CLIPSAL®

C-Bus
Control and Management System

Installation and Usage Guide

CLIPSAL®
by Schneider Electric

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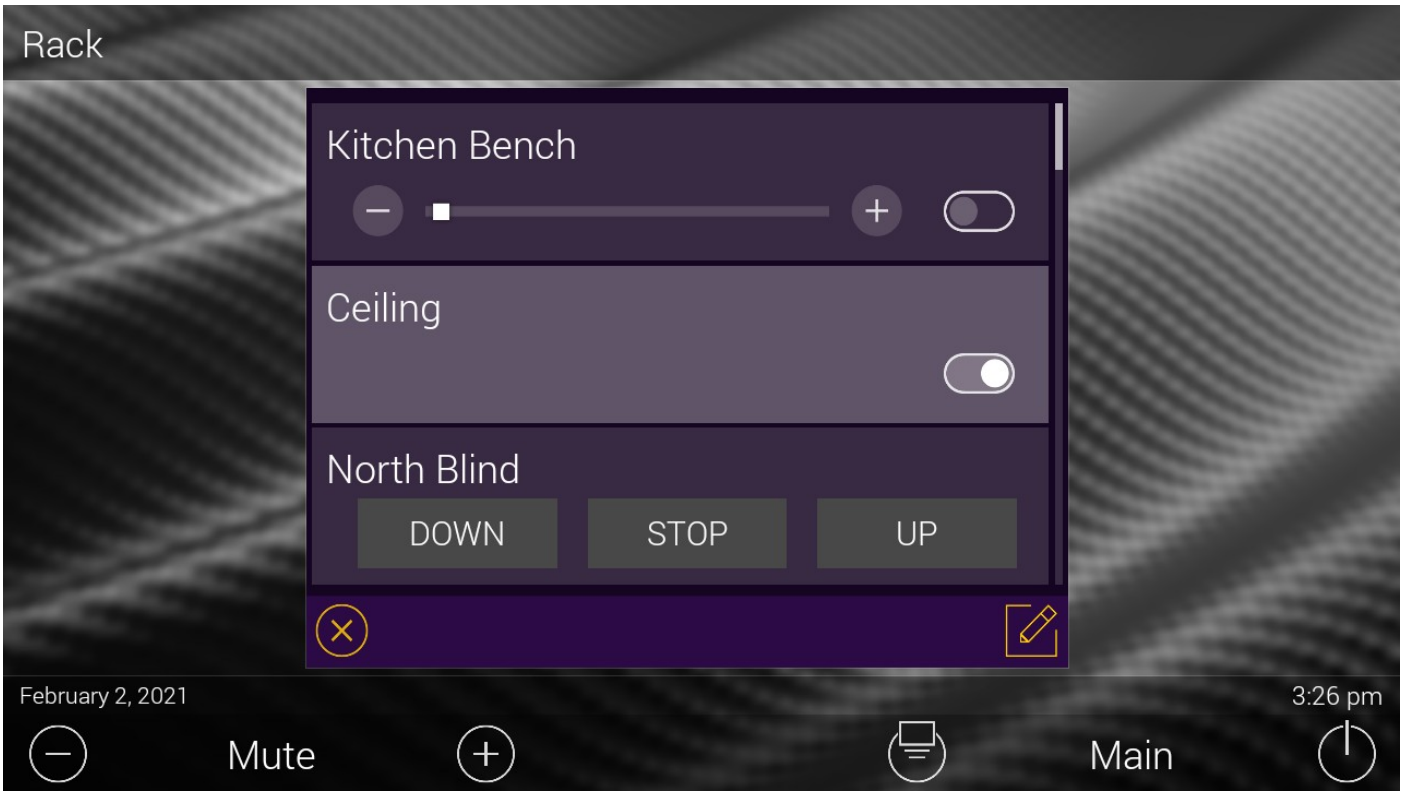
Overview

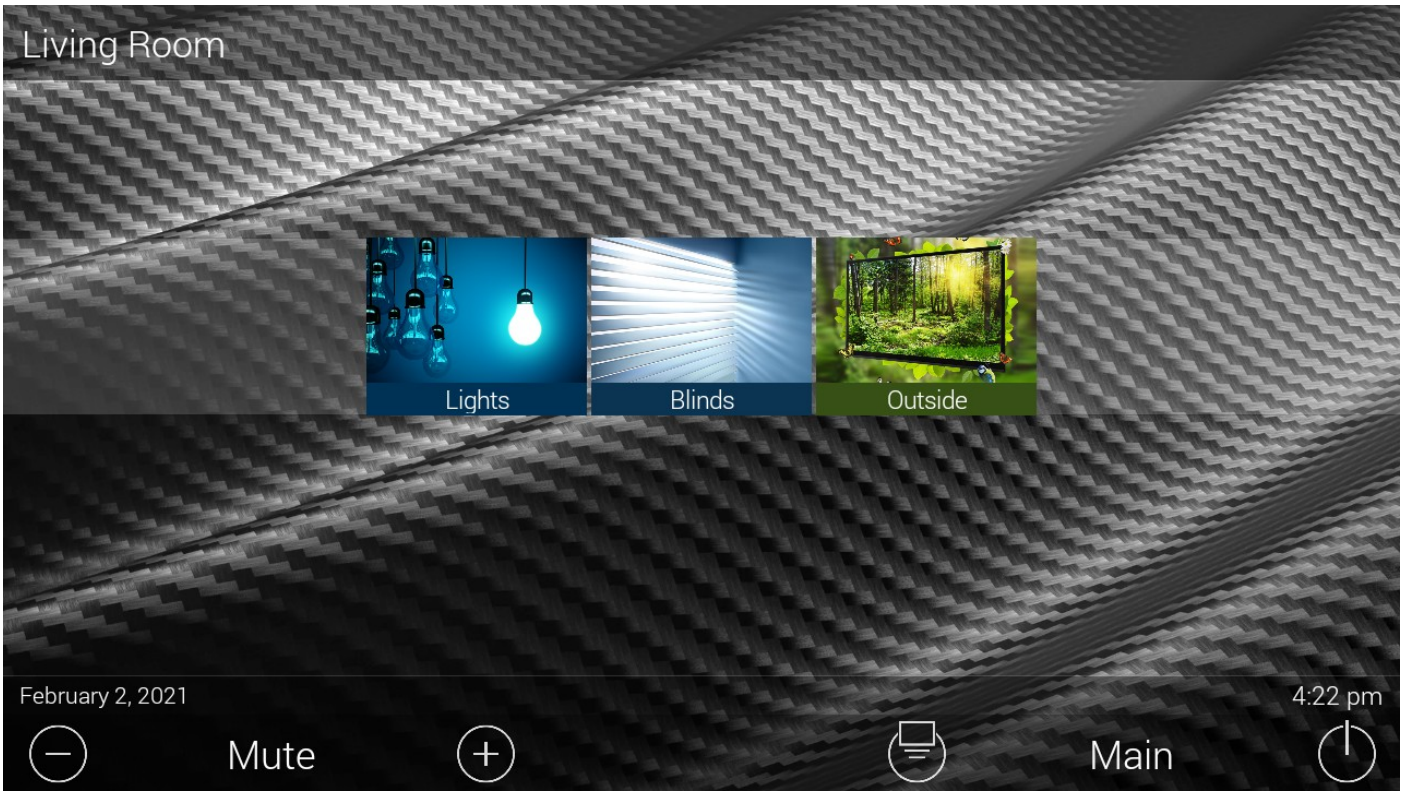
The Advanced C-Bus URC module provides control over you C-Bus system, using a user interface you configure at run time. A light changed, or new group address added? Just click the edit button for that room and update the details, no need to do an URC programming.

The configuration of the buttons allows for setting them as dimmable or non-dimmable, allowing you to configure them to control lights, scenes, water features, garage doors, anything you have programmed in to your C-Bus system.



