ADEO CONTROL SGDD-C4-3
SERVER GATEWAY DMX & DALI

INSTALLATION AND USAGE GUIDE

RoHS COMPLIANT

RoHS
DMX RDM
DALI
-40°C +60°C
12V 24V 48V
CPU
32 BIT
5 YEARS WARRANTY

V3
July 2019

Contents

1. Application

New Adeo Server Gateway SGDD-C4-3 is a multi-output device which operates on network level and allows to carry data packs toward fieldbus communication systems such as DMX512 and DALI, so as to provide an advanced light control. Once you have assigned the IP address on Composer, SGDD-C4-3 through specific driver, is capable of handling the single channel or RGB via DMX or DALI. The communication is bidirectional, so we will always have the status of the lights on Control4 interface. In addition, the MODBUS port can become a second DMX port to be connected to external control units.
The device SGDD-C4-3 acquires the information coming from bus configured in reception in a buffer and transmits them to the bus configured for transmission. In the default configuration is handled a single buffer, corresponding to a DMX universe, which is controlled via the Ethernet interface. The DMX bus transmits entirely the 512 channels of the buffer; on the DALI bus is sent the first 64 channels of the buffer (64 short address) according to an algorithm that updates more frequently the channels that vary more rapidly. This default configuration allows to manage, with any central control that has ethernet connection, a total of 512 levels of intensity of light and to control different devices without needing to know in detail the functioning of the related protocols (DMX or DALI).
Particularly, it allows DMX/DALI conversion in installation where DMX and DALI fixtures are used side by side. Supply voltage is from 12 to 48V DC.
SGDD-C4-3 provides, by an integrated flash memory, a WEB SERVER interface on which a standard application is loaded; this application allows to set up or analyse data in real time by PC, Tablet or Smartphone. With SGDD-C4-3 is possible to perform an advanced light control on network level, with the advantage to communicate between different communication bus in a intelligent mode. In fact, SGDD-C4-3 is responsible for a transparent data management and bus interface and this allows an easier system configuration.

2. *Technical Notes*

Installation:
• Installation and maintenance must be performed only by qualified personnel in compliance with current regulations.
• The product must be installed inside an electrical panel protected against over voltages.
• The product must be installed in a vertical or horizontal position with the cover / label upwards or vertically; other positions are not permitted. It is not permitted the bottom-up position (with the lower face plate / label).
• Keep separate the 230V circuits (LV) and not SELV circuits from safety extra low voltage (SELV) and all connections for this product. It's absolutely forbidden to connect, for any reason, directly or indirectly, the 230V mains voltage to the bus or to other parts of the circuit.

Power Supply:
• For power supply use only SELV power supplies with limited current and short circuit protection, and of appropriately sized power. In case of power supplies provided with an earth terminal, ALL protective earthing points (PE = Protection Earth) must be connected to a valid protection earth.
• The connection cables between the power source and the product must be sized properly and should be isolated from any wiring or live parts not SELV. Use double insulated cables.

Commands:
• The length of the connecting cables between the local controls (push button, 0-10V, 1-10V, potentiometer, or other) and the product must be less than 10m; the cables must be sized properly and should be isolated from any wiring or live parts not SELV. Use double insulation shielded and twisted cables.
• The length and type of the bus cables (DMX512, Modbus, DALI, Ethernet or other) must comply with the specifications defined by the respective protocols and the respective regulations; They should be isolated from any wiring or live parts not SELV. Use shielded cables and twisted double insulation.
• All devices and related control signals to the bus (DMX512, Modbus, DALI, Ethernet or other) and to the local controls (push button, 0-10V, 1-10V, potentiometer, or other) must be SELV (connected devices must be SELV or otherwise provide a SELV signal).

Moreover
• The device addresses DALI
• The Gateway powers the communication bus and cannot co-exist with other controllers
• The Gateway can only receive commands via IP (Control4) and divert them to the 512 available channels, regardless of the type of bus

3. *Features*

Power supply	12-24-48 Vdc
Bus ETHERNET	10/100 Mbit
Bus DMX 512	512 slots NSC, SIP, RDM
Bus DALI	64 channels, built in 125mA power supply

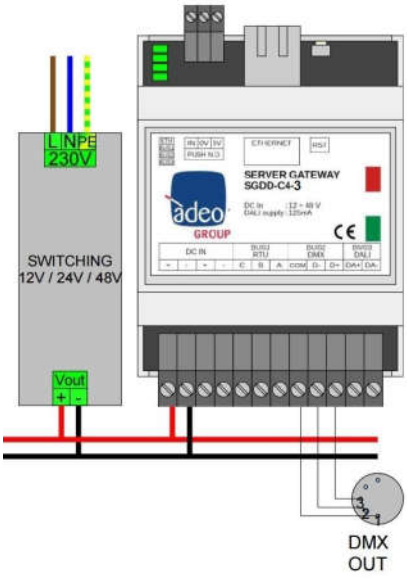
Reference Standards

IEC 61547	Equipment for general lighting purposes - EMC immunity requirements
IEC 61000-3-2	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
EN 55015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
IEC/EN 62386-101	Digital addressable lighting interface - Part 101: General requirements - System
IEC/EN 62386-102	Digital addressable lighting interface - Part 102: General requirements - Control gear
IEC/EN 62386-207	Digital addressable lighting interface - Part 207: Particular requirements for control gear - LED modules (device type 6)
ANSI E 1.3	Entertainment Technology - Lighting Control Systems - 0 to 10V Analog Control Specification
ANSI E1.11	Entertainment Technology - USITT DMX512-A - Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories
ANSI E1.20	Entertainment Technology-RDM-Remote Device Management over USITT DMX512 Networks

Technical Specifications

Supply Voltage	min: 10.8 Vdc .. max: 50,2 Vdc
Input Current	<table><tr><th>voltage</th><th>min</th><th>Typ*</th><th>max</th></tr><tr><td>@ 12Vdc</td><td>110mA (1,2W)</td><td>320mA (3,84W)</td><td rowspan="3">500mA</td></tr><tr><td>@ 24Vdc</td><td>60mA (1,44W)</td><td>160mA (3,84W)</td></tr><tr><td>@ 48Vdc</td><td>40mA (1,92W)</td><td>80mA (3,84W)</td></tr></table> *ethernet and all bus at full load
Storage temperature	min: -40 max: +60 °C
Working temperature	min: -40 max: +40 °C
Protection Grade	ALUMINIUM BOX: IP20 - PLASTIC BOX IP10
Weigth	ALUMINIUM BOX: 230g - PLASTIC BOX 125g
Mechanical dimensions	ALUMINIUM BOX: 105x70x47 - PLASTIC BOX: DIN RAIL 4mod.
ETHERNET	10/100 Mbit baseT FULL DUPLEX AUTO NEGOTIATION
DMX	NSC 512 slots Max units: 32 standard or 128 DALCNET (it depends on the wiring) open fail safe - short fail safe
DALI	Max 64 units, built-in 125mA power supply

4. Installation



Terminal block

Pin				
1	Vin			Vin+
2				Vin-
3				Vin+
4				Vin-
5	Modbus 1	C	DMX 1	Com
6		B		D-
7		A		D+
8	Modbus 2	C	DMX 2	Com
9		B		D-
10		A		D+
11	DALI			DA (+)
12				DA (-)

ETHERNET (Plug 8P8C)

Pin	RJ45/A (RJ45/B crossed)	RJ45/B (RJ45/A crossed)
1	White/Green	White/Orange
2	Green	Orange
3	White/Orange	White/Green
4	Blue	Blue
5	White/Blue	White/Blue
6	Orange	Green
7	White/Brown	White/Brown
8	Brown	Brown

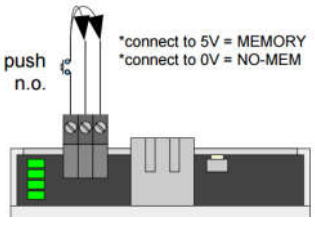
Configurazione / Configuration
RST BUTTON:
Press < 0.5s = reboot & switch to bootloader
Press > 4s = factory default

LED	FUNCTION	ON	BLINK	FAST BLINK	OFF
LED1 (top)	Ethernet	OK	NO Communication	-	Error
LED2	BUS1 (DMX/RTU)	OK	NO Communication	-	Error
LED3	BUS2 (DMX/RTU)	OK	NO Communication	-	Error
LED4 (bottom)	BUS DALI	OK	NO Communication	-	No power or short circuit

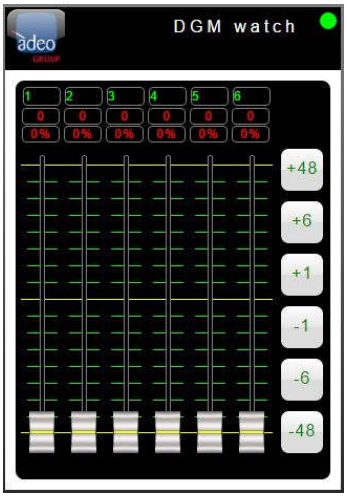
5. Local Button

The device has a local contact (normally open) which allows the use in stand-alone mode. This function, in addition to being a further possibility to manage the spot lights, is particularly useful to carry out a local test of the device and fixtures that are connected with, making on/off/dimmer function of the spot lights in broadcasting mode.

