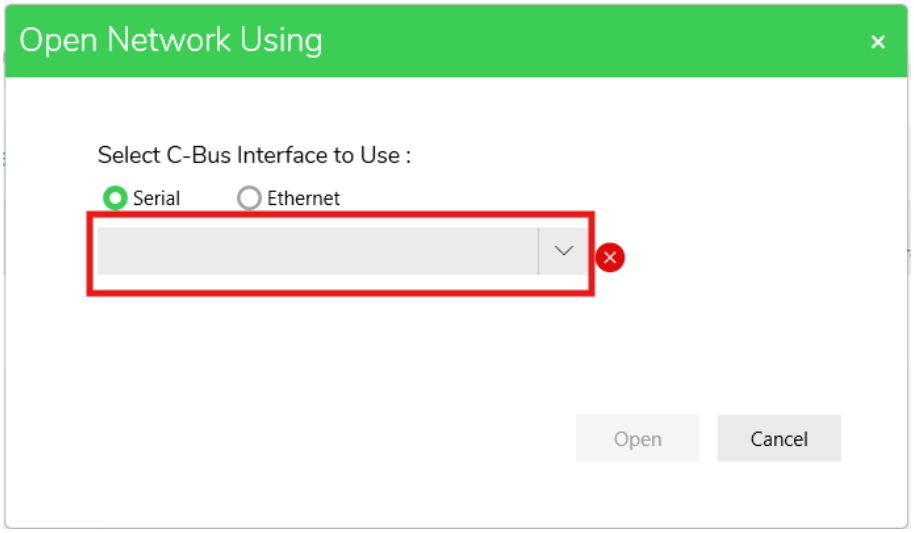


Once the C-Bus Network is opened using the **Open Using** feature:

- The **Network Devices** section border is highlighted in orange color.
- The **Network Devices** title changes to orange color.
- Network node border is highlighted in orange color.
- Tooltip messages of **Network Devices** and Network node are highlighted in orange color.

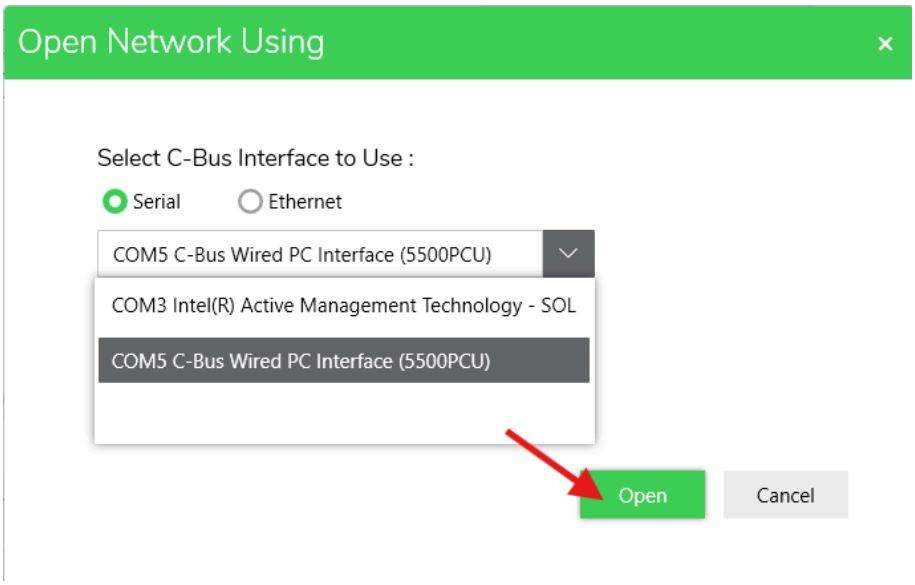


An **Open Network Using** pop-up appears.



NOTE: By default, **Serial** option is selected.

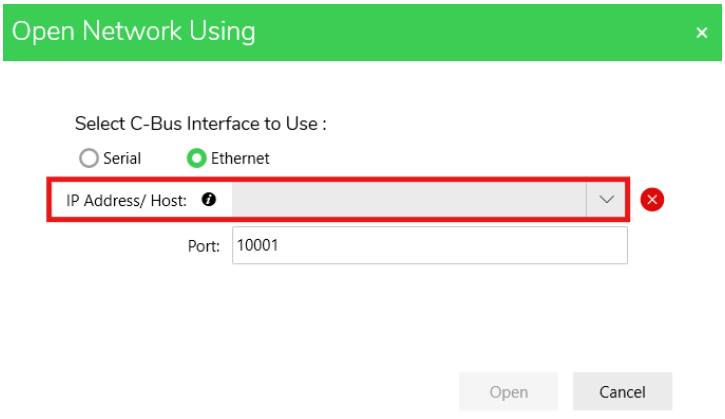
4. Select the COM port number and device's name from the drop-down.



Once you select the port number/device name, the **Open** button is enabled.

NOTE: You can easily view the serial port associated with the PCI name, eliminating the need to search for it in the Device Manager.

5. Select **Ethernet** to open network devices using an IP address.



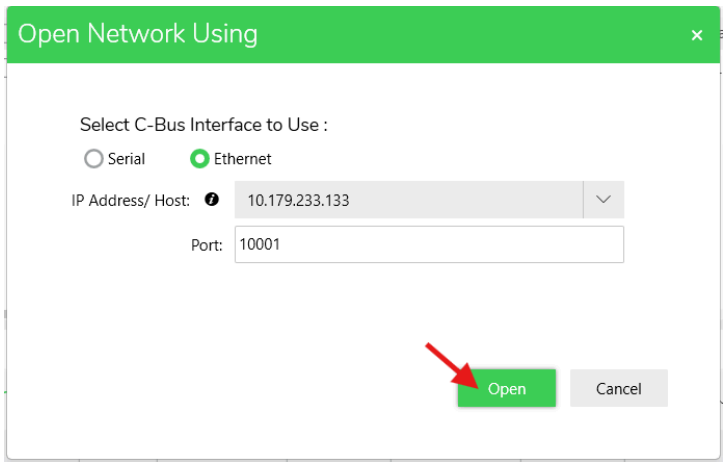
By default, the **Port** is displayed as 10001.

6. You can either:
   - Select the **IP Address/Host** from the drop-down.

     or,
   - Enter the new **IP Address/Host**.

     IMPORTANT: When you enter the IP Address:
     - Ensure to have four numbers (0-255) separated by periods.
     - Do not start with zero unless the address is zero itself.

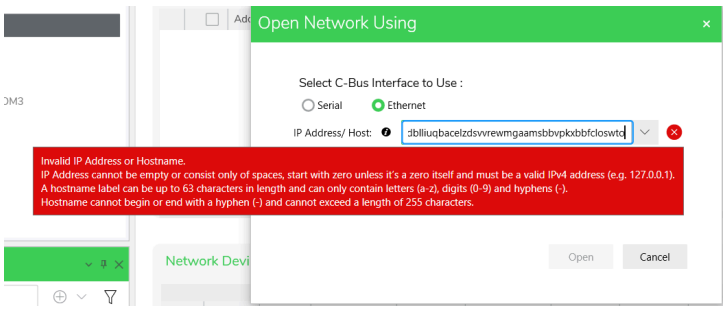
     When you enter the Host Name:
     - The host name can contain up to 63 characters, including letters (a-z), digits (0-9), and hyphens (-).
     - It must not start or end with a hyphen.
     - The total length of the host name must not exceed 255 characters.
     - Each label within a host name (separated by periods) can be up to 63 characters long.



Once you select or enter the **IP Address/Host**, the **Open** button is enabled.

NOTE: The IP address/host drop-down menu keeps a record of the last 20 recently used entries. When a new IP Address or Host is used, it is added to the top of the list, and the oldest entry is removed to maintain the list size.

If you fail to follow the criteria when entering **IP Address/Host**, the following error message appears.



7. Click **Open**. The network opens.

   Once the network is opened, the below functions are disabled:
   - Delete Network
   - Add Bridge Network
   - Open Bridge Network
   - Open and Scan Bridge Network
   - Make Network

Scan C-Bus Network

Prerequisites: The network must be opened before scanning.

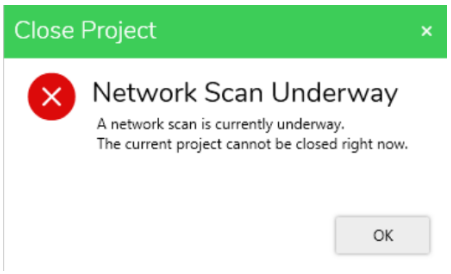
The C-Bus Devices present in the network appears in the **Devices on Network** section, after the network is opened and scanned. The DALI devices present on the line appears in the **Line Devices** section, after the DALI line is scanned.

1. Click to search for the devices in the network.

   NOTE: If network scanning is done without opening the network, internally the network is opened first and then scanning is performed.

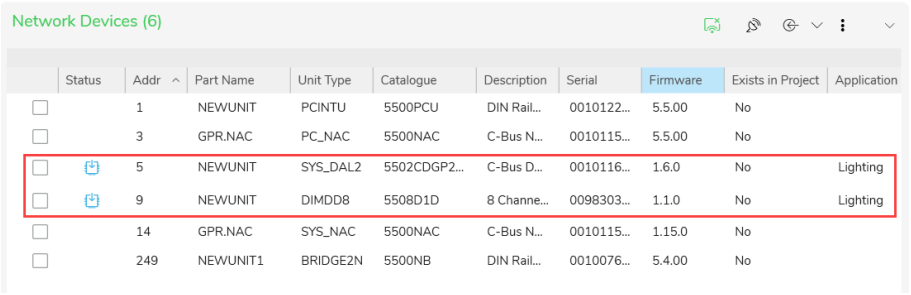
   IMPORTANT:

   - If you remove a device from the project that has applications or groups configured, scanning the network will automatically recreate those applications or groups with default names.
   - Do not close the network or project while scanning is in progress.

   - If you try to scan the network device in C-Bus Commission while a network scan is already in progress in the Toolkit, an **Error** pop-up will be displayed.

2. Once the scanning is completed, firmware update icon is displayed for the C-Bus Devices, indicating a new firmware is available for the C-Bus Device.

3. Click to perform firmware upgrade for a respective C-Bus Device.

   Once the firmware is successfully upgraded, re-scanning the Network Devices will display the new firmware version.

   NOTE: After you update the firmware for a selected device and re-scan the Network Device, the firmware icon will no longer be displayed.

Extract All and Deploy All C- Bus Devices

With C-Bus Commission, you can extract and deploy all C-Bus devices between your project and the live network without switching to Toolkit. So, the need to

toggle between client applications is minimized, software inefficiencies are reduced and the user experience is enhanced.

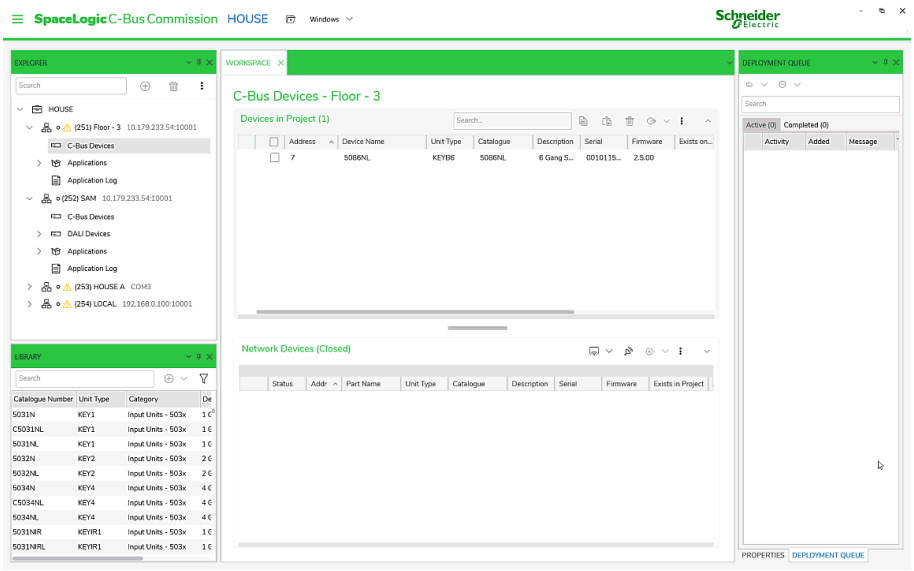
When you perform the **Extract All/Deploy All** function, it extracts/deploys both supported and unsupported devices (in the **PROPERTIES** window). This includes most of the wired C-Bus device family and also includes the standard Deploy and Extract buttons when selecting a single device or multiple devices.

Prerequisites:

- The network must be already created.
- The C-Bus network must be opened, and C-Bus devices must be scanned.
- Devices for deployment/extraction must be either partially matched or fully matched.

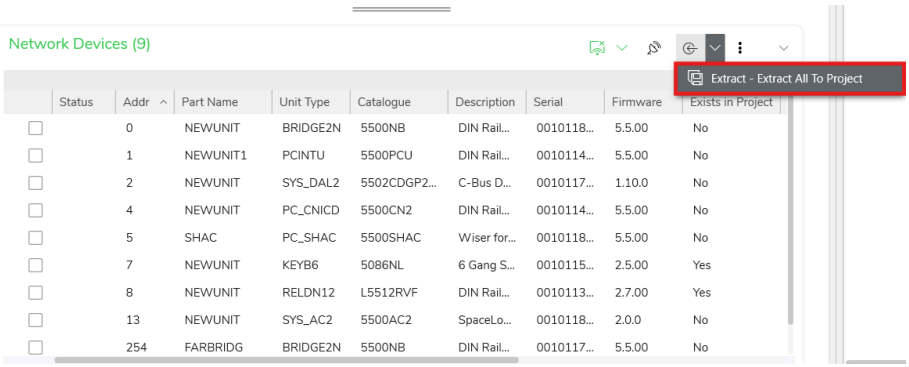
A device is said to be partially matched if the field information of address, unit type and firmware in **Devices in Project** are same as in **Network Devices**.

- If a device is fully matched, then the device can be extracted to the project or deployed to network directly.
- The below video demonstrates how to extract single device from **Network** to **Project**.



To Extract All Devices

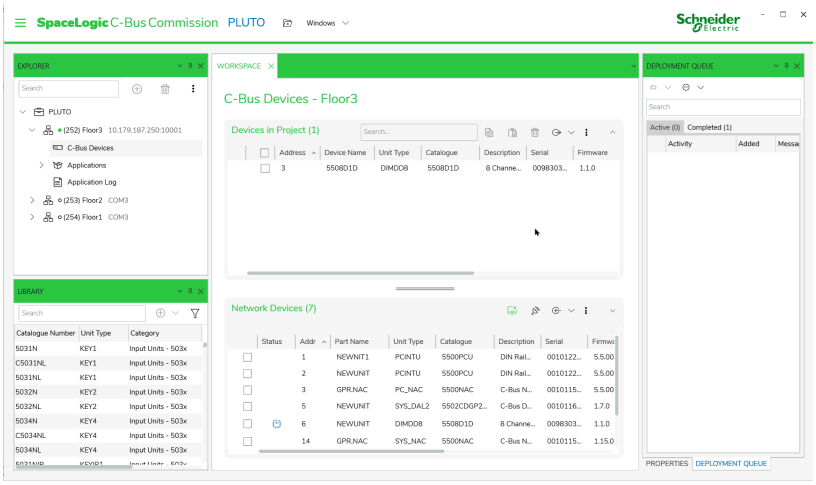
1. In the **Network** section, click drop-down and choose **Extract — Extract All to Project**.



NOTE: Multiple devices can be extracted only if all of them are fully matched.

TIP:

- If a device does not exist in the project, you can add the device in the **Project** from the library and extract all the live data into the project device.
- The firmware version of the device added to the project must match the firmware version of the live network device.
- If a device is partially matched then, the device must be matched fully with the project device in **Project**. The video of fully matching the devices is demonstrated below:

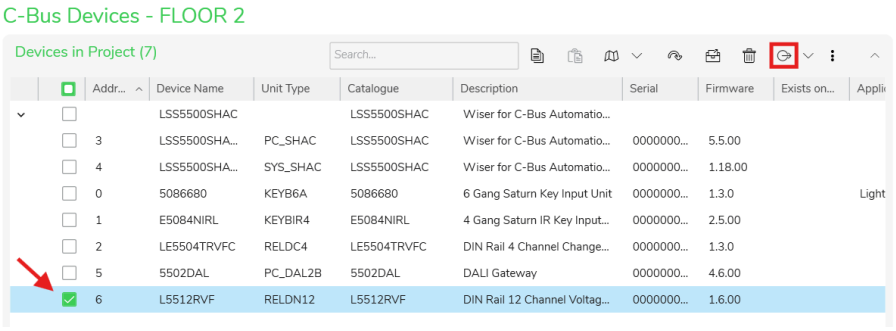


Once extract all function is completed, all newly extracted devices are placed with their live network configurations into the project.

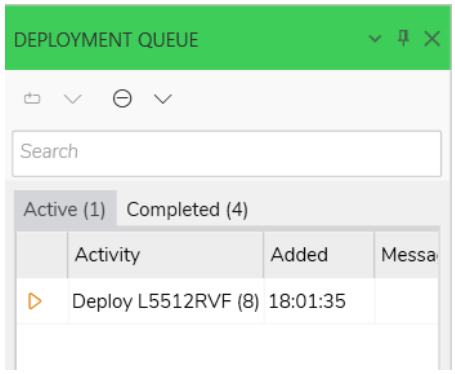
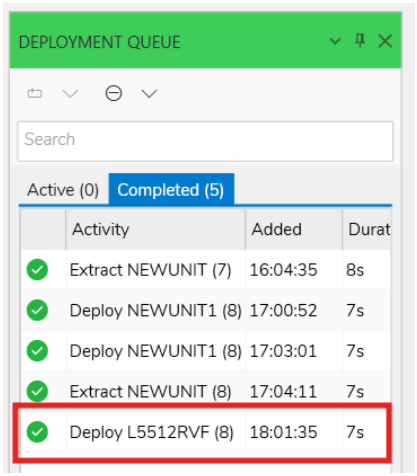
To Deploy Single Device/All Devices

1. Select the device in **Devices in Project** section and click to deploy selected device to C-Bus Network.

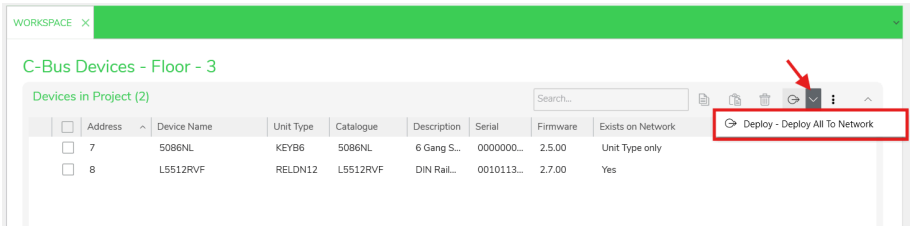
   NOTE: You can select one or more devices.



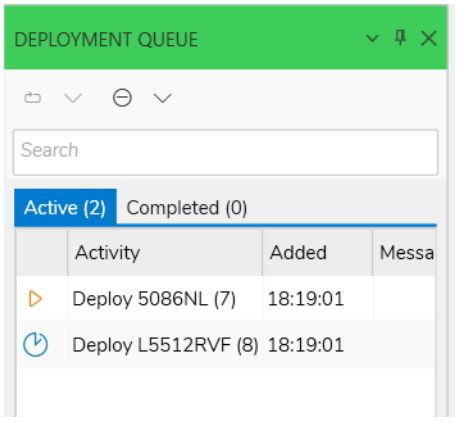
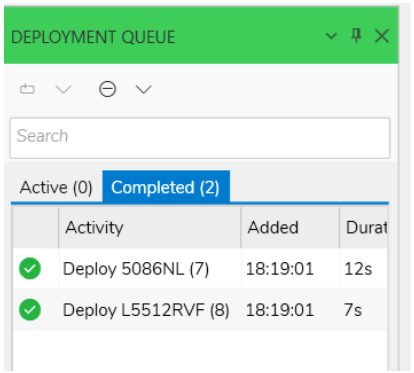
The project device information is transferred to the network devices. You can view the **Active** and **Completed** status in **DEPLOYMENT QUEUE** window.

Active	Completed
	

2. To deploy all devices to C-Bus Network, click drop-down and choose **Deploy – Deploy All to Network**.



You can view the **Active** and **Completed** status in **DEPLOYMENT QUEUE** window.

Active	Completed
	

NOTE: The **Deploy - Deploy All To Network** will be enabled only when at least one device is in a matched or partially matched state.

Once deploy all function is completed, all newly deployed devices are placed with their project configurations into the live network.

The deploy all function will deploy the project device information to the device (s) on the network, regardless of whether the device can be edited in the Property Editor of C-Bus Commission or was previously edited in Toolkit.

The below table lists the legacy devices supported in C-Bus Commission.

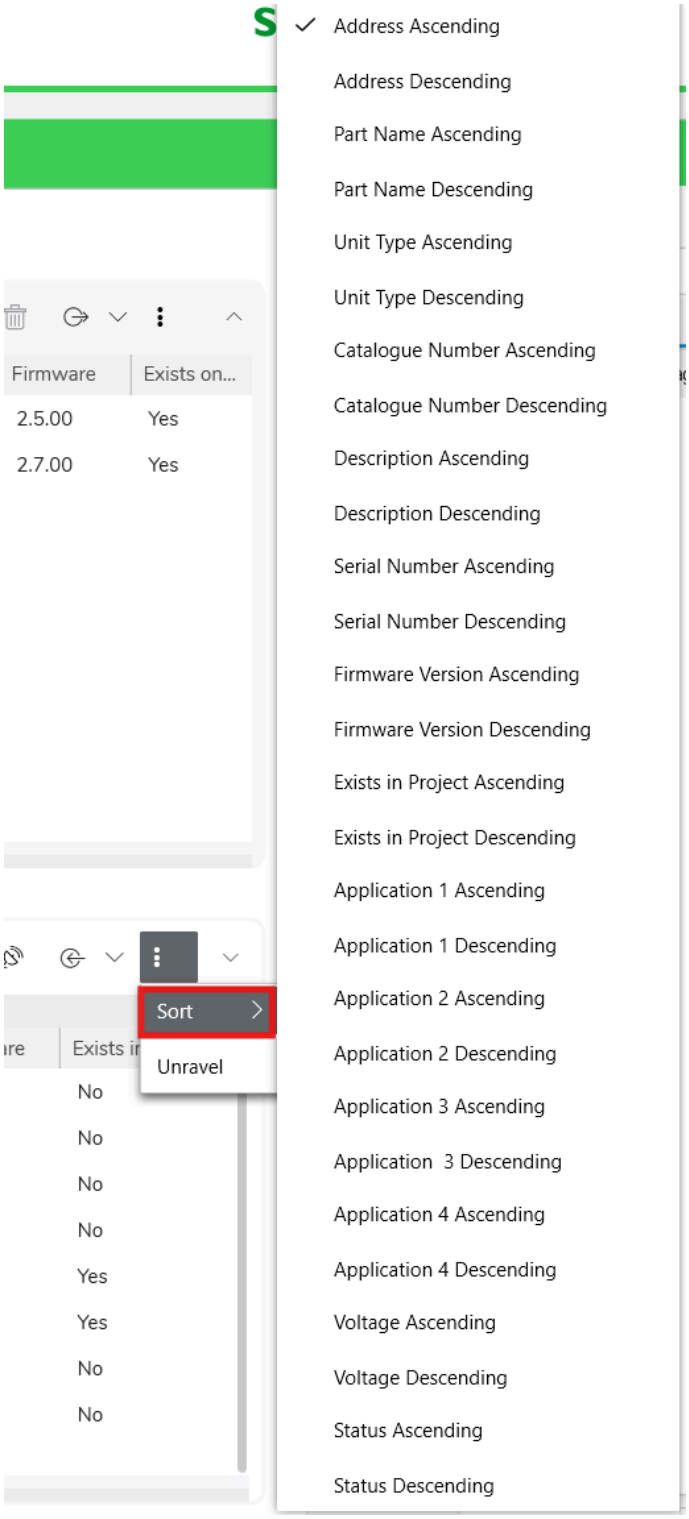
KEY1	KEYAUX4	KEYAV4	KEYP2	KEYDV2	RELDN8SP	DIMDN4	PC_INT_1	PC_PGA	PC_CTD
KEY2	DINAUX4	KEYA6	KEYP4	KEYDV3	RELDN8B	DIMDN4F	PCINT4	PC_PACA	PC_CTDL
KEY4	KEYBC2	KEYA8	KEYP6	KEYDV4	RELDC4	DIMDN8F	PC_CNIEI	PCINTU	PC_WHAM
KEYIR1	KEYBC4	KEYB2	KEY-BIR2	CLK2	RELDB1	DMXDO12	PC_CNIED	PCLOCA-LU	INT_CIS
KEYIR4	KEYM2	KEYB4	KEY-BIR4	RELAY1	RELMB8	DIMDN8	PC_CNICI	EN_UNIV	INT_AXEZ
KEYC1	KEYM4	KEYB6	KEY-BIR6	RELAY2	DSIMB8	DIMDS8	PC_CNICD	PC_MIND2	EN_AXEZ
KEYC2	KEYM8	KEYH1	KEYV1	RELAY4	ANOMB8	ANODN4	PCLOCAL4	PC_CTB	INT_CMFT
KEYC4	KEYA1	KEYH2	KEYV2	DIM-MER4	DIMPR1	PC_LOCAL	PC_CBTI	PC_CTBL	EN_CMFT
KEYCIR1	KEYAV2	KEYH3	KEYV3	AN_OUT4	DIMPR2	PC_INT	PC_CTA	PC_CTC	INT_MIND
KEYCIR4	KEYA3	KEYH4	KEYD-V1	RELDN8	DIMPR4	PC_INT1	PC_IRT2	PC_CTC3	INT_HS

INT_D16	INT_ELK	INT_ VIEO	INT_ HUIO	INT_ AQUA	BRIDGE1N	BRIDGE1F	BRIDGE2N	BRIDGE2-F	GATEWLSN
GATEWLS-F	RELSM8	PC_ CNICW	PC_ CNIC	PC_ CNIE	PC_CNIEW	SYSWSR2			

Sort Device

Prerequisites: The devices must already be opened and scanned in a **Network**.

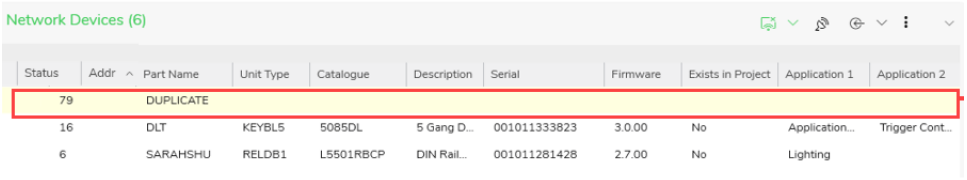
1. Click ⋮ to sort the devices in the live network.
2. Select **Sort** from the available options and then select an appropriate sort method.



Unravel

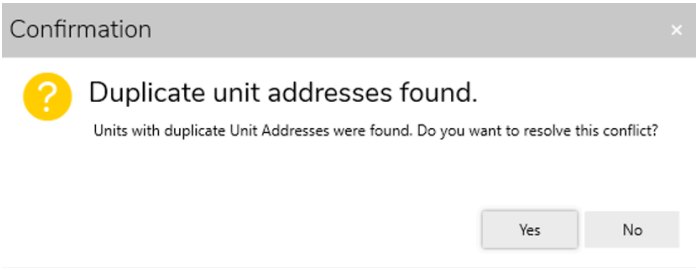
Unravelling unit address is the process of giving unique unit address to all units within a C-Bus Network.

Unravelling unit address is important when you are adding C-Bus units to the physical address. When new C-Bus units are added to the network which have been previously used on another network, they may be configured with unit addresses that are already taken on the C-Bus Network.



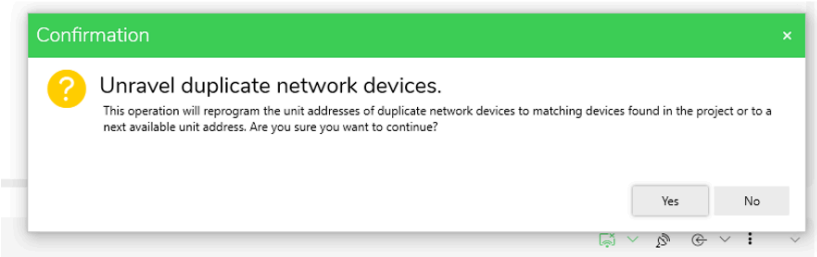
C-Bus network scanning process identifies the C-Bus units with duplicate addresses, which is highlighted as duplicate.

On identifying duplicate the confirmation box is displayed to resolve the conflict.



1. Select **No**, to retain the duplicate address.

2. Select **Yes**, **Confirmation** dialog box is displayed to unravel duplicate network devices.



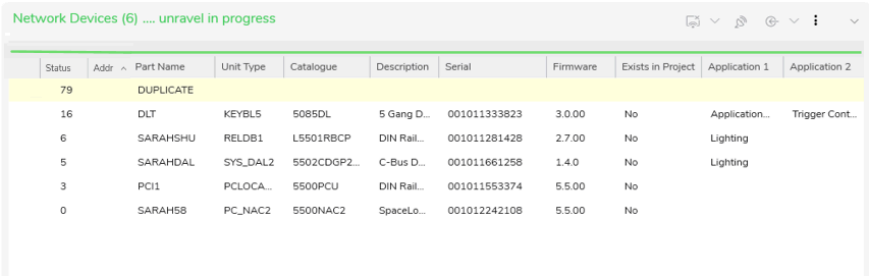
   a. If you select **No**, the duplicate address is retained.

      This can be resolved manually :

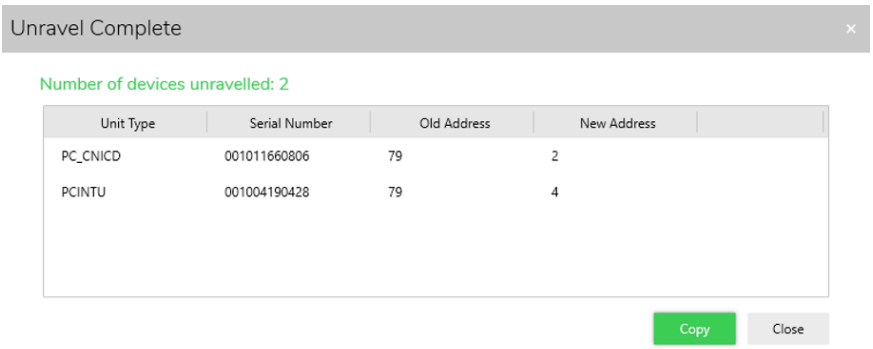
      To unravel duplicate unit addresses, select the device and click ⋮ select **Unravel.**

      TIP: Unravel can also be done by right-click **Network Devices > Unravel**.

   b. If you select **Yes**, unravelling process is initiated.



   c. Once unravel is completed, the details of unravelled devices and their new addresses are displayed.



      The details can be copied to the notepad for future use or/and close the window.

All the addresses in the network are unique.

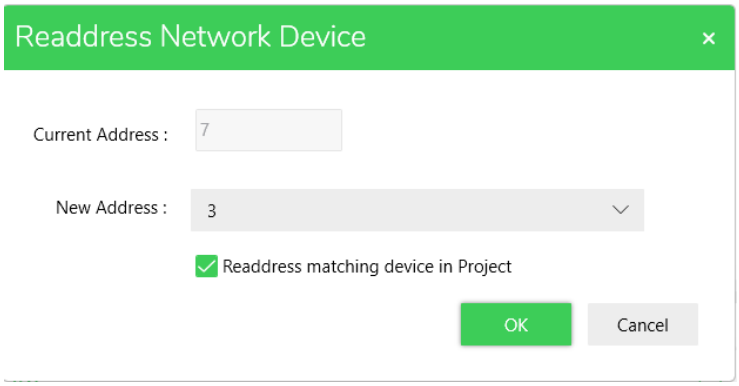
Readdressing

The Readdress function allows the readdressing of units within a C-Bus Network or database. When you readdress a matched device, the **Readdress matching device in Project** check box is enabled to ensure the matched device is also updated in the database.

To readdress a network:

1. Right-click on **Network Device** > **Readdress Network Device**.

   Readdress Network Device pop-up is displayed.



2. Select the **New Address** and click **OK.**

   NOTE: Readdressing cannot be performed on Bridge devices.

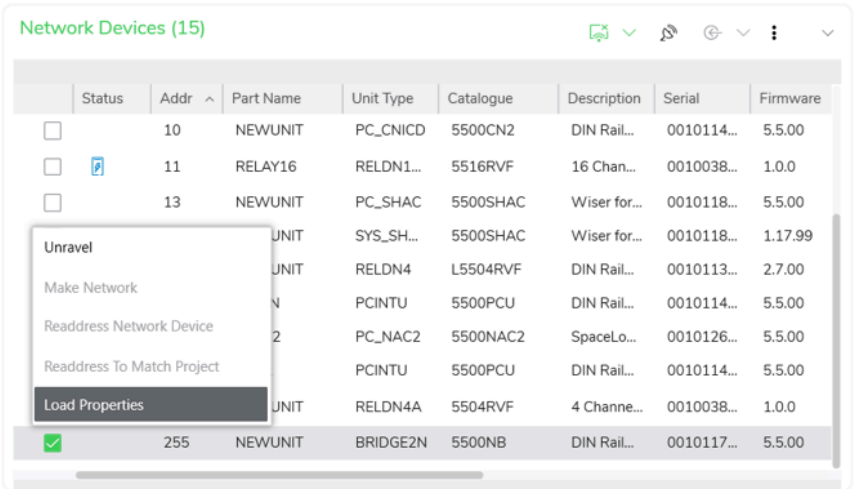
   If the C-Bus project has only serial or C-Bus Network Interface (CNI) connections, the re-addressing of a single network is straightforward.

   TIP: The addressing structure must be maintained when readdressing networks.

   The network device is readdressed.

To view the property editor:

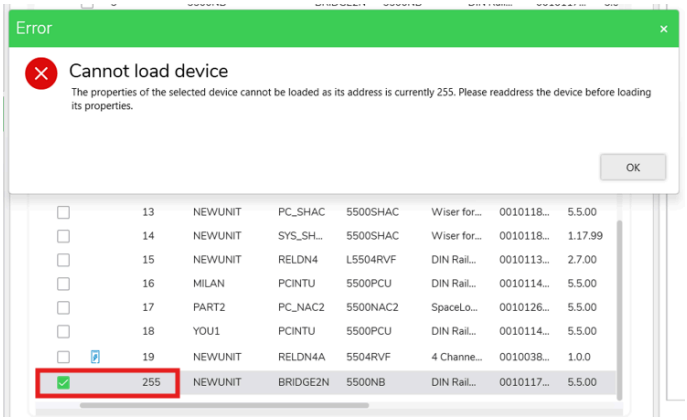
1. You can either:
   - Right-click on **Network Device** > **Load Properties**.



   or

   - Double-click on the **Network Device**.

     NOTE: When you try to load a live C-Bus network device with unit address 255 into the **PROPERTIES** window, an **Error** pop-up is displayed.



Devices in Project (DALI)

Prerequisites: Make sure the DALI Gateway is already added to project database.

The **Devices in Project** section displays all the DALI devices in the project database.

Field	Description
Object Id	Displays the object Id of the device (the DALI line address which ranges between 0-63).
Short Address	Displays the short address of the device (the physical device address).
Device Type	Displays the type of the device.
Name	Displays the name of the device.
Description	Displays the description of the device.
Exists on DALI Line	Displays whether the device is existing on DALI line or not.
Device used	Displays the devices is used or not (default it will be selected).
DG (DALI Groups 1–16)	Displays the selected DALI groups for each DALI device.

Application	Displays the selected device's application number (default lighting application).
C-Bus Group	Displays the selected C-Bus group address.

The operations that can be performed on **Devices in Project** section are:

- Search a device, page 128
- Copy device
- Paste device
- Delete device, page 128
- Deploy devices, see Deploy device
- Sort devices, page 129

Search a Device

Prerequisites: The DALI gateway and DALI devices must already be added in a **Devices in Project** section of an network .

The **Devices in Project** section allows searching of a DALI device in the existing project database by entering the device name in the **Search** bar.

NOTE: You can also search by entering either Unit Type , Catalogue or Description.

Copy Device

To Be Implemented

Paste Device

To Be Implemented

Delete Device

Prerequisites: The DALI devices must already be added in a DALI line of network and must be reconciled.

1. Select the DALI device check box.
2. Click .

   TIP: Alternate method to delete device:

   Select the device check box, right-click on **Devices in project > Delete**.

Deploy DALI Devices from Project to Network

Prerequisites: The DALI device must be reconciled before deploying to network.

Once the DALI device are configured, they can be deployed in two ways:

Method 1:

1. Select the DALI device in **Devices in Project** section.
2. **Save** the settings and check the **Deploy to Network**.

Method 2:

1. Select the DALI device in **Devices in Project** section.
2. **Save** the settings.
3. Click on **Devices in Project** section.

Sort Device

Prerequisites: The devices must already be added in a **Devices in Project** of network.

The DALI devices in the device list can be sorted using ⋮ and selecting an appropriate sort method.

50/50 Reconcile

Prerequisites: The DALI devices must be added to project and **Line Devices** must be scanned.

The 50/50 function allows a user to quickly find the desired device on the DALI line by turning half on and half off at the same time and assist in finding the specific device and reconcile it.

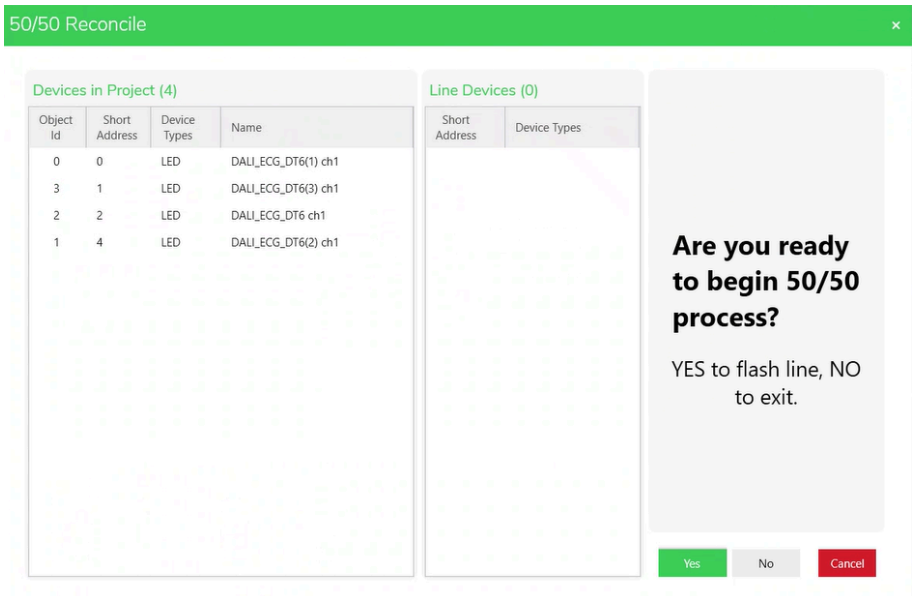
NOTE: A 50/50 function is performed depending on the type of device selected.

- Devices which cannot perform 50/50 are filtered out.
- Example, If the user is using a generic device type in their project to perform 50/50, it will filter for all other device types except for Emergency Device type C & D as they are not compatible.
- If there is only one compatible device type on the network, 50/50 will be aborted as it cannot be performed on a single device (Instead use identify function).

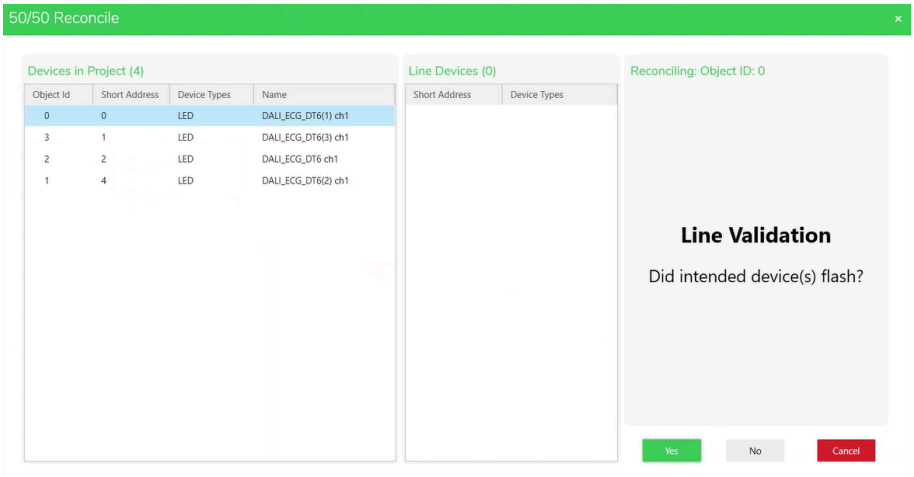
To perform 50/50:

1. Select the device and right-click on the section, **Devices in project > 50/50**.

A 50/50 dialog box is displayed

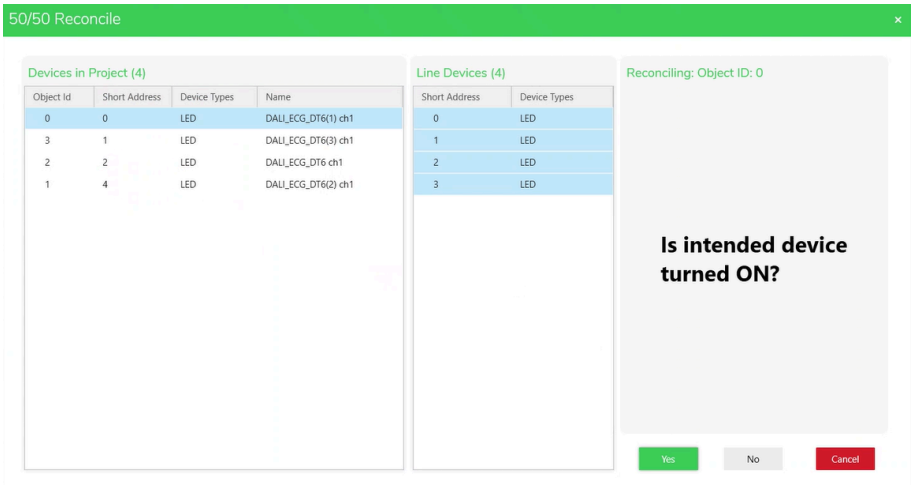


2. If you choose **Yes**, it will display Line Validation “Did the intended device(s) flash”.

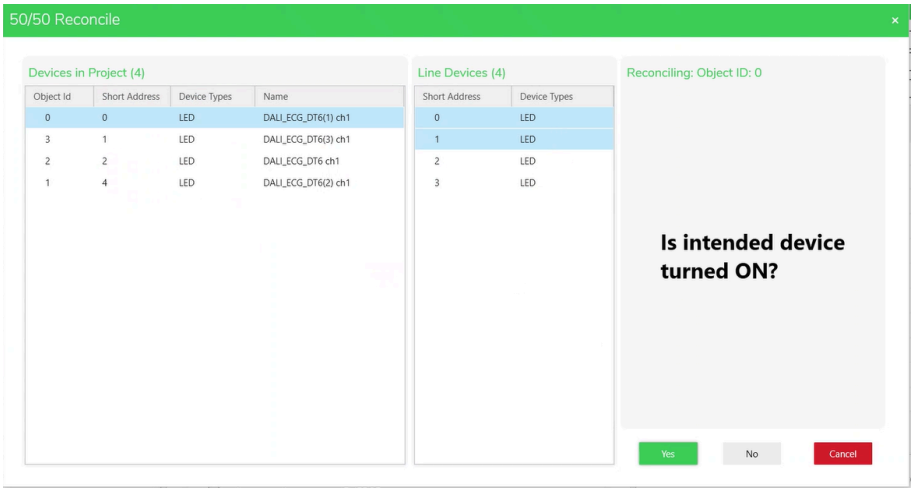


Confirm **Yes**, if flash is seen on physical device else confirm **NO**.

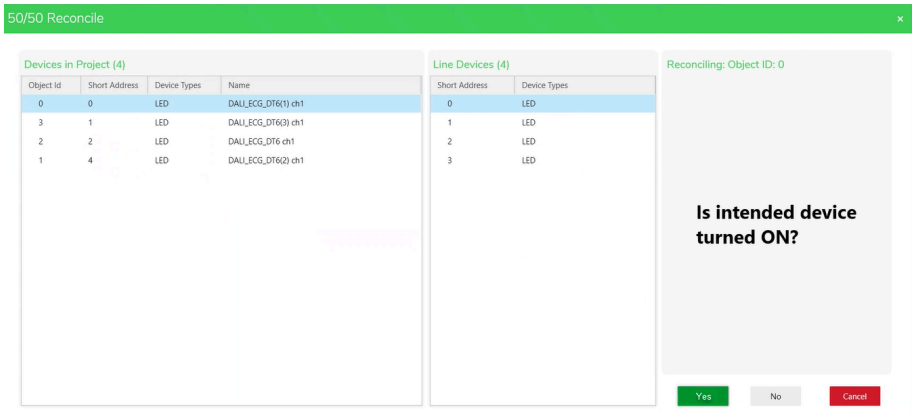
3. On confirming **Yes**, 50/50 is performed on all light devices of selected line.



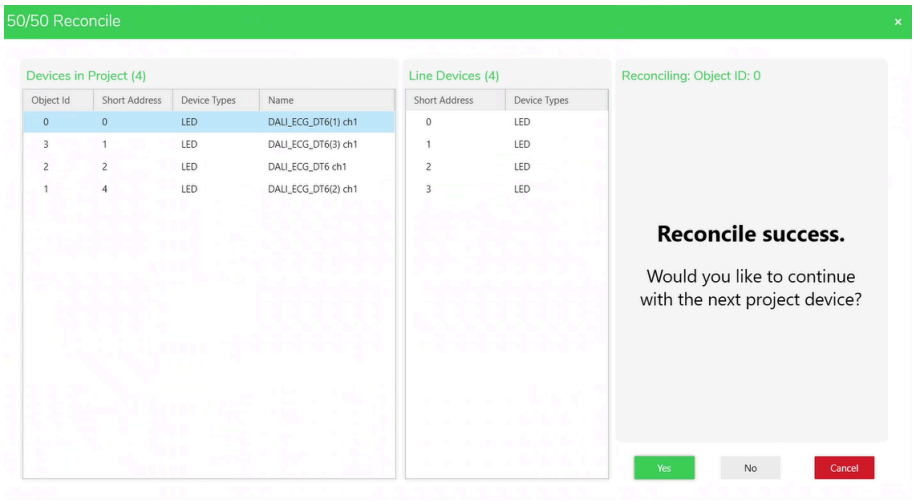
4. If there is no light On confirm **No** , the 50/50 process will be performed on other half of the line devices.



5. The process continues until the device has been selected in the DALI line.

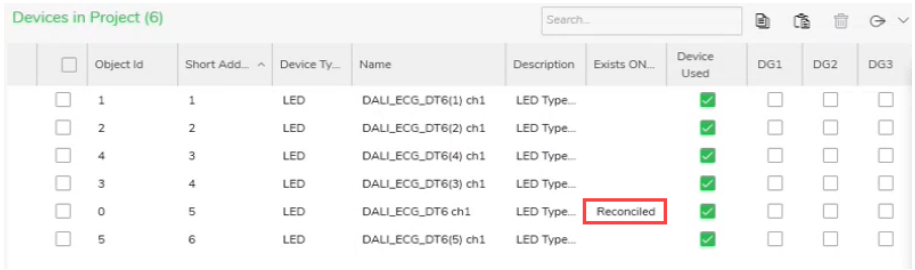


6. On confirming **Yes**, it will confirm successful reconciliation.



After Reconciliation, the reconciled devices are removed from the **Devices in project** and **Line Devices** of 50/50 window.

7. The Reconciled status of a device is visible in **Devices in Project** as well as in **Line Devices** section.



IMPORTANT: After reconciling, the 50/50 is automatically displayed for the next object Id unless confirmed **Cancel.**

NOTE: During any stage of reconciling, 50/50 process can be aborted by clicking **Cancel**.

Readdress

Prerequisites: The DALI devices must be already added to the project database and Line devices must be scanned.

The Readdress function allows the readdressing of the DALI devices within a C-Bus network or project database.

NOTE: DALI device can be readdressed in either **Devices in Project** or **Line Devices.**

To Readdress, select a DALI device and right-click on section **Devices in Project / Line Devices > Readdress**.

Readdress Project / Network Device dialog box is displayed (depending from which section readdress is being performed), choose the address and confirm **OK.**

IMPORTANT: Readdress is performed only on Short address.

NOTE: Readdress is used when an existing device address needs to be utilized for another device.

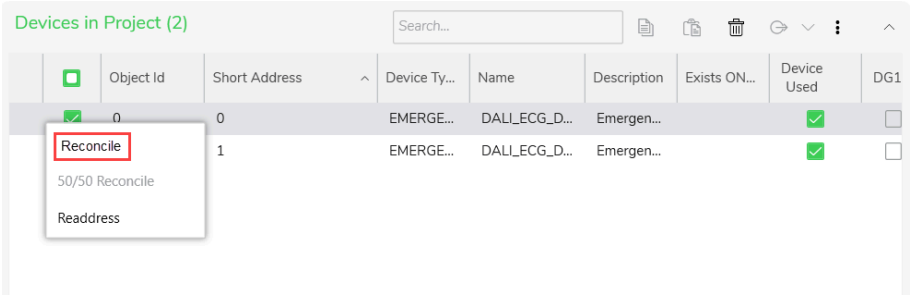
Reconcile

Reconciling is the process of matching the device available in both **Devices in project** and **Line Devices**.

Reconcile can be achieved either via 50/50 process or by manually.

To perform Reconcile manually:

1. Select the DALI device in both the **Line Devices** and **Devices in project** section.
2. Right click on either of section and select **Reconcile.**

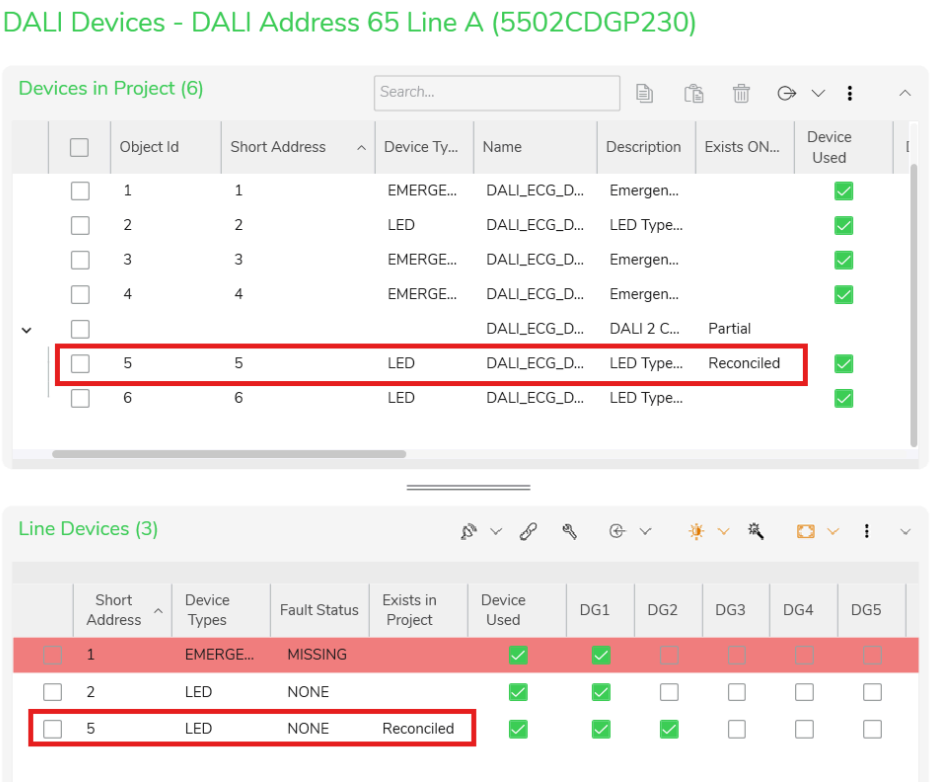


Un-Reconcile

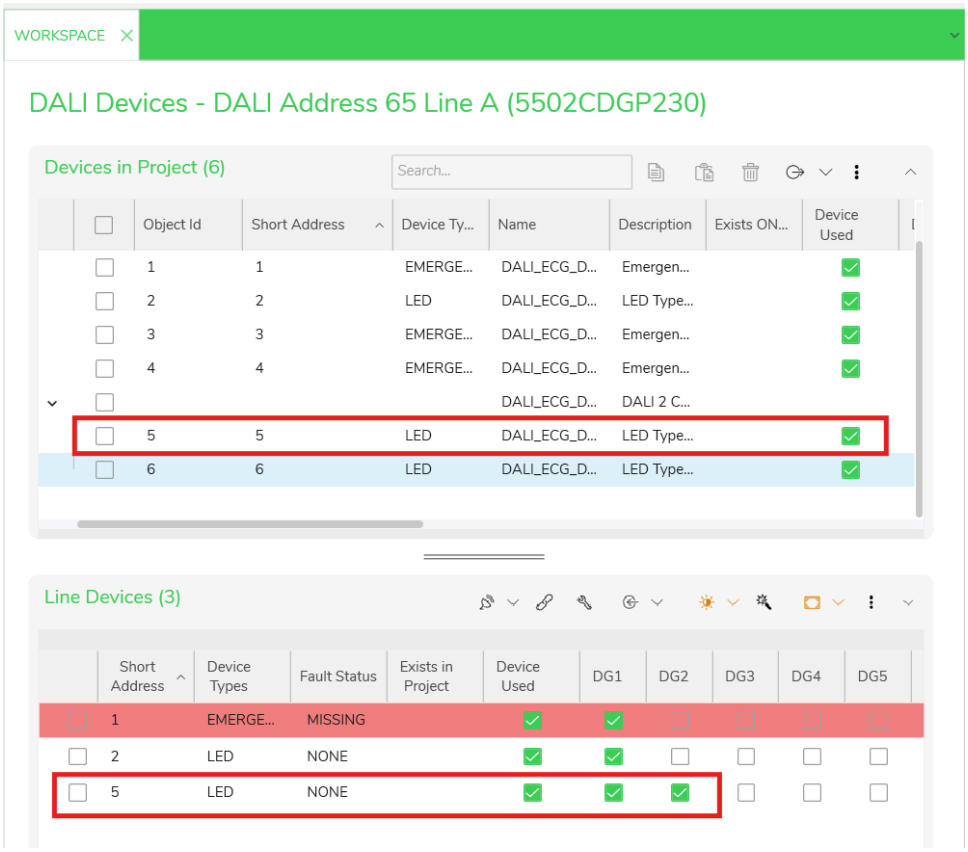
Prerequisites: The selected device must already be reconciled.

The un-reconcile operation allows to release the device from the reconciled state.

1. Select the device both in **Line Devices** section and **Devices in Project** section that are already reconciled.



Right click on either sections and select Un-reconcile, the devices get un-reconciled as shown below:



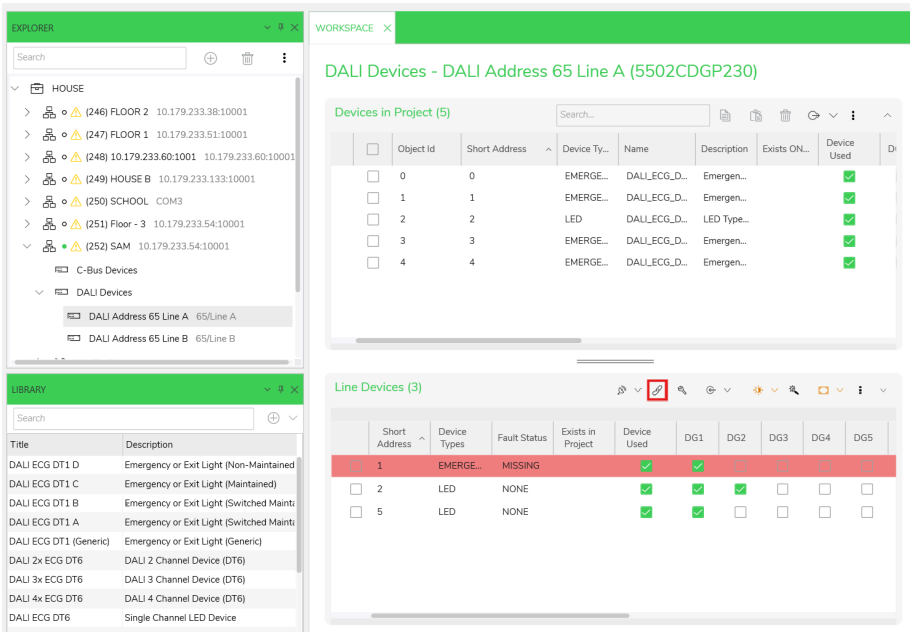
Identify and Reconcile

This method combines the identify and reconcile features into a seamless workflow within a single pop-up window, so that you can complete your task

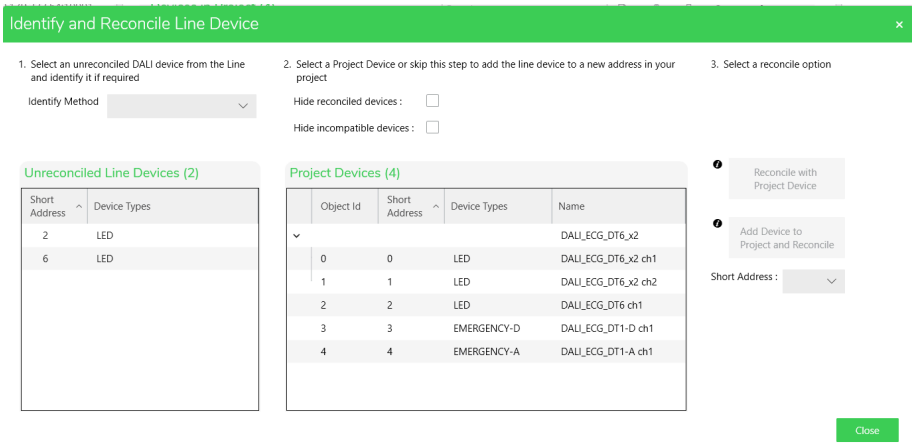
efficiently. It allows you to identify and reconcile the devices to the project directly from a single pop-up window.

Prerequisites: The **Line Devices** must be scanned.

1. Click in the **Line Devices**.



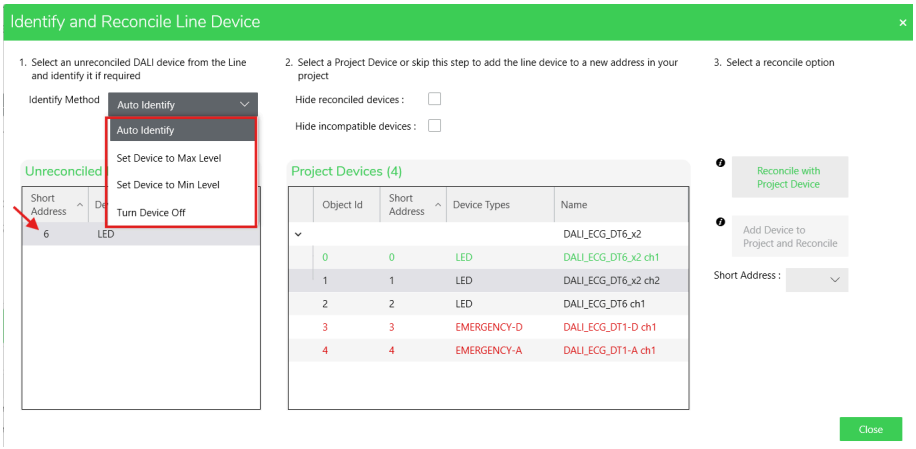
Identify and Reconcile Line Device pop-up is displayed.



Three sections are defined to identify and reconcile the line devices, they are:

- **Select an unreconciled DALI device from the Line and identify it if required**.
- **Select a Project Device or skip this step to add the line device to a new address in your project.**
- **Select a reconcile option**.

2. Select an **Unreconciled Line Device** and then select the **Identify Method** from the drop-down to identify the device.



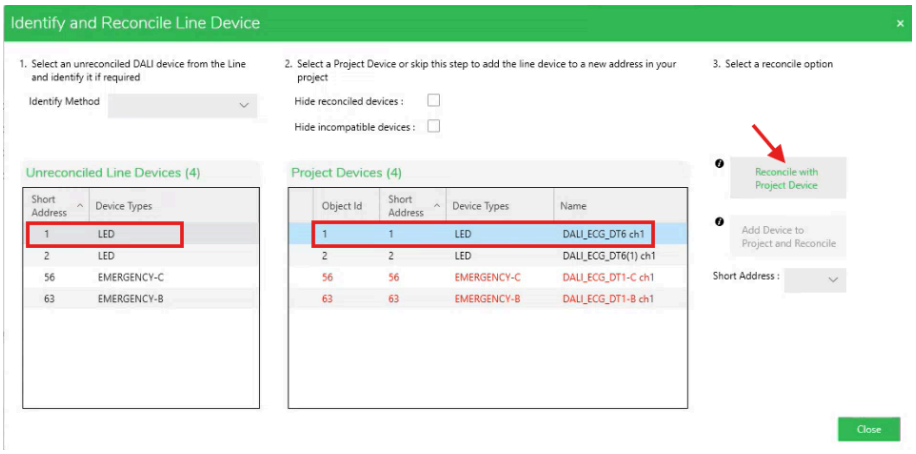
- If you select **Auto-identify**, the selected device flashes.
- If you select **Set Device to Max Level**, the selected device is set to maximum level.

  IMPORTANT: Once the device selection is changed, the previously selected device remains at its current level.
- If you select **Set Device to Min Level**, the selected device is set to maximum level.
- If you select **Turn Device Off**, the selected device will be turned off.

  NOTE: Use keyboard up/down arrows or mouse clicking for device selection. Only one row can be selected at a time.

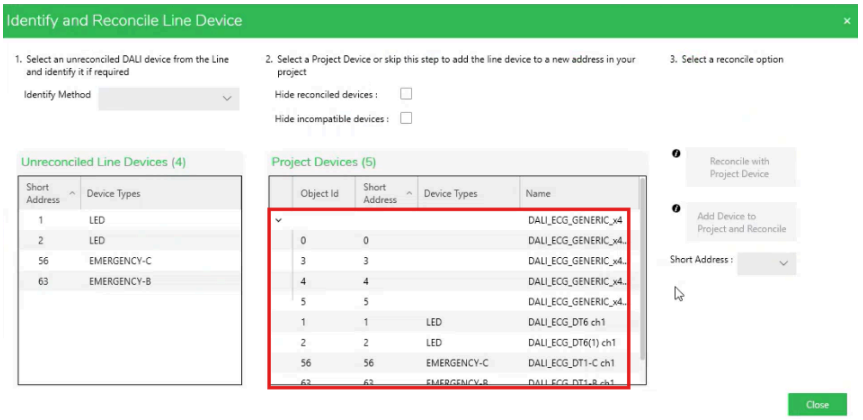
3. To reconcile the project devices, select the line device to reconcile with the project device and then click **Reconcile with Project Device**.

   NOTE: The **Reconcile with Project Device button** is enabled only when an unreconciled line device and valid project device are selected.

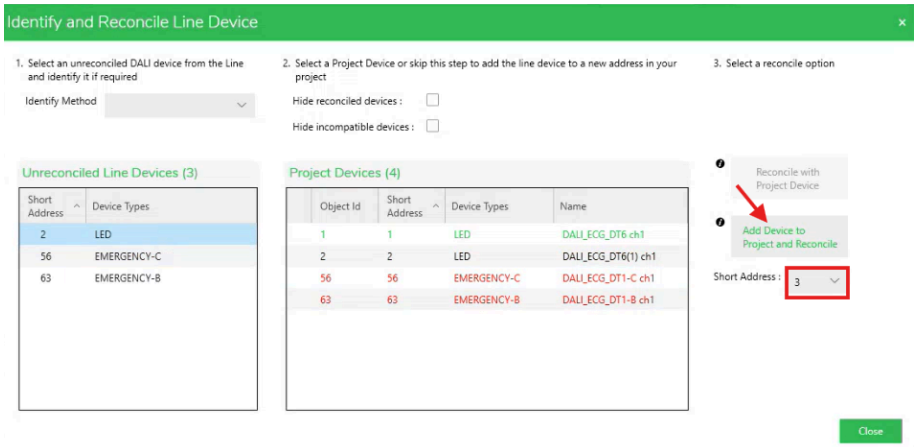


In the **Project Devices** table, the reconciled devices are displayed in green and incompatible project device types are displayed in red.

- Select **Hide reconciled devices** check box to hide the reconciled devices from the **Project Devices** table.
- Select **Hide incompatible devices** check box to hide the incompatible devices from the **Project Devices** table.
- The project devices which are a part of multi-channel device are grouped and displayed in expanded/collapsed format.

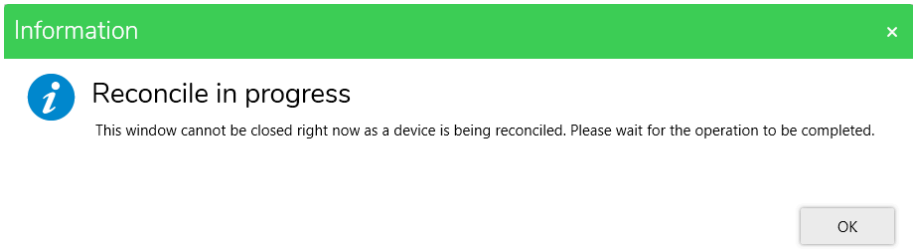


4. If you don't want to reconcile the project devices, you can directly select the **Short Address** from the drop-down and then click **Add Device to Project and Reconcile** to add the device to project and perform reconciliation.

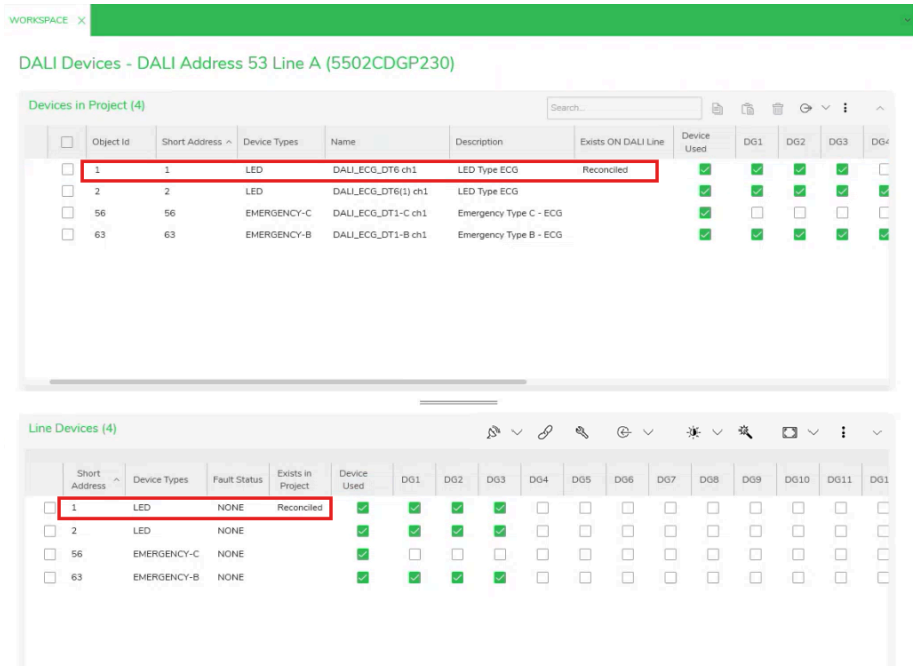


NOTE: Only the available, unused short addresses for the DALI line will be listed in the drop-down.

IMPORTANT: If you try to close the **Identify and Reconcile Line Device** pop-up when reconcile is in-progress, an **Information** pop-up is displayed.



5. Once the required configuration is done, click **Close**. The **WORKSPACE** window refreshes and displays the latest reconciled devices.



Line Devices

The **Line Devices** section displays the DALI ECG that is physically connected to the DALI-2 gateway.

NOTE: To communicate with the Interface, C-Bus Interface must be linked to the C-Bus Network.

Fields	Description
Object ID	Displays the object ID which ranges between 0-63.
Short Address	Displays the short address of the device (the physical device address) that ranges between 0–63.
Device Types	Displays the type of the device.
Faulty Status	Displays the applicable faulty status if the device has any faults.
Name	Displays the name of the device.
Description	Displays the brief description of the device.
Exists in Project	Displays **Yes**, if device is reconciled with a project device else displays **No**.
DG (DALI Groups 1–16)	Displays the selected DALI groups for each DALI device which is read-only.
Application	Displays the application address assigned to the selected device.
C-Bus Group	Displays the C-Bus group address assigned to the selected device.

The below operations can be performed in the **Line Devices** section:

- Scan Devices, page 138
- Extract DALI Devices from Network to Project, page 160
- Auto Identify, page 140
- Toggle On/Off for Single DALI Line Device, page 141
- DALI Line Toggle On/Off, page 146
- Identify, page 151
- Re-Read Device, page 152
- Address All Unaddressed, page 155
- Reset All Devices, page 158
- Discover Faults, page 155
- DALI Broken Devices, page 156
- DALI Missing Devices, page 157
- DALI Duplicate Devices, page 157
- Sort DALI Devices, page 159
- Remove Devices, page 159
- Replace Devices, page 160

Scan Devices

Prerequisites: The DALI-2 gateway must already be added and DALI line must be selected before scanning.

The scan option identifies the DALI ECG devices connected to the DALI-2 gateway. The following are the scan types:

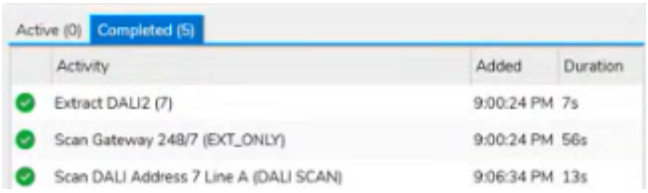
- DALI Scan
- DALI Device Type Scan
- Read DALI Gateway

DALI Scan

DALI Scan gathers information about DALI devices including their short address, device types, and DALI Group properties.

1. Click to scan.

2. Navigate to **DEPLOYMENT QUEUE** window to view the DALI scan.

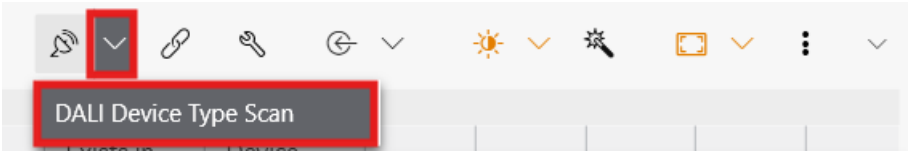


3. You can view DALI Group, DALI Scene, DALI device levels properties (Min, Max, Recovery & Fail) in the **PROPERTIES** window.

DALI Device Type Scan

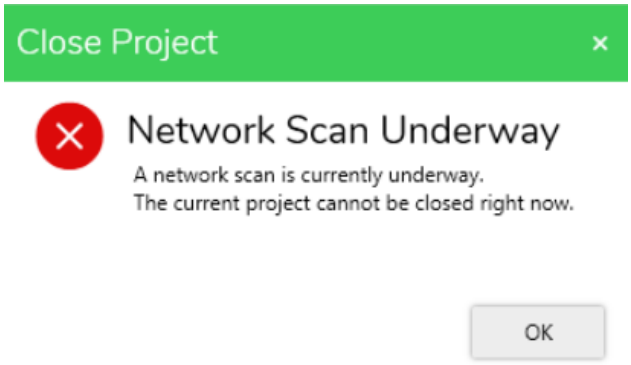
This scan is performed to obtain basic DALI device information such as the short address and device types.

1. To use the DALI Device Type Scan (default scan), click the drop-down and select **DALI Device Type Scan**.



2. You can address all unaddressed devices, discover all devices connected to the DALI gateway, and all missing, duplicate and broken devices.

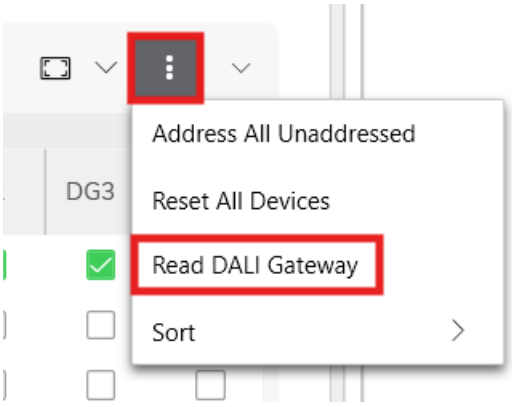
   IMPORTANT: Do not close a project while scanning is in progress.



Read DALI Gateway

This scan is performed to read and retrieve the contents of the C-Bus DALI-2 gateway including the programming of both the C-Bus gateway and all DALI devices.

1. Click ⋮ and select **Read DALI Gateway** to scan. You can scan both DALI lines, perform DALI device type scan, DALI scan, view serial number and GTIN number, all DALI & C-Bus properties and it allows you to fully extract DALI devices and rebuild the project from scratch.



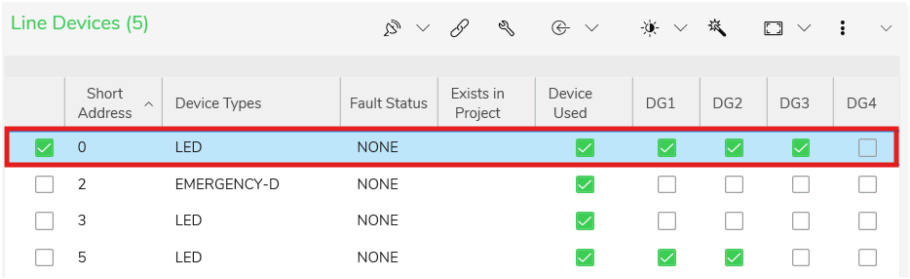
Auto Identify

Prerequisites: The line devices must be scanned.

The Auto Identify function allows you to identify live devices on the line.

1. Select the device in **Line Devices** and click .

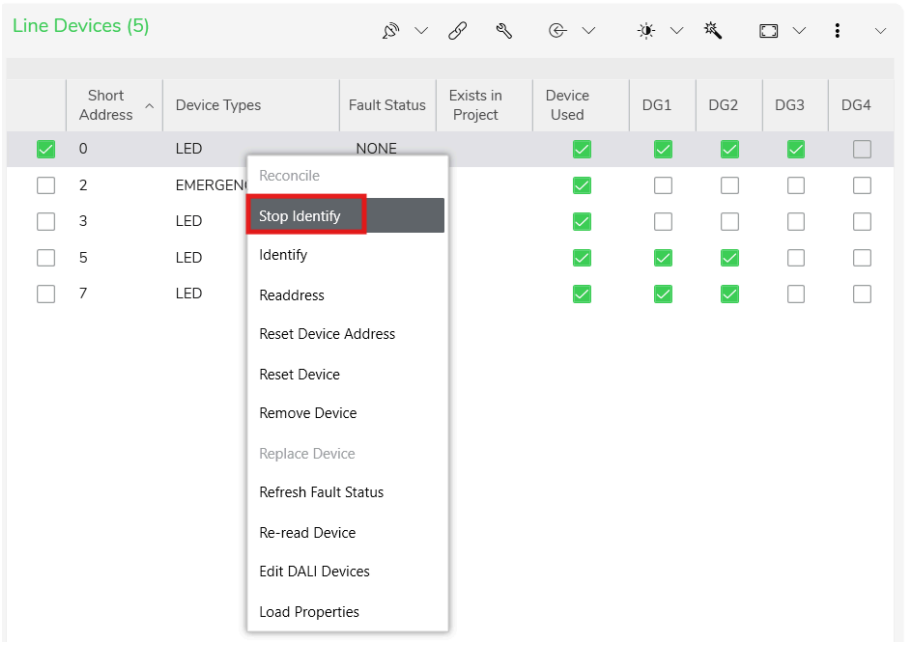
   NOTE: The **Auto Identify** icon turns green when it is ON.



2. Once identified, the physical device begins to flash on and off until it times out or until another device is selected.

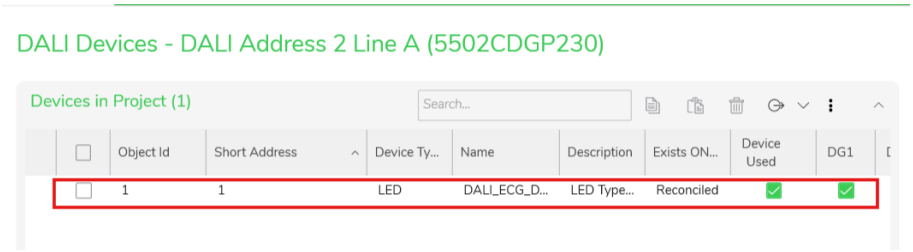
   NOTE: Emergency devices have a 20 second time-out to stop.

3. To stop a device from identifying, right-click on the device name and select **Stop Identify** from the list.



IMPORTANT: All the devices have a time-out of 30 seconds. You can stop identifying DT6, DT8, and generic device types manually, but you cannot stop DT1 types until their time-out period expires.

4. To match the short address of line device and network device, select and right-click the identified device in **Devices in Project** and choose **Reconcile**.

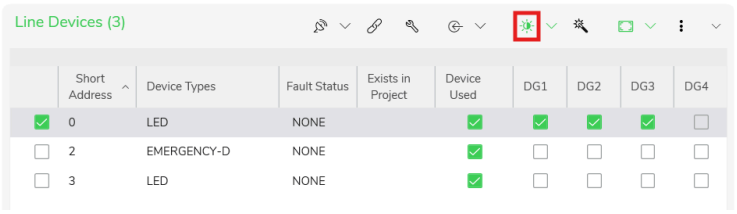
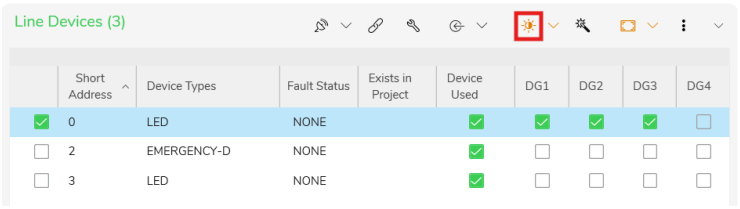
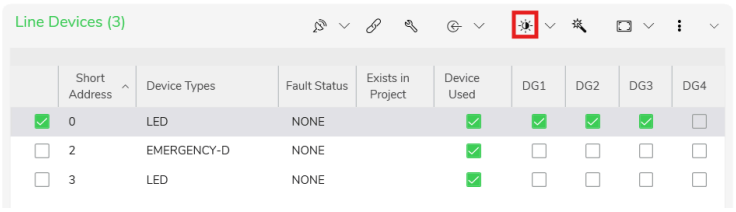


Toggle On/Off for Single DALI Line Device

The Toggle On/Off icon is used to adjust brightness, contrast and to control or identify a DALI light on a DALI Line. You can set the device to its maximum or minimum level or turn off, making it easier to locate the light in a room, zone, or an area.

1. Select the device in the **Line Devices** section and click .

2. The below table describes the control functions of the toggle button according to the **DALI Setting** in the Main menu. For more information, refer DALI Settings, page 52.

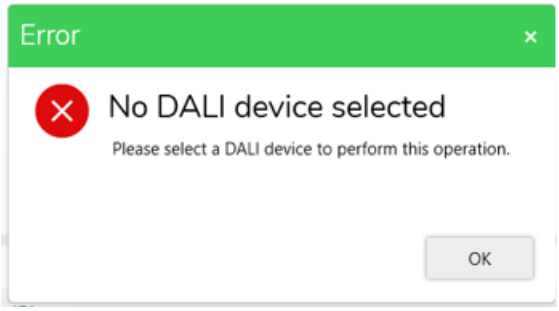
Control Function	Color of Toggle On/Off icon	UI
If you set the button to **On at Max Level**	Changes to Green	
If you set the button to **On at Min Level**	Changes to Orange	
If you set the button to **Off**	Changes to Grey	

NOTE: The keyboard shortcuts are functional only when your working with DALI line devices. Use the below shortcuts keys to control the **Toggle On/Off** icon:

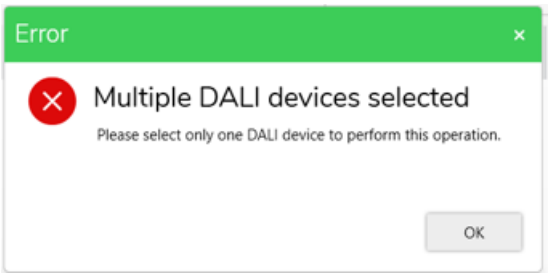
- Press Alt+ M to set maximum level for a DALI device
- Press Alt+ O to OFF the DALI device
- Press Alt+ N to set minimum level for a DALI device

Below are the error scenarios:

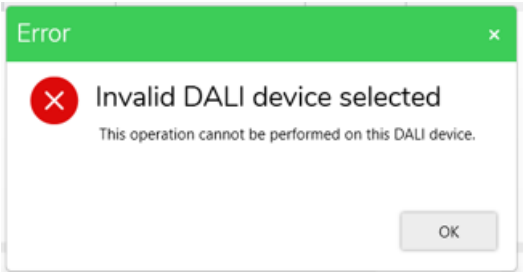
- If you click the toggle On/Off icon/time value sub-menu or use a keyboard shortcut without selecting DALI device from the **Line Devices** section, the following error message appears.



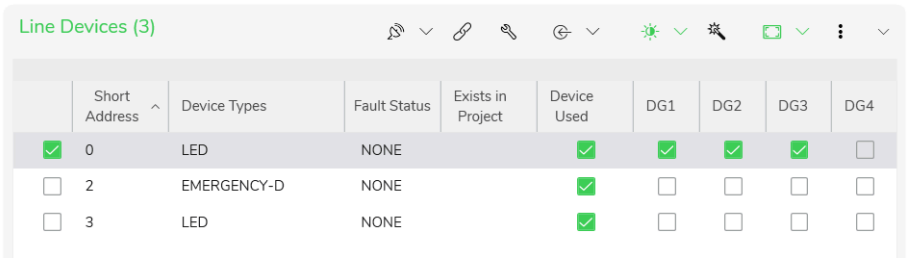
- If you click the toggle On/Off icon/time value sub-menu after selecting more than one DALI device, the following error message appears.



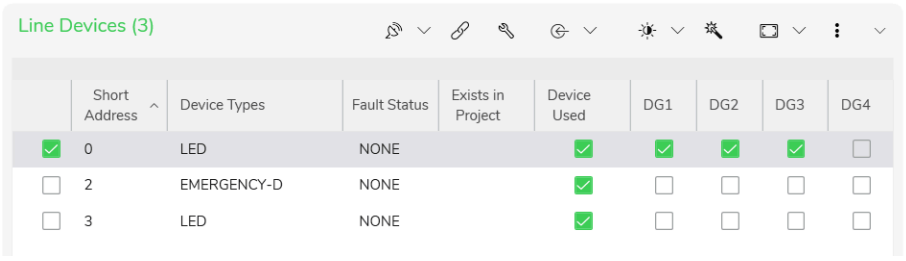
- If you click the toggle On/Off icon/time value sub-menu after selecting a DALI emergency device type DT1-C or DT1-D, the following error message appears.



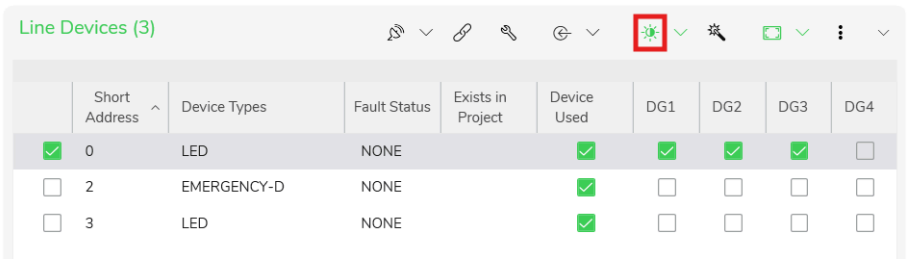
3. Turn on the toggle On/Off icon to set the selected live DALI device to its maximum level, when the **DALI SETTINGS** in the main menu is set to default **Off / On at Max Level**.



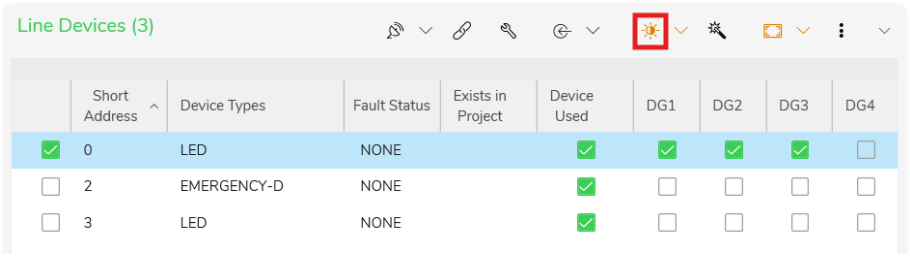
4. Turn off the toggle On/Off icon to turn off the selected DALI device, when the **DALI SETTINGS** is set at **Off / On at Max Level**.



5. Click the toggle On/Off icon while it's in the OFF state (indicated by black) to set the selected DALI device to its maximum level (indicated by green), when the **DALI SETTINGS** is configured to **On at Min Level / On at Max Level**.



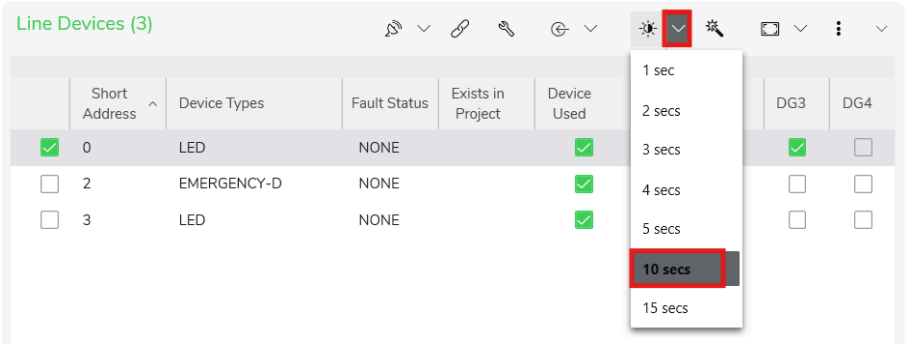
6. Click the toggle On/Off icon while it's in the ON state (indicated by green) to adjust the selected live DALI device to its minimum level (indicated by orange), when the **DALI SETTINGS** is configured to **On at Min Level / On at Max Level**.



Flash Function for Live DALI Devices:

- Use the time value in toggle on/off for flashing a live DALI device.
- Flash the device at a user-defined time interval to locate it with minimal disturbance to the environment.
- Flash the device using either the MIN/MAX brightness method or the traditional OFF/ON method.
- Continue flashing the device without the automatic timeout that applies to the standard Identify function.

7. Select a time value in the submenu to start the flash sequence. The live DALI device cycles between Off/On states or Min/Max levels.



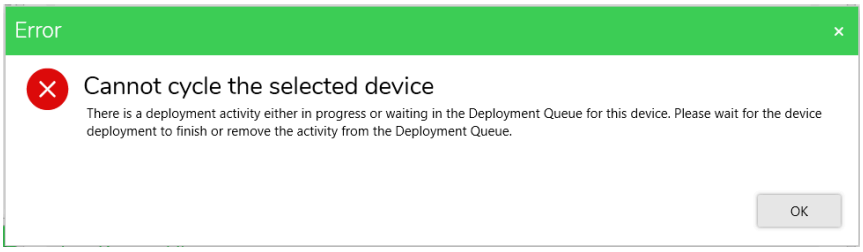
NOTE: If the device is currently on, it turns off before the flash sequence starts.

8. Below are the scenarios for time value behavior:
   - The selected time value is cleared only if you switch to another workspace from the current DALI Line workspace.
   - The time value is retained when the flash sequence is stopped:
     - Manually by you
     - By an error pop-up (if a non-compatible device is selected)
     - By an error pop-up (if multiple devices are selected)
9. You can start/stop the flash function using a keyboard shortcut **Alt+F**.
   - The last selected time value is retained when the flash function is invoked via the keyboard shortcut.
   - If no time value is selected, the default value is one second.
10. You can stop the flash in any of the following ways:
    - Click the toggle On/Off button.
    - Use the keyboard shortcut:
      - If the DALI setting is **Off/On at Max Level**, press **Alt+O**, **Alt+M**, and **Alt+F**.
      - If the DALI setting is **On at Min Level / On at Max Level**, press **Alt +N**, **Alt+M**, and **Alt+F**.
    - De-select the live DALI device.

11. Select another compatible device with the mouse.
    - If you select a different device using the mouse while a flash sequence is running, the flash function stops for the previously selected device and starts for the newly selected one using the same time interval.

      NOTE: The previous device remains in its current state (on or off) when the flash stops.
12. Select an incompatible device with the mouse.
    - If you select a device that is not compatible with live control while a flash sequence is running, the flash function stops for the previously selected device and an error pop-up appears **Invalid DALI device selected. This operation cannot be performed on this DALI device.**
13. Navigate with the keyboard (up/down arrow) to an incompatible device.
    - If you use the arrow keys to select a device that is not compatible with live control while a flash sequence is running, the incompatible device is skipped. The flash continues for the next compatible device in the list.
14. Navigate to the beginning or end of the list with the keyboard (up/down arrow).
    - If the selected device is compatible with live control, the flash function continues.
    - If the selected device is not compatible, the flash function stops for the previous device and an error pop-up appears.
15. The flash sequence for a selected device is stopped automatically when you:
    - Move away from the current DALI line to another workspace.
    - Start any DALI scan for the DALI line.
    - Run Identify or Auto-identify, Extract, Deploy, Extract All or Deploy All, Re-read Device and Reconcile function.
    - Change or save the DALI device toggle button behaviour setting in **DALI SETTINGS**.
    - Load the selected live device into the **Property Editor**.
    - Click **Save** in the **Property Editor** while the selected live device is loaded (this action invokes the deployment activity for the selected device).
    - Click **Save** in the **Property Editor** while the reconciled project device is loaded and **Deploy to Network** checkbox is selected (this action invokes the deployment activity for the selected live device).
16. Select another device with the mouse.
    - If you select a device while a flash sequence is running, the flash function stops for the previously selected device and an error pop-up appears **Multiple DALI devices selected. Please select only one DALI device to perform this operation**.
17. Select another device with the keyboard arrow keys.
    - If you select another device when flash sequence is **In-progress** or **Waiting** activity exists for the same DALI device in the Deployment Queue, that device is skipped and flash function is continued for the next device in the list.
    - When the flash function is stopped for the previously selected device, it leaves that device in its current state (on or off).

18. Error pop-up is displayed in the following scenarios:
    - When the flash function is started for a compatible device type using the mouse while an **In Progress** or **Waiting** activity exists for the same DALI device in the **Deployment Queue**.
    - When a flash sequence is in-progress and you select another device using the mouse while an **In Progress** or **Waiting** activity exists for the same DALI device in the **Deployment Queue**.
    - When a flash sequence is in-progress and you navigate to the beginning or end of the device list using the keyboard arrow keys while an **In Progress** or **Waiting** activity exists for the same DALI device in the **Deployment Queue**.



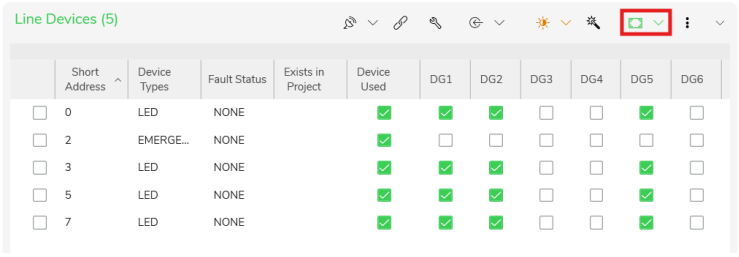
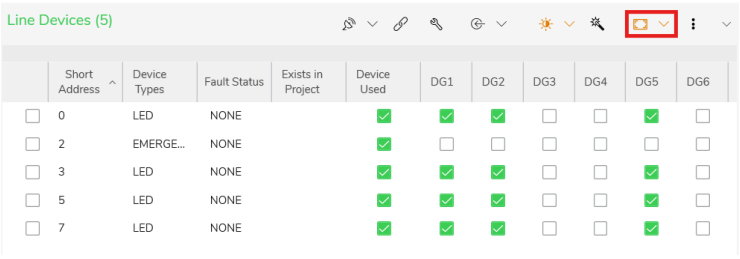
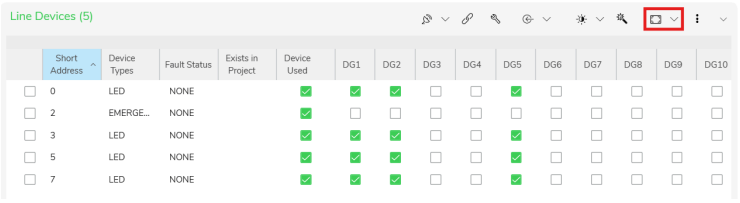
DALI Line Toggle On/Off

The Toggle On/Off icon is used to control DALI devices on a specific DALI Line enabling you to identify the line and perform functional tests on all connected devices simultaneously. You can set all the devices to its maximum or minimum level or turn off, making it easier to locate the light in a room, zone, or an area.

This feature helps confirm basic control operations and validate correct wiring and communication across the DALI Line. It is useful when physical access to the C-Bus DALI-2 Gateway front panel in the switchboard is not possible, allowing the same control functions to be executed remotely through the software interface.

1. In the **Line Devices** section, click .

2. The below table describes the control functions of the toggle button according to the **DALI Setting** in the Main menu. For more information, refer DALI Settings, page 52.

Control Function	Color of Toggle On/Off icon	UI
If you set the button to **On at Max Level**	Changes to Green	
If you set the button to **On at Min Level**	Changes to Orange	
If you set the button to **Off**	Changes to Grey	

NOTE: The keyboard shortcuts are functional only when your working with DALI Line. Use the below shortcut keys to control the **Toggle On/Off** icon:

- Press Alt+ A to set maximum level for a DALI Line
- Press Alt+ Q to OFF the DALI Line
- Press Alt+ S to set minimum level for a DALI Line

Only two shortcuts are active to suit the mode defined.

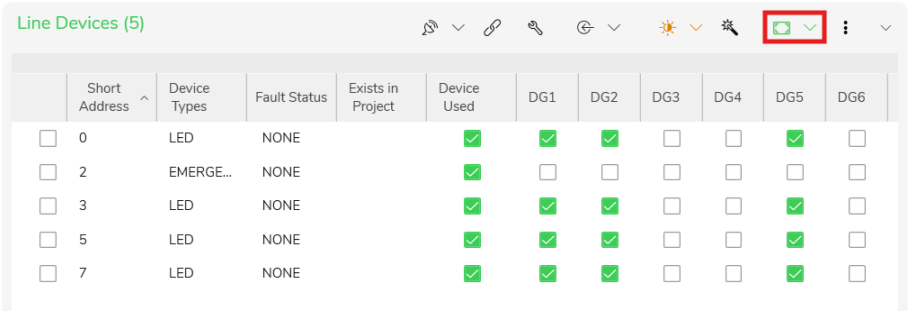
Below are the shortcut rules for DALI Line:

- Keyboard shortcuts activate only when they match the behavior of the **DALI Line toggle Off/On** buttons.

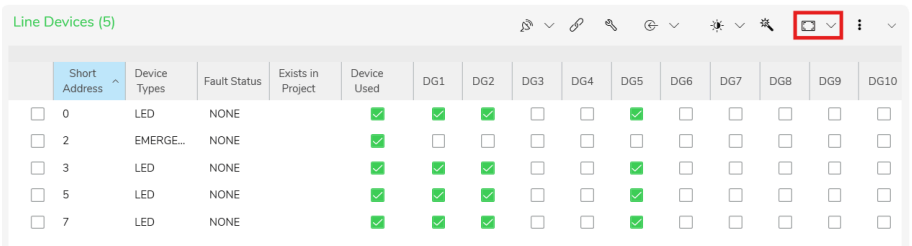
DALI Setting	Active and Non-Active Shortcuts
Off / On at Max Level	Off (Alt+Q) and maximum level (Alt+A) shortcuts are active, and minimum level (Alt+S) is inactive.
On at Min Level / On at Max Level	Minimum level (Alt+S) and maximum level (Alt+A) shortcuts are active, and Off (Alt +Q) is inactive.

- Using a keyboard shortcut, updates the state and color of the **DALI Line toggle Off/On** button.
- If you click the **DALI Line toggle Off/On** button, the applicable level is set immediately, regardless of the current state of the DALI lights on the DALI Line.
- You can invoke the **DALI Line toggle operation** whether one, multiple, or no live DALI Devices on the DALI Line are selected.
- The DALI Line toggle operation applies to all DALI devices on the DALI Line except **DALI Emergency device types DT1-C and DT1-D**, which are not compatible.

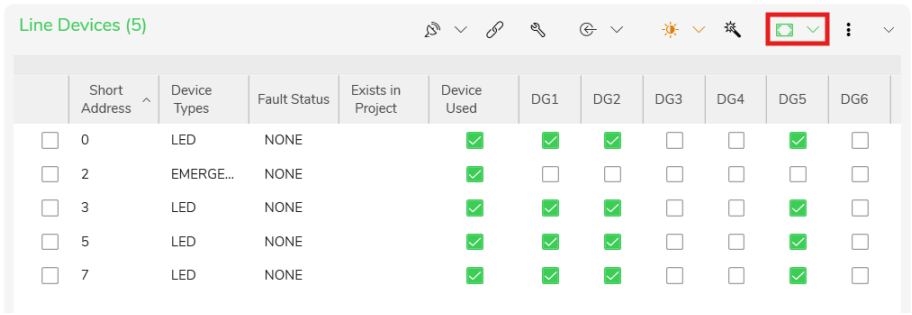
3. Turn on the toggle On/Off icon to set the DALI Lines to its maximum level, when the **DALI SETTINGS** in the main menu is set to default **Off / On at Max Level**.



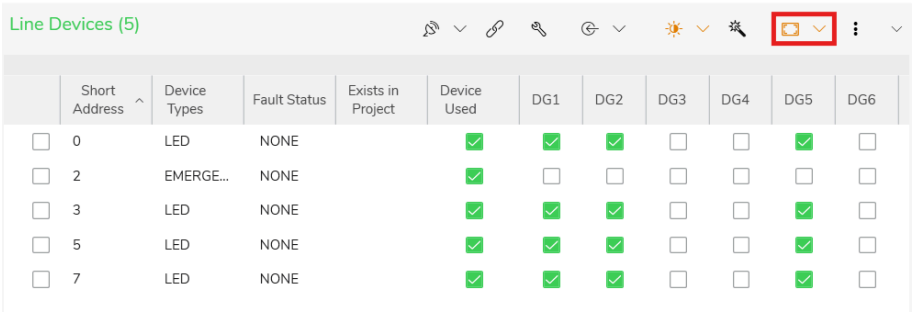
4. Turn off the toggle On/Off icon to turn off the DALI Lines, when the **DALI SETTINGS** is set at **Off / On at Max Level**.



5. Click the toggle On/Off icon while it's in the OFF state (indicated by grey) to set the DALI Lines to its maximum level (indicated by green), when the **DALI SETTINGS** is configured to **On at Min Level / On at Max Level**.



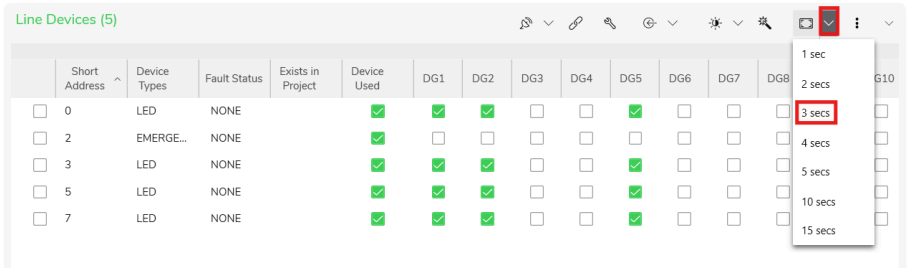
6. Click the toggle On/Off icon while it's in the ON state (indicated by green) to adjust all DALI Lines to its minimum level (indicated by orange), when the **DALI SETTINGS** is configured to **On at Min Level / On at Max Level**.



Flash Function for DALI Lines:

- Use the time interval in toggle on/off for flashing a live DALI Line.
- Flash the Line at a user-defined time interval to locate it with minimal disturbance to the environment.
- Flash the Line using either the MIN/MAX brightness method or the traditional OFF/ON method.
- Continue flashing the Line without the automatic timeout that applies to the standard Identify function.

7. Select a time interval in the submenu to start the flash sequence. The DALI Line cycles between Off/On states or Min/Max levels.



- When the **DALI setting** is **Off / On at Max Level**, the DALI Line cycles between **Off** and **On** using the time interval you selected.
- When the **DALI setting** is **On at Min Level / On at Max Level**, the DALI Line cycles between **Min** and **Max** levels using the time interval you selected.

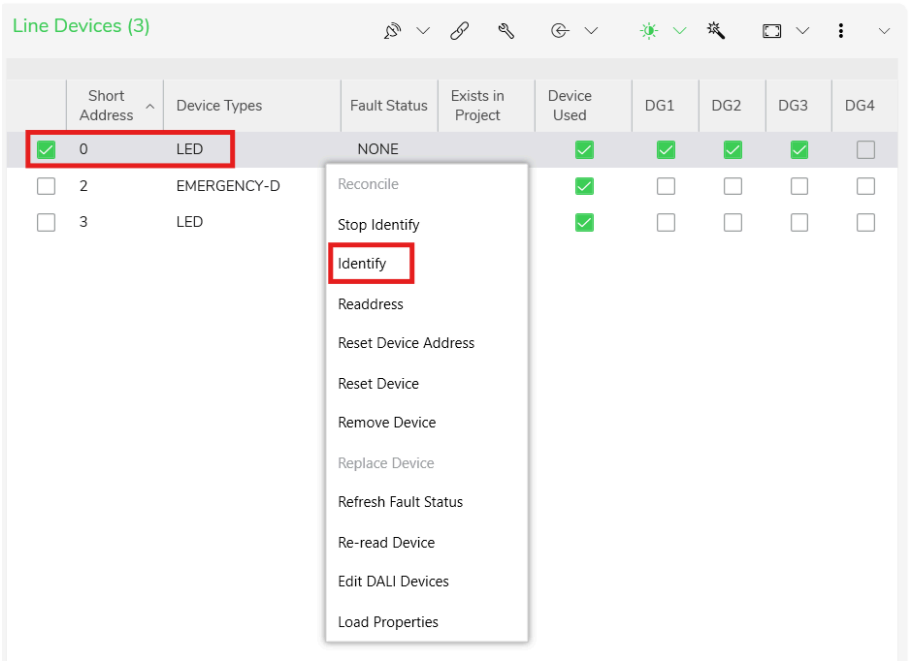
NOTE: If the device is currently on, it turns all the DALI devices off before the flash sequence starts.

8. Below are the scenarios for time interval behavior:
    - The selected time interval is cleared only if you switch to another workspace from the current DALI Line workspace.
    - The time interval is retained when the flash sequence is stopped manually by you.
    - The time interval you selected applies to all DALI Line actions, including **Off/On**, **Min/Max**, and **Flash** control, and any change you make in one action updates the time interval for the others.
9. You can start/stop the flash function using a keyboard shortcut **Alt+D**.
    - The last selected time interval is retained when the flash function is invoked via the keyboard shortcut.
    - If no time interval is selected, the default value is one second.
    - If you use **ALT+Q**, **ALT+A**, and **ALT+D**, when the **DALI setting** is **Off / On at Max Level**.
    - If you use **ALT+S**, **ALT+A**, and **ALT+D**, when the **DALI setting** is **On at Min Level / On at Max Level**.
10. The flash sequence for all DALI Lines is stopped automatically when you:
    - Click the **DALI Line toggle Off/On** button.
    - Move away from the current DALI Line to another workspace.
    - Start any DALI scan for the DALI Line.
    - Run Identify or Auto-identify, Extract, Deploy, Extract All or Deploy All, Re-read Device and Reconcile function.
    - Change or save the **DALI Device & DALI Line (Line Devices section) toggle button behaviour** setting in the **DALI SETTINGS**.
    - Load the selected live device into the **Property Editor**.
    - Click **Save** in the **Property Editor** while the selected live device is loaded (this action invokes the deployment activity for the selected device).
    - Click **Save** in the **Property Editor** while the reconciled project device is loaded and **Deploy to Network** checkbox is selected (this action invokes the deployment activity for the selected live device).
11. When you start a **DALI Line flash** operation while **Auto-Identify** is active for a live DALI device:
    - The device stops identifying (blinking).
    - The **Auto-Identify** feature deactivates, and the **Auto-Identify** button returns to its off state (changing from green to grey with no tick icon).

Identify

You can identify the device using **Identify** function from the context menu.

1. Select the device in the **Line Devices** section, right-click on it and select **Identify** from the list.

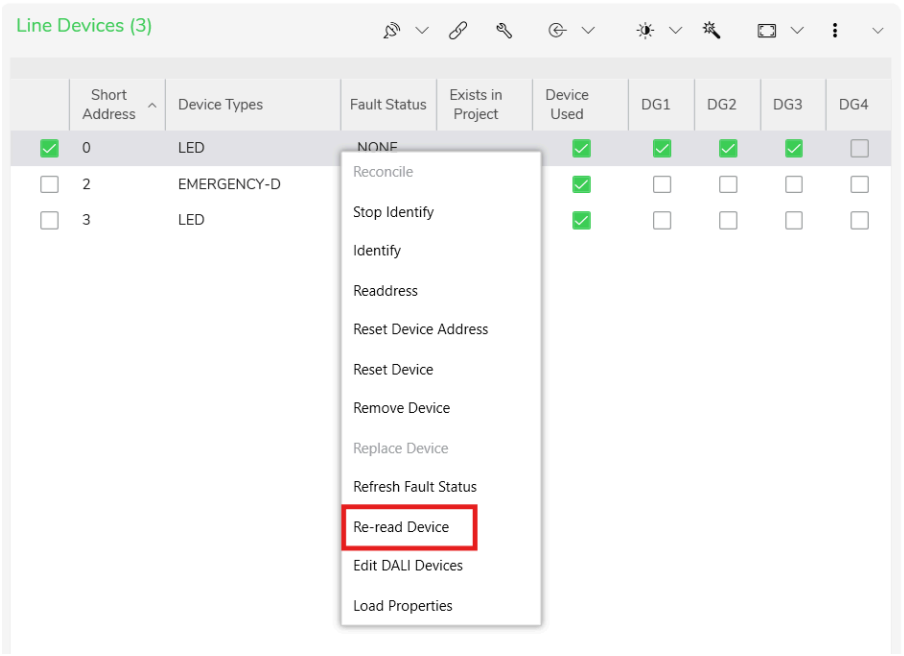


NOTE: If the physical device starts flickering, then the device has been identified.

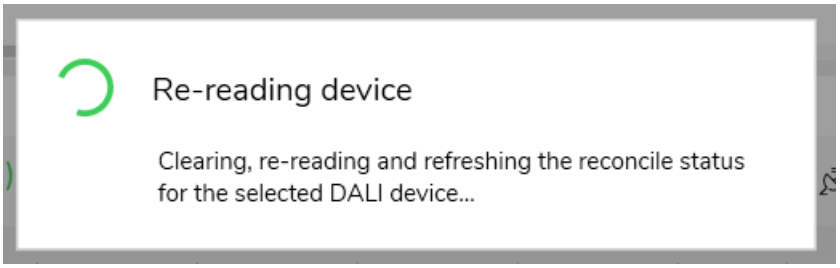
Re-Read Device

You can force the C-Bus DALI 2 Gateway to re-read a DALI 2 device at a specific short address when you suspect the displayed information is outdated or incorrect. This can be done by invoking a re-read function from the C-Bus commissioning software, using a new DALI 2 gateway command.

1. Select and right-click on the DALI device in the **Line Devices** section and then select **Re-read Device** from the available list of options to refresh, reload, or re-read a selected DALI device on the active DALI line.



The below pop-up appears.



After the **Re-read Device** operation is invoked, all information for the DALI device in the **Line Devices** section is cleared, except for the **Short Address** and **Fault Status**.

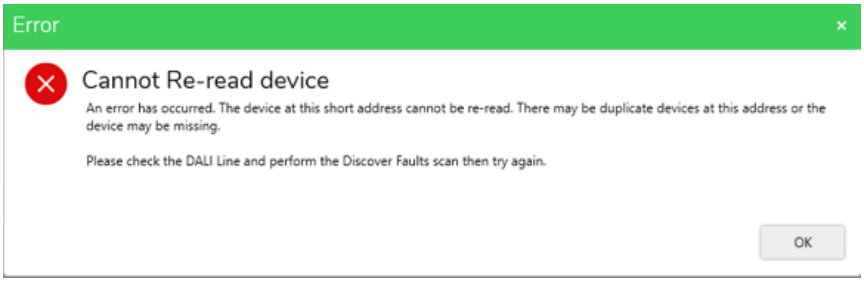
NOTE: You can invoke the **Re-read Device** option for a DALI device in the **Un-reconciled** state and **Reconciled** state. The **Re-read Device** option is disabled when:

- Fault status of the selected DALI device is DUPLICATE/MISSING.
- The C-Bus DALI-2 Gateway for the DALI line is not running firmware version 1.11.0 or higher.
- Multiple DALI devices are selected.
- DALI line has not been scanned.
- DALI line scan is in-progress.

2. Upon completion of the **Re-read Device** operation, the DALI device information is refreshed in the **Line Devices** section to display the current information for the live DALI device on the line, including all columns in the section.

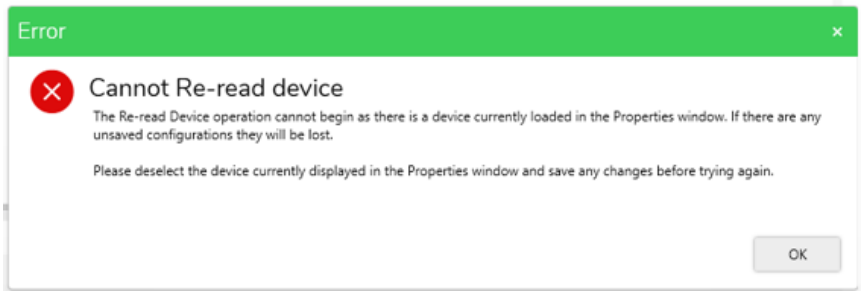
3. For a reconciled DALI device, upon completion of the **Re-read Device** operation, the device's **GTIN** and **Serial Number** are compared to the project device.
    - If both values are unchanged, the **Reconcile** status remains reconciled.
    - If either value is different, the device status is set to **Un-reconciled**.
4. Once the **Re-read Device** operation is complete, you can perform all usual operations/functions for the device such as loading device into the **Property Editor**, extract, deploy, readdress, identify, toggle on/off/flash, reconcile, and un-reconcile.
5. **Re-read Device** operation is performed directly on the DALI line and not through the Deployment Queue.
    - If a **Deployment Queue** activity is in progress, it waits until the activity is complete before starting the **Re-read Device** operation, without interrupting any activities in the queue.

6. Below are the error scenarios:
   - If the C-Bus DALI-2 Gateway returns a fail response (error code **FF**) during the **Re-read Device** operation, an error pop-up is displayed.

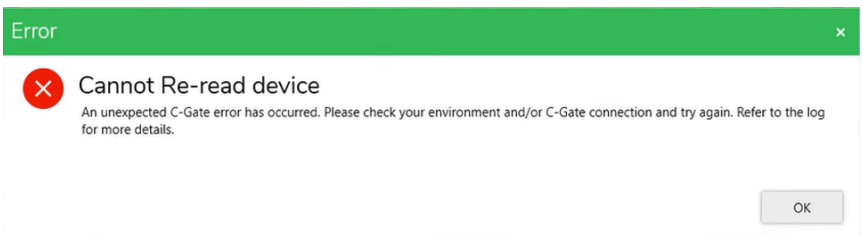


     - If the C-Bus DALI-2 Gateway returns a fail response (error code FF) during the **Re-read Device** operation, the system refreshes the DALI device information from the gateway and displays the latest information for that short address.
   - The **Re-read Device** operation cannot be invoked where an **In Progress** or **Waiting** activity exists for the same DALI device in the **Deployment Queue**. An error pop-up is displayed.

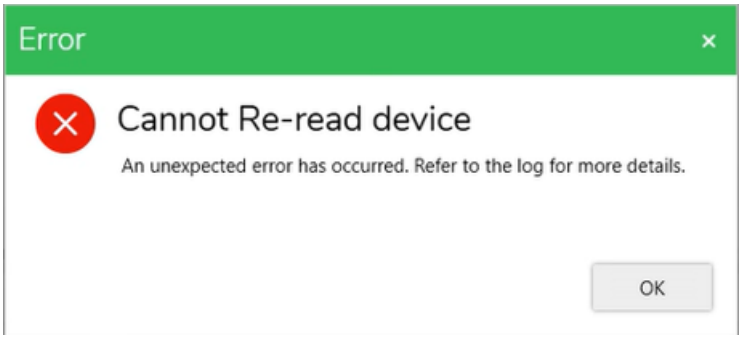
   - If you run the **Re-read Device** option for a DALI device that is flashing (live flash sequence), the flash sequence is stopped before starting the **Re-read Device** operation.
   - You cannot run the **Re-read Device** operation when the DALI device is loaded into the **Property Editor** (as a project device or live device) and an **In Progress** or **Waiting** activity exists in the **Deployment Queue**.



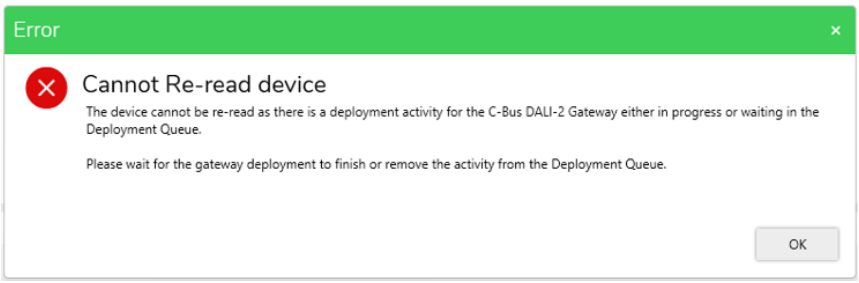
   -
   - If the **Re-read Device** operation causes a generic error or a C-Gate command failure, an error pop-up is displayed.



   - If the **Re-read Device** operation causes a generic error of any type, an error pop-up is displayed.



- You cannot invoke the **Re-read Device** operation from the C-Bus Devices workspace if an **In Progress** or **Waiting** activity exists for the same C-Bus DALI-2 Gateway device in the **Deployment Queue**.

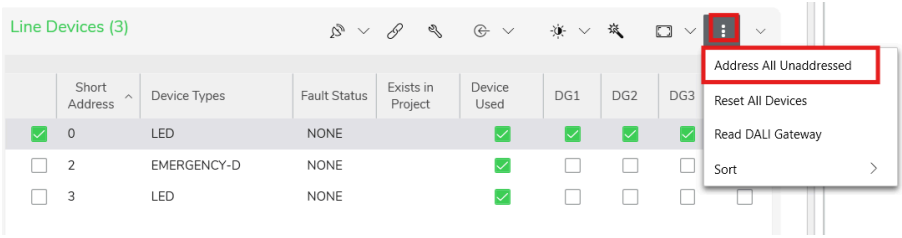


  - After you re-read a DALI device, the same device loads into the **Property Editor** immediately without requiring another scan/read, provided a Read DALI Gateway scan has not been performed.

Address All Unaddressed

When the DALI devices are scanned, the addresses are assigned automatically. If devices on the network do not have an address assigned, you can manually assign the addresses.

1. Select the device in the **Line Devices** section, then click ⋮ **> Address All Unaddressed**.

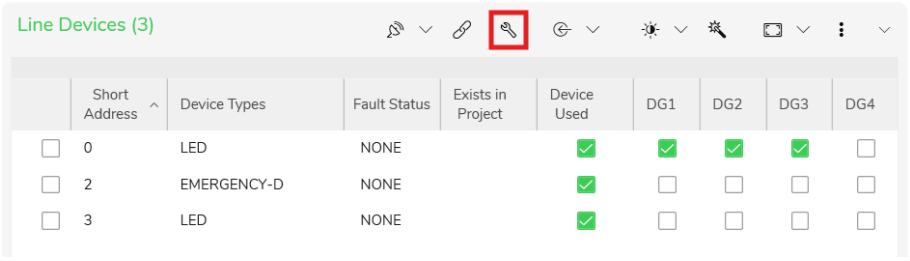


Discover Faults

Perform a dedicated scan when a fault condition with devices on a DALI line is suspected, such as short address duplicates, missing devices or broken devices.

To reconfirm that the faulty devices have been resolved, you can perform the Discover Faults.

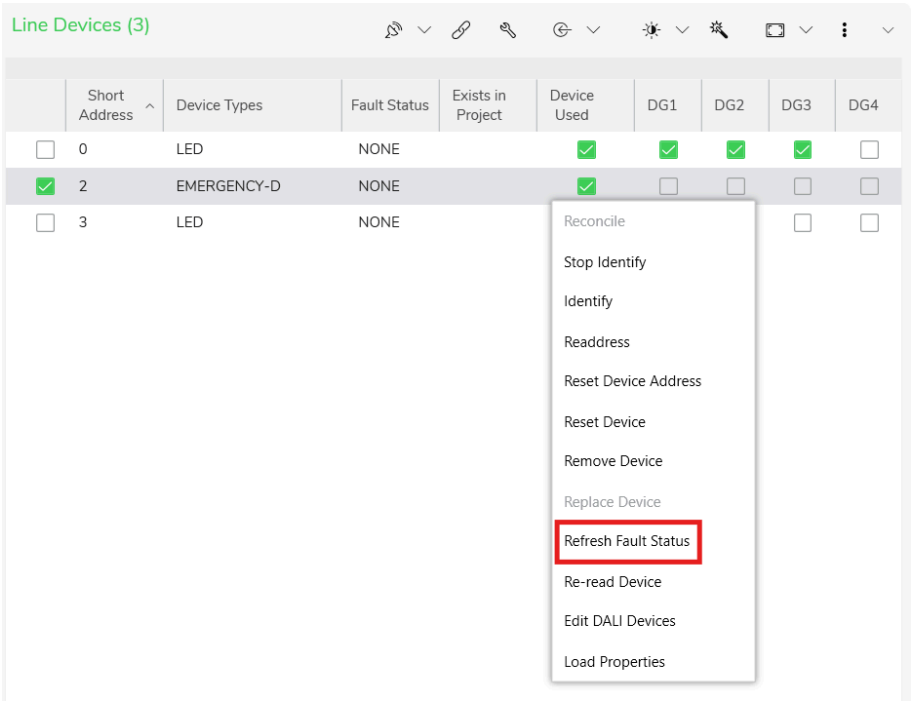
1. Click in the **Line Devices** section.



NOTE: A DALI device can have multiple fault statuses, which is resolved one at a time. The scanning takes a while depending on the number of devices on the DALI Line.

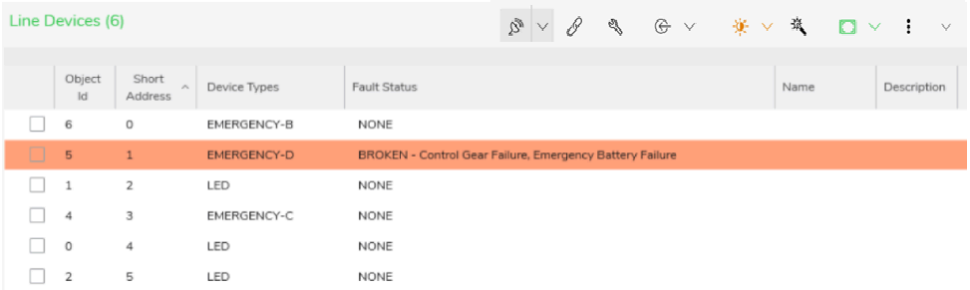
IMPORTANT: Make sure to fix the faults before refreshing fault status.

2. To update the status of fault devices, right-click on the device in the **Line Devices** section and then select **Refresh Fault Status** from the available list of options.



DALI Broken Devices

Physical defects in DALI devices result in a **Broken Device** status. For example, if the battery is removed from an emergency device, it triggers a broken fault status and displays the device as **BROKEN** and highlighted in orange color.



The broken fault device can be resolved by removing the device from gateway or by connecting the battery back to the device.

IMPORTANT:

- Remove the physical device before removing from **Line Devices** section.

  or,

- Fix the broken device and perform the scan again.

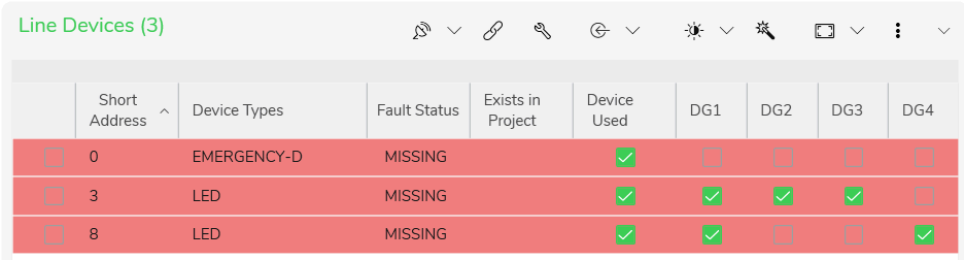
1. To remove the broken DALI device, right-click on **BROKEN** DALI device and then select **Remove Device** from the available list of options.

   IMPORTANT: Make sure all the faults have been resolved before proceeding with the commissioning process.

DALI Missing Devices

When you move the DALI devices from one DALI line to another and scan them in the former line, you discover a DALI missing device.

NOTE: The gateway displays a DALI device as missing if it has not received any response from the device, based on the number of times defined by you in the gateway configuration under each line's *Missing Device Threshold*. By default, the threshold is set to 2. If the gateway receives 2 reports indicating that the device is missing, it displays the device as **MISSING** and highlighted in rose color.



You can resolve the missing device issue by either removing the device from the line or replacing it. Once you apply either function and scan again, the discovered DALI device faults will be resolved.

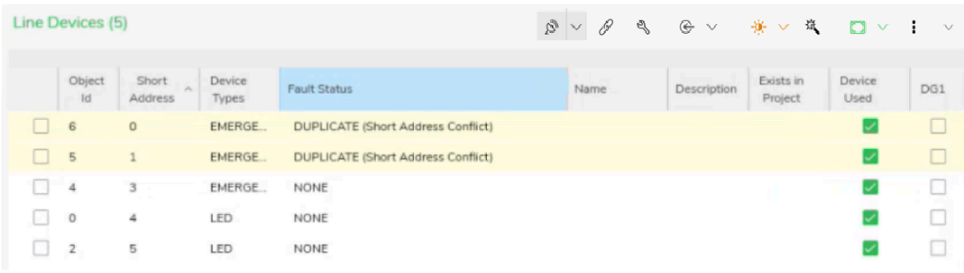
1. To remove the missing DALI device from line, right-click on it and then select **Remove Device** from the available list of options.
2. To replace the missing DALI device from line, right-click on it and then select **Replace Device** from the available list of options.

   NOTE: When you discover a missing device, the gateway notifies you by displaying a yellow indicator on the physical gateway device.

   IMPORTANT: When replacing the device, ensure that the new device is placed in the same location and connected to the same network as the existing device.

DALI Duplicate Devices

When two DALI devices have the same short address, scanning the DALI line results in DALI duplicate devices. You can resolve this duplicate device issue by resetting one of the devices. Duplicate devices are displayed as **DUPLICATE** and highlighted in pale yellow color.



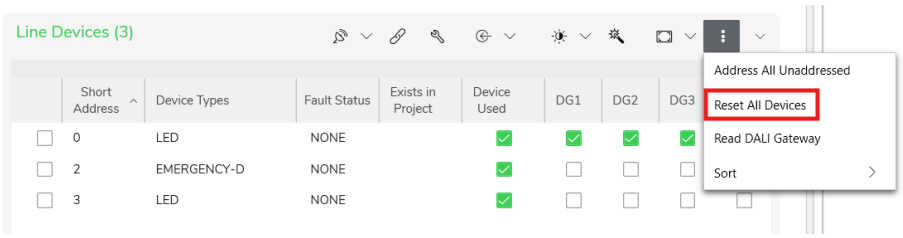
1. To reset a duplicate device, right-click on it and select **Reset Device** from the available list of options.
2. Once reset is done, re-scan the DALI line to discover the reset device.

   NOTE: The reset device will reset the short address and Object ID, and it will clear the device from the gateway memory. However, it does not reset the DALI group or DALI scene configurations.

Reset All Devices

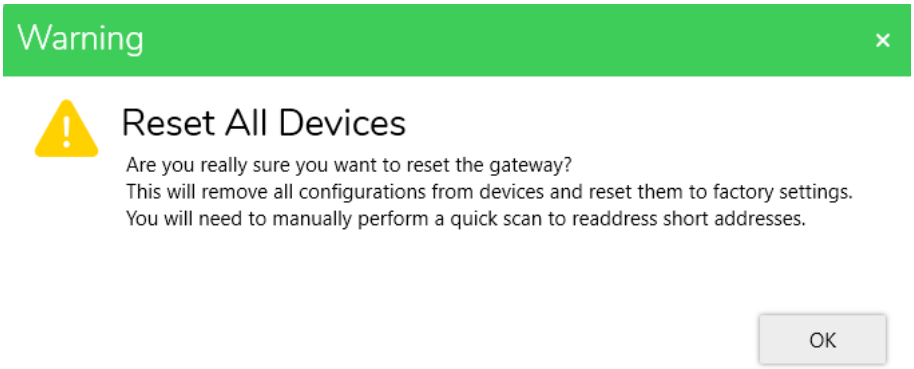
All DALI devices in the **Line Devices** section can reset their short addresses at the same time.

1. Select ⋮ > **Reset All Devices**.

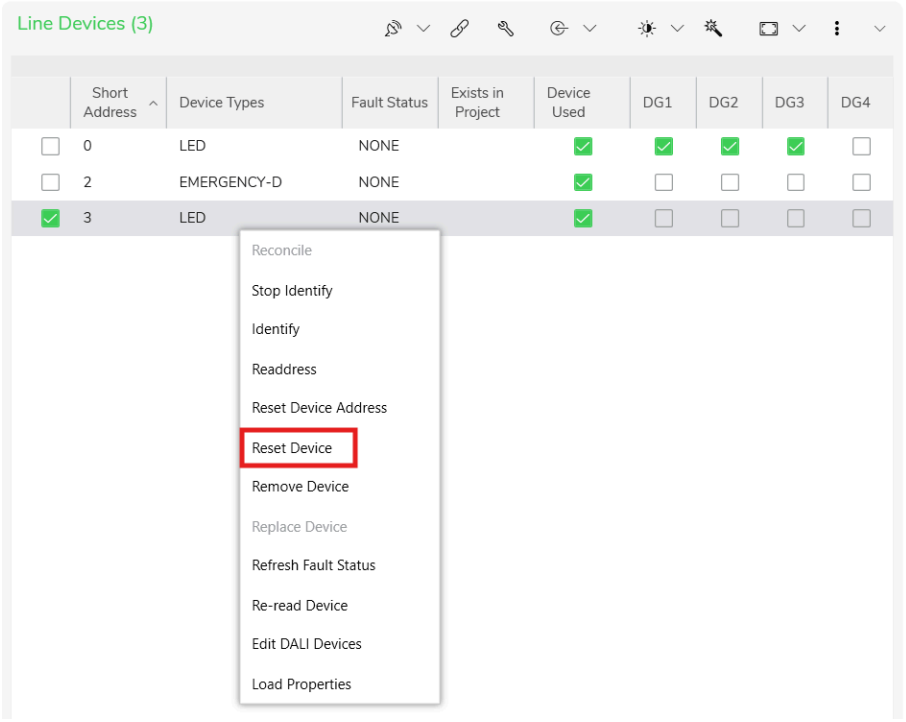


   NOTE: Reset All Devices function will reset all the short address and object ID, and it will clear the device from the gateway memory but does not reset the DALI group or DALI scene configurations.

2. A **Warning** pop-up appears. Click **OK** to proceed.



3. Select and right-click on the DALI device in the **Line Devices** section and then select **Reset Device** from the available list of options to perform an individual short address reset for a DALI device.

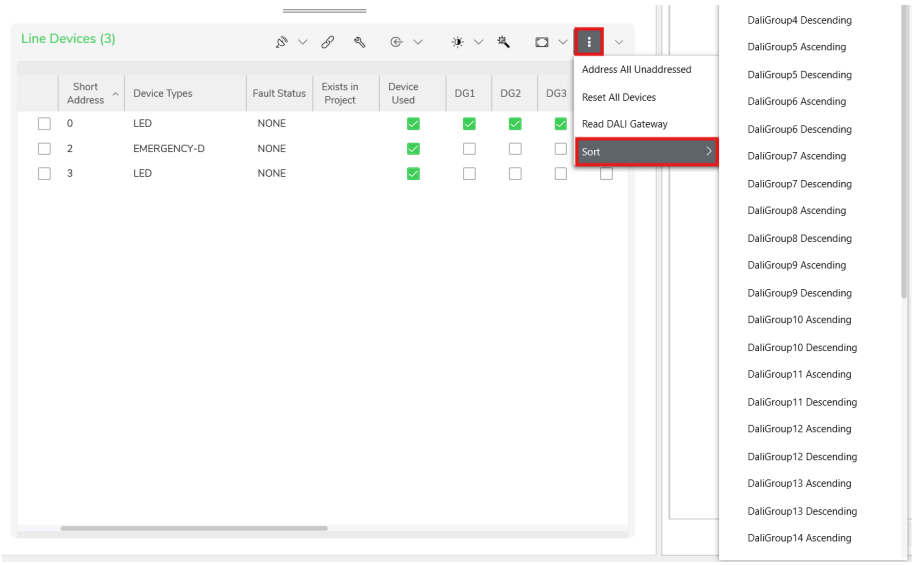


NOTE: After resetting the device(s), the reset device function will perform either a **DALI Device Type Scan** or **DALI Scan**.

Sort

Prerequisites: The DALI gateway and DALI devices must already be added in the network.

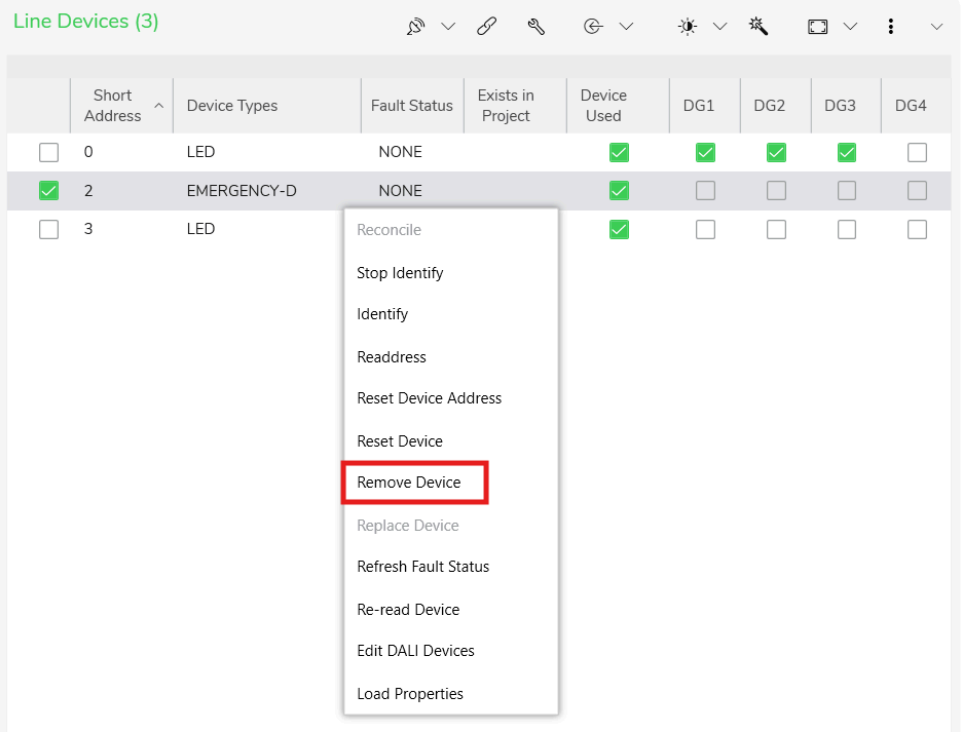
1. To sort the DALI devices in the live network, click ⋮ **> Sort** and then select an appropriate sort method.



Remove Device

When the DALI faults are discovered, the faulted devices can either be removed or replaced.

1. To remove the faulted DALI device, select and right-click on the DALI device in **Line Devices** section, and then select **Remove Device** from available list of options.



NOTE: Perform DALI Device Type Scan or DALI Scan after removing the device(s).

Replace Device

When the DALI faults are discovered, the faulted devices can either be removed or replaced with the new DALI devices which gets assigned with new short addresses.

1. To replace the faulted DALI device, select the DALI device in **Line Devices** section, right-click on it and then select **Replace Device** from the available list of options.

   NOTE: Perform DALI Device Type Scan or DALI Scan after replacing device (s).

To Extract DALI devices from Network to Project

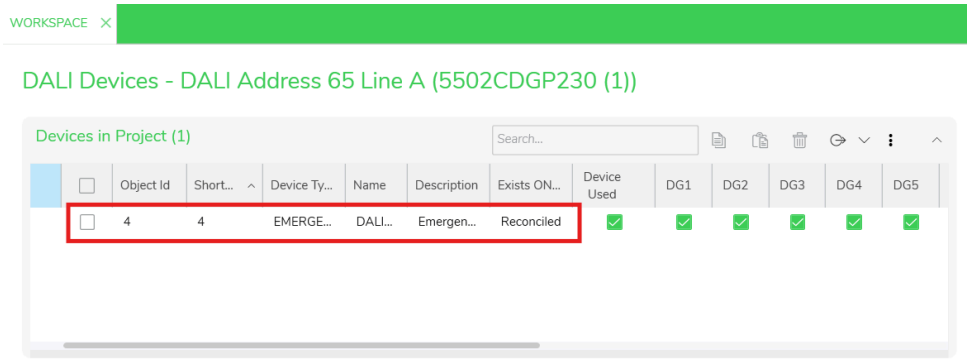
Prerequisites: Ensure DALI-2 gateway device is already added to the network and DALI line is selected. A full DALI line scan has to be performed.

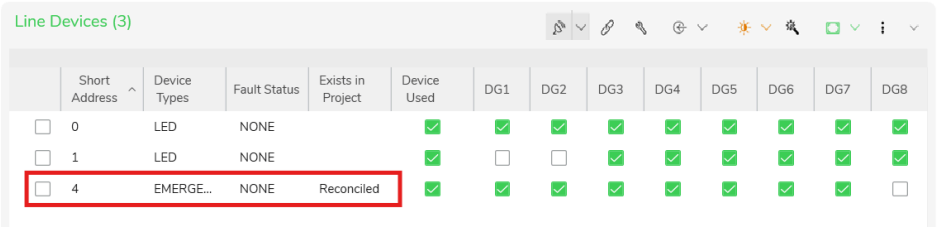
TIP: Reconciliation can also be done either by 50/50, page 129 process or by manually.