Features

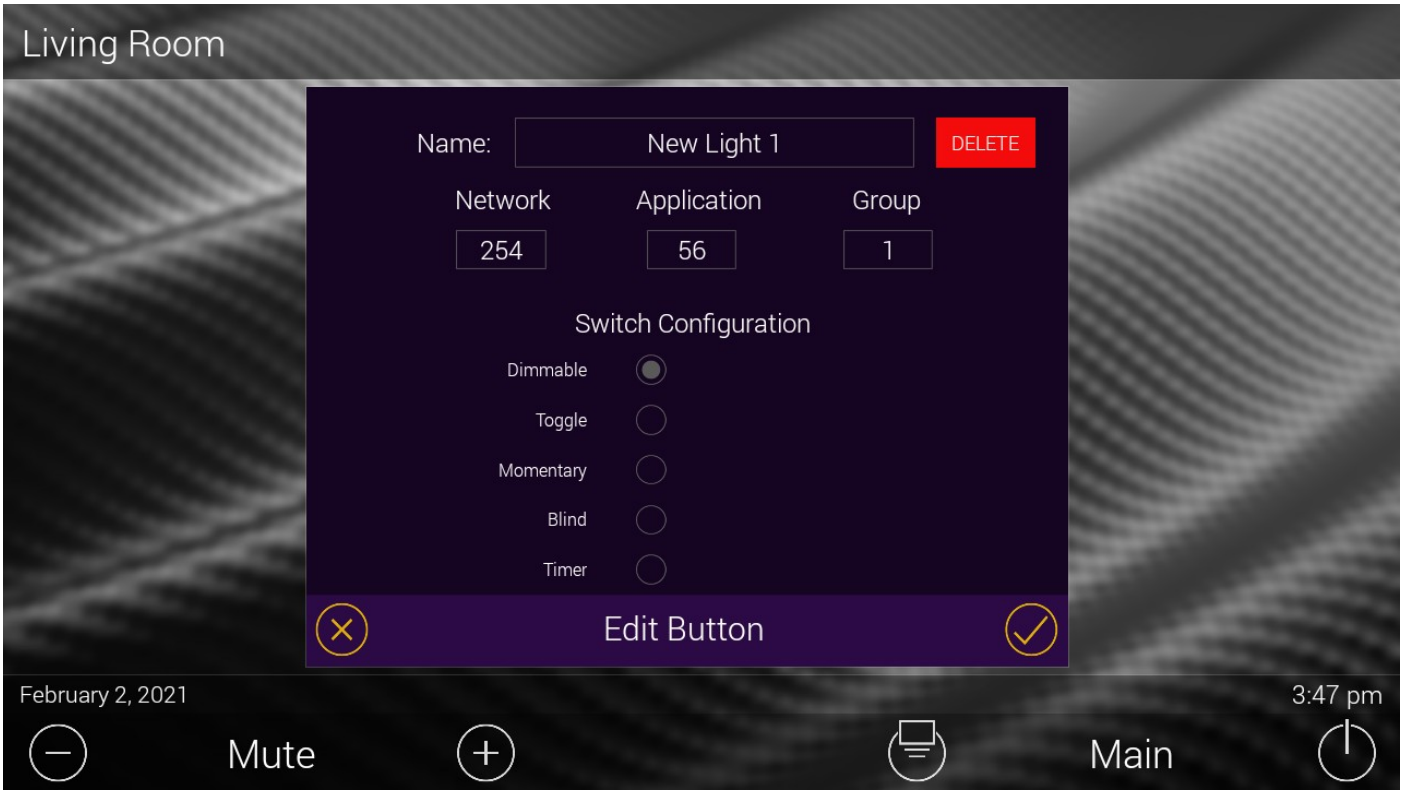
The Advanced C-Bus module includes a full user interface to configure your C-Bus system for full control from URC. The module uses a core / interface design to allow for the greatest flexibility in layout out your controls.



The module supports the following features

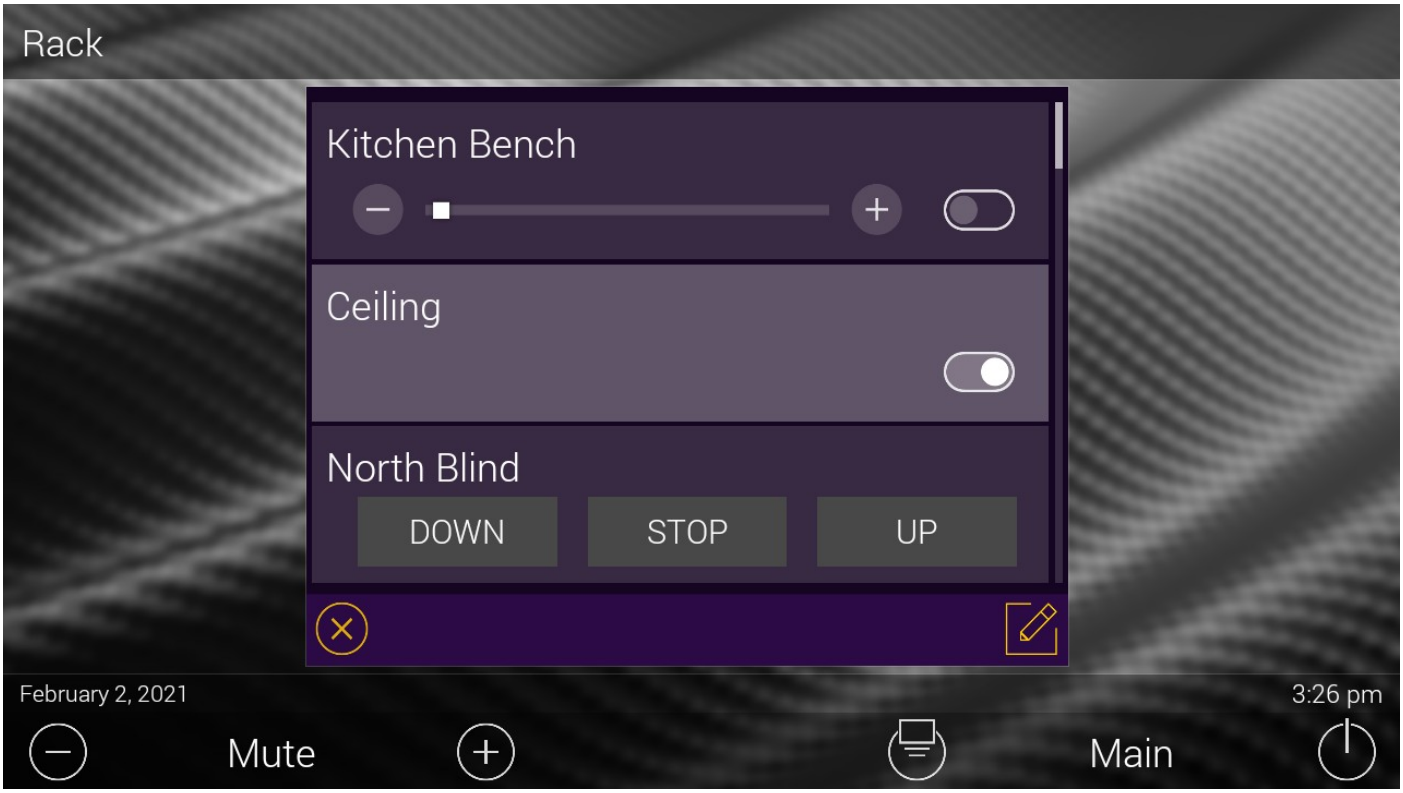
UI based configuration

The entire configuration is done from the UI, no need to enter any C-Bus details into the parameters in Accelerator. This make is simple to add, remove or reconfigure lights without the need to re-upload your project.



5 Button types

There are 5 different ways to configure the buttons the user interacts with. All of the buttons with the ewxception of the blind control have a toggle control on the right but you can also press anywhere on the button to toggle it.



Dimmer

The dimmer type will show a button with a slider with up and down buttons on each end for precise adjustment. In addition it also has a dedicated toggle button for quickly turning the light on or off.

Toggle

The toggle type can be used for relay channels that only require a simple on/off control.

