



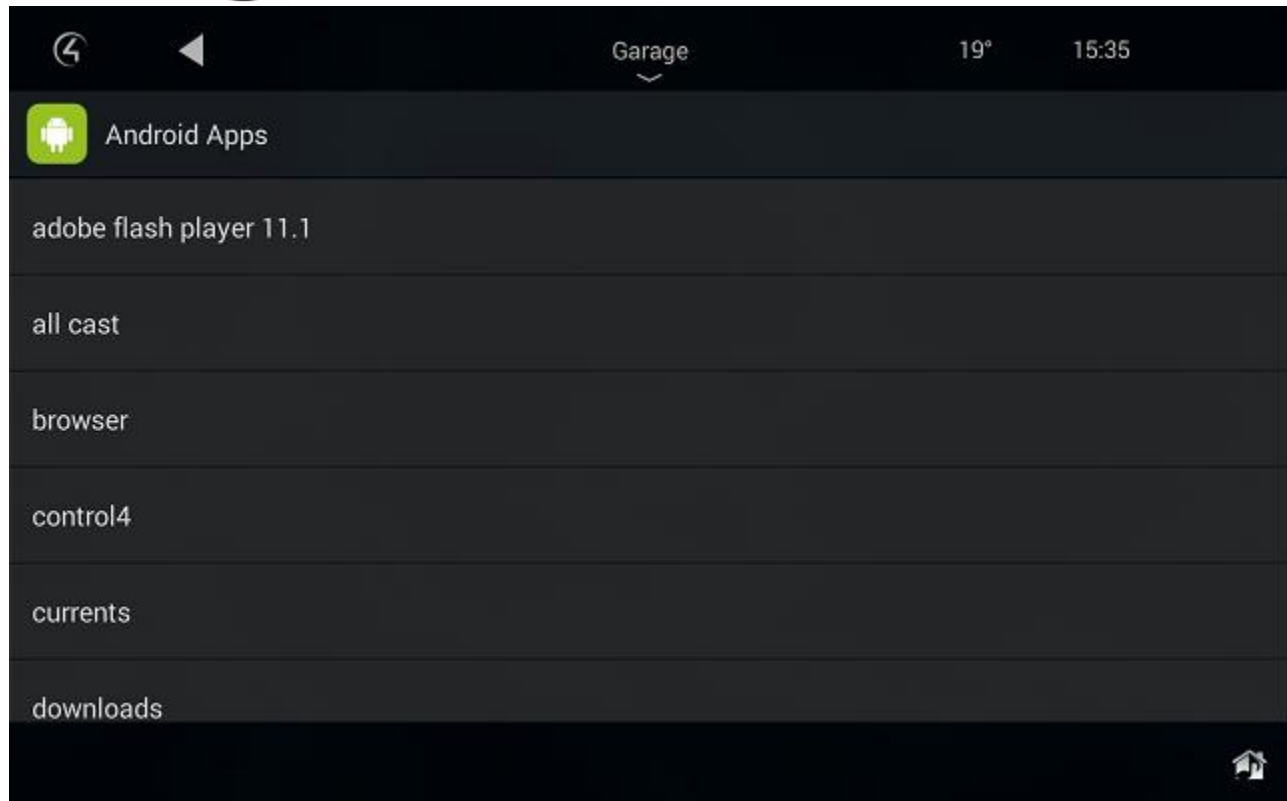
Google Android Driver

Installation and Usage Guide

Revision: 3.0
Date: Monday, July 10, 2017
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Overview

The Chowmain Google Android driver is designed to primarily control Google Android Set Top Boxes. This allows you to utilise the Control4 SR-260 remote to navigate the Android operating system and control applications as you would with a normal infra red remote control.

It also allows application launching via the Apps driver (which lists all installed apps), via mini drivers for individual apps (for the most popular applications), via coloured buttons and also programmatically.

You can also use the ability to mimic onscreen navigator functionality via the Control4 android application. Note that the Control4 navigator application was not designed to be used via navigational buttons and as such mouse cursor keys will need to be used.

Note that this driver requires a 3rd party application called LANmote Deluxe be installed and configured on a rooted android device.

