



Old Mill Barns
Sidlesham
Chichester PO20 7LX
United Kingdom
UK Tel: +44 (0)20 8144 9354
US Tel +1 (801) 285 9354
www.extravegetables.com

Control4 – Matterlink Multi-X Installation Manual Version 7.0.x

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Multi-X is a trademark of Matterlink

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Introduction

What does this driver do?

This driver enables you to use the Multi-X in a Control4 installation. The Multi-X is both an RF and IR gateway and provides a unique solution to enabling control of RF devices such as blinds with a Control4 system.

The driver consists of a main gateway driver which communicates with the Multi-X. Slave drivers then provide the Control4 UI elements for blinds, fans or relay devices.

How many codes can be stored?

The driver can store up to 200 codes per gateway.

How many gateways can be used?

This is only limited by the number of free IP addresses on your network.

Download the driver

Go to www.extravegetables.com and then log in. If you have forgotten your password, click on the 'Forgot Password' link.

Go to *Control4 Drivers – Blind Control – Multi-X – Downloads*.

Download the driver zip file.

Extract the drivers from the zip file to the *My Documents – Control4 – Drivers* folder on your PC.



IMPORTANT!

NEVER rename the driver files on your computer. If you do, Auto Update will not work.

Install the drivers

Hot Tip:



If this is your first installation using the driver, please make sure you read the whole of this manual *before* touching any equipment. If you can, set up the driver in your office or shop first before installing it on site. See the Appendix for details on using a free 14 day demo license.

Installation Checklist

1. Connect the Multi-X to your network.
2. Install and configure the main Multi-X driver.
3. Learn the RF codes.
4. Make IR connections if required.
5. Add slave drivers to the project.
6. Configure slave drivers.
7. Refresh Navigators.

Connect the Multi-X to your network

The Multi-X should be connected to your network with an Ethernet cable. Ensure that it powers on correctly and the network lights are flashing.

Install the main Multi-X Driver



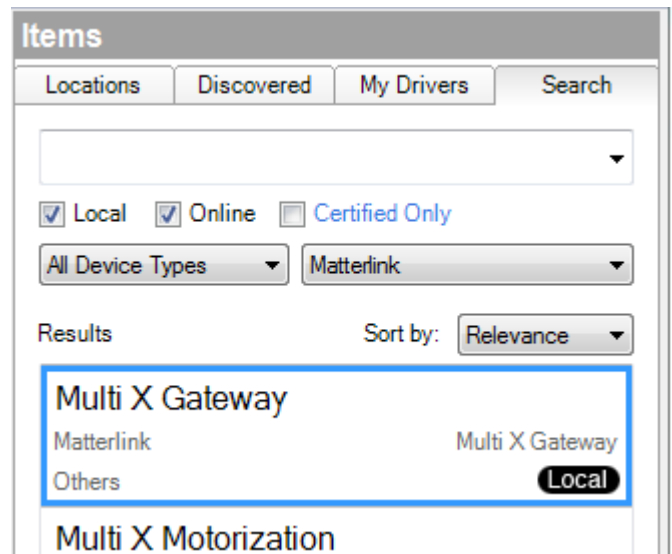
IMPORTANT!

You **MUST** install and license the main Multi-X driver in the project before you add the slave drivers to the project.

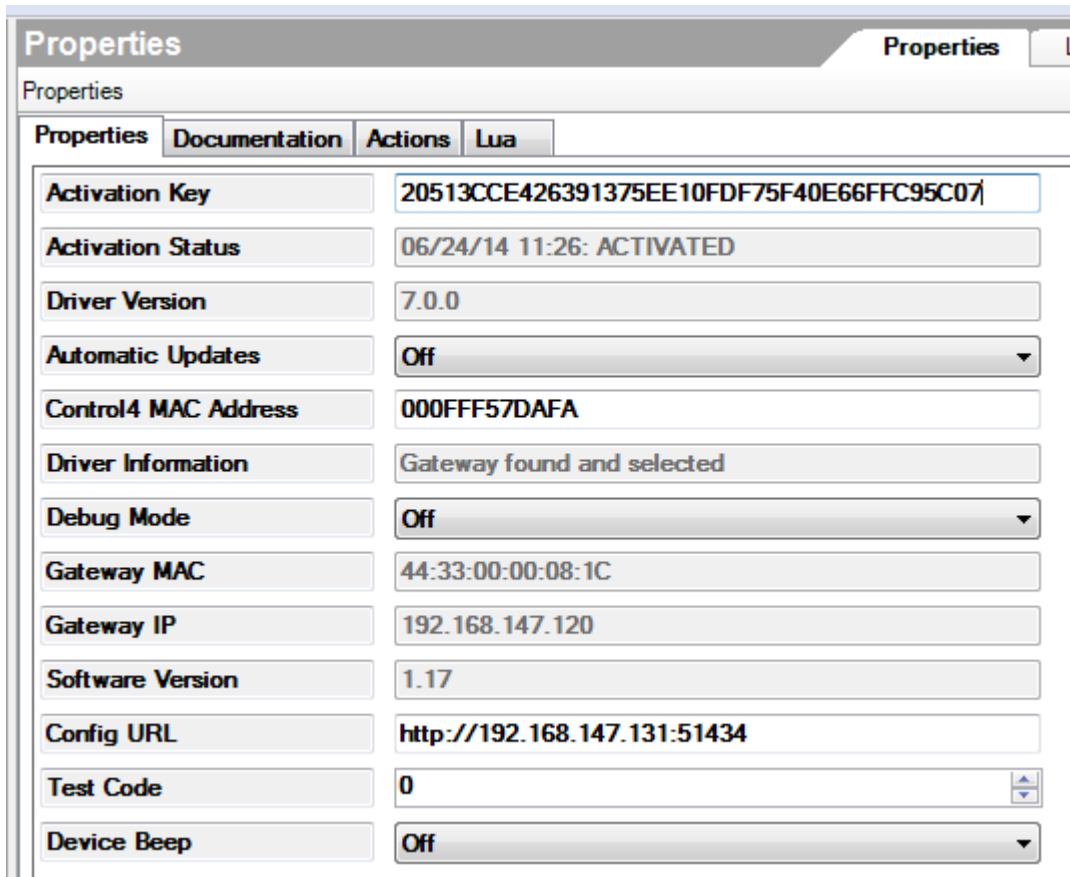
The first step is to install the main Multi-X driver network driver.

