



Smart Bus Driver for Control4

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Programming Guide

Version 1.0

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Introduction

This document outlines the simplicity of integrating Control4 with Smart-G4 DIN-RAIL back-end modules.

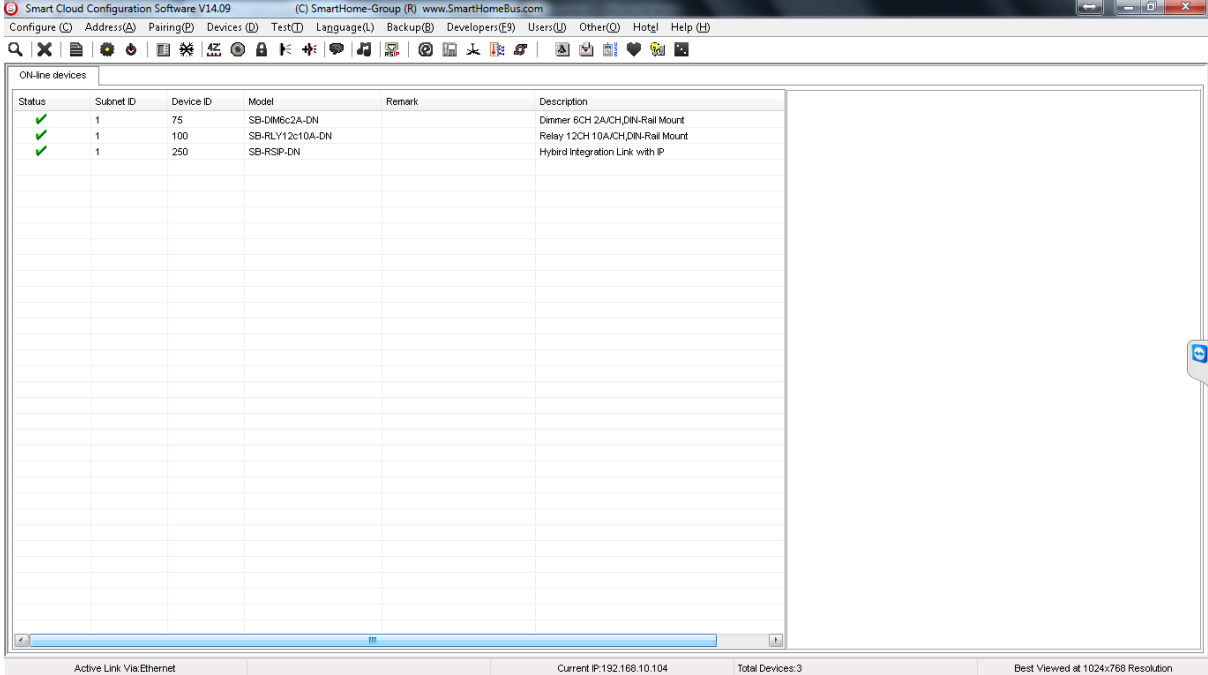
Setting up Smart Bus modules

After setting up the smart bus IP gateway, relays, and dimmers, and installing [Smart-Cloud Software](#), the following network settings have to be set for your LAN.

1. Router IP address: 192.168.10.1
2. Turn off any firewalls blocking port 6000 on UDP protocol.
3. Connect the Smart Bus IP Gateway to your LAN port in the router

Assign a device ID for each module in your Smart Bus network and take a note of that ID, this is explained in detail in the smart bus programming module found [here](#).

For the purposes of this manual, the Relay module ID will be 100, Dimmer module ID 75, and IP gateway ID is 250. The subnet ID for the Smart Bus network will be 1.



