
digit**A//**
eCinema Server
Interface Reference Manual

Version 1.14

Date: Friday, 07 September 2012

Table of Contents

1	INTRODUCTION	4
1.1	ABOUT THE PRODUCT	4
1.2	ABOUT THE COMPANY	4
2	INTERFACE	5
2.1	START SCREEN, EVENTS	6
2.2	ADMIN.....	7
2.2.1	HELP SCREEN.....	7
2.2.2	SYSTEM SETUP.....	7
2.2.3	DISPLAY SETUP	9
2.2.3.1	Output Resolution	9
2.2.3.2	Digital Aperture.....	9
2.2.3.3	Display Defaults	9
2.2.4	AUDIO SETUP.....	10
2.2.4.1	Audio Output.....	10
2.2.4.2	Master Start-up Volume	11
2.2.5	MEDIA MANAGEMENT	11
2.2.5.1	Delete	11
2.2.5.2	Generate Preview	11
2.2.5.3	Scan / Sync / Upload	11
2.2.5.3.1	Scan	11
2.2.5.3.2	Sync.....	12
2.2.5.3.3	Upload	12
2.2.5.3.4	ftp	13
2.2.5.4	Rename	13
2.2.5.5	Proxy Review	14
2.2.6	LOGS	14
2.2.6.1	Media and Operation Logs	14
2.2.6.1.1	Media.....	14
2.2.6.1.2	Operational	14
2.2.6.2	Export Log.....	15
2.2.6.3	Configure Logs	15
2.2.6.3.1	File Logging.....	16
2.2.6.3.2	Socket Logging.....	16
2.2.6.3.3	Http Logging.....	16
2.3	AUTOMATION	16
2.3.1	DISPLAY (PJLINK)	16
2.3.2	IO.....	17
2.3.3	AUDIO.....	17
2.3.4	AUDITORIUM	18
2.3.5	PROJECTOR.....	18
2.4	PLAY.....	19
2.4.1	ADVANCED MEDIA CONTROL	21
2.4.1.1	Advanced control LENS.....	22
2.4.1.2	Advanced control Image	24
2.4.1.3	Advanced Audio Control	25
2.5	EVENTS.....	26
2.5.1	PROGRAMMING AN EVENT	27

2.5.1.1	Event Types	27
2.5.1.2	Command to trigger	28
2.5.1.3	Events Example	28
2.5.1.4	Event IO messages	29
2.6	EDIT	31
2.6.1	PLAYLIST COMMANDS	32
2.6.1.1	PlayMedia Command	32
2.6.1.2	Goto Command	35
2.6.1.3	GoSub Command	35
2.6.1.4	PlayBlack Command	36
2.6.1.5	Serial Out	37
2.6.1.6	Volume	38
2.6.1.7	Next and Wait Commands	38
2.6.1.8	Trigger Command	39
2.6.1.9	Display (PJlink) Command	41
3	<u>USING TRIGGERS</u>	<u>43</u>
3.1	WHERE TO USE TRIGGERS	43
4	<u>SUPPORT AND UPDATES</u>	<u>44</u>

1 Introduction

1.1 About The Product

This product is a digital media playback system designed for use in cinema, amusement rides and museums. It is an easy to use, automated system designed to exceed commercial requirements for reliability and image quality. The player can function alone or it can be slaved into a complex, networked operating environment.

1.2 About the company

DigitAll's mission is, *'to achieve excellence in the application of digital technology in content production, storage, and distribution in the film, television, and multimedia industries.'* The company has faithfully pursued this mission, both in the delivery of cutting edge digital distribution and storage solutions to its client base, and the continuous development and improvement of digital solutions in house. Added to this is our comprehensive experience in and commitment to the film industry, which is evident through the various creative and content production activities of our organisation.

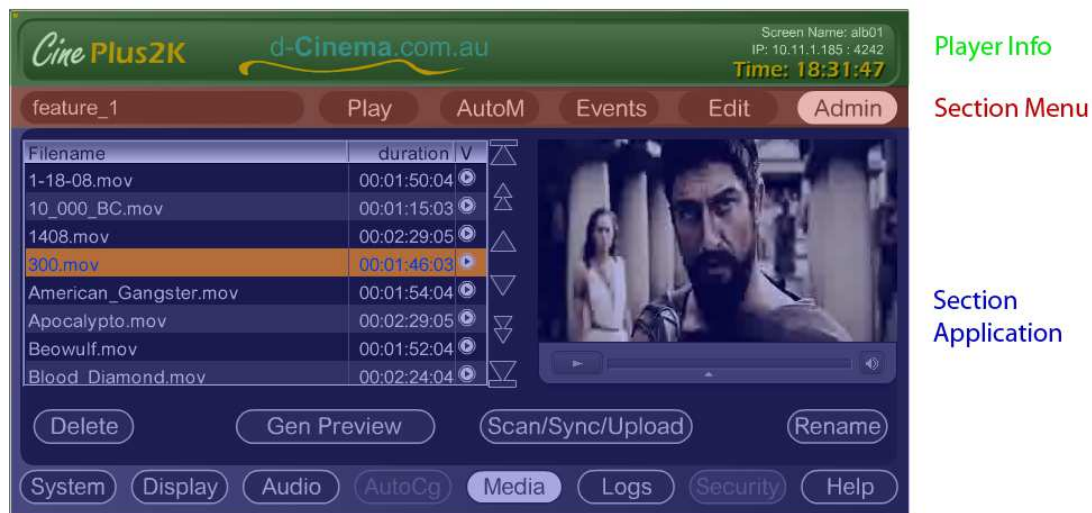
DigitAll has been a living digital action research studio, with our Planet X division amongst the first internationally to facilitate an integrated, lossless digital working environment for its creatives. The environment has provided fertile ground for the creation, refinement and application of digital solutions in a real world context.

2 Interface

This section overviews each screen displayed on the interface. It provides a description for the reader of the screen, explaining their functions, and how to operate them.

The interface is split into three areas;

1. Player information
2. Section Menu
3. Section Application



The **Player Info** window displays general player information, such as the player's name (I.D.), the IP address of the player, and the current time as programmed into the unit.

The **Section Menu** allows navigation of the unit's features and functions, such as play operations, editing, or administration. The Section Menu remains consistent across screens.

The **Section Application** window changes to reflect the function currently selected under the Section Menu. While the **Section Menu** allows navigation to various areas, the **Section Application** is the window through which the user will operate functions and features of the machine.

Turning on the machine will automatically result in display of the Events screen.

2.1 Start Screen, EVENTS



Whenever the machine is booted up, or when the machine is idle (that is, not playing content), the default interface is the **Events** screen. This screen indicates that no particular playlist is currently running, and that the system is waiting for an event to trigger the unit into activity (e.g. such as playing a playlist.) Events triggering such activity might include a message from automation, a time of day event or User Control.

The Events screen lists all programmed events, including the event type and the nominated action (e.g. Event: Time of Day 9am, Action: Projector On)

2.1.1 Section Menu

From here you have five main areas: Play, Automation, Events, Edit, and Admin.

Loading...

This button allows you to select the active playlist.

Play

This will go to the PLAY screen. From here you can monitor and control what is being played.

AutoM

This button will take you to the Automation area where commonly programmed Automation events can be accessed directly.

Events

This button brings you back to this screen which is used to program all the possible events to control the system.

Edit

This button takes you to an interface in which you can program playlists.

Admin

Select this button when you need to administer the system. This includes; system display, audio, network configuration, importing and management of media.

2.2 Admin

2.2.1 Help Screen



When you first hit the Admin button you will get a screen with Help and licensing information.

From here you can select the buttons on the lower part of the screen to change the systems options.

2.2.2 System Setup



Player Name:	alb01
Location:	Sc01-Rack

Version 1.14

These options set the name and location of the player. This is used to identify and track logging data.

Daily Reboot: 00:00 OFF

nightly reboot to clean the system memory and improve stability if these issues occur.

While CinePlus2K Player has been tested to be reliable, historically, windows OS can display some instabilities when using unknown or unsupported codecs. This option forces a

DHCP: No Change
IP Address: 10.11.1.185
Subnet Mask: 255.255.255.0
Gateway: 10.11.1.254
DNS Server: 10.11.1.24

When installing or maintaining a network of players, it is common to change the IP address of the system to make the network topology of the site.

Proxy to fullscreen
Time Out: 5

This sets the time out for full screen mode when the player is playing content. For example, the PROXY window will expand to full screen, making it easier to see from a distance.

Set System Time

This is used to set the time on the CinePlus2K Player

Reset Settings

This will reset the system settings file "MediaSettings.xml" with a default version.

Reset Playlist

This will reset the Playlist file with the default playlist: WARNING, this will delete all programmed Playlist on the system.

Cal TouchScreen

This will launch the CALIBRATE TOUCH SCREEN application. It will ask you to touch the screen in certain location to help improve its accuracy.

Reboot

Selecting this button will let you reboot the system. This is recommended after changing the IP address.

2.2.3 Display Setup



This screen lets you setup the “Output Resolution” and “Digital Aperture”.


2.2.3.1 OUTPUT RESOLUTION

Here you can select any width, height and frequency the system can “TRY” to apply to the connected display system. Only if the Display Device supports the requested values, will they actually work. Otherwise an error will occur. The supported resolutions and frequencies are only restricted by the display device and graphics card. The standard CinePlus2K graphics care can do all resolutions up to 2k.