1. Scan the selected DALI line in the **Line Devices** section.
2. Select the DALI device that needs to be transferred from network to project.

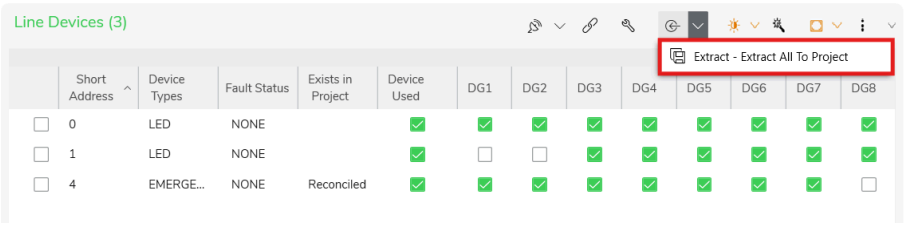
   IMPORTANT: If the DALI device is selected from the **Project** section, make sure the short address of the DALI device is same in both project and network. If not, readdress the device to match the same.

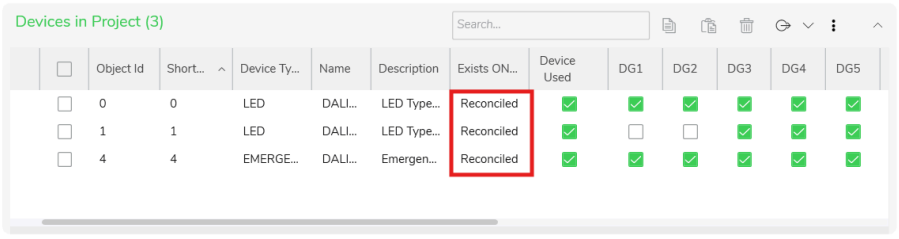
3. Click in the **Line Devices** section.

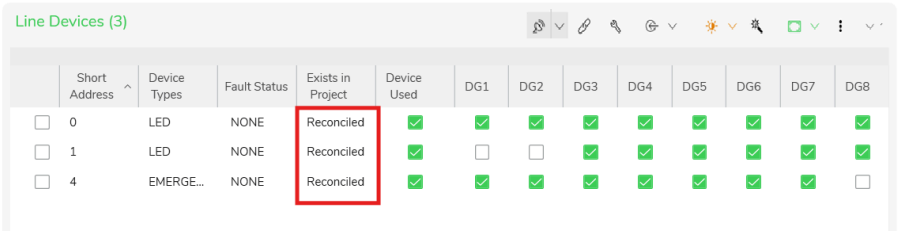




NOTE: Click **Extract All To Project** (drop-down) in the **Line Devices** section to transfer all the DALI devices together from network to project.





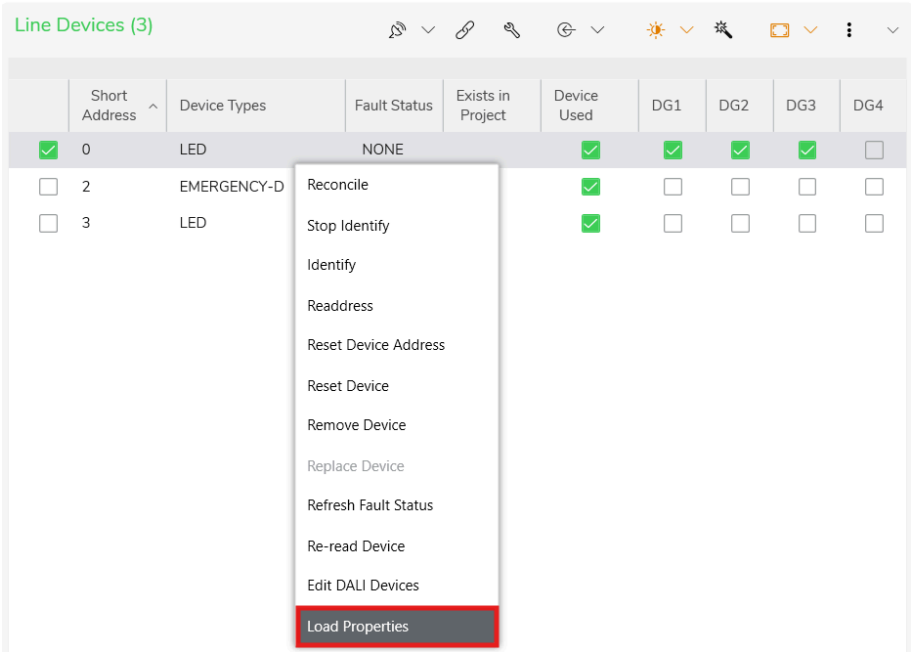


Load Properties

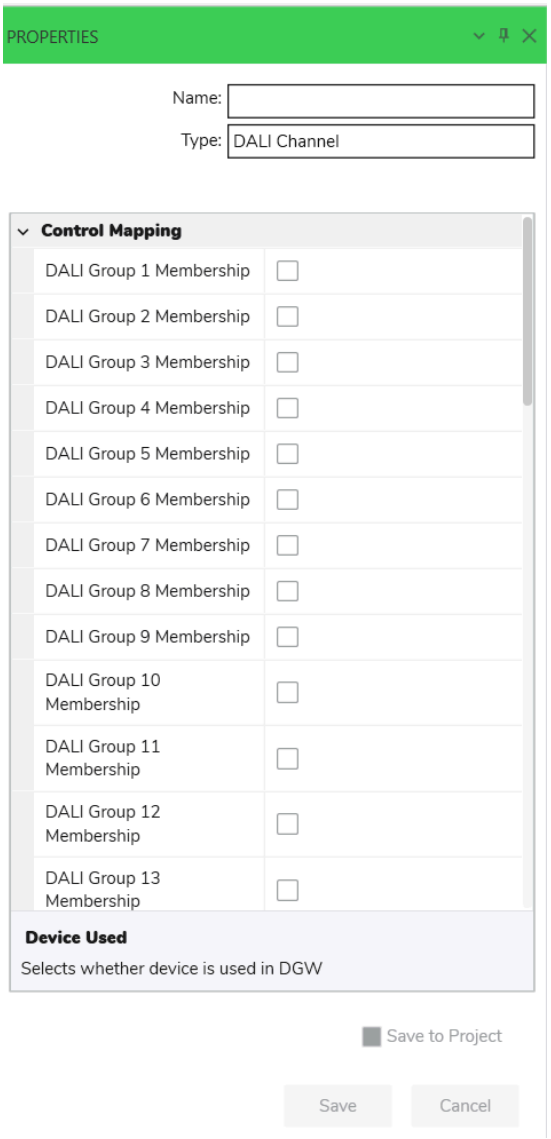
Commissioning DALI devices can be done by setting their properties.

1. Select the device in the **Line Devices** section.

2. Right-click on the device and then select **Load Properties** from the available list of options.



The properties of the selected device is displayed in the **PROPERTIES** window.



Properties Window

This window displays C-Bus and DALI device properties where the name and type of the device can be updated. This also allows the user to configure different operational features for C-Bus and DALI devices added to each network.

TIP: The properties of any units can also be loaded using **Load Properties** in **Network Device/Line Device (for DALI devices)** section of **WORKSPACE** window.

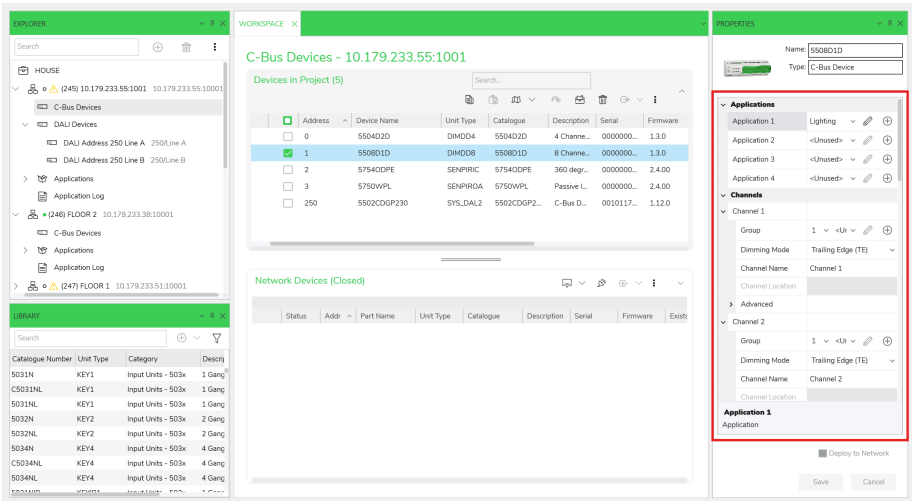
To View/Edit C-Bus Device Properties

Prerequisites:

- A project must be open in the SpaceLogic C-Bus Commission software. The C-Bus devices must already be added to a **Devices in Project** of a network.
- This section displays the name and type of the C-Bus device. The name of the C-Bus device can be renamed and also allows you to configure different operational features for C-Bus devices added to each network.

1. Select a Network from the project.
2. Click **C-Bus Devices** of a network.
3. Select a C-Bus unit device from **Devices in Project**.

   Step result: The selected C-Bus device properties are displayed in the **PROPERTIES** window.



NOTE: The fields in the device properties can be modified as per the project requirement.

To View/Edit DALI Device Properties

Prerequisites:

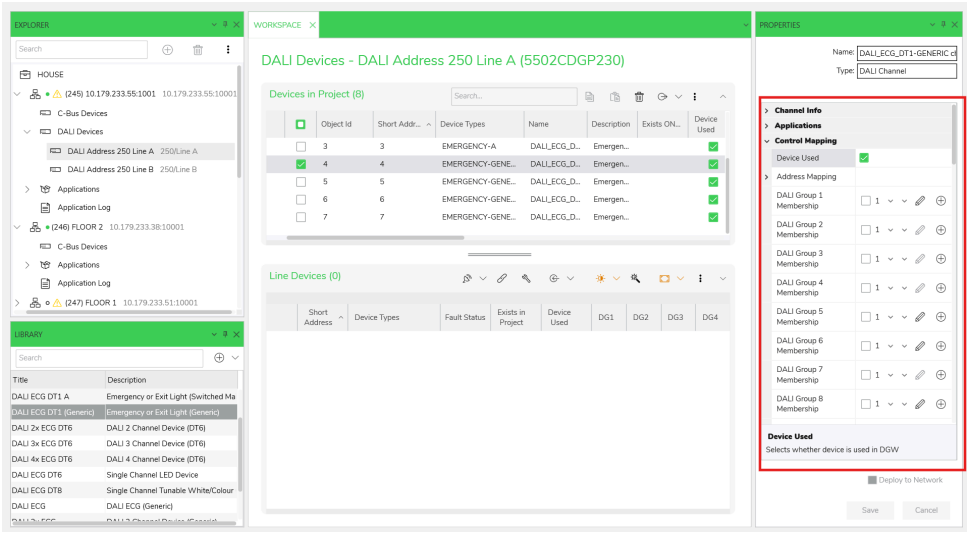
- A project must be open in the SpaceLogic C-Bus Commission software. The DALI gateway and DALI device must already be added to a **Devices in Project** of a network (Adding DALI Gateway is similar to adding any C-Bus device).
- This section displays the name and type of the DALI device. The name of the DALI device can be renamed and also allows the user to configure different operational features for DALI devices added to a DALI line in each network.

1. Click DALI devices drop-down in the **EXPLORER** window.

   NOTE: DALI devices are visible only when DALI Gateway is added from **LIBRARY** window to **Devices in Project** of **WORKSPACE** window.

2. Choose a DALI line.
3. Select a DALI device from **Devices in Project** from **WORKSPACE** window.

   Step result: The selected C-Bus device properties are displayed in the **PROPERTIES** window.



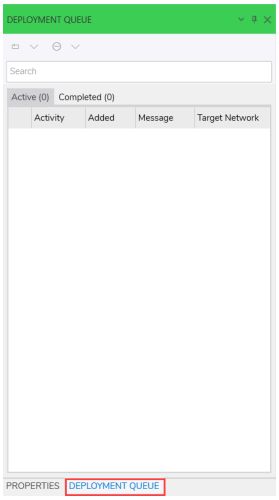
NOTE: The fields in the device properties can be modified as per the project requirement.

Deployment Queue

The Deployment Queue displays the status of devices that are being extracted to *Devices in Project* and configured devices that are being deployed to the hardware. The devices can be identified in the physical device configuration.

Prerequisites: The network must already be created in project. *Devices in Project* must have been fully matched with *Network devices*.

The Deployment Queue allows reconciliation of the *Devices in the Project* and the network. The reconciled devices can then be deployed to the network. This Queue also allows searching for a device, by entering the device name, part number or description fully or partly in the search bar.



To Deploy any device once the configuring is completed, **Save** the settings and check *Deploy to Network*. or after saving the settings click ⊖ on *Devices in Project* section.

To remove the *Deployed* devices based on Waiting, Failed, Completed Click ⊖ drop-down.

The Deployment Queue consists of following tabs:

- **Active**

  This tab consists of devices that are currently active in deployment process.
- **Completed**

  This tab consists of devices that has finished the activity in deployment queue..

Field	Meaning
Activity	This field displays the activity of the unit device, whether the Unit device is being extracted or being deployed.
Added	Displays The time unit device was added to deployment queue.
Duration	Displays the time taken for the activity
Message	Displays the message whether the activity was failed, successful or Done.
Target Network	Displays the network through which the unit device was deployed.

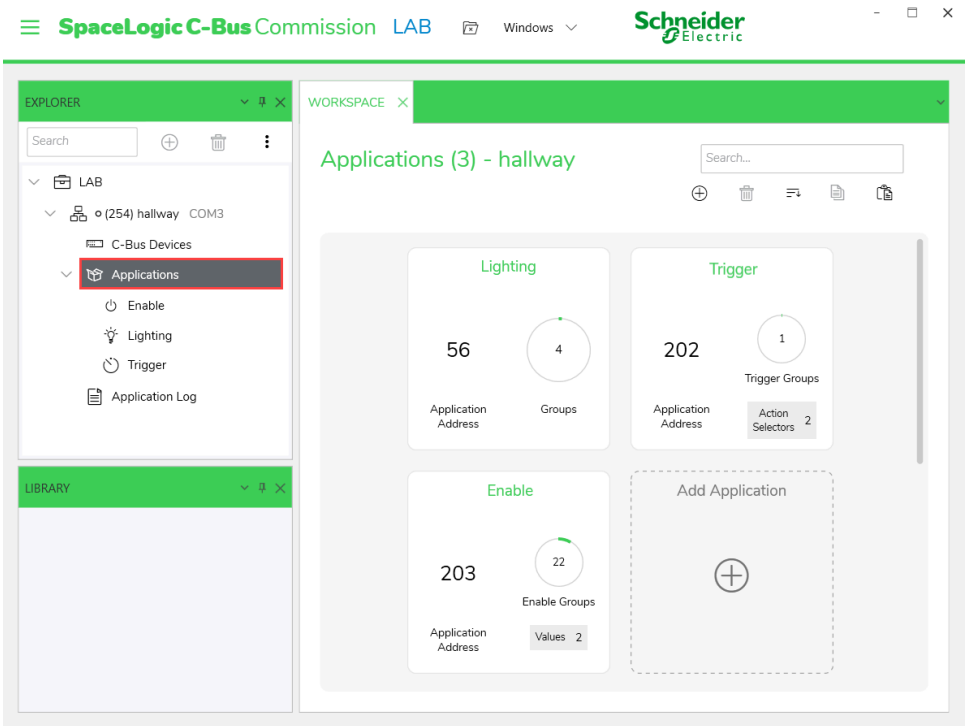
IMPORTANT: When Deployment activities are in progress performing following actions are not possible:

- Closing a network
- Switching between the projects
- Closing a project
- Exiting an application or software

C-Bus Applications

The Application section window allows the management of the applications within a network. An application is used with a **Group Address** to define the relationship between devices. Example: which input(s) will control which output(s).

NOTE: C-Bus Application section is displayed in the **Workspace** window.



NOTE: Lighting, Trigger and Enable are the default applications added to all the networks in a project.

Application	Decimal	Hexadecimal
Lighting	56	38
Enable	203	CB
Trigger	202	CA
Error	206	CE
Measurement	228	E4
Emergency Exit Light	238	EE
Audio	205	CD
Media Transport	192	CO

Operations on C-Bus applications:

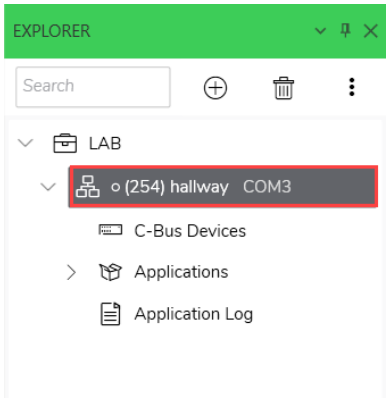
- Add application, page 167
- View application content, page 168
- Edit application, page 169
- Copy-paste application, page 170
- Search application, page 171
- Sort applications, page 172
- Delete application, page 172

Add Applications

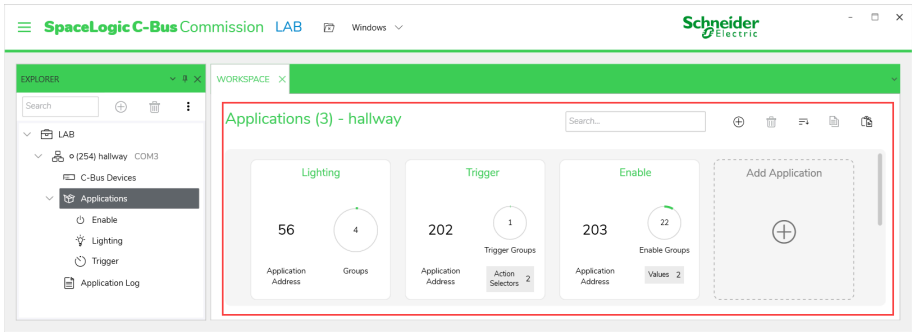
The *Applications* section allows the user to add an application to a network.

Prerequisites: A network must already be created in a network .

1. Select a network from the **Explorer** window



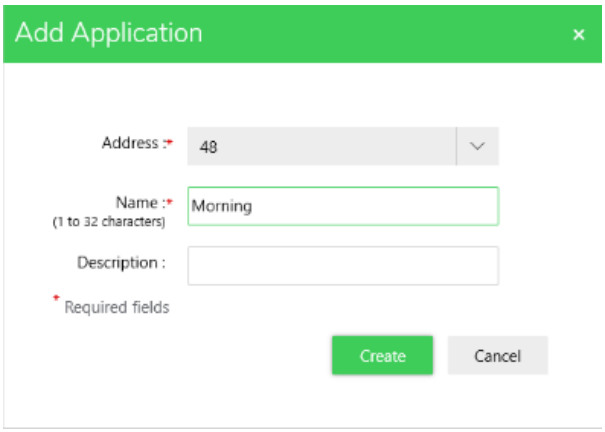
2. Click Applications



Step result: The Application section is displayed in the **Workspace** window.

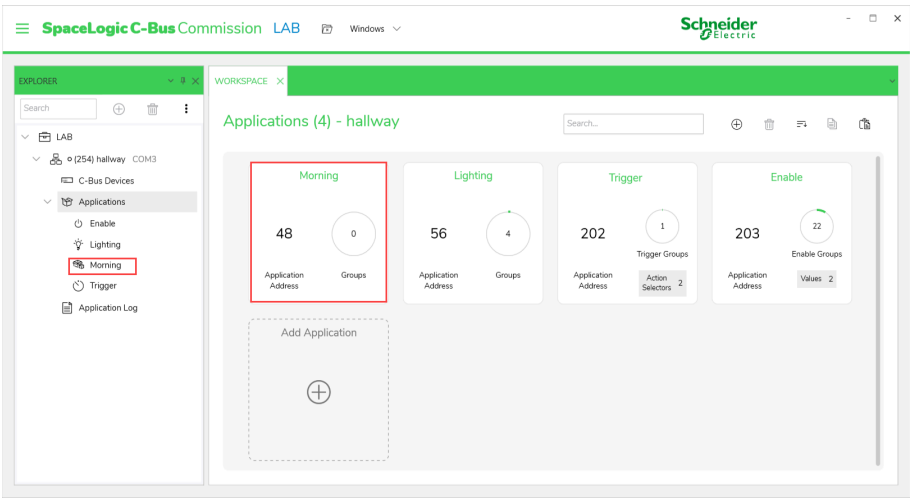
3. Click Add Applications in the **Workspace** window

4. Fill in the Mandatory fields



Click **Create**

An Application is created Successfully.

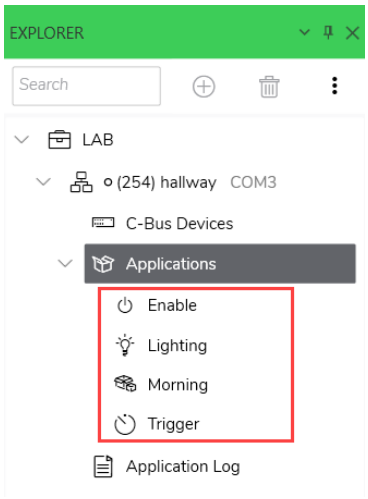


View content of an Application

Prerequisites: A network must already be created in a network and application must be existing.

1. Select a network in the **EXPLORER** window.

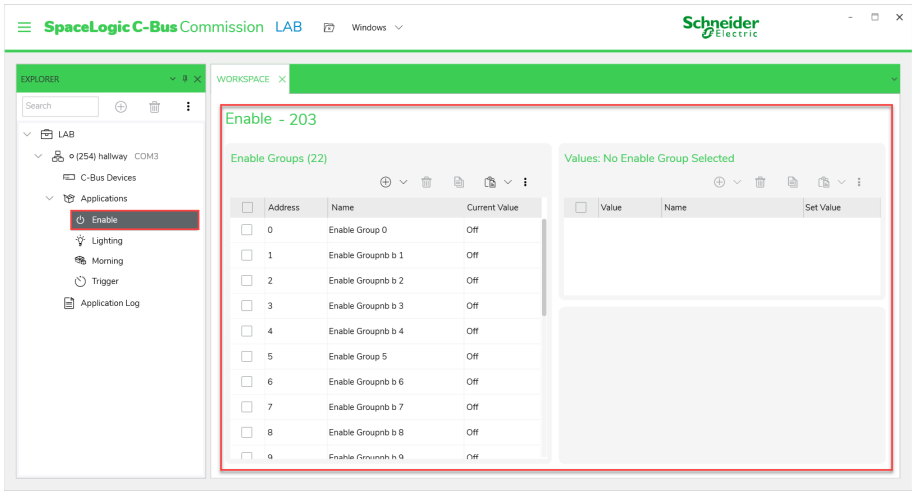
2. Click drop-down.



All the applications in the network are displayed.

NOTE: By default Lighting, Enable and Trigger applications are listed.

3. Select the application to view content



The content of the **Applications** is displayed.

Edit Application

Prerequisites: A network must already be created in a network and application must be existing.

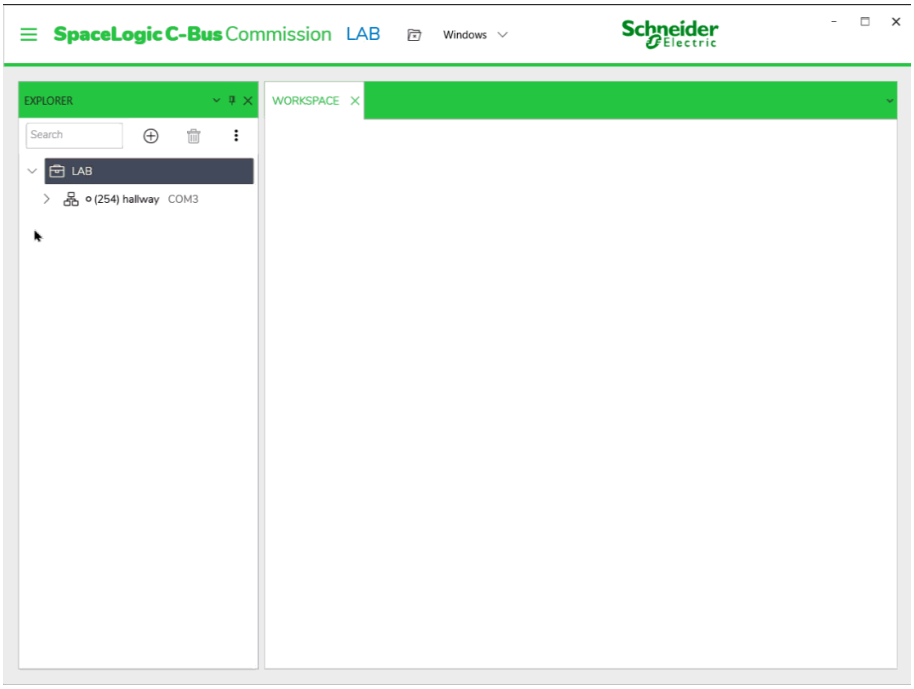
The edit application feature allows the user to modify the description of the application.

1. Select a network in the **EXPLORER** window.
2. Select an **Application**.

   NOTE:

   - The default applications cannot be edited.
   - Only Name and Description of an application can be modified.

3. The process to edit an application is demonstrated below:



The application is modified.

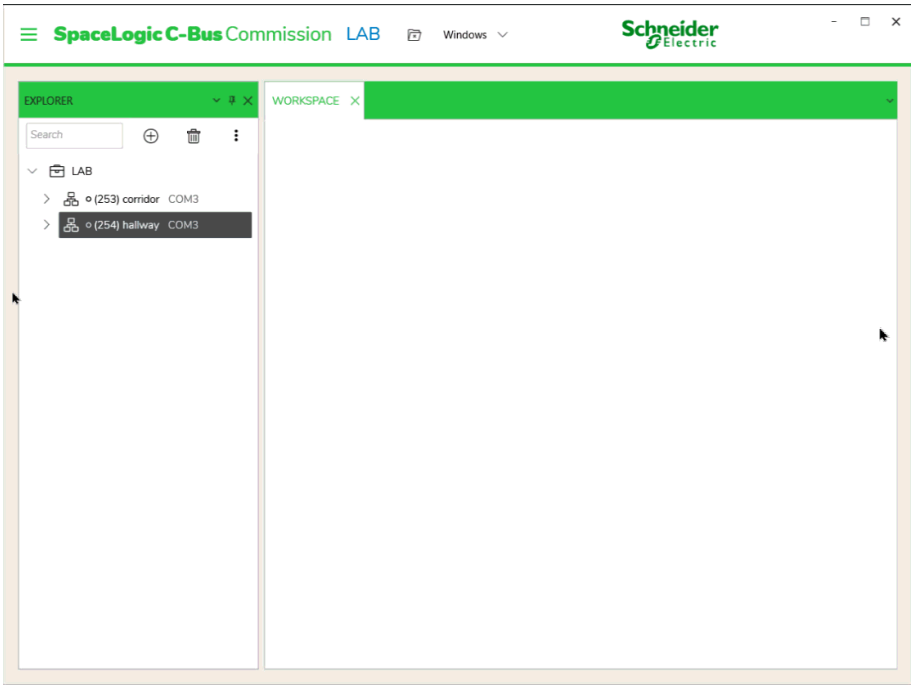
Copy and Paste an Application

The SpaceLogic C-Bus Commission software allows the user to copy and paste the contents of an application from one network to another.

Prerequisites: A network must already be created in a network and an application must already be added in a network.

1. Select a network from the **EXPLORER** window (a network form which an application has to be copied).
2. Click .The process to copy and paste an application is demonstrated below:

3.



The content of the application is copied from one network and pasted in another network.

NOTE: Performing paste operations on reserved applications and modifying their names are not allowed. Attempting the function will display the **Resolve Conflict** window, where neither the address nor the name can be modified.

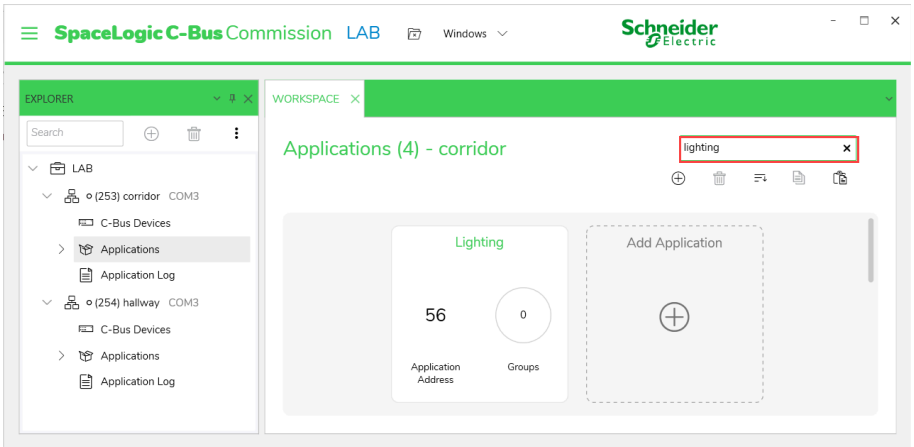
Search an Application

The application section allows the user to search for an application or contents inside the application

Prerequisites: A network must already be created in a network and application must be existing.

1. Select a network in the **Explorer** window
2. Enter the application name in the search bar

   NOTE: This feature can also be used to search group addresses inside an application.



If the search word includes the application name then the resulting applications that match will be displayed. If the search word includes a group address name then the resulting applications where that group address name exists will be displayed.

Sort Applications

Prerequisites: A network must already be created in the project and more than one application must be existing in a network.

The existing applications can be sorted using

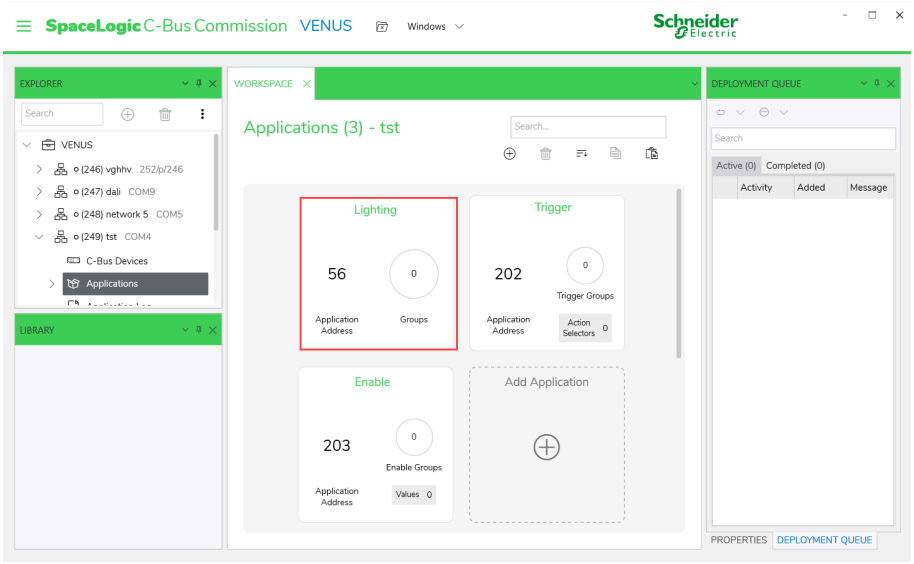
Choose an appropriate option.

Delete an Application

The SpaceLogic C-Bus Commission software allows the user to delete an application in the network.

Prerequisites: A network must already be created in a network and application must be existing.

1. Select a network from the **Explorer** window
2. Click Applications
3. Select an application from the **workspace** window to be deleted in the network



4. Click

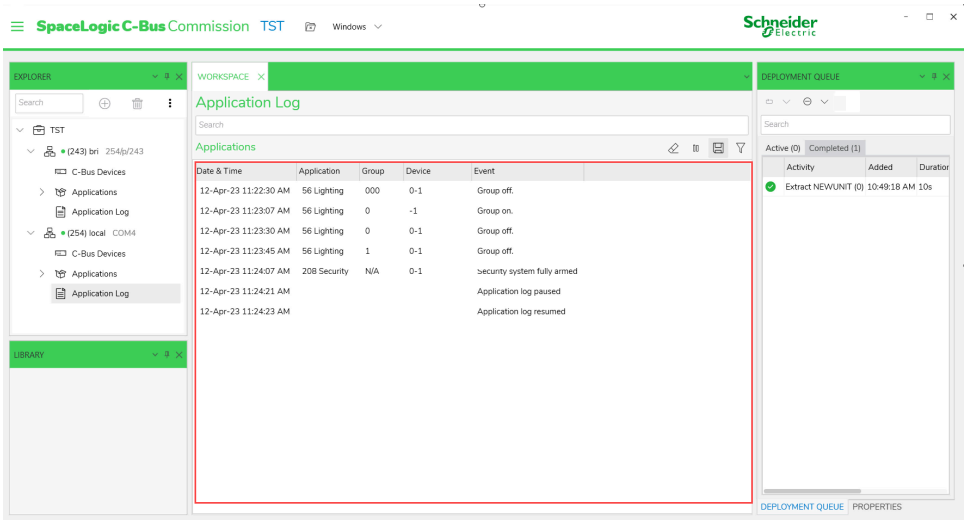
The application is deleted from the network.

Application Log

Prerequisites: The network must already be created.

Application Log displays the communications performed in an open network. This window also allows searching for a device, by entering the device name, part number or description fully or partly in the search bar.

When a network is being used, applications and their devices generate log events which are displayed in the **Application Log.**



Fields	Description
Date & Time	This field refers to the date and time for the log entry.
Application	This field refers to the application type of the log.
Group	This field specifies the address of the application group that has generated the log entry.
Device	This field provides information about the unit that issued the message.
Event	This field provides information about the status or event which the entry is logging. The event information varies with the type of application.

Operation performed on application log:

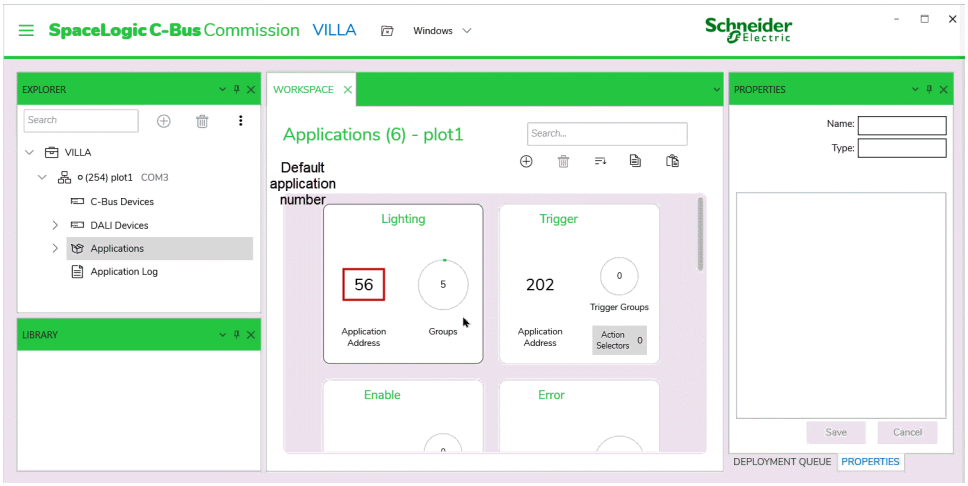
- Search Bar- Keyword search for the existing log entries..
- - Filter by application, group and device addresses.
- - Save the application log.
- - Pause/Play the application log.
- - Erase the application log events.

Lighting Application

The lighting applications are responsible for controlling electrical loads for a wide range of automation operations.

The Lighting application contains functions for editing the application and related lighting compatible groups. Each of the Group and Level entries contains information in the fields.

When a network is created in project, the **Lighting** application is created by default with an application number 56 and ranges from 48 to 127 (applicable while creating new lighting application).



For more details, click:

- Groups, page 174
- Levels, page 182

Groups

A Group Address is used to make associations between the key of an **Input Unit** and the channel of an **Output Unit**. They are assigned to output and input units to commission the devices for controlling the same object.

NOTE:

- A number of C-Bus Output Unit channels can be controlled by a single key on a C-Bus switch (with the same Group Address).
- A number of keys on different Input Units can control the same load, by giving them all the same Group Address.

There are 255 Group Addresses (0 to 254) in an Application Address. SpaceLogic C-Bus allows the creation up to 255 different Group Addresses on each Application Address.

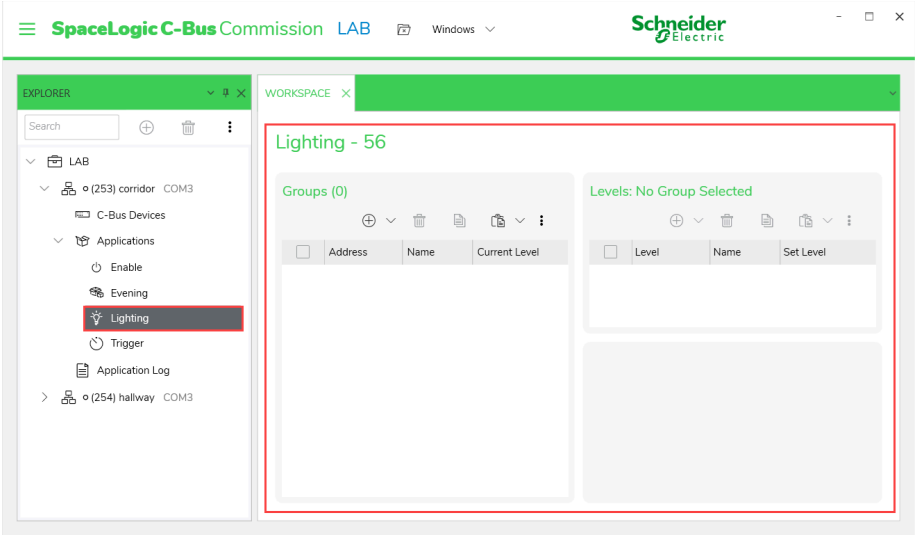
Operations performed on groups:

- Add groups, page 175
- Edit groups, page 179
- Copy groups, page 175
- Paste groups, page 178
- Sort groups, page 180
- Delete groups, page 180

Add Groups

Prerequisites: The network must already be created in a project.

1. Select a network from the **Explorer** window.
2. Click Applications drop-down
3. Select *Lighting*

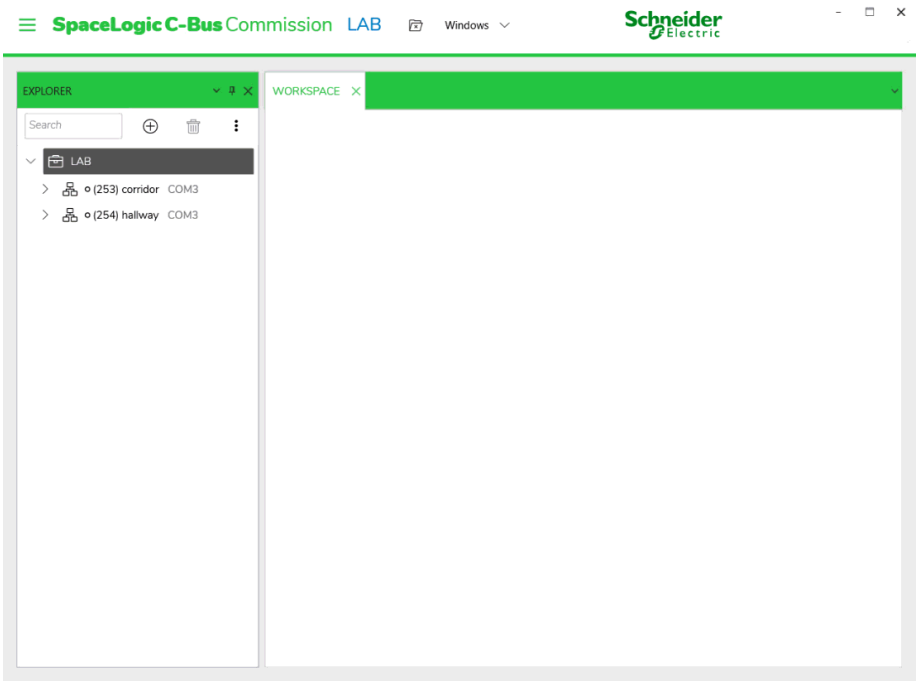


Step result: Respective Groups and levels section of Lighting is displayed in the **Workspace** window.

4. Click in the Groups section.
5. Choose address

   Step result: A Group is created.

   TIP: Multiple groups can be created at a time as demonstrated below:



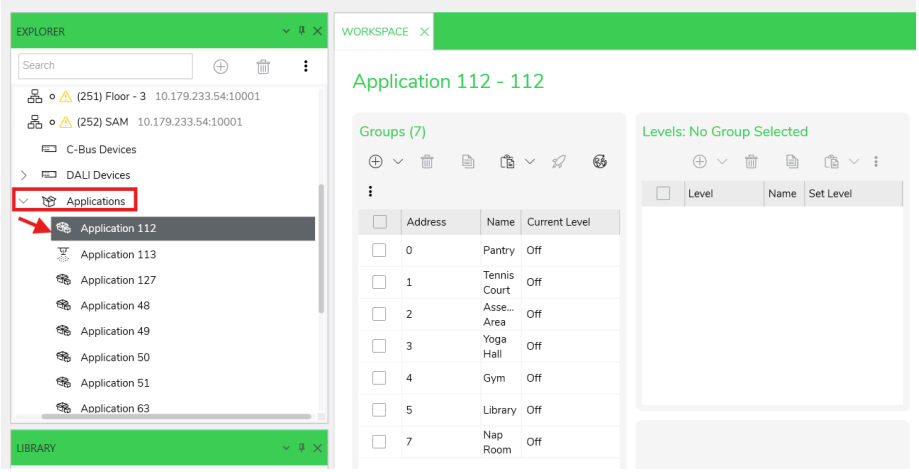
Copy Groups

The group addresses in an **Application** can be aligned/arranged with same addresses as in the other application.

Pre requisites: The group addresses must already be added in an **Application**.

In a multi-network project the group addresses of an application on a network can communicate with group addresses of an application on other network via a C-Bus bridge.

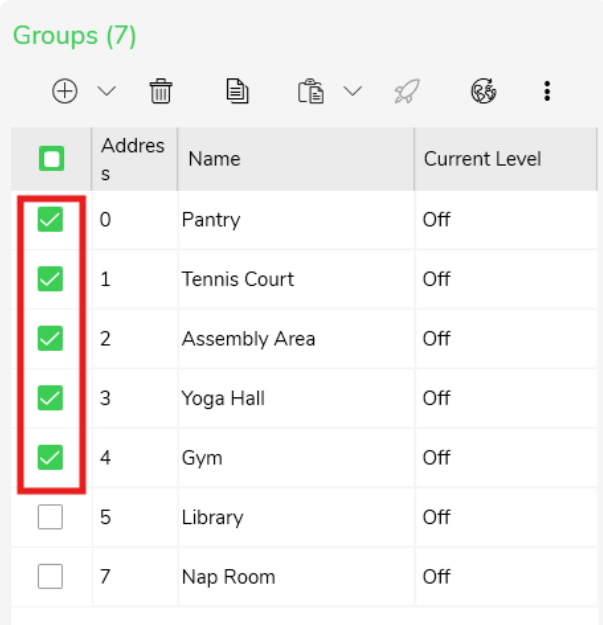
1. Click **Lighting** application.



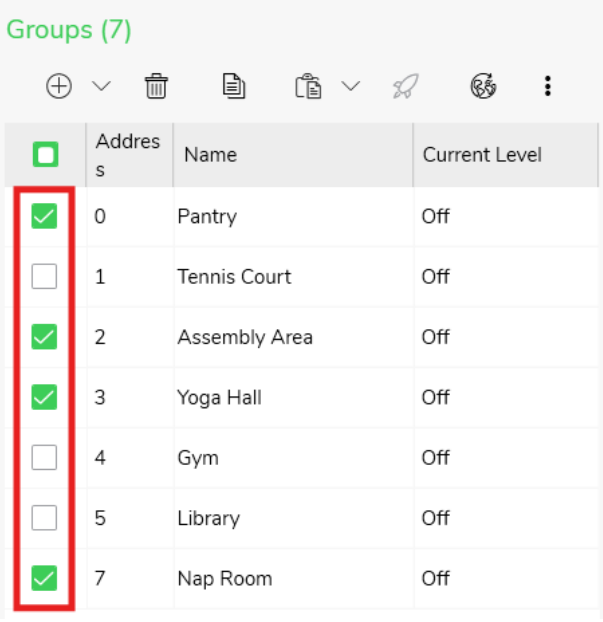
2. Select the group address check box to be copied in the **Groups** section.

   NOTE:

   - A single group can be chosen by selecting the check box of the required group, whereas all groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one group, then hold down the SHIFT key and select on additional groups (grid) using the mouse.



   - For random multiple selection, select one group, then hold down the CTRL key and select the next groups (grid) using the mouse.



   - The icon will be disabled, if a group is not selected.

3. Click in the **Groups** section.

   NOTE: Click in the **Application** section to copy the complete application.

   Step result: The selected group addresses are copied.

Paste Group

Prerequisites: The Group Address must be copied from an application to another network or to the same network.

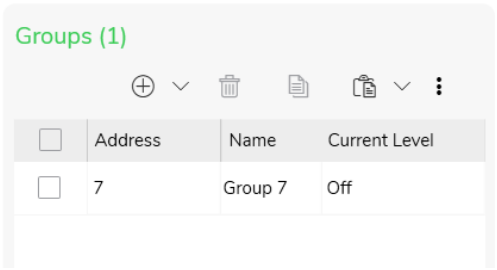
The application Group Addresses copied from one network can be pasted to an another application in different network. The complete application copied from one network can also be pasted to an another network.

NOTE: The lighting application Group Address copied from one network can be pasted into the lighting application on another network only.

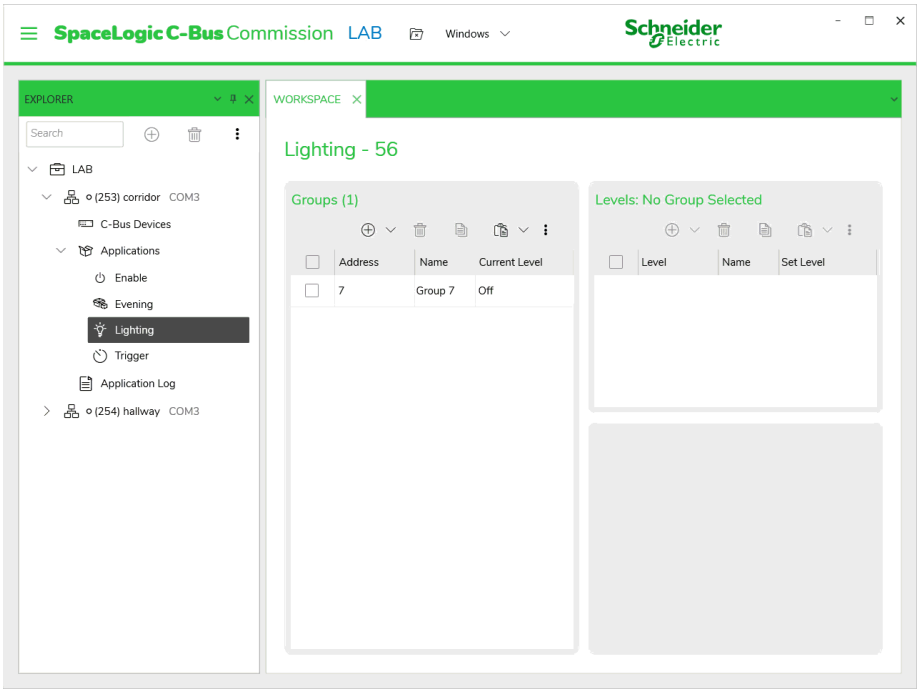
1. Open the **Groups** section of Lighting application.

   NOTE: Paste the Group Address in lighting application of an another network.

2. Click in the **Group** section of a lighting application.

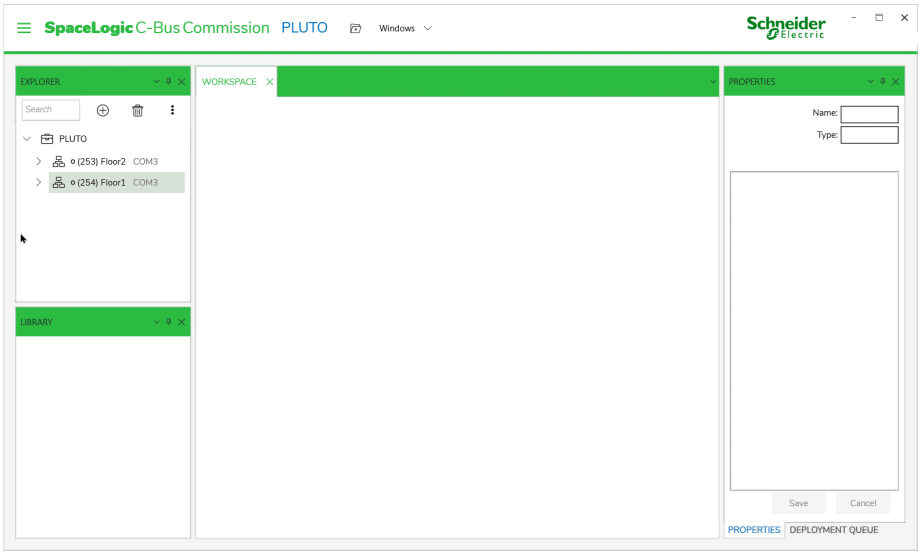


NOTE: The process to Paste the **Group Address** from excel is as demonstrated below:



IMPORTANT: Paste conflict occurs when already existing group name and group address are been pasted.

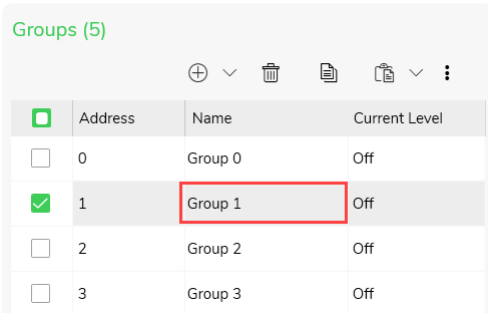
The process to **Resolve conflict** is as demonstrated below:



Edit Groups

Prerequisites: Make sure you have selected *Lighting* application and group has been created.

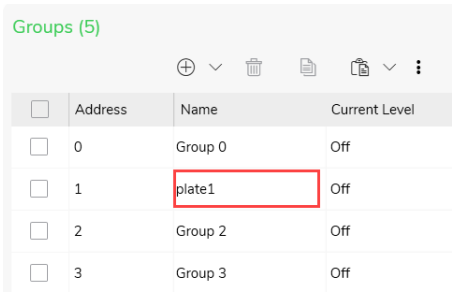
1. Double-click on the group name that has to be edited/renamed



Step result: Edit Group Dialog box is displayed.

2. Edit the Group name and click OK

NOTE: Special characters except /,",# and maximum of 32 characters in the group name is acceptable.

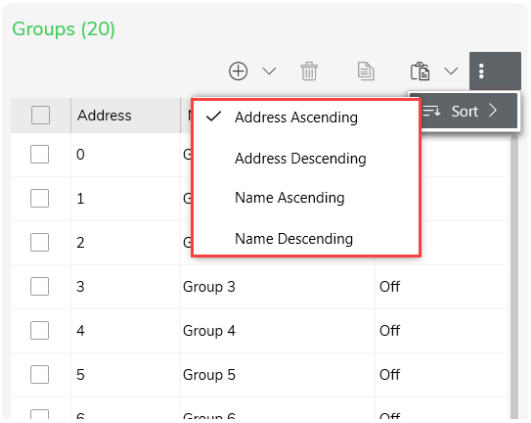


Step result: The Group name is updated.

Sort Groups

Prerequisites: The groups must already been created in Lighting application.

The existing Groups in application can be sorted using ⋮ in the group section of lighting application.



Choose appropriate sort method.

Delete Groups

The delete option allows you to delete one or more group addresses from a Lighting application.

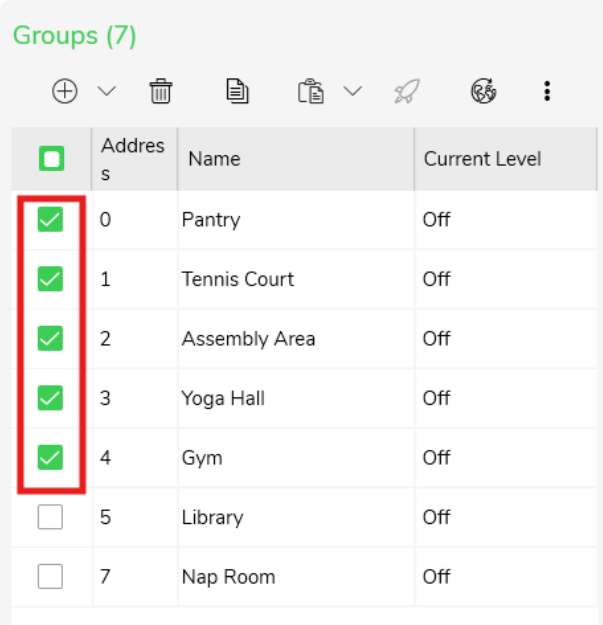
Prerequisites: The groups must already be created in **Lighting Application**.

1. Click **Lighting** application.

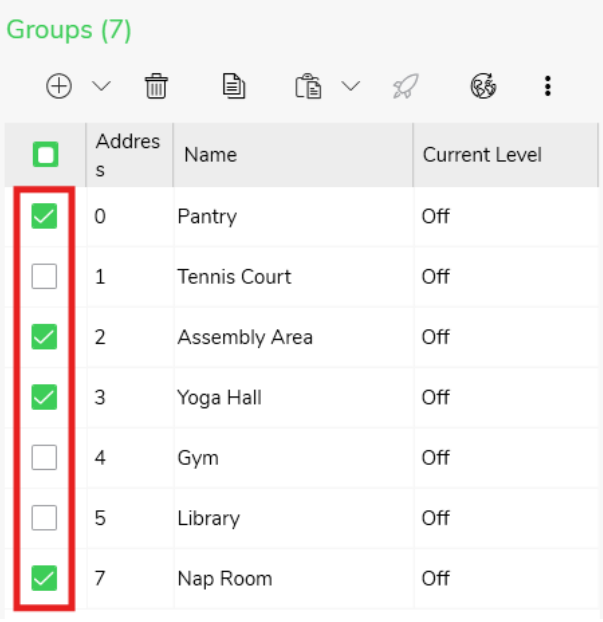
2. Select the group address check box to be deleted in the **Groups** section.

   NOTE:

   - A single group can be chosen by selecting the check box of the required group, whereas all groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one group, then hold down the SHIFT key and select on additional groups (grid) using the mouse.

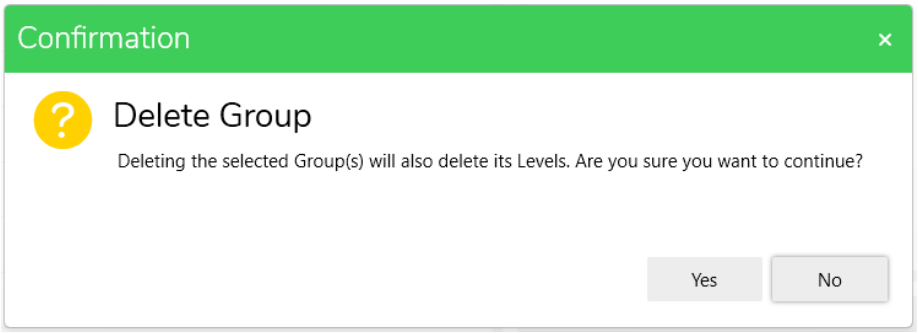


   - For random multiple selection, select one group, then hold down the CTRL key and select the next groups (grid) using the mouse.



   - The icon will be disabled, if a group is not selected.

3. Click in the **Groups** section. A **Confirmation** pop-up is displayed.



4. Click **Yes** to delete the group address.

Levels

The *Level* is the value of the *Group Address* network variable.

Every *Group Address* has 256 steps between OFF (0 and 0%) and ON (255 and 100%). These 256 steps are referred to as Levels.

Levels are referred differently in different *C-Bus Applications*.

When the *Group Address* is on the *Trigger Application* or *Enable Application*, the 256 steps in a *Group Address* are referred to as *Action Selectors* and *Values* respectively.

Levels and *Action Selectors* are most commonly used to trigger an event like a scene.

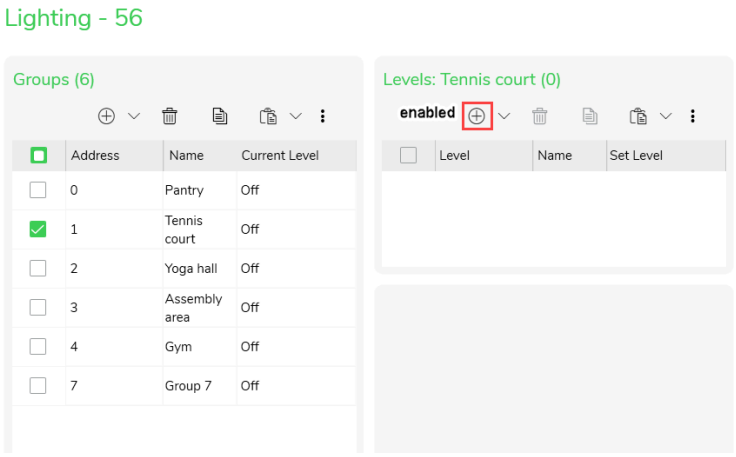
Operations performed on Levels are:

- Add levels, page 182
- Copy levels, page 184
- Paste levels, page 185
- Edit levels, page 187
- Sort levels, page 188
- Delete levels, page 188

Add Levels

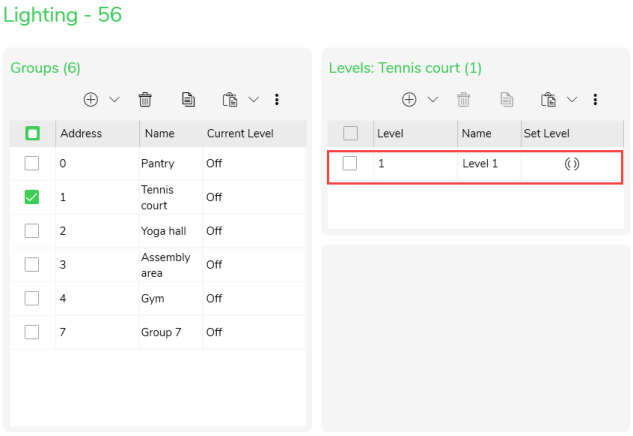
Prerequisites: The *Group* must already be created/added in the lighting application

1. Select a *Group* in the group section



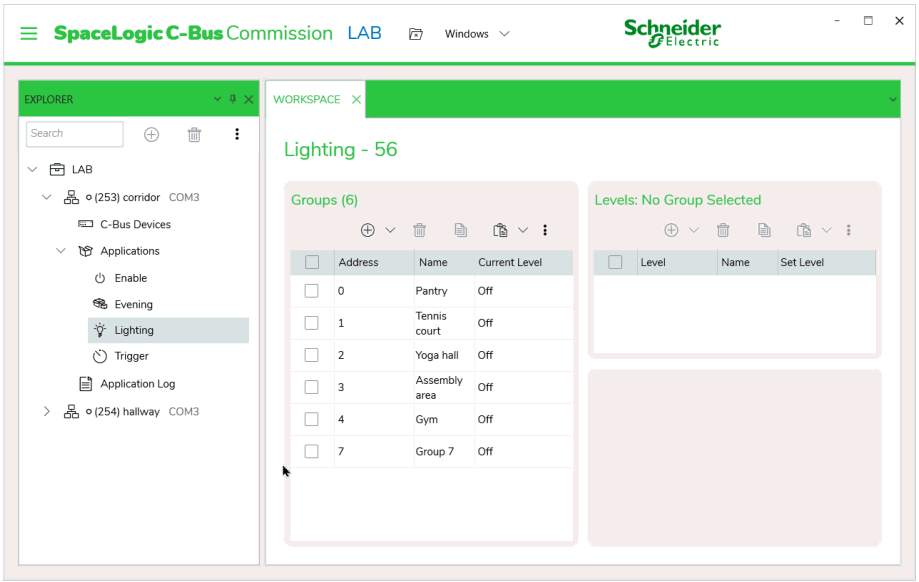
NOTE: If a group is not selected, the ⊕ will be disabled.

2. Click ⊕ in Levels section



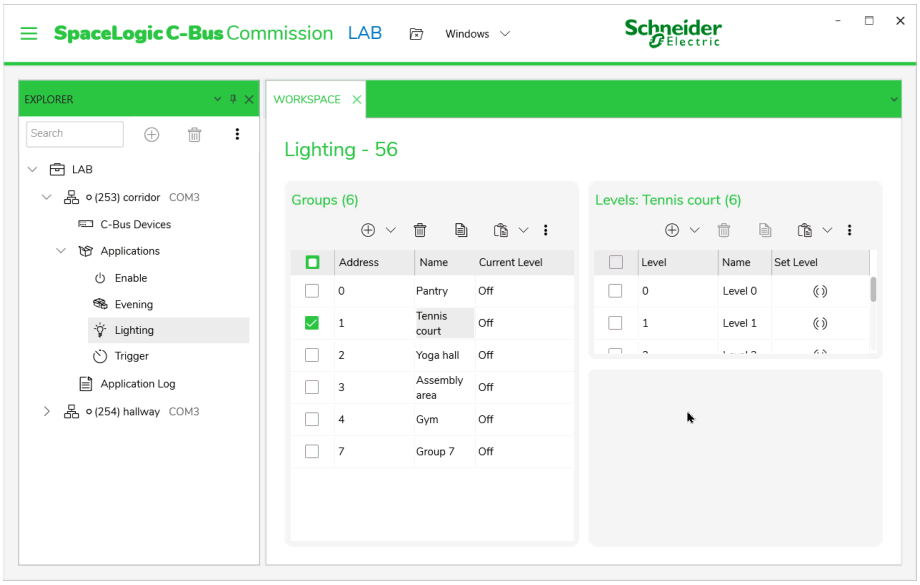
Step result: Single Level is added for a selected group.

3. The steps to Add Multiple Levels for a single group at a time is as demonstrated below:



Step result: Multiple Levels are created.

4. Level Name can be edited as demonstrated below:



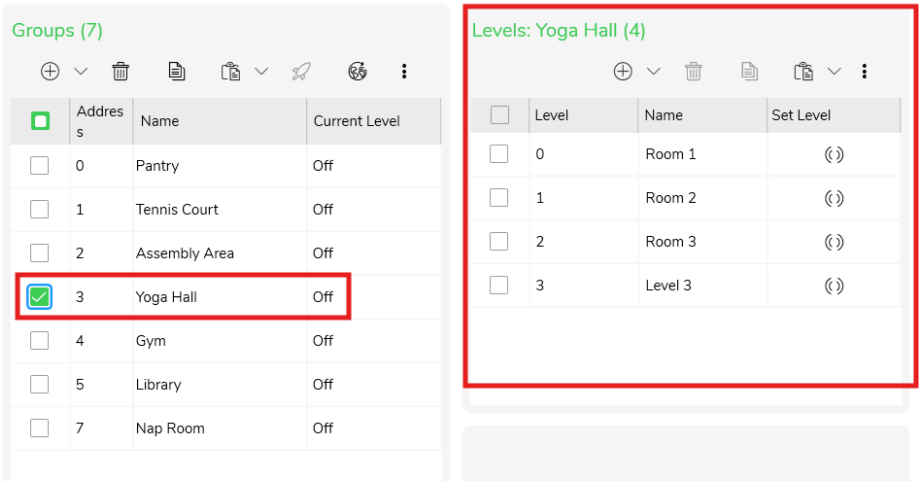
Step result: Level Name is updated.

Copy Levels

Prerequisites: The **Levels** must already be added in a **Group**.

The levels created in a group can be copied from the other group in the same **Lighting** application on same network or from the **Lighting** application from different network in the project.

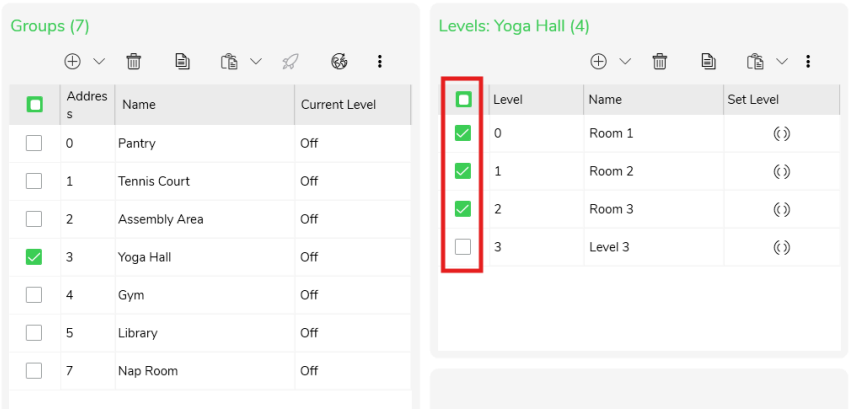
1. Click **Lighting** application.
2. Select the group check box in the **Groups** section. The **Levels** for the selected **Group** are displayed in the **Levels** section.



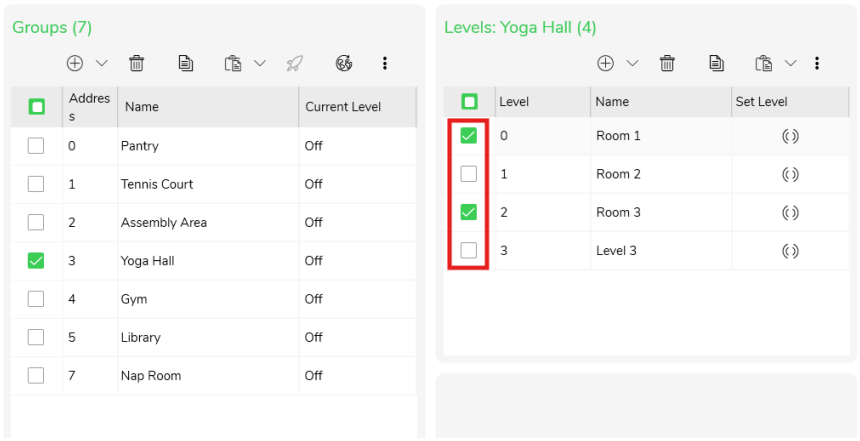
3. Select the required levels and click from **Levels** section.

NOTE:

- A single level can be chosen by selecting the check box of the required level, whereas all levels can be chosen by selecting the check box on the top.
- For range (sequential) selection, select one level, then hold down the SHIFT key and select on additional levels (grid) using the mouse.



- For random multiple selection, select one level, then hold down the CTRL key and select the next levels (grid) using the mouse.



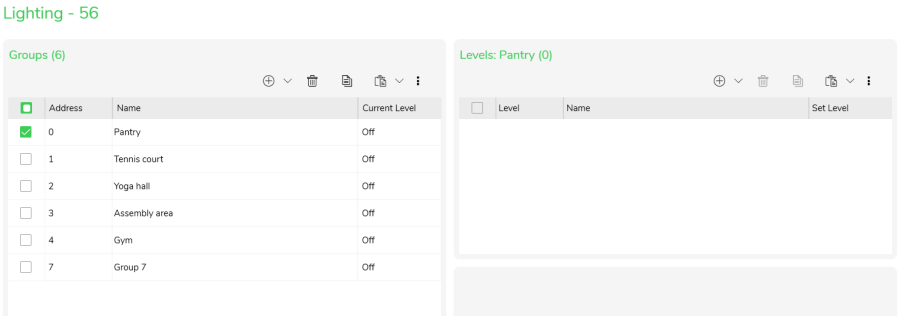
- The icon will be disabled, if a level is not selected.

Step result: The selected levels are copied.

Paste Levels

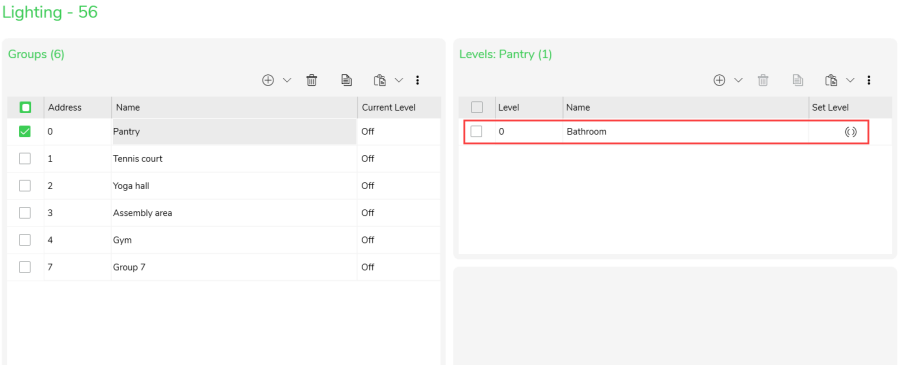
Prerequisites: The *Levels* must already be copied from a selected Group.
The Paste Level option allows the user to paste the Levels copied from one group into different group on the same network or into a Group on another network.

1. Select the Group in the group section of the network to be pasted in

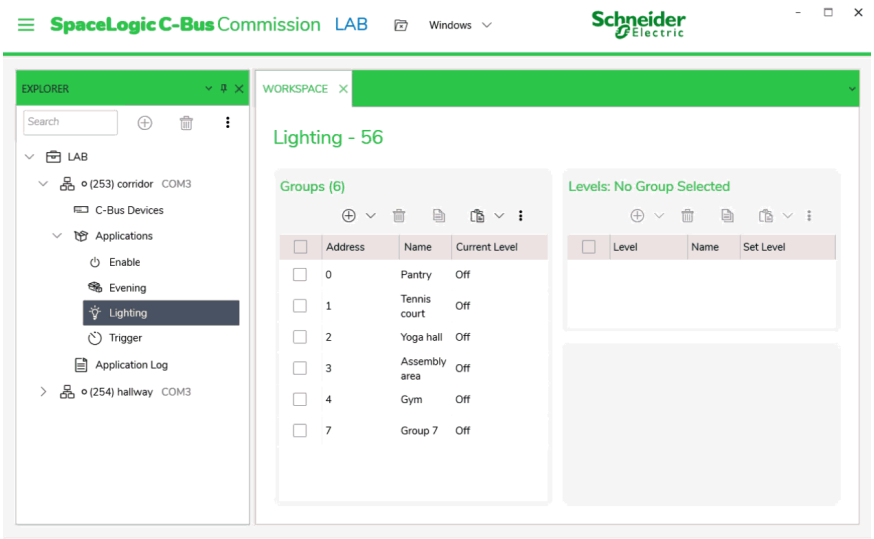


NOTE: Levels can either be pasted on same network or into a **Group** on another network.

2. Click in the **Levels** section.



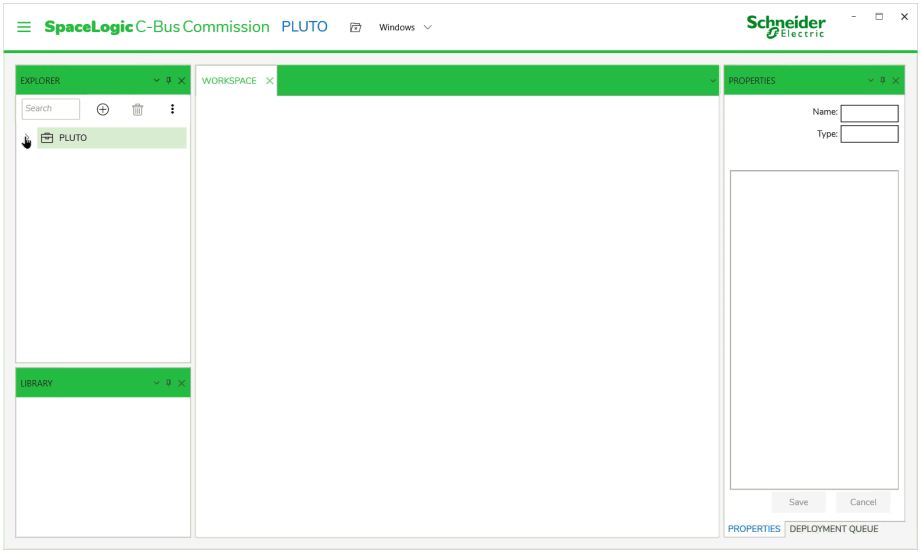
NOTE: The Process to Paste **Levels** from Excel is as demonstrated below:



Step result: The copied **Levels** are pasted.

IMPORTANT: Paste conflict occurs when already existing level name and level address are been pasted in lighting application of another network.

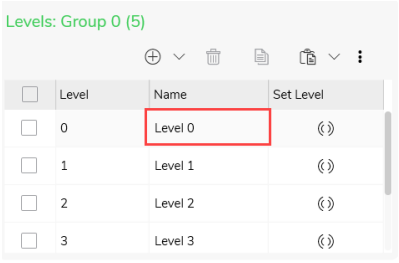
The process to **Resolve conflict** is as demonstrated below:



Edit Levels

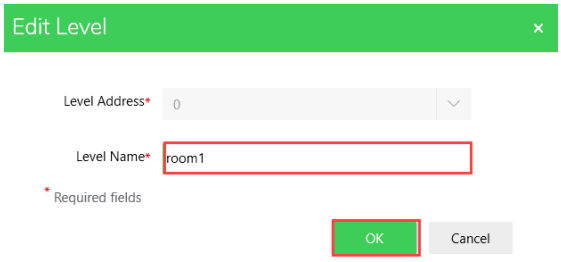
Prerequisites: The Levels must already be existing in the selected group of Lighting application.

1. Double-click on the level name that has to be edited/renamed

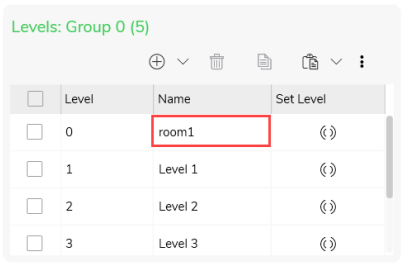


Step result: Edit Group Dialog box is displayed.

2. Edit the Level name and click OK.



NOTE: Special characters except /,",# and maximum of 32 characters in the group name is acceptable.

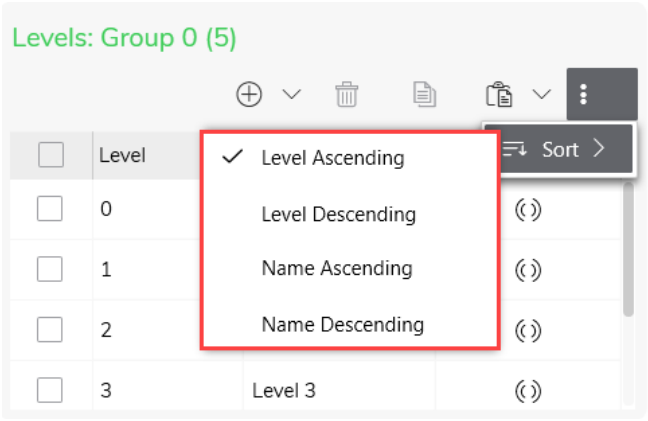


Step result: The level name is updated.

Sort Levels

Prerequisites: The created Group has to be selected in the Lighting application.

The existing Levels in application can be sorted using ⋮ in the level section of lighting application.



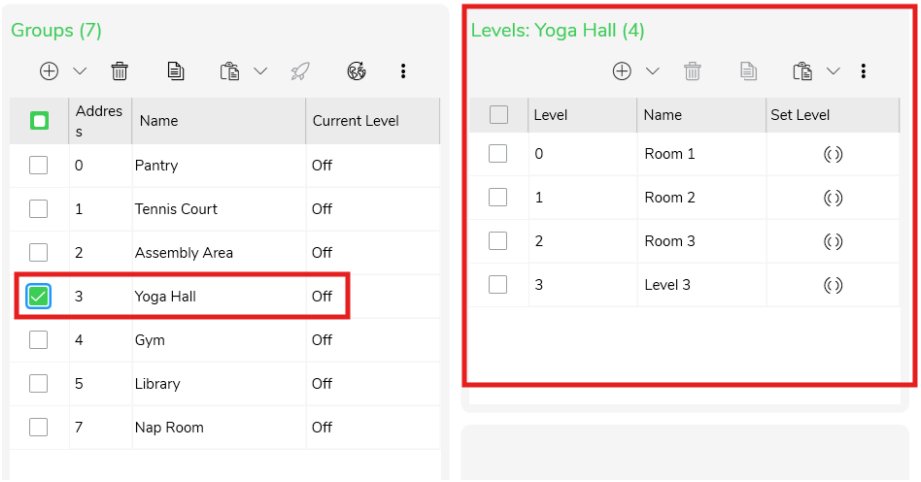
Choose appropriate sort method.

Delete Levels

The delete option allows you to delete one or more levels added to a group address.

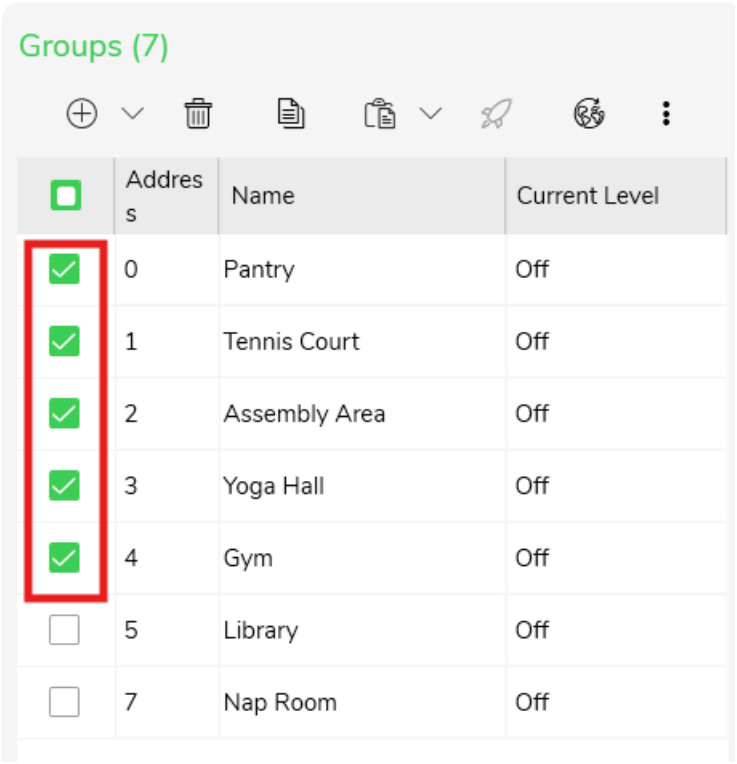
Prerequisites: The **Levels** must already be added in the group address.

1. Select the group address check box. The **Levels** for the selected group address is displayed.

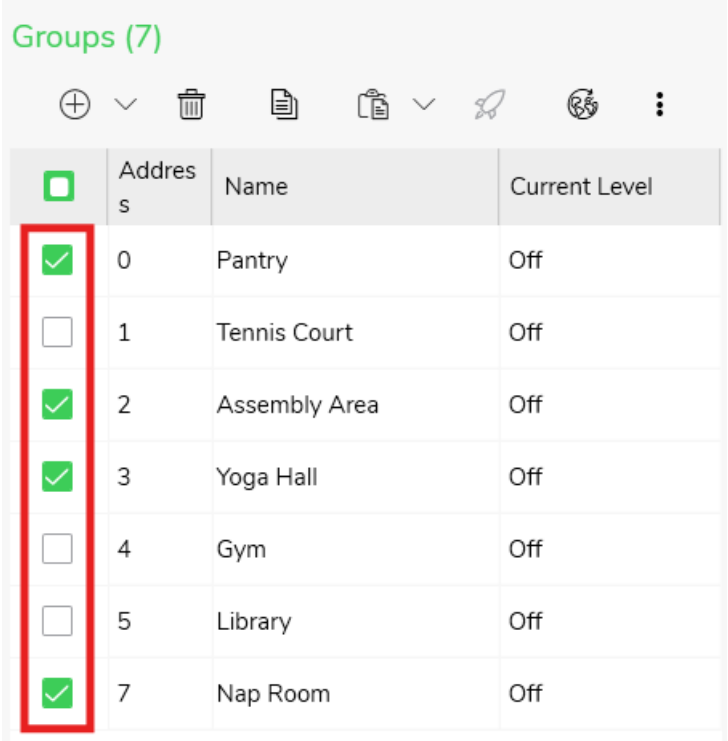


NOTE:

- A single level can be chosen by selecting the check box of the required level, whereas all levels can be chosen by selecting the check box on the top.
- For range (sequential) selection, select one level, then hold down the SHIFT key and select on additional levels (grid) using the mouse.

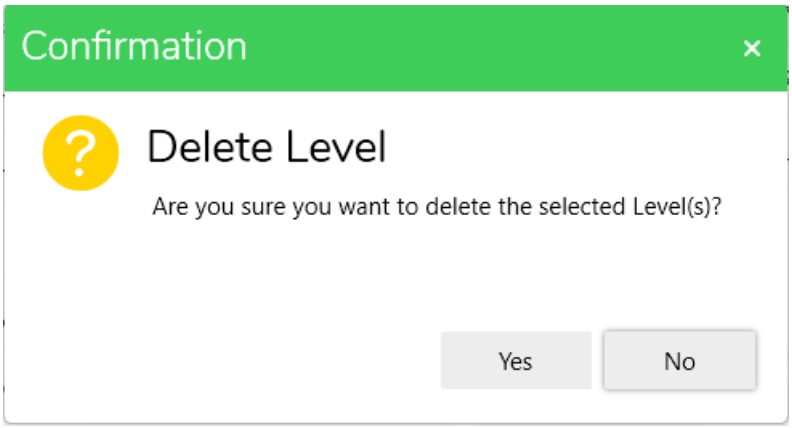


- For random multiple selection, select one level, then hold down the CTRL key and select the next levels (grid) using the mouse.



- The icon will be disabled, if a level is not selected.

2. Click in the **Levels** section. A **Confirmation** pop-up is displayed.



3. Click **Yes** to delete the levels.

Trigger Application

The Trigger application is widely used across C-Bus to trigger actions or events such as C-Bus lighting scenes or to start an irrigation program.

The Trigger application contains functions for editing the application and related trigger compatible trigger groups. Each of the Trigger Group and Action selector entry contains information in the fields.

When a network is created in project, the *Trigger* application is created by default with an application number 202.

The *Trigger* application is widely used across C-Bus to trigger actions or events such as C-Bus lighting scenes or to start an irrigation program.

The Trigger application is viewed similar to lighting application, click here

For more details, click:

- Trigger group, page 191
- Action selector, page 197

Trigger groups

A Trigger application within a network has 0 through 254 Trigger Groups available for C-Bus programming.

There are 255 Group Addresses (0 to 254) in an Application Address. SpaceLogic C-Bus allows the creation up to 255 different Group Addresses on each Application Address

Operations performed on Trigger groups:

- Add Trigger group, page 191
- Copy Trigger group, page 192
- Paste Trigger group, page 194
- Edit Trigger group, page 194
- Sort Trigger group, page 194
- Delete Trigger group, page 195

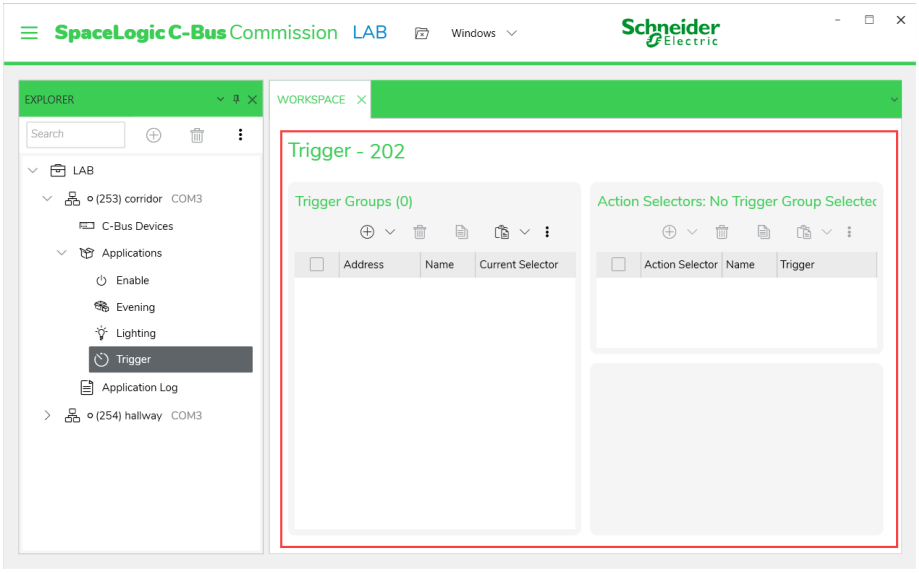
Add Trigger Groups

The C-Bus Application section allows the user to add Trigger Groups to an Trigger Application.

Prerequisites: The Trigger application must be selected in a created network.

1. Select a network from the **Explorer** window.
2. Click Applications drop down.

3. Select **Trigger**.



Step result: Respective **Trigger Groups** and **Action Selectors** section of **Trigger** is displayed in the **Workspace** window.

4. Click ⊕ in the **Trigger Groups** section.
5. Choose address.

   Step result: A Group is created.

   The process to create multiple trigger groups at a time is similar to as demonstrated in lighting application, click here.

Copy Trigger Groups

In a multi-network project the **Trigger Group** addresses of an **Trigger** application on a network can communicate with **Trigger Group** addresses of a **Trigger** application on another network via C-Bus bridge.

Prerequisites: The **Trigger Group** address must be already created in an application.

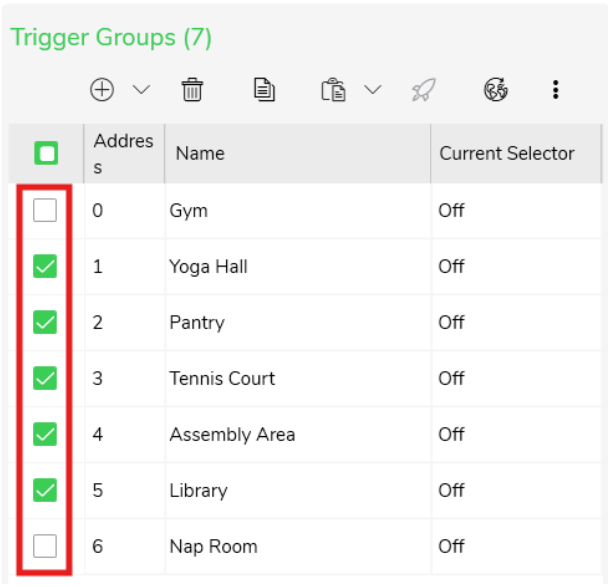
The **Trigger Group** addresses in the **Trigger** application can be aligned/arranged with same addresses as in the other **Trigger** application.

1. Go to **Applications** > **Trigger**.

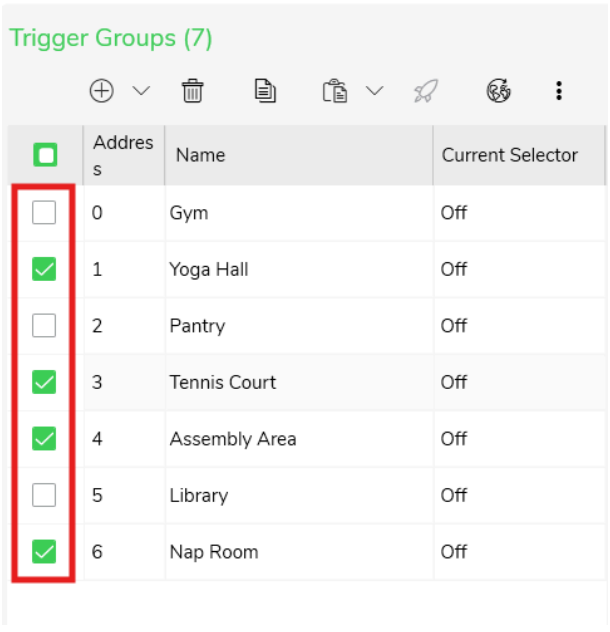
2. Select the **Trigger Group** check box to be copied in the **Trigger Groups** section.

   NOTE:

   - A single trigger group can be chosen by selecting the check box of the required trigger group, whereas all trigger groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one trigger group, then hold down the SHIFT key and select on additional trigger groups (grid) using the mouse.



   - For random multiple selection, select one trigger group, then hold down the CRTL key and select the next trigger groups (grid) using the mouse.



   - The icon will be disabled, if a trigger group is not selected.

3. Click in the **Trigger Groups** section.

   Step result: The selected trigger group addresses are copied.

Paste Trigger Groups

The *Trigger* application *Group Addresses* copied from one network are pasted either into another *Trigger* application in same network or in a different network.

Prerequisites: The Trigger Group Address must be already copied from an application.

NOTE: The *Trigger* application *Group Address* copied from one network must be pasted only into the trigger application on another network.

1. Select the *Trigger Groups* in the *Trigger* application of the network to be pasted in.
2. Click in the *Trigger Group* section.

   NOTE: The process to Paste the *Trigger Groups* from excel is similar to as demonstrated in lighting application, click here

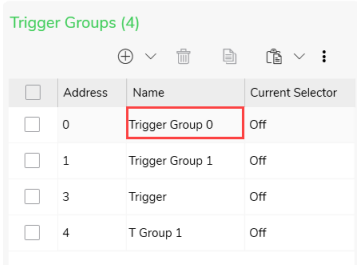
   IMPORTANT: Paste conflict occurs when already existing trigger group address and group name are been pasted in trigger application of another network.

The process to **Resolve conflict** is similar to as demonstrated in lighting application, click here

Edit Trigger Group

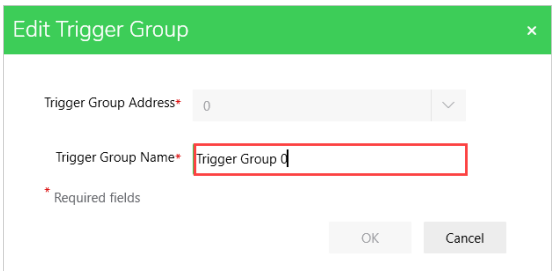
Prerequisites: Make sure you have selected *Trigger* application and trigger groups has been created.

1. Double-click on the trigger group name that has to be edited/renamed



   Step result: Edit Group Dialog box is displayed.

2. Edit the Trigger Group name and click OK



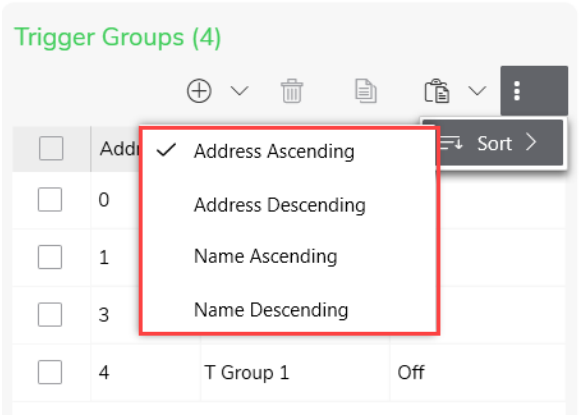
   NOTE: Special characters /,",# and maximum of 32 characters in the trigger group name are valid.

   Step result: The Trigger group name is updated.

Sort Trigger Groups

Prerequisites: The *Trigger Group Addresses* must already been created in *Trigger* application.

The existing Groups in application can be sorted using ⋮ in the trigger group section of Trigger application.



Choose appropriate sort method.

Delete Trigger Groups

The delete function allows you to delete one or more group addresses from a **Trigger** application.

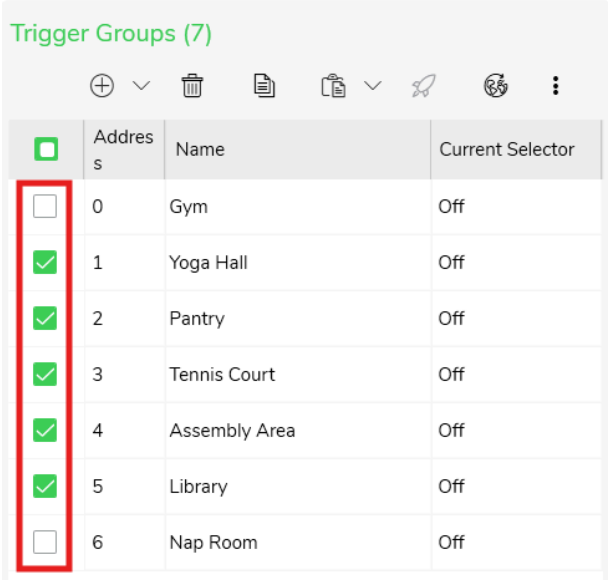
Prerequisites: The trigger group address must already be created in the **Trigger** application.

1. Click **Applications** > **Trigger**.

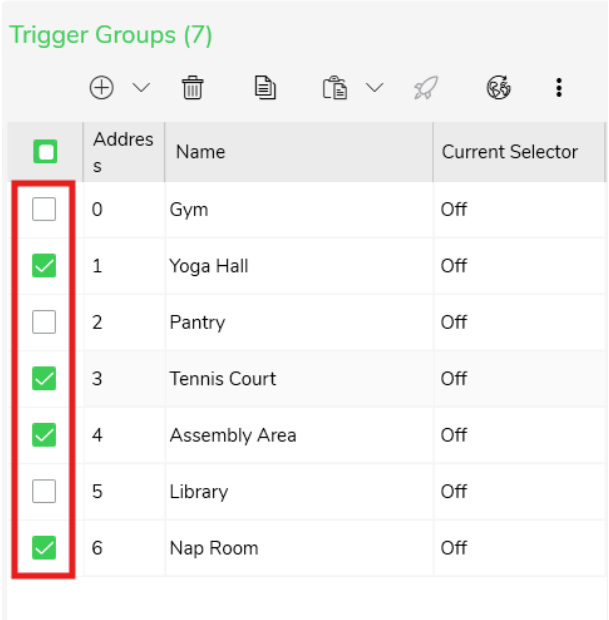
2. Select the **Trigger Group** check box to be deleted in the **Trigger Groups** section.

   NOTE:

   - A single trigger group can be chosen by selecting the check box of the required group, whereas all trigger groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one trigger group, then hold down the SHIFT key and select on additional groups (grids) using the mouse.

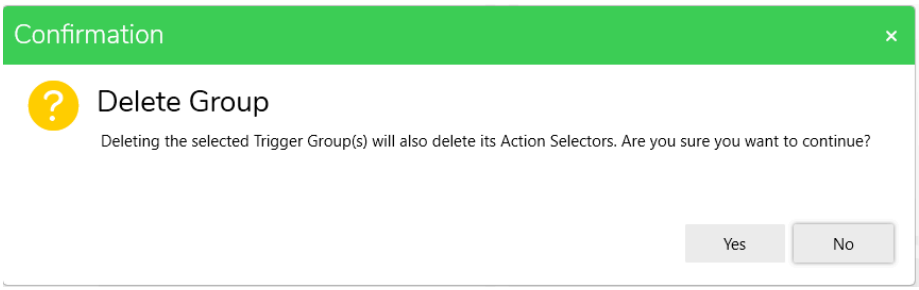


   - For random multiple selection, select one trigger group, then hold down the CTRL key and select the next trigger groups (grids) using the mouse.



   - The option will be disabled, if a trigger group is not selected.

3. Click in the **Trigger Groups** section. A **Confirmation** pop-up is displayed.



4. Click **Yes** to delete the trigger group.

Action Selectors

Associated with each Trigger Group is an Action Selector which is used to select an action to perform. Setting a Trigger Group to a particular action selector can be used to trigger a scene.

The number of action selectors allowed is 256 (0 to 255).

Operation performed on Action Selectors are:

- Add Action selector, page 197
- Copy Action selector, page 198
- Paste Action selector, page 199
- Edit Action selector, page 200
- Sort Action selector, page 201
- Delete Action selector, page 201

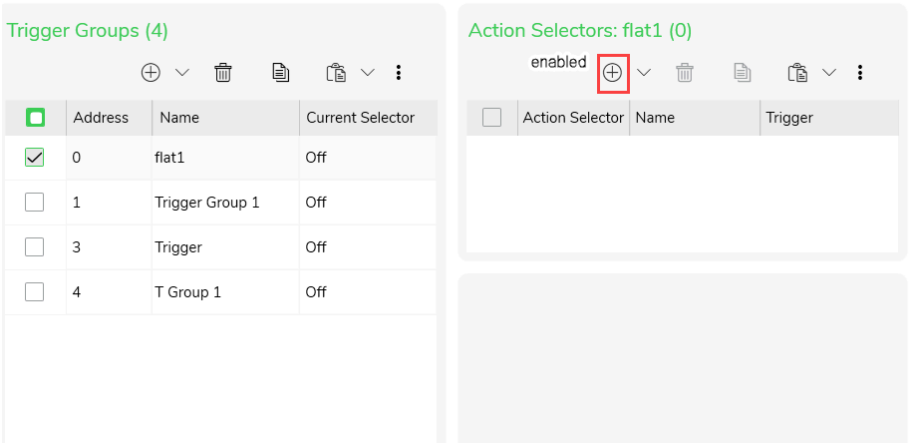
Add Action Selectors

The *Action Selector* is the value of the *Trigger Group* address.

Prerequisites: The Trigger Group must already be added in the application.

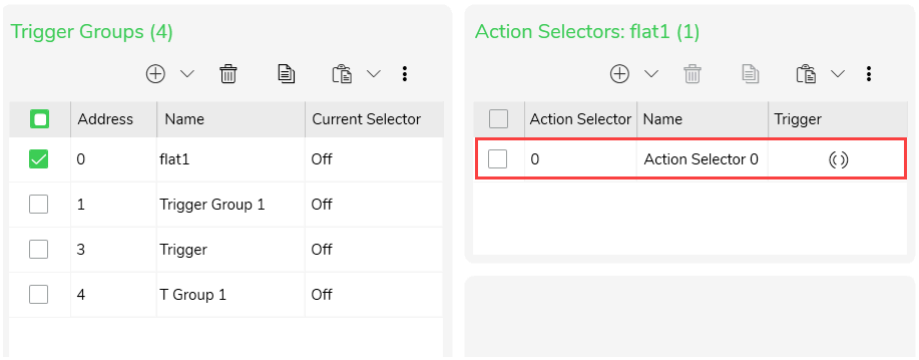
Each Trigger Group Address can create a maximum of 256 (0 to 255).

1. Select a trigger group in the *Trigger Group* section



NOTE: If a group is not selected, the ⊕ will be disabled.

2. Click ⊕ in *Action Selector* section



Step result: Single Level is added for a selected group.

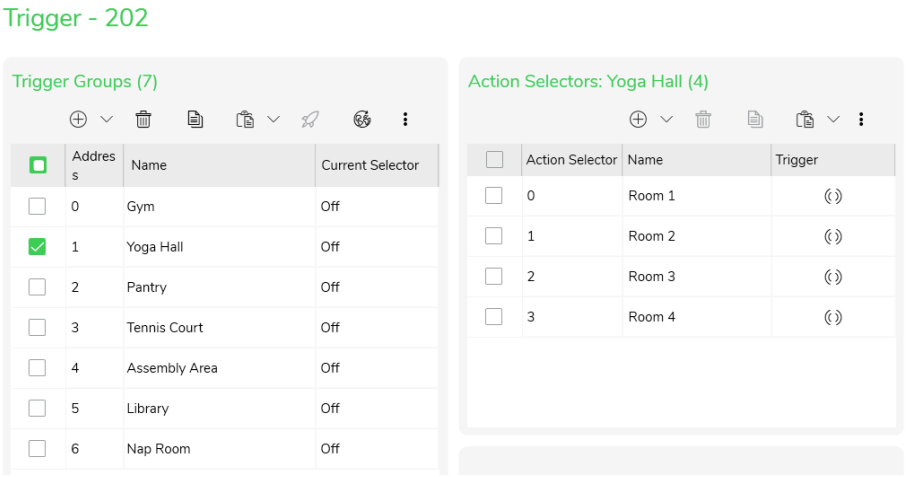
3. The steps to Add Multiple Action Selectors for a single Trigger group at a time is similar to as demonstrated in lighting application, Step 3click here, page 183

Copy Action Selectors

The **Action Selectors** created in a group can be copied to another Trigger group in the same Trigger application on same network or from the **Trigger** application from a different network in the project.

Prerequisites: The **Action Selector** must already be copied from a **Trigger Group**.

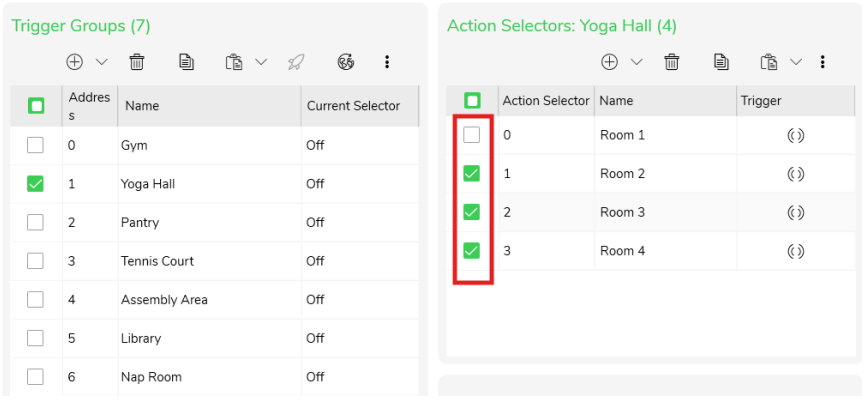
1. Go to **Applications** > **Trigger**.
2. Select the group check box in the **Trigger Groups** section. The **Action Selectors** for the selected **Trigger Group** are displayed in the **Action Selectors** section.



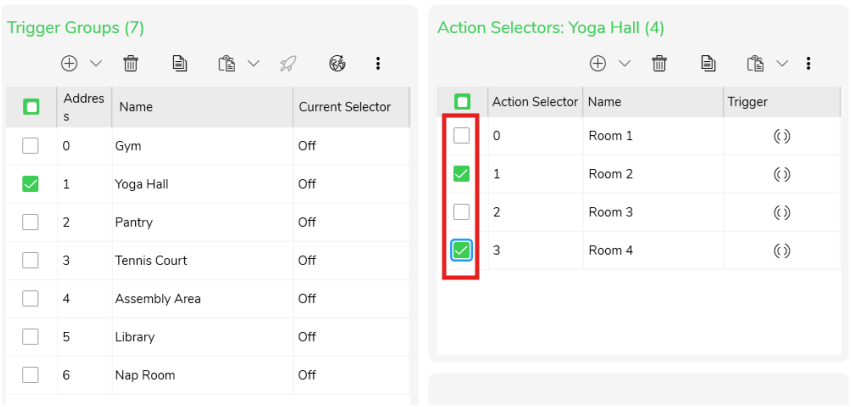
3. Select the required **Action Selectors** and click in **Action Selectors** section.

   NOTE:

   - A single action selector can be chosen by selecting the check box of the required action selector, whereas all action selectors can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one action selector, then hold down the SHIFT key and select on additional action selectors (grid) using the mouse.



   - For random multiple selection, select one action selector, then hold down the CTRL key and select the next action selector (grid) using the mouse.



   - The icon will be disabled, if an action selector is not selected.

   Step result: The selected action selectors are copied.

Paste Action Selectors

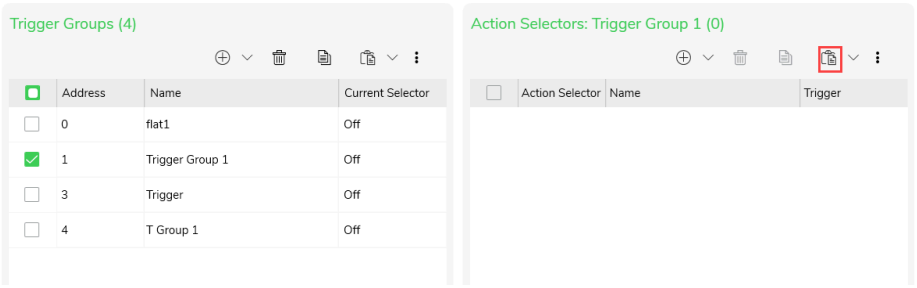
The paste option allows the user to paste the *Action Selectors* copied from one Trigger group into a different Trigger group on the same network or into a *Trigger Group* on another network, or in another project.

Prerequisites: The *Action selectors* must already be copied from a *Trigger Group*.

1. Select a trigger group in *Trigger groups* section.

   NOTE: *Action selectors* can either be pasted on same network or into a *Trigger Group* on another network/project.

2. Click in the *Action selectors* section.



NOTE: The Process to Paste *Action selectors* from Excel is similar to as demonstrated in lighting application, click here

Step result: The copied *Action selectors* are pasted.

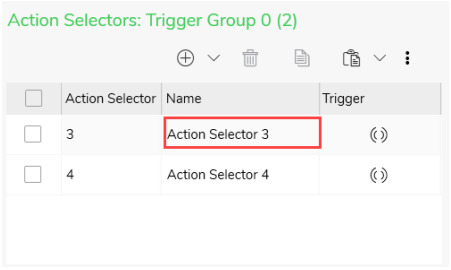
IMPORTANT: Paste conflict occurs when already existing Action selector name and Action selector address are been pasted in Trigger application.

The process to **Resolve conflict** is similar to as demonstrated in lighting application, click here

Edit Action Selector

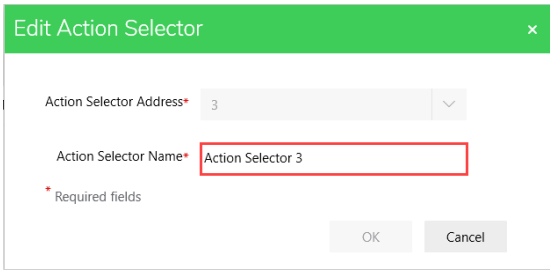
Prerequisites: The *Action selectors* must already be existing in the selected Trigger group of *Trigger* application.

1. Double-click on the Action selector I name that has to be edited/renamed

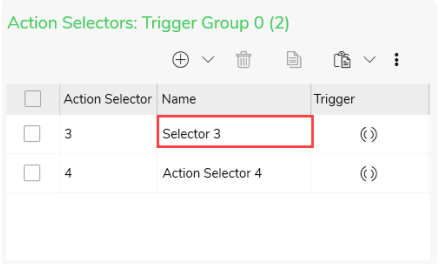


Step result: Edit Trigger Group dialog box is displayed.

2. Edit the *Action selector* name and click OK.



NOTE: Special characters /,",# and maximum of 32 characters in the Action selector name is valid.

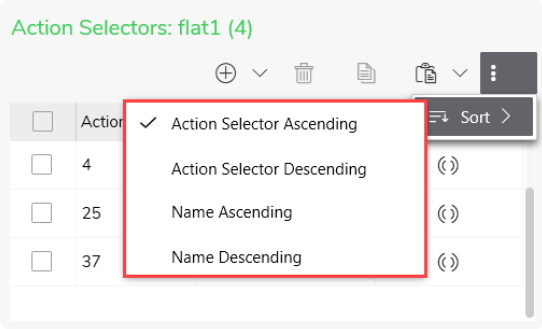


Step result: The *Action selector* name is updated.

Sort Action Selectors

Prerequisites: The *Action selectors* must already be created in a selected *Trigger group* address.

The existing *Action selectors* in application can be sorted using ⋮ in the *Action selectors* section of Trigger application.



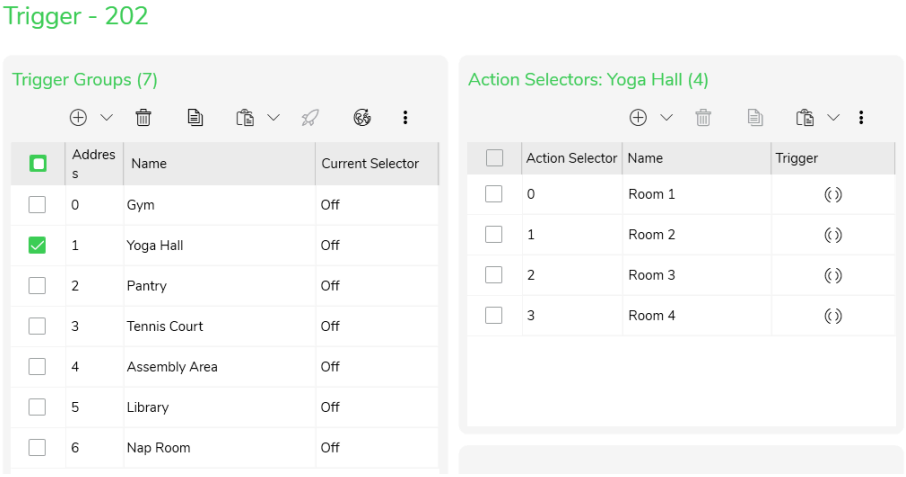
Choose appropriate sort method.

Delete Action Selectors

The delete option allows you to delete one or more **Action Selectors** added to a **Trigger Group** address.

Prerequisites: The **Action Selectors** must already be created in a selected **Trigger Groups** address.

1. Go to **Applications** > **Trigger**.
2. Select the **Trigger Group** address check box. The **Action Selectors** for the selected trigger group address are displayed in the **Action Selectors** section.

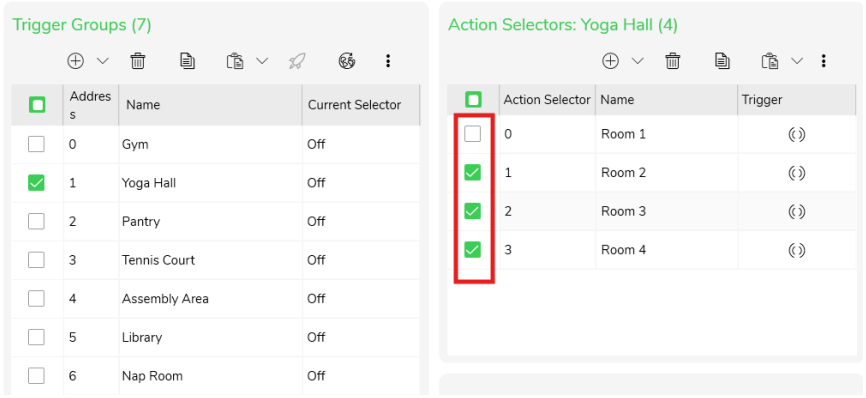


NOTE: When trigger group is selected, 🗑 in the **Action Selectors** section will be disabled.

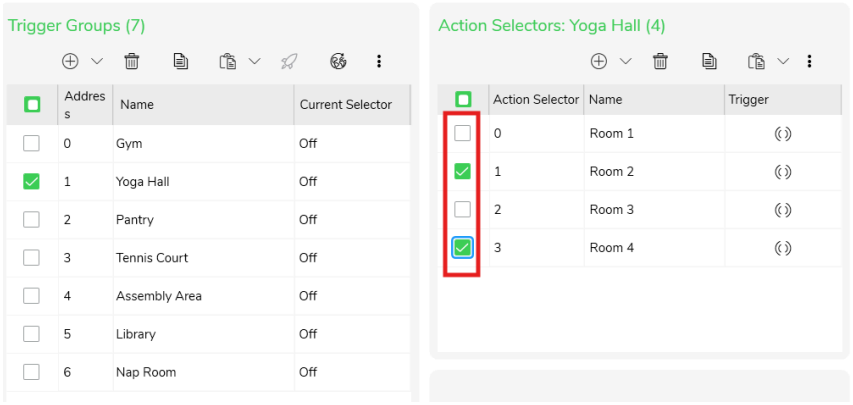
3. Select the **Action Selector** to be deleted.

   NOTE:

   - A single action selector can be chosen by selecting the check box of the required action selector, whereas all action selector can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one action selector, then hold down the SHIFT key and select on additional action selectors (grid) using the mouse.

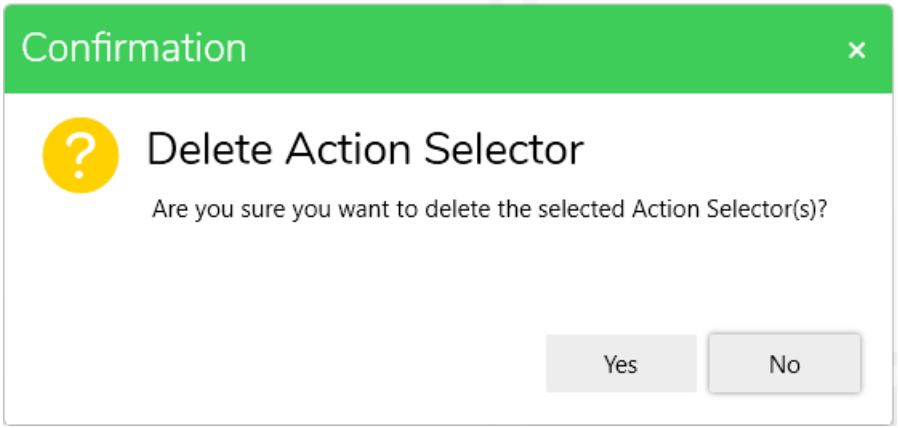


   - For random multiple selection, select one action selector, then hold down the CTRL key and select the next action selector (grid) using the mouse.



   - The icon will be disabled, if a action selector is not selected.

4. Click in the **Action Selectors** section. A **Confirmation** pop-up is displayed.



5. Click **Yes** to delete the action selectors.

Enable Application

When a network is created in project, the *Enable* application is created by default with an application number 203.

The Enable application is viewed similar to lighting application, click here

For more details, click:

- Enable group, page 203
- Values, page 209

Enable Group

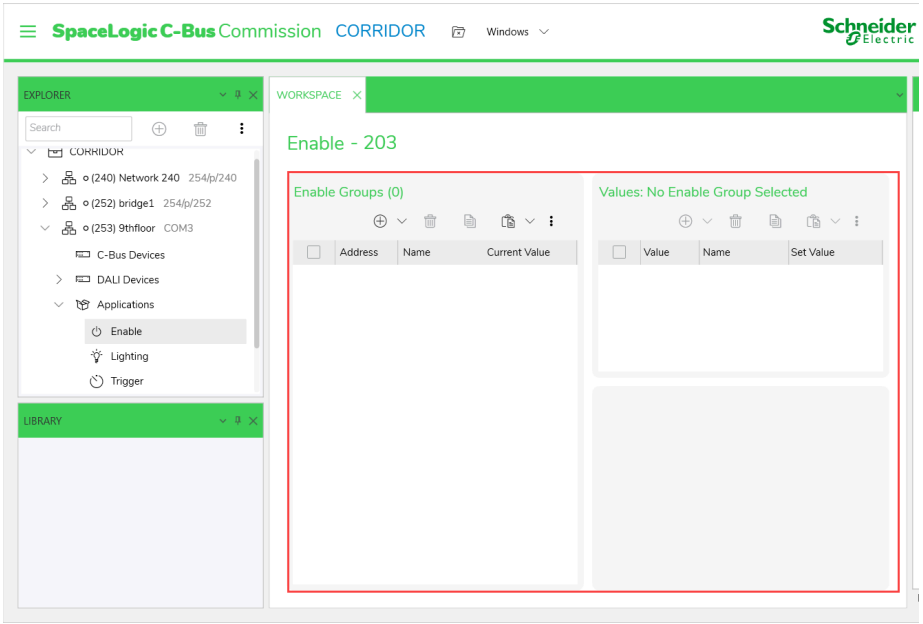
Operations performed on Enable groups are:

- Add enable group, page 203
- Copy enable group, page 204
- Paste enable group, page 206
- Edit enable group, page 206
- Sort enable group, page 207
- Delete enable group, page 207

Add Enable Group

Prerequisites: The Enable application must be selected in the created network.

1. Select a network from the **EXPLORER** window.
2. Click **Applications** drop-down.
3. Select **Enable**.



Step result: Respective **Enable Groups** and **Values** section of **Enable** is displayed in the **WORKSPACE** window.

4. Click ⊕ in the **Enable Groups** section.

5. Choose address.

   Step result: A **Enable Group** is created.

   The process to create multiple enable groups at a time is similar to as demonstrated in **Lighting Application** , click here.

Copy Enable Groups

In a multi-network project, the group addresses of an **Enable** application on a network can communicate with group addresses of a **Enable** application on another network via C-Bus bridge.

Prerequisites: The enable group address must be already created in an application.

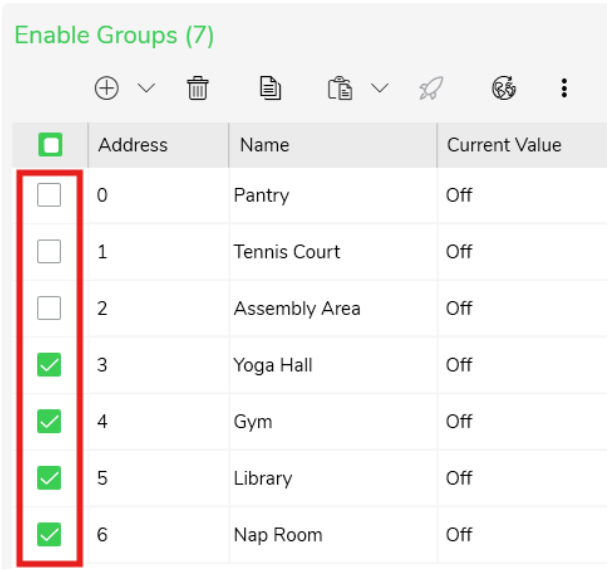
The enable group addresses in the **Enable** application can be aligned/arranged with same addresses as in the other **Enable** application.

1. Click **Applications** > **Enable**.

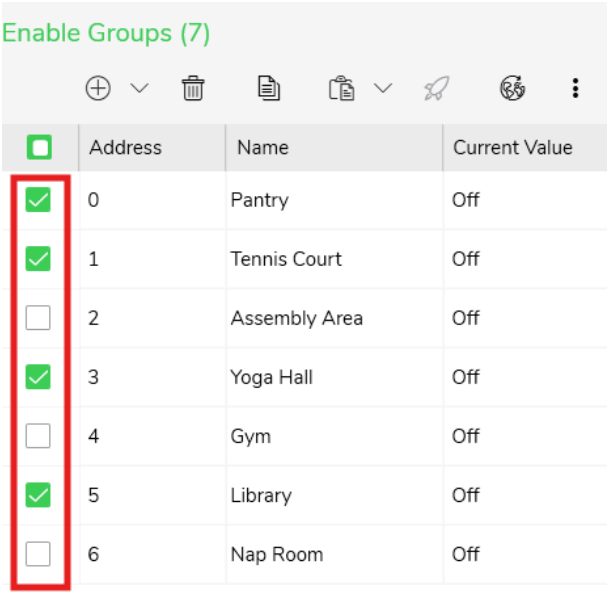
2. Select the **Enable Groups** check box to be copied in the **Enable Groups** section.

   NOTE:

   - A single group can be chosen by selecting the check box of the required group, whereas all groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one group, then hold down the SHIFT key and select on additional groups (grid) using the mouse.



   - For random multiple selection, select one group, then hold down the CTRL key and select the next groups (grid) using the mouse.



   - The icon will be disabled, if a enable group is not selected.

3. Click in the **Enable Groups** section of **Enable** application.

   NOTE: To copy the complete application, click in the application section.

   Step result: The selected enable groups are copied.

Paste Enable Groups

The *Enable* application *Group Addresses* copied from one network are pasted either into another *Enable* application in same network or in a different network, or in different project.

Prerequisites: The Enable Group Address must be copied from an application to another network or to the same network.

NOTE: The *Enable* application *Group Address* copied from one network must be pasted only into the Enable application on another network.

1. Select the Enable application of the network to be pasted in
2. Click in the *Enable Group* section

NOTE: The process to Paste the *Enable Groups* from excel is similar to as demonstrated in lighting application, click here

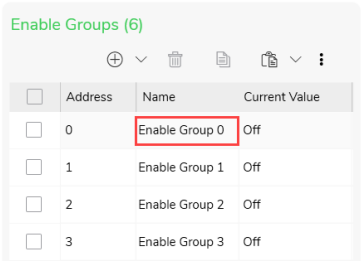
IMPORTANT: Paste conflict occurs when already existing Enable group address and group name are been pasted.

The process to **Resolve conflict** is similar to as demonstrated in lighting application, click here

Edit Enable Group

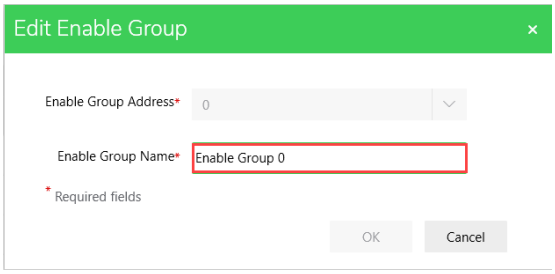
Prerequisites: Make sure you have selected *Enable* application and enable groups has been created.

1. Double-click on the enable group name that has to be edited/renamed

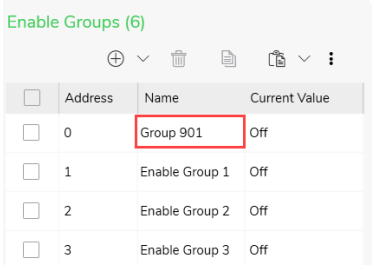


Step result: Edit Enable Group Dialog box is displayed.

2. Edit the Enable Group name and click **OK**



NOTE: Special characters except / , “,# and maximum of 32 characters in the Enable group name are valid.

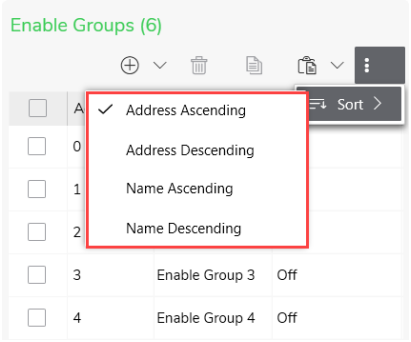


Step result: The Enable group name is updated.

Sort Enable Group

Prerequisites: The *Enable Group Addresses* must already been created in *Enable* application.

The existing Enable Groups in application can be sorted using ⋮ in the Enable Group section of Enable application.



Choose appropriate sort method.

Delete Enable Group

The delete group allows you to delete one or more group addresses from a **Enable** application.

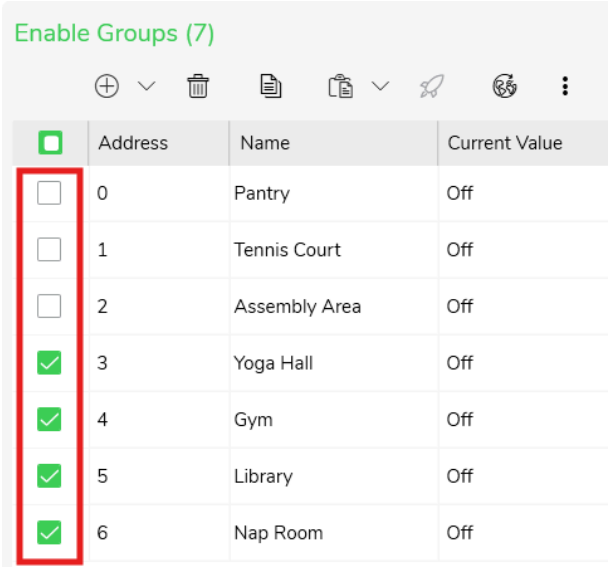
Prerequisites: The enable group address must already be created in the **Enable** application

1. Click **Application** > **Enable**.

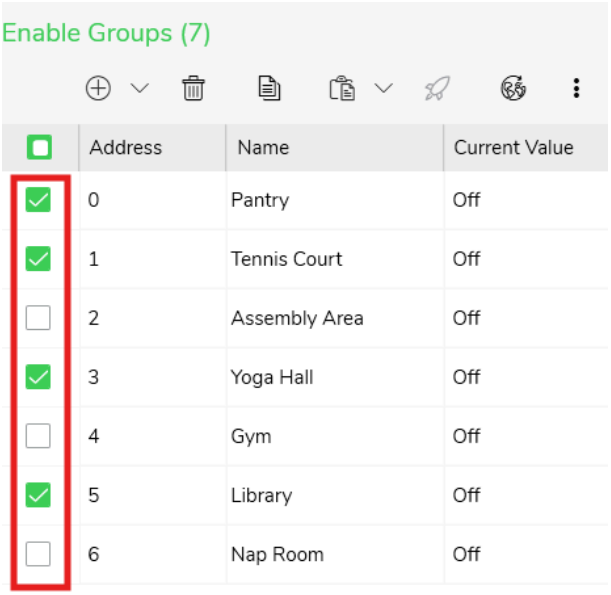
2. Select the **Enable Group** check box to be deleted in the **Enable Groups** section.

   NOTE:

   - A single enable group can be chosen by selecting the check box of the required group, whereas all enable groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one enable group, then hold down the SHIFT key and select on additional groups (grid) using the mouse.

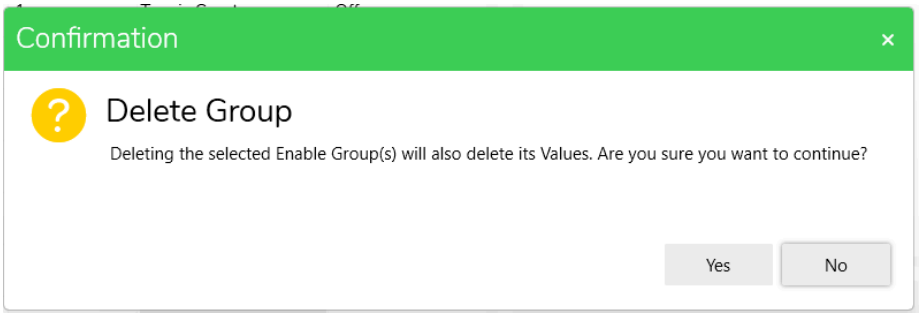


   - For random multiple selection, select one enable group, then hold down the CTRL key and select the next enable groups (grid) using the mouse.



   - The option will be disabled, if a enable group is not selected.

3. Click in the **Enable Groups** section. A **Confirmation** pop-up is displayed.



4. Click **Yes** to delete the enable group.

Values

Each of the *Enable Network Variables* are assigned with values from 0 through 255.

1. Add values, page 209
2. Copy values, page 210
3. Paste values, page 211
4. Edit values, page 212
5. Sort values, page 212
6. Delete values, page 213

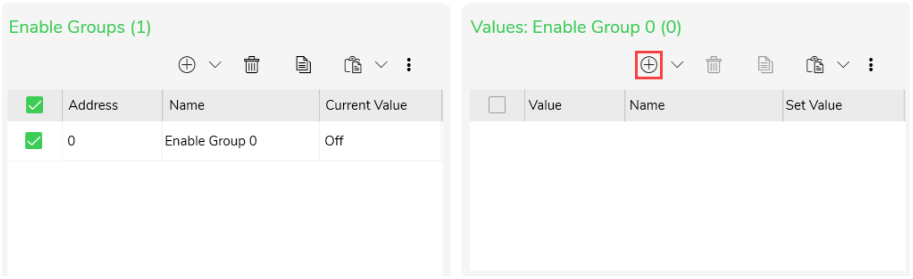
Add values

The *Values* is the value of the *Enable* address.

Prerequisites: The *Enable Group* must already be created in the *Enable* application.

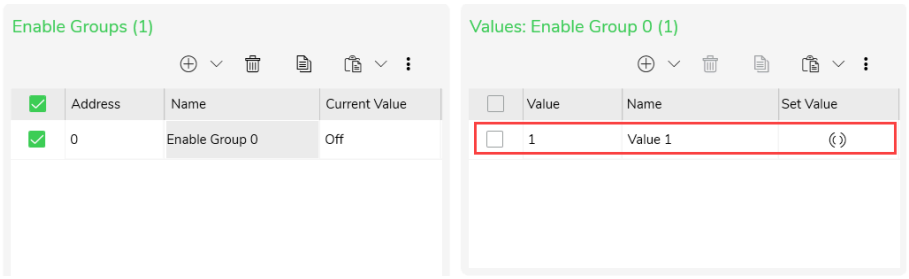
Each Enable group Address can create a maximum of 256 (0 to 255).

1. Select a *Enable group* in the enable group section



NOTE: If a group is not selected, the ⊕ will be disabled.

2. Click ⊕ and choose address in *values* section



Step result: Single Value is added for a selected Enable group.

3. The steps to Add Multiple values for a single Enable group at a time is similar to as demonstrated in lighting application, Step 3click here, page 183

Copy Values

The values created in a **Enable Group** can be copied from another Enable Network Variable in the same **Enable** application on same network or from the **Enable** application from a different network in the project.

Prerequisites: The values must already be copied from a **Enable Group.**

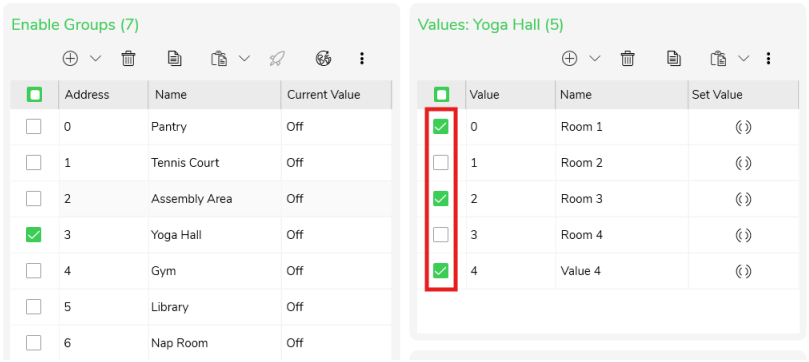
1. Click **Applications** > **Enable**.
2. Select the **Enable Group**.

   Step result: The values for the selected **Enable Group** are displayed in the **Values** section.

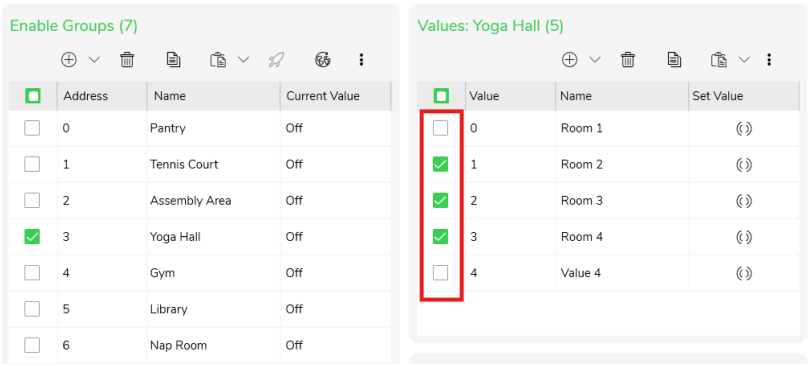
3. Select the value check box to be copied in the **Values** section.

   NOTE:

   - A single value can be chosen by selecting the check box of the required value, whereas all values can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one value, then hold down the SHIFT key and select on additional values (grid) using the mouse.



   - For random multiple selection, select one value, then hold down the CTRL key and select the next value using the mouse.



   - The icon will be disabled, if a value is not selected.

4. Click in the **Values** section of **Enable Group** application.

   NOTE: To copy the complete application, click in the **Values** section.

   Step result: The selected values are copied.

Paste Values

The paste option allows the user to paste the *Values* copied from one *Enable Group* into different *Enable Group* on the same network or into a *Enable Group* on another network.

Prerequisites: The *Values* must already be copied from a *Enable Group*.

1. Select a Enable Group in *Enable Group* section

   NOTE: *Values* can either be pasted on same network or into a *Enable Group* on another network/project.

2. Click in the *Values* section.

   NOTE: The Process to Paste *Values* from Excel is similar to as demonstrated in lighting application, click here

   Step result: The copied *Values* are pasted.

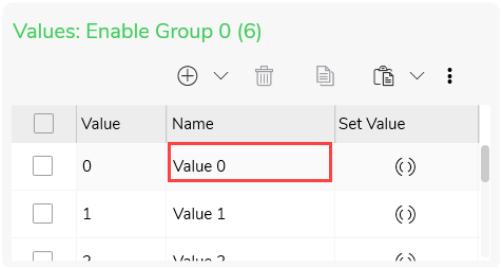
IMPORTANT: Paste conflict occurs when already existing Values name and Values address are been pasted in *Enable* application.

The process to **Resolve conflict** is similar to as demonstrated in lighting application, click here

Edit Values

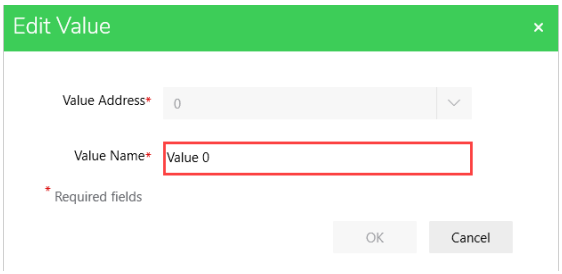
Prerequisites: The *Values* must already be existing in the selected Enable group of *Enable* application.

1. Double-click on the value name that has to be edited.

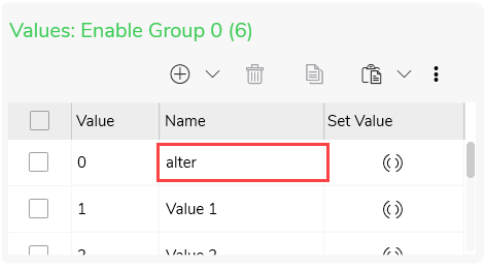


Step result: Edit Value dialog box is displayed.

2. Edit the *Value* name and click OK.



NOTE: Special characters except /,",# and maximum of 32 characters in the Values name are valid.

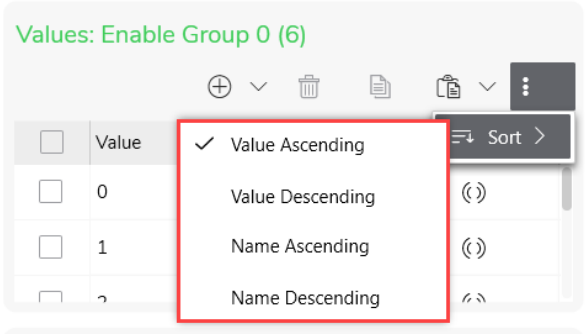


Step result: The *Value* name is updated.

Sort values

Prerequisites: The *Values* must already be created in a selected *Enable Group* address.

The existing *Values* in application can be sorted using ⋮ in the *Values* section of *Enable* application.



Choose appropriate sort method.

Delete Values

The delete function allows you to delete one or more values added to a **Enable Group**.

Prerequisites: The values must already be created in a selected enable group address.

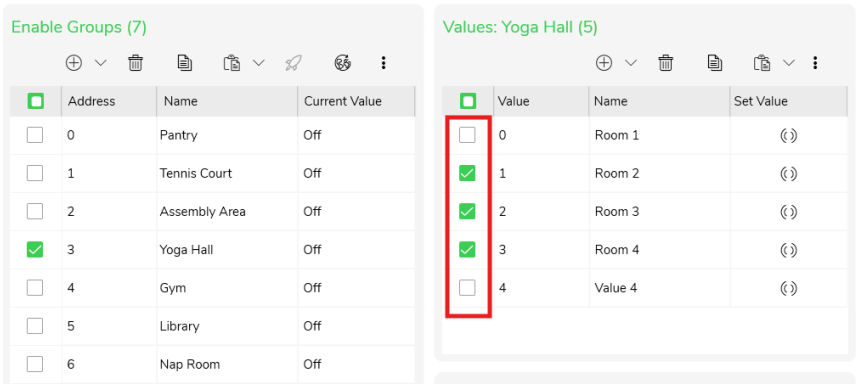
1. Click **Application** > **Enable**.
2. Select the **Enable Group**.