Features

- IP Based communications
- Launch applications from apps driver, mini drivers, coloured buttons or via programming tab
- Transport Controls
- Playback Control
- SMS stype text entry via numberpad
- Mouse navigation emulation via number pad
- Audio End-Point assignment for volume up/down/mute funcitonality
- Video End-Point assignment



Change Log

Version #20160922 - 22-SEP-2016

- Major update to support mini apps, MSP based apps list and Android icon.

Version #20141201- 01-DEC-2014

- Initial Release

Important Notice

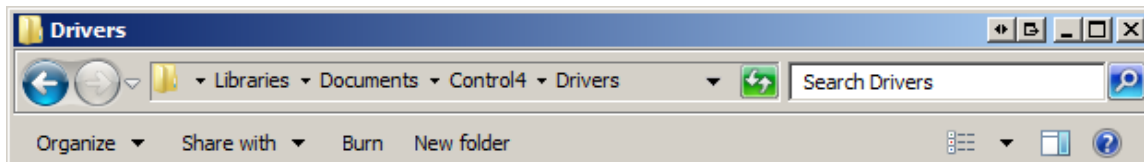
This driver is designed to work on Android devices with LANmote Deluxe installed and operating (<https://play.google.com/store/apps/details?id=com.portable.LANmote.Deluxe>). Lanmote Deluxe can only be installed onto Android devices with root access. Not all Android devices are root capable. It is recommended that you install the LANmote Deluxe application first and test it out to ensure it works on your device prior to purchasing this driver.

Driver Installation

1. The driver you have downloaded will be in a zip file. Double click on this file to open it in your preferred zip program (WinZip, WinRar, etc.).



2. Extract the c4i file to the My Documents\Control4\Drivers directory. If you are using Windows 7 or 8 this will be extracted to the Libraries\Documents\Control4\Drivers directory.

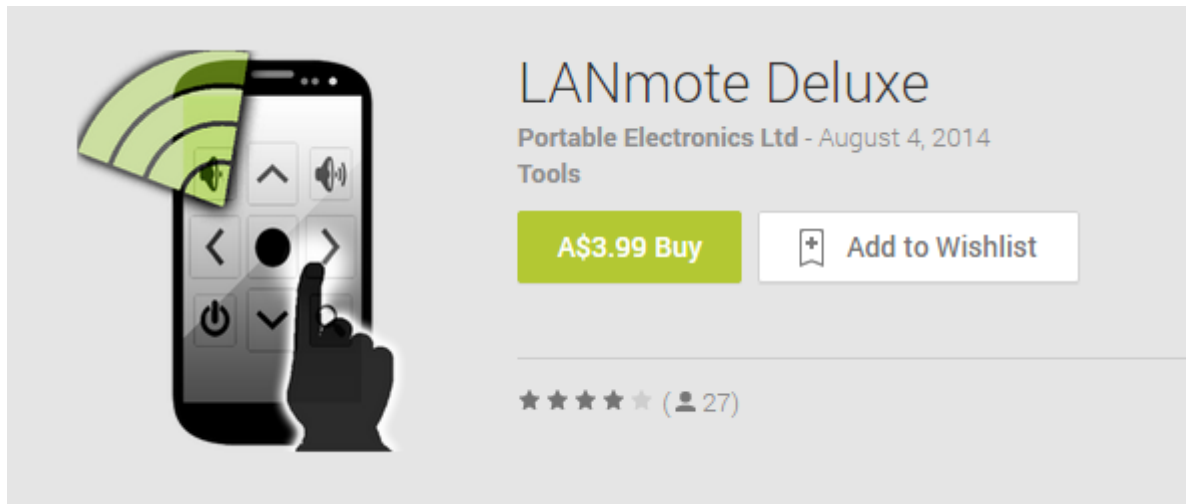


3. You are now ready to add and configure the driver via the Composer Pro software.

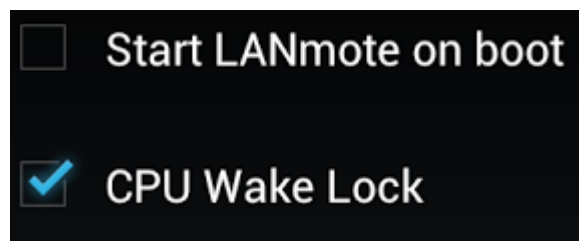
Installing LANmote Deluxe

This driver is designed to work on Android devices with LANmote Deluxe installed and operating. Lanmote Deluxe can only be installed onto Android devices with root access. Not all Android devices are root capable. It is recommended that you install the LANmote Deluxe application first and test it out to ensure it works on your device prior to purchasing this driver.