Momentary

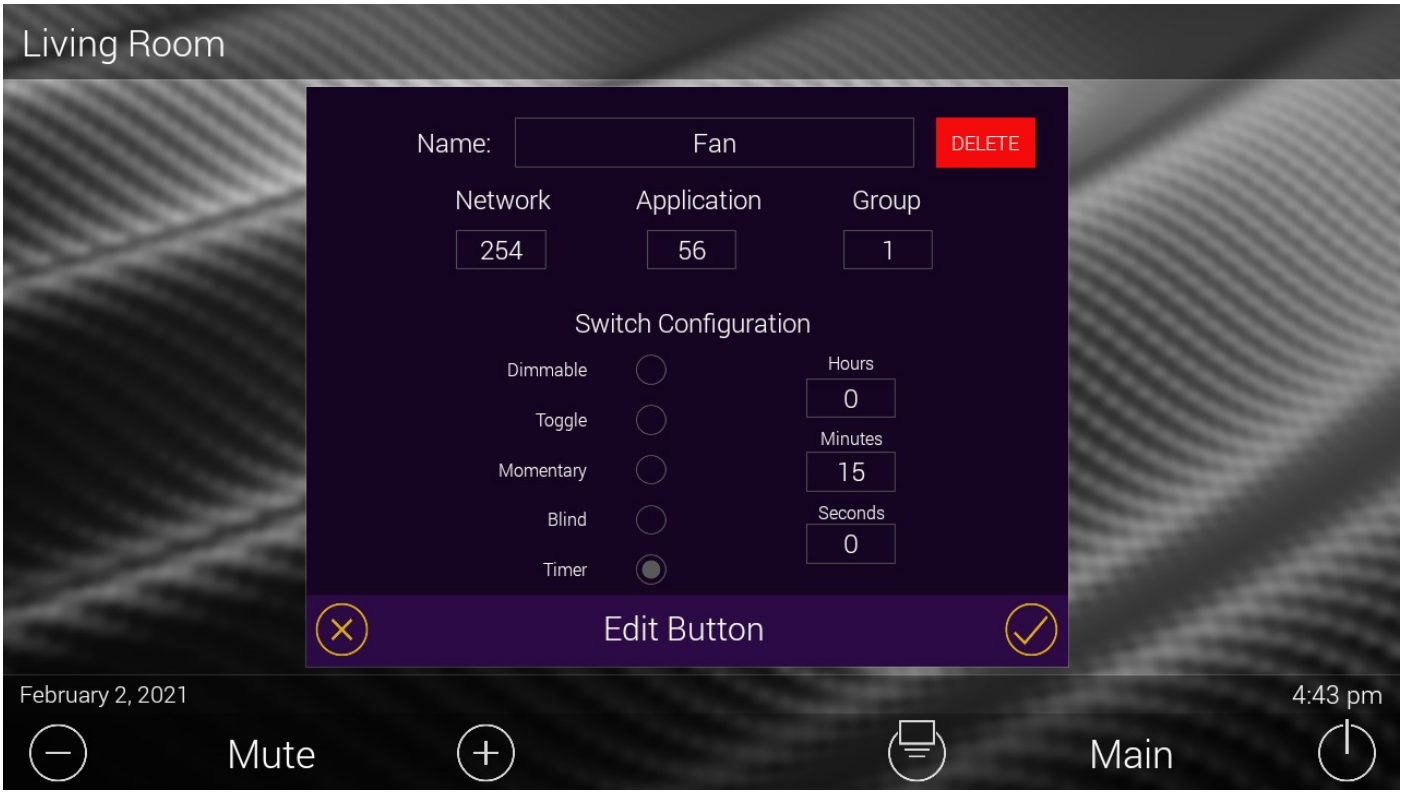
A momentary type will create a button that looks the same as a toggle but will only stay active while its being pressed. When you press the button the group will turn on and once you release the button the group will turn off.

Blind

The blind type will reconfigure the button to show an Up, Down and Stop button. These buttons are designed to work with the C-Bus shutter relays. If you are not using shutter relays you probably want to use the momentary controls instead.

Timer

The timer type will will create a button that looks the same as a toggle but it has some extra configuration to set the amount of time the group will stay on for. The times get converted to seconds by the module so you can use any values for the different fields. For example, you could use 90 minutes instead of 1 hour and 30 minutes - both will work the same.

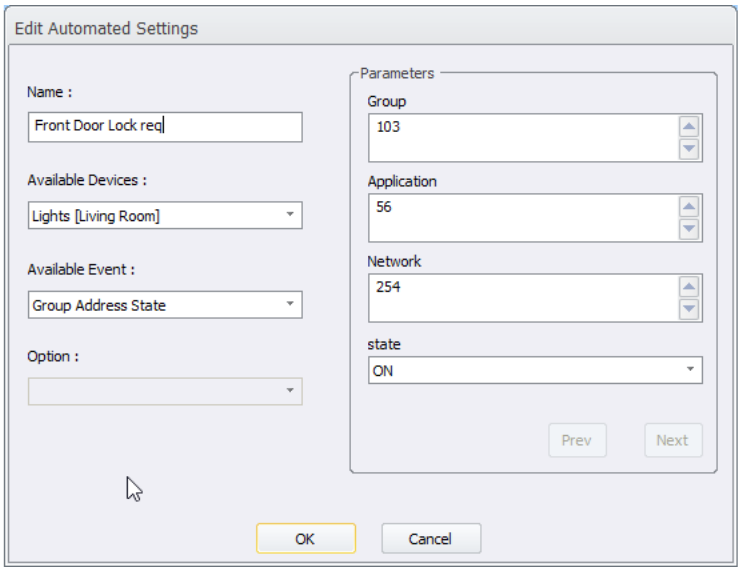


Group and Application aware

You can set both the group and the application allowing for comprehensive control over your C-Bus system.

Group Address triggers

The module has events for group addresses turning on or off for automation programming. Using this trigger you can easily automate devices that are not on the C-Bus network.



Some examples

- Use a group address to run an all off scenes that also turns off your AV equipment
- Use a group address to activate a night arm on your alarm system.
- Create a fan run on timer us URC using the ON and OFF states of the fan request group address
- Use any group address to trigger your URC macro

Control of any load with Two Way Commands

Using Two Way Commands you can turn loads or off or dim then to a specific level. You can add these together in a macro to create a lighting scene or simply use the on / off control to trigger a pre-programmed scene.

Control of Blinds with Two Way Commands

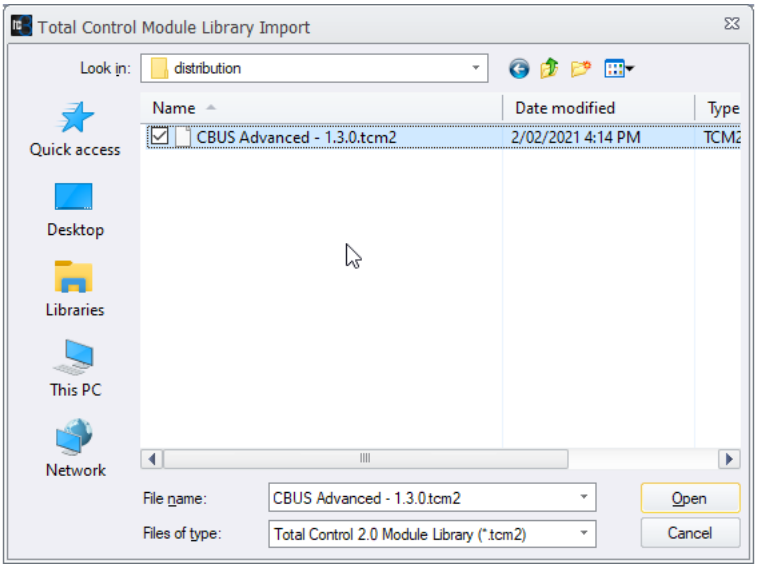
You can control of any blind or drape connected to a shutter relay using the Up / Down / Stop commands, or send the blinds to a specific level with the Blind Level command.

Installation

To install the module, you will need to do the following

Import TCM

From the file menu, Import TCM Files



Add the module to your project

In Step 4. Add Other Drivers. You will need to install both the Core module (once) into a shared room and then an interface module into all of the rooms you wish to use.

