Pharos Director User Manual

v2.14

v2.14.0 25/11/2024 A4 © 2004-2024 Pharos Architectural Controls Limited. All rights reserved.

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Welcome

Welcome and thank you for using version v2.14 of the Pharos Director software.

Before You Start

IMPORTANT: Locations (.pdl) saved with v2.14 **CANNOT** be opened with earlier versions so please make sure to back up your programming prior to installation.

NOTE: Only Designer Projects (.pd2) saved in a matching version of Director can be imported. You must save all your Designer Projects (.pd2) in v2.14 then import them into Director v2.14. The linked controllers must also be running the same firmware version (v2.14)

Working With Designer and Director Files

Director works by importing one or more Designer Project (.pd2) files and allowing you to schedule and control and trigger sequences from these files based on specific calendar dates and times.

To prevent confusion when referring to either Designer and Director files they have been given different names that are used throughout the software and this documentation:

- Designer files with extension .pd2 are referred to as Projects (.pd2).
- Director files with extension .pdl are referred to as Locations (.pdl).

Help Overview

This Help documentation is split into three main sections:

1. Quick Start.
2. Reference.
3. Appendices.

Those of you experimenting with the software for the first time are advised to work through the Quick Start guide to familiarise yourself with the basics of the software. The Reference section gives detailed descriptions of every aspect of the software as well as the configuration of the Pharos Controllers and their accessories. The Troubleshooting section provides help to resolve any problems while the Appendices provide additional useful resources.

How To Use This Help Documentation

This is the PDF version of the on-line Help and it is available in various formats for printing. The on-line version, which has the advantage of being fully searchable and includes animated tutorials, can be opened from within Designer using Help > Contents on the main toolbar.

Pharos Support

As with all successful control products, support is crucial and the team at Pharos will do everything possible to ensure that your project is a success.

Please do not hesitate to contact us with your questions, bug reports and suggestions at:

T: +44-(0)20-7471-9449

E: support@pharoscontrols.com

Please also visit our website to keep up to date with the latest product news and software releases: www.pharoscontrols.com.

Introduction

Pharos is a comprehensive system with sophisticated features that allow you to make advanced shows.

IMPORTANT: Only a single instance of Director is allowed to run at any one time. This prevents clashes when syncing Locations (.pdl) and Projects (.pd2) with Pharos controllers.

Director is the powerful new solution for coordinating and choreographing city-wide or campus installations made up of multiple Pharos systems/controllers. Designer Projects (.pd2) are imported into Director where all the LPC/TPC/LPC X pixel matrices and VLC/VLC + Content Targets are available for placing on a huge canvas. This creates a panorama of all the installations, onto which video can then be simply applied to the whole 'location'. An intuitive built-in calendar allows for easy scheduling of events.

Modes Overview

Mode tabs down the left hand side allow you to switch between the Modes by left clicking the tab or use the function keys (in brackets) to toggle between them. Tabs can be viewed in different windows using the Tear Off option:

Controllers (F1)

In Controllers, you link the Pharos Designer Project (.pd2) files into the Pharos Director Location (.pdl) file.

See Controllers for reference.

Panorama (F2)

In Panorama, you are able to bring the Pixel Matrices and Content Targets from your Projects (.pd2) into the Panorama and lay them out as in real life.

See Panorama for reference

Schedule (F3)

In Schedule, you create Playlists and link them to calendar schedules to override the normal operation of the Project (.pd2).

See Schedule for reference.

Override (F4)

In Override, you can trigger Playlists live at any time.

See Override for reference.

User Interface

The software has been designed to present a consistent graphical user interface and so it is worth familiarising yourself with the layout of a typical window before proceeding further:

Mode Tabs

The application is divided into four Modes which can be selected by clicking on the appropriate tab.

See the Quick Start overview for a brief description of each Mode and the relevant Reference section for more details.

Tear Off Views

All tabs can be torn off so that multiple Modes can be seen at once.

To tear of a tab either:

- Hover over the view tab until the tear off icon appears, move your cursor over this icon and left-click. The selected Mode will appear in a separate window.
- Click on a Mode tab and drag off the right side of the Mode tab bar. The selected Mode will appear in a second window.

NOTE: The currently open Mode cannot be torn off

Mode Toolbar

The view toolbar is populated with tools and options relevant to the Mode which is being worked in. See the relevant Reference section for more details.

Main Workspace

The Main Workspace is the central portion of the Director window and is where most of the work is carried out. Each view uses the main workspace in a different way, so see the relevant Reference section for more detail.

Keyboard Shortcuts

For ease and speed of use various keyboard keys map to application commands, particularly with regards window navigation:

General

Ctrl + N	Create a new Location (.pdl)
Ctrl + O	Open an existing Location (.pdl)
Ctrl + S	Save the Location (.pdl)
Ctrl + Shift + S	Save the Location (.pdl) with a new name or within a new directory
Ctrl + W	Close the Location (.pdl)
Ctrl + Z	Undo the last action (up to 20 actions)
Ctrl + Y	Redo the last undone action
Escape	Close an open popover
Alt + F4 (⌘ + Q)	Close Director
Function Keys - F1 through F4	Change mode, F1 goes to Controllers, F4 goes to Overrides etc.
(⌘ + ,)	Access Preferences

Controllers

Ctrl + G	Open the Manage option

Panorama

Ctrl + I	Opens the properties for the current Panorama
Ctrl + G	Opens the Manage option
Ctrl + Tab (⌥ + Tab)	Switch to the next tab
Ctrl + Shift + Tab (⌥ + Shift + Tab)	Switch to the previous tab
Delete/Backspace *with Project item selected*	Remove the project item from the Panorama
Shift + Left Click *on overlapping Project Items*	Choose which Project Item to select
Arrow Keys	Pan the Panorama

Schedule

Override

Ctrl + Click *on override button*	Stop Playlist

Notes For Mac OS X Users

Unless otherwise noted, keyboard shortcuts on Mac OS X are the same as Windows, except Ctrl is replaced with Cmd(⌘). Shift and Alt work as described for Windows.

Within Panorama, you can use Scroll gestures to move around.

Pharos Director makes a good deal of use of the two button mouse with right-click being used to invoke context-sensitive dialogs. As the majority of Mac users have only a single button mouse they must hold Ctrl while clicking to get this functionality.

System Requirements

Pharos Hardware Requirements

This version of Pharos Director can be used with the following controllers:

- Pharos LPC 1/2/4: Serial numbers greater than 006xxx
- Pharos LPC X: All Serial numbers
- Pharos VLC : All Serial numbers
- PharosVLC + : All Serial numbers
- Pharos TPC (with or without EXT): All Serial numbers

NOTE: LPCs with a Serial number lower than 006000 and AVCs are only supported in Designer 1.x.x.

This version of Director is compatible with Pharos Designer v2.14.

Computer System Requirements

Supported Operating Systems

- Microsoft Windows 7/8/10 (32/64bit)
- Apple Mac OS X 10.7.x (Mountain Lion) – 10.12.x (Sierra)

Minimum Requirements

- Intel Core i3 processor or above
- 2GB RAM
- 1GB free hard disk space
- 1024×768 screen resolution
- Network connection (for connecting to Pharos hardware)

Recommended

- Intel Core i5 processor or above
- 8GB RAM
- 1920×1080 screen resolution

Networking Requirements

Director requires the ability to connect to the controllers within the Designer Projects (.pd2) that have been imported into the Location (.pdl) in order to update Location (.pdl) data and provide override control.