Pulsante - Key	Funzione - Function
Click	ON/OFF
Click Double	Maximum intensity
Click Long pression (>1s) from OFF	Turn ON at 10% (night)
Long pression (>1s) from ON	Dimmer UP/DOWN



6. *Web Server (Ethernet)*



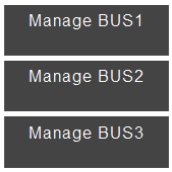
SGDD-C4-3 provides a WebApp of supervision and of setting of all available channels, which can be used from every modern device with an HTML5 capable browser. A window with 6 visible channels is displayed. All channels can be scrolled.
NOTE: It is necessary to use an HTML-5, CSS-3 ,JS, XHR, CORS, JSON, ArrayBuffer compliant browser to correctly access to the available services and applications.

DEFAULT IP ADDRESS: 192.168.1.4

From the main page, by clicking on the logo on the top left, you enter the page that contains information about the device. On this page you can select the following functions:

- **Save Powerup Channels**: Save the current channels as a power on value.
- **Load Powerup Channels**: Reload the power on values.
- **BUS Manager**: Enter the management menu of the devices connected to the BUSes.
- **Device Config**: Enter the SGDD-C4-3 configuration menu.

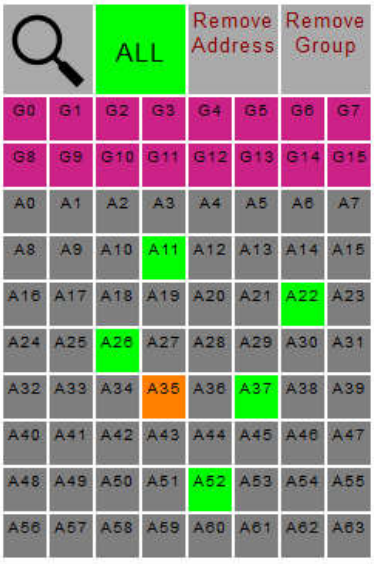
7. *Bus Manager DALI*



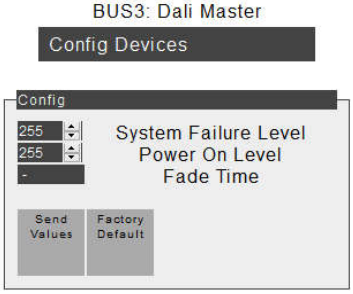
Enter in Bus 3 management page to manage the DALI addresses. When the bus is set as master DALI you can: monitor, direct and manage the connected DALI devices.

"RUN Gateway" feature
In this mode is active normal operation of the gateway and you can view the status of connected devices:

- **GREY**: the device is not present (or not respond)
- **GREEN**: the device works properly
- **ORANGE**: the device works properly, the light source may be disconnected or not working properly.
- **RED**: there are communication errors, or more devices respond at the same address.



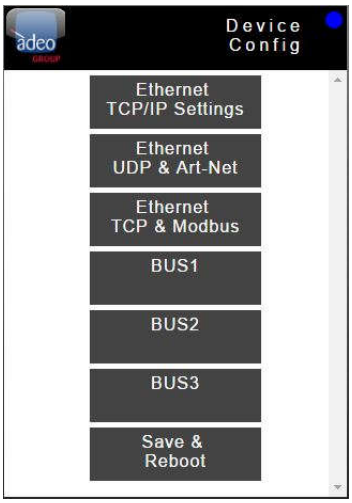
"Address Devices" function
In this mode it is interrupted the normal operation of the gateway, and you can target and display the status of connected devices.
The "ALL" box turns GREEN when at least one device is connected and responds (whether it is already addressed or not)
Note: During the execution of commands the screen becomes translucent.
ADDRESSING
Press the box with the lens. The waiting time can be a few minutes, depending on the type and number of devices connected.
DELETE ADDRESS
Drag the "ALL" box "Remove Address"
CHANGE ADDRESS
Drag the current address box to the one chosen
ADDING TO A GROUP
Drag the current address box on the chosen group
REMOVAL FROM A GROUP
Drag the current address box to "Remove Group"



"Config Devices" Function
In this mode it is interrupted the normal operation of the gateway, and it can be transmitted in broadcast some parameters or return the parameters to the factory value.
Note: During the execution of commands the screen becomes translucent.

SEND PARAMETERS
Press the "Send values" box
RESET PARAMETERS
Press the "Factory Default" box

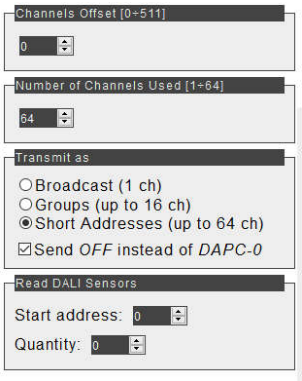
8. *Device Config*



Device Config
SGDD-C4-3 provides a WebApp for the configuration of IP address, of the network protocols of the bus, on the page *config.html*.
Push the related button to enter the configuration pages and logo to exit.
To activate and memorize the settings push “Save and Reboot” button and wait for SGDD-C4-3 restart.
Each BUS can be set-up as input, output or disabled.

See "12. Before programming ” page 12

NOTE: The "Bus3" can be used to set the DALI settings and explained afterwards.



Device Config: BUS3
SGDD-C4-3 provides a bus that has be set-up as DALI CONTROLLER (MASTER).
DALI power supply is integrated, for which it is not possible to use external power supplies for the bus.
SGDD-C4-3 transmits DALI channels according to an algorithm that updates more frequently the channels that vary more rapidly.
Within the universe an offset can be assigned to the 64 DALI channels. It is possible to choose whether to send commands:

- **Broadcast (1 ch)**, only 1 channel used for all DALI devices (1 single assignable channel on Composer = 1 slider on Navigator)
- **Groups (up to 16 ch)**, manageable from 1 to 16 DALI groups (16 channels / groups assignable on Composer = 1 slider on Navigator)
- **Short Address (up to 64 ch)**, manageable from 1 to 64 DALI addresses (64 channels assignable to Composer = 64 slider in Navigator)

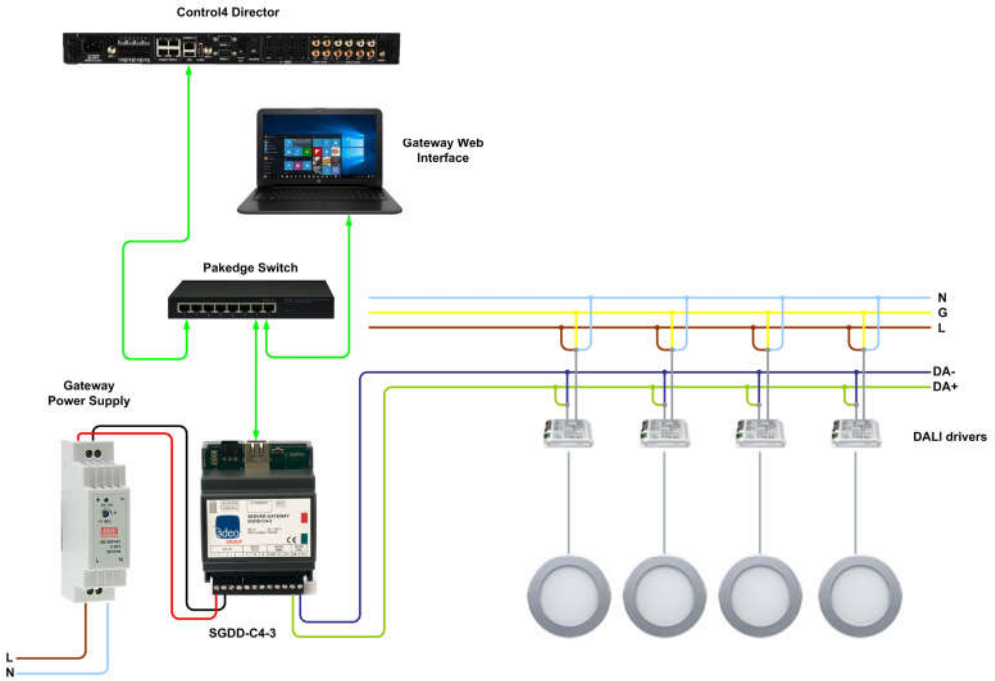
See “19 Tips & Tricks #1 and #2” page 19