2.2.3.2 DIGITAL APERTURE

As a display device come in many shapes and sizes, the Digital Aperture lets you program the active area of the screen. For example, as most content is equivalent to 16x9, we cut out the portion of active resolution to equate to a 16x9 image. For example, in the above CinePlus2K Player screen image, a 1024x768 resolution projector has an Aperture set to 1024x576 (16x9) cut out of the centre.

2.2.3.3 DISPLAY DEFAULTS

 Selecting this button will bring up a HELP screen, listing common projectors. When you select a Projector, the optimum settings for that projector will be displayed.



2.2.4 Audio Setup



This screen allows you to select the type of Audio processor you have.

2.2.4.1 AUDIO OUTPUT

When you select the audio mode you require (MONO, STEREO, QUAD, SURROUND, 5.1, 7.1) the system will apply an Audio matrix to the incoming sound. This will apply an optimised conversion matrix to turn the source audio into the best possible result for your Audio setup.

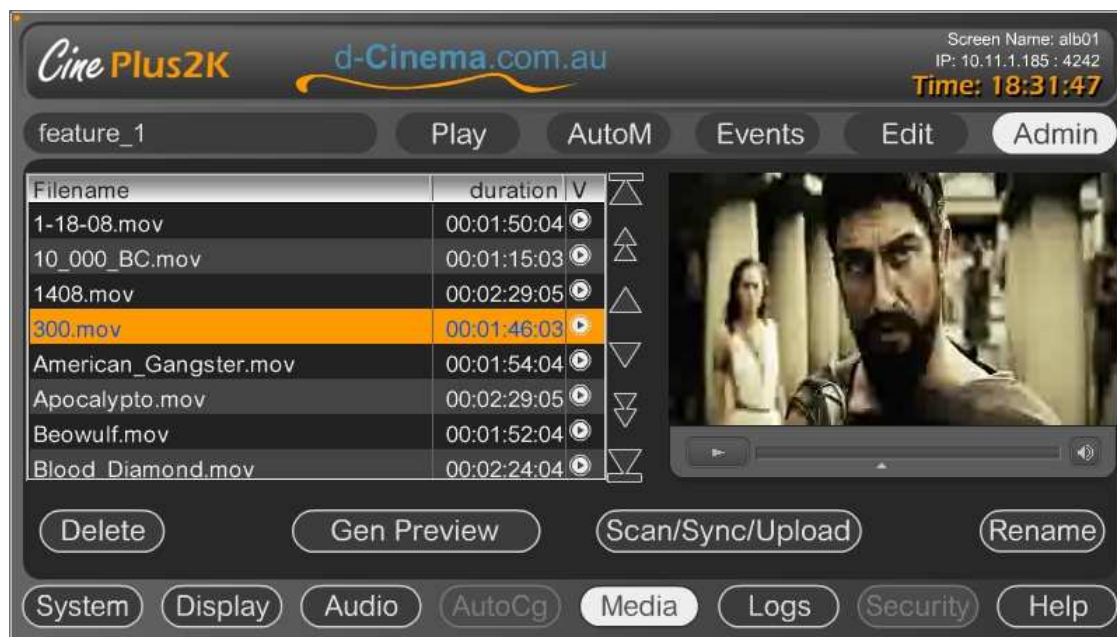
For example, down mix 5.1 to Stereo or Stereo to 5.1, taking dialog and putting it to the centre speaker.

The diagram is used to give you a visual representation of what plugs mean what as to help ensure that the correct output is plugged into the correct channel.

2.2.4.2 MASTER START-UP VOLUME

This set the volume level required after a reboot or power up.

2.2.5 Media Management



2.2.5.1 DELETE

Delete This will delete the selected Media from the system.

2.2.5.2 GENERATE PREVIEW

Gen Preview After importing media, a preview can be generated. The preview is used as a Interface Proxy to indicate where in the media file the player is up to.

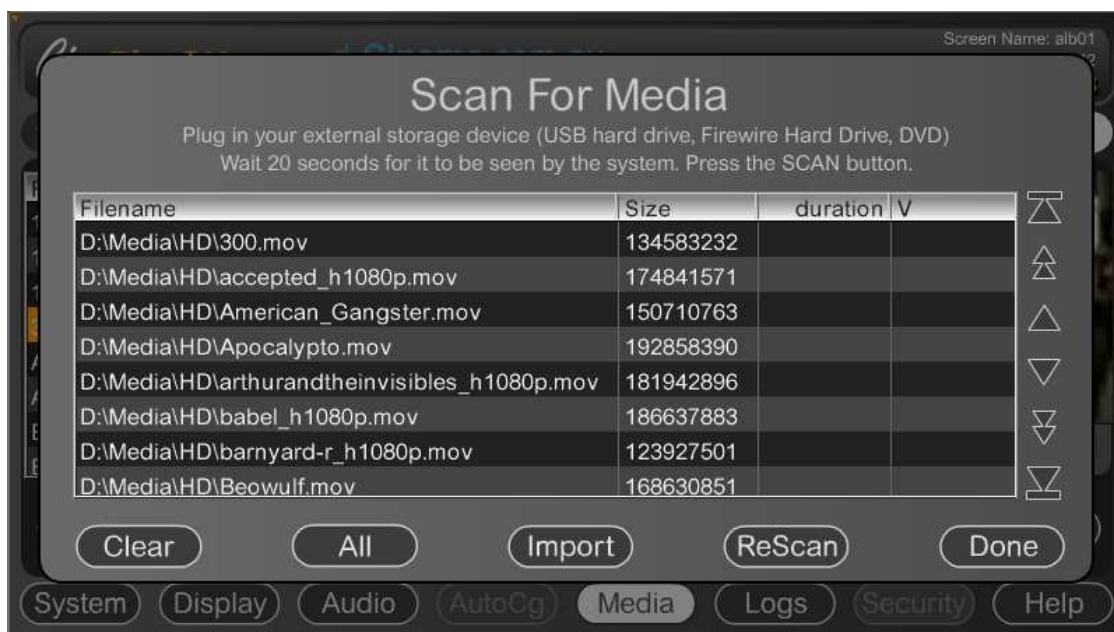
Depending on the media type, size and resolution, the proxy can take 1 to 25 times real time to produce. For example, a full quality media file at 1080p 80mbit which is 1 min long would take about 30 seconds to generate. A 1 min long 576p standard 8mbit (high-quality DVD) file may take a few seconds. Your milage may vary.

NOTE: When using a ddSign SiteServer, proxy generation is automatic.

2.2.5.3 SCAN / SYNC / UPLOAD

Scan/Sync/Upload To inport media into the system, select this button. Depending on who you are opporating the CinePlus2K Player, you will be given different options to import media.

2.2.5.3.1 Scan



When scanning for media, the system will look at all connected media devices. USB-Hard Drive, USB-Thumb Drive, Optical-Drive (CD,DVD,BluRay). If any compatible media files are found, they will be listed.

Select one or more files you would like to import and select "Import".

The system will now import each of the selected files one after the other.

2.2.5.3.2 Sync

This is used to move the complete contents of a Player to another player. Its main purpose is to make it easy to swap out a Player if required.

2.2.5.3.3 Upload

When accessing the Player over the internet, you can upload media into the system. This interface allows you to select multiple files and upload them all in a button push.

The sizes of files that can be uploaded are limited to the a few gig and below. However, depending on the speed of network connectivity to the player, larger files are less likely to work.

Also note. Resume is not currently supported. As such, large files on an intermittent link are unlikely to upload.



When uploading media, the system will show percent completion and ETA.



2.2.5.3.4 ftp

The CinePlus2K Player also supports FTP (File Transfer Protocol). This method of importing media is recommended for large files over an Internet connection. Username and password settings are set in the Mediasettings.xml configuration file.

The default settings are, Login: mediaupload, password: mediaupload

2.2.5.4 RENAME

Rename This will rename the selected file.

2.2.5.5 PROXY REVIEW



This is the proxy review tool. This allows you to scan through the selected media file.

2.2.6 Logs

All activity of the system can be logged. This admin section lets you review, export and setup how the system will log.

2.2.6.1 MEDIA AND OPERATION LOGS



2.2.6.1.1 Media

This contains a log of every time an item is played.

2.2.6.1.2 Operational

This log screen tracks all events in the system and is primarily used for debugging issues in which the system may not have done what was expected. From here you can look back and discover what event caused something to happen.

2.2.6.2 EXPORT LOG

To help keep track and audit the systems, it is possible to export the logs into a USB thumb drive.

The log file exported will contain a list of all loaded media and a log of what was played and when between the dates selected.

The Thumb drive simply has to have been named, under windows, "LOGS". The export process will look for a thumb-drive with this name and write the log to it.

2.2.6.3 CONFIGURE LOGS

This screen allows you to setup how the system will log.

2.2.6.3.1 File Logging

Select Log Type:	File: <input type="radio"/> ON	Dated: <input type="radio"/> ON
Media Log	Filename: ..\log\Media_	
Operational Log	Maximum Days to Log: 365	

Here you can turn file logging on and off, the file name to log to and if auto aging/deleting is active. Note: Media and Operation logs can be configured differently.

2.2.6.3.2 Socket Logging

Socket: <input type="radio"/> OFF	Port: 0
Address: 0.0.0.0	

For enterprise real time monitoring and logging, the system can be setup to send real time logging events to a server via a Socket.