In order to do this the network that the controllers are running on must be configured such that the computer running Director can access it.

Connecting Director to Local Controllers

If the computer running Director is connected to the same LAN as the installation, then the local IP Address for the controller can be used to communicate with it. The Computer will need to be configured to be within the same IP Address subnet.

Connecting Director to Remote Controllers

If the computer running Director is not connected to the same LAN, there are a number of options:

- Create a VPN connection to the installation
- Set up Port forwarding on the local network

Both of these option require connection of the installation to the Internet with either a Static Public IP Address or a Dynamic DNS system.

Using a VPN Connection

A Virtual Private Network can be established between a server within the installation and the computer running Designer, which will allow it to tunnel into the installation and connect to the local devices as if it was connected locally.

Port Forwarding

If Port Forwarding is used, then the Router connecting the installation to the Internet should be configured to forward communications with a specified port to the HTTP Port on the controller (Default 80). The controller can then be connected to by inputting the public IP Address or Hostname of the installation following by the forwarding port e.g.

External IP Address		Internal Address (Controller)
8.8.8.8:8000	-- forwards to -->	192.168.1.3:80

It is also necessary to allow access to a port on the computer running Director through any firewalls or port forwarding, so that controllers can request Sync Data. This port defaults to 20080, but can be changed in Director's Preferences

Time Management

It is important to ensure that all controllers have the same time set locally so that scheduled events run at the same time.

This is achieved by linking all controllers to the same NTP server from within Designer for each respective Project (.pd2) imported into a Director Location (.pdl). For more information on how to do this please refer to the NTP Server section in the Designer documentation.

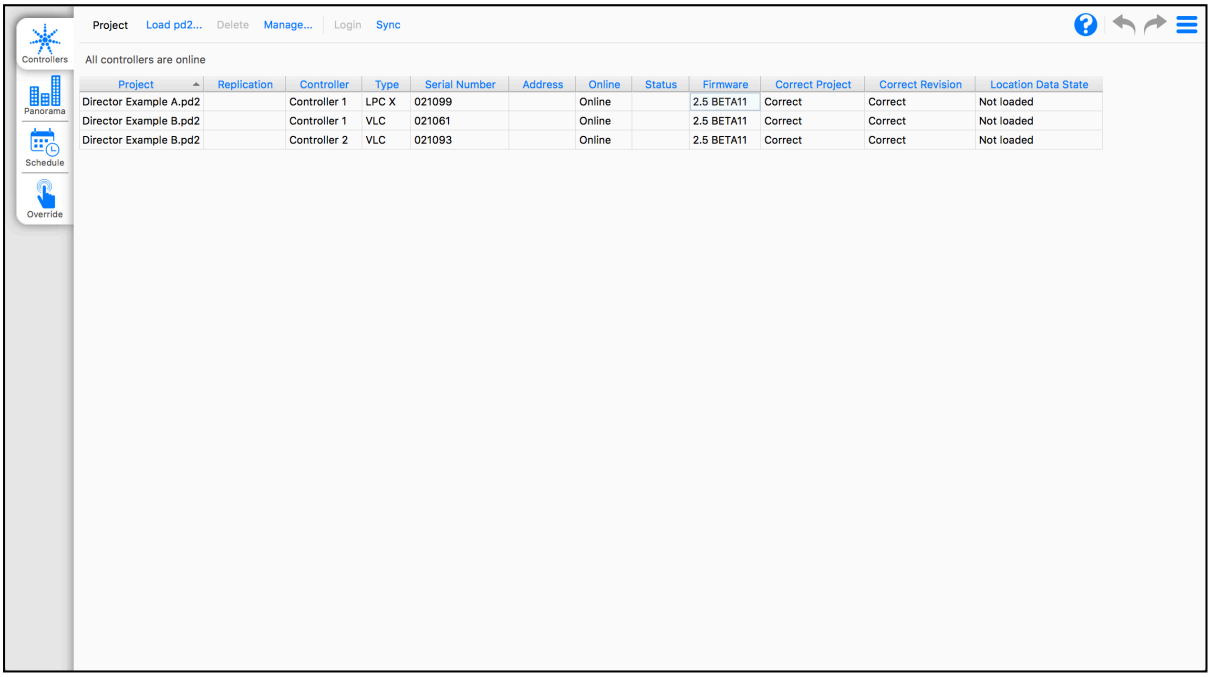
More Information

For further information, please contact your Network Administrator.

Controllers Overview

Keyboard Shortcuts

Ctrl + G	Open the Manage option



Controllers Mode allows you to import the Pharos Designer Project (.pd2) files required for your Director Location (.pdl).

This will populate Director with the controllers and Pixel Matrices/Content Targets from the Project (.pd2) files.

Project (.pd2) File Management

To Import a Designer Project (.pd2)

Select Load .pd2 on the Mode Toolbar

Use the file browser to locate the required Designer 2 Project (.pd2) file.

To Update a Designer Project (.pd2)

If you have made changes to a Designer Project (.pd2), it can be updated by reloading the Project (.pd2) file.

NOTE: Reloading a Project (.pd2) file cannot be undone and the Undo queue will be cleared.

To Remove a Designer Project (.pd2)

Select the Project (.pd2) in the project table. (The row will turn blue)

Choose Delete from the Mode toolbar

Project Data Table

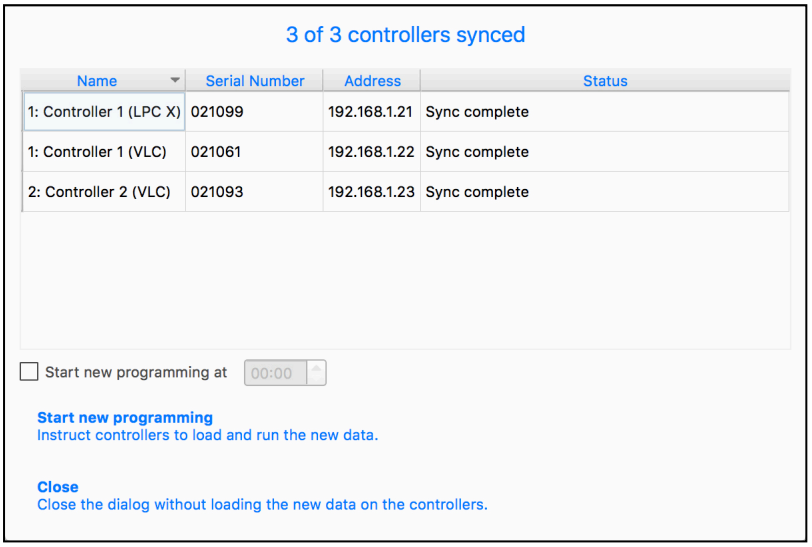
The Main Project Data table provides information about the current status of the controllers within the imported Project (.pd2) files.

