



Kaleidescape Driver for Control4

Installation and Usage Guide

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Overview

Kaleidescape presents the world's most authentic cinematic experience with the content you love. Whether on disc or as a digital download from the Kaleidescape Movie Store, Kaleidescape brings together all your movies in a visually stunning library making it beautifully simple to access and enjoy movies that truly matter to you.

A premium product deserves an excellent interface to match as such the Chowmain Kaleidescape driver for Control4 offers full movie and music library access on all Control4 user interfaces for any IP controlled Kaleidescape system along with an extensive list of automation features that make the integrated experience more rewarding.



Features

- Ability to browse, search, playback and resume movies by All Movies, Actor, Director, Genre, Rating or Collection categories
- View movie information including synopsis, MPAA rating, genres, cast director and more
- View System information like amount of storage space used, available, current imports, downloads and more.
- Disc options show up under Movies and Music when a Bluray, DVD or CD is inserted. Playback, import or cancel importing of discs directly from Control4.
- Ability to browse, search, playback and queue music by Artist, Album, Genre, Mix Album and Collection categories.
- View artist information including genres and biography
- Ability to define non intuitive button mapping in properties.
- Automate cinema lighting based on movie playback state, movie position (main feature, credits, etc).
- Automate projection screen masking and projection modes using aspect ratio feedback, masking feedback and more.
- Automate playback of your favourite movie, album or song programatically.
- Automatic volume up, down and mute command linking to the official Kaleidescape app.
- Automatic Room On upon movie or music playback
- Automatic Room Off upon screensaver active
- Automatic Room Off or return to Onscreen Navigator on movie finished (optional)
- Programatic change the system to the highest level of parental control (safe level).
- Programatic change to and from Child Mode
- Programatic change of intermission

FAQ

Why should i use Kaleidescape when there are cheaper solutions?

After living with a Kaleidescape system for a month i've come to appreciate that it just works. Compared to other media player solutions it is expensive however for those who do not have the time to mess around Kaleidescape is the solution for you. With 4K, Bluray and DVD based digital downloads, disc importing and playback solutions all in one its a solution that just works. For the dealer it is a solution where they can just install it and leave knowing that the solution is robust and requires little to no support.

Why should i use this driver over the official driver?

A premium product deserves an excellent interface to match. Since releasing our Kodi Full and Plex Full drivers for Control4 alot of dealers have been asking us to do something similar for Kaleidescape. The problem with the current driver is that it is extremely dated and most consumers expect the ability to browse their entire library from their Control4 interface and have the option for a more automated experience.

I like the official Kaleidescape app. Can i use that?

Yes you can. We have set the driver up so that in dedicated theaters you can just pick up your iPad and you can use the official kaleidescape application by itself without ever touching a Control4 user interface. Control4 will automatically turn on the projector, dim the lights, etc when a movie is selected and when a movie has finished it will automatically turn everything off and bring the lights up. Volume control (up, down, mute) is automatically mapped as well.

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

- Use your Control4 touchscreen, Onscreen, mobile or remote control user interfaces to browse movies and music directly from the Control4 user interface.
- 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.
- Automate Cinema screen masking and projection modes based on aspect ratio and Cinemascope feedback.
- Set the driver up so it automatically turns off when the screensaver kicks in. Great if you forget that you've paused a movie or have fallen asleep whilst watching.
- Setup a button on your onwall keypad to start playback of you or your family's favourite movie. Great for kids.
- Setup a button on your onwall keypad to change the system into Child mode. This will limit browsing of the Kaleidescape OSD to only movies you want your kids to view.

What hardware will this work on?

This driver will work on all IP controllable models of Kaleidescape. If it works with the official Kaleidescape iPad application it will work with our driver.

I am not a Kaleidescape dealer. Where can i get the product from?

We can assist you with signing up to become an official Kaleidescape dealer. Just click on the link below and fill out the form and a representative will contact you shortly.

<http://www.chowmainsoft.com/kaleidescape-dealer-signup>

Change Log

Version #20160517 - 17-MAY-2016

- Changed Control4 URL timeout to 30 seconds from 10 seconds. This helps when the server has gone to sleep and takes some time to wake up.
- Added the ability to choose which proxy to select when a movie is played back from navigator. This gives dealers the option of choosing Media Player or MSP. If you chose Media Player you can click the button left icon to bring up the Media Player controls. If you choose MSP then you will get meta data and cover art along with the dashboard buttons.

Version #20160513 - 13-MAY-2016

- Initial Release

Developer Information



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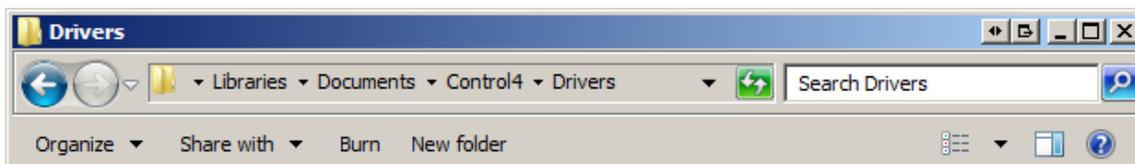
<http://www.chowmainsoft.com>

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 c4z files 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.

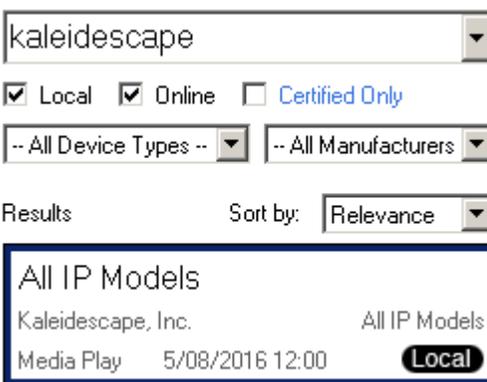


3. You are now ready to add and configure the driver via the Composer Pro software.

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. Type in **'Kaleidescape'** in the search field.



kaleidescape

Local Online Certified Only

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

Results Sort by: Relevance

All IP Models
Kaleidescape, Inc. All IP Models
Media Play 5/08/2016 12:00 Local

4. Double click on the **'All IP Models'** driver to add it to your project
5. Highlight the **'Kaleidescape OSD'** driver on the left hand side.
6. Type in the **'Server IP Address'** and click on **'Set'**. This is used to browse the library information.



Server IP Address

7. Type in the **'Client IP Address'** and click on **'Set'**. This is used to control the player.



Client IP Address

8. The Connection Status will change to CONNECTED.



Connection Status CONNECTED

9. The driver will also pull in all the information about the client.

Device Type	Cinema One
Device Name	Julian's Cinema One
Protocol Version	13
System Version	6.2.2-15767
Current Title	N/A
Play State	N/A
Power State	Off

10. Note you can change the **Device Name** by typing in a new name and clicking Set.

11. The **Auto Room Select** option is used for the following

- Will select the Kaleidescape system in that room as a video source if a movie starts playing
- Will select the Kaleidescape system in that room as an audio source if music starts playing.

Auto Room Select	<input type="text"/>	Select
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12. The **Movie Finished** option is used to select an option for when a movie has finished playing or stopped. This is useful if you want to automatically turn the room off when the movie finishes or return to the onscreen navigator if you want to hide Kaleidescape’s user interface.

Movie Finished	Do Nothing
Room Off on Screensaver	Return to Onscreen Room Off Do Nothing

13. The Proxy on Movie Playback option is used to select which proxy is chosen when a movie is selected for playback from navigator. If you choose the default Media Service then you will get cover art, metadata and the dashboard buttons. If you choose Media Player then you will not get those however selection of the Kaleidescape icon on the bottom left corner of the screen will bring up the UI to control the Kaleidescape OSD.

Proxy on Movie Playback	Media Service
Room Off on Screensaver	Media Player Media Service

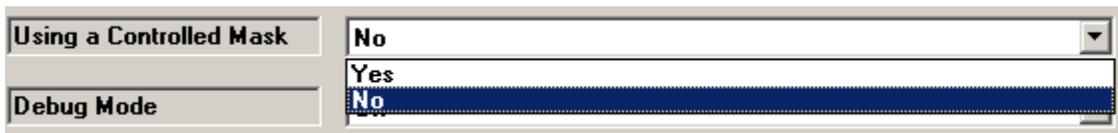
14. 'Room Off on Screensaver' is used to automatically turn any rooms with the Kaleidescape system as the current source in off should the screensaver activate.



15. The 'Power Off Mode' option tells Control4 what to do when a Room Off command is issued. A stop command will leave the system on but will stop any media that is playing. The Standby option will turn the system off and save more power however some of the library functionality may take some time to load as the system needs to turn on to access this information. If in doubt leave this to Stop.



16. Using a Controlled Mask will tell Kaleidescape that you are using a controlled mask. You can only set this function if you are connected to a live system (ie not in Virtual Director).



17. Click on the Connections tab.



18. Highlight the 'Kaleidescape Virtual Switcher' driver on the left hand side.

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

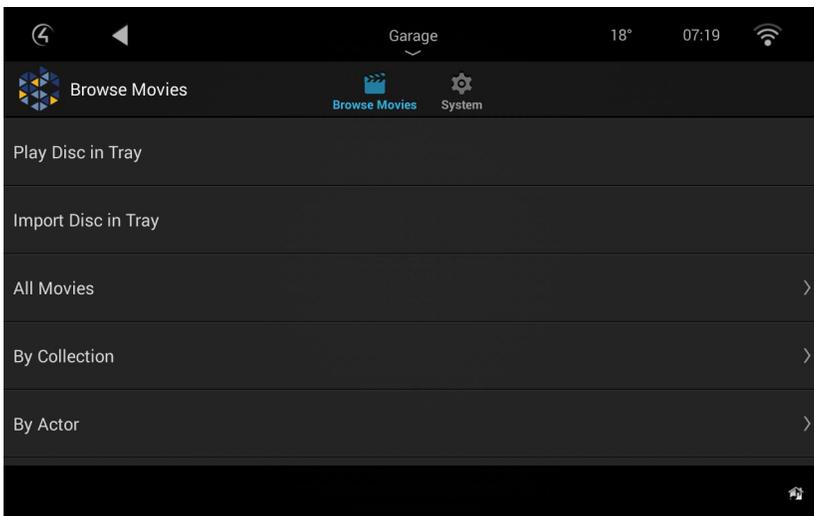
Name	Type	Connection	Input/Output	Connected To
Audio/Video Outputs				
 OUTPUT	Video	COMPOSITE	Output	
 OUTPUT	Video	SVIDEO	Output	
 OUTPUT	Video	COMPONENT	Output	
 OUTPUT	Video	HDMI	Output	
 OUTPUT	Video	VGA	Output	
 OUTPUT	Audio	STEREO	Output	
 OUTPUT	Audio	DIGITAL_OPTICAL	Output	
 OUTPUT	Audio	DIGITAL_COAX	Output	

20. Click on the File and Refresh Navigators. This will cause the driver to automatically hide the Virtual Switcher and other drivers accordingly from all accessible rooms.