This is best found by filtering by Manufacturer Matterlink as shown on the right.

Add the driver to the project.



Driver Properties



The screenshot shows a 'Properties' window with a 'Properties' tab selected. The window contains the following fields:

Activation Key	20513CCE426391375EE10FDF75F40E66FFC95C07
Activation Status	06/24/14 11:26: ACTIVATED
Driver Version	7.0.0
Automatic Updates	Off
Control4 MAC Address	000FFF57DAFA
Driver Information	Gateway found and selected
Debug Mode	Off
Gateway MAC	44:33:00:00:08:1C
Gateway IP	192.168.147.120
Software Version	1.17
Config URL	http://192.168.147.131:51434
Test Code	0
Device Beep	Off

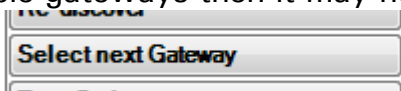
Make sure the Multi-X is powered on and connected to your network.

Enter the **Activation Key** in the field as shown. If you want to start a one off 14 day demo on the system then enter **demo-yourEVusername** as the activation key. See the Demo code section for more details.

Check that the **Activation Status** shows ACTIVATED.

As soon as the driver is activated it will search for a Multi-X gateway on your network. When it discovers a gateway it will display the details of the gateway it has discovered.

If you have multiple gateways then it may not initially discover the correct one. In this



instance use the **Select next Gateway** action to cycle through all the gateways on your network. When you have the correct gateway the driver will remember the details even if the controller is power cycled.

The **Config URL** property is used in the next step to learn the RF codes.

The **Test Code** property is used to test stored RF codes and is explained later.

The **Device Beep** property enables you to set the Multi-X to beep when it sends a command. This is useful for testing purposes.

Configure the Multi-X

Learn Codes

RF codes are learnt via a browser interface. You can use any popular browser to complete the task.

Copy the complete URL displayed in the **Config URL** property and then paste it into your browser. The URL points to a specific port on your Control4 controller. The following page will appear in your browser.

Matterlink Gateway Configuration



- [Learn Codes](#)
- [Manage Codes](#)
- [Save Configuration](#)
- [Load Configuration](#)

Gateway Setup

Select an option above to set up the gateway.

Note: You are configuring the Gateway with MAC address 44:33:00:00:08:1C at IP address 192.168.147.120

Check here that you are configuring the correct gateway if you have more than one.

Click on [Learn Codes](#) and the learning page will appear.

Matterlink Gateway Configuration



- [Learn Codes](#)
- [Manage Codes](#)
- [Save Configuration](#)
- [Load Configuration](#)

Learn Codes			
ID	Function Name	Code Type	Learn
1	<input type="text"/>	315MHz Code ▾	Learn Now
2	<input type="text"/>	315MHz Code ▾	Learn Now
3	<input type="text"/>	315MHz Code ▾	Learn Now
4	<input type="text"/>	315MHz Code ▾	Learn Now
5	<input type="text"/>	315MHz Code ▾	Learn Now
6	<input type="text"/>	315MHz Code ▾	Learn Now
7	<input type="text"/>	315MHz Code ▾	Learn Now
8	<input type="text"/>	315MHz Code ▾	Learn Now
9	<input type="text"/>	315MHz Code ▾	Learn Now
10	<input type="text"/>	315MHz Code ▾	Learn Now
11	<input type="text"/>	315MHz Code ▾	Learn Now
12	<input type="text"/>	315MHz Code ▾	Learn Now
13	<input type="text"/>	315MHz Code ▾	Learn Now
14	<input type="text"/>	315MHz Code ▾	Learn Now
15	<input type="text"/>	315MHz Code ▾	Learn Now
16	<input type="text"/>	315MHz Code ▾	Learn Now
17	<input type="text"/>	315MHz Code ▾	Learn Now
18	<input type="text"/>	315MHz Code ▾	Learn Now
19	<input type="text"/>	315MHz Code ▾	Learn Now
20	<input type="text"/>	315MHz Code ▾	Learn Now

[1-20](#) | [21-40](#) | [41-60](#) | [61-80](#) | [81-100](#) | [101-120](#) | [121-140](#) | [141-160](#) | [161-180](#) | [181-200](#) |

There are ten pages each with 20 slots to store codes.