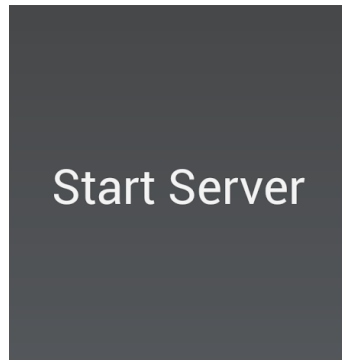
1. Purchase & download LANmote Deluxe from Play Store
(<https://play.google.com/store/apps/details?id=com.portable.LANmote.Deluxe>)



2. Check the box labeled 'Start LANmote on boot'
3. Check the box labeled 'CPU Wake Lock'



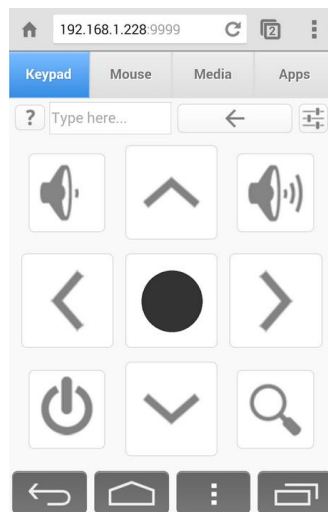
4. Click on the button labeled 'Start Server'.



5. It will then display a QR code along with a web address for the server. Take note of the IP address and port number

<http://192.168.1.228:9999>

6. Visit the URL in your favourite web browser to ensure it is working.




7. Click on the navigation buttons to ensure that it is navigating.
8. Congratulations you have setup LANmote Deluxe.

Adding the android driver to your project

IMPORTANT – Before undertaking the installation of the driver please follow the licencing steps outlined at the end of this document.

1. Launch the Composer Pro application and connect to your project
2. In the '**System Design**' page select the '**Search**' tab on the right hand side.
3. Type in google android in the search bar

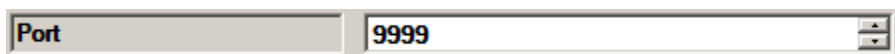


4. Double click on the '**Android Full**' driver to add it to your project
5. Highlight the '**Android OSD**' driver on the left hand side.
6. Enter in the IP Address.

Note: It is recommended that the Android device be placed on a static IP address or have a reserved IP address for stability purposes.



7. Enter in the Port Number (default is 9999 for LANmote).



8. If you want the colour buttons to launch applications then enter the app names here (can be a partial name).

Launch App on Button Press	
Red	
Green	
Yellow	
Blue	

9. Click on the Connections tab.







10. Highlight the '**Android Virtual Switcher**' driver on the left hand side (you may need to expand the Android OSD driver by clicking on the + symbol)

11. Bind the audio/video outputs to the relevant inputs.

Audio/Video Outputs				
 OUTPUT	Video	COMPOSITE	Output	
 OUTPUT	Video	SVIDEO	Output	
 OUTPUT	Video	COMPONENT	Output	
 OUTPUT	Video	HDMI	Output	Receiver->INPUT DVD
 OUTPUT	Video	VGA	Output	
 OUTPUT	Audio	STEREO	Output	
 OUTPUT	Audio	DIGITAL_OPTICAL	Output	
 OUTPUT	Audio	DIGITAL_COAX	Output	

12. If you want to use the Android device as an onscreen navigator or as an audio/video endpoint select it here.

Room Control				
 Room Selection - OUTPUT	RoomControl	AUDIO_SELECTION	Output	Development->Video's Audio End-Point 1
 Room Selection - OUTPUT	RoomControl	AUDIO_VOLUME	Output	
 Room Selection - OUTPUT	RoomControl	VIDEO_SELECTION	Output	Development->Video End-Point
 Onscreen Navigator	RoomControl	ONSCREEN_SELECTI...	Output	Living / Dining->On-Screen Device

13. Click on the File and Refresh Navigators. Congratulations you have set up your Android device. If you want to add in mini drivers (for quick launch of a certain app please see the next section).