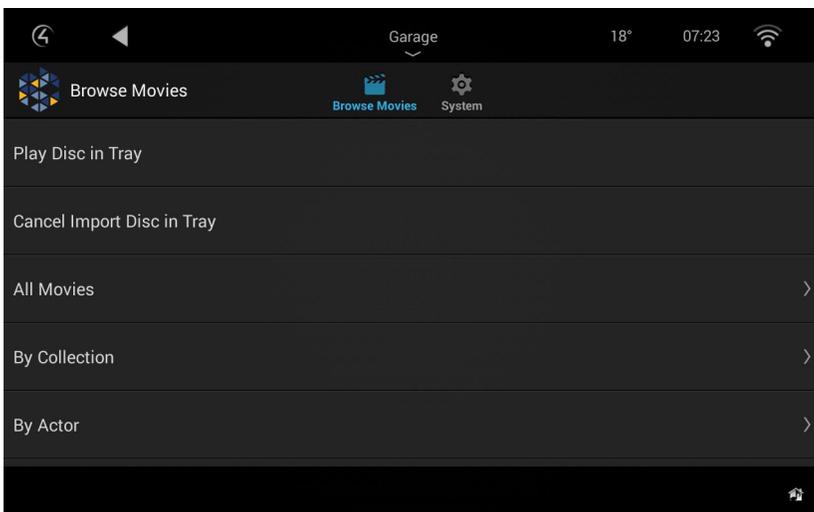
21. Congratulations you have set up the Kaleidescape driver.

Importing movies and music from Kaleidescape into Control4

Unlike the conventional method Control4 utilises there is no movies stored in Control4's internal database. The driver pulls the movie library in on demand. Control4 does allow you to import CD's, DVD's and Blurays that are inserted into Kaleidescape if inserted in the disc tray. Disc options will appear in the Browse Movies menu when a disc is detected.



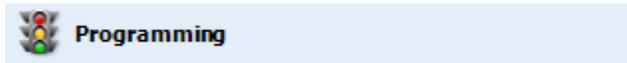
If a disc is currently importing the 'Cancel Import Disc in Tray' option will appear rather than the 'Import Disc in Tray' option.



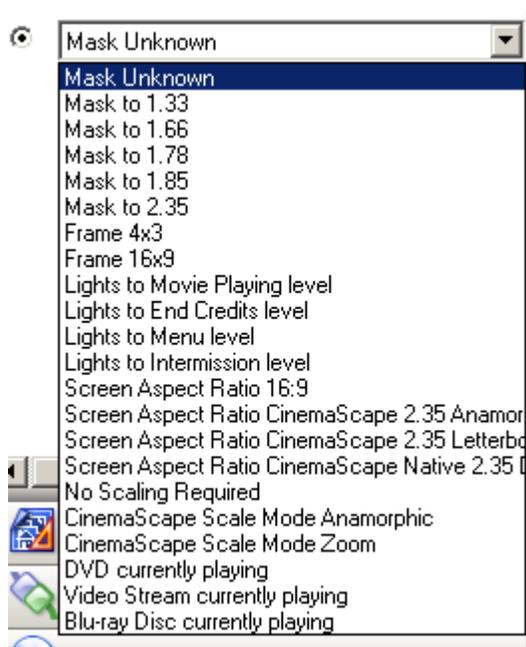
Programming Example – Automation of lighting based on movie feedback

Kaleidescape provides some excellent feedback on the state of the movie. We can utilise this to automate cinema functionality such as lighting.

1. Click on the **Programming Tab**.



2. Select the **Kaleidescape** driver on the events side.
3. Click on the drop down box to bring up a list of events.

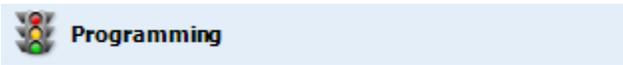


4. Select the Lights to ... event you want to program for

Programming Example – Selection of Media via programming

With Kaleidescape we decided to get rid of Media importation into Control4. As such we no longer select Movies like we do normally. With OS 2.7.0 we can now programmatically select Movies, Albums and Track based media. It is assumed you have setup the Kaleidescape driver and it is currently in working order. It is also assumed you have imported movies and music into Kaleidescape.

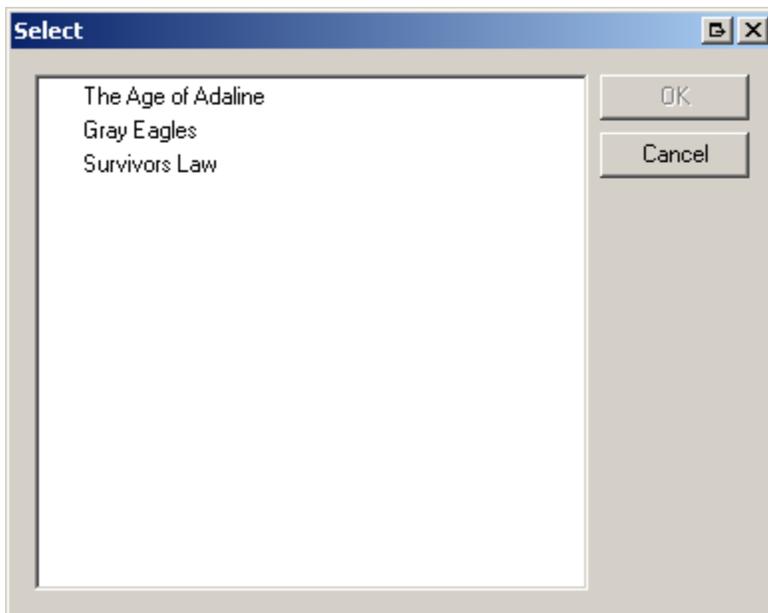
9. Click on the **Programming Tab**.



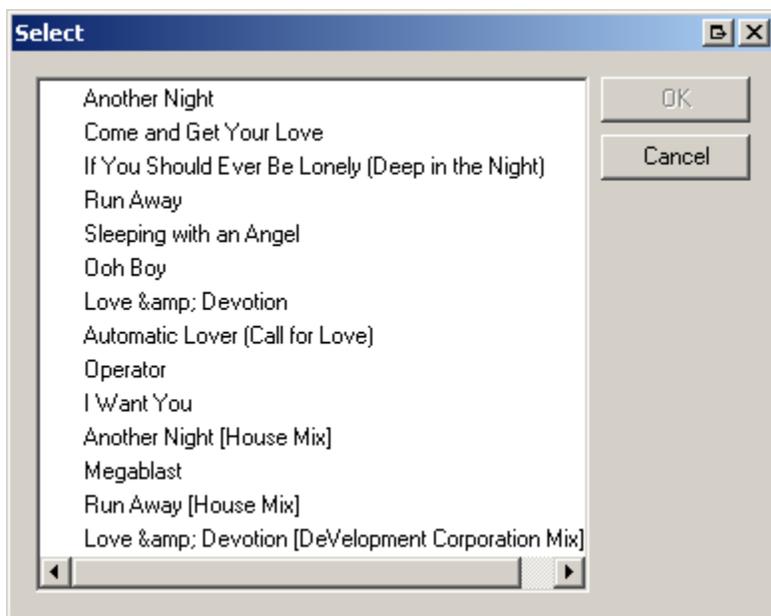
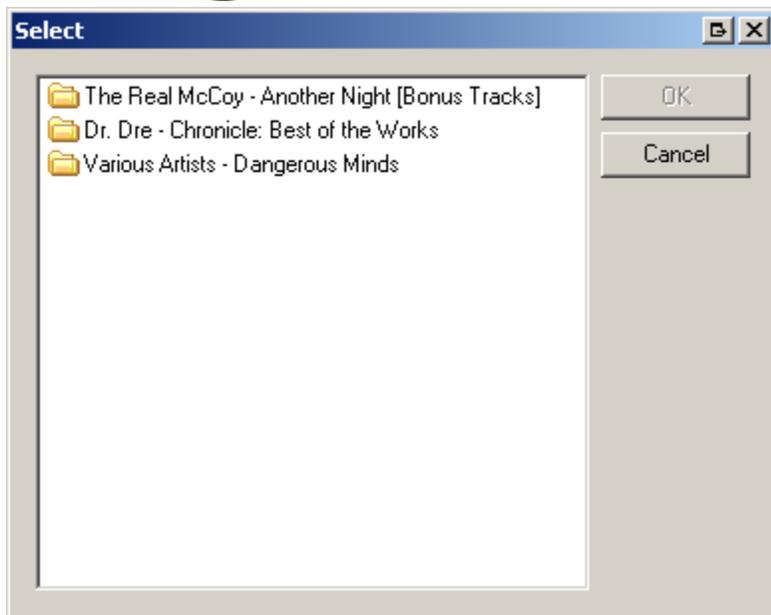
10. Select the **Kaleidescape** driver on the actions side.
11. Select the Radio Button next to Device Specific Command



12. Select the **Play Movie, Play Album** or **Play Track** action
13. Select the ... button next to **Movie, Album** or **Track**.
14. The driver will now allow you to browse for the content you want to playback



15. If there is a folder icon you can double click to browse to the next section.

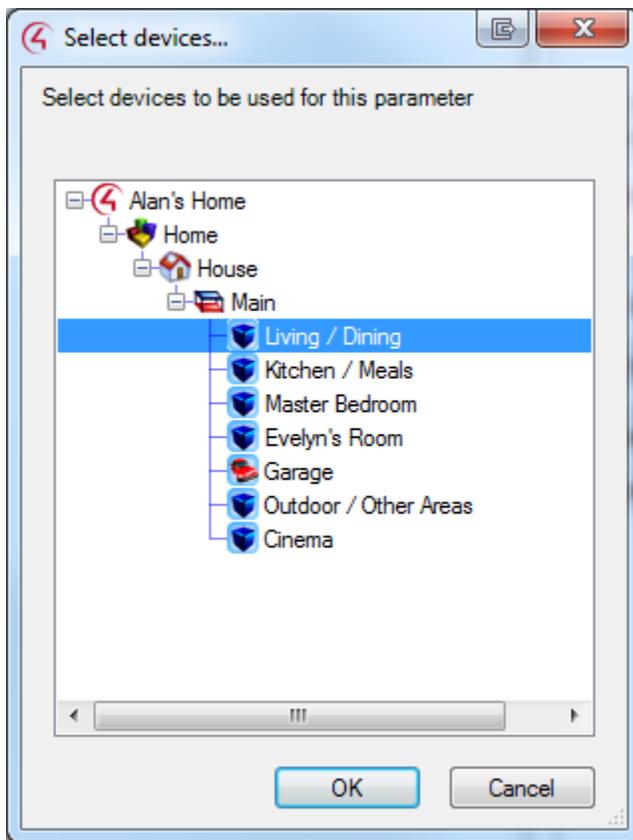


Note: If the driver is grabbing a large list of items it may take upto 30 seconds to populate.