Type a name to identify the code. Then select the type of code you are learning. The options are 315 MHz, 433 MHz and IR. The IR learning ability is not required if you are using a Control4 IR driver – however there may be instances where you want to control and IR fan or blinds where it is more convenient to store the codes in the Multi-X.

Then press the Learn Now button. When the following page is shown then press the corresponding button on your device’s remote control.

Matterlink Gateway Configuration



- [Learn Codes](#)
- [Manage Codes](#)
- [Save Configuration](#)
- [Load Configuration](#)

Learn Code

Press the button you want to learn on the remote control now.



The Multi-X will beep if it has learnt the code and then show the following screen.

Matterlink Gateway Configuration



- [Learn Codes](#)
- [Manage Codes](#)
- [Save Configuration](#)
- [Load Configuration](#)

Learn Code Successful

[Learn Another Code](#)

Continue learning all the RF codes you require. Return to the Learn Codes page to see the codes you have learnt.

Matterlink Gateway Configuration



- [Learn Codes](#)
- [Manage Codes](#)
- [Save Configuration](#)
- [Load Configuration](#)

Learn Codes			
ID	Function Name	Code Type	Learn
1	Blinds Up	315	<input type="button" value="Learn Now"/>
2	Blinds Down	315	<input type="button" value="Learn Now"/>
3		315MHz Code ▼	<input type="button" value="Learn Now"/>

If you want to rename or delete a code then use the [Manage Codes](#) page.

Save Configuration



IMPORTANT!

You **MUST** save the configuration after you have learnt all of the codes. This is in case you ever need to change your Controller or Multi-X.

The codes you have learnt are stored on the Control4 controller not the Multi-X. If you ever change the Control4 controller you will need to restore the codes.

Also if you want to copy the configuration to another Multi-X gateway in this or another project you will save time by having a saved configuration.

Select the Save Configuration option.

Matterlink Gateway Configuration



[Learn Codes](#)

[Manage Codes](#)

[Save Configuration](#)

[Load Configuration](#)

Save Configuration

Use the link below to download and save the current configuration. Remember to give it a descriptive name.

[Save Configuration](#)

Selecting the Save Configuration link will save the .gcf file to your computer. Remember to rename this with a descriptive name so you know what and where the configuration comes from.

Load Configuration

To load a previously saved configuration file select the Load Configuration option.

Matterlink Gateway Configuration



[Learn Codes](#)

[Manage Codes](#)

[Save Configuration](#)

[Load Configuration](#)

Load Configuration

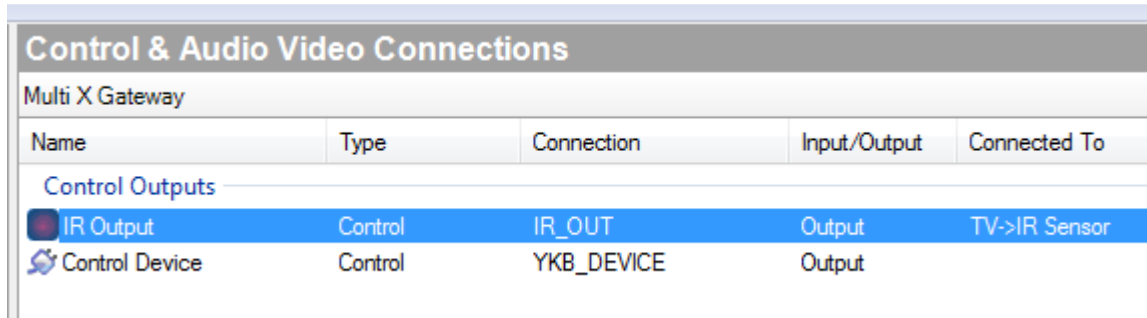
Select the file to upload below. Warning: This will overwrite any current codes for this gateway!

No file chosen

Use the **Choose File** button to select the .gcf file from your computer. Then press **Upload Configuration** to upload the file. It then immediately then becomes active.

Make IR Connections

If you want to use the Multi-X as a standard Control4 IR output device then you make connections as if this was a controller or an IO Extender.



Control & Audio Video Connections				
Multi X Gateway				
Name	Type	Connection	Input/Output	Connected To
Control Outputs				
IR Output	Control	IR_OUT	Output	TV->IR Sensor
Control Device	Control	YKB_DEVICE	Output	

You can connect multiple devices to the Multi-XIR output. The blaster on the Multi-X can control as many devices that are in range.