9. Control4 Integration

- The gateway comes with free drivers and works only with the SGDD-C4-3.
- The gateway runs simultaneously DMX and DALI bus.
- The gateway supports RampToLevel directly in hardware manner.
- The 512 channels are combined with the lights/relay driver in Connection.
- You can send broadcast commands directly from the gateway driver.
- The lights drivers support the Control4 Advanced Lighting.
- All drivers support the OS3 (v230)
- All update Driver are for free here

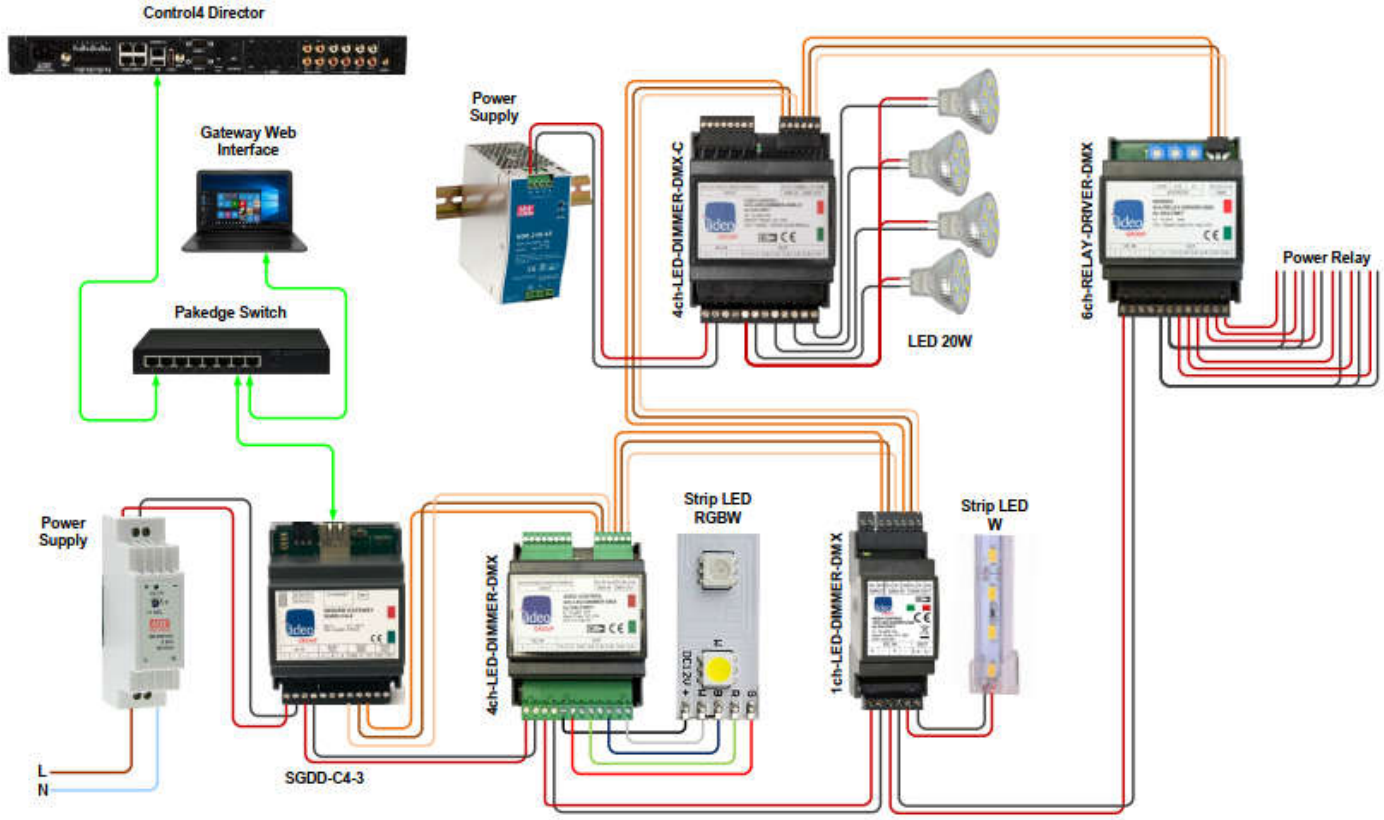
https://drivercentral.io/platforms/control4-drivers/lighting/ip-gateway-dali-dmx-by-adeo/

10. DALI Integration Example



N° DALI DEVICES	DALI Channels	N° SGDD-C4-3
1->64	64	1
65->128	128	2
129->192	192	3
193->256	256	4
257->320	320	5

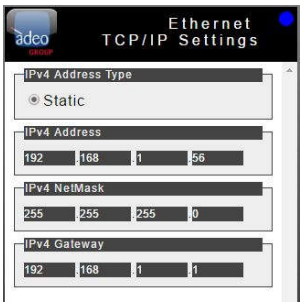
11. DMX Integration Example with Adeo Control devices



N° DMX DEVICES	DMX Channels	N° SGDD-C4-3
1->512	512	1
170 RGB Strip Led	510	1
128 RGBW Stri Led	512	1
128 4ch-LED-DIMMER-DMX	512	1

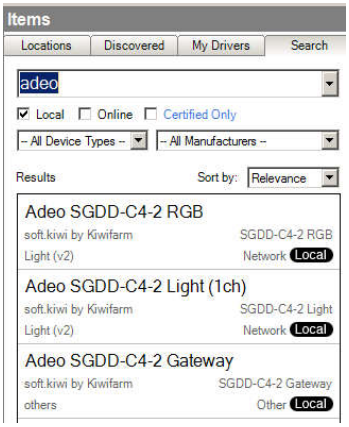
Any DMX hardware can be used. Adeo obviously recommends **Adeo Control** products!

12. *Before Programming*



From **Device Config**, **Ethernet TCP/IP Settings** you can change the network settings.
The default IP address is static and set on: **192.168.1.4**
Set the IP Address that must be the same in Composer
Leave the other sections.

13. *Drivers*



Drivers are free and are developed from Kiwifarm for Adeo Group, available here:
https://drivercentral.io/platforms/control4-drivers/lighting/ip-gateway-dali-dmx-by-adeo/

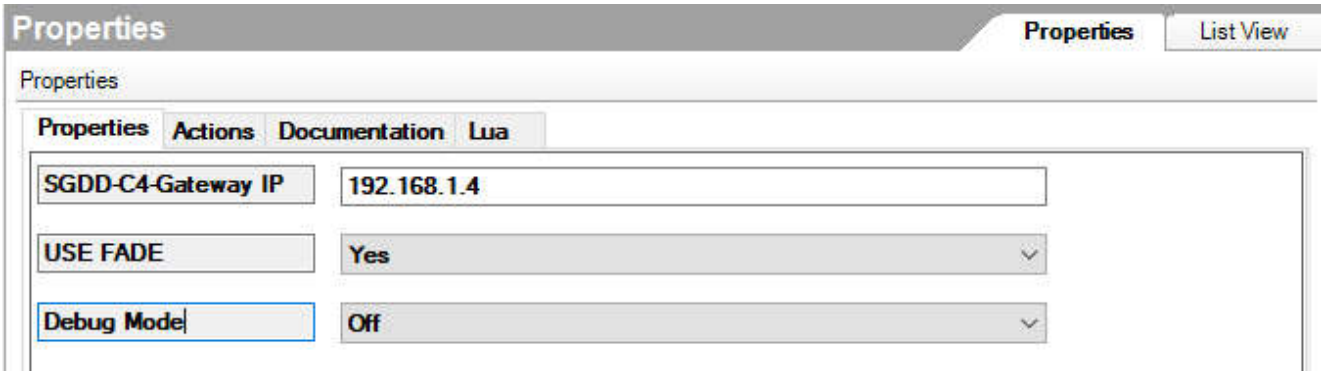
Drivers:

1.Adeo Control SGDD-C4-3 Gateway	**AdeoSGDD-C4_Gateway.c4z**
2.Adeo Control SGDD-C4-3 Dimmable Light (1ch)	**AdeoSGDD-C4_Light.c4z**
3.Adeo Control SGDD-C4-3 HSV Dimmable Colour (RGB)	**AdeoSGDD-C4_HSV.c4z**
4.Adeo Control SGDD-C4-3 RGB Non-Dimmable Light	**AdeoSGDD-C4_RGB.c4z**
5.Adeo Control SGDD-C4-3 6ch Relay	**AdeoSGDD-C4_Relay.c4z**

Copy the drivers file to directory *Documents/Control4/Drivers* created by Composer Pro. Using folder tab “Search” in System Design add driver to list of devices in the project. Check “Local”.
Last version: 230

