

Control4 Getting Started Guide

For Hypnotik Gateway and Devices

Overview

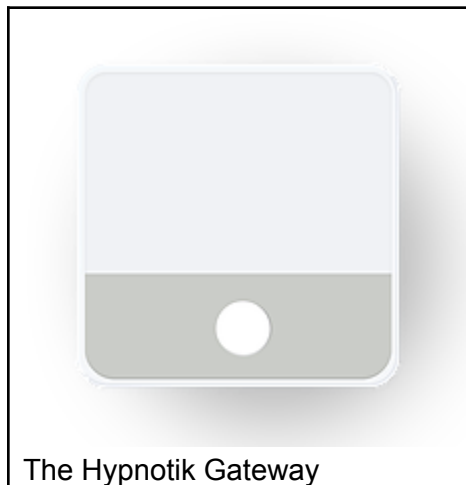
Hypnotik provides you with an ecosystem of smart devices able to connect with Control4.

Among these devices we have:

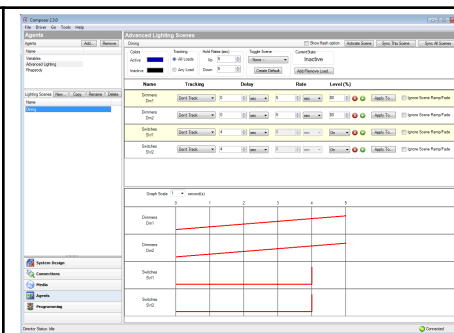
- The Hypnotik Gateway, which connects Control4 Automation Controllers with Hypnotik Smart Devices
- Smart Led Strip Controllers
- Smart Scene & Dimmer Switches
- Matter over Thread Gateway
- BLE Mesh Smart RGBCW Lights
- Matter Shade controllers

Definitions

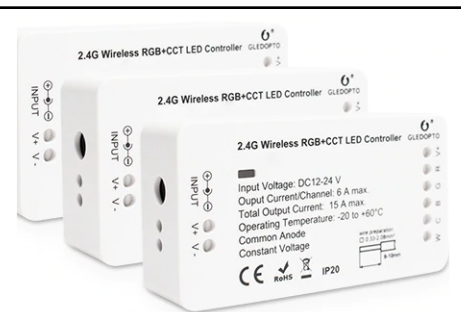
In this Getting Started Guide we will use the following items:



The Hypnotik Gateway



Control4 Composer Pro



Hypnotik Smart Devices

Configuring your Control4 Project with SDDP

Once your devices are paired to the Gateway, please head to the “Discovered” tab in “Composer”. All the devices that have not been added to the project yet will be shown in the list:

Items			
Locations		Discovered	My Drivers
Type	Manufacturer	Model	Address
Lighting	Hypnotik	FG0010	FG0010-FLGW_30AE7B...
Light (v2)	Hypnotik	LGHT010-GL-C-007	LGHT010-FLDV_30AE7...
hypnotik_pir	Hypnotik	PIR010-TS0202-Dusun	PIR010-FLDV_30AE7B6...
Light (v2)	Hypnotik	LGHT010-GL-C-009	LGHT010-FLDV_30AE7...
Lighting	Hypnotik	FG0010	FG0010-FLGW_30AE7B...

Please don't forget to add your Hypnotik Gateway to your Control 4 project to take full advantage of the Hypnotik ecosystem.

To add a device to your project, just double click on the item in the list and it will be added to the current room:



You can now change its name and review its properties. When you change the name of a device added through the “Discovered” tab, all the nested devices will be changed too.

Thanks to the SDDP protocol, your device's properties will be automatically filled in with the Gateway IP Address, MAC Address, Device ID and Device Type:

Properties	Actions	Documentation	Lua
Log Level	2 - Warning		
Log Mode	Off		
Connection	LAN		
Gateway MAC	30:ae:7b:64:00:8c		
Gateway IP	192.168.1.120		
Device ID	00124b001bd8a4f7		
Light Type	1 - Light Bulb		
Level Offset	32		
Kelvin Min	2000		
Kelvin Max	6500		
Commands Timer	10		
Group Ids	1,2		
Update From Group	True		
Current Status	Online - Group Ids: 1,2		