No additional programming is required for this function.

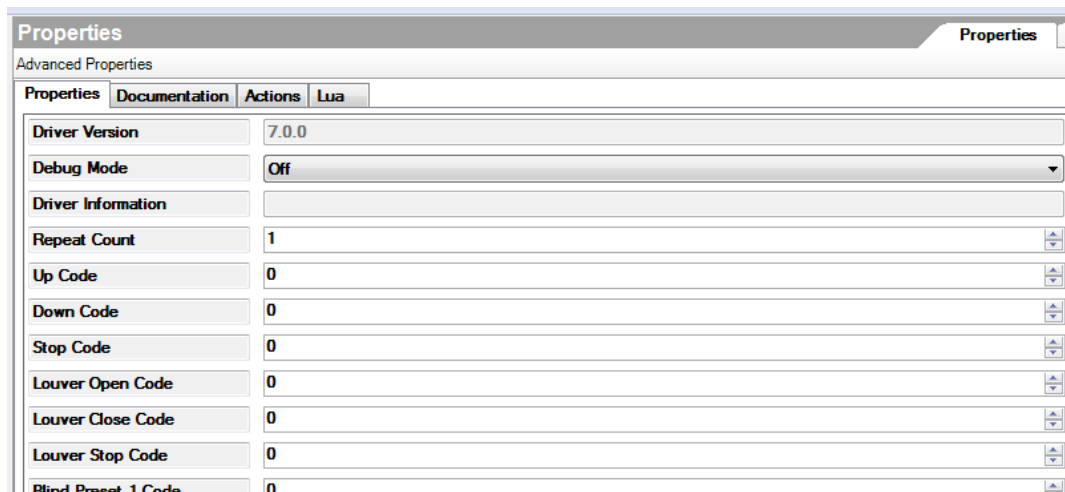
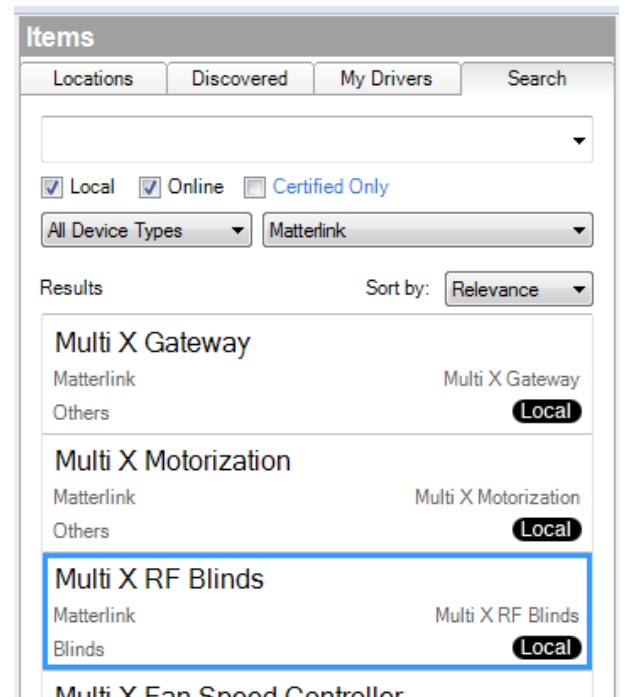
Slave Drivers

Blinds Driver

One of the most common devices that use RF is blinds.

There is a specific driver for the Multi X to control blinds. Filter the drivers by Manufacturer Matterlink and add the Multi X RF Blinds driver to your project.

This is a blinds V2 driver which provides a number of features such as Louver control. These are currently not available in the Control4 UI but the driver is ready if these additional features are added to the UI by Control4.



To configure the driver simply select the number of the code you stored for each function. So in our previous example we learnt Up into Code Position 1 and Down into Code Position 2. So the Properties would be set as follows.

Repeat Count	5
Up Code	1
Down Code	2
Stop Code	0

The **Repeat Count** property instructs the Multi-X to repeat each command up to 5 times. This may be useful if there are range or reliability concerns.

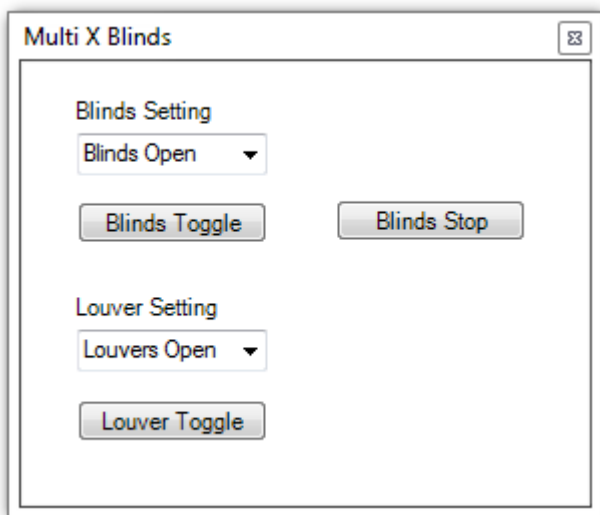


IMPORTANT!