14. *Adeo Control SGDD-C4-3 Gateway (AdeoSGDD-C4_Gateway.c4z)*

System Design



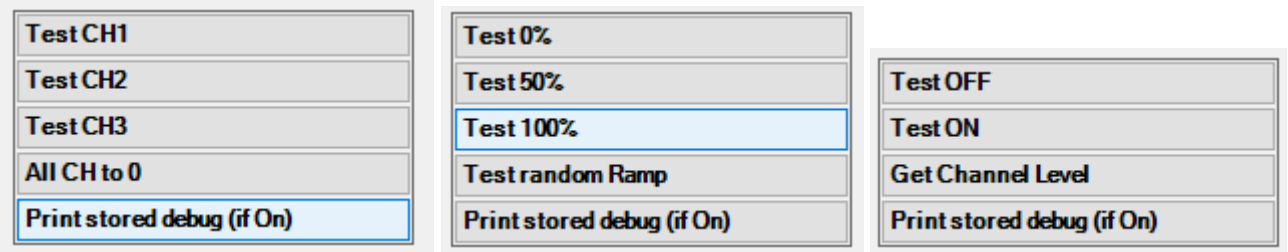
SGDD-C4-Gateway IP Driver not needs special settings. You only need to set the correct IP Address

USE FADE The need to introduce the direct "set" command, without the use of a ramp, was necessary as some devices do not support the reception of continuous commands, typical of fade / ramping variations. In particular, if these devices receive unsupported commands they show uncontrolled behaviours and provide incorrect feedback to the physical gateway.
This property acts on the communication protocol used between the Control4 driver-gateway and the SGDD-C4-3:

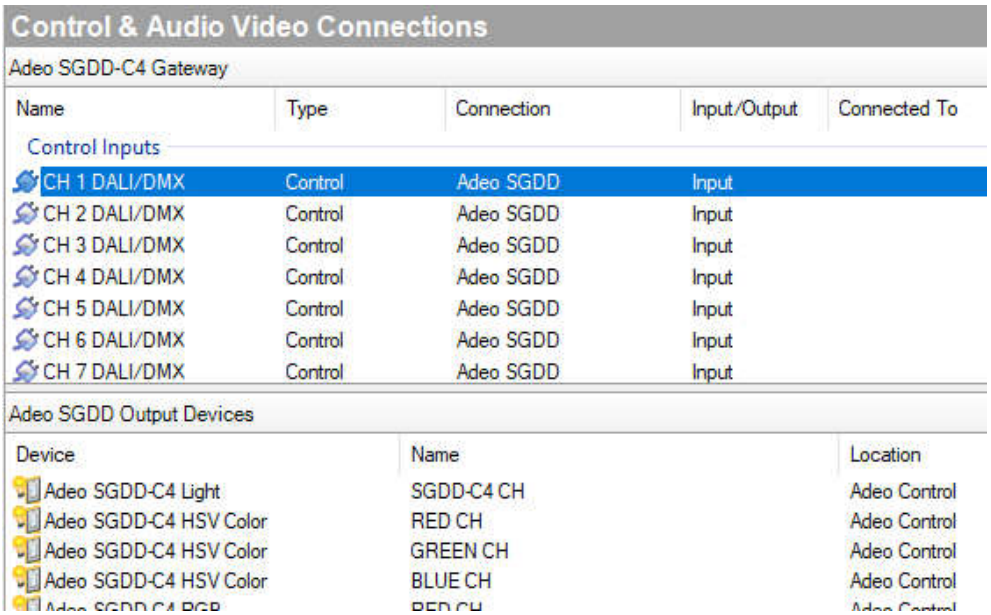
- yes: all the commands sent by the driver to the physical gateway are fade / ramping commands with a minimum time of 100 ms.
- no: the driver sends “set” commands to the physical gateway (without fade / ramping)

In **Actions** tab is possible to test the correct communication, in every drivers, between Control4 and the gateway.

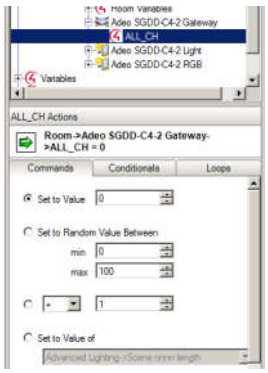
Example



Connections



The driver displays all the 512 available channels. Assign channels to the lights Driver (drag and drop).
First 64 channels could be DALI/DMX. From 65 -> only DMX. You can assign more channels at the same driver.

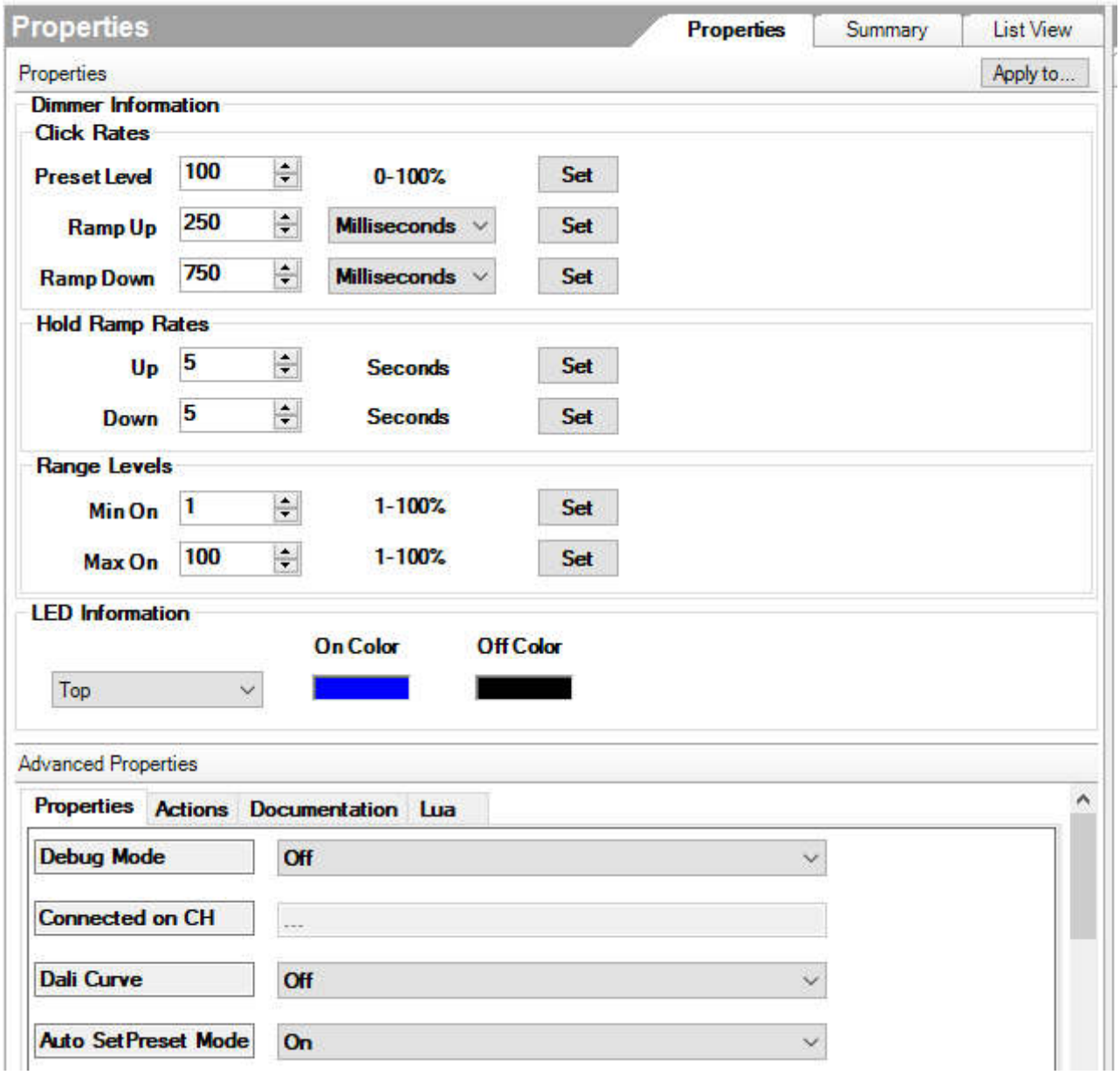


Programming

In **Programming**, with ALL_CH variable is possible to control all channel at same time (set val from 0 to 100%)