   Step result: The values for the selected **Enable Group** are displayed in the **Values** section.

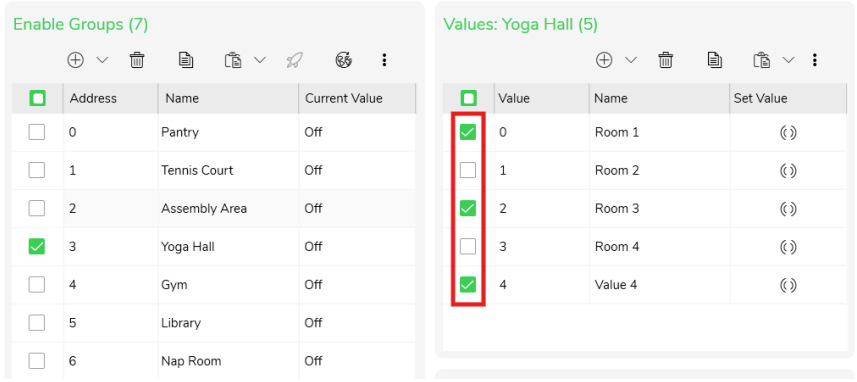
3. Select the **Value** check box to be deleted in the **Values** section.

   NOTE:

   - A single value can be chosen by selecting the check box of the required value, whereas all values can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one value, then hold down the SHIFT key and select on additional values (grid) using the mouse.

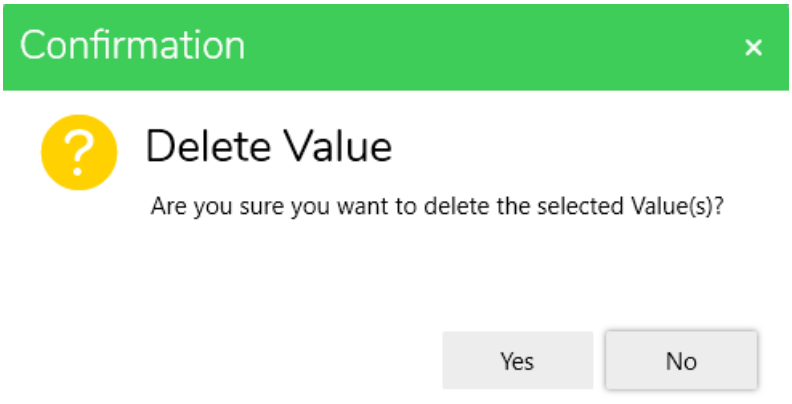


   - For random multiple selection, select one value, then hold down the CTRL key and select the next values (grid) using the mouse.



   - The icon will be disabled, if a value is not selected.

4. Click in the **Values** section. A **Confirmation** pop-up is displayed.



5. Click **Yes** to delete the values.

Error Application

Prerequisites: The network must have already been created in the project .

SpaceLogic C-Bus units monitor and detect error conditions, and report those conditions using the C-Bus error application. The C-Bus error application is used to report error information detected or generated by C-Bus units over the C-Bus network.

Error reports are screened on the error application. The data transmitted across this application can be used by SpaceLogic C-Bus units which accept error messages.

The reports contain information on the source, severity and nature of the error or fault condition. Events may be reported as OK if the monitored event is operating normally.

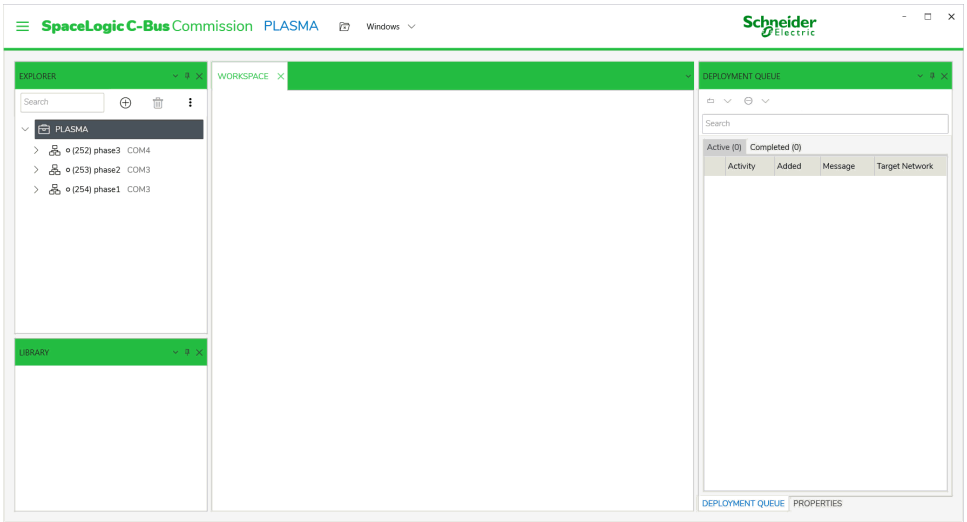
Devices that receive error messages take appropriate action in response to the information. This may include publishing information for a user, logging errors or sounding alarms.

Error application is created using a reserved application number 206.

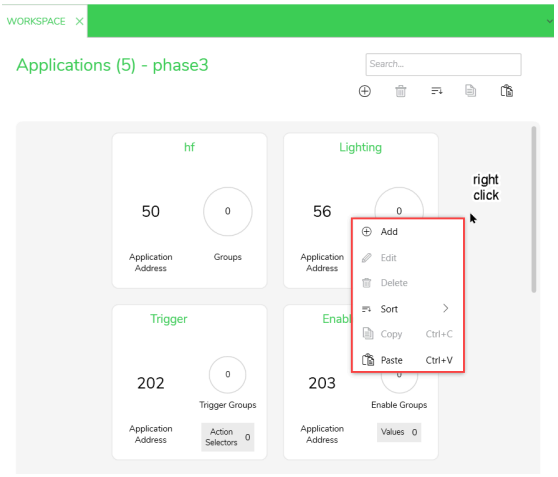
SpaceLogic C-Bus units which support error application are:

- DALI/DSI
- Digital Dimmer
- TE Dimmer
- LE Dimmer
- Universal Dimmer
- Modular Dimmer
- Relay
- Key Unit
- Telecommand and Remote Entry
- Temperature Sensor
- PSU
- BMS Reporting
- PWM/LED Dimmer
- Sinewave Dimmer
- Device Controller
- A/C System

The procedure to create an error application is as demonstrated below:



TIP: Alternate method to create error application is shown below:



Operations performed in Error application:

- Add Error object, page 217
- Sort Error object, page 221
- Delete Error object, page 223

An error message consists of the following additional fields:

- **The error severity**

  The severity of an error reflects how critical the error is. The error severity categorized in the order of severity are:

  1. ***Unknown:*** The current error severity is unknown (no messages have been received)
  2. ***All OK***: An Error Severity of All OK is a shortcut used to indicate that all monitored events watched by an error monitoring C-Bus unit are OK.
  3. ***OK:*** An Error Severity of OK is used to indicate that the status of an individual monitored event being watched by an error monitoring C-Bus unit is currently within normal operating conditions
  4. ***Minor Failure:*** An error severity of Minor Failure is used to indicate a warning or low priority error for an individual monitored event being watched by an error monitoring C-Bus unit
  5. ***General Failure:*** An error severity of General Failure is used to indicate an error for an individual monitored event being watched by an error monitoring C-Bus unit
  6. ***Extreme Failure:*** An error severity of Extreme Failure is used to indicate errors (such as 240 V presence on a DALI Line reporting a Line error, Over Current Protection shutting down a channel on C-Bus Dimmer, C-Bus Product failure etc.) for an individual monitored event being watched by an error monitoring C-Bus unit

- **Whether the error is latched**

  Error messages can be current or latched. Current error messages reflect the current status of the error condition. Latched error messages reflect the most severe error which has existed since the condition was last cleared. A latched error can be cleared upon receipt of a C-Bus network command from a C-Bus error receiving unit or software.

- **Whether the error has been acknowledged**

  An error can be acknowledged by an error receiving unit. The acknowledgement is transmitted onto the C-Bus for use by the appropriate C-Bus event monitoring unit, such as the DALI gateway.

- **Additional error data**

  The data accompanying an error status message depends on the C-Bus unit type. Example, when lighting ballasts fail, the event monitoring unit such as the C-Bus Universal dimmer sends details of the dimmer channel where the error event occurred and the nature of the error.

Monitored event

A monitored event is an event or value that is watched to determine the presence or absence of failure. Example, a DALI gateway can be configured to watch for ballast failure on single or set of DALI lighting units on a DALI network.

Event monitoring units

Event monitoring C-Bus units are units which watch monitored events and transmit the error status onto the C-Bus network. The DALI gateway and the C-Bus Universal dimmer are event monitoring units.

An event monitoring unit can:

- Monitor the error status of multiple internal or external events
- Transmit error messages whenever a monitored event changes status
- Refresh error status of monitored events at regular intervals across C-Bus
- When requested, provide a complete error status update of all monitored events
- Store (latch) and transmit the most severe previous error states of a monitored event in order to catch transient errors
- Accept C-Bus command messages to acknowledge errors
- Accept C-Bus command messages to clear latched errors

Error status units or software

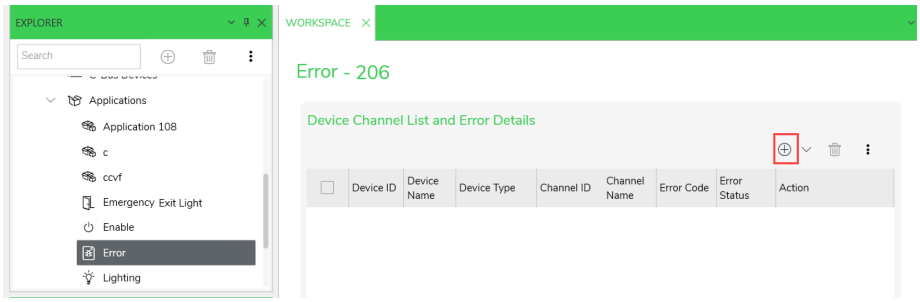
An error status unit or software utility accepts error messages from a C-Bus network, but does not watch events directly. Example, the Schedule Plus software receives error messages and is capable of carrying out other operations such as clearing latched errors.

Add Error Object

Prerequisites: The Error application must already be created in a network.

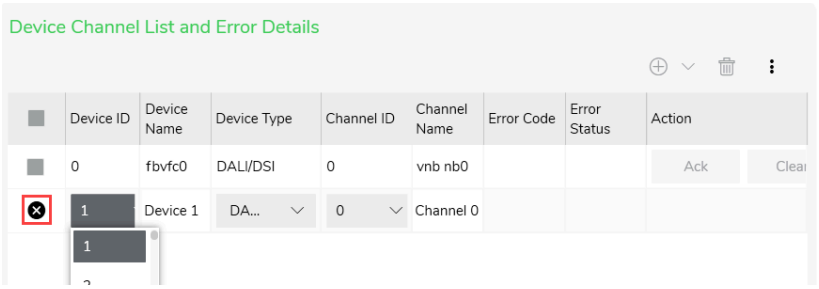
1. Click *Applications* drop-down in the **Explorer** window
2. Click *Error*

3. Click ⊕

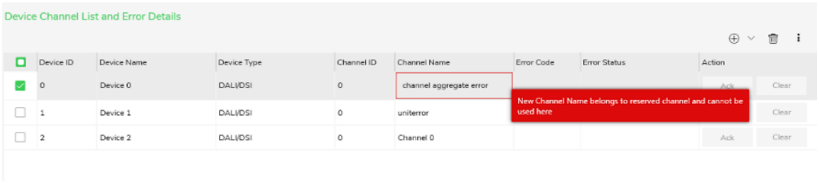

EXPLORER
Search
Applications
Application 108
c
ccvf
Emergency Exit Light
Enable
Error
Lighting
WORKSPACE
Error - 206
Device Channel List and Error Details
Device ID
Device Name
Device Type
Channel ID
Channel Name
Error Code
Error Status
Action

NOTE:

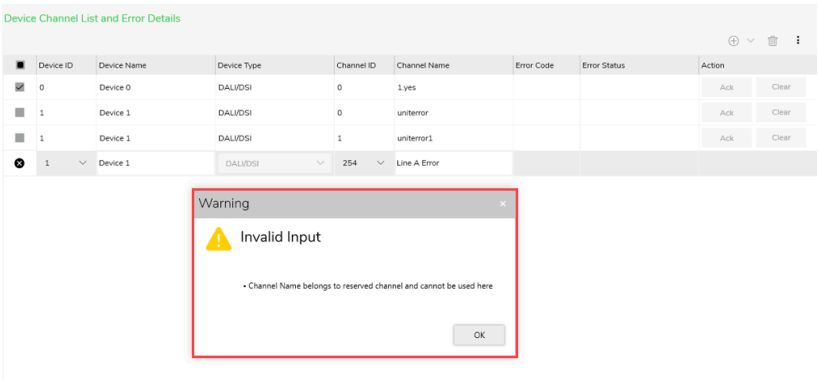
- The error object can be deleted during creation/adding itself using “x” as shown below:



- The Channel and Device name of the error object can be modified. Double-click on the channel/device name, edit the device name to match your device and channel name to match the channel that is been monitored on the device, then click enter (or on the empty space of the section) to update the change
- **Warning** dialog box is displayed while attempting to use an reserved channel name



- **Invalid Input** message is displayed when attempting to use the channel name which is already belonging to a reserved channel



The field informations of error application is as explained below:

Field	Meaning
Device ID	Unique Device ID is a reference to identify a specific C-Bus unit for error reporting purposes. The error *Device ID* drop down list allows the ability to select a value from 0- 254
Device Name	Specifies the name of the device
Device Type	Specifies the type of the device
Channel ID	Object Id assigned to the device **IMPORTANT:** Reserved channel Id’s have default channel names: • Channel Id 254: “Unit Error” • Channel Id 253: “Line B Error” • Channel Id 252: “Line A Error” • Channel Id 251: “Channel Aggregate Error”
Channel Name	Specifies the name of the channel **NOTE:** The channel names of reserved channel Id’s cannot be modified.
Error Code	Generated error code

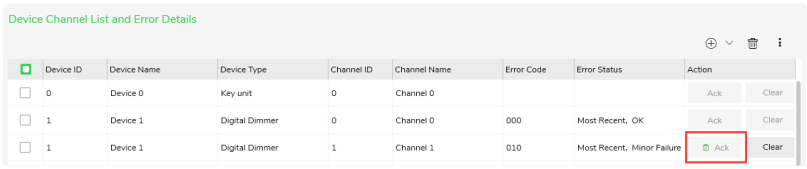
Error Status	Description of the error status
Action	Action to be performed based on error: **ACK**: Acknowledge the error object **Clear**: Clears the error object

Different Devices have an Channel ID references as explained below:

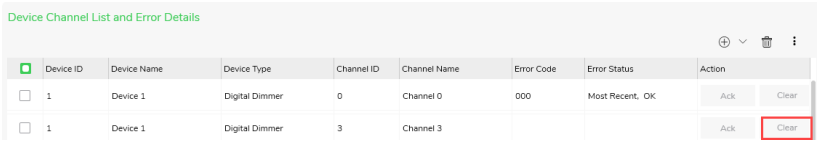
DALI 2 Gateway	0-63 DALI line A Object ID's 63-127 DALI line B Object ID's
Dimmers	8 Channel - 0-7 4 Channel - 0-3 **NOTE:** Each channel Id represents the respective Channel

NOTE:

- While adding new device, the device type can be selected using drop-down option
- Click **Ack**, to acknowledge the particular error

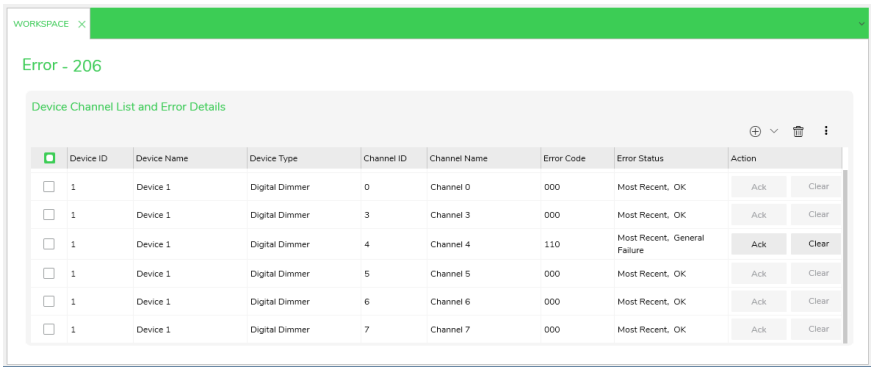


- Click **Clear**, to clear the error code and status

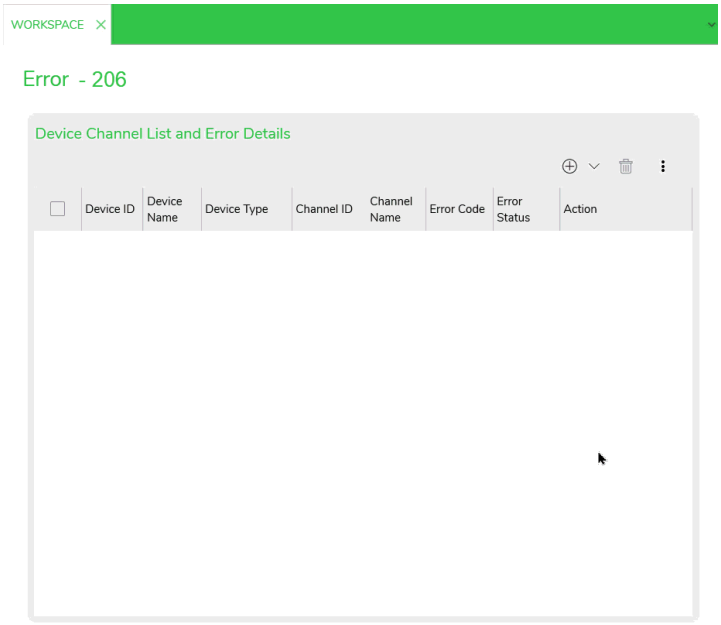


Step result: A Error object is added.

IMPORTANT: Error code and error message for each device are read from the live network devices and will be displayed on error table against corresponding device and channel ID.



TIP: A single Device ID can have multiple Channel ID. The procedure to add multiple error object for the same Device ID is as demonstrated below (maximum of 255 devices can be added at one go):



Sort Error Objects

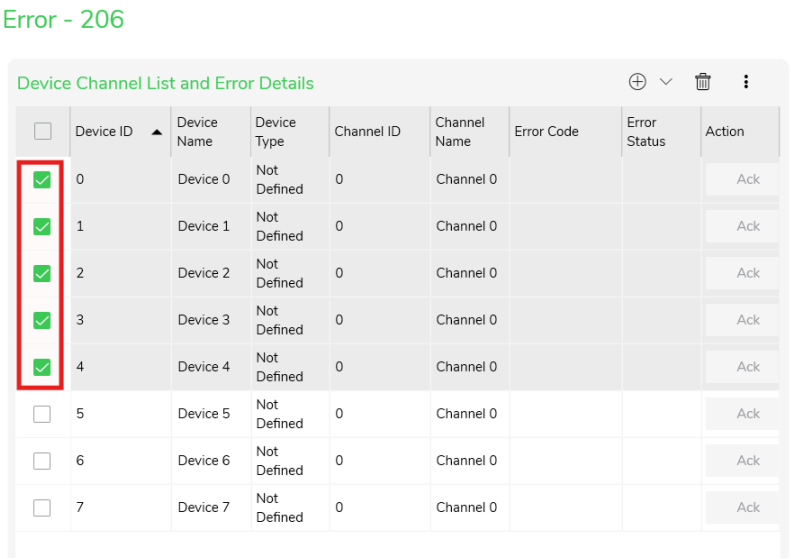
Prerequisites: The Error objects must already have been created in the**Error** application.

The existing error objects in application can be sorted.

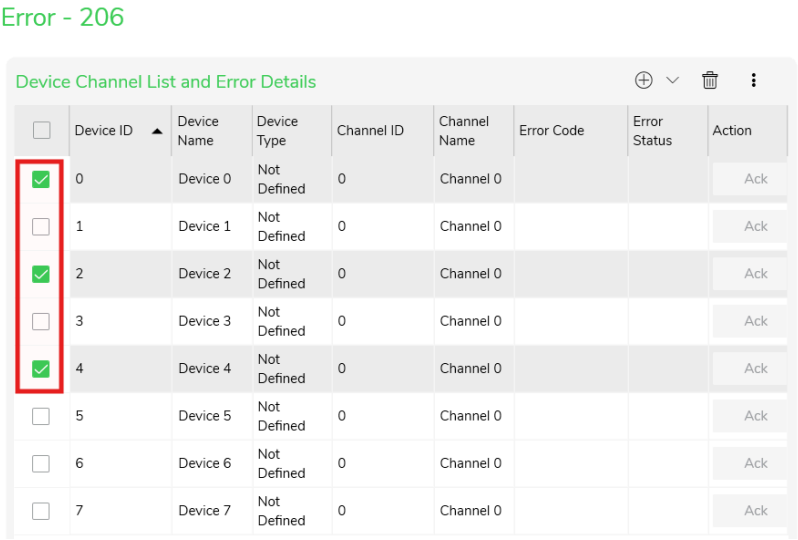
1. Select the error object.

NOTE:

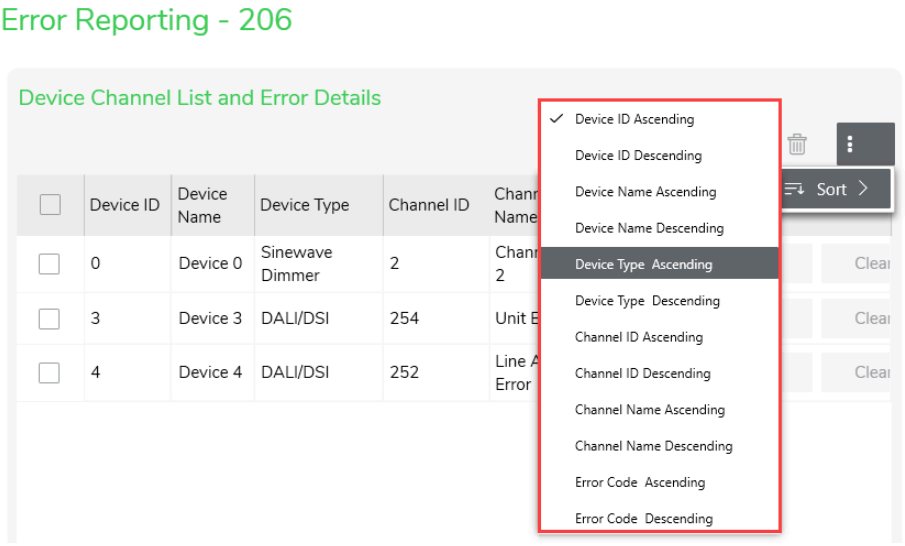
- A single error object can be chosen by selecting the check box, whereas all error objects can be chosen by selecting the check box on the top.
- For range (sequential) selection, select one error object, then hold down the SHIFT key and select on additional error objects (grid) using the mouse.



- For random multiple selection, select one error object, then hold down the CTRL key and select the next error objects (grid) using the mouse.



2. Click ⋮ in the **Device Channel List and Error Details** section.



The available sort methods are displayed.

3. Select the appropriate sort method. The error object list will be sorted according to the selected sort method.

Delete Error Object

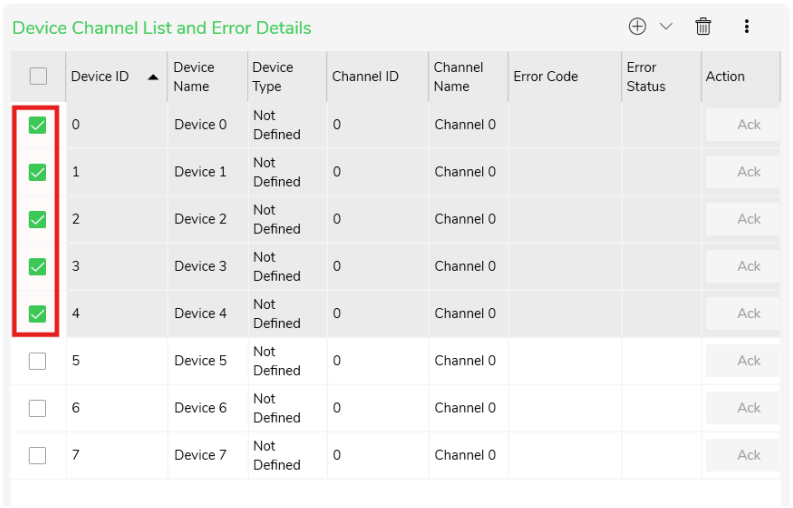
Prerequisites: Error application must already have been created in network and error object must have been added.

1. Select the error object.

   NOTE:

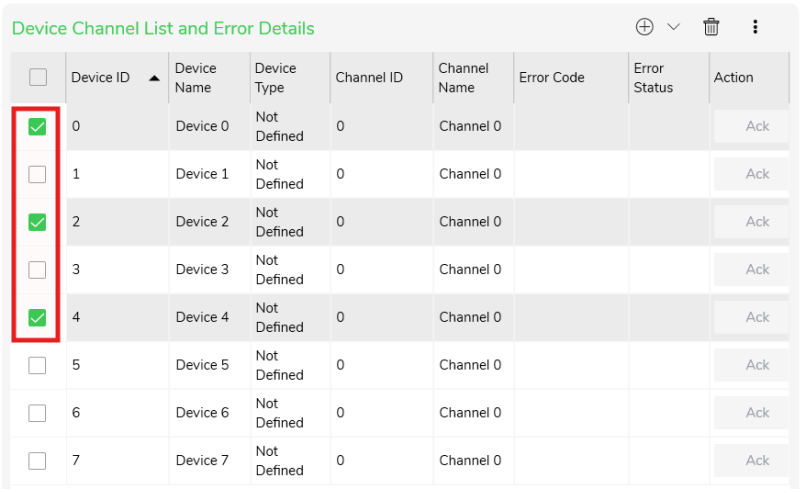
   - A single error object can be chosen by selecting the check box, whereas all error objects can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one error object, then hold down the SHIFT key and select on additional error objects (grid) using the mouse.

   Error - 206

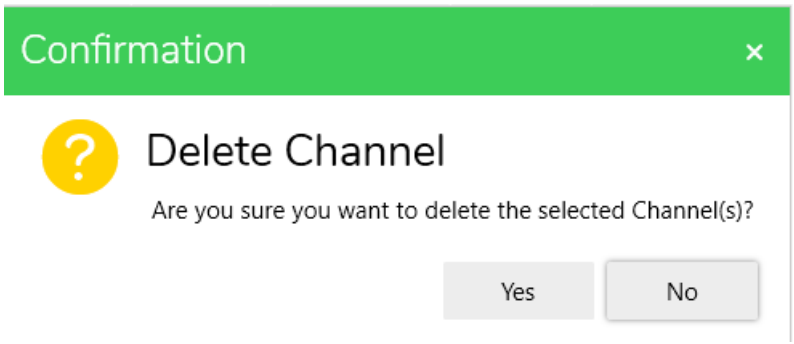
   - For random multiple selection, select one error object, then hold down the CTRL key and select the next error objects (grid) using the mouse.

   Error - 206

2. Click in the **Device Channel List and Error Details** section.

   A **Confirmation** pop-up is displayed.

3. Click **Yes** to delete the channels and **No** to cancel the delete operation.

   TIP: Alternate method to delete selected error objects is, right-click on the selected **Device > Delete**.

Measurement Application

Prerequisites: The network must have already been created in the project .

The Measurement application receives raw data in the form of voltage, current and resistance. This information is converted, scaled and then transmitted across the C-Bus to accurately represent physical measurement units such as temperature, liquid level, light level, etc. The measurement data transmitted across the C-Bus is utilized by C-Bus unit such as temperature, liquid level, light level, etc., which can process measurement application messages.

Measurement application is created using a reserved application address 228.

SpaceLogic C-Bus units which support measurement application.

- General input unit
- current measurement unit
- 5104DTSI temperature sensor
- Color C-Touch Screen
- PAC module
- Schedule Plus +
- HomeGate
- eDLT key input unit
- DALI Gateway
- 8 Channel Switchable Power Supply Dimmer
- 4 Channel Switchable Power Supply Dimmer
- DALI-2 Gateway

The procedure to create an measurement application is similar to creating error application with a reserved address 228.

The field informations of measurement application is as explained below:

Field	Meaning
Device ID	Unique Device ID is a reference to identify a specific C-Bus unit for measurement report. The measurement *Device ID* drop down list allows the ability to select a value from 0- 254.
Device Name	The Device name specifies the name of the device. The drop-down list allows the selection of a unique ID between 1 - 254.
Channel ID	The Channel ID is used to specify the channel of the device from which the Measurement application data is received. The channel ID drop-down list allows the ability to select a value from 0- 255. **NOTE:** Channel ID starts at the next available address based on the device ID.
Channel name	The Channel name specifies the name of the channel.
Timeout Period	Time out value that is used by the Controller to monitor the object (0–2880 minutes). • If no timeout value is added, it is considered as invalid with blank. • If the timeout is 0, then the value are read and updated normally.
Unit Type	The Unit type displays the unit type of the value read. The below table explains the standard units that are used in measurement application.
Current Value	The Current value displays the current read value.

Standard Measurement Units

The table below contains a list of measurement units which are available to select when converting input data into measurement data for transmission across the C-Bus system.

Unit Code	Units	Typical Use
$00	°C	Temperature
$01	Amps	Current
$02	Angle (degrees)	Angular displacement
$03	Coulomb	(Electric charge)
$04	False=0	
True otherwise	Boolean stuff	
$05	Farads	Capacitance
$06	Henrys	Inductance
$07	Hertz	Frequency
$08	Joules	Energy
$09	Katal	Rate of catalytic activity
$0A	Kg/m3	Density
$0B	Kilograms	Mass
$0C	Liters	Volume
$0D	Liters per hour	Very slow flow rate
$0E	Liters per minute	Slow flow rate
$0F	Liters per second	Flow rate
$10	Lux	Light Level
$11	Metres	Distance
$12	Metres per minute	Slow speed
$13	Metres per second	Speed
$14	Metres/s2	Acceleration
$15	Mole	Quantity of substance
$16	Newton metre	Torque
$17	Newtons	Force
$18	Ohms	Resistance
$19	Pascal	Pressure

Operations performed in Measurement application

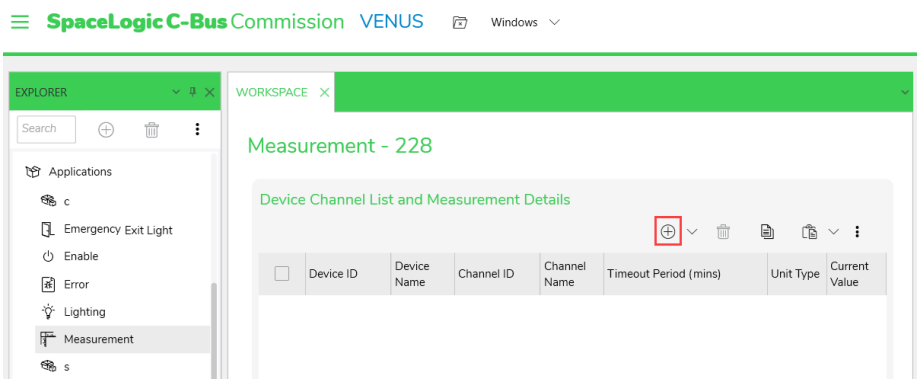
- ADD Measurement data, page 227
- Sort Measurement data, page 229
- Delete Measurement data, page 230

Add Measurement Data

Prerequisites: The Measurement application must already be created in a network.

1. Click **Applications** drop-down in the **EXPLORER** window.
2. Click **Measurement**

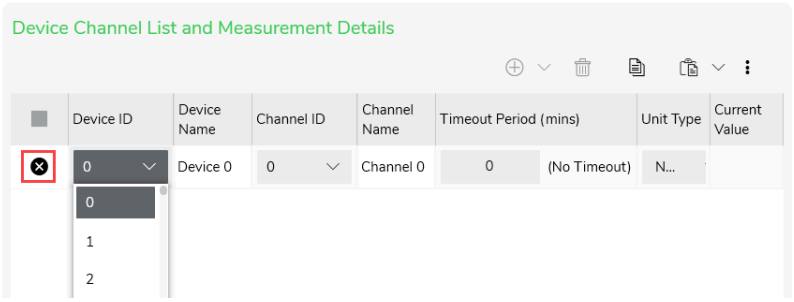
3. Click ⊕



Step result: A Measurement detail is added.

NOTE:

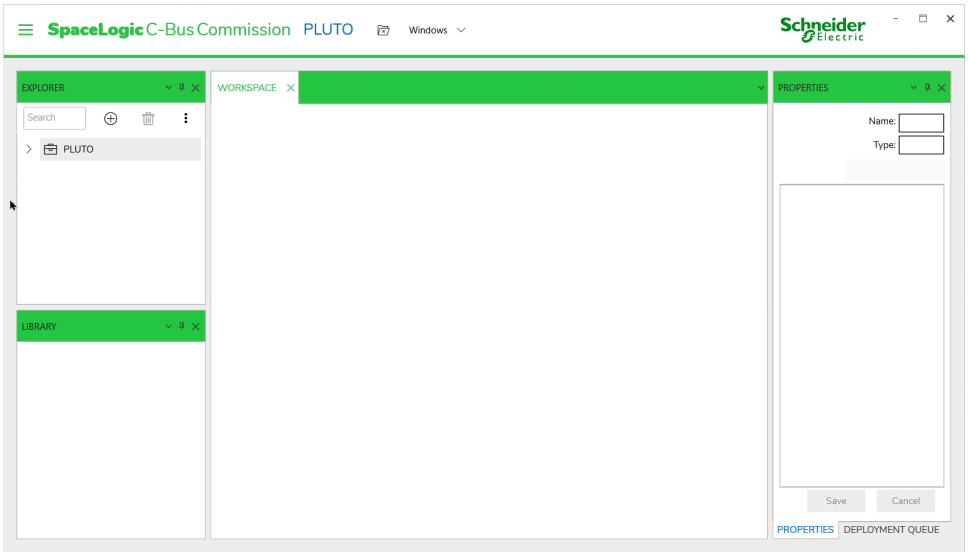
- A Measurement detail can be deleted during creation/adding itself using “x” as shown below:



4. The Channel and Device name of the measurement data can be modified. Double-click on the channel/device name, edit the device name to match your device and channel name to match the channel that is been monitored on the device, then click enter (or on the empty space of the section) to update the change.

   NOTE: Device ID and Device name combination is unique. A Device ID can only belong to the same device name. Modifying the Device Name for One Device ID will update for all the Channels with same Device ID. A Device ID is unique on the network. But there can be multiple device channels on the same device.

TIP: A single Device ID can have multiple Channel ID. The procedure to add multiple measurement data for the same Device ID is as demonstrated below:



Sort Measurement Data

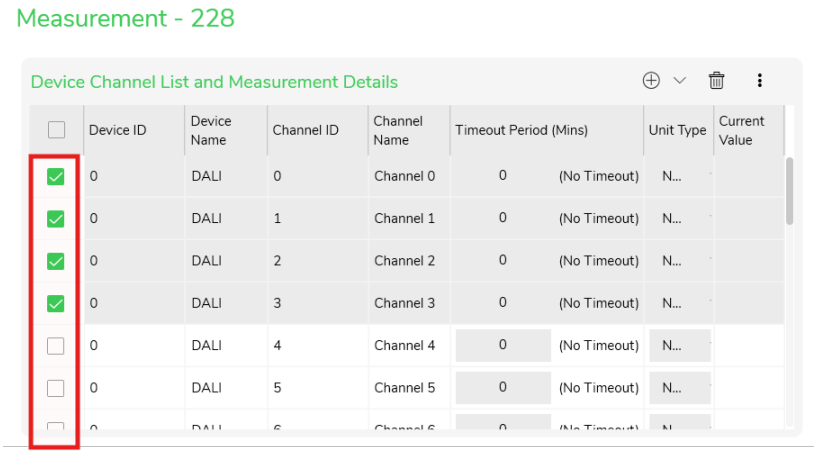
Prerequisites: The measurement details must already have been created in **Measurement** application.

The existing measurement details in the application can be sorted.

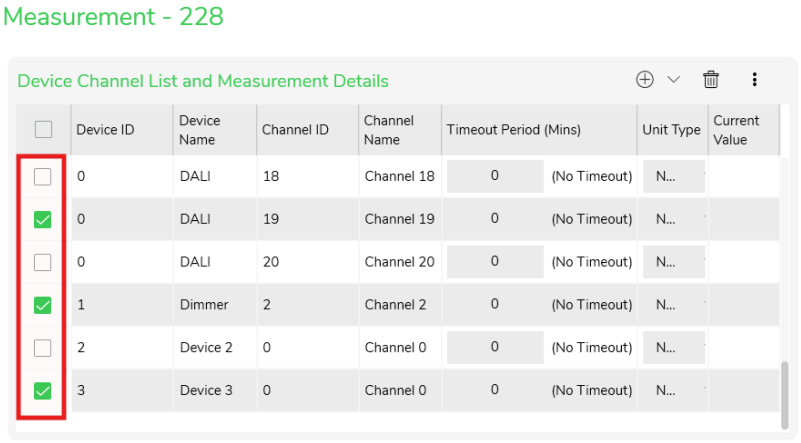
1. Select the measurement data.

   NOTE:

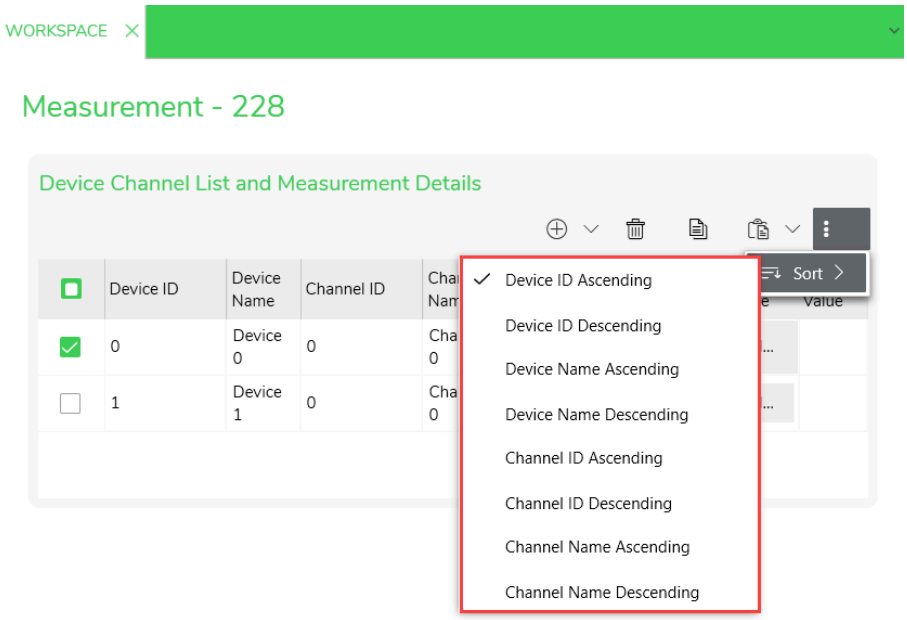
   - A single measurement data can be chosen by selecting the check box, whereas all measurement data can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one measurement data, then hold down the SHIFT key and select on additional measurement data (grid) using the mouse.



   - For random multiple selection, select one measurement data, then hold down the CTRL key and select the next measurement data (grid) using the mouse.



2. Click ⋮ in the **Device Channel List and Measurement Details** section.



The available sort methods are displayed.

3. Select the appropriate sort method. The measurement data list will be sorted according to the selected sort method.

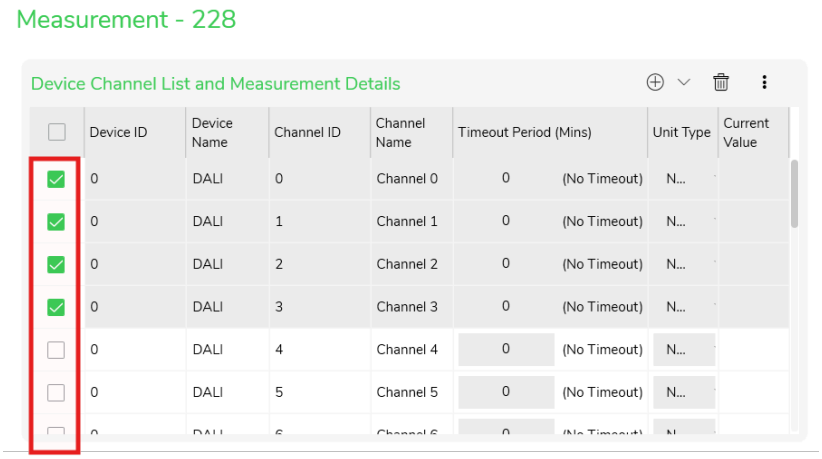
Delete Measurement Data

Prerequisites: Measurement application must already have been created in network and measurement details must have been added.

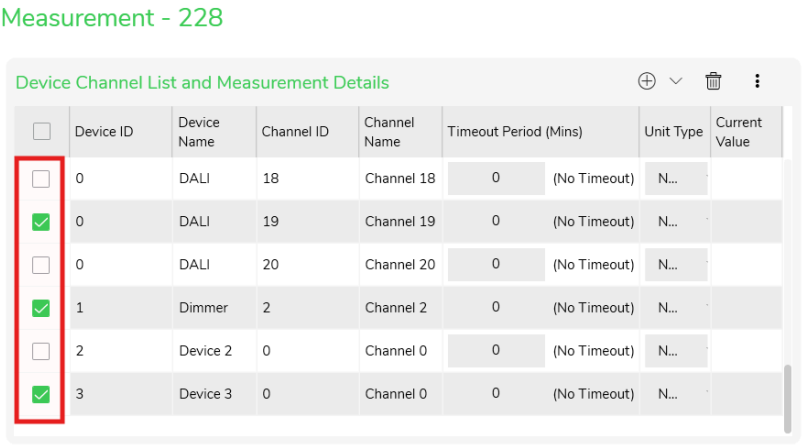
1. Select the measurement data.

   NOTE:

   - A single measurement data can be chosen by selecting the check box, whereas all measurement data can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one measurement data, then hold down the SHIFT key and select on additional measurement data (grid) using the mouse.

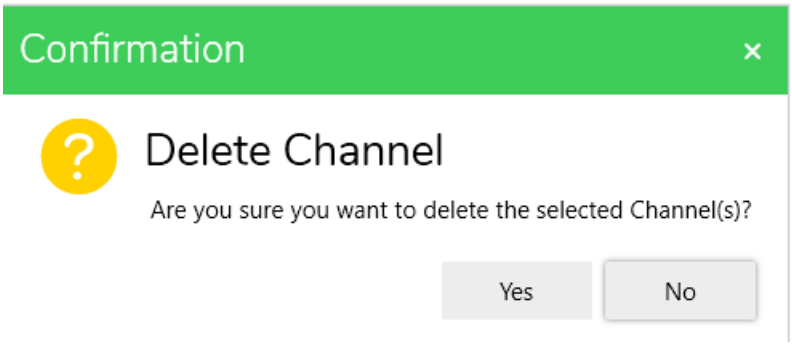


   - For random multiple selection, select one measurement data, then hold down the CTRL key and select the next measurement data (grid) using the mouse.



2. Click in the **Device Channel List and Measurement Details** section.

   A **Confirmation** pop-up is displayed.



3. Click **Yes** to delete the channels and **No** to cancel the delete operation.

   TIP: Alternate method to delete selected measurement data is, right-click on the selected **Device > Delete**.

Emergency Exit Light Application

Prerequisites: The network must have already been created in the project .

Emergency Exit Light application is created using a reserved application address 238.

SpaceLogic C-Bus units which supports Emergency Exit Light application are:

- DALI ECG DT 1 (Generic): Emergency or Exit Light (Generic)
- DALI ECG DT1 A: Emergency or Exit Light (Switched Maintained Dimmable)
- DALI ECG DT1 B: Emergency or Exit Light (Switched Maintained Non-Dimmable)
- DALI ECG DT1 C: Emergency or Exit Light (Maintained)
- DALI ECG DT1 D: Emergency or Exit Light (Non-Maintained)

The procedure to create an emergency exit light application is similar to other applications with a reserved address 238.

For more details:

- Test Groups, page 232
- Devices, page 238

Test Groups

The field information of the test group section are as explained below:

Fields	Meaning
Address	Displays the address of test group created
Name	Displays the name of the group
Duration Test Timeout	Displays the set duration time.

Operations performed on test group section are:

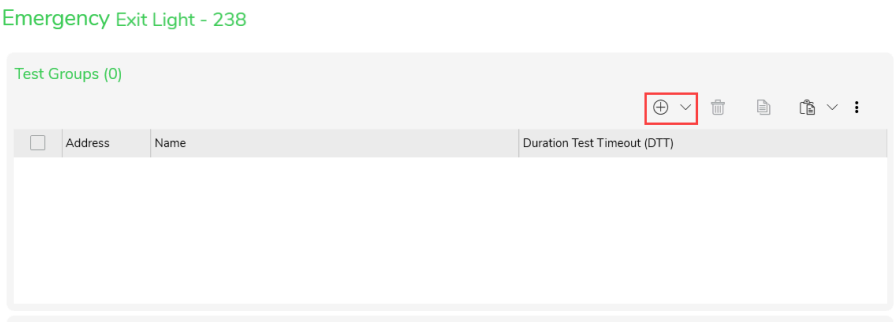
- Add Test Group, page 232
- Copy Test Group, page 233
- Paste Test Group, page 234
- Edit Test Group, page 235
- Sort Test Group, page 235
- Delete Test Group, page 237

Add Test Groups

Prerequisites: The Emergency Exit Light application must be selected in a created network.

1. Click *Applications* drop-down in the **Explorer** window
2. Click *Emergency Exit Light*

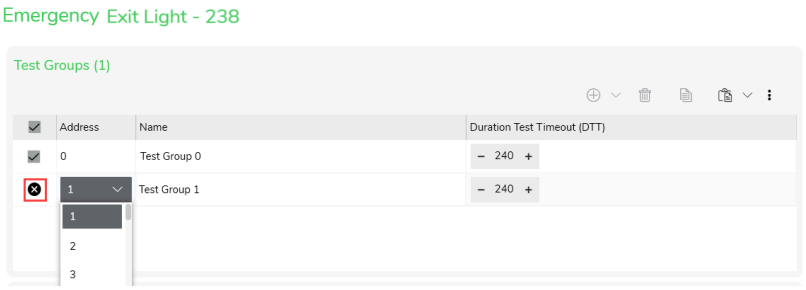
3. Click ⊕ on test group section



Step result: A test group object is added.

NOTE:

- The test group object can be deleted during creation/adding itself using “x” as shown below:



- The Channel and Device name of the test group object can be modified. Double-click on the channel/device name, edit the device name to match your device and channel name to match the channel that is been monitored on the device, then click enter (or on the empty space of the section) to update the change.

4. The process to create multiple test group objects at a time is similar to as demonstrated in lighting application, see Add multiple test group

   Step result: Multiple test groups are created.

Copy Test Groups

Prerequisites: The **Test Group Addresses** must be already created in an application.

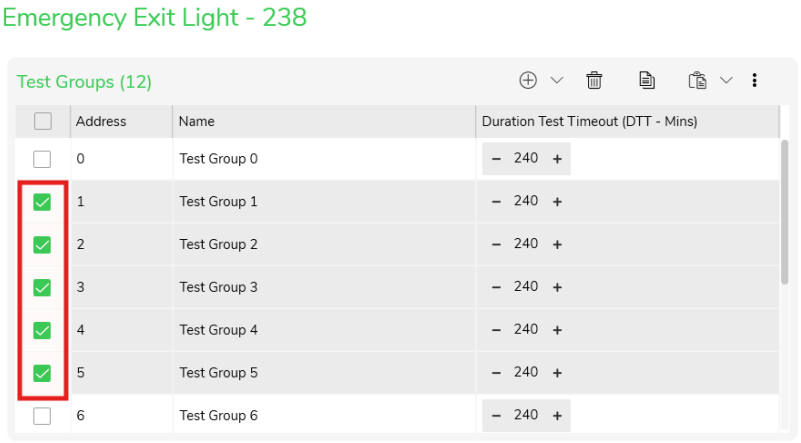
The **Test Group Addresses** in the **Emergency Exit Light** application can be aligned/arranged with same addresses as in the other **Emergency Exit Light** application.

1. Click **Emergency Exit Light** application.

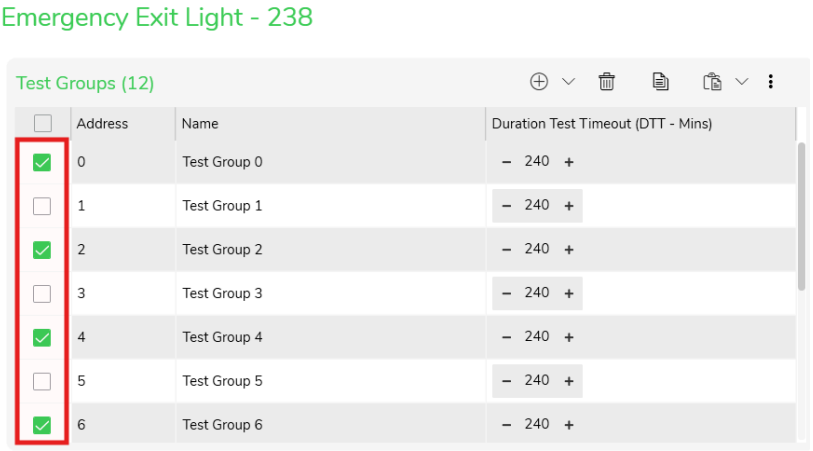
2. Select the test groups in the **Test Groups** section.

   NOTE:

   - A single test group can be chosen by selecting the check box of the required group, whereas all test groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one test group, then hold down the SHIFT key and select on additional test group (grid) using the mouse.



   - For random multiple selection, select one test group, then hold down the CTRL key and select the next test group (grid) using the mouse.



   The copy option will be disabled, if a group is not selected.

3. To copy the selected groups, click in the **Test Groups** section of **Emergency Exit Light** application.

Paste Test Groups

The *Emergency Exit Light* application *Test Group Addresses* copied from one network are pasted either into another *Emergency Exit Light* application of a different network.

Prerequisites: The Test Group Address must be already copied from an application.

NOTE: The *Emergency Exit Light* application *Test Group Address* copied from one network must be pasted only into the *Emergency Exit Light* application on another network.

1. Select the *Emergency Exit Light* application of the network to be pasted in

2. Click in the *Test Group* section

   NOTE: The process to Paste the *Test Groups* from excel is similar to as demonstrated in lighting application, click here

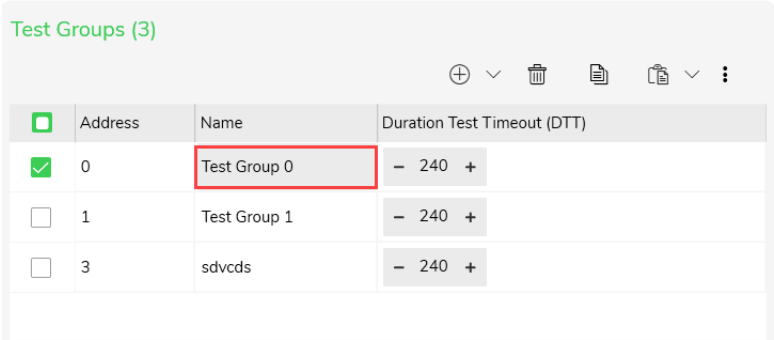
   IMPORTANT: Paste conflict occurs when already existing test group address and test group name are been pasted in emergency exit application of another network.

The process to **Resolve conflict** is similar to as demonstrated in lighting application, click here

Edit Test Groups

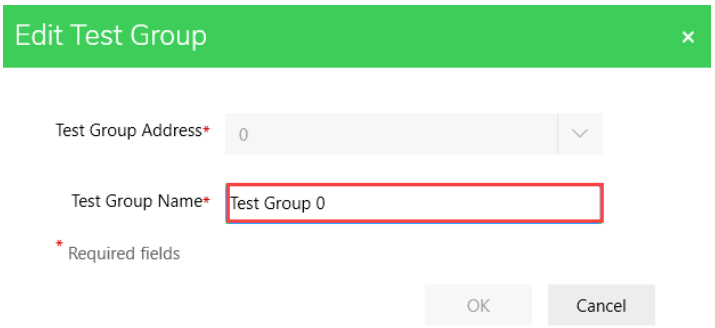
Prerequisites: Make sure you have selected *Emergency Exit Light* application and test groups has been created.

1. Double-click on the trigger group name that has to be edited/renamed



   Step result: Edit Test Group Dialog box is displayed.

2. Edit the Test Group name and click **OK**



   NOTE: Special characters /,",# and maximum of 32 characters in the test group name are valid.

   Step result: The Test group name is updated.

Sort Test Groups

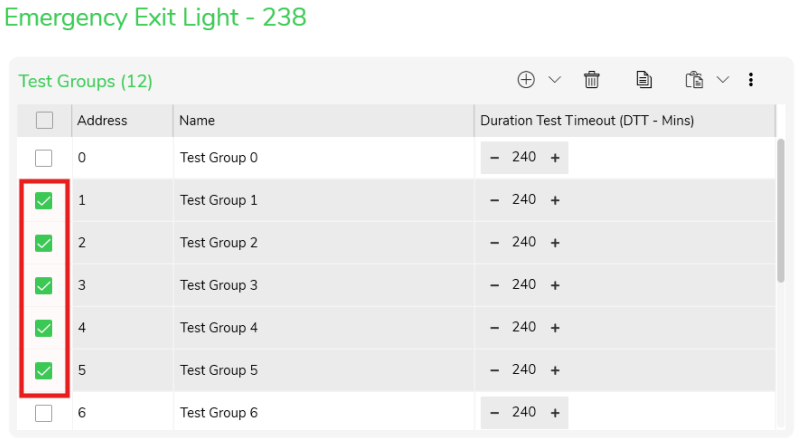
Prerequisites: The **Test Group Addresses** must already been created in the **Emergency Exit Light** application.

The existing test groups in application can be sorted.

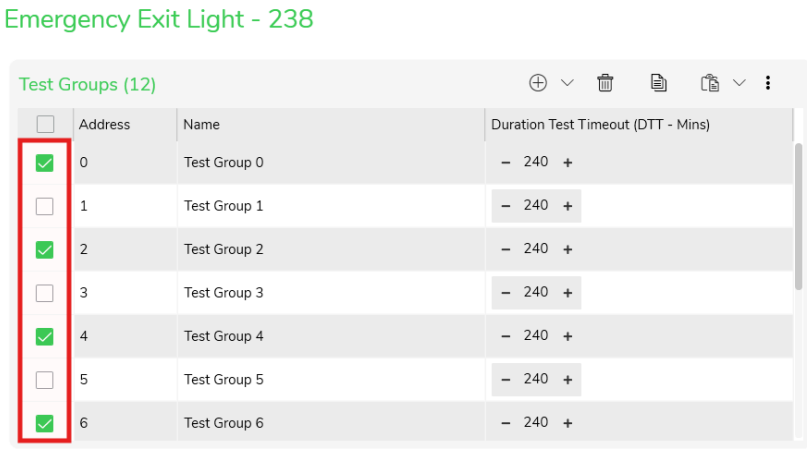
1. Select the **Test Group**.

   NOTE:

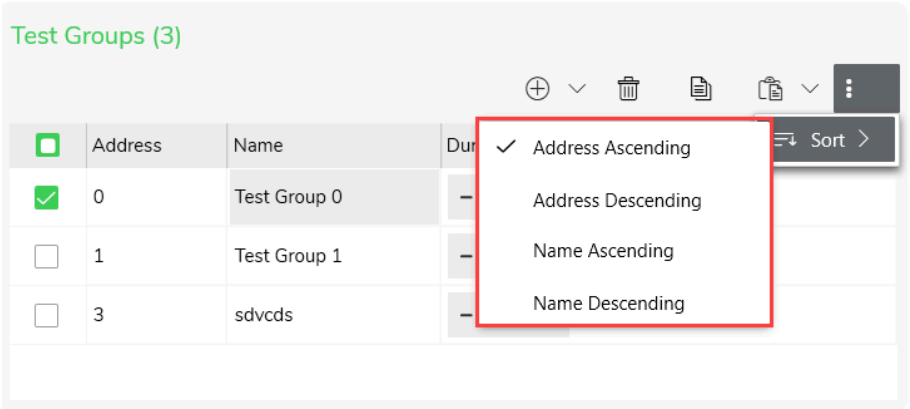
   - A single test group can be chosen by selecting the check box of the required group, whereas all test groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one test group, then hold down the SHIFT key and select on additional test group (grid) using the mouse.



   - For random multiple selection, select one test group, then hold down the CTRL key and select the next test group (grid) using the mouse.



2. Click ⋮ in the **Test Groups** section.



   The available sort methods are displayed.

3. Select the appropriate sort method. The Test Group list will be sorted according to the selected sort method.

Delete Test Groups

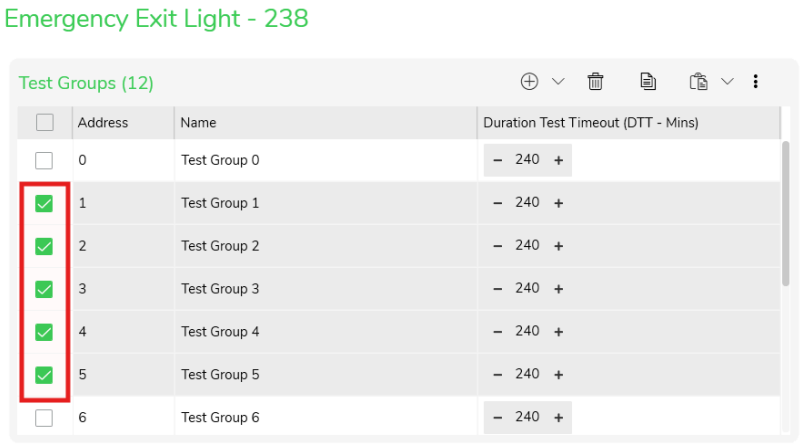
The delete function allows you to delete one or more **Test Group Addresses** from an **Emergency Exit Light** application.

Prerequisites: The **Test Group Address** must already be created in an **Emergency Exit Light** application.

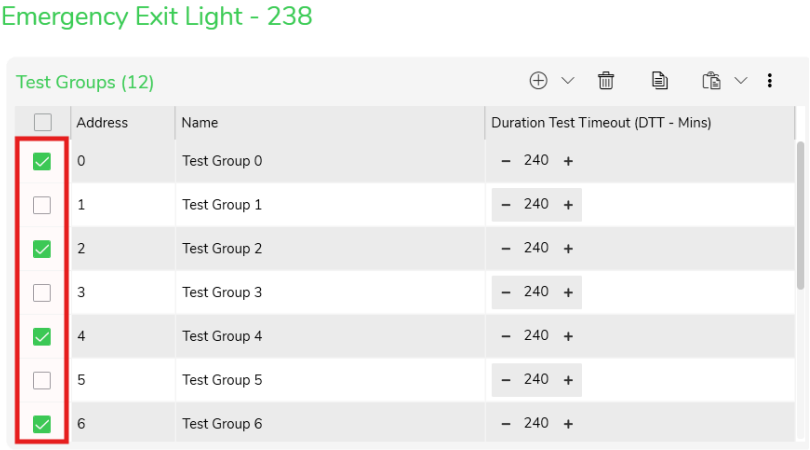
1. Select the **Test Group**.

   NOTE:

   - A single test group can be chosen by selecting the check box of the required group, whereas all test groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one test group, then hold down the SHIFT key and select on additional test group (grid) using the mouse.

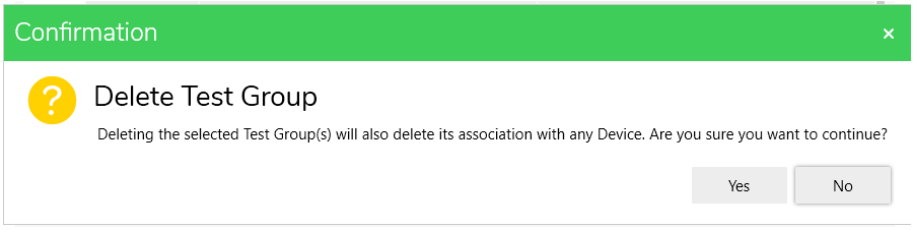
   - For random multiple selection, select one test group, then hold down the CTRL key and select the next test group (grid) using the mouse.

2. Click in the **Test Groups** section.

   A **Confirmation** pop-up is displayed.

   NOTE: Trying to delete the test group with existing devices associated to test group, displays a **Confirmation** pop-up to confirm the deletion of existing **Test Group**.

3. Click **Yes** to delete the channels and **No** to cancel the delete operation.

   TIP: Alternate method to delete selected test groups is, right-click on the selected **Test Group > Delete**.

Devices

Devices section allows to assign devices for particular test group created.

The field information of the device section are as explained below:

Fields	Meaning
CDG Address	Displays the C-Bus DALI-2 Gateway Address
CDG Name	Displays the C-Bus DALI-2 Gateway name
Line A/B	Displays the selected line for device
Line Name	Displays the line name
Object ID	Displays the Object ID of the device
EEL Name	Displays Emergency Exit Light name
Light Source Life	Displays how long the device is been running for (in days)
Test Group	Displays the assigned test group

NOTE:

- The devices created must match the *Emergency and Exit* device details on the target DALI-2 Gateway on the network
- All assigned devices to the deleted test group will be unassigned

Operations performed on Devices section are:

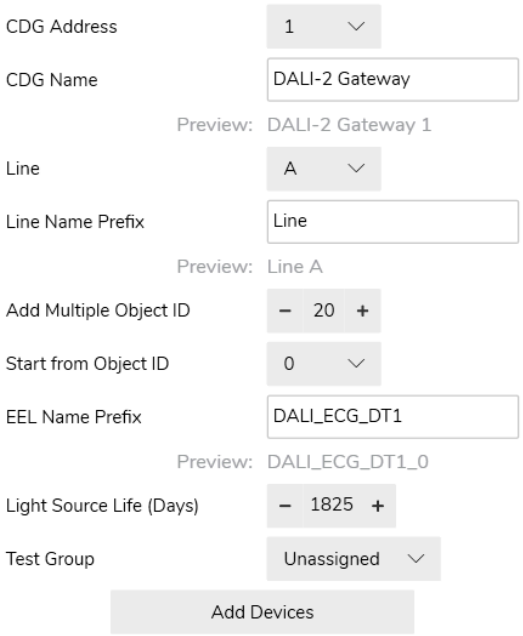
- Add test devices, page 238
- Edit test devices, page 239
- Sort test devices, page 240
- Delete test devices, page 242

Add Test Devices

The *Devices* section allows to add test devices which further is assigned to particular test groups created.

1. In *Devices* section, click ⊕

2. A pop-up is displayed



- Select the CDG address (0–254)
- Define the CDG name, or use the default name
- Select the DALI line (A/B)
- Define the Line name, or use the default name
- Type the number of multiple object ID's to be added (maximum 64 can be added at a time)
- Select the start of Object ID
- Define the EEL name, or use the default name
- Select the Light Source Life value (400 - 7300) in days

  NOTE: Value can be modified once the device is added.
- Assign the test group for the device

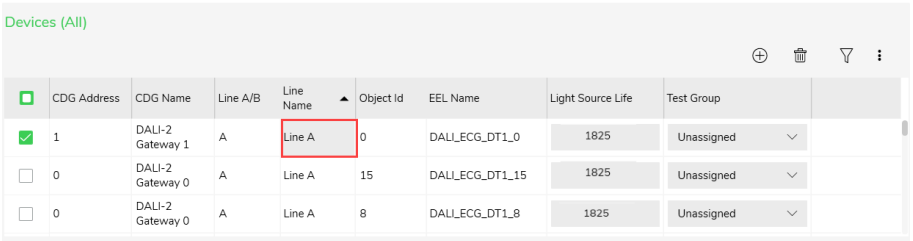
  NOTE: By default, it will be unassigned and can be modified once the device is added.

Click **Add Devices**

Edit Test Devices

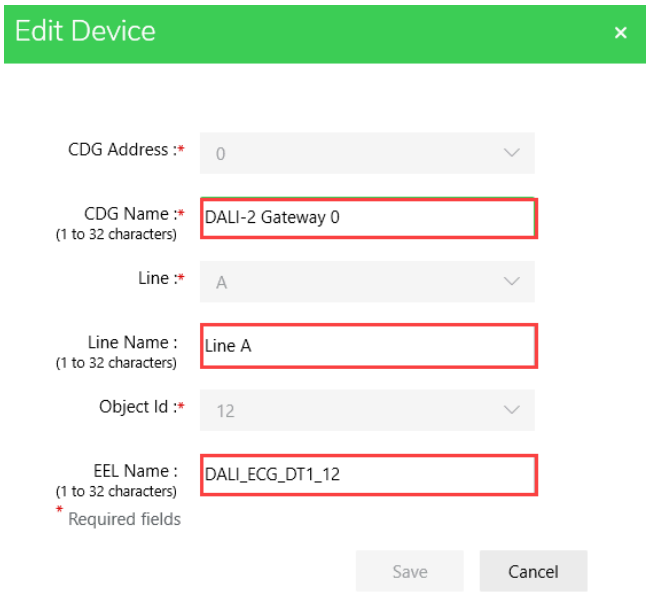
Prerequisites: The test devices must already be existing in the *Emergency Exit Light* application.

1. Double-click on either CDG name, Line name, or EEL name that has to be edited.



Step result: Edit Value dialog box is displayed.

2. Edit the new name and click **OK**



NOTE: Special characters except /,",# and maximum of 32 characters in the Values name are valid.

Step result: The device name is updated.

Sort Test Devices

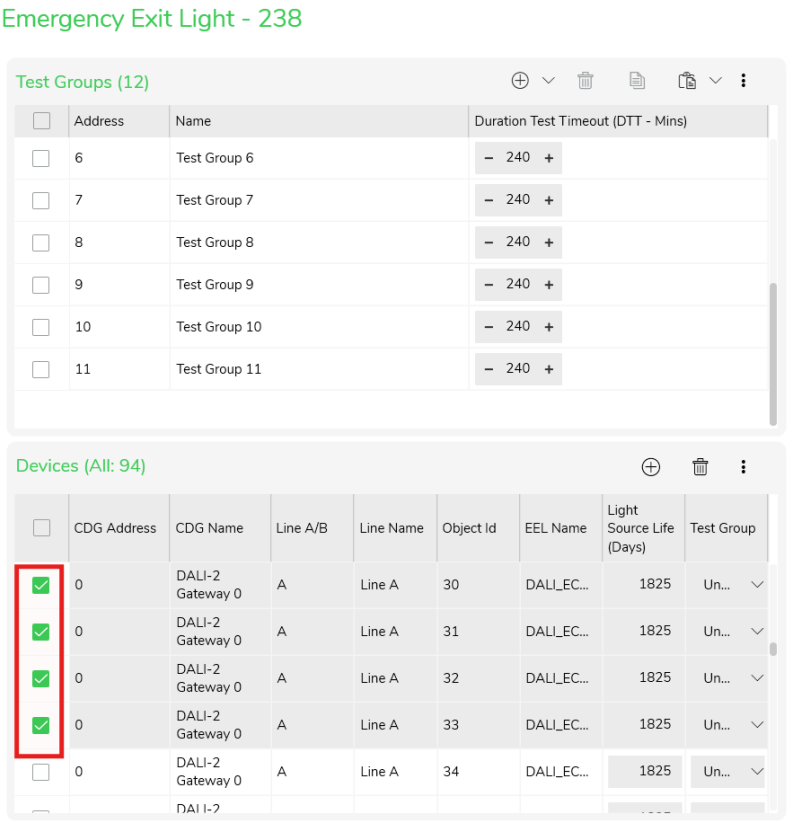
Prerequisites: The **Test Devices** must already be added in the **Devices** section.

The existing devices in an application can be sorted.

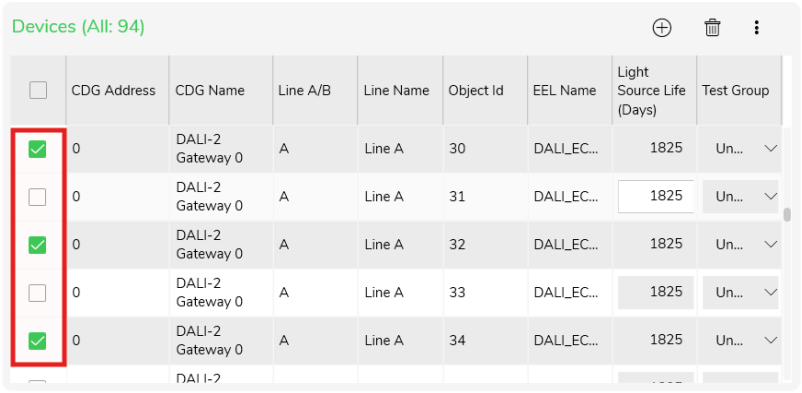
1. Select the device.

NOTE:

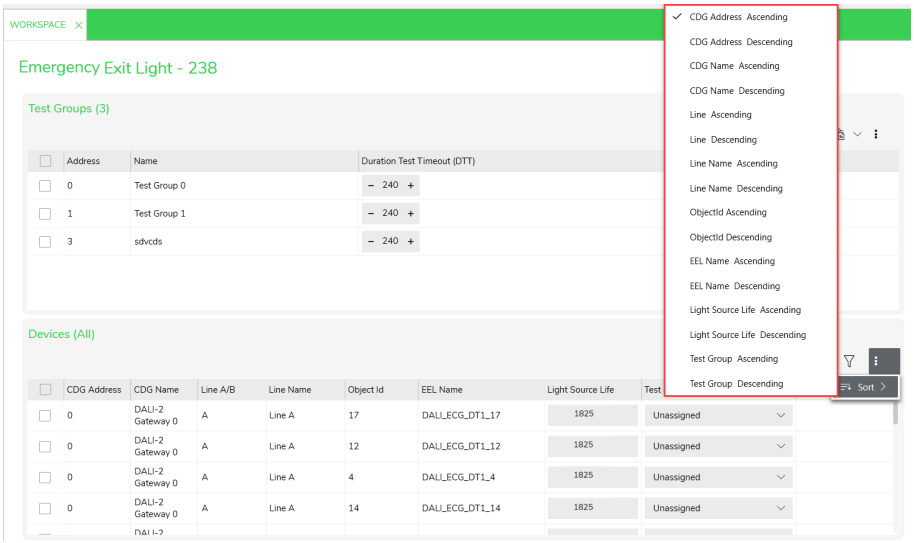
- A single device can be chosen by selecting the check box of the required group, whereas all devices can be chosen by selecting the check box on the top.
- For range (sequential) selection, select one device, then hold down the SHIFT key and select on additional devices (grid) using the mouse.



- For random multiple selection, select one device, then hold down the CTRL key and select the next device (grid) using the mouse.



2. Click ⋮ in the **Devices** section.



The available sort methods are displayed.

3. Select the appropriate sort method. The devices list will be sorted according to the selected sort method.

Delete Test Devices

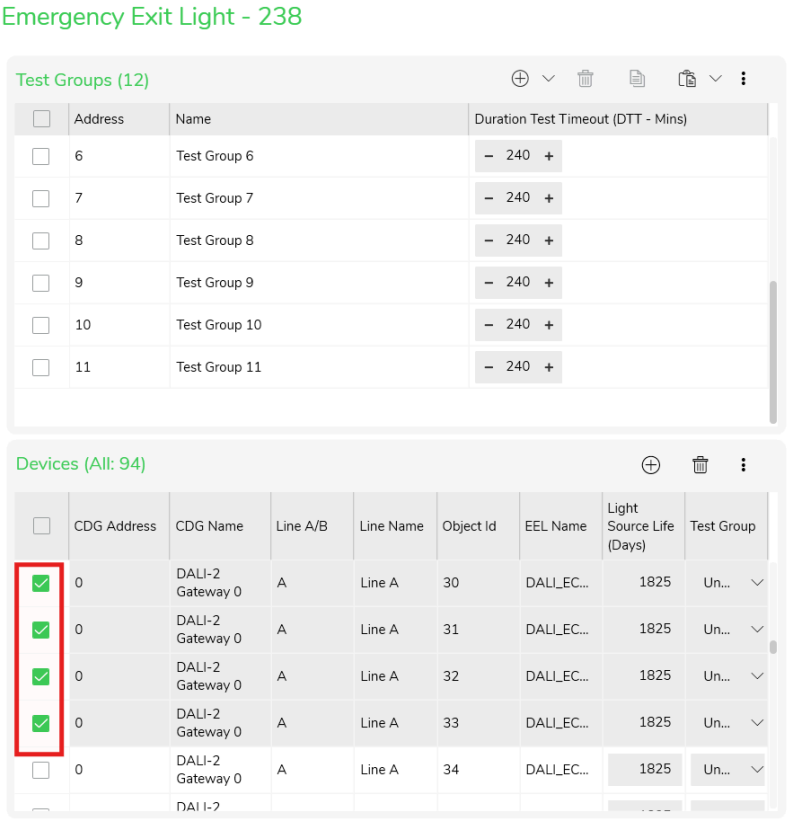
The delete function allows you to delete one or more devices added to the **Devices** section.

Prerequisites: The devices must already be created in the selected **Devices** section.

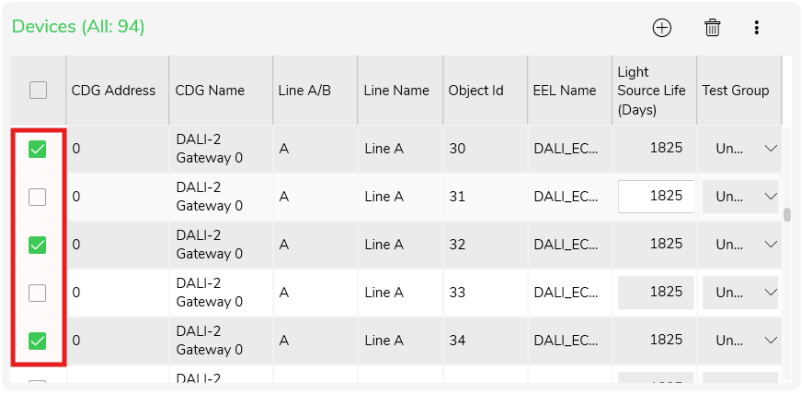
1. Select the devices in **Devices** section.

   NOTE:

   - A single device can be chosen by selecting the check box of the required group, whereas all devices can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one device, then hold down the SHIFT key and select on additional devices (grid) using the mouse.

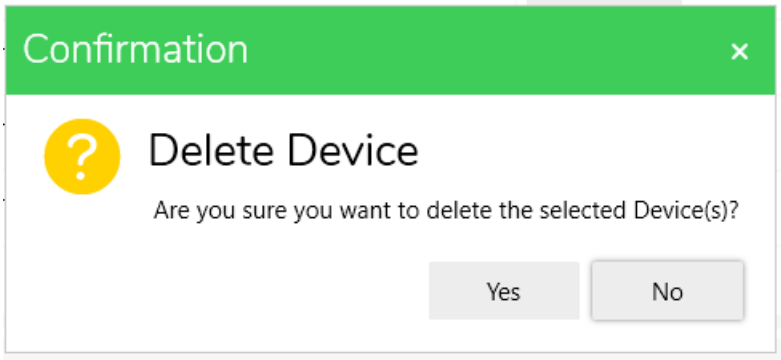


   - For random multiple selection, select one device, then hold down the CTRL key and select the next device (grid) using the mouse.



2. Click in the **Devices** section.

   A **Confirmation** pop-up is displayed.



3. Click **Yes** to delete the devices and **No** to cancel the delete operation.

   TIP: Alternate method to delete selected test devices is, right-click on **selected Test Device > Delete**.

Audio Application

The Audio Control application control the audio levels such as volume, bass, and treble as well as the selection of audio sources for zones.

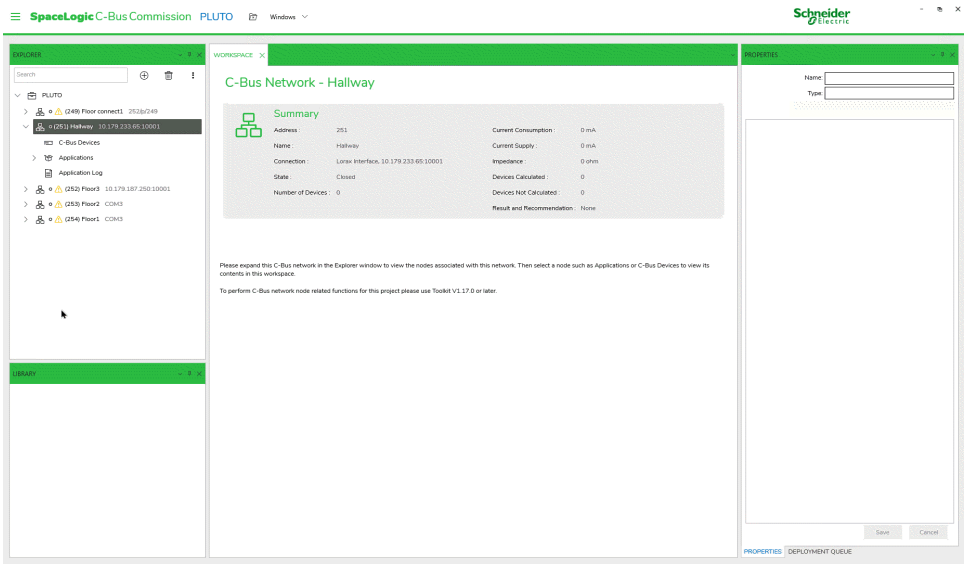
The Audio application is responsible for the control of audio levels such as volume, bass, and treble as well as for the selection of audio sources for Audio Zones as defined within the Audio application.

Audio application is created using a reserved application number 205.

Audio Zones and control options for the Audio application can be configured in C-Bus devices such as:

- The new generation C-Bus wall plate devices (key input units).
- The C-Bus eDLT key input unit.
- The C-Bus Multi Room system (Matrix Switches and Amplifiers).
- The C-Bus Home Controller.
- The C-Bus Automation and Application Controllers (for control of third party audio systems).

The procedure to create a audio application is as demonstrated below:



NOTE: To resolve the paste conflict of an application click here

Operations performed in Audio application

- Add zones, page 245
- Sort zones, page 248
- Delete zones, page 250

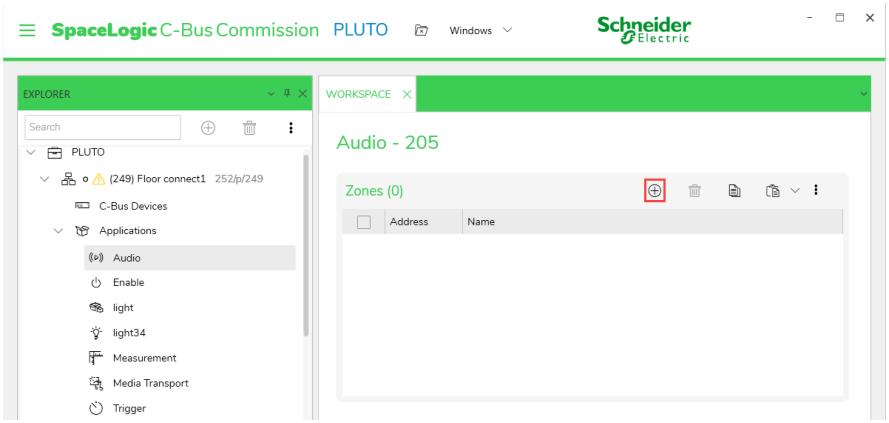
Add Zones

Prerequisites: The Audio application must already be created in a network.

Audio application allows to create a maximum number 24 zones.

1. Click *Applications* drop-down in the **Explorer** window.
2. Click *Audio*.

3. Click ⊕



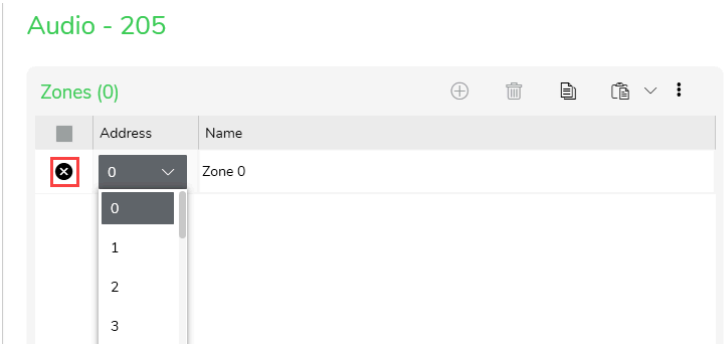
Step result: A individual Zone is added.

The audio zone table:

- displays the total number of zones created.
- can have maximum of 24 zones can be added (0–23).
- by default, the zone name is ‘Zone X’ (‘X’ is the number of the zone).
- cannot add multiple zones at a time.

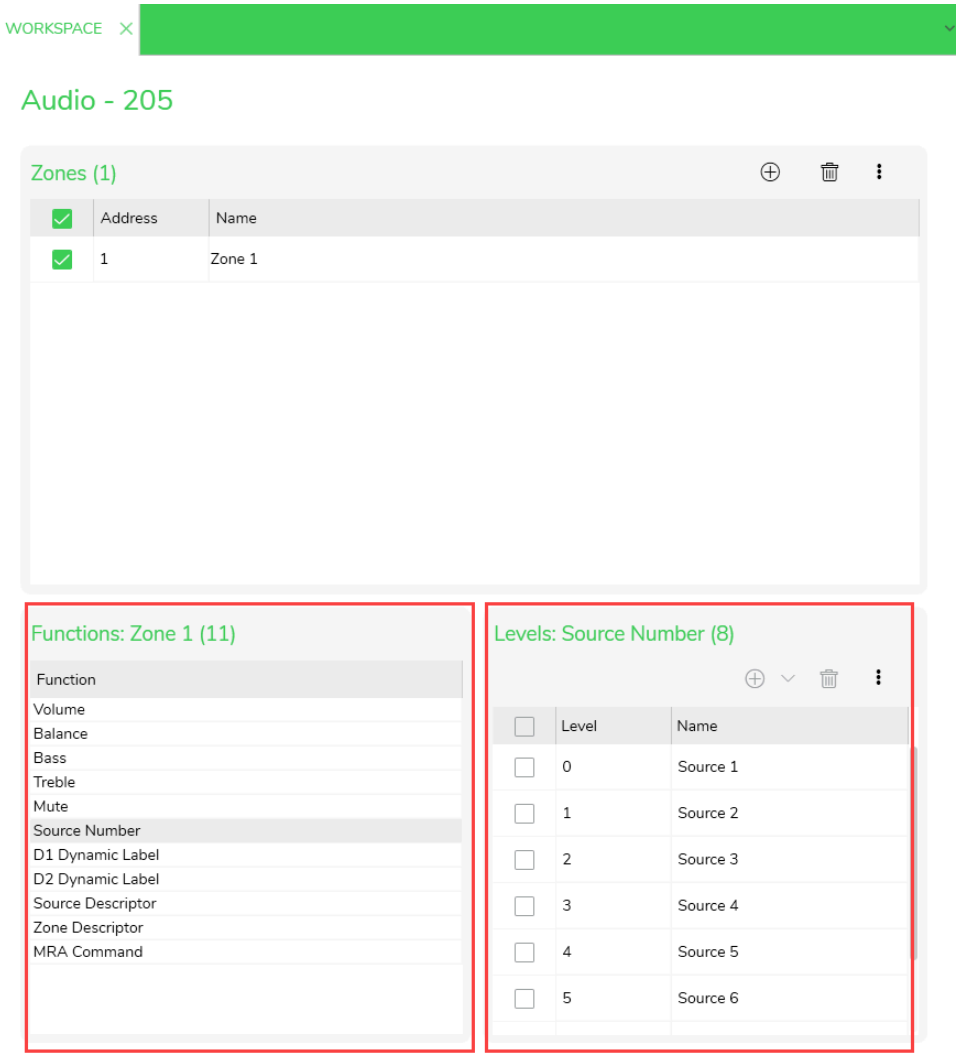
IMPORTANT:

- A zone can be deleted during creation/adding itself using “x” as shown below:



4. The zone name can be modified. Double-click on the zone name, edit the zone name and click enter (or on the empty space of the section) to update the change.

Along with the zone section, the audio application workspace consists of functions of each selected zone and the respective levels of the zone function.



The levels for the zone functions are as below

NOTE: The levels for function are applicable only for below functions.

Zones	Level	Name
Balance	128	Mid Point
Bass		
Treble		
Mute	2	Amp on, Vol normal, speakers off
	5	Amp on, Vol preset, speakers off
	7	Amp on, Vol preset, speakers on
	255	Amp on, Vol normal, speakers on
Source Number	0	Source 1
	1	Source 2
	2	Source 3
	3	Source 4
	4	Source 5
	5	Source 6
	6	Source 7
	7	Source 8

Sort Audio Zones

Prerequisites: The **Audio Zones** must already have been created in the **Audio** application.

The existing **Audio Zones** in an application can be sorted.

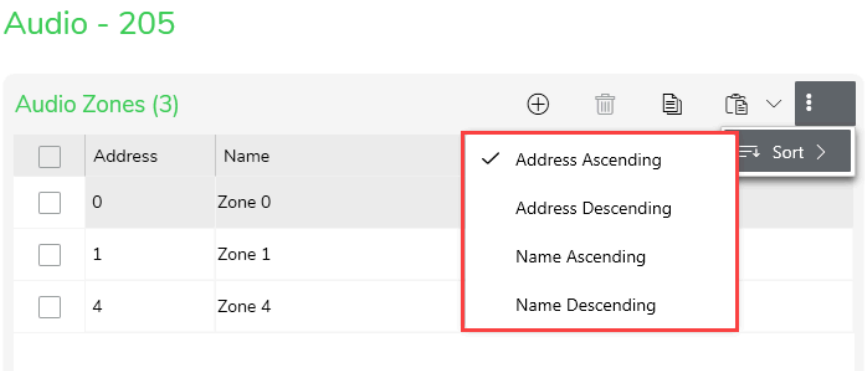
1. Select the **Audio Zone**.

   NOTE:

   - A single audio zone can be chosen by selecting the check box of the required group, whereas all audio zones can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one audio zone, then hold down the SHIFT key and select on additional audio zones (grid) using the mouse.

   - For random multiple selection, select one audio zone, then hold down the CTRL key and select the next audio zone (grid) using the mouse.

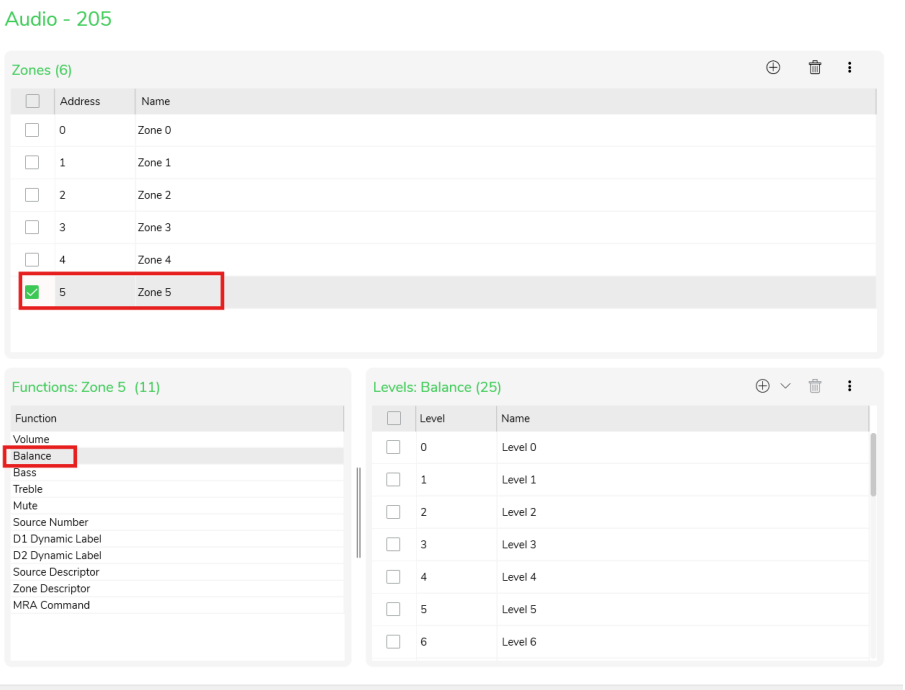
2. Click ⋮ in the **Zones** section.



   The available sort methods are displayed.

3. Select the appropriate sort method. The audio zones list will be sorted according to the selected sort method.

4. Select anyone **Zone** and then select anyone function in the **Functions : Zone** section.



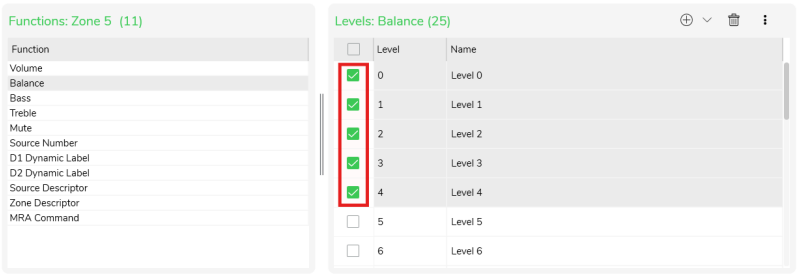
Only when you select anyone **Zone**, the **Function** section is enabled.

NOTE: You can select only one function at a time. The moment you select the function, the **Levels** section will be enabled.

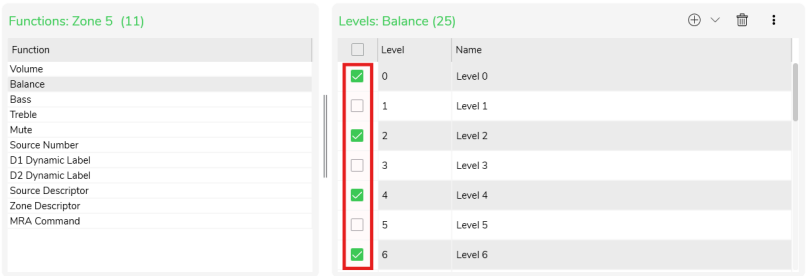
5. Select the **Level**.

NOTE:

- A single level can be chosen by selecting the check box of the required group, whereas all levels can be chosen by selecting the check box on the top.
- For range (sequential) selection, select one level, then hold down the SHIFT key and select on additional levels (grid) using the mouse.



- For random multiple selection, select one level, then hold down the CTRL key and select the next level (grid) using the mouse.



Delete Audio Zone

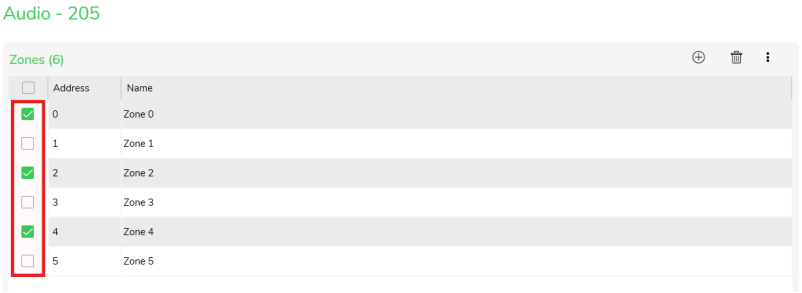
Prerequisites: Audio application must already be created in the network and **Audio Zones** must be added.

1. Select **Audio Zone**.

   NOTE:

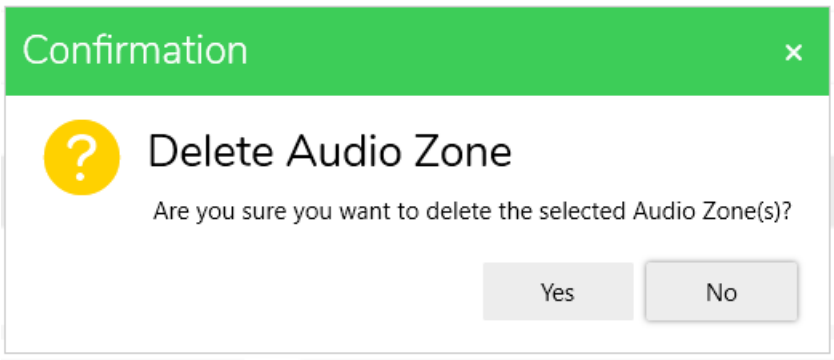
   - A single audio zone can be chosen by selecting the check box of the required group, whereas all audio zones can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one audio zone, then hold down the SHIFT key and select on additional audio zone (grid) using the mouse.

   - For random multiple selection, select one audio zone, then hold down the CTRL key and select the next audio zone (grid) using the mouse.

2. Click in the **Zones** section.

   A **Confirmation** pop-up is displayed.

3. Click **Yes** to delete the zones and **No** to cancel the delete operation.

   TIP: Alternate method to delete selected zone is, right-click on selected **Zone > Delete**.

Repeat the steps 1–3 for deleting levels.

Media Transport Application

The Media Transport Control application is designed to transmit control signals for audio and video equipment used with C-Bus units.

Media Transport application is created using an reserved application number 192.

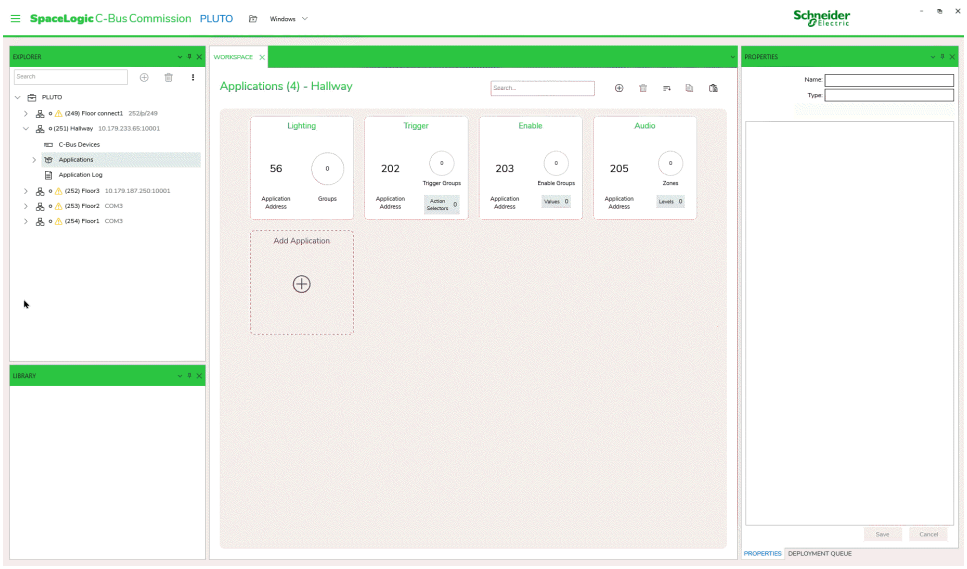
SpaceLogic C-Bus units which support audio application are:

- CD and DVD recorders and players
- Audio tuners
- Personal video recorders (PVRs)
- Media centres
- MP3 streamers

These C-Bus units has a C-Bus interface to be controlled by Media Transport commands or have a converter which translates Media Transport commands into a form which is understood by C-Bus units.

The software packages that supports to handle Media Transport is C-Bus Ripple® audio streaming software.

The procedure to create a media application is as demonstrated below:



NOTE: To resolve the paste conflict of an application click here

Operations performed in Media application

- Add media link group, page 251
- Sort media link group, page 254
- Delete media link group, page 256

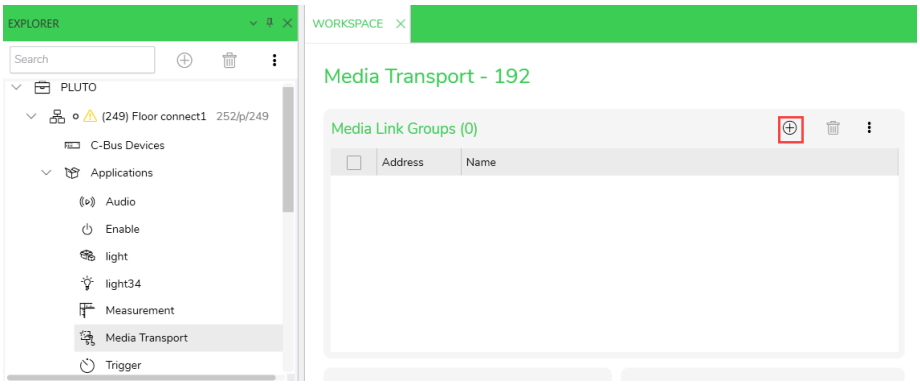
Add Media Link Groups

Prerequisites: The Media Transport application must already be created in a network.

Media Transport application allows to create a maximum number of 255 media link groups.

1. Click *Applications* drop-down in the **Explorer** window.
2. Click *Media Transport*.

3. Click ⊕



Step result: A individual media link group is added.

The media link group table:

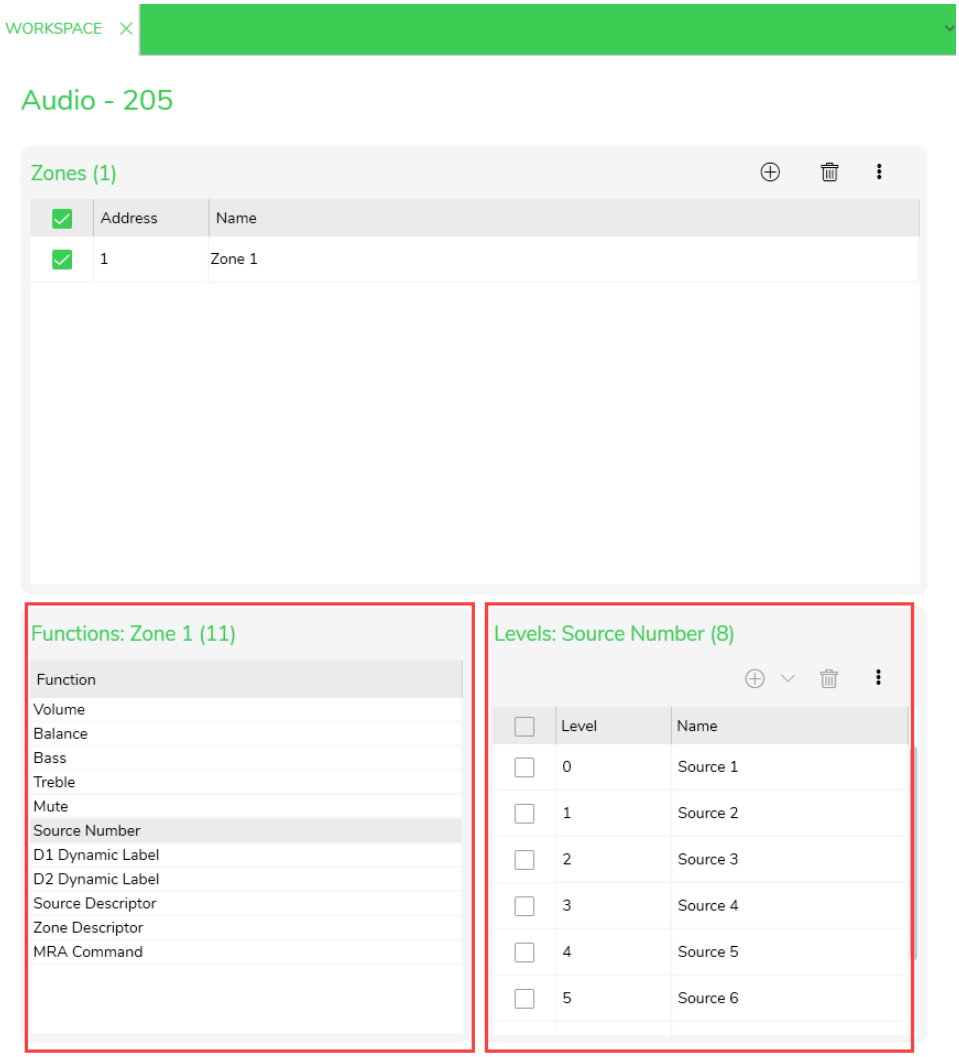
- displays the total number of media link groups created.
- can have maximum of 255 media link groups.
- by default, the media link group name is ‘Media Link Group X’ (‘X’ is the number of the media link group).
- cannot add multiple media link groups at a time.

IMPORTANT:

- A media link group can be deleted during creation/adding itself using “x” as shown below:

4. The media link group name can be modified. Double-click on the media link group name, edit the media link group name and click enter (or on the empty space of the section) to update the change.

Along with the media link group section, the media transport application workspace consists of functions of each selected media link group and the respective levels of the media link group function.



The levels for the media link group functions are as below

NOTE: The levels for function are applicable only for below media link group functions.

Functions	Level	Name
Play/Stop	0	Stop
	1	Play
Pause/Resume	0	Pause
	255	Resume
Shuffle	0	Shuffle off
	255	Shuffle on
Repeat	0	Repeat off
	1	Repeat current
	255	Repeat all
Forward and Rewind	0	Normal speed
	2	2x speed
	4	4x speed
	6	8x speed
	8	16x speed
	10	32x speed
	12	64x speed

Source Power Control	0	Source power off
	255	Source power on

Sort Media Link Groups

Prerequisites: The **Media link groups** must already have been created in the **Media Transport** application.

The existing Media Link Groups in the application can be sorted.

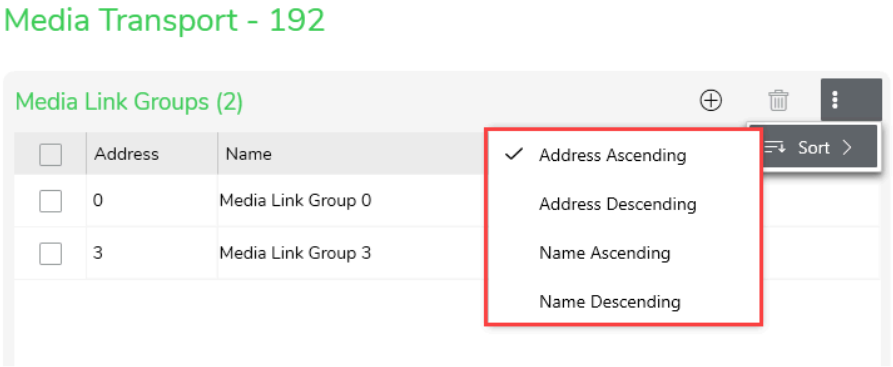
1. Select the **Media Link Group**.

   NOTE:

   - A single media link group can be chosen by selecting the check box of the required group, whereas all media link groups can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one media link group, then hold down the SHIFT key and select on additional media link groups (grid) using the mouse.

   - For random multiple selection, select one media link group, then hold down the CTRL key and select the next media link group (grid) using the mouse.

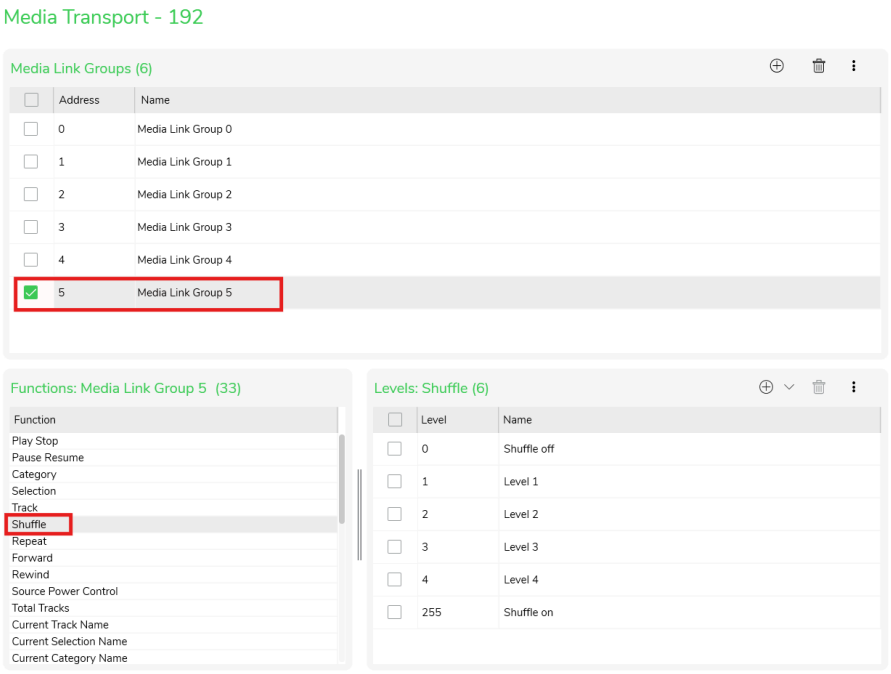
2. Click ⋮ in the **Media Link Groups** section.



   The available sort methods are displayed.

3. Select the appropriate sort method. The Media Link Group list will be sorted according to the selected sort method.

4. Select anyone **Media Link Group** and then select anyone function in the **Functions : Media Link Group** section.



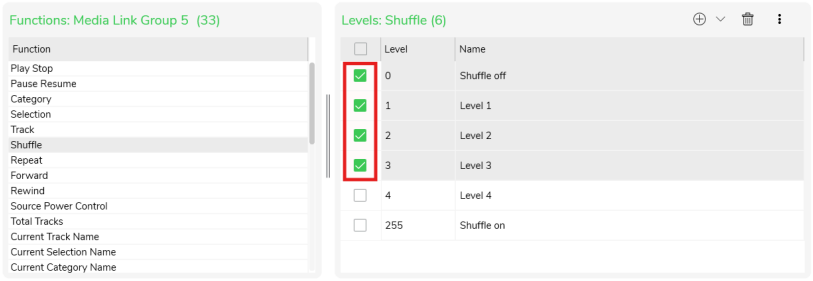
Only when you select anyone **Media Link Group**, the **Functions** section is enabled.

NOTE: You can select only one function at a time. The moment you select the function, the **Levels** section will be enabled.

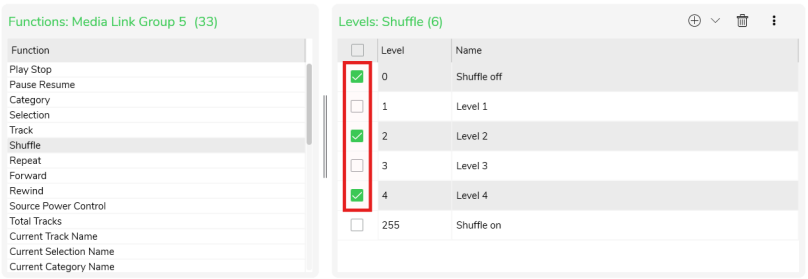
5. Select the **Level**.

NOTE:

- A single level can be chosen by selecting the check box of the required group, whereas all levels can be chosen by selecting the check box on the top.
- For range (sequential) selection, select one level, then hold down the SHIFT key and select on additional levels (grid) using the mouse.



- For random multiple selection, select one level, then hold down the CTRL key and select the next level (grid) using the mouse.



Delete Media Link Groups

Prerequisites: Media Transport application must already be created in the network and **Media Link Groups** must be added.

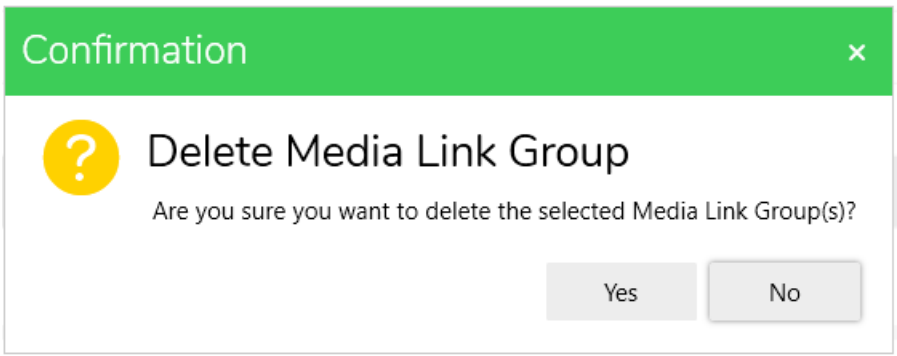
1. Select **Media Link Group**.

   NOTE:

   - A single Media Link Group can be chosen by selecting the check box of the required group, whereas all Media Link Group can be chosen by selecting the check box on the top.
   - For range (sequential) selection, select one Media Link Group, then hold down the SHIFT key and select on additional Media Link Groups (grid) using the mouse.

   - For random multiple selection, select one Media Link Group, then hold down the CTRL key and select the next Media Link Group (grid) using the mouse.

2. Click in the **Media Link Group** section. A **Confirmation** pop-up is displayed.



3. Click **Yes** to delete the Media Link Groups and **No** to cancel the delete operation.

   TIP: Alternate method to delete selected Media Link Group is, right-click on **selected media link group > Delete**.

Repeat the steps 1–3 for deleting levels.

Input Unit

The input units allow users to interact with the system or get input from the environment by means of sensing devices.

- Wall switches have input keys which allow users to utilize short press/release and long press/release actions to affect lighting control.
- Sensors, on the other hand, are units which convert data from sensing devices into C-Bus messages.
- General input units receive analog or digital measurements from channels and convert the signals into event and broadcast measurement messages via the C-Bus.

Input units can be used to:

- Control lighting conditions by manual switching or as a response to changes in lighting levels.
- Control air conditioning according to ambient temperature.
- Control security and access systems by responding to human presence or predetermined codes.
- Convert measurement data into C-Bus event messaging.

C-Bus input units respond to certain stimuli - human touch, ambient light conditions, temperature and infrared radiation - and then send messages to appropriate output units in a predetermined way.

The devices under Input unit category are as listed below:

- Wall Plates/Key Input Unit, page 257

Wall Plates/Key Input Unit

SpaceLogic C-Bus provides a range of Key Input units.

- Saturn
- Saturn Zen

To upgrade Wall Plates/Key Input Unit firmware, .

Unit Types

Category		Catalog Number	Unit Type	Description
Saturn	‘A’ Series	5082680	KEYB2A	2 Gang Saturn Key Input Unit
		5082GF		
		5082J80		
		5082PW		
		5084680	KEYB4A	4 Gang Saturn Key Input Unit
		5084GF		
		5084J80		
		5084PW		
		5086680	KEYB6A	6 Gang Saturn Key Input Unit
		5086GF		
		5086J80		
		5086PW		
	‘E’ Series	E5082680	KEYB2A	2 Gang Saturn Key Input Unit
		E5082GF		
		E5082PW		

		E5084680	KEYB4A	4 Gang Saturn Key Input Unit
		E5084GF		
		E5084PW		
		E5086680	KEYB6A	6 Gang Saturn Key Input Unit
		E5086GF		
		E5086PW		
Saturn Zen	'A' Series	R5041ZB	KEYH1A	1 Gang Saturn Zen Key Input Unit
		R5041ZW		
		R5042ZB	KEYH2A	2 Gang Saturn Zen Key Input Unit
		R5042ZW		
		R5043ZB	KEYH3A	3 Gang Saturn Zen Key Input Unit
		R5043ZW		
		R5044ZB	KEYH4A	4 Gang Saturn Zen Key Input Unit
		R5044ZW		
	'E' Series	ER5041ZB	KEYH1A	1 Gang Saturn Zen Key Input Unit
		ER5041ZW		
		ER5042ZB	KEYH2A	2 Gang Saturn Zen Key Input Unit
		ER5042ZW		
		ER5043ZB	KEYH3A	3 Gang Saturn Zen Key Input Unit
		ER5043ZW		
		ER5044ZB	KEYH4A	4 Gang Saturn Zen Key Input Unit
		ER5044ZW		

To Upgrade Key Input Unit firmware, click here, page 36.

The field informations to configure SpaceLogic C-Bus Saturn and Saturn Zen series are described as below:

Applications	This section displays the lighting applications supported by the Saturn and Saturn Zen series. Up to four lighting applications can be defined and then used throughout the configuration of the Saturn and Saturn Zen series each.		
Keys Depending on the input unit selected, the number of keys will vary	**Profiles Enable Group** Allows to create a new enable group. By default, <unused> is selected. Click ⋮ to create a new enable group. Click **OK** once the profiles are edited.	**Profiles Enable Group**	By default, **<unused>** enable group is selected. Click to edit the enable group name. Click ⊕ to create a new enable group.
		Profiles Selection	Once the enable group is selected, one or all profile can be selected (profile 2, profile 3, profile 4). Profile 1 is selected by default and remains along with other profile selection.
		Disable All Keys	Select the check box to disable all the keys. No key functions will be working if set.
		Profile Name	Profile 1 is selected by default along with the chosen profiles. To edit the profile name, select the profile name and type the new one.
		Power Recovery	By default, profile 1 name will be selected.
	Profile	Allows the keys to change their behavior when triggered. Up to four profiles can be used. Profiles utilize different widgets to define alternate (or same) key behavior for each profile. All the profiles will be available. By default, profile 1 will be selected.	
	Key	**Widget**	• Widget: Can choose widgets ranging from 1–16.

	Each keys can have max of 16 widgets created in it.	Displays the selected widget and application for a particular key. Depending on the application chosen the key property differs.	• Click drop-down next to the widget to select the application. • Click to add new widget. • Click to remove the widget.	
		Function	Click here for more details.	
		Group	Select any existing group or create new using , or edit group name using . Across all widgets in a group, the group address remains the same.	
		Ramp Rate	Ramp rate can be set from instant to max 17 minutes.	
		Indicator	**Indicator Assignment**	Any of the 16 widget can be assigned to the indicator.
			Indicator On Color	Indicator color can be set to: • Off • 8 different colors • 2 User-defined • Dynamic (using C-Bus group to control) **NOTE:** is enabled only for user defined and dynamic changes.
			Indicator Off Color	Indicator color can be set to: • Off • 8 different colors • 2 User-defined • 5 Dynamic (using C-Bus group to control) **NOTE:** is enabled only for user defined and dynamic changes.

The table below explains the details of widgets selected with its functions.

Lighting	**Function** Allows to select different function available for selected application.	Select one of the below lighting functions:	
		• Toggle • On • Off • Preset • Toggle Dimmer • Toggle Dimmer Down • Toggle Dimmer Up • Memory Toggle Dimmer • Memory Toggle Dimmer Down • Memory Toggle Dimmer Up • Dimmer Down	• Dimmer Up • Down • Up • Soft Down • Soft Up • Nudge Down • Nudge Up • Bell Press • Custom 1 • Custom 2 • Custom 3 • Custom 4
		If custom function is selected, files can be imported and exported to software using and respectively.	
	Group	Select any existing group or create new using ,or edit group name using .	

		Across all widgets in a group, the group address remains the same.
	Ramp Rate	Ramp rate can be set from instant to max 17 minutes.
	Restore Level	By default, restore level is set to 0%.
Timer	**Function** Allows to select different function available for selected application.	Select one of the below timer functions: • Retrigger Timer • Toggle Timer • Delay Timer • Pulse Timer
	Timer Level	Allows to adjust timer level to a max of 100% (255) to min of 1% (1).
	Ramp Rate	Allows to set ramp rate between 4 sec to 17min.
	Duration	Set the duration for the timer.
	Expiry Level	By default, set to 0%. Expiry level value varies from 0 - 100%.
	Expiry Ramp Rate	By default, expiry ramp rate is set to **instant**. The values vary from 4 seconds to 17 minutes.
	Enable Timer Flash	Select the check box to enable indicator status. By default, it is enabled.
	Restore Level	Assigned restore level is common across widgets with the same group which varies from 0 to 100%.
Shutter Relay	One of the following shutter relay functions can be selected: • Shutter Toggle • Shutter Open/Stop • Shutter Close/Stop • Shutter Open • Shutter Close • Shutter Stop	
Enable	One of the following enable functions can be selected: • Unused (Default) • Toggle • On • Off • Preset ◦ Preset Level: Allows to set the preset level between 0 - 100 %	
	Enable Group	Select any existing group or create new using ⊕, or edit group name using ✎.
	Restore Level	Assigned restore level is common across widgets with the same group which varies from 0 to 100%.
Fan Cycle	**Trigger Group**	Select any existing group or create new using ⊕, or edit group name using ✎.
	Action Selector	Select any existing action selector or create new using ⊕, or edit action selector name using ✎.
Scene	One of the following scene functions can be selected: • Scene Toggle (Default) • Scene Set • Scene Off • Scene Off/Down • Scene On/Up	
	Scene Label	Select the scenes between 1 - 8. Click ⋮ for scene manager, page 270.
	Ramp Rate	Allows to set ramp rate between 4 sec to 17min. This parameter is applicable only for scene functions Scene Off/Down and Scene On/Up.

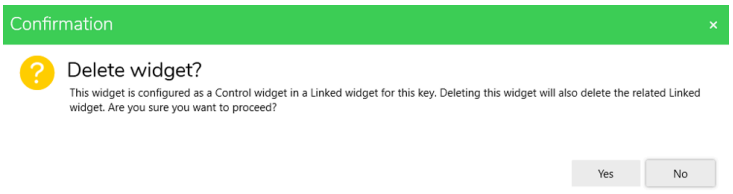
	Trigger Group	Select any existing group or create new using ⊕, or edit group name using ✎.	
	Action Selector	Select any existing action selector or create new using ⊕ ,or edit action selector name using ✎.	
	Enable Scene Repair	Enable the scene repair by checking the check box. Enabling the scene repair will maintain the scene status if all the items in the scene, match the current live state.	
Sequence	One of the following scene functions can be selected: • Sequence Toggle (Default) • Sequence Start • Sequence Off • Sequence Reverse Toggle • Sequence Reverse Off • Sequence Stop		
	Sequence Label	Select the sequence between 1 - 8. Click ⋮ for sequence manager, page 271.	
	Trigger Group	Select any existing group or create new using ⊕, or edit group name using ✎.	
	Action Selector	Select any existing action selector or create new using ⊕, or edit action selector name using ✎.	
	Use Delay For Off	Check the check box to enable delay off.	
Audio	**Function** Allows to select different function available for selected application.	Select one of the below audio functions: • Volume Up • Volume Down • Volume Cycle • Treble Up • Treble Down • Treble Cycle • Bass Up • Bass Down • Bass Cycle • Balance Left • Balance Right • Balance Cycle • Next Source • Previous Source • Preset Source • Dynamic 1 • Dynamic 2	
	Parameters	• Zone Zones available in the range of 0 to 23. • Ramp Rate. Ramp rate ranges from Instant, 4 sec to 17 mins.	These parameters are applicable for below functions: • Volume Up • Volume Down • Volume Cycle • Treble Up • Treble Down • Treble Cycle • Bass Up • Bass Down • Bass Cycle • Balance Left • Balance Right • Balance Cycle
		• Zone Zones available in the range of 0 to 23.	These parameters are applicable for below functions: • Next Source • Previous Source • Dynamic 1 • Dynamic 2
		• Zone Zones available in the range of 0 to 23. • Source Zones with available levels ranging from 0 to 7.	These parameters are applicable for below functions: • Preset Source
Multi-Toggle	Allows to toggle multiple groups in an application.		
	Application Each key can have 4 applications	By default, Lighting application is selected.	

<table>
<tr><td></td><td>Groups

Each key has 8 Groups</td><td>Allows to select available groups in selected lighting application.

Allows to select available groups in selected enable application.</td></tr>
<tr><td>Linked</td><td colspan="2">Allows add conditional logic behavior to a button press of a key.
IMPORTANT:

Linked widget will be disabled/hidden in the list when:
• a linked widget cannot be selected/defined for the first /main widget of a key.
• selecting a widget which is already defined as a Linked widget.
• selecting a widget number which is already configured as a linked widget type and is assigned to any other Key.
Linked widget will be enabled in the list when:
• an additional (second or more) widget added to the key (must add another widget to the key to use linked widget).
• any widget number is already configured as a linked widget type and is not assigned in any other key.
NOTE: An additional (second or more) widget added to the key, widget already assigned to a key cannot be changed/modified to a linked widget. It can only configure a widget which is not assigned.

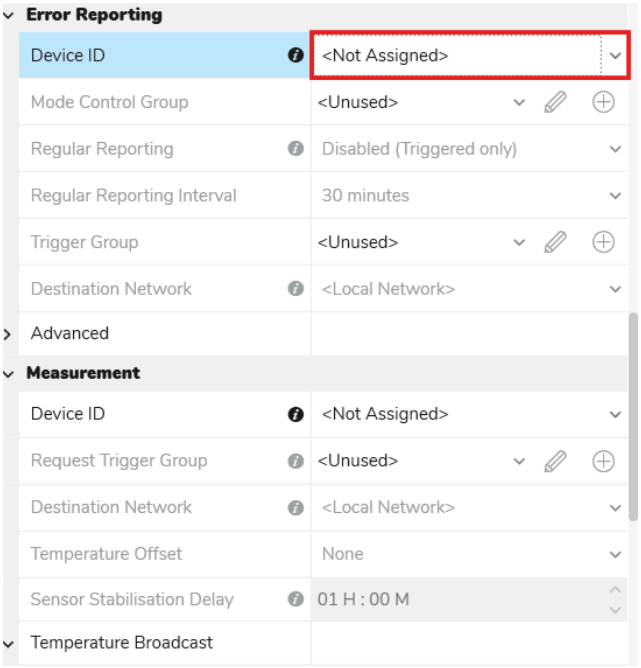
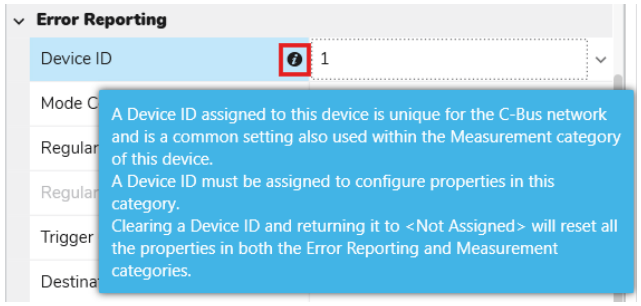
Once the linked widget is selected in a key, the widget number or widget type cannot be modified. The linked widget must be removed from the key and then added again.</td></tr>
<tr><td></td><td>Control Widget</td><td>• Widgets that are already configured/assigned to the current key are displayed and allowed for selection.
• While adding an additional widget to a key, and if the widget number selected is a control widget for an existing linked widget, then the associated linked widget also appears in the (to be added) key.
• Removing the first/main widget in a key which is configured as a control widget for a linked widget in the same key displays a confirmation dialogue to confirm the action. On selecting YES, both the control and linked widgets are removed from the key.
 
Click Yes to save the changes in widget and to delete linked widget.
Click No to cancel the operation.
• Selecting an existing linked widget for a key, the control widget property updates to reflect the first/main widget for that key.
• The linked relationship between the linked widget and the control widget in all the keys and across all the profiles are maintained and displayed when:
◦ A linked widget is added to a key.
◦ A widget is changed/modified to a control widget.
NOTE: Once a control widget is selected, the control selection cannot be modified. The linked widget must be removed from the key and then added again.</td></tr>
<tr><td></td><td>Linked Event</td><td>Linked Event options include:
• Control Widget Turns On
• Control Widget Turns Off
• Control Widget Timer Expiry</td></tr>
<tr><td></td><td>Linked Action</td><td>Linked Action options include:
• Turn On
• Turn Off
• Preset
• Turn On and Start Timer
• Turn Off and Start Timer
• Start Timer
• Trigger Event
• Enable Event</td></tr>
<tr><td></td><td>Group</td><td>Allows to select among existing groups.</td></tr>
<tr><td></td><td>Level/Expiry Level</td><td>Allows to set a level between 1 to 100%.</td></tr>
<tr><td></td><td>Ramp Rate/Expiry Ramp Rate</td><td>Allows to set ramp rate between 4 sec to 17 min, by default its instant.</td></tr>
<tr><td></td><td>Duration</td><td>Allows to set the duration in hh:mm:ss.</td></tr>
</table>

	Disable link in this Profile	This property is applicable for all the linked widgets in the current profile. By default it is unchecked. Checking **Disable link in this profile** will disable the linked widget in the current key. The control widget continues to operate maintaining the linked widget relationship. Property is disabled when profiles are not in use. **IMPORTANT:** • The **Disable link in this Profile** property can be set only while using more than one profile in the device.
	Indicator Indicator Assignment • The indicator assignment property for the key is displayed only in an enabled state widgets that are not configured as a linked widget for user selection. Linked Widgets are disabled (appear in a disabled state). • If a valid widget is already defined for the Indicator Assignment property, then upon modification of the widget type, for that widget to a linked widget type, the Indicator Assignment property updates and selects automatically the first/main widget for the key. Indicator On Color Allows to set the indicator **On** color. Indicator Off Color. Allows to set the indicator **Off** color.	

Indicators	**Indicator Application**	Allows to select among the defined Active Brightness control group and Idle Brightness control group.	
	Active Brightness	The Active Brightness can be equal to or greater than the Standby Brightness. By default set to 100%. If a group is assigned to the Active Brightness Control Group, then the start up level for that group is the value set here.	
	Active Brightness Control Group	To control the active brightness, select the group By default, <unused> is selected. Click to edit the group and to create new group.	
	Standby Timeout	The minimum value of 0 sec disables the Standby Timeout for this device.	
	Standby Brightness	The Standby Brightness can be equal to or less than the Active Brightness. By default set to 100%. If a group is assigned to the Standby Brightness Control Group, then the start up level for that group is the value set here.	
	Standby Brightness Control Group	To control the idle brightness, select the group By default, <unused> is selected. Click to edit the group and to create new group.	
	Nightlight Options	**Profile**	Allows the keys to change their behavior when triggered. Up to four profiles can be used. Profiles utilize different widgets to define alternate (or same) key behavior for each profile. All the profiles will be available. By default, profile 1 will be selected.
		Enable Nightlight	Check the check box to enable nightlight.
		Ignore First Key Press	This field is enabled only when **Enable Nightlight** is checked.

		Nightlight Indicator Color	Nightlight Indicator color can be set to: • Off • 8 different colors • 2 user defined • 5 Dynamic (using C-Bus group to control) **NOTE:** is enabled only for user and dynamic changes
		Nightlight Color Control Group Uses a C-Bus group to control the nightlight. • Level 0: Group is off • Above Level 0: Group is on	By default, <unused> is selected. Click to edit the group and to create new group.

Corridor Linking	**Application**	Select the application to be applicable for corridor linking.
	Link Group	A common group address is assigned to all units sharing the same common area. By default, <unused> is selected. Click to edit the group and click to create new group.
	Corridor Group	The group address that is used for the common area that is adjacent to the office. By default, <unused> is selected. Click to edit the group and click to create new group.
	Office Group	The group address that is used for the Office which is adjacent to the common area. By default, <unused> is selected. Click to edit the group and click to create new group.
	Corridor Timer	Allows to set the timer for corridor timeout. By default, 00H: 05Min: 00s.

Error Reporting	**Device ID**	This field displays the unique Device ID for the device. **NOTE:** The Device ID is for the entire device and is as same for measurement. When you assign a Device ID, and then if you set the **Device ID** to **Not Assigned**, then all properties in both the **Error Reporting** and **Measurement** section are reverted to their default settings and disabled (grey out state).  Mouse over on the **Device ID** info icon to view the tooltip message. 
	Mode Control Group	This field allows to add an enable group (0–254). If you assign a group, **Regular Reporting Interval** drop-down is enabled.
	Regular Reporting	This field configures the Error Reporting mode of the Dimmers into one of modes: • Disabled (Triggered only) • All Errors, most recent and most severe • All Errors, most recent only • Minimum Errors, most recent only • Minimum Errors, most recent and most severe Mouse over on the **Regular Reporting** info icon to view the tooltip message.
	Regular Reporting Interval	This drop-down is used to select the time interval period between the completion of a regular report and beginning of the next report in Always On, Most recent only and Always On, Most recent and most severe modes. By default, the interval is 30 minutes Regular reporting interval is enabled for all others except the Trigger Only mode.
	Trigger Group	This field contains a Trigger Group to trigger an error reporting event for any of the three error reporting modes. When a Trigger group is created, resend and acknowledge action selector are displayed.

		The Resend Action Selector is set to send all errors and Acknowledge Action selector is set to acknowledge all errors.	
	Destination Network	This field contains the destination C-Bus network to which the key units routes the error reporting messages. This allows the error messages to be sent to a remote C-Bus network for central monitoring if it's not the local network Mouse over on the **Destination Network** info icon to view the tooltip message.	
	Advanced	**C-Bus Voltage Warning Set Threshold**	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Voltage Warning Clear Threshold** value selected. • If the **C-Bus Voltage Warning Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Warning Clear Threshold** value to (current C-Bus Voltage Warning Set Threshold value + 1 V). Mouse over on the **C-Bus Voltage Warning Set Threshold** info icon to view the tooltip message.
		C-Bus Voltage Warning Clear Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **C-Bus Voltage Warning Set Threshold** value selected. • If the **C-Bus Voltage Warning Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Warning Set Threshold** value to (current C-Bus Voltage Warning Clear Threshold value - 1 V). Mouse over on the **C-Bus Voltage Warning Clear Threshold** info icon to view the tooltip message.
		C-Bus Voltage Critical Set Threshold	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Voltage Critical Clear Threshold** value selected. • If the **C-Bus Voltage Critical Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Critical Clear Threshold** value to (current C-Bus Voltage Critical Set Threshold value + 1 V). • If the **C-Bus Voltage Warning Set Threshold** has a value set (other than **Disabled**), then the value selected must be less than current C-Bus Voltage Warning Set Threshold value. Mouse over on the **C-Bus Voltage Critical Set Threshold** info icon to view the tooltip message.

		C-Bus Voltage Critical Clear Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **C-Bus Voltage Critical Set Threshold** value selected. • If the **C-Bus Voltage Critical Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Critical Set Threshold** value to current C-Bus Voltage Critical Clear Threshold value - 1 V. Mouse over on the **C-Bus Voltage Critical Clear Threshold** info icon to view the tooltip message.
		Unit Over Temperature Set Threshold	This field is a combo box which is by default set to 70 °C. The **Unit Over Temperature Set Threshold** property increments by 1 °C with a range of 1 °C - 80 °C. Mouse over on the **Unit Over Temperature Set Threshold** info icon to view the tooltip message.
		Unit Over Temperature Clear Threshold	This field is a combo box which is by default set to 65 °C. The **Unit Over Temperature Clear Threshold** property increments by 1 °C with a range of 0 °C - 79 °C. Mouse over on the **Unit Over Temperature Clear Threshold** info icon to view the tooltip message.

Measurement	**Device ID**	This field displays the unique device ID for the device. **NOTE:** The Device ID is for the entire device and is as same Error. Mouse over on the **Device ID** info icon to view the tooltip message.
	Request Trigger Group	Select the trigger group for measurement application. By default, <unused> is selected. Click to edit the group and to create new group. Mouse over on the **Request Trigger Group** info icon to view the tooltip message.
	Destination Network	This field contains the destination C-Bus Network to which the key units routes the error reporting messages. This allows the error messages to be sent to a remote C-Bus Network for central monitoring if it's not the local network. Mouse over on the **Destination Network** info icon to view the tooltip message.
	Temperature Offset	Allows to set the device to offset between 25 °C to 25 °C.
	Sensor Stabilization Delay	The **Sensor Stabilization Delay** is applicable to both the onboard temperature and humidity sensors only upon device power up. The device will not send any Measurement data or raise any alarms until the delay time period has elapsed. **Sensor Stabilization Delay** is set in H:M with 1 hour increment for hours and 1 minute increment for minutes. Maximum delay value that can set is 4:14. Mouse over on the **Sensor Stabilization Delay** info icon to view the tooltip message.

	Temperature Broadcast	**Broadcast Interval** Allows to set the interval to broadcast temperature	By default **Do Not Broadcast** is selected. Broadcast interval can be set between 10 seconds to 40 minutes.
		Broadcast on Change Threshold	By default **Disabled** is selected. Broadcasts if the unit crosses the set threshold.
	Humidity Broadcast	**Broadcast Interval**	By default **Do Not Broadcast** is selected. Broadcast interval can be set between 10 seconds to 60 minutes.
		Broadcast on Change Threshold	By default **Disabled** is selected. Broadcasts if the unit crosses the set threshold
		Profile	Allows the keys to change their behavior when triggered. Up to four profiles can be used. Profiles utilize different widgets to define alternate (or same) key behavior for each profile. All the profiles will be available. By default, profile 1 will be selected.
		Alarm Application	Select the application for alarm.
	Temperature Alarms	**Enable High Temperature Alarm**	Select the check box to enable alarm on unit's high temperature.
		Alarm Group	Select the group for alarm. By default, <unused> is selected. Click to edit the group and ⊕ to create new group.
		Enable Group	Select the enable group . By default, <unused> is selected. Click to edit the group and click ⊕ to create new group.
		Enable Group Restore	This field is enabled only when **Enable group** is been selected. Enable group can be restored in one of the following modes: • All events disabled (Default) • Only On events enabled • Only Off events enabled • All events enabled
		Alarm Set Threshold	Set the alarm set threshold between 46 - 60 °C
		Alarm Clear Threshold	Set the alarm clear threshold between 0 - 49 °C
		Enable Low Temperature Alarm	Select the check box to enable alarm on unit's low temperature .
		Alarm Group	Select the group for alarm By default, <unused> is selected. Click to edit the

			group and click ⊕ to create new group.
		Enable Group	Select the enable group By default, <unused> is selected. Click ✎ to edit the group and click ⊕ to create new group.
		Enable Group Restore	This field is enabled only when **Enable group** is selected. Enable group can be restored in one of the following modes: • All events disabled (Default) • Only On events enabled • Only Off events enabled • All events enabled
		Alarm Set Threshold	Set the alarm set threshold between 0 - 14 °C.
		Alarm Clear Threshold	Set the alarm clear threshold between 11 - 60 °C.
	Humidity Alarms	**Enable High Humidity Alarm**	Select the check box to enable alarm on unit's high humidity.
		Alarm Group	Select the group for alarm. By default, <unused> is selected. Click ✎ to edit the group and click ⊕ to create new group.
		Enable Group	Select the enable group By default, <unused> is selected. Click ✎ to edit the group and click ⊕ to create new group.
		Enable Group Restore	This field is enabled only when **Enable group** is been selected. Enable group can be restored in one of the following modes: • All events disabled (Default) • Only On events enabled • Only Off events enabled • All events enabled
		Alarm Set Threshold	Set the alarm set threshold between 85 - 100 %RH.
		Alarm Clear Threshold	Set the alarm clear threshold between 0 - 85 %RH.
		Enable Low Humidity Alarm	Select the check box to enable alarm on unit's low humidity.
		Alarm Group	Select the group for alarm. By default, <unused> is selected. Click ✎ to edit the group and click ⊕ to create new group.
		Enable Group	Select the enable group By default, <unused> is selected. Click ✎ to edit the

			group and click ⊕ to create new group.
		Enable Group Restore	This field is enabled only when **Enable group** is selected. Enable group can be restored in one of the following modes: • All events disabled (Default) • Only On events enabled • Only Off events enabled • All events enabled
		Alarm Set Threshold	Set the alarm set threshold between 0 - 10 %RH.
		Alarm Clear Threshold	Set the alarm clear threshold between 15 - 100 %RH.

