



Kodi Lite Driver

Installation and Usage Guide

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Overview

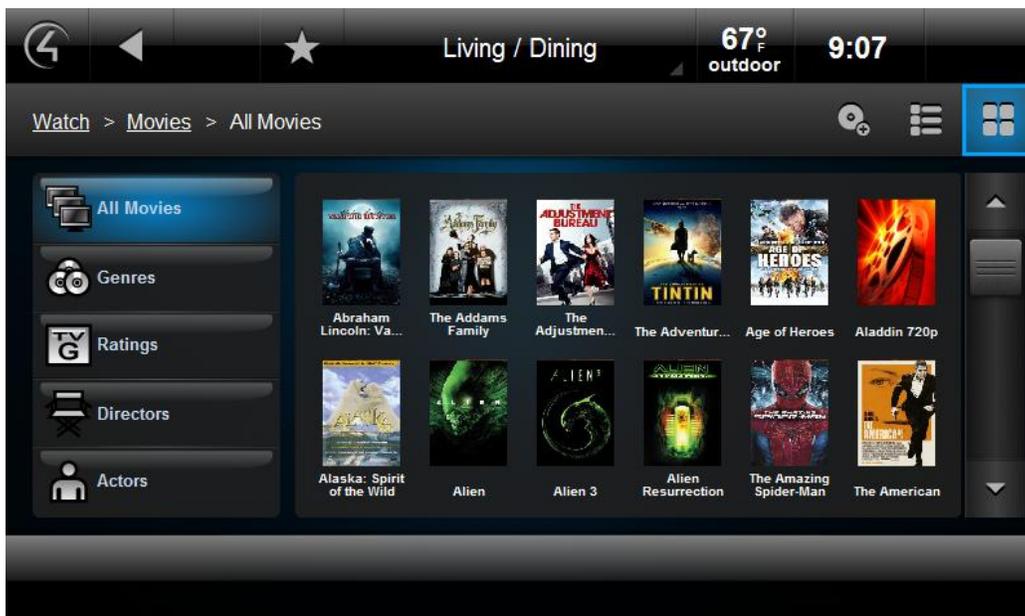
This driver is developed for the Kodi Entertainment Center (formerly known as XBMC).

Kodi Entertainment Center is a software based media player that can be installed on Windows, MAC, Linux, Raspberry Pi and Android based platforms. Kodi offers a beautiful simple interface that enriches your playback experience. The Chowmain Kodi Lite driver enables us to integrate the Kodi Entertainment Center into the Control4 home automation system with seamless control and feedback.

For example you could have the system automatically turn the tv and receiver on when you send content from your smart phone (via airplay or UPnP) to the Kodi or if you have fallen asleep whilst watching a movie have it automatically turn the tv and receiver off when Kodi goes into screen saver mode.

The driver also imports the entirely Kodi movie library into Control4. 700 movies from our tests can be imported into Control4 with about 30 minutes including all meta data and cover art. It makes movie playback in high end cinemas easy with automatic masking via video aspect ratio detection.

This is the ultimate media player integration in Control4 with features that no other media player driver offers. Read the installation guide to get a better understanding of what the driver can do.



Features

- IP based communications
- Transport controls
- Numerical buttons act as jump to percentage during video playback or SMS style quick navigation when in navigational modes.
- Support for PVR (Guide, Record, DVR, Channel Up, Channel Down buttons)
- Movie selection from Control4's Navigator
- Automatic Import Movies from the Kodi library into Control4's library with meta data and cover art.
- Automatic Room On (like the music bridge) on playback detection and automatic Room Off on screen saver activate.
- 2 way feedback via the JSON API for play, pause, stop, screen saver active/deactive, Detected File Type, Video Aspect Ratio, Video Resolution, Video/Music/TV/Radio currently playing, Memory usage, CPU usage, CPU Frequency, System Total Space, System Uptime, System Temperature, Client Platform, Client Version & Client Name
- Assignable buttons for non intuitive buttons
- Wake-on Lan functionality
- Power off options
- Ability to send custom messages to Kodi Entertainment Center via Kodi Notifications (similar to Control4 Announcements via Navigator).
- Audio End-Point assignment for line level volume up/down/mute functionality
- Video End-Point assignment
- Support for Android boxes (if XBMC app is closed it will launch upon ON command, also if XBMC exited by user you can navigate and control Android applications).

FAQ

Why is this driver called KODI Lite?

Initially we wanted to make the best KODI driver around however as we kept working on it our aspirations just kept getting higher and higher. As such the development efforts and timeframe has expanded exponentially. To get the driver to market quickly we decided to make two drivers. KODI Lite and KODI Full. Kodi Lite is still one of the best media player drivers on the market with exceptional features. Kodi Full however will be THE best media player driver on the market with full library navigation, live meta data, cover art and more. They will be both priced accordingly. Some people won't want all the features available in KODI Full so we've made KODI Lite which is priced to suit.

Can you give us some examples of how we could use this driver?

- Now with Android support you can purchase Android Set Top Boxes for under \$200 that will provide you with the full XBMC experience and Android experience. Play games, surf the web and use XBMC.
- Create the perfect cinema experience by dimming the lights down when a movie starts, ramp it back up when the movie ends or if the user pauses or stops the movie. Also automatically set the cinema to different modes based upon the movie aspect ratio.
- Setup logic to change your LED lightings colour dependant on the movie name. If you're watching something set in the ocean set it to blue. If you're watching something set in the jungle set it to green or if you're watching something set in the desert set it to orange.
- It can be very disruptive while watching a movie to have navigator pop up and tell me that someone is at my front door or perhaps i have a new email or something. This driver provides the ability to send Kodi announcements. Like a Control4 Announcement this will pop up a custom message however in this case it will not interrupt the current Kodi activity. It will just pop up in the bottom right hand corner for a few seconds and then hide away.
- This driver provides two way feedback on what media you're consuming and what the state of the media player is. It will tell you when the movie is playing, paused, stopped or if it is a movie, episode, song or unknown media type. This information is useful for customising your lighting and environment to suit your customer's requirements.
- The driver has the ability to automatically turn rooms on and off. Using this functionality you can essentially turn on your tv and receiver upon airplay or UPnP photos, video or music playback. If you leave the room for too long or fall asleep at the tv the driver will automatically turn the room off (all av devices off) upon detection of screensaver activation.
- Some projects have the option of clearing out the black bars in movies. This driver reports back the aspect ratio of the video it is currently playing as a variable. Using this information we can automate these projection modes and as such make the user experience nicer.
- This driver has feedback on CPU usage, Memory usage and CPU temperature. This information is extremely important for maintaining the health of the hardware platform it is on. Using this information we can automate shutdowns so that no damage can occur on the device.