Project	This will show the name of the Designer Project (.pd2) that the controller is a part of
Replication	Where replications are used in a Designer Project (.pd2), this will show the replication that the controller is a part of
Controller	The name of the controller with the Designer Project (.pd2)
Type	The Type of the controller (LPC, TPC, LPC X, VLC, VLC +)
Serial Number	The Serial Number of the controller
Address	The IP Address/Hostname of the controller (where the Location (.pdl) is remote, this should be the route to the public address/port used to access the controller)
Online	The current status of the controller, this will indicate Wrong Firmware or Wrong Network if the controller is discoverable but the firmware or network settings do not match Director
Status	Indicates whether the controller is currently locked
Firmware	The current firmware version reported by the controller
Correct Project	Shows whether the controller is currently running the imported Project (.pd2)
Correct Revision	Shows whether the controller is running the correct revision of the Project (.pd2)
Location Data State	Displays the state of Data Sync to the controller, either syncing or the date and time of last successful sync, see Syncing Data

Syncing Data

For the Director functionality to work correctly, the Location (.pdl) data must be Synced to the controllers associated with the Location (.pdl) from the imported Projects (.pd2).

To do this, choose the Sync option on the Mode Toolbar.



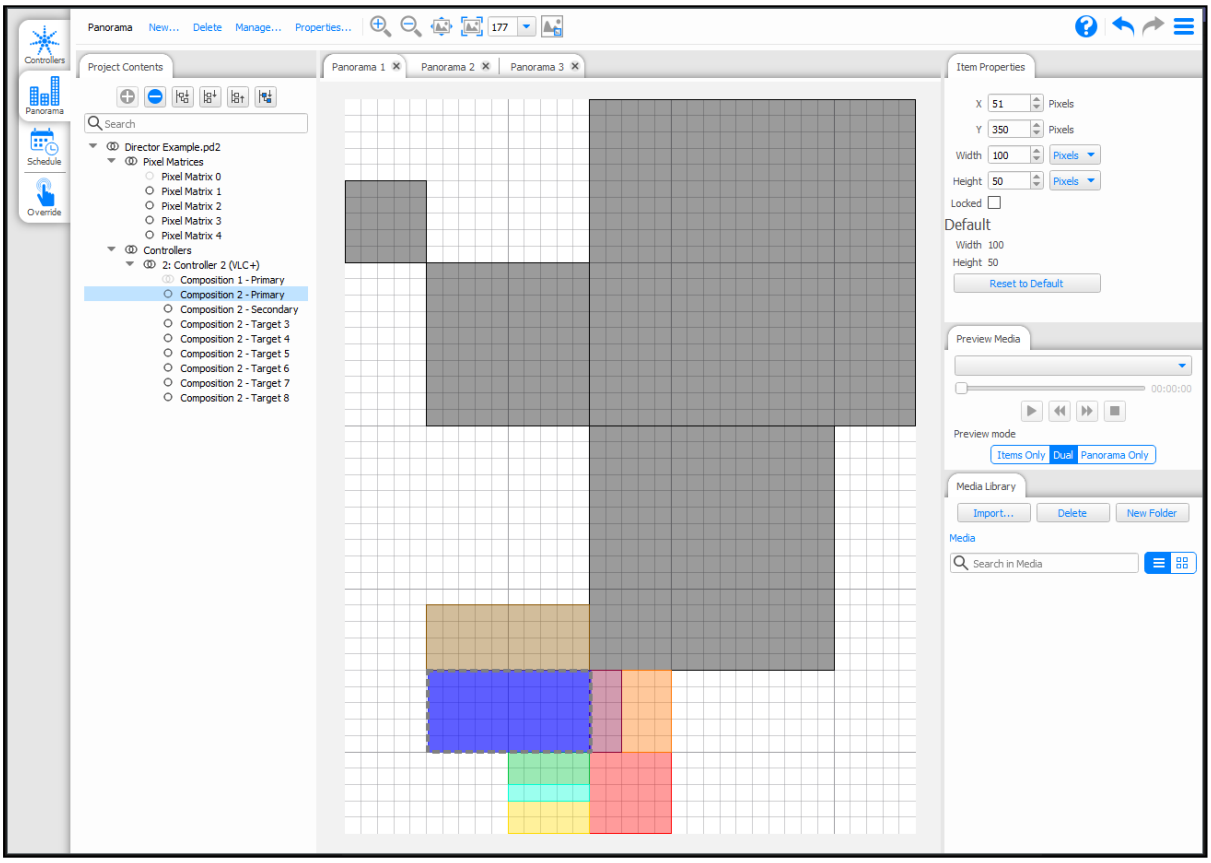
The window that opens will show the Sync status of the controller's in the Location (.pdl) and allow them to be Synced.

Once the data has been synced it then needs to be loaded, which can have an effect on output of the controllers, so this process can be scheduled to happen at a later time, or to be loaded immediately.

Panorama Overview

Keyboard Shortcuts

Ctrl + I	Opens the properties for the current Panorama
Ctrl + G	Opens the Manage option
Ctrl + Tab (⌥ + Tab)	Switch to the next tab
Ctrl + Shift + Tab (⌥ + Shift + Tab)	Switch to the previous tab
Delete/Backspace *with Project item selected*	Remove the project item from the Panorama
Shift + Left Click *on overlapping Project Items*	Choose which Project Item to select
Arrow Keys	Pan the Panorama



Panorama Mode is used to add the Pixel Matrices and Content Targets from the Designer Projects (.pd2) to the overarching panorama.

Any media added to Playlists within Pharos Director will be scaled to the size of the Panorama, and each individual controller will receive the content relevant to it, i.e. the sections of the media that are covered by the Pixel Matrices and Content Targets that are in use by the controller.

It is possible to have multiple panoramas within a Director Location (.pdl), for example if you have installations along both sides of a river.

Project Contents Browser Icons

There are icons besides the various content targets or pixel matrices that indicate the status of each item, whether in the project, current panorama etc.

These are as follows:

- black ring: on current panorama
- grey ring: on other panorama
- double black ring: on current and other panorama(s)
- double grey ring: on multiple other panorama (but not current)
- no icon: not present on any panorama

The folders also display these icons, applying to any/all of their contained targets/sub folders.

- black ring: one or more contained targets on current panorama and no others
- grey ring: one or more contained targets on one other panorama
- double black ring: at least one contained target on current panorama and at least one contained target on another panorama, or one contained target on this and one other panorama
- double grey ring: at least one contained target on multiple other panoramas and none on current
- no icon: no contained targets present on any panorama

Panorama Management

Each Panorama within a Location (.pdl) acts as a single canvas onto which the Pixel Matrices and Content Targets from each Designer Project (.pd2) can be placed.

By default, each Location (.pdl) starts with a single Panorama at a size 1920x1080 pixels, but up to 50 Panoramas can be added to the Location (.pdl).

To Add a New Panorama

Choose the New... option from the Mode Toolbar.

Set the required size

Choose Add

To Delete a Panorama

Select the Panorama tab in the central area

Choose Delete from the Mode Toolbar

Alternatively, go to the Manage... window, select the Panorama and choose Delete

To Duplicate a Panorama

Panoramas can be duplicated to create a copy with the same settings for the Project Items on it.

This can be done using:

- the keyboard shortcut (Ctrl+D or Cmd+D)
- the Duplicate option in the Panorama Manage window

Panorama Properties

Name

Provide a name for the layout to aid identification

Size

Width and height options can be used to change the size of the layout.

The Crop Size to Contents can be used to match the Panorama size to the Contents of the Panorama.