Global	**Unit Parameters**	Status Request Interval	Allows to set minutes and seconds for status request interval.
		Device Idle Time out	Allows to set minutes and seconds for status request interval.
	Device Scenes	Displays the number of scenes used Scene Manager., page 270	
	Device Sequences	Displays the number of sequence used Sequence Manager, page 271.	
	Device Key Assignments	Key Assignment Overview., page 273	
Unit Identification	**Unit Type**	This field contains the unit type of the device.	
	Catalogue Number	This field contains the catalog number related to the unit type.	
	Firmware Version	This field shows the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database	
	Part Name	This field contains the part name which is stored in the unit hardware, that can be modified.	
	Unit Address	This field displays the unit address assigned to the device.	
	Serial Number	This field contains the serial number which exists on the physical unit.	
	Tag Name	This field contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only.	
	Notes	This field contains a location to add notes about the unit which is stored in the project database only.	
Status Status will be displayed only when the unit is live	**C-Bus Voltage (V)**	Displays the C-Bus Voltage.	
	Unit Humidity (% RH)	Displays unit's humidity.	
	Unit Temperature (°C)	Displays unit's temperature only when the Sensor Stabilization Delay time period is elapsed.	

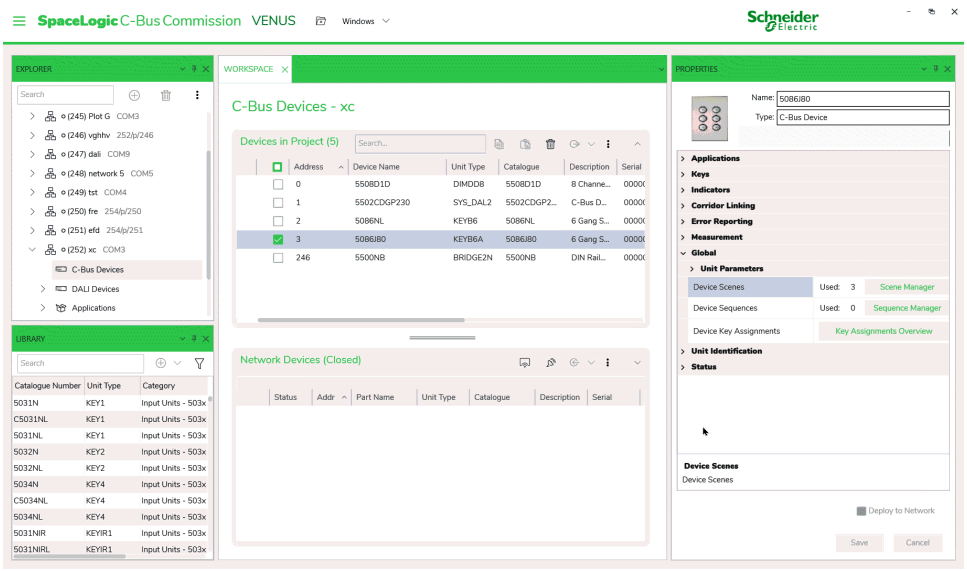
Once configuring relays are completed, click **Save** to save the changes.

Scene Manager

The **Scene Manager** allows to create, edit and manage scenes for selected C-Bus Device.

New scene items can be added to scenes using any of the available C-Bus group applications 1 to 4 defined for this device.

Some of the functions of scene manager is as demonstrated as below:



To edit the group name:

1. Select the group and click **Edit Group**.
2. Enter the new group name.

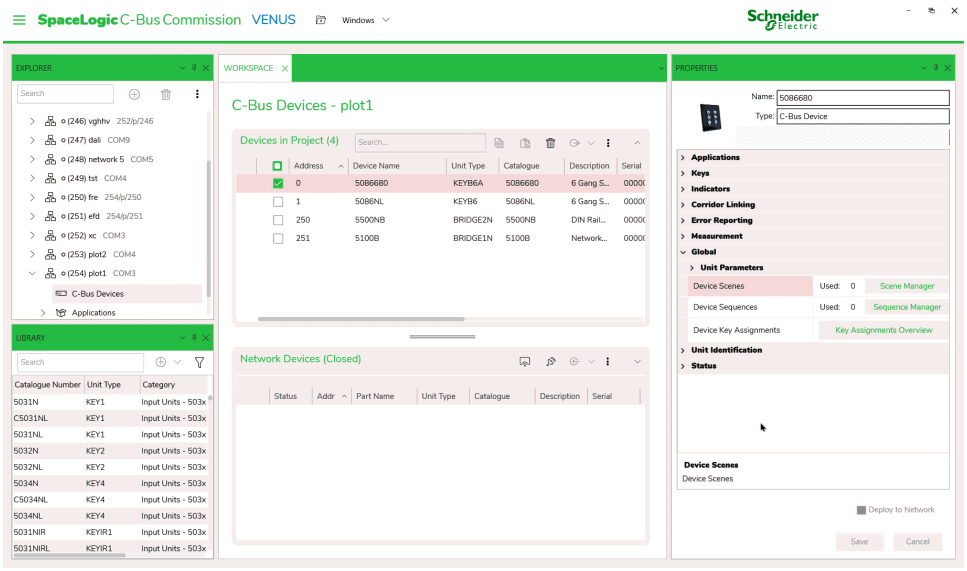
Clear Scene: Clear Scene clears all the scene items in the list irrespective of being selected.

Remove Scene: Remove Scene removes only the selected scene items from the list back to the group list. (can also remove scene by selecting scene and clicking)

Sequence Manager

The **Sequence Manager** can create, edit and manage sequences for the selected C-Bus Device. New sequence items can be added to sequences using the available Action types and configured separately.

Some of the functions of **Sequence Manager** is as demonstrated as below:



Clear Sequence: Clear sequence clears all the scene items in the list irrespective of being selected.

Remove Sequence: Remove sequence removes only the selected scene items from the list (can also remove scene by selecting scene and clicking)

<table>
<tr><th>Action Types</th><th colspan="5">Sequence Items</th></tr>
<tr><td>Delay</td><td colspan="5">Time: Allows to set the delay in M:S</td></tr>
<tr><td>Lighting</td><td>Group: Allows to select from defined application.</td><td>Level: Allows to set the level value

Setting the Level value will automatically update the Percentage value.</td><td>Percentage:

Setting the Percentage value will automatically update the Level value.</td><td colspan="2">Ramp Rate: Allows to set the ramp rate between 4-17 min. By default it is instant.</td></tr>
<tr><td>Trigger</td><td>Trigger Group: Allows to select from available Trigger groups in Application.</td><td>Action Selector: Allows to select from available Action Selectors in selected Trigger group.</td><td colspan="3" rowspan="3">—</td></tr>
<tr><td>Enable</td><td>Enable Group: Allows to select from available Enable groups in Application.</td><td>Value: Allows to select from available Enable Values in selected Enable group.</td></tr>
<tr><td>Security</td><td colspan="2">Arm Mode

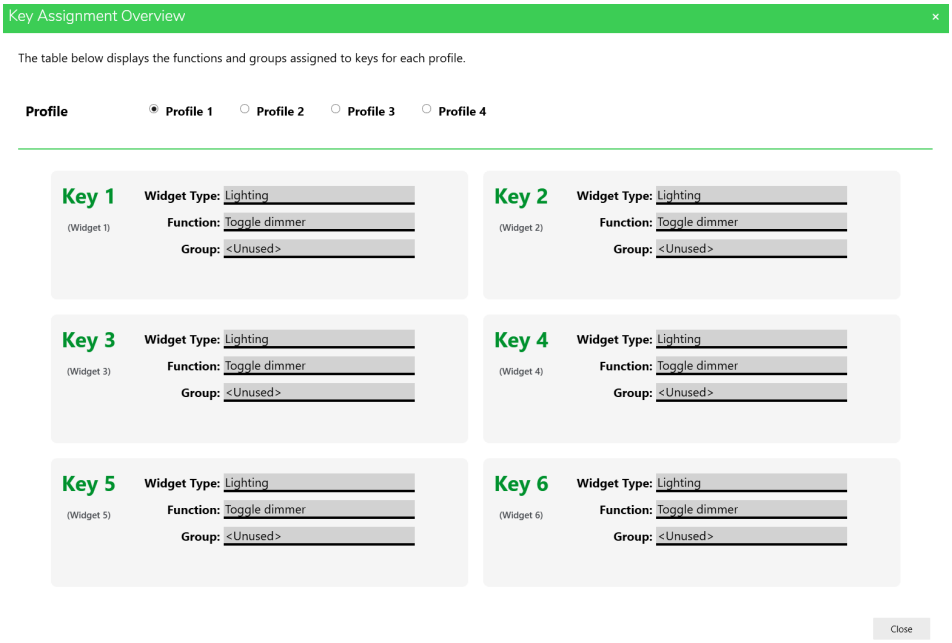
The different arm modes are:
• Away mode
• Night (home) mode
• Day mode
• Vacation mode
• Highest possible</td></tr>
<tr><td>Lighting Label</td><td rowspan="2">Label: Allows to define max. 8 labels, edit label name and duplicate the labels.</td><td>Groups: Allows to select from defined application.</td><td>—</td><td rowspan="2">Language: English (By default and the only language).</td><td rowspan="2">Variant: By default has value 1, and ranges from 1 to 4.</td></tr>
<tr><td>Scene Trigger Label</td><td>Trigger Group: Allows to select from predefined Trigger Group, or add a new by editing the name.</td><td>Action Selector: Allows to select from predefined Action Selector, or add a new by editing the name.</td></tr>
<tr><td rowspan="2">Audio</td><td rowspan="2">Zone: Zones available in the range of 0 to 23.</td><td rowspan="2">Action: Allows to choose action between:</td><td>Set Volume to Level Provided.</td><td>Volume: Allows to set volume between 0 – 100%.</td><td>Ramp Rate: Ramp rate ranges from Instant, 4 sec to 17 mins.</td></tr>
<tr><td>Set Source to source Provided.</td><td colspan="2">Source: Zones with available levels ranging from 0 to 7.</td></tr>
</table>

Media Transport	Media Link Group: Address selection range limited to 0 to 31.	Action: Allows to choose action between: • Set Power • Set Shuffle • Set Repeat • Set Motion • Set Category: Value ranges from 0 - 127. By default, value is 0. • Set Selection: Value ranges from 0 - 32767. By default, value is 0. • Set Track: Value ranges from 0 - 16777215. By default, value is 0.	To: Allows to choose operation for selected action from the below options: • Power Off • Power On • Shuffle Off • Shuffle On • Repeat Current • Repeat Off • Repeat Track • Stop • Play • Pause • Resume

Key Assignment Overview

The **Key Assignment Overview** window displays a high-level view of the Widget/ Function to key mapping per **Profile**.

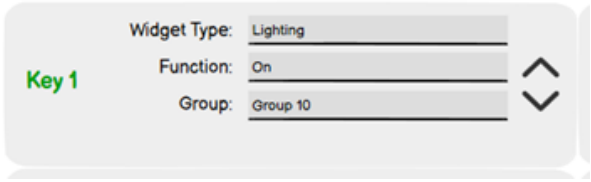
- Window allows to select each profile as desired (1 to 4).
- The key layout of the window displays the list of keys in the order of 1 to 6 from left to right, and then top to bottom.



NOTE: Each key has a list of widget summary depending on the widget type.

Widget Type	Functions	Properties	Content
Lighting	All	• Widget Type • Function • Group	• Name of Widget Type • Name of Function (All Functions) • Group as configured in Widget (by name)
Timer			
Shutter Relay			
Enable			
Fan Cycle			
Audio			
Linked			
Multi Toggle			
Scene	All	• Widget Type • Function • Trigger Group • Action Selector	• Name of Widget Type • Name of Function (All Widget Functions) • Trigger Group as configured in Widget (by name) • Action Selector as configured in Widget (by name)
Sequence			

If a key is configured with more than one widget, the key displays UP/DOWN arrows for the user to cycle through all the widgets configured to the key.



The widget configuration for all keys across all profiles is visible. By default, (if a key is not configured) the Key displays the **Lighting** widget type and <Unused> function with the following default properties:

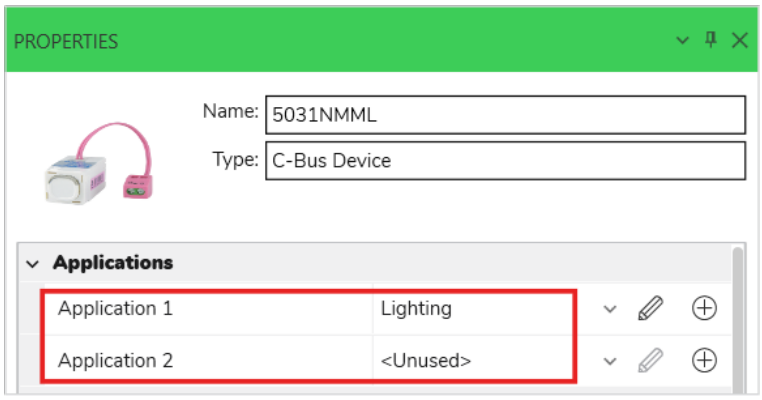
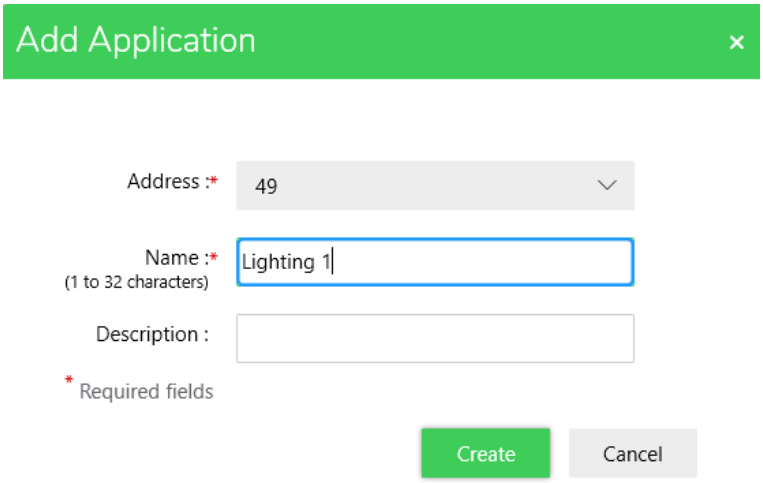
- Widget Type – <Unused>
- Function – <Unused>
- Group – <Unused>

The data/information displayed in the **Key Assignment Overview** dialogue window is read-only.

5031NMML Key Input Unit

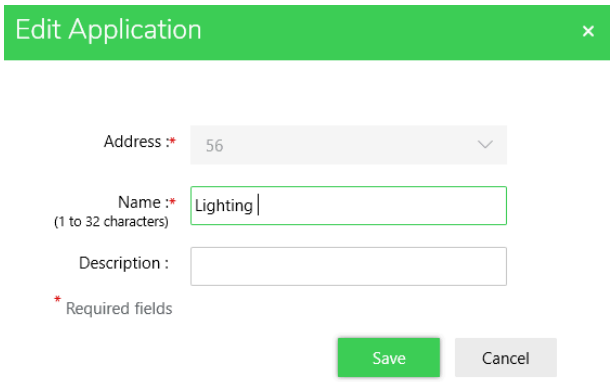
The SpaceLogic C-Bus 5031NMML is a master Key Input Unit designed as a 30 Series mechanism for use in C-Bus lighting and automation control systems. You can mount this wall switch into a standard 30 series grid plate, allowing it to integrate with standard power outlets or be installed in mixed-purpose switch plates. It provides reliable push-button control for lighting and automation functions within a C-Bus network.

The field informations to configure SpaceLogic C-Bus 5031NMML Key Input Unit are described as below:

Applications	This section displays the lighting applications. Up to two lighting applications can be defined and then used throughout the configuration of the 5031NMML Key Input Unit. By default, **Lighting** is selected in the **Application 1** drop-down list and **<unused>** is selected in **Application 2** drop-down list.  To add Application: • You can enter the name in **Application 1** field and press **Enter** in keyboard. The Application is created by taking the next available Application address. The created Application is saved in the network. or, • Click ⊕. The **Add Application** pop-up appears.  It supports application addresses from 48 to 127. • Enter the required details and then click **Create**. The application is created and listed in the **Application 1** drop-down list. **NOTE:**

<table>
<tr><td></td><td colspan="3">

Use a unique application name for each network.
Enter a maximum of 32 characters for the Application Name
You can use numbers, letters and special characters excluding /,” and #.

• Click Cancel to cancel the operation.
To edit Application:
• Click to modify the application name.
NOTE: Edit button is disabled if the Application is set to <Unused>.


• Make necessary changes and then click Save. You cannot edit the Application address after it has been created.
Repeat the same for Application 2.
NOTE: The Trigger and Enable options are available only in Application 2 drop-down list. It supports application addresses from 48 to 127, 202 and 203. The application selected in Application 1 drop-down list will not be listed in Application 2 drop-down list and vice versa.
</td></tr>
<tr><td>Configuration</td><td colspan="3">Click Edit Device. The Edit Device dialog box appears. For more information, refer Edit Device, page 281.</td></tr>
<tr><td rowspan="6">Global

Provides a set of functions for controlling the timing, learn mode, and infrared settings.</td><td rowspan="6">Timing Parameters

Provides the ability to control how key input will behave by human touch.</td><td>Debounce</td><td>By default, it is set to 48 ms. You can select a different debounce time from the Debounce drop-down list.

When you press an input key, the mechanical action may cause contact bounce, which can result in multiple rapid signals. To ensure reliable switching, the unit waits for a preset time period before responding to the key press. This delay is known as the debounce time.</td></tr>
<tr><td>Long Press</td><td>A key input unit senses whether you press a key briefly or hold it for a longer duration. The Long Press setting defines the minimum time the key must be held for the unit to interpret the action as a long press.

By default, the Long Press time is set to 400 ms minimum value of 96 ms. You can select the desired minimum duration (in milliseconds) from the Long Press drop-down list to define a long press event</td></tr>
<tr><td>Ramp 1</td><td>Ramp 1 rate can be set from instant to max 1020 seconds.

By default, it is set to 4 seconds.

It specifies the time taken to ramp a light from minimum to maximum brightness (or vice versa).</td></tr>
<tr><td>Ramp 2</td><td>Ramp 2 rate can be set from instant to max 1020 seconds.

By default, it is set to 12 seconds.</td></tr>
<tr><td>Status Report

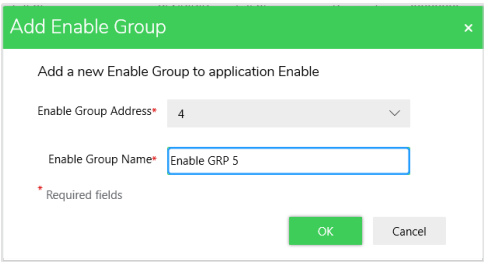
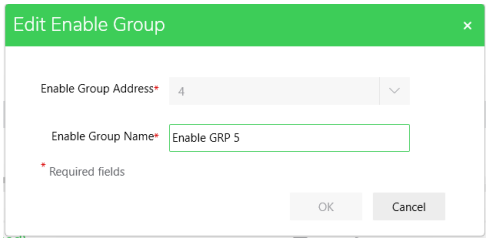
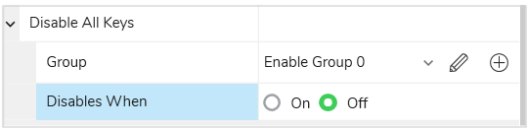
Wired C-Bus uses a status reporting system (known as an message synchronisation or MMI), which provides automatic detection and correction of discrepancies between the states of grouped inputs and outputs. This status reporting occurs at</td><td>Allows to set the duration in mm:ss.

Provides automatic detection and correction of discrepancies between the states of grouped inputs and outputs.

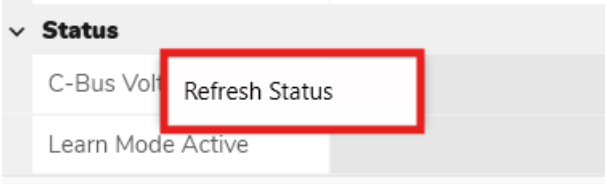
By default, it is set to 3 seconds.

Mouse over on the Status Report info icon to view the tooltip message.</td></tr>
</table>

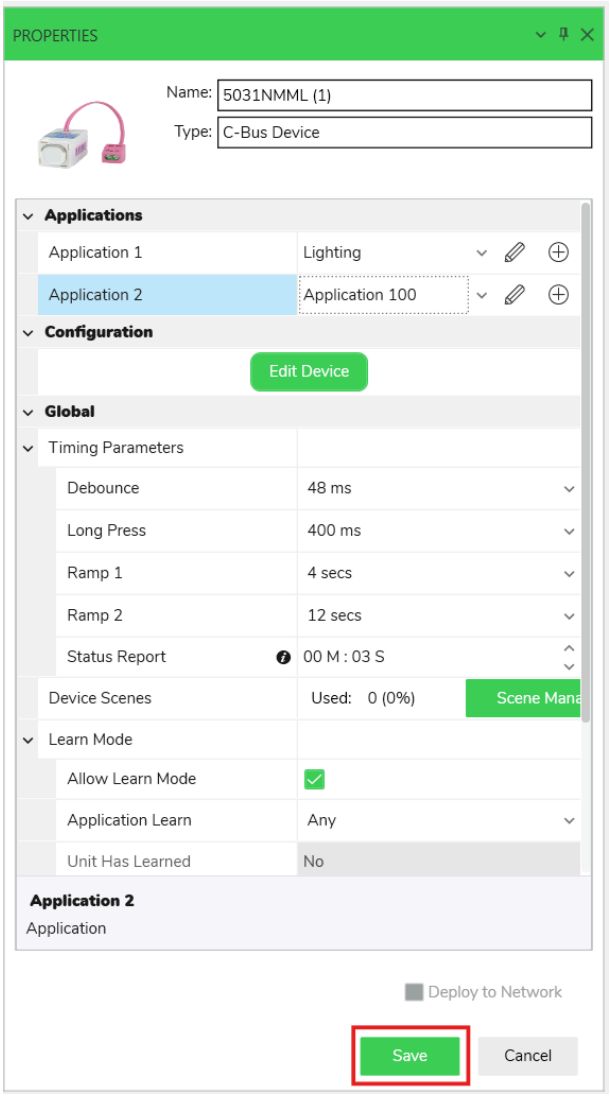
		periodic intervals. Increasing the frequency of status reporting decreases the response time in which errors are corrected. However, it increases the amount of network communication traffic. If different status report values exist in the same network, the smallest value is used. The **Status Report** drop down list allows the selection of the status report value.	
	Device Scenes	Click **Scene Manager**. For more information, refer Scene Manager, page 349.	
	Learn Mode You can configure the unit for learn mode.	**Allow Learn Mode**	Only if you select the **Allow Learn Mode** check box, the **Application Learn** drop-down list will be enabled. By default, the **Allow Learn Mode** check box is selected.
		Application Learn	Select the required option from the **Application Learn** drop-down list. The options are **Current** and **Any**. To determine whether learn mode can be used to group channels with other units of the same application address, select **Current**. To determine whether learn mode can be used to group channels with other units of any application address, select **Any**.
		Unit Has Learned	By default, it is set as **No**. When the **Unit Has Learned** check box is enabled, it indicates that the unit has been involved in a learn mode operation.

	Disable All Keys Provides the ability to disable all keys remotely by defining an Enable Control group.	**Group** The Enable Control group parameter is used to enable or disable the unit input keys. The **Group** drop down list allows selection of the Enable Control group.	To add Group: • You can enter the name in **Enable Group Name** field and press **Enter** in keyboard. The **Group Name** is created by taking the next available **Group Address**. The created Group is saved in the network. or, • Click ⊕. The **Add Group** pop-up appears.  • Enter the required details and then click **OK**. The **Enable Group Name** is created and listed in the **Group** drop-down list. **NOTE:** ◦ Use a unique application name for each network. ◦ Enter a maximum of 32 characters for the Group Name ◦ You can use numbers, letters and special characters excluding /,” and #. • Click **Cancel** to cancel the operation. To edit Group Name: • Click ✎ to modify the group name. **NOTE:** Edit button is disabled if the Group is set to **<Unused>**.  • Make necessary changes and then click **OK**. You cannot edit the **Enable Group Address** after it has been created.
		Disables When	It determines whether the Enable Control group enables or disables the input keys when the group itself is enabled. For example, if the Enable Control group is enabled, and **Disables when** radio button is set to ON, then the input keys will be deactivated. 

Unit Identification	**Unit Type**	Displays the unit type of the device.
	Catalogue Number	Displays the catalog number related to the unit type.
	Firmware Version	Displays the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
	Part Name	Displays the part name which is stored in the unit hardware, that can be modified. You can edit the Part Name. Use numbers, alphabets, and special characters (!@#$%^&*()_+];[) up to 8 Characters. Convert all characters to uppercase.

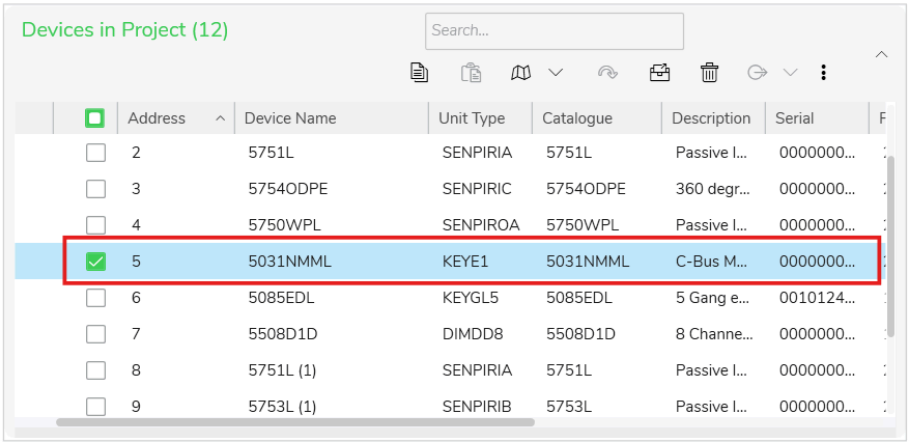
	Unit Address	Displays the address which is automatically assigned when the device is added.
	Serial Number	Displays the serial number which exists on the physical unit. • For a live network device, the **Serial Number** field is a read only field that displays the serial number the user adds in when adding the device. • For a project device, the **Serial Number** field is all zeros by default (12 chars) and can be edited and saved by the user. • When a project device is matched with a live network device, the **Serial Number** field of the project device is updated with the serial number from the live network device.
	Tag Name	Displays the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only. By default it is NEWUNIT.
	Notes	Contains a location to add notes about the unit which is stored in the project database only. Use maximum character length of 255 and only numbers, alphabets and special characters (!@#$%^&*()_+];[).
Status Status will be displayed only when the network is opened.	**C-Bus Voltage (V)**	Displays the device's C-Bus network voltage value. Values are displayed only when the C-Bus network is open.
	Learn Mode Active	Displays **Yes** when it is active on the device/network and displays **No** when it is not active. To refresh device status, right-click on **Status** section and click **Refresh Status**. 

Once configurations are completed, click **Save** to save the changes.

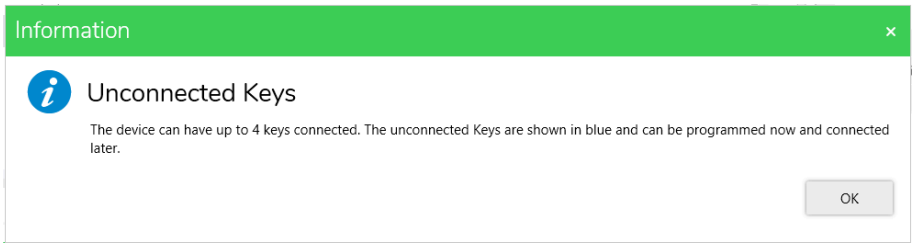

PROPERTIES
Name: 5031NMML (1)
Type: C-Bus Device
Applications
Application 1
Lighting
Application 2
Application 100
Configuration
Edit Device
Global
Timing Parameters
Debounce
48 ms
Long Press
400 ms
Ramp 1
4 secs
Ramp 2
12 secs
Status Report
00 M : 03 S
Device Scenes
Used: 0 (0%)
Learn Mode
Allow Learn Mode
Application Learn
Any
Unit Has Learned
No
Application 2
Application
Deploy to Network
Save
Cancel

Edit Device 5031NMML

1. Select **KEYE1** in the **Devices in Project** section.

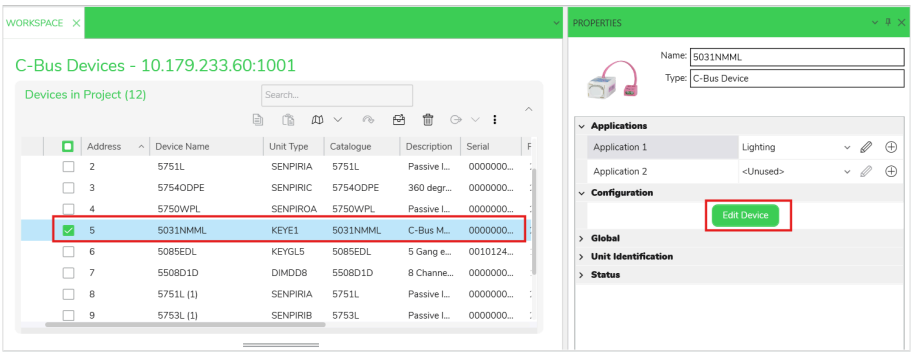


Once you select KEYE1, KEYE2, and KEYE3, an **Information** pop-up is displayed. You can connect up to four keys to the device.

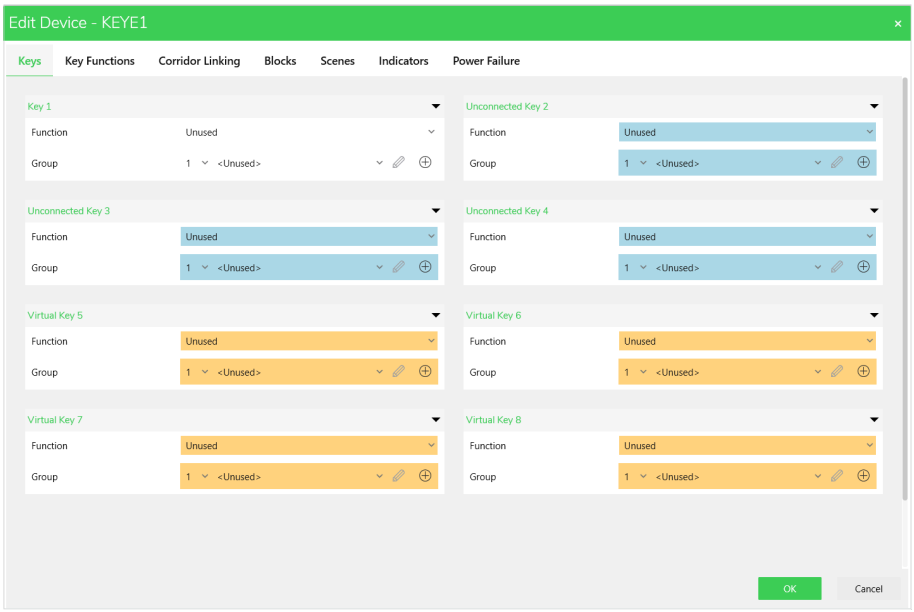


2. Click **OK** to proceed.

3. Click **Edit Device** in the **Configuration** section of **PROPERTIES**.



The **Edit Device — KEYE1** dialog box appears.



The below configurations can be performed in the **Advanced Configuration** :

- Keys, page 282
- Key Functions, page 294
- Corridor Linking, page 296
- Blocks, page 299
- Scenes, page 348
  - Scene Manager, page 349
- Indicators, page 302
- Power Failure, page 305

Keys

This 30M series Key Input Unit has one physical input key, three unconnected input keys and four virtual (scenes only) input keys.

Physical input keys

The physical input key permit input events which originate from the local key input unit or from a remote source. You can program the input key to control electrical loads using a Lighting compatible group or a C-Bus scene.

When a building occupant turns on a switch or adjusts a dimmer, the input key transmits a group or scene command over the C-Bus network. This command includes the macro function that you previously configured in the unit configuration dialog box.

Unconnected input keys

The unconnected input key is a virtual input key within a 30M series Key Input Unit. The unconnected input key remains an unconnected input key as long as the unit is not connected to a physical key element. The 30M series Key Input Unit series are modular Key Input Units which can be configured physically to have from one to four keys.

The unconnected input key can be programmed to control electrical loads remotely using a C-Bus scene. When the unconnected input key is connected to a 30M series Key Input Unit element, the input key changes to become a physical input key.

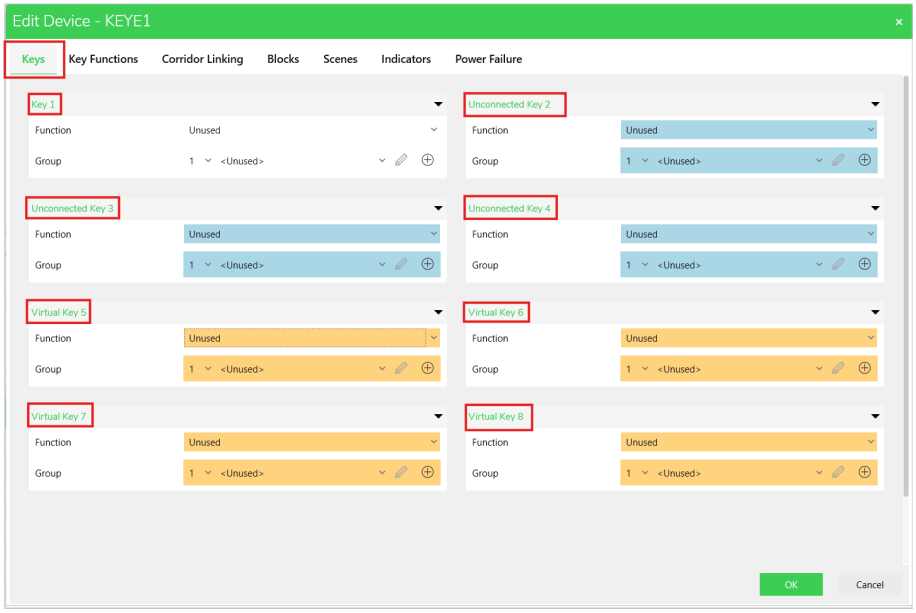
Virtual (Scenes Only) input keys

The virtual (scenes only) input key permits input events which originate only from a remote source. You can program the virtual input key to control electrical loads using remote C-Bus scenes only.

When a building occupant turns on a switch, the input key transmits a **Trigger Group** level across the C-Bus network to activate a C-Bus scene. The transmitted command includes the macro function that you previously configured in the unit configuration dialog box.

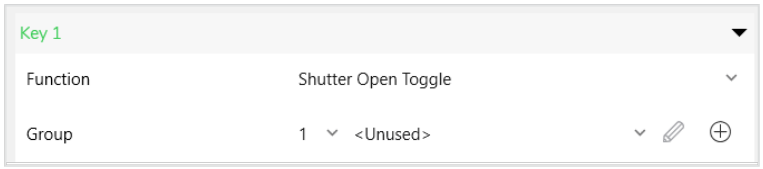
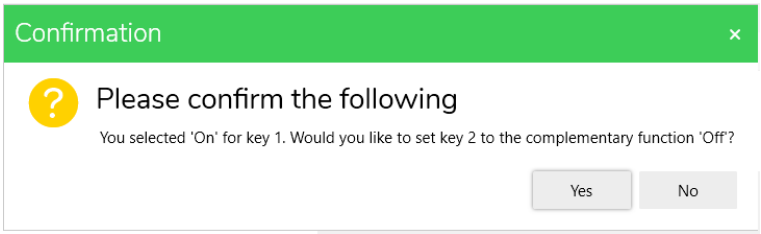
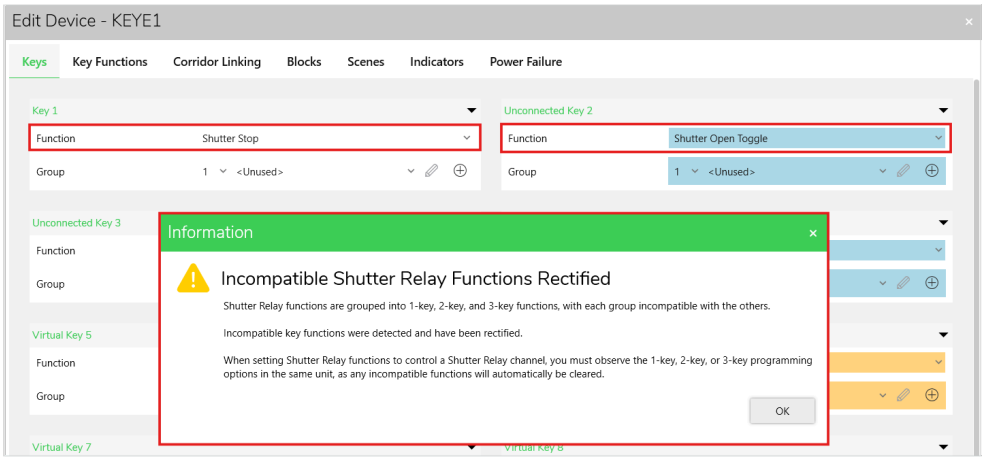
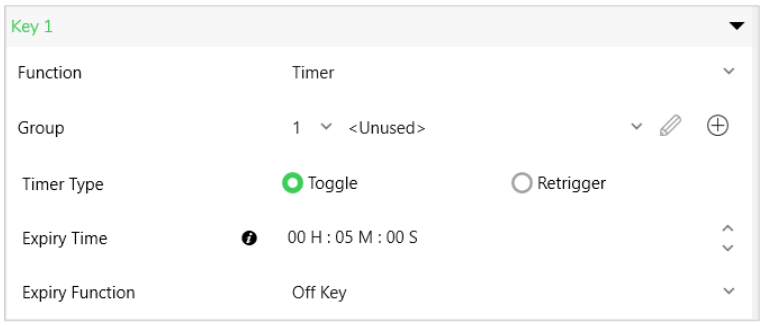
1. By default, **Keys** tab is displayed.

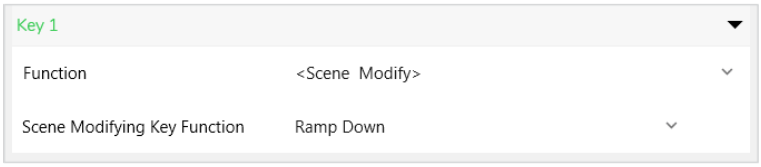
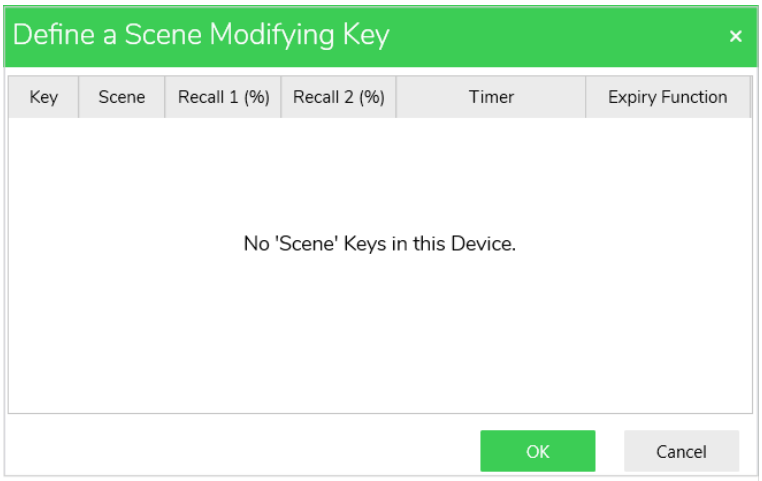
   The **Key 1**, **Unconnected Key 2**, **Unconnected Key 3**, **Unconnected Key 4**, **Virtual Key 5**, **Virtual Key 6**, **Virtual Key 7**, and **Virtual Key 8** section appears.

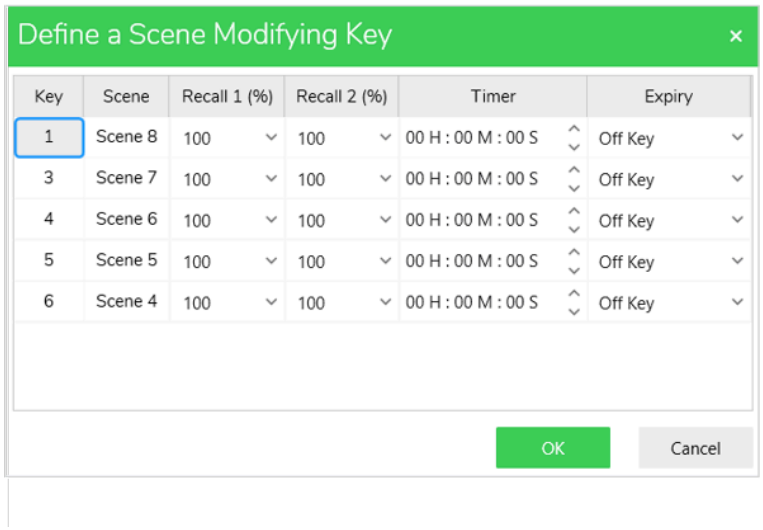


   NOTE: The keys highlighted in blue, is to indicate that it is an unconnected key. You can commission an unconnected key in the same way as a connected key.

2. Refer the below table for configurations in **Key 1** section:

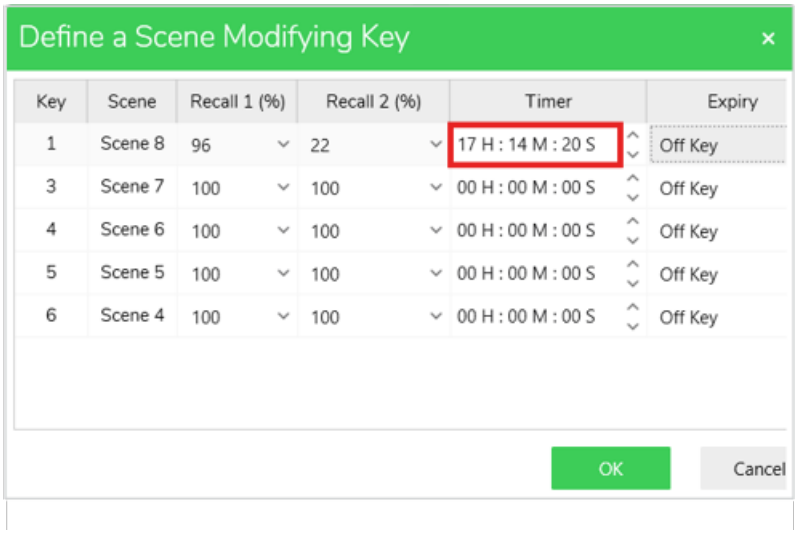
Function	Select the required option from the **Function** drop-down list. When you select **On**, **Off On Up**, **Off Down**, **Dimmer Up**, **Dimmer Down**, **Soft Up**, **Soft Down**, **Shutter Toggle**, **Shutter Open Toggle**, **Shutter Close Toggle**, **Shutter Open**, **Shutter Close**, **Bellpress** and **Shutter Stop**, the **Expiry Time** and **Expiry Function** fields are automatically hidden, as these options do not use expiry settings.  • If you select **On**, **On Up**, **Dimmer Up**, **Soft Up**, **Shutter open Toggle**, **Shutter Open** a confirmation pop-up appears and prompts you to apply the complementary function to the paired key. (Example: If one key is **On**, the other should be **Off**)  ◦ Click **Yes** to proceed and **No** to cancel the operation. • If you select any other shutter function combination, a warning pop-up appears.  • If you select **Preset 1**, the below fields appear. ◦ In the **Level** field, either drag the slider to set the value or select a level from the drop-down list. • If you select **Timer**, the below fields will appear. 

	◦ Select the **Timer Type**. • If you select **Scene** or **Fan Speed Cycle**, the below fields will appear. **NOTE:** The **Fan Speed Cycle** and **Scene** functions will not be listed in the **Function** drop-down list if the Application Index for the Key is set to **Application 2**. ◦ Select **Scene 1** from **Scene** drop-down list when no Scenes are assigned in the device. ◦ Select **Scene 3** when **Scene 1** and **Scene 2** are already assigned to other keys. ◦ You can edit and add a new trigger group to the application. **NOTE:** The **Trigger Group address** field lists the available trigger groups in the selected Application. ◦ To add/edit the Trigger Group refer Group, page 288. ◦ You can edit and add a new action selector to the application. **NOTE:** The **Action Selector** field lists the available action selector in the selected Application. ◦ Select the value from the **Ramp Rate** drop-down list. ◦ Click ⋮ next to the **Scene** drop-down list. The **Scene Manager** window appears. For more information, refer Scene Manager, page 349.
<Scene Modify> Function	• If you select **<Scene Modify>**, the below drop-down list will appear.  **NOTE:** The **Scene Modify** option is not listed in the **Function** drop-down list if the application index for the **Key** is set to **2** in application index drop-down list in **Group** field. ◦ Select the required option from the **Scene Modifying Key Function** drop-down list. ◦ When you select **Timer** function in **Scene Modifying Key Function** drop-down list, ⋮ is displayed. Click ⋮ >**Define a Scene Modifying Key** window appears.  ◦ If you have not commissioned any **Scenes** or **Fan Speed Cycle** functions for **Keys** or **Virtual Keys** the table appears empty. ◦ If you have commissioned any **Scenes** or **Fan Speed Cycle** functions for **Keys** or **Virtual Keys**, the below table appears.



- The key number is non-editable in **Key** column.
- The **Scene** column displays the **Scene (or) Linked Scene** label for each key. The **Scene (or) Linked Scene** label is non-editable.

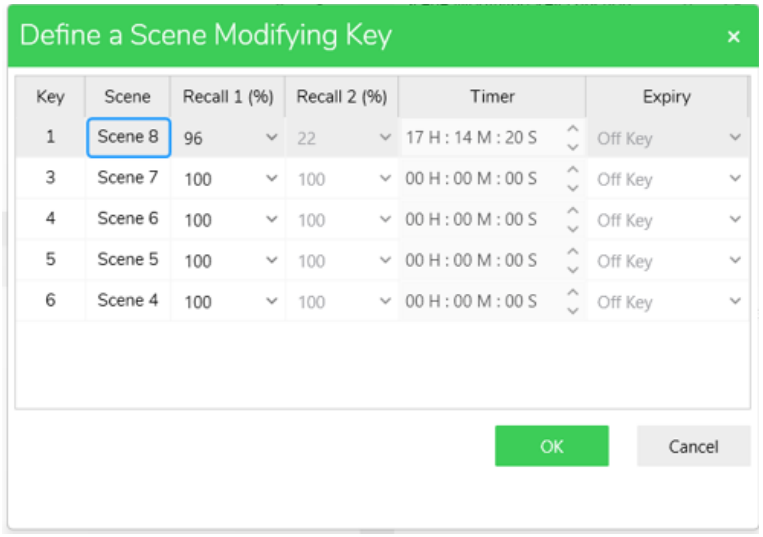
  The **Recall 1 (%)** / **Recall 2 (%)**columns for each **Key** is set to 100.
  - You can update the **Recall 1 (%)** / **Recall 2 (%)** value for each **Key**.
- You can update the time in **Timer** column. It ranges from 0 to 18 hours 12 minutes 14 seconds.
  - You can increase or decrease the hours and minutes by increment of 1.
  - You can increase or decrease the seconds by increment of 5.



- Select the required option from the **Expiry** column.

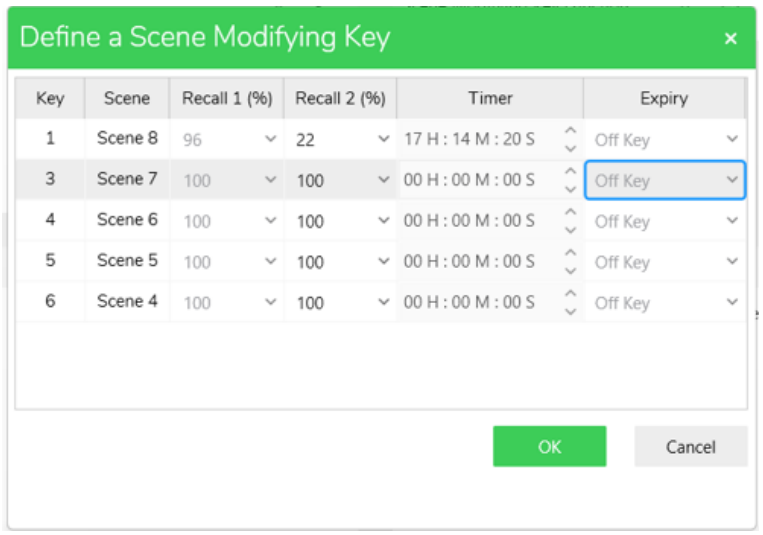
- When you select **Preset 1** function in **Scene Modifying Key Function** drop-down list, ⋮ is displayed.

  Click ⋮ > **Define a Scene Modifying Key** window appears.
  - The acceptance criteria 10 to 21 are applicable for **Preset 1**.
  - **Recall 2 (%)**, **Timer**, and **Expiry Function** columns are disabled and non-editable.



- When you select **Preset 2** function in **Scene Modifying Key Function** drop-down list, ⋮ is displayed.

  Click ⋮ > **Define a Scene Modifying Key** window appears.
  - The acceptance criteria 22 to 24 are applicable for **Preset 1**.
  - **Recall 1 (%)**, **Timer**, and **Expiry Function** columns are disabled and non-editable.



  - Click **OK**.
- When you modify the **Key**, **Scene**, **Recall 1 (%)**, **Recall 2 (%)**, **Timer**, or **Expiry Function**, the changes are saved to the corresponding **Block**.
- The changes made to the **Key**, **Scene**, **Recall 1 (%)**, **Recall 2 (%)**, **Timer**, or **Expiry Function** will be in sync across the functions **Timer**, **Preset 1**, **Preset 2**, and **Scene Modifying Key Function** > **Timer**, **Preset 1**, and **Preset 2**.
- If you unassign a **Scene** or **Fan Speed Cycle** function from the **Key**, that **Scene** is not listed in the **Define a Scene Modifying Key** window.
- If you assign/reassign a **Scene** or **Fan Speed Cycle** function to the **Block**, the previously saved values for **Key**, **Scene**, **Recall 1 (%)**, **Recall 2 (%)**, **Timer**, or **Expiry Function** is restored (not the default values).

Group

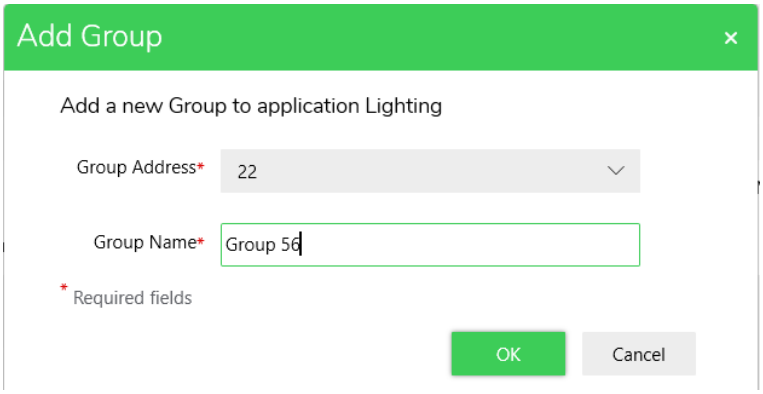
To add Group:

- You can enter the name in **Group** field and press **Enter** in keyboard. The **Group Name** is created by taking the next available **Group Address**.

  The created Group is saved in the network.

  or,

- Click ⊕. The **Add Group** pop-up appears.



- Enter the required details and then click **OK**. The **Group Name** is created and listed in the **Group** drop-down.

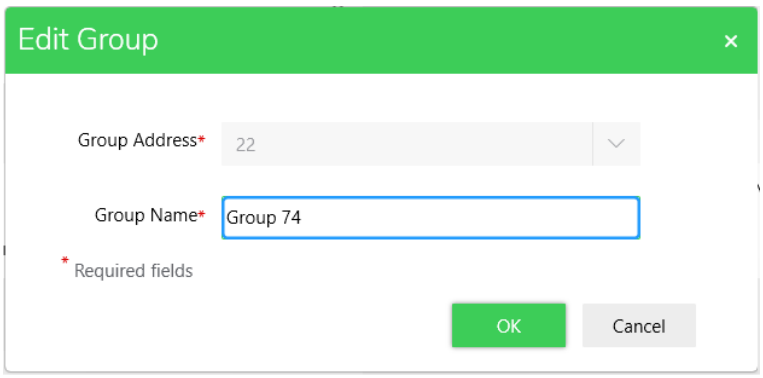
  NOTE:

  - Use a unique application name for each network.
  - Enter a maximum of 32 characters for the Group Name
  - You can use numbers, letters and special characters excluding /,” and #.
- Click **Cancel** to cancel the operation.

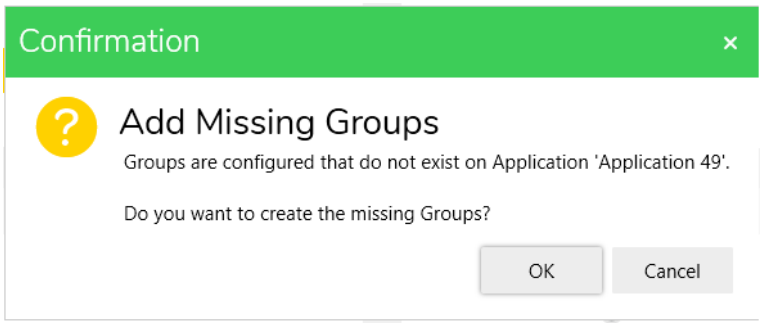
To edit Group Name:

- Click to modify the group name.

  NOTE: Edit button is disabled if the Group is set to **<Unused>**.

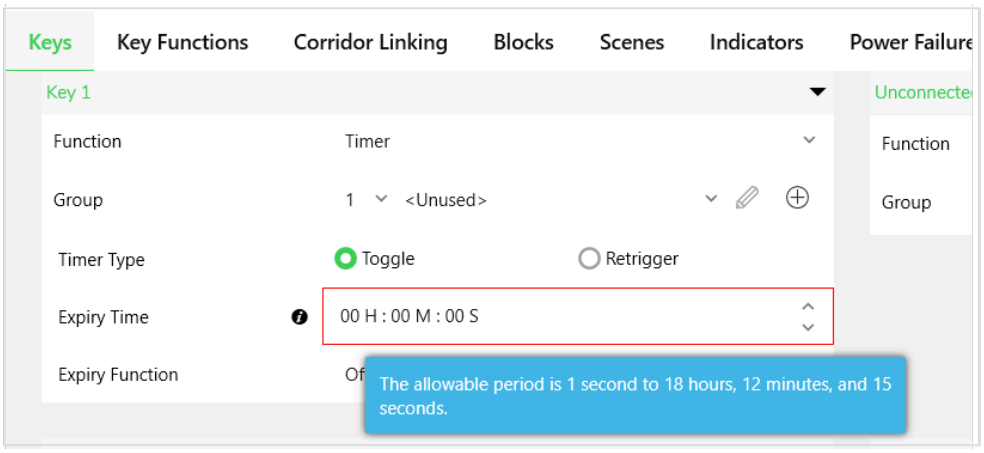


- Make necessary changes and then click **OK**. You cannot edit the **Group Address** after it has been created.
- When you select groups for an Application (1, 2) and update the Application Index, the inline **Confirmation** pop-up is displayed for each selected group.

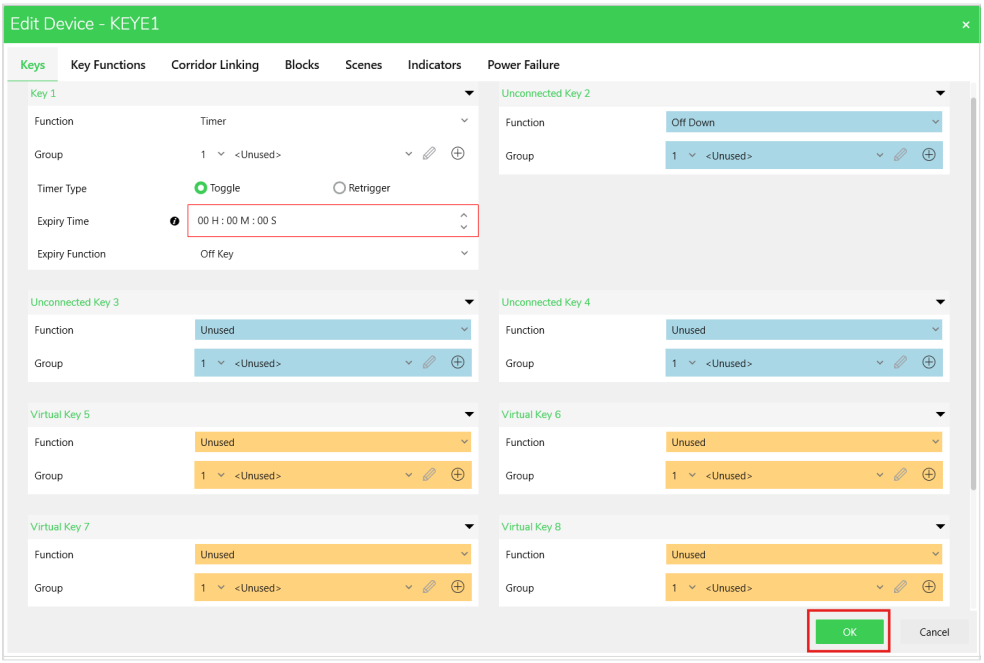


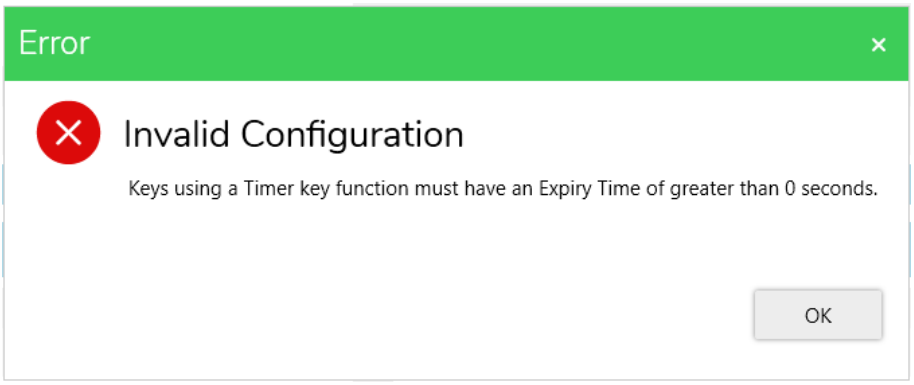
  - Click **OK** to create the missing groups.

Expiry Time	Select the desired expiry time. Mouse over on the **Expiry Time** info icon to view the tooltip message. • When you set the expiry time to 00 H: 00 M: 00 S, and configure the **Timer** function, time validation error is indicated by a red border. Mouse over on the **Expiry Time** field to view the tool tip message.



- If you click **OK** while an expiry time validation error exists for a **Timer** function, an **Error** pop-up is displayed.

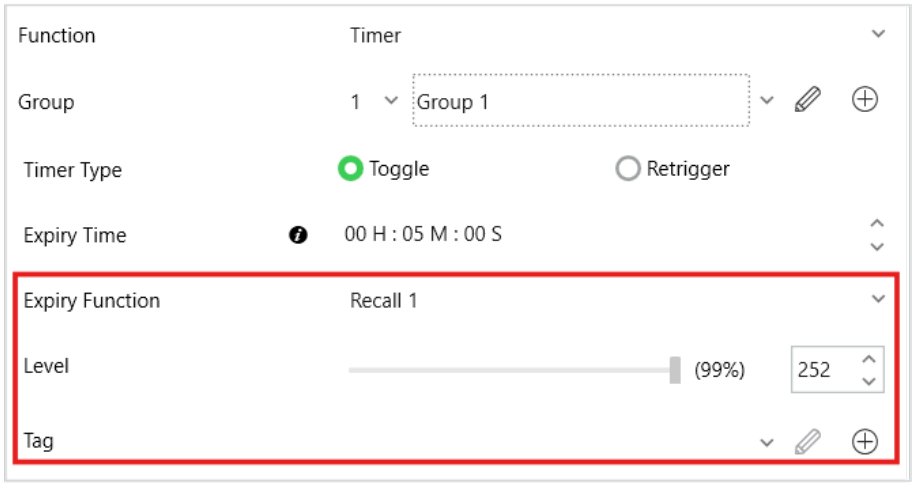




NOTE: The **Expiry Time** field ranges from 0 to 18 hours, 12 minutes, and 15 seconds.

- When you select an occupancy function a **Timer** function:
  - **Expiry Time** is set to **00 H: 05 M: 00 S**, and corresponding **Block Timer 1** value is updated only if the timer was previously set to **00 H: 00 M: 00 S**. Otherwise, the existing value is retained.
  - You can set the **Expiry Time** from 1 second to 18 hours, 12 minutes, and 15 seconds for timer functions. For non-occupancy functions, you can set the **Expiry Time** from 0 seconds to 18 hours, 12 minutes, and 15 seconds.

Expiry Function	Select the expiry function from the drop-down list. If you select **Recall 1** / **Recall 2**, the below fields are displayed.



- You can set a preset **Level** or select an existing **Tag**. The **Level** value ranges from **0–100%** and **0–255**.

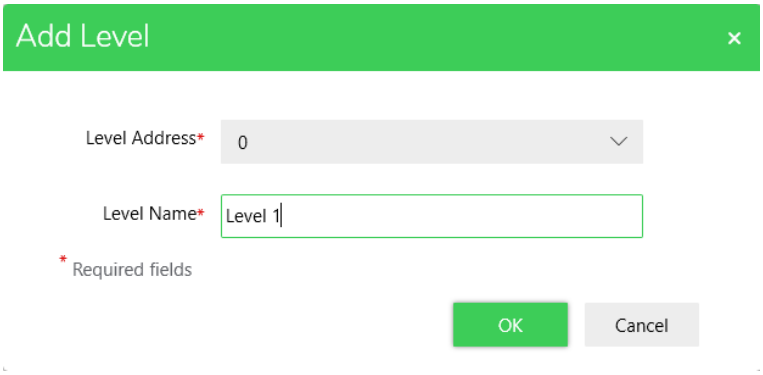
  NOTE: The default Level is **100%, 255** for **Preset 1** and **0%, 0** for **Preset 2**.

  - The percentage value increments by **1%** (0–100%).
  - The level value increments by **1** (0–255).
  - You can update the **Level** by changing either the percentage or the level value.

    NOTE: When you change the percentage, the level updates. When you change the level, the percentage updates.
- The **Tag** field lists the available **Levels** for the selected Group Address.
  - When you select a Tag, the **Level** field updates to the Tag's Level.
  - When you select a Level that matches a saved Tag, the **Tag** field updates to the corresponding Tag.
  - You can edit an existing Tag or add a new Tag to the Group Address.
  - The **Add Tag** option is enabled only when a Group Address is assigned to the Virtual Key.
- To add Tag:
  - You can enter the name in **Level Name** field and press **Enter** in keyboard. The **Level Name** is created by taking the next available **Level Address**.

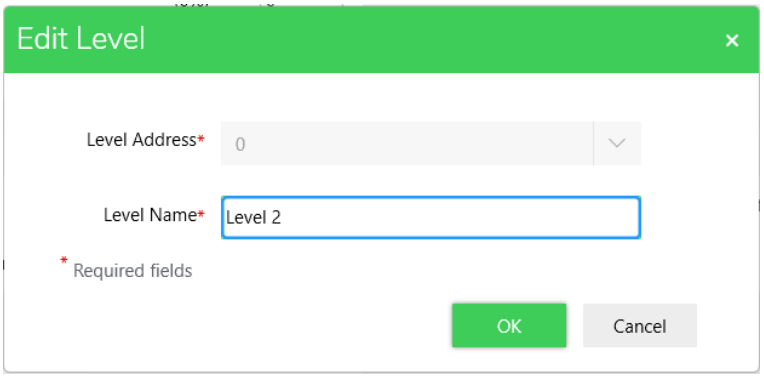
    The created Level is saved in the network.

    or,
  - Click ⊕. The **Add Level** pop-up appears.



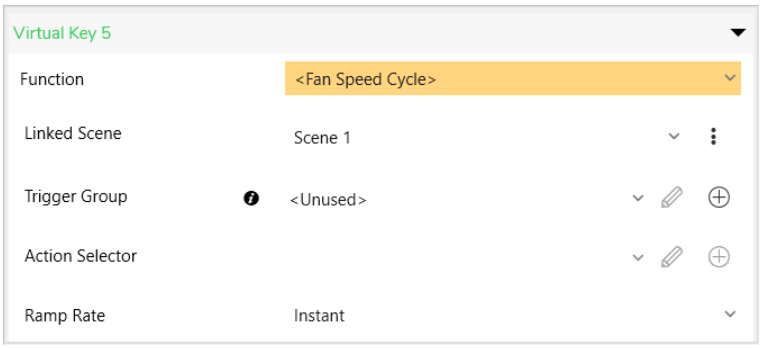
  - Enter the required details and then click **OK**. The **Level Name** is created and listed in the **Tag** drop-down list.

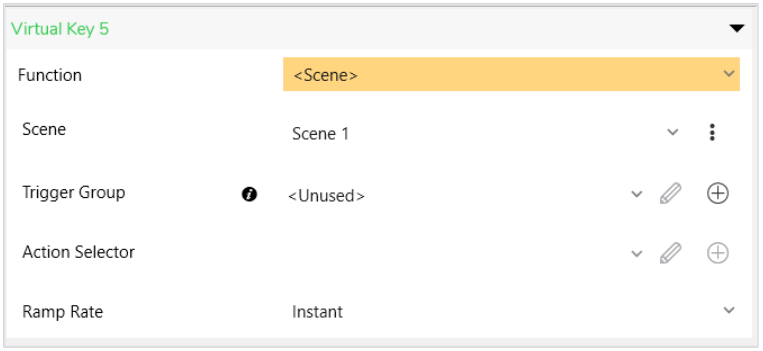
    NOTE:

	– Use a unique application name for each network. – Enter a maximum of 32 characters for the Level Name – You can use numbers, letters and special characters excluding /,” and #. ◦ Click **Cancel** to cancel the operation. To edit **Level Name**: ◦ Click to modify the **Level Name**. **NOTE:** Edit button is disabled if the Tag is set to **<Unused>**.  ◦ Make necessary changes and then click **OK**. You cannot edit the **Level Address** after it has been created.

Repeat the step 2 for the configurations in **Unconnected Key 2**, **Unconnected Key 3** and **Unconnected Key 4** sections.

3. In the **Virtual Key 5** section, select the required option from the **Function** drop-down list. The options are **<Fan Speed Cycle>** and **<Scene>**.





NOTE: The **Fan Speed Cycle** and **Scene** functions will not be listed in the **Function** drop-down list if the Application Index for the key is set to **Application 2**.

- Select **Scene 1** from **Linked Scene**/**Scene** drop-down list when no Scenes are assigned in the device.
- Select **Scene 3** when **Scene 1** and **Scene 2** are already assigned to other keys.
- You can edit and add a new trigger group to the application.

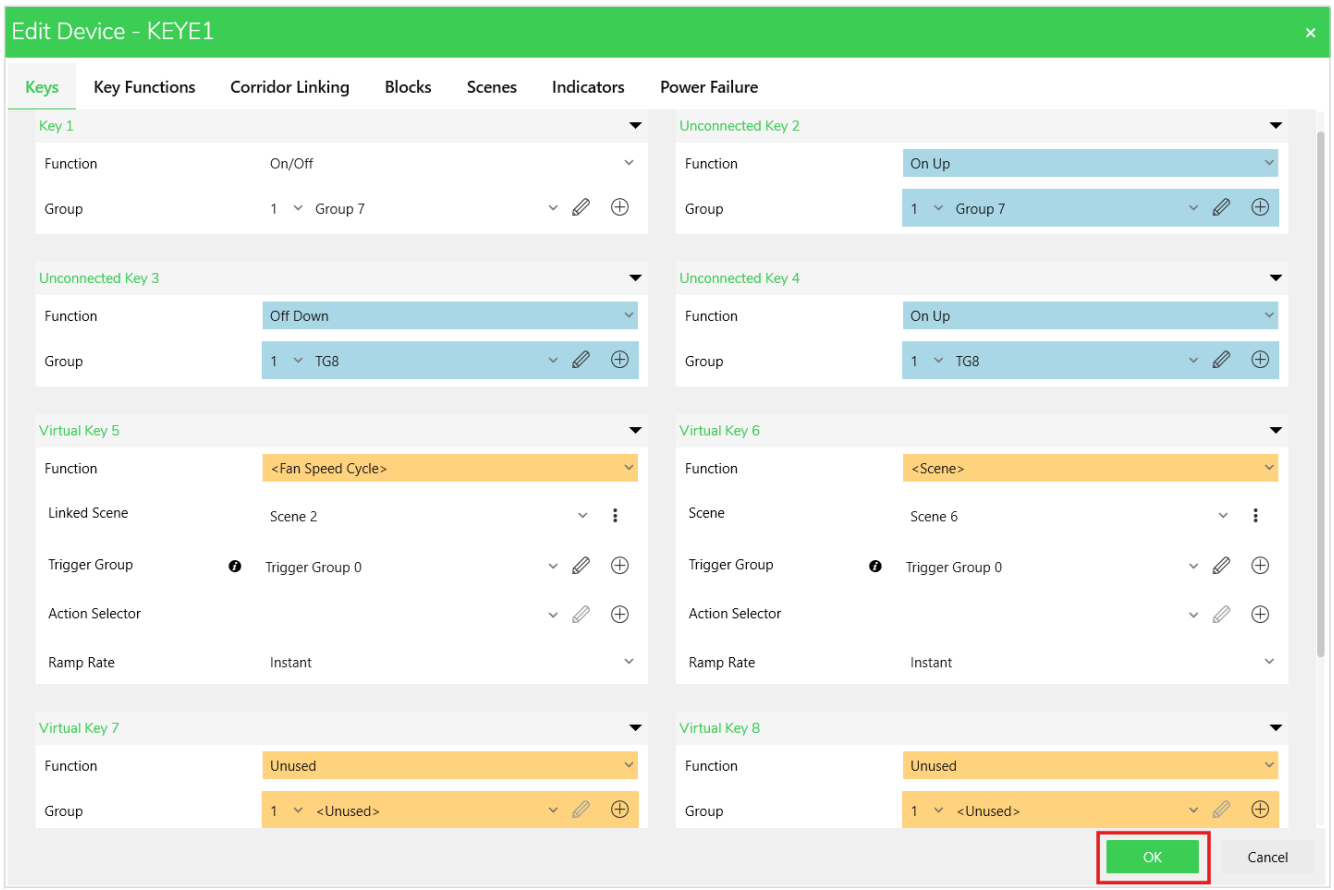
  NOTE: The **Trigger Group address** field lists the available trigger groups in the selected Application.

  - Mouse over on the **Trigger Group** info icon to view the tooltip.
- To add/edit the Trigger Group refer Group, page 288.
- You can edit and add a new action selector to the application.

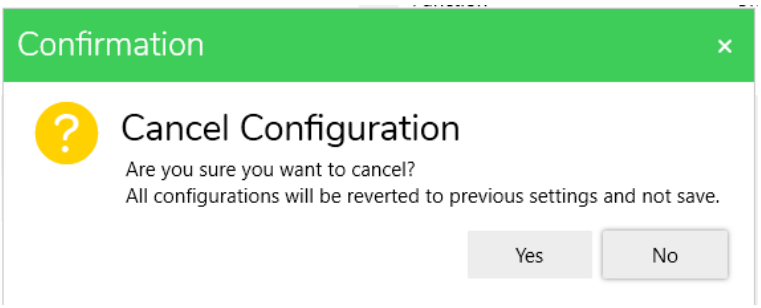
  NOTE: The **Action Selector** field lists the available action selector in the selected Application.
- Select the value from the **Ramp Rate** drop-down list.
- Click ⋮ next to the **Scene** drop-down list. The **Scene Manager** window appears. For more information, refer Scene Manager, page 349.

4. Repeat the step 3 for the configurations in **Virtual Keys 6**, **Virtual Keys 7** and **Virtual Keys 8** sections.

5. Once configuration is done, click **OK** to save the configurations.



6. If you click **Cancel** or **Exit** icon without saving the configuration, a confirmation pop-up appears.



7. Click **Yes** to save the configuration and click **No** to cancel the confirmation pop-up.

Key Functions

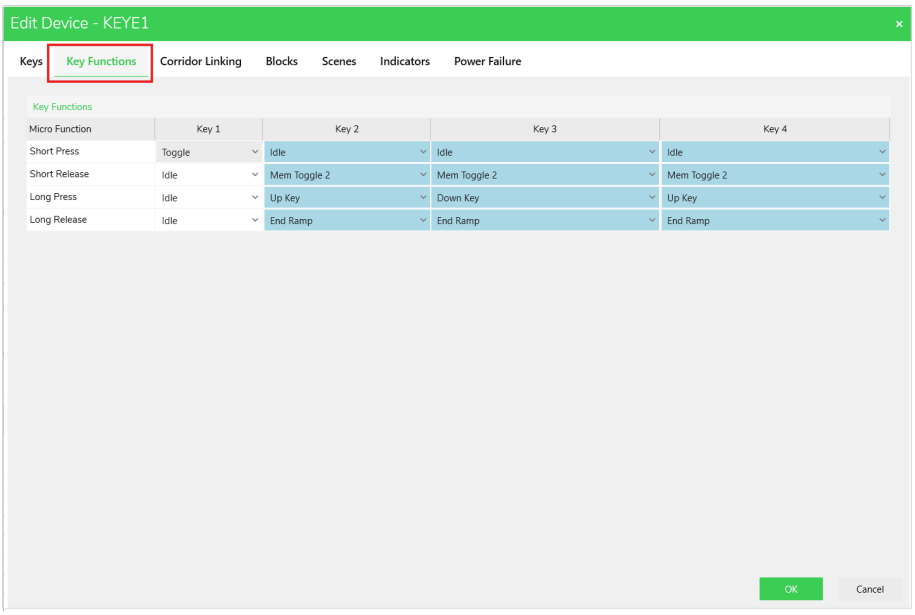
The **Key Functions** tab provides advanced setup for each input key.

Micro Function	Action
Short Press	when you first press the input key after the debounce time.
Short release	when you release the input key before the long-press time is reached.
Long press	when you press and hold the input key longer than the long-press time.
Long release	when you release the input key after a long press.

NOTE: Each of these events corresponds to a micro function. A micro function may or may not generate C-Bus messages, depending on the micro function and the current state of the group addresses. Wired macro functions support a wide range of messaging capabilities.

1. Click **Key Functions** tab.

   Key Functions section appears.



2. You can update the **Micro Function** combination.

3. Refer the below table for default **Micro Function** mapping.

Function	Short Press	Short Release	Long Press	Long Release
Unused	Idle	Idle	Idle	Idle
On	On Key	Idle	Idle	Idle
Off	Off Key	Idle	Idle	Idle
On/Off	Toggle	Idle	Idle	Idle
Dimmer	Idle	Toggle	Downcycle	End Ramp
On Up	Idle	Mem Toggle2	Up Key	End Ramp
Off Down	Idle	Mem Toggle2	Down Key	End Ramp
Timer	Toggle	Retrigger Timer	Idle	Retrigger Timer
Bell Press	On Key	Off Key	Idle	Off Key
Dimmer Up	Idle	On Key	Up Key	End Ramp
Dimmer Down	Idle	Off Key	Down Key	End Ramp
Soft Up	Idle	Ramp Recall 1	Up Key	End Ramp
Soft Down	Idle	Ramp Off	Down Key	End Ramp
Preset 1	Idle	Recall 1	Ramp Off	Idle
Preset 2	Idle	Recall 2	Ramp Off	Idle
Shutter Toggle	Recall 1	Idle	Idle	Idle
Shutter Open Toggle	Recall 1	Idle	Idle	Idle
Shutter Close Toggle	Recall 2	Idle	Idle	Idle
Shutter Open	Recall 1	Idle	Idle	Idle
Shutter Close	Ramp Off	Idle	Idle	Idle
Shutter Stop	Recall 2	Idle	Idle	Idle
Fan Speed Cycle	Scene	Scene	Scene	Scene
Scene	Scene	Scene	Scene	Scene
Scene Modify	Idle	Toggle	Downcycle	End Ramp
Custom	Idle	Idle	Idle	Idle

NOTE: The **Fan Speed Cycle**, **Scene Modify** and **Scene** micro-function combinations are read-only and non-editable.

4. If you update the **Micro Function** combination, the respective **Key Function** is updated accordingly on **Keys** tab vice versa (except for **Custom**).

   The **Custom** function is excluded from this automatic synchronization.

5. If you select any micro-function combination other than the default values listed in the table, the **Key Function** is automatically set to **Custom**.

Corridor Linking

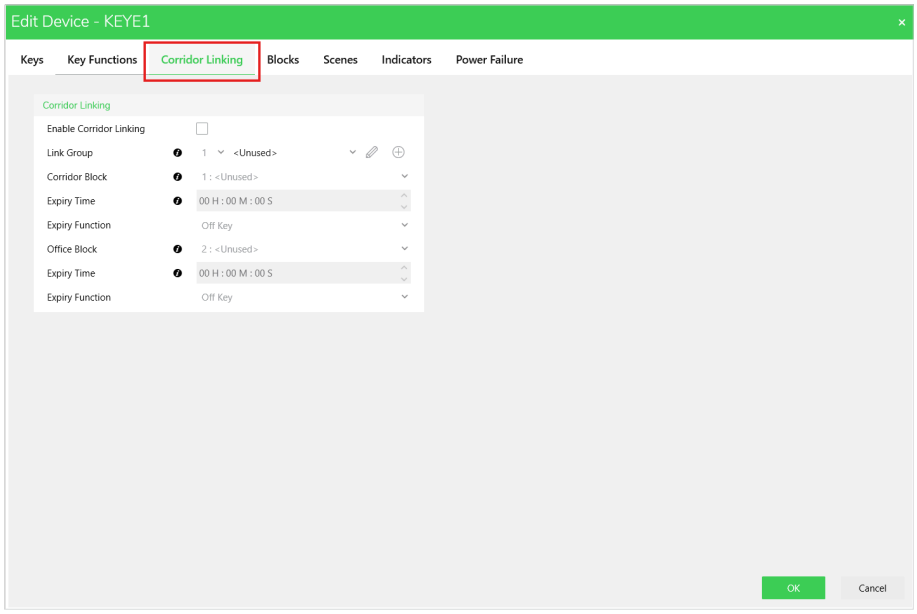
Corridor linking with sensors is an effective solution for office environments. It allows employees to arrive and leave without manually switching multiple lights on or off.

Example: When employees arrive at the office in the morning, they walk through the corridor and trigger an occupancy sensor, which turns on the corridor lights. As they enter their office, the multi-sensor detects occupancy and switches on the office lights. Once the office lights are on, the corridor linking function keeps the corridor lights on.

When the last employee leave the building, they turn off the office lights. This action triggers a lighting sequence that keeps the corridor lights on, allowing them

to walk safely down the corridor and exit the building. After a configured delay, the corridor lights automatically turn off.

1. In **Corridor Linking** section, select the **Enable Corridor Linking** check box.



   NOTE: Only if you select the **Enable Corridor Linking** check box, other all drop-down lists will be enabled.

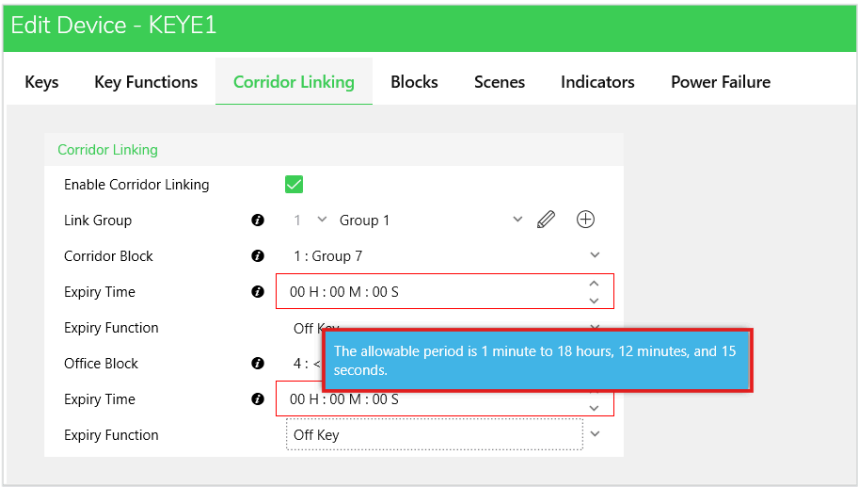
2. In **Link Group** drop-down list, select the required group address.
   - Mouse over on the **Application** drop-down list to view the tool tip message.
   - Mouse over on the **Link Group** info icon to view the tool tip message.
   - The **Link Group** drop-down list displays all available groups within the selected application.
   - You can add and edit Groups. For more information, refer Group, page 288.

     NOTE:
     - The selection of a **Group Address** is optional when selecting a **Corridor Block** or **Office Block**.
     - Group addresses assigned in **Corridor Block** and **Office Block** are reflected in group address in **Block Assignments** in **Blocks** tab and vice-versa.
     - When you select a **Group Address**, the **Function** is automatically set to **On/Off**. This applies only the first time you make a selection, when both the **Group Address** and **Function** are set to **Unused**.

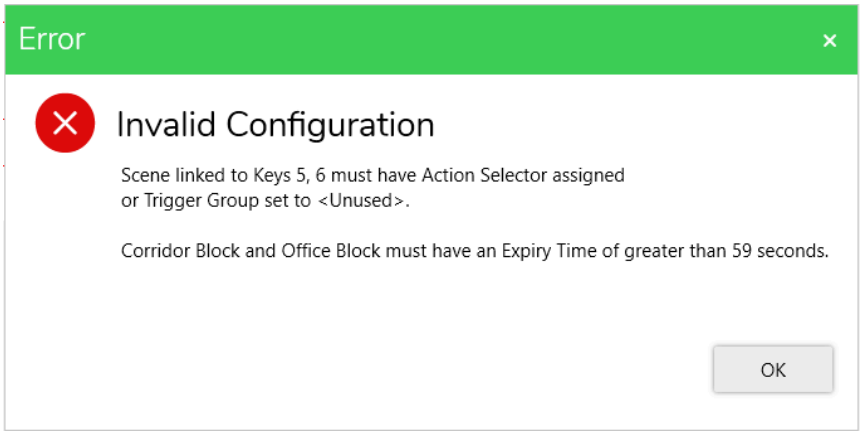
3. In **Corridor Block** drop-down list, select the corridor block. Mouse over on the **Corridor Block** info icon to view the tooltip message.
4. In **Expiry Time** drop-down list, select the desired expiry time.

   NOTE: The **Expiry Time** field ranges from 0 to 18 hours, 12 minutes, and 15 seconds.

   - You can increase or decrease the hours and minutes by increment of 1.
   - You can increase or decrease the seconds by increment of 5.
   - You can also input a value manually to hours, minutes, and seconds.
   - Mouse over on the **Expiry Time** info icon to view the tooltip message.
   - **Expiry Time** set in **Corridor Block** and **Office Block** are reflected in **Expiry Time** in **Timer** section in **Blocks** tab and vice-versa.
   - When you set the **Expiry Time** to 00 H: 00 M: 00 S, time validation error is indicated by a red border. Mouse over on the **Expiry Time** field to view the tool tip message.



   - If you click **OK** while an expiry time validation error exists for a **Timer** function, an **Error** pop-up is displayed.



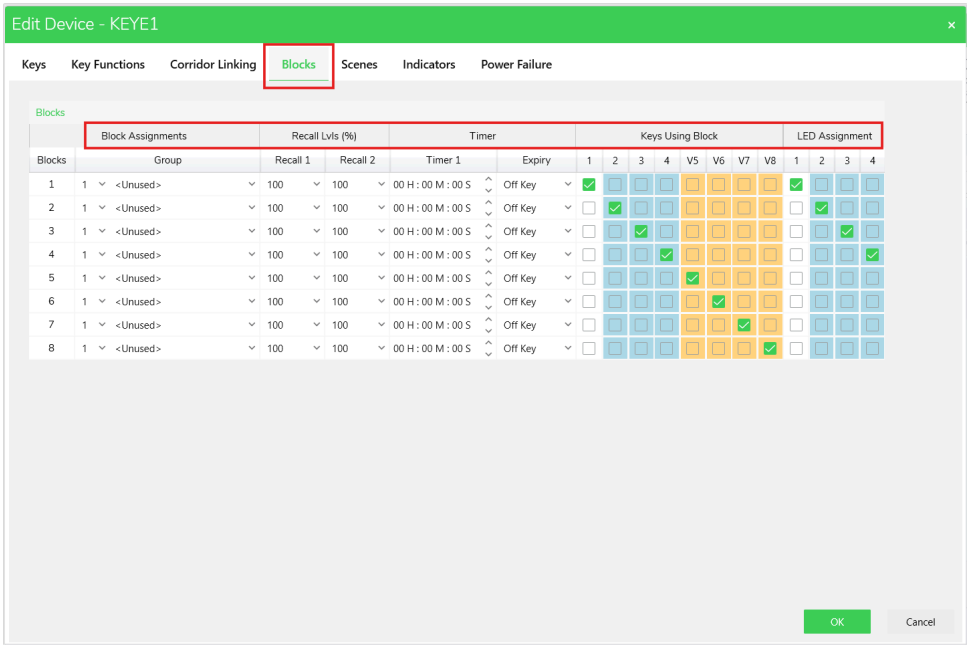
5. In **Expiry Function** drop-down list, select the required option.

   NOTE:

   Expiry Function set in **Corridor Block** and **Office Block** are reflected in **Expiry** in **Timer** in **Blocks** tab and vice-versa.
6. In **Office Block** drop-down list, select the required option. You can select same (or) different blocks for **Corridor Block** and **Office Block**.
   - Mouse over on the **Office Block** info icon to view the tooltip message.
   - For more information on **Expiry Time** and **Expiry Function**, refer step 4 and 5.

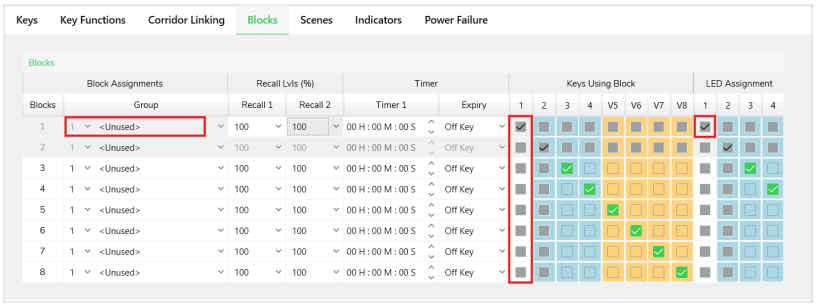
Blocks

The **Blocks** table displays the operating configuration of the key input portion of the unit. Each row in the table allows a Lighting compatible group to be associated with one or more input keys. It is here that the recall levels, timer value and expiry key function are specified. LED indicator assignments are also specified in the **Blocks** tab.



1. In **Block Assignments** section:
   - Select the application index from the **Application Index** drop-down list. By default, the application index for **Blocks 1–8** is set to **Application 1**.
   - Select the group address from the **Group** drop-down list based on the selected **Application**. By default, the group for **Blocks 1–8** is set to **<Unused>**.
   - Once you update the **Application Index** or **Group Address**, the **Key 1 to 4** and **Virtual Keys 5–8** group addresses are updated, and vice versa.

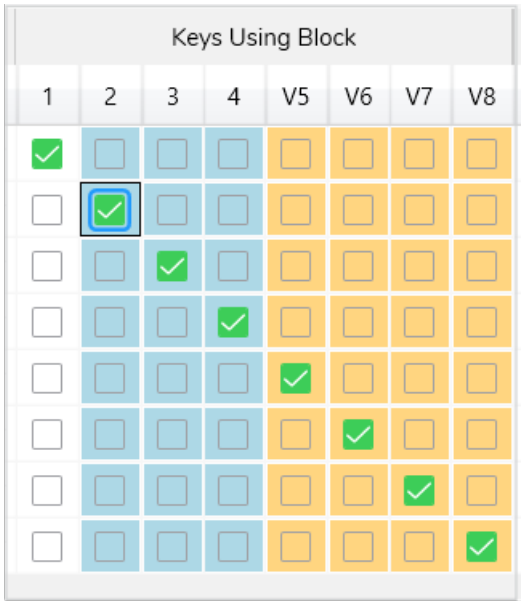
     NOTE: Block Assignments, **Keys Using the Block**, and **LED Assignment** are disabled when a **Scene** or **Fan Speed Cycle** function is assigned to a **Key** or **Virtual Key**.



Block Assignments, **Recall Lvls (%)**, **Timer**, **Keys Using the Block**, and **LED Assignment** are disabled when **Scene Modify** function is assigned to the **Key**.

2. In **Recall Lvls** section:
    - Select the recall value from **Recall 1** drop-down list. By default, the **Recall 1** value for **Blocks 1–8** is set to **100**.
    - Select the recall value from **Recall 2** drop-down list. By default, the **Recall 2** value for **Blocks 1–8** is set to **0**.
    - Any changes made to **Recall 1** and **Recall 2** are saved to the corresponding **Block** and reflected under the associated **Key(s)**.
    - Changes to **Recall 1** and **Recall 2** remain synchronized across **Functions (Preset 1 and Preset 2**, and **Scene Modifying Key Function** > **Timer**, **Preset 1**, and **Preset 2**), **Blocks**, and vice versa.
3. In **Timer** section:
    - You can increase or decrease the hours and minutes in increments of 1 in **Timer 1** field.
    - You can increase or decrease the seconds in increments of 5 in **Timer 1** field.
    - You can manually enter values for hours, minutes, and seconds. By default, the **Timer 1** value for **Blocks 1–8** is set to **00 h : 05 m : 00 s**.
    - Select the required option from the **Expiry** drop-down list. By default, the **Expiry** value for **Blocks 1–8** is set to **Off Key**.
    - Changes to the **Timer** or **Expiry** drop-down list are saved to the corresponding **Block** and reflected under the associated **Key(s)**.
    - Changes to the **Timer** and **Expiry** settings remain synchronized with the **Functions (Timer** and **Scene Modifying Key Function > Timer, Preset 1, and Preset 2)**, **Blocks**, and vice versa.
    - When the **Timer 1** value of **Blocks** is less than 1 minute and you select that block as a **Corridor Block** and/or **Office Block**:
        - The **Expiry Time** under **Corridor Block** and **Office Block** in the **Corridor Linking** tab is set to **00 h : 05 m : 00 s**.
        - The corresponding **Block Timer 1** value is also set to **00 h : 05 m : 00 s**.
    - Example: If you assign **Block 3** as a **Corridor Block** and **Block 4** as an **Office Block**:
        - The **Expiry Time** for both **Corridor Block** and **Office Block** is set to **00 h : 05 m : 00 s**.
        - The **Timer 1** values for **Block 3** and **Block 4** are set to **00 h : 05 m : 00 s**.
    - When you set the **Timer 1** value in the **Blocks** tab to less than 1 minute and configure the block as either a **Corridor Block** or an **Office Block**, the **Timer 1** value automatically resets to 00 h : 01 m : 00 s.

4. In **Keys Using the Block** section:
   - The following keys will be selected by default with Block and Key combination.



   - The **Virtual Key 5 to 8** are listed as V5, V6, V7, V8 and displayed in orange colour.
   - If you do not assign a **Block** to a **Key** or **Virtual Key**, the **Key Group Address** on the **Keys** tab is set to **Unassigned** and **Function** to **Unused**.
   - If no **Block** is assigned to a **Key** or **Virtual Key** (**Key Group** set to **Unassigned**, and **Function** is set to **Unused**), you can assign only **Scene**, **Fan Speed Cycle**, and **Scene Modify** functions.
   - If you assign multiple **Blocks** to **Key** or a **Virtual Key**, the **Key Group Address** on the **Keys** tab is set to **<Multiple>**.
   - If you select multiple keys or virtual keys for a **Block**, the **Block** properties apply to all selected **Keys**.
   - If a **Key** with **Timer**, **Preset 1**, or **Preset 2** functions assigned has multiple **Blocks** allocated, the additional properties of **Virtual Key** on the **Keys** tab are disabled.
   - After assigning multiple **Blocks** to a **Key** or **Virtual Key**, if you update the **Key** to a single group address on the **Keys** tab, only the **Block** with the selected group address remains checked, and all other **Blocks** are unchecked.
5. In **LED Assignment** section:
   - You can select any one of the **Block 1 – 8** for each Key. By default, **Block 2** is selected for LED Assignment.
6. In **Indicator Brightness** section:
   - Select the required option from the **Indicator Brightness** drop-down list.
   - The **Indicator Brightness** is set according to the selected **Block**, and vice versa.

Scenes

Scenes enhance the ability to control lighting and other electrical devices. You can create up to eight scenes and associate the scene with a key on the input unit. Each scene can have up to 10 commands included. A scene command is composed of a Lighting type group selection and a defined power level in percent.

The **Scenes** tab provides a view of the scenes which have been previously developed. Each programmed scene will appear as a column in the **Scenes/ Command** table. If **Scene 1** has been programmed, then each associated command will appear.

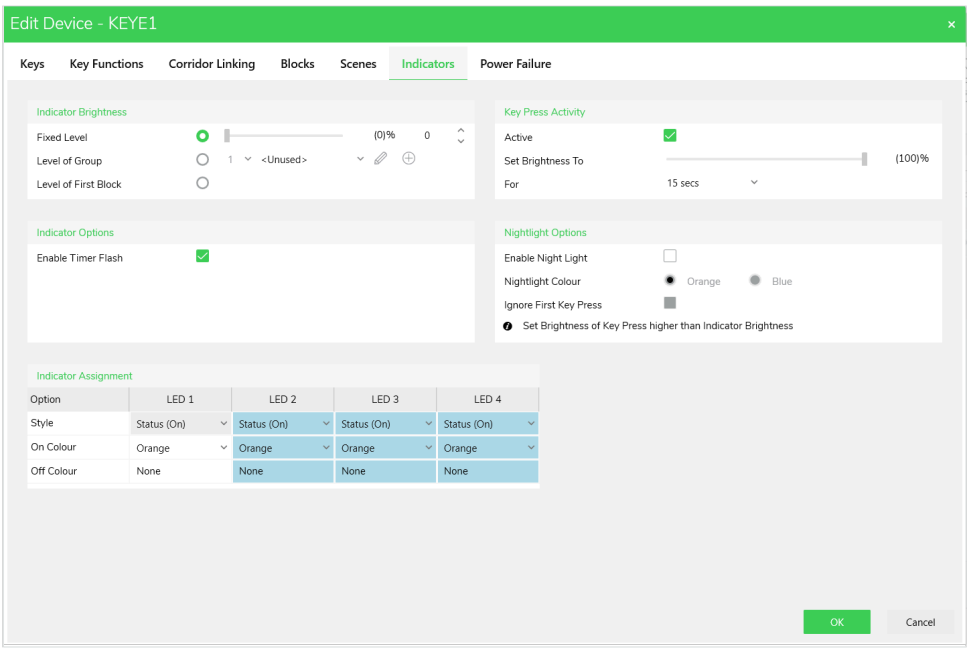
1. Click **Scene Manager**. For more information, refer Scenes, page 348.

Scene Manager

1. For more information, refer Scene Manager, page 349.

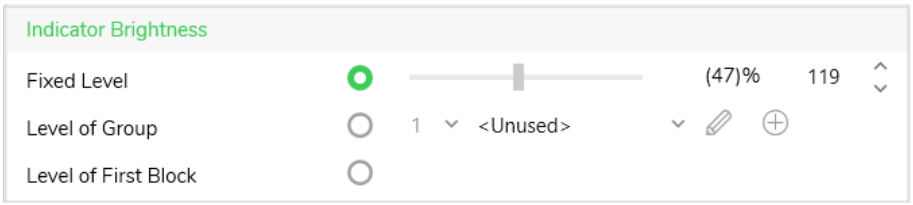
Indicators

The **Indicators** tab controls the behaviour of the input key LED indicator.



1. In **Indicator Brightness** section, select the required radio button option. Refer the below table for option description.

Options	Description
Fixed Level	The **Fixed Level** radio button controls the LED indicators. When selected, the LED brightness is set according to the value specified on the **Fixed Level** slider located to the right of the radio button. Brightness is represented as a percentage between 1 and 100% . Setting the value to 0% turns the LED indicators off. The **Fixed Level** setting applies only when the associated Lighting type group (address) is ON.
Level of Group	The **Level of Group** radio button sets the LED brightness to follow the level of a specified Lighting type group.
Level of First Block	The **Level of First Block** radio button affects all LED indicators. The brightness follows the level of the Lighting type group.

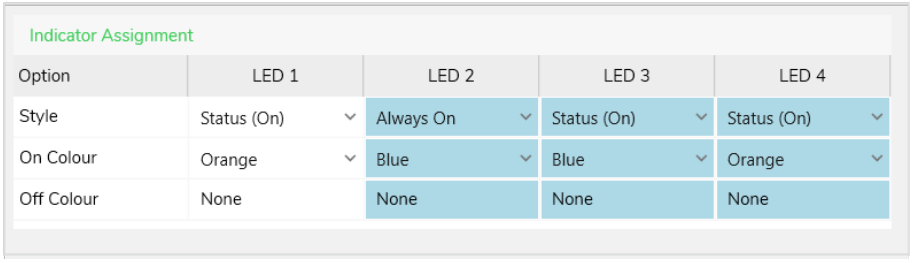


- By default, **Fixed Level** will be selected. The fixed level value is set to 100 % on the slider and 255 in the level drop-down list.
- When you change the slider, the level drop-down list is updated.
- When you change the level drop-down list, the slider is updated.
- The percentage value increments by 1% (0–100%).
- The level value increments by 1 (0–255).
- Select the group address from the **Level of Group** drop-down list. For more information, refer Group, page 288.

  NOTE: When you select a **Group Address**, the **Function** is set to **On/Off**. Its applicable to the first time selection when both **Group Address** and **Function** are set to **Unused**.
- The application index is set to **Application 1** and is disabled for selection. Mouse over on the application index, to view the tooltip message.
- Select the **Level of First Block** radio button option to apply its effect to all LED indicators.

2. In **Indicator Options** section, select the **Enable Timer Flash** check box to enable LED indicator flashing when a timer is active on the key input unit.

3. In **Indicator Assignment** section, select the required option from the table's drop-down list to define how each LED behaves when the key function is active or inactive.



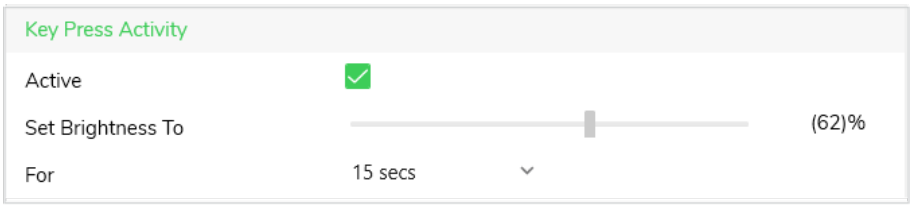
Refer the below table for LED (1–4) style configuration:

Style	On Color	Off Color
Status (On)	Orange	None (disabled for selection)
Always Off	None (disabled for selection)	None (disabled for selection)
Always On	Orange / Blue (based on your earlier selection)	None (disabled for selection)
Status (Dual)	Orange	Blue (read-only; changing the On colour automatically sets the complementary Off colour)

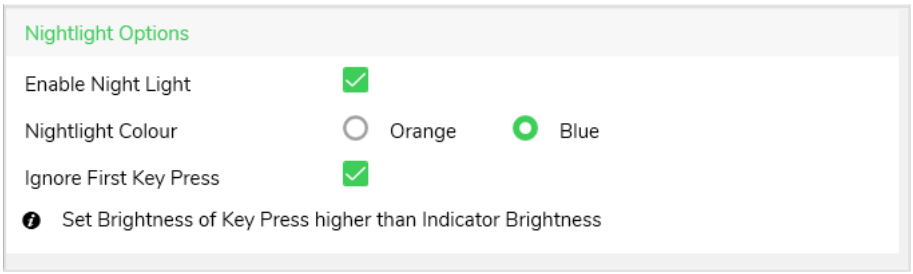
NOTE: The **Style** options controls how the LED indicators operate.

- **Always Off** — When you select this option, the LED indicators are turned off.
- **Always On** — When you select this option, the LED indicators are always on.
- **Status (On**) — When you select this option, a specified LED indicator will light when the button is pressed.

4. In the **Key Press Activity** section, by default the **Active** check box is selected. If you uncheck the **Active** check box, the **Set Brightness To** slider and **For** drop-down list are disabled.
   - **Key Press Activity** section controls the lighting behaviour of the LED indicator.
   - Drag the **Set Brightness To** slider bar to determine the light level on a percentage basis when a key is pressed.
   - Select the seconds from the **For** drop-down list.



5. Select the **Enable Night Light** check box to enable the **Nightlight Color** options and **Ignore First key Press** check box.
   - **Enable Night Light** check box is used to enable the LED to be lit continuously.
   - Select any one of the **Nightlight Colour** options (**Orange** or **Blue**) to control the behaviour of LED indicator at night time.
   - Select the **Ignore First Key Press** check box to stop the LED key indicator brightness from increasing when the key is pressed.

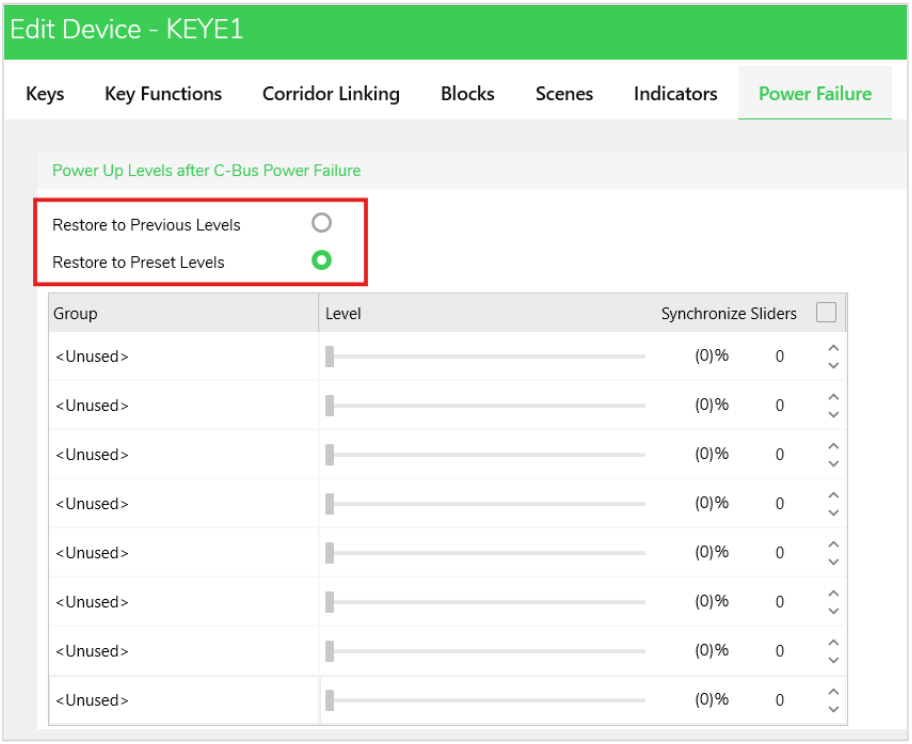


Power Failure

The **Power Failure** tab allows you to set the level that each channel defaults to when recovering from a power failure. The **Power Up Levels after C-Bus Power Failure** section contains options for restoring levels when the unit is recovering from C-Bus power loss. The recovery options only apply to Lighting compatible groups that are associated with programming blocks.

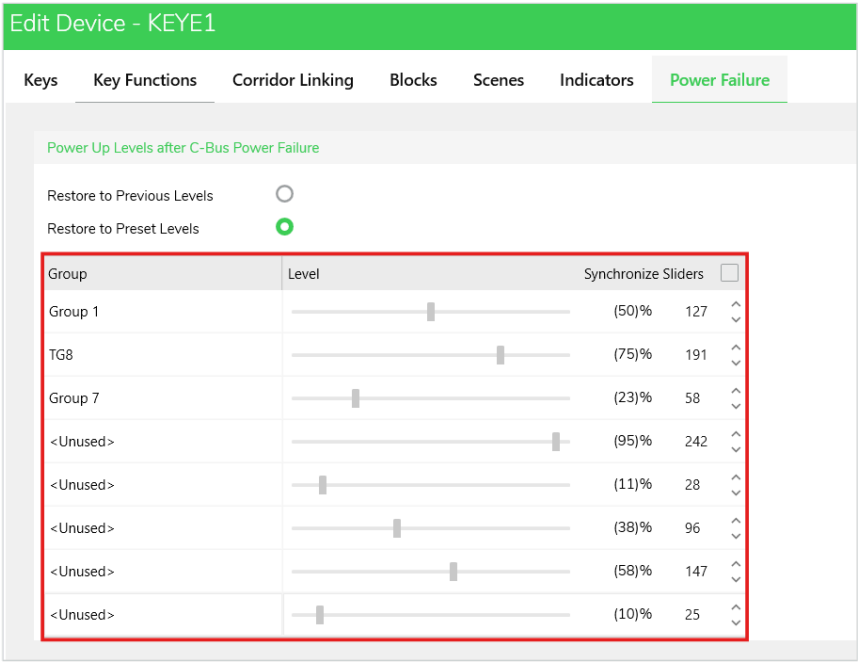
1. In **Power Up Levels after C-Bus Power Failure** section, select the required radio button option. Refer the below table for option description.

Options	Description
Restore to Previous Levels	When you select **Restore to Previous Levels** radio button, each Lighting compatible group will be restored to the level it was at when the power failure occurred.
Restore to Preset Levels	When you select **Restore to Preset Levels** radio button, the values selected on the sliders will be used as the restore level.

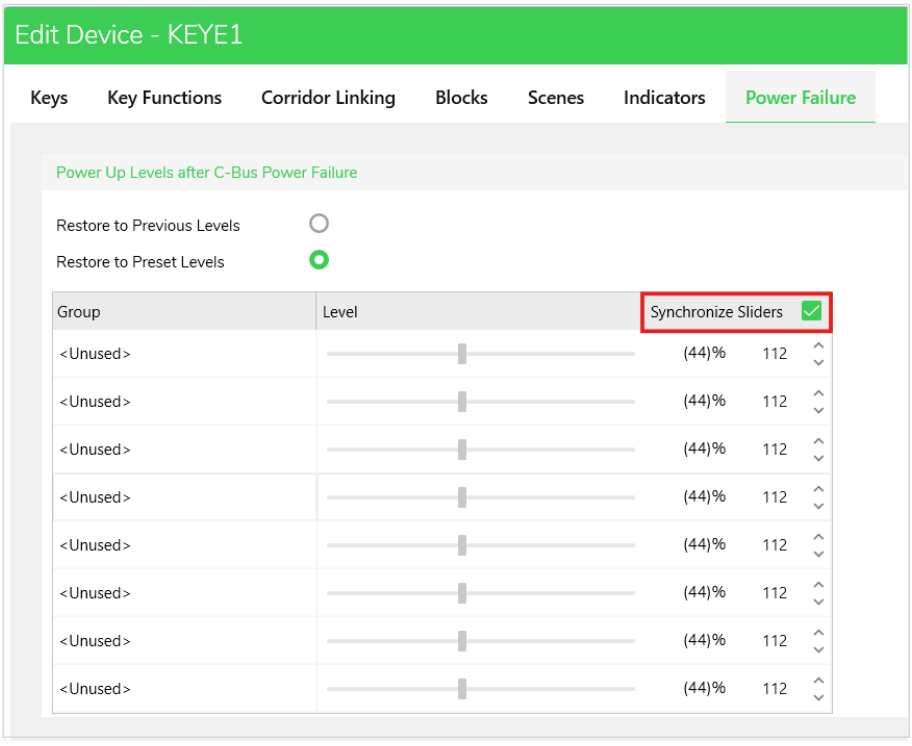


NOTE: Each row in **Restore to Preset Levels** table is equalling to a block.

2. In the **Restore to Preset Levels** table:
   - Group column displays the name of the group address assigned to the block.
   - In the **Level** column, either drag the slider to set the value or select a level from the drop-down list.
   - When you adjust the slider, the level value updates automatically. When you change the level value, the slider position updates accordingly.
     - The percentage value increments by 1% (0–100%).
     - The level value increments by 1 (0–255).

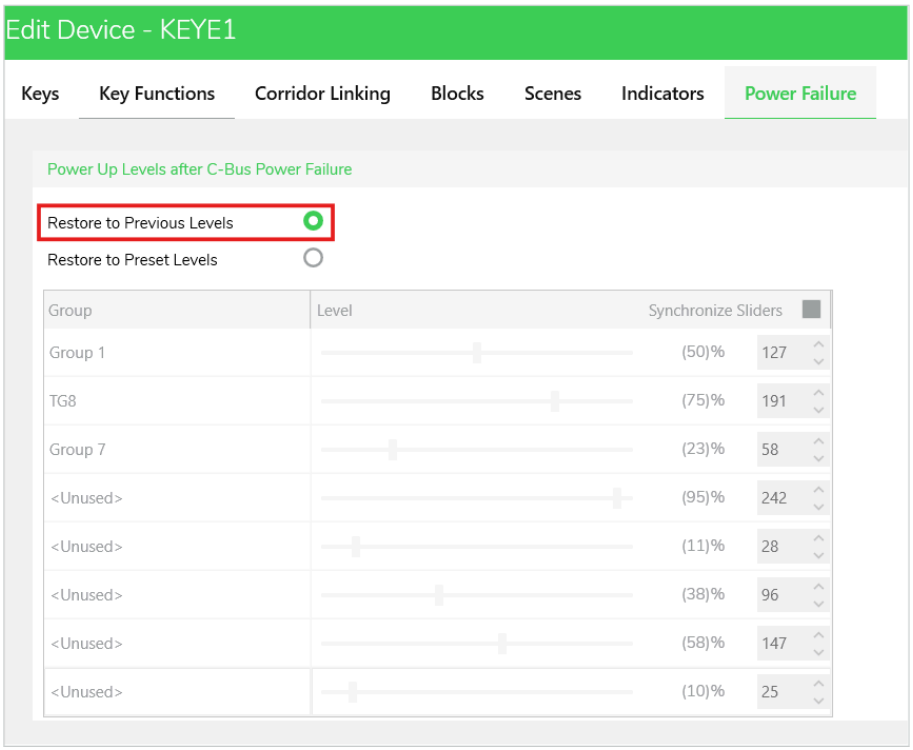


3. Select the **Synchronise Sliders** check box to adjust all sliders to the same level simultaneously.

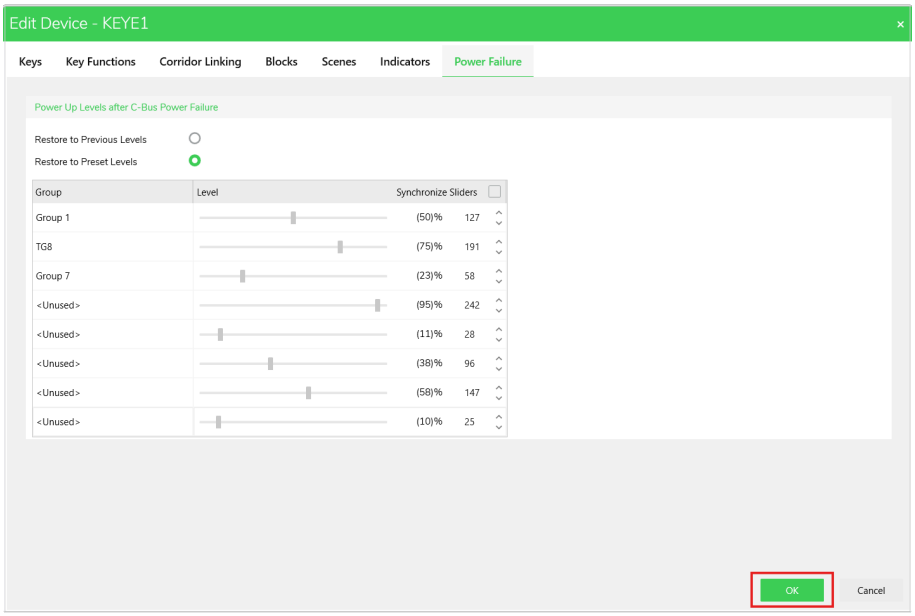


4. Adjust any **Level** slider when **Synchronise Sliders** check box is selected, so that all **Level** sliders automatically realign to match the position of the slider you moved.

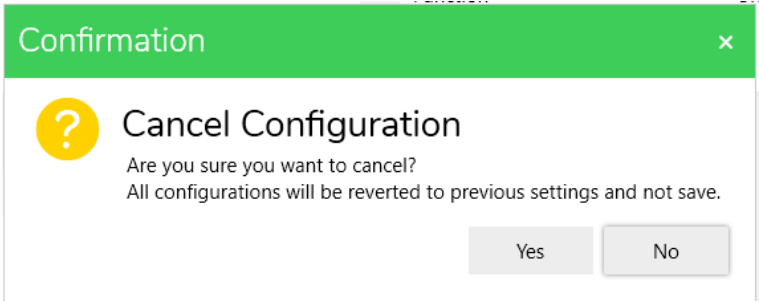
5. If you select **Restore to Previous Levels** option, **Group**, **Level**, and **Synchronise Sliders** options are disabled.



6. Once configuration is done, click **OK** to save the configurations.



7. If you click **Cancel** or **Exit** icon without saving the configuration, a confirmation pop-up appears.

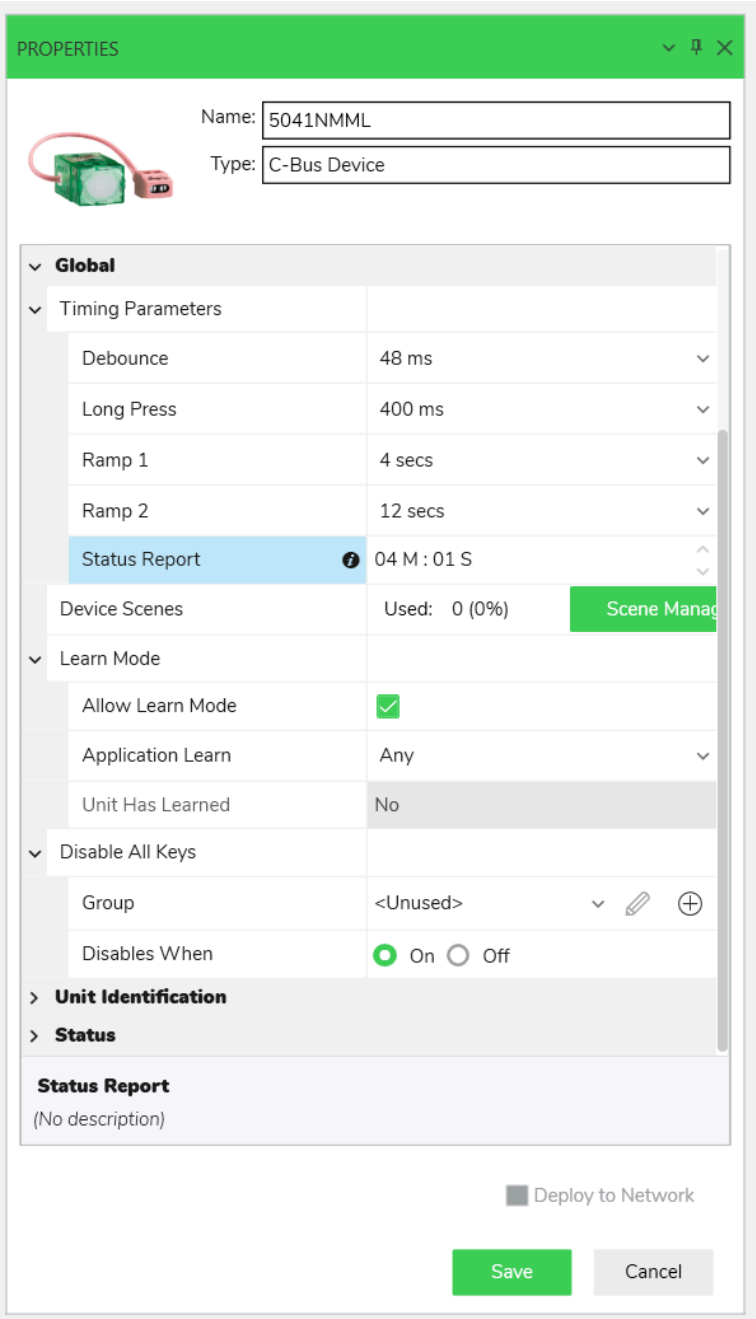


8. Click **Yes** to save the configuration and click **No** to cancel the confirmation pop-up.

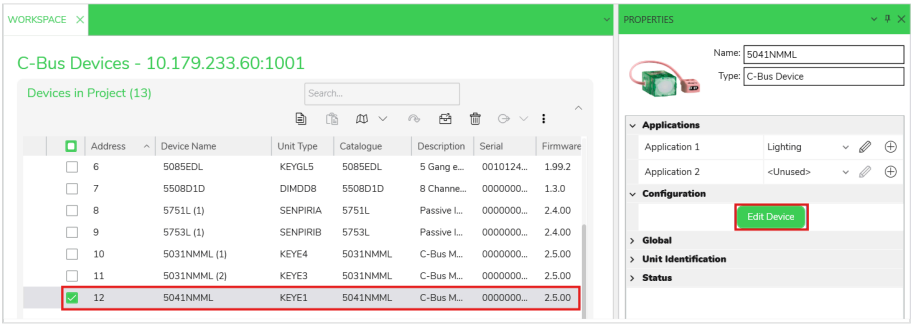
5041NMML Key Input Unit

The SpaceLogic C-Bus 5041NMML is a 40 series master push button mechanism designed for use in C-Bus automation systems. It functions as a Key Input Unit and provides fully programmable, intelligent control of lighting, dimming, shutters, and scene operations. The unit integrates seamlessly into iconic or pro series wall plates, delivering flexible and reliable user control within C-Bus installations.

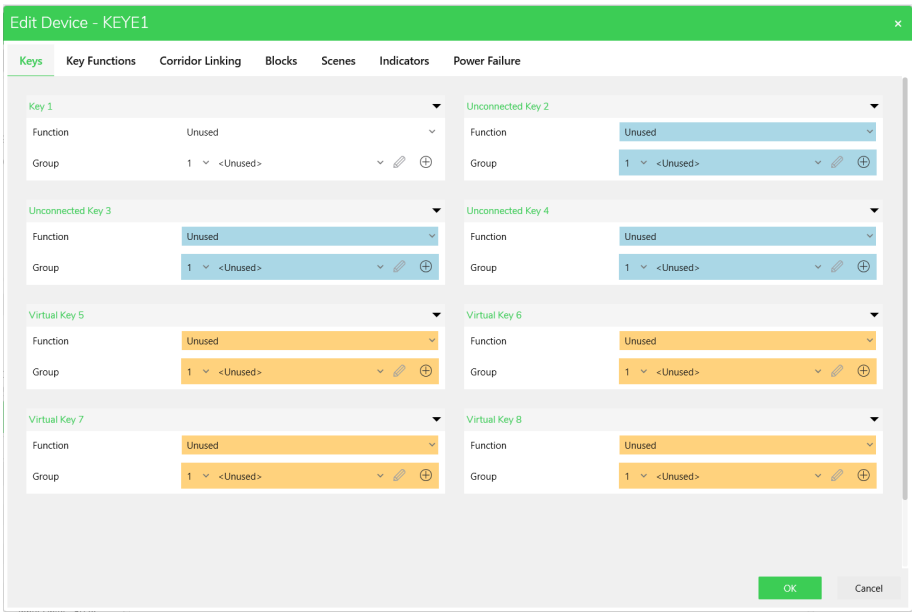
To configure the field informations of **PROPERTIES** in 5041NMML Key Input Unit, refer 5031NMML Key Input Unit, page 274.



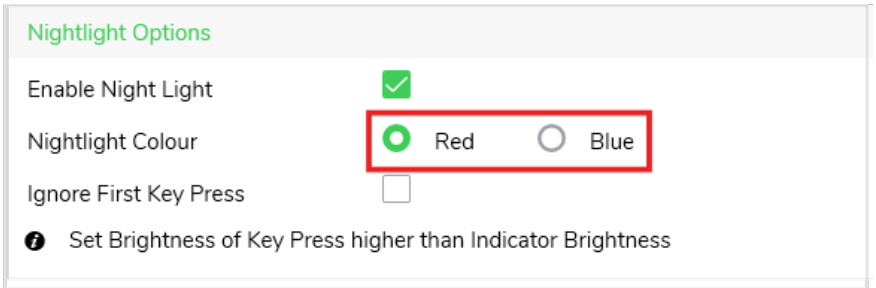
- Click **Edit Device** in the **Configuration** section of **PROPERTIES**.



The **Edit Device — KEYE1** dialog box appears.



- For more information on configurations in the **Edit Device**, refer Edit Device 5031NMML, page 281.
- The key difference between the 5031NMML and 5041NMML models lies in the colour of **Nightlight Options** in **Indicators** tab.
  - 5031NMML : Orange and Blue
  - 5041NMML : Red and Blue



Introduction to Sensors

The SLCC tool supports a range of C-Bus occupancy and light level sensors designed for use in commercial and residential environments. These sensors provide reliable presence and occupancy detection, light level measurement, and advanced control features such as corridor linking, sunset switching, and breakout room functionality, depending on the model. Available in flush mount and surface mount variants, the supported sensors offer different detection patterns, mounting options, and coverage ranges to suit various installation requirements. Through

the SLCC tool, you can configure sensor behavior, assign groups and blocks, and integrate the devices seamlessly into C-Bus lighting and automation systems.

Refer the below table:

Device Name	Type	Overview	SLCC Supported FW	Available FW Versions
5753L (SENPIRIB)	C-Bus 360° Flush Mount Sensor	360° field of view, detection range 15 metre diameter at 2.4 metre mounting height	2.4.00	2.4.00 ; 2.3.00 ; 1.2.67
5754ODPE (SENPIRIC)	C-Bus 360° Surface Mount Sensor	360° field of view, detection range of 9.7 metre diameter, at 2.7 metre mounting height	2.4.00	2.4.00
5751L (SENPIRIA)	C-Bus 90° Corner Surface Mount Sensor	90° field of view, detection range 6 × 6 metre, at 2.4 metre mounting height	2.4.00	2.4.00 ; 2.3.00 ; 1.2.67
5750WPL (SENPIROA)	C-Bus Surface Mount Sensor	110° field of view, detection range 12 × 18 metre, at 2.4 metre mounting height	2.4.00	2.4.00 ; 2.3.00 ; 1.2.67

Sensor	Image
5753L (SENPIRIB)	
5754ODPE (SENPIRIC)	
5751L (SENPIRIA)	
5750WPL (SENPIROA)	

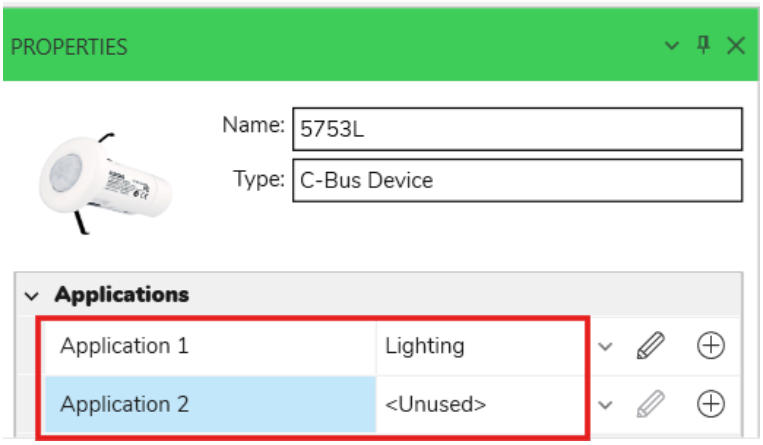
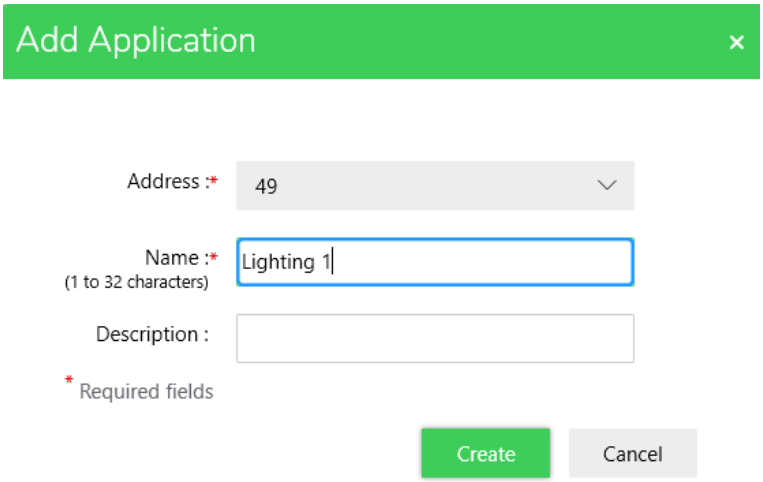
SENPIRIB (5753L) Sensor

The passive infrared (PIR) occupancy detector is a C-Bus unit that senses the natural thermal (infra red) radiation emitted by any warm body. It is used as an automatic switching device within lighting type applications by detecting and responding to changes in infra red levels. It is also capable of detecting changes in ambient light levels. A physical potentiometer can be adjusted manually to set the threshold value between light and darkness.

The features include the ability to:

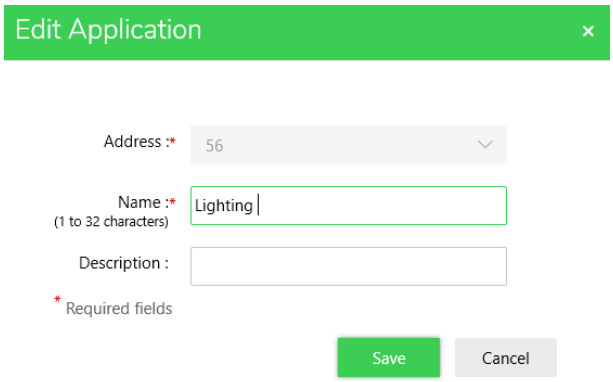
- Switch the detector On/Off.
- Set power failure values.
- Set LED assignment.

The field informations to configure SpaceLogic C-Bus SENPIRIB sensor are described as below:

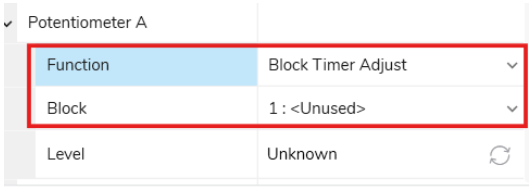
Applications	This section displays the lighting applications supported by the SENPIRIB sensor. Up to two lighting applications can be defined and then used throughout the configuration of the SENPIRIB sensor. By default, **Lighting** is selected in the **Application 1** drop-down list and **<unused>** is selected in **Application 2** drop-down list.  To add Application: • You can enter the name in **Application 1** field and press **Enter** in keyboard. The Application is created by taking the next available Application address. The created Application is saved in the network. or, • Click ⊕. The **Add Application** pop-up appears.  It supports application addresses from 48 to 127. • Enter the required details and then click **Create**. The application is created and listed in the **Application 1** drop-down list. **NOTE:**

<table>
<tr><td></td><td colspan="2">

Use a unique application name for each network.
Enter a maximum of 32 characters for the Application Name
You can use numbers, letters and special characters excluding /,” and #.

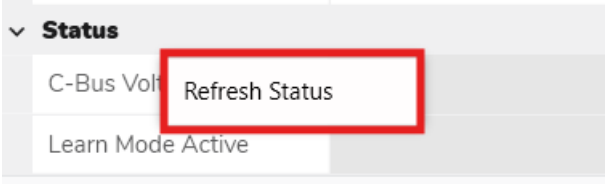
• Click Cancel to cancel the operation.
To edit Application:
• Click to modify the application name.
NOTE: Edit button is disabled if the Application is set to <Unused>.


• Make necessary changes and then click Save. You cannot edit the Application address after it has been created.
Repeat the same for Application 2.
NOTE: The Trigger and Enable options are available only in Application 2 drop-down list. It supports application addresses from 48 to 127, 202 and 203. The application selected in Application 1 drop-down list will not be listed in Application 2 drop-down list and vice versa.
</td></tr>
<tr><td rowspan="5">Configuration</td><td>Mode</td><td>Select the required option from the Mode drop-down list. The options are:
• No mode Set (Advanced Configuration)
• Presence Detection with Light Level Target
• Presence Detection
• Sunset Switch</td></tr>
<tr><td>Group</td><td>• Select the value from the Application Index drop-down list.
• The Group drop-down list displays all available groups within the selected application.
• You can add and edit Groups. For more information refer Group.
•
NOTE: When you select No mode Set (Advanced Configuration) from Mode drop-down list, Application Index and Group drop-down lists are disabled.</td></tr>
<tr><td>Expiry Time</td><td>The expiry time values are set to define an interval of time to elapse before the Lighting group is turned Off. This is often used for activating a time delay after motion is detected.
Select the desired expiry time.
NOTE: The Expiry Time field ranges from 0 to 18 hours, 12 minutes, and 15 seconds.
• You can increase or decrease the hours and minutes by increment of 1.
• You can increase or decrease the seconds by increment of 5.
• You can also input a value manually to hours, minutes, and seconds.
NOTE: When you select No mode Set (Advanced Configuration) from Mode drop-down list, Expiry Time field is disabled.</td></tr>
<tr><td>Light Level Target (Lux)</td><td>In the Light Level Target (Lux) section, use the target selection list and margin selection list to lux values suitable for the light level requirements where the sensor is installed.
• You can increase or decrease the lux value in increments of 10.
• You can set the Light Level Target from 0 to 2000 lux.
• The Target Range is calculated using the Light Level Target and Light Level Margin (%).</td></tr>
<tr><td>Light Level Margin (%)</td><td>• You can increase or decrease the margin value in increments of 1.
• You can set the Light Level Margin (%) from 1 to 100.</td></tr>
</table>

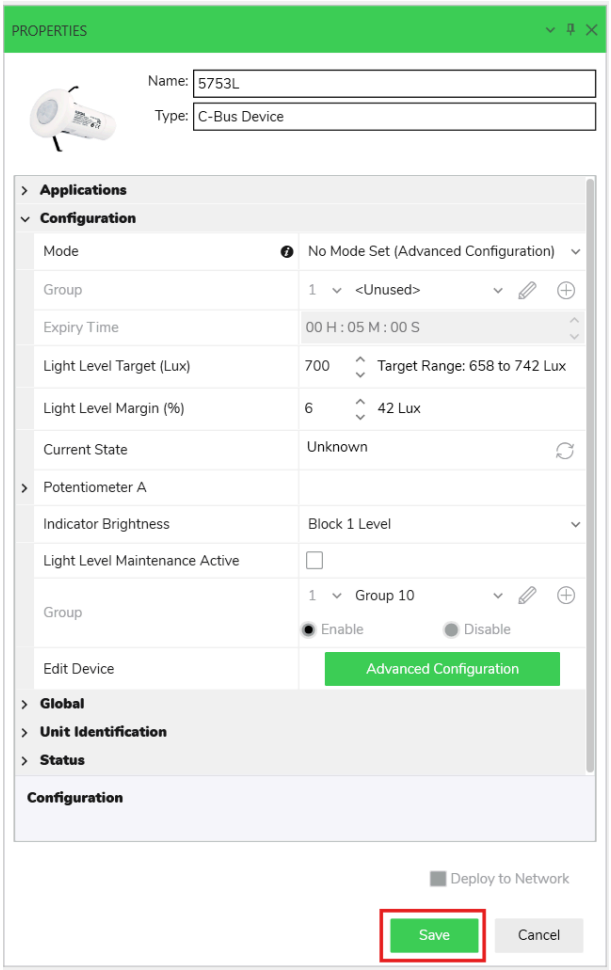
		• Handling Light Level Target or Margin set as Group: ◦ If you change **Light Level Margin (%)**, the corresponding lux value is displayed as **"(XX lux)"**. ◦ If **Light Level Target** is set to **Group**, the field label is updated to **Light Level Target (Group)** and the **<group address name>** is displayed. ◦ If **Light Level Margin (%)** is set to **Group**, the field label is updated to **"Light Level Margin (Group)** and the **<group address name>** is displayed. • If **Light Level Target** or **Light Level Margin (%)** is set to **Group**, the **Mode** is set to **No Mode Set (Advanced Configuration)**.	
	Current State	• It indicates the operating state of the sensor as **Light**, **Dark**, or **In Target Range** based on the current light level relative to the configured **Light Level Target** and **Light Level Margin**. • **Dark** is displayed when the current light level is less than the lowest value in the **Target Range**. • **In Target Range** is displayed when the current light level is between the lowest and highest values in the **Target Range**. • **Light** is displayed when the current light level is greater than the highest value in the **Target Range**. • The current light level in **lux** is displayed when the network is open and the project device matches the live network device. For example: **Current State** values include **Dark (150 lux)"** and **Light (1000 lux)**.	
	Potentiometer A It is used for adjusting light level, block timers, and occupancy behaviour. You can use the potentiometers to set light level target in lux.	**Function**	Select the required option from the **Function** drop-down list. The options are **<Unused>**, **Light Level and Sunset Adjust**, **Block Timer Adjust**, and **Occupancy Sensitivity Adjust**. By default, **Light Level and Sunset Adjust** option is selected.
		Block	**Block** drop-down list is enabled only if you select **Block Timer Adjust** from **Function** drop-down list.  Select the required option from the **Block** drop-down list, that contains the lighting type group to be controlled by potentiometer change. By default, **1:<Unused>** option is selected.
		Level	Displays the current potentiometer position as a 0-255 value, if you are viewing the configuration from the physical unit. The **Refresh** button is enabled only when the Network is opened and scanned. Click to refresh the lux value to the current level.
	Indicator Brightness The brightness of the LEDs can be defined by one of three methods.	Select the required option from the **Indicator Brightness** drop-down list. The options are **Fixed**, **Block 1 Level** and **PE Cell Level**. • Select **Fixed** to set the brightness to a fixed level. • Select **Block 1 Level** to set the brightness of the LED indicator to the level of the Lighting Type group assigned to the first block,. • Select **PE Cell Level** to set the level of brightness as a percentage of the lux level. This means that the LED indicator shines brighter as the lux level is higher and less brightly when the lux level is lower. By default, **Fixed** option is selected.	
	Light Level Maintenance Active	• If **Light Level Maintenance Active** is unchecked, the **Group** and the **Enable/ Disable** radio buttons are disabled.	
	Group	• The **Group** includes the **Application Index** and **Group Address**. • The **Application Index** is set to **Application 1** by default and you can disable it. • Mouse over on the **Application Index** to view the tool tip message.	