Adding the mini drivers to your project

Mini drivers allow you to select the android box as the source and also select an application from under the watch menu in Navigator. This makes using the android box on Control4 more attractive and seamless. We have numerous mini drivers created for use with driver and we are open to suggestions for apps that are popular.



1. Launch the Composer Pro application and connect to your project
2. In the '**System Design**' page select the '**Search**' tab on the right hand side.

3. Type in android in the search bar

android

☒ Local ☒ Online ☐ Certified Only

-- All Device Types -- -- All Manufacturers --

Results Sort by: Relevance

Showtime - Android	
Android	Showtime
Media Play	Local
Sling TV - Android	
Android	Sling TV
Media Play	Local
Mega Drive - Android	
Android	Mega Drive
Media Play	Local
Sony Playstation 2 - Android	
Android	Sony Playstation 2
Media Play	Local

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4. Android mini apps designed for use with our Android Full driver will look similar to the ones listed in the screenshot above (with name – Android as the syntax). Double click on the drivers you would like added to your system.
5. Highlight the mini driver you added on the left hand side.
6. The driver will display the default Android App name

Android App YouTube




7. This is used to launch the application. If you want to utilise a different application from the default one listed please change the name here and press Set.

8. Click on the Connections tab.







9. Highlight the '**Android Virtual Switcher**' driver on the left hand side (you may need to expand the Android OSD driver by clicking on the + symbol)
10. Bind the mini app to the Android App input. Doesn't matter which input you bind it to. You can add upto 25 mini apps to launch per android device.

Audio/Video Inputs

	Android App 1	Video	RF_ANDROID_APP	Input	Netflix->Netflix
	Android App 2	Video	RF_ANDROID_APP	Input	Hulu->Hulu
	Android App 3	Video	RF_ANDROID_APP	Input	Disney Channel->Disney Channel
	Android App 4	Video	RF_ANDROID_APP	Input	HBO Go->HBO Go
	Android App 5	Video	RF_ANDROID_APP	Input	YouTube->YouTube
	Android App 6	Video	RF_ANDROID_APP	Input	Gameboy Advance->Gameboy Advance
	Android App 7	Video	RF_ANDROID_APP	Input	Nintendo Gamecube->Nintendo Gamecube
	Android App 8	Video	RF_ANDROID_APP	Input	HBO Now->YouTube
	Android App 9	Video	RF_ANDROID_APP	Input	Arcade Games->Arcade Games
	Android App 10	Video	RF_ANDROID_APP	Input	Nintendo 64->N64
	Android App 11	Video	RF_ANDROID_APP	Input	Super Nintendo Entertainment System->SNES
	Android App 12	Video	RF_ANDROID_APP	Input	Nintendo Entertainment System->NES
	Android App 13	Video	RF_ANDROID_APP	Input	Sony Playstation 2->PS2
	Android App 14	Video	RF_ANDROID_APP	Input	Sony Playstation->PSX
	Android App 15	Video	RF_ANDROID_APP	Input	Mega Drive->Mega Drive
	Android App 16	Video	RF_ANDROID_APP	Input	Showtime->Showtime
	Android App 17	Video	RF_ANDROID_APP	Input	Sling TV->Sling TV
	Android App 18	Video	RF_ANDROID_APP	Input	HBO Now 2->VEVO
	Android App 19	Video	RF_ANDROID_APP	Input	Vimeo->Vimeo
	Android App 20	Video	RF_ANDROID_APP	Input	VUDU->VUDU
	Android App 21	Video	RF_ANDROID_APP	Input	Watch ESPN->Watch ESPN
	Android App 22	Video	RF_ANDROID_APP	Input	

11. If you want to use the Android device as an onscreen navigator or as an audio/video endpoint select it here.

Room Control

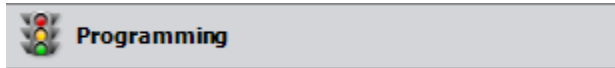
	Room Selection - OUTPUT	RoomControl	AUDIO_SELECTION	Output	Development->Video's Audio End-Point 1
	Room Selection - OUTPUT	RoomControl	AUDIO_VOLUME	Output	
	Room Selection - OUTPUT	RoomControl	VIDEO_SELECTION	Output	Development->Video End-Point
	Onscreen Navigator	RoomControl	ONSCREEN_SELECTI...	Output	Living / Dining->On-Screen Device