If you have more than one Multi-X in your project you must ensure the slave drivers are connected to the correct gateway.

Control & Audio Video Connections				
Multi X Gateway				
Name	Type	Connection	Input/Output	Connected To
Control Outputs				
IR Output	Control	IR_OUT	Output	TV->IR Sensor
Control Device	Control	YKB_DEVICE	Output	Multi X Blinds->Gateway Connection

You can check the operation from within Composer by double clicking on the blinds device.



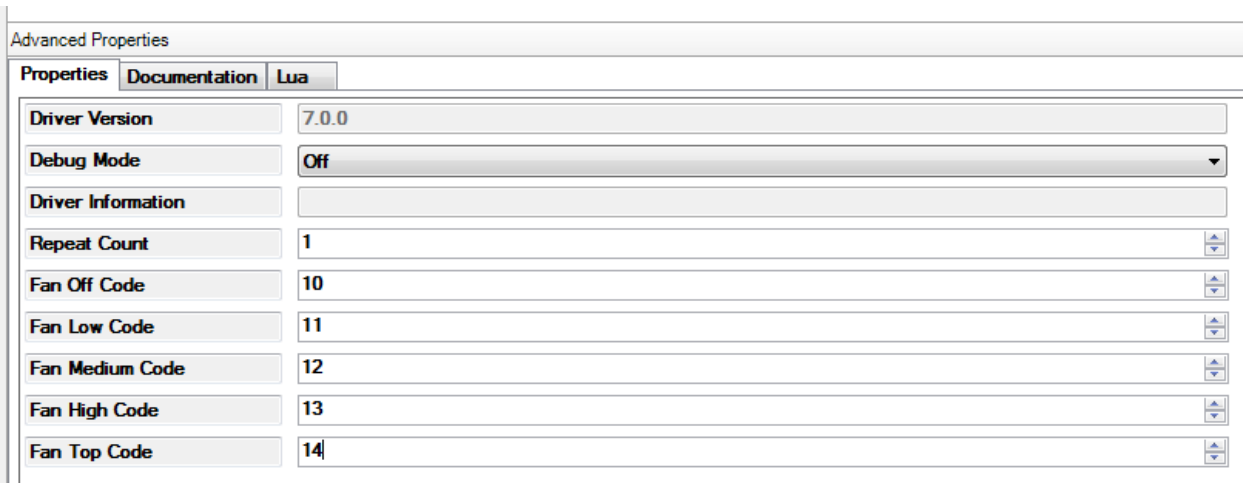
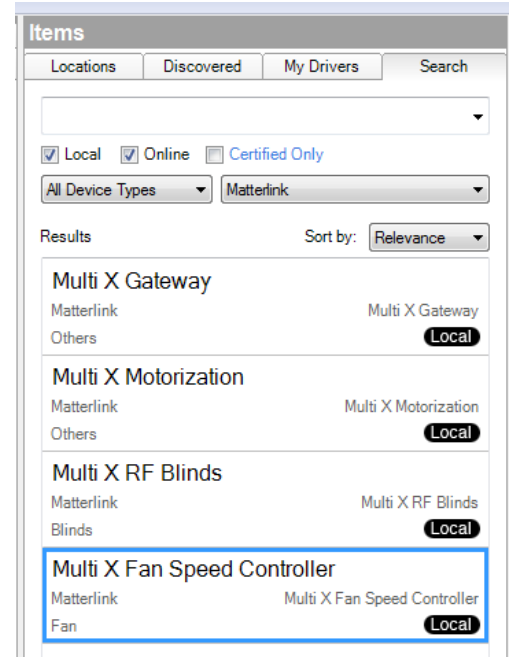
Fan Driver

The fan driver enables you to control an RF controlled ceiling fan via the Multi-X gateway.

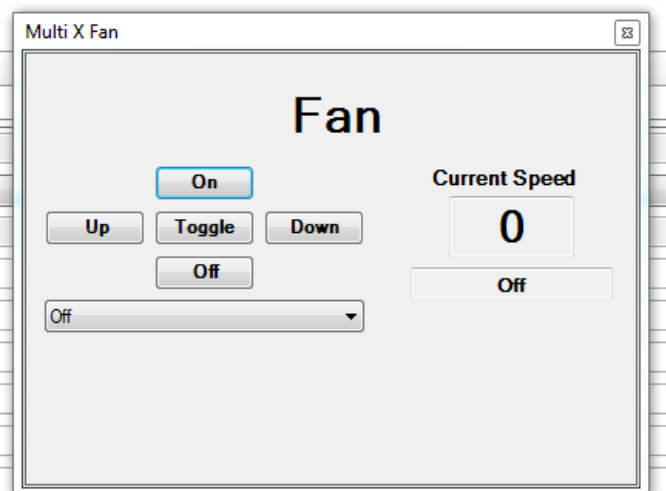
The fan driver assumes that the fan has four speeds and off. If your fan does not have that many speeds then we recommend that you use the same command for multiple speeds. So for example if the fan has only three speeds use the same code for High and Top.