The screenshot displays the Smart Cloud Configuration Software V14.09 interface. The main window shows a table of online devices with the following data:

Status	Subnet ID	Device ID	Model	Remark	Description
✓	1	75	SB-DIM6c2A-DN		Dimmer 6CH 2A/CH DIN-Rail Mount
✓	1	100	SB-RLY12c10A-DN		Relay 12CH 10A/CH DIN-Rail Mount
✓	1	250	SB-RSIP-DN		Hybird Integration Link with IP

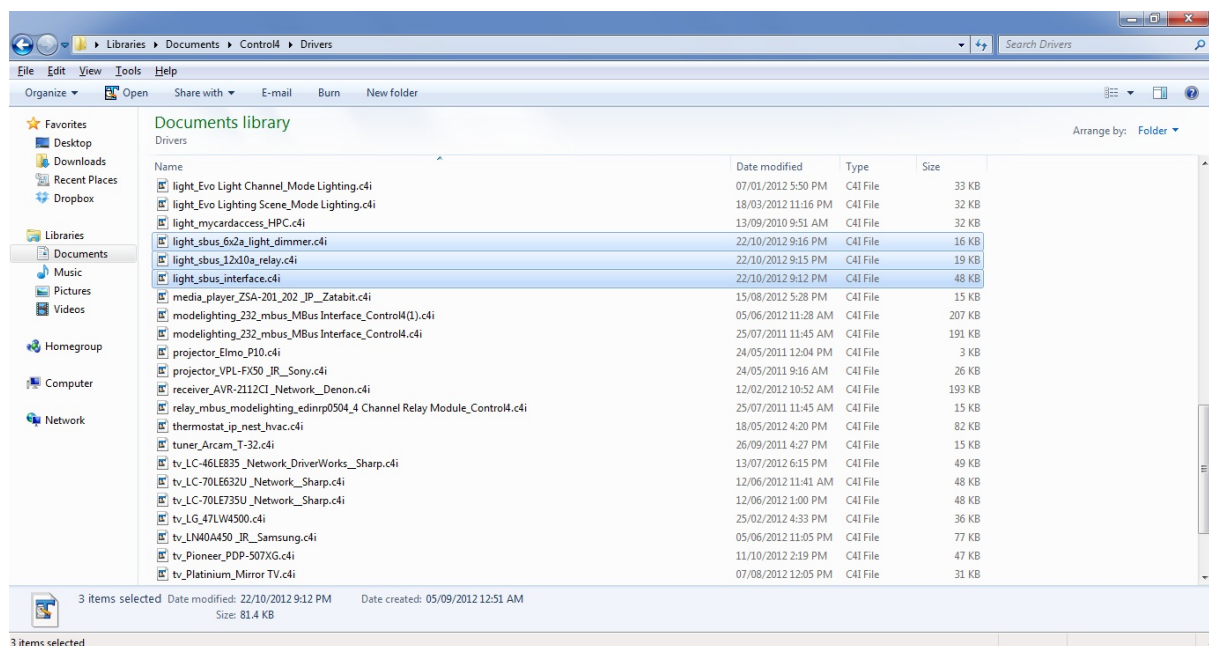
The interface also shows a status bar at the bottom with the following information: Active Link: Via Ethernet, Current IP: 192.168.10.104, Total Devices: 3, and Best Viewed at 1024x768 Resolution.