15. *Adeo Control SGDD-C4-3 Dimmable Light (1ch) (AdeoSGDD-C4_Light.c4z)*

System Design



Use light as V2 dimmable light. Advanced Lighting scene and keypad are supported

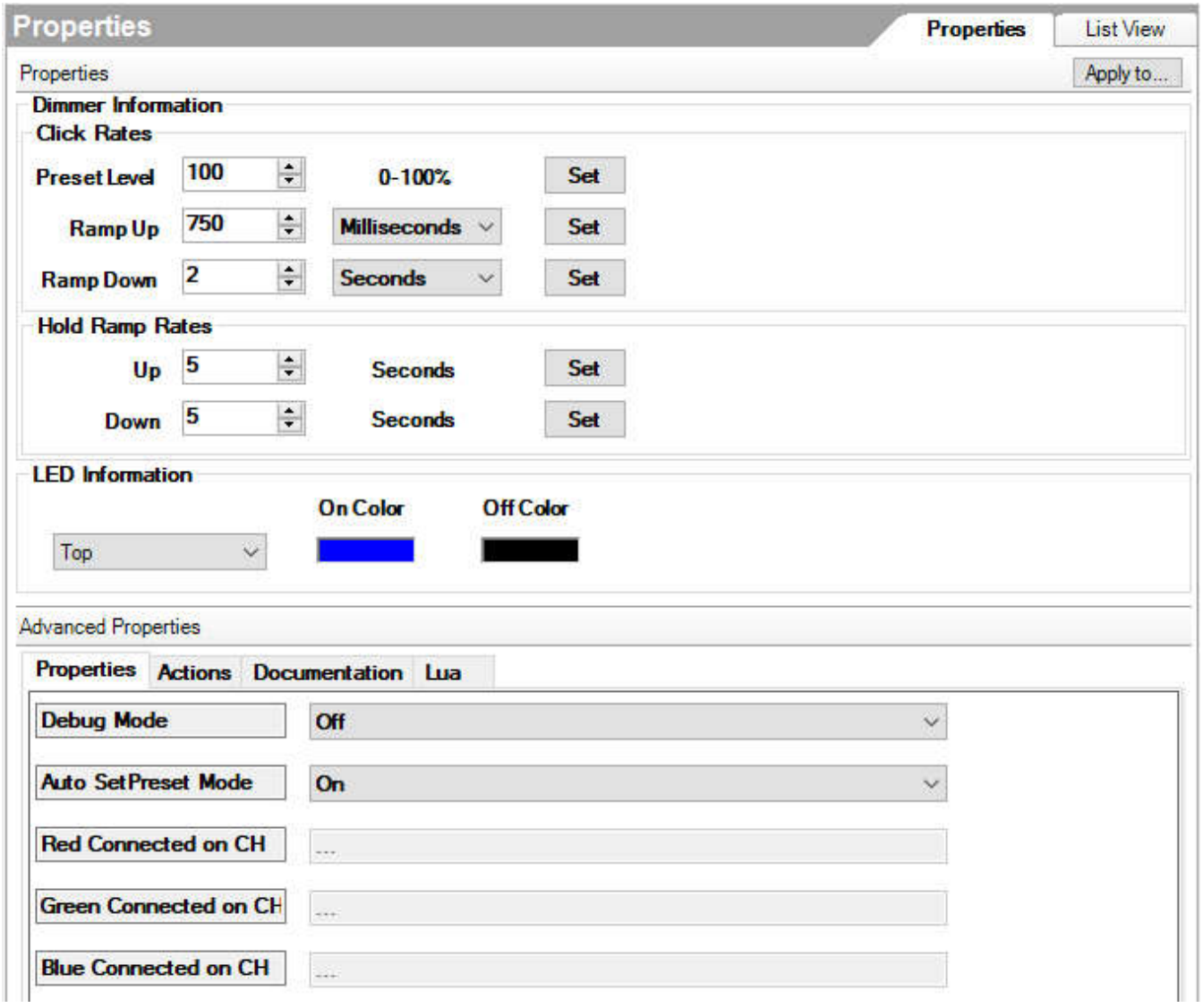
Connected on CH	Automatically show the channel assigned in **Connections**
Dali Curve	**Off** to maintain a linear dimming (DMX type) **On** to take advantage of the DALI logarithmic dimming
Auto SetPreset Mode	**Off** to exclude the storage of the last status of the light before switching off **On** to memorize the last state of the light before switching off

See "19 Tips & Tricks #4" page 19

16. *Adeo Control SGDD-C4-3 HSV Dimmable Colour (RGB) (AdeoSGDD-C4_HSV.c4z)*

System Design

The driver allows you to have a single slider (dimmer type) for the RGB colour selection.

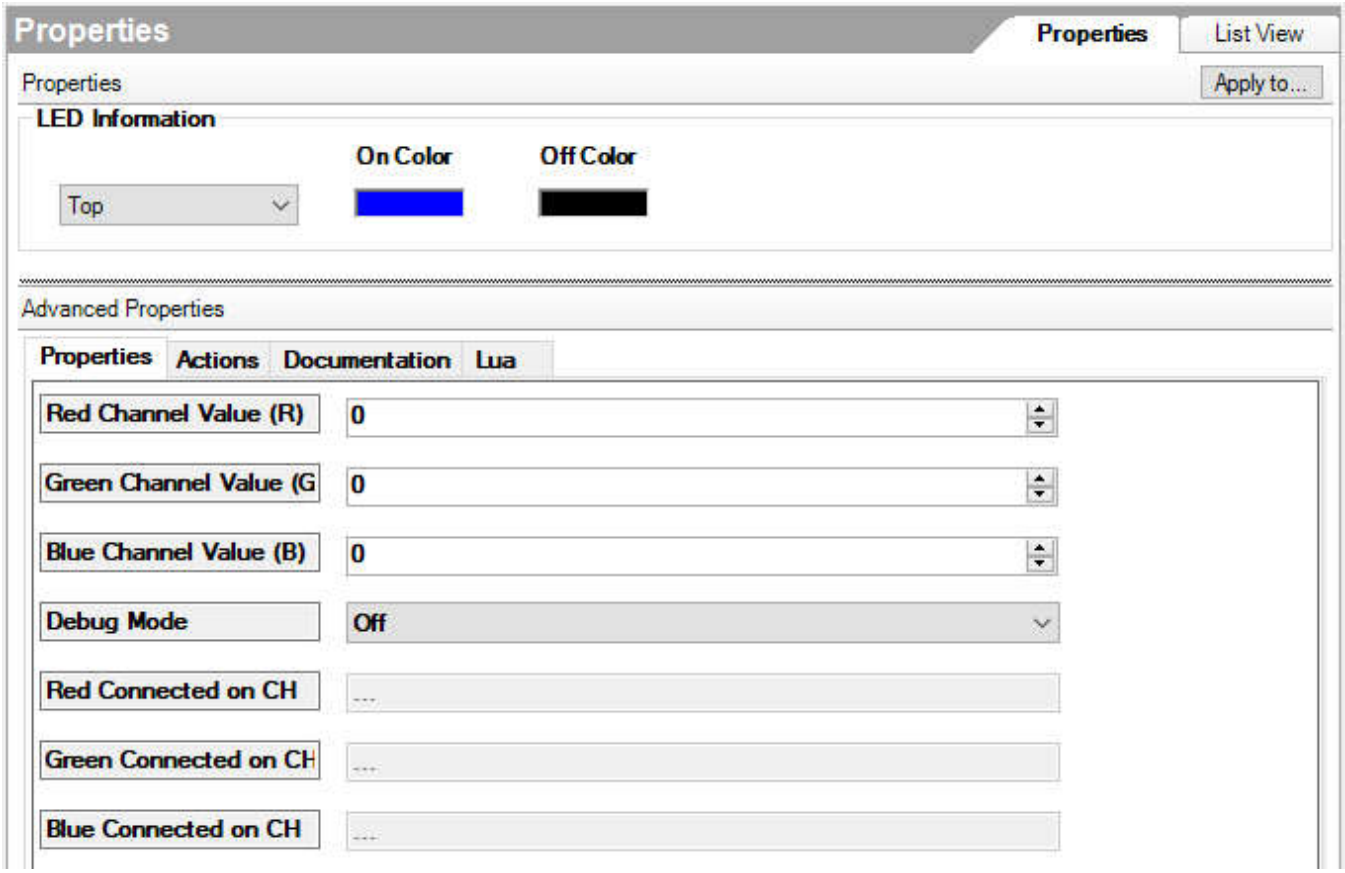


Use light as V2 dimmable light. Advanced Lighting scene and keypad are supported

Auto SetPreset Mode	**Off** to exclude the storage of the last status of the light before switching off **On** to memorize the last state of the light before switching off
XXX Connected on CH	Automatically show the channel assigned in **Connections**