12. Click on the File and Refresh Navigators. Congratulations you have set up your Android mini apps.

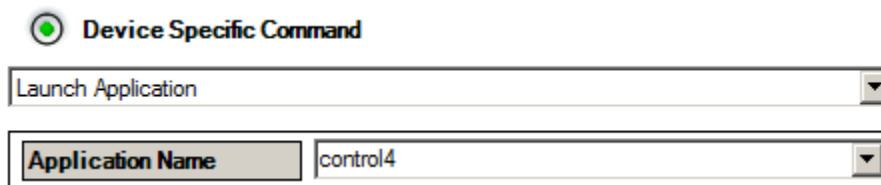
Launching an application on event

Launching an application is quite useful for certain aspects in your home. For example launching an application on doorbell press, if motion is triggered in a secluded area or if you want the tablet to go back to the Control4 application at a scheduled time.

1. Click on the '**Programming**' tab.



2. Under Device Events select the event you want to trigger the application launch on.
3. Under Device Actions select the Android driver.
4. Select the radio button next to Device Specific Command
5. Select Launch Application
6. In the Application Name type in the name of the application you want to launch (can be partial).

A screenshot of a configuration form. At the top, there is a radio button with a green dot next to the text 'Device Specific Command'. Below this, there is a dropdown menu with 'Launch Application' selected. At the bottom, there is a section with a label 'Application Name' and a text input field containing 'control4'.

7. Drag and drop the green arrow into your script.
8. Congratulations you have programmed an application launch.

Keymap

The SR-260 can control the android box via the following buttons. Note that the numerical keypad can change functionality by using the Keyboard mode and Mouse mode buttons.

Up	-	Navigate Up
Down	-	Navigate Down
Left	-	Navigate Left
Right	-	Navigate Right
Select	-	Enter Key
Page Up	-	Page Up on Selected Panel
Page Down	-	Page Down on Selected Panel
Prev	-	Back
Guide	-	Home Screen
Volume Up	-	Volume Up (need to set to audio endpoint)
Volume Down	-	Volume Down (need to set to audio endpoint)
Mute	-	Mute Toggle (need to set to audio endpoint)
Info	-	Recent Apps
Menu	-	Menu
Cancel	-	Back
Play	-	Play/Pause
Pause	-	Play/Pause
Stop	-	Stop
Skip Forward	-	Next Track
Skip Reverse	-	Previous Track
Scan Forward	-	Fast Forward
Scan Reverse	-	Rewind

Star	-	Keyboard Mode
Pound/Hash	-	Mouse Mode
Record	-	backspace
Number 0	-	Mouse Down, Mouse Up (mouse mode); space or 0 (keyboard mode)
Number 1	-	Move cursor up-left (mouse mode); . : / @ or 1 (keyboard mode)
Number 2	-	(mouse mode); a,b,c or 2 (keyboard mode)
Number 3	-	Move cursor up-right (mouse mode); d,e,f or 3 (keyboard mode)
Number 4	-	Move cursor left (mouse mode); g,h,i or 4 (keyboard mode)
Number 5	-	Click (mouse mode); j,k,l or 5 (keyboard mode)
Number 6	-	Move cursor right (mouse mode); m,n,o or 6 (keyboard mode)
Number 7	-	Move cursor down-left (mouse mode); p,q,r,s or 7 (keyboard mode)
Number 8	-	Move cursor down (mouse mode); t,u,v or 8 (keyboard mode)
Number 9	-	Move cursor down-right (mouse mode), w,x,y,z or 9 (keyboard mode)

Licencing

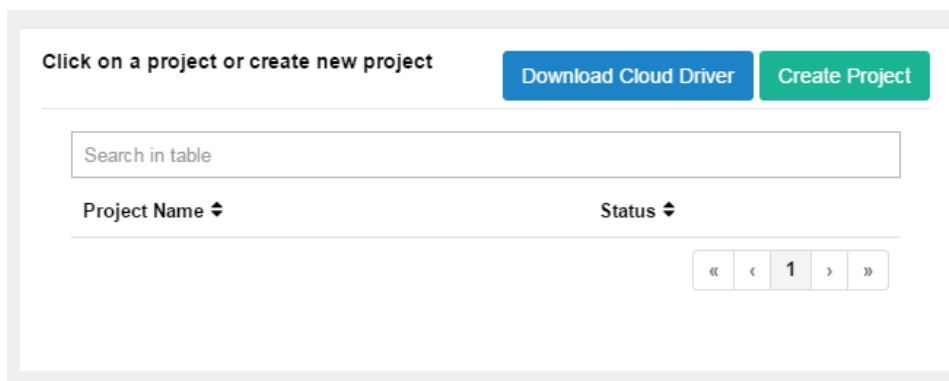
Chowmain drivers require a valid licence to use the driver. Drivers can be purchased from our distributor [driverCentral](#) however all Chowmain drivers come with a 7 day trial. We recommend that prior to purchasing a driver that you test the driver out to ensure that it will work with your hardware and will meet your requirements. The licencing procedure is broken down into 4 steps. A summary of the steps are below along however we have also provided detailed steps if the summary is not sufficient.