2.2.6.3.3 Http Logging

Http: <input type="radio"/> OFF	TimeOut: No
Address: No	

To help support external systems and tunneling though fire walls, HTTP logging is also available. This makes it very easy for a typical web designer to build a centralized logging system.

2.3 Automation

If the CinePlus2K Player is being used as an Automation master, this section is a set of screens that give you easy access to commonly mapped automation buttons.

2.3.1 Display (PJlink)



The “Display” automation page supports common PJlink automation messages. If you have a PJlink compatible device connected to the CinePlus2K Player, you can use these buttons to send common PJlink messages as listed on the buttons. Not all displays support all buttons. (For example, most projectors do not support Audio)

2.3.2 IO



Three common IO messages are currently supported on this screen. IO messages are programmable via Mediasettings.xml, and can be named anything you like. They WILL NOT appear on this screen automatically.

2.3.3 Audio



CinePlus2K Player has been designed based on a typical Cinema Automation system control of an Audio processor. These buttons simulate the typical selections available on a typical cinema Audio Processor.

2.3.4 Auditorium



These buttons map to those found in a typical Cinema Auditorium.

2.3.5 Projector



These buttons map to the typical automation signals needed to run a Cinema Film Projector.

2.4 Play

The “Play” menu takes you to the playlist control and monitoring screen.



This screen is where you monitor and control a PLAYLIST. From here you can see the following;

1. What is currently playing.
2. How far in a program the system has gone.
3. The items are in the current playlist and what it is up to.
4. Audio levels coming out.
5. Global output volume.
6. Total playlist time.
7. Length of current item and time into and time left.
8. Proxy representative of what is onscreen.
9. Time line indicator, indicating, in-point, out-point and triggers connected to playing media.

The “Advanced” button allows greater control of how media will be presented on screen.

P	Filename/Command	Length
▶	E_Astor_Cinema_Intro1.mpg	00:00:19:10
	E_CandyBar.mpg	00:00:17:21
	E_PleaseTurnMobileOff.mpg	00:00:30:18
	GOSUB: Commercials	00:02:09:04
	GOSUB: trailers	00:04:30:10
	F-DrivingLessons1080p AC	01:34:15:04
	WaitEvent (Stop)	00:00:00:00

This is the playlist. It lists each item in order and the length in time.



This ICON indicated the currently PLAYING item in the list.

The ORANGE highlighted area is the "SELECTED" item. If the "PLAY" button is pushed, the player will jump to that item.



This button will immediately play the item in the playlist.



These buttons will select the previous and next item based on what is currently selected.



This is the "Total Length" indicator found under the playlist.



This button will take you to the "ADVANCED" content configuration application. Here you can adjust many aspects of visual and audio properties.



These "STOP", "PAUSE" and "PLAY" buttons are standard buttons with as expected functionality.



This is the "NAME" and "LENGTH" of the currently playing item.



This is the current timecode "POSITION" indicator of the playing item. It can also be used to display the "TIME LEFT" by touching/clicking on it.

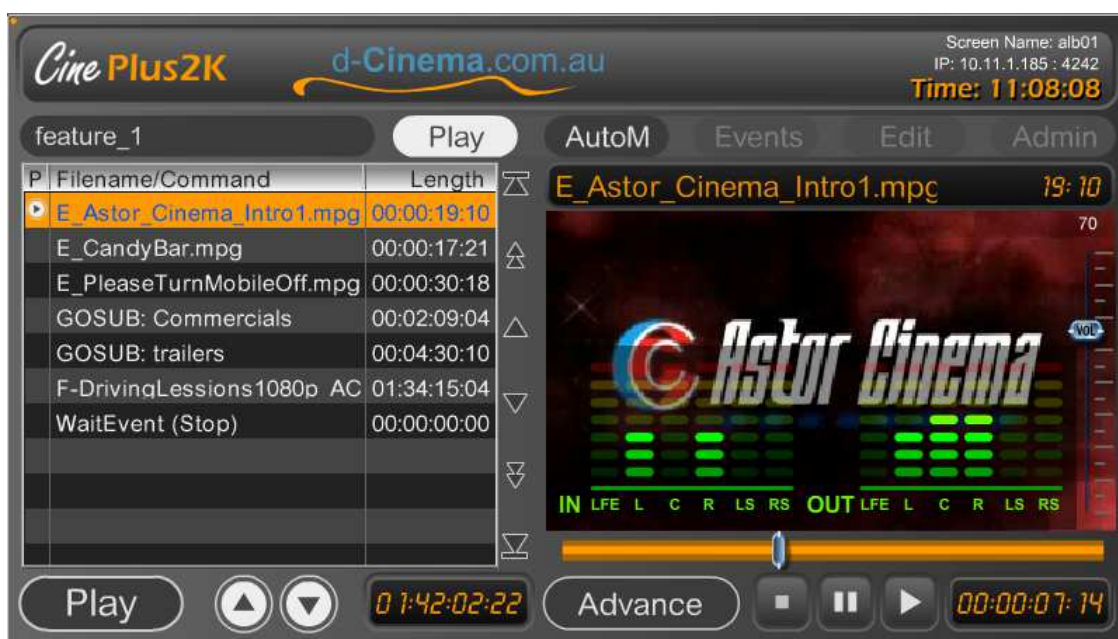


This is the "PROXY" window. This is a low bandwidth proxy. It is used to indicate what is currently on the screen. Being low bandwidth, this will work for any user connected to the CinePlus2K Player over a network connection. As it is low bandwidth. This will also work over WAN (Wide area network) and Internet links or VPNs (Virtual Private Networks).

Also note that this screen indicates the current "GLOBAL VOLUME" setting.



This is the “AUDIO OUTPUT INDICATOR”. It tells you what level of audio is being sent out of the unit and on what channels. If you touch/click on the meters, it will open up to a “IN” and “OUT” indication.



Above you see a stereo mix on the “IN” being matrixed to a “5.1” mix via creating a “CENTER” channel from the stereo mix.

2.4.1 Advanced Media Control



The “Advanced” button brings you to a screen, seen above, that allows you to efficiently navigate through the currently selected media.



The top left corner contains the time code of the current position in the media.



The top right corner contains the time code length of the media.



This tool allows you to JUMP to a specific time code or LOOP around the IN and OUT points specified.

The “M” buttons next to the time code boxes will copy the current location into the box.

The LOOP button is a toggle button. When ON, after the loop time code is reached, the player will loop back to the JUMP point.

This tool is designed for TECH CHECKING content for problems. If a problem is identified, you can control the player to repeat over the problem area as to make it easy to see and confirm the issue.

This tool is also important when using the LENS, IMAGE and AUDIO features. When you plan to adjust the content, you may want to be looping on a specific area. For example, where the audio is too low or too high. Or the picture is not performing as expected.

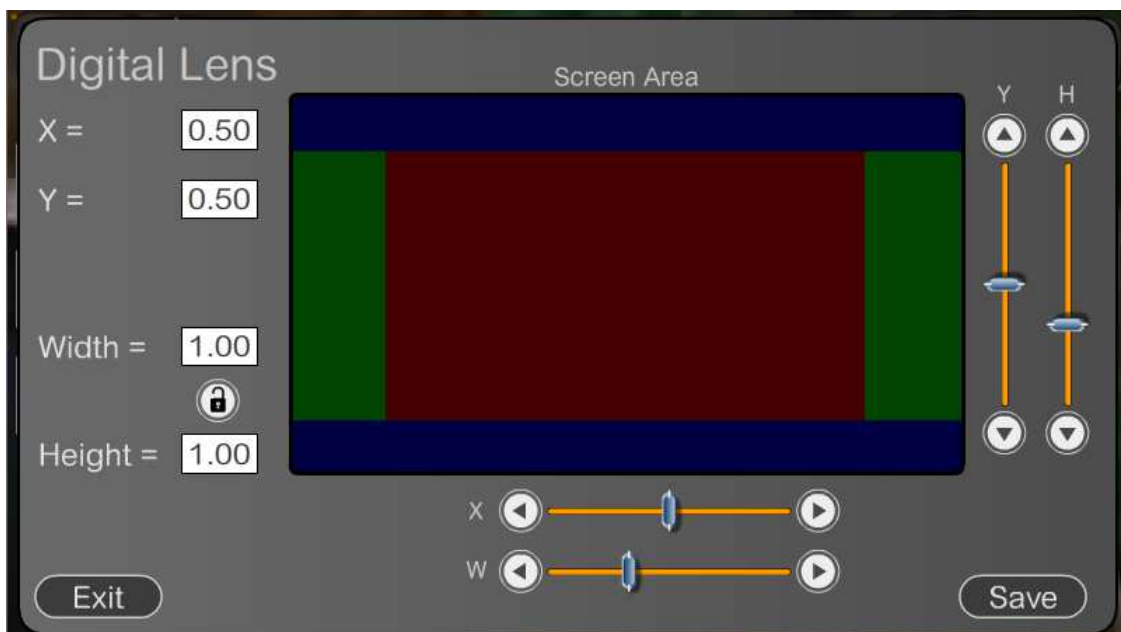
The player can be set to loop on these areas before entering the adjustment screen.

It is important to remember that, once you have adjusted the ADVANCED options for a specific media file, you must SAVE the settings.