What hardware will this work on?

This will work on any hardware that KODI supports (Windows, OSX, Linux, Raspberry Pi, Android) running XBMC version 12 (Frodo) & 13 (Gotham) and KODI version 14 (Helix) though we discourage the use of Raspberry Pi due to the slow CPU on the unit.

Why do you only support OS 2.6 and above?

OS 2.6 offers a superior security encryption algorithm and a new and improved driver format. We have decided to only utilise this new format to ensure that the integrity of this driver is not compromised and that we can provide the best dealer/user experience available.

Do you offer showroom discounts?

We offer a 10% discount to dealers who want to use this driver in their showroom. Please contact our distributor Houselogix to arrange for this.

I want to try this driver out before buying it?

All Chowmain drivers for Control4 come with a 48 hour trial. This is activated once you add the driver to the project. No additional steps are necessary.

Change Log

Version #20151221 - 21-DEC-2015

- Fixed 2.8.1 Icon Support.

Version #20151221 - 21-DEC-2015

- Added ability to map skip fwd/skip rev functionality to BIG_STEP_FWD/REV or NEXT/PREV buttons. With recent builds of Kodi this is more logical..
- Number buttons will now input numbers upon Radio or TV Channel playback detection. Useful for quick jumping to specific channel during playback.
- Added Control4 is now connected notification (similar to what we have done in Kodi Full)

Version #20151203 - 03-DEC-2015

- Updated to support OS 2.8.1 icon support.

Version #20151026 - 26-OCT-2015

- Added ability to programatically change Audio Channels, Audio Passthrough, Video Resolution, Video Refresh Rate, Video Windowed Mode. Should assist with various matrixed setups.

Version #20151020 - 20-OCT-2015

- Made improvements to licencing algorithm. Should resolve issues on OS 2.8 systems with intermittent internet connections.
- Reimplemented Suspend functionality

Version #20150818 - 18-AUG-2015

- Implemented Dealer Demo Licencing

Version #20150601 - 01-JUN-2015

- JSON-RPC port freezes sometimes on openelec randomly. It also freezes constantly on all builds on dialog box popup. To resolve this the driver now implements ALL JSON-RPC commands via HTTP. It uses JSON-RPC port 9090 only for feedback now from KODI for state changes. As such it is extremely important that the HTTP port is setup on every system.
- Implemented SR-260 custom buttons.

Version #20150407 - 07-APR-2015

- Resolved issue where logs on 2.6 systems would fill out controller storage causing system stability issues. This only effects systems where people have set the debug logs to 'print and log' or 'log' and have forgotten about it over longer periods of time.

Version #20150305 - 05-MAR-2015

- Improved movie import algorithm. Should now import all movies regardless if the movie ID is sequential or not. Also if cover art is not available for download (poor internet connection or URL does not return an image) then it will insert the movie with no cover art.
- Resolved issue where automatic update of movie library would not work if controller is rebooted.

Version #20150305 - 05-MAR-2015

- Resolved issue on some systems where automatic on sends on command again every time a new file plays.

Version #20150303 - 03-MAR-2015

- Number 1 now jumps to first page in navigation mode
- Number 0 now jumps to last page in navigation mode

Version #20150220 - 20-FEB-2015

- Modified Auto Room On code. Now selects device as audio or video only depending on audio, video or photo. Note there are times when Kodi's API returns an unknown media type. In this case it will turn it on as a video source.

Version #20150218 - 18-FEB-2015

- Added Random All, One and Off commands to programming tab
- Added Play URL programming command for playback of videos and photos

Version #20150113 - 13-JAN-2015

- Added customisable PREV & CANCEL buttons as some customers were not happy with the mapping.

Version #20141218 - 18-DEC-2014

- Modification to driver to skip istream based movies from the xbmc library. This resolves an issue where KODI's JSON-RPC port would crash upon play file command.

Version #20141215 - 15-DEC-2014

- System will only perform an automated scan when it detects at least one new movie rather than when a scan has finished (there are times when a scheduled scan returns no new movies)
- Added CODEC_INFO configurable button as per request
- Found undocumented Window Activation links to tv/radio recordings, tv/radio guide and tv/radio search. Added as configurable button as per request and mapped as default for logical buttons.



Purchase & Support

This driver is developed by Chowmain software & apps and is distributed and supported by Houselogix, Inc.

Sales

<https://www.houselogix.com/shop/control4-drivers>

Support

<http://support.houselogix.com/>

Developer Information



Copyright © 2014 Chowmain Ltd.

All information contained herein is, and remains the property of Chowmain Ltd and its suppliers, if any. The intellectual and technical concepts contained herein are proprietary to Chowmain Ltd and its suppliers and may be covered by U.S. and Foreign Patents, patents in process, and are protected by trade secret or copyright law. Dissemination of this information or reproduction of this material is strictly forbidden unless prior written permission is obtained from Chowmain Ltd.

<http://www.chowmain.co.nz>

Important Notice

This driver is designed for Kodi Entertainment Center Version 14.0 Helix. This driver should work on XBMC versions 12 Frodo and 13 Gotham as well without any issues however it will not work on XBMC version 11 Eden.