Summary

1. Create your project on the driverCentral.io website (This will generate a specific token which you will use in the next step)
2. Download, install and activate the driverCentral cloud driver in your project (Only once per project. Use the token generated in step 1)
3. (Optional) To try a driver, simply download it and install it in your project
4. To purchase a driver:
 - a. On driverCentral, purchase a license and register it to your project
 - b. If the driver is not already installed in your project, download it and install it
 - c. If necessary, use the cloud driver's Action: "Check Drivers" to force licence download to the project.

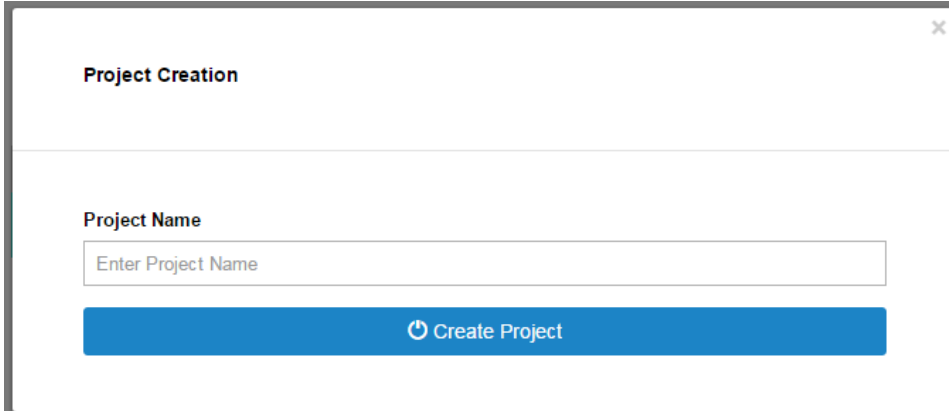
STEP 1 - Creating your project on driverCentral

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account.
3. Visit the Project Portal
4. Click on Create Project



The screenshot shows the 'Project Portal' interface. At the top, there is a header with the text 'Click on a project or create new project' and two buttons: 'Download Cloud Driver' (blue) and 'Create Project' (green). Below the header is a search bar with the placeholder text 'Search in table'. Under the search bar, there are two columns: 'Project Name' and 'Status', both with a dropdown arrow. At the bottom right, there is a pagination control showing '1' in a box, with arrows for navigation.

- It will prompt you for a project name. Type in a meaningful name for your customer's project



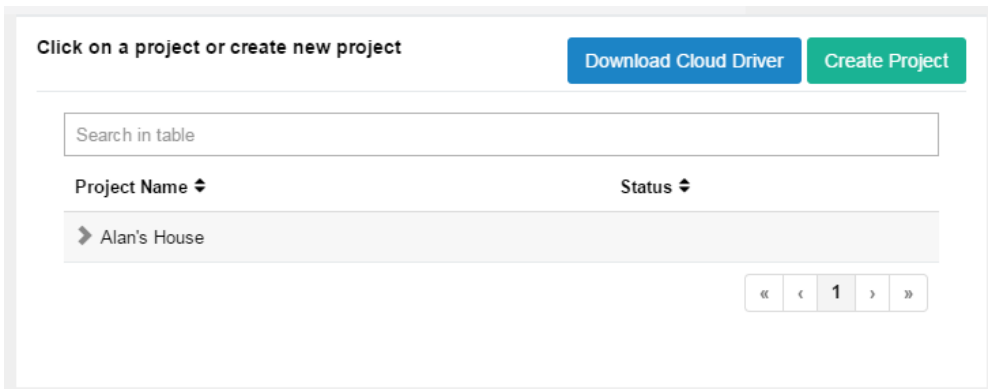
Project Creation

Project Name

Enter Project Name

Create Project

- Click on Create Project
- Click on the project we just created to expand the project