2.4.1.1 ADVANCED CONTROL LENS

As media files can come in many shapes and sizes, issues with aspect ratios of screen and masking have become a major concern for many projectionists. This screen allows the projectionist to control how to position and mask the content to suite any screen.

When you are happy with the result, the changes are then SAVED to that media file. From now on, when it is played, it will play according to the saved settings no matter what playlist the item is in.



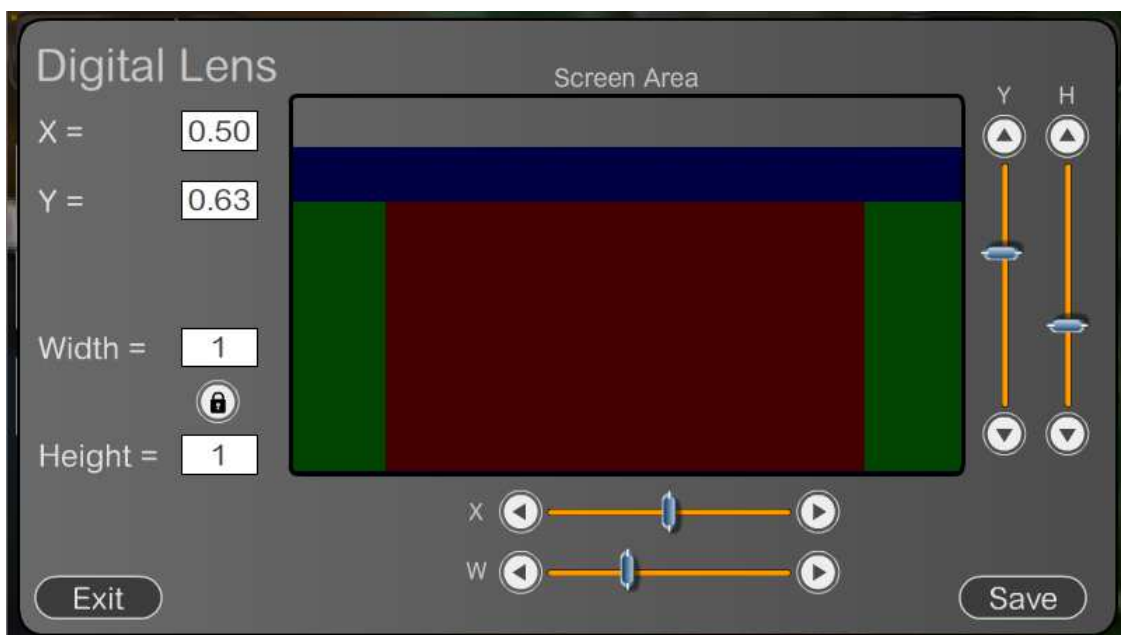
In the above image, we have a SCREEN AREA which is a HELPFUL INDICATION of how you are manipulating the screen. Manipulating these values is based on the projector and screen being used, and therefore must be inspected in person.

In the default position, the image is in the exact middle “0.5” for X and Y position of the active screen while the SCALEING of the image is set to full screen (1.0).

By default the system will “CENTRE CUT” content so it does not produce a typical “LETTER BOX” look with black areas at top and bottom. Letter box usually an undesirable result by a cinema.

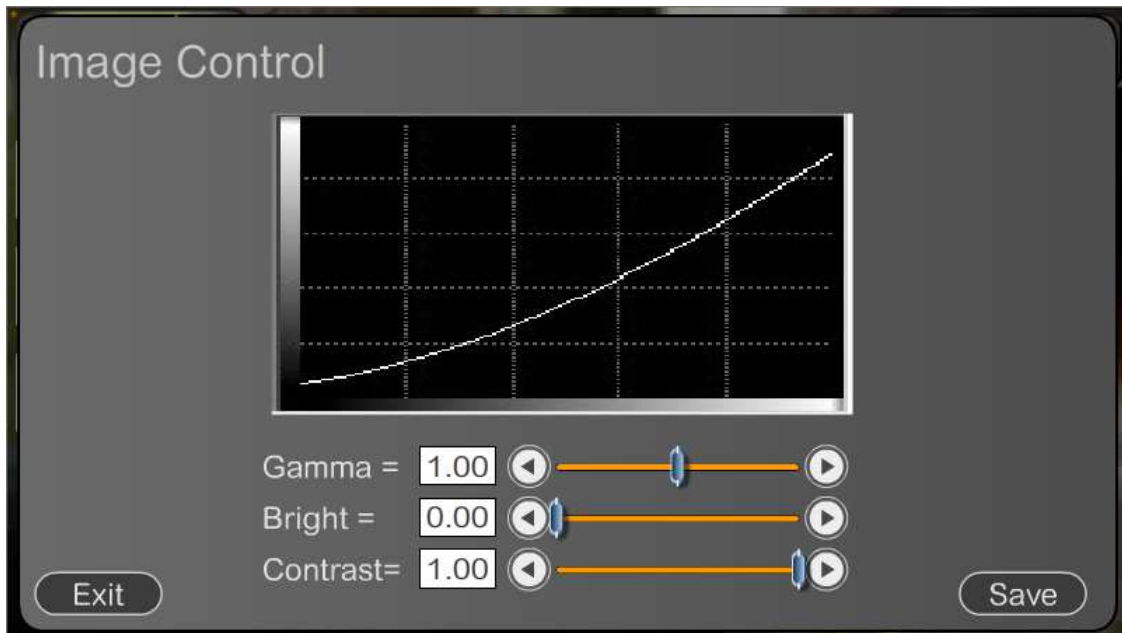
However, due to no set standard in general media content for E-cinema (Ie non DCI content), content can come encoded in letter box or any number of unknown resolutions and aspects. Due to this, the CinePlus2K Player gives you the control to move, squeeze or stretch the content as to ensure you can still use content that may be in appropriate.

A common use of this feature is as follows.



The screen grab above shows a typical 2.35:1 file, for example 1920x800 resolution trailer from Apple Trailers has been set to display the full width. Then moved to the bottom of the screen for which top masking can then be lowered. This produces the desired result for a cinema which is a full width 2.35:1 with masking.

2.4.1.2 ADVANCED CONTROL IMAGE



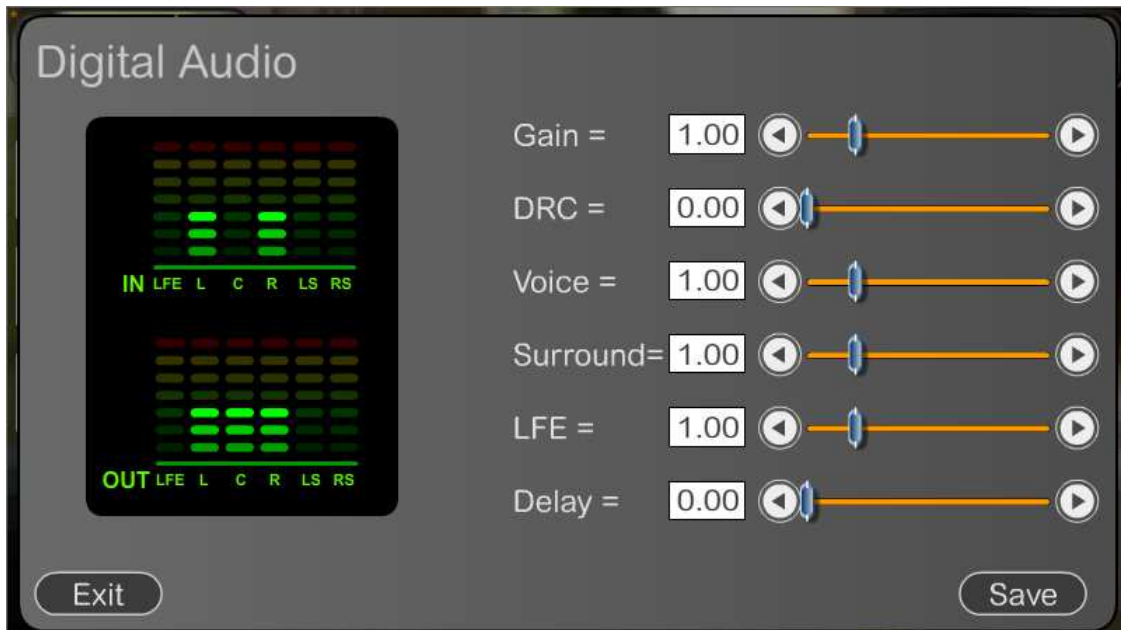
In general, if a cinema is setup correctly, these options should not be touched. However, if displaying content from an amateur source in which gamma and grading may not have been correctly done, these menu items can be used to help the trained projectionist bring the optimum picture to the screen.

Apart from getting the occasional media file that is poorly encoded or graded, in many cases, the CinePlus2K Player may be used for conditions there are not completely suitable for presentation of an image. To list some examples:

1. Older Digital Projectors which may have filter issues.
2. Old lamps.
3. Light conditions not suited for presentations.

If you find yourself in this position, these options can also help obtain a better result.