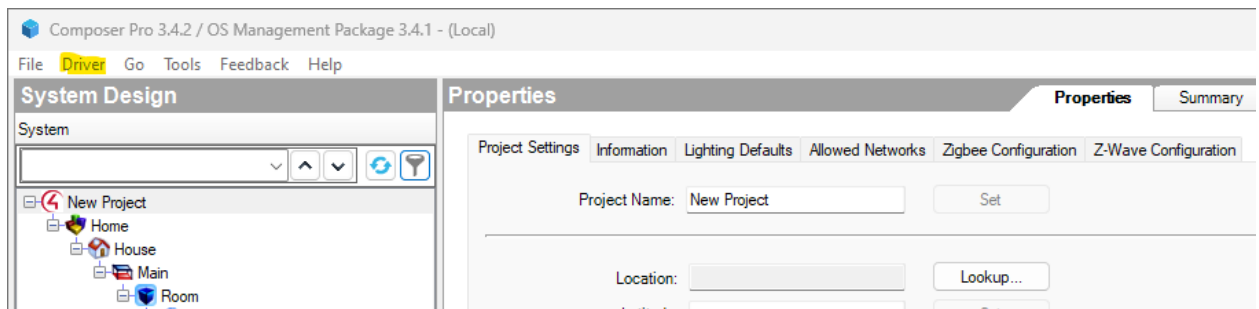
Configuring your Control4 Project without SDDP

If no device is found by the SDDP or SDDP is incorporated in the devices then use composer pro or composer express to insert the device in the Control4 system. You must have the necessary device drivers in the device where composer pro or composer express is installed.

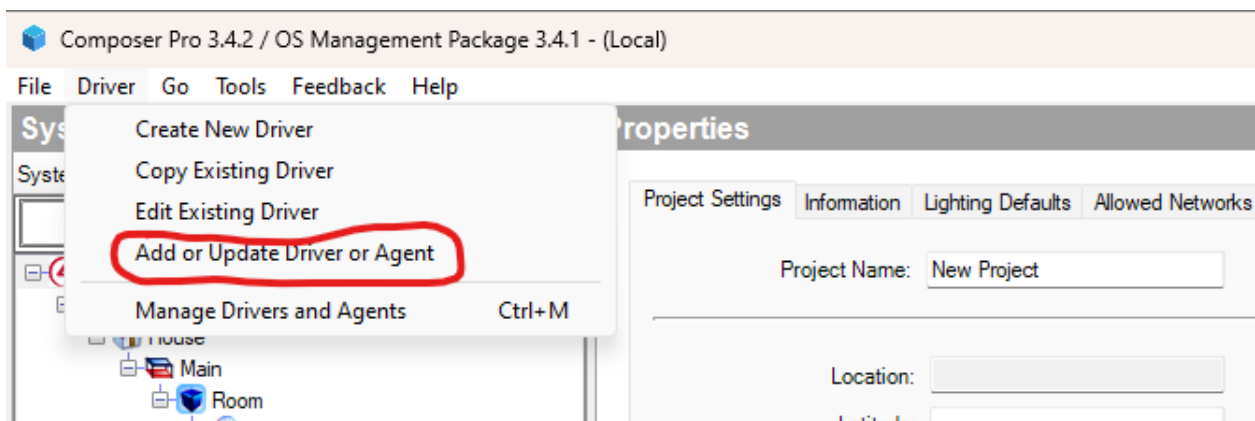
Composer Pro

Use default driver location path for composer pro so that Composer pro can add the device to the C4 system. Example:
(C:\Users\username\OneDrive\Documents\Control4\Drivers) for the windows and one driver account added in the windows.

I. Click Driver in Composer Pro



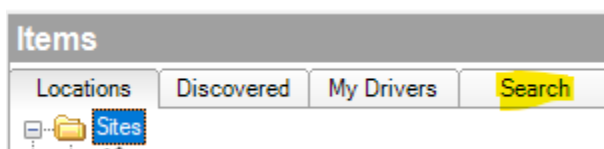
II. Then Click *Add or Update Driver or Agent*



III. Add required driver

If the above step does not work then the following steps will help.