You configure the driver properties with the Code Position numbers where you have stored the codes for each function.

The Repeat Count function instructs the Multi-X to repeat the command for each function up to five times.



Double clicking on the device in Composer allows the functions to be tested.

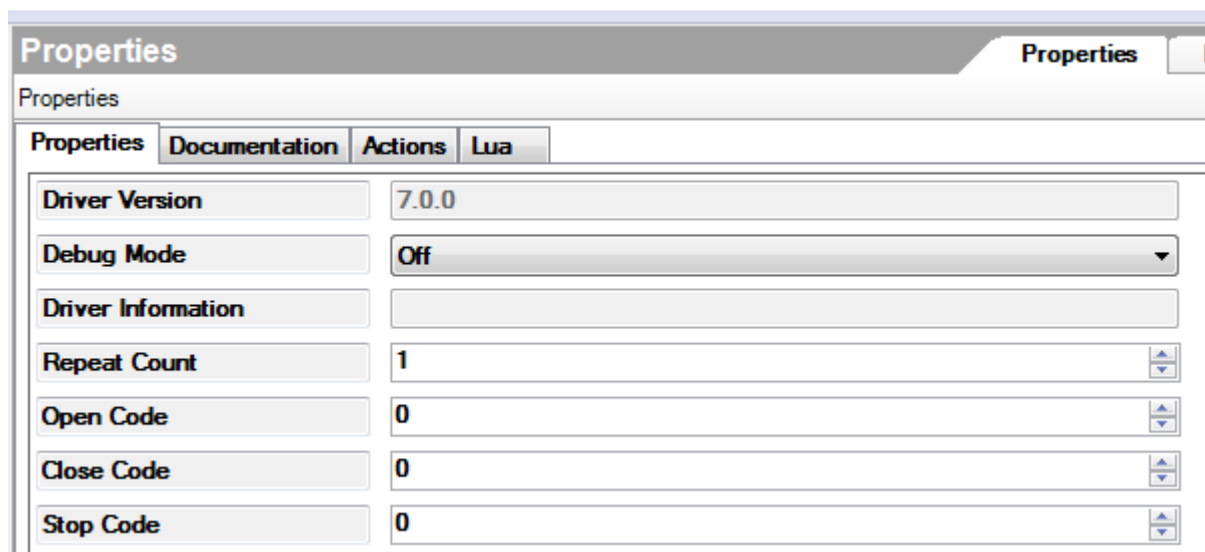
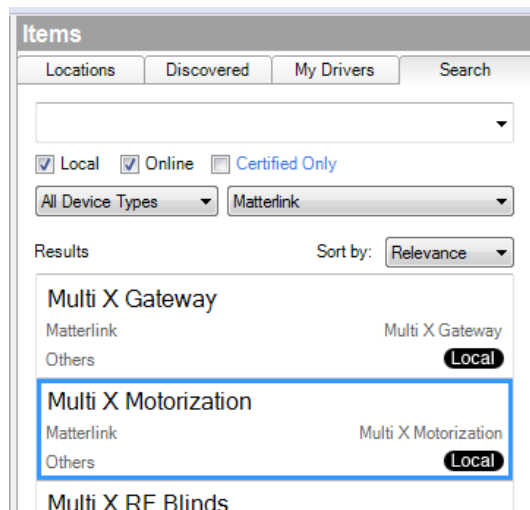


Motorization Relay

This driver enables the Multi-X to control a variety of other devices such as garage doors, gates, fountains etc.

The driver provides a connection to a standard Control4 motorization device which enables any one of the standard Control4 UI icons to be displayed on the UI.

The first step is to add the Multi X Motorization device to the project.



Select the Code Position in which you stored the commands for each of the function.

Hot Tip:



Control4 does not use the Stop code from the UI. However we have included it so that you can use it via Custom Programming. This can be useful for devices such as curtains.

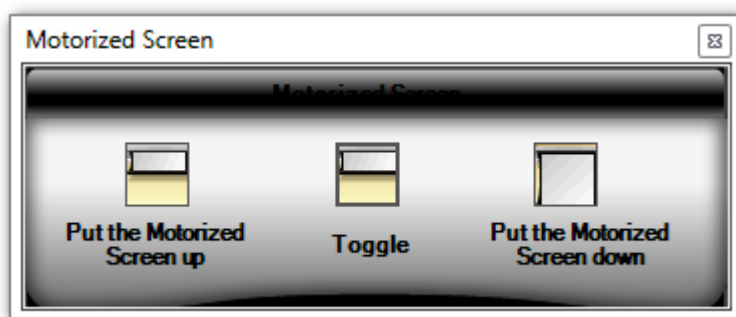
Once you have added the slave driver to the project you need to add a corresponding standard Control4 driver in order to provide a UI for the customer.

As an example we have added a Projector Screen to the project. The relay input then needs to be connected to the Multi-X as shown overleaf.