Background Image and Mode

Select an image to be used in the background, such as a photo or map of the location.

Background mode can be used to define how the image is displayed on the Panorama.

Background Colour

Select the colour to display in the background of the Panorama.

Grid Settings

Grid colour sets the colour of the grid pattern

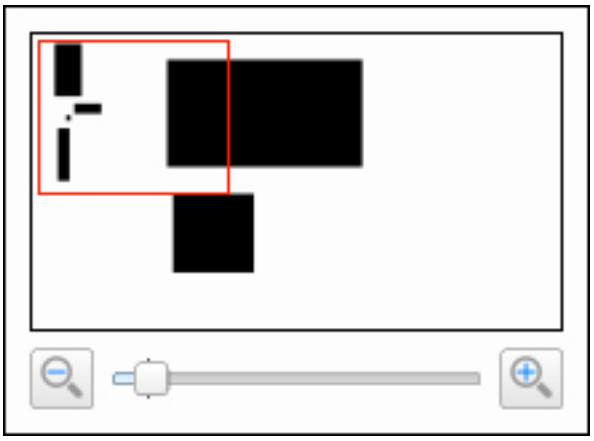
Grid Spacing defines the number of units to space the gridlines apart.

Grid subdivisions defines the spacing of the minor gridlines

Show grid makes the grid visible or invisible

Snap to grid defines whether fixtures should automatically snap to the grid's intersections.

Show Minimap



A minimap can be used to help navigate large complex Panoramas.

The minimap allows you to zoom in/out and move around the layout while showing a smaller version of the layout.

Panorama Items

When a Project (.pd2) is added to the Location (.pdl), it will be shown in the Project Contents Browser on the left hand side.

Within each Project (.pd2) will be the Pixel Matrices and Content Targets associated with each Project (.pd2).

Managing Items

To Add a Project Item to the Panorama

Any Project Item can be added to the Panorama by dragging the item from the Project Content Browser onto the Panorama and dropped in the required position.

Alternatively, selecting the item in the Browser allows it to be added with the Add button . This will place the Item on the Panorama at (0,0).

To Remove a Project Item from the Panorama

Select the item on the Panorama or within the Project Contents Browser and either:

- Use the Remove button within the Browser
- Right-click on the item and choose Remove form Panorama
- Press Delete or Backspace

To Reposition an Item

The position of an item is important as this determines which part of the source media it will receive when the Location (.pdl) is synced.

To adjust the item's position:

- Select it and drag it to a new position.
- Select it and change the position numerically in the Item properties

To Adjust the Size of Items

When Pixel Matrices and Content Targets are added to a Panorama, they will default to their size within the Designer Project (.pd2) file, but it may be necessary to adjust the size of the item within the panorama e.g. if the pixel pitch is different between two Projects (.pd2).

This can be done by selecting the item and then dragging the sides and/or corners to adjust the size visually, or changing the pixel or percentage size in the item properties on the right hand side.

To Reset and Item to Default

Within the Item Properties, an item can be reset to the default size with the Reset to Default button.

The default size is also displayed here for reference.

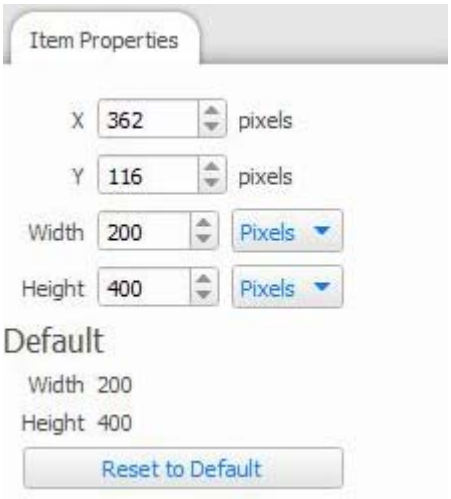
Selecting Overlapping Items

If there are multiple Items on the Panorama that overlap, they can be selected by holding Shift to choose the Item to select.

Managing Item Layering

Where Items overlap they can be selected to Bring to Front or Send to Back. This is done by Right-Clicking on the item and choosing the option in the context menu.

Item Properties



Each Project Item has the following properties attached to it:

X

The current X (horizontal) position of the item. This can be changed in the Item properties, or by dragging and dropping the item within the Panorama

Y

The current Y (vertical) position of the item. This can be changed in the Item properties, or by dragging and dropping the item within the Panorama

Width

The current width of the Item. By default this will be the size from the Project (.pd2) file, but this can be adjusted e.g. where different fixture spacing is used on different buildings.

This can be set as an absolute pixel size, or a relative % size.

Height

The current height of the Item. By default this will be the size from the Project (.pd2) file, but this can be adjusted e.g. where different fixture spacing is used on different buildings.

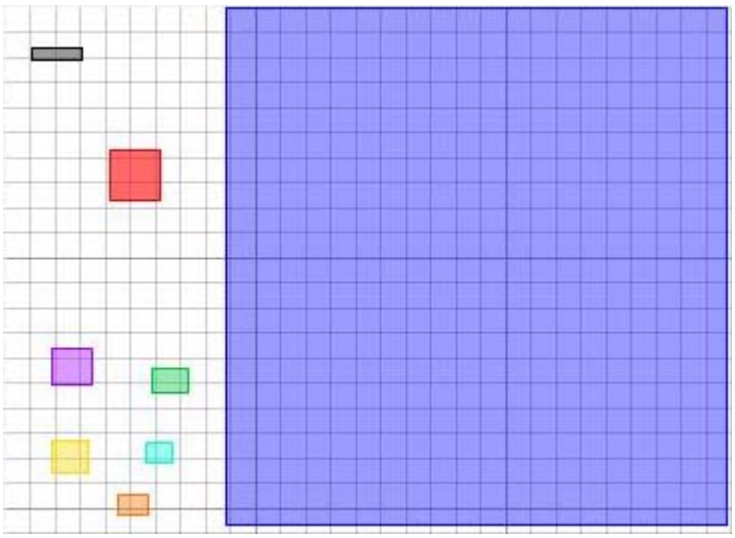
This can be set as an absolute pixel size, or a relative % size.

Default

The Default Width and Height show the settings that have come from the Project (.pd2) file.

Where the Item has a different size, it can be set back to the Default values using the Reset to Defaults option.

Item Colours



When placed on the Panorama, Project Items will be shown in the following colours:

Pixel Matrices	Grey
Primary Content Targets	Blue
Secondary Content Targets	Purple
Overlay 1 Content Targets	Green
Overlay 2 Content Targets	Yellow
Overlay 3 Content Targets	Cyan
Overlay 4 Content Targets	Orange

In all cases, the Item will turn Red when selected.

Preview Media

Any media imported into the Location (.pdl) file can be previewed on the Panorama

Preview Modes

There are three preview modes available:

- Items Only
- Dual
- Panorama Only

Items Only

This mode will show the media within the bounds of the Pixel Matrices and Content Targets on the Panorama so you can see which parts of the media will be displayed on each item.