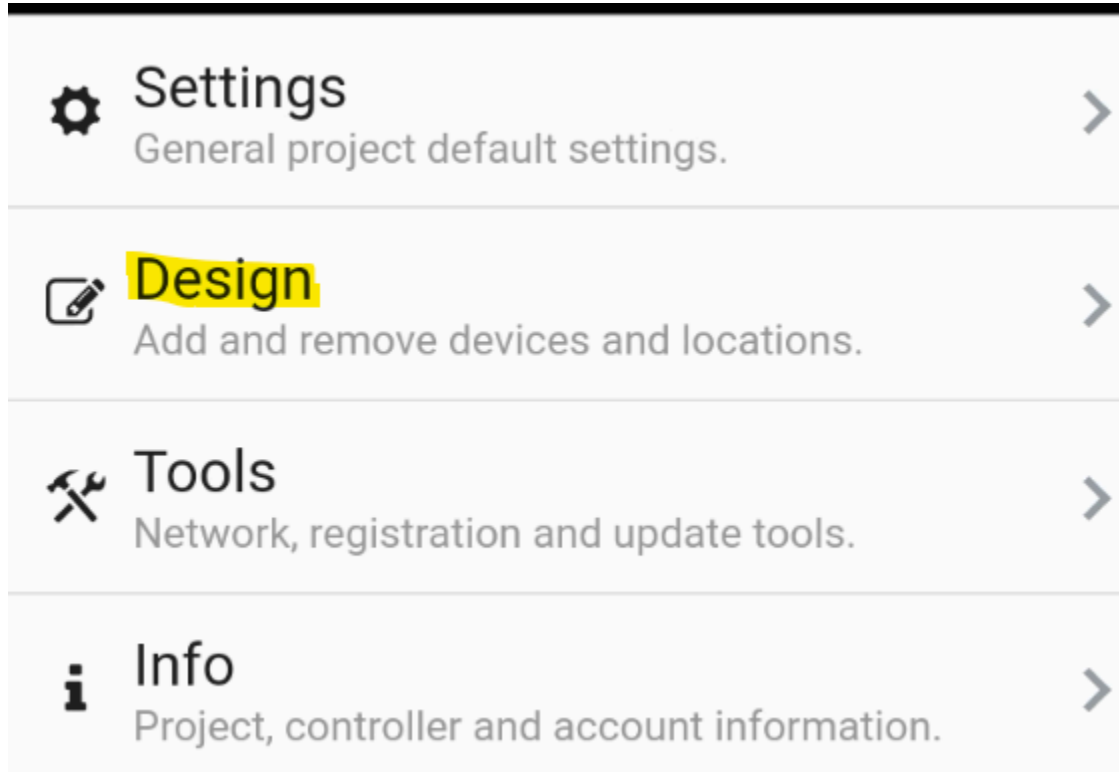
Click the Search button the composer pro.



There will be an option to choose the search process between from local and online. Select the local option for searching the driver in the local device and select online for searching the driver from the C4 cloud. Then type your driver name and click search. Look for your driver in the search list and double click to add the device in the C4 system.

Composer Express

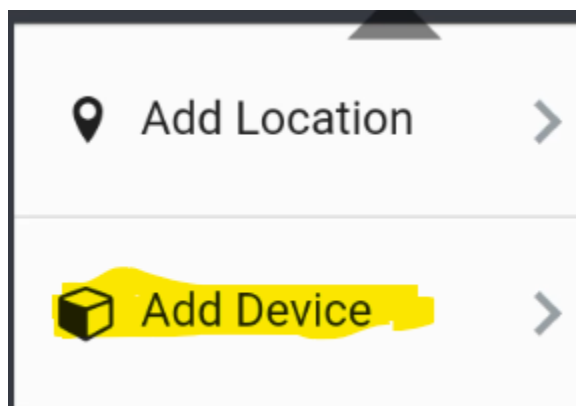
If you are using composer express to manage devices in the C4 system. Then follow the following process. After connecting to the device the controller. Select Design,



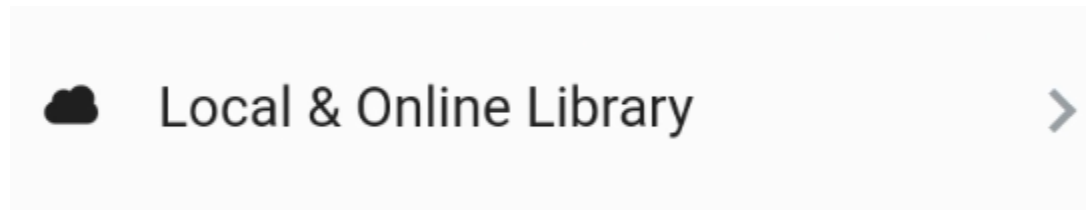
Click the plus image in the top bar.