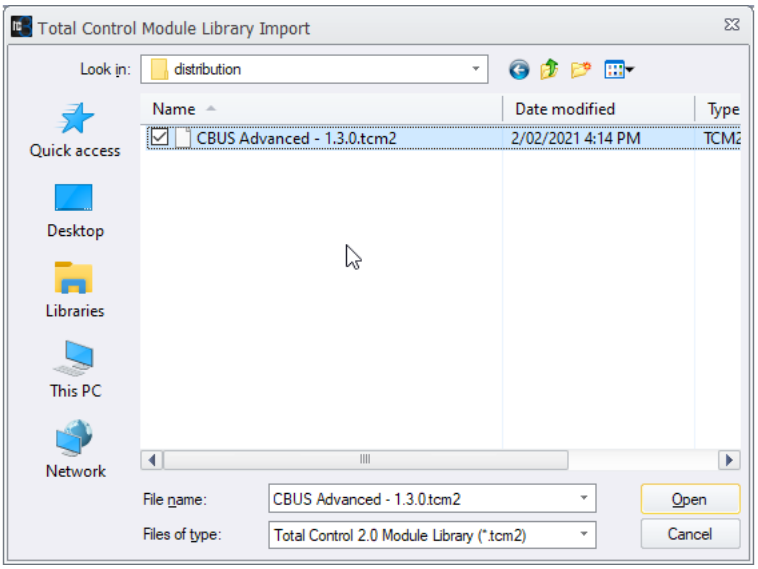
Install Core Module

Step 1 - select a shared room for the module
Step 2 - select My
Step 3 - select IP Database
Step 4 - select Lighting
Step 5 - select CLIPSAL
Step 6 - CNI [Core] (double click)

Install Interface Module

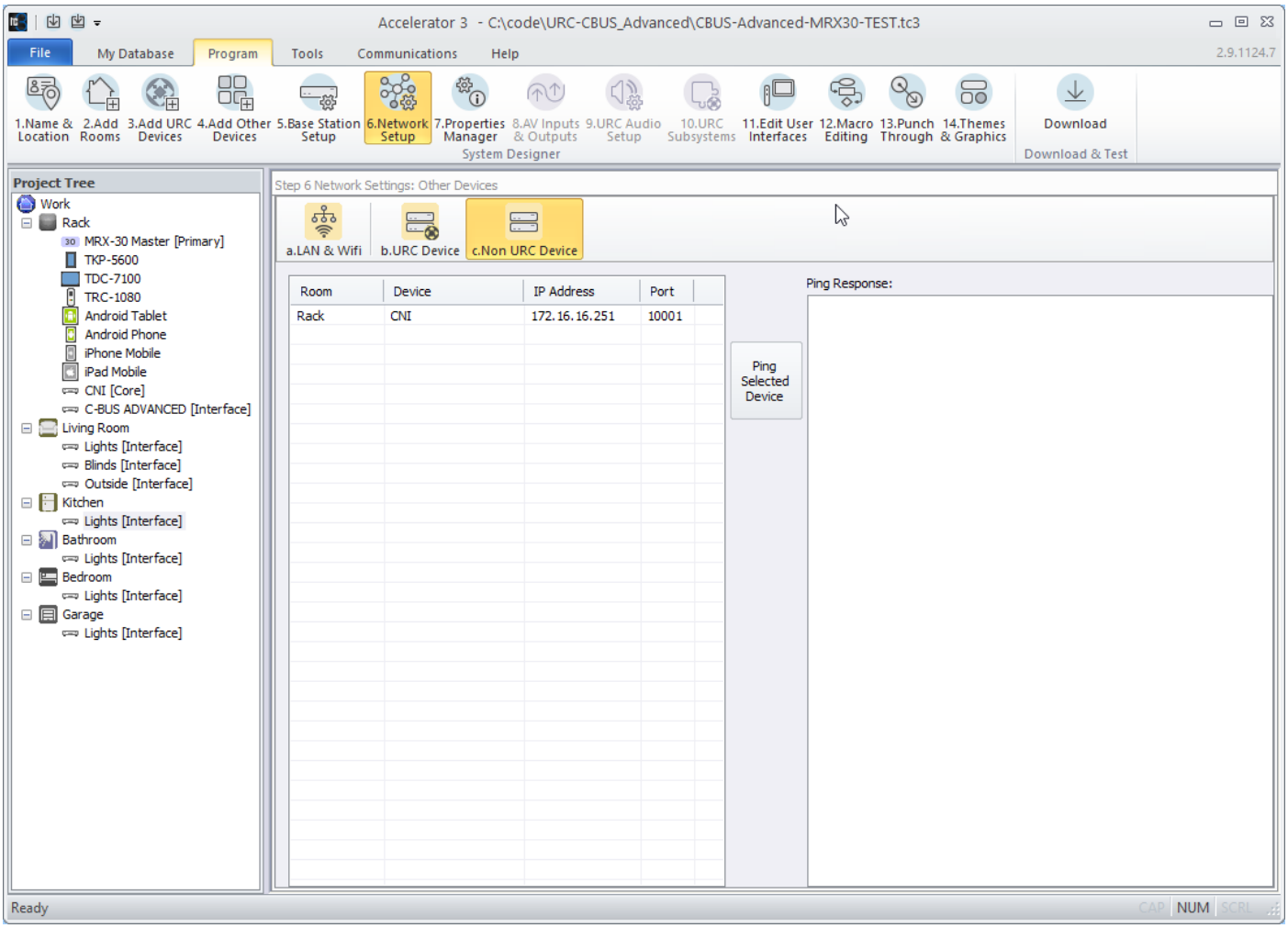
Step 1 - select the room for the module
Step 2 - select My
Step 3 - select IP Database
Step 4 - select Lighting
Step 5 - select CLIPSAL
Step 6 - C-BUS ADVANCED [Interface] (double click)

optionally choose another room (or the same room) and repeat steps 6.



Network Settings

Finally go to Step 6. Network Settings and Choose Non URC Devices. In the IP Address field enter the IP address for the Clipsal network interface (CNI). Optionally you can enter a value for the port (if you've changed it) or just leave it on the default - 10001.

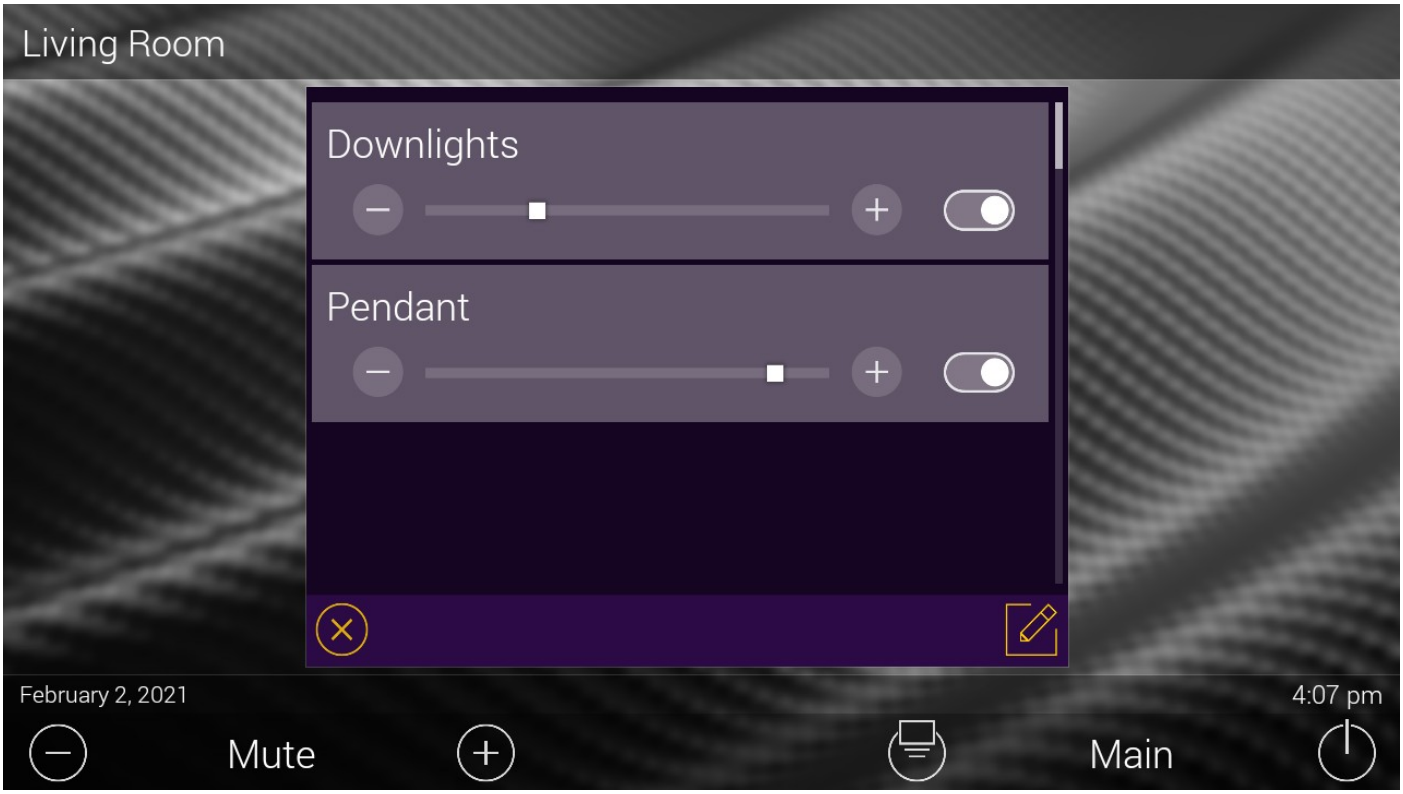


Configuration

Configuring the module in Accelerator

The C-Bus module is mostly configured from the interface itself. In Accelerator the network address of the CNI is required in the networking step and the licence code is required in the system parameters, but all of the set up after that point will take place in the modules user interface.