2.4.1.3 ADVANCED AUDIO CONTROL

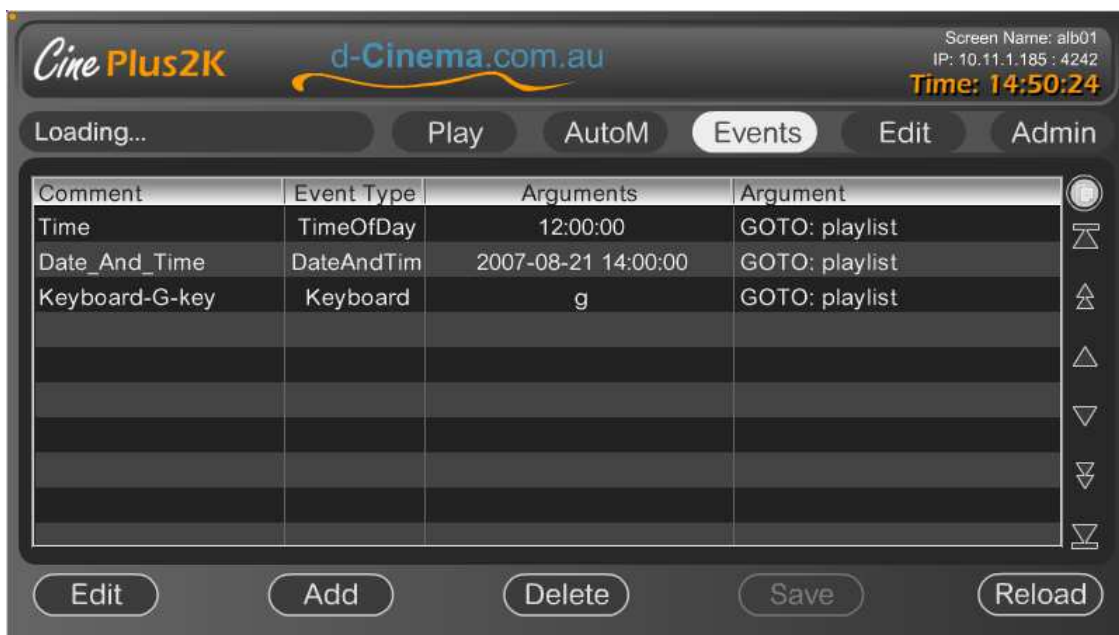


This screen is used to adjust the audio of a file. You can adjust different attributes of an audio track.

1. Gain: The overall GAIN or volume of the track. If the audio has too much GAIN. The system will automatically bring in a compressor to stop any digital distortion or complete loss of audio.
2. DRC: To be written.
3. Voice: This will adjust the center track relative audio level.
4. Surround: This will adjust the left and right surround relative audio level.
5. LFE: This will adjust the Low Frequency Effect relative audio level.
6. Delay: This will adjust an overall delay in the audio.

A common problem with feature display is that media files with AC3 audio files have a very different base level of Audio. In many cases this has to be enhanced to bring it up a level suitable for the audio system. From this menu you can adjust the GAIN on an audio track to bring it more in line with what is required by your setup. This will digitally enhance the audio and will NOT introduce any noise.

2.5 Events



This is an important screen in the application as it controls events that effect what the system will display. As such, it is the default screen that the system will fall back to when it enters WAITEVENT state. The WAITEVENT is exactly what it sounds like. The system is waiting for an event before it does something.

Manual control through user interaction of the touch screen of remote login can happen at any time.

2.5.1 Programming an Event

When you create a new event, you must program two aspects of the event.

1. The type of event received.
2. What to do when the events is received.

The screenshot shows the 'Cine Plus2K' interface for 'd-Cinema.com.au'. A red banner at the top indicates 'Program Modified. Please select Save or Reload.' with 'Reload' and 'Save' buttons. The main area is titled 'Receved Event' and contains a 'Comment:' field with the value 'New', a 'Loading...' button, and a 'Type: []' dropdown menu. At the bottom, there are 'Cancel' and 'OK' buttons. The top right corner shows system information: 'Screen Name: alb01', 'IP: 10.11.1.185 : 4242', and 'Time: 14:52:04'.

2.5.1.1 EVENT TYPES

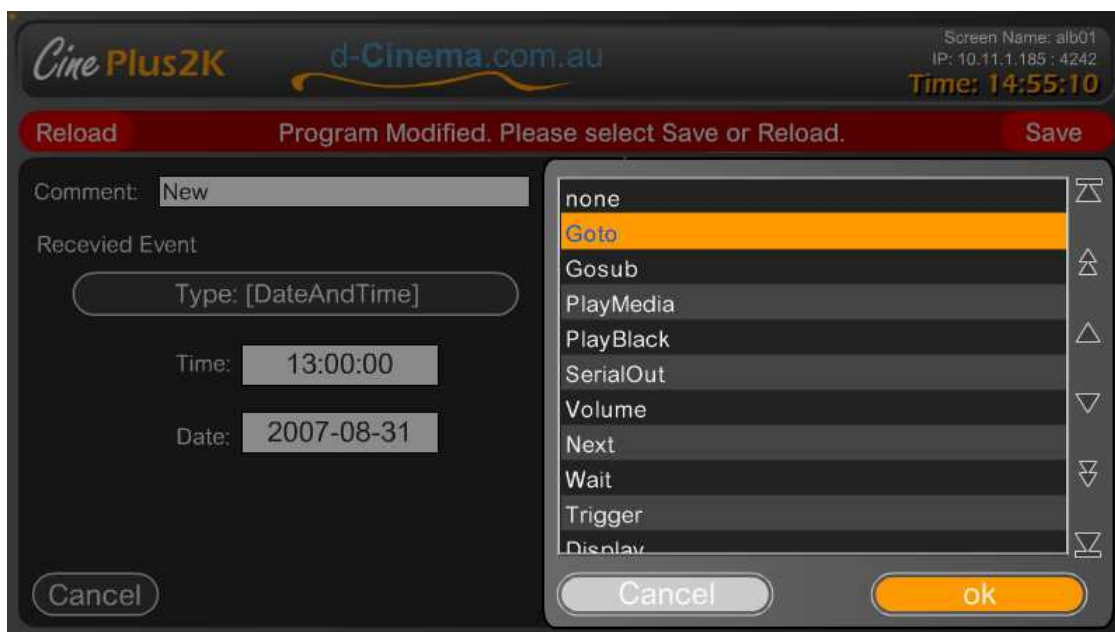
The type of events which can effect the system are as follows;

1. Date and Time Event: On a specific day, at a specific time.
2. Input from IO: an Automation system sends in a defined message.
3. IP Message: Listen for an ad-hoc IP message.
4. Keyboard: Listen for specific key presses on a keyboard plugged into the system.
5. Repeat Timer: Every set time interval.
6. Serial: Listen for an ad-hoc message coming in on the serial port.
7. Time of Day: Every day at a specific time.



2.5.1.2 COMMAND TO TRIGGER

When an event occurs a command is run. This command can be ANY of the available commands in the system. Please see the PROGRAMMING PLAYLISTS section of the manual for more details on available commands.



2.5.1.3 EVENTS EXAMPLE

Following is an example of an EVENT. Below you will see a "Date and Time" event. Under the event type, you can see two input fields. "Time" and "Date". Selecting these will bring up a full screen input window that makes it easy to input these values.

On the Right hand side is the command to execute when the event occurs. In this case, the system will “Goto” the playlist “feature_1” and start playing from the beginning.

2.5.1.4 EVENT IO MESSAGES

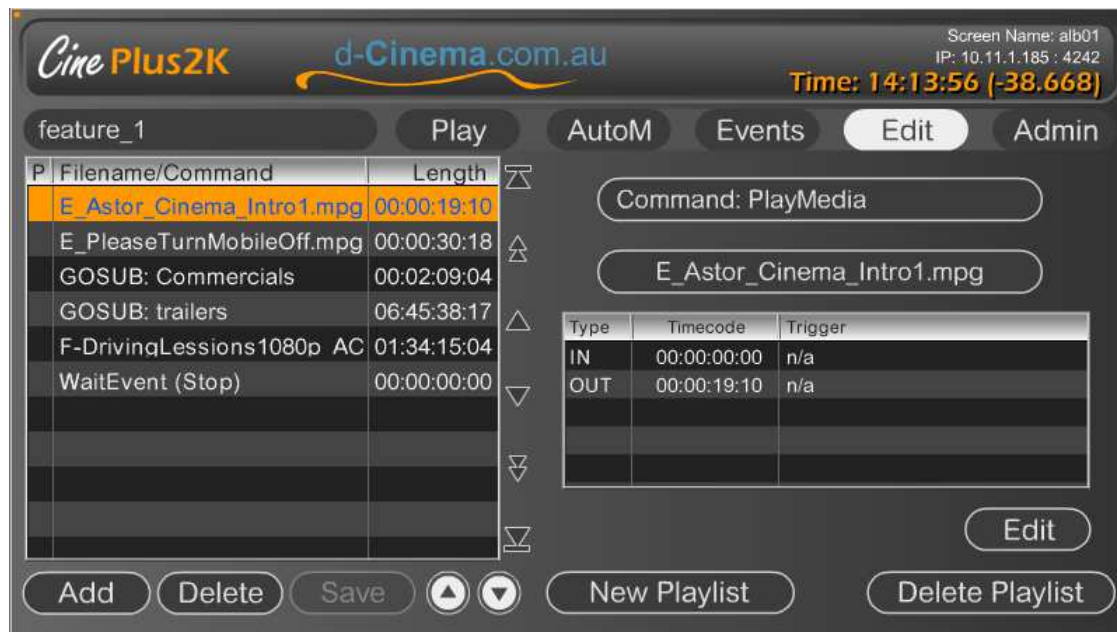
IO messages are predefined messages that you expect from different IO devices. For example, an Automation system. An external device such as a Minidisk player. Any device can be integrated using a programmable set of messages.