		• Acceptance criteria **9** to **32** is applied. • **Enable** and **Disable** radio button options are displayed. • By default, **Enable** radio button is selected.	
	Edit Device	It displays **Advanced Configuration** button. For more information, refer Advanced Configuration SENPIRIB, page 319.	
Global You can configure the timing parameters, learn mode, and potentiometer A.	**Timing Parameters** You can provide duration values for controlling the behaviour of the sensor.	**Timing Threshold**	Select the timing threshold from the drop-down list. By default, it is set to 208 ms. This drop down provides duration values by which motion detection triggering can be regulated.
		Ramp 1	Ramp 1 rate can be set from instant to max 1020 seconds. By default, it is set to 4 seconds. It specifies the time taken to ramp a light from minimum to maximum brightness (or vice versa).
		Ramp 2	Ramp 2 rate can be set from instant to max 1020 seconds. By default, it is set to 12 seconds.
		Status Report	Allows to set the duration in mm:ss. Provides automatic detection and correction of discrepancies between the states of grouped inputs and outputs. By default, it is set to 3 seconds. Mouse over on the **Status Report** info icon to view the tooltip message.
	Learn Mode You can configure the unit for learn mode.	**Allow Learn Mode**	Only if you select the **Allow Learn Mode** check box, the **Application Learn** drop-down list will be enabled. By default, the **Allow Learn Mode** check box is selected.
		Application Learn	Select the required option from the **Application Learn** drop-down list. the options are **Current** and **Any**. To determine whether learn mode can be used to group channels with other units of the same application address, select **Current**. To determine whether learn mode can be used to group channels with other units of any application address, select **Any**.
		Unit Has Learned	By default, it is set as **No**.

Unit Identification	**Unit Type**	Displays the unit type of the device.
	Catalogue Number	Displays the catalog number related to the unit type.
	Firmware Version	Displays the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
	Part Name	Displays the part name which is stored in the unit hardware, that can be modified. You can edit the Part Name. Use numbers, alphabets, and special characters (!@#$%^&*()_+];[) up to 8 Characters. Convert all characters to uppercase.

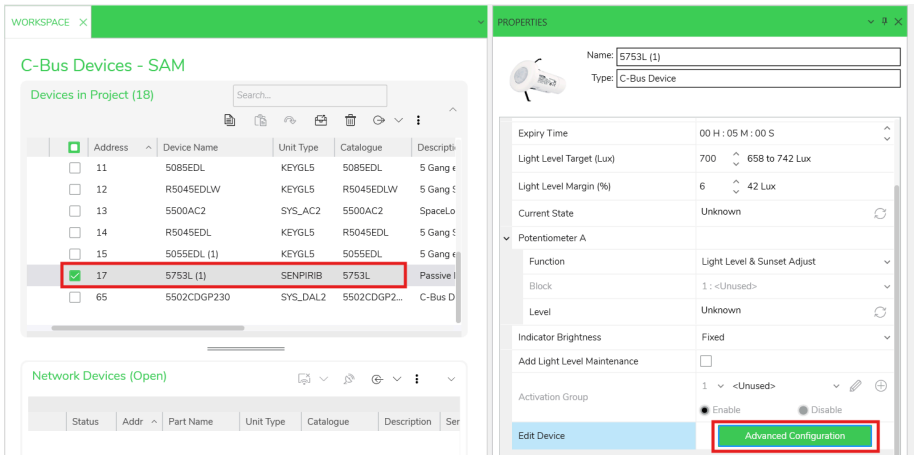
	Unit Address	Displays the address which is automatically assigned when the device is added.
	Serial Number	Displays the serial number which exists on the physical unit. • For a live network device, the **Serial Number** field is a read only field that displays the serial number the user adds in when adding the device. • For a project device, the **Serial Number** field is all zeros by default (12 chars) and can be edited and saved by the user. • When a project device is matched with a live network device, the **Serial Number** field of the project device is updated with the serial number from the live network device.
	Tag Name	Displays the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only. By default it is NEWUNIT.
	Notes	Contains a location to add notes about the unit which is stored in the project database only. Use maximum character length of 255 and only numbers, alphabets and special characters (!@#$%^&*()_+];[).
Status Status will be displayed only when the network is opened.	**C-Bus Voltage (V)**	Displays the device's C-Bus network voltage value. Values are displayed only when the C-Bus network is open.
	Learn Mode Active	Displays **Yes** when it is active on the device/network and displays **No** when it is not active. To refresh device status, right-click on **Status** section and click **Refresh Status**. 

Once configurations are completed, click **Save** to save the changes.

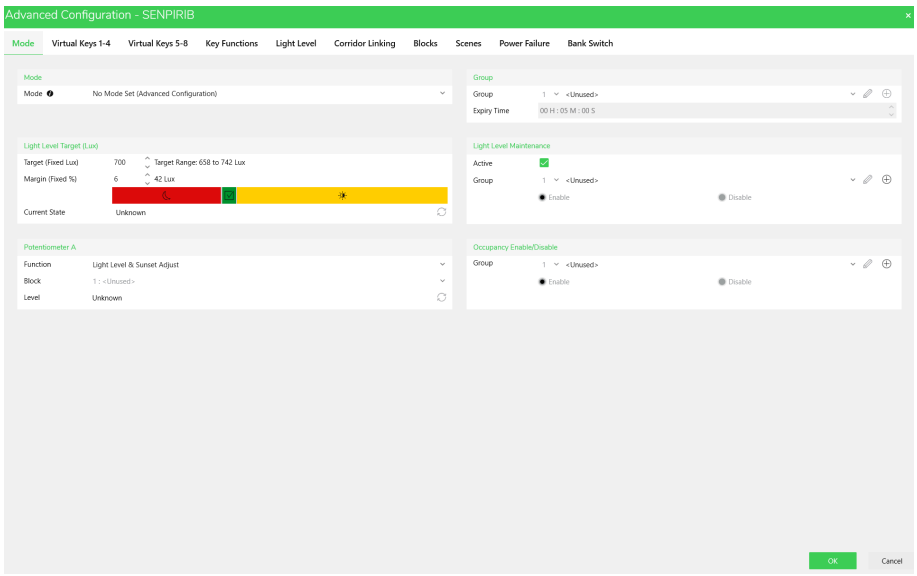

PROPERTIES
Name: 5753L
Type: C-Bus Device
Applications
Configuration
Mode
No Mode Set (Advanced Configuration)
Group
1 <Unused>
Expiry Time
00 H : 05 M : 00 S
Light Level Target (Lux)
700
Target Range: 658 to 742 Lux
Light Level Margin (%)
6
42 Lux
Current State
Unknown
Potentiometer A
Indicator Brightness
Block 1 Level
Light Level Maintenance Active
Group
1 Group 10
Enable
Disable
Edit Device
Advanced Configuration
Global
Unit Identification
Status
Configuration
Deploy to Network
Save
Cancel

Advanced Configuration SENPIRIB

1. Click **Advanced Configuration** in the **Configuration** section of **PROPERTIES**.



The **Advanced Configuration SENPIRIB** dialogue box appears.



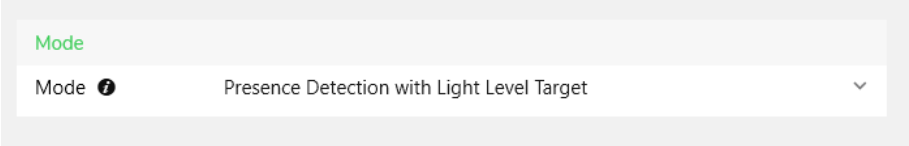
The below configurations can be performed in the **Advanced Configuration** :

- Mode, page 320
- Virtual Keys, page 323
- Key Functions, page 335
- Light Level, page 337
- Corridor Linking, page 343
- Blocks, page 346
- Scenes, page 348
  - Scene Manger, page 349
- Power Failure, page 353
- Bank Switch, page 356

Mode

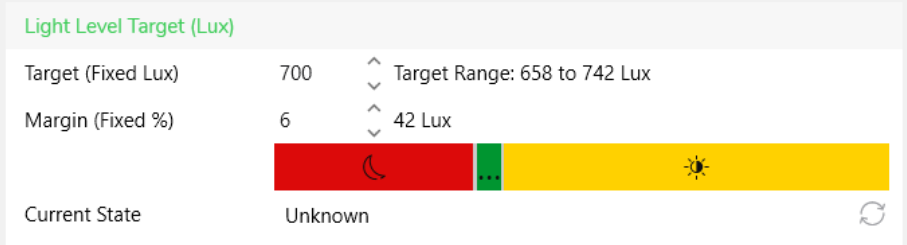
1. In the **Mode** section, select the required option from the **Mode** drop-down list. Refer the below table for option description.

Presence Detection with Light Level Target	It sets the sensor for presence detection regardless of light level conditions. When the sensor element detects motion the multi sensor sends a C-Bus ON command to the group and resets the time out period.
Presence Detection	When **Presence Detection** is selected, the sensor triggers on motion. When the sensor detects motion, it sends a C-Bus command on the C-Bus network.
Sunset Switch	It turns the lighting type group ON when the measured lux level is low. Low lux levels typically occur during sunset and sunrise. When the lux level falls below the configured threshold setpoint, the function activates.



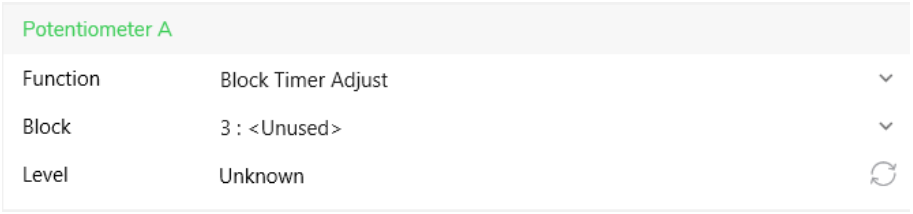
2. Refer the below table for configuration in the **Light Level Target (Lux)** section.

Target (Fixed Lux)	You can update the **Light Level Target** by adjusting either **Target (Fixed Lux)** or the **Light Level Slider**. • Changing the **Light Level Slider** updates **Target (Fixed Lux)**, and changing **Target (Fixed Lux)** updates the slider. • You can increase or decrease **Target (Fixed Lux)** in increments of **1**. • You can set **Target (Fixed Lux)** within the range **0** to **2000**. • **Target Range** is displayed next to **Target (Fixed Lux)** based on the selected **Margin (Fixed %)**. • You can calculate **Target Range** using **Target (Fixed Lux)** and **Margin (Fixed %)**.
Margin (Fixed %)	You can update the **Light Level Margin** by adjusting either **Margin (Fixed %)** or the **Light Level Slider**. • Changing the **Light Level Slider** automatically updates **Margin (Fixed %)**, and changing **Margin (Fixed %)** automatically updates the slider. • By default, **Margin (Fixed %)** is set to **6%**, which corresponds to **42 Lux**. • You can increase or decrease **Margin (Fixed %)** in increments of **1**. • You can set **Margin (Fixed %)** to any value from **1 to 100**. • The corresponding **Lux** value is displayed in the format **(XX Lux),** when you change the **Margin (Fixed %)**.
Current State	• **Current State** indicates the operating state of the sensor—**Light**, **Dark**, or **In Target Range**—based on the current light-level reading relative to the **Light Level Target** and **Light Level Margin**. ◦ You can set **Current State** to **Dark** when the current light level is lower than the lowest value in the Target Range. ◦ You can set **Current State** to **In Target Range** when the current light level is between the lowest and highest values in the Target Range ◦ You can set **Current State** to **Light** when the current light level is higher than the highest value in the Target Range • The current light level is displayed in **Lux** when the network is open and the project device is matched to a live network device. • Click to update the **Current State** value. • Example : **Current State** values — **Dark (150 Lux)** and **Light (1000 Lux)**.



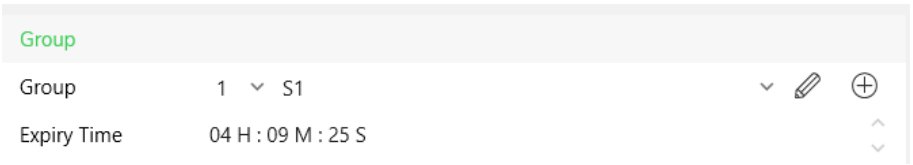
3. Refer the below table for configuration in the **Potentiometer A** section.

Function	The **Function** drop-down list has below options: • **Unused** • **Light Level & Sunset Adjust** • **Block Timer Adjust** • **Occupancy Sensitivity Adjust** By default, **Function** is set to **Light Level & Sunset Adjust**.
Block	**Block** field is disabled when **Function** is set to **Unused**, **Light Level & Sunset Adjust**, or **Occupancy Sensitivity Adjust**. **Block** field is enabled when **Function** is set to **Block Timer Adjust**.
Level	The current **Level** is displayed when the network is open and the project device is matched to a live network device. For example **Level** values for each **Function** include: • **Unused**: Level = **122** • Light Level & Sunset Adjust: Level = **290 to 370 Lux** • Block Timer Adjust: Level = **0 H 2 M 22 S** • Occupancy Sensitivity Adjust: Level = **47%** Click **Refresh** to update the **Level** value.



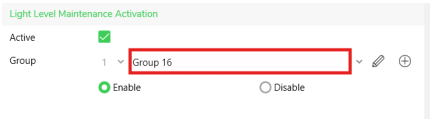
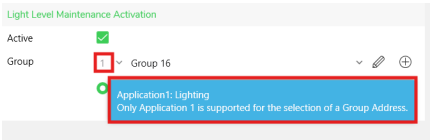
4. Refer the below table for configuration in the **Group** section.

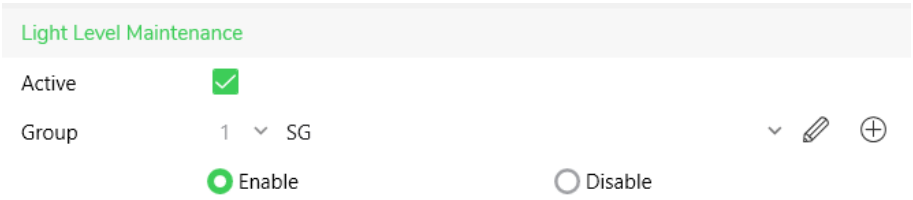
Group	• Select the value from the **Application Index** drop-down list. • The **Group** field displays all available groups within the selected application. • You can add and edit Groups. For more information refer Group, page 327.
Expiry Time	Select the desired expiry time. **NOTE:** The **Expiry Time** field ranges from 0 to 18 hours, 12 minutes, and 15 seconds. • You can increase or decrease the hours and minutes by increment of 1. • You can increase or decrease the seconds by increment of 5. • You can also input a value manually to hours, minutes, and seconds.



NOTE: When you select **No mode Set (Advanced Configuration)** from **Mode** drop-down list in **Mode** section, **Group** drop-down list and **Expiry Time** field are disabled.

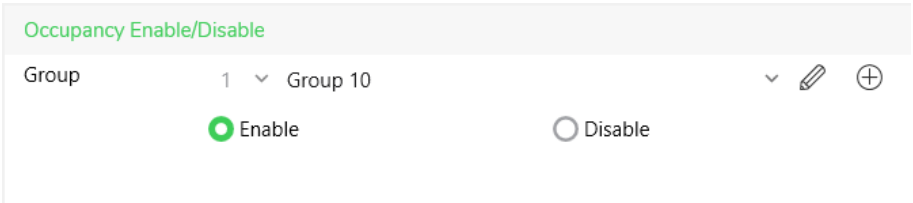
5. Refer the below table for configuration in the **Light Level Maintenance Activation** section.

Active	Only when you select the **Active** check box, the **Group** field is enabled. When you assign a **Group**, the **Enable** and **Disable** radio buttons are enabled.  Mouse over on the **Application Index** to view the tool tip message. 
Group	• Select the value from the Application Index drop-down list. • The **Group** field displays all available groups within the selected application. • You can add and edit Groups. For more information refer Group, page 327. • Select **Enable** to activate the sensor and **Disable** to deactivate the sensor.



6. Refer the below table for configuration in the **Occupancy Enable/Disable** section.

Group	• By default, **Application Index** is set to 1 and disabled for your selection. • The **Group** field displays all available groups within the selected application. • You can add and edit Groups. For more information refer Group, page 327. • Mouse over on the **Application Index** to view the tool tip message.

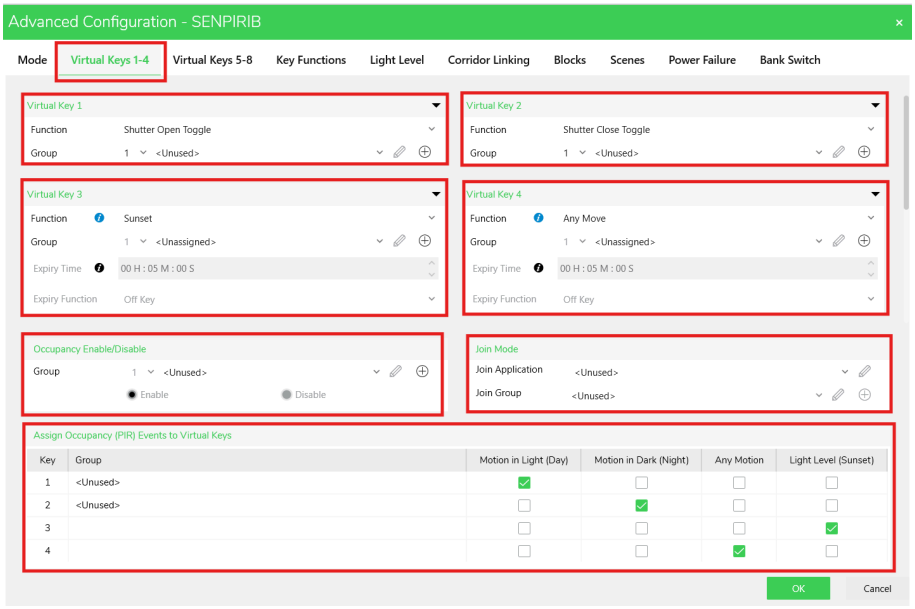


Virtual Keys

The SENPIRIB provides eight virtual keys that you can program in the same manner as wall switch input keys. You can assign each virtual key to an application. You can associate a macro function with each virtual key. By default, the first three virtual keys assigned are the **Day Move**, **Night Move**, and **Sunset** macro functions.

1. Click **Virtual Keys 1–4** tab.

   The **Virtual Keys 1**, **Virtual Keys 2**, **Virtual Keys 3**, **Virtual Keys 4**, **Occupancy Enable/Disable**, **Join Mode** and **Assign Occupancy (PIR) Events to Virtual Keys** section appears.

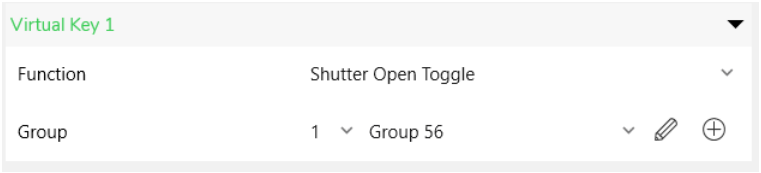
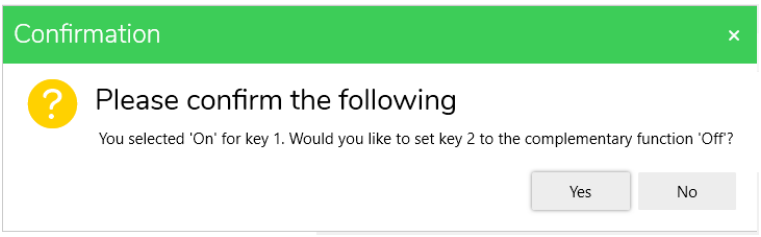
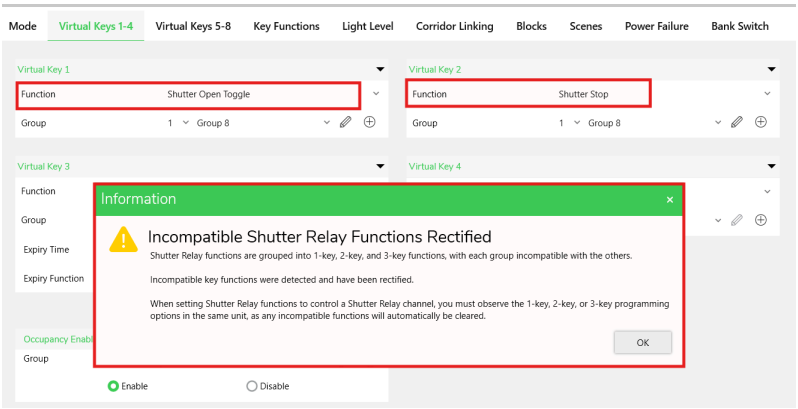
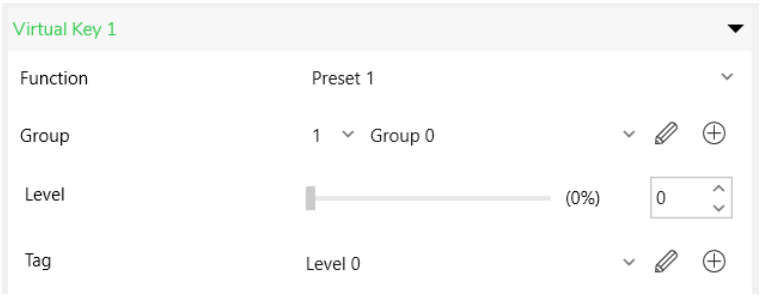


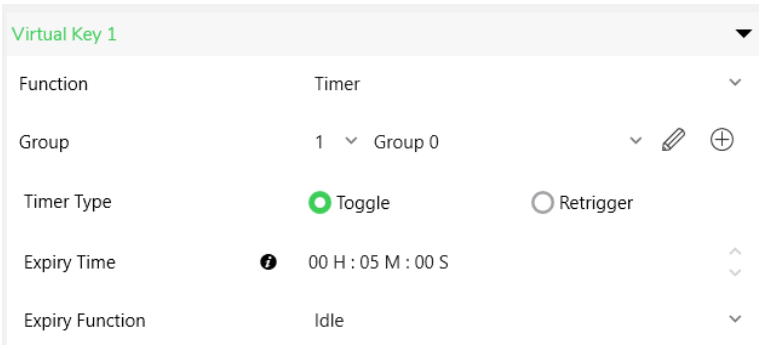
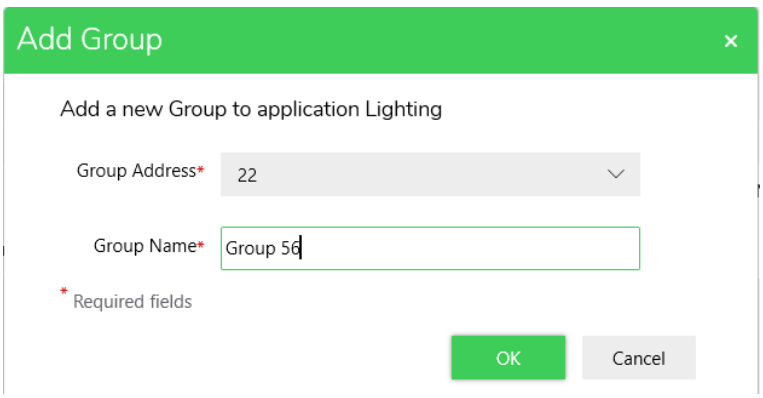
2. Based on the **Mode** selected on the **Configuration** section (or) **Mode** tab:
   - **Virtual Keys 1–8** are set to the corresponding **Function(s)** and **Group (s)**, and vice versa.
   - **Light Level Target/Margin** is set to **Fixed**.

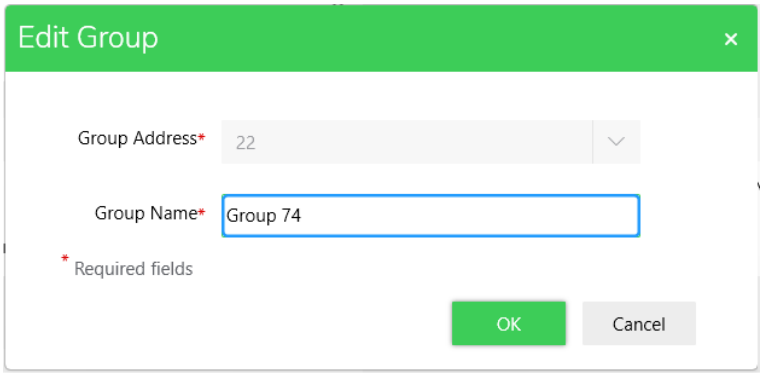
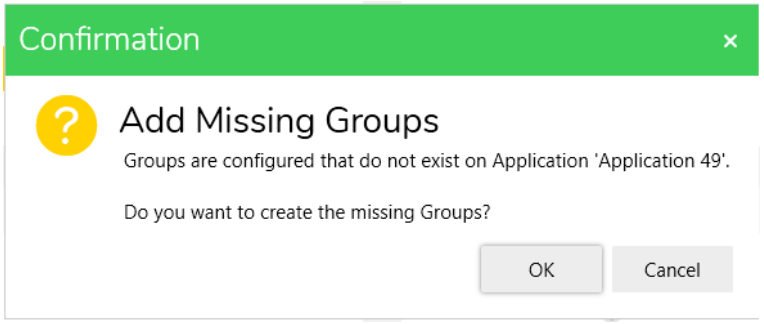
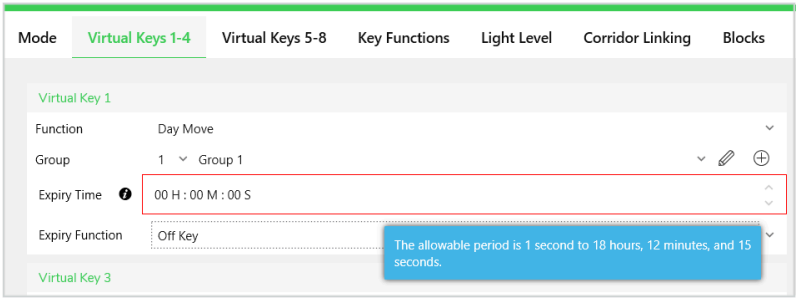
     NOTE: For a live network device or a project with an existing configuration, the **Mode** is set according to the current device configuration.
   - All **Virtual Key** properties such as **Application Index, Group, Function (s),** and any other related properties are updated based on the selected **Mode**.
   - Refer to the table below for details on Virtual Key masking based on the selected **Mode**.

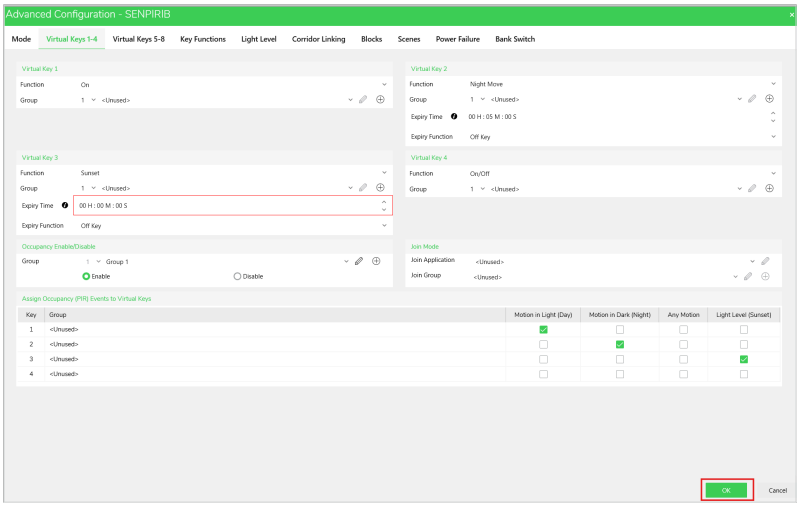
Mode	Virtual key 1		Virtual key 2		Virtual Key 3		Virtual key 4		Virtual key 5		Virtual key 6		Virtual key 7		Virtual key 8	
	Function	Group	Function	Group	Function	Group	Function	Group	Function	Group	Function	Group	Function	Group	Function	Group
No Mode Set (Advanced Configuration)	Day Move	<Unused>	Night Move	<Unused>	Sunset	<Unused>	On/Off	<Unused>	On/Off	<Unused>	On/Off	<Unused>	On/Off	<Unused>	On/Off	<Unused>
Presence Detection with Light Level Target	Day Move	<Unused>	Night Move	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>
Presence Detection	Any Move	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>
Sunset Switch	Unused	<Unused>	Unused	<Unused>	Sunset	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>	Unused	<Unused>

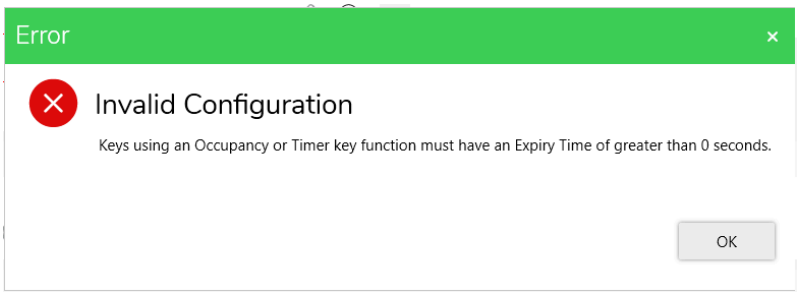
3. Refer the below table for configurations in the **Virtual Key 1** section.

Function	Select the required option from the drop-down list. When you select **On**, **Off On Up**, **Off Down**, **Dimmer Up**, **Dimmer Down**, **Soft Up**, **Soft Down**, **Day Move**, **Night Move**, **Shutter Toggle**, **Shutter Open Toggle**, **Shutter Close Toggle**, **Shutter Open**, **Shutter Close**, **Bellpress** and **Shutter Stop**, the **Expiry Time** and **Expiry Function** fields are automatically hidden, as these options do not use expiry settings.  • If you select **On**, **On Up**, **Dimmer Up**, **Soft Up**, **Day Move**, a confirmation pop-up appears and prompts you to apply the complementary function to the paired key. (Example: If one key is **On**, the other should be **Off**)  ◦ Click **Yes** to proceed and **No** to cancel the operation. • If you select any other shutter function combination, a warning pop-up appears.  • If you select **Preset 1**, the below fields appear.  ◦ In the **Level** field, either drag the slider to set the value or select a level from the drop-down list. ◦ • If you select **Timer**, the below fields will appear.

	 ◦ Select the **Timer Type**. • If you select **Scene** or **Fan Speed Cycle**, the below fields will appear. ◦ Select **Scene 1** from **Scene** drop-down list when no Scenes are assigned in the device. ◦ Select **Scene 3** when **Scene 1** and **Scene 2** are already assigned to other keys. ◦ You can edit and add a new trigger group to the application. **NOTE:** The **Trigger Group address** field lists the available trigger groups in the selected Application. ◦ To add/edit the Trigger Group refer Group, page 327. ◦ You can edit and add a new action selector to the application. **NOTE:** The **Action Selector** field lists the available action selector in the selected Application. ◦ Select the value from the **Ramp Rate** drop-down list. ◦ Click ⋮ next to the **Scene** drop-down list. The **Scene Manager** window appears. For more information, refer Scene Manger, page 349.
Group	To add Group: • You can enter the name in **Group** field and press **Enter** in keyboard. The **Group Name** is created by taking the next available **Group Address**. The created Group is saved in the network. or, • Click ⊕. The **Add Group** pop-up appears.  • Enter the required details and then click **OK**. The **Group Name** is created and listed in the **Group** drop-down list. **NOTE:** ◦ Use a unique application name for each network. ◦ Enter a maximum of 32 characters for the Group Name

	◦ You can use numbers, letters and special characters excluding /,” and #. • Click **Cancel** to cancel the operation. To edit Group Name: • Click to modify the group name. **NOTE:** Edit button is disabled if the Group is set to **<Unused>**.  • Make necessary changes and then click **OK**. You cannot edit the **Group Address** after it has been created. • When you select groups for an Application (1, 2) and update the Application Index, the inline confirmation pop-up is displayed for each selected group.  ◦ Click **OK** to create the missing groups.
Expiry Time	Select the desired expiry time. Mouse over on the **Expiry Time** info icon to view the tooltip message. • When you set the expiry time to 00 H: 00 M: 00 S, and configure the **Virtual Key** function as an occupancy function (**Day Move**, **Night Move**, **Sunset**, **Any Move**) or a **Timer** function, time validation error is indicated by a red border. Mouse over on the **Expiry Time** field to view the tool tip message.  • If you click **OK** while an expiry time validation error exists for an occupancy function (**Day Move**, **Night Move**, **Sunset**, **Any Move**) or a **Timer** function, an **Error** pop-up is displayed.





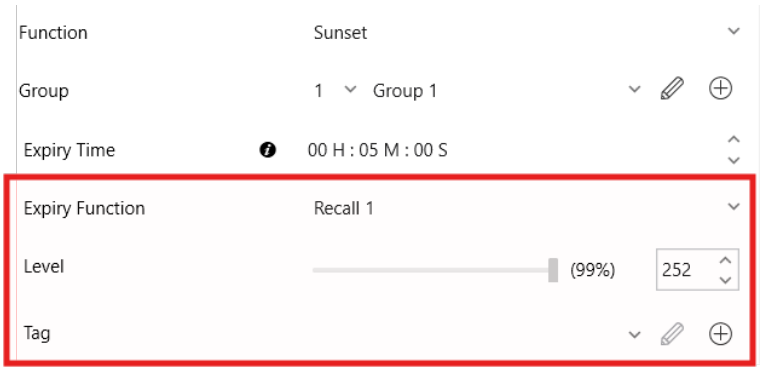
NOTE: The **Expiry Time** field ranges from 0 to 18 hours, 12 minutes, and 15 seconds.

- When you select an occupancy function (**Day Move**, **Night Move**, **Sunset**, **Any Move**) or a **Timer** function, for a **Virtual Key**:
  - **Expiry Time** is set to **00 H: 05 M: 00 S**, and corresponding **Block Timer 1** value is updated only if the timer was previously set to **00 H: 00 M: 00 S**. Otherwise, the existing value is retained.
  - You can set the **Expiry Time** from 1 second to 18 hours, 12 minutes, and 15 seconds for occupancy and timer functions. For non-occupancy functions, you can set the **Expiry Time** from 0 seconds to 18 hours, 12 minutes, and 15 seconds.

Expiry Function

Select the expiry function from the drop-down list.

If you select **Recall 1** / **Recall 2**, the below fields are displayed.



- You can set a preset **Level** or select an existing **Tag**. The **Level** value ranges from **0–100%** and **0–255**.

  NOTE: The default Level is **100%, 255** for **Preset 1** and **0%, 0** for **Preset 2**.
  - The percentage value increments by **1%** (0–100%).
  - The level value increments by **1** (0–255).
  - You can update the **Level** by changing either the percentage or the level value.

    NOTE:

    When you change the percentage, the level updates. When you change the level, the percentage updates.
- The **Tag** field lists the available **Levels** for the selected Group Address.
  - When you select a Tag, the **Level** field updates to the Tag's Level.

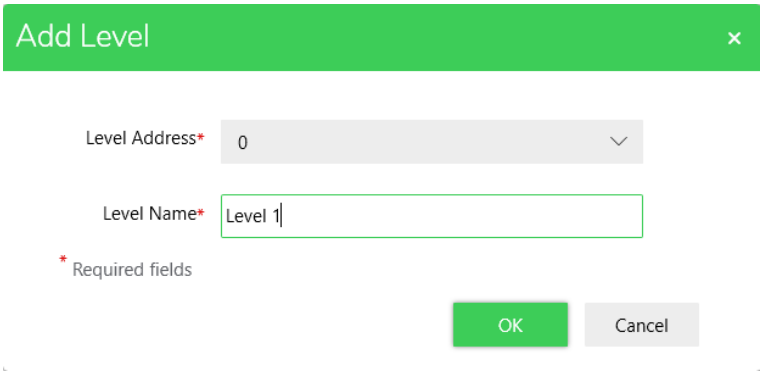
- When you select a Level that matches a saved Tag, the **Tag** field updates to the corresponding Tag.
- You can edit an existing Tag or add a new Tag to the Group Address.
- The **Add Tag** option is enabled only when a Group Address is assigned to the Virtual Key.

- To add Tag:
  - You can enter the name in **Level Name** field and press **Enter** in keyboard. The **Level Name** is created by taking the next available **Level Address**.

    The created Level is saved in the network.

    or,

  - Click ⊕. The **Add Level** pop-up appears.



  - Enter the required details and then click **OK**. The **Level Name** is created and listed in the **Tag** drop-down list.

    NOTE:

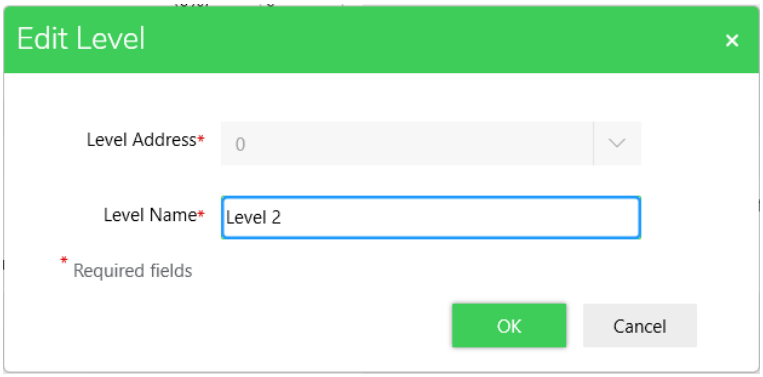
    – Use a unique application name for each network.

    – Enter a maximum of 32 characters for the Level Name

    – You can use numbers, letters and special characters excluding /,” and #.
  - Click **Cancel** to cancel the operation.

    To edit Level Name:
  - Click to modify the **Level Name**.

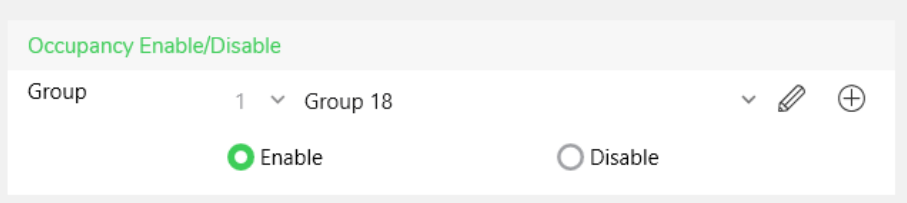
    NOTE: Edit button is disabled if the Tag is set to **<Unused>**.



  - Make necessary changes and then click **OK**. You cannot edit the **Level Address** after it has been created.

4. Repeat the step 2 and step 3 for the configurations in **Virtual Keys 2**, **Virtual Keys 3** and **Virtual Keys 4** sections.

5. In **Occupancy Enable/Disable** section, select group from the drop-down list. You can add/edit the group. For more information on adding and editing group, refer Group, page 327.



   Select **Enable** to activate the sensor and **Disable** to deactivate the sensor.

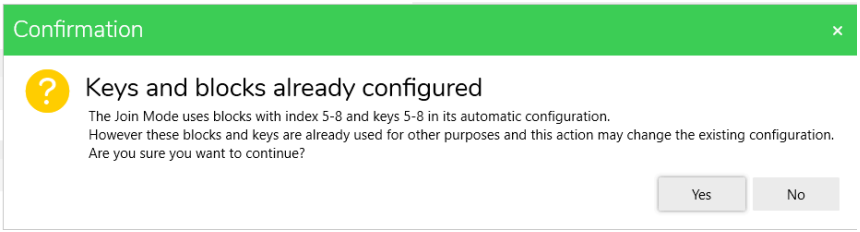
6. In **Join Mode** section, select the required application from the **Join Application** drop-down list. You can edit the application.

7. Select the required group from the **Join Group** drop-down list. You can add/ edit the group.

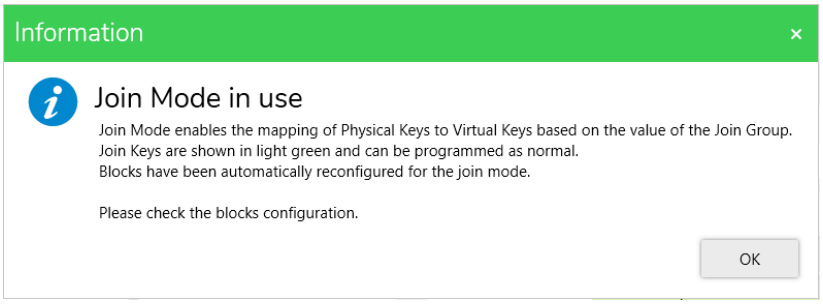
   NOTE:

   - Group addresses assigned to **Virtual Key Groups (1 to 8)** are excluded from the **Join Group** drop-down list and vice versa.
   - Group addresses assigned in **Join Group** are excluded from the **Link Group** drop-down list in **Corridor Linking**.

- Join mode extends the functionality of wired key input units by allowing the use of different macro functions for key inputs. This feature is particularly useful for remotely controlling lighting in spaces such as auditoriums or conference halls that can be partitioned.
- When two spaces are joined (not partitioned), the key input units share common lighting control. When the spaces are partitioned, Join mode can be disabled, allowing the lighting in each partitioned area to be controlled independently.
- Once group is assigned, a **Confirmation** pop-up is displayed.

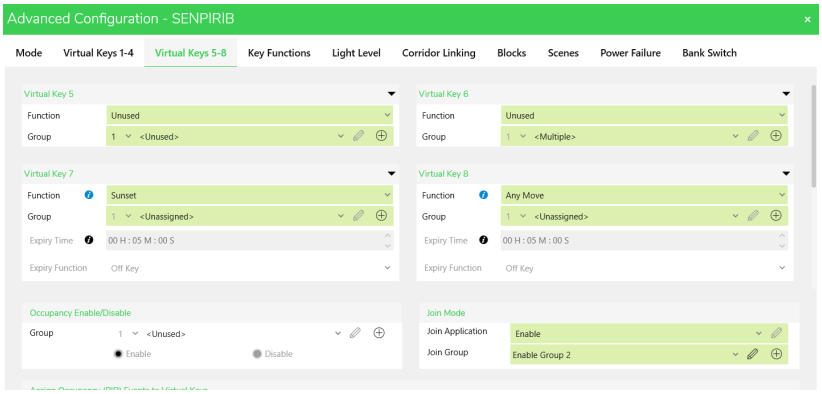


  - Click **Yes** to continue. The **Information** pop-up is displayed.

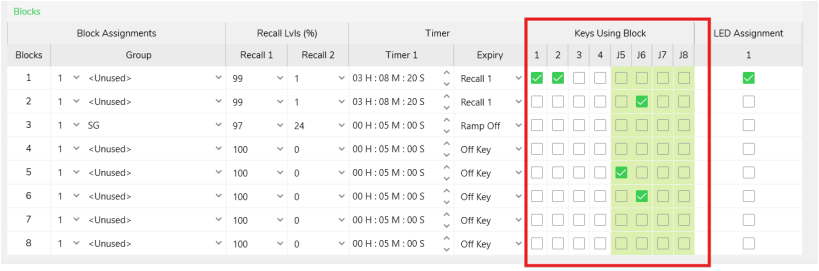


    Click **OK** or **Exit** icon to close the **Information** pop-up.

  - Click **No** to cancel the operation in **Confirmation** pop-up.
- Once a group is assigned and **Join Mode** is in use:
  - **Join Application** and **Join Group** properties in both the **Virtual Keys 1–4** tab and the **Virtual Keys 5–8** tab are highlighted in light green.



  - **J5 to J8** columns in the **Keys Using Block** section of the **Blocks** tab are highlighted in light green.



- **Virtual Keys 5–8** tab remains selected and in view (unlike Toolkit, which redirects you to the **Blocks** tab).

8. When you assign a Group Address for **Virtual Keys 1 to 8**, the corresponding **Group** field in **Assign Occupancy (PIR) Events to Virtual Keys** section is updated with the same Group Address.

   Selecting an Occupancy Function to Virtual Keys automatically selects the corresponding Occupancy Event under Assign Occupancy (PIR) Events.

   - Assign **Day Move** to check Motion in Light (Day)
   - Assign **Night Move** to check Motion in Dark (Night)
   - Assign **Any Move** to check Any Motion
   - Assign **Sunset** to check Light Level (Sunset)

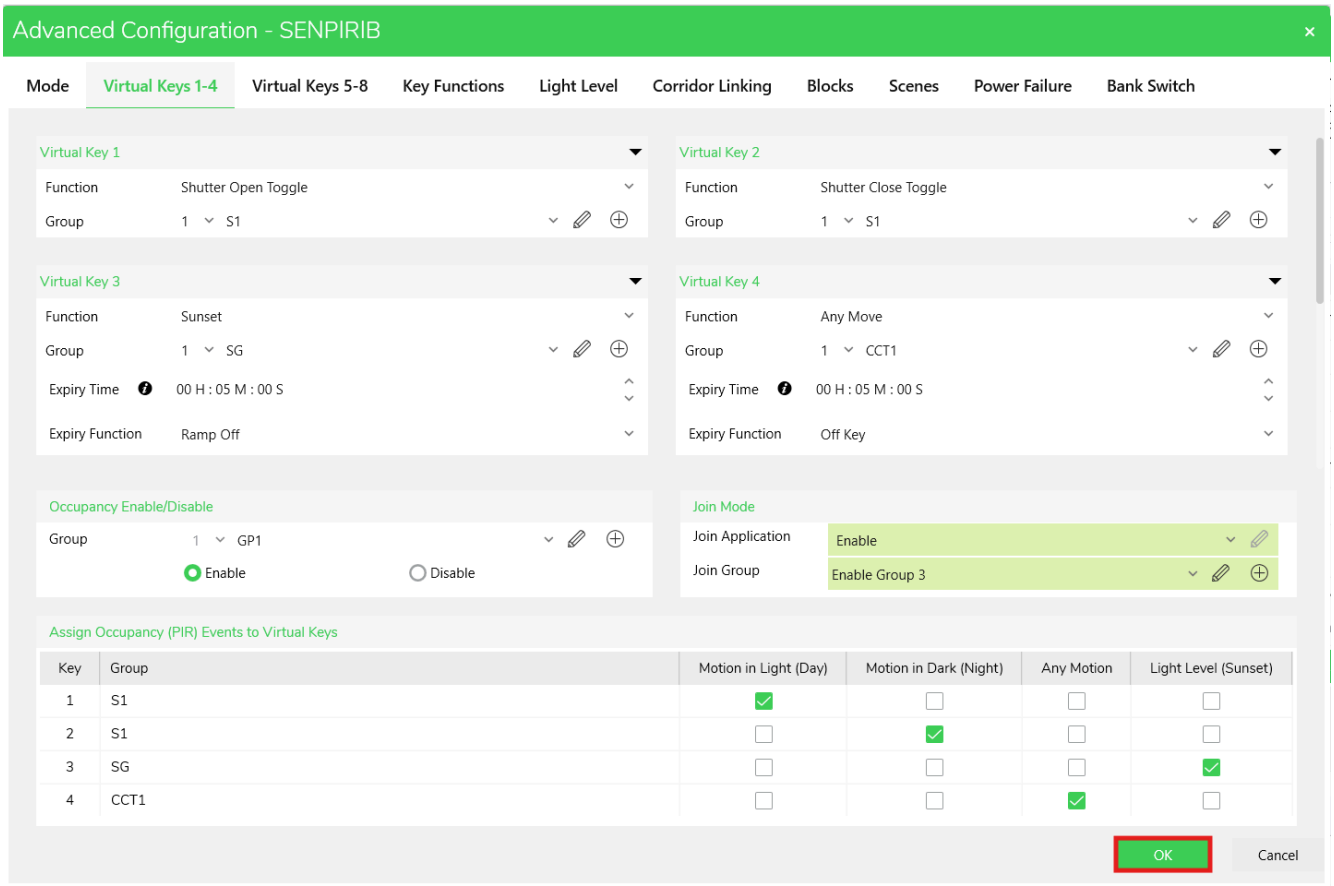
   Selecting or updating a Function also updates the Micro Functions under **Advanced Configuration** > **Key Functions**.

9. If you select **No Mode Set (Advanced Configuration)** in **Mode** drop-down list, the default occupancy event configuration for **Virtual Keys 1 to 8** are as follows:

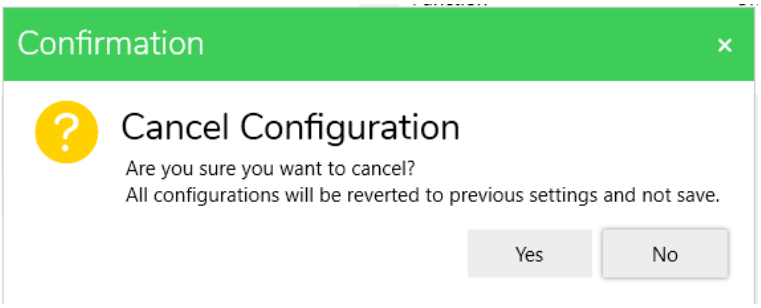
Keys	Option selected
Key 1	Motion in Light (Day)
Key 2	Motion in Dark (Night)
Key 3	Light Level (Sunset)
Key 4	No occupancy
Key 5	No occupancy
Key 6	No occupancy
Key 7	No occupancy
Key 8	No occupancy

10. When you select an **Occupancy Function** or **Micro Function** combination for a **Virtual Key Group**, the following **Occupancy Event** is selected:
    - **Day Move** function — only **Motion in Light (Day)**
    - **Night Move** function — only **Motion in Dark (Night)**
    - **Any Move** function — only **Any Motion**
    - **Sunset** function — only **Light Level (Sunset)**
11. You can select the following Occupancy Event combinations:
    - Only **Motion in Light (Day)**
    - Only **Motion in Dark (Night)**
    - Only **Any Motion**
    - Only **Light Level (Sunset)**
    - **Motion in Light (Day)** + **Light Level (Sunset)**
    - **Motion in Dark (Night)** + **Light Level (Sunset)**
    - **Any Motion** + **Light Level (Sunset)**

12. When you update the **Assign Occupancy (PIR) Events to Virtual Key** setting, the corresponding **Virtual Key Group – Function** is not updated.
    - When you change the **Virtual Key Group – Function** from an **Occupancy Function** to a **Non-Occupancy Function**, the previously selected **Occupancy Event** is retained for the key.
13. When a **Block** is selected for **Light Level Broadcast**, that Block is disabled for the **Assign Occupancy (PIR) Events to Key** selection.
14. Once configuration is done, click **OK** to save the configurations.



15. If you click **Cancel** or **Exit** icon without saving the configuration, a confirmation pop-up appears.



16. Click **Yes** to save the configuration and click **No** to cancel the confirmation pop-up.
17. Click **Virtual Keys 5–8** tab.

    The **Virtual Keys 5**, **Virtual Keys 6**, **Virtual Keys 7**, **Virtual Keys 8** and **Occupancy Enable/Disable** section appears.

    Repeat the steps 2–7 for the configurations in **Virtual Keys 5**, **Virtual Keys 6**, **Virtual Keys 7**, **Virtual Keys 8** and **Occupancy Enable/Disable** sections.

Key Functions

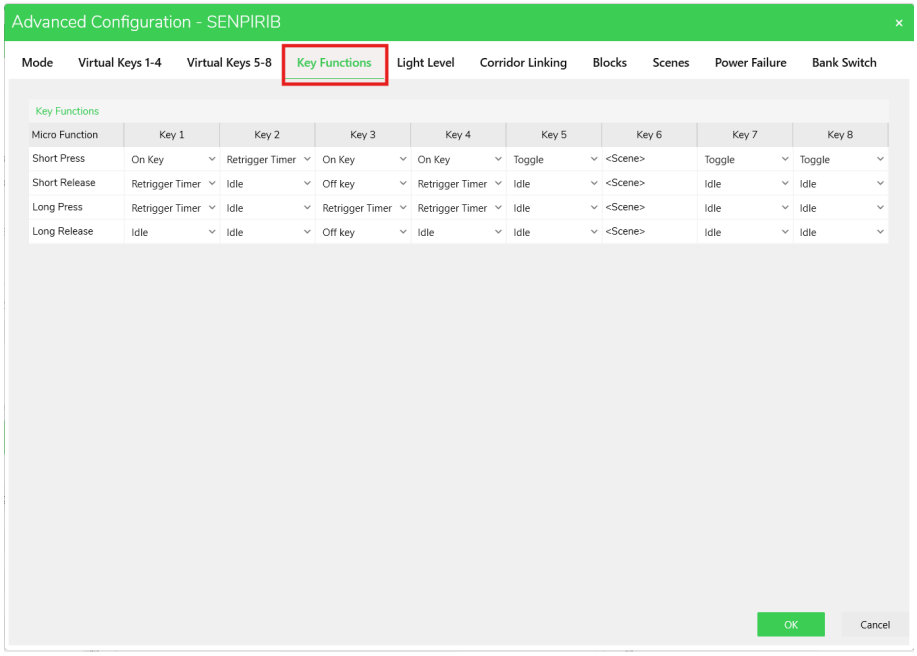
The **Key Functions** tab provides advanced configuration options for key input units and sensors. For traditional C-Bus key input units, key functions are assigned to 4 press and release events. Refer the below table for the micro function and its action.

Micro Function	Action
Short Press	when you first press the input key after the debounce time.
Short release	when you release the input key before the long-press time is reached.
Long press	when you press and hold the input key longer than the long-press time.
Long release	when you release the input key after a long press.

NOTE: Each of these events corresponds to a micro function. A micro function may or may not generate C-Bus messages, depending on the micro function and the current state of the group addresses. Wired macro functions support a wide range of messaging capabilities.

1. Click **Key Functions** tab.

   Key Functions section appears.



2. You can update the **Micro Function** combination.

3. Refer the below table for default **Micro Function** mapping.

Function	Short Press	Short Release	Long Press	Long Release
Night Move	On Key	Retrigger Timer	Retrigger Timer	Idle
Day Move	Retrigger Timer	Idle	Idle	Idle
Any Move	Retrigger Timer	Retrigger Timer	Idle	Retrigger Timer
Sunset	On Key	Off Key	Retrigger	Off Key
Unused	Idle	Idle	Idle	Idle
On	On Key	Idle	Idle	Idle
Off	Off Key	Idle	Idle	Idle
On/Off	Toggle	Idle	Idle	Idle
Dimmer	On Key	Up Mem Toggle2	Downcycle	End Ramp
On Up	Idle	Up Key	Up Key	End Ramp
Off Down	Idle	Mem Toggle2	Down Key	End Ramp
Timer	Toggle	Retrigger Timer	Idle	Retrigger Timer
Bell Press	On Key	Off Key	Off Key	Off Key
Dimmer Up	Idle	On Key	Up Key	End Ramp
Dimmer Down	Idle	Off Key	Down Key	End Ramp
Soft Up	Idle	Ramp Off	Down Key	End Ramp
Soft Down	Idle	Ramp Off	Down Key	End Ramp
Preset 1	Recall 1	Recall 1	Ramp Off	Idle
Preset 2	Recall 1	Recall 1	Ramp Off	Idle
Shutter Toggle	Recall 1	Idle	Idle	Idle
Shutter Open Toggle	Recall 1	Idle	Idle	Idle
Shutter Close Toggle	Recall 2	Idle	Idle	Idle
Shutter Open	Recall 1	Idle	Idle	Idle
Shutter Close	Ramp Off	Idle	Idle	Idle
Shutter Stop	Recall 2	Idle	Idle	Idle
Fan Speed Cycle	Scene	Scene	Scene	Scene
Scene	Scene	Scene	Scene	Scene
Custom	Idle	Idle	Idle	Idle

NOTE: The **Fan Speed Cycle** and **Scene** micro-function combinations are read-only and non-editable.

4. If you update the **Micro Function** combination, the respective **Virtual Key** group function is updated accordingly on **Advanced Configuration 1-4** (or) **Advanced Configuration 5-8** tabs vice versa (except for **Custom**).

   The **Custom** function is excluded from this automatic synchronization.

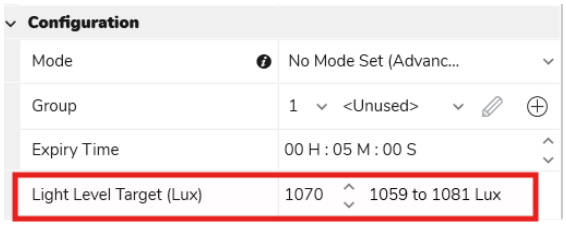
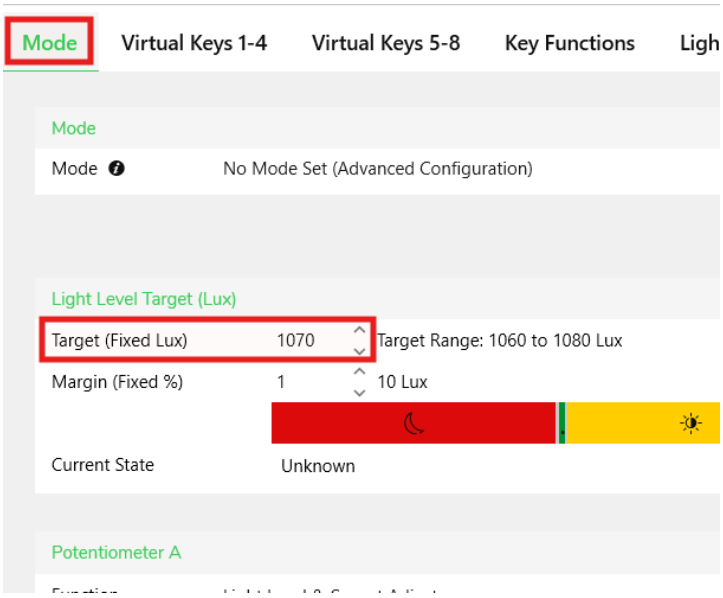
5. If you select any micro-function combination other than the default values listed in the table, the **Virtual Key** group function is automatically set to **Custom**.

6. If you select **Scene** or **Fan Speed Cycle** function:
   - The micro-function combination is set to **Scene**.
   - The **Function** displayed on the **Virtual Keys** is determined by the micro-function combination.
   - Since **Fan Speed Cycle** uses the same micro-function mapping as **Scene**, the **Virtual Key** function is displayed as **Scene**.

Light Level

The **Light Level** contains parameters for controlling light level messaging.

NOTE: If you update **Light Level** in the **Configuration** section of **PROPERTIES** (or) **Mode** tab in **Advanced Configuration**, the set values are reflected and vice versa.

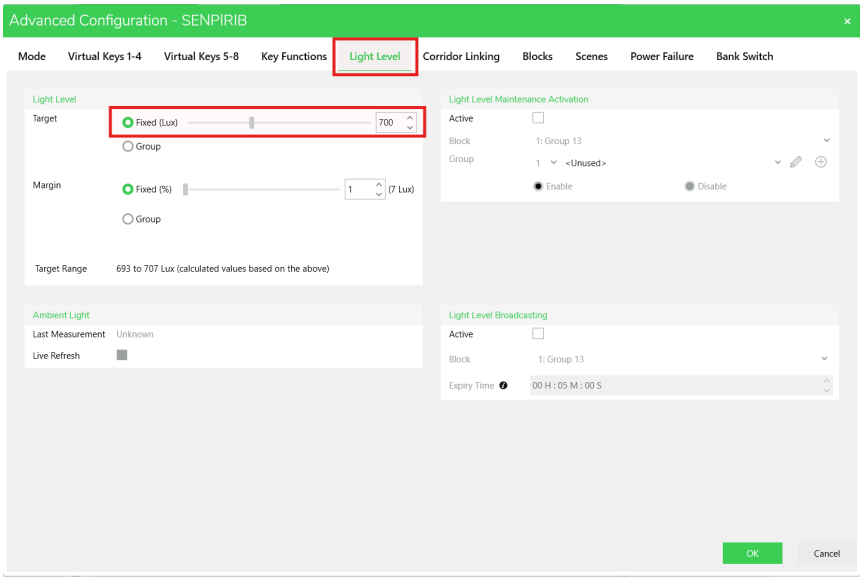
Configuration in PROPERTIES	Mode
	

1. Click **Light Level** tab. Refer the below table for field description.

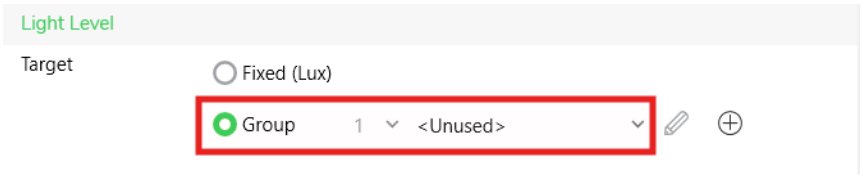
Field	Description
Target	The **Target** section contains parameters for setting the light level target and margin value. The target represents the lux level set point and the margin determines the percentage hysteresis. The Detector allows you to choose either a fixed lux set point or a Lighting group.
	Fixed Lux There are two values which determine the fixed level at which the Detector responds to a change in ambient lighting levels: the target lux and the margin %. The target value is the lux level set point and the margin % defines a hysteresis around the set point. It is possible to have a fixed lux level and a variable margin by selecting a Lighting group.
	Group Values When the Lighting group has been selected, the lux level set point or the % margin are defined as a Lighting group value.
Margin	The **Margin %** slider sets the hysteresis around the target lux level set point. This can be used to prevent the constant switching of relay levels or constant changes of dimmer levels when the ambient light level varies regularly (perhaps due to passing clouds). It means that a Lighting group, for example, can be set to turn on at a level below the target lux level set point, and turn off at a level above the target lux.

	The **Margin** radio buttons allows you to choose a fixed percentage or a variable percentage based on a Lighting group value. When clicking the **Fixed** radio button, the percentage slider bar appears. When clicking the Group radio button, the **Group** drop down list appears.
	Target Range — Displays the target range based on the inbuilt formula.

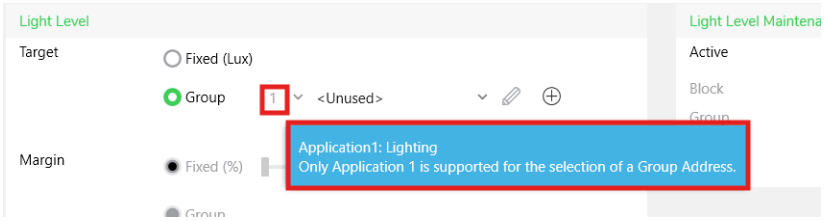
2. In **Target** section:
   - You can adjust the **Fixed Lux** value using either a **slider** or a **drop-down list**, in increments of ten.



     - If you enter a **Lux** value that is not a multiple of ten, it automatically resets to the nearest multiple of ten.
     - By default, the **Fixed (Lux)** is set to **700**. You can set the **Light Level Target** from 0 to 2000 **Lux**.
   - Select the **Group** radio button:

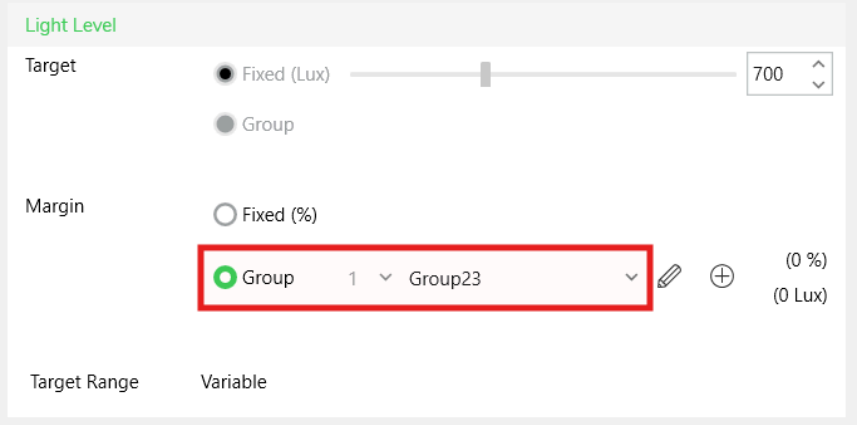


     - The **Application Index** is set to **Application 1** and is disabled for selection.
     - Mouse over on the **Application Index**, to view the tooltip message.



     - The **Group Address** drop-down list lists the groups available in the selected application.

3. In **Margin** section:
   - By default, the **Margin Fixed (%)** is set to 6, which is 42 Lux.
   - If you update **Light Level Margin** on the **Configuration** section (or) **Mode** tab, the set values are reflected and vice versa.
   - You can adjust the **Fixed Lux** value using either a **slider** or a **drop-down list**. You can set **Light Level Margin** from 1 to 100 Lux.
   - Select the **Group** radio button:



NOTE: The **Margin Fixed (%)**, and **Margin Group** radio buttons are enabled only if the **Target Fixed (Lux)** is selected.

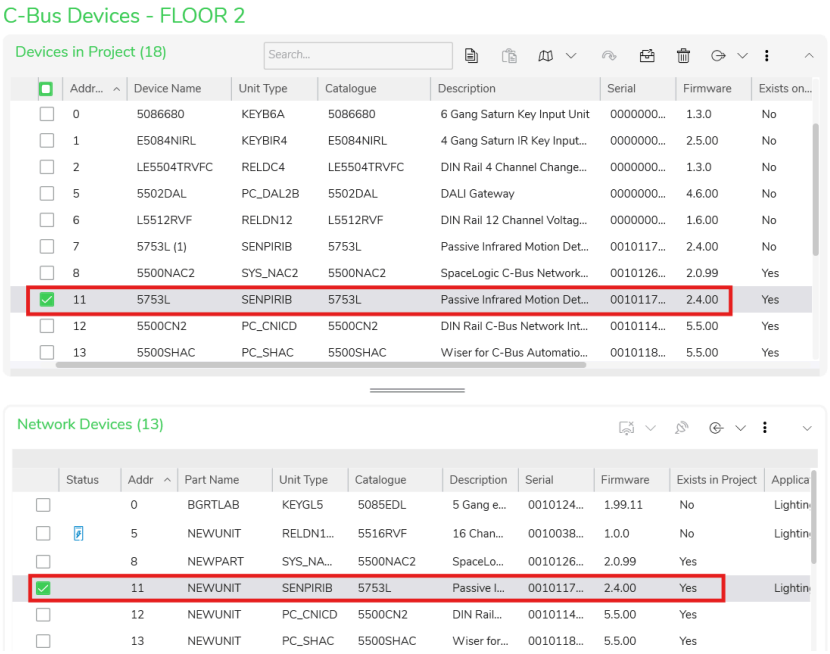
- The **Application Index** is set to **Application 1** and is disabled for selection.
- Mouse over on the **Application Index**, to view the tooltip message.
- The acceptance criteria from 15 to 40 apply to the **Margin Group**.
- To add and edit a group, refer Group, page 327.

4. When you select a group address for the **Light Level Target Group**/**Light Level Margin Group**, a level slider is displayed.

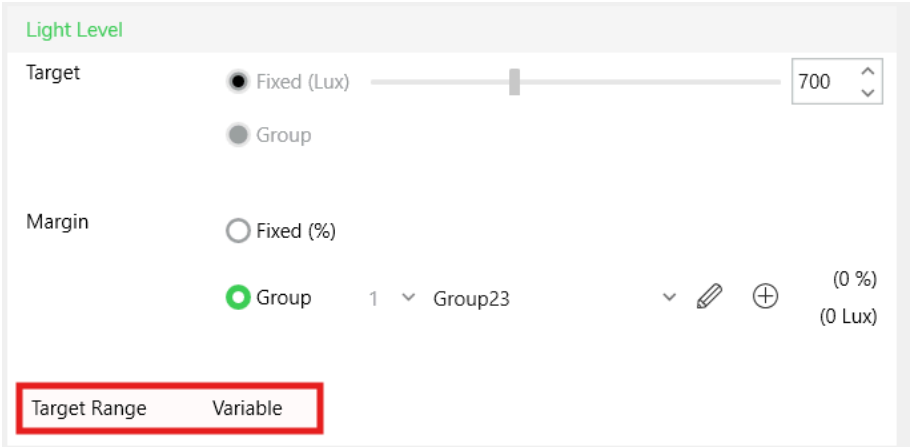
Light Level Target Group	Light Level Margin Group

- Adjust the slider to set the corresponding group address to the selected level.
- The level selected is displayed inline to the group address.

  NOTE: Level slider is displayed only when SENPIRIB device is partially or fully matched in **Project Devices** and **Network Devices** sections.



5. The **Target Range** is set to **Variable** when **Group** radio button is selected.



6. In **Ambient Light** section:

   Refer the below table for field description.

Field	Description
Ambient Light	Contains the **Last Measurement** field for showing the most recent ambient light level.
Last Measurement	Displays the current operating state of the sensor-**Light** or **Dark**—based on the current light-level reading relative to the configured light-level target. It also includes the current light-level value in **Lux** when the network is open and the project device is matched to a live network device.
Refresh	When the **Refresh** check box is selected, the ambient light level will be refreshed in five second intervals.

7. In **Light level Maintenance** section:

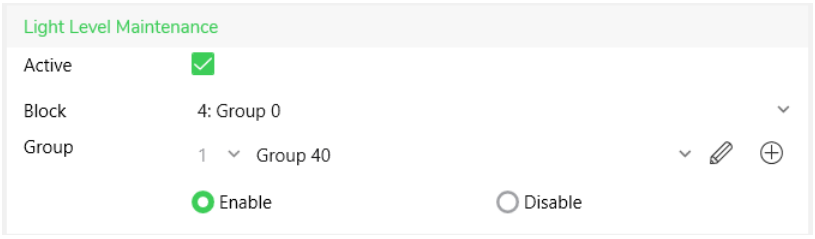
   Refer the below table for field description.

Field	Description
Light level Maintenance	The **Light Level Maintenance** section provides the functionality for continuously controlling the light level of a Lighting Type group so that the measured light level lies within a desired range. The light range is determined by the range established in the **Light Level Target** section. Light level maintenance will use this range to set the maintenance light level range.
Active Check box	The **Active** check box activates light level maintenance functionality.
Block	The **Block** drop down list sets the selected Lighting Type group which will have light level maintenance assigned to it.
Group	The **Enable Group** drop down list assigns an Lighting Type group which will enable or disable maintenance functionality. Assigning a Lighting Type group to another key will make it possible to enable/disable light maintenance. Requires a pre-defined Lighting Type group, but not one which has been assigned a block function.

- Select the **Active** check box. Only when you select it, the **Block** and **Group** fields are enabled. The **Active** check box activates light level maintenance functionality.
- Select the required option (block or group address) from the **Block** drop-down list.

  NOTE:

  - Group addresses assigned to the **Blocks** are not available for selection.
  - Group address selected are assigned to the next available **Block**.
  - If all 8 **Blocks** have been assigned, group addresses, application addresses are not available for **Block** selection.



- In **Group** drop-down list, select the required group address. To add and edit a group, refer Group, page 327.
- Select **Enable** radio button to enable the light level maintenance when the Lighting Type group is on.
- Select the **Disable** radio button to disable the light level maintenance when the Lighting Type group is on.

8. In **Light Level Broadcasting** section:

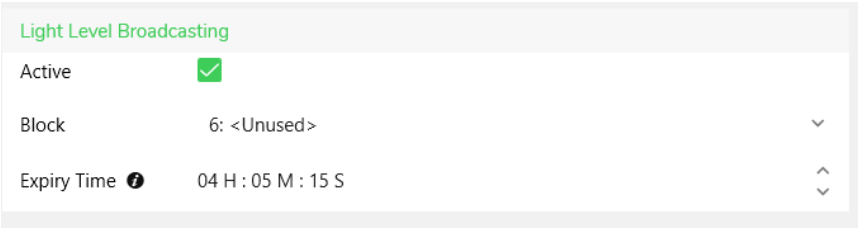
   Refer the below table for field description.

Field	Description
Light Level Broadcasting	This feature keeps other units synchronised with the light level measured by the Occupancy/Light Level Detector, ensuring uniform illumination across large areas. The detector converts the measured light level from the photo-electric cell (PE cell) into a value between the minimum and maximum limits for the selected Lighting Type group (fully off to fully on) and broadcasts this value to the configured group.
Active Check box	The **Active** check box activates light level broadcasting function.
Block	The **Block** drop down list selects the block function where the broadcasting interval will be set. The block function must be assigned a Lighting Type group to which light levels will be broadcast. Block assignment for light level broadcasting has a fixed configuration. The block micro function field **Expiry** is automatically set to the **Start** command. The recommended minimum timer interval is ten seconds to minimise C-Bus traffic congestion. Once the **Block** drop down list has been activated using the **Active** check box, it is not possible to select a block function associated with a Lighting Type group assigned to one of the following macro functions: • Day Move • Night Move • Sunset • <SCENE>

   - Select the **Active** check box. Only when you select it, the **Block** and **Expiry Time** drop-down lists are enabled.
   - Select the required option (block or group address) from the **Block** drop-down list.

     NOTE:

     - Blocks configured with Occupancy Events (Day Move, Night Move, Any Move, Sunset), Scene, or Fan Speed are excluded from the selection list.
     - Block set for **Light Level Maintenance** is not listed for selection and vice-versa.
   - Select the desired expiry time. For more information, refer Expiry Time.



Corridor Linking

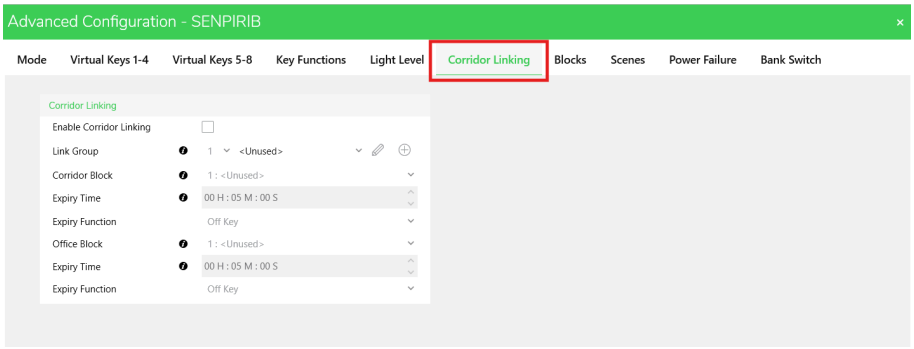
Corridor linking with sensors is an effective solution for office environments. It allows employees to arrive and leave without manually switching multiple lights on or off.

Example: When employees arrive at the office in the morning, they walk through the corridor and trigger an occupancy sensor, which turns on the corridor lights. As they enter their office, the multi-sensor detects occupancy and switches on the

office lights. Once the office lights are on, the corridor linking function keeps the corridor lights on.

When the last employee leave the building, they turn off the office lights. This action triggers a lighting sequence that keeps the corridor lights on, allowing them to walk safely down the corridor and exit the building. After a configured delay, the corridor lights automatically turn off.

1. In **Corridor Linking** section, select the **Enable Corridor Linking** check box.



   NOTE: Only if you select the **Enable Corridor Linking** check box, other all drop-down lists will be enabled.

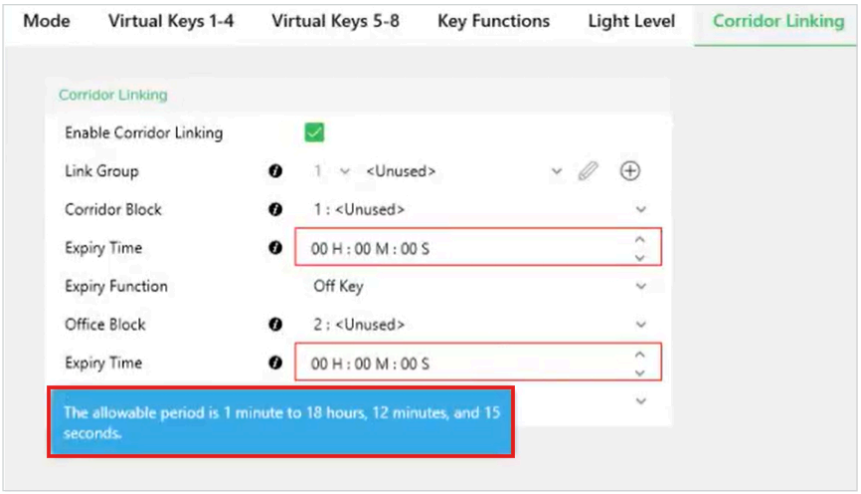
2. In **Link Group** drop-down list, select the required group address.
   - Mouse over on the **Application** drop-down list to view the tool tip message.
   - The **Link Group** drop-down list displays all available groups within the selected application.
   - You can add and edit Groups. For more information, refer Group, page 327.

     NOTE:
     - The selection of a **Group Address** is optional when selecting a **Corridor Block** or **Office Block**.
     - Group addresses assigned in **Corridor Block** and **Office Block** are reflected in group address in **Block Assignments** in **Blocks** tab and vice-versa.

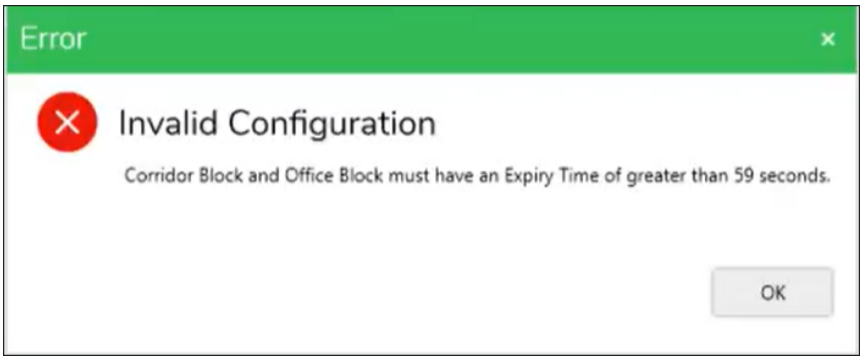
3. In **Corridor Block** drop-down list, select the corridor block. Mouse over on the **Corridor Block** info icon to view the tooltip message.
4. In **Expiry Time** drop-down list, select the desired expiry time.

   NOTE: The **Expiry Time** field ranges from 0 to 18 hours, 12 minutes, and 15 seconds.

   - You can increase or decrease the hours and minutes by increment of 1.
   - You can increase or decrease the seconds by increment of 5.
   - You can also input a value manually to hours, minutes, and seconds.
   - Mouse over on the **Expiry Time** info icon to view the tooltip message.
   - **Expiry Time** set in **Corridor Block** and **Office Block** are reflected in **Expiry Time** in **Timer** section in **Blocks** tab and vice-versa.
   - When you set the **Expiry Time** to 00 H: 00 M: 00 S, time validation error is indicated by a red border. Mouse over on the **Expiry Time** field to view the tool tip message.



   - If you click **OK** while an expiry time validation error exists for a **Timer** function, an **Error** pop-up is displayed.



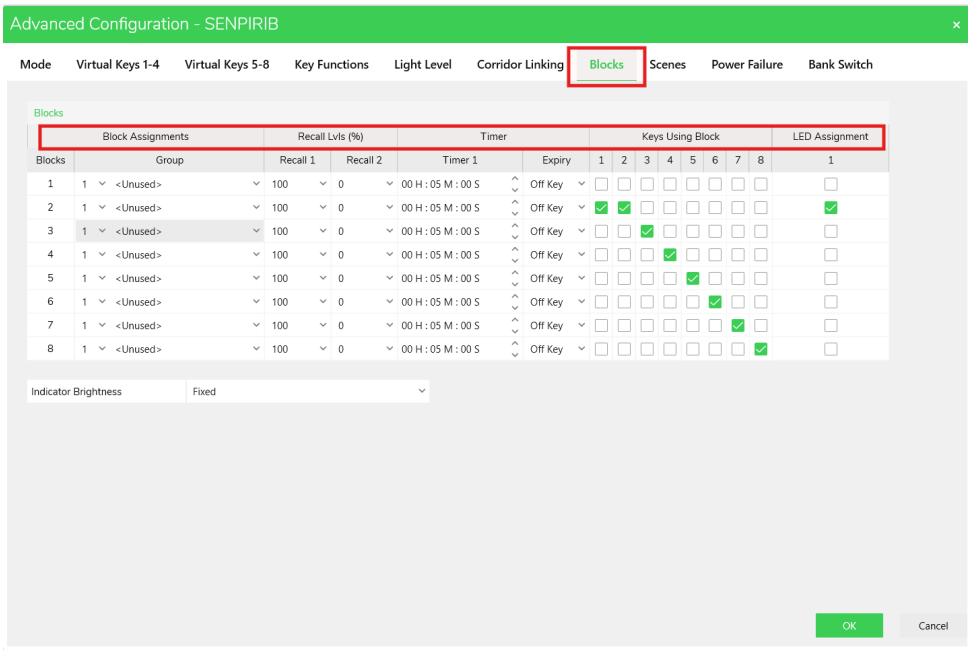
5. In **Expiry Function** drop-down list, select the required option.

   NOTE:

   Expiry Function set in **Corridor Block** and **Office Block** are reflected in **Expiry** in **Timer** in **Blocks** tab and vice-versa.
6. In **Office Block** drop-down list, select the required option. You can select same (or) different blocks for **Corridor Block** and **Office Block**.
   - Mouse over on the **Office Block** info icon to view the tooltip message.
   - For more information on **Expiry Time** and **Expiry Function**, refer step 4 and 5.

Blocks

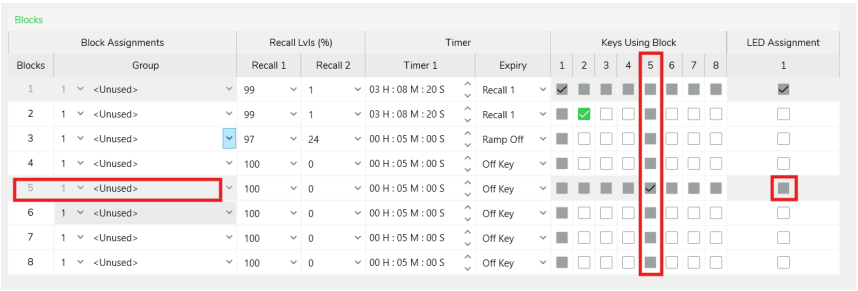
The **Blocks** table displays the operating configuration for the key-input portion of the unit. Each row lets you associate a Lighting compatible group with one or more input keys. In this tab, you define recall levels, timer values, and expiry key functions. You also assign LED indicators in the **Blocks** tab.



1. In **Block Assignments** section:
   - Select the application index from the **Application Index** drop-down list. By default, the application index for **Blocks 1–8** is set to **Application 1**.
   - Select the group address from the **Group** drop-down list based on the selected **Application**. By default, the group for **Blocks 1–8** is set to **<Unused>**.
   - Once you update the **Application Index** or **Group Address**, the **Virtual Keys 1–8** group addresses are updated, and vice versa.

     NOTE:

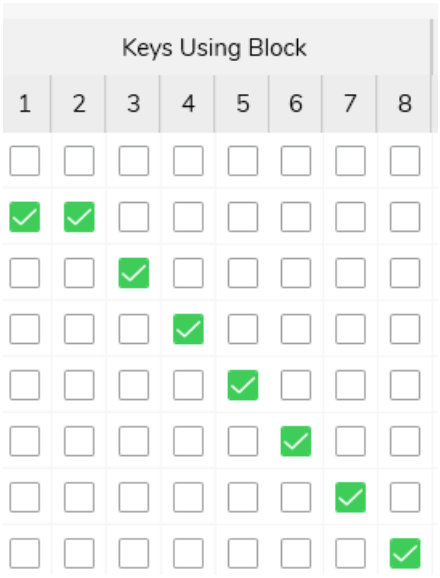
     Block Assignments, **Keys Using the Block**, and **LED Assignment** are disabled when a **Scene** or **Fan Speed Cycle** function is assigned to a Virtual Key.



2. In **Recall Lvls** section:
   - Select the recall value from **Recall 1** drop-down list. By default, the **Recall 1** value for **Blocks 1–8** is set to **100**.
   - Select the recall value from **Recall 2** drop-down list. By default, the **Recall 2** value for **Blocks 1–8** is set to **0**.
   - Any changes made to **Recall 1** and **Recall 2** are saved to the corresponding **Block** and reflected under the associated **Key(s)**.
   - Changes to **Recall 1** and **Recall 2** remain synchronized across **Functions (Preset 1 and Preset 2)**, **Blocks**, and **Keys**, and vice versa.

3. In **Timer** section:
    - You can increase or decrease the hours and minutes in increments of 1 in **Timer 1** field.
    - You can increase or decrease the seconds in increments of 5 in **Timer 1** field.
    - You can manually enter values for hours, minutes, and seconds. By default, the **Timer 1** value for **Blocks 1–8** is set to **00 h : 05 m : 00 s**.
    - Select the required option from the **Expiry** drop-down list. By default, the **Expiry** value for **Blocks 1–8** is set to **Off Key**.
    - Changes to the **Timer** or **Expiry** drop-down list are saved to the corresponding **Block** and reflected under the associated **Key(s)**.
    - Changes to the **Timer** and **Expiry** settings remain synchronized with the **Timer function**, and vice versa.
    - When the **Timer 1** value of **Blocks** is less than 1 minute and you select that block as a **Corridor Block** and/or **Office Block**:
        - The **Expiry Time** under **Corridor Block** and **Office Block** in the **Corridor Linking** tab is set to **00 h : 05 m : 00 s**.
        - The corresponding **Block Timer 1** value is also set to **00 h : 05 m : 00 s**.
    - Example: If you assign **Block 3** as a **Corridor Block** and **Block 4** as an **Office Block**:
        - The **Expiry Time** for both **Corridor Block** and **Office Block** is set to **00 h : 05 m : 00 s**.
        - The **Timer 1** values for **Block 3** and **Block 4** are set to **00 h : 05 m : 00 s**.
    - When you set the **Timer 1** value in the **Blocks** tab to less than 1 minute and configure the block as either a **Corridor Block** or an **Office Block**, the **Timer 1** value automatically resets to 00 h : 01 m : 00 s.

4. In **Keys Using the Block** section:
   - The following keys will be selected by default with Block and Key combination.



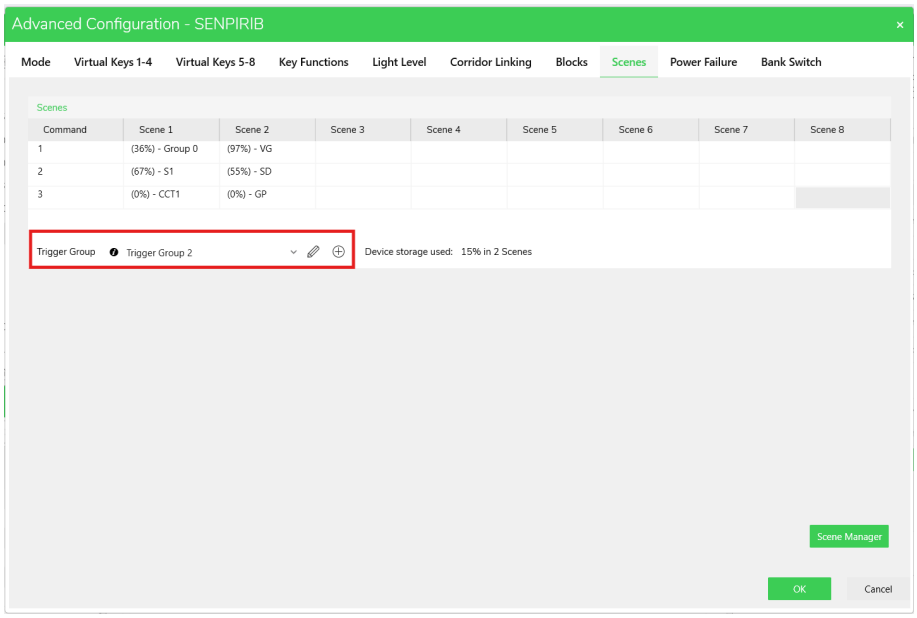
   - If you do not assign a **Block** to a **Virtual Key**, the **Virtual Key Group Address** on the **Keys** tab is set to **Unassigned**.
   - If no **Block** is assigned to a **Virtual Key**, the additional properties on the **Keys** tab (such as **Timer**, **Preset**, and **Expiry Function**) are disabled.
   - If you assign multiple **Blocks** to a **Virtual Key**, the **Virtual Key Group Address** on the **Keys** tab is set to **<Multiple>**.
   - If you assign a **Block** to multiple **Virtual Keys**, the **Block** properties apply to all selected **Virtual Keys**.
   - If a **Virtual Key** with **Timer**, **Preset 1**, or **Preset 2** functions assigned has multiple **Blocks** allocated, the additional properties on the **Keys** tab are disabled.
   - After assigning multiple **Blocks** to a **Virtual Key**, if you update the **Virtual Key** to a single group address on the **Keys** tab, only the **Block** with the selected group address remains checked, and all other **Blocks** are unchecked.
5. In **LED Assignment** section:
   - You can select any one of the **Block 1 – 8** for Virtual Key 1. By default, **Block 2** is selected for LED Assignment.
6. In **Indicator Brightness** section:
   - Select the required option from the **Indicator Brightness** drop-down list.
   - The **Indicator Brightness** remains synchronized with the **Configuration** and **Mode** tabs.
   - The **Indicator Brightness** is set according to the selected **Block**, and vice versa.

Scenes

C-Bus scenes within the C-Bus sensor operate in the same way that C-Bus key input unit scenes do with the exception that scenes cannot be triggered by occupancy or light level detection. You can create C-Bus scenes which are triggered by messages on the Trigger Control application and also from C-Bus remote hand held control unit events.

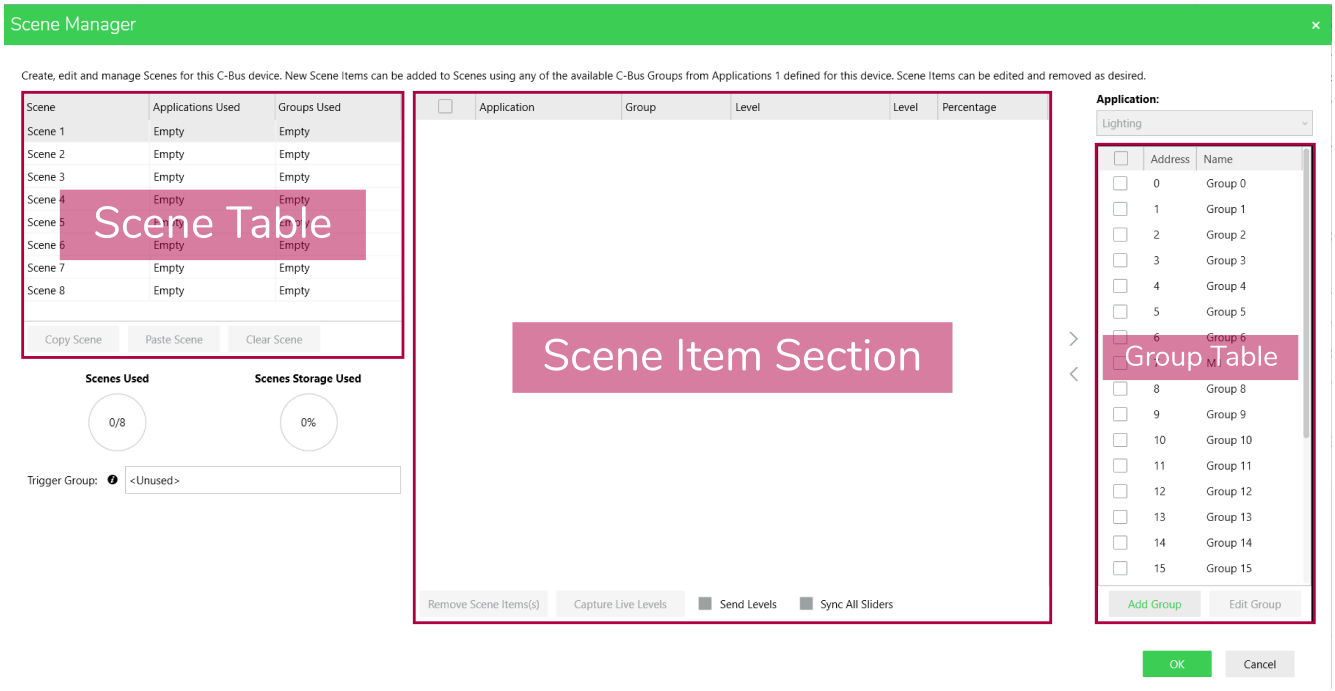
1. Click **Scene Manager**. For more information refer Scene Manger, page 349. The created scene will be displayed in the **Scenes** section.

2. In the **Trigger Group** drop-down list, select the required trigger group. To add and edit a trigger group, refer Group, page 327.



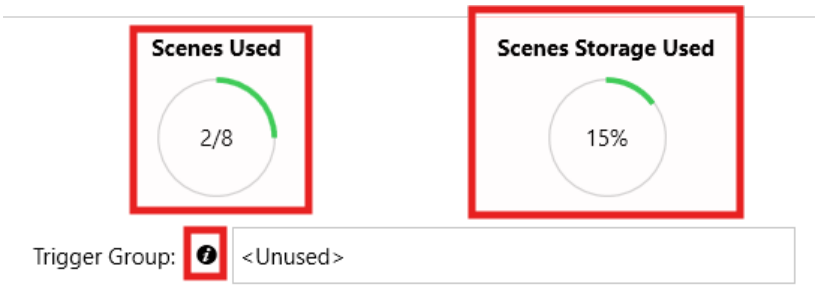
Scene Manager

The **Scene Manager** window is launched when you click the ellipsis icon next to the **Scene** drop-down list in **Virtual Keys** section.



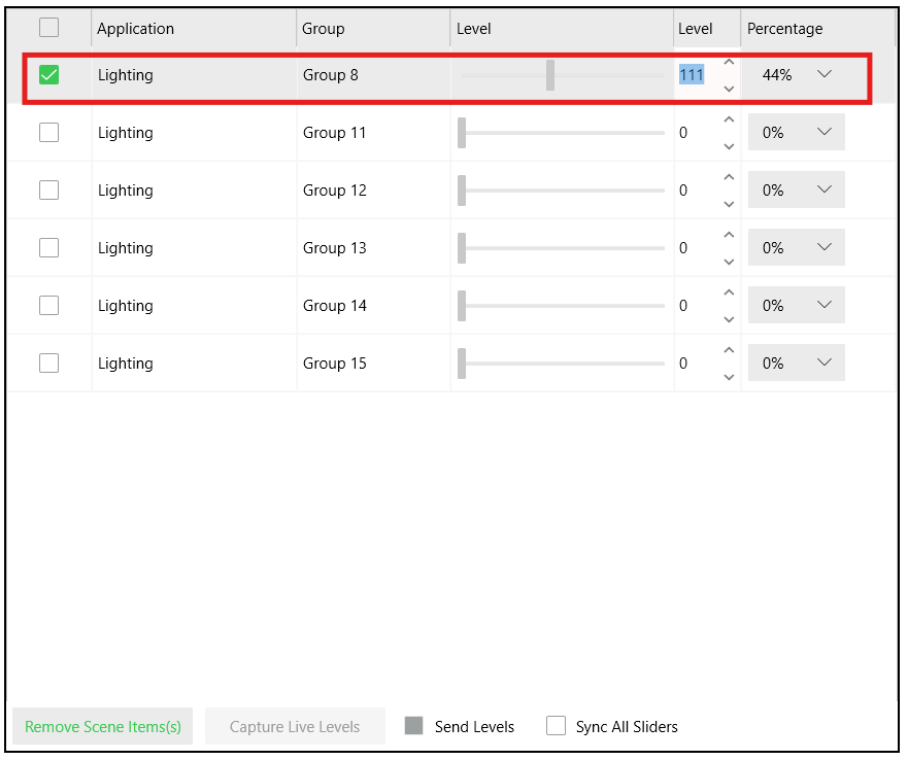
1. In a Scene table, you can:
   - Click **Copy Scene** to copy the scene items of the selected scene.
   - Click **Paste Scene** to paste the copied scene items into another selected scene.
   - Click **Clear Scene** to clear the scene items of the selected scene.

     NOTE:
     - Select only one scene at a time.
     - **Copy Scene**, **Paste Scene**, and **Clear Scene** remain disabled until you select a scene.
     - **Paste Scene** remains disabled until you copy a scene.
     - **Clear Scene** remains disabled when the selected scene is empty.
     - The **Applications Used** and **Groups Used** fields display **Empty** when the scene contains no scene items.
     - The **Scenes Used** graphic displays the number of scenes that are in use.
     - The **Scenes Storage Used** graphic displays the percentage of scene memory used.

     - Mouse over on the **Trigger** info icon to view the tooltip message.

2. Select a scene in the scene table, the scene items section populates with its scene items (lighting groups).

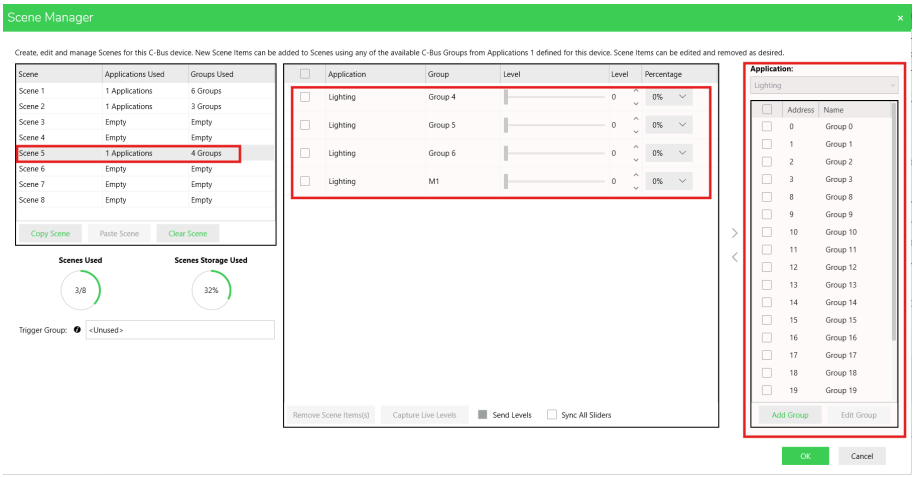


   - This section lists each lighting group (by name) and its application (by name) included in the scene.
   - The section groups scene items by application.
   - Each listed group shows its current values and lets you configure the **Level**.
3. To select all scene items, click the check box in the table header.
4. You can set a group's **Level** using:
   - The **Level slider** (0 – 100 %)
   - The **Level drop-down list** (0 – 255)
   - The **Percentage Level** field (0 – 100 %)
   - By default, the **Level** is set to **0**
5. When you adjust any **Level** control, the other two **Level** fields update automatically.
   - The **Remove Scene Item(s)** button is disabled when no Scene items are selected and enabled once you select one or more Scene items.
   - The **Right (Remove)** arrow between the Scene items and Groups section is disabled until you select a Scene item.
6. Select one or more scene items and click **Remove Scene Item(s)** or the **Right (Remove)** arrow, the selected items are removed from the scene.
7. Select **Capture Live Levels** to update the levels of all scene items to match the live levels found on the C-Bus network.
   - **Capture Live Levels** button is disabled when no scene items exist and C-Bus network is closed.
   - **Capture Live Levels** button is enabled when scene items exist and the network is open and scanned.

     NOTE: You must open and scan the C-Bus network to retrieve live level data.

8. Select **Send Levels** check box to immediately send the scene item level changes to the C-Bus network as you adjust the slider.
   - The **Send Levels** check box is disabled when the C-Bus network is closed and becomes enabled once the network is open and scanned.
   - When both **Send Levels** and **Sync All Sliders** check boxes are selected, **Send Levels** waits to send levels to the network until you stop adjusting the slider.
9. Select **Sync All Sliders** check box to align all Level sliders to the position of the slider you adjust.
   - The **Sync All Sliders** check box is disabled when zero or one scene item exists and enabled when two or more scene items exist.

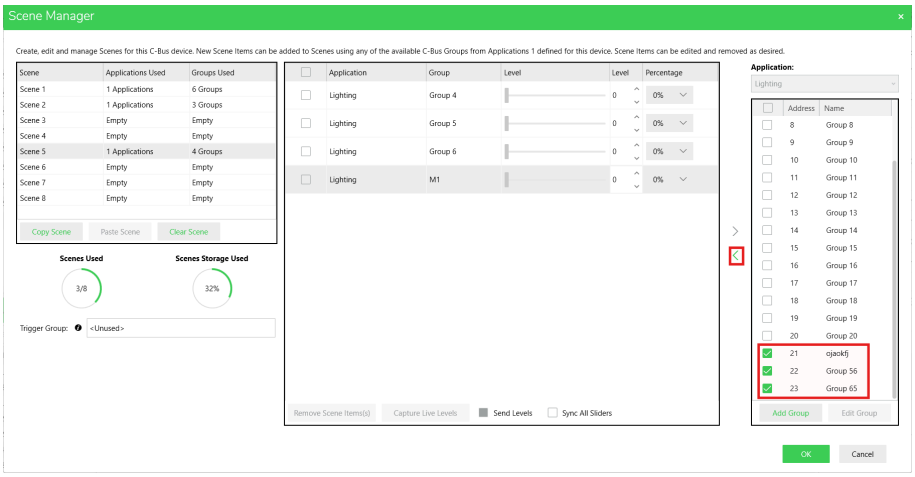
   NOTE: You must clear the **Sync All Sliders** check box to adjust sliders individually again. Performing any actions that affect scene items automatically clears both **Send Levels** and **Sync All Sliders**.
10. Select an application. It populates the groups table with the existing groups from that application.



The groups table lists each group with its group address and group name.

11. Select one or multiple groups from the table.

    The **Left** arrow between the scene items section and the Groups section is disabled when the selected application has no groups. It becomes enabled when groups exist.
12. Once groups are selected, click the **Left** arrow, the selected groups are added to the scene.



13. You can also add a group to the scene by double-clicking it.
14. When you add new groups to the scene items table, the **Scene Manager** automatically:
    - Sets the level to **0**
    - Selects the added scene item(s)

15. To add new group, click **Add Group**.

    Add Group pop-up appears. To add a group, refer Group, page 327.

    NOTE:

    The **Add Group** button is disabled when the application is full (254 group addresses). It is enabled when fewer than 254 addresses are used.

    After you add a group to the application, the new group appears in the groups table.

16. To edit the group name, select the group and then click **Edit Group**.

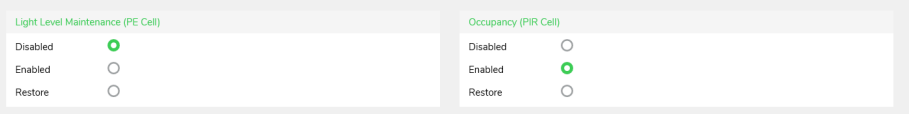
    Edit Group pop-up appears. To edit a group, refer Group, page 327.

Power Failure

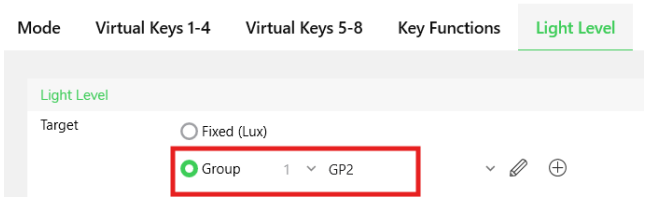
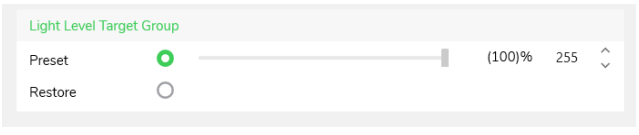
The **Power Failure** tab contains parameters that define how the passive infrared (PIR) cell behaves when power is restored after a failure. The **Light Level Maintenance (PE Cell)** section contains three radio button options for maintaining light levels based on the photo-electric cell (PE cell) lux readings.

1. In **Light Level Maintenance (PE Cell)** section, select the required radio button option. Refer the below table for option description.

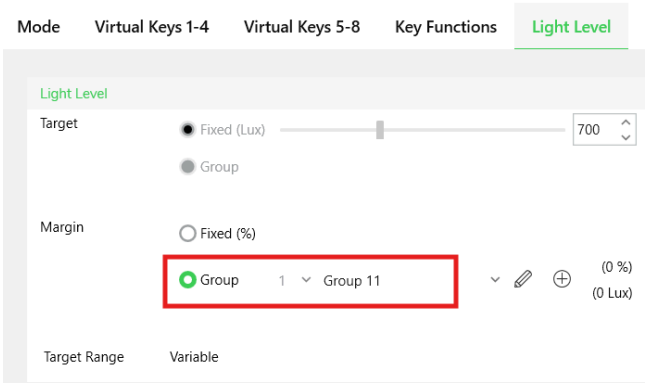
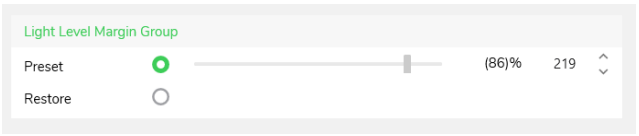
Options	Description
Disabled	When you select **Disabled** radio button, the PE cell is disabled. When the PE cell is disabled, the Light Level Sensor input is treated as unavailable, and sets the lux level to 0.
Enabled	When you select **Enabled** radio button, the PE cell is enabled. When the Light Level Sensor becomes operational, it transmits the lux levels directly to the output unit channels.
Restore	When you select **Restore** radio button, the PE cell values prior to power loss are restored to the Light Level Sensor.



2. In **Occupancy (PIR Cell)** section, select the required radio button. Refer step - 1 for option description.
3. In **Light Level Target Group,** the **Preset** and **Restore** option is enabled only when the **Light Level Target** is set to a valid **Group Address**.

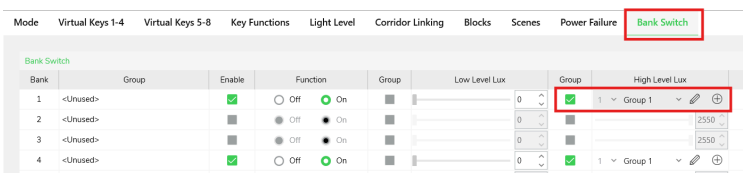
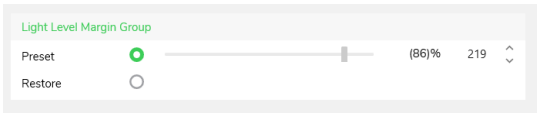
Light Level Target section in **Light Level**	**Preset** and **Restore** in **Light Level Target Group** section in **Power Failure**
 **NOTE:** Refer step 5 for more information on level slider for **Group**.	

4. Select **Preset** radio button option to set the preset value using either the slider or the level drop-down list.
   - By default, the **Light Level Target Group** is set to **Restore**.
   - The **Preset** value supports the following ranges:
     - Slider: 0 to 100%
     - Level: 0 to 255
   - By default, the preset value is set to **100 %** on the slider and **255** in the level drop-down list.
   - When you change the slider, the level drop-down list is updated.
   - When you change the level drop-down list, the slider is updated.
5. In **Light Level Margin Group**, the **Preset** and **Restore** option is enabled only when the **Light Level Margin — Group** is set to a valid group address.

Light Level Margin section in **Light Level**	**Preset** and **Restore** in **Light Level Margin Group** section in **Power Failure**
 • When you select a group address for the **Light Level Margin Group**, a level slider is displayed. • Adjust the slider to set the corresponding group address to the selected level. • The level selected is displayed inline to the group address. • Level slider is displayed only when SENPIRIB device is partially or fully matched in **Project Devices** and **Network Devices** sections.	

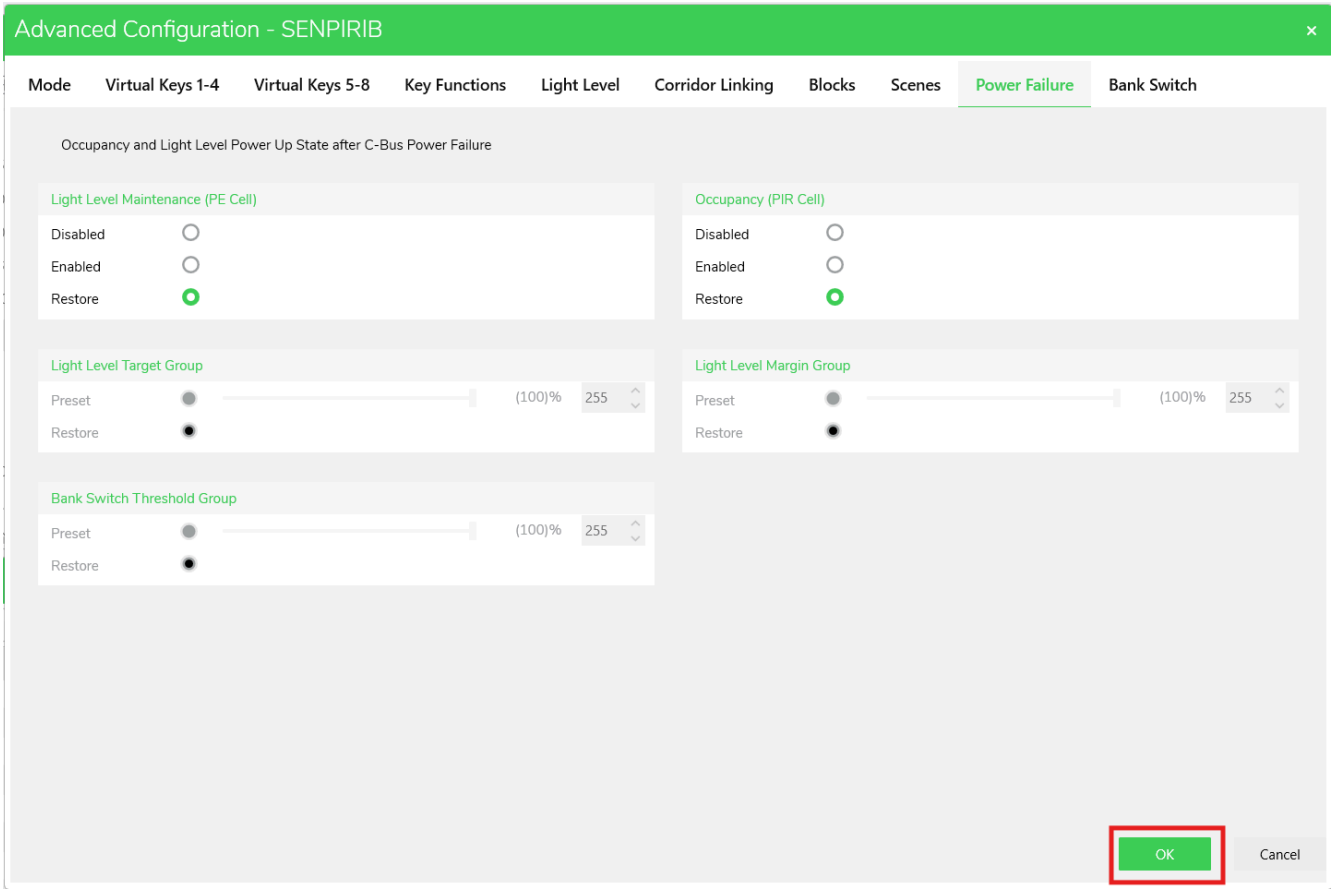
For more information on **Preset** and **Restore** configuration, refer the step 4.

6. In **Bank Switch Threshold Group** section, the **Preset** and **Restore** options are enabled only when **Bank Switch > Low Level Lux** or **High Level Lux** is set to a valid **Group Address**.

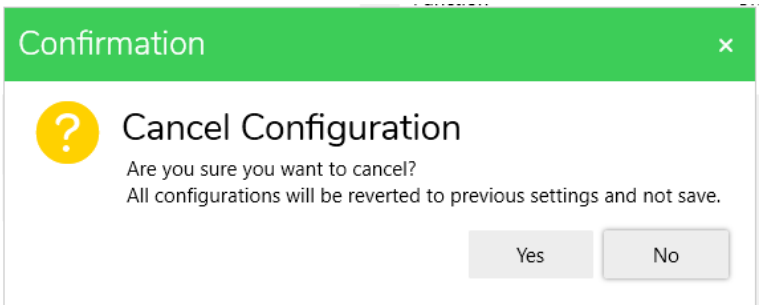
Low Level Lux / **High Level Lux** section in **Bank Switch**	**Preset** and **Restore** in **Bank Switch Threshold Group** section in **Power Failure**
	

For more information on **Preset** and **Restore** configuration, refer the step 4.

7. Once configuration is done, click **OK** to save the configurations.



8. If you click **Cancel** or **Exit** icon without saving the configuration, a confirmation pop-up appears.

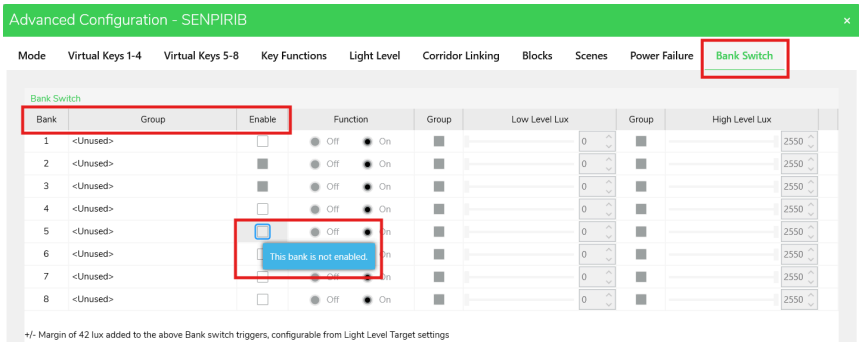


9. Click **Yes** to save the configuration and click **No** to cancel the confirmation pop-up.

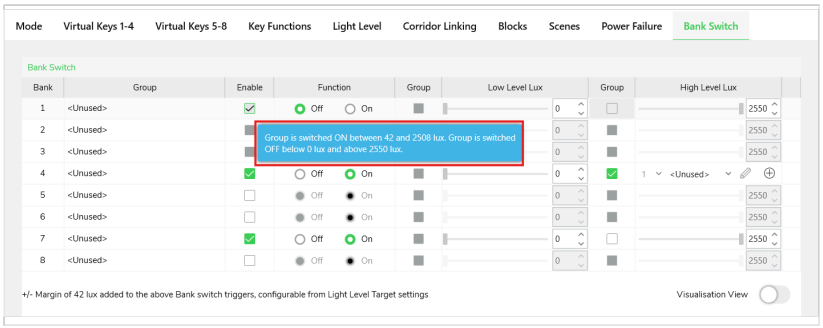
Bank Switch

The detector allows lights to be turned on progressively to maintain light level within a desired light level range or to have different lighting load based on brightness (light levels measured by the detector sensor). The bank switch is used to maintain light levels for lighting fixtures such as high bay lighting in commercial environments, which cannot be dimmed.

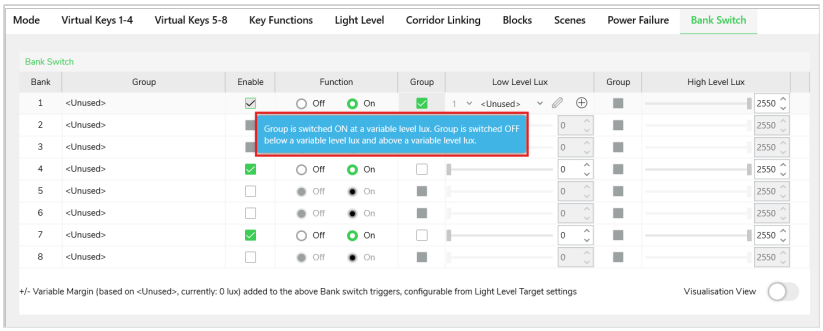
1. The **Group** property is read-only and displays the **Group Address** assigned to **Block 1** to **8** in the **Blocks** tab is reflected under **Bank 1** to **8** fields. By default, **Bank 1** to **8 Enable** check box is unchecked.
    - Mouse over on the **Group Address** while the **Enable** check box is unchecked to view the tool tip message.
    - The **Enable** check box is disabled for **Block Group Addresses** assigned to **Occupancy (PIR) events** mapped to **Virtual Keys**.



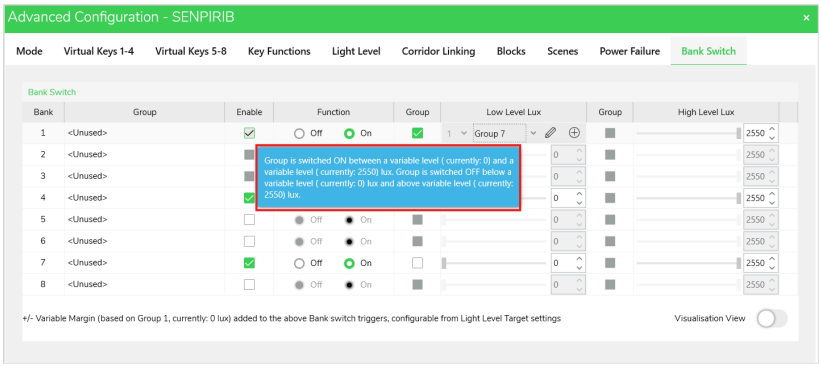
        - Example: If **Block 1 Group Address** is assigned to any Occupancy event such as **Motion in Light (Day)**, **Motion in Dark (Night)**, **Any Motion**, or **Light Level (Sunset)**, the **Enable** check box is disabled and selection is prevented.
        - Mouse over on the **Group Address** while the **Enable** check box is disabled to view the tool tip message.
    - By default, **Bank 2** and **Bank 3** are disabled.
    - The **Function**, **Group**, **Low Level Lux**, **Group**, **High Level Lux** are disabled if **Enable** is unchecked and enabled upon selecting.
    - Different tooltips are displayed when the **Bank** is enabled. Below are the scenarios:
        - If the **Light Level Target/Margin** is **Fixed**.



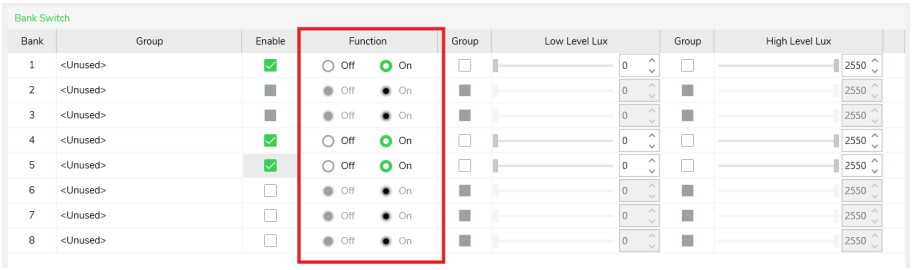
        - If the **Light Level Target/Margin** is **Group** and is set to <unused>.



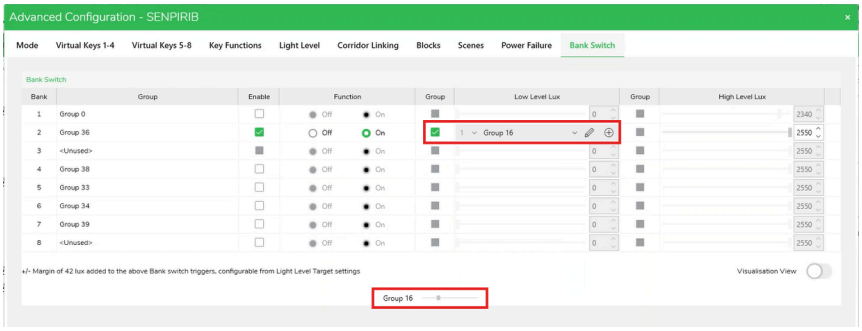
        - If the **Light Level Target/Margin** is **Group** and is set to <group address>.



2. In the **Function** section, **On** and **Off** are enabled only when **Enable** check box is selected for that **Bank**.

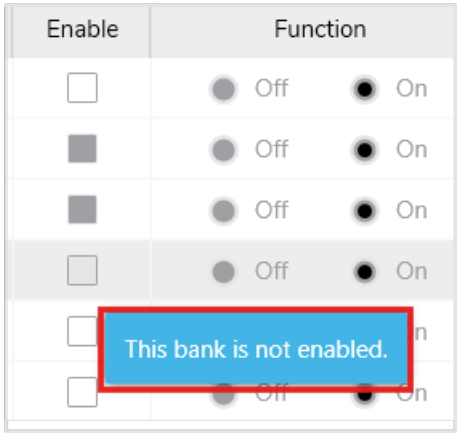


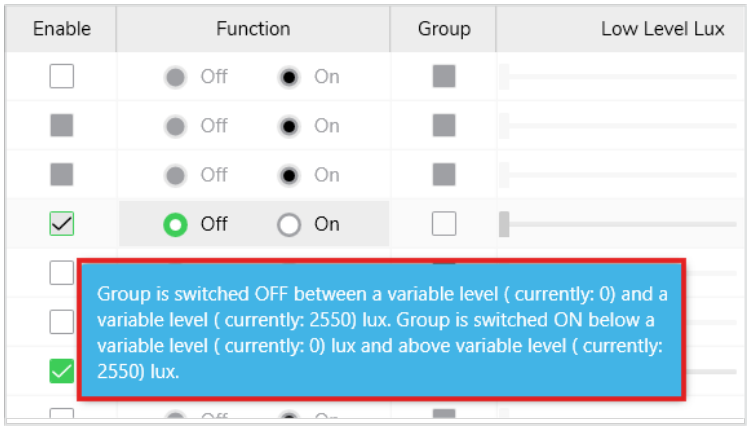
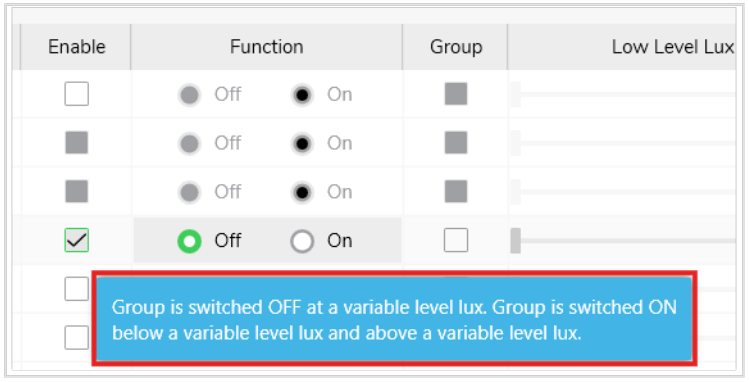
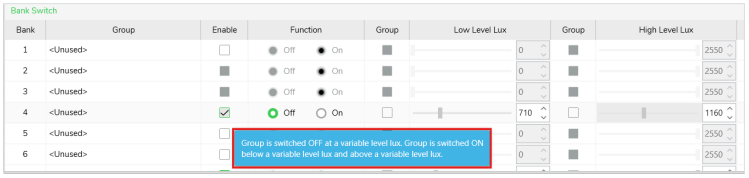
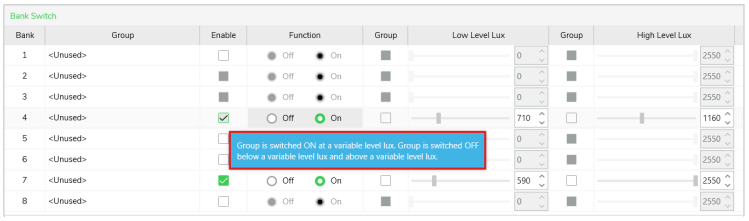
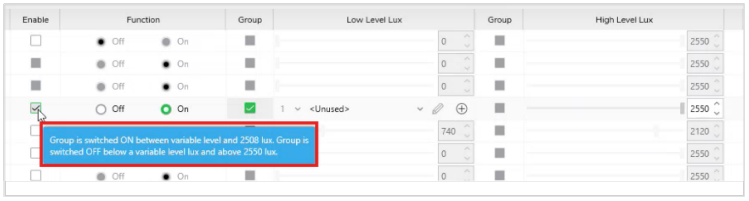
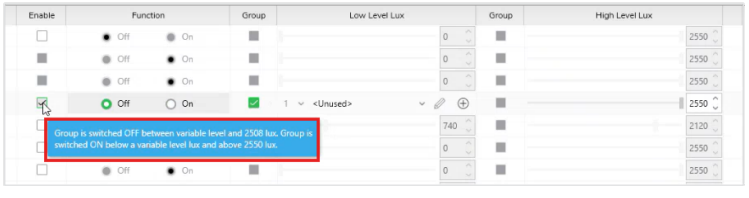
3. When a **Enable** check box is selected, it allows you to set **Low Level Lux** using either the percentage slider or the level drop-down list.
   - **Low Level Lux** value ranges from **0** to **100%** on the slider and **0** to **2550** in the level drop-down list.
   - By default, the **Low Level Lux** is set to **0%** and **0**.
   - Level increments by 10 levels (from 0 to 2550).
   - When you change the slider it updates the level drop-down list, and changing the level drop-down list updates the slider.
   - When you change the **Low Level Lux** or **High Level Lux** value for a **Bank**, the **Recall Levels (Recall1** and **Recall2)** value changes in the respective block, and vice versa.
   - When **Group** is selected, you can select a **Low Level Lux Group**.
   - You can select group address **Low Level Lux - Group** for one (or) multiple banks. However, same group address is set for all the banks. When you update group address for one bank, it reflects on all the banks.
   - When you select a **Group Address** for **Low Level Lux**, a level slider is displayed. Set the selected **Group Address** to the corresponding level.

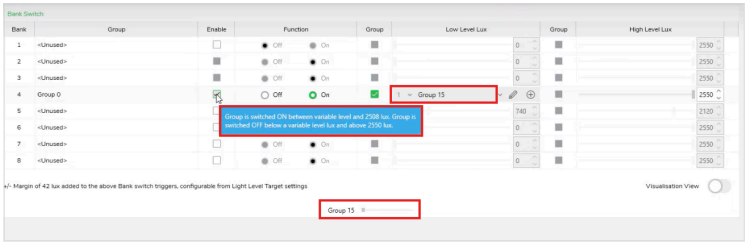
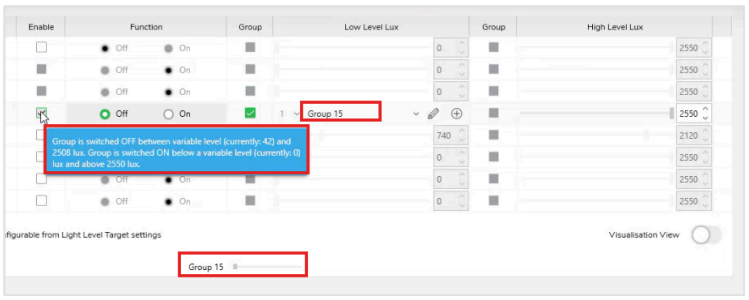
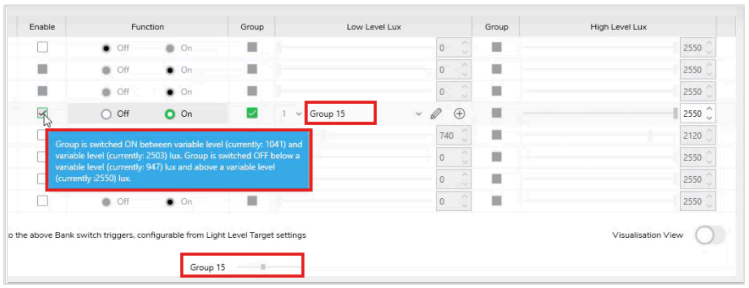
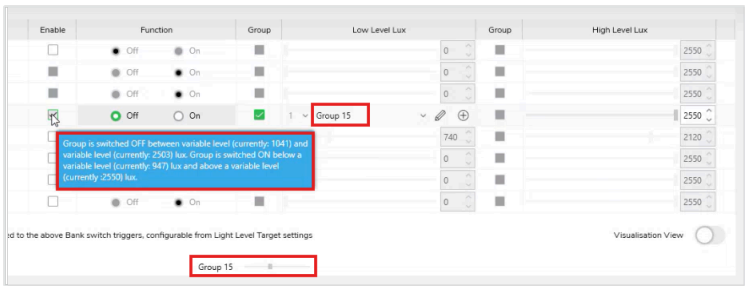


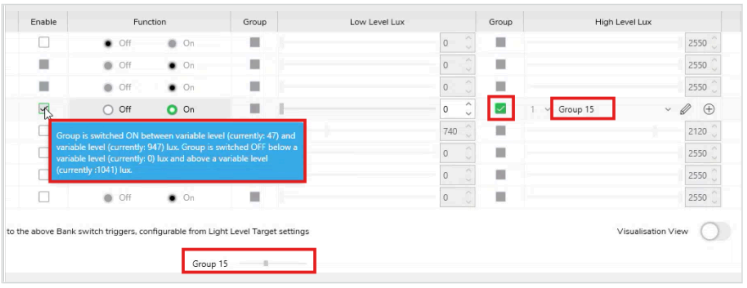
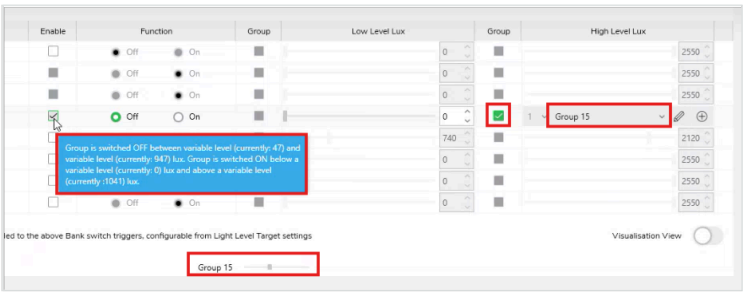
NOTE: The slider at the bottom is displayed only for fully matched and partially matched devices.

   - When **Low Level Lux** or **High Level Lux** is set to **Group**, reset the corresponding block **Recall value(s)** to the default value when you click **OK**.
   - When the **Low Level Lux / High Level Lux Group** matches the **Target/Margin Group** in **Light Level**, changes made to level in one tab is reflected in the other tab.
   - Refer the below table for different tooltips. Below are the scenarios:

Scenarios	Tooltip
When **Enable (bank)** is unchecked.	Mouse over on the **Enable (bank)** check box. 
If the **Light Level Target/Margin** is **Group** and is set to <group address> in **Light Level** section. Select **Enable (bank)** check box and **Off** radio button in **Function** section.	Mouse over on the **Enable (bank)** check box.

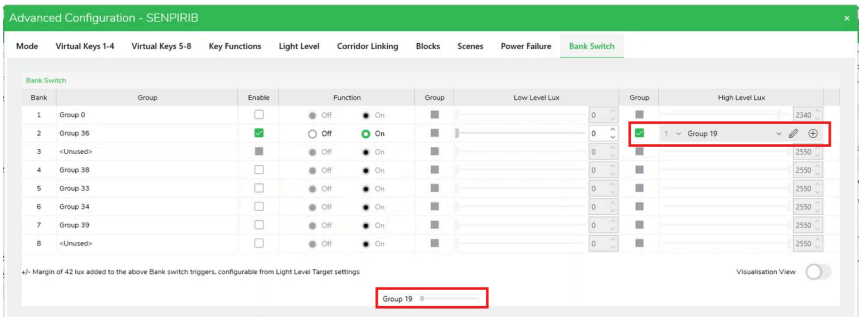
	
If the **Light Level Target/Margin** is **Group** and is set to <unused> in **Light Level** section. Select **Enable (bank)** check box and **Off** radio button in **Function** section.	Mouse over on the **Enable (bank)** check box. 
Select **Enable (bank)** check box and **Off** radio button in **Function** section. Assign values for **Low Level Lux** and **High Level Lux**	Mouse over on the **Enable (bank)** check box. 
Select **Enable (bank)** check box and **On** radio button in **Function** section. Assign values for **Low Level Lux** and **High Level Lux**.	Mouse over on the **Enable (bank)** check box. 
Select **Enable (bank)**/**Group** check box and **On** radio button in **Function** section. Assign values for **High Level Lux** and **<Unused>** for **Low Level Lux**.	Mouse over on the **Enable (bank)** check box. 
Select **Enable (bank)**/**Group** check box and **Off** radio button in **Function** section. Assign values for **High Level Lux** and **<Unused>** for **Low Level Lux**.	Mouse over on the **Enable (bank)** check box. 

Select **Enable (bank)**/**Group** check box and **On** radio button in **Function** section. Assign values for **High Level Lux** and group address for **Low Level Lux**. Assign zero for group address	Mouse over on the **Enable (bank)** check box. 
Select **Enable (bank)**/**Group** check box and **Off** radio button in **Function** section. Assign values for **High Level Lux** and group address for **Low Level Lux**. Assign zero for group address	Mouse over on the **Enable (bank)** check box. 
Select **Enable (bank)**/**Group** check box and **On** radio button in **Function** section. Assign values for **High Level Lux** and group address for **Low Level Lux**. Assign value for group address.	Mouse over on the **Enable (bank)** check box. 
Select **Enable (bank)**/**Group** check box and **Off** radio button in **Function** section. Assign values for **High Level Lux** and group address for **Low Level Lux**. Assign value for group address.	Mouse over on the **Enable (bank)** check box. 

Select **Enable (bank)**/**Group** check box of **High Level Lux** and **On** radio button in **Function** section. Assign values for **Low Level Lux** and group address for **High Level Lux**. Assign value for group address.	Mouse over on the **Enable (bank)** check box. 
Select **Enable (bank)**/**Group** check box of **High Level Lux** and **Off** radio button in **Function** section. Assign values for **Low Level Lux** and group address for **High Level Lux**. Assign value for group address.	Mouse over on the **Enable (bank)** check box. 

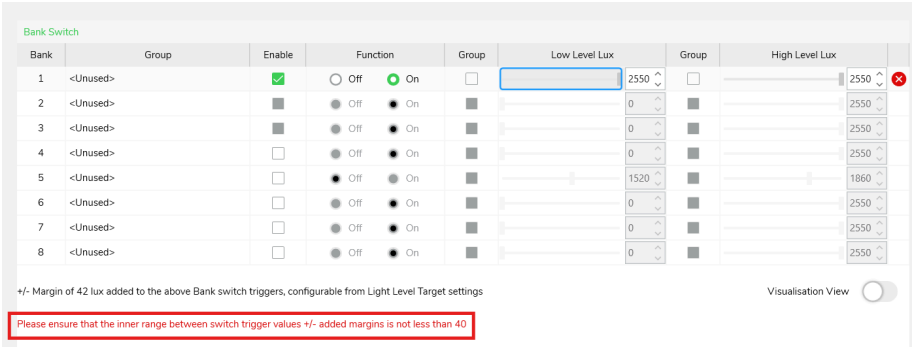
4. If **Group** check box is unchecked, you can set **Low Level Lux** either the percentage slider or the level drop-down list.
   - **Low Level Lux** value ranges from **0** to **100%** on the slider and **0** to **2550** in the level drop-down list.
   - By default, the **Low Level Lux** is set to **100 %** and **2550**.
   - Level increments by 10 levels (from 0 to 2550).
   - When you change the slider it updates the level drop-down list, and changing the level drop-down list updates the slider.
   - **High Level Lux - Group** check box is enabled only if **Bank 1** to **8 Low Level Lux** is not set to group.
   - If any one of the **Bank 1** to **8 Low Level Lux - Group** check box is selected, then the **High Level Lux - Group** check box is disabled for selection, and vice versa.
   - If **High Level Lux – Group** check box is selected, you can assign a group address in **High Level Lux** drop-down list.

     - To add and edit a group, refer Group, page 327.
   - Assign group address from **High Level Lux – Group** drop-down list, it automatically sets the **Low Level Lux** value to **0**.
   - Select **High Level Lux – Group** for one or multiple banks. The same group address is applied to all selected banks.
   - When you assign a group address to **High Level Lux**, level slider is displayed. Adjusting the slider sets the selected level for the corresponding group address.



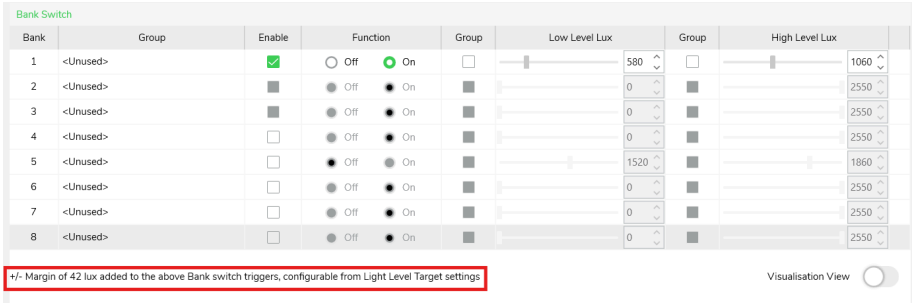
   NOTE: The slider at the bottom is displayed only for fully matched and partially matched devices.