The module uses a Core / Interface model, with the core module typically being placed in a shared room in your project. Each room that you want to have lighting control will need to have a Interface module loaded.



Multiple C-Bus Networks

If you job has multiple C-Bus networks you will need to have a CNI on each network and a separate version of this driver loaded for each network. It is suggested that when you drag the Core module in that you name it with the network address, for example CNI (254), so you can identify the correct module to attach each Interface modules to.

Room Configuration

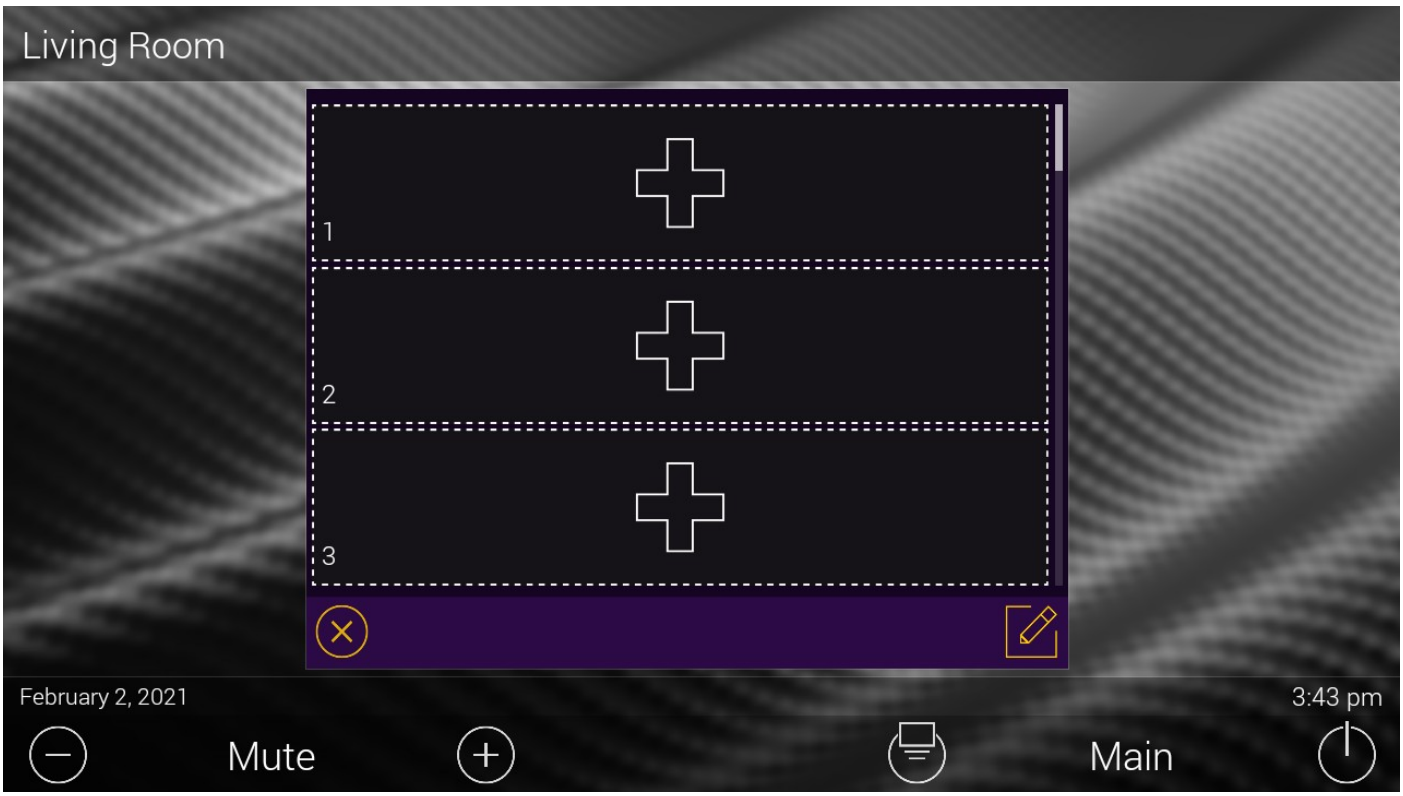
Each room can have as many C-Bus loads as you need added, arranged in a series of pages with three buttons per page. To move between the pages just swipe the screen up or down. At the bottom of every page are the cancel and edit buttons. The cancel button is on the bottom left and looks like a cross (X) in a circle. The edit button is at the bottom right and looks like a pencil surrounded by a box.

Please note that while it is possible to have an empty button on a page, you need to have at least one button before being able to move to a new page. For example, if you have configured two buttons on the first page you can leave the third blank and move to the next page to add a new button, but you wont be able to move to the next page until you've added at least one button to page 1.

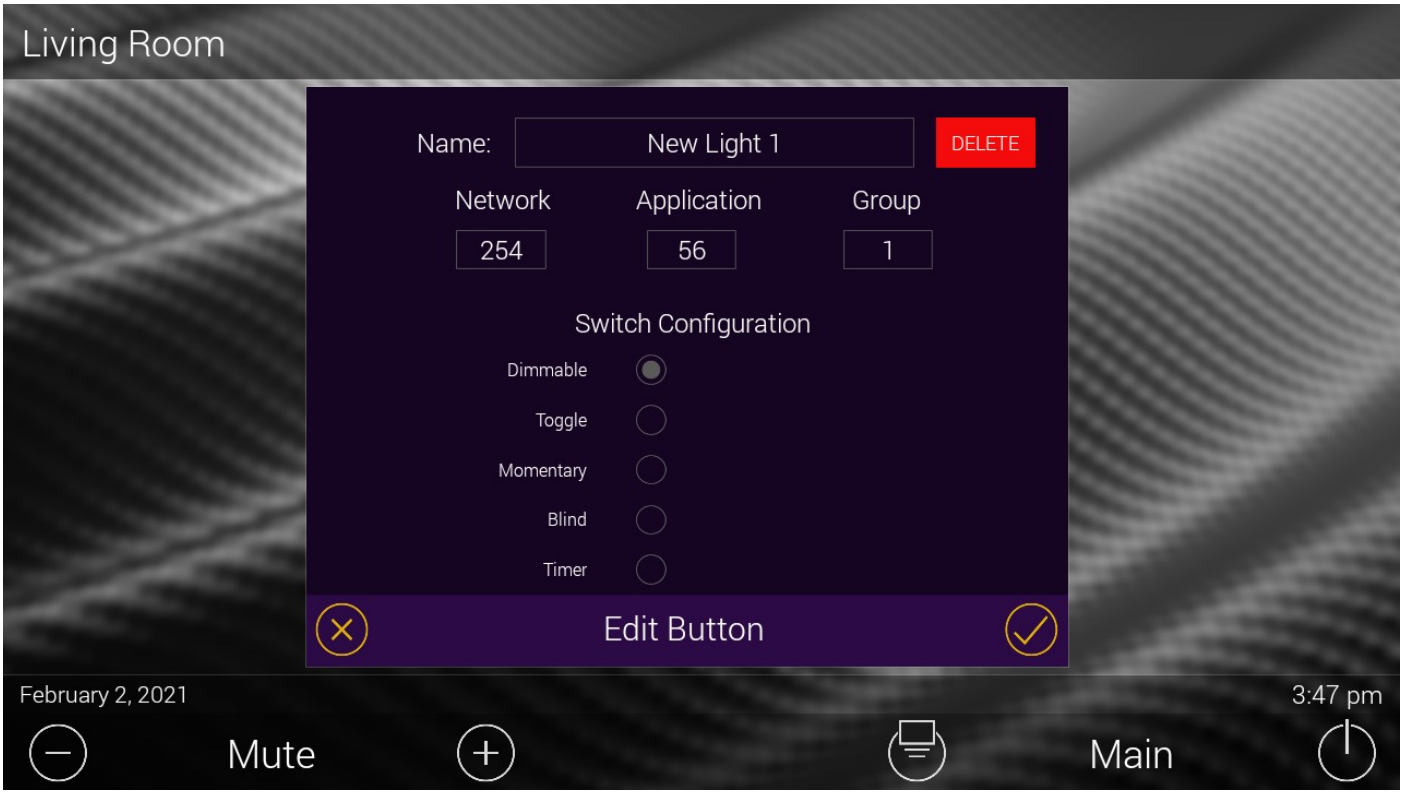
All of the changes you make will be saved to the processor and re-loaded when you next use the module.