17. *Adeo Control SGDD-C4-3 RGB Non-Dimmable Light (AdeoSGDD-C4_RGB.c4z)*

System Design



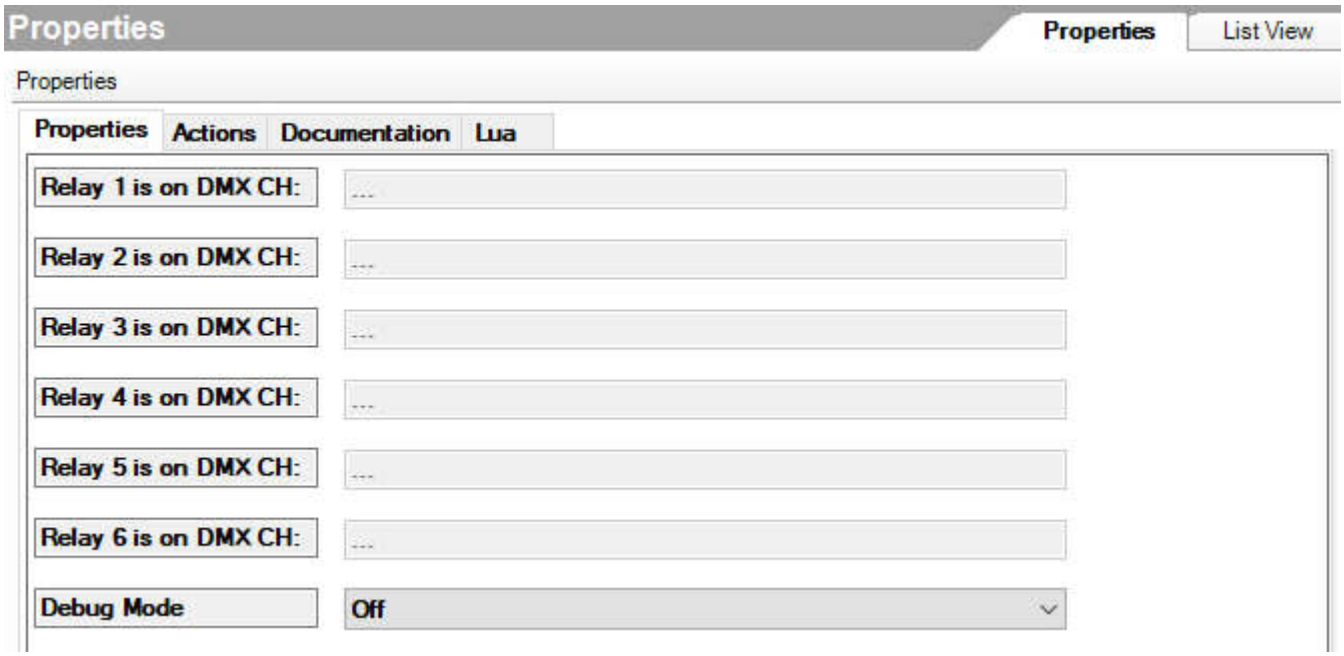
Use light as V2 non-dimmable light. Advanced Lighting scene and keypad are supported

XXX Channel Value Select the combination of values to get the desired RGB colour
XXX Connected on CH Automatically show the channel assigned in **Connections**

See "19 Tips & Tricks #3" page 19

18. *Adeo Control SGDD-C4-3 6ch Relay (AdeoSGDD-C4_Relay.c4z)*

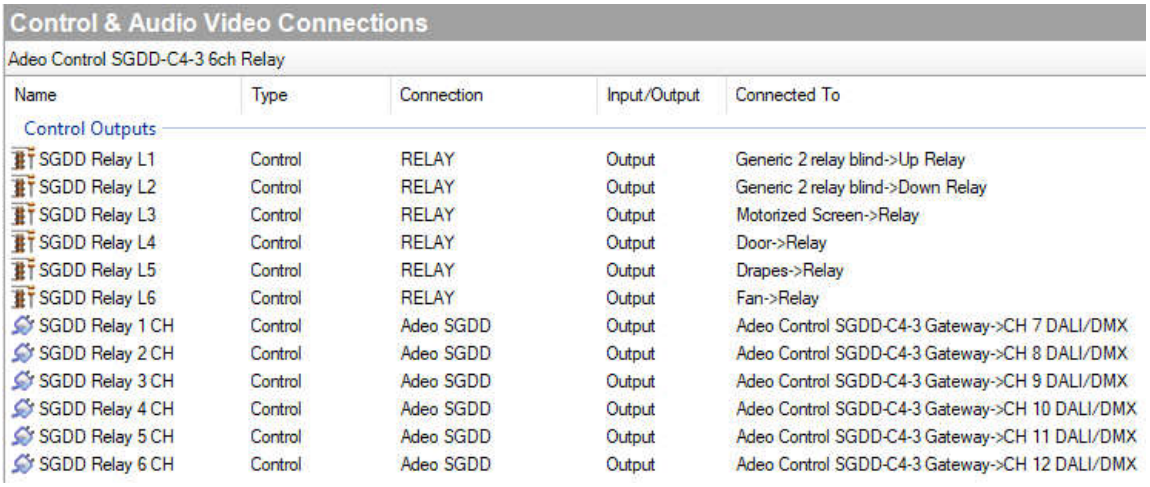
System Design



XXX Connected on CH Automatically show the channel assigned in **Connections**

Connections

Assign channels to the Relay Driver (drag and drop). In addition, assign the Relay Output for motorizations.

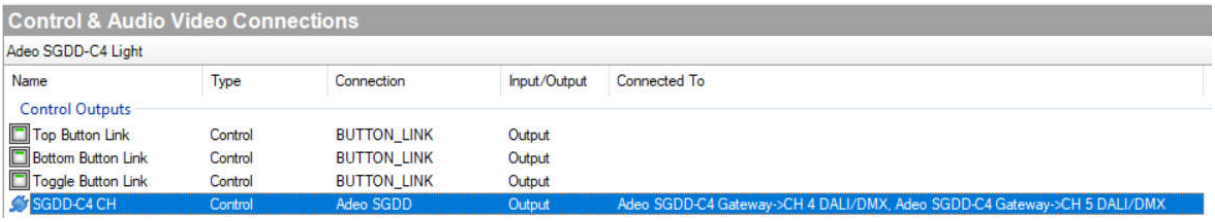


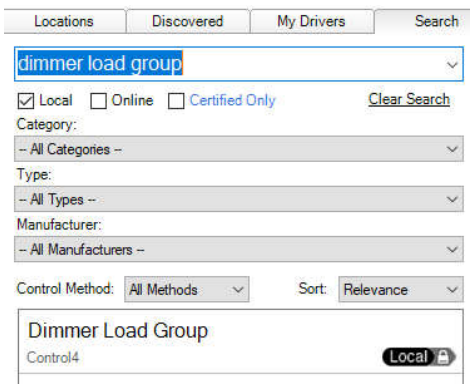
Name	Type	Connection	Input/Output	Connected To
Control Outputs				
SGDD Relay L1	Control	RELAY	Output	Generic 2 relay blind->Up Relay
SGDD Relay L2	Control	RELAY	Output	Generic 2 relay blind->Down Relay
SGDD Relay L3	Control	RELAY	Output	Motorized Screen->Relay
SGDD Relay L4	Control	RELAY	Output	Door->Relay
SGDD Relay L5	Control	RELAY	Output	Drapes->Relay
SGDD Relay L6	Control	RELAY	Output	Fan->Relay
SGDD Relay 1 CH	Control	Adeo SGDD	Output	Adeo Control SGDD-C4-3 Gateway->CH 7 DALI/DMX
SGDD Relay 2 CH	Control	Adeo SGDD	Output	Adeo Control SGDD-C4-3 Gateway->CH 8 DALI/DMX
SGDD Relay 3 CH	Control	Adeo SGDD	Output	Adeo Control SGDD-C4-3 Gateway->CH 9 DALI/DMX
SGDD Relay 4 CH	Control	Adeo SGDD	Output	Adeo Control SGDD-C4-3 Gateway->CH 10 DALI/DMX
SGDD Relay 5 CH	Control	Adeo SGDD	Output	Adeo Control SGDD-C4-3 Gateway->CH 11 DALI/DMX
SGDD Relay 6 CH	Control	Adeo SGDD	Output	Adeo Control SGDD-C4-3 Gateway->CH 12 DALI/DMX

19. *Tips & Tricks*

#1 Short Address or Goups?

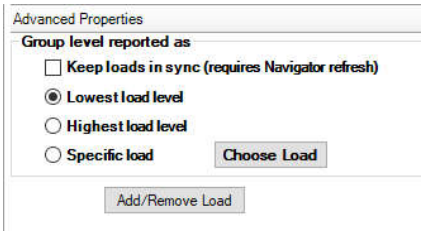
Drivers can also control multiple channels simultaneously, ie we can simulate a **Group**s configuration using the 64 ch configuration. In **Connections** in Composer we can assign multiple channels to the same Driver (Slider in Navigator). This could cause some delay in the reception of the commands, due to the characteristics of the DALI devices. At this point we suggest selecting a **Groups** management (in Device Config BUS3 page 9) and use only the 16 Connections available.

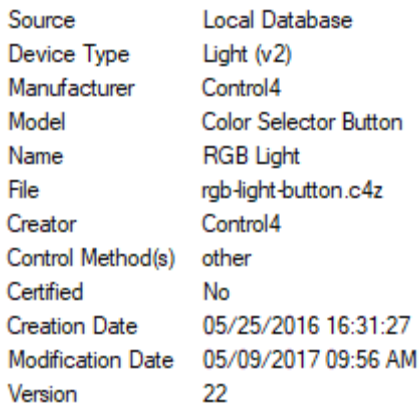




#2 Dimmer Load Group Driver

Another way to manage DALI Groups is to use this driver.
After assigning to each individual DALI device the relevant AdeoSGDD-C4_Light.c4z Driver, we can aggregate them from the Properties in System Design.
It will then be enough to hide the individual drivers from the room's **Navigator**.