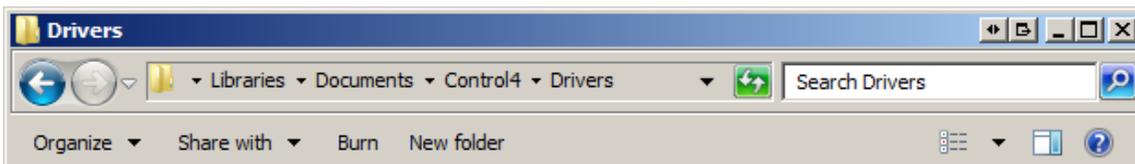
It has been tested on Android, OSX, Windows, Linux and Raspberry Pi Platforms. If you choose to use it on any other platform you do so at your own risk. It is recommended that prior to purchasing this driver you utilise the free 48 hour trial period for testing.

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.



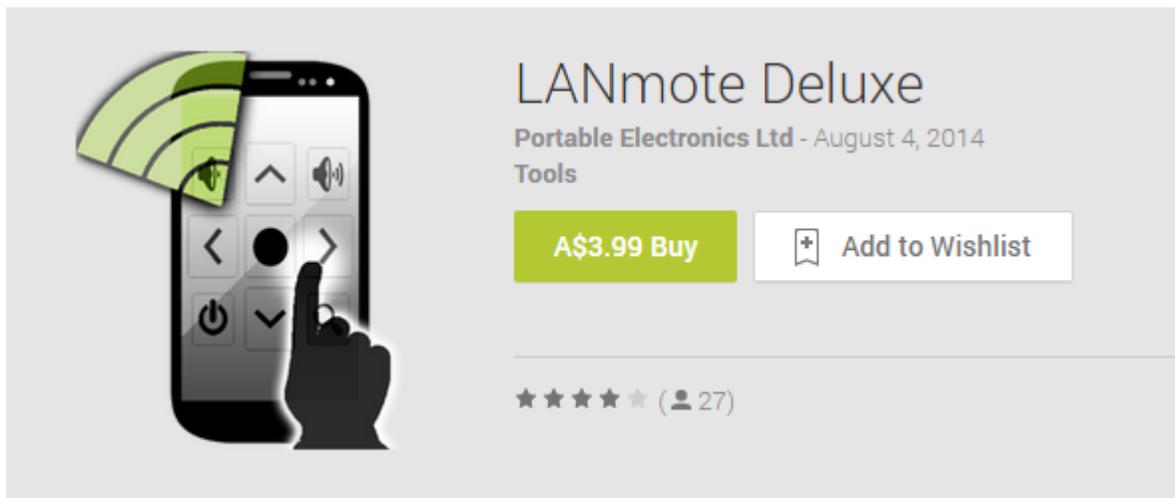
3. You are now ready to add and configure the driver via the Composer Pro software.

ANDROID ONLY: Installing LANmote Deluxe

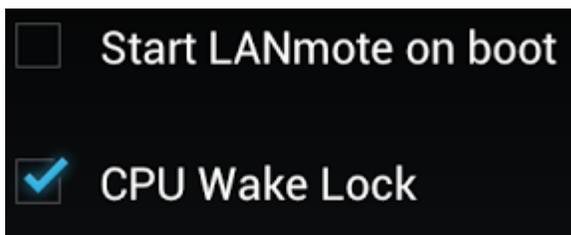
This part of the documentation only applies to those who have a rooted Android box. Rooted Android boxes can be controlled when not in XBMC mode. This can be quite useful for launching other 3rd party applications like Netflix or Hulu.

Note that this will only 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. The driver will change to Android mode if it is disconnected from XBMC. As such XBMC must be exited properly rather than application switched.

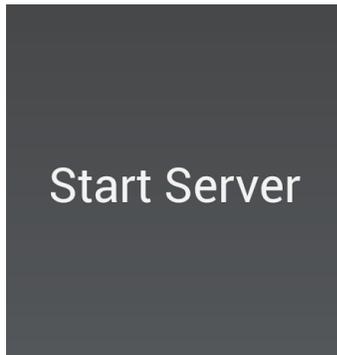
1. Purchase & download LANmote Deluxe from Play Store
(<https://play.google.com/store/apps/details?id=com.portable.LANmote.Deluxe>)



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



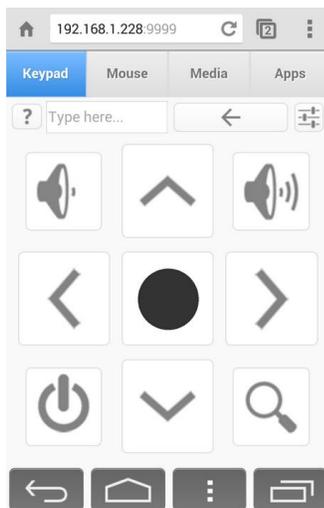
4. Click on the button labeled 'Start Server'.



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

<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.

Setting up Kodi

The following section details how to enable 2 way control for Kodi.

1. Launch Kodi on your platform
2. Navigate to the System page



3. Click on Services



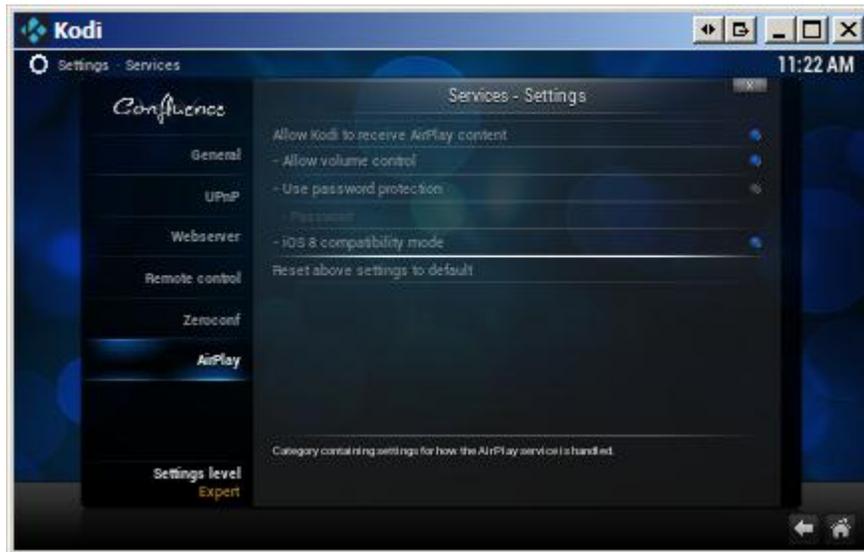
4. Under **'Webserver'** enable **'Allow control of Kodi via HTTP'** (this is used for Cover Art Importing). Take note of the Port number.