- 16. Otherwise select the movie, album or track you want to play and click on the Ok button.
- 17. The movie, album or track name will now populate the box.

Movie	The Age of Adaline	...
Room		...

- 18. Click on the ... button next to Room
- 19. Select the room you wish to play the media in. Note that the Kaleidescape system must be accessible in that room otherwise it will not work.



- 20. Drag and drop the green arrow into the script for the event you want to execute action on.

 **Development->Kaleidescape OSD Play The Age of Adaline in Main->Living / Dining**

- 21. Congratulations you have programmatically selected media to playback.

Advanced Programming - Variables

The driver offers variables all of which provide feedback for various states. Some of them can also be used to set. A description of the variables are below.

- **CinemaScape Mode (READ ONLY)** -
- **Image Ratio (READ ONLY)** – Provides information about the actual aspect ratio of the video content (as opposed to the full frame content stored on the DVD). The parameters can have the following values
 - 0 - No image aspect ratio specified (not in playback, Kaleidescape user interface is displayed), or image aspect ratio unknown (often the case with trailers and supplemental material). The controller cannot make any assumptions about the projected video, and so should open up the masks.
 - 1 - Image aspect ratio is 1.33 (4:3)
 - 2 - Image aspect ratio is 1.66
 - 3 - Image aspect ratio is 1.78 (16:9)
 - 4 - Image aspect ratio is 1.85
 - 5 - Image aspect ratio is 2.35
- **Conservative Ratio (READ ONLY)** - has the same possible values as the image_ratio field, but represents a more conservative estimate of the image aspect ratio. This value never goes too far into the actual picture.

Note: This field is designed for 16:9 and 4:3 screens that have top and bottom masks without trim capability. This field should not be used on 2.35:1 screens with side masks, because it can cause the masks to move too far into the picture.

- **OSD Intermission (READ/WRITE)** – is 1/true if the intermission is active and 0/false if the intermission is not active.
- **OSD Screensaver (READ/WRITE)** – is 1/true if the screensaver is active and 0/false if the screensaver is not active.
- **CinemaScape Mask (READ ONLY)** – When in CinemaScape mode, provides information about the frame aspect ratio. The event message is generated whenever the CinemaScape mode is changed or when the player is set to any of the CinemaScape modes and the aspect ratio changes, e.g., starting/ending movie playback and displaying the Kaleidescape user interface. The parameter can have the following values: 133, 166, 178, 237, 240. Future revisions of kOS may support additional aspect ratios.
- **Child Mode (READ/WRITE)** – When set to child mode causes the onscreen display to show the child user interface and changes the navigation commands to child keys.

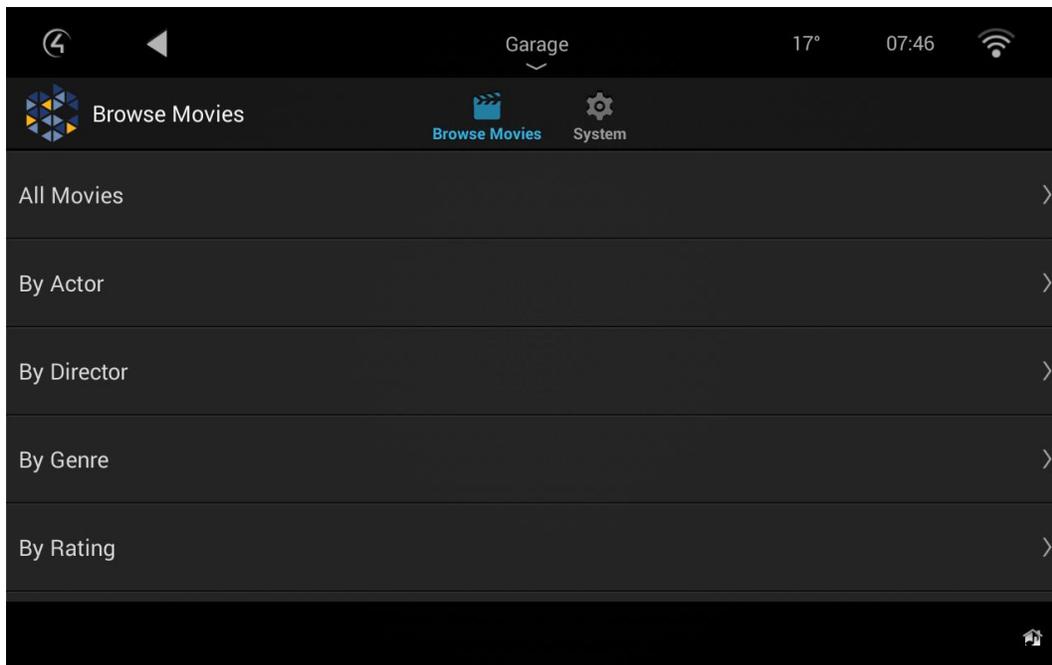
Using the driver – Browsing Movies

This section assumes that you have a working Kaleidescape installation with Movies imported.

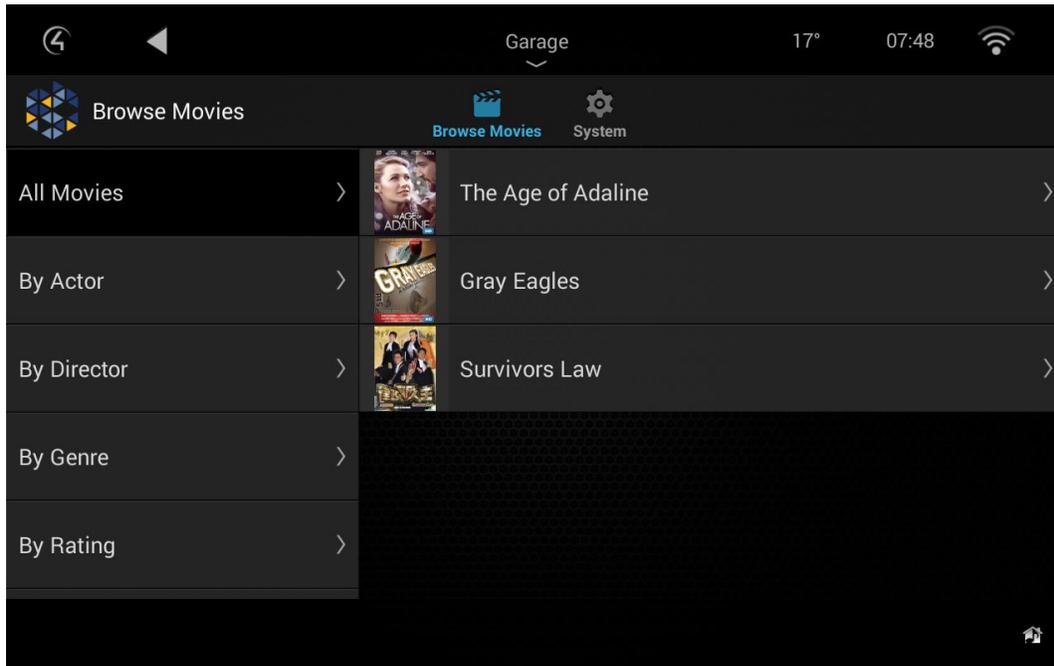
1. The **Kaleidescape Movies** Icon can be found under the watch section of Control4
2. Select the Kaleidescape Movies icon to bring up the library interface



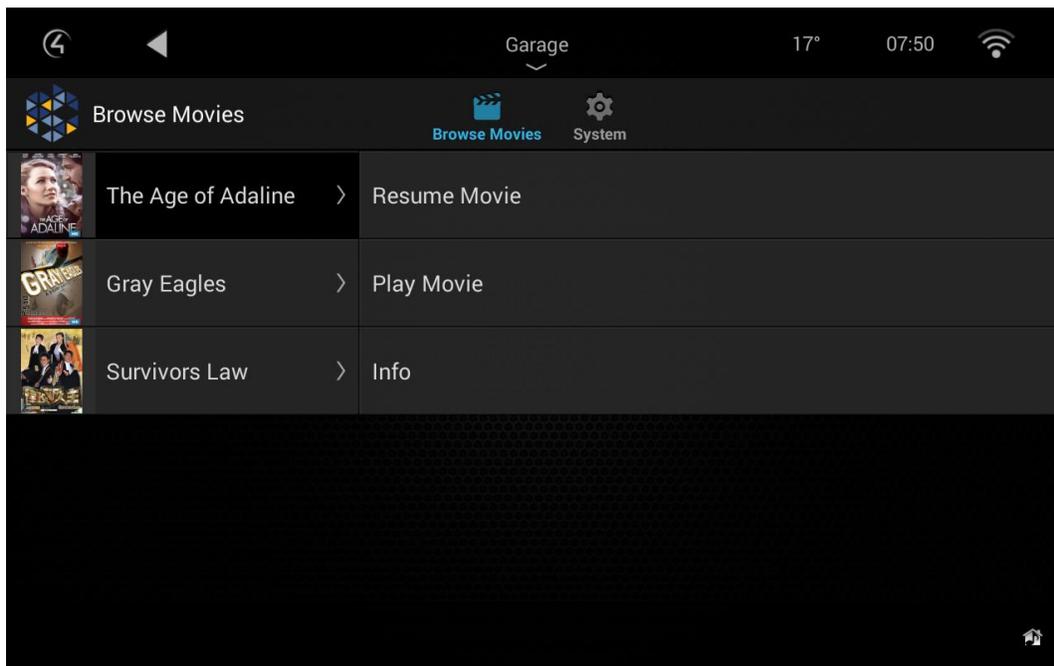
3. The interface will now bring up all the categories you can browse for movies.