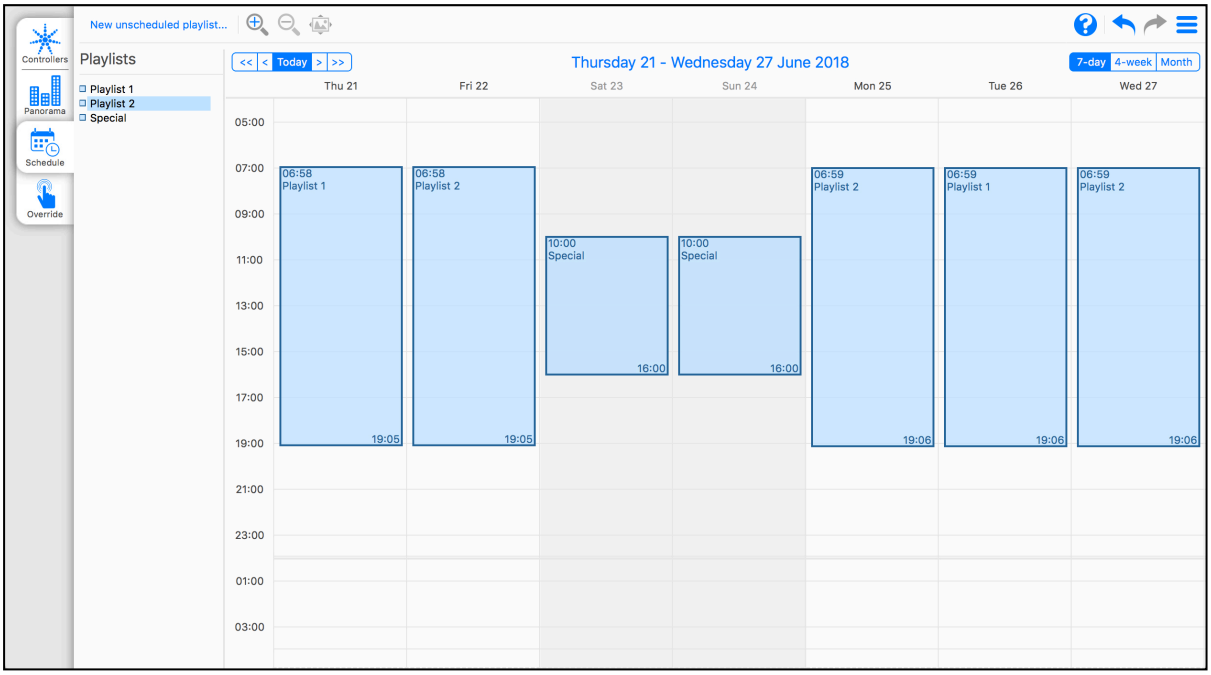
Dual

This mode will show the entirety of the media on the Panorama with the items highlighted so that the output on the items can be seen in context.

Panorama Only

This mode will display the entirety of the media on the Panorama without showing the items

Schedule Overview



The Schedule allows you to add events to a calendar, and link a playlist to the scheduled event. Each scheduled event can be repeatable.

Changing the Calendar View

To Change the Calendar View

There are three view options for the calendar:

- 7-day
- 4-week
- Month

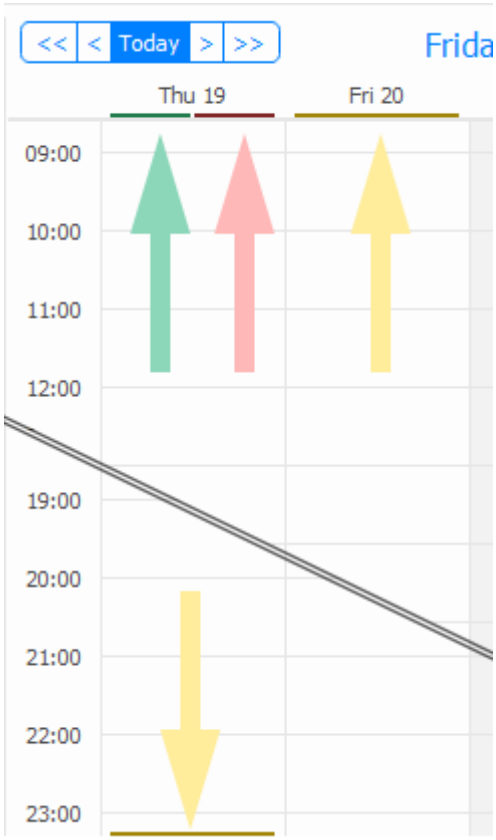
These can be switched at the top right of the calendar view

7-day

This will display the next 7 days from a specified date (not necessarily a calendar week).

If scheduled playlist blocks on the calendar should be completely out of view, coloured bars at the top or bottom of your calendar view will prompt you of their presence.

In the below image the red and green playlists occur earlier within the day and the yellow one goes over-night and therefore shows over 2 days (bottom to top).



4-week

This will display the next 4 weeks from a specified date (not necessarily a calendar month).

Month

This will display the calendar month containing a specified date

To Change the Date Range

At the top left of the calendar view, there are options to change the date range displayed:

- Previous Range <<
- Previous Day <
- Today Today
- Next Day >
- Next Range >>

Previous/Next Range

The displayed dates will be shifted by 7 days, 4 weeks or a Month (depending on the view).

Previous/Next Day

The displayed dates will be shifted by 1 day (not available in Month view).

Today

Sets the first day in the view to the current date (or sets the Month to the Current Month)

Playlists

A playlist is a container for a series of effects which will be played back. These effects can include:

- Media clips.
- Pre-programmed timelines.
- Firing pre-programmed triggers within the Designer Project (.pd2).

Playlists can also have start and end events which are run at the start and end of the scheduled event e.g. to prepare the installation to playback the media by turning the fixtures on.

Sorting Playlists

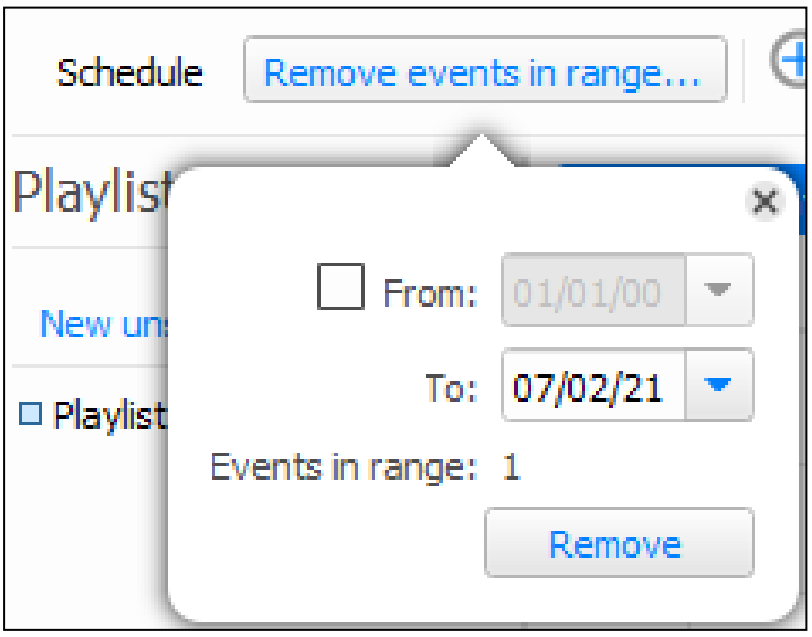
By default all created playlists are automatically sorted alphabetically when a new Location (.pdl) is created. It is also possible to sort them manually by enabling User defined sorting mode in the Override Properties tab; section Playlist Sort Method (on page 39) details how to enable User defined sorting.