Adding drivers to Control4 Director

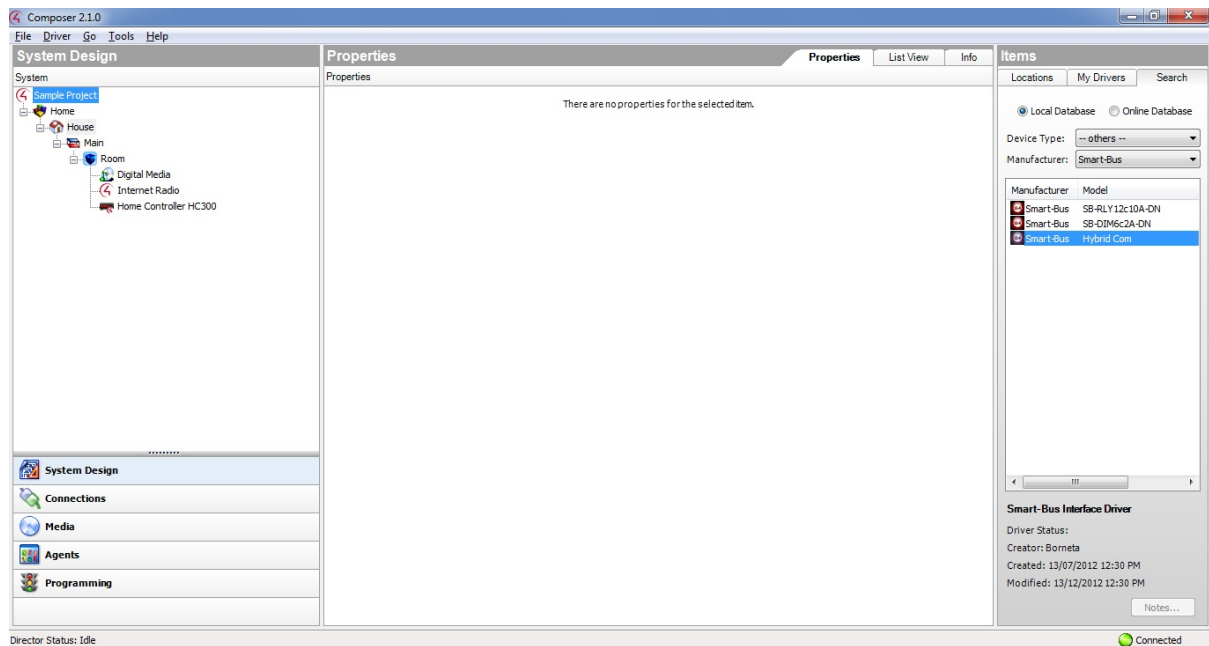
The following drivers will be required, they can be found in the package provided after you purchase your license, or found on our [website](#) (coming soon).

1. Smart-Bus Hybrid Com (light_sbus_interface.c4i)
2. Smart-Bus 12 Channel Relay (light_sbus_12x10a_relay.c4i)
3. Smart-Bus 6 Channel Dimmer (light_sbus_6x2a_dimmer.c4i)

Copy and paste the drivers listed above into the Control4 driver directory as seen in the image below



Start Control4 Composer Pro, and open a new project. In system design, select the search tab located in the Items Window. Under local database, the drivers listed above can be found as seen in the image below



Double click the Smart-Bus Hybrid Com Driver first, and then double click the Dimmers and Relays driver to add them to the project. **This must be done in this order to make sure proper connections are made between the Hybrid Com driver and the other drivers.**