#3 Manage RGB from Navigator?

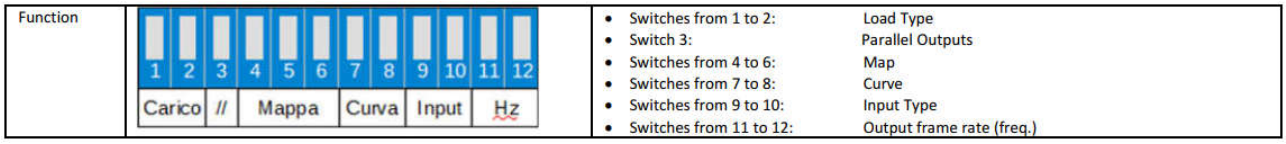
Control4 has introduced the Experience Button rgb-light-button.c4z Driver. AdeoSGDD-C4_RGB.c4z Driver can be matched easily to the RGB Light in **Programming.**

#4 Advanced Lighitng for RGB controll

If we want a more fluent colour change, we recommend using the **Agents Advanced Lighting**.
We also recommend using the DMX bus for this type of application, as the DALI may have unpleasant delays.

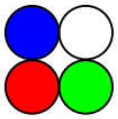
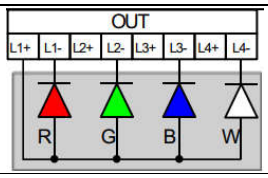
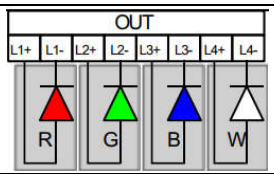
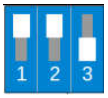
20. *Using Adeo Control DMX Devices*

Adeo Control 4ch-LED-DIMMER-DMX (tension and current available) is an excellent solution for RGBW LED strips. It manages different types of loads thanks to the 12 deep switches on board. For more information see the **4ch-LED-DIMMER-DMX** manual.

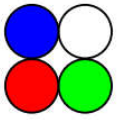
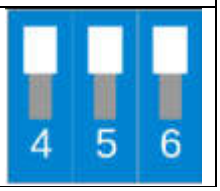


Let's imagine we have an RGBW LED strip (0 : 10A) and we want to make the most of the settings available for the **Adeo Control 4ch-LED-DIMMER-DMX** dimmer.

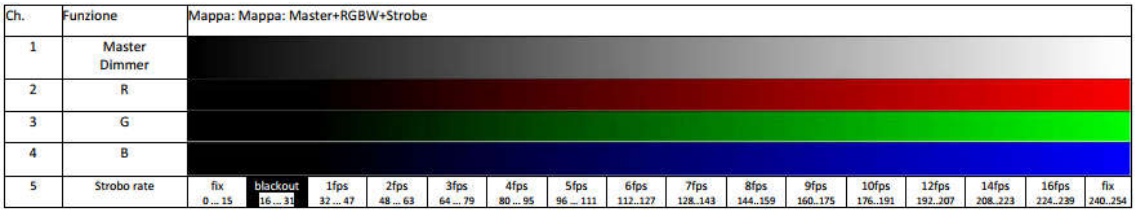
Step 1 - Select Load Type and Parallel Out depending on output connections: (DIP from 1 to 3

Load Type	Description	Connections (total current 0 : 10A max)	Connections (total current 0 : 20A max)	Settings
	RGBW			

Step 2 - Map (DIP from 4 to 6)
With this setting we are going to take advantage of one of the presets for RGBW management on board the **Adeo Control 4ch-LED-DIMMER-DMX** dimmer.

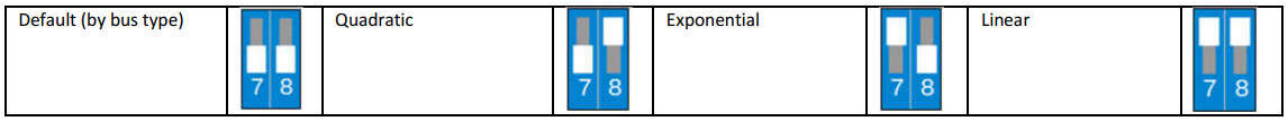
RGBW	
Master+RGBW+Strobe	

In this case we will get a map of the DMX channels of this type:



Step 3 - Curve (DIP from 7 to 8)

Here we choose *Linear* to have an optimal visual response in the **Navigator**.

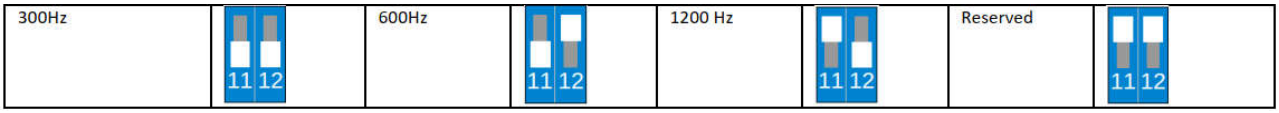


Step 4 – Input type (DIP from 9 to 10)

Set only if a physical button type local command is required. In this case we use 9 and 10 On.

Step 5 – Output frame rate (DIP from 11 to 12)

It may be useful in some contexts to increase the frequency to eliminate any disturbances during the acquisition of video images from devices such as smart phones or video cameras. In this case we use Reserved.



On Composer

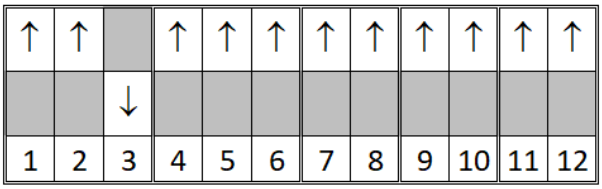
Import into your project in **Composer** n° 6 AdeoSGDD-C4_Light.c4z Driver.
In this way we will have 6 ch DMX on a single 4 output dimmer (RGBW).
After the necessary **Connections**, in **Advanced Lighting** we can manage all 6 channels in the way we prefer. In this project we renamed them like this:

Ch1 - Master: this channel will control the intensity of whatever will be on at that moment (also the strobe).

Ch 2/3/4 - R-G-B-W: these channels control the relative color

Ch6 - Strobe: in this table we reconstruct the DMX values and their preset

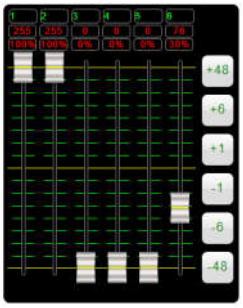
At the end we will have the deep switch in this setting



Practical example #1

Suppose we want to use lighting as an Alarm, for example when pressing the button on the external doorstation:

a) From our RGBW Led Strip (0 : 10 A) we want to get an intermittent red light at 3fps,
b) every time someone rings the bell
c) and it lasts 60 seconds
d) or turns off when someone answers the call.



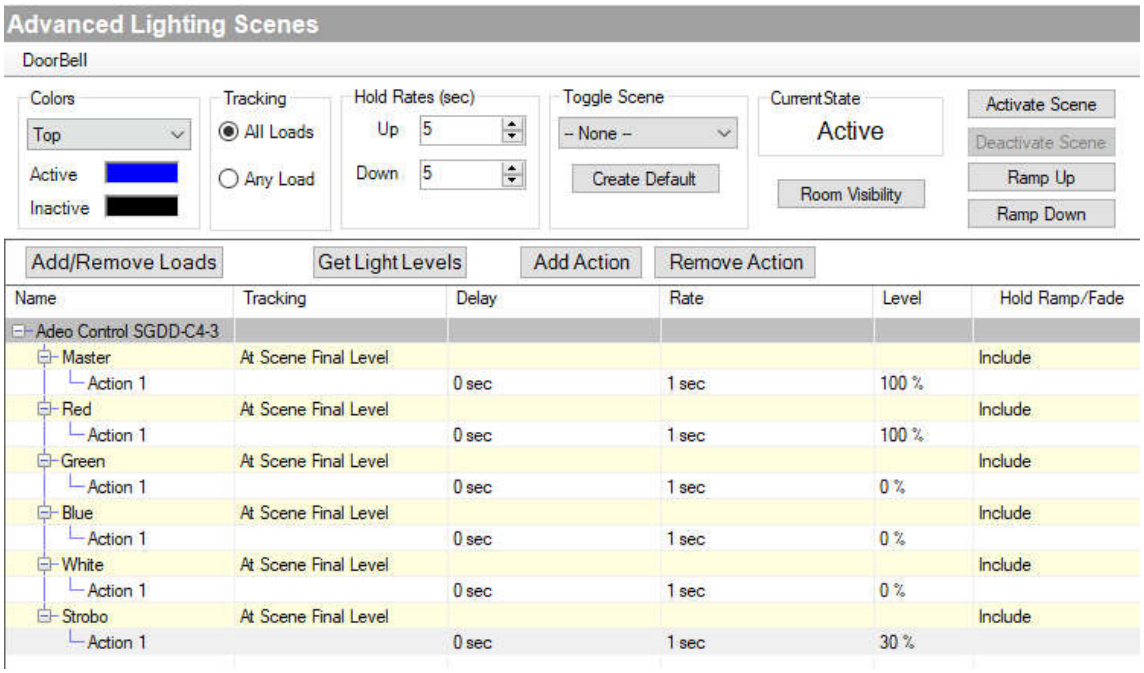
According to the DMX values map of **Ch6 – Strobe**

6	Strobo rate	fix 0 ... 15	blackout 16 ... 31	1fps 32 ... 47	2fps 48 ... 63	3fps 64 ... 79	4fps 80 ... 95

we can get the Preset value like this:

Preset 3fps = DMX 64…79
Intermediate DMX value 76/255 ≈ 30%

In **Advanced Lighting** it will be easy to reproduce the same configuration as the web interface.