4. All movies will bring up all the movies in the system.

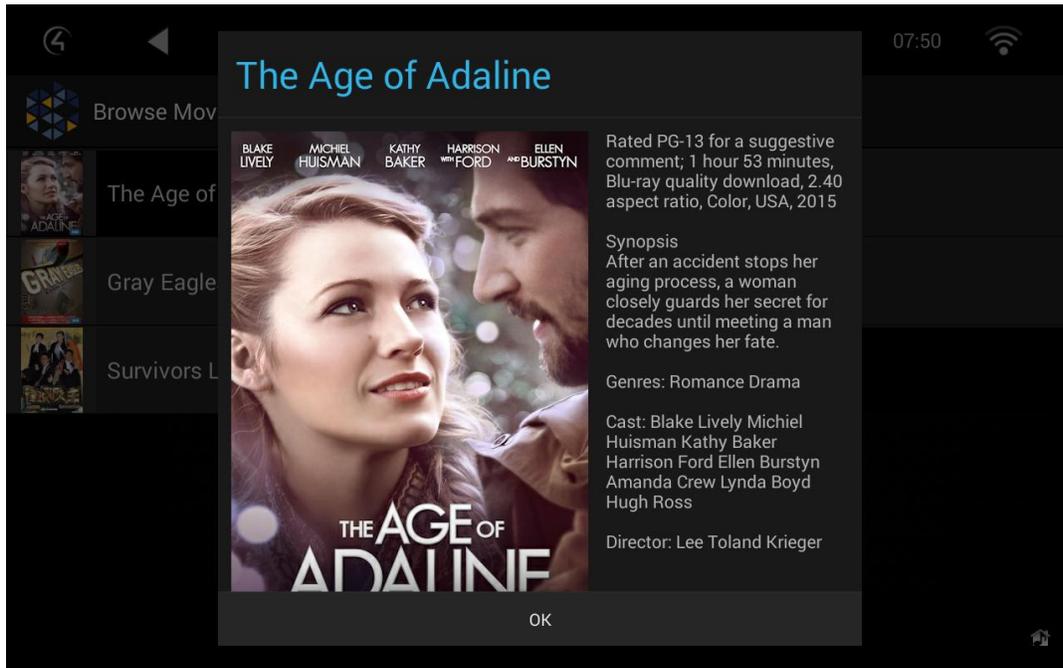


5. Selecting a movie will give you the playback options. The options that appear are dependant on if you want the system returns. Eg if you are mid way through a movie it will prompt you to resume. If you have any songs or music bookmarked it will allow you to jump to those scenes.

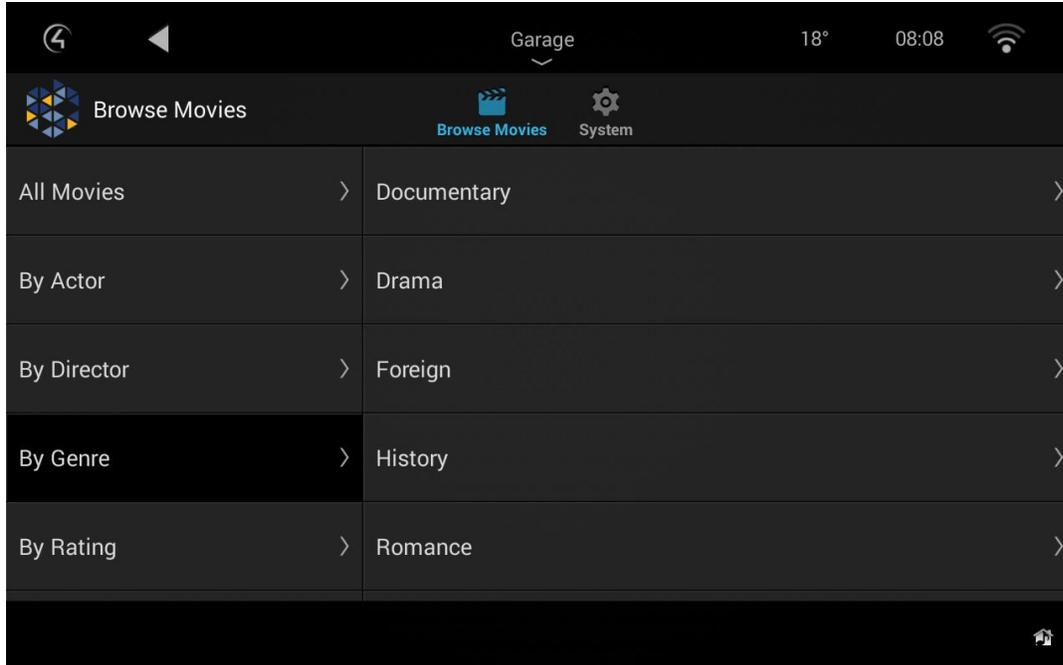


6.

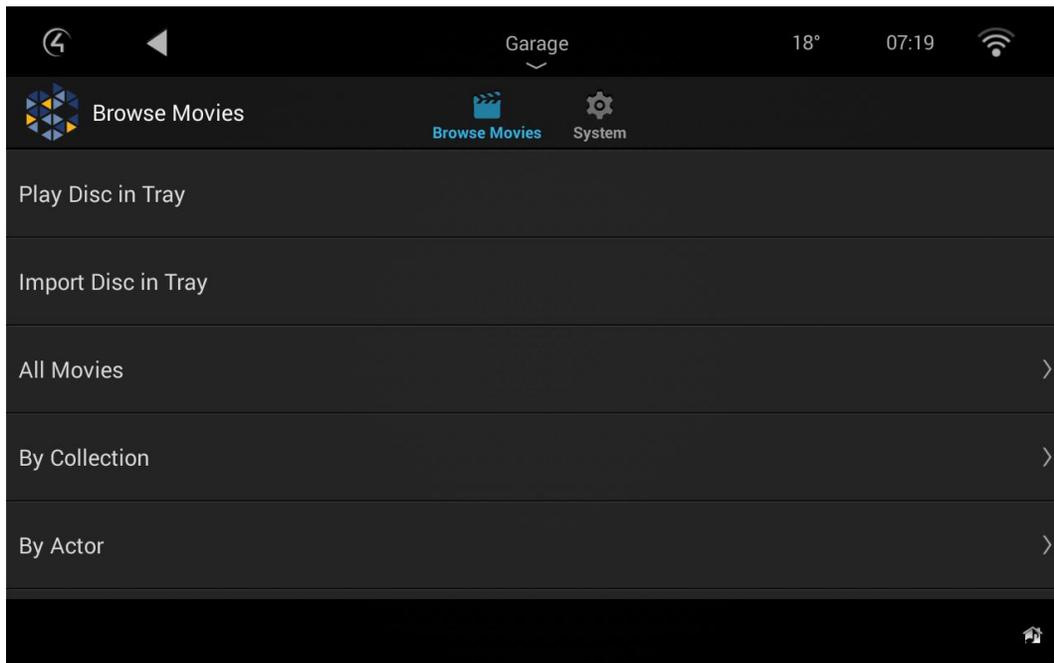
7. Clicking on **Info** will bring up a notification with the artwork and synopsis



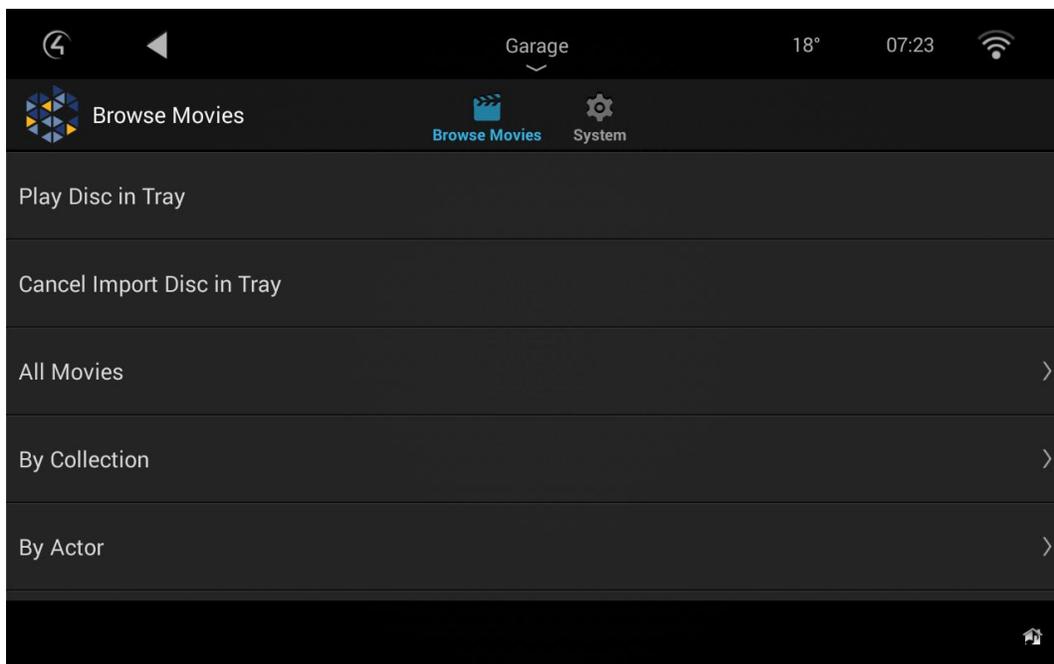
8. You can also browse by other categories such as Actor, Director, Genre and more



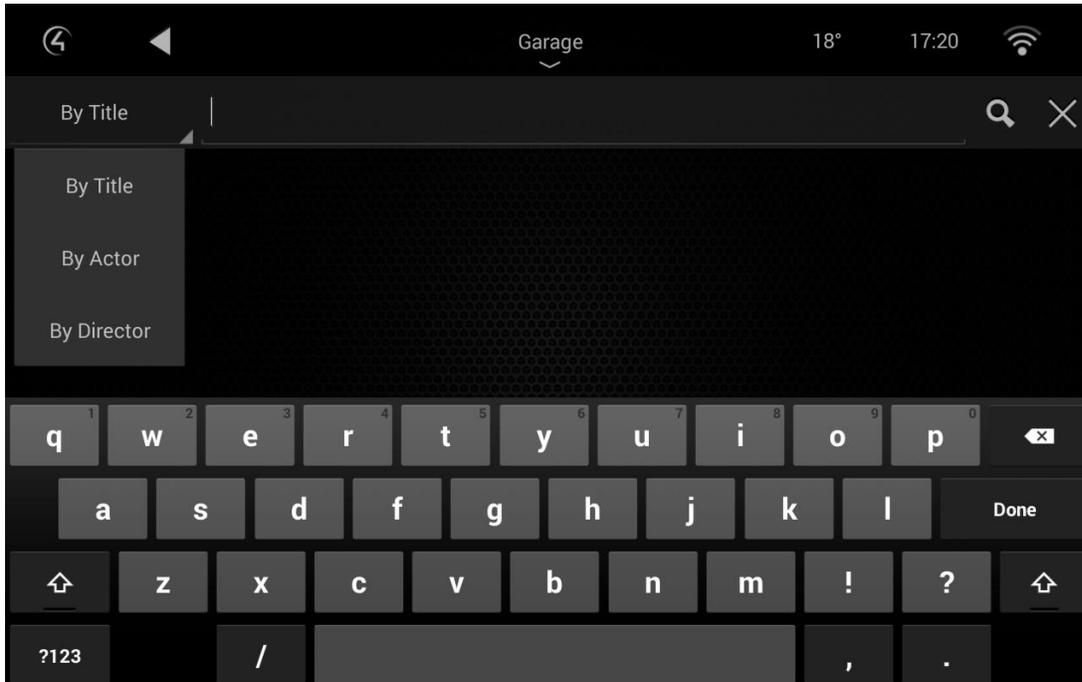
9. If you insert a Bluray or DVD the Browse Movie list will now have Play Disc in Tray & Import Disc in Tray options.