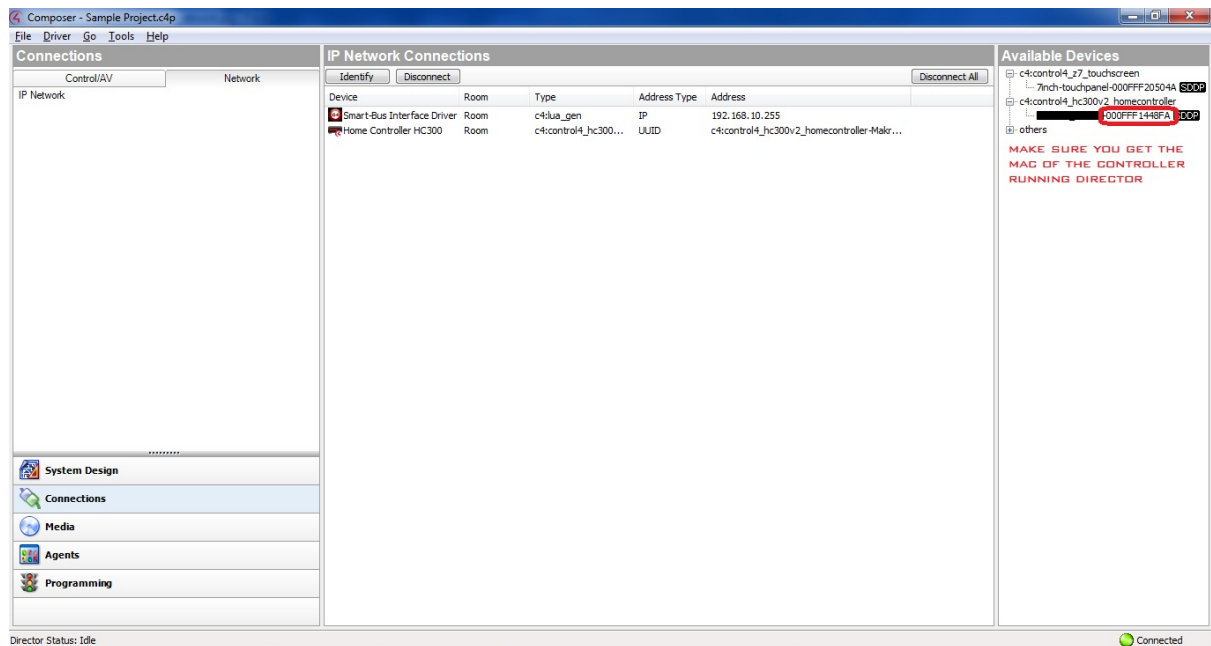
The dimmer and relay drivers represent a single module each, to add multiple modules add more copies of the driver as you have done in the previous step (maximum of 254 modules can be added under a single S-Bus subnet). Note that only one Smart-Bus Hybrid Com driver is needed for each subnet.

Acquiring your driver's license key

In order to receive your license, you must first find the MAC address of your Home Controller, which is set as your network director.

Click the connections button, and then select your Home Controller in the IP Network Connections.

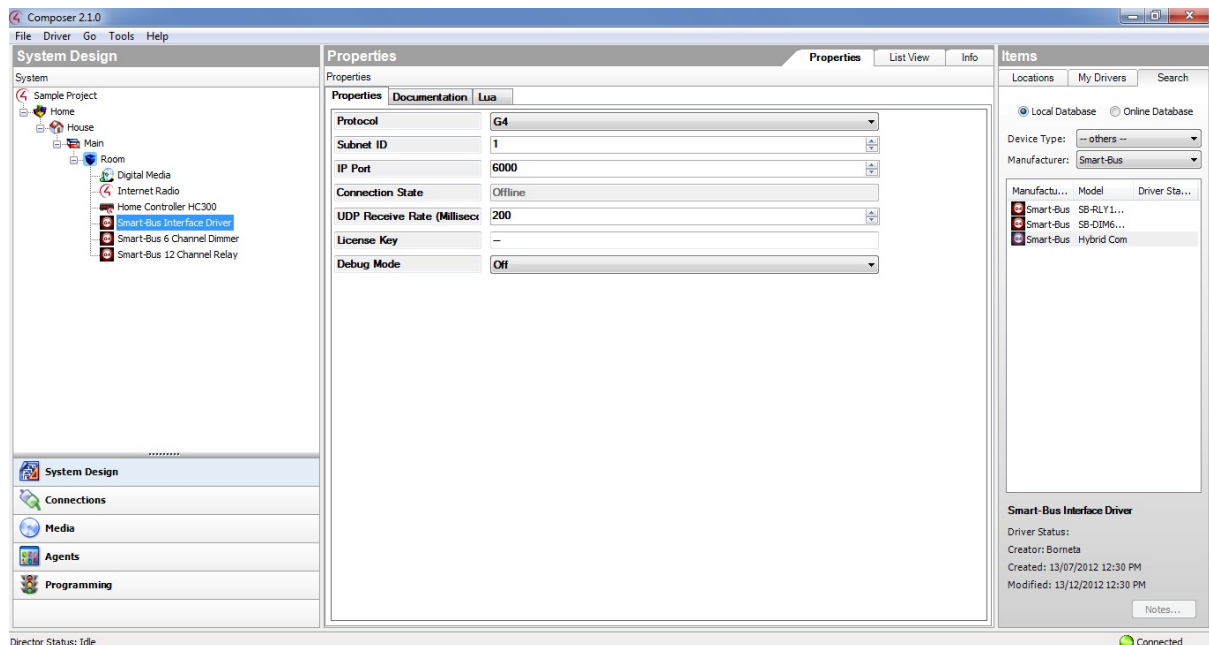
In the available devices window, the MAC address can be found as seen in the image below.