The “MediaSettings.xml” file (See the MediaSettings.xml manual) is used to setup these messages. These messages are then mapped to programmable descriptive names that are applicable to the location and environment. Making the system easier to understand and program.

Bellow you can see an example of “MiniDiscPlay” and “CueIn” which are common Cinema based automation events.



2.6 Edit



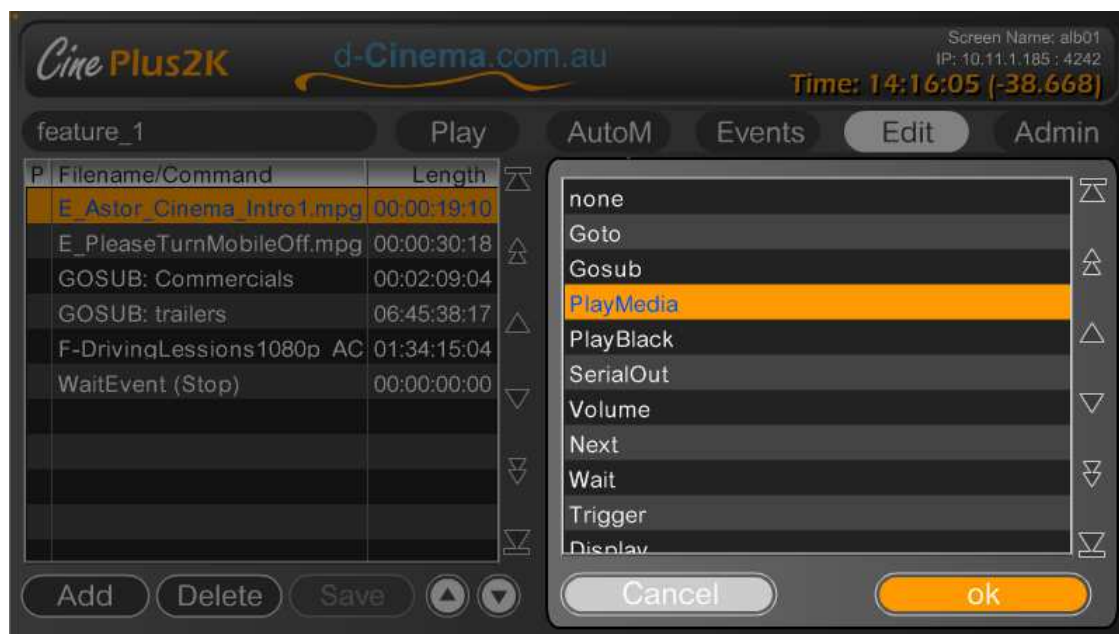
In the Edit menu you build playlists. Here you script out exactly what the system will play and how. Plus you can set up Messages or Queues to be sent out of the system at certain times. (For example, when credits start.)

The playlist is a set of commands that run in sequential order. In the example above, you can see the name of a command and arguments, or the name of some content. If a piece of content is listen, the default command "PlayMedia" is assumed.

The playlist can be started manually, by selecting it from the "load Playlist" button, selecting the start item then press "Play". Or, via an event trigger, see "Events" in this manual. When a playlist is started by an event, the system loads that playlist and starts playing the first item in that playlist.

2.6.1 Playlist commands

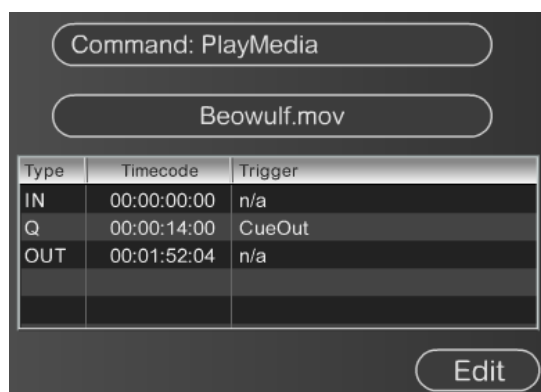
The diagram below shows the Command Selection Dialog.



To access this screen, select the item in the playlist on the left, then select the “Command” button on the right.

2.6.1.1 PLAYMEDIA COMMAND

This command is used to play a **video** media file to the screen. When you “Add” a new command, it will default to “PlayMedia”. To display images or Flash documents use a different command.



In this diagram, you can see the “command select” button at the top. Under that is the button to bring up a list of all content.

The table shows the programmed IN, OUT and Queue points. The IN and OUT points allows you to play only a portion of a media file.

Any number of “Q” points can be created. When a Q point is reached, a trigger or message can be sent.

Select Edit to open the following screen:



In the above screen you have the controls to manipulate the IN, OUT points and create “Q” points.

Type	Timecode	Trigger
IN	00:00:00:00	n/a
Q	00:00:14:00	CueOut
OUT	00:01:38:03	n/a

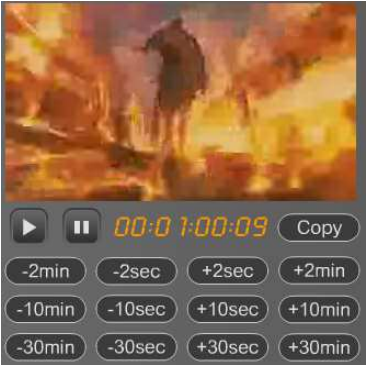
New Q

Del Q

TC: 00:01:00:02

This table displays the IN and OUT points, plus and Q points added. When you want to edit the item, select it, then use the TIME-LINE or VIEWER to navigate to the new position.

Selecting the “Copy” button will copy the value into the selected item.



This portion of the display can be used to preview the PROXY file. You can jump around the PROXY and find the time code of the position you require.



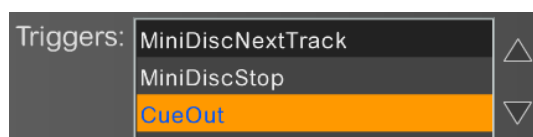
This is the TIME LINE CONTROLLER. This is a graphical representation of the length of the content.

In the above diagram, you will notice that the OUT point has been moved in. This is indicated by the bright orange line not extending to the end of the dull orange behind it.

The BLACK mark on the time line indicates a Q point.

The scrubbing handle can be used to jump to any part of the media.

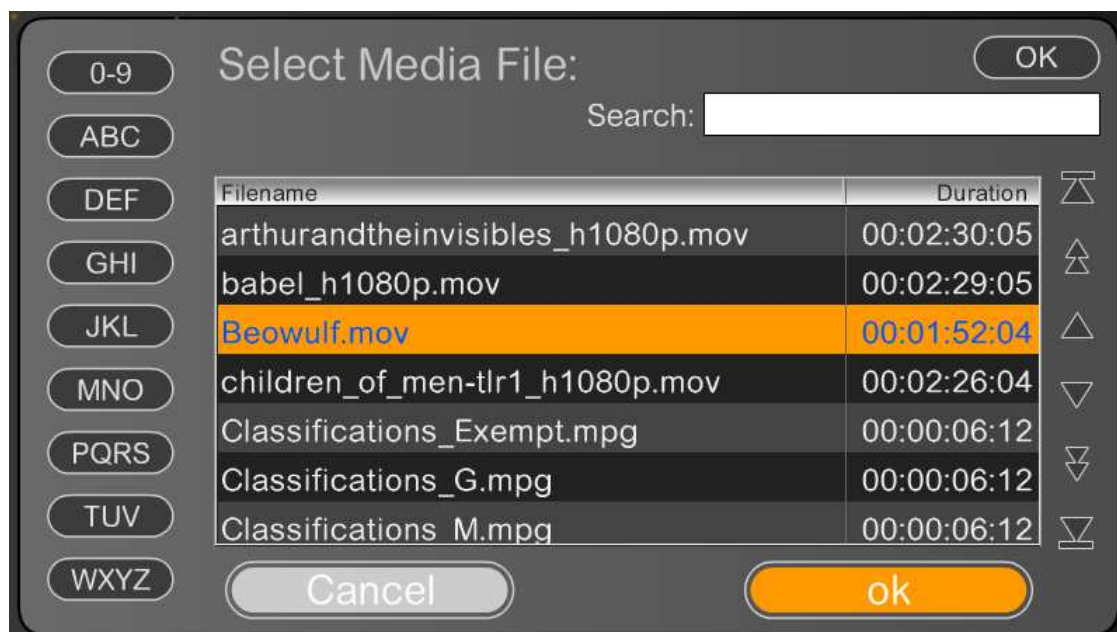
This timeline is also represented in the main Player window under the proxy.



When a "Q" point is created, you must also define the "Trigger" to send when it is reached.