10. If you are currently importing then the 'Cancel Import Disc in Tray' option will appear rather than the 'Import Disc in Tray' option.



11. The search option can be found by clicking on the search icon up the top right hand cover. You can search movies by title, actor or director. Note that Kaleidescape systems do not have a search filter in their API. As such we have to download the entire database and parse the database for keywords. The bigger the collection the longer it will take. A system with 4000 movies may take up to 30 seconds to return results.



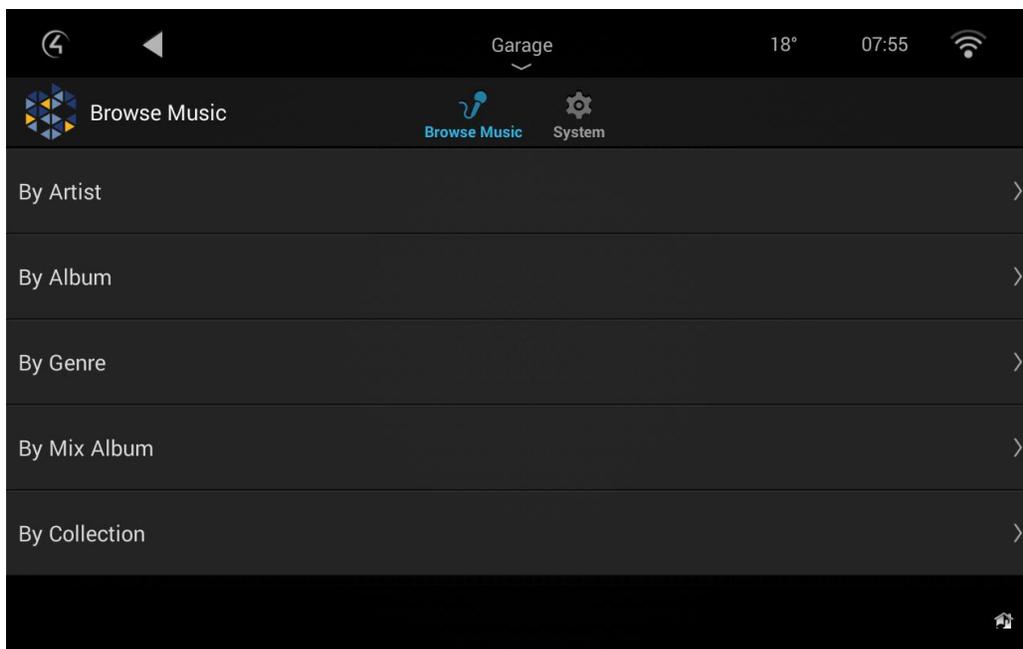
Using the driver – Browsing Music

This section assumes that you have a working Kaleidescape installation with Music CD's imported.

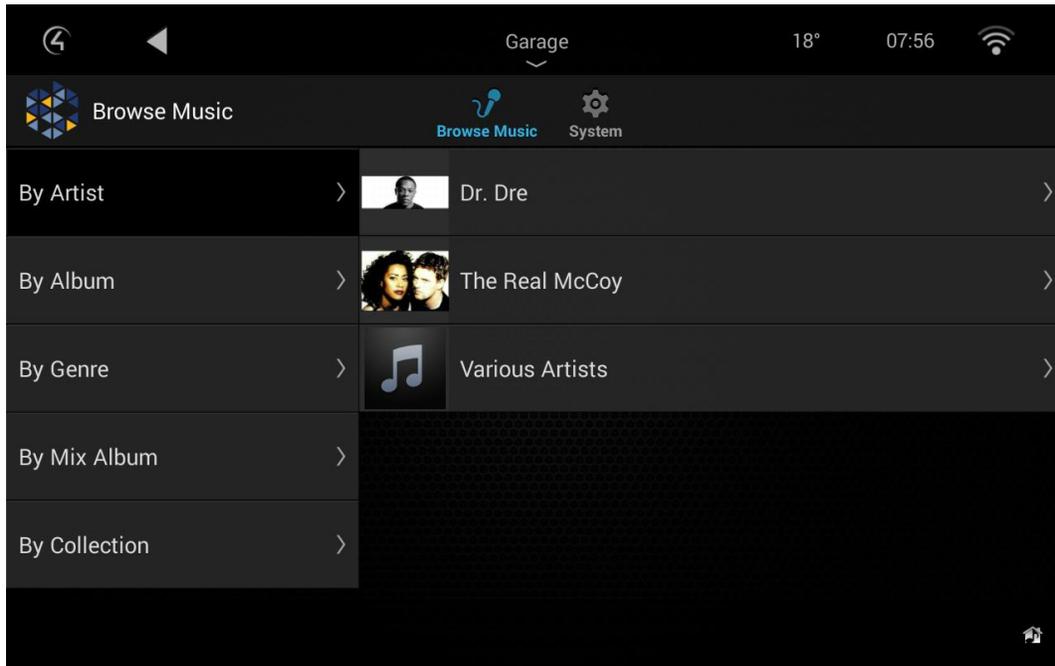
1. The **Kaleidescape Music** Icon can be found under the watch section of Control4
2. Select the Kaleidescape Music icon to bring up the library interface



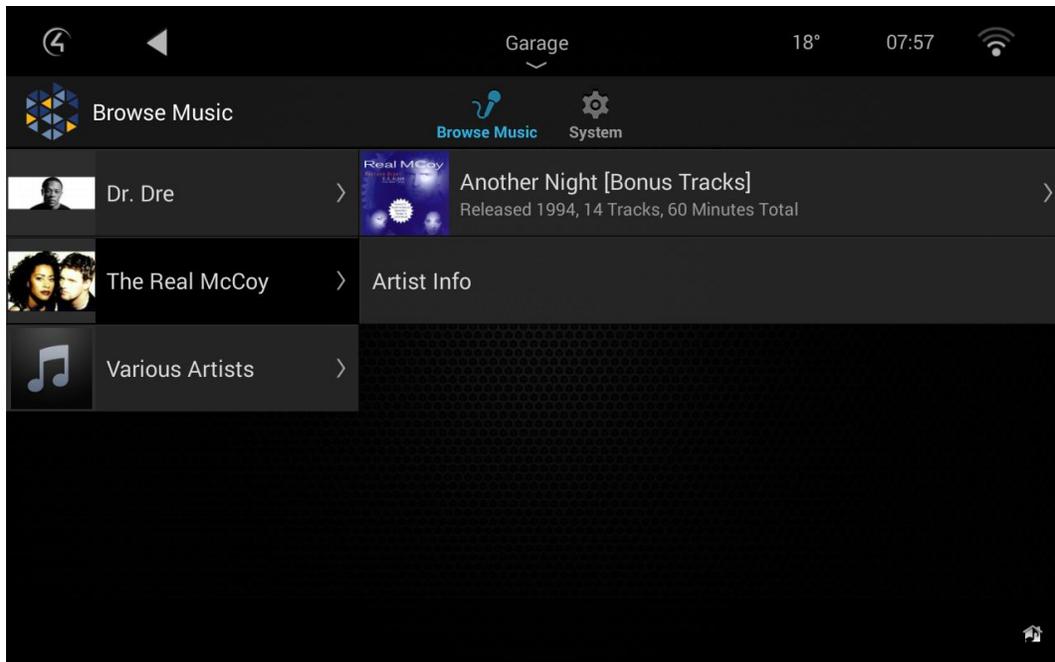
3. The interface will now bring up all the categories you can browse for Music



4. By Artist will bring up all Artists.



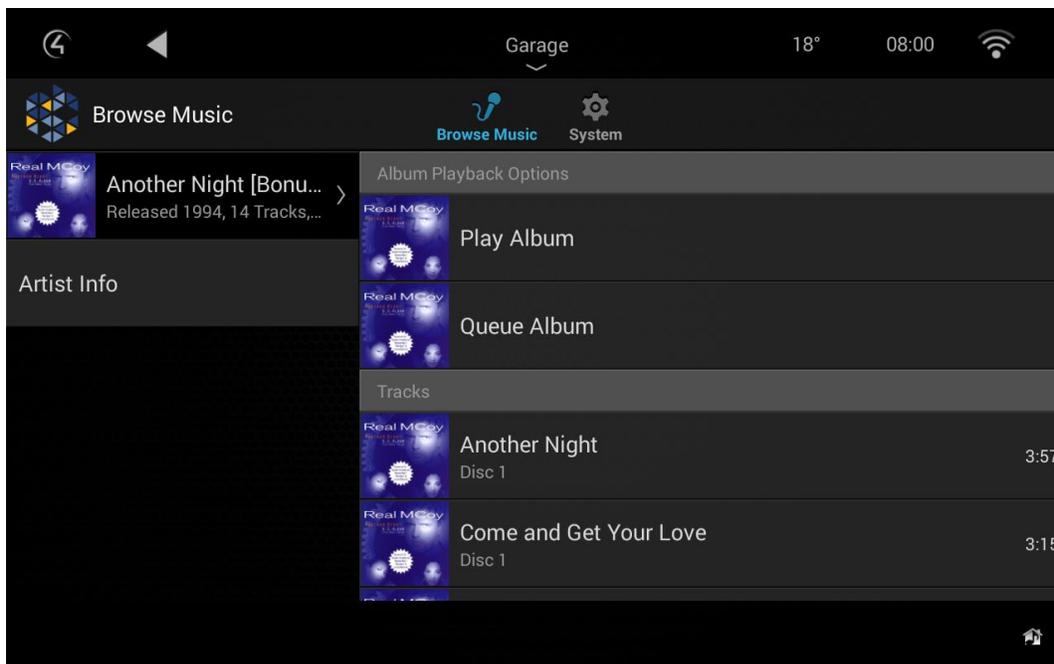
5. Albums by Artist will bring up all albums by that artist.