Send the MAC address of your Home Controller to us by e-mail or through our [website](#) (coming soon), and we will provide you with your License Key.

Configuring your driver

The Drivers should now be listed in the system window, click on the Smart-bus Interface Driver. The image below shows the properties for this driver.



In the properties window, insert the license key you received, and press the Set Button.

The connection status will be changed to "Online".

The other properties for the Smart-bus Interface Driver are explained below:

Protocol: This Driver supports both G3 & G4 protocols. The default value is G4.

Subnet ID: The Subnet ID of the modules used in the project. For small to medium sized projects this is usually set to 1.

IP Port: The UDP port used to for communication between the Control4 and the S-Bus gateway. This should not be changed from 6000, except for advanced troubleshooting purposes.

Connection Status: shows the current status of the driver

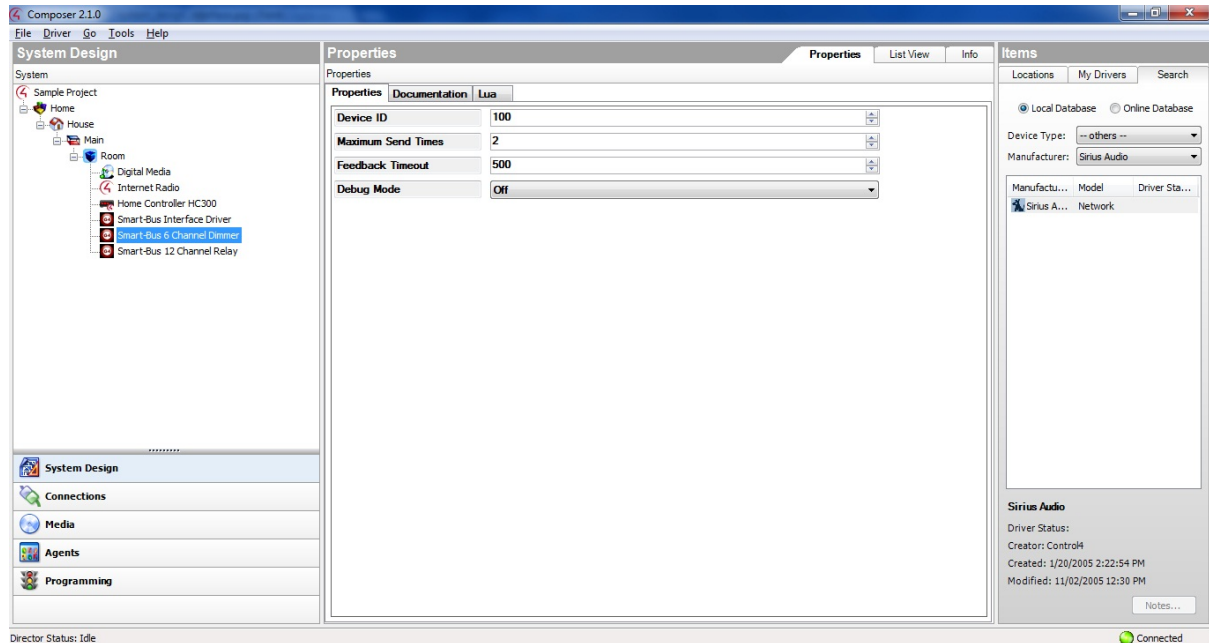
UDP Receive Rate: Limits the traffic received by the driver to prevent system crashes.

Debug Mode: For advanced troubleshooting.