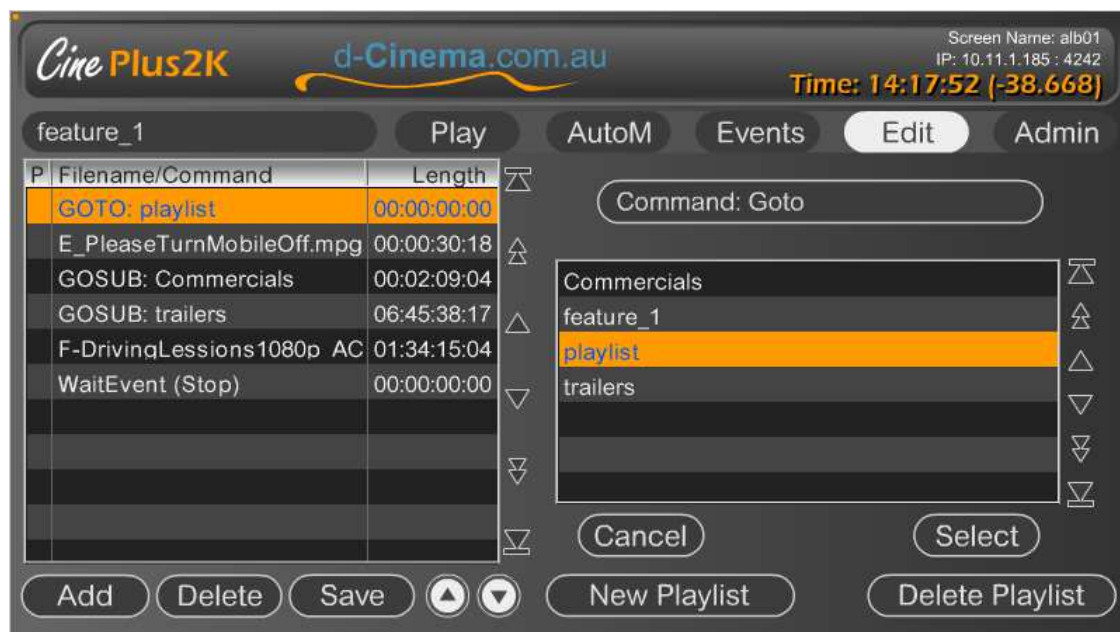
This table lists all Triggers programmed into the system. ie any automation commands or custom

commands you may wish to implement. See "MediaSettings.xml".



When selecting media, you will see the above dialog. As you may have hundreds of media files loaded, you have these tools to help find the file you are after. This includes, the "Jump to Starting letter" buttons on the left, plus a search area on the top right.

2.6.1.2 GOTO COMMAND



The “Goto” command is commonly used to create playlists the LOOP forever. For example; a Foyer BIG SCREEN player or Point of Sale system.

This command is mainly used in creating commands for incoming events. For example, a message from an automation system starts playing a certain playlist. However, you can also use this command to link playlists together.

2.6.1.3 GoSUB COMMAND

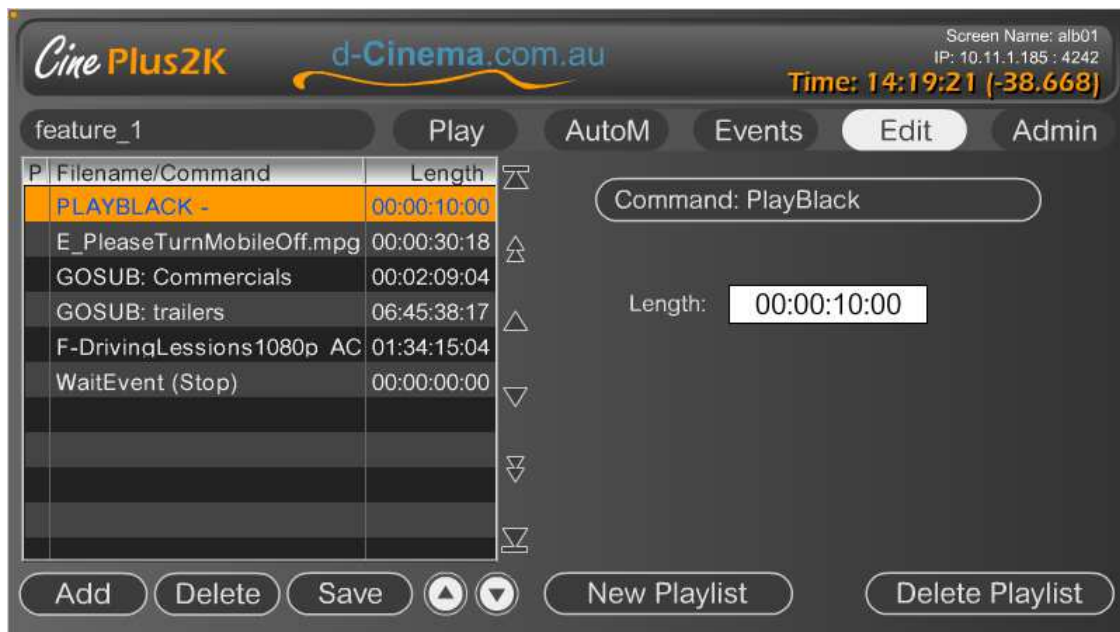
Similar to the “Goto” command, “GoSub” jumps to another playlist, however, when it reaches the end, will jump back and continue playing the initial playlist.

This command is used, for example, to group content together independently of the main playlist.

For example, you may have a set of commercials you show on a screen. These commercials can be placed in a playlist called “commercials”. You do not have to reprogram the commercials for a new feature every time it arrives, you simply “GoSub Commercials”. If you need to change the commercials for a screen, you simply change that playlist and all feature playlist will automatically be changed. This saves time and avoids mistakes.

WARNING: When using GoSubs, the interface will treat a group of items in a GoSub as ONE item. You cannot directly control how the player treats items while in a GoSub. (Future feature request.)

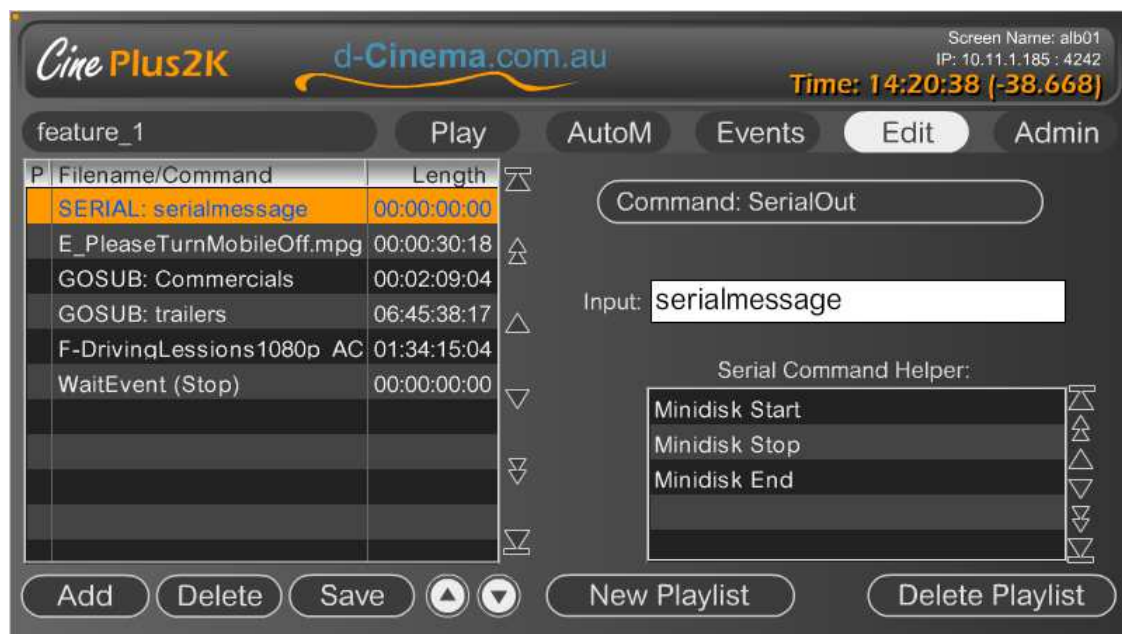
2.6.1.4 PLAYBLACK COMMAND



This command is used to simply insert a period of black. It can also be considered a “WAIT FOR SET TIME” command. This command is commonly used, for example, to wait a certain time after a projector has been turned on (So it can warm up) before content starts playing.

It is also needed when working with Film Projectors for setting up exact timing between switching.

2.6.1.5 SERIAL OUT



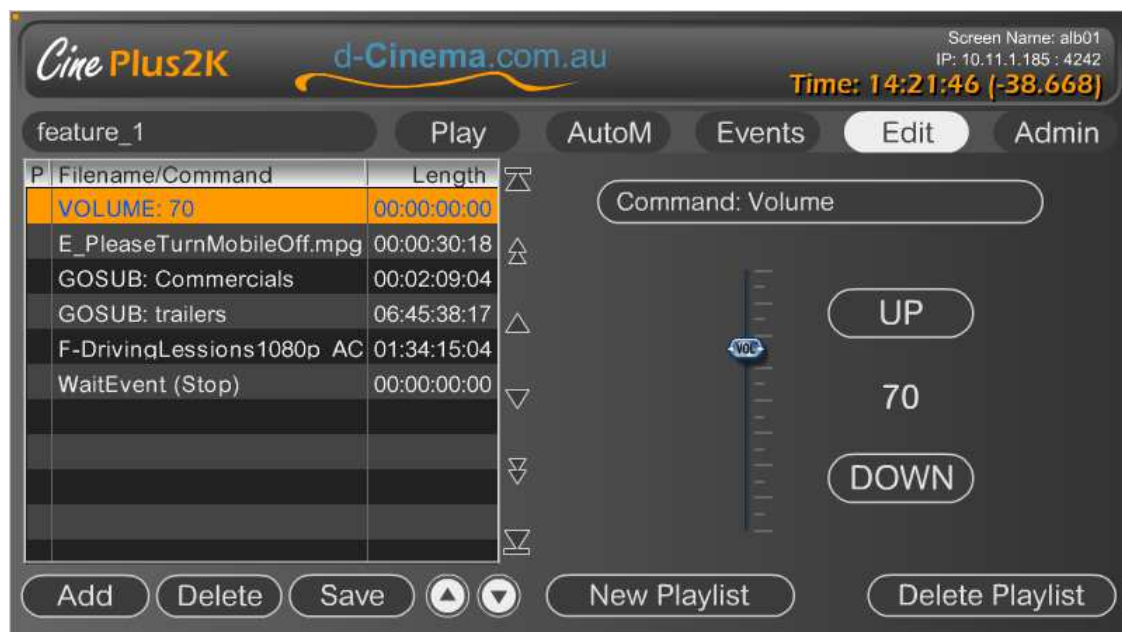
The serial out command is used for programming Ad-Hoc serial commands from the interface.