5. Under **'Remote control'** enable **'Allow programs on other systems to control Kodi'** (this is used for the majority of control).



6. If you want you can also enable UPnP and Airplay through the UPnP and AirPlay menu's

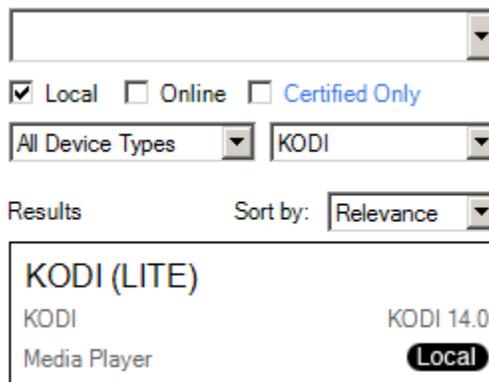


7. If you are using Android you will need to exit the Kodi app and restart the app for the port to open up.
8. Setup and scan your movies into the Kodi database as per Kodi's website documentation.
9. Congratulations you have setup Kodi.

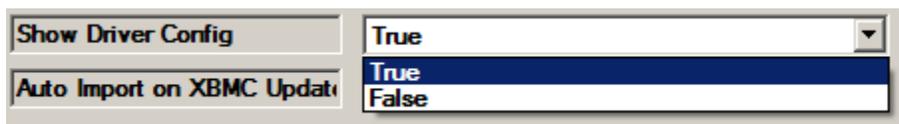
Adding the driver to your project

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. Select 'KODI' as the manufacturer.



4. Double click on the 'KODI (LITE)' driver to add it to your project
5. Highlight the 'KODI Entertainment Center' driver on the left hand side.
6. Set Show Driver Config to 'True'



7. If you plan on using this to control a rooted Android set top box set the property labelled 'Running on Android' to True



8. Enter in the Kodi HOST or IP

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

| | |
|-----------------|----------|
| KODI HOST or IP | openelec |
|-----------------|----------|

9. Enter in the web server port we took note of in the Kodi setup.

| | |
|----------------------|------|
| KODI Webservice Port | 8080 |
|----------------------|------|

10. If you wish to start up the computer Kodi is on upon Control4's ON command enter in the computers MAC address.

| | |
|----------------------|--|
| KODI WOL MAC Address | |
|----------------------|--|

11. If you wish to shut down the computer Kodi is on upon Control4's OFF command set the Power Off drop down to Shutdown (you can also set it to perform other commands as well if you do not want to turn the PC off eg for android i recommend Stop Command then Home Window).

| | |
|-----------------------------|-------------------------------|
| Power Off | Stop Command then Home Window |
| Dedicated Network File Stor | Quit |
| Auto Import on XBMC Updat | Shutdown |
| Auto Room(s) Select | Suspend |
| | Hibernate |
| | Restart |
| | Stop Command then Home Window |
| | Stop Command |

12. Assign the non intuitive buttons to the function you want.

| | |
|---------------|-----------------------|
| BUTTON CONFIG | VIDEO_MODE |
| Red Button | FULLSCREEN_TOGGLE |
| Green Button | SHOW_SUBTITLES |
| Yellow Button | NEXT_SUBTITLE |
| Blue Button | AUDIO_NEXT_LANGUAGE |
| GUIDE | CONTEXT_MENU |
| PVR | EJECT_TRAY |
| Hash Button | JUMP_TO_MUSIC_FILES |
| Star Button | JUMP_TO_MUSIC_LIBRARY |
| | JUMP_TO_VIDEO_FILES |
| | JUMP_TO_VIDEO_LIBRARY |
| | JUMP_TO_MY_WEATHER |
| | JUMP_TO_MY_PICTURES |
| | JUMP_TO_MY_PROGRAMS |
| | JUMP_TO_HOME |
| | JUMP_TO_TOP |
| | Un-mapped |
| | Un-mapped |

13. Click on the Connections tab.



14. Highlight the 'KODI Entertainment Center' driver on the left hand side.

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

| Audio/Video Inputs | | | | |
|---|-------------|----------------------|--------|--------------------------------------|
|  Digital Media Storage | Video | DIGITAL_MEDIA_STO... | Input | Digital Media->Digital Media Storage |
| Audio/Video Outputs | | | | |
|  OUTPUT | Video | COMPOSITE | Output | |
|  OUTPUT | Video | SVIDEO | Output | |
|  OUTPUT | Video | COMPONENT | Output | |
|  OUTPUT | Video | HDMI | Output | |
|  OUTPUT | Video | VGA | Output | |
|  OUTPUT | Audio | STEREO | Output | |
|  OUTPUT | Audio | DIGITAL_OPTICAL | Output | |
|  OUTPUT | Audio | DIGITAL_COAX | Output | |
| Room Control | | | | |
|  Room Selection - OUTPUT | RoomControl | AUDIO_SELECTION | Output | |
|  Room Selection - OUTPUT | RoomControl | AUDIO_VOLUME | Output | |
|  Room Selection - OUTPUT | RoomControl | VIDEO_SELECTION | Output | |

16. If you do not want the driver to playback movies from Navigator (this is useful for systems where you have multiple media players in the one room) unbind the Digital Media Storage driver. Note that once its unbound you cannot rebind it without re-adding the driver again.

17. Click on the File and Refresh Navigators. Congratulations you have set up Kodi Entertainment Center.

Setting up automatic room on/off

1. Highlight the '**KODI Entertainment Center**' driver on the left hand side.
2. If you want to automatically select the device for the room upon detection of playback then click on the '**Select**' button next to '**Auto Room(s) Select**' and select the room/s you want to turn on.