Click on either the dimmer or the relay driver next. In the properties window, set the Device ID. In the case of the Dimmer this should be 75 (for this example only), and for the Relay 100.

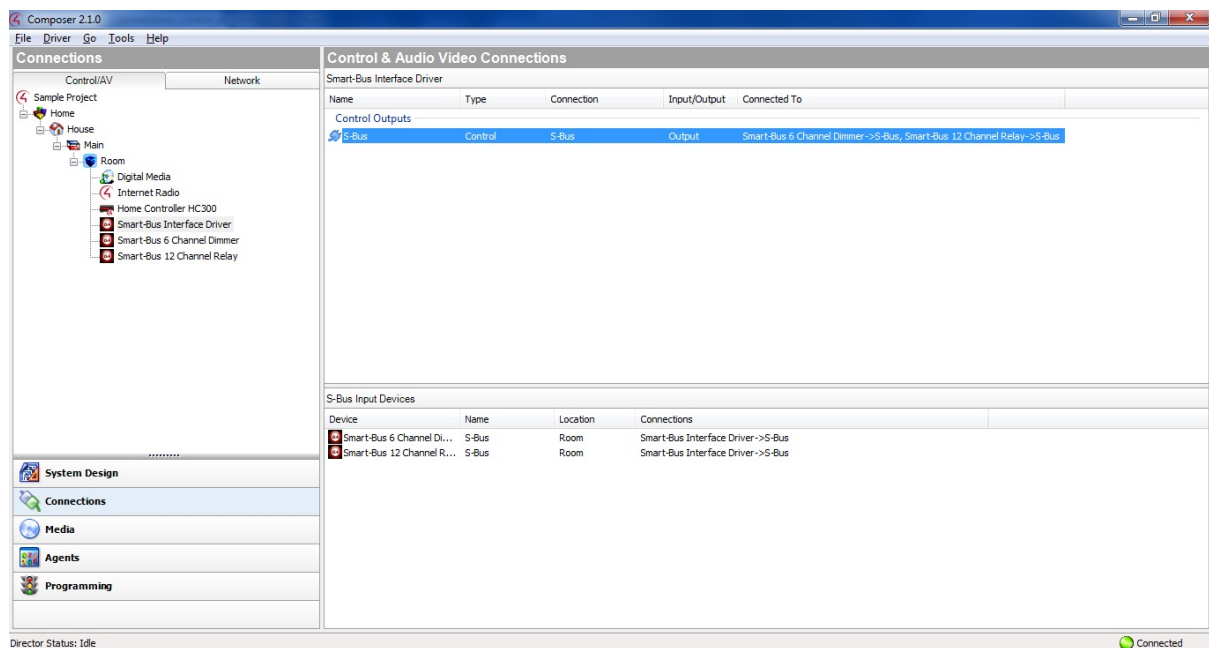
If the S-bus network is noisy, or has a high traffic load, the maximum send times value can be increased slightly to overcome such problems. The default value of 2 should be enough in most networks.

The feedback timeout value can be changed to increase the accuracy of the feedback but can slow down the feedback process.