Once User defined sort has been enabled, playlists can be sorted manually from both the Schedule and Override tabs. For more details on how to do this please refer to section Playlist Sorting (on page 40).

NOTE: The playlist order is always synced between the Schedule and Override views so any changes made in one is reflected in the other.

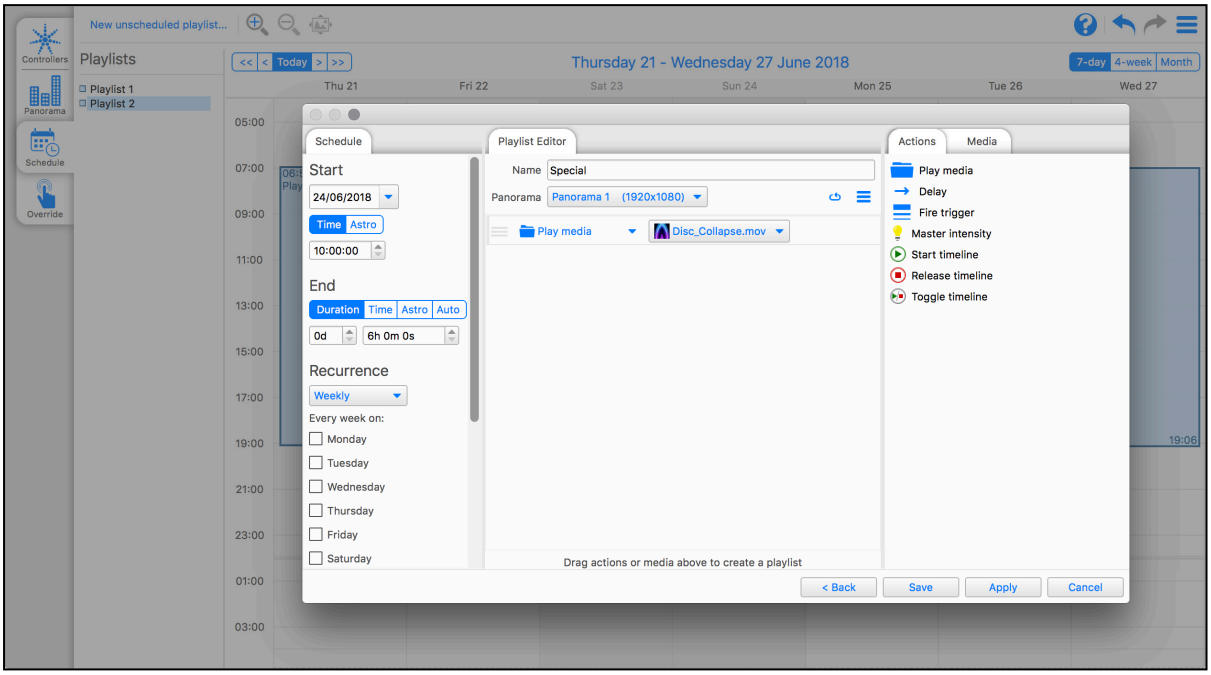
Schedule Maintenance

Event Removal



Selecting **Remove events in range…** will allow you to remove events up to a selectable date, or within an adjustable date range. This allows you to easily remove old events that have already passed, removing them from the Event limit and allowing new events to be used in larger, event heavy projects.

Playlist Schedule



A Schedule defines when a Playlist should be played back within each Designer Project (.pd2).

Start

The Start settings define when this Schedule event should start.

Date

The Date of the start of the Schedule event

Time

The time that the Schedule event should start. This can be set as a Real Time or an Astronomical time with an offset

End

The ending of the Schedule event can be defined by any of the following:

- Duration
- Time
- Astro
- Auto

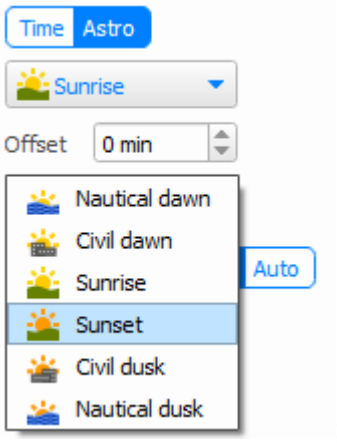
Duration

A fixed length for the Schedule event, defined in Days, Hours, Minutes, Seconds.

Time

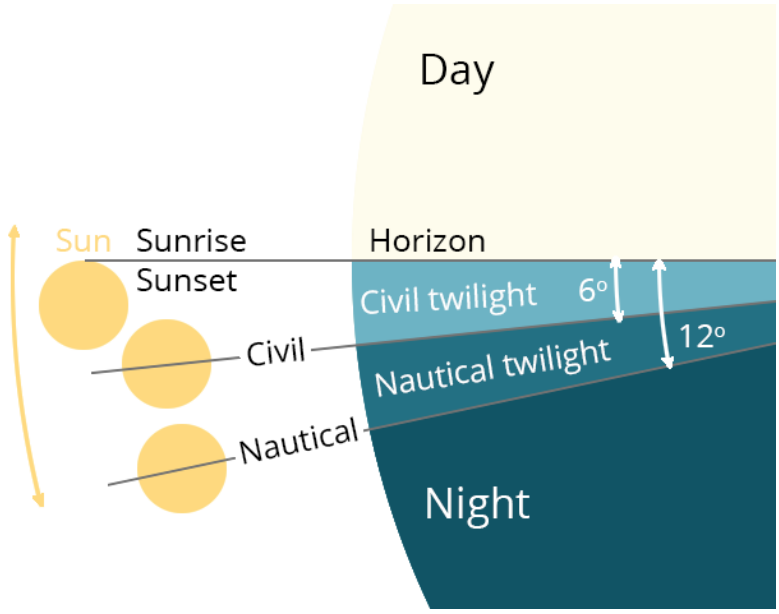
A fixed real time and date for the event to finish.

Astro - Astronomical Times



;

Astronomical times are available to specify the Start and End times for Scheduled Playlists. These times update according to the geographic location for the Director Location (.pdl) that can be set via Set Calendar Locale... (on page 43).



The above diagram visually represents how Nautical (dawn/dusk), Civil (dawn/dusk), and Sunrise/Sunset are defined based on the sun's position over the horizon. Each is further explained below:

Sunrise	The time of day when the upper limb of the sun crosses and rises above the horizon at the beginning of the day.
Sunset	The time of day when the upper limb of the sun crosses and disappears beyond the horizon at the end of the day.
Civil dawn	The time of day when the geometric centre of the sun is 6 degrees below the horizon before daytime. This marks the beginning of the morning Civil Twilight. Civil Twilight is the first period of the day where there may be enough natural sunlight

	that artificial lights may no longer be needed.
Civil dusk	The time of day when the geometric centre of the sun is 6 degrees below the horizon before night-time. This marks the beginning of the evening Nautical Twilight.
Nautical dawn	The time of day when the geometric centre of the sun is 12 degrees below the horizon before daytime. This marks the beginning of the morning Nautical Twilight. Nautical Twilight is the first period of the day where most stars are visible and artificial lighting is still needed.
Nautical dusk	The time of day when the geometric centre of the sun is 12 degrees below the horizon before night-time.