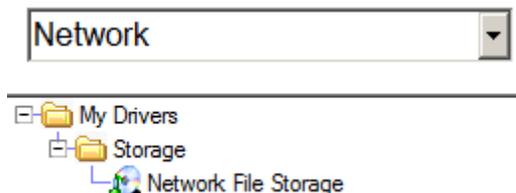
3. If you want to automatically turn the room off upon screensaver then set the '**Room Off on Screensaver**' dropdown box to '**Enabled**'.



4. Congratulations you have setup automatic room on/off

Importing movies from Kodi into Control4

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



4. Double click on the '**Network File Storage**' driver to add it to your project
5. Highlight the '**Network File Storage**' driver on the left hand side.

- In the Location bar type in any network share on the network apart from the master controller and click on Connect (we don't care what the share is as we don't really use it).

NOTE: We need it the Status to say "Online" as this enables the movies to show up on Navigator.

Information

Username:

Password:

Workgroup:

Location:
 ...

Disconnect

Status:

- The Status will change to 'Online'
- Highlight the 'KODI Entertainment Center' driver on the left hand side.
- In the 'Dedicated Network File Storage' Property click on the Select button and select the 'Network File Storage' driver we added

Dedicated Network File Stor **Select**

- Make sure that **Auto Import on XBMC Update** is set to True

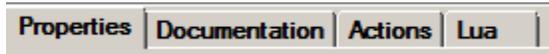
Auto Import on XBMC Updat

- If you want navigator to automatically refresh upon library update set this to true

NOTE: This is not needed if you are using the onscreen navigator or Control4 touchscreens. Mobile devices and tablets seem to cache the movie library so if you are using these devices then set this to True.

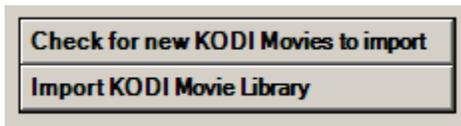
Auto Refresh Navigator on U

12. Click on the **Actions** tab



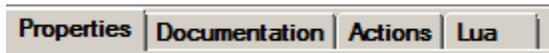
13. There are two options here.

- **Check for new KODI Movies to import** – Updates the Network File Storage database and inserts new movies that are not in the database (this is used for updating the database)
- **Import KODI Movie Library** – Clears the Network File Storage movie database and starts a fresh scan. This is used for a fresh rescan (warning can take up to an hour for a large library).

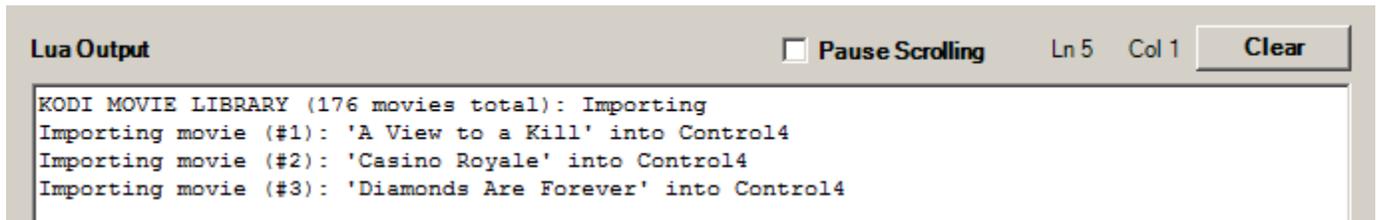


14. Click on the option labelled '**Import KODI Movie Library**'

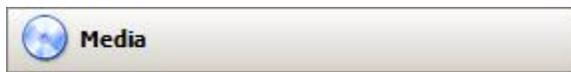
15. Click on the Lua tab



16. You will notice that the Lua Output window displaying how many movies its important and what the status is



17. Click on the Media Tab



18. Highlight the Video under Network File Storage driver we setup

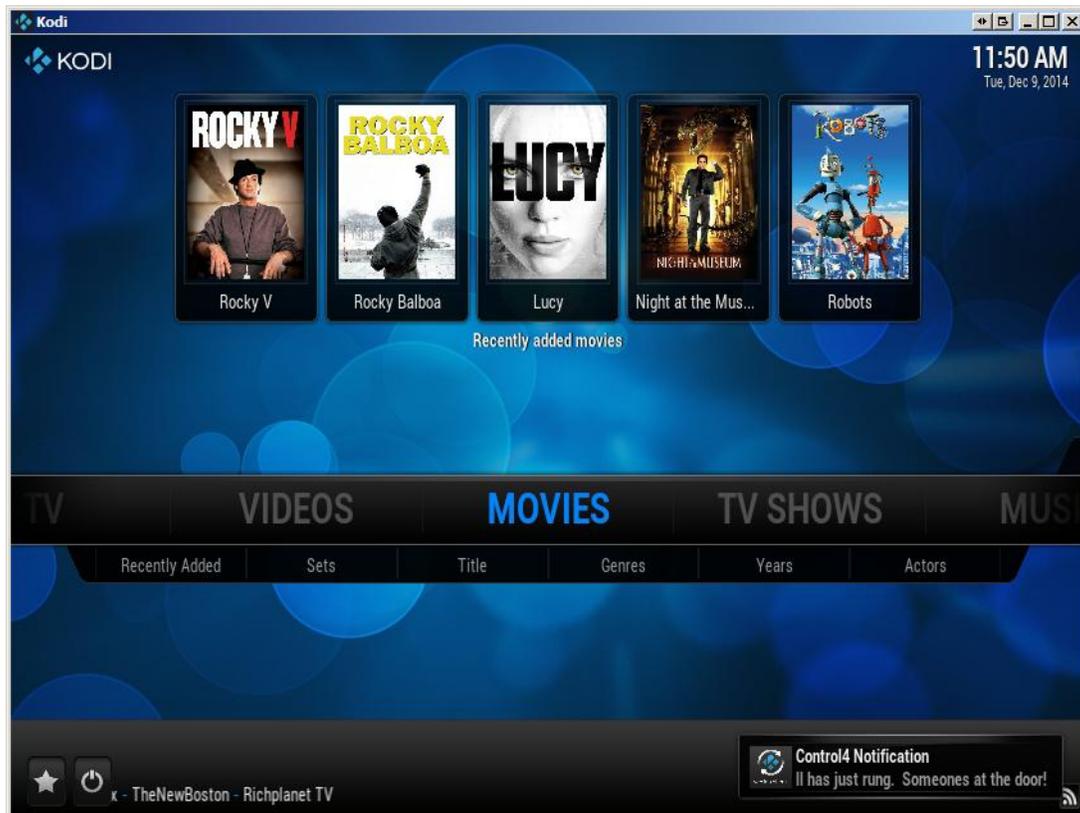
19. You will notice that the database is populating