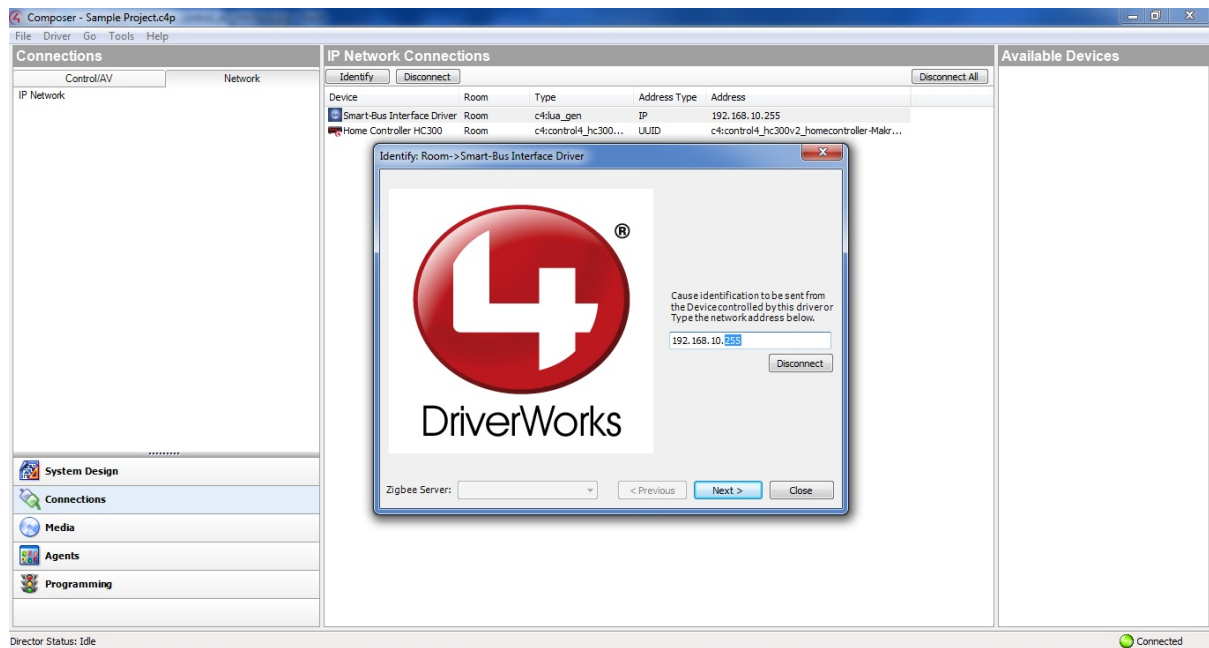


The same steps above should be repeated for the rest of the modules in your project.

To setup the IP address that the driver will listen to, click the connections button, then select Networks tab.



In the IP Network Connections window, double click the Smart-bus Interface Driver and enter the following IP address: 192.168.10.255



After completing this step, your driver will be ready for connections our driver and Control4 proxy drivers.