An offset is also available to offset the start from a chosen astronomical time.

Auto

Automatically end the Schedule event when the Playlist reaches its end.

Recurrence

Defines if and how a Schedule event should be repeated:

- None
- Daily
- Weekly
- Monthly: Day
- Monthly: Date
- Yearly

Until

Defines when the recurrence should be run until (this will be the limit, meaning the playlist won't play on this date). This will not necessarily be the last time the schedule runs, depending upon the exact recurrence settings.

Exceptions

Any specific dates when the recurrence shouldn't take place.

Editing Single Instances

In the calendar view, instances of a recurring schedule can be adjusted independently by right-clicking on the instance and choosing "Separate this instance" or "Delete this instance".

Separated Instances

A separated instance will allow its settings to be adjusted independently to the other instances in the recurrence e.g. timings or content

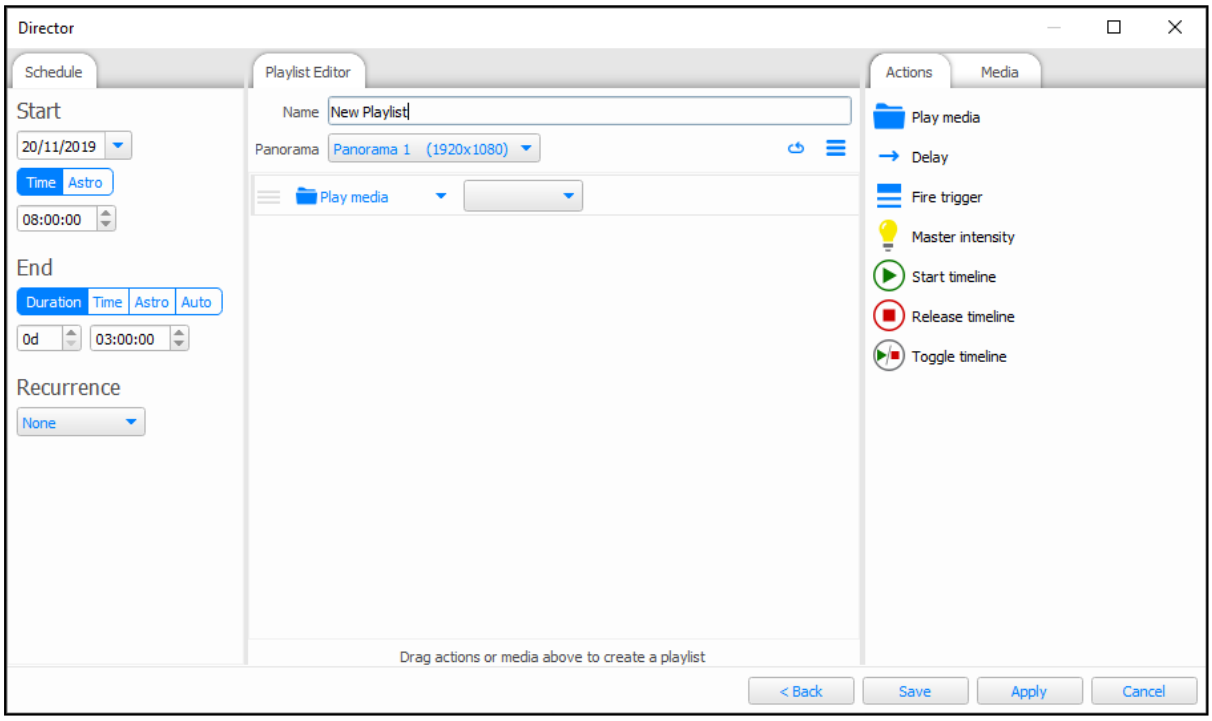
Creating Playlists

A Playlist is a collection of Actions that should be played back by the controllers within the Director Project (.pd2).

Playlists can be created in 2 ways from the Schedule Mode, either alongside the creation of a new Schedule Event, or as an unscheduled playlist:

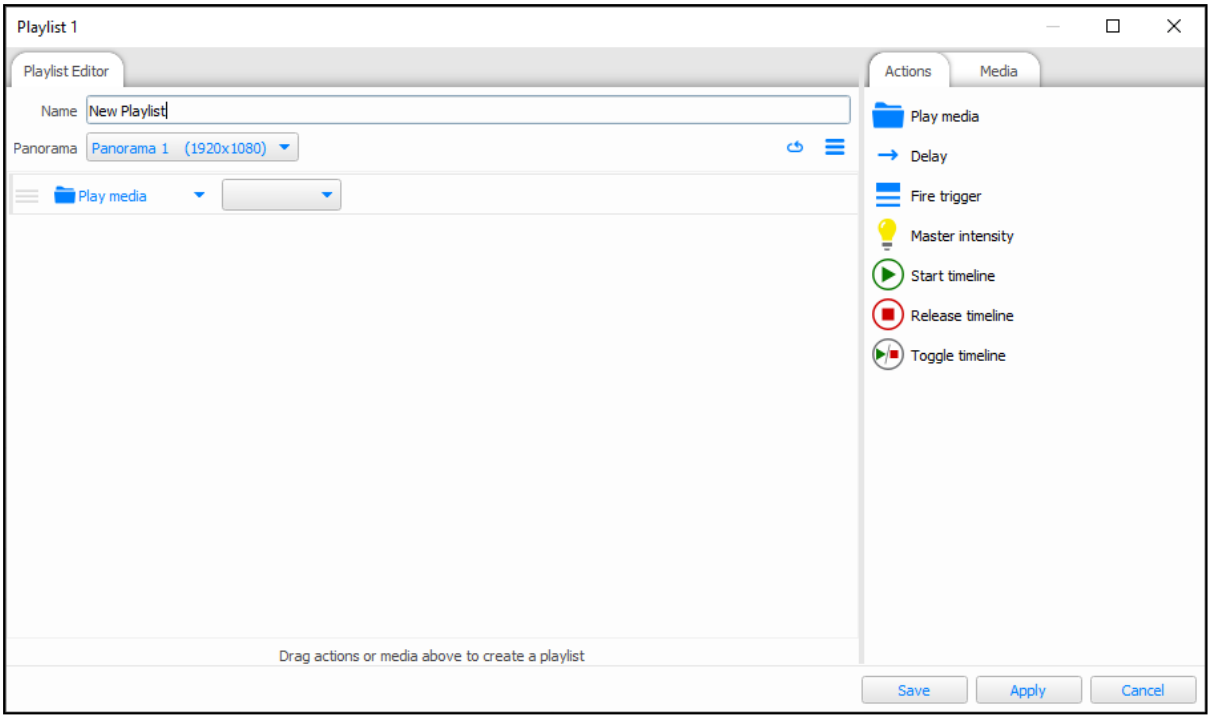
1. Scheduled Playlist:

   Create a new schedule by clicking on the desired day and time slot within the calendar. Then at the top of the Playlist panel click New... once the new playlist is saved it will be already associated with the newly created schedule.



2. Unscheduled Playlist:

Click the New unscheduled playlist... button to create a playlist that is not associated with any schedule.