5. An error message is displayed if the **Low Level Lux** and **High Level Lux** margins are not less than 40 lux.

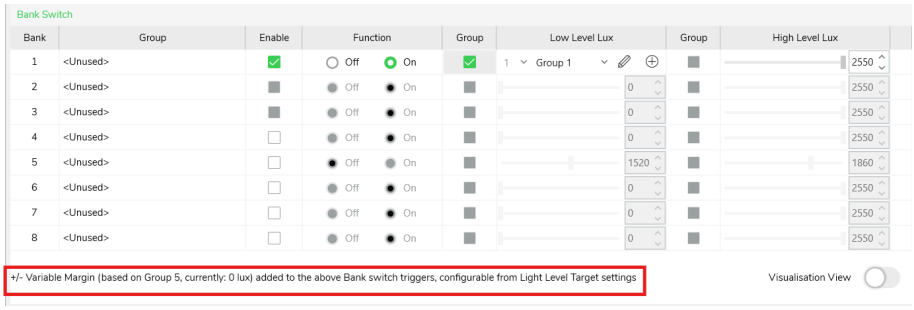


6. When you update the **Light Level Margin (Fixed / Group)** from the **Light Level** tab, it updates the message on the **Bank Switch** tab.

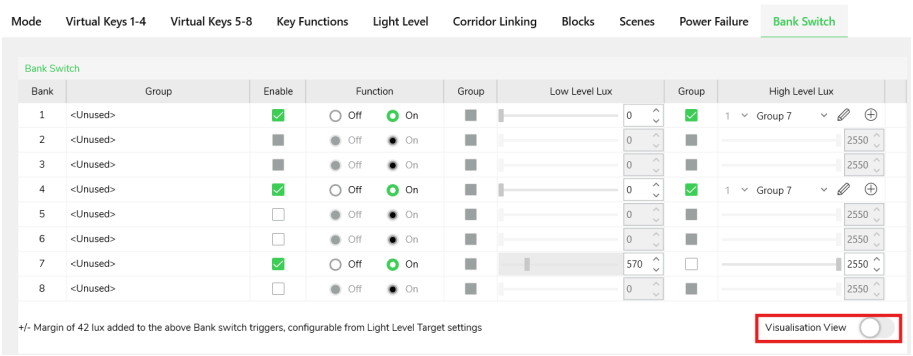
7. When the **Light Level Margin** is set to 42 lux, the following message is displayed.



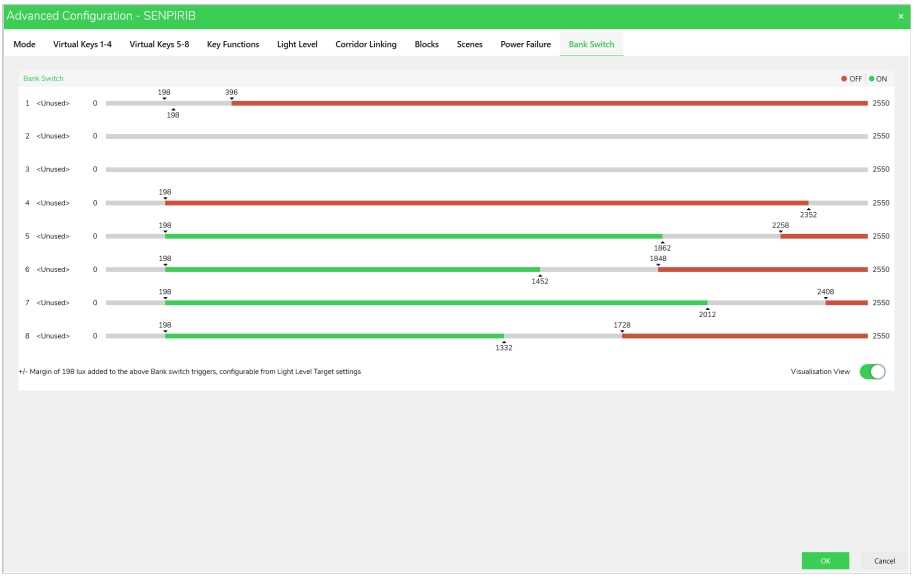
8. Based on the group level, the following message is displayed.



9. Click **Visualisation View** toggle switch.



The graphical view (configuration) of **Bank Switch** is displayed.

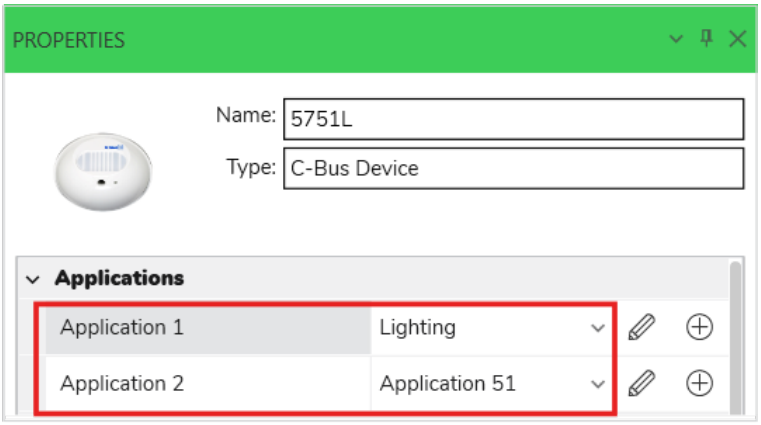
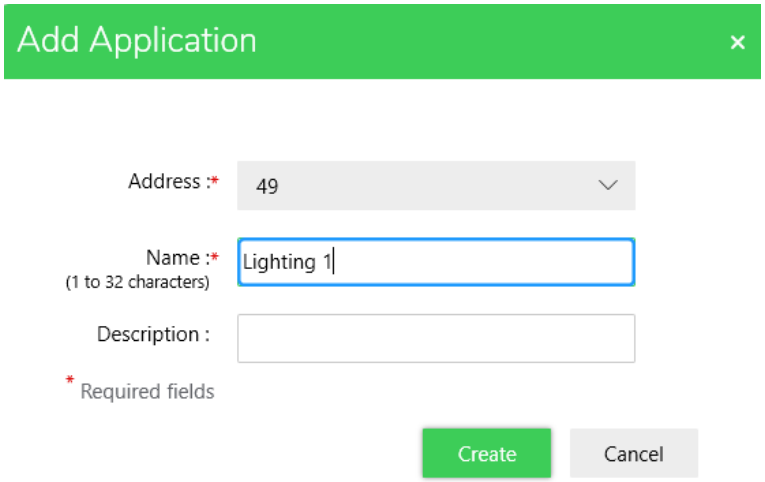


10. Click to close the **Advanced Configuration** dialogue box.
11. Once configuration is done, click **OK** to save the configurations.

SENPIRIA (5751L)

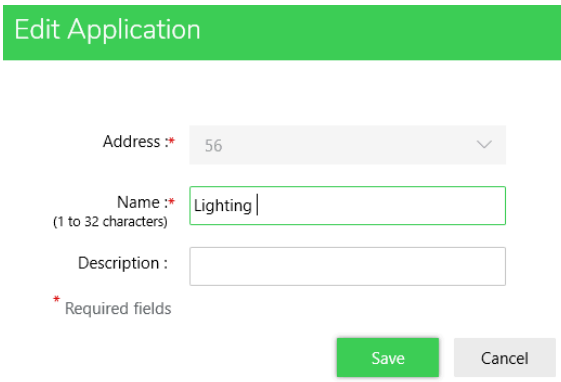
The C-Bus 5751L is a passive infrared (PIR) indoor occupancy sensor designed for C-Bus home and building automation system. It functions as a C-Bus input device, detecting movement and ambient light conditions to control lighting and other connected loads across the C-Bus automation network.

The field informations to configure SpaceLogic C-Bus SENPIRIA sensor are described as below:

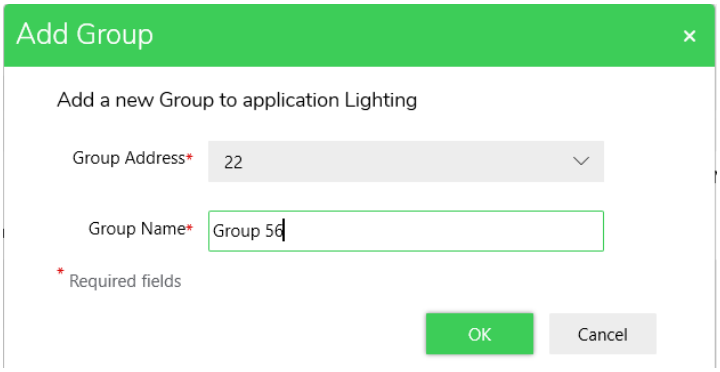
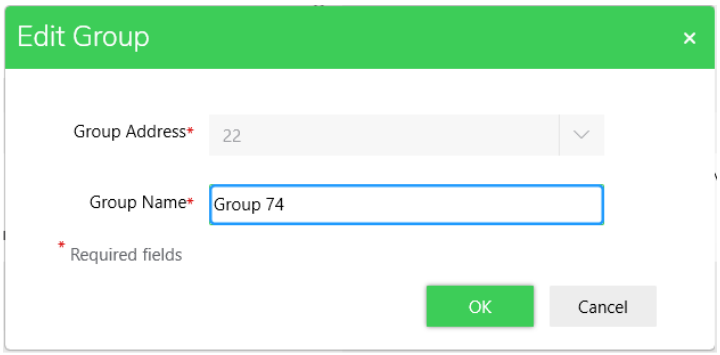
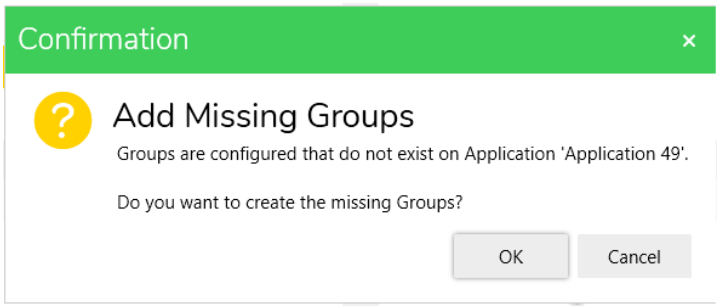
Applications	This section displays the lighting applications supported by the SENPIRIA sensor. Up to two lighting applications can be defined and then used throughout the configuration of the SENPIRIA sensor. By default, **Lighting** is selected in the **Application 1** drop-down list and **<unused>** is selected in **Application 2** drop-down list.  To add Application: • You can enter the name in **Application 1** field and press **Enter** in keyboard. The Application is created by taking the next available Application address. The created Application is saved in the network. or, • Click ⊕. The **Add Application** pop-up appears.  It supports application addresses from 48 to 127. • Enter the required details and then click **Create**. The application is created and listed in the **Application 1** drop-down list. **NOTE:**

<table>
<tr><td></td><td colspan="2">

Use a unique application name for each network.
Enter a maximum of 32 characters for the Application Name
You can use numbers, letters and special characters excluding /,” and #.

• Click Cancel to cancel the operation.
To edit Application:
• Click to modify the application name.
NOTE: Edit button is disabled if the Application is set to <Unused>.


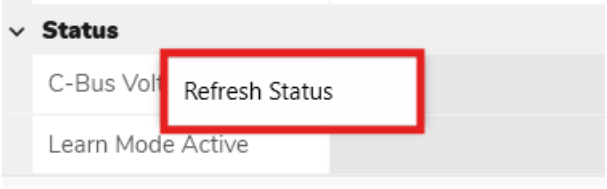
• Make necessary changes and then click Save. You cannot edit the Application address after it has been created.
Repeat the same for Application 2.
NOTE: The Trigger and Enable options are available only in Application 2 drop-down list. It supports application addresses from 48 to 127, 202 and 203. The application selected in Application 1 drop-down list will not be listed in Application 2 drop-down list and vice versa.
</td></tr>
<tr><td>Configuration</td><td>Mode</td><td>Select the required option from the Mode drop-down list. The options are:
• No mode Set (Advanced Configuration)
• Presence Detection with Light Level Target
• Presence Detection
• Sunset Switch
Group
• Select the value from the Application Index drop-down list.
• The Group drop-down list displays all available groups within the selected application.
• You can add and edit Groups.</td></tr>
</table>

		• To add Group: ◦ You can enter the name in **Group** field and press **Enter** in keyboard. The **Group Name** is created by taking the next available **Group Address**. The created Group is saved in the network. or, ◦ Click ⊕. The **Add Group** pop-up appears.  ◦ Enter the required details and then click **OK**. The **Group Name** is created and listed in the **Group** drop-down list. **NOTE:** – Use a unique application name for each network. – Enter a maximum of 32 characters for the Group Name – You can use numbers, letters and special characters excluding /," and #. ◦ Click **Cancel** to cancel the operation. To edit Group Name: ◦ Click ✎ to modify the group name. **NOTE:** Edit button is disabled if the Group is set to **<Unused>**.  ◦ Make necessary changes and then click **OK**. You cannot edit the **Group Address** after it has been created. ◦ When you select groups for an Application (1, 2) and update the Application Index, the inline confirmation pop-up is displayed for each selected group.  – Click **OK** to create the missing groups. **NOTE:** When you select **No mode Set (Advanced Configuration)** from **Mode** drop-down list, **Application Index** and **Group** drop-down lists are disabled.
	Expiry Time	The expiry time values are set to define an interval of time to elapse before the Lighting group is turned Off. This is often used for activating a time delay after motion is detected.

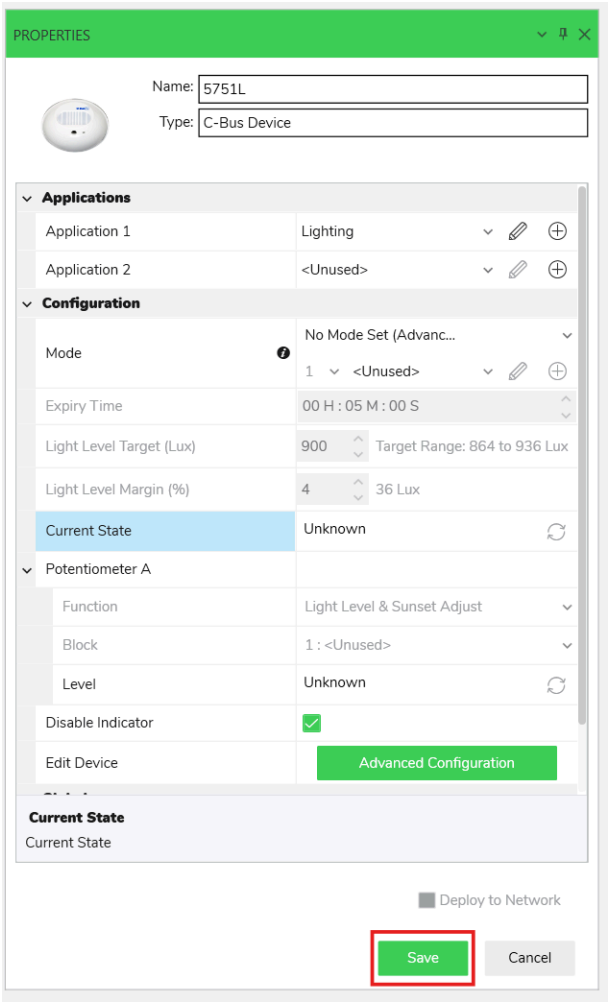
		Select the desired expiry time. **NOTE:** The **Expiry Time** field ranges from 0 to 18 hours, 12 minutes, and 15 seconds. • You can increase or decrease the hours and minutes by increment of 1. • You can increase or decrease the seconds by increment of 5. • You can also input a value manually to hours, minutes, and seconds. **NOTE:** When you select **No mode Set (Advanced Configuration)** from **Mode** drop-down list, **Expiry Time** field is disabled.	
	Light Level Target (Lux)	This field will be disabled for SENPIRIA and SENPIRIOA.	
	Light Level Margin (%)	This field will be disabled for SENPIRIA and SENPIRIOA.	
	Current State	• It indicates the operating state of the sensor as **Light**, **Dark**, or **In Target Range** based on the current light level relative to the configured **Light Level Target** and **Light Level Margin**. • **Dark** is displayed when the current light level is less than the lowest value in the **Target Range**. • **In Target Range** is displayed when the current light level is between the lowest and highest values in the **Target Range**. • **Light** is displayed when the current light level is greater than the highest value in the **Target Range**. • The current light level in **lux** is displayed when the network is open and the project device matches the live network device. For example: **Current State** values include **Dark (150 lux)"** and **Light (1000 lux)**.	
	Potentiometer A It is used for adjusting light level, block timers, and occupancy behaviour. You can use the potentiometers to set light level target in lux.	**Function**	This field will be disabled for SENPIRIA and SENPIRIOA.
		Block	This field will be disabled for SENPIRIA and SENPIRIOA.
		Level	This field will be disabled for SENPIRIA and SENPIRIOA.
	Disable Indicator	Select the **Disable Indicator** check box to uncheck the **LED Assignment Block 2** in **Blocks** section.	
	Edit Device	It displays **Advanced Configuration** button. For more information, refer Advanced Configuration SENPIRIA, page 372.	
Global You can configure the timing parameters, learn mode, and potentiometer A.	**Timing Parameters** You can provide duration values for controlling the behaviour of the sensor.	**Timing Threshold**	Select the timing threshold from the drop-down list. By default, it is set to 208 ms. This drop down provides duration values by which motion detection triggering can be regulated.
		Ramp 1	Ramp 1 rate can be set from instant to max 1020 seconds. By default, it is set to 4 seconds. It specifies the time taken to ramp a light from minimum to maximum brightness (or vice versa).
		Ramp 2	Ramp 2 rate can be set from instant to max 1020 seconds. By default, it is set to 12 seconds.
		Status Report	Allows to set the duration in mm:ss. Provides automatic detection and correction of discrepancies between the states of grouped inputs and outputs. By default, it is set to 3 seconds. Mouse over on the **Status Report** info icon to view the tooltip message.
	Device Scenes	This field will be disabled for SENPIRIA and SENPIRIOA.	
	Learn Mode	**Allow Learn Mode**	Only if you select the **Allow Learn Mode** check box, the **Application Learn** drop-down list will be enabled.

	You can configure the unit for learn mode.		 By default, the **Allow Learn Mode** check box is selected.
		Application Learn	Select the required option from the **Application Learn** drop-down list. the options are **Current** and **Any**. To determine whether learn mode can be used to group channels with other units of the same application address, select **Current**. To determine whether learn mode can be used to group channels with other units of any application address, select **Any**.
		Unit Has Learned	By default, it is set as **No**.

Unit Identification	**Unit Type**	Displays the unit type of the device.
	Catalogue Number	Displays the catalog number related to the unit type.
	Firmware Version	Displays the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
	Part Name	Displays the part name which is stored in the unit hardware, that can be modified. You can edit the Part Name. Use numbers, alphabets, and special characters (!@#$%^&*()_+];[) up to 8 Characters. Convert all characters to uppercase.
	Unit Address	Displays the address which is automatically assigned when the device is added.
	Serial Number	Displays the serial number which exists on the physical unit. • For a live network device, the **Serial Number** field is a read only field that displays the serial number the user adds in when adding the device. • For a project device, the **Serial Number** field is all zeros by default (12 chars) and can be edited and saved by the user. • When a project device is matched with a live network device, the **Serial Number** field of the project device is updated with the serial number from the live network device.
	Tag Name	Displays the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only. By default it is NEWUNIT.
	Notes	Contains a location to add notes about the unit which is stored in the project database only. Use maximum character length of 255 and only numbers, alphabets and special characters (!@#$%^&*()_+];[).
Status Status will be displayed only when the network is opened.	**C-Bus Voltage (V)**	Displays the device's C-Bus network voltage value. Values are displayed only when the C-Bus network is open.

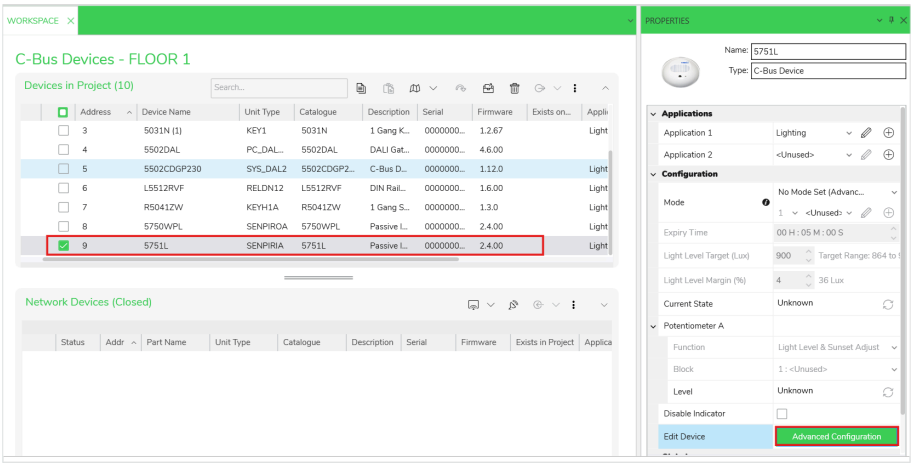
	Learn Mode Active	Displays **Yes** when it is active on the device/network and displays **No** when it is not active. To refresh device status, right-click on **Status** section and click **Refresh Status**. 

Once configurations are completed, click **Save** to save the changes.

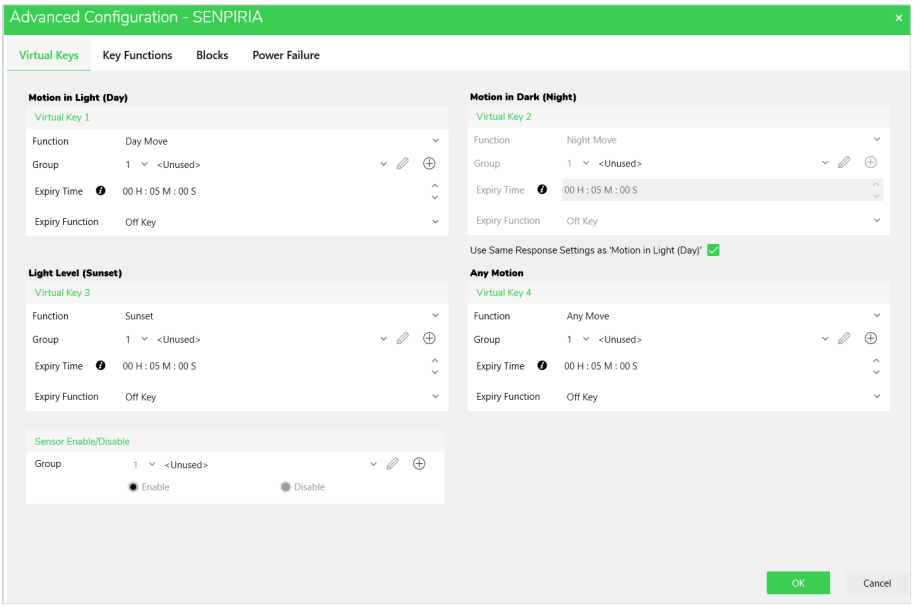


Advanced Configuration SENPIRIA

1. Click **Advanced Configuration** in the **Configuration** section of **PROPERTIES**.



The **Advanced Configuration SENPIRIA** dialogue box appears.



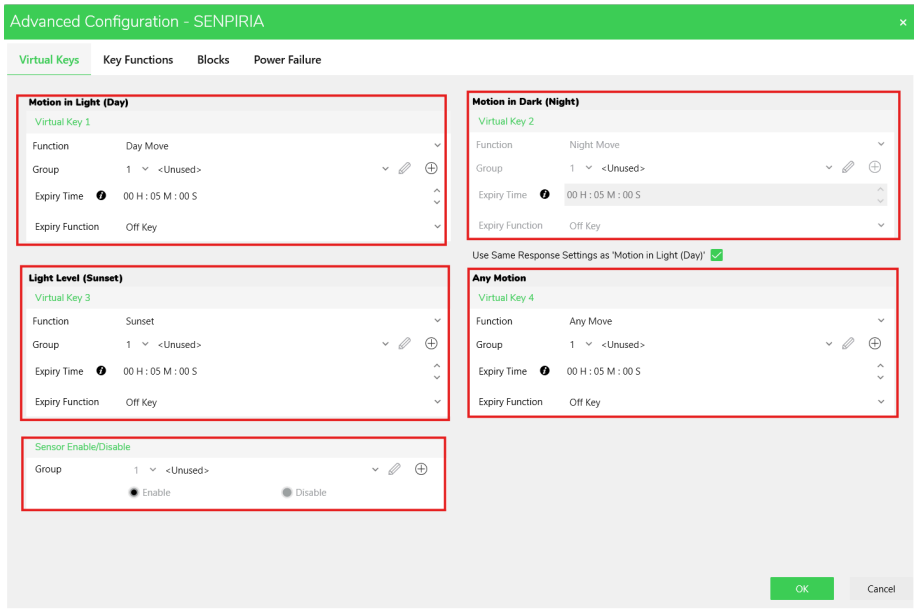
The below configurations can be performed in the **Advanced Configuration** :

- Virtual Keys, page 372
- Key Functions, page 381
- Blocks, page 383
- Power Failure, page 387

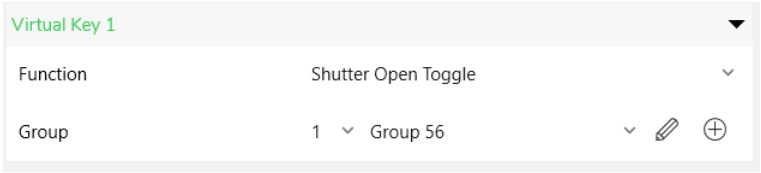
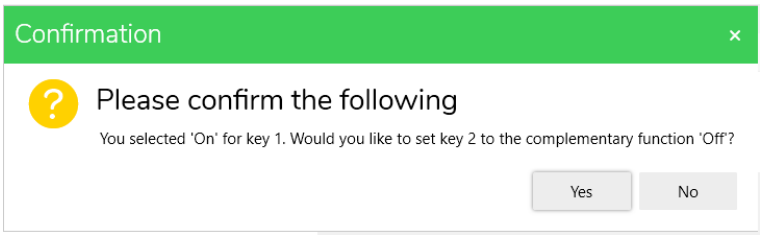
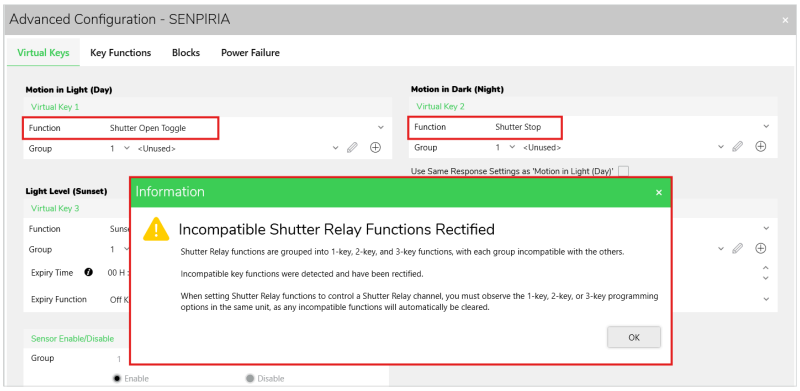
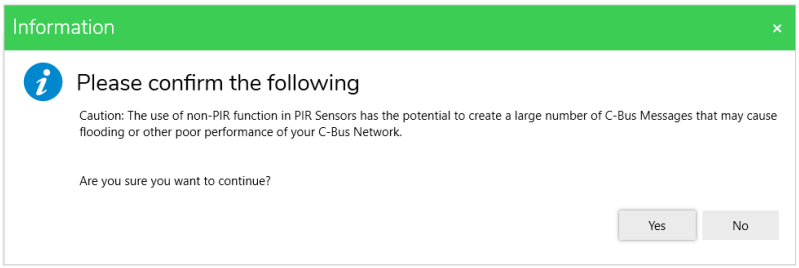
Virtual Keys

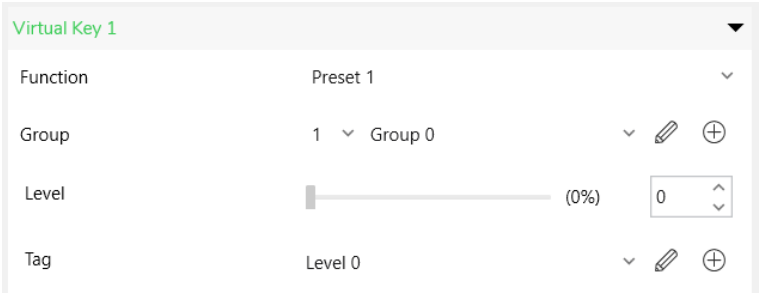
The SENPIRIA provides four virtual keys that you can program in the same manner as SENPIROA. You can assign each virtual key to an application. You can associate a macro function with each virtual key. By default, the first three virtual keys assigned are the **Day Move**, **Night Move**, **Any Move** and **Sunset** macro functions.

1. When you click **Advanced Configuration**, by default, **Virtual Keys** section appears. The **Virtual Keys 1**, **Virtual Keys 2**, **Virtual Keys 3**, **Virtual Keys 4**, and **Sensor Enable/Disable** sub-section appears.



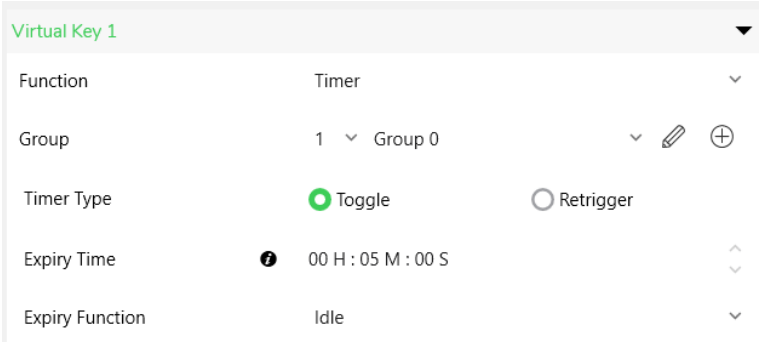
2. Refer the below table for configurations in the **Virtual Key 1** section.

Function	Select the required option from the drop-down list. When you select **On**, **Off On Up**, **Off Down**, **Dimmer Up**, **Dimmer Down**, **Soft Up**, **Soft Down**, **Day Move**, **Night Move**, **Shutter Toggle**, **Shutter Open Toggle**, **Shutter Close Toggle**, **Shutter Open**, **Shutter Close**, **Bellpress** and **Shutter Stop**, the **Expiry Time** and **Expiry Function** fields are automatically hidden, as these options do not use expiry settings.  • If you select **On**, **On Up**, **Dimmer Up**, **Soft Up**, **Day Move**, a confirmation pop-up appears and prompts you to apply the complementary function to the paired key. (Example: If one key is **On**, the other should be **Off**)  ◦ Click **Yes** to proceed and **No** to cancel the operation. • If you select any other shutter function combination, a warning pop-up appears.  • If you select any function outside the default function, the **Information** pop-up is displayed.  ◦ Click **Yes** to assign the function. ◦ Click **No** to cancel the operation. • If the **Virtual Key** function is not equal to the default function, and if you update the **Group Address**, the same **Information** pop-up is displayed. • If the **Virtual Key 4** is set to a **Group Address** (other than **<Unused>**), the **Information** pop-up is not displayed. • If you select **Preset 1**, the below fields appear.

<table>
<tr>
<td></td>
<td>


In the Level field, either drag the slider to set the value or select a level from the drop-down list.

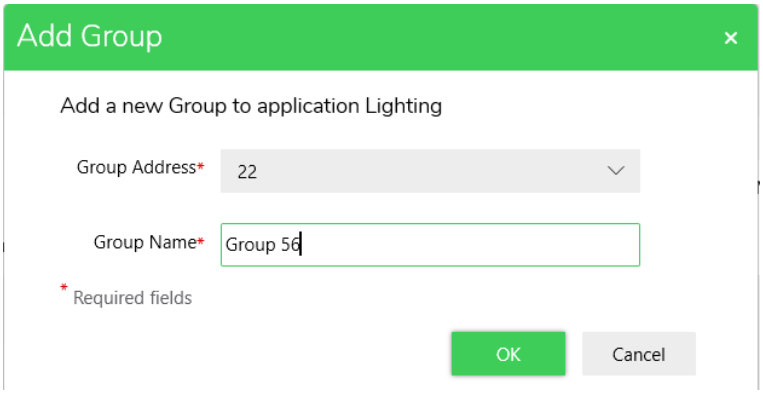
If you select Timer, the below fields appear.



Select the Timer Type.

</td>
</tr>
<tr>
<td>Group</td>
<td>
To add Group:

You can enter the name in Group field and press Enter in keyboard. The Group Name is created by taking the next available Group Address.
The created Group is saved in the network.
or,
Click ⊕. The Add Group pop-up appears.

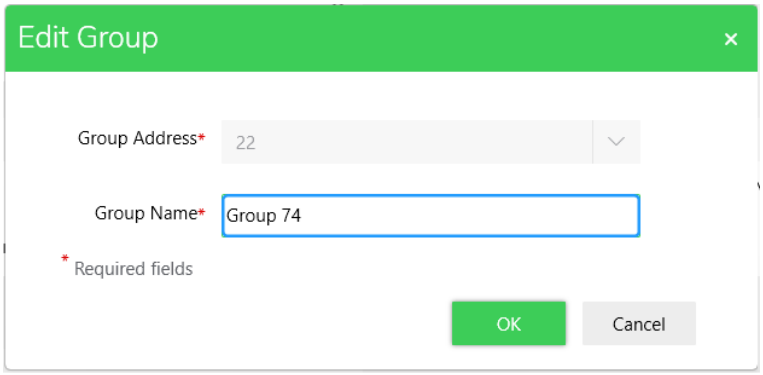


Enter the required details and then click OK. The Group Name is created and listed in the Group drop-down list.
NOTE:

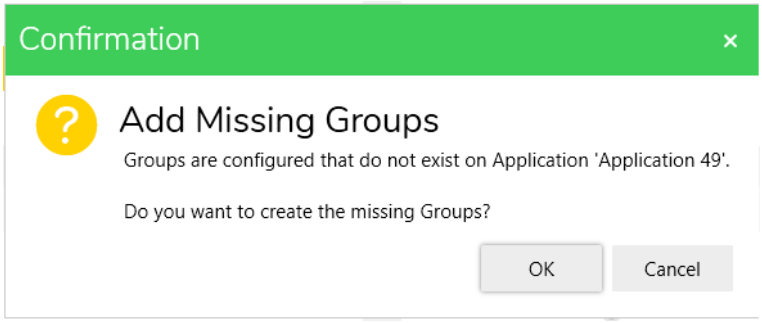
Use a unique application name for each network.
Enter a maximum of 32 characters for the Group Name
You can use numbers, letters and special characters excluding /,” and #.

Click Cancel to cancel the operation.
To edit Group Name:
Click to modify the group name.
NOTE: Edit button is disabled if the Group is set to <Unused>.

</td>
</tr>
</table>

<table>
<tr>
<td></td>
<td>


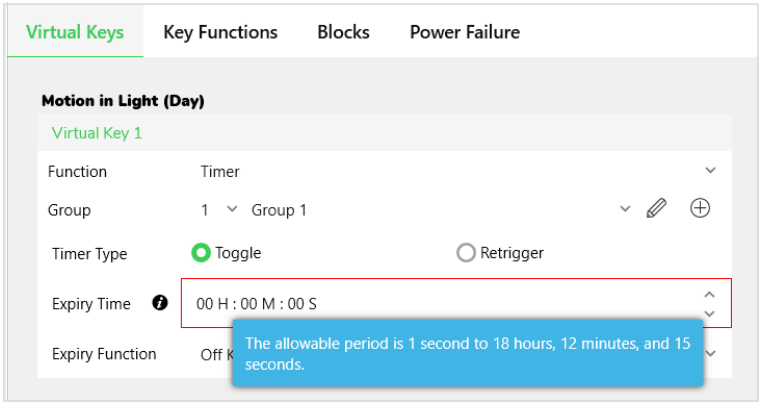
Make necessary changes and then click OK. You cannot edit the Group Address after it has been created.
When you select groups for an Application (1, 2) and update the Application Index, the inline confirmation pop-up is displayed for each selected group.



Click OK to create the missing groups.

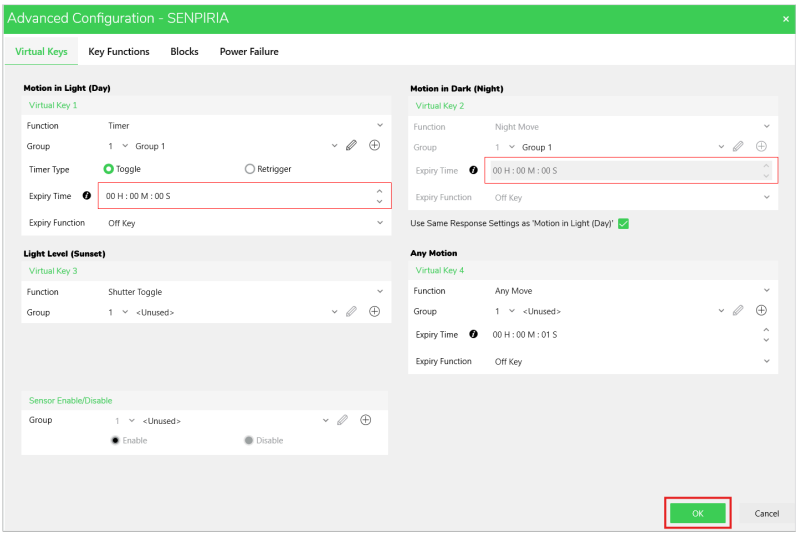
</td>
</tr>
<tr>
<td>Expiry Time</td>
<td>Select the desired expiry time. Mouse over on the Expiry Time info icon to view the tooltip message.

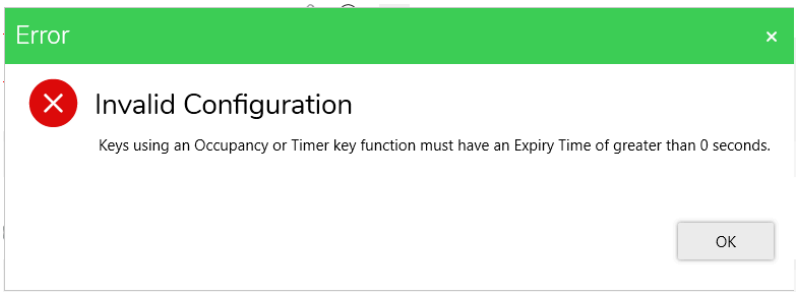
When you set the expiry time to 00 H: 00 M: 00 S, and configure the Virtual Key function as an occupancy function (Day Move, Night Move, Sunset, Any Move) or a Timer function, time validation error is indicated by a red border. Mouse over on the Expiry Time field to view the tool tip message.



If you click OK while an expiry time validation error exists for an occupancy function (Day Move, Night Move, Sunset, Any Move) or a Timer function, an Error pop-up is displayed.

</td>
</tr>
</table>





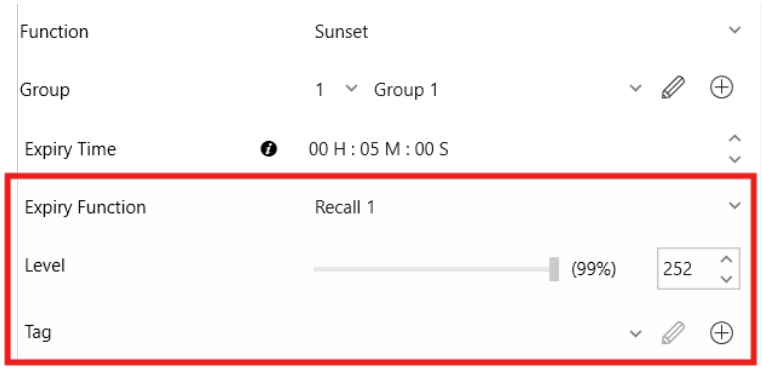
NOTE: The **Expiry Time** field ranges from 0 to 18 hours, 12 minutes, and 15 seconds.

- When you select an occupancy function (**Day Move**, **Night Move**, **Sunset**, **Any Move**) or a **Timer** function, for a **Virtual Key**:
  - **Expiry Time** is set to **00 H: 05 M: 00 S**, and corresponding **Block Timer 1** value is updated only if the timer was previously set to **00 H: 00 M: 00 S**. Otherwise, the existing value is retained.
  - You can set the **Expiry Time** from 1 second to 18 hours, 12 minutes, and 15 seconds for occupancy and timer functions. For non-occupancy functions, you can set the **Expiry Time** from 0 seconds to 18 hours, 12 minutes, and 15 seconds.

Expiry Function

Select the expiry function from the drop-down list.

If you select **Recall 1** / **Recall 2**, the below fields are displayed.



- You can set a preset **Level** or select an existing **Tag**. The **Level** value ranges from **0–100%** and **0–255**.

  NOTE: The default Level is **100%, 255** for **Preset 1** and **0%, 0** for **Preset 2**.
  - The percentage value increments by **1%** (0–100%).
  - The level value increments by **1** (0–255).
  - You can update the **Level** by changing either the percentage or the level value.

    NOTE:

    When you change the percentage, the level updates. When you change the level, the percentage updates.
- The **Tag** field lists the available **Levels** for the selected Group Address.
  - When you select a Tag, the **Level** field updates to the Tag's Level.

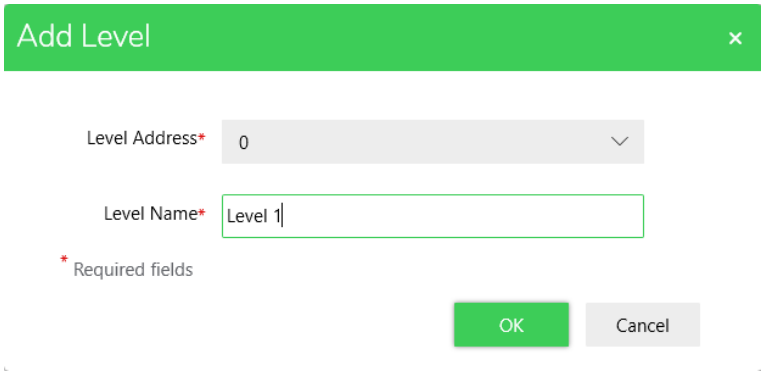
- When you select a Level that matches a saved Tag, the **Tag** field updates to the corresponding Tag.
- You can edit an existing Tag or add a new Tag to the Group Address.
- The **Add Tag** option is enabled only when a Group Address is assigned to the Virtual Key.

- To add Tag:
  - You can enter the name in **Level Name** field and press **Enter** in keyboard. The **Level Name** is created by taking the next available **Level Address**.

    The created Level is saved in the network.

    or,

  - Click ⊕. The **Add Level** pop-up appears.



  - Enter the required details and then click **OK**. The **Level Name** is created and listed in the **Tag** drop-down list.

    NOTE:

    – Use a unique application name for each network.

    – Enter a maximum of 32 characters for the Level Name

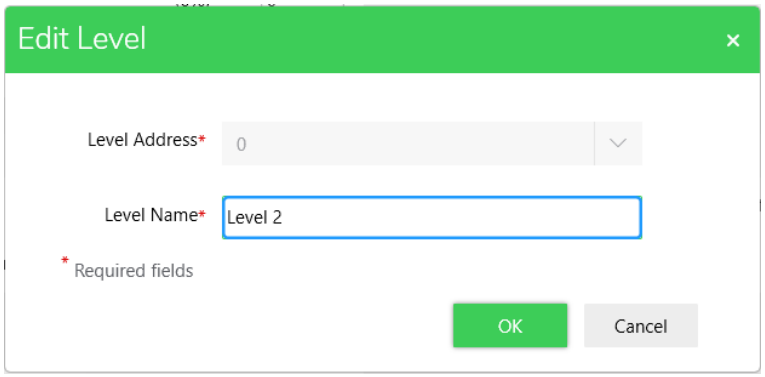
    – You can use numbers, letters and special characters excluding /,” and #.

  - Click **Cancel** to cancel the operation.

    To edit Level Name:

  - Click to modify the **Level Name**.

    NOTE: Edit button is disabled if the Tag is set to **<Unused>**.



  - Make necessary changes and then click **OK**. You cannot edit the **Level Address** after it has been created.

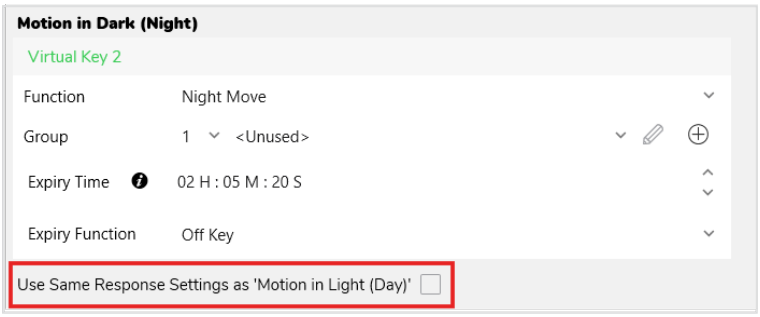
3. Based on the **Mode** selected on the **Configuration** section :
   - **Virtual Keys 1–4** are set to the corresponding **Function(s)** and **Group (s)**, and vice versa.
   - **Light Level Target/Margin** is set to **Fixed**.

     NOTE: For a live network device or a project with an existing configuration, the **Mode** is set according to the current device configuration.
   - All **Virtual Key** properties such as **Application Index, Group, Function (s),** and any other related properties are updated based on the selected **Mode**.
   - Refer to the table below for details on Virtual Key masking based on the selected **Mode**.

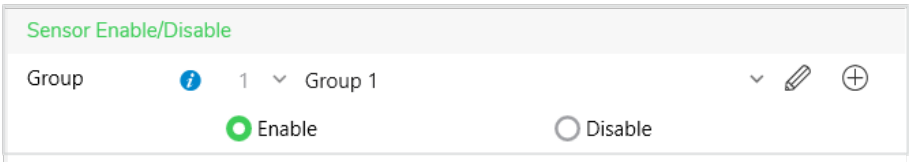
Mode	Virtual key 1		Virtual key 2		Virtual Key 3		Virtual key 4	
	Function	Group	Function	Group	Function	Group	Function	Group
No Mode Set (Advanced Configuration)	Day Move	<Unused>	Night Move	<Unused>	Sunset	<Unused>	Anymove	<Unused>
Presence Detection with Light Level Targe	Day Move	<Group Address>	Night Move	<Group Address>	Sunset	<Unused>	Anymove	<Unused>
Presence Detection	Day Move	<Unused>	Night Move	<Unused>	Sunset	<Unused>	Anymove	<Group Address>
Sunset Switch	Day Move	<Unused>	Night Move	<Unused>	Sunset	<Group Address>	Anymove	<Unused>

4. Repeat the step 2 and 3 for the configurations in **Virtual Keys 2**, **Virtual Keys 3** and **Virtual Keys 4** sections.

   NOTE: In **Virtual Keys 2** section, by default **Use Same Response Settings as 'Motion in Light (Day)'** check box is selected. Only if you uncheck the check box, the **Virtual Keys 2** section becomes enabled.



5. You can apply the **Complementary Function** to **Virtual Key 2** only. When the **Use Same Response Settings as 'Motion in Light (Day)'** check box is selected, the complementary relationship is retained at all times, and any changes you make to the **Virtual Key 1** group address or other properties also apply to **Virtual Key 2**.
6. When the check box is selected, you can assign any function (from **Key Functions > micro function combination**) to **Virtual Key 2**, and the complementary relationship is maintained between **Virtual Key 1** and **Virtual Key 2**.
7. When you uncheck the **Use Same Response Settings as 'Motion in Light (Day)** check box, you break the complementary relationship, and **Virtual Key 2** retains the last selected properties.
8. In **Sensor Enable/Disable** section, select group from the **Group** drop-down list. You can add/edit the group. For more information on adding and editing group, refer Group, page 376.



   Mouse over on the **Group** info icon to view the tool tip message.
9. Select **Enable** radio button to activate the sensor and **Disable** radio button to deactivate the sensor.

Key Functions

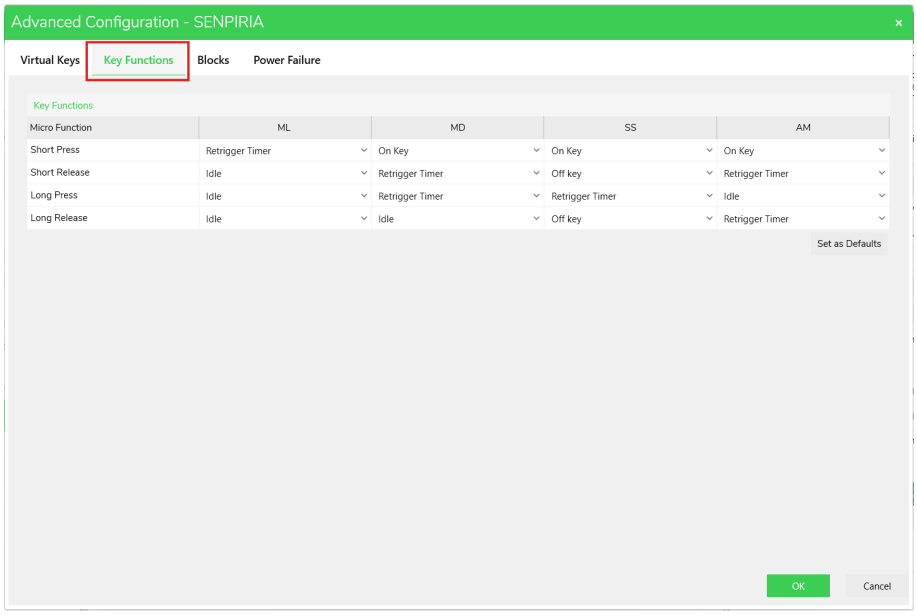
The **Key Functions** tab provides advanced configuration options for key input units and sensors. For traditional C-Bus key input units, key functions are assigned to 4 press and release events. Refer the below table for the micro function and its action.

Micro Function	Action
Short Press	when you first press the input key after the debounce time.
Short release	when you release the input key before the long-press time is reached.
Long press	when you press and hold the input key longer than the long-press time.
Long release	when you release the input key after a long press.

NOTE: Each of these events corresponds to a micro function. A micro function may or may not generate C-Bus messages, depending on the micro function and the current state of the group addresses. Wired macro functions support a wide range of messaging capabilities.

1. Click **Key Functions** tab.

   Key Functions section appears.

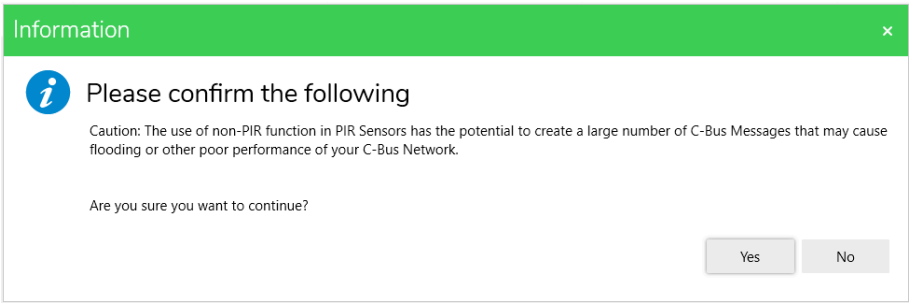


2. You can update the **Micro Function** combination.

3. Refer the below table for default **Micro Function** mapping.

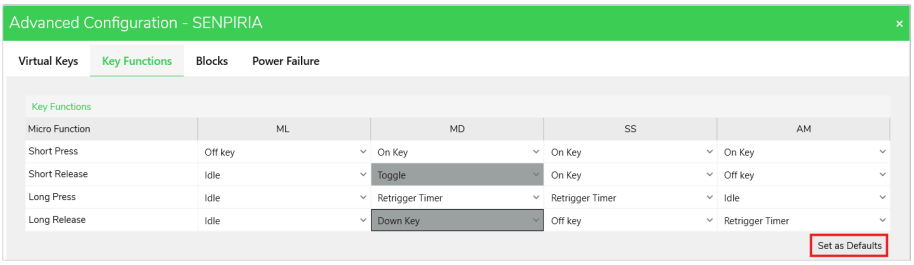
Function	Short Press	Short Release	Long Press	Long Release
Night Move	On Key	Retrigger	Retrigger	Idle
Day Move	Retrigger	Idle	Idle	Idle
Any Move	On Key	Retrigger Timer	Idle	Retrigger Timer
Sunset	On Key	Off Key	Retrigger	Off Key
Unused	Idle	Idle	Idle	Idle
On	On Key	Idle	Idle	Idle
Off	Off Key	Idle	Idle	Idle
On/Off	Toggle	Idle	Idle	Idle
Dimmer	Idle	Toggle	Downcycle	End Ramp
On Up	Idle	Mem Toggle2	Up Key	End Ramp
Off Down	Idle	Mem Toggle2	Down Key	End Ramp
Timer	Toggle	Retrigger Timer	Idle	Retrigger Timer
Bell Press	On Key	Off Key	Idle	Off Key
Dimmer Up	Idle	On Key	Up Key	End Ramp
Dimmer Down	Idle	Off Key	Down Key	End Ramp
Soft Up	Idle	Ramp Recall 1	Up Key	End Ramp
Soft Down	Idle	Ramp Off	Down Key	End Ramp
Preset 1	Idle	Recall 1	Ramp Off	Idle
Preset 2	Idle	Recall 1	Ramp Off	Idle
Shutter Toggle	Recall 1	Idle	Idle	Idle
Shutter Open Toggle	Recall 1	Idle	Idle	Idle
Shutter Close Toggle	Recall 2	Idle	Idle	Idle
Shutter Open	Recall 1	Idle	Idle	Idle
Shutter Close	Ramp Off	Idle	Idle	Idle
Shutter Stop	Recall 2	Idle	Idle	Idle
Custom	Idle	Idle	Idle	Idle

4. If you select any micro-function combination other than the default values listed in the table, the **Information** pop-up is displayed.



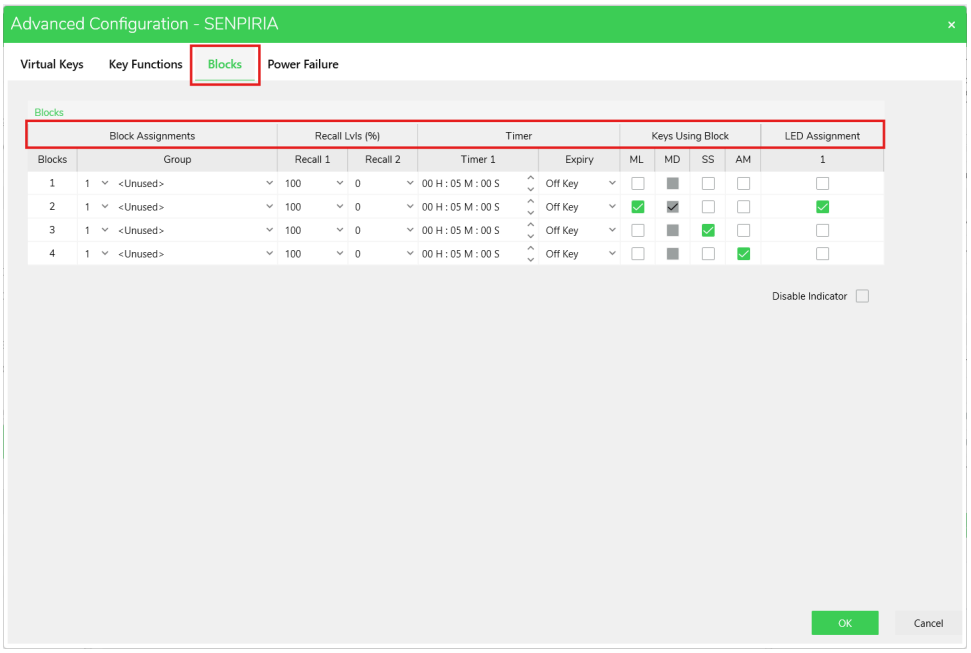
5. Click **Yes** to assign the function to the key.
6. Click **No** to cancel the operation.
7. If you select any micro-function combination other than the default values listed in the table, the **Virtual Key** group function is automatically set to Custom.

8. When you modify the micro functions from their default settings and want to revert to the original configuration, click the **Set as Defaults** button.



Blocks

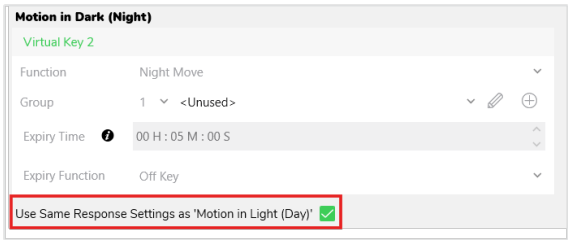
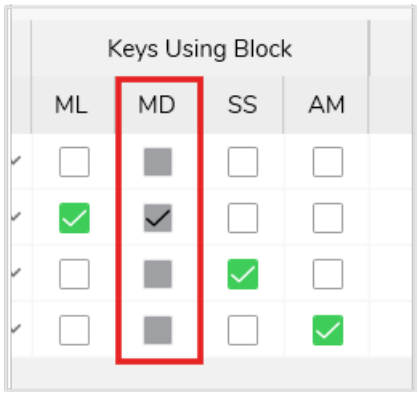
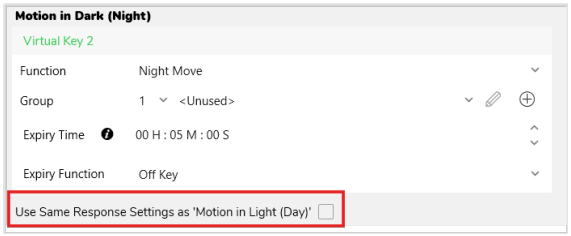
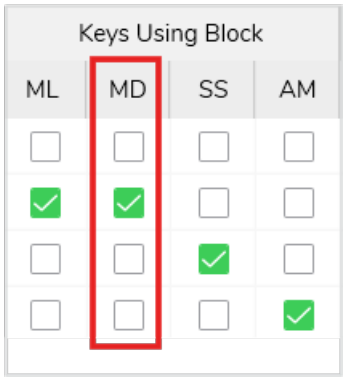
The **Blocks** table displays the operating configuration for the key-input portion of the unit. Each row lets you associate a lighting-compatible group with one or more input keys. In this tab, you define recall levels, timer values, and expiry key functions. You also assign LED indicators in the **Blocks** tab.



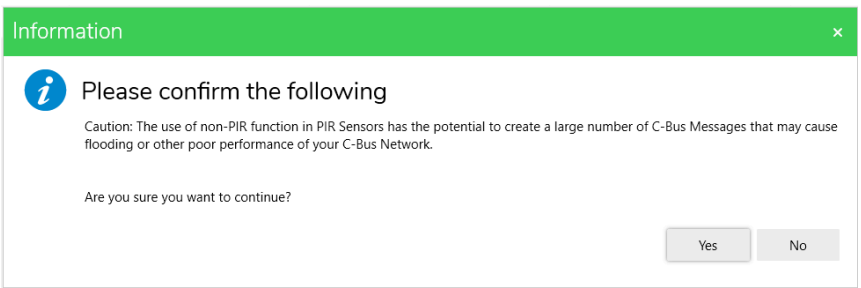
1. In **Block Assignments** section:
   - Select the application index from the **Application Index** drop-down list. By default, the application index for **Blocks 1–4** is set to **Application 1**.
   - Select the group address from the **Group** drop-down list based on the selected **Application**. By default, the group for **Blocks 1–4** is set to **<Unused>**.
   - Once you update the **Application Index** or **Group Address**, the **Virtual Keys 1–4** group addresses are updated, and vice versa.

     NOTE:

     Keys Using Block MD row is disabled when a **Use Same Response Settings as 'Motion in Light (Day)'** check box is selected in **Virtual Key 2** section.

Virtual Key 2	Blocks
	
	

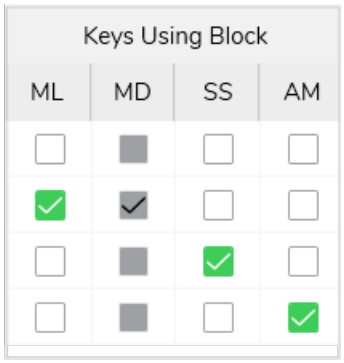
   - If you select any function outside the default function, the **Information** pop-up is displayed.



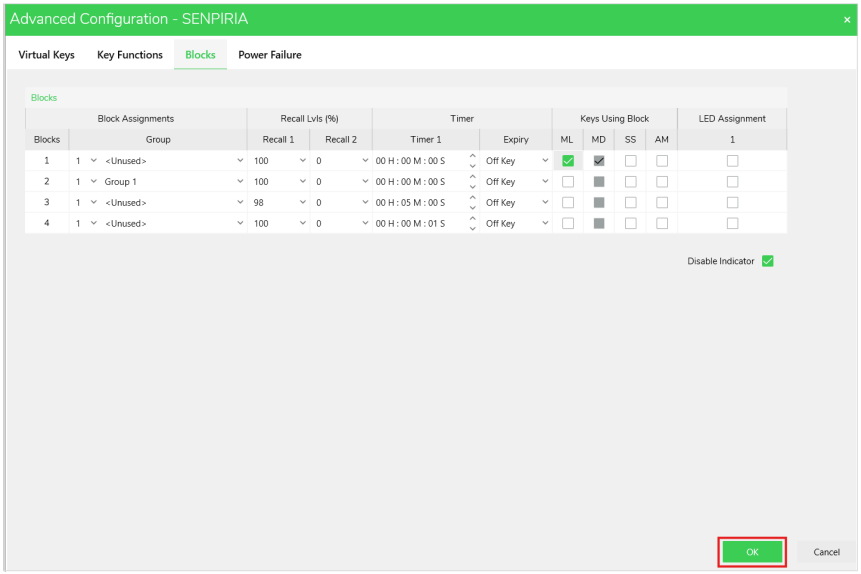
     - Click **Yes** to assign the function.
     - Click **No** to cancel the operation.
   - If the **Virtual Key** function is not equal to the default function, and if you update the **Group Address**, the same **Information** pop-up is displayed.
   - If the **Virtual Key 4** is set to a **Group Address** (other than **<Unused>**), the **Information** pop-up is not displayed.

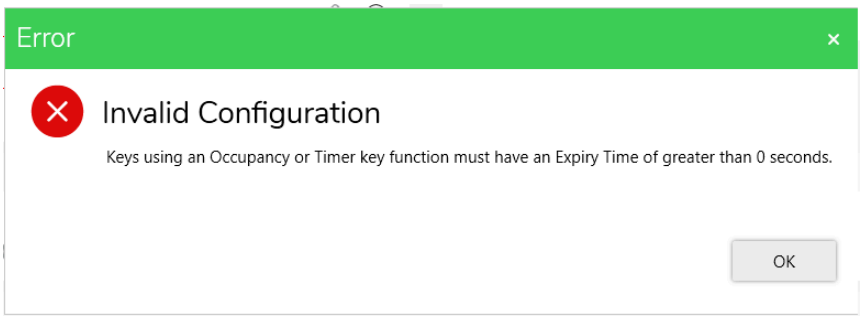
2. In **Recall Lvls** section:
    - Select the recall value from **Recall 1** drop-down list. By default, the **Recall 1** value for **Blocks 1–4** is set to **100**.
    - Select the recall value from **Recall 2** drop-down list. By default, the **Recall 2** value for **Blocks 1–4** is set to **0**.
    - Any changes made to **Recall 1** and **Recall 2** are saved to the corresponding **Block** and reflected under the associated **Key(s)**.
    - Changes to **Recall 1** and **Recall 2** remain synchronized across **Functions (Preset 1 and Preset 2)**, **Blocks**, and **Keys**, and vice versa.
3. In **Timer** section:
    - You can increase or decrease the hours and minutes in increments of 1 in **Timer 1** field.
    - You can increase or decrease the seconds in increments of 5 in **Timer 1** field.
    - You can manually enter values for hours, minutes, and seconds. By default, the **Timer 1** value for **Blocks 1–4** is set to **00 H: 05 M : 00 S**.
    - Select the required option from the **Expiry** drop-down list. By default, the **Expiry** value for **Blocks 1–4** is set to **Off Key**.
    - Changes to the **Timer** or **Expiry** drop-down list are saved to the corresponding **Block** and reflected under the associated **Key(s)**.
    - Changes to the **Timer** and **Expiry** settings remain synchronized with the **Timer function**, and vice versa.

4. In **Keys Using the Block** section:
   - The following keys will be selected by default with Block and Key combination.

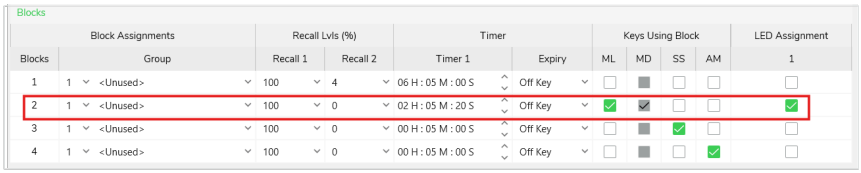


   - If you do not assign a **Block** to a **Virtual Key**, the **Virtual Key Group Address** on the **Keys** tab is set to **Unassigned**.
   - If no **Block** is assigned to a **Virtual Key**, the additional properties on the **Keys** tab (such as **Timer**, **Preset**, and **Expiry Function**) are disabled.
   - If you assign multiple **Blocks** to a **Virtual Key**, the **Virtual Key Group Address** on the **Keys** tab is set to **<Multiple>**.
   - If you assign a **Block** to multiple **Virtual Keys**, the **Block** properties apply to all selected **Virtual Keys**.
   - If a **Virtual Key** with **Timer**, **Preset 1**, or **Preset 2** functions assigned has multiple **Blocks** allocated, the additional properties on the **Keys** tab are disabled.
   - After assigning multiple **Blocks** to a **Virtual Key**, if you update the **Virtual Key** to a single group address on the **Keys** tab, only the **Block** with the selected group address remains checked, and all other **Blocks** are unchecked.
   - If you click **OK** while an expiry time validation error exists for an occupancy function (**Day Move**, **Night Move**, **Sunset**, **Any Move**) or a **Timer** function, an **Error** pop-up is displayed.

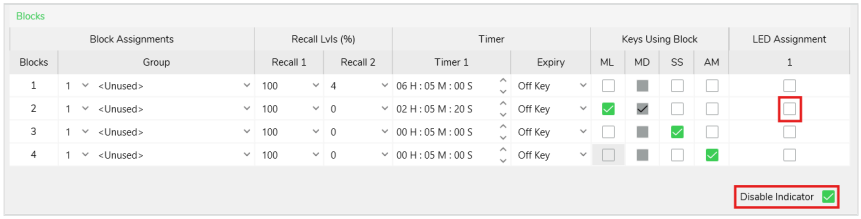




5. In **LED Assignment** section:
   - You can select any one of the **Block 1 – 4** for Virtual Key 1. By default, **Block 2** is selected for LED Assignment.



   - Select the **Disable Indicator** check box to uncheck the **Block 2 LED Assignment**.



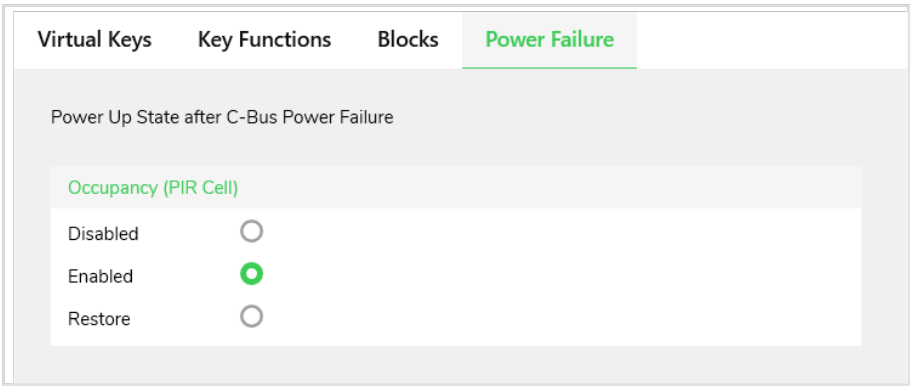
6. In **Indicator Brightness** section:
   - Select the required option from the **Indicator Brightness** drop-down list.
   - The **Indicator Brightness** is set according to the selected **Block**, and vice versa.

Power Failure

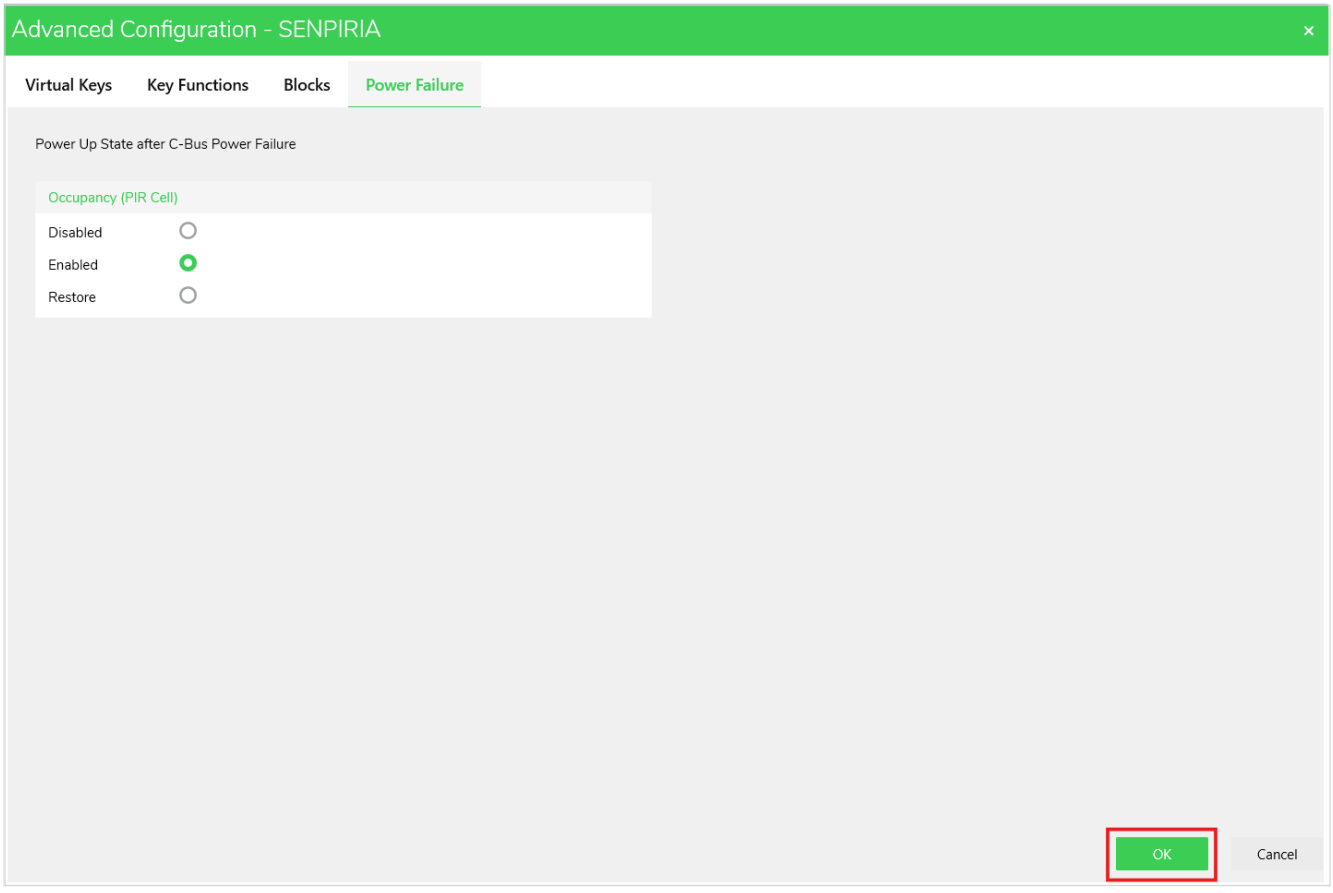
The **Power Failure** tab contains parameters that define how the passive infrared (PIR) cell behaves when power is restored after a failure. The **Light Level Maintenance (PE Cell)** section contains three radio button options for maintaining light levels based on the photo-electric cell (PE cell) lux readings.

1. In **Occupancy (PIR Cell)** section, select the required radio button option. Refer the below table for option description.

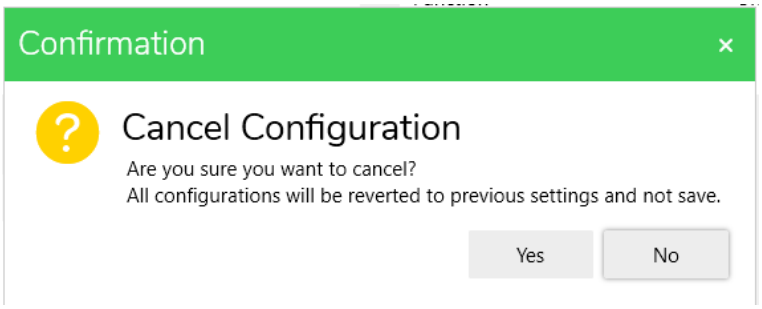
Options	Description
Disabled	When you select **Disabled** radio button, the PE cell is disabled. When the PE cell is disabled, the Light Level Sensor input is treated as unavailable, and sets the lux level to 0.
Enabled	When you select **Enabled** radio button, the PE cell is enabled. When the Light Level Sensor becomes operational, it transmits the lux levels directly to the output unit channels.
Restore	When you select **Restore** radio button, the PE cell values prior to power loss are restored to the Light Level Sensor.



2. Once configuration is done, click **OK** to save the configurations.



3. If you click **Cancel** or **Exit** icon without saving the configuration, a confirmation pop-up appears.

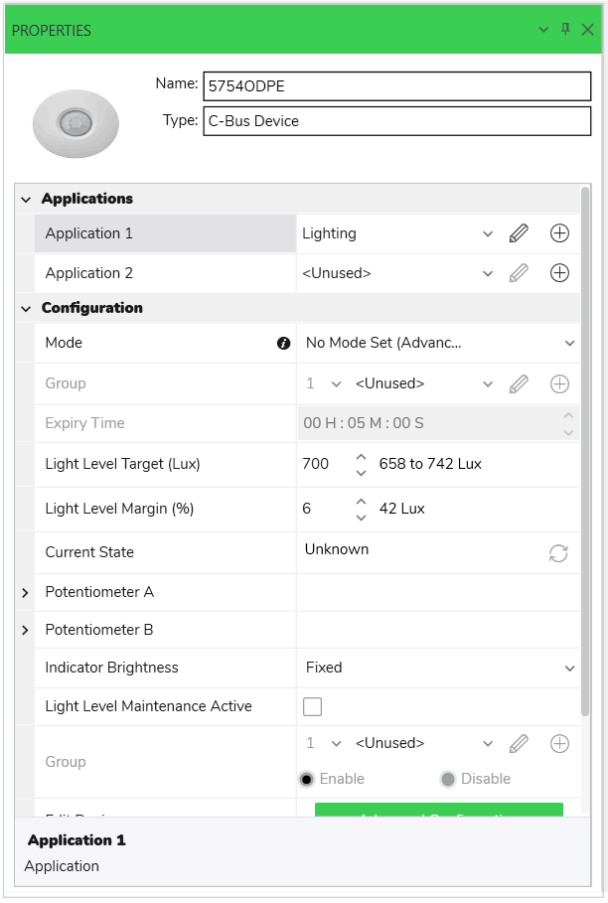


4. Click **Yes** to save the configuration and click **No** to cancel the configuration.

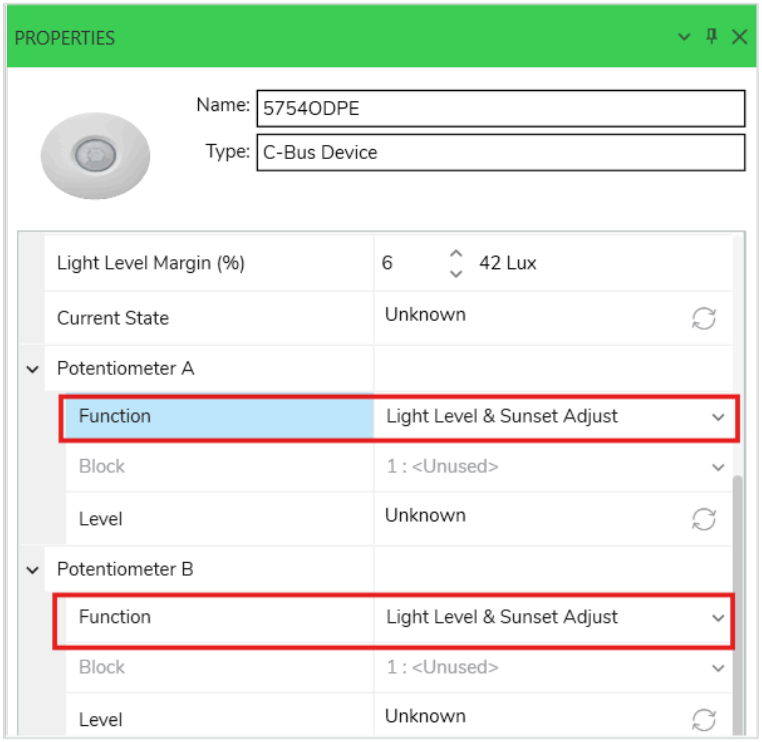
SENPIRIC (5754ODPE)

The 5754ODPE is a 360-degree, surface-mounted Passive Infrared (PIR) occupancy and light level sensor designed for indoor use. It forms part of the C-Bus control and management system and automates lighting by detecting occupancy and measuring ambient light levels to activate connected loads or scenes.

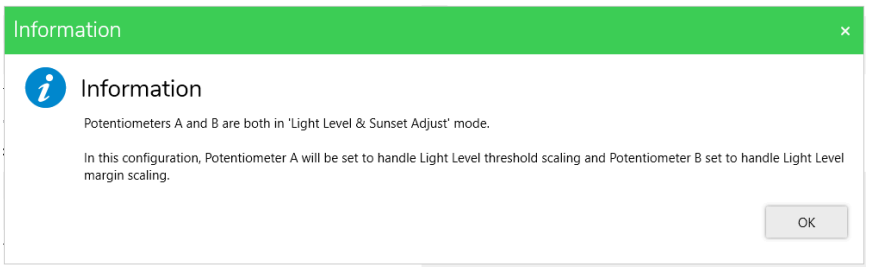
To configure the field informations of **PROPERTIES** in SpaceLogic C-Bus SENPIRIC sensor, refer SENPIRIB (5753L) Sensor, page 312.



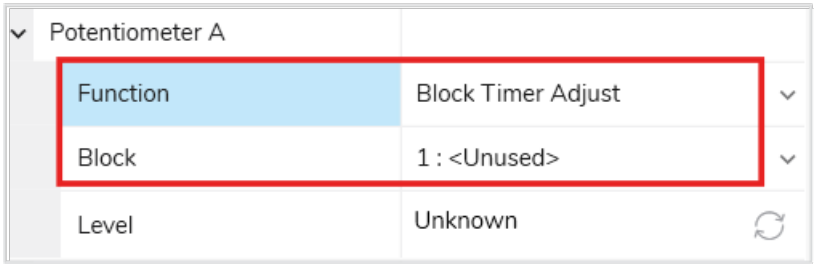
NOTE: When you select **Light Level & Sunset Adjust** function from **Potentiometer (A)** and **Potentiometer (B)** section, using the **Function** drop-down list, they allow external control of light level maintenance.



- An **Information** pop-up appears.



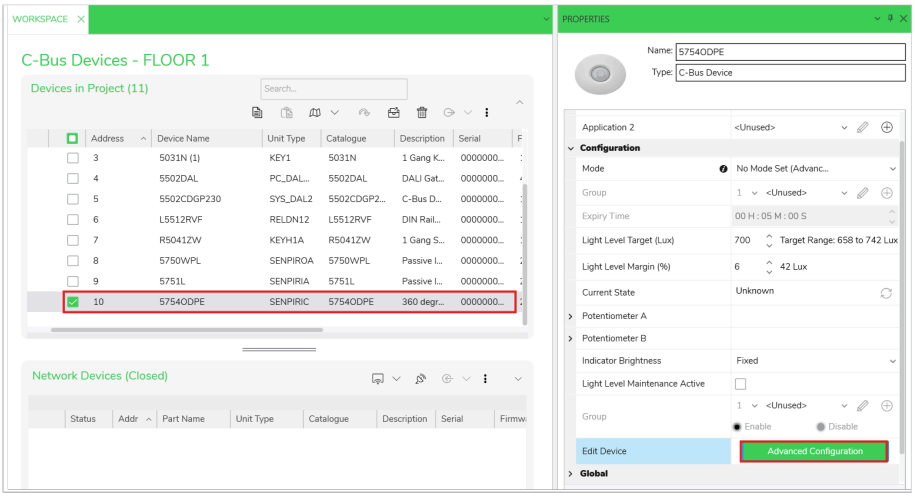
- Click **OK** to proceed.
- **Block** field is disabled if **Function** is set to **Unused** / **Light Level & Sunset Adjust** / **Occupancy Sensitivity Adjust**.
- **Block** field is enabled only when **Function** is set to **Block Timer Adjust**.



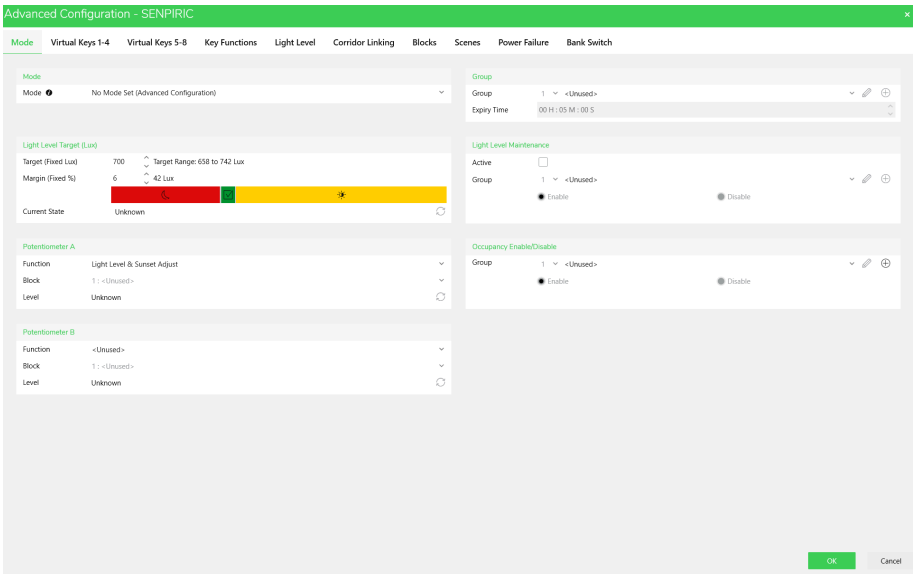
- When **Block Timer Adjust** is assigned to **Function** in **Potentiometer A**, the same option is excluded from the **Function** drop-down list in **Potentiometer B** and vice versa.
- When **Occupancy Sensitivity Adjust** is assigned to **Function** in **Potentiometer A**, the same option is excluded from the **Function** drop-down list in **Potentiometer B** and vice versa.

Advanced Configuration SENPIRIC

1. Click **Advanced Configuration** in the **Configuration** section of **PROPERTIES**.

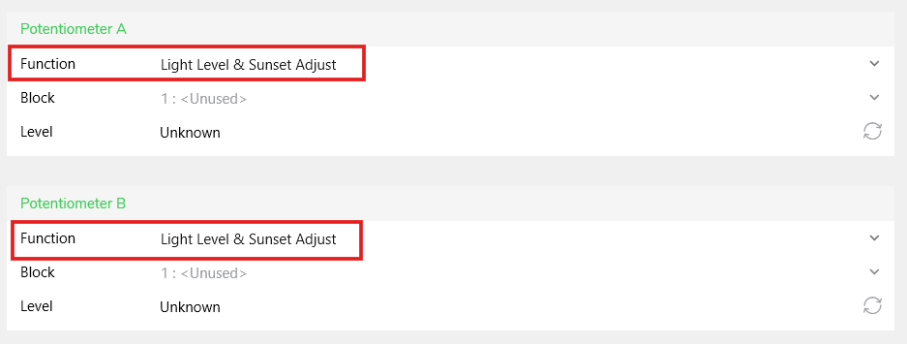


The **Advanced Configuration SENPIRIC** dialogue box appears.

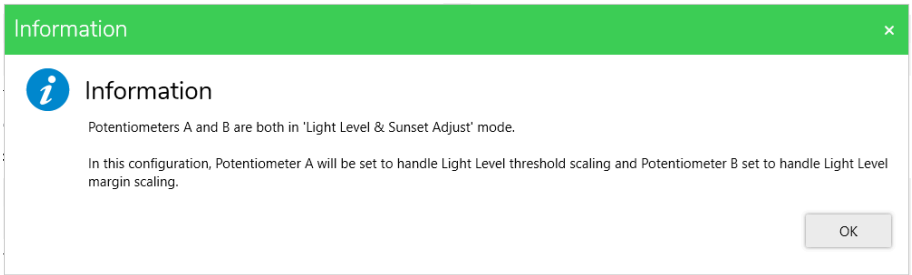


2. For more information on configurations in the **Advanced Configuration**, refer Advanced Configuration SENPIRIB, page 319.
3. The key difference between the SENPIRIB and SENPIRIC models lies in the number of potentiometers on the device.
   - SENPIRIB : Potentiometer (A)
   - SENPIRIC : Potentiometers (A and B)

4. When you select **Light Level & Sunset Adjust** function from **Potentiometer (A)** and **Potentiometer (B)** section, using the **Function** drop-down list, they allow external control of light level maintenance.



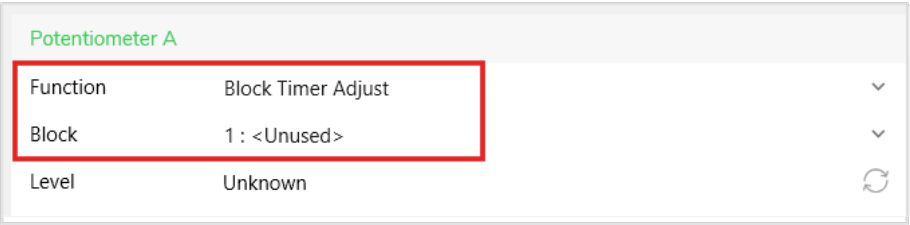
An **Information** pop-up appears.



5. Click **OK** to proceed.

Potentiometer	Description
A	Sets the desired light level (in lux).
B	Sets the allowable lux range around the light level target.

6. **Block** field is disabled if **Function** is set to **Unused** / **Light Level & Sunset Adjust** / **Occupancy Sensitivity Adjust**.
7. **Block** field is enabled only when **Function** is set to **Block Timer Adjust**.

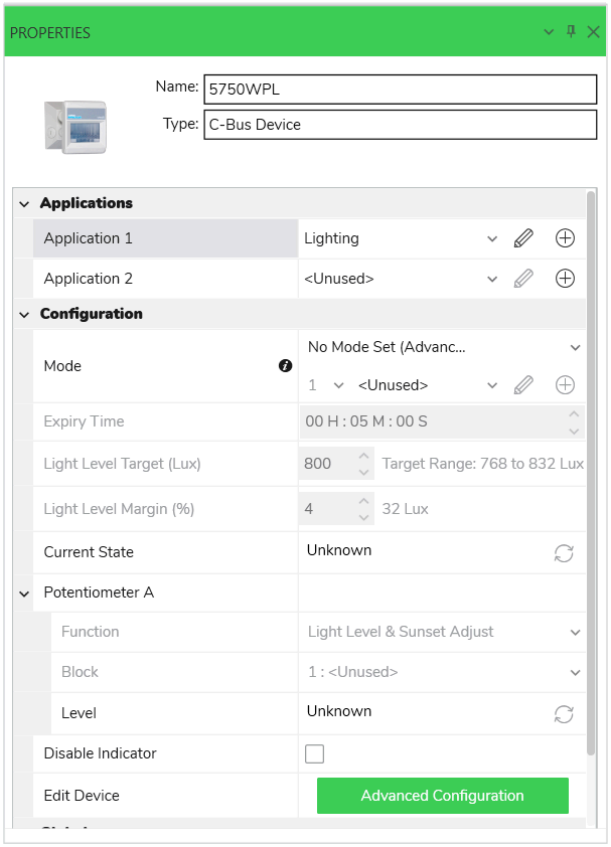


8. When **Block Timer Adjust** is assigned to **Function** in **Potentiometer A**, the same option is excluded from the **Function** drop-down list in **Potentiometer B** and vice versa.
9. When **Occupancy Sensitivity Adjust** is assigned to **Function** in **Potentiometer A**, the same option is excluded from the **Function** drop-down list in **Potentiometer B** and vice versa.

SENPIROA (5750WPL)

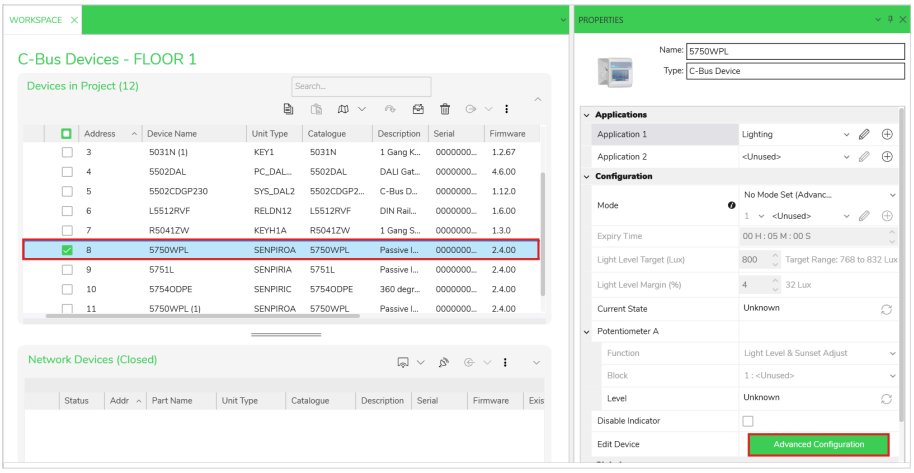
The SpaceLogic C-Bus 5750WPL is a high-performance outdoor Passive Infrared (PIR) movement sensor designed for the C-Bus automation network. You can use this sensor for security and energy-efficient lighting control in areas such as driveways, carports, and gardens. With an IP66 rating, it reliably operates in harsh outdoor weather conditions.

To configure the field informations of **PROPERTIES** in SpaceLogic C-Bus SENPIROA sensor, refer SENPIRIA (5751L), page 365.

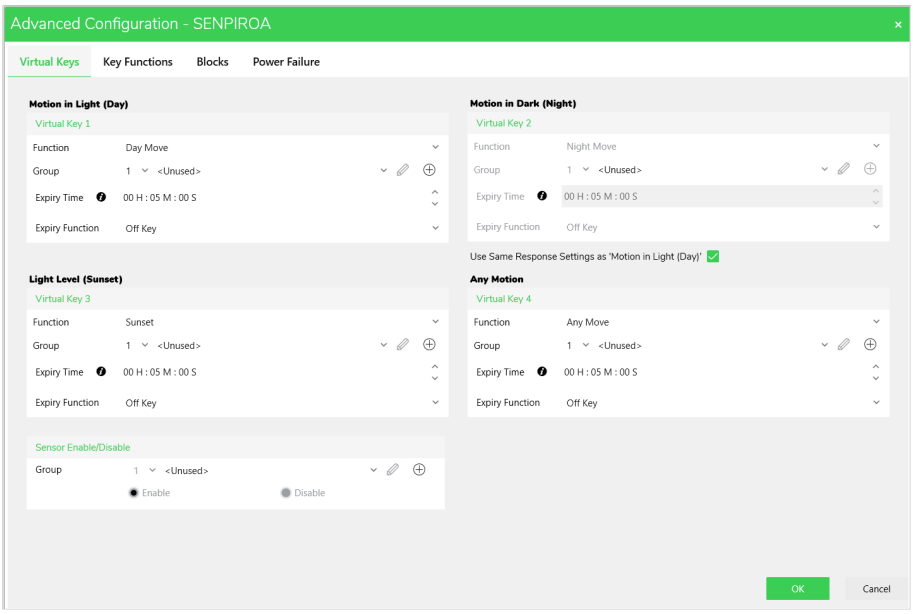


Advanced Configuration SENPIROA (5750WPL)

1. Click **Advanced Configuration** in the **Configuration** section of **PROPERTIES**.



The **Advanced Configuration SENPIROA** dialogue box appears.



2. For more information on configurations in the **Advanced Configuration**, refer Advanced Configuration SENPIRIA, page 372.

Output Units

The output units control the electrical power going to lighting or other electrical devices such as fans and motors. These units fall into categories that are strongly related to the electrical devices which they power, such as relays and dimmers. Relays are designed to control fluorescent bulbs and other non-dimming electrical devices. Dimmers are designed to accommodate electrical devices which use dimming.

The Devices under Output unit category is as listed below:

- Dimmers, page 395
- Relays, page 433

Dimmers

SpaceLogic C-Bus provides a range of dimming capabilities for Digital dimmers.

To configure digital dimmers, click here, page 395

Digital Dimmers

The SpaceLogic C-Bus Digital Dimmers are new-generation lighting control dimmers that helps to allow full customization for elegant control of dimmable LED lights and other light sources. The C-Bus dimmer is compatible with a range of load types.

- Trailing edge for incandescent and capacitive input electronic transformer based LV lighting.
- Leading edge for iron-core transformer based LV or neon lighting and other inductive loads.

Unit Types

- DIMDD8 (5508D1D, 8 Channel 1A DIN Digital Dimmer with switchable C-Bus Power Supply)
- DIMDD4 (5504D2D, 4 Channel 2A DIN Digital Dimmer with switchable C-Bus Power Supply)
- DIMDH4 (5504DHD, 4 Channel High Power DIN Digital Dimmer with switchable C-Bus Power Supply)

To convert old dimmers to new dimmers, click here, page 416.

To upgrade Digital Dimmer firmware, click here, page 36.

To confirm channel dimming mode via live networks, click here, page 419.

To enable/disable **Inbuilt C-Bus Power Supply** function for the Digital Dimmers, click here, page 414.

⚠WARNING

Dangerous voltages may be present on the output of dimmer channels even though the dimming level is set to zero.

Avoid the risk of electrical shock that could result in death or serious injury by disconnecting the unit from mains power before accessing the output terminals or any connected wiring. This condition is found on many dimming products.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

The field information to configure SpaceLogic C-Bus Dimmers is as explained below:

Name	This field allows to modify the Dimmer device name.
Type	This field displays the default device type.
Applications	This section displays the lighting applications supported by the dimmers. Up to four lighting applications can be defined and then used throughout the configuration of the dimmers.
NOTE: Name, and Type are database properties only and not stored in device.	

<table>
<tr><td rowspan="11">Channels

NOTE :
• DIMDD8 will have 8 channels
• DIMDD4 will have 4 channels</td><td colspan="3">Group

This field allows to program group addresses associated with dimmer channels.

You can:
• Select group address using drop-down list.
• Modify group address using .
• Add group address using .
• Create a new group name which takes the next available address (it’s a fast commissioning option).</td></tr>
<tr><td>Dimming Mode</td><td colspan="2">This field allows to select type of the Dimming Mode: Trailing Edge (TE) or Leading Edge (LE).</td></tr>
<tr><td>Channel Name</td><td colspan="2">This field allows to define the channel name of the dimmer.</td></tr>
<tr><td>Channel Location</td><td colspan="2">This field allows to define the channel location of the dimmer.</td></tr>
<tr><td rowspan="7">Advanced</td><td>Min Level</td><td>This field allows to set the minimum level in percentage.</td></tr>
<tr><td>Max Level</td><td>This field allows to set the maximum level in percentage.</td></tr>
<tr><td>Warn Before off Time</td><td>This field allows to set the warn before off time. By default, it is Not enabled.</td></tr>
<tr><td>Load Profile</td><td>Load profile feature allows to set the dimming channel to operate on specific load. By default, the inbuilt load profile is connected to the dimming mode selected.

Maximum of 4 custom profiles can be selected using drop-down list. Custom load profile can be modified using . For more details, click here, page 404

For more details on custom profile live testing, click here, page 408.</td></tr>
<tr><td>Dimming Curve</td><td>For more details, click here, page 412.</td></tr>
<tr><td>Power Recovery</td><td>This field allows to set the power recovery percentage. By default, it is Restore To Previous.</td></tr>
<tr><td>Power On Delay</td><td>This field allows to set the Power On Delay in hours: seconds format.</td></tr>
<tr><td rowspan="2">Logic</td><td>Type

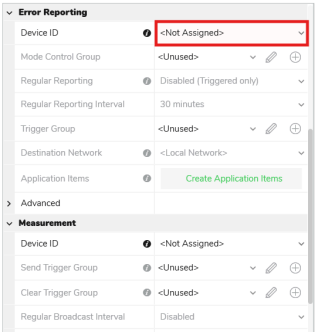
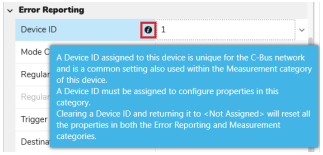
This field allows to select the type of the logic group.</td></tr>
<tr><td>Logic Group

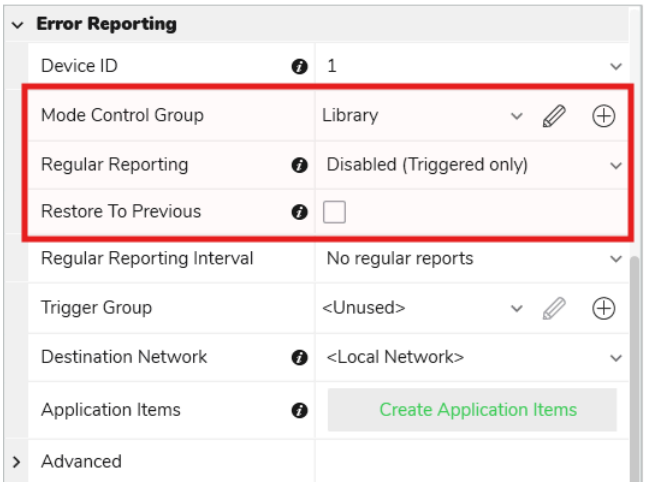
This field allows to program logic group addresses associated with dimmer channels.

You can:
• Select group address using drop-down list.
• Modify group address using
• Add group address using .
• Have maximum 4 logic groups.</td></tr>
</table>

Warn Before off This section indicates warning off before the group address is turned off (1–15 minutes) based on the timings set.	**Warn Before off Enable Group** It also allows to create a new group name which takes the next available address. In this section, you can : • Create a enable group using ⊕. • Modify existing group using ✎. By default, it is unused. If enable group is created, **Restore To Previous** is enabled. By typing new name in <unused> space allows you to create a new group name which takes the next available address.	**Restore To Previous** If **Restore To Previous** is unchecked, recovery level is enabled to set. By default, **Restore To Previous** is checked. **Recovery Level** Recovery level percentage can be from 0 – 100%

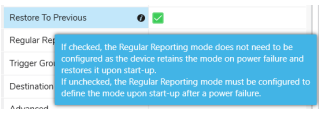
Remote On/Off	This field allows to choose the combinations of Remote On and Off for each individual channels. **NOTE** : • DIMDD8 will have 8 channels • DIMDD4 will have 4 channels

Error Reporting This section displays the fields for error reporting	**Firmware Version**	**Applicable for firmware version below 1.1.0**	**Applicable for firmware version above 1.1.0**
	Device ID	This field displays the unit address of the device. **NOTE:** The Device ID is for the entire device and is as same for **Measurement** section.	This field displays the unit address of the device. **NOTE:** The Device ID is for the entire device and is as same for **Measurement**. When you assign a Device ID, and then if you set the **Device ID** to **Not Assigned**, then all properties in both the **Error Reporting** and **Measurement** section are reverted to their default settings and disabled (grey out state).  Mouse over on the **Device ID** info icon to view the tooltip message. 
	Mode Control Group	This field allows to add an enable group (0–254). If you assign a group, **Restore To Previous** field is displayed and **Regular Reporting Interval** drop-down is enabled. If you uncheck **Restore To Previous** check box, **Regular Reporting** field will be enabled. If you check **Restore To Previous** check box, **Regular Reporting** will be disabled.	

<table>
<tr><td></td><td></td><td colspan="2"> 
</td></tr>
<tr><td></td><td>Regular Reporting</td><td>This field configures the Error Reporting mode of the Dimmers into one of three modes:
Triggered only: Errors are reported only when triggered by the assigned Trigger Group.
Always ON, most recent only: The most recent errors are reported automatically at a regular time interval (time set by the Regular Report Interval field).
Always ON, most recent and most severe: The most recent and most severe (or latched) errors are reported automatically at a regular time interval (time set by the Regular Report Interval field).</td><td>This field configures the Error Reporting mode of the Dimmers into one of the modes:
Disabled (Triggered only)
All Errors, Most Recent only:
All Errors, Most Recent and Most Severe (Mode 2)
Minimum Errors, Most Recent only (Mode 3)
Minimum Errors, Most Recent and Most Severe (Mode 4)
All the modes can be set with the regular reporting interval set to No regular reports, which allows live reporting of errors without the regular reports.

Mouse over on the Regular Reporting info icon to view the tooltip message.</td></tr>
<tr><td></td><td></td><td>Restore to Previous

If selected, this field restores the data on power failure.</td><td>When you click Save with the below conditions:
Mode Control Group — Assigned
Restore to Previous — Checked
Regular Reporting — Disabled state
The Regular Reporting displays the last saved value.

Mouse over on the Restore to Previous info icon to view the tooltip message.
 
</td></tr>
<tr><td></td><td>Regular Reporting Interval</td><td colspan="2">This field is used to select the time interval period between the completion of a regular report and beginning of the next report in Always On, Most recent only and Always On, Most recent and most severe modes. By default, the interval is 30 minutes.

Regular reporting interval is enabled for Trigger only mode.</td></tr>
<tr><td></td><td>Trigger Group</td><td colspan="2">This field contains a Trigger Group to trigger an error reporting event for any of the three error reporting modes. When a Trigger group is created, Resend Action Selector and Acknowledge Action selector are displayed.

The Resend Action Selector is set to send all errors and Acknowledge Action selector is set to acknowledge all errors.</td></tr>
</table>

	Destination Network	This field contains the destination C-Bus network to which the Dimmers routes the error reporting messages. This allows the error messages to be sent to a remote C-Bus network for central monitoring if it's not the local network. Mouse over on the **Destination Network** info icon to view the tooltip message.	
	Application Items	The **Property Editor** displays the **Application Items** property only when you load a project C-Bus Dimmer device. When you load a live network C-Bus Dimmer device, the **Property Editor** hides this property because you can create application data only for a project device. Mouse over on the **Application Items** info icon to view the tooltip message. For more info on bulk creation of application data for dimmers, click here.	
	Advanced	**C-Bus Voltage Warning Set Threshold**	• By default, **Disabled** is selected • The value selected must be less than the **C-Bus Voltage Warning Clear Threshold** value selected. • If the **C-Bus Voltage Warning Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Warning Clear Threshold** value to (current C-Bus Voltage Warning Set Threshold value + 1 V). Mouse over on the **C-Bus Voltage Warning Set Threshold** info icon to view the tooltip message.
		C-Bus Voltage Warning Clear Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **C-Bus Voltage Warning Set Threshold** value selected. • If the **C-Bus Voltage Warning Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Warning Set Threshold** value to (current C-Bus Voltage Warning Clear Threshold value - 1 V). Mouse over on the **C-Bus Voltage Warning Clear Threshold** info icon to view the tooltip message.
		C-Bus Voltage Critical Set Threshold	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Voltage Critical Clear Threshold** value selected. • If the **C-Bus Voltage Critical Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Critical Clear Threshold** value to (current C-Bus Voltage Critical Set Threshold value + 1 V).

			• If the **C-Bus Voltage Warning Set Threshold** has a value set (other than **Disabled**), then the value selected must be less than (current C-Bus Voltage Warning Set Threshold value). Mouse over on the **C-Bus Voltage Critical Set Threshold** info icon to view the tooltip message.
		C-Bus Voltage Critical Clear Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **C-Bus Voltage Critical Set Threshold** value selected. • If the **C-Bus Voltage Critical Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Critical Set Threshold** value to (current C-Bus Voltage Critical Clear Threshold value - 1 V). Mouse over on the **C-Bus Voltage Critical Clear Threshold** info icon to view the tooltip message.
		C-Bus Power Supply Warning Set Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **C-Bus Power Supply Warning Clear Threshold** value selected. • If the **C-Bus Power Supply Warning Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Power Supply Warning Clear Threshold** value to (current C-Bus Power Supply Warning Set Threshold value - 10 mA) Mouse over on the **C-Bus Power Supply Warning Set Threshold** info icon to view the tooltip message.
		C-Bus Power Supply Warning Clear Threshold	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Power Supply Warning Set Threshold** value selected. • If the **C-Bus Power Supply Warning Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Power Supply Warning Set Threshold** value to (current C-Bus Power Supply Warning Clear Threshold value + 10 mA). Mouse over on the **C-Bus Power Supply Warning Clear Threshold** info icon to view the tooltip message.

		Unit Over Temperature Set Threshold	This field is a combo box which is by default set to 70° C . The **Unit Over Temperature Set Threshold** property increments by 1° C with a range of 1° C - 80° C. Mouse over on the **Unit Over Temperature Set Threshold** info icon to view the tooltip message.
		Unit Over Temperature Clear Threshold	This field is a combo box which is by default set to 65° C . The **Unit Over Temperature Clear Threshold** property increments by 1° C with a range of 0° C - 79° C. Mouse over on the **Unit Over Temperature Clear Threshold** info icon to view the tooltip message.

	Firmware Version	**Applicable for firmware version below 1.1.0**	**Applicable for firmware version above 1.1.0**	
Measurement	**Device ID**	This field displays the unit address of the device **NOTE:** The Device ID is for the entire device and is as same for **Error Reporting** section.	This field displays the unit address of the device. **NOTE:** The Device ID is for the entire device and is as same for **Error Reporting** section. When you assign a Device ID, and then if you set the **Device ID** to **Not Assigned**, then all properties in both the **Error Reporting** and **Measurement** section are reverted to their default settings and disabled (grey out state). Mouse over on the **Device ID** info icon to view the tooltip message.	
	Send Trigger Group	This field contains a trigger group to request the Dimmers to send its stored measurement data. Mouse over on the **Send Trigger Group** info icon to view the tooltip message.		
	Clear Trigger Group	This field contains a trigger group to clear the stored measurement data in the dimmers. Mouse over on the **Clear Trigger Group** info icon to view the tooltip message.		
	Regular Broadcast Interval	NA	Disabled by default. Can set the intervals between 1 min to 4 hours.	
	Regular Broadcast Option	NA	**All**	Enabled by default
			Lamp Hours	Selected and Disabled by default
			Channel Temperature	Selected and Disabled by default
			Power Supply Current	Selected and Disabled by default
			C-Bus Voltage	Selected and Disabled by default
			Unit temperature	Selected and Disabled by default
			NOTE: Deselecting all will enable each of the individual check box options.	

<table>
<tr><td></td><td>Destination Network</td><td colspan="5">This field contains the destination C-Bus network to which the dimmer routes measurement application messages.

Mouse over on the Destination Network info icon to view the tooltip message.</td></tr>
<tr><td></td><td rowspan="11">The action selector for trigger groups is as explained below:</td><td>Virtual Channel Number</td><td>Property</td><td>Units</td><td>Reset</td><td>Notes</td></tr>
<tr><td>0 – 15</td><td>Lamp Running Time</td><td>Hours</td><td>Yes</td><td>NA</td></tr>
<tr><td>16 – 31</td><td>Channel Voltage</td><td>Volts</td><td>No</td><td rowspan="5">Units with power metering only</td></tr>
<tr><td>32 – 47</td><td>Channel Current</td><td>Amperes</td><td>No</td></tr>
<tr><td>48 – 63</td><td>Channel Power</td><td>Watts</td><td>No</td></tr>
<tr><td>64 – 79</td><td>Channel Energy</td><td>Watt-hours</td><td>Yes</td></tr>
<tr><td>80 – 95</td><td>Channel Lifetime Energy</td><td>Watt-hours</td><td>No</td></tr>
<tr><td>128 – 143</td><td>Channel Temperature</td><td>Celsius</td><td>No</td><td>Dimmers only</td></tr>
<tr><td>252</td><td>C-Bus Power Supply Output Current</td><td>Amperes</td><td>No</td><td>NA</td></tr>
<tr><td>253</td><td>C-Bus Voltage</td><td>Volts</td><td>No</td><td>NA</td></tr>
<tr><td>254</td><td>Unit Temperature</td><td>Celsius</td><td>NA</td><td>NA</td></tr>
<tr><td colspan="6">Measurement Application supports various operational parameters for triggered request.

Measurement Request Trigger Group defines the Trigger Group for the request. A trigger's Action Selector determines which measured parameter is requested.

NOTE: Action Selector 0xFF requests all measurements (in which they are sent 2 at a time with an interval of 2 seconds). Other Action Selector values can be used to request individual measured properties corresponding to the virtual channel number as per the above table.

The DEVICE ID for the Measurements is defined by the Device ID parameter, the same Device ID is used for Error Reporting. The Device ID will be unique per network to differentiate measurements from different devices. The devices monitoring the Measurement messages should keep track of the source network to differentiate if Device IDs are reused across multiple C-Bus networks.

If the Device ID parameter is left at its default value of 0xFF then the Unit Address is used as the Device ID in the Measurement Application messages, which ensures uniqueness. However, if the device is readdressed then any monitoring devices will also needs to be updated to match the new Device ID (It is recommended to leave the Device ID as the default value).</td></tr>
</table>

<table>
<tr><td>Logic Groups

Dimmers can have maximum 4 logic groups each group having respective channels (8 or 4)</td><td>Group

This section will allow to create a enable group using ⊕ and modify existing group using ✎.

By default, it is unused. If enable group is created, Restore To Previous is enabled.</td></tr>
<tr><td></td><td>Power Recovery

This field allows to set the power recovery percentage. By default, it is Restore to previous.</td></tr>
<tr><td></td><td>Channel

NOTE :
• DIMDD8 will have 8 channels
• DIMDD4 will have 4 channels</td></tr>
</table>

<table>
<tr><td rowspan="5">Global

This section displays the project properties set by the user at the time of creation of the project.</td><td>C-Bus Clock</td><td>If checked, allows you to enable the C-Bus clock for the dimmers.</td></tr>
<tr><td>Disable Local Toggle</td><td>If checked, disables the local toggle.</td></tr>
<tr><td>Network Hardware Burden</td><td>If checked, the physical hardware burden is plugged into the device.

By default, it is unchecked.</td></tr>
<tr><td>Inbuilt C-Bus Power Supply</td><td>If checked, the power supply is enabled/active.

By default, it is unchecked.</td></tr>
<tr><td>Disable Dimmer Mode Change</td><td>If checked, disables the dimmer mode change.</td></tr>
</table>

	Disable Power Supply Toggle	If checked, disables the power supply toggle.
	Disable C-Bus Priority	If checked, disables the C-Bus priority.
	Disable Clock Generator Toggle	If checked, disables the clock generator toggle.

Unit Identification This section display the fields for identification of the unit.	**Unit Type**	This field contains the unit type and unit description of the device.
	Catalog Number	This field contains the catalog number related to the unit type.
	Firmware Version	This field shows the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
	Part Name	This field contains the part name which is stored in the unit hardware, which can be modified.
	Unit Address	This field displays the unit address assigned to the device.
	Serial Number	This field contains the serial number which exists on the physical network.
	Tag Name	This field contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only.
	Notes	This field contains a location to add notes about the unit which is stored in the project database only.

Status The Status section contains information about the C-Bus network related functions located on the unit.	**Device Status** This section displays the details of hardware.	**Hardware Version**	This field displays the hardware version of the device.
		Firmware Version	This field displays the firmware version of the device.
		C-Bus Clock Active	This field indicates whether the C-Bus internal clock is currently enabled on the Dimmers on the network.
		C-Bus Voltage (V)	This field displays the C-Bus voltage of the device.
		Inbuilt C-Bus Power Supply Active	This field displays whether the Inbuilt C-Bus Power Supply Active is On or Off.
		Power Supply Load	This field displays the load of the power supply (mA).
		Power Supply Output Voltage	This field displays the power supply output voltage (mV) of the device.
		Load Power	This field displays the load power (mW) of the device.
		Unit Temperature	This field displays the unit temperature (°C)of the device.
	Channel Status Each channel will have these channel status. **NOTE** : • DIMDD8 will have 8 channels • DIMDD4 will have 4 channels	**Load Compatibility**	This field displays the status of load incompatibility (Yes/No).
		Dimming Mode	This field displays type of the dimming mode.
		Offline	This field displays the status of the device (Yes/No).
		Dimming Mode Error	This field displays the status of dimming mode error (Yes/No).
		Temperature Wind Back	This field displays the status of temperature wind back (Yes/No).
		Temperature Shut Down	This field displays the status of temperature shut down (Yes/No).
		Over Current	This field displays the status of over current (Yes/No).
		Operating Temperature	This field displays the value of the temperature.

		Mains Frequency	This field displays the value of the mains frequency.

Once configuring dimmers is completed save the changes.

Load Profile

By adjusting settings within each dimmer channel, a Load Profile tailors dimming behavior for better end-to-end performance.

Inbuilt Load Profiles and the Inbuilt Dimming Curve have the pre configured settings which cannot be modified. If the acceptable results cannot be utilized with the load being used, the settings are customized and applied to a dimmer channel.

A Custom file can also be saved and used within other channels of the dimmer and also shared across other compatible dimmer devices.

Default Dimmer Channel Profile is selected to be the most universal. There are 4 user-configurable dimmer channel profiles. Each channel can be assigned to any one of these 5 profiles. In each case there is a improvement for the light source behavior during dimming, the load profile can be adjusted by the SpaceLogic C-Bus Commission Software.

> **NOTE:** The Load Brand, Load Model, Load Quantity, Custom Notes, Load Type and Mains Frequency fields are saved as project settings only. Furthermore, the Load Type and Mains Frequency selections determine the values presented in the Custom Load Profile section.

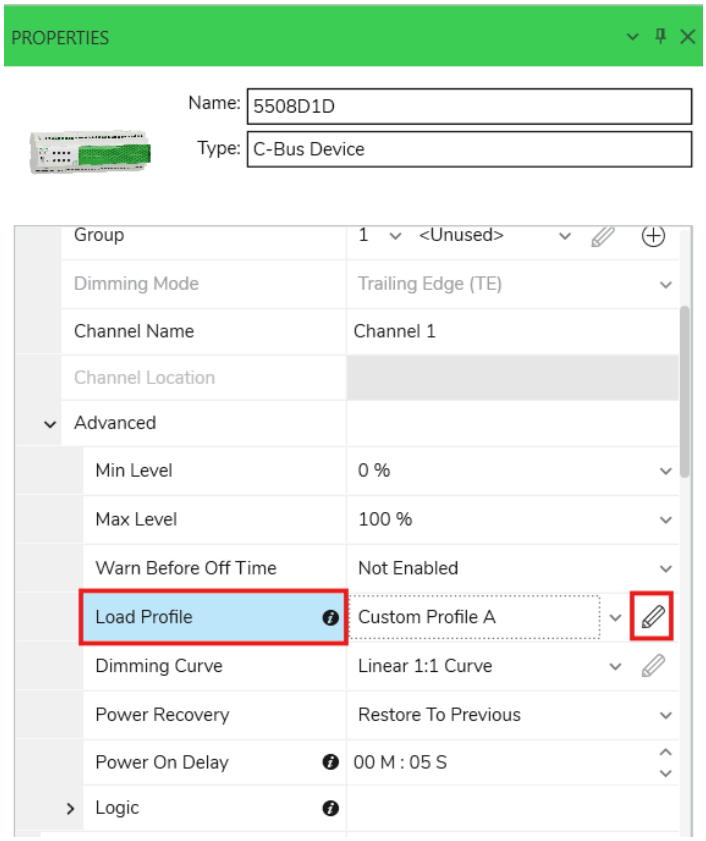
The SpaceLogic C-Bus Commission software allows:

- The customizing of the load profiles per channel.
- 4 user configurable profile per channel/device.
- Saving and sharing of endless load profiles for future project uses.
- Different load types:
  - LED Lighting (TE Dimmable)
  - LED Lighting (LE Dimmable)
  - Electronic Transformer (TE Dimmable)
  - Electronic Transformer (LE Dimmable)
  - Incandescent Lighting (TE Preferred)
  - Incandescent Lighting (LE)
  - Iron Core Transformer (LE)
  - Sweep Fan (LE)
  - Exhaust Fan (LE)
  - Other (LE)
  - Other (TE)

To create a customized load profile:

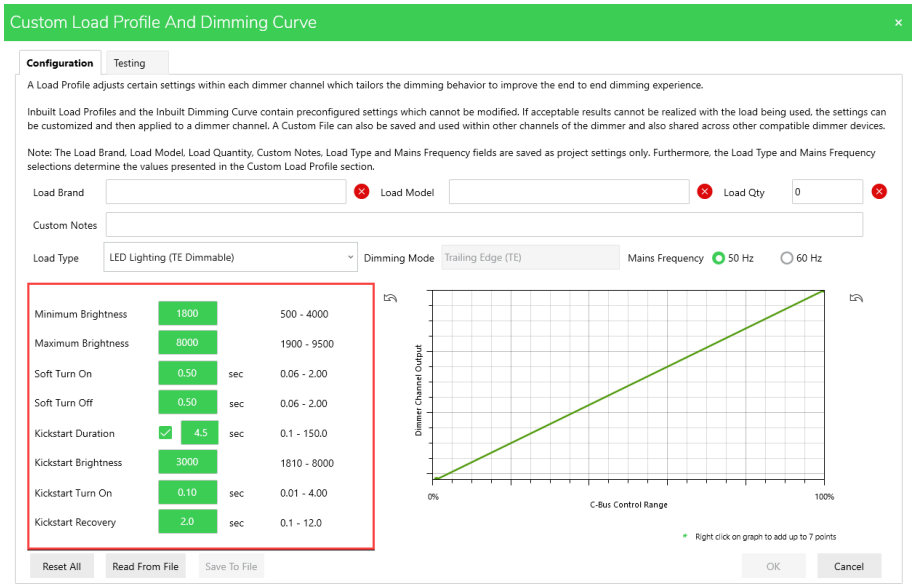
1. Under **Advanced** section of Channels, select any **Custom Profile** option from **Load Profile** drop-down.

2. Click .

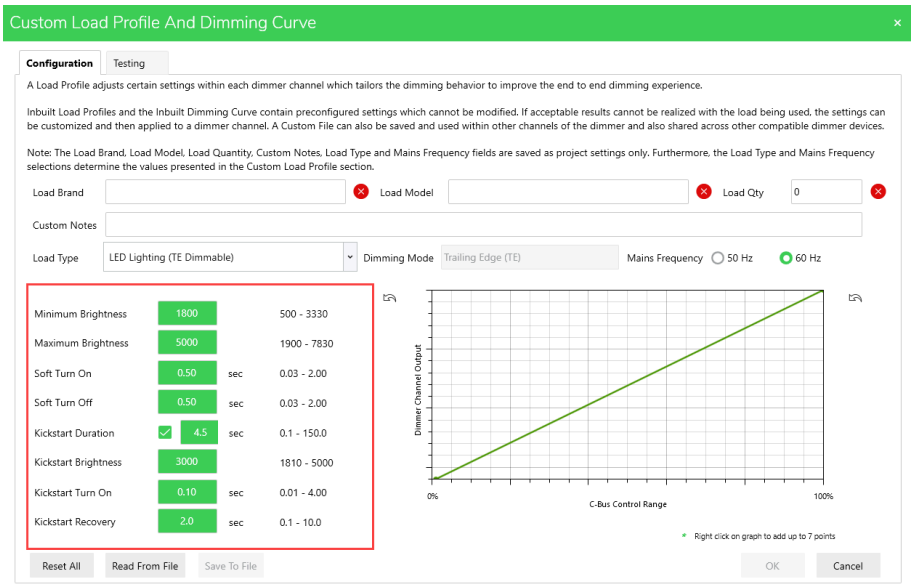


Custom Load Profile and Dimming Curve window is displayed. The load profile customizing is done in **Configuration** tab.

For 50 Hz



For 60 Hz

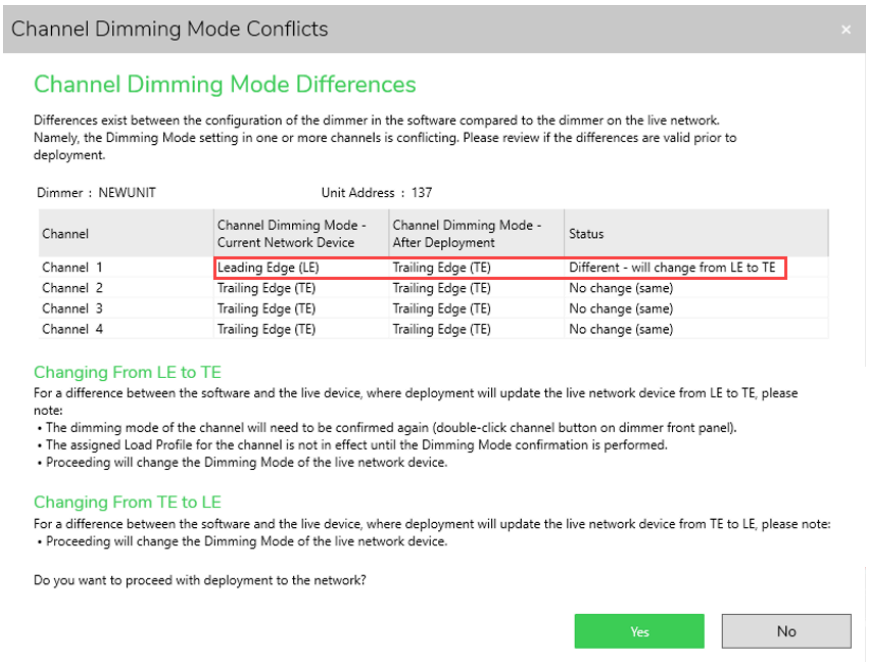


NOTE: The Custom Load Profile parameter values varies depending on the load type selected.

- The lower limit for the **Soft Turn On** property is calculated dynamically. However the lower limit value is no less than 0.01.
- The lower limit for the **Soft Turn Off** property is calculated dynamically. However the lower limit value is no less than 0.01.
- The lower limit for the **Kickstart Brightness** is based on Minimum Brightness + 10.
- The lower limit for the **Kickstart Turn On** property is calculated dynamically. However the lower limit value is no less than 0.01.
- Selecting a **Load Type** will load specific values based on the selection of the **Mains Frequency** property.

IMPORTANT: When deploying a DIMDD8 / DIMDD4 dimmer, the dimming mode of each channel of the dimmer device loaded into the **Property Editor** are compared to the live dimmer device. If there is a conflict in the dimming mode of a channel :

A **Channel Dimming Mode Conflict** window is displayed prior to deployment.



- Click **Yes** to resolve the conflict and deploy.
- Click **No** to cancel the deployment.

3. SpaceLogic C-Bus Commission enables saving, uploading or sharing of load profile files which includes the following :
   - **Load Brand**
   - **Load Model**
   - **Load Quantity**
   - **Custom Notes associated with the load**
   - **Load Type**
   - **Read-only dimming mode**
   - **Mains Frequency**

   Dimming setting includes the following:

4. To edit the preset values, click on the value and type new value within the range which is mentioned next to the parameter.
5. Click ↶ to reset the parameter values.

Minimum Brightness: Sets the level where the load operates or is visibly On.

Maximum Brightness: Sets the level where the load exhibits no further change in brightness or output.

Soft Turn On: Sets the role of change for Instant Ramps. The value is the time taken to transit from Off to Maximum Brightness. This value can also affect the timing of C-Bus Ramps between levels and the output of a dimming curve, which is set to 1 second or less.

Soft Turn Off: Sets the role of change for Instant Ramps. The value is the time taken to transit from Off to ON.

Kickstart Duration: When enabled, sets the duration to maintain the Kickstart Brightness level before recovering to a lower level if set.

Kickstart Brightness: When enabled, sets the dimmer Kickstart Minimum Brightness level before when transition from Off to On (at any level).

Kickstart Turn On: When enabled, sets the time in which the Kickstart Brightness level is applied to the load. A value of 10 ms is a Fast or Hard Start (same as a switch). This value is recommended to be set to Fast between 0.010 ton 0.100 seconds.

Kickstart Recovery: When enabled, sets the time taken at the end of the Kickstart duration to transition from the Kickstart Brightness level to the currently set level of the load.

If the set level is less than the Kickstart Brightness level, this value is set to Slow to achieve a smooth unnoticeable transition at the end of the kickstart.

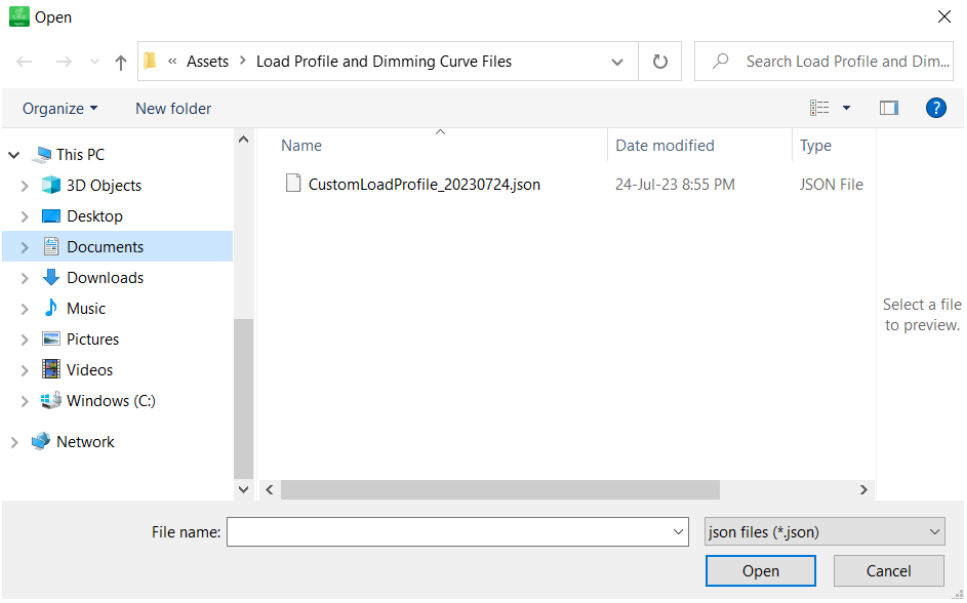
To reset both **Load Profile and Dimming Curve** set values, click **Reset All**.

Enter the required information in **Load Brand, Load Model**, **Load Quantity** and **Profile notes** and click **OK**.

The custom load profile settings created can be saved and used for other dimmer channels and dimmer devices by exporting the settings using **Save To File**. The Save to file is enabled once there is a change in the settings.

The exported custom load profile can be reloaded to use for other dimmers using **Read From File** . This will open the folder consisting of JSON files in the path **Assets > Load Profile and Dimming Curve Files.**

Select the file and click **Open**.



Custom Profile Live Testing

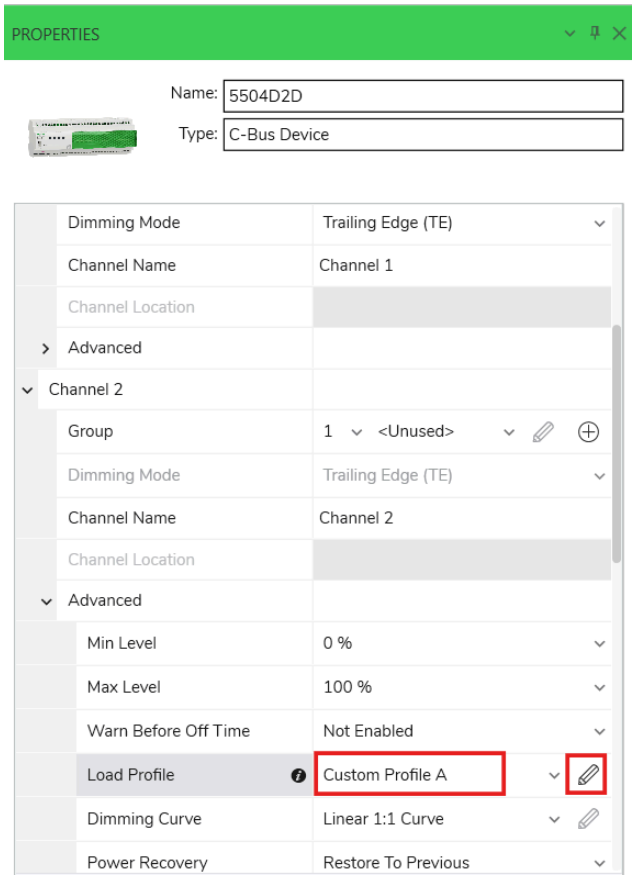
Custom Profile Live Testing allows you to quickly identify and define the minimum and maximum conduction values for a dimmer channel. It uses a direct connection to the dimmer and provides live control of the connected load, without repetitive deployment including:

- Maximize dimming range of connected lights.
- Mask erratic behavior of lights at low brightness levels.
- Mask little/no change in response of lights at high C-Bus control levels.
- Define attributes from live testing rather than experimenting or guessing values to try.

  NOTE: The maximum conduction value has been changed to 9000 for High-powered dimmer (DIMDH4) and to 9500 for other dimmers.

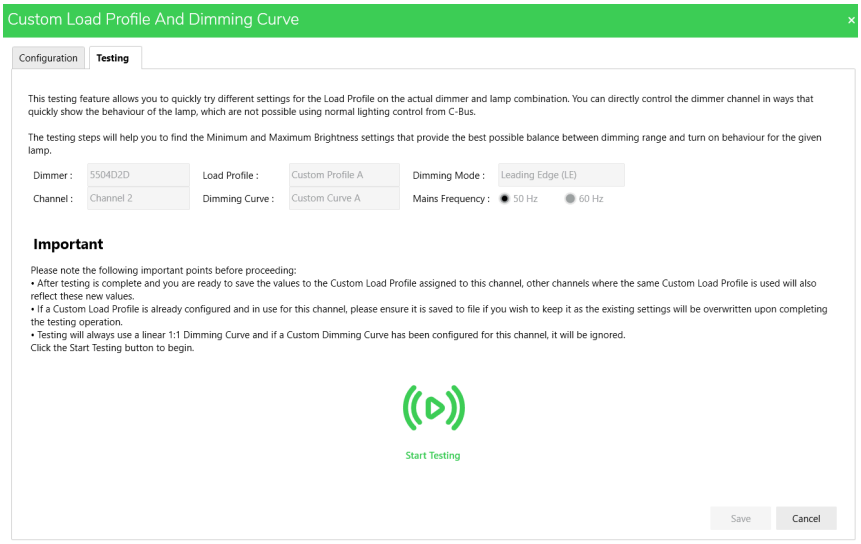
To perform live testing on the dimmer:

1. In the **PROPERTIES** window, select any custom profile from the **Load Profile** drop-down and click .



Custom Load Profile and Dimming Curve window is displayed.

2. You can perform live testing in the **Testing** section. The **Testing** tab is disabled initially and becomes enabled when the following conditions are met:
   - The C-Bus Network must be opened and scanned.
   - If the dimmer is invoked from project, dimmer must be partial or fully matched.
   - A group address must be set or configured to the channel.



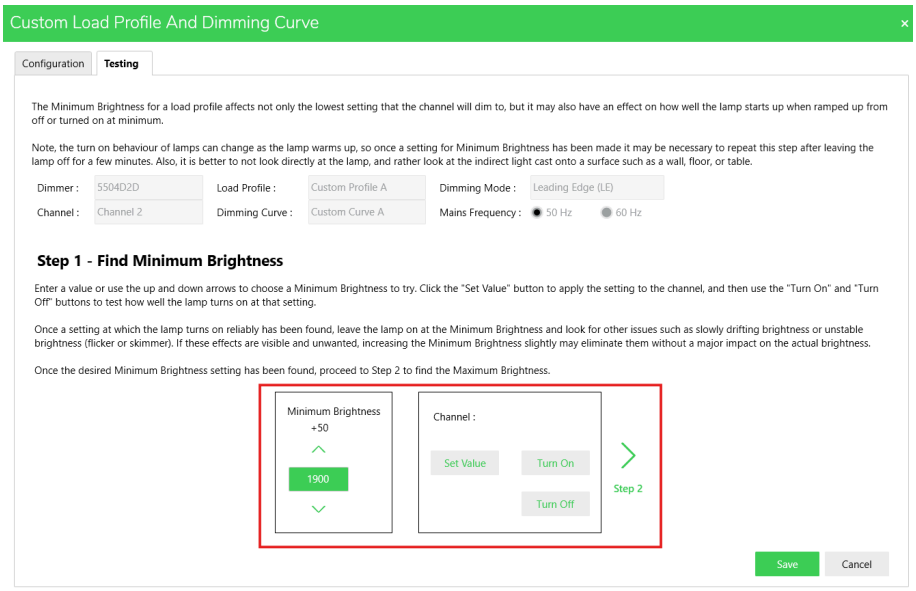
   The **Testing** tab displays the below properties of the dimmer:
   - Dimmer Device Name.
   - Dimmer Channel Name.
   - Current configured **Load Profile** for the channel.
   - Current configured **Dimming Curve** for the channel.
   - Current configured **Dimming Mode** for the channel.
   - Current configured **Mains Frequency** for the channel.

3. Click to start the testing.

   NOTE: The testing operation places the current dimmer channel into test mode, allowing you to explore, test and confirm its dimming capability with the connected load.

4. Once the testing starts, the process takes place in three steps.

Step 1:



a. Set the lowest acceptable brightness level and click **Set Value** to set the value.

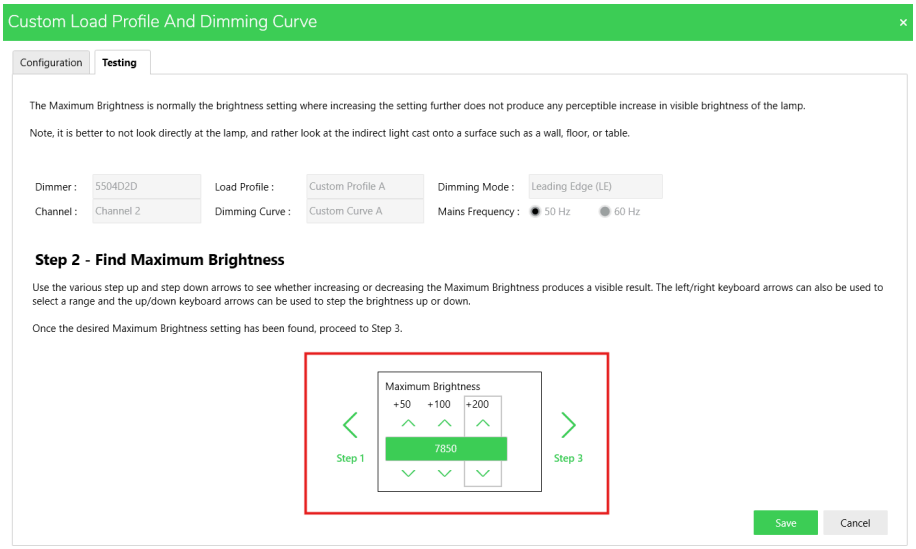
   NOTE: Until you set the value and click **Set Value**, the **Turn On** and **Turn Off** buttons will be disabled.

b. Click **Turn On** to test the turn on behavior at that level.

c. Click **Turn Off** to turn off the test at that level.

d. Click **Step 2** to test the maximum brightness.