Click on a project or create new project

Download Cloud Driver Create Project

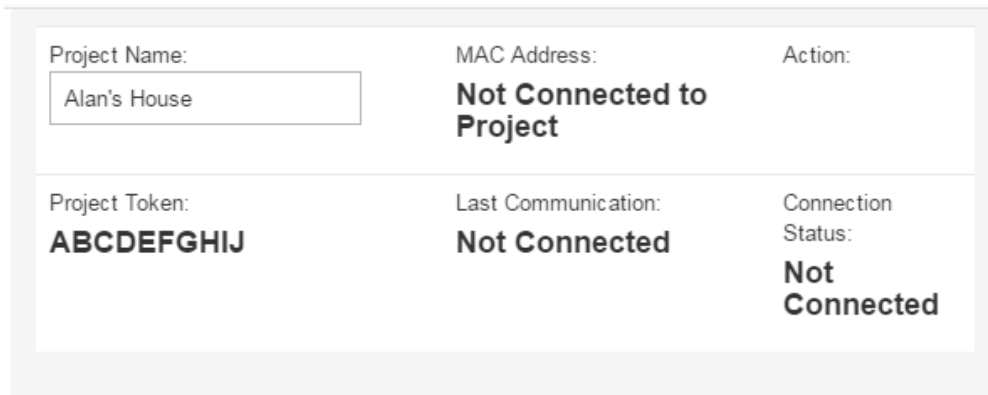
Search in table

Project Name Status

Alan's House

« < 1 > »

- Take note of the Project Token as this will be used in STEP 3 when we install the driverCentral cloud driver.



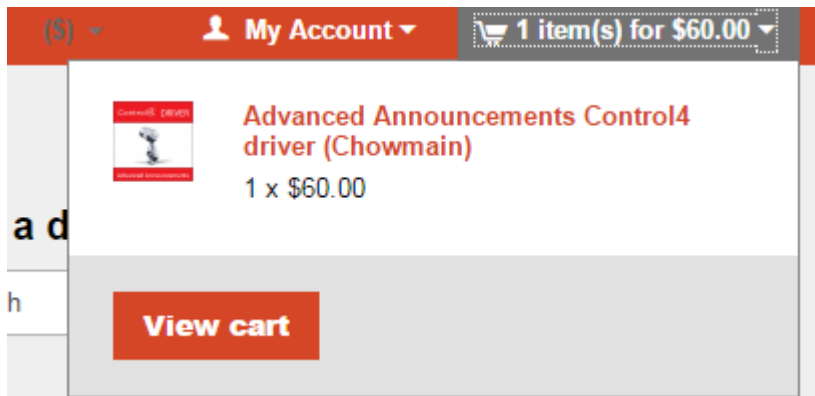
Project Name: Alan's House	MAC Address: Not Connected to Project	Action:
Project Token: ABCDEFGHIJ	Last Communication: Not Connected	Connection Status: Not Connected

STEP 2 –Purchase driver licence

1. Visit <https://www.drivercentral.io/chowmain-ltd/> and find the product/driver you want to purchase a licence for.
2. Click on the Add to Cart button