First Load

For each room that you have added an Interface module some setup will be required in the user interface. When you first enter the room you will see the following screen.



The plus button indicates that you can add a load into that button. In the section below is talks about how to edit or remove a button as well. Pressing one of the plus buttons will give send you to the load configuration page shown below

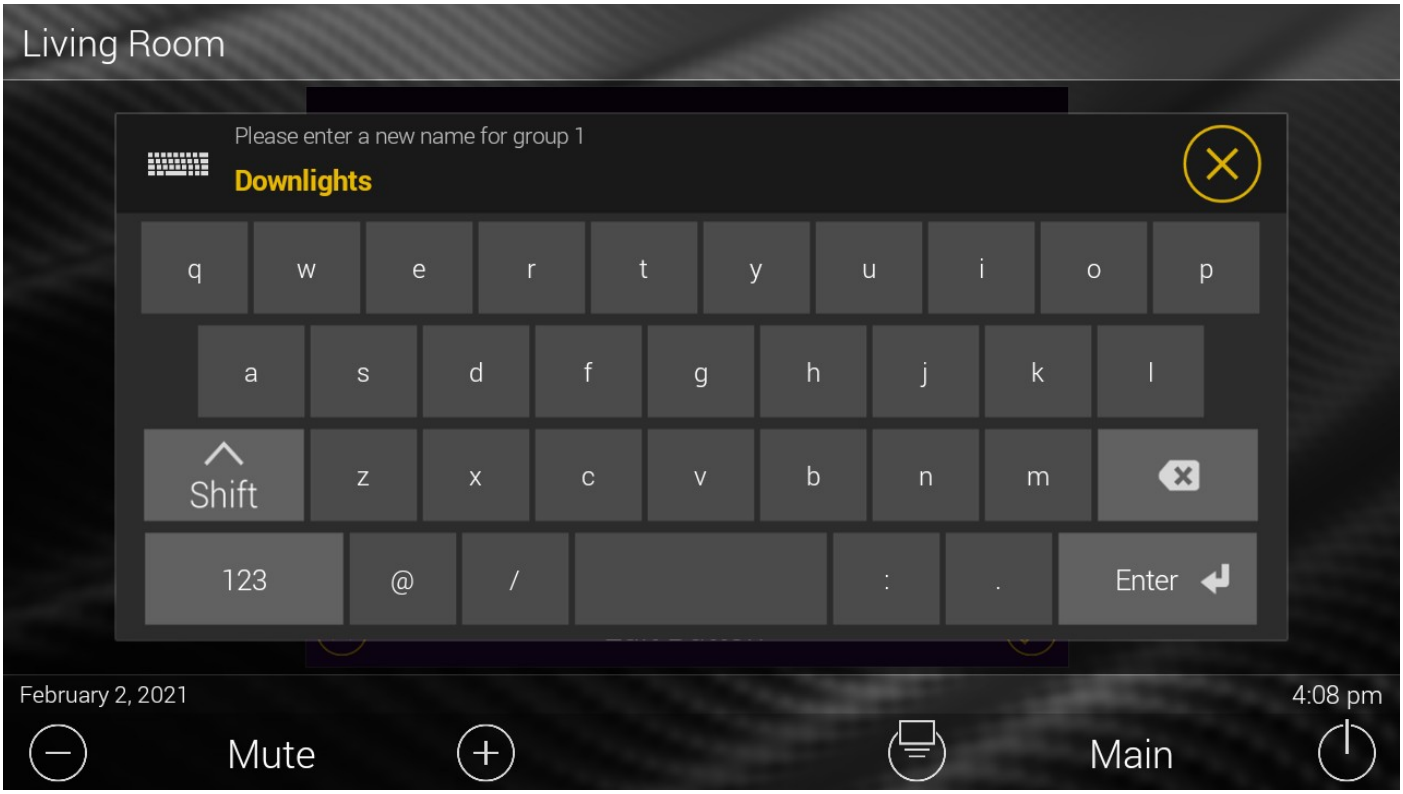


This lets you enter a name for the load and set the network, application and group address. It is important to make sure that the network address matches the CNI on the C-Bus network, and that you are connecting to the correct Core module.

Adding a Button

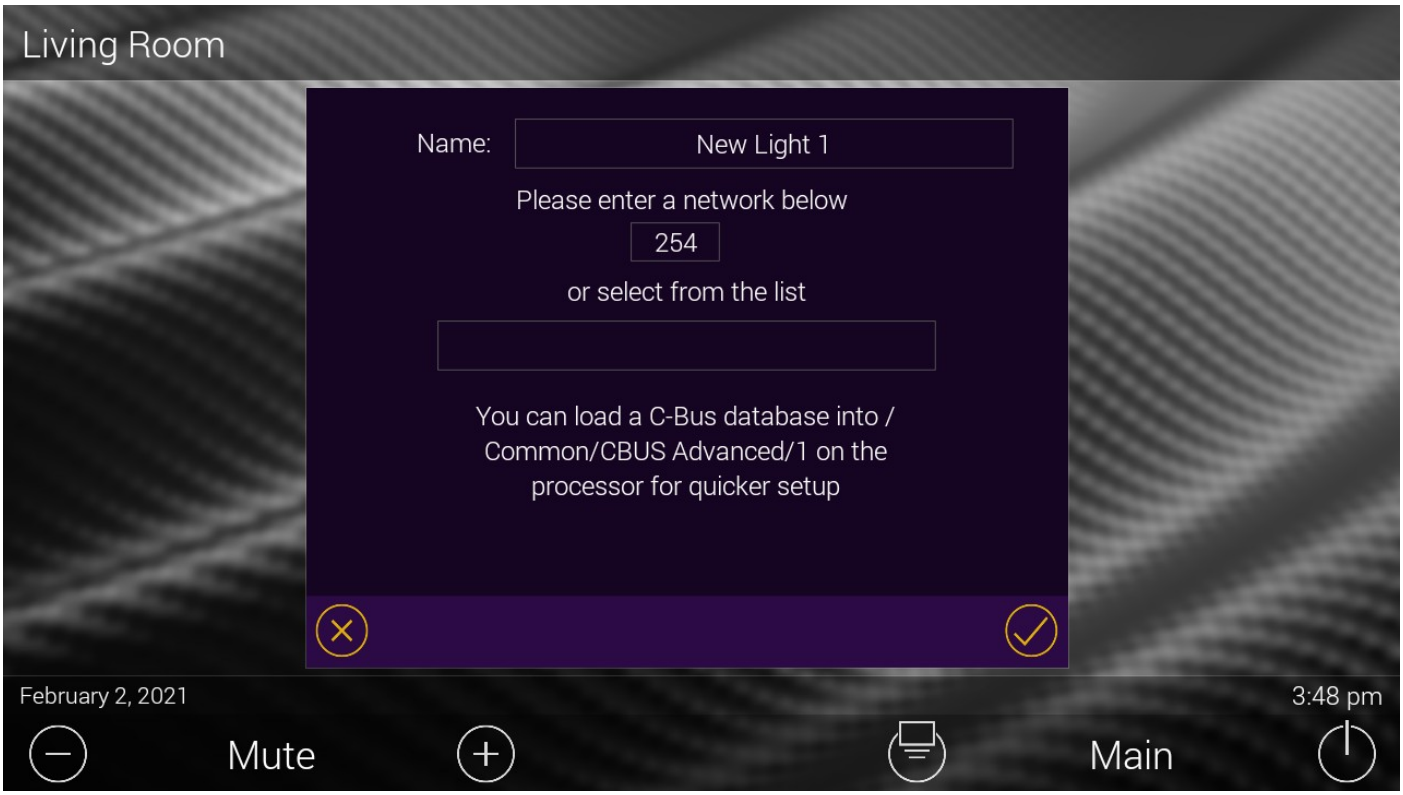
Setting the name

To edit the name simple press anywhere on the name field and you will be presented with a keyboard to type in a new name. When you have entered the name just press enter to save. If you change your mind you can press the cancel button (cross in a circle located on the bottom left) to leave without making any changes.