Then select the Add Device option.



New select Local & Online Library option.



In this UI you can type your driver/device name in the search area and select your device driver which will add your device driver in the C4 system.

Drivers Reference

Hypnotik WLED Lights

Properties

Like every lighting driver, you can set some common behavior of the device like Click Rates, Preset Level and Hold Ramp rates:

Default Transition Rates			
Default Brightness Rate	<input type="text" value="0.750"/>	<input type="button" value="↑"/> <input type="button" value="↓"/>	Seconds
Default Color Rate	<input type="text" value="0.000"/>	<input type="button" value="↑"/> <input type="button" value="↓"/>	Seconds
Hold Ramp Rates			
Up	<input type="text" value="5.000"/>	<input type="button" value="↑"/> <input type="button" value="↓"/>	Seconds
Down	<input type="text" value="5.000"/>	<input type="button" value="↑"/> <input type="button" value="↓"/>	Seconds

In addition, you can also customize the following parameters:

Advanced Properties	
Properties	Actions Documentation Lua
Log Level	5 - Trace
Log Mode	Print and Log
Connection	LAN
Device IP	
Commands Timer	10
Update From Group	True
Current Status	Waiting for SDDP or manual entry
Colors	<input type="checkbox"/> R: 255 G: 0 B: 0

Log Level

Allows the user to specify what information should be reported in the Lua tab between:

2 - Warning	▼
0 - Fatal	
1 - Error	
2 - Warning	
3 - Info	

Log Mode

It allows the user to enable and disable logging, as long as printing of the information from the driver.

Off	▼
Off	
Print	
Log	
Print and Log	

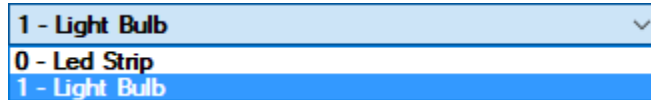
When requesting the list of devices within Composer (see “Actions” below), you need to select “Print” in this field.

Connection

At the moment, only LAN connection is available.

Light Type

It's used to specify if the device is a Led Strip or a Light Bulb. This affects the driver internally and you should leave the value set automatically by the SDDP protocol.



1 - Light Bulb
0 - Led Strip
1 - Light Bulb

For certain devices, a small idle time is added to ensure the device has finished ramping up/done or changing color before receiving another command. For example, if you would turn the device on and off very fast, the device will actually turn off only after the ramp up is finished.

Commands Timer

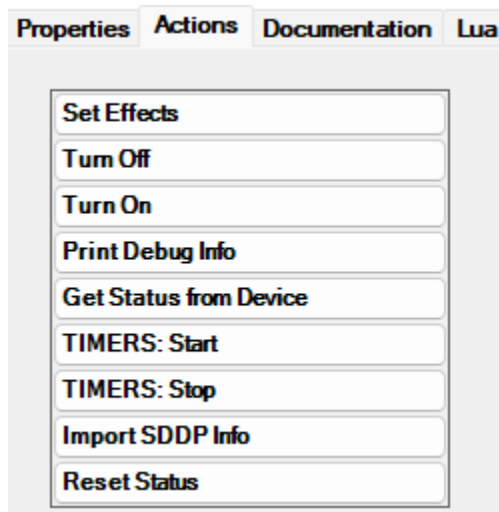
Allows controlling how frequently the control connection should be functioning for Input/output operations.

Current Status

Shows the current status of the connection. If the connection is working properly, it will show "Online". Otherwise, please check your network or the Gateway IP and Gateway MAC address above.

Actions

Under the Actions tab, you can find some tools that will help you troubleshoot or interact with the device.



Properties Actions Documentation Lua

Set Effects
Turn Off
Turn On
Print Debug Info
Get Status from Device
TIMERS: Start
TIMERS: Stop
Import SDDP Info
Reset Status

Get Status from Device

This feature allows retrieving the current Brightness, White Temperature, Hue and Saturation from the device. The update will take a few seconds.