| Network File Storage | | | | | | | | |
|---|--------------|-------|------------------|---|--------|---------|--------|--------|
| Movies | | | | | | Edit... | New... | Delete |
| Art | Location | Type | Title | Cast | Genre | | | |
|  | /chowmain/1 | Movie | A View to a Kill | Roger Moore;Christopher Walken;Tanya Roberts;Gr... | Action | | | |
|  | /chowmain/10 | Movie | Licence to Kill | Timothy Dalton;Carey Lowell;Robert Davi;Talisa Sot... | Action | | | |
|  | /chowmain/11 | Movie | Live and Let Die | Roger Moore;Yaphet Kotto;Jane Seymour;Clifton Ja... | Action | | | |
|  | /chowmain/12 | Movie | Moonraker | Roger Moore;Lois Chiles;Michael Lonsdale;Corinne ... | Action | | | |

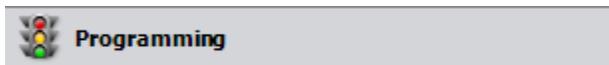
20. Congratulations you have setup movie import into Control4. Note that this Network File Storage driver will only work for this instance of the Kodi driver. You will need to hide the Network File Storage driver in any rooms where other media players (including other Kodi instances) are used.

Programming Example – Executing announcements via Kodi notifications

Kodi has the abilities to show custom notifications on the bottom right hand corner of the screen. This is usually used for system messages however we can use it to output messages from the Control4 system. This can include anything that is text based.



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



2. Under Device Events select the event you want to trigger the notification on.
3. Under Device Actions select the **Kodi Entertainment Center** driver.
4. Select the radio button next to Device Specific Command
5. Select **Send KODI Notification**

6. Type in the Title and Message you want to send to Kodi

| | |
|------------------------|--|
| Send KODI Notification | |
| Title | Control4 Notification |
| Message | Your doorbell has just rung. Someones at the door! |

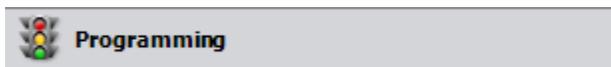
7. Drag the green arrow and drop it onto the script section.
8. Congratulations you have set up the system to send a plex notification.

Programming Example – Starting up and Shutting down based upon Security Armed/Disarmed events.

One of the issues with using a Home Theater PC is that the power consumption whilst it is not being used is quite high. A method we can use to introduce power saving to help improve this issue is to shut the system down when we're not at home and to start it back up when we are at home.

Note that you will need to set up your PC to allow for wake on lan for this to work. It is also assumed that you have setup the driver properties correctly as per the section labelled 'Adding the driver to your project'.

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



2. Under Device Events select your integrated **security system**.
3. Select the '**has been armed to Away**' event

When Ness M1 has been armed to Away

4. Under Device Actions select the **KODI entertainment center** driver.
5. Select the radio button next to **Device Specific Command**
6. Select **Send Shutdown Command**

Device Specific Command

Send Shutdown Command

7. **Drag the green arrow and drop** it onto the script section.



8. Select the '**has been Disarmed**' event
9. Under Device Actions select the **Plex Home Theater** driver.
10. Select the radio button next to **Device Specific Command**
11. Select **Send WOL**

12. Drag the green arrow and drop it onto the script section.

 **Device Specific Command**

 **When Outdoor / Other Areas->Ness M1 has been Disarmed**

 **Send WOL Packet**

13. Congratulations you have set up the system to startup and shutdown when your security system arms/disarms.

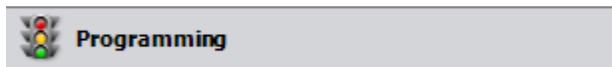
Programming Example – Setting up automatic masking to suit the video aspect ratio

One of the cool features of this driver is the ability to detect the aspect ratio of the video that is playing at the moment. Using this functionality we can automatically switch the projector mode to suit and as such crop any black bars which may appear in the movie. Note that if the black bars are encoded into the movie (it shouldn't be but if you haven't ripped the movies right it will) then it will not report back the correct aspect ratio.

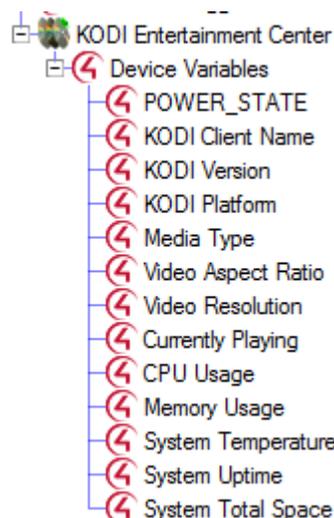
1. Click on the '**System Design**' tab
2. Highlight the '**Kodi Entertainment Center**' driver and view the properties window.
3. Play back a movie and you will see the Video Aspect Ratio box change to reflect the aspect ratio. Take note of this.

| | |
|--------------------|---------|
| Currently Playing | Rocky V |
| Video Resolution | 1080 |
| Video Aspect Ratio | 1.85 |

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



5. Under Device Events expand the KODI Entertainment Center driver and click on Video Aspect Ratio



6. Under Device Actions expand the KODI Entertainment Center driver and click on Video Aspect Ratio
7. Click on Conditionals
8. Click on the Is radio button and the = dropdown box

9. In the text box type in the resolution you noted down earlier

 is =

10. Drag the question mark into the script

 **When the variable Development->KODI Entertainment Center->Video Aspect Ratio changes**

 If Development->KODI Entertainment Center->Video Resolution EQUAL TO 1.85

11. Drag in the macro or action into the conditional to change the project mode to that aspect ratio

 **When the variable Development->KODI Entertainment Center->Video Aspect Ratio changes**

 If Development->KODI Entertainment Center->Video Resolution EQUAL TO 1.85

 Execute Macro 'Change projector to 185 mode'

12. Repeat steps 1 to 11 for each aspect ratio detected. Note the common aspect ratios are as follows

- 1.33
- 1.375
- 1.50
- 1.66
- 1.78
- 1.85
- 2.00
- 2.35
- 2.39
- 2.40
- 2.66

13. Congratulations you have setup automatic masking.

Kodi Button Mapping

The buttons are as follows when the XBMC application is connected (if it is disconnected it will run in Android mode).