It is commonly used for testing. Ie if trying to get serial communications working to a new device.

The use of typical HTML encoding characters is used to enable the use of non-printable ASCII characters. For example "%0d" is carriage return. (See www.asciitable.com for a ASCII table)

This command was replaced by programmable "Triggers". The use of triggers is recommended as it makes the system simpler to use and adds a separation layer that makes playlists cross cinema compatible.

2.6.1.6 VOLUME



The Volume command is used to change the system output volume level of the system.

Initially this command was used to adapt the volume required for each piece of content, however it has been superseded by the media "GAIN" control interface.

This command can still be useful under some circumstances.

2.6.1.7 NEXT AND WAIT COMMANDS

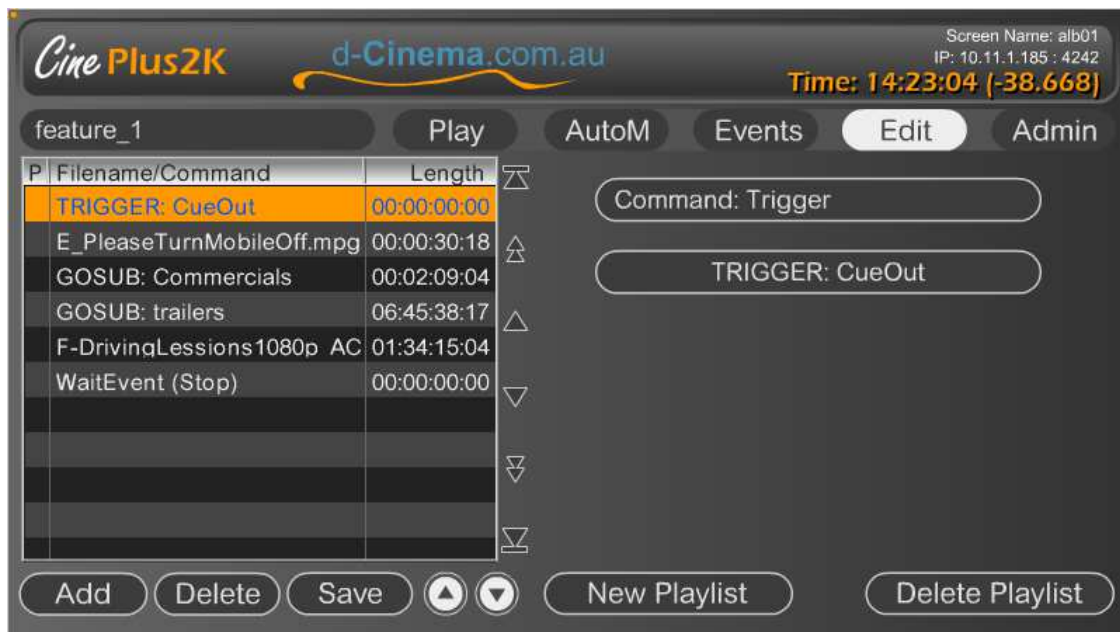
The NEXT, when received, will jump to the next item in the playlist immediately. For example, if a EVENT has been programmed to trigger a NEXT command. If the player is half way through a media file, and a NEXT command is triggered, it will immediately jump to the next item in the playlist. This can be used for remote controlled jump to next item.

The "WAIT" command will make a playlist PAUSE on that "WAIT" item in the playlist. It will not continue until there is user intervention, or an EVENT is received.

Two examples of the use of these two commands follow:

1. A student showing in which there are 30 items to play. Every 5th item the show stops for a presentation. To make it easy to understand, the player is programmed with the 30 items required in the one playlist. WAIT command are then placed accordingly when required. After the presentation, user intervention is used to continue the show.
2. An amusement park system runs a portion of a show then WAITS until certain conditions before an EVENT is received making it go onto the NEXT item in the playlist.

2.6.1.8 TRIGGER COMMAND



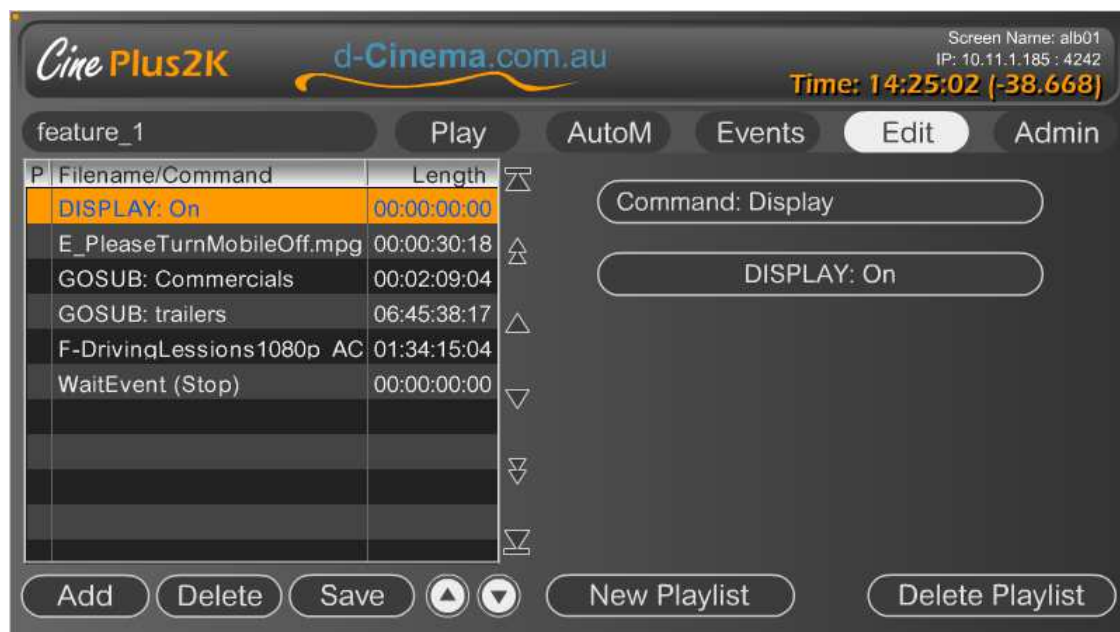
The Trigger command lets you send messages to other devices such as automation systems, audio processors, light, doors and masking. This command is used to place signals such as "Lights Down" directly into the playlist giving you easy to read and understand sequence of events.

Trigger commands are defined in "MediaSettings.xml". This allows you to utilise common triggers as defined on the Automation screens, or create you own custom triggers. This is an important feature to make the system easy to understand for users who may only use the system on rare occasions. For example, you can program a trigger "StageSmoke" or "SprayWater". When editing the system, it is easy to understand what that trigger is for. Knowledge of the control codes for a trigger are not needed.



Selecting the “TRIGGER” button displays the dialog above. A list of programmable triggers will be displayed. These triggers are defined in “MediaSettings.xml”.

2.6.1.9 DISPLAY (PJLINK) COMMAND



A common control code adopted by the industry is called PJlink. The display command implements these commands. This protocol is SERIAL and NETWORK capable. You can configure the required communications protocol in the "MediaSettings.xml" file.

We have implemented all the commands supported by the protocol. However, the display device being controlled may not support all commands.

This feature is commonly used for switching the DISPLAY on and off automatically.

NOTE: CinePlus2K currently only supported PJlink with security turned OFF. By default most PJlink devices have security turned on.

When talking to DISPLAY devices via Network, the IP address of the display is set in the "MediaSettings.xml" file.



Above is the dialog where you select the desired PLink command.

3 Using Triggers

3.1 Where to use triggers

One of the most confusing areas of using “Triggers” is that you can define them in two different areas.

1. In the playlist between media items
2. Under media items

For ease of use, triggers should be used in the more visible playlist. This allows the user to easily see what is about to happen and when.

Triggers used within media items should be kept to only those required. The interface does indicate triggers on the time line, however, not what they are. Care should be taken in implementing media item triggers. Local usage policies or best practices should also be given to CinePlus2K programmers as to give them an idea of how to implement complex automation programming.

4 Support and Updates

We highly advise you utilise the yearly support contract. This will give you Email and phone support for problems you have with the system and or Automation issues you may experience.

Contact Info:

digitA// Pty Ltd
One Kings Place
South Melbourne, 3205
Victoria, Australia
Ph: +61 3 9686 5415
Fax: +61 3 9686 5416
Email: support@digitall.net.au