Timers: Start, Timers: Stop

These features allow you to stop and restart the main timers used to send commands to the device and retrieve its status.

Reset Status

This action allows you to reset the driver and sync with the device again.

Set Effects

This feature is for testing Light Effects response from the light device.

Turn Off, Turn On

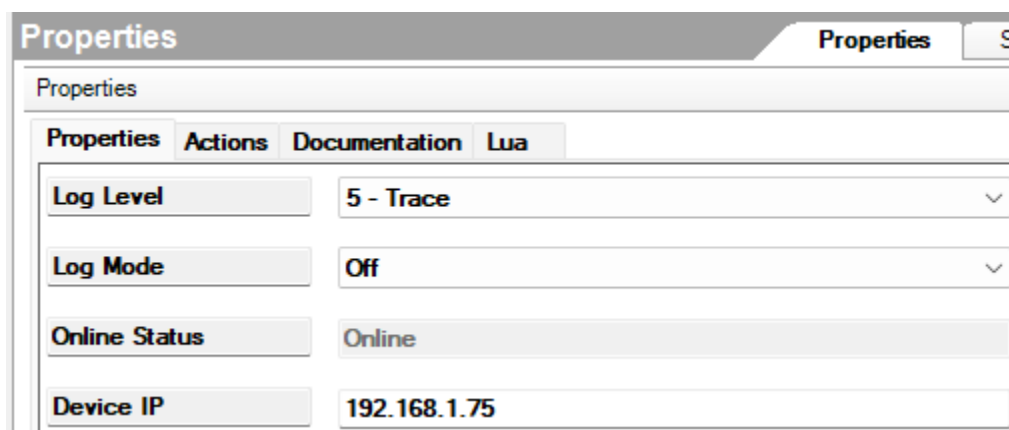
This feature allows you to turn on and off the light from the composer pro.

BMS BLE Gateway

This driver is responsible for communicating with BLE gateway and controlling various aspects of the device.

Properties:

It is the device properties of the gateway that is visible in the composer pro. It is available in the composer pro *Properties* tab.



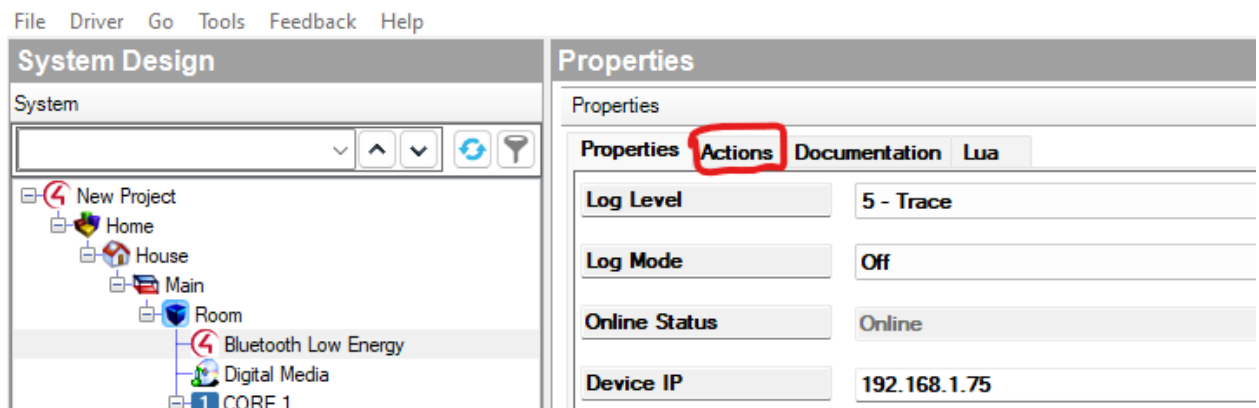
The screenshot shows a web interface with a 'Properties' tab selected. The interface has a header bar with 'Properties' and 'S' (partially visible). Below the header, there are four sub-tabs: 'Properties', 'Actions', 'Documentation', and 'Lua'. The 'Properties' sub-tab is active, displaying a table of device settings. The table has two columns: a label column and a value column. The settings are: 'Log Level' set to '5 - Trace', 'Log Mode' set to 'Off', 'Online Status' set to 'Online', and 'Device IP' set to '192.168.1.75'.