DEFINABLE BUTTONS

As the Red, Green, Yellow, Button, Guide, DVR, */-, #- buttons are non intuitive (or may not be used regularly) they can be custom definable in the properties page of the driver to the following commands

| | | |
|---------------------|-------------------|-----------------------|
| VIDEO_MODE | FULLSCREEN_TOGGLE | JUMP_TO_MUSIC_FILES |
| SHOW_SUBTITLES | NEXT_SUBTITLES | JUMP_TO_VIDEO_FILES |
| AUDIO_NEXT_LANGUAGE | CONTEXT_MENU | JUMP_TO_MY_WEATHER |
| EJECT_TRAY | PVR_MENU | JUMP_TO_PROGRAMS |
| TV_GUIDE | RADIO_GUIDE | JUMP_TO_MUSIC_LIBRARY |
| TV_RECORDINGS | RADIO_RECORDINGS | JUMP_TO_VIDEO_LIBRARY |
| TV_SEARCH | RADIO_SEARCH | JUMP_TO_MY_PICTURES |
| CODEC_INFO | DO NOTHING | JUMP_TO_HOME |
| | | JUMP_TO_TOP |

NUMBER BUTTONS

These buttons have a dual function. In navigation mode they can be used to perform SMS style searching within a list of items. In video playback mode they can be used to jump to a percentage of the video.

TRANSPORT & OTHER BUTTONS

Play/Pause – These buttons fire the same Play/Pause command.

Stop – Stops the media playback

Skip Forward – Skips to the next chapter or performs a big jump forwards.

Skip Reverse – Skips to the previous chapter or performs a big jump backwards.

Fast Forward – If held sets speed to 8x. If tapped performs a small jump forwards.

Rewind – If held sets speed to -8x. If tapped performs a small jump backwards.

Cancel – Cancels the menu item or jumps to home screen.

Menu – Brings up the playback menu

Info – Brings up the media information

Mute – Mutes the audio (if set to audio endpoint)

Vol + - Increases the volume (if set to audio endpoint)

Vol - - Decreases the volume (if set to audio endpoint)

Prev – Jumps back one level in the menu

Page Up – Jumps up one page in navigation

Page Down – Jumps down one page in navigation

Select – Selects the current highlighted item

Up,Down,Left,Right – Menu Navigation

Channel Up,Down – Changes the tv channel up and down

Record – Sends a record command to Kodi

Android Button Mapping

The SR-250 can control the android box via the following buttons when the XBMC app is EXITED.

TRANSPORT & OTHER 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 |

NUMBER BUTTONS

Note that the numerical keypad can change functionality by using the Keyboard mode and Mouse mode buttons.

| | | |
|-------------------|---|---|
| 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,h,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

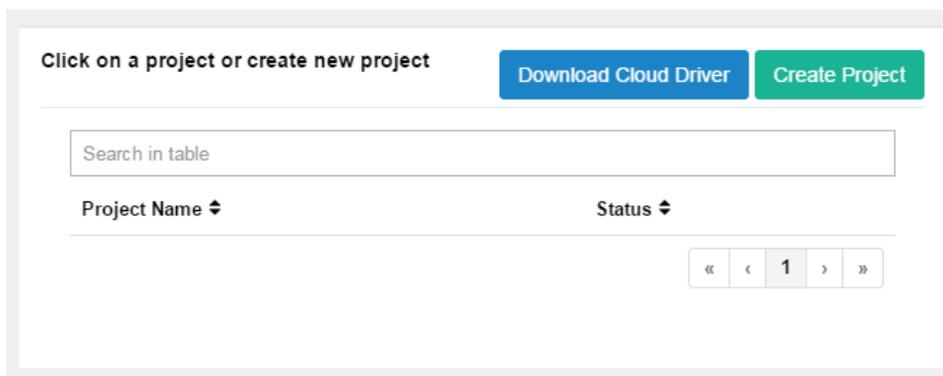
Chowmain drivers require a valid licence to use the driver. Drivers can be purchased from our distributor [driverCentral](#) however all Chowmain drivers come with a 7 day trial. We recommend that prior to purchasing a driver that you test the driver out to ensure that it will work with your hardware 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

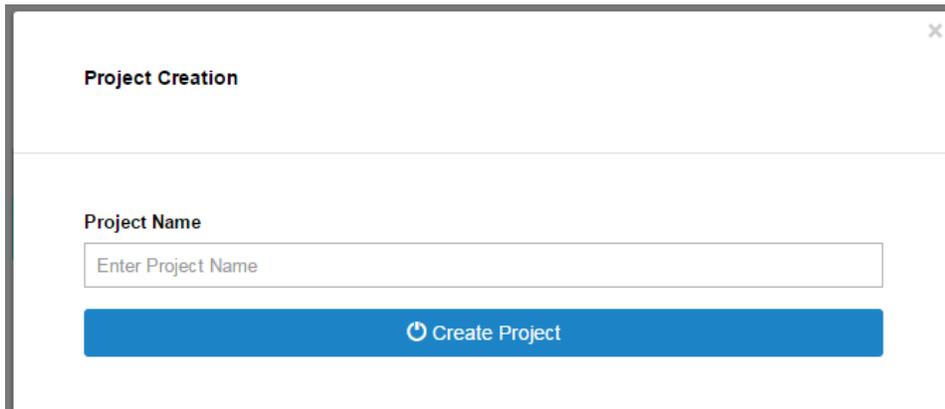
1. Create your project on the driverCentral.io website (This will generate a specific token which you will use in the next step)
2. Download, install and activate the driverCentral cloud driver in your project (Only once per project. Use the token generated in step 1)
3. (Optional) To try a driver, simply 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