3. Click on the Shopping Cart icon in the top right corner and click on View cart




4. Confirm that your order is correct and click on Proceed to checkout



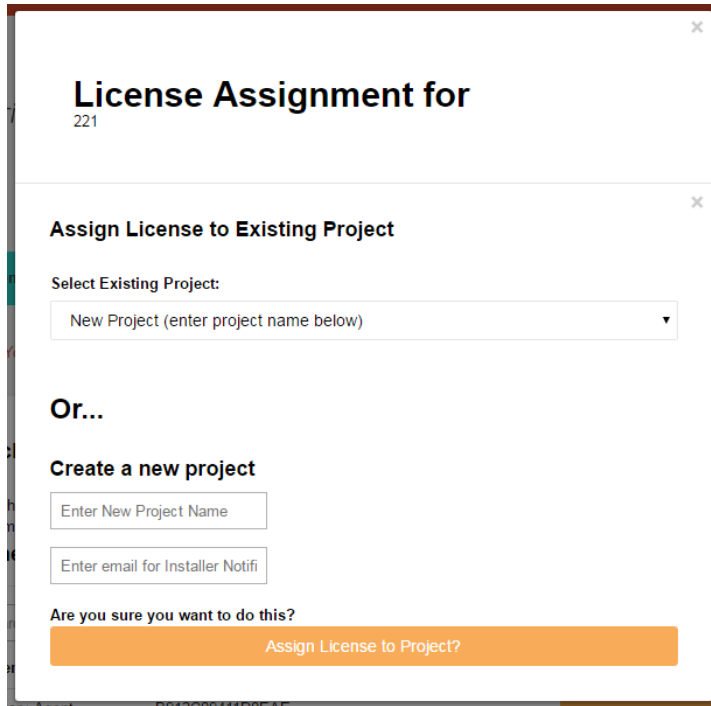
5. Follow the prompts and click on Submit my order



6. This will take you to PayPal for payment.
7. Pay via PayPal. It will automatically return to the marketplace when confirmed.
8. You will now be at a page where you can see your purchased licence.

License Name ↕	License Key ↕	Project Assigned ↕	Action ↕
			<button>Assign to Project</button>

- From here assign the licence to the project we created or if you did not follow that step create a new project



License Assignment for
221

Assign License to Existing Project

Select Existing Project:
New Project (enter project name below) ▼

Or...

Create a new project

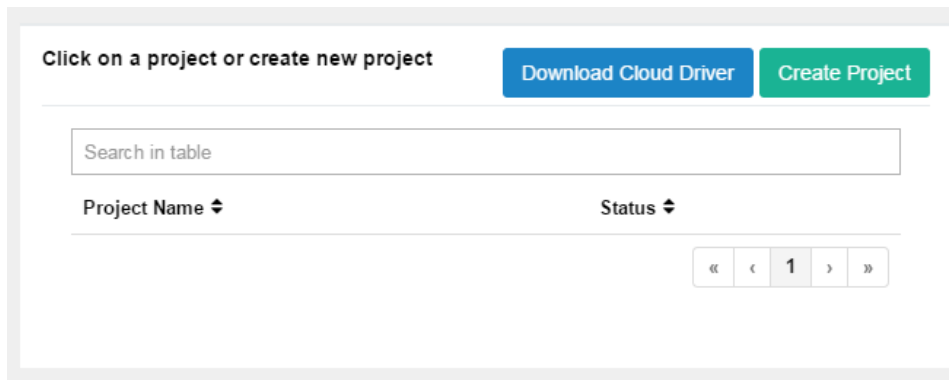
Enter New Project Name
Enter email for Installer Notifi

Are you sure you want to do this?
Assign License to Project?

STEP 3 – Install and activate the driverCentral cloud driver

NOTE: Only one instance of the driverCentral cloud driver installed per project. Do not install additional cloud drivers.

- Visit <http://www.drivercentral.io>
- Log into your driver Central dealer account.
- Visit the Project Portal
- Click on Download Cloud Driver



Click on a project or create new project

Download Cloud Driver Create Project

Search in table

Project Name ↕	Status ↕
« < 1 > »	

- Copy the C4Z driver to My Documents\Control4\Drivers directory.
- Add the driver to your project.

- Click on the driver to view it's properties

Cloud Status	Please enter cloud project token below...
Project Information	(1) Total, (0) Licensed, (0) Trials, (1) Expired, (0) Updates.
Driver Version	1001
Project Token	<input type="text"/>
	Project token from driverCentral.io project portal
Driver Actions	<input type="button" value="v"/>
Debug Mode	Off <input type="button" value="v"/>

- Type in the project token we took note of in STEP 1.
- Click on the Actions tab
- Click on Check Drivers

STEP 4 – Install Chowmain driver

- Install the Chowmain driver
- You will notice that the Activation Status reflects a Licence Activated state.
- Any driver that does not have a purchased licence will have a trial licence activated via the marketplace. Note that there is no way to reactivate the trial so please use wisely.
- If you do not then press the Check Drivers action in the driverCentral Cloud driver again.

Activation Status	Update Available!!! License Activated
Driver Version	1002
Driver Information	Navigate to connections tab and make serial binding
Automatic Updates	Off <input type="button" value="v"/>