Setting the network

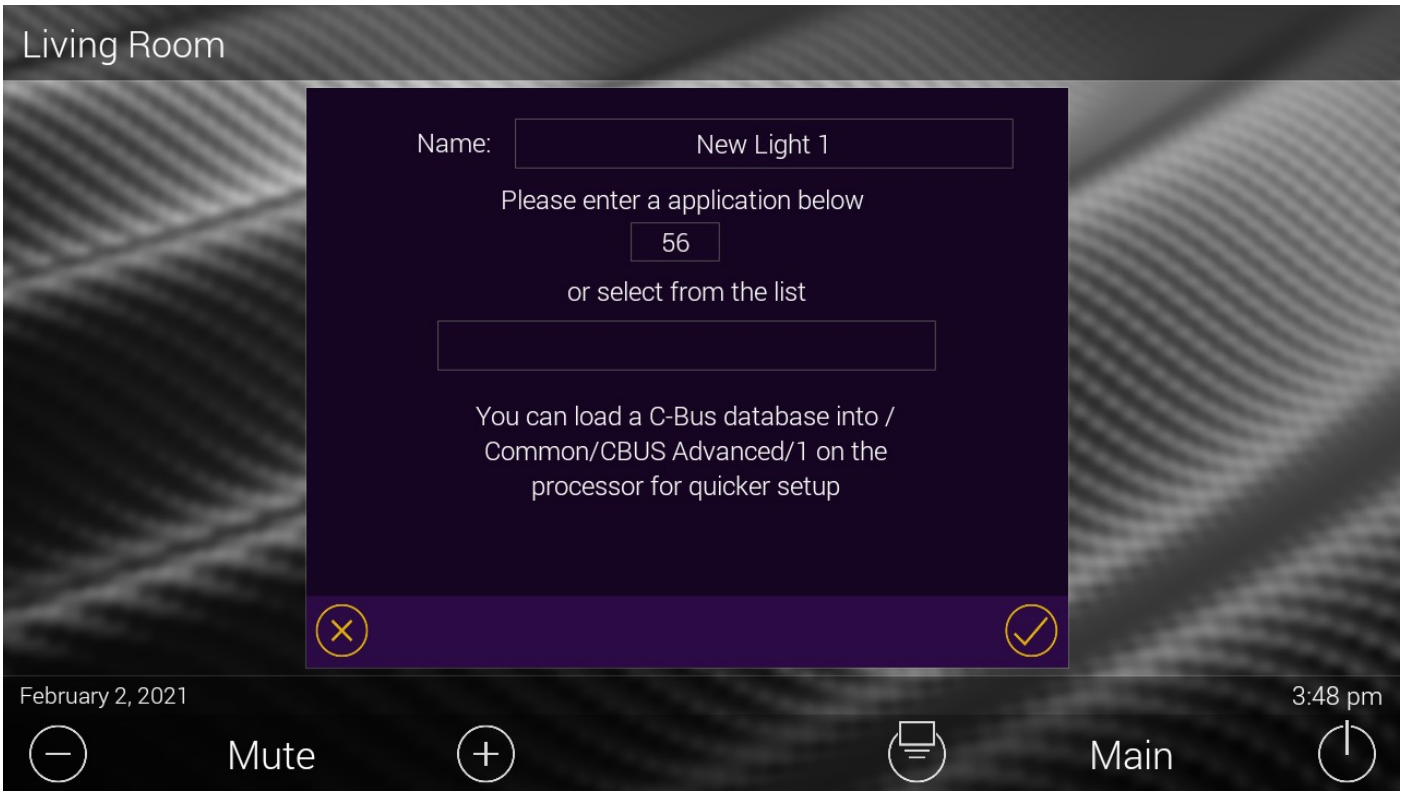
You can change the network, by pressing the network box. If the address is correct (it defaults to the standard C-Bus local network address of 254) then you can leave this step. When you press on the network address to change it you will see this screen.



You can change the address by pressing the network box again and typing in a new address. When you have entered the address just press enter to save. If you change your mind you can press the cancel button (cross in a circle located on the bottom left) to leave without making any changes.

Setting the Application

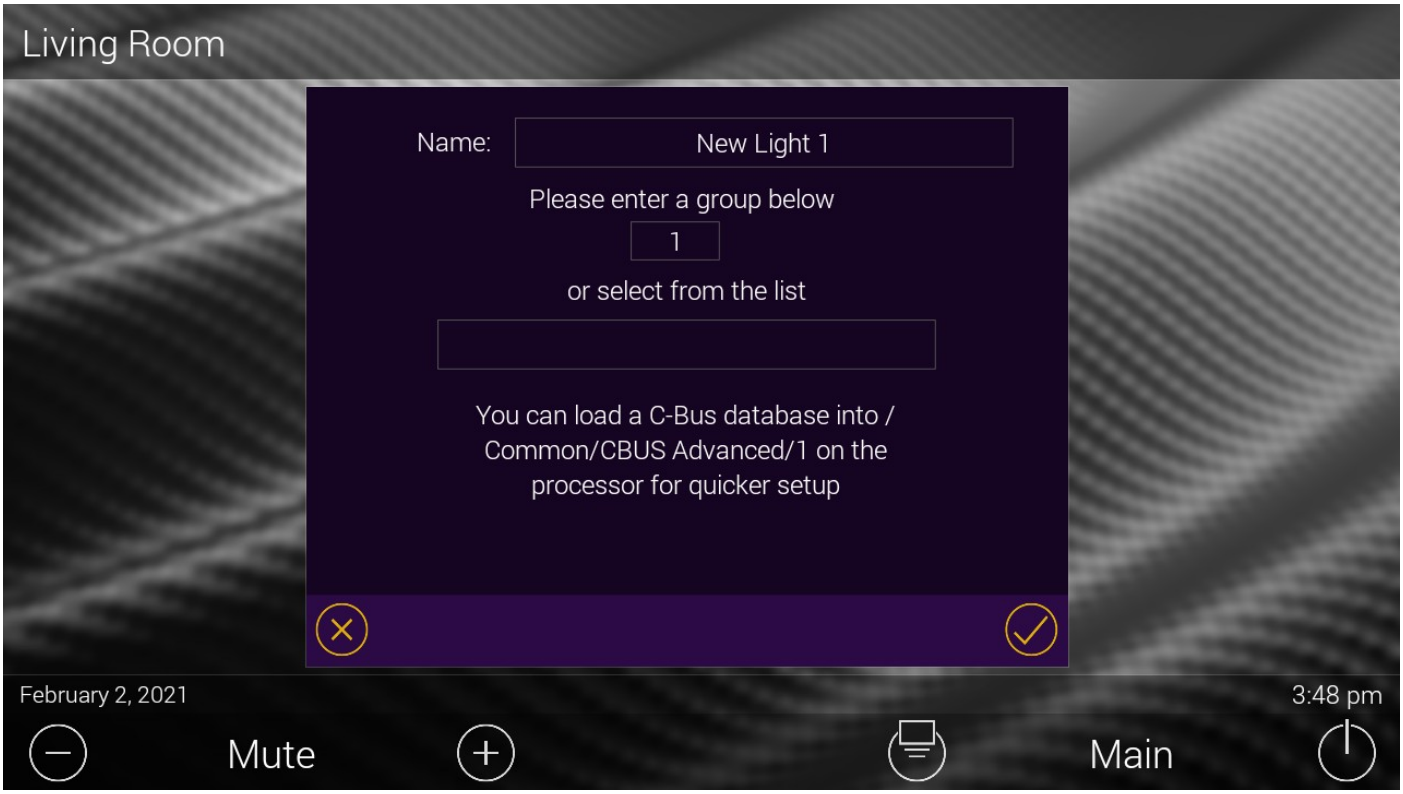
You can change the application, by pressing the application box. If the address is correct (it defaults to the standard C-Bus application address for lighting, 56) then you can leave this step. When you press on the application address to change it you will see this screen.