Property	Value
Log Level	5 - Trace
Log Mode	Off
Online Status	Online
Device IP	192.168.1.75

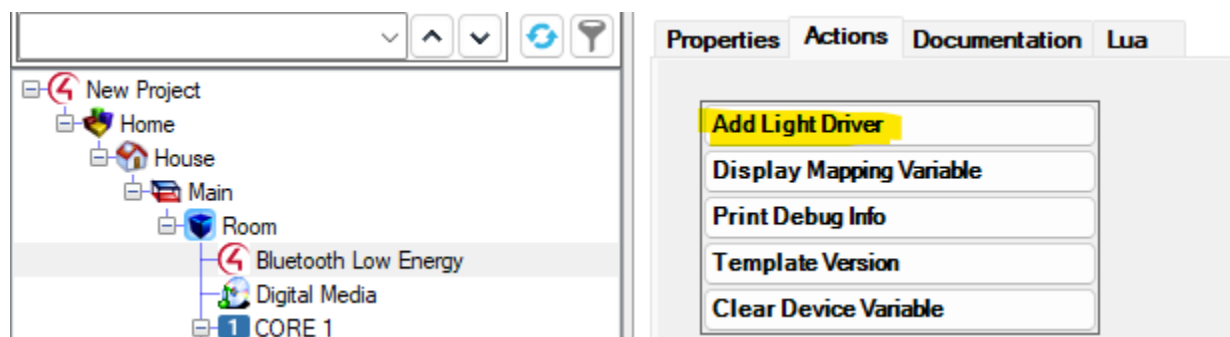
Log Level and *Log Mode* properties are used for driver development. *Online Status* property tells about current status of BLE gateway, whether driver has made connection with driver or it is disconnected. *Device IP* holds the IP address of the gateway, it is needed to add during the installation of the device using composer pro.

Adding Light Driver form Gateway Driver

I. Click Action tab from BLE gateway driver

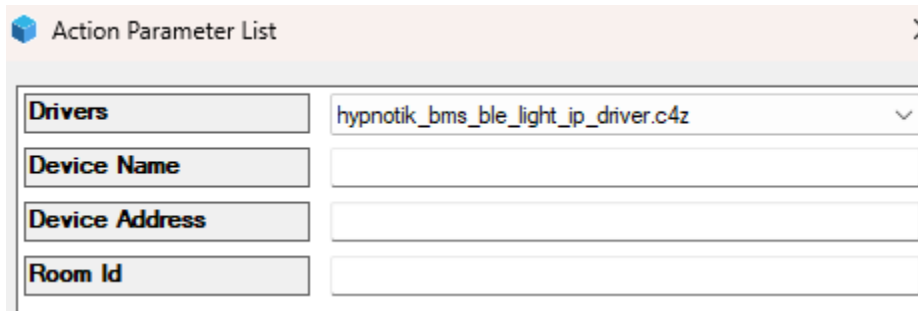


II. Click *Add Light Driver* action in the tab



III. Select Light Driver from the list in *Drivers* parameter. Input Name of the light as user choice in *Device Name* parameter. *Device Address* is input for device address provided by cosmic node (application) or gateway web portal or other application connecting the gateway and devices. *Room Id* parameter is for adding a light driver in a different room than the gateway driver is located. If no id

is provided then a light driver is added into the room where gateway driver is present. Its input must be a number provided by composer pro.