- Clicking on **Artist Info** will bring up a notification with the Artists biography

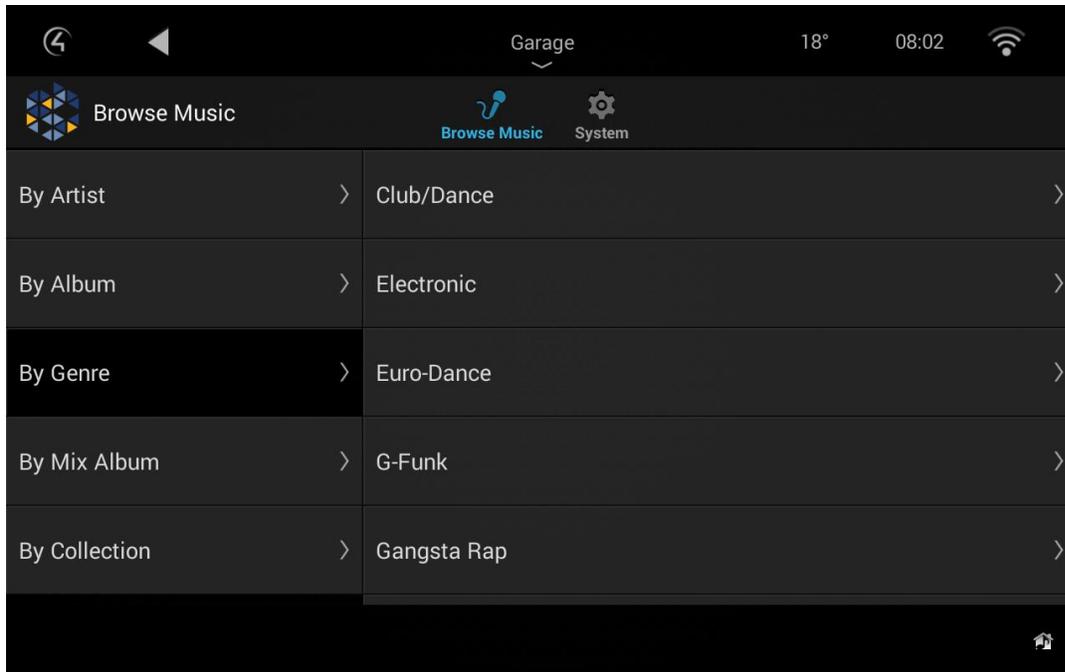


- Selecting an Album will bring up the album playback information and track information

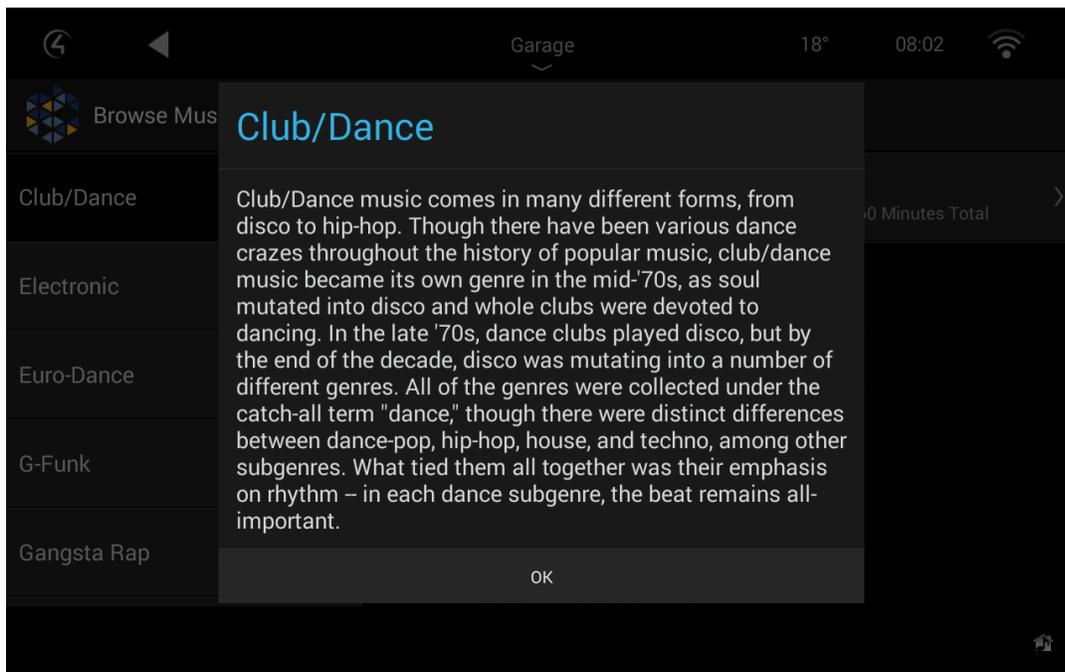


- Selecting Play Album will clear the queue and play the album immediately
- Selecting Queue Album will add the whole album to the queue.

10. Selecting a track will bring up the track's playback options (Play Track or Add to Queue).
11. You can also browse by other categories such as Album, Genre, Mix Album and Collection

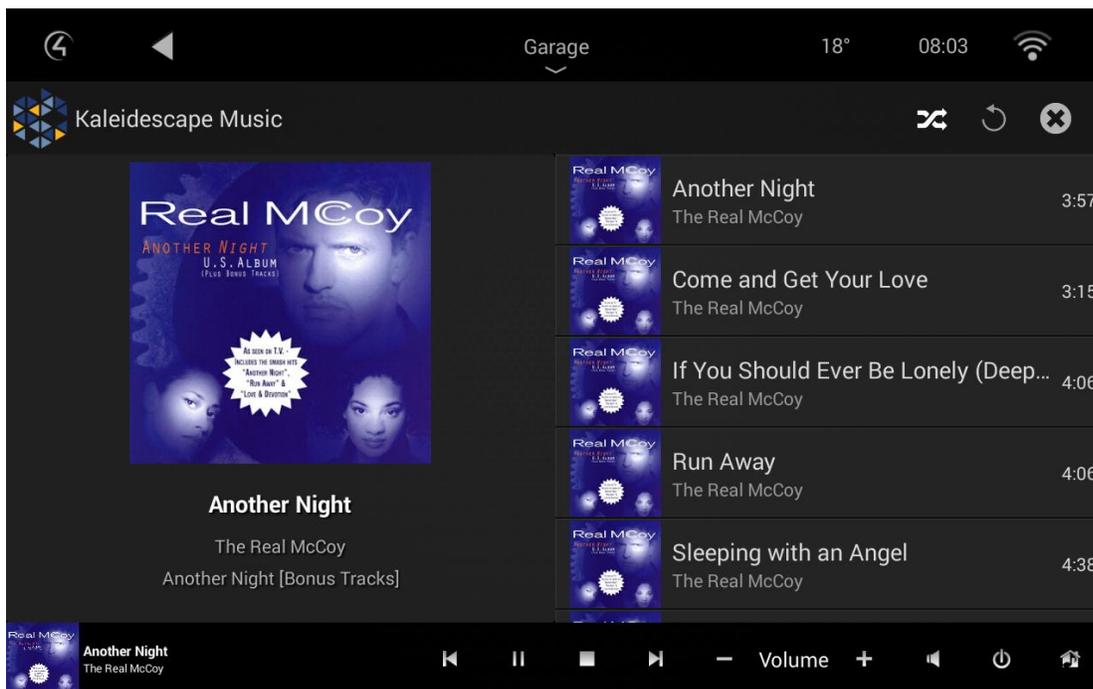


12. Genres will also allow you to view the Genre Information

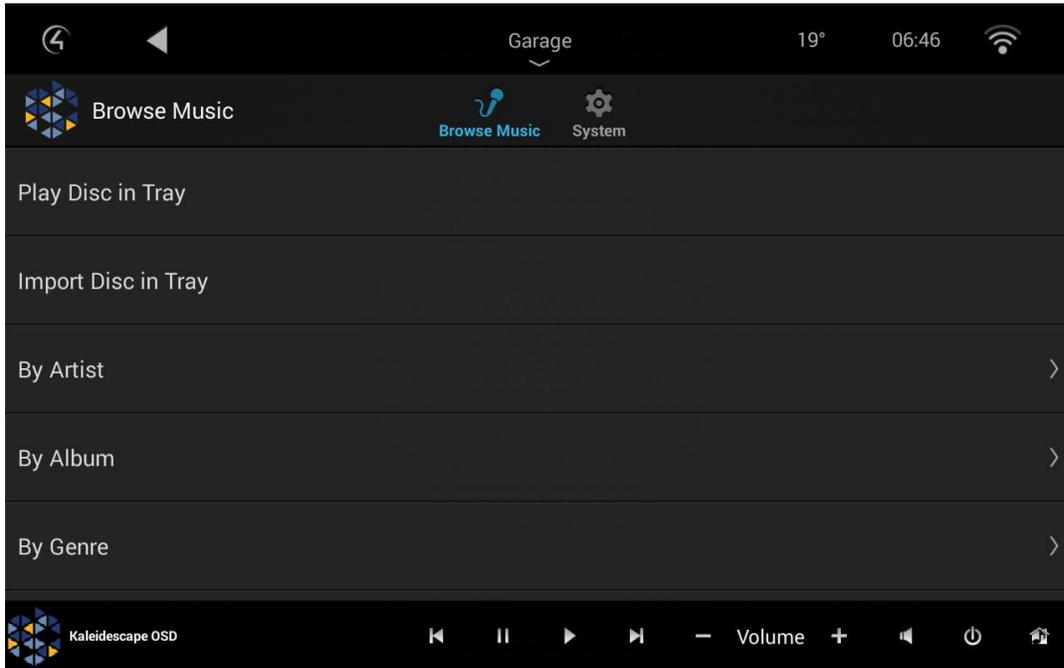


13. Whilst music is playing if you select the Album art on the bottom left hand corner this will bring up the Now Playing information and Queue information. It will also bring up the Shuffle, Repeat and Clear Queue commands. The Shuffle and Repeat buttons will light up white if enabled.
14. The bottom bar will display the current track, artist and cover art and will provide skip previous, play/pause, stop, skip next, volume down, volume up, mute and power buttons.

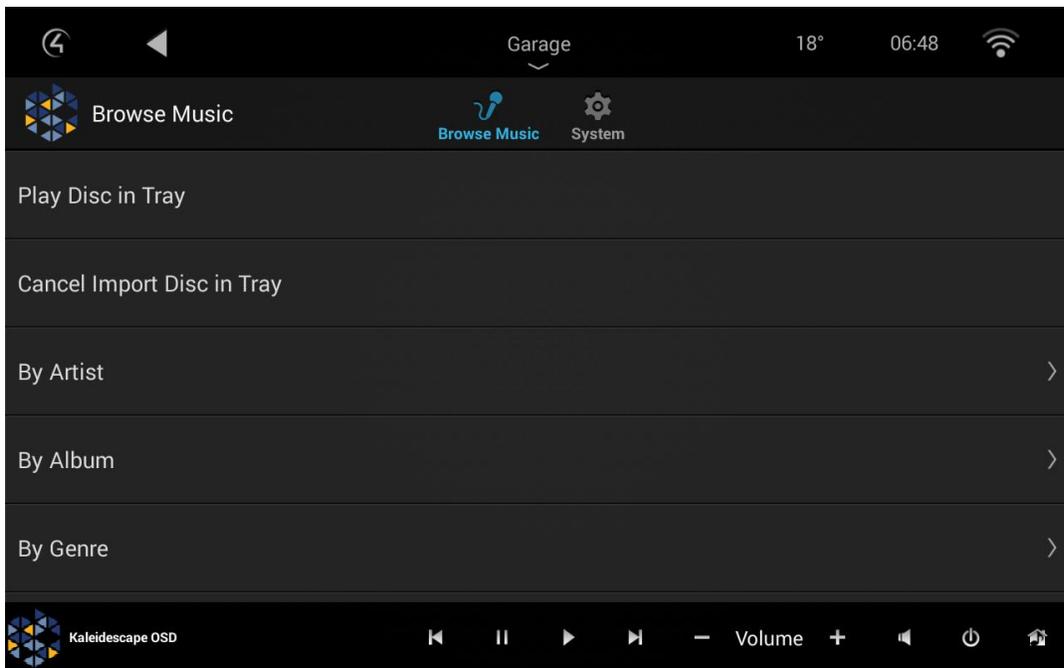
NOTE: Our driver currently does not support Kaleidescapes zoning functionality. As such we cannot join multiple Kaleidescape units together. If you have a single player you can put this into a matrix switch or amp and utilise Control4's Zone functionality.