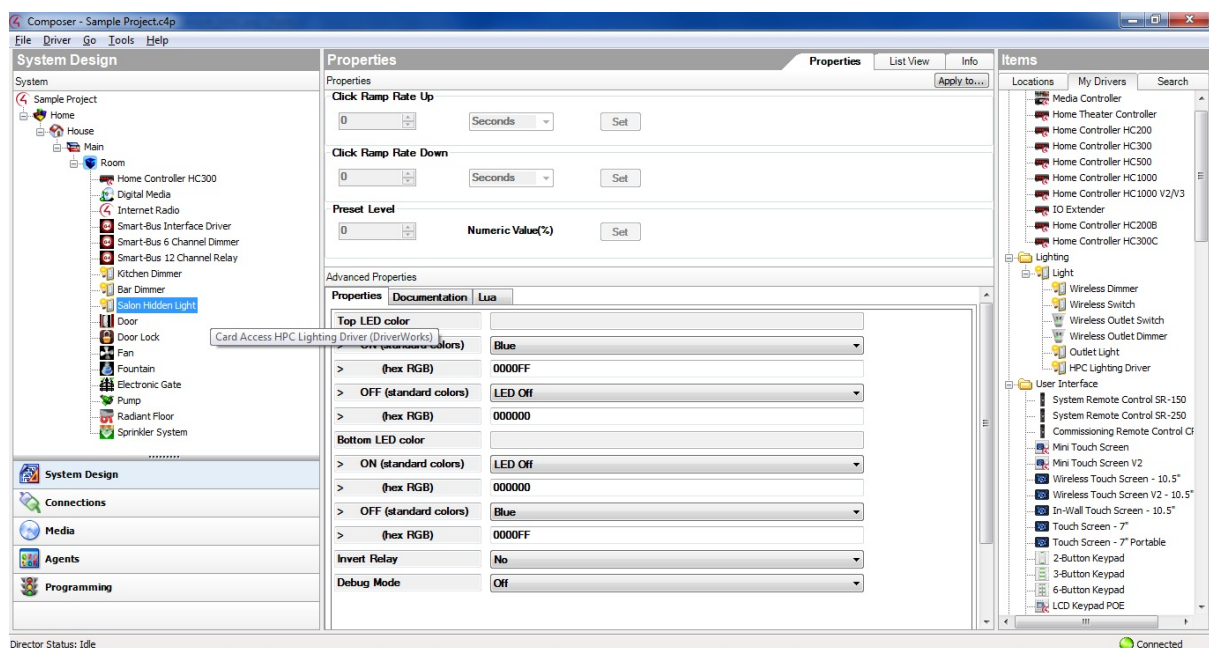
Testing your driver

Click the System Design Button, then Add drivers found in items window. An example of a driver suitable for the Dimmer module is the Outlet Light provided by Control4.

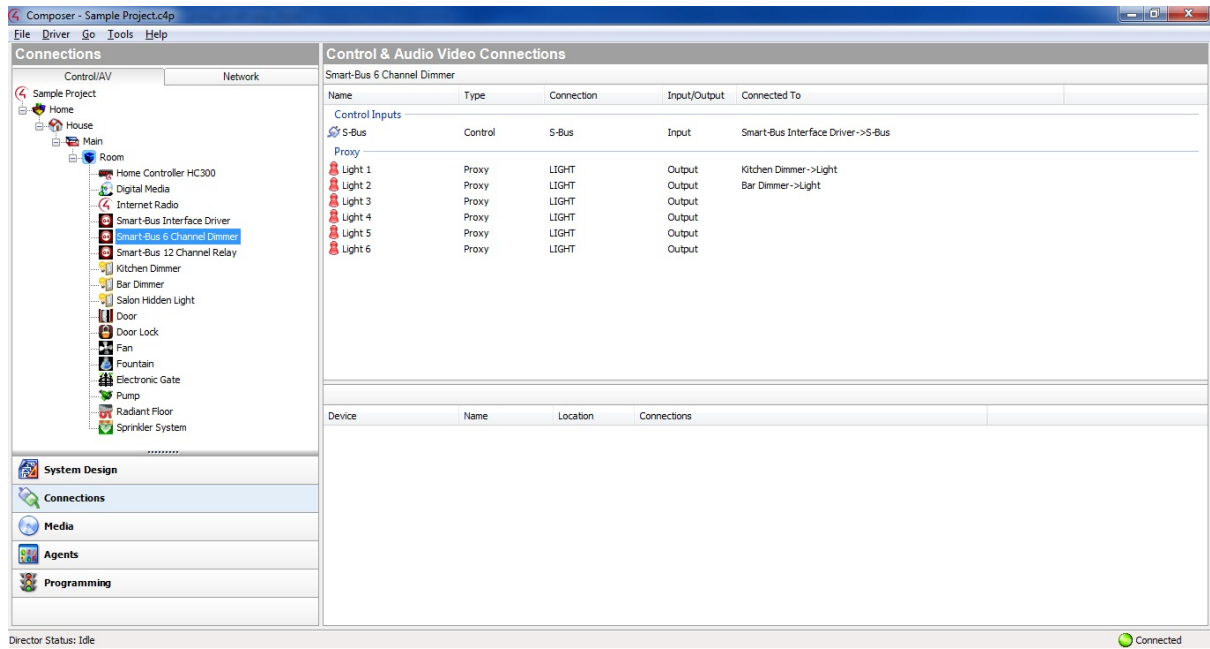
For the relay module several drivers can be used such as:

- HPC Lighting Driver created by Card Access
- Fan
- Door
- Pump

The image below shows a sample project with some drivers added.



To connect each channel in the modules to its proper driver, select the connections button under Control/AV select the Dimmer module, select the light outputs channel under proxy then drag and drop each channel to the appropriate device listed under light input device.



Repeat the steps above for the relay.