You can change the address by pressing the application box again and typing in a new address. When you have entered the address just press enter to save. If you change your mind you can press the cancel button (cross in a circle located on the bottom left) to leave without making any changes.

Setting the Group

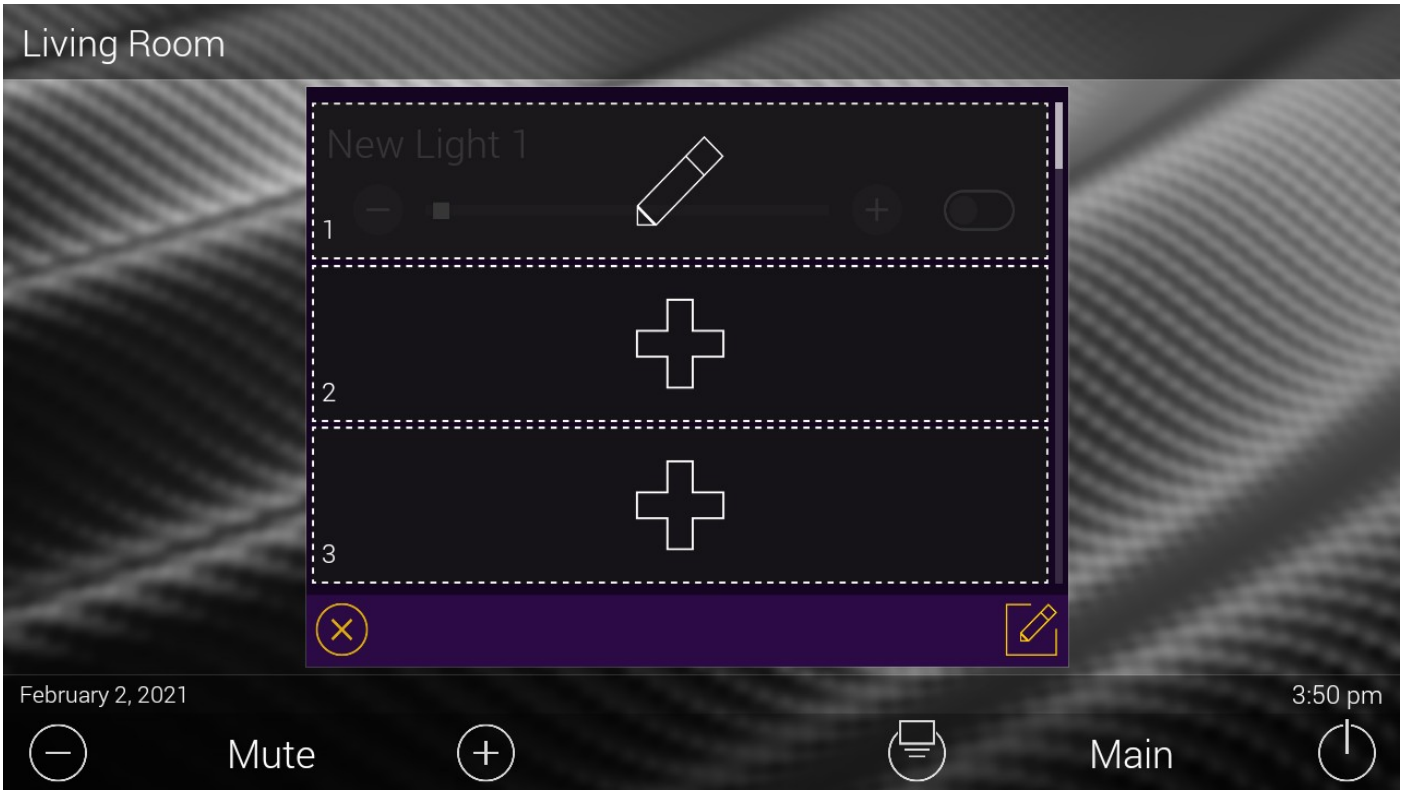
You can change the group, by pressing the group box. When you press on the group address to change it you will see this screen.



You can change the address by pressing the group box again and typing in a new address. When you have entered the address just press enter to save. If you change your mind you can press the cancel button (cross in a circle located on the bottom left) to leave without making any changes.

Editing a Button

If you have already created a button but want to make a change then you need to use edit function. To get to the edit page you need to press the edit button located at the bottom right of the screen. Once you are in the edit screen you will see something like this



The Plus button works as mentioned above to add a new C-Bus load, but you will noticed that the top two buttons have a pencil icon in the centre. This indicates that there is an existing C-Bus load already configured for this button. Pressing on the button will load the configured setting and allow you to change them, or delete the button.

System Parameters

Core Module

The C-Bus core module only requires a single parameter, but there are several available.

All system parameters are entered in the following format

```
KEY=VALUE
```

The following table details the system parameters that work with this module.

KEY	VALUE
LICENCE	The licence
MMI	Disable MMI scanning
DEBUG	Puts the module into its debug mode

Licence

The licence code you were givcen when you purchased the module.

MMI

By default the MMI scanning is enabled. MMI scans are regaular C-Bus messages that let the system know the current state of each group address. If you turn this off you will only see changes to the button state that have been generated after the module has been started.

```
MMI=OFF
```

Ethernet Reconnection Timer

There is a timer in place that regularly checks the ethernet link to the CNI and forces a reconnect if the connection gets lost. By default this check happens one every 60 seconds, but it can be configured using the CONNECTION_TIMER parameter. The time is in seconds.

```
CONNECTION_TIMER=120
```

Debug mode and logging

TO enable logs, you need to add the DEBUG parameter and set it to ON. This will write log files to the processor that can be retrieved via FTP. See the Logging section at the end of this document for details.

```
DEBUG=ON
```

Interface Modules

The Interface module takes a single parameter called AREA. The default is one but if you have more than one area it is a required setting. IT is best practice to set this parameter even if you are only using one area.

Room Name

Each interface module can have an name associated with it, that will get displayed at the bottomn of the page. IF no no is spcifiifed here then the name area will be blank.

```
NAME=Living Room
```

Two Way Commands

The C-Bus module has a number of Two Way commands that can be used to turn devices on and off as well as setting scenes. Several of these commands require a network address, but the module does not currently talk across networks, so all the command need to be on the connected network only. If the CNI is plugged in to network 254, the all of the Two Way Commands for that instance of the module also need to be on 254. Check out the Multiple Networks section of this document for more details.

Relay Command

The relay command allows you to turn on, off or toggle the group address you specify. The ON ans OFF controls set the load directly, the TOGGLE command checks the current state and sets the opposite. The command requires the group address, application address and the network.

Note the ON command sets the load to 100% as does the toggle from an Off state, so if you use this command with a dimmable load it will not restore to its previous dim level, but go straight to 100%.

Dimmer Command

The dimmer command allows you to a dimmable load to your desired level with a specified fade time. You will need to provide the group address, application and network address of the load you wish to control and then provide a dim level and fade rate.

Blind Control

The blind control two way command allows for control over a C-Bus shutter relay. You will need to provide the group address, application and network address of the blind you wish to control and then specify the action from the available UP, DOWN, STOP and TOGGLE DIRECTION.

Blind Level

The blind level two way command allows you to set the level of the specified blind that is connected to a C-Bus shutter relay. You will need to provide the group address, application and network address of the blind you wish to control and then specify the level you wish to set the blind to.

Device Events

Group Address State

The Group Address State event will trigger when the state of the specified group changes to the one specified in the event. You can trigger on the group turning ON or turning OFF. Note, that if this is a dimmable load, any level over 0 is considered to be ON.

CHANGELOG

Version 1.2.3

- Beta Release

Version 1.3.0

- Added momentary and timer button types

Version 1.3.1

- Fixed issue with screen starting in edit mode