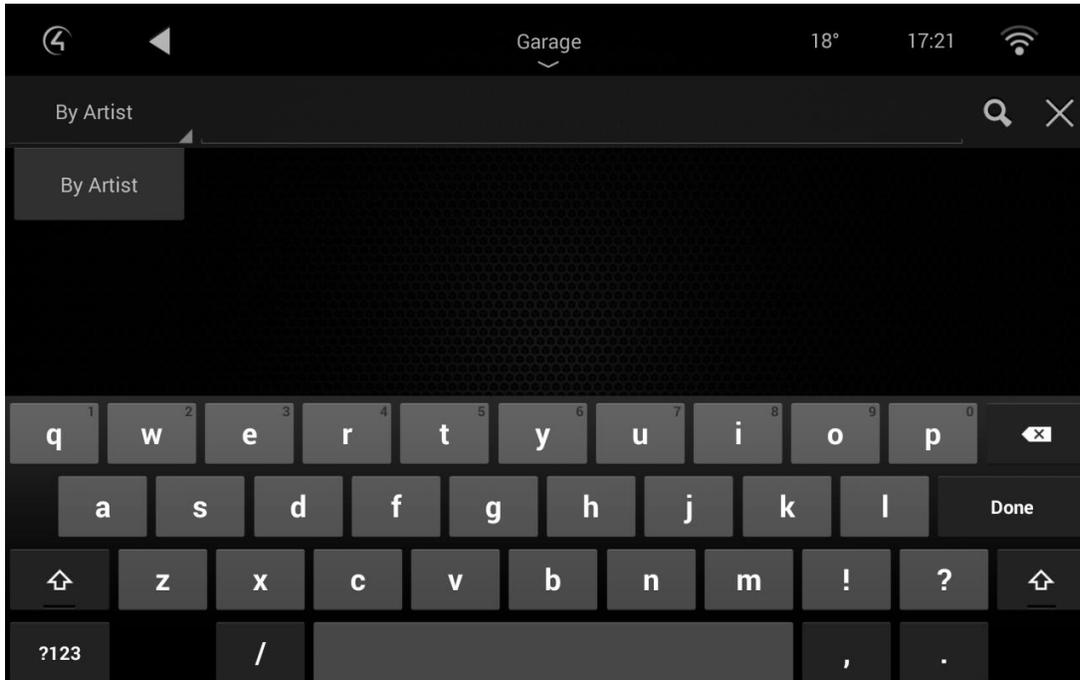
15. If you insert a CD the Browse Music list will now have Play Disc in Tray and Import Disc in Tray options.



16. If you are currently importing then the 'Cancel Import Disc in Tray' option will appear rather than the 'Import Disc in Tray' option.



17. The search option can be found by clicking on the search icon up the top right hand cover. You can search movies by title, actor or director. Note that Kaleidescape systems do not have a search filter in their API. As such we have to download the entire database and parse the database for keywords. The bigger the collection the longer it will take. A system with 4000 movies may take up to 30 seconds to return results.



Using the driver – Browsing System Information

This section assumes that you have a working Kaleidescape installation connected to Control4.

1. This section can be accessed via the **Kaleidescape Music** or **Kaleidescape Movies** Icon can be found under the watch or listen section of Control4

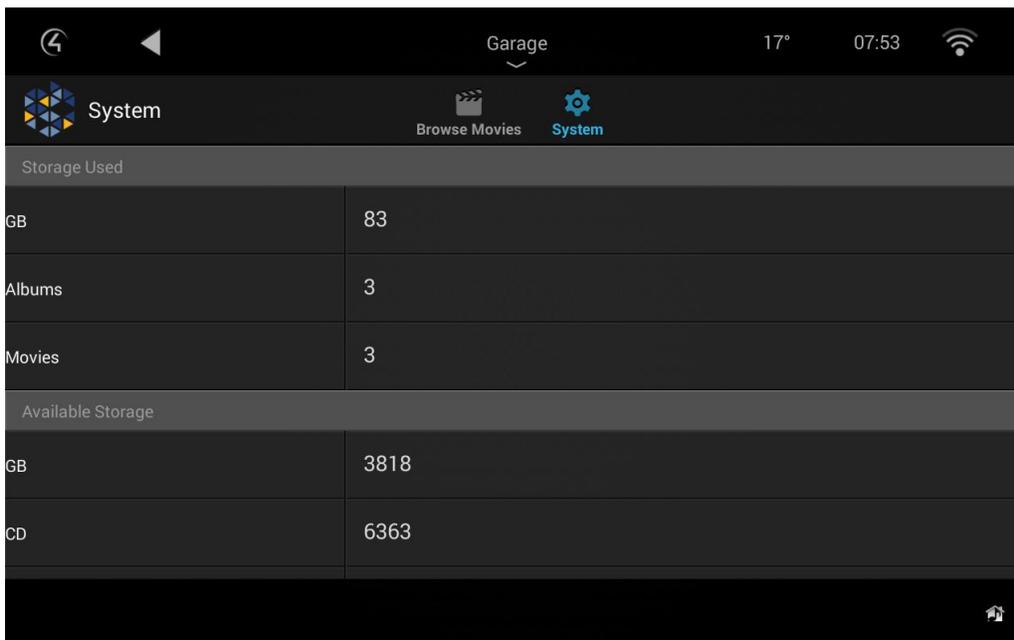


2. Select the Kaleidescape Music or Kaleidescape Movies icon to bring up the library interface



3. Click on the System icon to bring up the System information

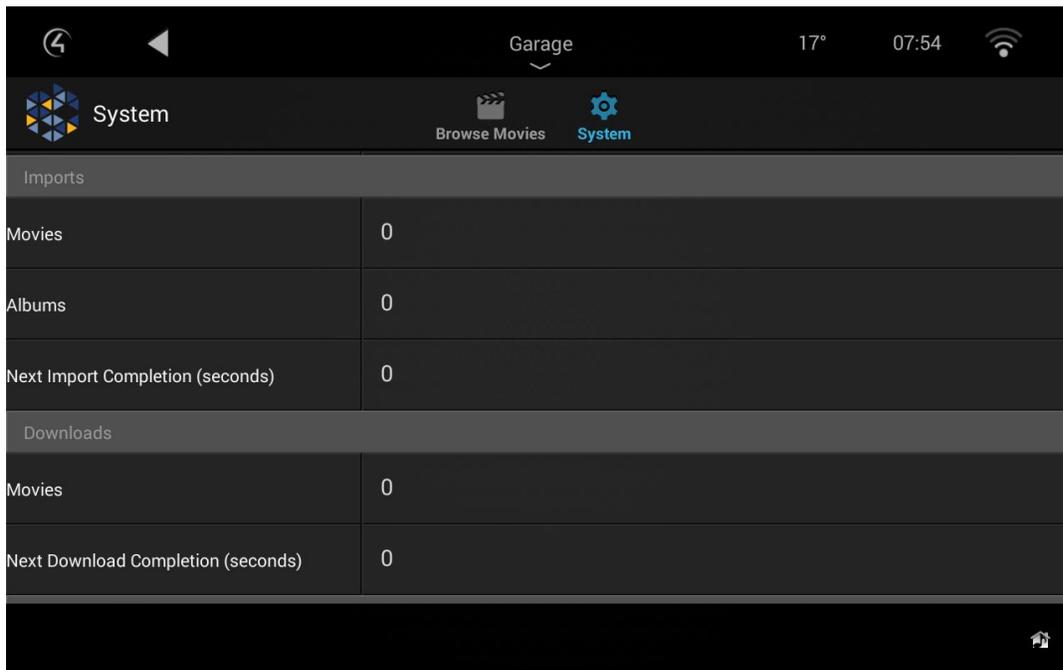
18. The Storage Used section tells you how much storage you have used in GB, Albums and Movies



Storage Used	
GB	83
Albums	3
Movies	3
Available Storage	
GB	3818
CD	6363

19. The Available Storage section tells you how much storage you have left in GB, CDs, DVDs and Bluray

20. The Imports section tells you how many imports are left for Movies and Albums and how long until its complete.



The screenshot shows the 'Imports' section of the application. At the top, there is a navigation bar with a back arrow, a 'Garage' title, and status icons for temperature (17°), time (07:54), and Wi-Fi. Below the navigation bar, there are three main sections: 'System' (with a gear icon), 'Browse Movies' (with a clapperboard icon), and 'System' (with a gear icon). The 'Imports' section is highlighted and contains a table with the following data:

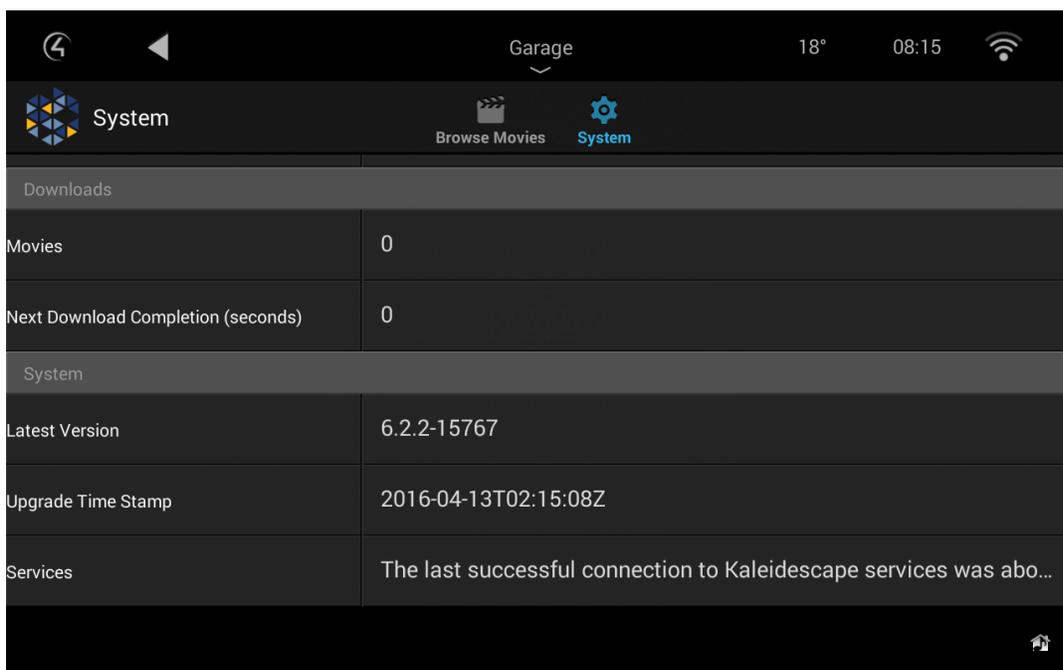
Imports	
Movies	0
Albums	0
Next Import Completion (seconds)	0

Below the 'Imports' section, there is another section for 'Downloads' with a similar table structure:

Downloads	
Movies	0
Next Download Completion (seconds)	0

21. The Downloads section tells you how many movies you are downloading and how long it will take to complete.

22. The System section tells you the version of OS, when it was upgraded and when it last checked in to Kaleidescapes online services.