After creating the desired lighting scenario, we can in **Programming** associate it with any event.

Light Scene On

Light Scene Off

Practical example # 2

In this example we want to get

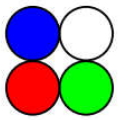
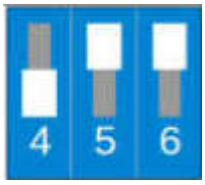
a) an Automatic loop Color Change every 30 sec (like Chromotherapy).

We can certainly get the same result with a hard work in **Programmin**, but the **Adeo Control 4ch-LED-DIMMER-DMX** has integrated a preset that allows us to get it on a very simple way.

We always start with a load like RGBW. (see Step 1 page 20)

Step 2 - Map (DIP from 4 to 6)

With this setting we are going to take advantage of one of the presets for RGBW management on board the **Adeo Control 4ch-LED-DIMMER-DMX** dimmer.

RGBW	
Smart HSV Master + Dynamic White, Colour Changing Rotation, Saturation e Strobo	

In this case we will get a map of the DMX channels of this type:

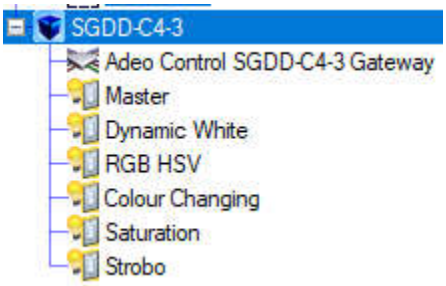
Ch.	Funzione	Mappa: Smart HSV										
1	Master Dimmer											
2	Color Correction											
3	Hue											
4	Hue Rotation (rainbow) Time	Hue Fine 0 ... 15	Hold 16 ... 25	30min 26 .. 51	15min 52 .. 76	6min 77 .. 102	3min 103..127	1min 128..153	30s 154..179	15s 180.204	6s 205..230	3s 231..254
5	Saturazione											
6	Strobo rate	fix 0 ... 15	blackout 16 ... 31	1fps 32 ... 47	2fps 48 ... 63	3fps 64 ... 79	4fps 80 ... 95	5fps 96 ... 111	6fps 112..127	7fps 128..143	8fps 144..159	9fps 160..175	10fps 176..191	12fps 192..207	14fps 208..223	16fps 224..239	fix 240..254

At the end we will have the deep switch in this setting

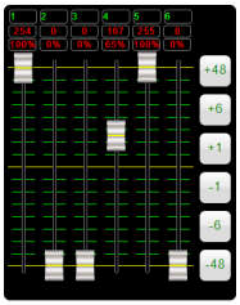
↑	↑			↑	↑	↑	↑	↑	↑	↑	↑
		↓	↓								
1	2	3	4	5	6	7	8	9	10	11	12

On Composer

Import into your project in **Composer** n° 6 AdeoSGDD-C4_Light.c4z Driver.
In this way we will have 6 ch DMX on a single 4 output dimmer (RGBW).
After the necessary **Connections**, in **Advanced Lighting** we can manage all 6 DMX channels in the way we prefer. In this project we renamed them like this:



Ch1 - Master: this channel will control the intensity of whatever will be on at that moment (also the strobe).
Ch2 - Dynamic White: we will have a single slider dedicated to Dynamic White
Ch3 - RGB Color (HUE): this slider will behave like the AdeoSGDD-C4_HSV.c4z driver (page 16), ie a single slider for all RGB colors
Ch4 - Color Changing (HUE Rotation Time): this slider controls the speed of the color change
Ch5 - Saturation: this slider controls the intensity of RGB colors, if it has a value 0 there can be no colors. We recommend the use together with Ch4 with value 255.
Ch6 - Strobe: we control the speed of the flashing light



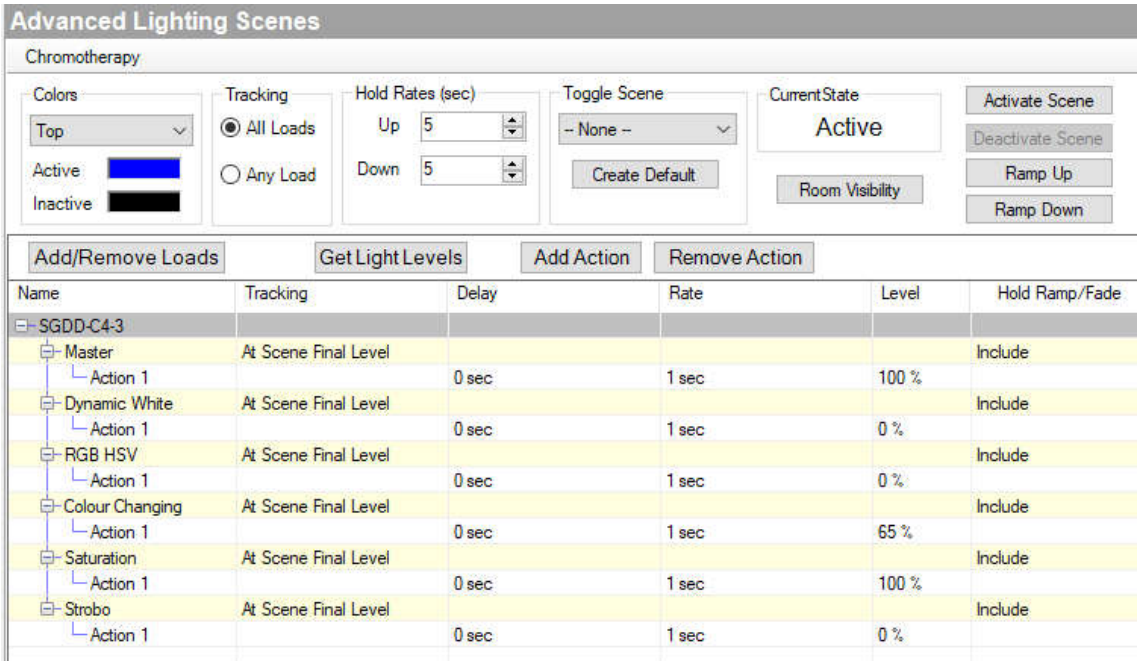
According to the DMX values map of **Ch4 - Colour Changing (HUE Rotation Time)**:

4	Hue Rotation (rainbow) Time	Hue Fine 0 ... 15	Hold 16 ... 25	30min 26 .. 51	15min 52 .. 76	6min 77 .. 102	3min 103..127	1min 128..153	30s 154..179

we can get the Preset value like this:

Preset 30s = DMX 150…179
Intermediate DMX value 170/255 ≈ 65%

In **Advanced Lighting** we can very easily create a scenario that automatically changes color every 15 seconds.



Name	Tracking	Delay	Rate	Level	Hold Ramp/Fade
SGDD-C4-3					
Master	At Scene Final Level				Include
Action 1		0 sec	1 sec	100 %	
Dynamic White	At Scene Final Level				Include
Action 1		0 sec	1 sec	0 %	
RGB HSV	At Scene Final Level				Include
Action 1		0 sec	1 sec	0 %	
Colour Changing	At Scene Final Level				Include
Action 1		0 sec	1 sec	65 %	
Saturation	At Scene Final Level				Include
Action 1		0 sec	1 sec	100 %	
Strobo	At Scene Final Level				Include
Action 1		0 sec	1 sec	0 %	

After creating the desired lighting scenario in **Advanced Lighting**, we can in **Programming** associate it with any event. We can use an **Experience Button Scenario**.

Chromotherapy On

Chromotherapy Off

For any type of support contact info@adeogroup.it