Control & Audio Video Connections					
Motorized Screen					
Name	Type	Connection	Input/Output	Watts	Connected To
Control Inputs					
Relay	Control	RELAY	Input	0	Multi X Motorization->Relay
RELAY Output Devices					
Device	Name	Location	Watts	Connections	Availal
Home Controller HC800	RELAY 1	Rack			
Home Controller HC800	RELAY 2	Rack			
Home Controller HC800	RELAY 3	Rack			
Home Controller HC800	RELAY 4	Rack			
Home Controller HC300	RELAY	Rack			
Multi X Motorization	Relay	Matterlink		Motorized Screen->Relay	

You can adjust the standard Control4 properties for the relay – such as setting a Pulse mode if required.

The device can be tested from Composer by double clicking on the Control4 Motorization Device (in this case the Motorized Screen).

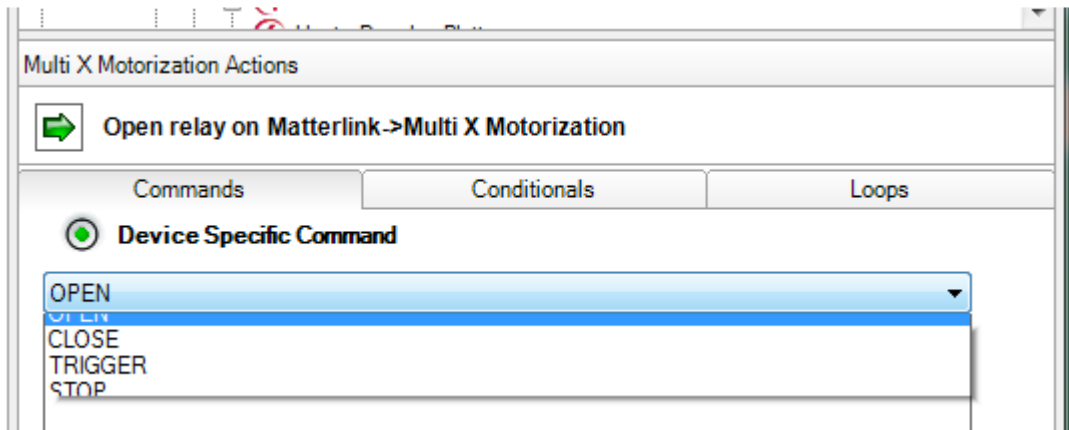


Custom Programming

The Fan and Blinds slave drivers provide the standard Control4 commands for controlling these devices in Custom Programming.

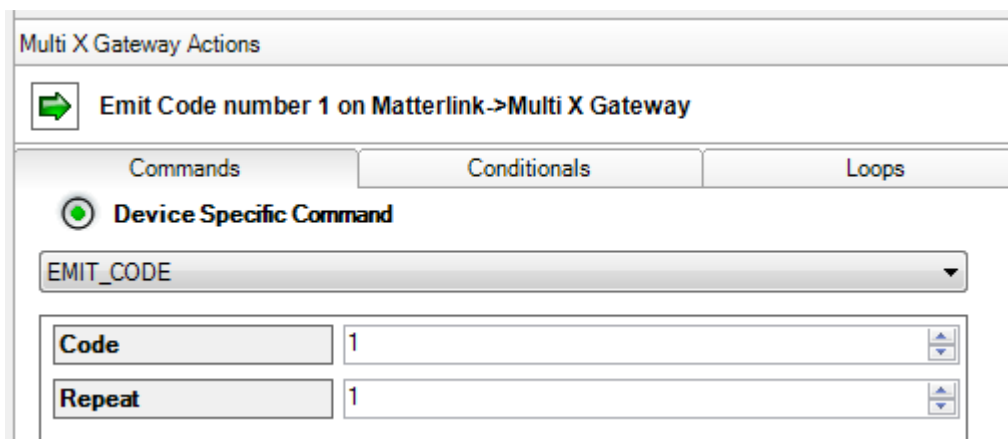
Motorization Driver

In instances where you do not want to provide a Control4 UI for a motorized device or if a suitable UI element does not exist we provide an alternate method of control. In this instance you do not need to add a standard Control4 device to your project. Instead you can control the device simply through custom programming.



Main Multi-X Driver

It is also possible to emit any saved code from the Multi-X gateway using the main Multi-X driver. This can be useful if you do not want to add any devices that provide a UI into the Control4 project.