The screenshot shows the 'Downloads' and 'System' sections of the application. At the top, there is a navigation bar with a back arrow, a 'Garage' title, and status icons for temperature (18°), time (08:15), and Wi-Fi. Below the navigation bar, there are three main sections: 'System' (with a gear icon), 'Browse Movies' (with a clapperboard icon), and 'System' (with a gear icon). The 'Downloads' section is highlighted and contains a table with the following data:

Downloads	
Movies	0
Next Download Completion (seconds)	0

Below the 'Downloads' section, there is a 'System' section with a table containing the following data:

System	
Latest Version	6.2.2-15767
Upgrade Time Stamp	2016-04-13T02:15:08Z
Services	The last successful connection to Kaleidescape services was abo...

Using the driver – Controlling the OSD

This section shows you how to control the Kaleidescape OSD using your Control4 Touchscreen interface.

1. The **Kaleidescape OSD** Icon can be found under the watch section of Control4



2. Select the Kaleidescape OSD icon to select Kaleidescape as the video source and also bring up the touchscreen controls. If selected from a SR-250 or SR-260 remote then the buttons are mapped to the physical hard buttons.



3. The touchscreen controls should be pretty intuitive. The only commands that are not available are Eject, Info and numerical keys



Licencing

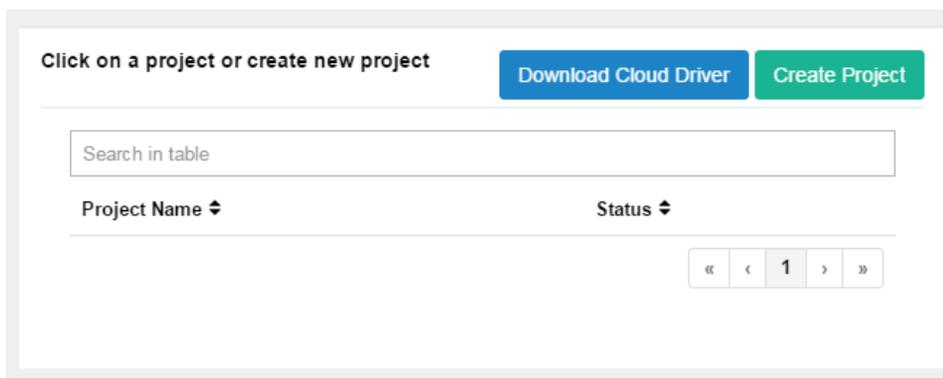
Chowmain drivers require a valid licence to use the driver. Drivers can be purchased from our distributor [driverCentral](#) however all Chowmain drivers come with a 7 day trial. We recommend that prior to purchasing a driver that you test the driver out to ensure that it will work with your hardware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

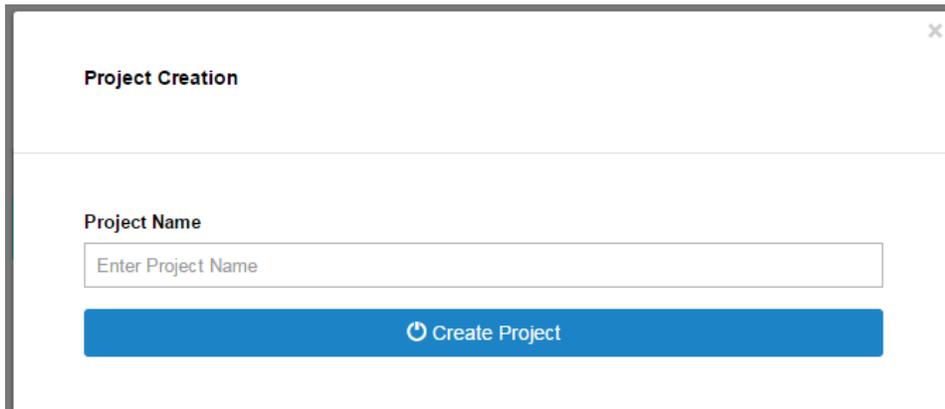
1. Create your project on the driverCentral.io website (This will generate a specific token which you will use in the next step)
2. Download, install and activate the driverCentral cloud driver in your project (Only once per project. Use the token generated in step 1)
3. (Optional) To try a driver, simply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

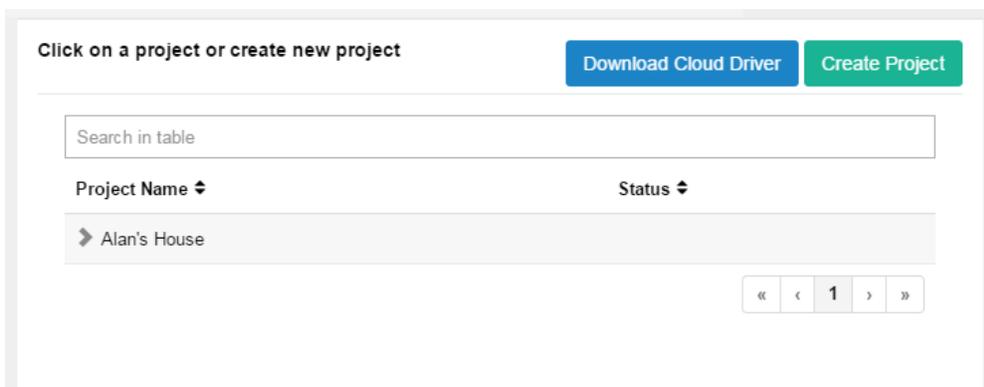
1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account.
3. Visit the Project Portal
4. Click on Create Project



- 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.

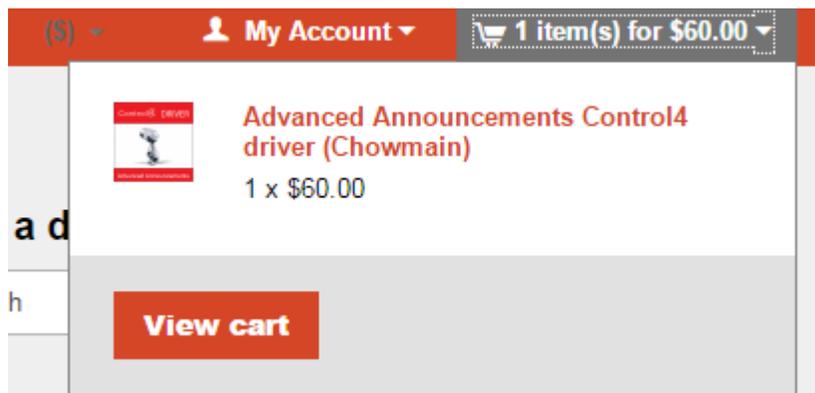
Project Name: <input type="text" value="Alan's House"/>	MAC Address: Not Connected to Project	Action:
Project Token: ABCDEFGHIJ	Last Communication: Not Connected	Connection Status: Not Connected

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



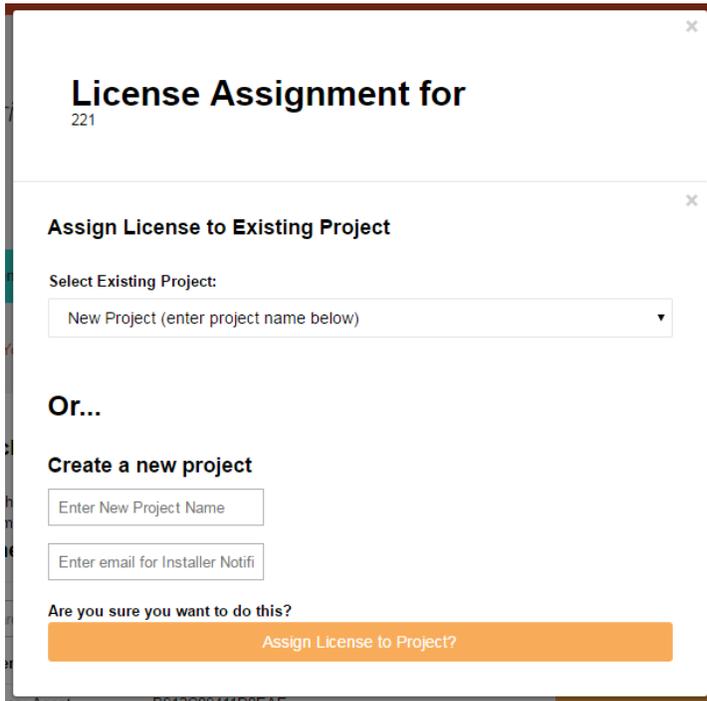
5. Follow the prompts and click on Submit my order



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

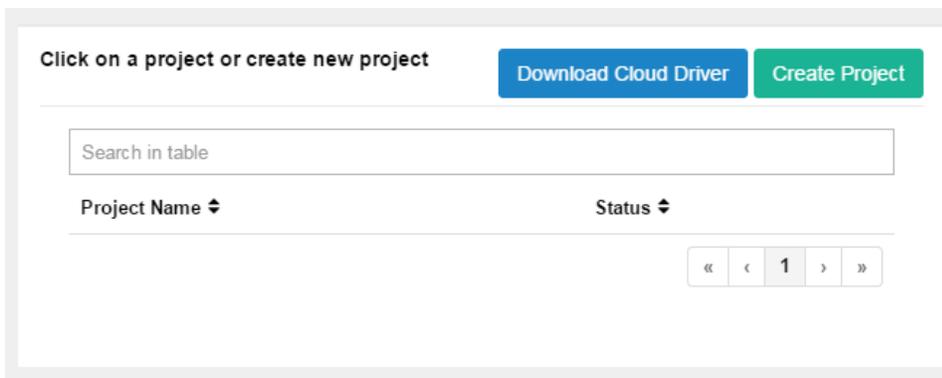
- From here assign the licence to the project we created or if you did not follow that step create a new project



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"/>