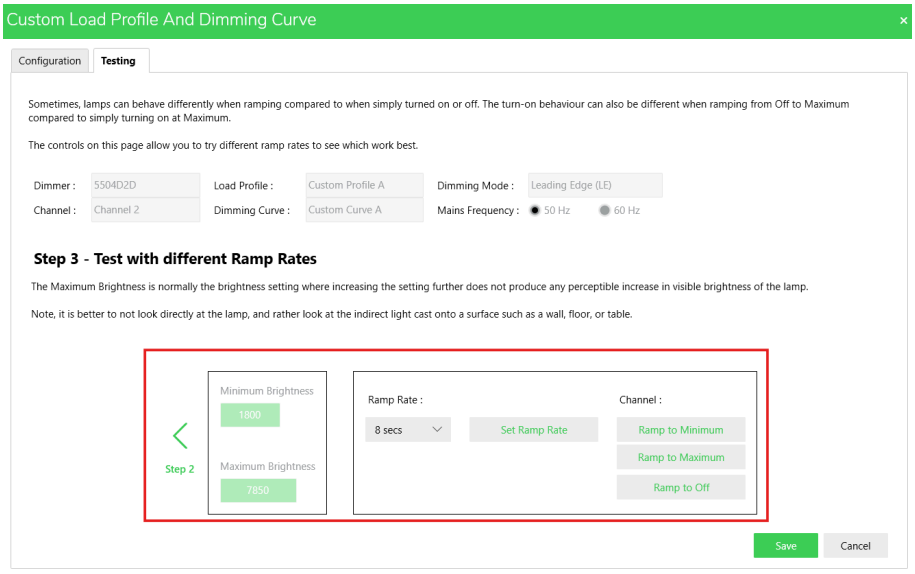
Step 2:



a. Set the highest acceptable brightness level.

b. Click **Step 3** to test the dimming response.

Step 3:

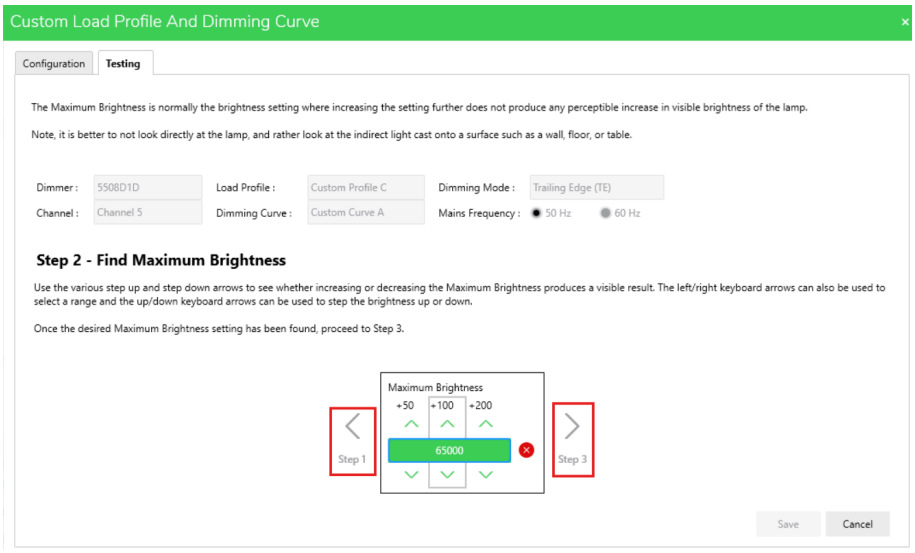


a. Choose the ramp rate response between the **Minimum** and **Maximum Brightness** limits with the load currently connected, to test and observe the dimming behavior within the range defined in **Step 1** and **Step 2**.

   The ramp rate ranges are instant, 4 secs, 8 secs, 12 secs, 20 secs, 30 secs.

b. Click **Save**.

   NOTE: If a validation error occurs, the step arrows and labels are disabled.



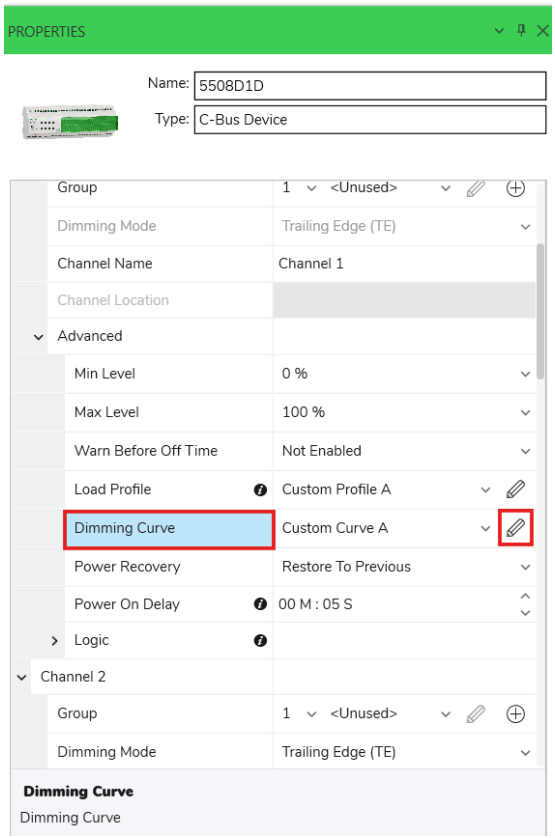
Dimming Curve

A Dimming Curve refers to a translation between input level and output level. A Dimming Curve adjusts the rate of the change of the brightness level of a dimmer channel as the C-Bus group (level) is ramped. The default dimming curve is linear.

To create a customized Dimming Curve:

1. In **Advanced** section of channels, select **Custom Curve** from the **Dimming Curve** drop-down.

2. Click .

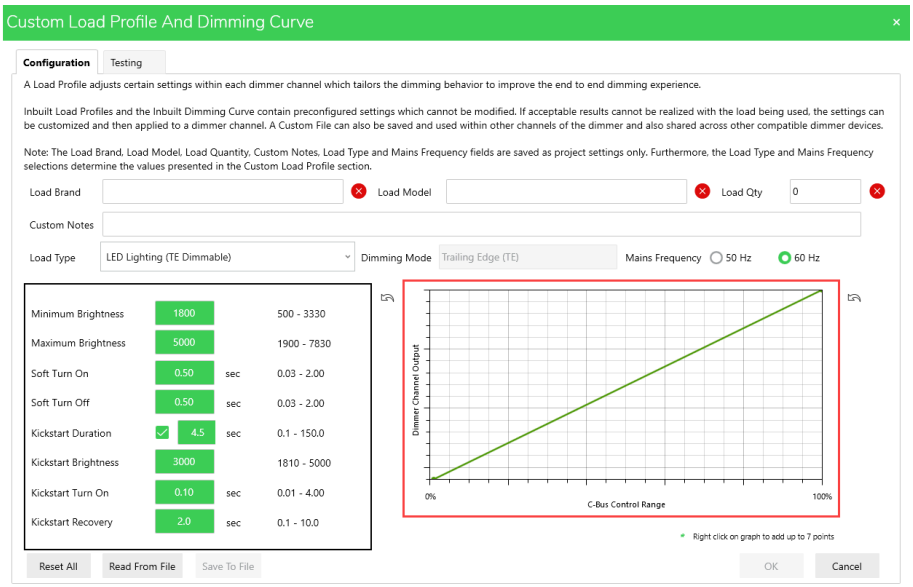


Custom Load Profile And Dimming Curve window is displayed.

3. To add new point on chart, right click on the chart and select **Add.**
4. To change the added point, hold and drag the point to set new channel and control range value.

   Once settings are completed mention curve notes and confirm **OK**.

   The chart in below image represents mapping between load profile and C-Bus control range.

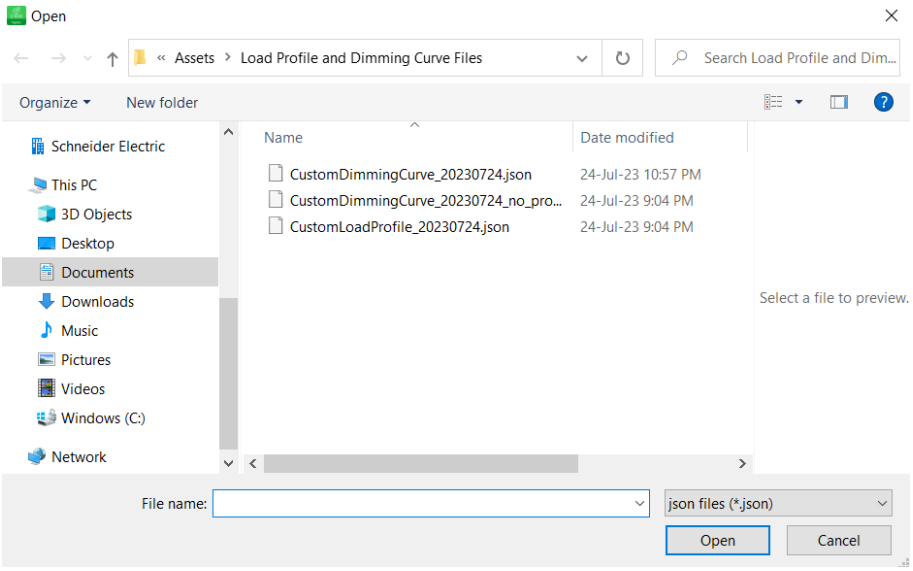


The custom dimming curve settings created can be saved and used for other dimmer channels and dimmer devices by exporting the settings using **Save To File**. The Save to file is enabled once there is a change in the settings.

5. Click to reset the setting values.

   The exported custom dimming curve can be reloaded to use for other dimmers using **Read From File** . This will open the folder consisting of json files in the path **Assets > Load Profile and Dimming Curve Files**.

6. Select the file and click **open**.

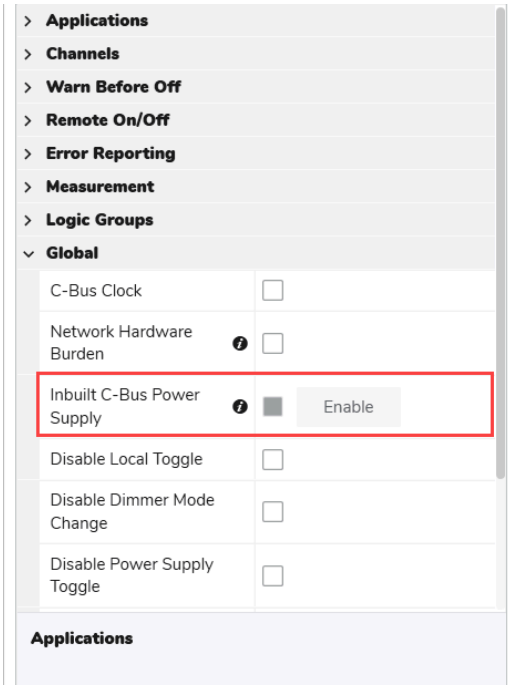


Inbuilt C-Bus Power Supply

SpaceLogic C-Bus Commission allows to enable/disable the "Inbuilt C-Bus Power Supply" function for the C-Bus Voltage Free Relays and Digital Dimmers.

NOTE: Enabling/Disabling C-Bus Power Supply from front panel of the respective device is also possible, refer respective Device User Guide.

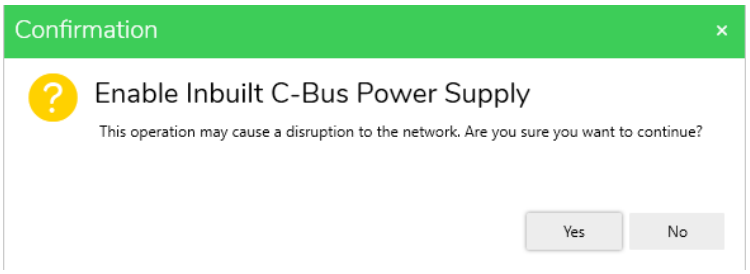
1. Select a relay/dimmer unit.
2. In **Properties** window, go to **Global > Inbuilt C-Bus power supply**



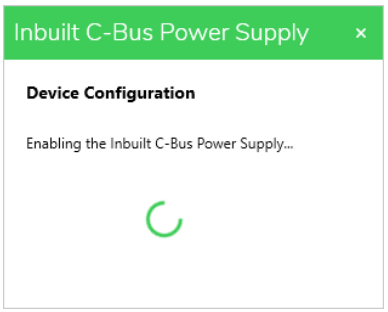
NOTE: Option is available only if:

- The C-Bus network is opened and scanned.
- A device is fully/partially matched.

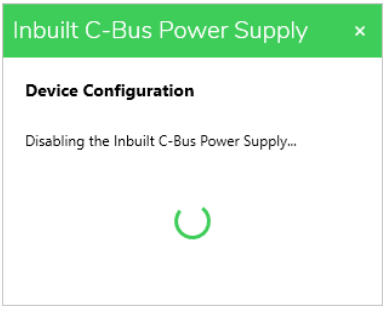
3. Check the check box to enable ‘Inbuilt C-Bus power Supply’. Confirmation message is displayed.



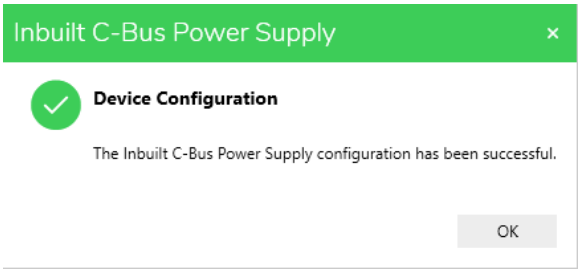
Confirm **Yes**



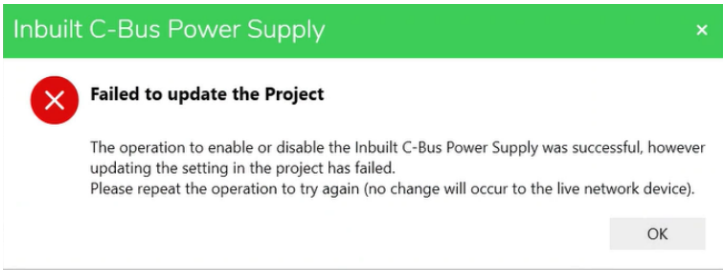
NOTE: Uncheck the check box to disable ‘Inbuilt C-Bus power Supply’ (By default, it is disabled). Confirmation message is displayed.



4. Confirm **Yes**. If device configuration process is successful, below message is displayed.

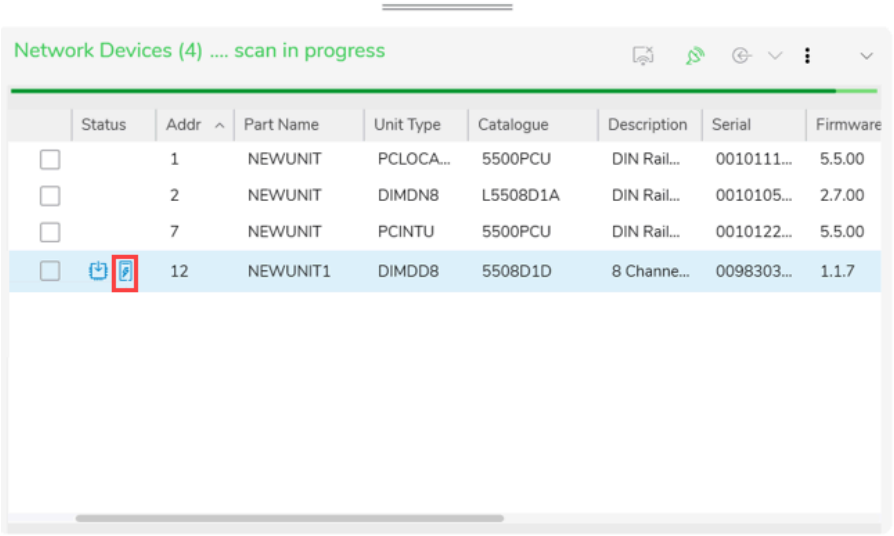


NOTE: If the device configuration process is failed, below error message is displayed.

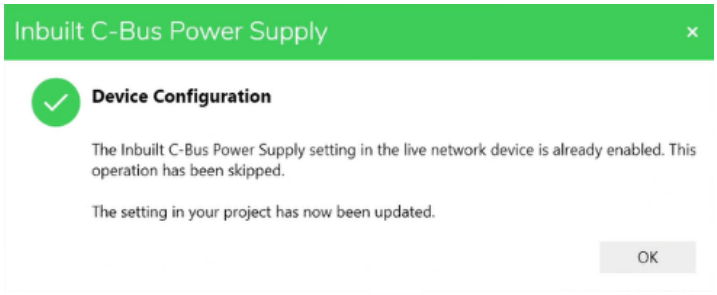


5. The enabled ‘Inbuilt C-Bus Power Supply’ for a respective device is visible in *Network Device* section as shown below.

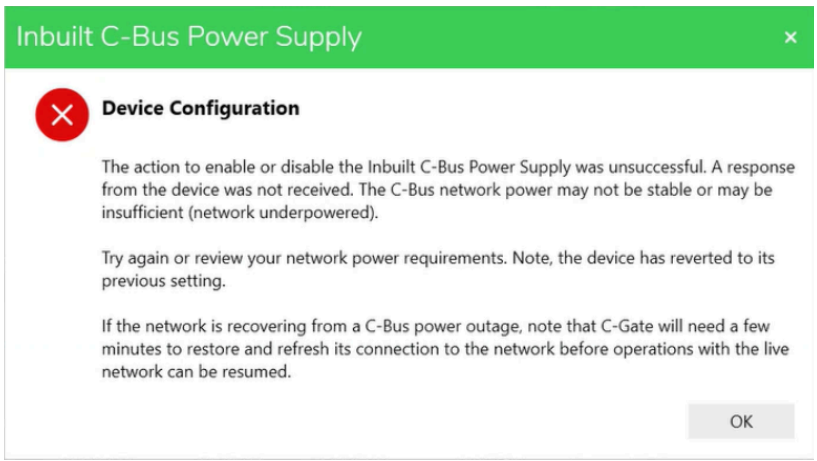
   The icon represents ‘Inbuilt C-Bus Power Supply’ is been enabled for the device.



IMPORTANT: If the power supply enabled device is been removed from the live network and is re-added to the network, the network would be already enabled displaying following message .



If the device configuration reverting to previous settings is failed, below error message is displayed.



Dimmer Conversions

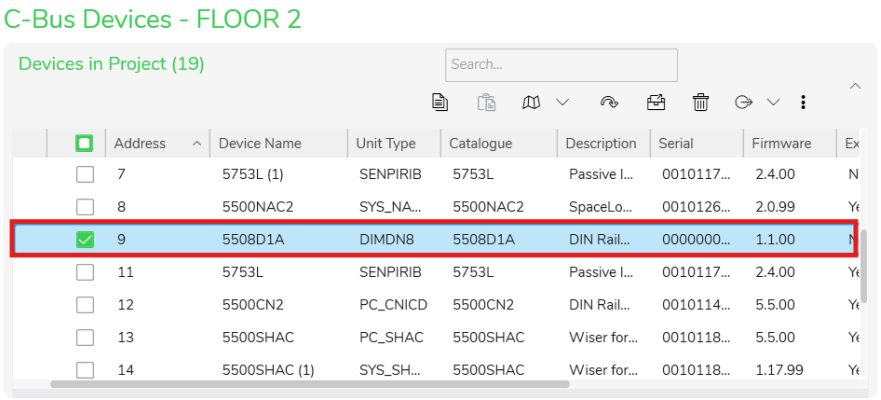
If there are old dimmers existing in the project, the SpaceLogic C-Bus Commission allows the user to convert old dimmers to digital dimmers.

Old Dimmers		New Dimmers	
Catalogue number	Unit Type	Catalogue number	Unit Type
L5508D1A	DIMDN8	5508D1D	DIMDD8
L5504D2A	DIMDN4	5504D2D	DIMDD4
L5504D2U	DIMDU4	5504D2D	DIMDD4

To convert:

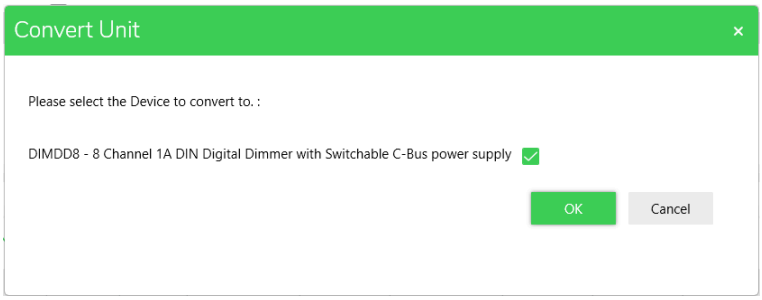
1. Open the same project in commission software same as in Toolkit where the dimmer is added in network.
2. Select **C-Bus Devices** of the network.

   The available devices in the project are displayed.
3. Select the dimmer that needs to be converted.



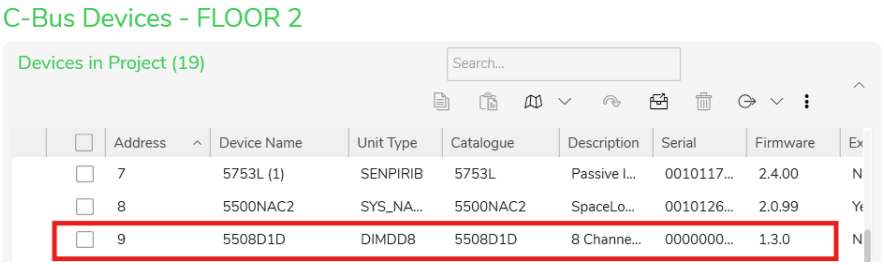
4. Right click on the **Dimmer > Convert Unit**.

   Convert Unit confirmation box is displayed.



5. Select the check box and click **OK**.

   The old dimmer DIMDN8 is converted to digital dimmer DIMDD8.



6. When conversion is completed:
   - The address of the dimmer remains the same.
   - The unit type catalogue description and firmware details are updated.
   - The firmware will have the latest version.
   - The serial details needs to be updated manually in property window of the device.
   - The configuration changes made in old dimmer reflects in the new dimmer as well.

     Table below shows the list of properties that will be restored in the digital dimmer DIMDN4 and DIMDN8:

Properties	Properties which are restored	Properties which are not restored
Project Name	Project name will be restored as in the old dimmer.	Not Applicable
Applications	Applications will be restored as in the old dimmer.	Not Applicable
Channel	◦ Group Address ◦ Channel Restore Level ◦ Power on Delay ◦ Min, Max	Not Applicable
Logic	◦ Logic Groups ◦ Assignment ◦ Min, Max	Area
	◦ Logic Recovery ◦ Logic group Restore level	Learn Mode
Power Recovery	Not Applicable	Enable Burden
Global	◦ Enable C-Bus Clock ◦ Enable Local Toggle ◦ Enable C-Bus Priority ◦ C-Bus Clock ◦ C-Bus Priority ◦ Local Toggle	
Unit Identification	◦ Unit Address ◦ Part Name ◦ Tag Name ◦ Notes	
The Serial details needs to be updated manually in the property editor.		

     For DIMDU4, the following properties will be restored.
     - Device ID
     - Kickstart Duration
     - Kickstart Brightness
     - Kickstart Turn On
     - Error Reporting Mode
     - Error Reporting Regular Report Interval
     - Error Reporting Group
     - Error Reporting Trigger group
     - Error Reporting Resend Action Selector
     - Acknowledge All Action Selector

     Along with existing, additional properties can also be configured in the new digital dimmers.

Once the conversion is completed:

1. Scan the C-Bus Network.
2. Identify new dimmer on the Network.
3. Readdress the device to match live network or readdress device to match the project database.
4. Deploy the device.

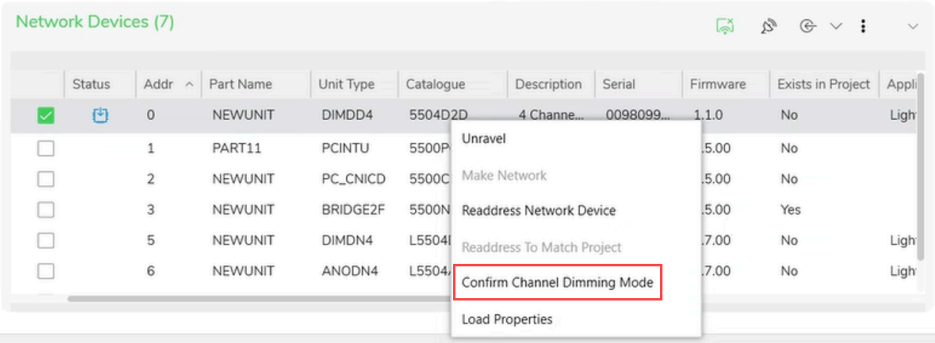
Channel Dimming mode (Live Network Sevice)

In **Network Device** section, right-click on the DIMDDx dimmer unit for **Confirm Channel Dimming Mode** option.

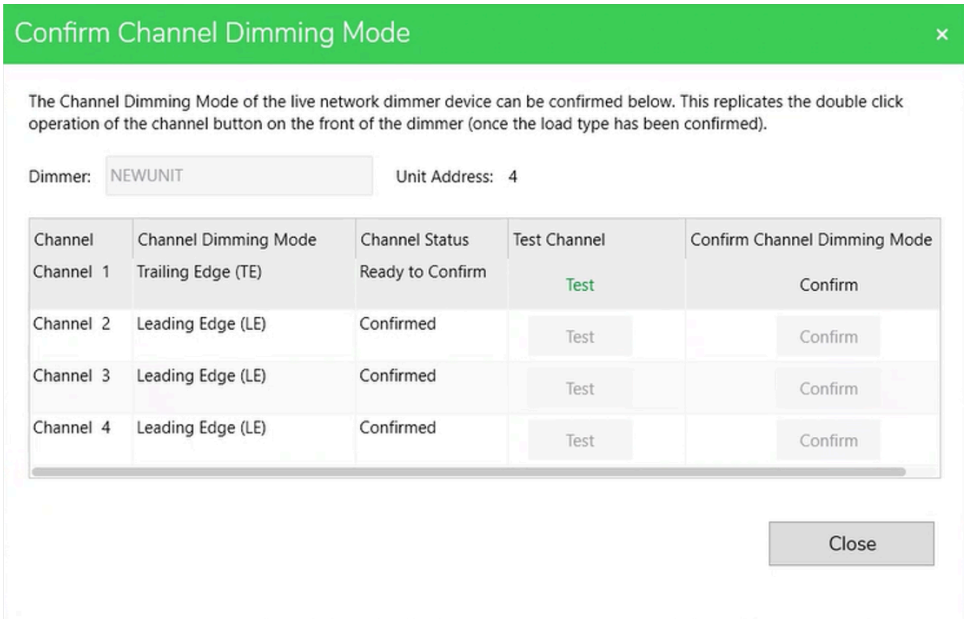
IMPORTANT: This function is available only for dimmers with firmware version v1.3 and above:

- The DIMDD8 Dimmer
- The DIMDD4 Dimmer

This function is disabled while selected dimmer device is in **Deployment Queue**.

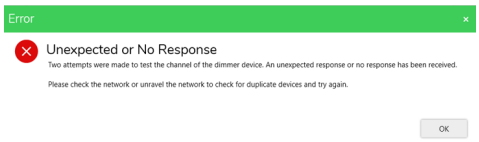


The **Confirm Channel Dimming Mode** window consists of following information:

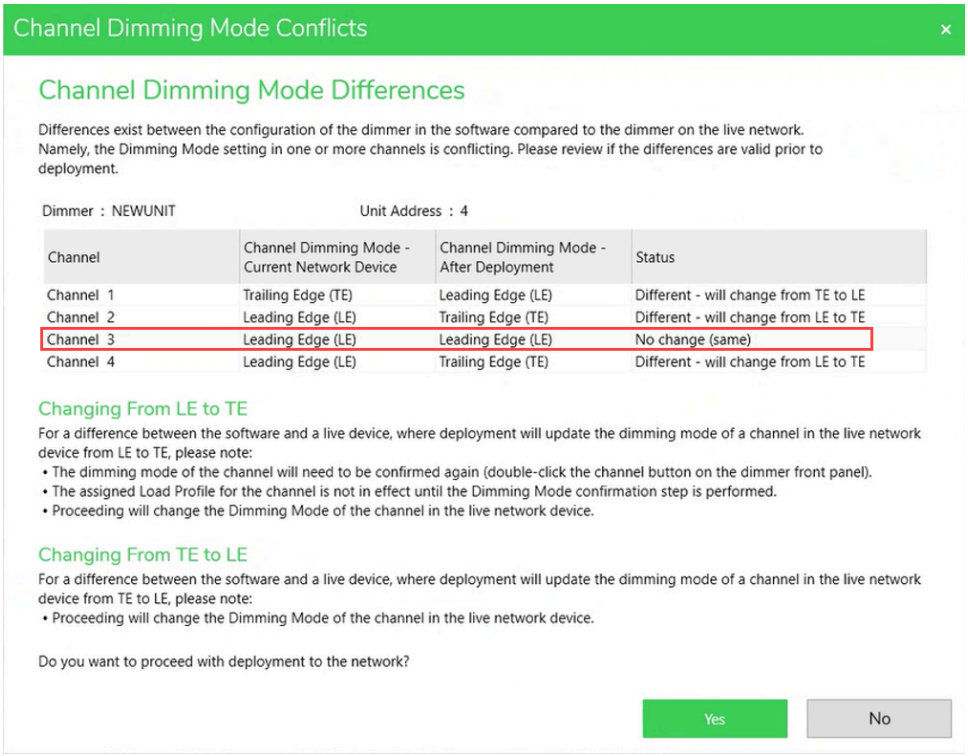


- **Dimmer**: Displays part name of the unit.
- **Unit Address**: Displays unit address of the unit.

Fields	Description
Channel	Displays part name of the dimmer.
Channel Dimming Mode	Displays the dimming mode of the channel.

Channel Status	Confirmed	The channel is not in error status and has dimming mode confirmed. In confirmed state, both **Test** and **Confirm** buttons are disabled.
	Not Confirmed	Channel is in **not confirmed** status when there is no error status, no incompatible load, and dimming mode is not confirmed. Enable **Test** button for specific channel, and disable **Confirm** button for specific channel.
	Error	If error exists, specific channel's **Channel Status** is updated as **error** or, as **load compatible** once the updating channel status is completed. 
	Ready to Confirm	Test of channel is completed and no errors or incompatible load states exist.
Test Channel	Enable **Test** button for specific channel and disable **Test** for other specific channels.	
Confirm Channel Dimming Mode	Enable **Confirm** button for specific channel.	

The **Channel Dimming Mode Conflicts** window is displayed to resolve the identified conflicts as shown below, click **Yes** to resolve.



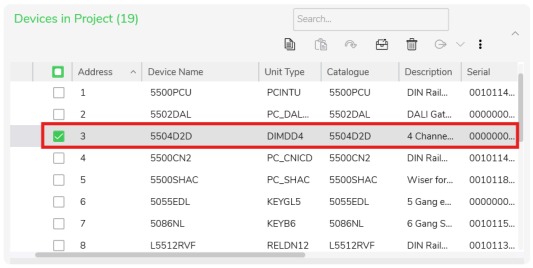
Bulk Creation of Application Data for Dimmers

You can quickly create the required C-Bus application items for the project based on the current configuration of the **Error Reporting** category in a C-Bus Digital Dimmer.

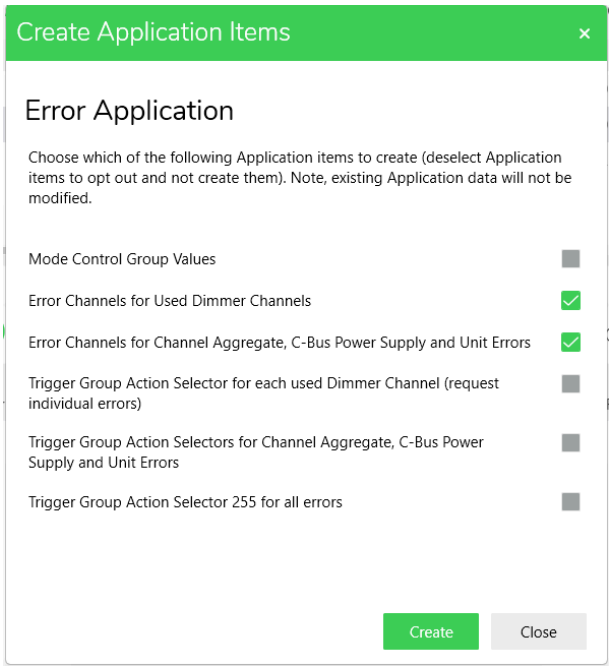
To create application items:

Pre-requiste: The **Create Application Item** button is enabled only if the Device ID is assigned.

1. Click **Create Application Items**.

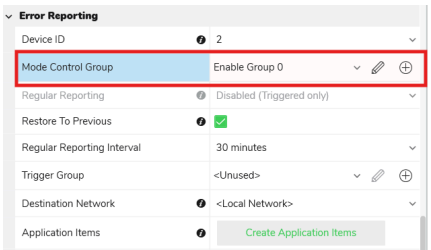
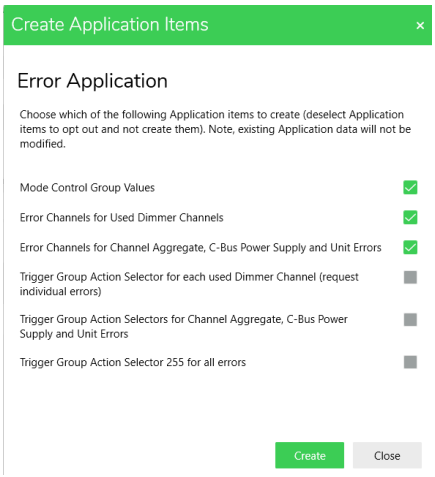


The **Create Application Items** dialogue box appears.

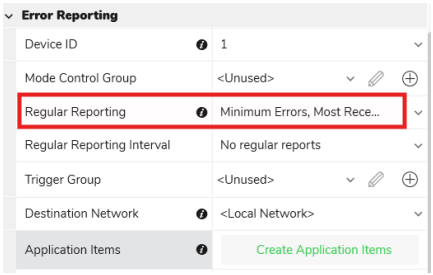
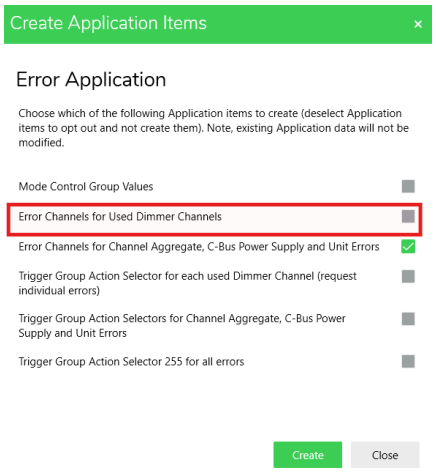


By default, the **Error Channels for Used Dimmer Channels** and **Error Channels for Channel Aggregate, C-Bus Power Supply and Unit Errors** check boxes are selected.

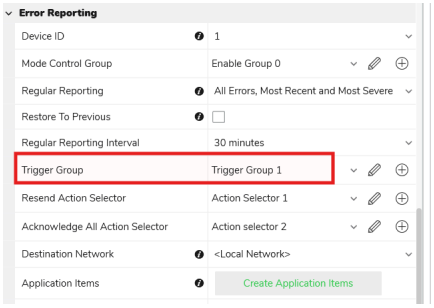
2. Assign **Mode Control Enable Group** in **Error Reporting** section of **PROPERTIES**, then the **Mode Control Group Values** check box is selected in **Create Application Items** dialogue box.

PROPERTIES	**Create Application Items** dialogue box
	

3. Below are similar scenarios when you select options in **Error Reporting** section:

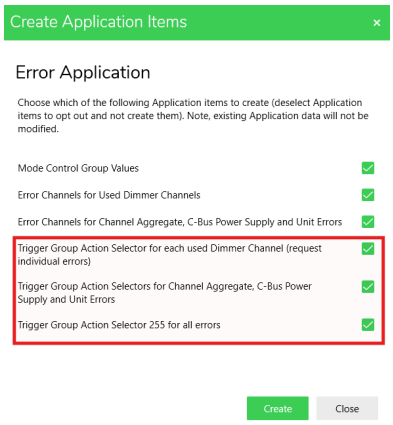
Conditions you assign	Error Application Behavior
Regular Reporting — Minimum Errors, Most Recent only/Minimum Errors, Most Recent and Most Severe 	**Error Channels for Used Dimmer Channel** check box is disabled and unchecked by default. 

Trigger Group

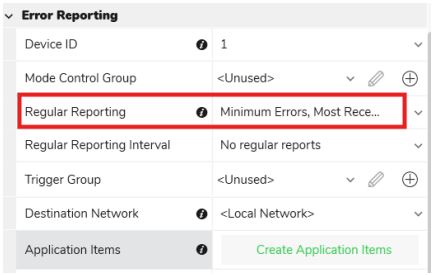


The below check boxes are enabled and selected by default.

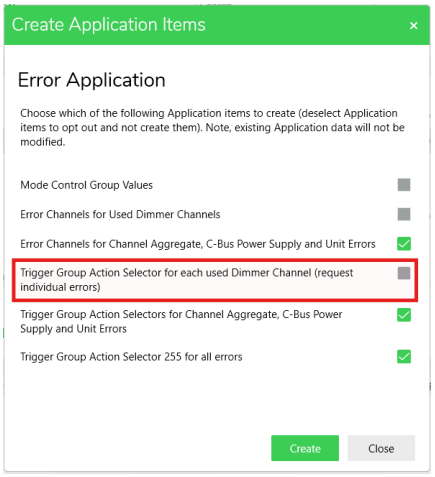
- **Trigger Group Action Selector for each used Dimmer Channel (request individual errors)**
- **Trigger Group Action Selectors for Channel Aggregate, C-Bus Power Supply and Unit Errors**
- **Trigger Group Action Selector 255 for all errors**



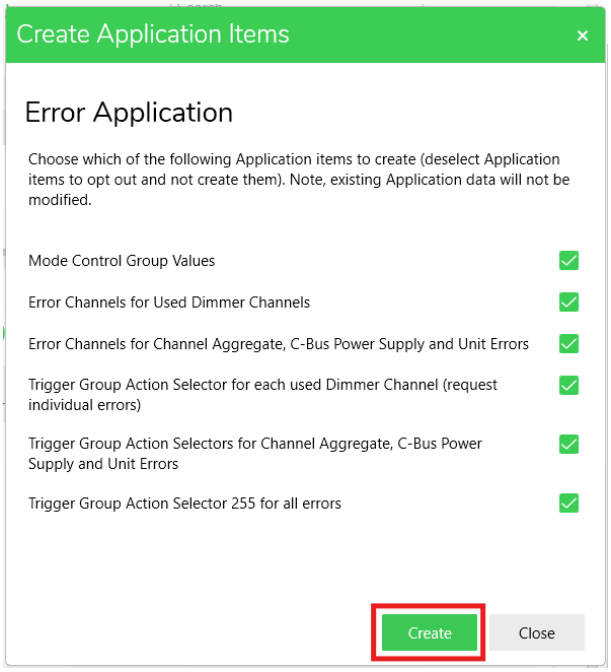
Regular Reporting — Minimum Errors, Most Recent only / Minimum Errors, Most Recent and Most Severe



Pre-requiste: **Trigger Group** must be assigned.
Trigger Group Action Selector for each used Dimmer Channel (request individual errors) check box is disabled and unchecked by default.



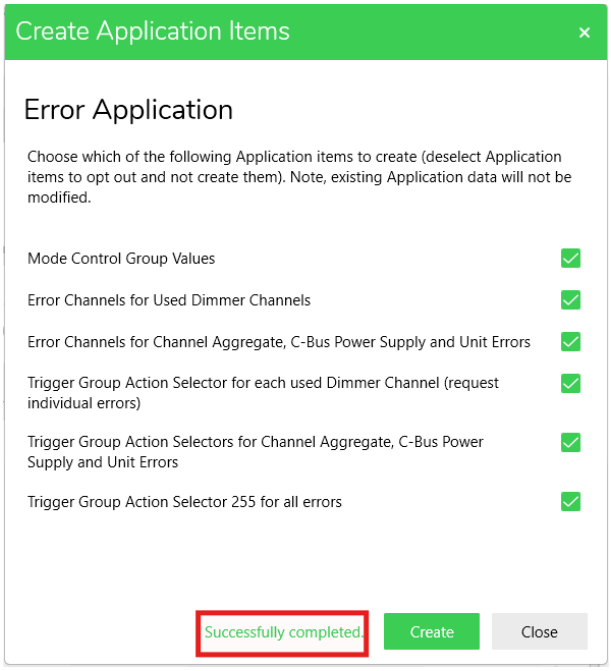
4. Click **Create** to generate the application items. C-Gate creates the items and displays them in the relevant application workspace in the client, based on the NCC Dimmers_Create Application Items file in the project folder.



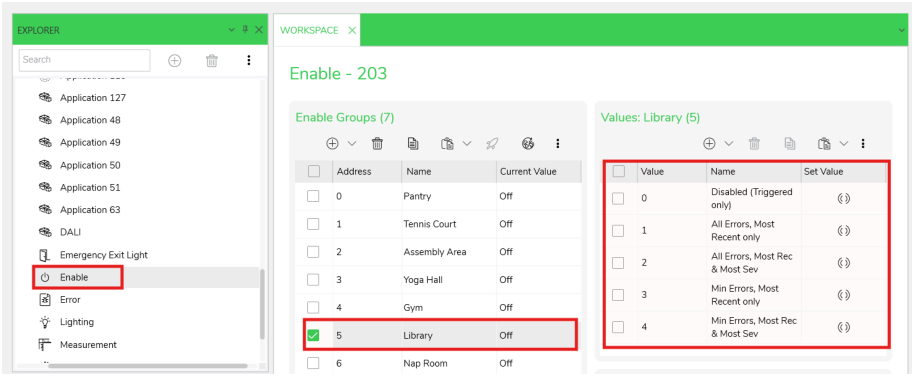
NOTE: Below are the creation conditions:

- Creation occurs only when the associated **Application Item** check box is selected.
- If the **Error Application** is not present on the C-Bus network, clicking **Create Application Items** adds the **Error Application** to the network before beginning the creation process.
- Application items are created based on project data only, except when one or more of the following **Property Editor properties** differ from the saved project data:
  - Device ID
  - Mode Control Group assigned
  - Regular Reporting selection
  - Trigger Group assigned

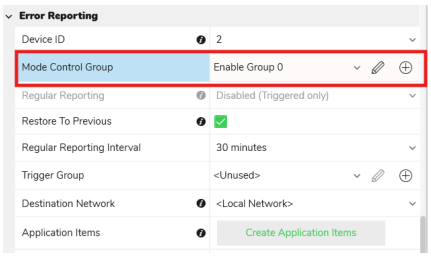
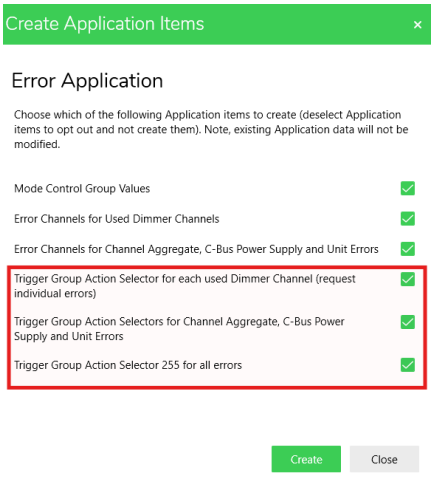
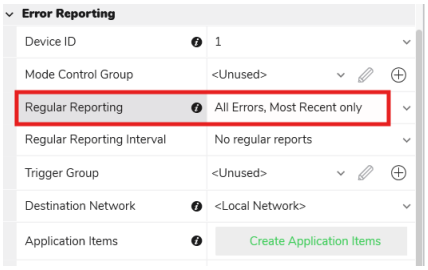
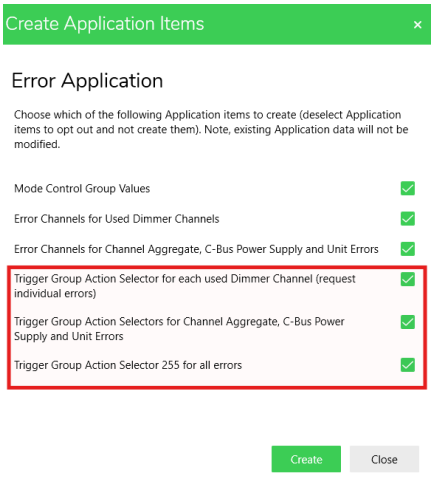
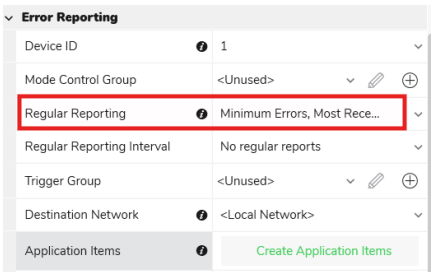
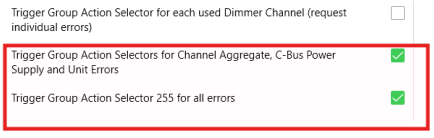
  Success message appears.



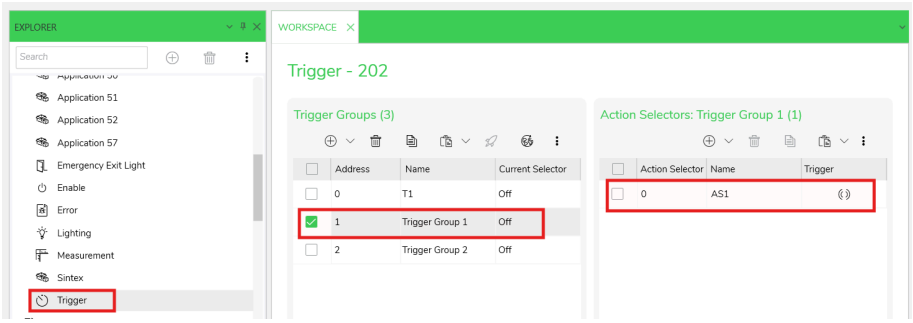
5. If you set **Mode Control Enable Group** in **Error Reporting** section of **PROPERTIES**, the **Enable Group Values** are created and displayed for the assigned Enable Group in the **Enable Application**.



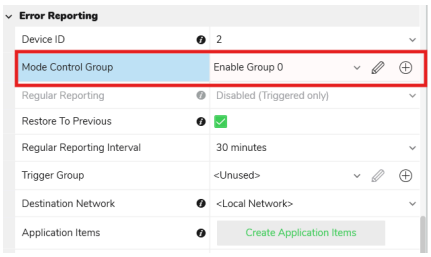
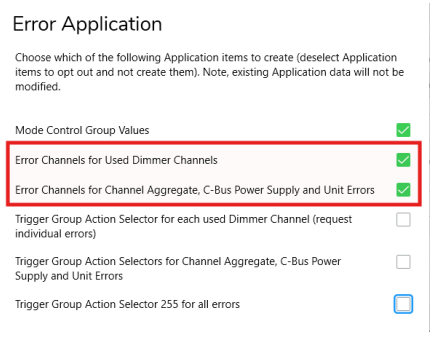
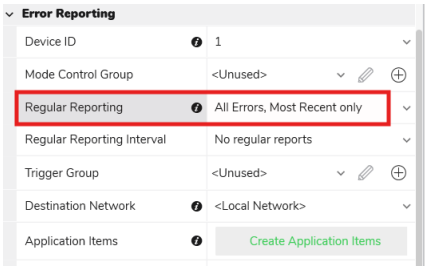
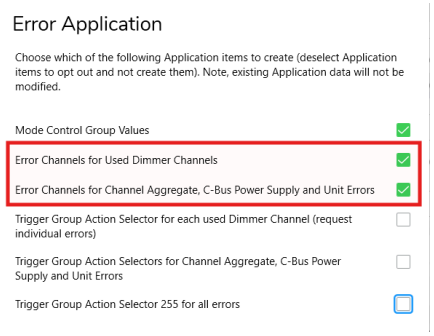
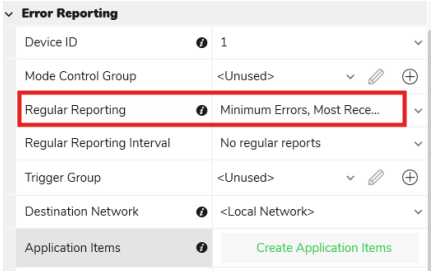
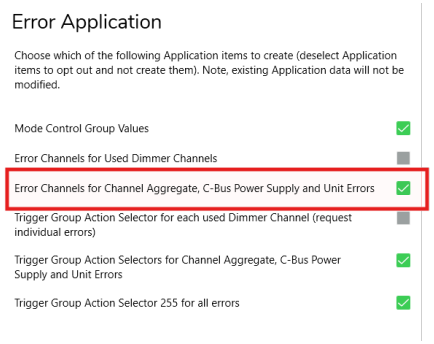
6. Below are Action Selector Creation scenarios:

Condition	Below Action Selectors are created and displayed for the assigned Trigger Group in the **Trigger Application**
If a **Mode Control Enable Group** is assigned 	The below check boxes are enabled and selected by default. • **Action Selectors for each used Dimmer Channel** • **Action Selectors for Channel Aggregate, C-Bus Power Supply and Unit Errors** • **Action Selector 255 for All errors** 
If **Regular Reporting** is set to: • **Disabled (Triggered only)** • **All Errors, Most Recent only** • **All Errors, Most Recent and Most Severe** 	The below check boxes are enabled and selected by default. • **Action Selectors for each used Dimmer Channel Error** • **Action Selectors for Channel Aggregate, C-Bus Power Supply and Unit Errors** • **Action Selector 255 for All errors** 
If **Regular Reporting** is set to **Minimum Errors, Most Recent only** 	The below check boxes are enabled and selected by default. • **Action Selectors for Channel Aggregate, C-Bus Power Supply and Unit Errors** • **Action Selector 255 for All Errors** 

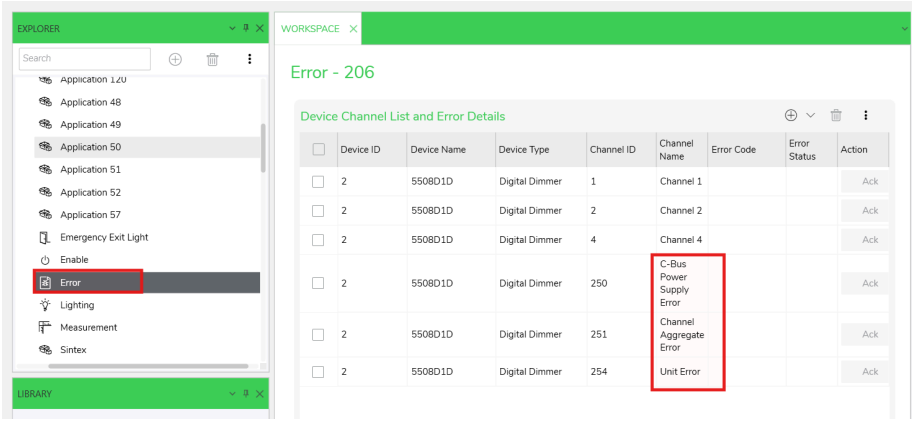
The below image displays the assigned Trigger Group in the **Trigger Application**.



7. Below are the Error Channels scenarios:

Condition	Below Error Channels are created and displayed for the assigned Device ID in the **Error Application**
If a **Mode Control Enable Group** is assigned 	The below check boxes are enabled and selected by default. • **Error Channels for each used Dimmer Channel** • **Error Channels for Channel Aggregate, C-Bus Power Supply, and Unit Errors** 
If **Regular Reporting** is set to: • **Disabled (Triggered only)** • **All Errors, Most Recent only** • **All Errors, Most Recent and Most Severe** 	The below check boxes are enabled and selected by default. • **Error Channels for each used Dimmer Channel** • **Error Channels for Channel Aggregate, C-Bus Power Supply, and Unit Errors** 
If **Regular Reporting** is set to : • **Minimum Errors, Most Recent only** • **Minimum Errors, Most Recent and Most Severe** 	The below check boxes are enabled and selected by default. • **Error Channels for Channel Aggregate, C-Bus Power Supply, and Unit Errors** 

The below image displays the assigned **Device Channel List and Error Details** in the **Error Application**.



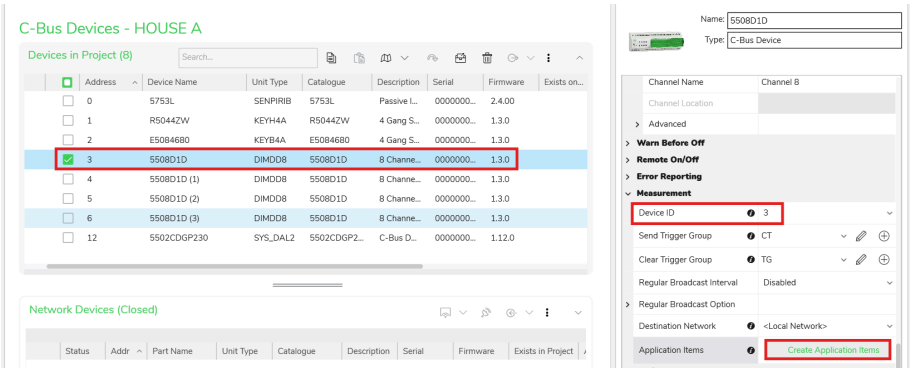
Create Application Items for Measurement in Dimmer

You can quickly create the required C-Bus application items for the project based on the current configuration of the **Measurement** category in a C-Bus Dimmer.

To create application items:

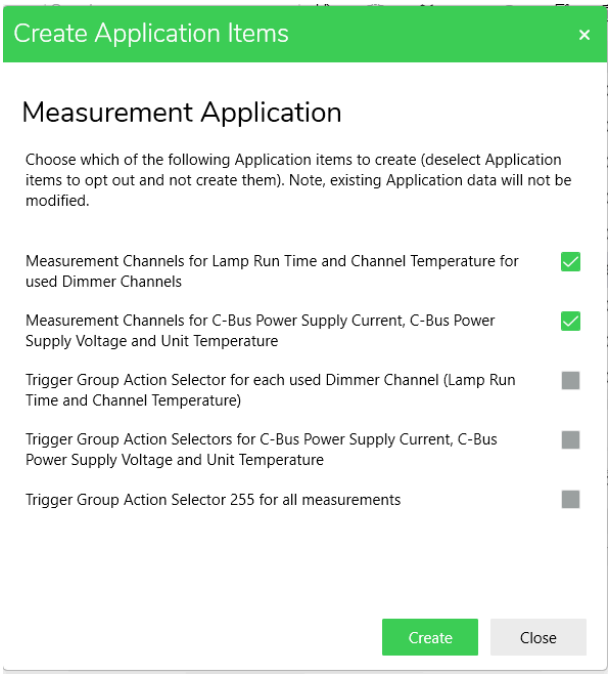
Pre-requiste: The **Create Application Item** button is enabled only if the Device ID is assigned.

1. Select Dimmer device >**Measurement** >click **Create Application Items**.



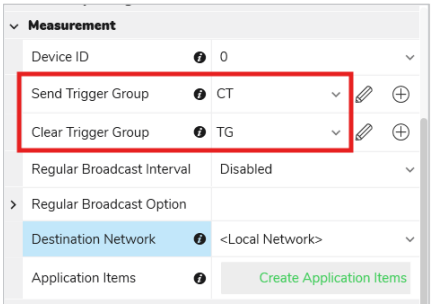
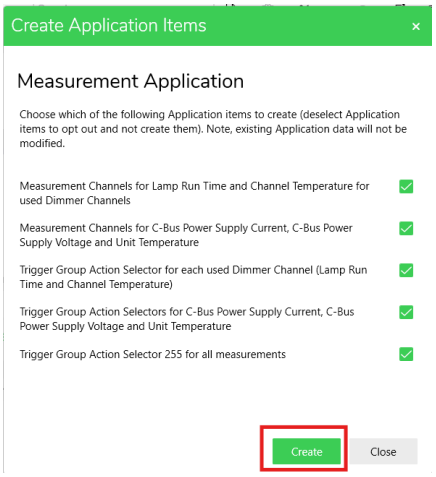
NOTE: The **Application Items** field is displayed only when a project C-Bus Dimmer device is loaded into the **Property Editor**.

The **Create Application Items** dialogue box appears.



By default, the **Measurement Channels for Lamp Run Time and Channel Temperature for Used Dimmer Channels** and **Measurement Channels for C-Bus Power Supply Current, C-Bus Power Supply Voltage and Unit Temperature** check boxes are selected.

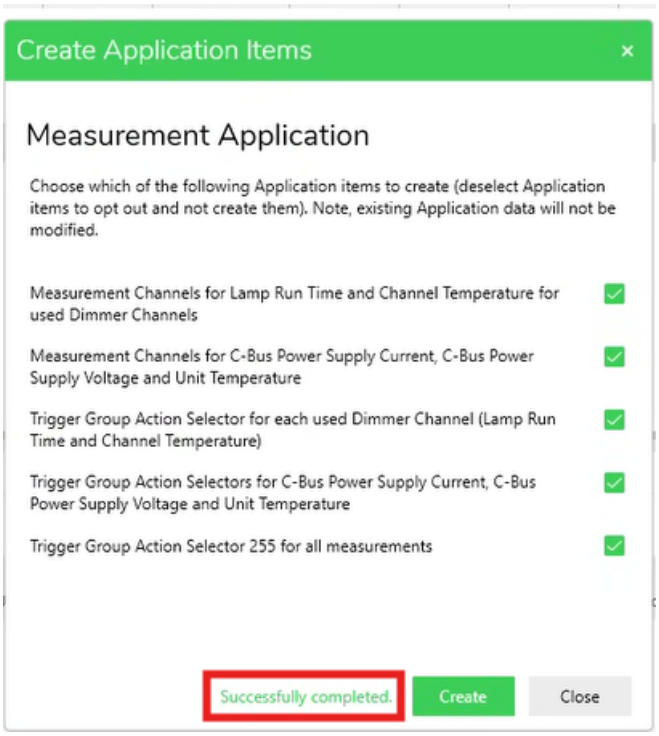
2. If you assign values for **Send Trigger Group** or **Clear Trigger Group** in **Measurement** section of **PROPERTIES**, then the below check boxes are selected in **Create Application Items** dialogue box:
   - **Trigger Group Action Selector for each Used Dimmer Channel (Lamp Run Time and Channel Temperature)**
   - **Trigger Group Action Selectors for C-Bus Power Supply Current, C-Bus Power Supply Voltage and Unit Temperature**
   - **Trigger Group Action Selector 255 for all measurements**

Measurement in **PROPERTIES**	**Create Application Items**
	

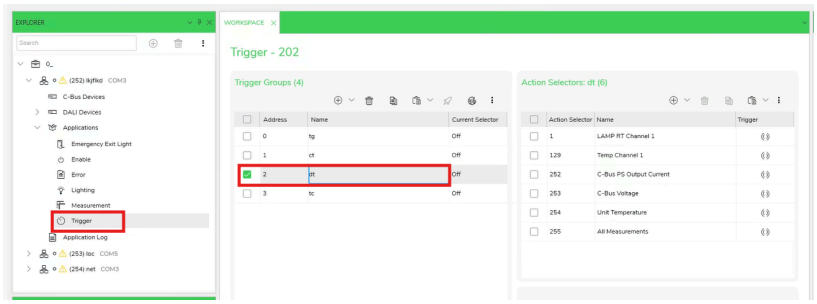
3. Click **Create** to generate the application items. C-Gate creates the items and displays them in the relevant application workspace in the client, based on the NCC Dimmer_Create Application Items file in the project folder.

   NOTE: Below are the creation conditions:

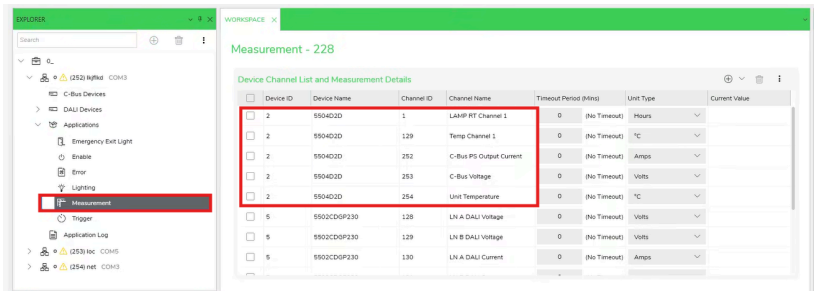
   - Creation occurs only when the associated **Application Item** check box is selected.
   - If the **Measurement Application** is not present on the C-Bus network, clicking **Create Application Items** adds the **Measurement Application** to the network before beginning the creation process.
   - Success message appears.



   The below image displays the assigned Trigger Group in the **Trigger Application**.



   The below image displays the assigned measurement channels in the **Measurement Application**.



Relays

C-Bus relay units are output devices used to switch resistive, fluorescent and inductive loads. The relay units are available with switched active outputs and voltage free variants, mechanically latching relay outputs on specific C-Bus relays.

SpaceLogic C-Bus provides a range of relays.

- Voltage Free Relays

To configure Voltage free relays, click here, page 433

Voltage Free Relays

Unit Types

- RELDN4A - 5504RVF - 4 Channel, 16A DIN Rail Voltage Free Relay, Switchable C-Bus Power Supply
- RELDN8A - 5508RVF - 8 Channel, 16A DIN Rail Voltage Free Relay, Switchable C-Bus Power Supply
- RELDN16A - 5516RVF - 16 Channel, 16A DIN Rail Voltage Free Relay, Switchable C-Bus Power Supply

To enable/disable **Inbuilt C-Bus Power Supply** function for the Voltage Free Relays, click here, page 414.

The field information to configure SpaceLogic C-Bus Relay is as explained below:

Applications	This section displays the lighting applications supported by the relays. Up to four lighting applications can be defined and then used throughout the configuration of the relays.		
Channels **NOTE**: • RELDN16A will have 16 channels • RELDN8A will have 8 channels • RELDN4A will have 4 channels	**Group** This field allows to program group addresses associated with relay channels. You can: • Select group address using drop-down list. • Modify group address using . • Add group address using . • Create a new group name which takes the next available address (it's a fast commissioning option).		
	Channel Name	This field allows to define the channel name of the relay.	
	Channel Location	This field allows to define the channel location of the relay.	
	Advanced	**Turn on Threshold (C-Bus Level)**	The turn on threshold has a range of 0 – 255 which are C-Bus levels.
		Warn Before off Time	This field allows to set the warn before off time. **Warn Before off Time** can be set between 1– 15 min. By default, it is **Not Enabled**. Once **Warn Before off Time** is set, **Warn Before off Level** field is displayed and enabled to set the range between 1–100 %.
		Power Recovery	This field allows to set the power recovery percentage. By default, it is **Restore To Previous**.
		Restrike Delay	This field defines a time between a channel switching off and switching on. Delay is set in minutes:seconds. This setting is also applicable for upon device power up. Mouse over on the **Restrike Delay** info icon to view the tooltip message.
		Logic	**Type** This field allows to select the type of the logic group.

			Logic Group This field allows to program logic group addresses associated with relay channels. You can: • Select group address using drop-down list. • Modify group address using . • Add group address using . • Have maximum 4 logic groups. Mouse over on the **Logic** info icon to view the tooltip message.

Interlock Channels The Relay interlock allows interlocking of multiple relay channels, so that only one relay in a group of interlocked relay is On at any one time.	**Add Interlock Set** **NOTE:** The maximum number of interlock sets added depends on the number of Channels assigned to the set. **Example:** Having 2 interlock sets added. If set 1 is assigned with 6 channels, then set 2 can be assigned with only the remaining 10 channels.	Click to add new channel interlock set. Number of channels to interlock is maximum 16, minimum is 2. Each selected channels in a interlock set can be assigned with highest to lowest priority. **NOTE: No Channel Interlock**, when interlock channels are not added **No Channels Interlocked** is displayed.
Interlock Sets Each created interlock sets has the mentioned fields Click to remove an created interlock set.	**Interlock Switching Delay (sec)** Allows to set the seconds of delay for interlock switching between the range 0.1 to 10 sec. Mouse over on the **Interlock Switching Delay (sec)** info icon to view the tooltip message.	
	Number of channels to Interlock Select the number of channels to interlock (2, 3, 4).	
	High Priority Select the channel to set as an highest priority and allocate the percentage. Click to remove the assigned priority.	
	Lowest Priority Select the channel to set as an lowest priority and allocate the percentage. Click to remove the assigned priority.	

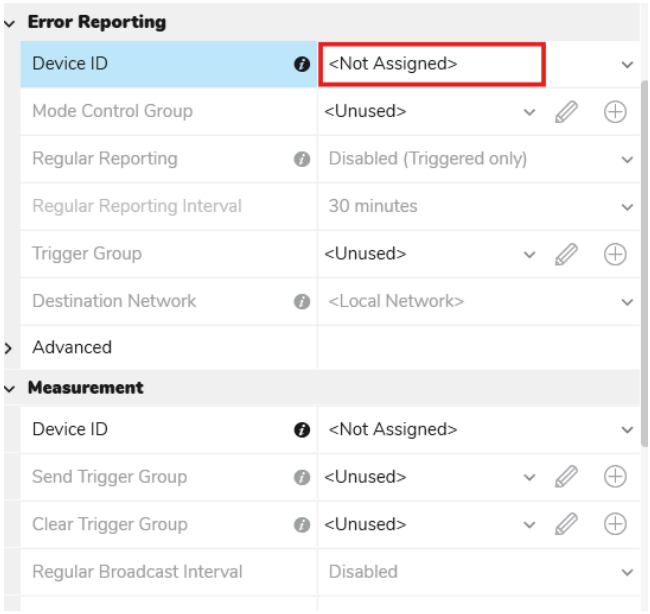
Remote On/Off	This field allows to choose the combinations of Remote On and Off for each individual channels. **NOTE** : • RELDN16A will have 16 channels • RELDN8A will have 8 channels • RELDN4A will have 4 channels

<table>
<tr>
<td rowspan="3">Error Reporting

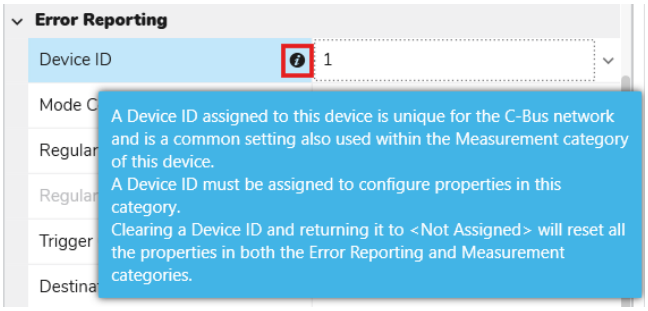
This section display the fields for error reporting</td>
<td>Device ID</td>
<td>This field displays the unit address of the device.

NOTE: The Device ID is for the entire device and is as same for Measurement section.

When you assign a Device ID, and if you set the Device ID to Not Assigned, then all properties in both the Error Reporting and Measurement section are reverted to their default settings and disabled (grey out state).

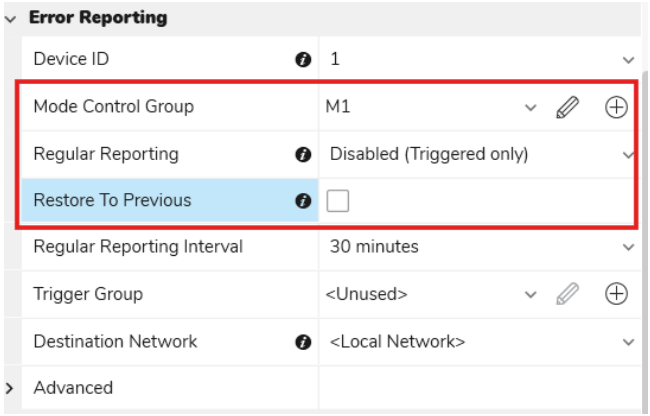
Mouse over on the Device ID info icon to view the tooltip message.

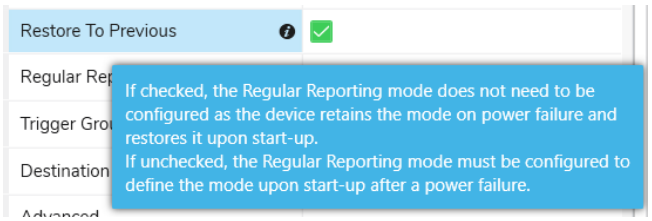
 
</td>
</tr>
<tr>
<td>Mode Control Group</td>
<td>This field allows to add an enable group (0–254).

If you assign a group, Restore To Previous field is displayed and Regular Reporting Interval drop-down is enabled.

If you uncheck the Restore To Previous check box, Regular Reporting field will be enabled.

If you check Restore To Previous check box, Regular Reporting will be disabled.

 
</td>
</tr>
<tr>
<td>Regular Reporting</td>
<td>This field configures the Error Reporting mode of the relays into one of the below modes:</td>
</tr>
</table>

		• **Disabled (Triggered only)**: Errors are reported only when triggered by the assigned Trigger Group. • **All Errors, most recent only (Mode 1)**: The most recent errors are reported automatically at a regular time interval (time set by the **Regular Report Interval** field). • **All Errors, most recent and most severe (Mode 2)**: The most recent and most severe (or latched) errors are reported automatically at a regular time interval (time set by the **Regular Report Interval** field). • **Minimum Errors, most recent only (Mode 3)**: The most recent minimum errors are reported automatically at a regular time interval (time set by the **Regular Report Interval** field). • **Minimum Errors, most recent and most severe (Mode 4)**: The most recent and most severe minimum errors are reported automatically at a regular time interval (time set by the **Regular Report Interval** field). All the modes can be set with the regular reporting interval set to **No regular reports**, which allows live reporting of errors without the regular reports. Mouse over on the **Regular Reporting** info icon to view the tooltip message.	
	Restore to Previous	If selected, this field restores the data on power failure. When you click **Save** with the below conditions: • **Mode Control Group** — Assigned • **Restore to Previous** — Checked • **Regular Reporting** — Disabled state The **Regular Reporting** displays the last saved value. Mouse over on the **Restore to Previous** info icon to view the tooltip message. 	
	Regular Reporting Interval	This field is used to select the time interval period between the completion of a regular report and beginning of the next report in Always On, Most recent only and Always On, Most recent and most severe modes. By default, the interval is 30 minutes. **Regular Reporting Interval** is enabled for **Trigger Only** mode.	
	Trigger Group	This field contains a Trigger Group to trigger an error reporting event for any of the three error reporting modes. When a Trigger group is created, **Resend Action Selector** and **Acknowledge Action selector** fields are displayed. The **Resend Action Selector** is set to send all errors and **Acknowledge Action selector** is set to acknowledge all errors.	
	Destination Network	This field contains the destination C-Bus network to which the relays routes the error reporting messages. This allows the error messages to be sent to a remote C-Bus network for central monitoring if it's not the local network. Mouse over on the **Destination Network** info icon to view the tooltip message.	
	Advanced	**C-Bus Voltage Warning Set Threshold**	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Voltage Warning Clear Threshold** value selected.

			• If the **C-Bus Voltage Warning Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Warning Clear Threshold** value to (current C-Bus Voltage Warning Set Threshold value + 1 V). Mouse over on the **C-Bus Voltage Warning Set Threshold** info icon to view the tooltip message.
		C-Bus Voltage Warning Clear Threshold	• By default, **Disabled** is selected • The value selected must be greater than the **C-Bus Voltage Warning Set Threshold** value selected. • If the **C-Bus Voltage Warning Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Warning Set Threshold** value to (current C-Bus Voltage Warning Clear Threshold value - 1 V). Mouse over on the **C-Bus Voltage Warning Clear Threshold** info icon to view the tooltip message.
		C-Bus Voltage Critical Set Threshold	• By default, **Disabled** is selected • The value selected must be less than the **C-Bus Voltage Critical Clear Threshold** value selected. • If the **C-Bus Voltage Critical Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Critical Clear Threshold** value to (current C-Bus Voltage Critical Set Threshold value + 1 V). • If the **C-Bus Voltage Warning Set Threshold** has a value set (other than **Disabled**), then the value selected must be less than (current C-Bus Voltage Warning Set Threshold value). Mouse over on the **C-Bus Voltage Critical Set Threshold** info icon to view the tooltip message.
		C-Bus Voltage Critical Clear Threshold	• By default, **Disabled** is selected • The value selected must be greater than the **C-Bus Voltage Critical Set Threshold** value selected. • If the **C-Bus Voltage Critical Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Critical Set Threshold** value to (current C-Bus Voltage Critical Clear Threshold value - 1 V). Mouse over on the **C-Bus Voltage Critical Clear**

			Threshold info icon to view the tooltip message.
		C-Bus Power Supply Warning Set Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **C-Bus Power Supply Warning Clear Threshold** value selected. • If the **C-Bus Power Supply Warning Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Power Supply Warning Clear Threshold** value to (current **C-Bus Power Supply Warning Set Threshold** value - 10 mA). Mouse over on the **C-Bus Power Supply Warning Set Threshold** info icon to view the tooltip message.
		C-Bus Power Supply Warning Clear Threshold	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Power Supply Warning Set Threshold**value selected. • If the **C-Bus Power Supply Warning Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Power Supply Warning Set Threshold** value to (current **C-Bus Power Supply Warning Clear Threshold** value + 10 mA). Mouse over on the **C-Bus Power Supply Warning Clear Threshold** info icon to view the tooltip message.
		Unit Over Temperature Set Threshold	This field is a combo box which is by default set to 70° C. The **Unit Over Temperature Set Threshold**property increments by 1° C with a range of 1° C - 80° C. Mouse over on the **Unit Over Temperature Set Threshold** info icon to view the tooltip message.
		Unit Over Temperature Clear Threshold	This field is a combo box which is by default set to 65° C. The **Unit Over Temperature Clear Threshold** property increments by 1° C with a range of 0° C - 79° C. Mouse over on the **Unit Over Temperature Clear Threshold** info icon to view the tooltip message.

Measurement	**Device ID**	This field displays the unit address of the device. **NOTE:** The Device ID is for the entire device and is as same for **Error Reporting** section. When you assign a Device ID, and if you set the **Device ID** to **Not Assigned**, then all properties in both the **Error Reporting** and **Measurement** section are reverted to their default settings and disabled (grey out state).
	Send Trigger Group	This field contains a trigger group to request the relays to send its stored measurement data.

		Mouse over on the **Send Trigger Group** info icon to view the tooltip message.	
	Clear Trigger Group	This field contains a trigger group to clear the stored measurement data in the relays. Mouse over on the **Clear Trigger Group** info icon to view the tooltip message.	
	Regular Broadcast Interval	NA	Disabled by default. Can set the intervals between 1 min to 4 hours.
	Regular Broadcast Option	**All**	Enabled by default.
		Lamp Hours	Selected and disabled by default.
		Channel Temperature	Selected and disabled by default.
		Power Supply Current	Selected and disabled by default.
		C-Bus Voltage	Selected and disabled by default.
		Unit temperature	Selected and disabled by default.
		NOTE: Deselecting all will enable each of the individual check box options.	
	Destination Network	This field contains the destination C-Bus network to which the relays routes measurement application messages. Mouse over on the **Destination Network** info icon to view the tooltip message.	

The action selector for trigger groups is as explained below:

Virtual Channel Number	**Property**	**Units**	**Reset**	**Notes**
0 – 15	Lamp Running Time	Hours	Yes	NA
16 – 31	Channel Voltage	Volts	No	Units with power metering only
32 – 47	Channel Current	Amperes	No	
48 – 63	Channel Power	Watts	No	
64 – 79	Channel Energy	Watt-hours	Yes	
80 – 95	Channel Lifetime Energy	Watt-hours	No	
128 – 143	Channel Temperature	Celsius	No	relays only
252	C-Bus Power Supply Output Current	Amperes	No	NA
253	C-Bus Voltage	Volts	No	NA
254	Unit Temperature	Celsius	NA	NA

Measurement Application supports various operational parameters for triggered request.

Measurement Request Trigger Group defines the Trigger Group for the request. A trigger's Action Selector determines which measured parameter is requested.

NOTE: Action Selector 0xFF requests all measurements (in which they are sent 2 at a time with an interval of 2 seconds). Other Action Selector values can be used to request individual measured properties corresponding to the virtual channel number as per the above table.

The DEVICE ID for the Measurements is defined by the Device ID parameter, the same Device ID is used for Error Reporting. The Device ID will be unique per network to differentiate measurements from different devices. The devices monitoring the Measurement messages should keep track of the source network to differentiate if Device IDs are reused across multiple C-Bus networks.

If the Device ID parameter is left at its default value of 0xFF then the Unit Address is used as the Device ID in the Measurement Application messages, which ensures uniqueness. However, if the device is readdressed then any monitoring devices will also needs to be updated to match the new Device ID (It is recommended to leave the Device ID as the default value).

Logic Groups relays can have maximum 4 logic groups each group having respective channels (8 or 4)	**Group** This section will allow to create a enable group using ⊕ and modify existing group using ✎. By default, it is unused. If enable group is created, **Restore To Previous** is enabled.	
	Power Recovery This field allows to set the power recovery percentage. By default, it is **Restore to Previous**.	
	Channel **NOTE** : • RELDN16A will have 16 channels • RELDN8A will have 8 channels • RELDN4A will have 4 channels	

Global This section displays the project properties set by the user at the time of creation of the project.	**C-Bus Clock**	If checked, allows you to enable the C-Bus clock for the relays.
	Disable Local Toggle	If checked, disables the local toggle.
	Disable Power Supply Toggle	If checked, disables the power supply toggle.
	Disable C-Bus Priority	If checked, disables the C-Bus priority.
	Disable Clock Generator Toggle	If checked, disables the clock generator toggle.

Unit Identification This section display the fields for identification of the unit.	**Unit Type**	This field contains the unit type and unit description of the device.
	Catalog Number	This field contains the catalog number related to the unit type.
	Firmware Version	This field shows the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
	Part Name	This field contains the part name which is stored in the unit hardware, which can be modified.
	Unit Address	This field displays the unit address assigned to the device.
	Serial Number	This field contains the serial number which exists on the physical network.
	Tag Name	This field contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only.
	Notes	This field contains a location to add notes about the unit which is stored in the project database only.

Status The Status section contains information about the C-Bus network related functions located on the unit.	**Device Status** This section displays the details of hardware.	**Hardware Version**	This field displays the hardware version of the device.
		Firmware Version	This field displays the firmware version of the device.
		C-Bus Clock Active	This field indicates whether the C-Bus internal clock is currently enabled on the relays within the network.
		C-Bus Voltage (V)	This field displays the C-Bus voltage of the device.
		Inbuilt C-Bus Power Supply Active	This field displays whether the Inbuilt C-Bus Power Supply Active is On or Off.
		Power Supply Load	This field displays the load of the power supply (mA).
		Power Supply Output Voltage	This field displays the power supply output voltage (mV) of the device.
		Load Power	This field displays the load power (mW) of the device.

		Unit Temperature	This field displays the unit temperature (°C) of the device.

Once configuring relay is completed, click **Save** to save the changes.

Relay Conversion

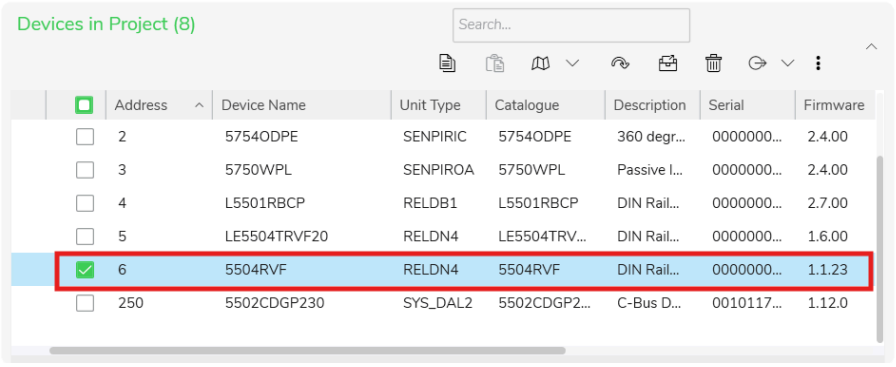
If there are old relays existing in the project, the SpaceLogic C-Bus Commission allows you to convert old relays to new relays.

Old Unit Type	New Unit Type
RELDN4	RELDN4A
RELDN8/RELDN8B	RELDN8A
RELDN12	RELDN16A

To convert:

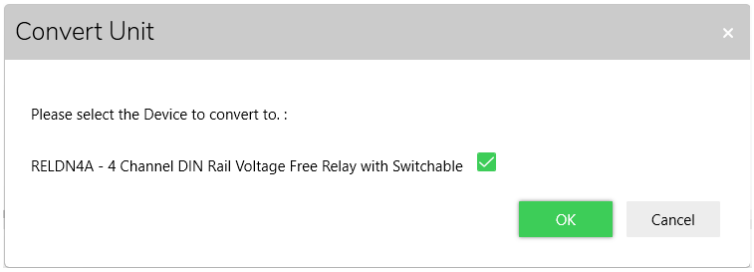
1. Open the same project in commission software same as in Toolkit where the device (old relay) is added in network.
2. Select **C-Bus Devices** of the network.

   The available devices in the project are displayed.
3. Select the device (old relay) that needs to be converted.



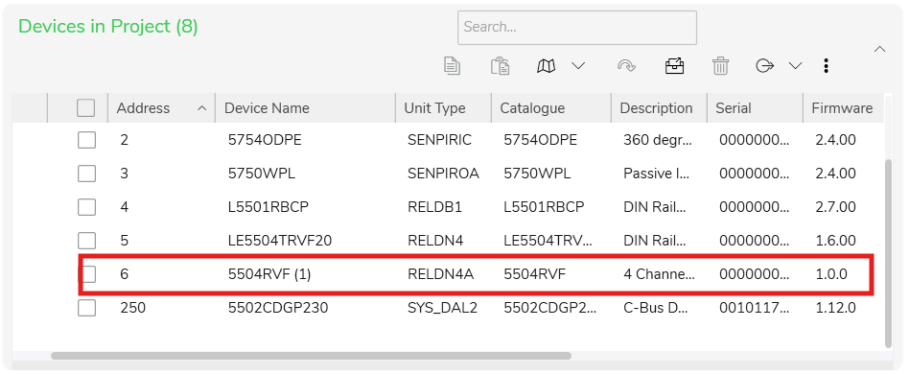
4. Right click on the **Relay > Convert Unit**.

   Convert Unit confirmation box is displayed.



5. Click **OK**.

6. The old relay RELDN4 is converted to new relay RELDN4A.



IMPORTANT: When conversion is completed:

- The address of the relay remains the same.
- The unit type catalogue description and firmware details are updated.
- The firmware will have the latest version.
- The serial details needs to be updated manually in property window of the device.
- The configuration changes made in old relay reflects in the new relay as well.

  Table below shows the list of properties that will be restored in the new relay.

  List of properties that will be restored in the RELDN4A, RELDN8A and RELDN16A

Properties	Properties which are restored	Properties which are not restored
Project Name	Project name will be restored as in the old relay	Not Applicable
Applications	Applications will be restored as in the old relay	Not Applicable
Channel	◦ Group Address ◦ Turn on Threshold (C-Bus Level) ◦ Power Recovery ◦ Restrike Delay ◦ Interlock Channels	Not Applicable
Logic	◦ Logic Groups ◦ Assignment ◦ Min, Max	Area
	◦ Logic Recovery ◦ Logic group Restore level	Learn Mode
Power Recovery	Not Applicable	Enable Burden
Global	◦ Enable C-Bus Clock ◦ Enable Local Toggle ◦ Enable C-Bus Priority	
Unit Identification	◦ Unit Address ◦ Part Name ◦ Tag Name ◦ Notes	
The serial details needs to be updated manually in the property editor.		

Once the conversion is completed:

1. Scan the C-Bus network.
2. Identify new relay on the **Network**.
3. Readdress the device to match live network or readdress device to match the project database.
4. Deploy the device.

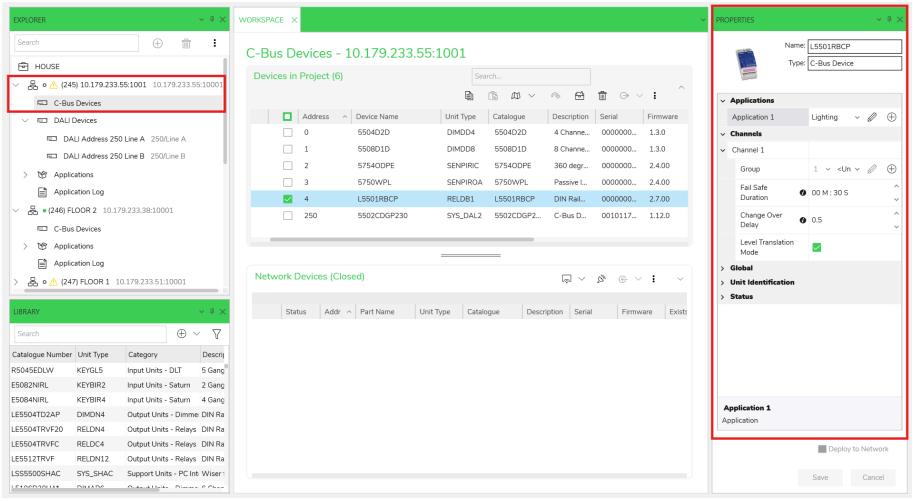
Shutter Relay

The Shutter Relay device is a C-Bus relay output unit for controlling motorised blinds, curtains, and window shutters. It also allows natural light to be incorporated into a lighting solution.

Prerequisites:

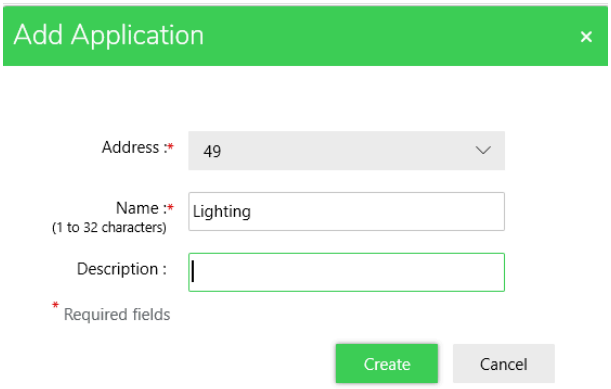
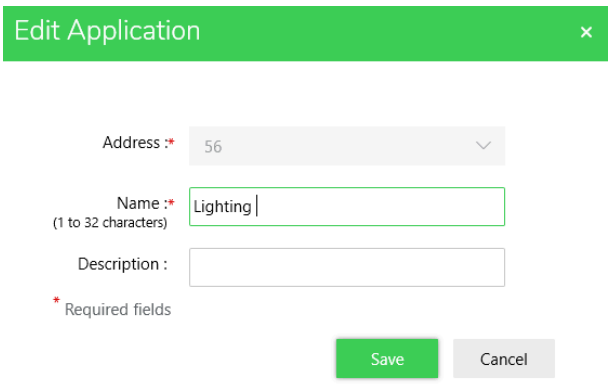
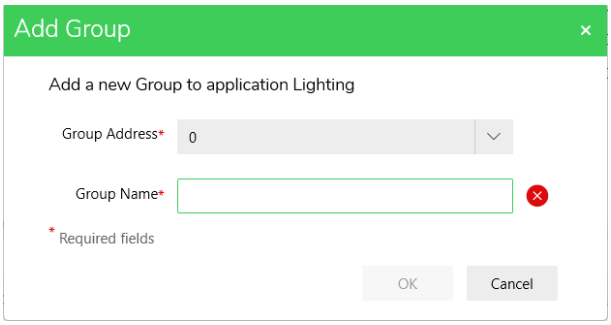
- A project must be open in the SpaceLogic C-Bus Commission software. The Shutter Relay device must already be added to a **Devices in Project** of a network (Adding Shutter Relay is similar to adding any C-Bus device).
- This section displays the name and type of the Shutter Relay device. The name of the Shutter Relay device can be renamed and also allows the user to configure different operational features for Shutter Relay devices added to each network.

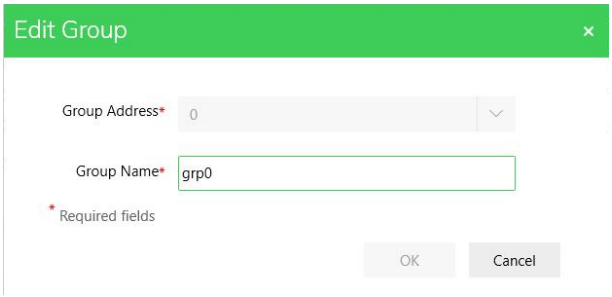
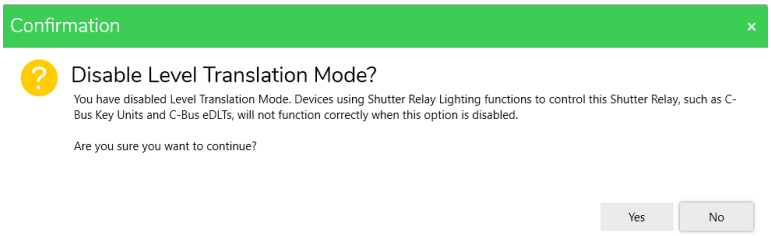
1. Select a Network from the project.
2. Click **C-Bus Devices** of a network.
3. Select Shutter Relay device from **Devices in Project**. The selected Shutter Relay device properties are displayed in the **PROPERTIES** window.



NOTE: The fields in the device properties can be modified as per the project requirement.

4. The field information to configure SpaceLogic C-Bus Shutter Relay is explained below:

Applications	This section displays the lighting applications supported by the Shutter Relays. Only one lighting application can be defined and then used throughout the configuration of the Shutter Relays. • Click ⊕. The **Add Application** pop-up appears.  • Enter the required details and then click **Create**. The application is created and listed in the **Application 1** drop-down. • Click to modify the application name.  • Make necessary changes and then click **Save**.
Channels **NOTE**: RELDB1 will have 1 channel	**Group** This field allows to program group addresses associated with Shutter Relay channels. • You can select group address using drop-down. • Click ⊕ to add group address. The **Add Group** pop-up appears.  • Enter the required details and then click **OK**. The group is created and listed in the **Group** drop-down.

	• Click to modify group address. The **Edit Group** pop-up appears.  • Make necessary changes and then click **OK**. You can also create a new group name which takes the next available address (it's a fast commissioning option).	
	Fail Safe Duration	Select the time for fail safe duration from the drop-down.
	Change Over Delay	Select the time for minimum delay permitted between completing an open or close operation and commencing another.
	Level Translation Mode	If you uncheck the **Level Translation Mode** check box, a **Confirmation** pop-up appears.  Click **Yes** to disable level translation mode.

Global This section displays the project properties set by the user at the time of creation of the project.	**Area**	This field displays the area address, which is set to unused by default. You can use the **Area** drop-down to program the unit to be part of a specific area. • Click to add group address. The **Add Group** pop-up appears. • Click to modify group address. The **Edit Group** pop-up appears.	
	Unit Options	**Enable C-Bus Clock**	If checked, you can enable the C-Bus clock for the Shutter Relays.
		Enable Burden (Software)	You can enable/disable the **Enable Burden** check box only if the unit address is set to 1 and the **Enable C-Bus Clock** check box is selected.
		Enable Local Toggle	If checked, you can enable the local toggle for the Shutter Relays.
		Enable C-Bus Priority	If checked, you can enable the C-Bus priority for the Shutter Relays.
	Learn Mode	**Allow Learn Mode**	Select the **Allow Learn Mode** check box to enable the **Application Learn** drop-down.
		Application Learn	The **Application Learn** drop-down is enabled only if the **Allow Learn Mode** check box is selected.
		Unit Has Learned	This field displays **Yes** if the unit has been learned and **No** if the unit has not been learned.

Unit Identification This section display the fields for identification of the unit.	**Unit Type**	This field displays the unit type and unit description of the device.
	Catalog Number	This field displays the catalog number related to the unit type.
	Firmware Version	This field displays the version number of the C-Bus interface firmware which exists on the physical network

		or which has been assigned to a logical representation of the unit in the database.
	Part Name	This field displays the part name which is stored in the unit hardware, which can be modified.
	Unit Address	This field displays the unit address assigned to the device.
	Serial Number	This field contains the serial number which exists on the physical network.
	Tag Name	This field displays the name that you can provide to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only.
	Notes	This field displays a location to add notes about the unit which is stored in the project database only.

Status The Status section contains information about the C-Bus network related functions located on the unit.	**C-Bus Clock Active**	This field displays whether the C-Bus internal clock is currently enabled on the Shutter Relays on the network.
	C-Bus Voltage (V)	This field displays the C-Bus voltage of the device.
	Learn Mode Active	This field displays the status of the learn mode.
	Burden (Software) Active	This field displays the status of the burden (software).
	Local Toggle Active	This field displays the status of the local toggle.

Once Shutter Relay configuration is completed, **Save** the changes.

Support Units

C-Bus units which provide support for the C-Bus network are generally known as support units. Some support units are responsible for linking a C-Bus network to another network or other system or protocol. They include bridges to connect C-Bus networks to one another, DALI gateways to connect to DALI networks, and interface units to connect to PCs, laptops as well as third party control devices. Other support units include: Telephony interfaces, IR transmitters, and C-Bus power supplies.

These units physically link a C-Bus network to another network or other system or protocol. They include C-Bus bridges, which link two wired networks, as well as wired to wireless gateways to connect to C-Bus wired networks.

- Bridges, page 447
- Gateways, page 448
- PC Interfaces, page 503

Bridges

The C-Bus bridges provide connectivity between wired C-Bus networks, see Add bridge network

There are two types of wired bridges:

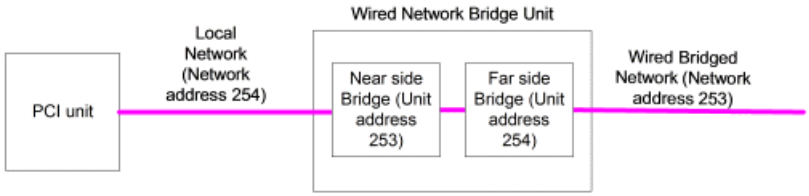
- C-Bus network bridge (5100B)
- C-Bus network bridge (5500NB)

Each of the bridge units have a near and far side, which relates to whether the side is connected to a local or remote network.

The local and wired bridged networks are linked together by a network bridge unit. When the wired bridged network is added, the network bridge appears as a unit in both the local and wired network. In the local network, the bridge is listed as Near side network bridge unit. In the wired bridged network, the bridge appears as Far side network bridge unit.

When the network bridge is configured, the Near side network bridge unit address has the same value as the far side network (Wired Bridged) address and the Far side network bridge unit has the same value as the near side network (Local) address

Local and Wired Bridged network joined by a single network bridge



List of Bridge unit devices:

- 5500NB [BRIDGE2F] and 5500NB [BRIDGE2N]
- 5100B [BRIDGE1F] and 5100B [BRIDGE1N]
- SLC5500NB [BRIDGE2F] and SLC5500NB [BRIDGE2N]

The C-Bus bridge configuration provides the ability to view unit identification and unit status information as well as configure global settings.

Field		Description
Connection	Links to Network	Displays the network it is linked with in the far side of the bridge.

	Route C-Bus Applications to This section allows to select, whether they want to send the C-Bus message to Adjacent or Remote network by checking the check box. **NOTE:** Remote network check box will not be enabled unless there is a remote network to route to.	Displays whether the network is adjacent or remote Remote network will be enabled when more than 1 network is linked .
	C-Bus Application Policy Rule This section allows to control the messages which are passed between the wireless to the wired network by defining at least one of the two drop down lists.	Policy Rule 1 Policy Rule 1 drop down list allows to select all or specifically only one application. If All Applications is selected, messages for all applications will be passed between the networks. Policy Rule 2 If you select only one application type, the Policy Rule 2 drop down list, will offer a secondary choice of application type.
Global This section allows users to check and update the C-Bus clock information.	C-Bus Clock	The C-Bus Clock check box enables/disables the resident C-Bus clock. The Enable C-Bus Clock check box is ticked (enabled) by default.
	Burden	The Enable Burden check box enables/disables the resident network burden. The Enable Burden check box is operational if the unit address is 001 and the Enable C-Bus Clock check box is ticked. Otherwise, the Enable Burden check box is non-operational [greyed out]. If the operational Enable Burden check box is ticked, then the resident burden is enabled.
Unit Identification This section display the fields for identification of the unit.	Unit Type	The Unit Type field contains the unit type and unit description of the device.
	Firmware Version	The Firmware Version field shows the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
	Catalogue Number	The Catalog Number field contains the catalog number related to the unit type.
	Part Name	The Part Name field contains the part name which is stored in the unit hardware.
	Unit Address	This field displays the unit address assigned to the device.
	Serial Number	The Serial number field contains the serial number which exists on the physical network.
	Tag Name	The Tag Name field contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only.
	Notes	The Notes field contains a location to add notes about the unit which is stored in the project database only.
Status The Status section contains information about the C-Bus network related functions located on the unit.	C-Bus Clock Active	The Clock Active indicates whether the C-Bus internal clock is enabled on this C-Bus unit. If activated, the indicator is lit. If not activated, the indicator is greyed out.
	Burden Active	The Burden Active indicates whether the C-Bus burden is active on this C-Bus unit. If active, the indicator is lit. If not active, the indicator is greyed out.
	Voltage	Voltage field contains the voltage level available to the unit. The voltage level displayed refreshes whenever the Update Status button is clicked.

Gateways

The available gateway devices are visible in **Library** window, select ▽ > **Support units** > **Gateways**.

C-Bus DALI-2 Gateway

The SpaceLogic C-Bus DALI-2 Gateway is an interface that allows controlling, managing and monitoring of DALI Lighting and Emergency Lighting devices. It allows to configure and commission DALI Lighting and Emergency Lighting devices in conjunction with C-Bus units.

Unit Type

SYS_DAL2 (5502CDGP230)

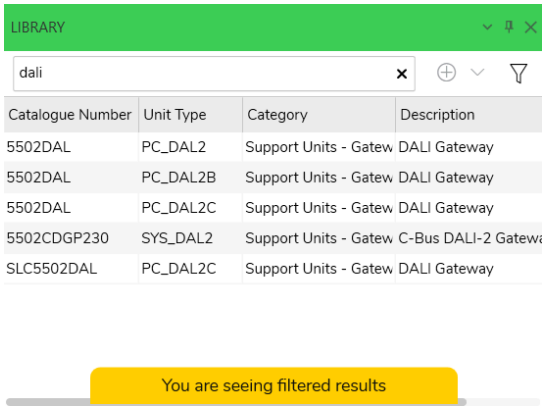
DALI-2 Gateway:

- Is a DALI-2 certified multi-master application controller
- Supports full functionality of DALI device types DT0, DT1, DT6
- Enables comprehensive reporting on DALI devices and lines status and failures over C-Bus reporting feature
- Warn before off functionality indicates the lights are about to turn off by visual warning
- Allows switching, dimming for individual devices, groups, and broadcast addressing modes and flexible scene triggering via DALI group and broadcast addressing
- Provides 2-way mapping between DALI and C-Bus

Add DALI-2 Gateway

Prerequisites: Make sure your project is Open, and network has been selected.

1. Select the **Network**.
2. Click **C-Bus Devices**.
3. Type Dali in **Library** window **Search** bar.

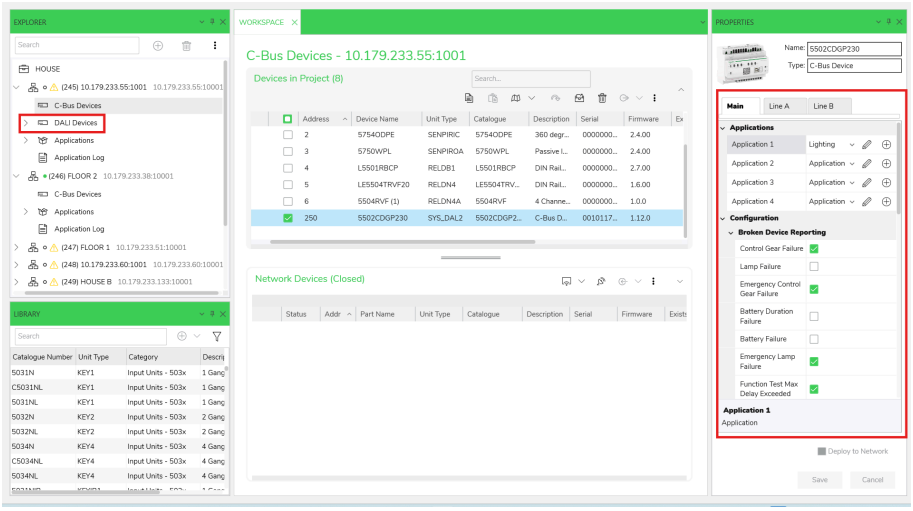


Step result: All the DALI Gateways are displayed.

4. Select DALI-2 Gateway (SYS_DAL2) and click ⊕

Step result: DALI-2 Gateway is added to the **Devices in Project** section

5. Once DALI-2 Gateway is added to the **Devices in Project** section, DALI devices is displayed in **Library** window and gateway properties is displayed in **Property** window.



Make sure **Properties** window has been selected in the Windows ▾

NOTE: Adding multiple DALI-2 Gateway is similar to ADD Multiple C-Bus devices, page 76

To configure DALI 2 Gateway, click here, page 453

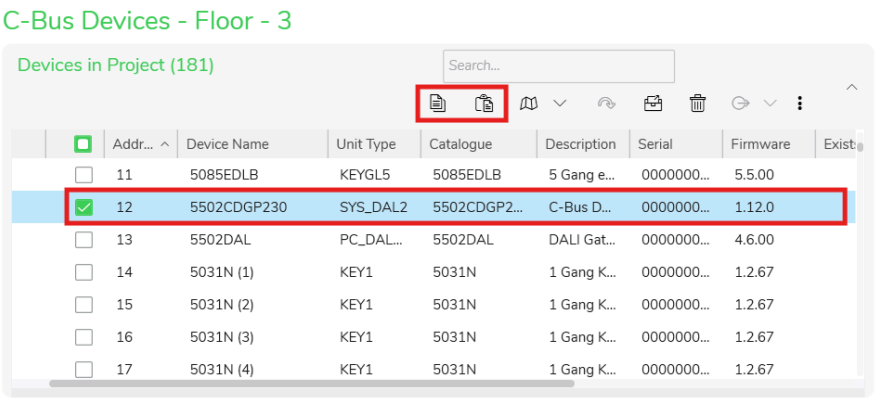
Copy and Paste DALI–2 Gateway Device

You can copy and paste a DALI-2 Gateway device within your project to reuse its configuration on another device of the same type. You can save time during commissioning by reusing the programming from one device on another device with a similar configuration. This is useful when most of the settings are same, and only a few changes such as group addresses need to be updated.

Prerequisites: The devices must already be added in a **Devices in Project** section of an network.

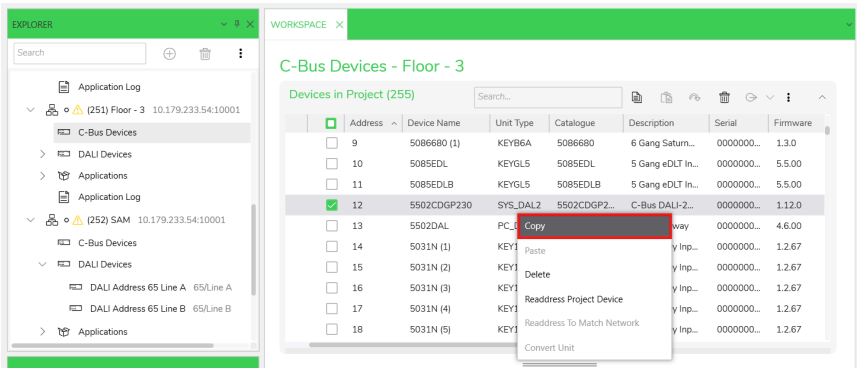
1. Select the DALI-2 Gateway device check box you want to copy and click .

   Once you select the device, icon is enabled on all C-Bus networks of same project.



   You can also copy a device using one of these methods:

   - Right-click the device and select **Copy**.



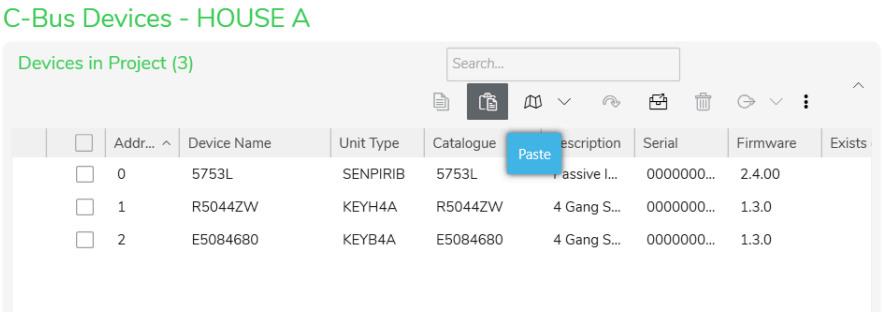
     The device details are copied.

   - Press Ctrl + C on your keyboard.

   NOTE:

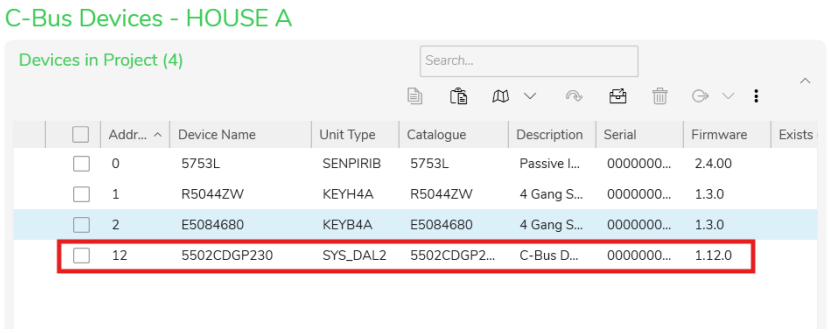
   - Copying multiple devices at once is not supported.
   - You cannot copy and paste C-Bus Controller devices (including single PC_ and SYS_ devices, 3-tier Controller devices), DALI lines on a C-Bus DALI-2 Gateway and C-Bus Network Bridge devices (BRIDGE2N and BRIDGE2F).
   - You cannot copy and paste a DALI-2 Gateway device from one project to another project.
   - You cannot copy and paste a DALI-2 Gateway device that is in the project at **Unit Address** 255.

2. Choose where you want to paste the device in the project and click .



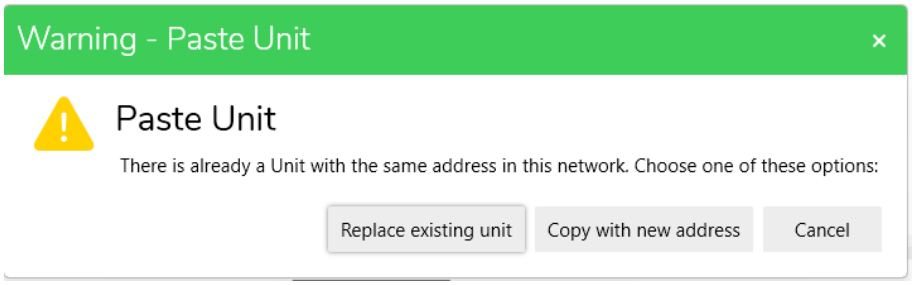
You can also paste a device using one of these methods:

- Right-click on the **Devices in Project** section and select **Paste**. The device details are pasted.
- Press Ctrl + V on your keyboard.

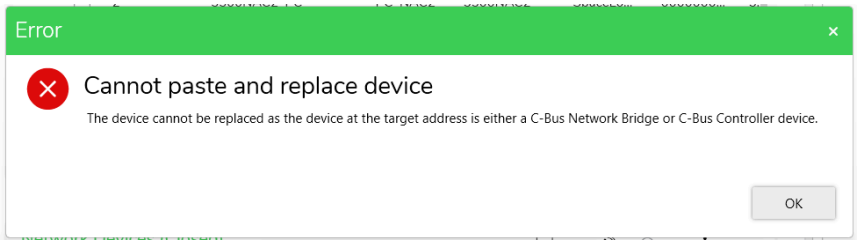


NOTE: You cannot paste the device in the **Network Devices** list (live devices).

If a unit with the same address already exists on that network, a **Warning Paste Unit** pop-up is displayed.

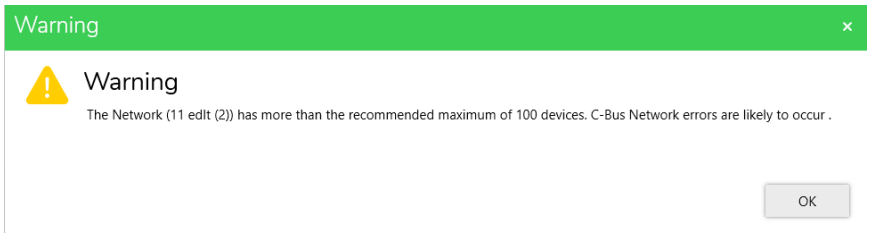


3. Click **Replace existing unit** to replace the existing unit in the project at that address.
   - If you try to copy a device from one network address and paste it in another network with same address that includes a C-Bus Network Bridge or C-Bus Controller devices, an **Error** pop-up is displayed.



4. If you click **Copy with new address**:
   - The unit is pasted at the next available address. The part name remains the same.
   - The serial number is reset to 0000000000.
   - The device name is updated by appending the next available number (example: (1)).
   - The tag name is updated to include *Copy of [PartName]*.
5. Click **Cancel** to cancel the operation.

NOTE: A **Warning** pop-up appears when you try to paste a device into a network that has already reached its maximum device limit.



DALI-2 Gateway

Prerequisites: Make sure the network is already been created in a project and DALI-2 gateway is been added to **Devices in Project** (project database).

Unit Type

SYS_DAL2 (5502CDGP230)

The table below explains the field information in the property editor required to configure the DALI-2 gateway device.

Applications This section displays the lighting applications supported by the DALI-2 gateway. Up to four lighting applications can be defined and then used throughout the configuration of the DALI-2 gateway for control across C-Bus Main, Line A and Line B.	
Main	
Configuration This section has a configuration field to set the operation conditions for C-Bus DALI-2 gateway.	**Broken Device Reporting** This section displays the different failure modes. If a failure mode check box is selected, the C-Bus DALI-2 gateway will report that failure mode. • **Control Gear Failure:** This check box refers to the failure of control gear in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Control Gear Failure** mode. • **Lamp Failure:** This check box refers to the failure of lamp in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Lamp Failure** mode. • **Emergency Control Gear Failure:** This check box refers to the failure of circuit in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Circuit Failure** mode. • **Battery Duration Failure:** This check box refers to the failure of battery duration in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Battery Duration Failure** mode. • **Battery Failure:** This check box refers to the failure of battery in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Battery Failure** mode. • **Emergency Lamp Failure:** This check box refers to the failure of DALI emergency and exit ECGs in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Emergency Lamp Failure** mode. • **Function Test Max Delay Exceeded:** • **Function Test Failed:** This check box refers to the failure of function test in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Function Test Failure** mode. • **Duration Test Failed:** • **Open Circuit:** This check box refers to the open circuit in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Open Circuit** mode. • **Short Circuit:** This check box refers to the short circuit in the gateway. If selected, the C-Bus DALI-2 gateway will report the **Short Circuit** error reported by the DALI ECGs.

<table>
<tr><td></td><td colspan="2">

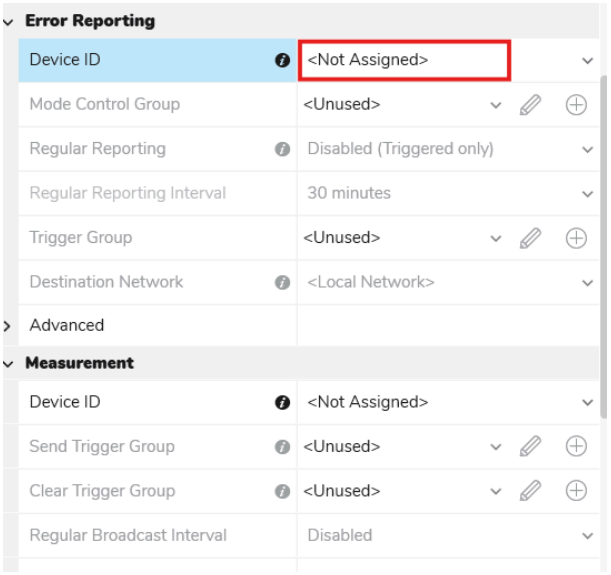
Load Decrease: This check box refers to the load decrease in the gateway.
If selected, the C-Bus DALI-2 gateway will report the Load Decrease error reported by the DALI ECGs.
Load Increase: This check box refers to the load increase in the gateway.
If selected, the C-Bus DALI-2 gateway will report the Load Increase error reported by the DALI ECGs.
Current Protector Active: This check box refers to the current protector active in the gateway.
If selected, the C-Bus DALI-2 gateway will report the Current Protector Active error reported by the DALI ECGs.
Thermal Shutdown: This check box refers to the thermal shutdown in the gateway.
If selected, the C-Bus DALI-2 gateway will report the Thermal Shutdown error reported by the DALI ECGs.
Thermal Overload: This check box refers to the thermal overload in the gateway.
If selected, the C-Bus DALI-2 Gateway will report the Thermal Overload error reported by the DALI ECGs.
Reference Measurement Failed: If this check box is selected, the C-Bus DALI-2 gateway will report the Reference Measurement Failure mode.

</td></tr>
<tr><td></td><td colspan="2">Disable Factory Reset

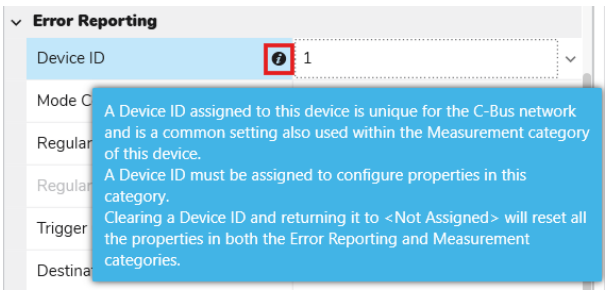
If this check box is selected, the C-Bus DALI-2 gateway will disable the factory reset.</td></tr>
<tr><td rowspan="2">Error Reporting

This section displays the fields for error reporting.</td><td>Device ID</td><td>This field displays the unit address of the device.

When you assign a Device ID, and then if you set the Device ID to Not Assigned, then all properties in both the Error Reporting and Measurement section are reverted to their default settings and disabled (grey out state).

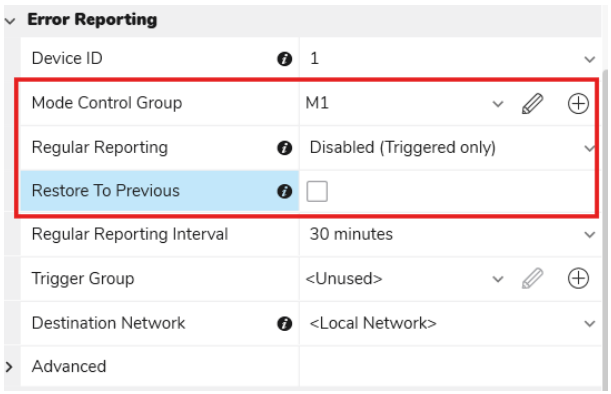
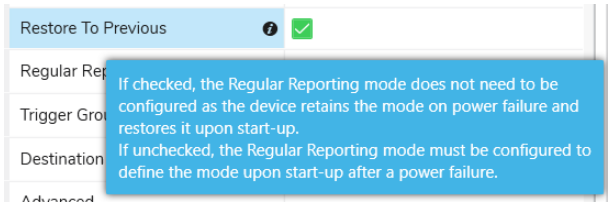
Mouse over on the Device ID info icon to view the tooltip message.

 
</td></tr>
<tr><td>Mode Control Group</td><td>This field allows to add an enable group (0–254).

If you assign a group, Restore To Previous field is displayed and Regular Reporting Interval drop-down is enabled.

If you uncheck the Restore To Previous check box, Regular Reporting field will be enabled.

If you check Restore To Previous check box, Regular Reporting will be disabled.</td></tr>
</table>

		
	Regular Reporting	This field configures the regular reporting mode of the DALI-2 gateway into one of the below modes: • **Disabled (Triggered only)**: Errors are reported only when triggered by the assigned Trigger Group. • **All Errors, most recent only (Mode 1)**: The most recent errors are reported automatically at a regular time interval (time set by the **Regular Report Interval** field). • **All Errors, most recent and most severe (Mode 2)**: The most recent and most severe (or latched) errors are reported automatically at a regular time interval (time set by the **Regular Report Interval** field). • **Minimum Errors, most recent only (Mode 3)**: The most recent minimum errors are reported automatically at a regular time interval (time set by the **Regular Report Interval** field). • **Minimum Errors, most recent and most severe (Mode 4)**: The most recent and most severe minimum errors are reported automatically at a regular time interval (time set by the **Regular Report Interval** field). All the modes can be set with the regular reporting interval set to **No regular reports**, which allows live reporting of errors without the regular reports. Mouse over on the **Regular Reporting** info icon to view the tooltip message.
	Restore To Previous	When you click **Save** with the below conditions: • **Mode Control Group** — Assigned • **Restore to Previous** — Checked • **Regular Reporting** — Disabled state The **Regular Reporting** displays the last saved value. Mouse over on the **Restore to Previous** info icon to view the tooltip message. 
	Regular Report Interval	This field is used to select the time interval period between the completion of a regular report and beginning of the next report in **All Errors, most recent only** and **All Errors, most recent and most severe** modes. By default, the interval is 30 minutes. Regular reporting interval is enabled for **Trigger Only** mode.
	Trigger Group	This field contains a **Trigger Group** to trigger an error reporting event for any of the three error reporting modes. When a trigger group is created, **Resend Action Selector** and **Acknowledge All Action selector** fields are displayed. The **Resend Action Selector** is set to send all errors and **Acknowledge All Action selector** is set to acknowledge all errors.
	Destination Network	This field contains the destination C-Bus network to which the DALI-2 gateway routes the error messages. This allows the

		error messages to be sent to a remote C-Bus network for central monitoring if it's not the local network. Mouse over on the **Destination Network** info icon to view the tooltip message.	
	Advanced	**C-Bus Voltage Warning Set Threshold**	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Voltage Warning Clear Threshold** value selected. • If the **Line A Over Temperature Clear Threshold** is **Disabled**, then setting a value here will also set the **Line A Over Temperature Clear Threshold** value to (Line A Over Temperature Set Threshold - 1 °C). Mouse over on the **C-Bus Voltage Warning Set Threshold** info icon to view the tooltip message.
		C-Bus Voltage Warning Clear Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **C-Bus Voltage Warning Set Threshold** value selected. • If the **C-Bus Voltage Warning Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Warning Set Threshold** value to (current C-Bus Voltage Warning Clear Threshold value - 1 V). Mouse over on the **C-Bus Voltage Warning Clear Threshold** info icon to view the tooltip message.
		C-Bus Voltage Critical Set Threshold	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Voltage Critical Clear Threshold** value selected. • If the **C-Bus Voltage Critical Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Critical Clear Threshold** value to (current C-Bus Voltage Critical Set Threshold value + 1 V). • If the **C-Bus Voltage Warning Set Threshold** has a value set (other than **Disabled**), then the value selected must be less than (current C-Bus Voltage Warning Set Threshold value). Mouse over on the **C-Bus Voltage Critical Set Threshold** info icon to view the tooltip message.
		C-Bus Voltage Critical Clear Threshold	• By default, **Disabled** is selected.

			• The value selected must be greater than the **C-Bus Voltage Critical Set Threshold** value selected. • If the **C-Bus Voltage Critical Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Voltage Critical Set Threshold** value to (current C-Bus Voltage Critical Clear Threshold value - 1 V). Mouse over on the **C-Bus Voltage Critical Clear Threshold** info icon to view the tooltip message.
		C-Bus Power Supply Warning Set Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **C-Bus Power Supply Warning Clear Threshold** value selected. • If the **C-Bus Power Supply Warning Clear Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Power Supply Warning Clear Threshold** value to (current C-Bus Power Supply Warning Set Threshold value - 10 mA). Mouse over on the **C-Bus Power Supply Warning Set Threshold** info icon to view the tooltip message.
		C-Bus Power Supply Warning Clear Threshold	• By default, **Disabled** is selected. • The value selected must be less than the **C-Bus Power Supply Warning Set Threshold** value selected. • If the **C-Bus Power Supply Warning Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Power Supply Warning Set Threshold** value to (current C-Bus Power Supply Warning Clear Threshold value + 10 mA). Mouse over on the **C-Bus Power Supply Warning Clear Threshold** info icon to view the tooltip message.
		Unit Over Temperature Set Threshold	This field is a combo box which is by default set to 70 ° C. The **Unit Over Temperature Set Threshold** property increments by 1 °C with a range of 1 °C - 80 °C. Mouse over on the **Unit Over Temperature Set Threshold** info icon to view the tooltip message.

		Unit Over Temperature Clear Threshold	This field is a combo box which is by default set to 65° C. The **Unit Over Temperature Clear Threshold** property increments by 1° C with a range of 0° C - 79° C. Mouse over on the **Unit Over Temperature Clear Threshold** info icon to view the tooltip message.
		Line A Over Temperature Set Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **Line A Over Temperature Set Threshold** value selected. • If the **C-Bus Power Supply Warning Set Threshold** is **Disabled**, then setting a value here will also set the **C-Bus Power Supply Warning Set Threshold** value to (current C-Bus Power Supply Warning Clear Threshold value + 10 mA). Mouse over on the **Line A Over Temperature Set Threshold** info icon to view the tooltip message.
		Line A Over Temperature Clear Threshold	• By default, **Disabled** is selected. • The value selected must be less than the **Line A Over Temperature Set Threshold** value selected. • If the **Line A Over Temperature Set Threshold** is **Disabled**, then setting a value here will also set the **Line A Over Temperature Set Threshold** value to (Line A Over Temperature Clear Threshold value + 1 °C). Mouse over on the **Line A Over Temperature Clear Threshold** info icon to view the tooltip message.
		Line B Over Temperature Set Threshold	• By default, **Disabled** is selected. • The value selected must be greater than the **Line B Over Temperature Set Threshold** value selected. • If the **Line B Over Temperature Clear Threshold** is **Disabled**, then setting a value here will also set the **Line B Over Temperature Clear Threshold** value to (Line B Over Temperature Set Threshold - 1 °C). Mouse over on the **Line B Over Temperature Set Threshold** info icon to view the tooltip message.

				Line B Over Temperature Clear Threshold	• By default, **Disabled** is selected. • The value selected must be less than the **Line B Over Temperature Set Threshold** value selected. • If the **Line B Over Temperature Set Threshold** is **Disabled**, then setting a value here will also set the **Line B Over Temperature Set Threshold** value to (Line B Over Temperature Clear Threshold value + 1 °C). Mouse over on the **Line B Over Temperature Clear Threshold** info icon to view the tooltip message.
Measurement The DALI-2 Gateway monitors a range of properties such as DALI device lamp running time, line voltage and line current for each DALI line. This information can then be shared on C-Bus using the measurement application.	**Device ID**			This field displays the unit address of the device. When you assign a Device ID, and then if you set the **Device ID** to **Not Assigned**, then all properties in both the **Error Reporting** and **Measurement** section are reverted to their default settings and disabled (grey out state). Mouse over on the **Device ID** info icon to view the tooltip message.	
	Send Trigger Group			This field contains a trigger group to request the DALI-2 gateway to send its stored measurement data. Mouse over on the **Send Trigger Group** info icon to view the tooltip message.	
	Clear Trigger Group			This field contains a trigger group to clear the stored measurement data in the DALI- 2 gateway. Mouse over on the **Clear Trigger Group** info icon to view the tooltip message.	
	Regular Broadcast Interval			Disabled by default. Can set the intervals between 1 min to 4 hours.	
	Regular Broadcast Option			**All**	Enabled by default.
				Lamp Hours	Selected and disabled by default.
				DALI MAC Temperature	Selected and disabled by default.
				DALI Current	Selected and disabled by default.
				DALI Voltage	Selected and disabled by default.
				C-Bus Voltage	Selected and disabled by default.
				Unit temperature	Selected and disabled by default.
				NOTE: Deselecting **All** check box will enable each of the individual check box options.	
	Destination Network			This field contains the destination C-Bus network to which the DALI-2 gateway routes the measurement application messages. Mouse over on the **Destination Network** info icon to view the tooltip message.	
	Each Device ID assigned has Send Trigger group associated with an **Action Selector** as described in the below table.				
Action Selector	**Property**	**Units**	**Reset-table**	**Notes**	
0–63	Lamp Running Time (Line A)	Hours	Yes	Indexed By Object ID	

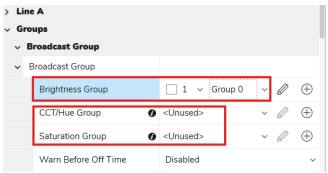
64–127	Lamp Running Time (Line B)	Hours	Yes	Indexed by Object ID
128	Line A DALI Voltage	Volts	No	
129	Line B DALI Voltage	Volts	No	
130	Line A DALI Current	Amperes	No	
131	Line B DALI Current	Amperes	No	
132	Line A DALI MAC Temperature	Degrees C	No	
133	Line B DALI MAC Temperature	Degrees C	No	
253	C-Bus Voltage	Volts	No	
254	Unit Temperature	Degrees C	No	
Logic The DALI-2 Gateway can utilize combinational logic to control lighting behavior for DALI Line broadcast, DALI group or DALI device control. Up to 16 logic groups can be used for a DALI-2 Gateway.	**Logic Groups**			This section allows users to configure a C-Bus group from a lighting application for each of the 16 available logic groups.
Global This section displays the project properties set by the user at the time of creation of the project.	**C-Bus Clock**			This section allows users to enable or disable the C-Bus clock for the DALI-2 gateway.
Unit Identification This section displays the fields for identification of the unit.	**Unit Type**			Displays the unit type and unit description of the device.
	Catalogue Number			Displays the catalog number related to the unit type.
	Firmware Version			Displays the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
	Part Name			Displays the part name which is stored in the unit hardware, which can be modified.
	Unit Address			Displays the unit address assigned to the device.
	Serial Number			Displays the serial number which exists on the physical network.
	Tag Name			Displays the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only.
	Notes			A location to add notes about the unit which is stored in the project database only.
Status The Status section contains information about the C-Bus network related functions located on the unit.	**Voltage**			Displays the voltage level available to the unit. The voltage level displayed refreshes whenever the Update Status button is clicked.
	C-Bus Clock-Active			This field indicates whether the C-Bus internal clock is currently enabled on the DALI-2 gateway within the network.

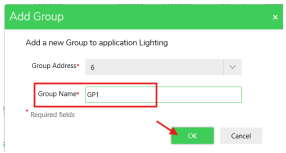
<table>
<tr><td colspan="5">Line A / Line B</td></tr>
<tr><td colspan="2">Line A / Line B name</td><td colspan="3">This field allows to rename Line A / Line B.</td></tr>
<tr><td colspan="2">Warn Before Off Enable Group</td><td colspan="3">This field allows to create a group to enable application.</td></tr>
<tr><td colspan="2">WBO Restore</td><td colspan="3">This field allows to set the Warn Before Off Restore by selecting the check box.

If unchecked, can set the Warn Before Off restore level to Use off level, Use minimum level, or between 1–100%.</td></tr>
<tr><td colspan="2">Enable Local Toggle</td><td colspan="3">This field allows to set the Enable Local Toggle by selecting the check box.</td></tr>
<tr><td colspan="2">Enable Commissioning</td><td colspan="3">This field allows to set the Enable Commissioning by selecting the check box.</td></tr>
<tr><td colspan="2">Enable C-Bus Priority</td><td colspan="3">This field allows to set the Enable C-Bus Priority by selecting the check box.</td></tr>
<tr><td colspan="2">Missing Device Threshold</td><td colspan="3">This field allows to set the missing device range from 1–255.</td></tr>
<tr><td colspan="2">Status Update Interval (Secs)</td><td colspan="3">This field displays the status update interval ranging from 2–255.</td></tr>
<tr><td rowspan="2">Groups</td><td rowspan="2">Broad-cast Groups</td><td rowspan="2">Brightness Group

C-Bus group address is mapped to control the Broadcast Group, DALI Group 1 - 16 or Virtual Group 1 - 16.

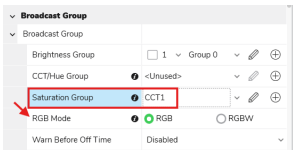
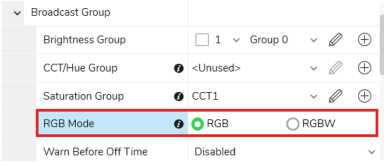
IMPORTANT: The groups assigned in Line A, Line B, and DALI devices on each line has to be unique.

Only when you assign a group address for Brightness Group, CCT/Hue Group and Saturation Group drop-downs are displayed.
 

• You can add group name for brightness group. Select the group name from the Brightness Group drop-down.
• Click ⊕ to create new group name.
Add Group pop-up is displayed.
 

• Provide the details and click OK.
The created group name will be populated in the Brightness Group drop-down.
• Click ✎ to modify the group name. Edit Group pop-up is displayed.
• Edit the group name and click OK.</td><td>CCT/Hue Group</td><td>C-Bus group address is used to control the CCT/Hue of a DALI DT8 device.
• If a Saturation Group is not set, this CCT/Hue Group controls the CCT (correlated colour temperature).
Used in conjunction with the Brightness Group for on, off, and dimming control plus setting the white colour temperature (tuneable white).
• If a Saturation Group is set, this CCT/Hue Group controls the Hue of a DALI DT8 device.
NOTE:
• The CCT/Hue Group uses the Application Index defined in the Brightness Group.
• The CCT/Hue Group is applicable to all controllable DALI devices (excluding Types C and D), yet functional for DALI DT8 device only.
To assign a group:
• Select the group name from the CCT/Hue Group drop-down.
• Click ⊕ to create new group name.
Add Group pop-up is displayed.
• Provide the details and click OK.
The created group name will be populated in the CCT/Hue Group drop-down.
• Click ✎ to modify the group name. Edit Group pop-up is displayed.
• Edit the group name and click OK.
Group name is updated.
Mouse over on the CCT/Hue Group info icon to view the tooltip message.</td></tr>
<tr><td>Saturation Group

Only when you assign a group address for Saturation Group, RGB Mode field is displayed.</td><td>C-Bus Group Address is used to control the Saturation of a DALI DT8 device.
• If a CCT/Hue Group is set, this CCT/Hue Group controls the Hue (colour) of a DALI DT8 device. The Saturation Group controls the Saturation (intensity) of a DALI DT8 device.</td></tr>
</table>

			 • Used with both the **Brightness Group** and the **CCT/Hue Group** for on, off, and dimming control plus setting the RGB/RGBW colour and its intensity. **NOTE:** • The **Saturation Group** uses the Application Index defined in the **Brightness Group**. • The **CCT/Hue Group** is applicable to all controllable DALI devices (excluding Types C and D), yet functional for DALI DT8 device only. To assign a group: • Select the group name from the **Saturation Group** drop-down. • Click ⊕ to create new group name. **Add Group** pop-up is displayed. • Provide the details and click **OK**. The created group name will be populated in the **Saturation Group** drop-down. • Click ✎ to modify the group name. **Edit Group** pop-up is displayed. • Edit the group name and click **OK**. Group name is updated. Mouse over on the **Saturation Group** info icon to view the tooltip message.
			RGB Mode **RGB Mode** field will appear for all types excluding type C and D devices.	You can configure the control of DALI coloured lighting solution to suit either 3-channel or 4-channel types to achieve the optimal outcome for coloured DALI lighting. Select the RGB mode.  Mouse over on the **RGB Mode** info icon to view the tooltip message.
		Application Index	This field is a combo box to select the application to be used for the group. The index is visible only when the application is been assigned in the application section.	
		Warn Before off Time	When enabled, it adds a time delay between when the C-Bus group is turned off and when the DALI lights actually go off. For example, if the **Warn Before Off Time** is set to 5 minutes for DALI Group 1, and the C-Bus group linked to it is turned off (such as when a sensor times out), the lights in DALI Group 1 will stay on for another 5 minutes before turning off. This feature is useful for alerting occupants that the lights will soon turn off due to lack of movement. To keep the lights on, they simply need to move to re-trigger the sensor, which will turn the C-Bus group back on and cancel the countdown. This field displays amount of time after the group address is turned off. When you select the minutes from the **Warn Before off Time** drop-down, **Warn Before Off Level** drop-down is displayed.	
		Warn Before Off Level	Select the Warn Before Off Level. When **Warn Before Off** is enabled for a channel, and a command is received from C-Bus to turn the channel OFF, the channel does not immediately turn off. Instead it: • sets the channel level to the configured **Warn Before Off Level**, to warn any occupants that the light will turn off shortly.	

<table>
<tr><td></td><td></td><td></td><td colspan="2">• starts a countdown timer set for the Warn Before Off Time:
◦ When the timer expires, the channel turns OFF.
◦ If another OFF command is received for the channel before the timer expires, the channel cancels the timer and turns off immediately.</td></tr>
<tr><td></td><td></td><td rowspan="4">Advanced</td><td>Min / Max Logic</td><td>This field allows you to choose minimum or maximum level of the group address associated with the channel.</td></tr>
<tr><td></td><td></td><td>Logic Group Assignment</td><td>This field allows to pair additional groups to the output, can have maximum 2 logic group assignment.</td></tr>
<tr><td></td><td></td><td>Primary Control Function</td><td>The Primary Control Function setting determines how DALI lighting behaves when a C-Bus Group on is turned ON or OFF. It allows the lights to fade up or down smoothly, rather than switching instantly.

These settings set the DALI fade times used when an instant ramp on C-Bus is received. The fades for target levels of OFF and ON affect toggle type functions, allowing adjustment of the soft turn off/on. The fades for other levels affect things like the ON event for a Memory Toggle function, the release event of pushbutton dimming, or the smoothness of light level maintenance.

Two presets are available such as Push Button Dimming and Scene Operations. Select the required preset value.

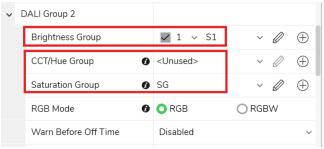
Mouse over on the Primary Control Function info icon to view the tooltip message.

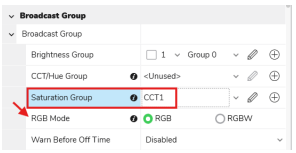
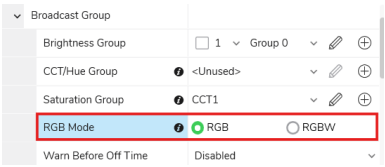
Recommended Fade Settings:

<table>
<tr><th>Primary Control Function</th><th>Soft Turn On</th><th>Soft Turn Off</th><th>Soft End Ramp</th></tr>
<tr><td>Push-button Dimming</td><td>0.7s</td><td>0.7s</td><td>2s</td></tr>
<tr><td>Scene Operations</td><td>0.7s</td><td>0.7s</td><td>0.7s</td></tr>
<tr><td>Motion Sensor</td><td>0s</td><td>0.7s</td><td>2s</td></tr>
<tr><td>Daylight Harvesting</td><td>0.7s</td><td>0.7s</td><td>4s</td></tr>
<tr><td>Custom</td><td colspan="3">Choose your own values.</td></tr>
</table></td></tr>
<tr><td></td><td></td><td>Soft Turn On</td><td>Select the DALI fade time when an instant ramp is received with a target level of 100 %, so the group is turned ON at maximum level.