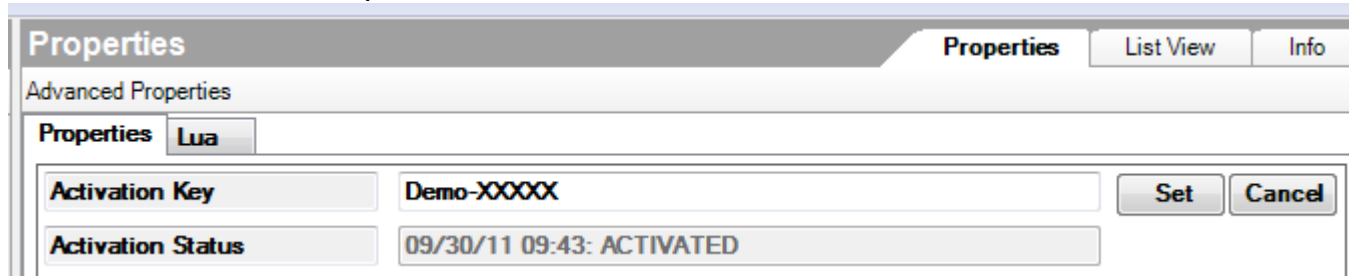
Using Custom Programming select the code you want to emit and how many times this should be repeated (up to a maximum of 5)

Activating the Driver

Drivers will not work until they are activated. In order to activate a driver you must have a dealer account with us. You can register at www.extravegetables.com/user/register The controller on which you want to activate the driver **must be connected to the Internet**. Activation is not possible unless the controller has an Internet connection.

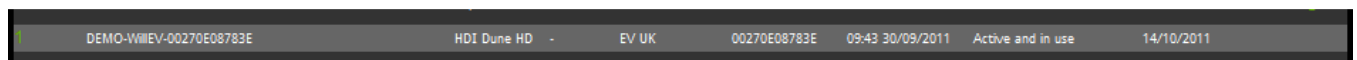
Activating a demo license

All drivers can be activated for a FREE 14 day trial. You can demo the driver on as many systems as you like, but you can only demo it once on each system. Demo activations are not extendable or repeatable.



The screenshot shows a 'Properties' dialog box with a 'Lua' tab selected. It contains two input fields: 'Activation Key' with the text 'Demo-XXXXX' and 'Activation Status' with the text '09/30/11 09:43: ACTIVATED'. There are 'Set' and 'Cancel' buttons to the right of the 'Activation Key' field.

To activate the driver in demo mode type the word Demo followed by a – and then your extravegetables.com username. So as per the example above you would replace the XXXXX with your username. You will then see the Activation Status change to ACTIVATED.



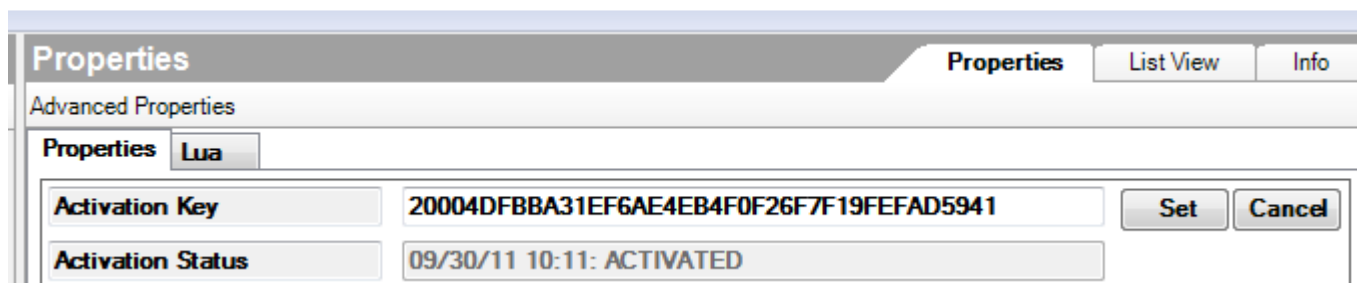
DEMO-WMIEV-00270E08783E	HDI Dune HD	EV UK	00270E08783E	09:43 30/09/2011	Active and in use	14/10/2011
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On your dealer login under licenses you will now see that the demo has been initiated for this driver – and the date at which the demo will expire.

Purchasing a permanent license

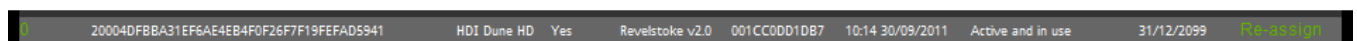
To purchase a permanent license login to your dealer account and make your purchase through our website. Remember you no longer need to specify the MAC address of the controller in advance.

You will automatically receive your license key within a few minutes of purchase 24/7. Your license key will also appear in your dealer account as 'Available for activation'.



The screenshot shows a 'Properties' dialog box with a 'Lua' tab selected. It contains two input fields: 'Activation Key' with the text '20004DFBBA31EF6AE4EB4F0F26F7F19FEFAD5941' and 'Activation Status' with the text '09/30/11 10:11: ACTIVATED'. There are 'Set' and 'Cancel' buttons to the right of the 'Activation Key' field.

Carefully copy and paste the License key into the Activation Key field and press Set. The driver will then verify the code via the Internet and show Activated. On your dealer login you will also see the license is active and in use, together with the system details.



20004DFBBA31EF6AE4EB4F0F26F7F19FEFAD5941	HDI Dune HD	Yes	Revelstoke v2.0	001CC0DD1DB7	10:14 30/09/2011	Active and in use	31/12/2099	Re-assign
--	-------------	-----	-----------------	--------------	------------------	-------------------	------------	-----------