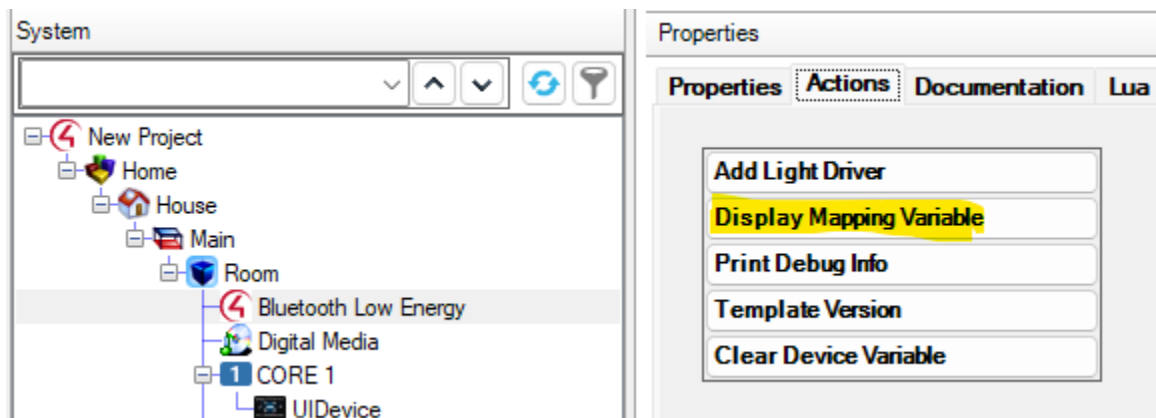


The 'Action Parameter List' dialog box contains four input fields:

Parameter	Value
Drivers	hypnotik_bms_ble_light_ip_driver.c4z
Device Name	
Device Address	
Room Id	

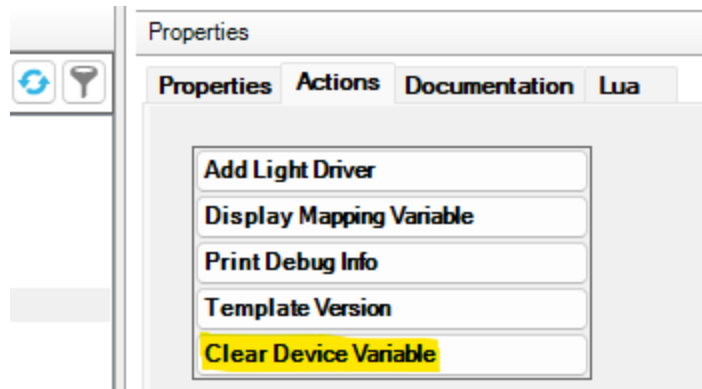
Display Connected Device Details

This action is to display all the device driver control4 is controlling currently. It displays control4 driver id from composer pro, device address from gateway web portal or application and name displayed in the control4 system.



Clear all the Device Data from Gateway Driver

This action will clear all data related to devices stored by the BMS BLE Gateway. It is to be used when all the light devices have been removed from the C4 system.



BMS BLE Light Device

This Driver is responsible for controlling all the light device actions connected to the BLE gateway. Using navigator to control the light device, it sends the necessary API to the gateway for further processing.

Properties:

It is the device properties of the BLE light driver that is visible in the composer pro. It is available in the composer pro *Properties* tab.

Advanced Properties			
Properties	Actions	Documentation	Lua
Debug Key	<input type="text"/>		
Debug Server	<input type="text"/>		
Log Level	5 - Trace <input type="button" value="v"/>		
Log Mode	Off <input type="button" value="v"/>		
Group Ids	<input type="text"/>		
Current Status	<input type="text"/>		
Device Address	33456		

Debug Key, Debug Server, Log Level and *Log Mode* are used during the driver development and the testing. It is also used during the installation of the driver to check log output for each device action performed.

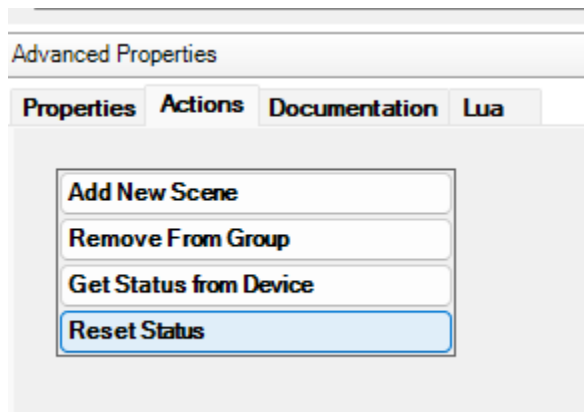
Group Ids used for adding the light device to a group of light devices of provided ID, if no group then creates new.

Current Status shows current connection status with the device.

Device Address displays the address of the device it is allocated to.

Action:

It is the action provided to change the device address of the device. When *Device Address* value from light device properties is not visible in the web portal or application, connection is made to new device



Add New Scene is in the development and testing stage. It has number of parameter required for add the scene

Remove From Group will remove the light device from the group id represented by the *Group Id* shown in the Properties tab.

Get Status from Device will request device status api about the device address by *Device Address* in Properties tab..

Reset Status will stop the current timer setup by the device driver and start a new timer for api requests.