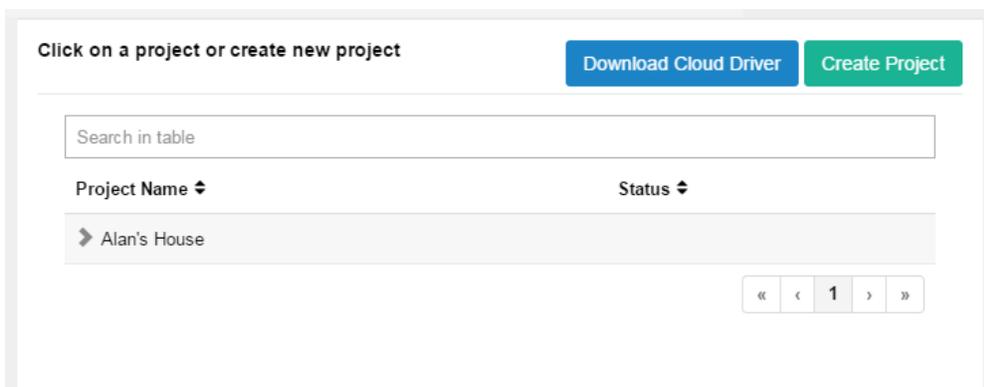
1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account.
3. Visit the Project Portal
4. Click on Create Project



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



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



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

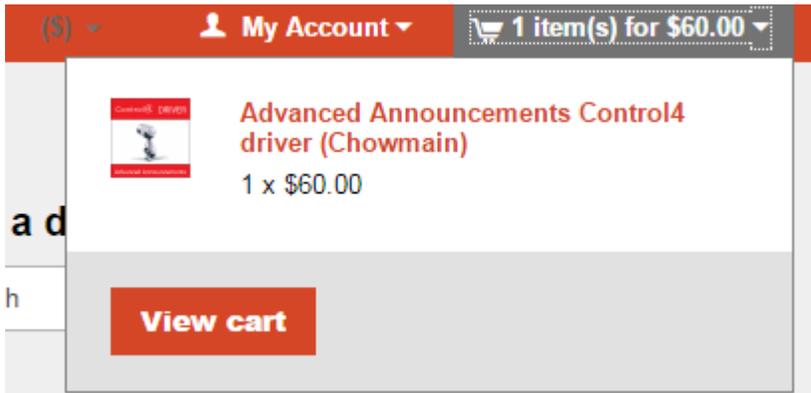
| | | |
|--|---|--|
| Project Name: <input type="text" value="Alan's House"/> | MAC Address: Not Connected to Project | Action: |
| Project Token: ABCDEFGHIJ | Last Communication: Not Connected | Connection Status: Not Connected |

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



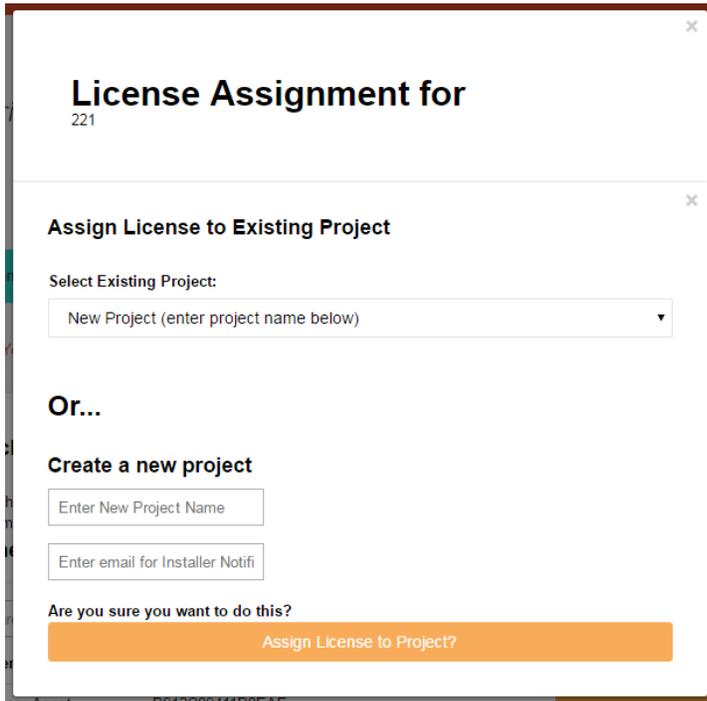
5. Follow the prompts and click on Submit my order



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 ↕ |
|----------------|---------------|--------------------|-------------------|
| [REDACTED] | | | Assign to Project |

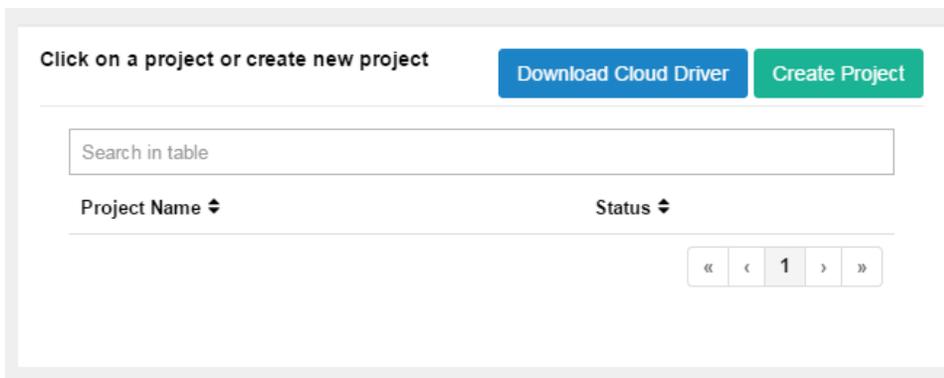
- From here assign the licence to the project we created or if you did not follow that step create a new project



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



- 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"/> |