If you select Instant from Soft Turn On drop-down, automatically Push Button Dimming is populated in the Primary Control Function drop-down.

NOTE: When you trigger a light switch (On, Off, Toggle), you may need gentle fade such as , 0.7s or 1s. But if triggered by a motion</td></tr>
</table>

				sensor, a fast fade (0 s) might be better for instant response.
			Soft Turn Off	Select the DALI fade time when an instant ramp is received with a target level of zero, so the group is turned OFF. If you select **Instant** from **Soft Turn Off** drop-down, automatically **Push Button Dimming** is populated in the **Primary Control Function** drop-down.
			Soft End Ramp	Select the DALI fade time when an instant ramp is received with a target level of any value other than 0 to 100 %. **NOTE:** When using: • **Push Button Dimming key Function:** A medium fade 2s is recommended to reduce any visible brightness correction. • **Daylight Harvesting:** A longer fade 4s is desirable to avoid the appearance of the artificial light level if the ambient light level changes frequently due to cloud cover.
	DALI Groups This section is to use the DALI Group.	**Brightness Group** C-Bus group address is mapped to control the Broadcast Group, DALI Group 1 - 16 or Virtual Group 1 - 16. **IMPORTANT:** The groups assigned in Line A, Line B, and DALI devices on each line has to be unique. Only when you assign a group address for **Brightness Group**, **CCT/Hue Group** and **Saturation Group** drop-downs are displayed. 	**CCT/Hue Group**	C-Bus group address is used to control the CCT/Hue of a DALI DT8 device. • If a **Saturation Group** is not set, this CCT/Hue Group controls the CCT (correlated colour temperature). Used in conjunction with the **Brightness Group** for on, off, and dimming control plus setting the white colour temperature (tuneable white). • If a **Saturation Group** is set, this **CCT/Hue Group** controls the Hue of a DALI DT8 device. **NOTE:** • The **CCT/Hue Group** uses the Application Index defined in the Brightness Group. • The **CCT/Hue Group** is applicable to all controllable DALI devices (excluding Types C and D), yet functional for DALI DT8 device only. To assign a group: • Select the group name from the **CCT/Hue Group** drop-down. • Click ⊕ to create new group name. **Add Group** pop-up is displayed. • Provide the details and click **OK**. The created group name will be populated in the **CCT/Hue Group** drop-down. • Click ✎ to modify the group name. **Edit Group** pop-up is displayed. • Edit the group name and click **OK**. Group name is updated. Mouse over on the **CCT/Hue Group** info icon to view the tooltip message.
			Saturation Group Only when you assign a group address for **Saturation Group**, **RGB Mode** field is displayed.	C-Bus Group Address is used to control the Saturation of a DALI DT8 device.

				• If a **CCT/Hue Group** is set, this **CCT/Hue Group** controls the Hue (colour) of a DALI DT8 device. The **Saturation Group** controls the Saturation (intensity) of a DALI DT8 device. • Used with both the **Brightness Group** and the **CCT/Hue Group** for on, off, and dimming control plus setting the RGB/RGBW colour and its intensity. **NOTE:** • The **Saturation Group** uses the Application Index defined in the **Brightness Group**. • The **CCT/Hue Group** is applicable to all controllable DALI devices (excluding Types C and D), yet functional for DALI DT8 device only. To assign a group: • Select the group name from the **Saturation Group** drop-down. • Click ⊕ to create new group name. **Add Group** pop-up is displayed. • Provide the details and click **OK**. The created group name will be populated in the **Saturation Group** drop-down. • Click ✎ to modify the group name. **Edit Group** pop-up is displayed. • Edit the group name and click **OK**. Group name is updated. Mouse over on the **Saturation Group** info icon to view the tooltip message.
			RGB Mode **RGB Mode** field will appear for all types excluding type C and D devices.	You can configure the control of DALI coloured lighting solution to suit either 3-channel or 4-channel types to achieve the optimal outcome for coloured DALI lighting. Select the RGB mode.  Mouse over on the **RGB Mode** info icon to view the tooltip message.
		Application Index	This field is a combo box to select the application to be used for the group. The index is visible only when the application is been assigned in the application section.	
		Warn Before Off Time	When enabled, it adds a time delay between when the C-Bus group is turned off and when the DALI lights actually go off. For example, if the **Warn Before Off Time** is set to 5 minutes for DALI Group 1, and the C-Bus group linked to it is turned off (such as when a sensor times out), the lights in DALI Group 1 will stay on for another 5 minutes before turning off. This feature is useful for alerting occupants that the lights will soon turn off due to lack of movement. To keep the lights on, they simply need to move to re-trigger the sensor, which will turn the C-Bus group back on and cancel the countdown. This field displays amount of time after the group address is turned off. When you select the minutes from the **Warn Before off Time** drop-down, **Warn Before Off Level** drop-down is displayed.	
		Warn Before Off Level	Select the Warn Before Off Level.	

<table>
<tr><td></td><td></td><td></td><td colspan="2">When Warn Before Off is enabled for a channel, and a command is received from C-Bus to turn the channel OFF, the channel does not immediately turn off. Instead it:
sets the channel level to the configured Warn Before Off Level, to warn any occupants that the light will turn off shortly.
starts a countdown timer set for the Warn Before Off Time:
When the timer expires, the channel turns OFF.
If another OFF command is received for the channel before the timer expires, the channel cancels the timer and turns off immediately.</td></tr>
<tr><td></td><td></td><td>Advanced</td><td>Min / Max Logic</td><td>This field allows you to choose minimum or maximum level of the group address associated with the channel.</td></tr>
<tr><td></td><td></td><td></td><td>Logic Group Assignment</td><td>This field allows to pair additional groups to the output, can have maximum 2 logic group assignment.</td></tr>
<tr><td></td><td></td><td></td><td>Primary Control Function</td><td>The Primary Control Function setting determines how DALI lighting behaves when a C-Bus Group on is turned ON or OFF. It allows the lights to fade up or down smoothly, rather than switching instantly.

These settings set the DALI fade times used when an instant ramp on C-Bus is received. The fades for target levels of OFF and ON affect toggle type functions, allowing adjustment of the soft turn off/on. The fades for other levels affect things like the ON event for a Memory Toggle function, the release event of pushbutton dimming, or the smoothness of light level maintenance.

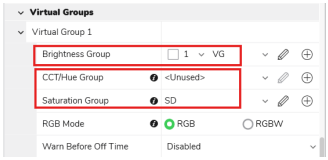
Two presets are available such as Push Button Dimming and Scene Operations. Select the required preset value.

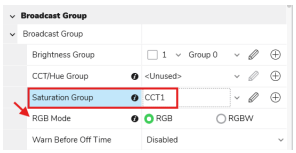
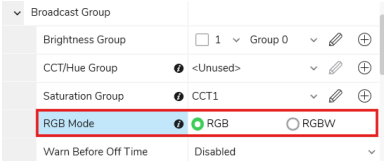
Mouse over on the Primary Control Function info icon to view the tooltip message.

Recommended Fade Settings:

<table>
<tr><th>Primary Control Function</th><th>Soft Turn On</th><th>Soft Turn Off</th><th>Soft End Ramp</th></tr>
<tr><td>Push-button Dimming</td><td>0.7s</td><td>0.7s</td><td>2s</td></tr>
<tr><td>Scene Operations</td><td>0.7s</td><td>0.7s</td><td>0.7s</td></tr>
<tr><td>Motion Sensor</td><td>0s</td><td>0.7s</td><td>2s</td></tr>
<tr><td>Daylight Harvesting</td><td>0.7s</td><td>0.7s</td><td>4s</td></tr>
<tr><td>Custom</td><td colspan="3">Choose your own values.</td></tr>
</table></td></tr>
<tr><td></td><td></td><td></td><td>Soft Turn On</td><td>Select the DALI fade time when an instant ramp is received with a target level of 100 %, so the group is turned ON at maximum level.

If you select Instant from Soft Turn On drop-down, automatically Push Button</td></tr>
</table>

				Dimming is populated in the **Primary Control Function** drop-down. **NOTE:** When you trigger a light switch (On, Off, Toggle), you may need gentle fade such as 0.7s or 1s. But if triggered by a motion sensor, a fast fade 0 s might be better for instant response.
			Soft Turn Off	Select the DALI fade time when an instant ramp is received with a target level of zero, so the group is turned OFF. If you select **Instant** from **Soft Turn Off** drop-down, automatically **Push Button Dimming** is populated in the **Primary Control Function** drop-down.
			Soft End Ramp	Select the DALI fade time when an instant ramp is received with a target level of any value other than 0 to 100 %. **NOTE:** When using: • **Push Button Dimming key Function:** A medium fade 2s is recommended to reduce any visible brightness correction. • **Daylight Harvesting:** A longer fade 4s is desirable to avoid the appearance of the artificial light level if the ambient light level changes frequently due to cloud cover.
	Virtual Groups This section refers to a category for virtual groups.	**Brightness Group** C-Bus group address is mapped to control the **Broadcast Group**, DALI Group 1 - 16 or Virtual Group 1 - 16. **IMPORTANT:** The groups assigned in Line A, Line B, and DALI devices on each line has to be unique. Only when you assign a group address for **Brightness Group**, **CCT/Hue Group** and **Saturation Group** drop-downs are displayed. 	**CCT/Hue Group**	C-Bus group address is used to control the CCT/Hue of a DALI DT8 device. • If a **Saturation Group** is not set, this **CCT/Hue Group** controls the CCT (correlated colour temperature). Used in conjunction with the **Brightness Group** for on, off, and dimming control plus setting the white colour temperature (tuneable white). • If a **Saturation Group** is set, this **CCT/Hue Group** controls the Hue of a DALI DT8 device. **NOTE:** • The **CCT/Hue Group** uses the Application Index defined in the **Brightness Group**. • The **CCT/Hue Group** is applicable to all controllable DALI devices (excluding Types C and D), yet functional for DALI DT8 device only. To assign a group: • Select the group name from the **CCT/Hue Group** drop-down. • Click ⊕ to create new group name. **Add Group** pop-up is displayed. • Provide the details and click **OK**. The created group name will be populated in the **CCT/Hue Group** drop-down. • Click to modify the group name. **Edit Group** pop-up is displayed. • Edit the group name and click **OK**. Group name is updated. Mouse over on the **CCT/Hue Group** info icon to view the tooltip message.

			Saturation Group Only when you assign a group address for **Saturation Group**, **RGB Mode** field is displayed.  	C-Bus Group Address is used to control the Saturation of a DALI DT8 device. • If a **CCT/Hue Group** is set, this **CCT/Hue Group** controls the Hue (colour) of a DALI DT8 device. The **Saturation Group** controls the Saturation (intensity) of a DALI DT8 device. • Used with both the **Brightness Group** and the **CCT/Hue Group** for on, off, and dimming control plus setting the RGB/RGBW colour and its intensity. **NOTE:** • The **Saturation Group** uses the **Application Index** defined in the Brightness Group. • The **CCT/Hue Group** is applicable to all controllable DALI devices (excluding Types C and D), yet functional for DALI DT8 device only. To assign a group: • Select the group name from the **Saturation Group** drop-down. • Click ⊕ to create new group name. **Add Group** pop-up is displayed. • Provide the details and click **OK**. The created group name will be populated in the **Saturation Group** drop-down. • Click ✎ to modify the group name. **Edit Group** pop-up is displayed. • Edit the group name and click **OK**. Group name is updated. Mouse over on the **Saturation Group** info icon to view the tooltip message.
			RGB Mode **RGB Mode** field will appear for all types excluding type C and D devices.	You can configure the control of DALI coloured lighting solution to suit either 3-channel or 4-channel types to achieve the optimal outcome for coloured DALI lighting. Select the RGB mode.  Mouse over on the **RGB Mode** info icon to view the tooltip message.
		Application Index	This field is a combo box to select the application to be used for the group. The index is visible only when the application has been assigned in the **Application** section.	
		Warn Before off Time	When enabled, it adds a time delay between when the C-Bus group is turned off and when the DALI lights actually go off. For example, if the **Warn Before Off Time** is set to 5 minutes for DALI Group 1, and the C-Bus group linked to it is turned off (such as when a sensor times out), the lights in DALI Group 1 will stay on for another 5 minutes before turning off. This feature is useful for alerting occupants that the lights will soon turn off due to lack of movement. To keep the lights on, they simply need to move to re-trigger the sensor, which will turn the C-Bus group back on and cancel the countdown. This field displays amount of time after the group address is turned off. When you select the minutes from the **Warn Before off Time** drop-down, **Warn Before Off Level** drop-down is displayed.	

<table>
<tr><td></td><td></td><td>Warn Before Off Level</td><td colspan="2">Select the Warn Before Off Level.

When Warn Before Off is enabled for a channel, and a command is received from C-Bus to turn the channel OFF, the channel does not immediately turn off. Instead it:
• sets the channel level to the configured Warn Before Off Level, to warn any occupants that the light will turn off shortly.
• starts a countdown timer set for the Warn Before Off Time:
◦ When the timer expires, the channel turns OFF.
◦ If another OFF command is received for the channel before the timer expires, the channel cancels the timer and turns off immediately.</td></tr>
<tr><td></td><td></td><td>Advanced</td><td>Primary Control Function</td><td>The Primary Control Function setting determines how DALI lighting behaves when a C-Bus Group on is turned ON or OFF. It allows the lights to fade up or down smoothly, rather than switching instantly.

These settings set the DALI fade times used when an instant ramp on C-Bus is received. The fades for target levels of OFF and ON affect toggle type functions, allowing adjustment of the soft turn off/on. The fades for other levels affect things like the ON event for a Memory Toggle function, the release event of pushbutton dimming, or the smoothness of light level maintenance.

Two presets are available such as Push Button Dimming and Scene Operations. Select the required preset value.

Mouse over on the Primary Control Function info icon to view the tooltip message.

Recommended Fade Settings:

<table>
<tr><th>Primary Control Function</th><th>Soft Turn On</th><th>Soft Turn Off</th><th>Soft End Ramp</th></tr>
<tr><td>Push-button Dimming</td><td>0.7s</td><td>0.7s</td><td>2s</td></tr>
<tr><td>Scene Operations</td><td>0.7s</td><td>0.7s</td><td>0.7s</td></tr>
<tr><td>Motion Sensor</td><td>0s</td><td>0.7s</td><td>2s</td></tr>
<tr><td>Daylight Harvesting</td><td>0.7s</td><td>0.7s</td><td>4s</td></tr>
<tr><td>Custom</td><td colspan="3">Choose your own values.</td></tr>
</table></td></tr>
<tr><td></td><td></td><td></td><td>Soft Turn On</td><td>Select the DALI fade time when an instant ramp is received with a target level of 100 %, so the group is turned ON at maximum level.

If you select Instant from Soft Turn On drop-down, automatically Push Button Dimming is populated in the Primary Control Function drop-down.

NOTE: When you trigger a light switch (On, Off, Toggle), you may need gentle fade such as 0.7s or 1s. But if triggered by a motion</td></tr>
</table>

				sensor, a fast fade 0s might be better for instant response.
			Soft Turn Off	Select the DALI fade time when an instant ramp is received with a target level of zero, so the group is turned OFF. If you select **Instant** from **Soft Turn Off** drop-down, automatically **Push Button Dimming** is populated in the **Primary Control Function** drop-down.
			Soft End Ramp	Select the DALI fade time when an instant ramp is received with a target level of any value other than 0 to 100 %. **NOTE:** When using: • **Push Button Dimming key Function:** A medium fade 2s is recommended to reduce any visible brightness correction. • **Daylight Harvesting:** A longer fade 4s is desirable to avoid the appearance of the artificial light level if the ambient light level changes frequently due to cloud cover.
Scenes The categories allows to create trigger groups, each having action selectors assigned to it.	**Broadcast Scene** This field allows to add group for trigger application. Trigger groups can be created using ⊕ and each group created can assign maximum of 16 **Action Selectors**.			
	DALI Group Scene This field allows to add group for trigger application. Trigger groups can be created using ⊕ and each group created can assign maximum of 16 **Action Selectors**.			

Once configuring of the device is completed. Click **Save** in the **PROPERTIES** window to save the changes in the project database.

DALI ECG Devices

This section allows the user to configure different operational features for devices in the DALI line added to each network.

Unit Types

- DALI ECG DT1 (Emergency or Exit Light (Generic))
- DALI ECG DT1 A (Emergency or Exit Light (Switched Maintained Dimmable))
- DALI ECG DT1 B (Emergency or Exit Light (Switched Maintained Non-Dimmable))
- DALI ECG DT1 C (Emergency or Exit Light (Maintained))
- DALI ECG DT1 D (Emergency or Exit Light (Non – Maintained Dimmable))
- DALI ECG DT 6 (Single Channel LED Device)
- DALI 2x ECG DT 6 (DALI 2 Channel Device (DT6))
- DALI 3x ECG DT 6 (DALI 3 Channel Device (DT6))
- DALI 4x ECG DT 6 (DALI 4 Channel Device (DT6))
- DALI ECG (DALI ECG (Generic))
- DALI 2x ECG (DALI 2 Channel Device (Generic))
- DALI 3x ECG (DALI 3 Channel Device (Generic))
- DALI 4x ECG (DALI 4 Channel Device (Generic))
- DALI ECG DT8 (Single Channel Tunable / Color Controllable Device))

The field information to configure DALI ECG devices is as explained below:

<table>
<tr><td rowspan="2">Channel Info</td><td>Name</td><td colspan="3">This field allows to modify the DALI Channel name.</td></tr>
<tr><td>Description</td><td colspan="3">This field allows to give description on channel device.</td></tr>
<tr><td colspan="6">Applications

This section displays the lighting applications supported by the DALI-2 Gateway. Up to four lighting applications can be defined and then used throughout the configuration of the DALI-2 Gateway.</td></tr>
<tr><td rowspan="11">Control Mapping</td><td>Device Used</td><td colspan="3">This field lets you know whether the device is physically available or not.

By default, the check box is checked.</td></tr>
<tr><td rowspan="10">Address Mapping

Address Mapping allows a C-Bus group address to directly control a DALI device.

It is a one to one mapping of a C-Bus group address to a DALI device.

NOTE: Only controllable DALI devices support Address Mapping.

This section allows to assign maximum of 16 DALI group membership.

NOTE: If the check box is selected, then the group is used for the device.</td><td rowspan="3">Brightness Group

C-Bus group address is mapped to control the Address Mapping.

IMPORTANT: The groups assigned in Line A, Line B, and DALI devices on each line has to be unique.</td><td>CCT/Hue Group

C-Bus group address is used to control the CCT/ Hue of a DALI DT8 device.</td><td>• If a Saturation Group is not set, this CCT/ Hue Group controls the CCT (correlated colour temperature).

Used in conjunction with the Brightness Group for on, off, and dimming control plus setting the white colour temperature (tuneable white).
• If a Saturation Group is set, this CCT/Hue Group controls the Hue of a DALI DT8 device.

NOTE:
• The CCT/Hue Group uses the Application Index defined in the Brightness Group.
• The CCT/Hue Group is applicable to all controllable DALI devices (excluding Emergency Types C and D), yet functional for DALI DT8 only.</td></tr>
<tr><td>Saturation Group

C-Bus Group Address is used to control the Saturation of a DALI DT8 device.</td><td>• If a CCT/Hue Group is set, this CCT/Hue Group controls the Hue (colour) of a DALI DT8 device.

The Saturation Group controls the Saturation (intensity) of a DALI DT8 device.
• Used with both the Brightness Group and the CCT/Hue Group for on, off, and dimming control plus setting the RGB colour and its intensity.

NOTE:
• The Saturation Group uses the Application Index defined in the Brightness Group.
• The CCT/Hue Group is applicable to all controllable DALI devices (excluding Emergency Types C and D), yet functional for DALI DT8 only.</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td>Disable DALI to C-Bus Mapping</td><td colspan="2">Check the checkbox to disable the DALI to C-Bus mapping</td></tr>
<tr><td>Application Index</td><td colspan="2">This field is a combo box to select the application to be used for the group.
The index is visible only when the application is been assigned in the application section.</td></tr>
<tr><td>Warn Before Off Time</td><td colspan="2">This field displays the amount of time after the group address is turned off (1–15 minutes).</td></tr>
<tr><td rowspan="2">Advanced</td><td>Min Max Logic</td><td>This field gives the ability to pair 2 C-Bus group address to the same logical output and perform minimum and maximum logic.</td></tr>
<tr><td>Logic group Assignment</td><td>This field allows you to pair additional groups to the output.</td></tr>
<tr><td colspan="6">Virtual Groups

This section refers to a category for virtual groups, which is an extension of DALI groups and allows to create a maximum of 16 Virtual groups.</td></tr>
<tr><td rowspan="2">Device Control</td><td rowspan="2">Levels</td><td>Minimum Level</td><td colspan="2">This field displays the minimum level for the device. This value cannot be lower than the Physical Minimum Level.</td></tr>
<tr><td>Maximum Level</td><td colspan="2">This field displays the maximum level for the device.</td></tr>
</table>

		Power On Level	This field displays the level that the device will reach when it powers on from an off state.
		System Failure Level	This field allows to set system failure level.
		Physical Minimum Level	This field displays the physical minimum level, which is defined by the manufacturer.
		Emergency Level	This field displays the emergency level for the device if it was a DALI emergency and exit ECG. The device will reach this level when the mains power is out and the device is running on battery.
		Prolong Time	This field displays the prolong time for this device.
		Test Timeout	This field displays the test timeout for the device. This refers to the count of how many times the device times outs before it stops the test.
		Physical Minimum Level	This is a read only field. This refers to the device physical minimum level.
		Emergency Minimum Level	This field displays the minimum level the DALI emergency and exit ECGs will reach. This field is for DALI emergency and exit ECGs only.
		Emergency Maximum Level	This field displays the maximum level the DALI emergency and exit ECGs will reach. This field is for DALI emergency and exit ECGs only.
		Rated Duration	This field displays the rate duration for the device.
	Lamp Time This field displays the lamp running time. This is only updated when the device is extracted.		
	Remote On This field is used to enable or disable Remote ON. If selected, the Remote ON is enabled. If cleared, the Remote ON is disabled.		
	Remote Off This field is used to enable or disable Remote OFF. If selected, the Remote OFF is enabled. If cleared, the Remote OFF is disabled.		
Scenes **NOTE:** The user must have configured the scene configuration in the DALI Gateway lines. This is the category section for scenes, where a user is allowed to assign maximum 16 DALI scenes to each controllable devices. By assigning the scene, the user can set the level they want the scene to go to based on min and max level of the device. Minimum Level – minimum level the device has been set to. Maximum Level – maximum level the device has been set to.			
Led Light This is the category section for the dimming curve type.	**Dimming Curve Type** This field displays the dimming curve type set for the DT6 device. This can be either standard dimming curve or linear dimming curve.		
Emergency Light	**Status**	**Inhibit Mode**	If checked, notifies when the device is in preventing mode.
		Function Test Done and Result Valid	If checked, notifies when the function test is completed and is valid.
		Duration Test Done Result Valid	If checked, notifies when the duration test is completed and is valid.
		Battery Fully Charged	If checked, notifies when the battery is fully charged.
		Function Test Request Pending	If checked, notifies when the function test request is pending.
		Duration Test Request Pending	If checked, notifies when the duration test request is pending.
		Identification Active	If checked, notifies when the device is identified (50/50, identify).
		Physically Selected	If checked, notifies if this device is the one physically selected.
	Mode	**Rest Mode Active**	If checked, will be in currently off mode.

		Normal Mode Active	If checked, will be in normal on mode.
		Emergency Mode Active	If checked, will be in emergency mode.
		Extended Emergency Mode	If checked, notifies when the extended emergency mode is in use.
		Function Test in Progress	If checked, notifies when the function test is in progress.
		Duration Test in Progress	If checked, notifies when the duration test is in progress.
		Hardwired Inhibit is Active	If checked, notifies when the hardwired inhibit is active.
	Failure Status	**Circuit Failure**	If checked, notifies when there is circuit failure.
		Battery Duration Failure	If checked, notifies when there is battery duration failure.
		Battery Failure	If checked, notifies when there is battery failure.
		Emergency Lamp Failure	If checked, notifies when there is emergency lamp failure.
		Function Test Max Delay Exceeded	If checked, notifies when the function test max delay is exceeded.
		Duration Test Max Delay Exceeded	If checked, notifies when the duration test max delay is exceeded.
		Function Test Failed	If checked, notifies when the function test max delay is exceeded.
		Duration Test Failed	If checked, notifies when the duration test is failed.
	Features This section displays the parameters whose values get reported from the emergency application.	Integral Emergency Control If checked, the parameter value gets reported.	
		Maintained Control Gear If checked, the parameter value gets reported.	
		Switched Maintained Control Gear If checked, the parameter value gets reported.	
		Auto Test Capability If checked, the parameter value gets reported.	
		Adjustable Emergency Level If checked, the parameter value gets reported.	
		Hardwired Inhibit Supported If checked, the parameter value gets reported.	
		Physical Selection Supported If checked, the parameter value gets reported.	
		Relight in Rest Mode Supported If checked, the parameter value gets reported.	
	Light Source Life This field displays how long the device is been running for (in hours).		
	Battery Charge Percent This field displays the percentage of the battery on the current amount of time.		
	Duration Test Result Minutes This field displays how long the device has run duration test result.		
	Lamp Emergency Time This field displays how long the device has run its emergency mode.		

	Lamp Total time This field displays normal operation time along with emergency time.	
Status This section is read-only. This will update only when extracted from the device	**Control Gear Failure**	If checked, notifies when there is a control gear failure.
	Lamp Failure	If checked, notifies when there is a Lamp failure.
	Lamp On	If checked, notifies when there is a Lamp On.
	Limit error	If checked, notifies when there is a Limit error.
	Fade Running	If checked, notifies when there is a Fade running.
	Reset state	If checked, notifies when there is a Fade running.
	Short Address Missing	If checked, notifies when the short address is missing.
	Power Cycle Seen	If checked, notifies when the power cycle is seen (when the device is turned off and back on again).
	Thermal Overload Detected	If checked, notifies when the thermal overload is detected.
	Thermal Shutdown Detected	If checked, notifies when the thermal shutdown is detected.
	Load Decreased Detected	If checked, notifies when the load decrease is detected.
	Reference Measurement Failed	If checked, notifies when the reference measurement is failed.
	Load Increased Detected	If checked, notifies when there is a Fade running.
	Reconciled	If checked, notifies the device has been reconciled. If not checked, the device is not reconciled.
Device Identification	**Short Address**	This field displays the short address of the device.
	Object ID	This field displays the object ID of the device.
	GTIN	This field displays the GTIN number of the device and is updated only after the device is extracted.
	Serial	This field displays the device's serial number and is updated only after the device is extracted.
	Device Type 0	If selected, then the device is type 0. If cleared, then the device is not type 0.
	Device Type 1	If selected, then the device is type 1. If cleared, then the device is not type 1.
	Device Type 6	If selected, then the device is type 6. If cleared, then the device is not type 6.
	Device Type 8	If selected, then the device is type 8. If cleared, then the device is not type 8.
	DALI Version	This refers to the DALI version of the device and is updated after the device is extracted.

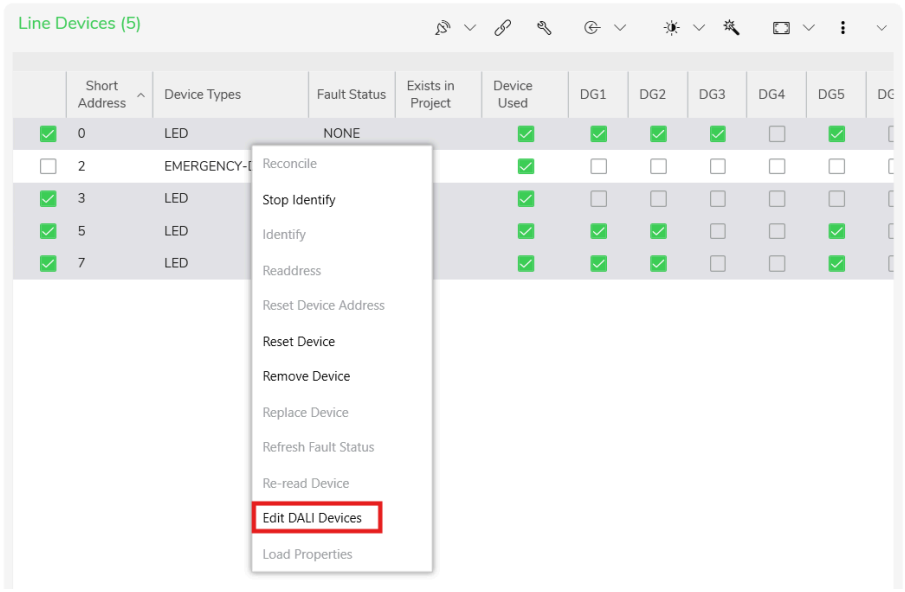
Bulk Editing of DALI Devices

You can quickly configure DALI Group Membership for multiple DALI devices either within a project or on a live DALI line with minimal effort, time, and repetition. A consolidated view and workflow are provided to manage group memberships across several devices simultaneously. This significantly reduces the time and effort required to commission a DALI line when compared to configuring each device individually through the **PROPERTIES** window.

Prerequisites: Make sure the network has already been created in a project and DALI-2 Gateway has been added to the **Devices in Project** (project database).

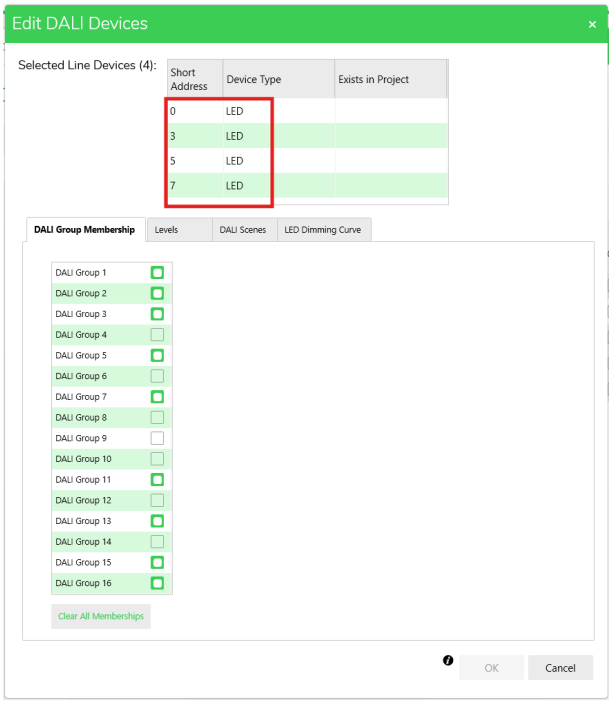
1. Select the Network.
2. Click **DALI Devices**.
3. In the **Line Devices** section, select the devices to be grouped.

4. Right-click and select **Edit DALI Devices**.



NOTE: The **Edit DALI Devices** option is enabled after the completion of either a **DALI Device Type Scan** or a **DALI Scan**. Scans are only for live **Line Devices**.

Edit DALI Devices dialogue box appears.



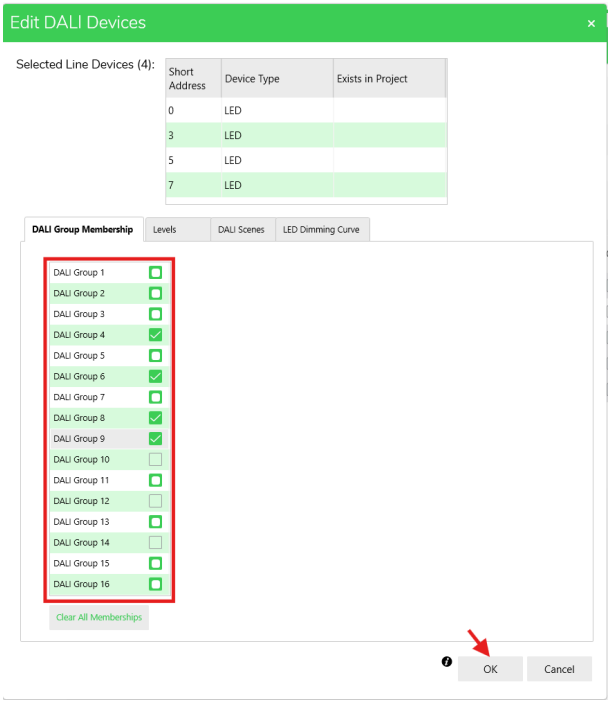
Selected Line Devices are listed in top of the table.

NOTE: If the selected DALI device (example: **Emergency DT1-C device** or **Emergency DT1-D** device) does not contain DALI group membership properties then the device appears enabled in the **Selected Line Devices** table.

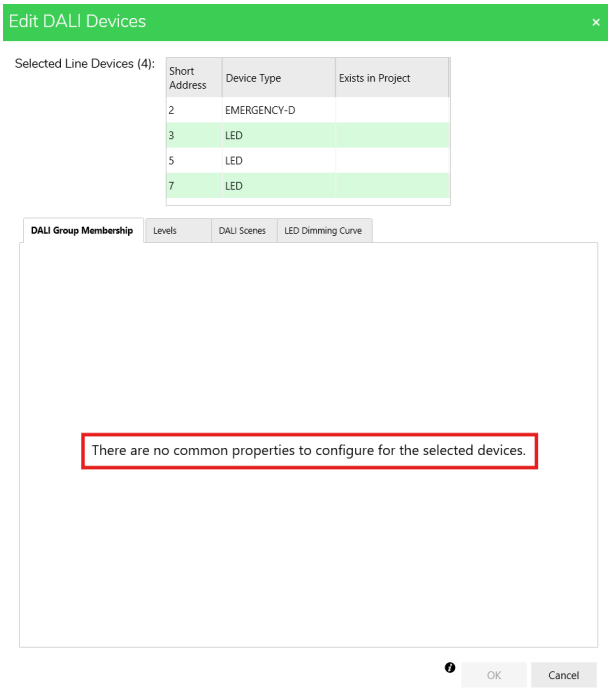
There are 4 tabs in **Edit DALI Devices** dialogue box:

- **DALI Group Membership**
- **Levels**
- **DALI Scenes**
- **LED Dimming Curve**

5. In the **DALI Group Membership** tab, select the required **DALI Group Membership** check box to configure DALI group membership for all the selected DALI devices and click **OK**.

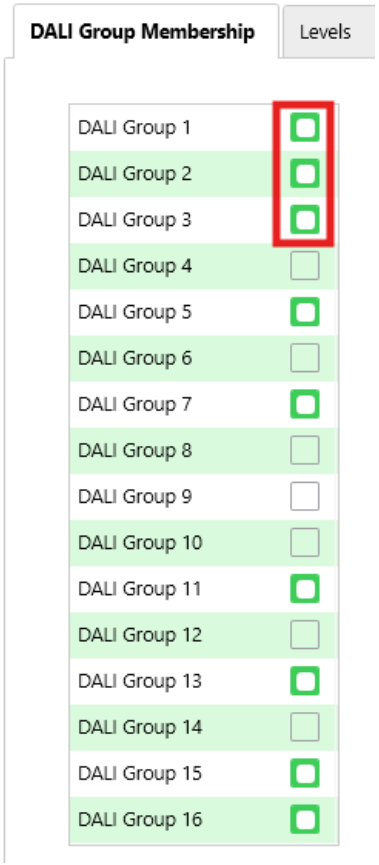


NOTE: The DALI group membership properties are displayed only if all selected devices contain DALI group membership properties. If one of the selected devices does not contain DALI group membership properties, then the DALI group membership properties are not displayed.

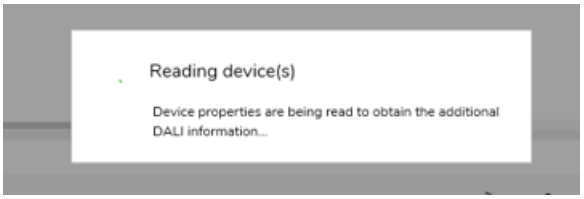


6. Click Clear All Memberships to unselect all the selected DALI groups. DALI group membership configuration changes are saved to the selected line devices only.

7. If a DALI group is set for at least one of the selected device(s), the check box is displayed in an indeterminate/partial state.



8. Whenever you invoke **DALI Group Membership** for the first load, it will read the additional DALI information, regardless of which DALI scan you completed.

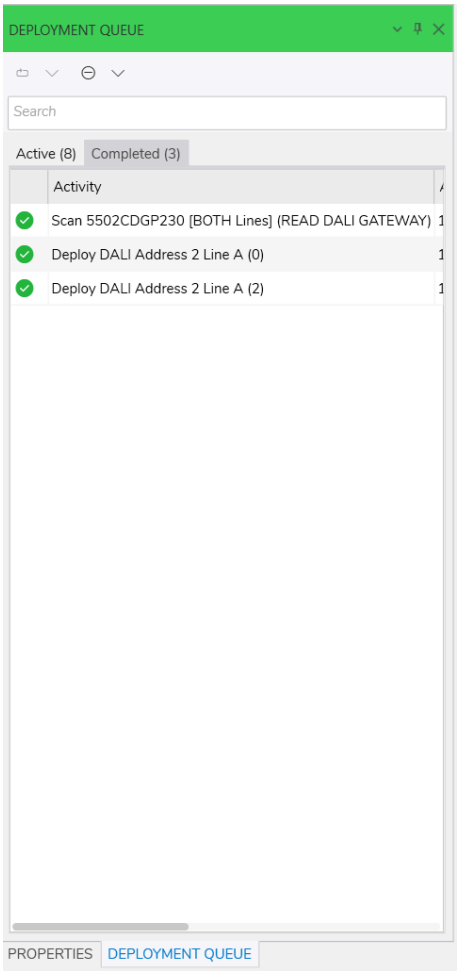


NOTE: Only if **Read DALI Gateway** scan is completed, **C-Bus Mapping** is displayed for each DALI Group in the **DALI Group Membership** table.

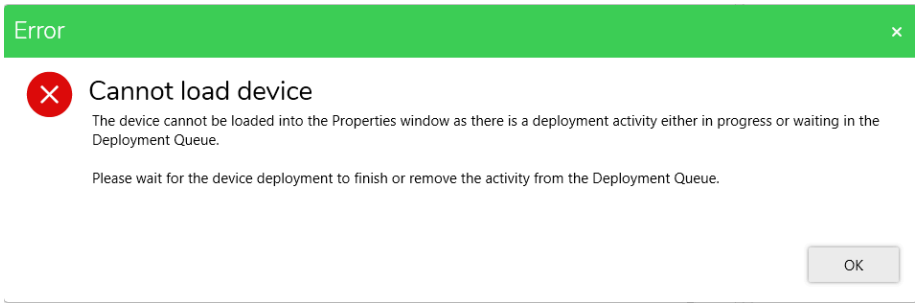
For live DALI devices, when you click **OK**:

- Configurations are saved only to selected live network devices if it is a unreconciled device.
- Configurations are saved to the selected live network devices and project devices if it is a reconciled device.
- DALI group membership changes are saved.

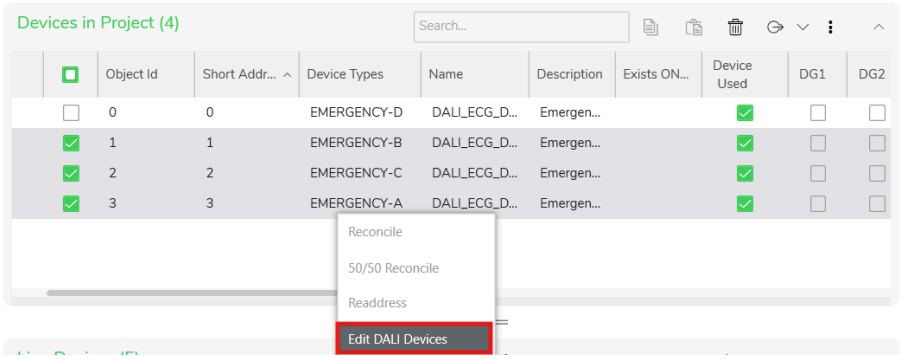
The completed configuration activity can be seen in **DEPLOYMENT QUEUE**.



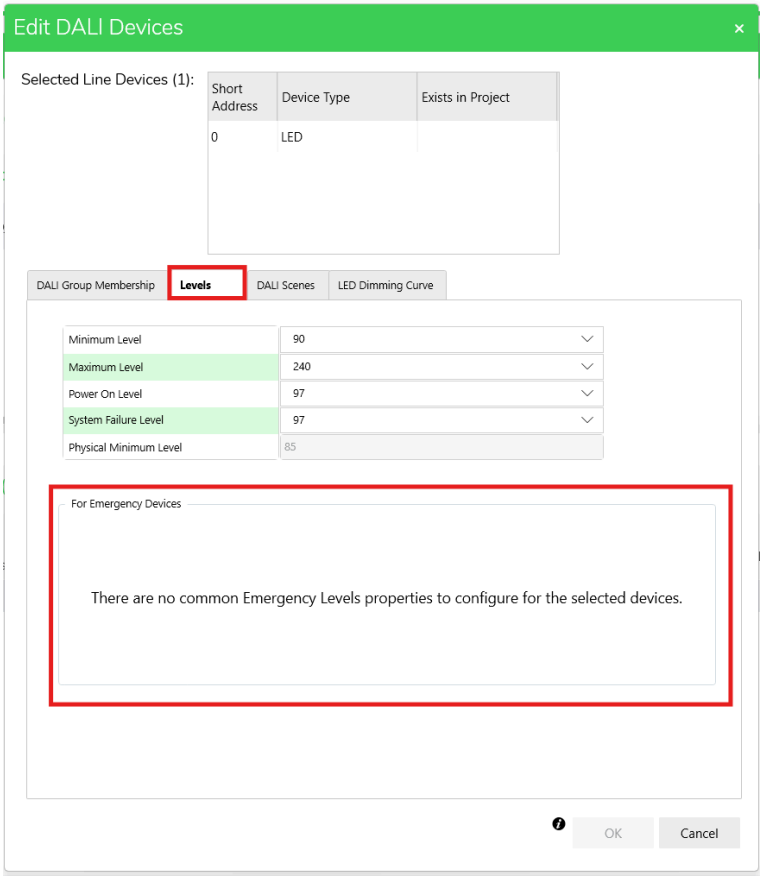
9. An **Error** pop-up appears if you try to load the same device into the **PROPERTY EDITOR** while deployment is still in progress.



10. In the **Project Devices** section, select the devices to be grouped. Follow the steps 4–5.



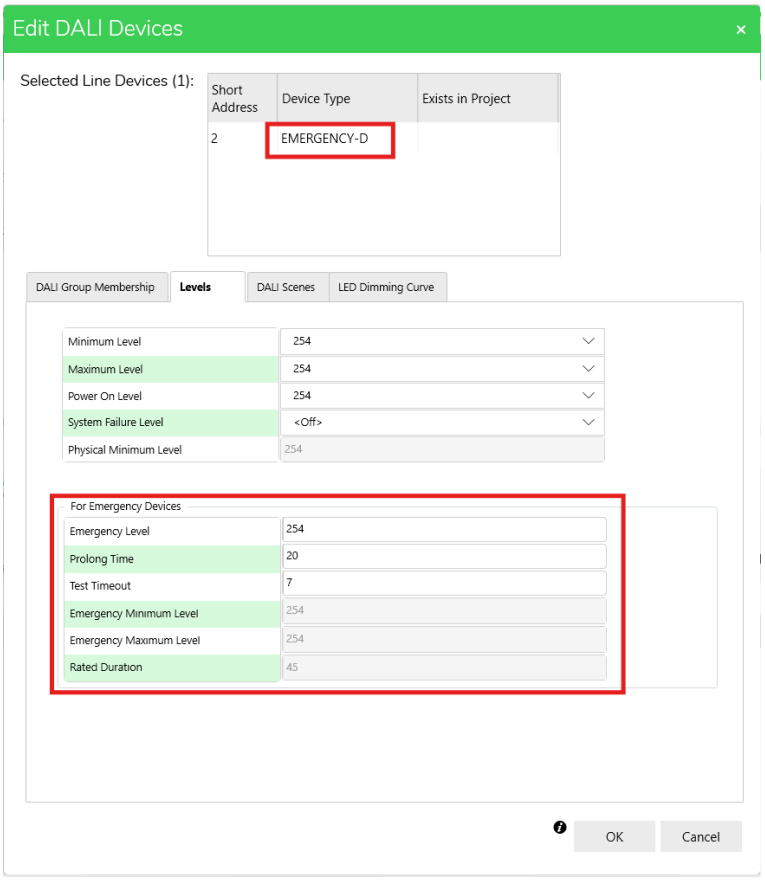
11. Click **Levels** tab in the **Edit DALI Devices** dialogue box.



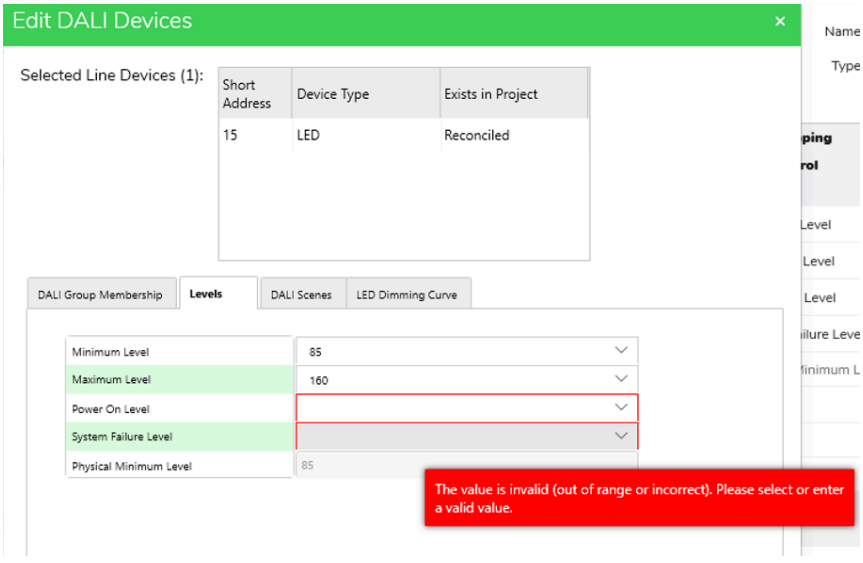
If any selected device does not contain the DALI Emergency Levels properties, the DALI Emergency Levels properties are not displayed.

Current configuration is displayed for the project devices/live devices selected.

- For Lighting devices, **Physical Minimum Level** field is disabled for reconciled devices.
- Additional properties are displayed for **Emergency DT1 device** types.



- For un-reconciled project devices, you can define the **Physical Minimum Level** (property is enabled/editable). If selected devices are a live devices, then **Physical Minimum Level** field is disabled.
- If a property value is out of range and blank (invalid based on other property values), a red validation border is displayed and a tooltip message.

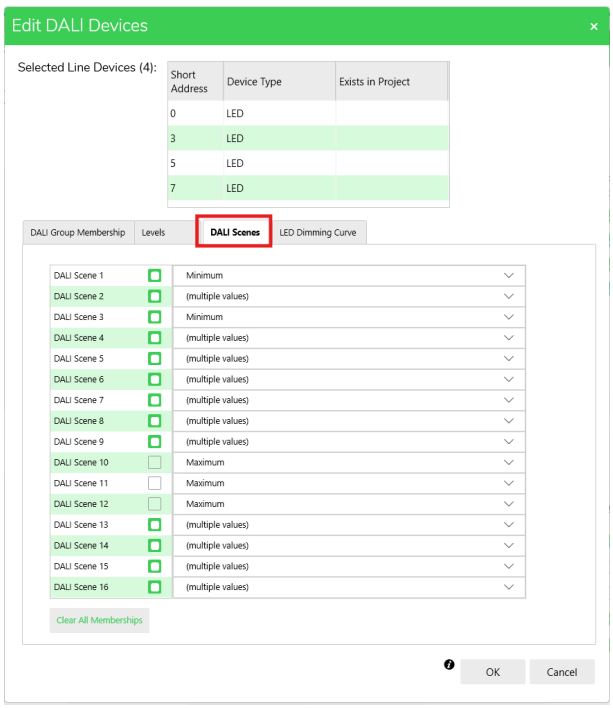


- Valid property range is enforced across all selected devices (combined rules):

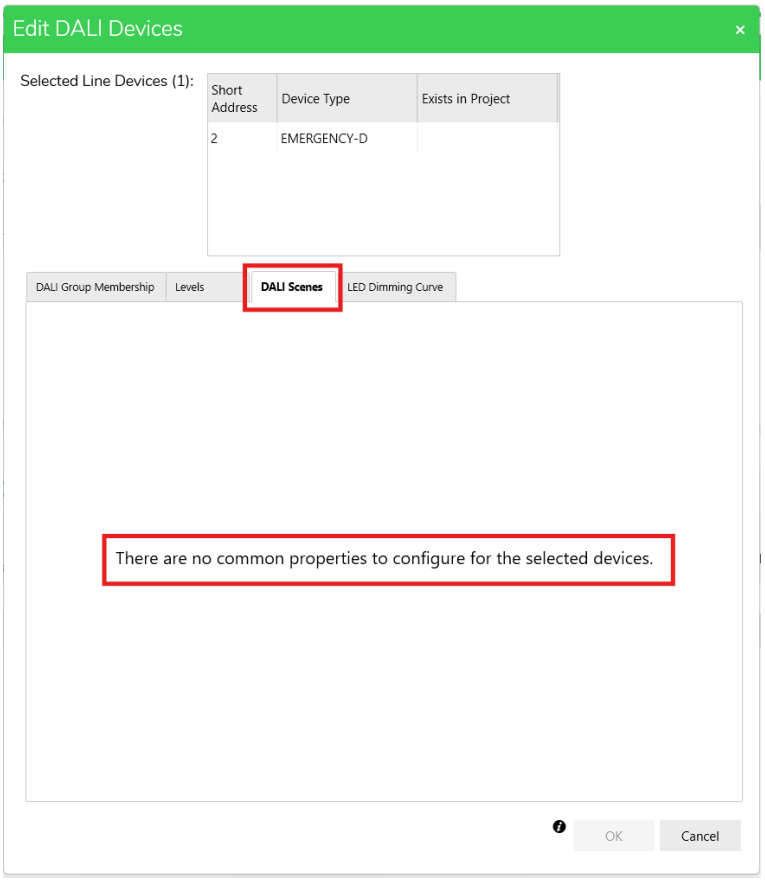
Fields	For selection
Minimum Level	Only values between the highest **<Physical Minimum Level>** and the lowest **<Maximum Level set>** are displayed across the selected devices.
Maximum Level	Only values above the highest **<Minimum Level set>** is displayed across the selected devices.

Power On Level	In addition to **Off** and **Restore to Previous**, only values between the highest **<Minimum Level set>** and the lowest **<Maximum Level set>** are displayed across the selected devices.
System Failure Level	In addition to **Off** and **Ignore Failure**, only values between the highest **<Minimum Level set>** and the lowest **<Maximum Level set>** are displayed across the selected devices.

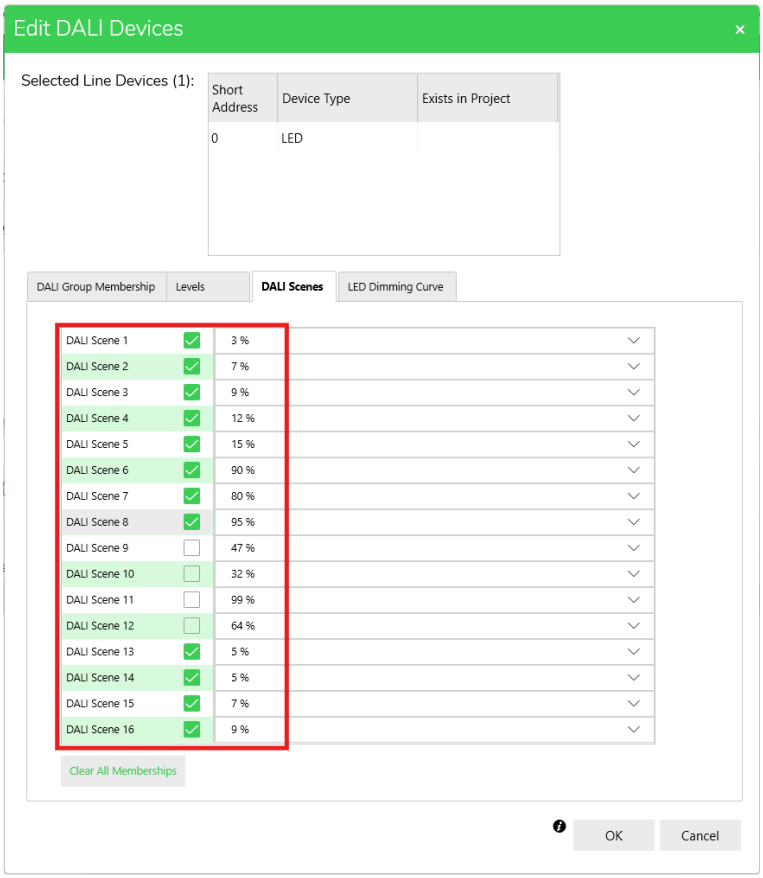
12. Click **DALI Scenes** tab in the **Edit DALI Devices** dialogue box.



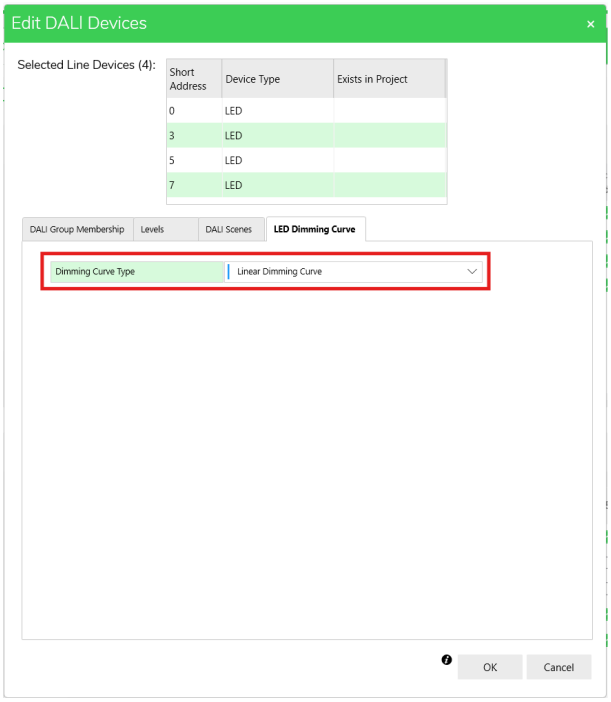
- If any selected device does not contain DALI Emergency Levels properties (including Level properties for Emergency DT1-type DALI devices), the DALI Emergency Levels properties are not displayed.



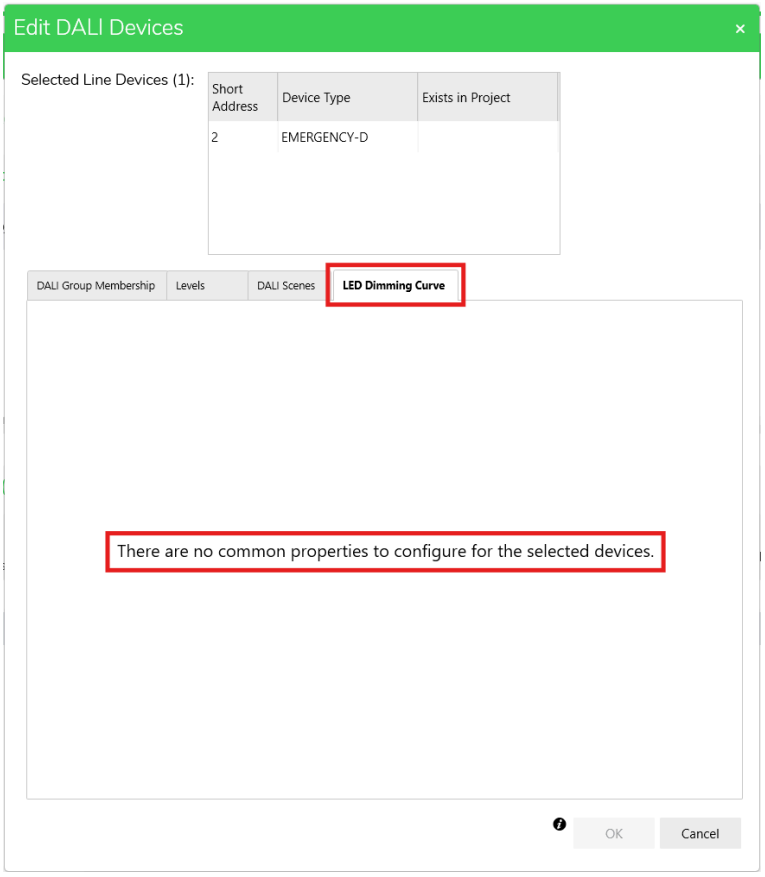
- For more information on error scenario and combined rules refer step 11.
- Select the required option from the **DALI Scene 1** to **DALI Scene 16** drop-down list.



13. Click **LED Dimming Curve** tab in the **Edit DALI Devices** dialogue box.



14. Select the curve type from the **Dimming Curve Type** drop-down list. The options are **Linear Dimming Curve** and **Standard Dimming Curve**.
    - The **Dimming Curve Type** property is displayed only if it is a common property across all the devices selected by you.
    - If any selected device does not contain the **Dimming Curve Type** property, the **Dimming Curve Type** property is not displayed.



    - The properties in the **LED Dimming Curve** tab behave identically to the equivalent properties in the **PROPERTIES** window for the same device.
    - Mouse over on the info icon next to **OK** to view the tool tip message.
15. Click **OK** to save the configurations.

DALI 2 Gateway Conversion

If there are old Gateways existing in the project, the SpaceLogic C-Bus Commission allows you to convert old Gateways to new DALI 2 Gateways.

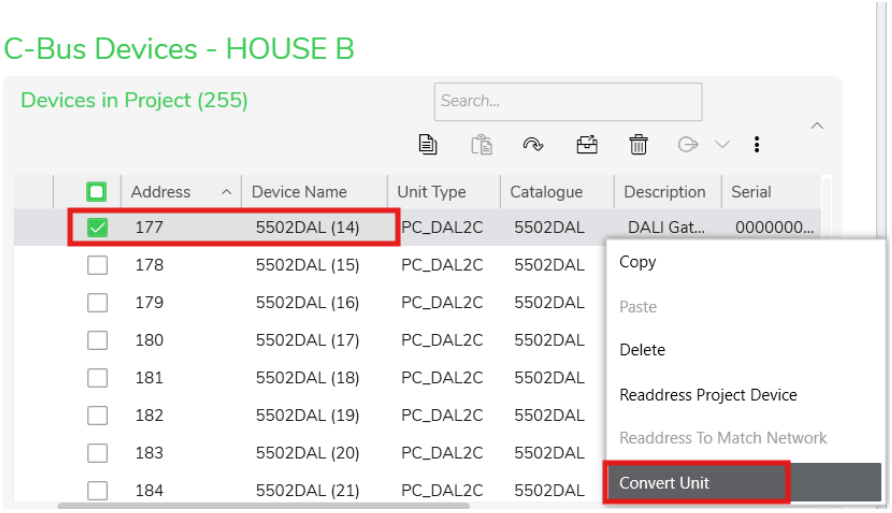
Old Unit Type	New Unit Type
PC_DAL2B	SYS_DAL2
PC_DAL2C	SYS_DAL2

To convert:

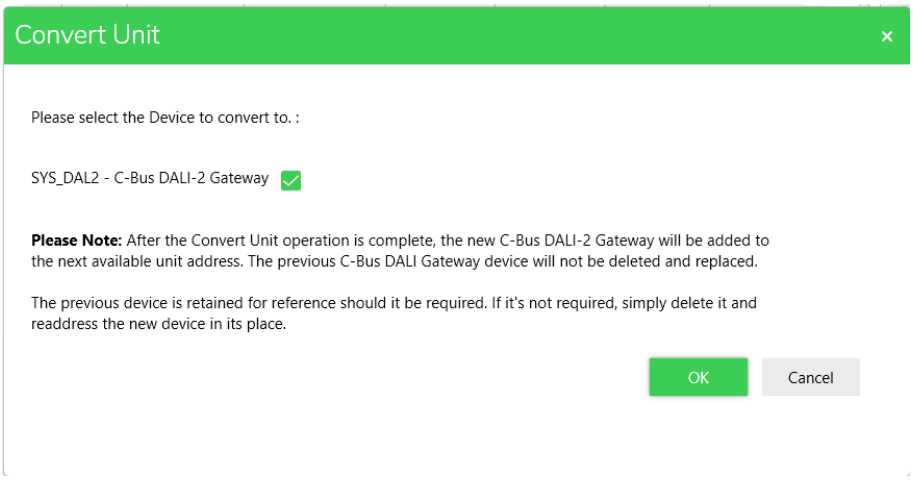
1. Open the same project in commission software same as in Toolkit where the device (old Gateway) is added in network.
2. Select **C-Bus Devices** of the network.

   The available devices in the project are displayed.

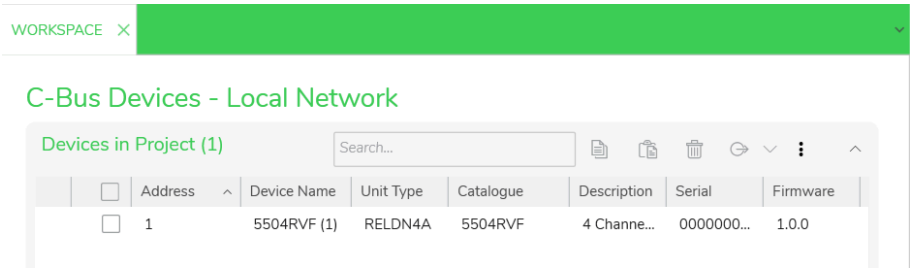
3. Select the device (old Gateway) that needs to be converted.



4. Right click on the **Gateway > Convert Unit**.
   Convert Unit pop-up is displayed.



5. Click **OK**.
6. The old Gateway is converted to new SYS_DAL2 — C-Bus DALI-2 Gateway.



IMPORTANT: When conversion is completed:

- The address of the Gateway remains the same.
- The unit type catalogue description and firmware details are updated.
- The firmware will have the latest version.
- The serial details needs to be updated manually in property window of the device.
- The configuration changes made in old Gateway reflects in the new Gateway as well.

  Table below shows the list of properties that will be restored in the new Gateway.

  List of properties that will be restored in the Gateway, and SYS_ DAL2

Properties	Properties which are restored	Properties which are not restored
Project Name	Project name will be restored as in the existing Gateway	Not Applicable
Applications	Applications will be restored as in the existing Gateway	Not Applicable
Global	Enable C-Bus Clock	Enable Burden
C-Bus to DALI Map	◦ C-Bus Group Address mapped to DALI Line A Broadcast ◦ C-Bus Group Address mapped to DALI Line B Broadcast ◦ C-Bus Group Address mapped to DALI Group ◦ DALI to C-Bus Mapping	◦ C-Bus Group Address mapped to DALI Off ◦ C-Bus Group Address mapped to DALI Scenes 1 to 16
The serial details needs to be updated manually in the property editor.		

Once the conversion is completed:

1. Scan the C-Bus network.
2. Identify new relay on the **Network**.
3. Readdress the device to match live network or readdress device to match the project database.
4. Deploy the device.

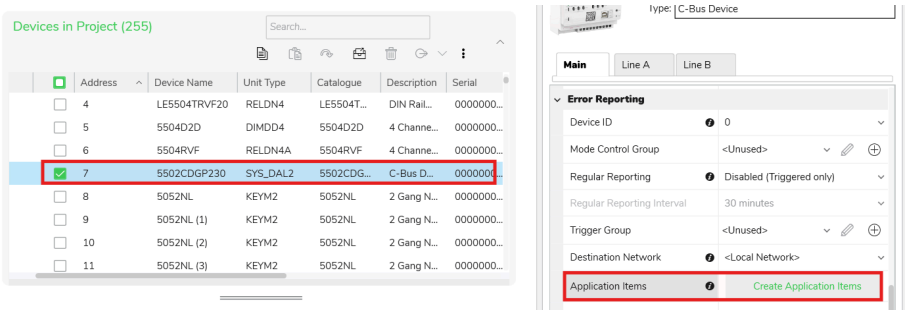
Bulk Creation of Application Data for DALI 2 Gateway

You can quickly create the required C-Bus application items for the project based on the current configuration of the **Error Reporting** category in a C-Bus DALI-2 Gateway.

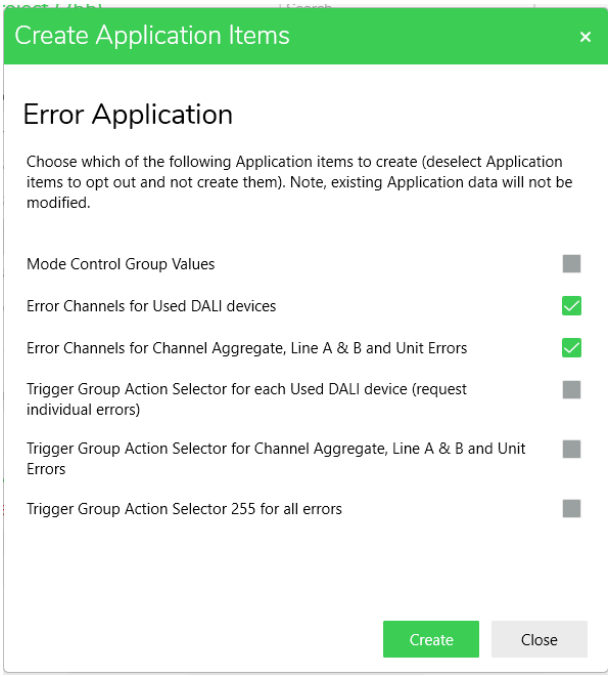
To create application items:

Pre-requiste: The **Create Application Item** button is enabled only if the Device ID is assigned.

1. Select DALI device >**Error Reporting** >click **Create Application Items**.

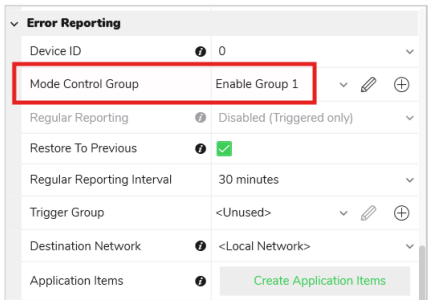
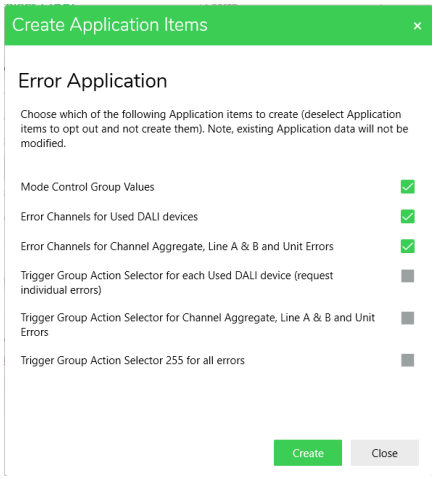


The **Create Application Items** dialogue box appears.

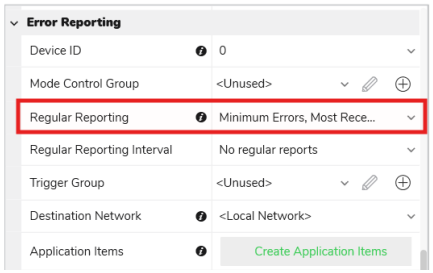
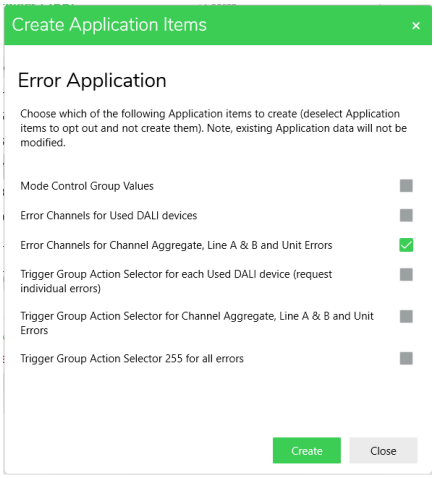


By default, the **Error Channels for Used DALI devices** and **Error Channels for Channel Aggregate, Line A & B and Unit Errors** check boxes are selected.

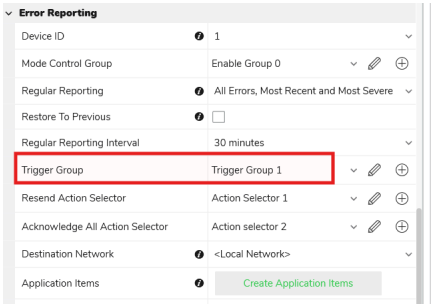
2. Assign **Mode Control Group** in **Error Reporting** section of **PROPERTIES**, then the **Mode Control Group Values** check box is selected in **Create Application Items** dialogue box.

PROPERTIES	**Create Application Items** dialogue box
	

3. Below are similar scenarios when you select options in **Error Reporting** section:

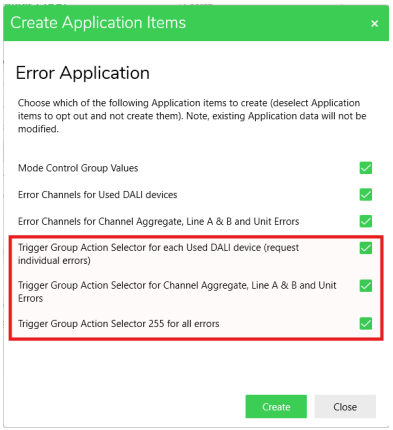
Conditions you assign	Error Application Behavior
Regular Reporting — Minimum Errors, Most Recent only/Minimum Errors, Most Recent and Most Severe 	**Error Channels for Used DALI devices** check box is disabled and unchecked by default. 

Trigger Group

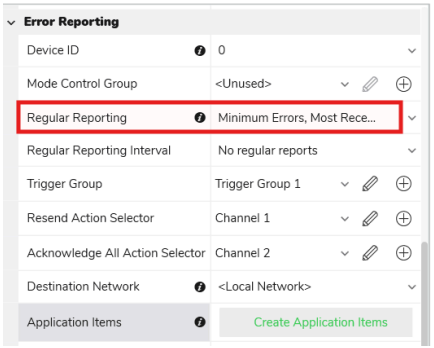


The below check boxes are enabled and selected by default.

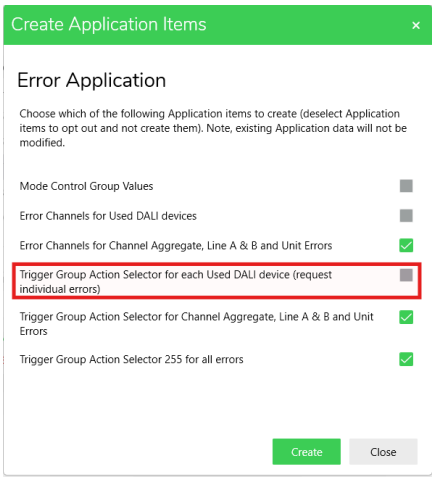
- **Trigger Group Action Selector for each Used DALI device (request individual errors)**
- **Trigger Group Action Selector for Channel Aggregate, Line A & B and Unit Errors**
- **Trigger Group Action Selector 255 for all errors**



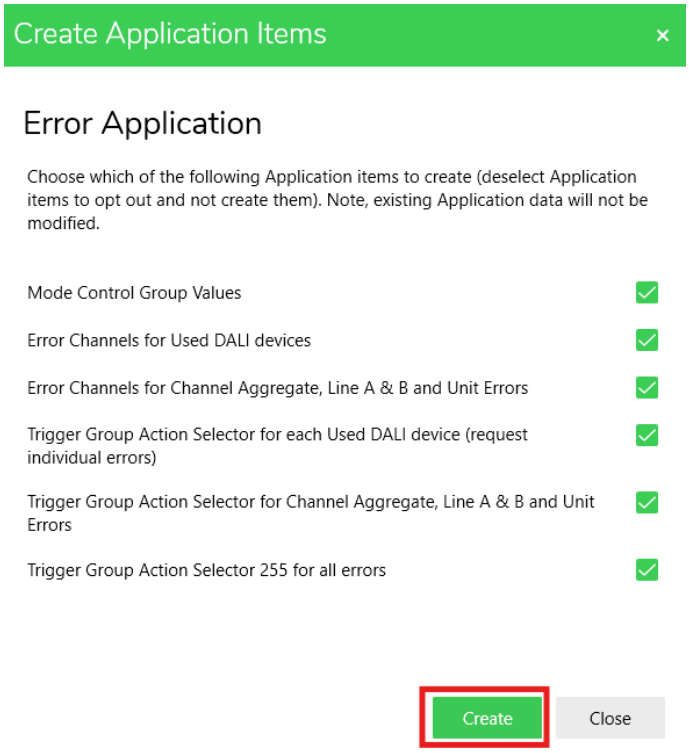
Regular Reporting — Minimum Errors, Most Recent only / Minimum Errors, Most Recent and Most Severe



Pre-requiste: **Trigger Group** must be assigned.
Trigger Group Action Selector for each Used DALI device (request individual errors) check box is disabled and unchecked by default.



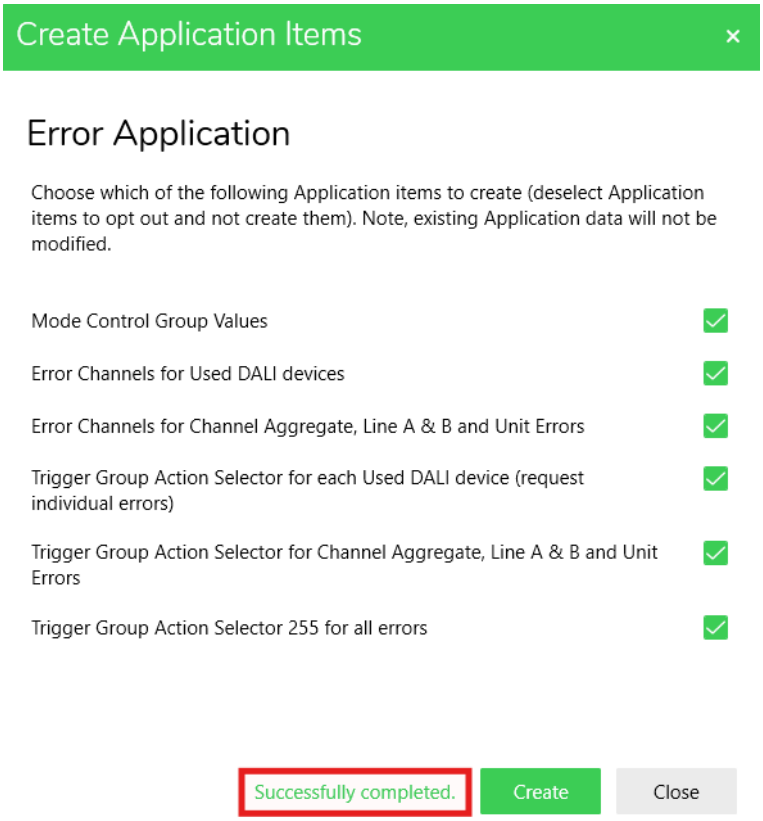
4. Click **Create** to generate the application items. C-Gate creates the items and displays them in the relevant application workspace in the client, based on the DALI-2 Gateway_Create Application Items file in the project folder.



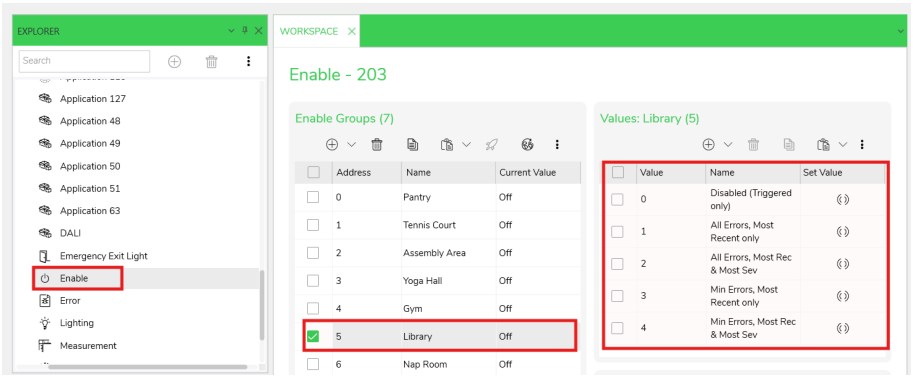
NOTE: Below are the creation conditions:

- Creation occurs only when the associated **Application Item** check box is selected.
- If the **Error Application** is not present on the C-Bus network, clicking **Create Application Items** adds the **Error Application** to the network before beginning the creation process.
- Application items are created based on project data only, except when one or more of the following **Property Editor properties** differ from the saved project data:
  - Device ID
  - Mode Control Group assigned
  - Regular Reporting selection
  - Trigger Group assigned

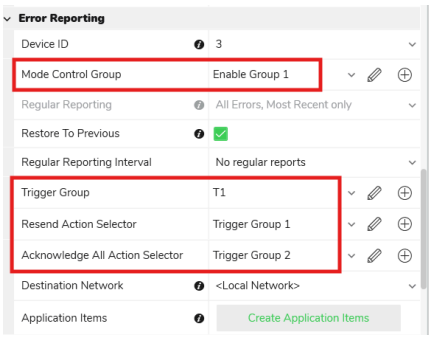
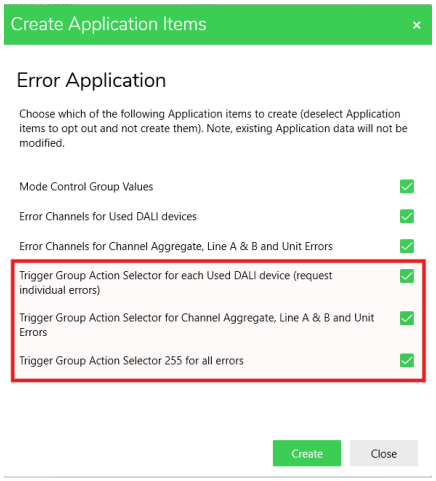
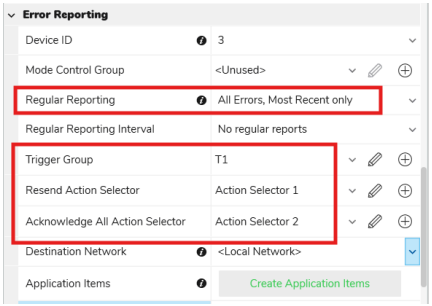
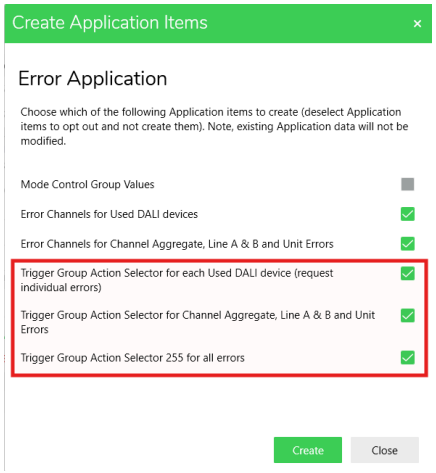
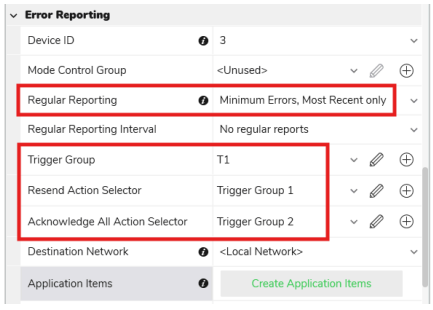
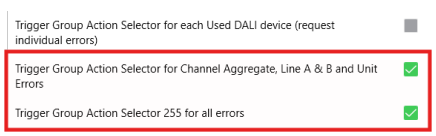
  Success message appears.



5. If you set **Mode Control Group** in **Error Reporting** section of **PROPERTIES**, the **Enable Group Values** are created and displayed for the assigned Enable Group in the **Enable Application**.

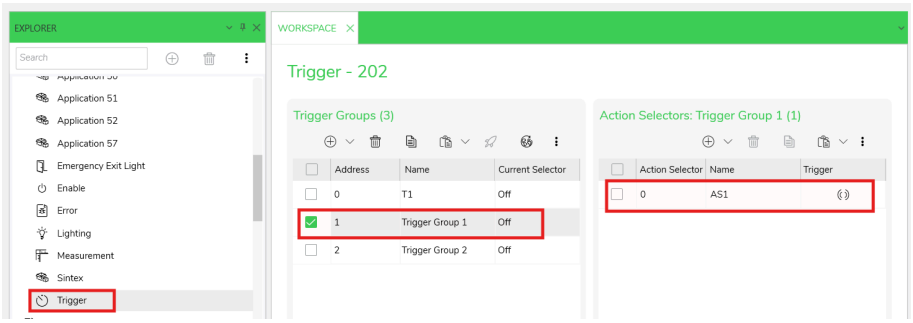


6. Below are Action Selector creation scenarios:

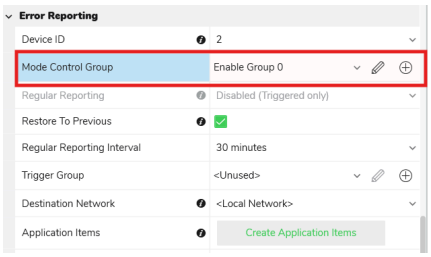
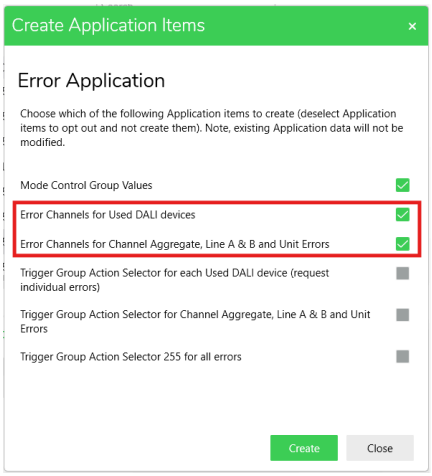
Condition	Below Action Selectors are created and displayed for the assigned Trigger Group in the **Trigger Application**
If a **Mode Control Enable Group** is assigned 	The below check boxes are enabled and selected by default. • **Action Selectors for each used DALI device** • **Action Selectors for Channel Aggregate, Line A & B and Unit Errors** • **Action Selector 255 for all errors** 
If **Regular Reporting** is set to: • **Disabled (Triggered only)** • **All Errors, Most Recent only** • **All Errors, Most Recent and Most Severe** 	The below check boxes are enabled and selected by default. • **Action Selectors for each Used DALI device (request individual errors)** • **Action Selectors for Channel Aggregate, Line A & B and Unit Errors** • **Action Selector 255 for all errors** 
If **Regular Reporting** is set to **Minimum Errors, Most Recent only** 	The below check boxes are enabled and selected by default. • **Action Selectors for Channel Aggregate, Line A & B and Unit Errors** • **Action Selector 255 for All Errors** 

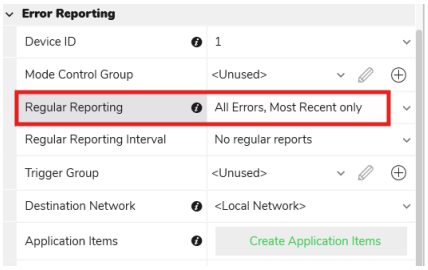
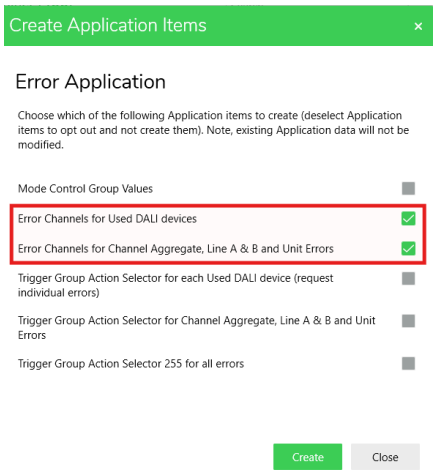
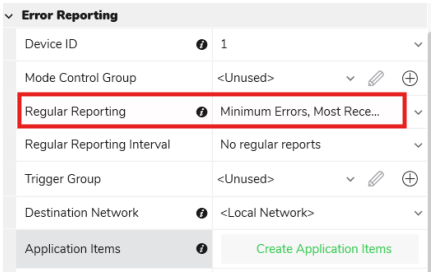
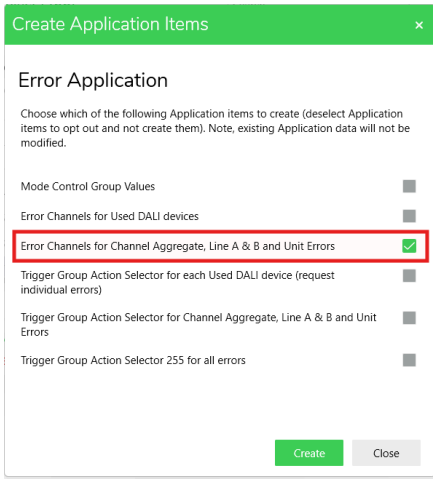
NOTE: A new **Action Selector** is created only when the **Action Selector** does not already exist. When the **Action Selector** already exists, the **Action Selector Name** is not updated during the auto-create process.

The below image displays the assigned Trigger Group in the **Trigger Application**.

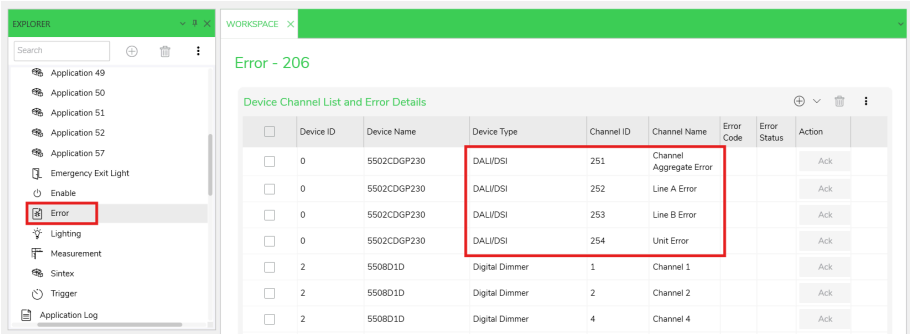


7. Below are the Error Channels scenarios:

Condition	Below Error Channels are created and displayed for the assigned Device ID in the **Error Application**
If a **Mode Control Enable Group** is assigned 	The below check boxes are enabled and selected by default. • **Error Channels for each Used DALI devices** • **Error Channels for Channel Aggregate, Line A & B, and Unit Errors** 

<table>
<tr>
<td>If Regular Reporting is set to:
• Disabled (Triggered only)
• All Errors, Most Recent only
• All Errors, Most Recent and Most Severe
 
</td>
<td>The below check boxes are enabled and selected by default.
• Error Channels for Used DALI devices
• Error Channels for Channel Aggregate, Line A & B, and Unit Errors
 
</td>
</tr>
<tr>
<td>If Regular Reporting is set to :
• Minimum Errors, Most Recent only
• Minimum Errors, Most Recent and Most Severe
 
</td>
<td>The below check box is enabled and selected by default.
• Error Channels for Channel Aggregate, Line A & B, and Unit Errors
 
</td>
</tr>
</table>

The below image displays the assigned **Device Channel List and Error Details** in the **Error Application**.



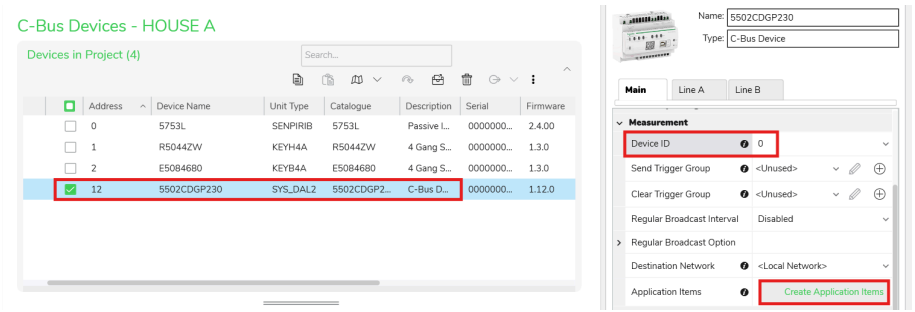
Creation of Application Data for Measurement in DALI 2 Gateway

You can quickly create the required C-Bus application items for the project based on the current configuration of the **Measurement** category in a C-Bus DALI-2 Gateway.

To create application items:

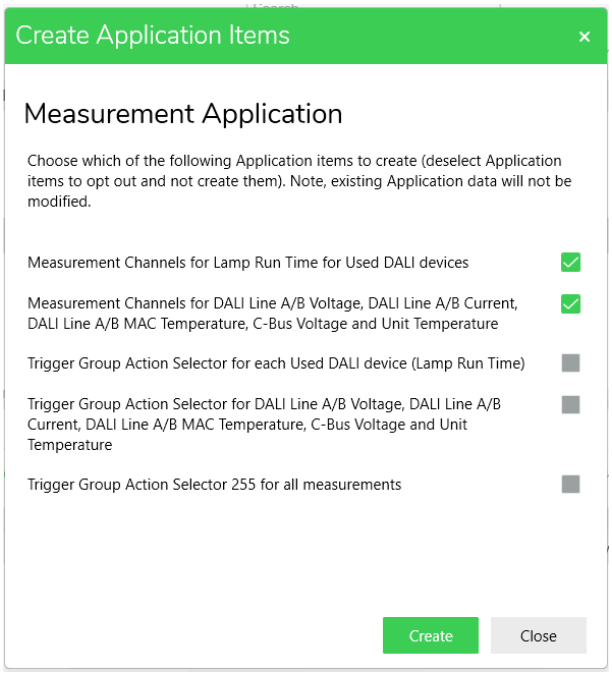
Pre-requiste: The **Create Application Item** button is enabled only if the Device ID is assigned.

1. Select DALI device >**Measurement** >click **Create Application Items**.



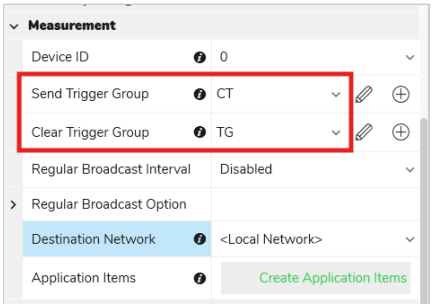
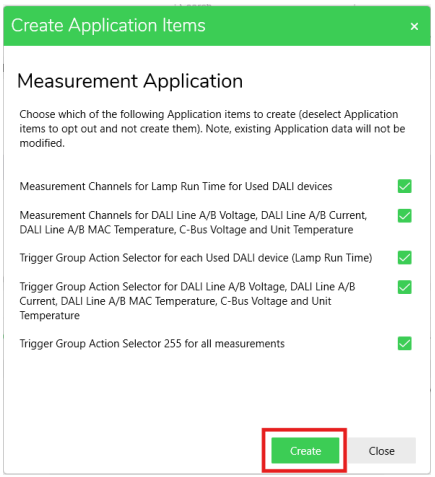
NOTE: The **Application Items** field is displayed only when a project C-Bus DALI-2 Gateway device is loaded into the **Property Editor**. The field is hidden for a live network C-Bus DALI-2 Gateway device loaded into the **Property Editor**, as application data can be created only for a project device.

The **Create Application Items** dialogue box appears.



By default, the **Measurement Channels for Lamp Run Time for Used DALI devices** and **Measurement Channels for DALI Line A/B Voltage, DALI Line A/B Current, DALI Line A/B MAC Temperature, C-Bus Voltage and Unit Temperature** check boxes are selected.

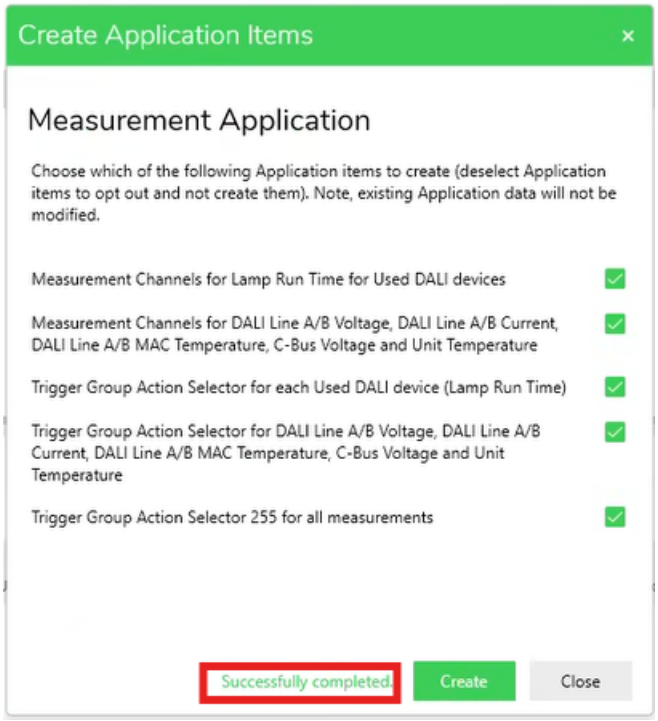
2. If you assign values for **Send Trigger Group** or **Clear Trigger Group** in **Measurement** section of **PROPERTIES**, then the below check boxes are selected in **Create Application Items** dialogue box:
   - **Trigger Group Action Selector for each Used DALI device (Lamp Run Time)**
   - **Trigger Group Action Selector for DALI Line A/B Voltage, DALI Line A/B Current, DALI Line A/B MAC Temperature, C-Bus Voltage and Unit Temperature**
   - **Trigger Group Action Selector 255 for all measurements**

Measurement in **PROPERTIES**	**Create Application Items**
	

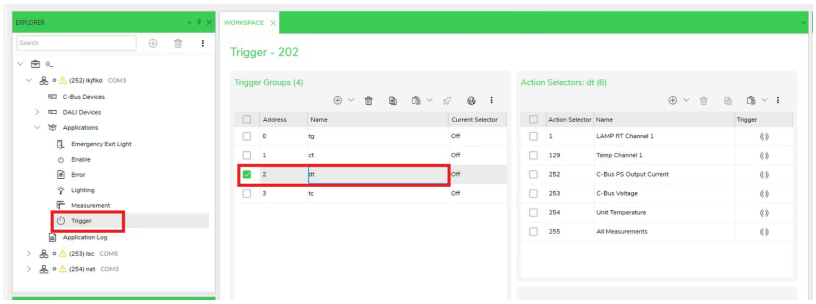
3. Click **Create** to generate the application items. C-Gate creates the items and displays them in the relevant application workspace in the client, based on the DALI-2 Gateway_Create Application Items file in the project folder.

   NOTE: Below are the creation conditions:

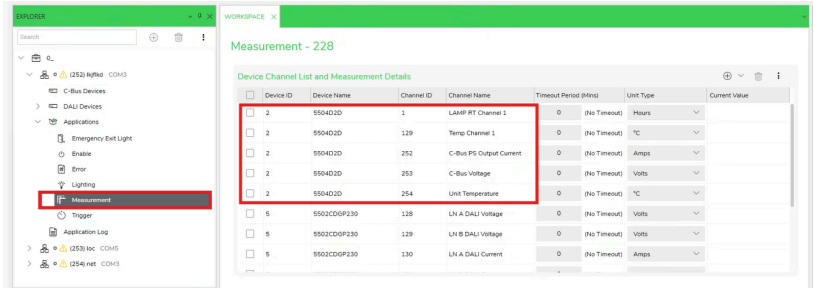
   - Creation occurs only when the associated **Application Item** check box is selected.
   - If the **Measurement Application** is not present on the C-Bus network, clicking **Create Application Items** adds the **Measurement Application** to the network before beginning the creation process.
   - Success message appears.



The below image displays the assigned Trigger Group in the **Trigger Application**.



The below image displays the assigned measurement channels in the **Measurement Application**.

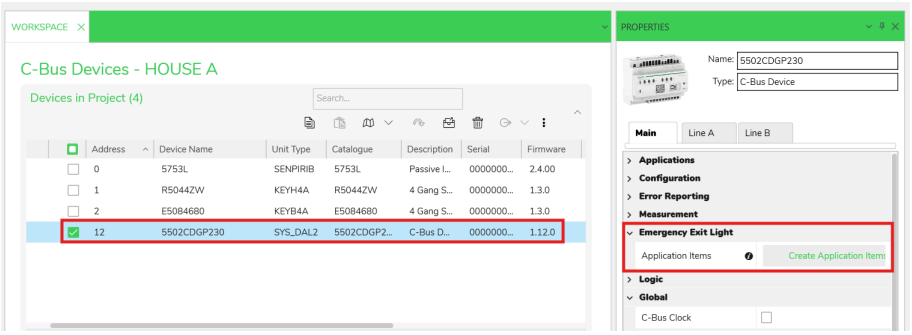


Create Application Data for Emergency Exit Lights

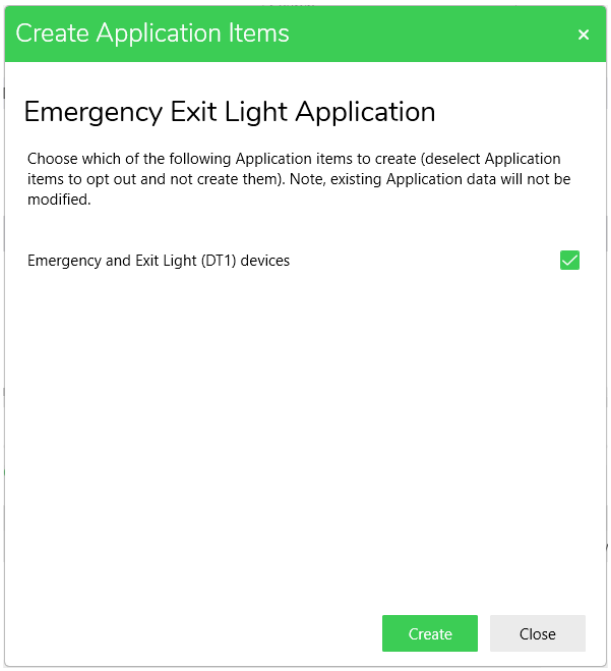
You can quickly create the required **C-Bus Application Items** in your project based on the current configuration of the **DALI Lines** of a **C-Bus DALI-2 Gateway** device.

To create application items:

1. Select DALI device >**Emergency Exit Lights** >click **Create Application Items**.



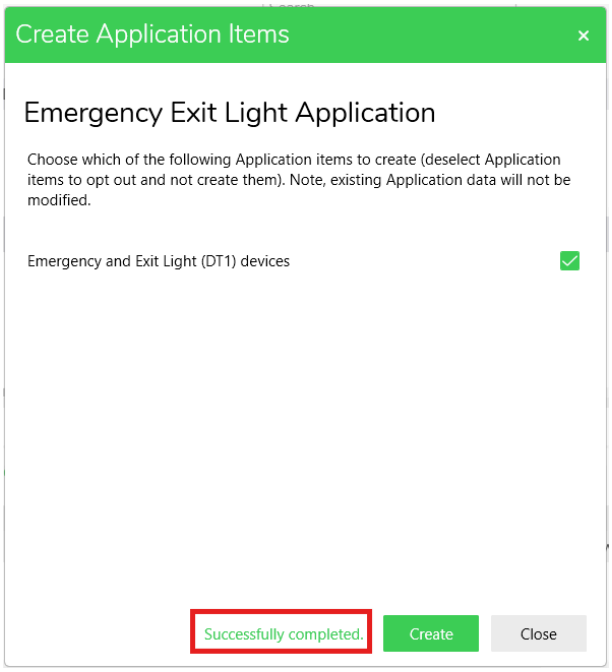
The **Create Application Items** dialogue box appears.



2. Click **Create** to generate the application items. C-Gate creates the items and displays them in the relevant **Application** workspace in the client, based on the DALI-2 Gateway_Create Application Items file in the project folder.

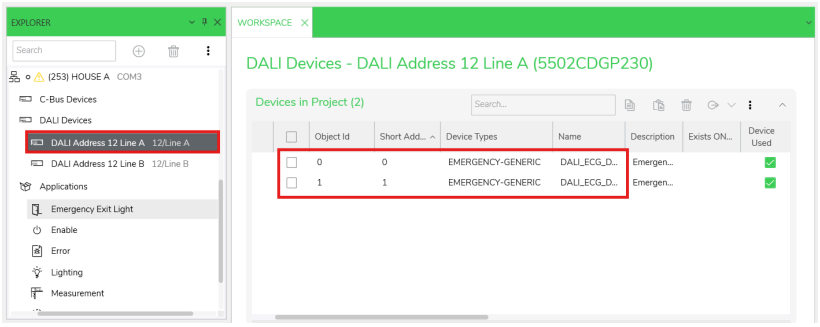
   NOTE: If the **Emergency and Exit Light (DT1) devices** check box is selected, **Emergency and Exit Light (DT1)** devices are created for the used DALI devices at an **Object ID** and displays them in the **Emergency Exit Light** application.

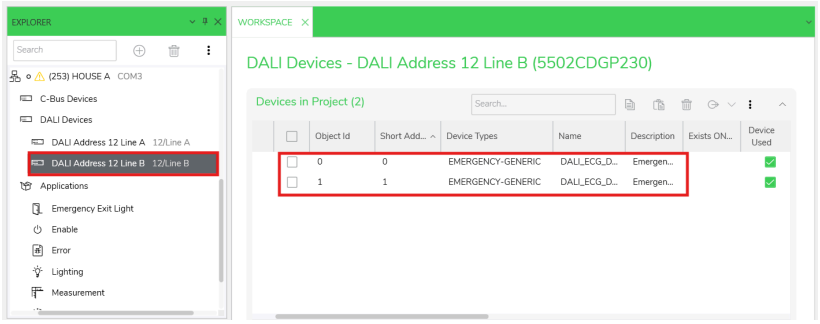
   Success message appears.



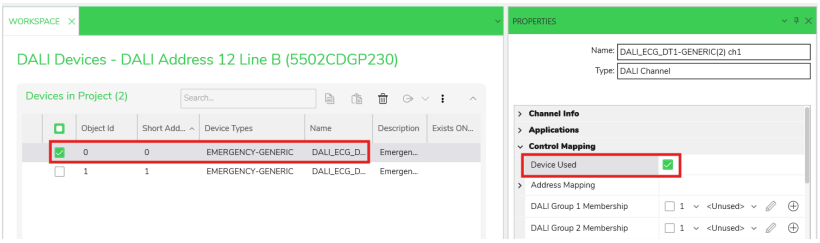
3. **DT1 DALI Emergency** device items are created in the **Emergency Exit Light Application – Devices** section, representing all applicable DT1 DALI Emergency devices present in **C-Bus DALI-2 Gateway** devices on the **C-Bus network**.

4. The number of devices created is based on applicable devices, which are devices that are in use or configured for use.
    - Device is created only when both of the following conditions are met:
        - A **DT1 DALI Emergency** device exists at an **Object ID** (0–63 for **Line A** and 0–63 for **Line B**).



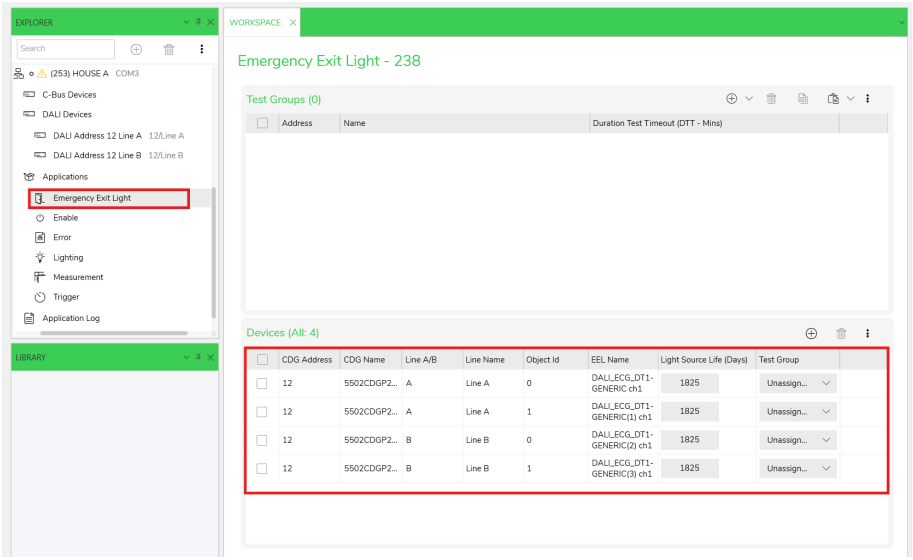


        - The **Device Used** check box for the DALI device must be selected.



The created new devices are predefined, with information from the existing C-Bus DALI-2 Gateway and DALI devices, and contains a predefined default name.

5. Go to **Emergency Exit Light** in **Applications** (left pane). The created **Emergency and Exit Light (DT1)** devices for the used DALI devices are displayed in the **Emergency Exit Light** application.



- The default **Line Name** is based on the **Line Name** defined in the **C-Bus DALI-2 Gateway**.
- When the **DALI Line Name** property is blank in the **C-Bus DALI-2 Gateway** device, the application uses a predefined default **Line Name** as listed in the **Emergency Exit Light** tab.
- The default **EEL Name** is based on the **Device Name** property of the DALI device at the corresponding **Object ID** on the DALI Line.

  NOTE: This rule uses the existing DALI **Device Name** behavior, including the uniqueness rule across the **Channel ID**.
- The **Light Source Life (Days)** value for each device is taken from the DALI device **Light Source Life (Days)** property at the corresponding **Object ID** on the DALI Line.
- The **Test Group** for each device is set to **<Unassigned>**.
- New **Device (Object ID)** is created only when that **Device (Object ID)** does not already exist.
- When a **Device (Object ID)** already exists, the auto-create process does not update or overwrite any existing information for that **Device (Object ID)**.

PC Interfaces

The C-Bus PC interface units connect SpaceLogic C-Bus Commissioning software directly to the C-Bus network.

Unit Type

- 5500PC (PCINT4)
- 5500PCU (PCINTU)

The field information to configure PC Interface is as below:

Field		Description
Global This section allows users to check and update the C-Bus clock information.	C-Bus Clock	The C-Bus Clock check box enables/disables the resident C-Bus clock. The Enable C-Bus Clock check box is ticked (enabled) by default.
	Burden	The Enable Burden check box enables/disables the resident network burden. The Enable Burden check box is operational if the unit address is 001 and the Enable C-Bus Clock check box is ticked. Otherwise, the Enable Burden check box is non-operational [greyed out]. If the operational Enable Burden check box is ticked, then the resident burden is enabled.

Unit Identification This section display the fields for identification of the unit.	Unit Type	The Unit Type field contains the unit type and unit description of the device.
	Firmware Version	The Firmware Version field shows the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database.
	Catalogue Number	The Catalog Number field contains the catalog number related to the unit type.
	Part Name	The Part Name field contains the part name which is stored in the unit hardware.
	Unit Address	This field displays the unit address assigned to the device.
	Serial Number	The Serial number field contains the serial number which exists on the physical network.
	Tag Name	The Tag Name field contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only.
	Notes	The Notes field contains a location to add notes about the unit which is stored in the project database only.
Status The Status section contains information about the C-Bus network related functions located on the unit.	C-Bus Clock Active	The Clock Active indicates whether the C-Bus internal clock is enabled on this C-Bus unit. If activated, the indicator is lit. If not activated, the indicator is greyed out.
	Burden Active	The Burden Active indicates whether the C-Bus burden is active on this C-Bus unit. If active, the indicator is lit. If not active, the indicator is greyed out.
	Voltage	Voltage field contains the voltage level available to the unit. The voltage level displayed refreshes whenever the Update Status button is clicked.

C-Bus Automation Controllers

The C-Bus Network Automation Controller and C-Bus Application Controller units are DIN Rail-mounted C-Bus units. They enable C-Bus to perform complex conditional events, real-time scheduling, combinations of conditional events and scheduling, calculations, and protocol conversions. This support automation functions such as control and monitoring of C-Bus groups and scenes. The unit is programmed via its own internal web interface, which is accessible via a USB cable or an Ethernet network.

SpaceLogic C-Bus Commission supports the below automation and application controllers.

Unit Type

- 5500NAC (PC_NAC)
- 5500NAC (SYS_NAC)
- LSS5500NAC (PC_NAC)
- LSS5500NAC (SYS_NAC)

Unit Type

- 5500SHAC (PC_SHAC)
- 5500SHAC (SYS_SHAC)
- LSS5500SHAC (PC_SHAC)
- LSS5500SHAC (SYS_SHAC)

Unit Type

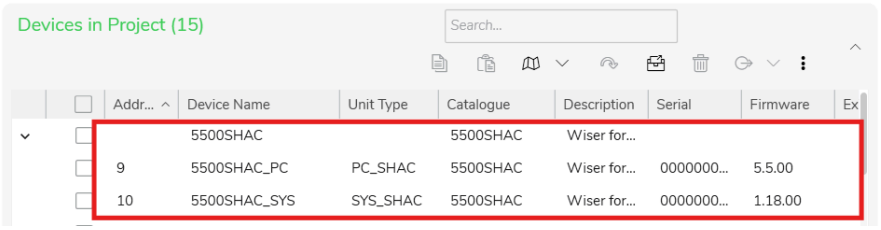
- 5500AC2 (PC_AC2)
- 5500AC2 (SYS_AC2)
- 5500NAC2 (PC_NAC2)
- 5500NAC2 (SYS_NAC2)

When any controller unit is added to the **Devices in Project**, three layers of the controller are displayed. They are IP layer, PC and SYS.

- IP Layer will not have any address, serial, firmware version or unit type.

- IP Layer cannot be readdressed.

  NOTE: Ensure that the PC and SYS levels are readdressed as per current implementation without losing the IP layer.
- The SYS and PC layer are used to configure, reconcile and deploy to the device.
- The SYS and PC layer cannot be deleted independently.
- When loading the IP layer in **Property** window, the **Deploy to network** is disabled.

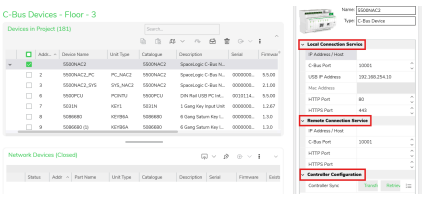


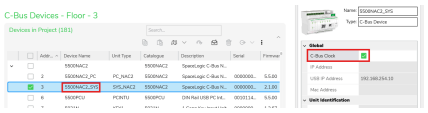
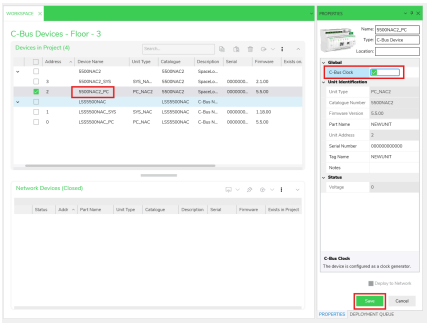
Connect to the controllers: Configure IP layer of the controllers to sync or connect to the controllers or can enter manually at the time of connection.

Controller sync functions: Controller sync consists of 2 functions:

- **Push**: Push (Transfer) function is used to push the object list to the controller.
- **Pull**: Pull (Retrieve) function is used to pull the data back from the controller and store data in the project.

The field information to configure SpaceLogic C-Bus Automation Controllers is explained below:

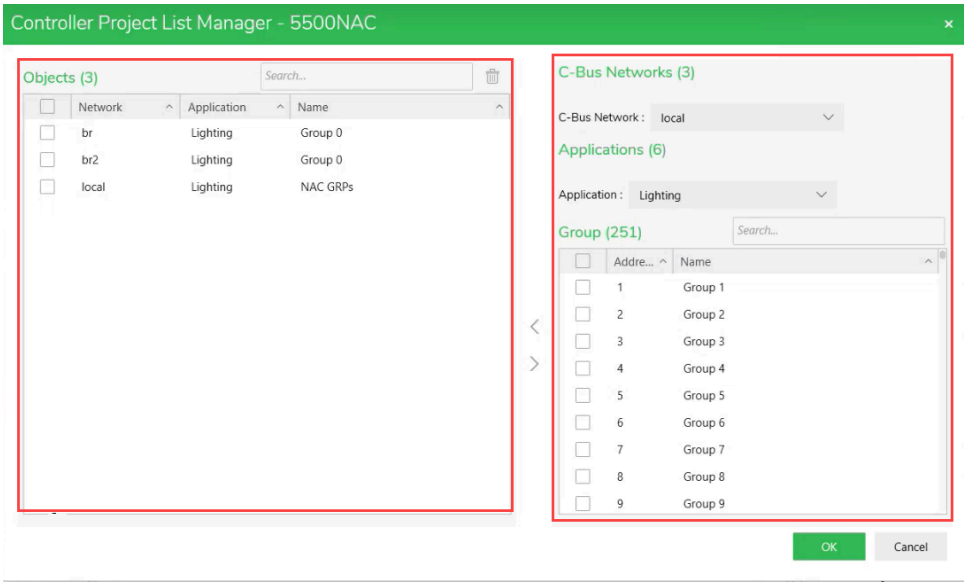
IP layer/group layer	**Local Connection Service**	**IP Address/Host**	IP address of the controller.
		C-Bus Port	Default 10001.
		USB IP Address	Default IP address for USB connection.
		Mac Address	Mac address of the controller (read-only).
		HTTP PORT	Default 80 (range restricted to 16-bit unsigned integer 0 -65535).
		HTTPS PORT	Default 443 (range restricted to 16-bit unsigned integer 0 -65535).
	Remote Connection Service	**IP Address/Host**	IP address of the remote device.
		C-Bus Port	Default 10001 (range restricted to 16-bit unsigned integer 0 -65535).
		HTTP PORT	HTTP port of the device (range restricted to 16-bit unsigned integer 0 -65535).
		HTTPS PORT	HTTPS port of the device (range restricted to 16-bit unsigned integer 0 -65535). 
	Controller Configuration **IMPORTANT:** Configuring of the device is done only on the **Devices in Project** (project database).	**Controller Sync**	Object List, page 507 To create object lists click ⋮☰. Transfer , page 509 Retrieve, page 511
SYS_INTERFACE (NAC/SHAC/NAC2/ AC2)	**Global** This section allows users to check and update the C-Bus clock information.	**C-Bus Clock**	This check box enables/disables the resident C-Bus clock. The **Enable C-Bus Clock** check box is ticked (enabled) by default.

			
		IP Address	N/A
		USB IP Address	Default (read only)
		Mac Address	N/A
	Unit Identification This section display the fields for identification of the unit.	**Unit Type**	This field contains the unit type of the device.
		Firmware Version	This field shows the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database. **NOTE:** For SYS_NAC/SHAC, the minimum firmware version to support is 1.14.00.
		Catalogue Number	This field contains the catalog number related to the unit type.
		Part Name	This field contains the part name which is stored in the unit hardware.
		Unit Address	This field displays the unit address assigned to the device.
		Serial Number	This field contains the serial number which exists on the physical network.
		Tag Name	This field contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only
		Notes	This field contains a location to add notes about the unit which is stored in the project database only.
	Status This section contains information about the C-Bus network related functions located on the unit.	**C-Bus Clock Active**	This field indicates whether the C-Bus internal clock is enabled on this C-Bus unit. If activated, the indicator is lit. If not activated, the indicator is greyed out.
		Voltage	This field contains the voltage level available to the unit.
PC_INTERFACE (NAC/SHAC/NAC2/ AC2)	**Global** This section allows you to check and update the C-Bus clock information.	**C-Bus Clock**	Select the check box to enable the resident C-Bus clock. Once you select the **C-Bus Clock** check box, the **Save** button is enabled. 
	Unit Identification This section displays the fields for identification of the unit.	**Unit Type**	This field contains the unit type of the device.

		Firmware Version	This field shows the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database. **NOTE:** For PC_NAC/SHAC, the minimum firmware version to support is 5.5.00.
		Catalogue Number	This field contains the catalog number related to the unit type.
		Part Name	This field contains the part name which is stored in the unit hardware.
		Unit Address	This field displays the unit address assigned to the device.
		Serial Number	This field contains the serial number which exists on the physical network.
		Tag Name	This field contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only
		Notes	This field contains a location to add notes about the unit which is stored in the project database only.
	Status This section contains information about the C-Bus network related functions located on the unit.	**Voltage**	This field contains the voltage level available to the unit.

Object List Manager

Object list manager allows you to work with assigned groups and levels of an application to the object list.



Controller Project List Manager window is displayed, which consists of the following:

Objects	**Network**	Displays network name of the selected object.
	Application	Displays application name of the selected object.
	Name	Displays name of the selected object.
	Search	To search the existing objects in the object list, type the object name/application/ network name in search bar.

	Delete	Select the object list and click .
C-Bus Networks	**C-Bus Network**	All the available C-Bus networks are displayed in the drop-down.
	Applications	All the available applications in the selected network are displayed in the drop-down. **NOTE:** Applications of the selected network will be displayed.
	Search	Depending on the type of application is selected groups, channels or devices can be searched using search bar.
Depending on the type of application is selected, groups, channels or devices are displayed.		
Lighting Application	Group of the lighting application is displayed.	Address. Displays address of the group/enable group. Name. Displays name of the group/enable group.
Enable	Group of the enable application is displayed.	
Measurement Application	Channels of the measurement/error application are displayed.	Device ID. Device ID to identify specific C-Bus unit fro measurement/error application.
		Device Name. Displays name of the device.
Error Application		Channel ID. Object Id assigned to DALI Gateway (0–255).
		Channel Name. Specifies the name of the channel.
Emergency Exit Light	Devices of the emergency exit light application are displayed.	CDG Name. Displays C-Bus DALI-2 Gateway name.
		Line Name. Displays DALI line name.
		EEL Name. Displays Emergency Exit Light application name.
		Object ID. Displays the Object ID of the device.
		Test Group. Displays the assigned test group.

1. Click < to add objects from **C-Bus Network** to the **Object**.
2. Click > to remove objects from **Object**.
3. Click **OK** to save the object lists to project database.

IMPORTANT:

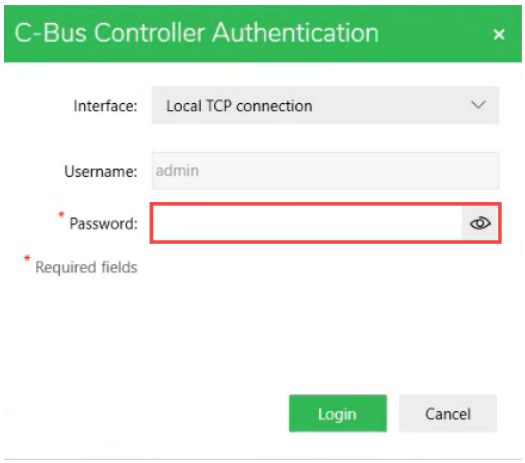
- The remote C-Bus network in the current project (connected via C-Bus bridge) allows up to a maximum of 19 networks along with local network (and 5 bridge networks deep max) allows to add objects in the object list section. Once the maximum limit is reached, the list of networks in the C-Bus Network will be disabled.
- To use the disabled network, remove the objects in the object list.
- Objects added to the list define the networks that will be used in the controller.

Transfer

The configurations in the SpaceLogic C-Bus Commission can be pushed to the C-Bus Controllers via push operation.

The created objects are pushed to the controller using **Transfer** button.

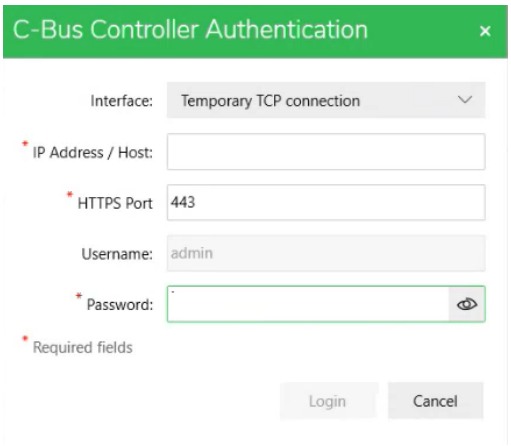
1. Once the objects list are created, click **Transfer**. The **C-Bus Controller Authentication** window is displayed.



2. Select the **Interface** type from drop-down.
   - Local TCP Connection
   - Remote TCP Connection
   - USB Connection

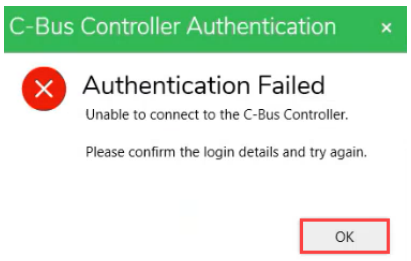
     NOTE: The IP address for Local, Remote and USB are fetched from the details configured in the IP layer.
   - Temporary TCP Connection

     For temporary connection, you need to enter additional IP address and HTTPS port details.



3. Enter the password.

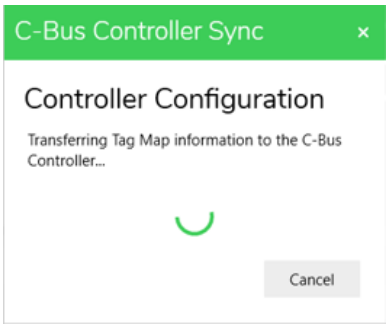
   NOTE: If you enter wrong password, **Authentication Failed** message is displayed.



4. Click **OK** and re-enter the password.

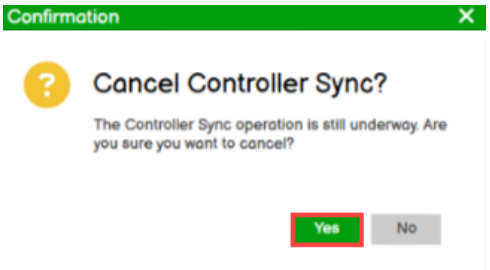
5. Click **Login**.

   The **C-Bus controller Sync** process window is displayed.



   The tag map and object informations are transferred to C-Bus Controllers.

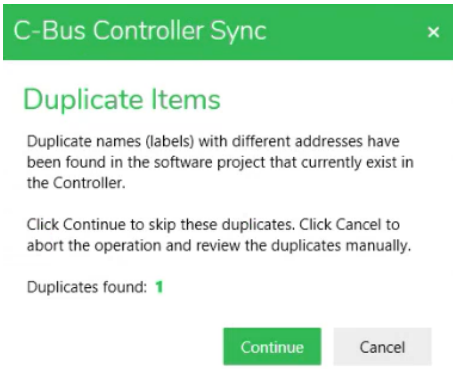
   NOTE: Click **Cancel** to cancel the syncing.



   Click **Yes**.

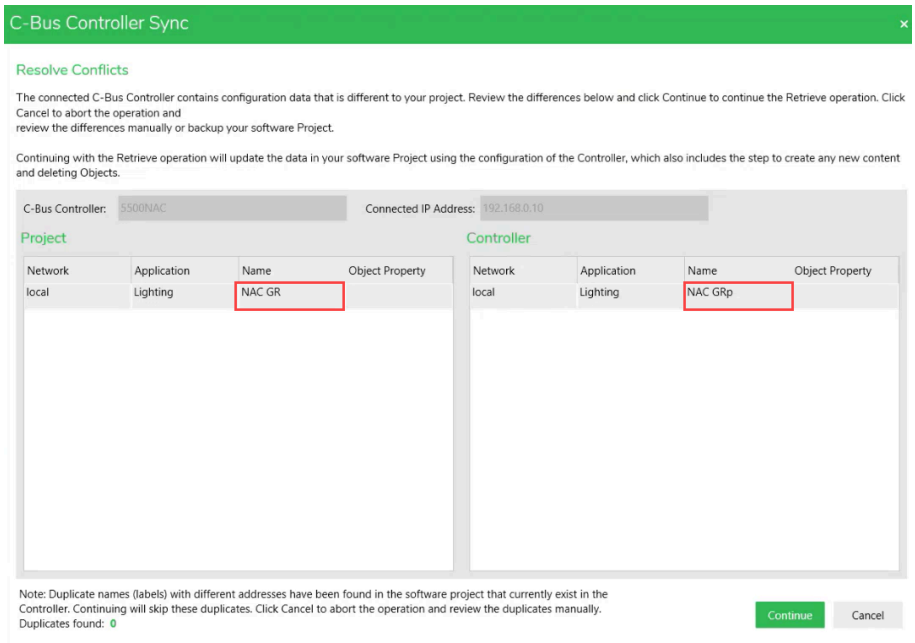
   IMPORTANT: While transferring :

   - If there are any duplicates items identified (application, group or label name), **C-Bus Controller Sync** window is displayed indicating the duplicate items.



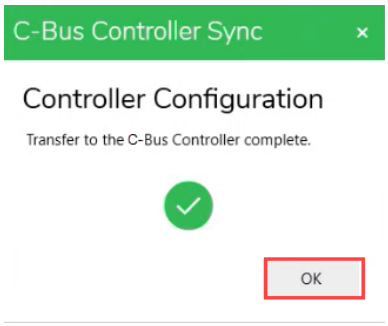
6. Click **Continue** to resolve duplicate items.

   If any conflict items are identified, **C-Bus Controller Sync** window is displayed indicating the conflicts.



7. Click **Continue** to resolve the conflict.

   On successful transfer, transfer completion message is displayed.



8. Click **OK** to complete the transfer.

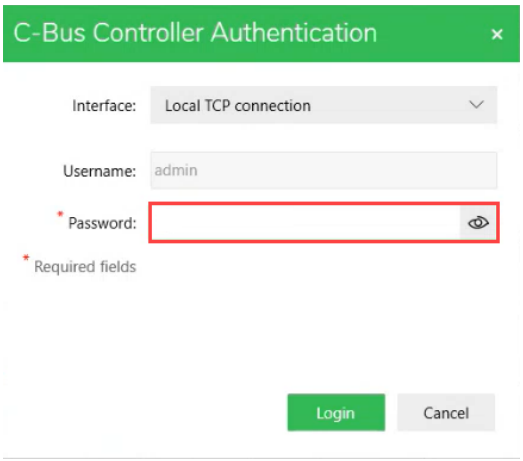
Retrieve

The configurations done in the controllers can be pulled from C-Bus Controller to the SpaceLogic C-Bus Commission using pull operation.

The created objects are pulled to the SpaceLogic C-Bus Commission using **Retrieve** button.

NOTE: When you extract any C-Bus device and try to configure controllers in parallel, the **Retrieve** button is disabled.

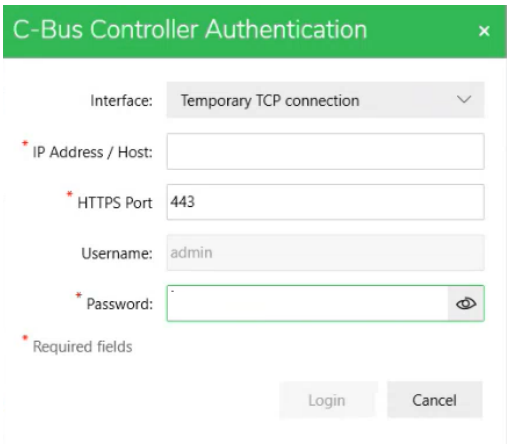
1. Click **Retrieve**. **C-Bus Controller Authentication** window is displayed.



2. Select the **Interface** type from drop-down.
   - Local TCP Connection
   - Remote TCP Connection
   - USB Connection

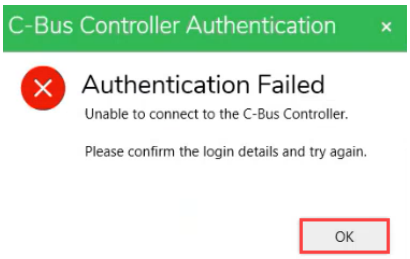
     NOTE: The IP address for Local, Remote and USB are fetched from the details configured in the IP layer.
   - Temporary TCP Connection

     For temporary connection, you need to enter additional IP address and HTTPS port details.



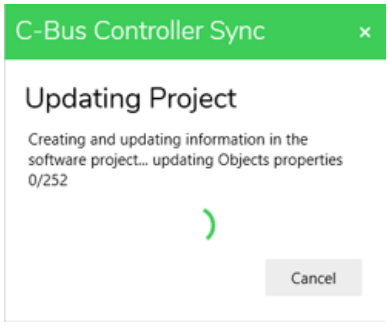
3. Enter the password.

   NOTE: If you enter the wrong password, **Authentication Failed** message is displayed.



4. Click **OK** and re-enter the password.

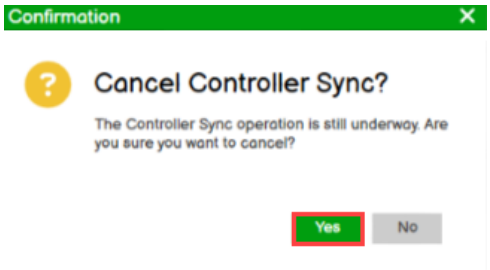
5. Click **Login**. **C-Bus controller Sync** pop-up window is displayed.



While retrieving (pull operation) data from C-Bus controllers, objects can be updated, deleted or added.

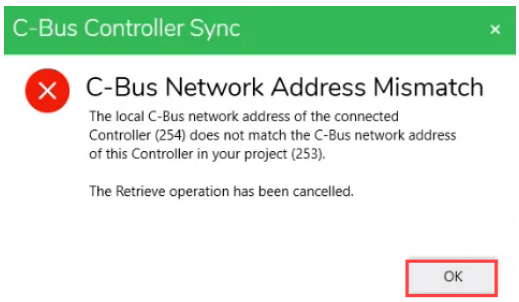
NOTE:

- To cancel the syncing, click **Cancel**.



  Click **Yes**.

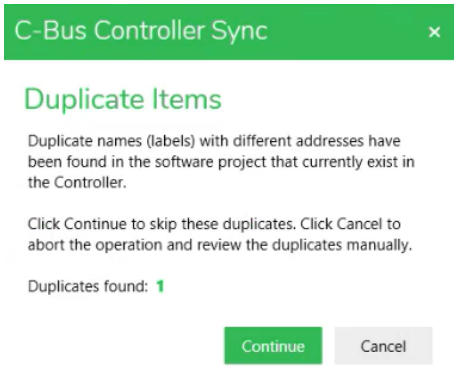
- An error message is displayed if the controller configuration is failed.



  Check the local and network IP address of the controller and re-login.

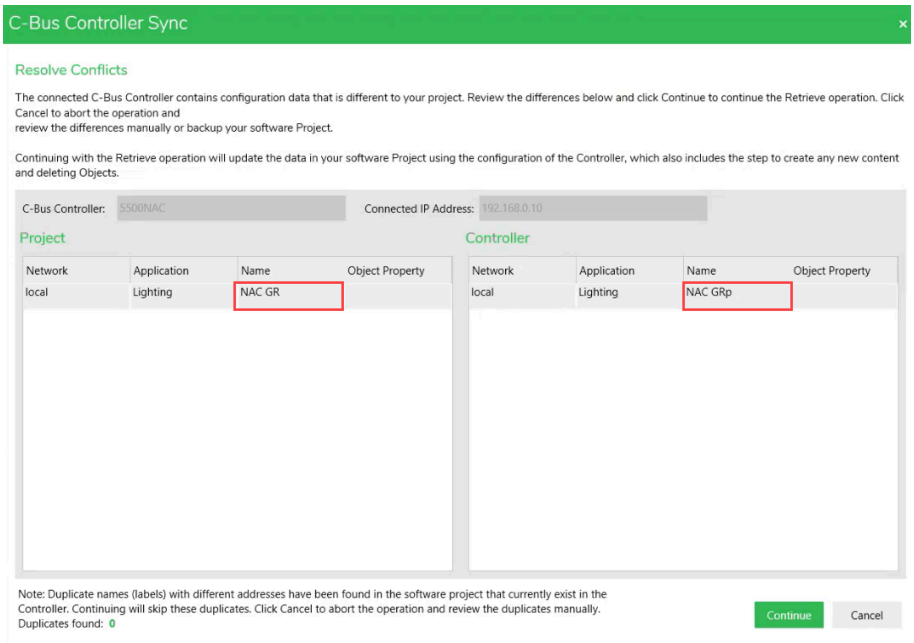
IMPORTANT: While retrieving :

- If any duplicates items are identified (application, group or label name), **C-Bus Controller Sync** window is displayed indicating the duplicate items



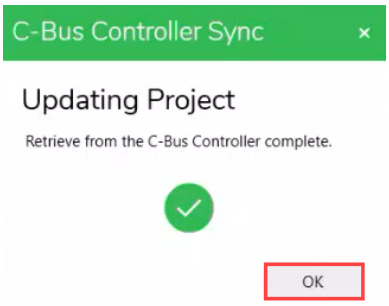
6. Click **Continue** to resolve duplicate items.

   If any conflict items are identified, **C-Bus Controller Sync** window is displayed indicating the conflicts.



7. Click **Continue** to resolve the conflict.

   On successful retrieve, completion message is displayed.



8. Click **OK** to complete the retrieve.

C-Bus Network Interface

The C-Bus Network interface units connect SpaceLogic C-Bus Commissioning software via the port address.

Unit Type

- 5500CN2 (PC_CNICD)

The field information to configure C-Bus Network Interface (CNI) is as below:

Field		Description
Global This section allows users to check and update the C-Bus clock information.	C-Bus Clock	The C-Bus Clock check box enables/ disables the resident C-Bus clock. The Enable C-Bus Clock check box is ticked (enabled) by default
	Burden	The Enable Burden check box enables/ disables the resident network burden. The Enable Burden check box is operational if the unit address is 001 and the Enable C-Bus Clock check box is ticked. Otherwise, the Enable Burden check box is non-operational [greyed out]. If the operational Enable Burden check box is ticked, then the resident burden is enabled

Unit Identification This section display the fields for identification of the unit.	Unit Type	The Unit Type field contains the unit type and unit description of the device
	Firmware Version	The Firmware Version field shows the version number of the C-Bus interface firmware which exists on the physical network or which has been assigned to a logical representation of the unit in the database
	Catalogue Number	The Catalog Number field contains the catalog number related to the unit type
	Part Name	The Part Name field contains the part name which is stored in the unit hardware
	Unit Address	This field displays the unit address assigned to the device
	Serial Number	The Serial number field contains the serial number which exists on the physical network
	Tag Name	The Tag Name field contains the name that user can give to the logical representation of the unit. This name can be up to 32 characters long and is stored in the project database only
	Notes	The Notes field contains a location to add notes about the unit which is stored in the project database only
Status The Status section contains information about the C-Bus network related functions located on the unit.	C-Bus Clock Active	The Clock Active indicates whether the C-Bus internal clock is enabled on this C-Bus unit. If activated, the indicator is lit. If not activated, the indicator is greyed out
	Burden Active	The Burden Active indicates whether the C-Bus burden is active on this C-Bus unit. If active, the indicator is lit. If not active, the indicator is greyed out
	Voltage	Voltage field contains the voltage level available to the unit. The voltage level displayed refreshes whenever the Update Status button is clicked

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The managed BZIP2 code included in Ionic.BZip2.dll and Ionic.Zip.dll is modified code, based on Java code in the Apache commons compress library.

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Many thanks to Julian Seward for the original C implementation of BZip2 (http://www.bzip.org/).

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Components: grizzly-http-server

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Components: logback-classic

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Schneider Electric
35 rue Joseph Monier
92500 Rueil Malmaison
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