Unscheduled playlists will still be visible from the Override Mode, but will not have any scheduled time at which they will play until they are associated with a schedule event (existing or new) from the Playlist drop-down menu.

Playlist Settings

Each playlist has a number of settings that can be used to adjust how the playlist will perform:

- Name
- Panorama
- Loop
- Priority*
- Tag*
- Fade*
- Hidden from Override*
- Allow start actions*
- Allow end actions*

* Accessed from ☰ menu

Name

A user identifiable name for the Playlist

Panorama

Select the Panorama that this Playlist should be played onto

Loop

If the content of the Playlist doesn't reach the end of the schedule, Loop will cause the content to be looped. If the Schedule End is set to Auto, the content will not loop (the Schedule length is equal to the content length)

Priority

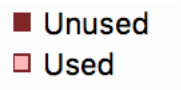
The Playlist will interact with the Timelines and Scenes within the controller Project (.pd2) files. The Priority setting can be used to determine exactly how these should interact. Options:

- Above Normal
- Normal
- Below Normal

Tag

The Tag colour of a Playlist will determine how Schedule events with this Playlist display on the Calendar view.

This Tag is also shown within the Playlist Browser, where a darker colour indicates the Playlist is unused, and a paler colour indicates that it is in use:



Fade

The crossfade time of the playlist when overriding the output in the Project (.pd2).

Hidden from Override

Checking this option will prevent this Playlist from being shown in Override Mode

Allow start actions

Checking this option will add the option for Start Actions to the playlist

Allow end actions

Checking this option will add the option for End Actions to the playlist

Playlist Actions

There are various actions that can be added as a step within a playlist.

- Play Media
- Delay
- Fire Trigger
- Set Intensity
- Start Timeline
- Stop Timeline
- Toggle Timeline

Play Media

Play back media clips that are mapped to the Panorama, thereby splitting the media clips for each controller, and synchronising across the Project (.pd2).

Delay

Adds a time delay to the playlist.

Use this to allow timelines to playback before performing another action, or allow time to pass before performing the next action.

Fire Trigger

Fires triggers within the Designer Projects (.pd2) on the Controllers, where the trigger is defined by the Trigger Number or Name.

Set Intensity

Master the Intensity of the Panorama. This will act as a multiplier on any content output to this Panorama.

Start Timeline, Stop Timeline, Toggle Timeline

Control Timelines within the Designer Projects (.pd2) on the Controllers

Playlist Start and End Actions

When enabled, Start and End Actions can be added to the Playlist. These are performed before the main Playlist starts and after it ends.

Start and End actions can be any of the following:

- Fire Trigger
- Set Intensity
- Start, Stop or Toggle Timeline

When a timeline loops, within a Scheduled event, these actions will only be performed once (before the first loop and after the last loop)

Typically these actions would be used to set a base look around or under some Media, or turning on and off power to sections of an area etc.

Media

Use this section to import media into the Director Location (.pdl), which can be later used by the Play Media Playlist action

Playlist Browser

The left side of the Schedule Mode features the Playlist Browser, which lists all Playlists in the Location (.pdl) file.

From here, Playlists can be dragged onto the Calendar view to add a Schedule for it.

Context Menu

By right clicking on a Playlist in the Playlist Browser, you can:

- Create a new playlist
- Edit the selected playlist
- Duplicate the selected playlist
- Remove the selected playlist

Override Overview

Keyboard Shortcuts

Ctrl + Click *on override button*	Stop Playlist

Override Buttons

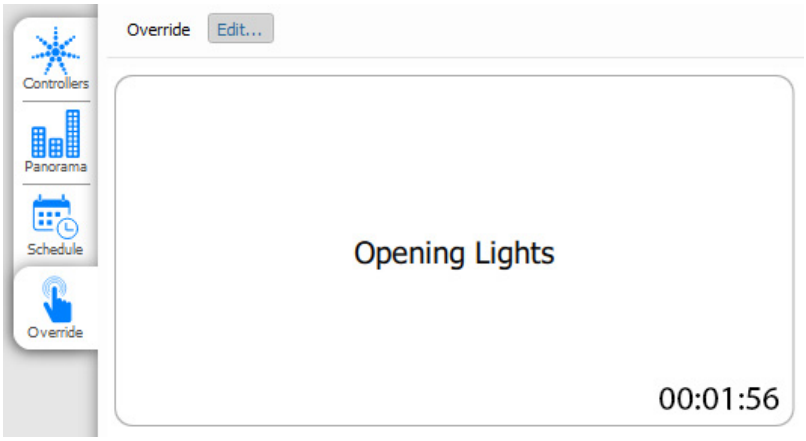
Starting a Playlist

Override provides an interface to start any of the playlists prepared within the Director Location (.pdl) at any time.

The Override buttons will be automatically populated according to the Override Properties, clicking any of these buttons will command any controllers linked to the Location (.pdl) to start running the selected playlist.

Clicking a playlist button for a Playlist that is active will restart it.

While a playlist is playing it will give you a playback feedback on its associated button within the Override tab by highlighting the button and displaying a play-timer in the bottom right corner as follows:



Stopping a Playlist

To stop a Media playlist from playing back in the controller, you can click the Override button while holding Ctrl (Cmd on Mac).

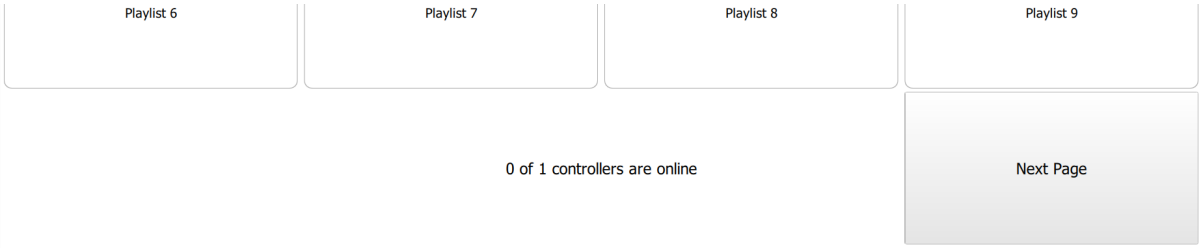
NOTE: Only Media within playlists will be stopped, other actions are control commands which run the action within the controller's Project (.pd2). These must be deactivated by sending another command to the controller, e.g. another Playlist with Release Timeline Actions.

Hiding Playlists from Overrides

Playlists can be hidden from this interface using the Hidden from Override option within the Playlist Properties (on the facing page).

Override Footer

The Override display features a space at the bottom that is used as the footer. Within this buttons are placed to change to the Next and Previous Page (when necessary), and to display the Online Status of the controllers in the Location (.pdl) (when enabled).



Override Customisation

The Override page can be customised to change the appearance of the page and the button layout.

Edit mode is enabled by selecting Edit... on the mode toolbar. This will show the Override and Playlist Properties on the right hand side of the Override view.

Override Properties

Number of Rows and Columns

These determine the grid size of buttons to display on each override page, and the size of the buttons.

Grid Spacing

The spacing is the gap between buttons in the Override grid.

Font Size

The size of the text on the Override buttons.

Footer Font Size

The size of the text in the footer (Controller status and Page change buttons)

Show Master Status

Choose whether to display controller status in the footer

Background Image

Sets the background image for the override page. To add an image, click on the folder icon. To clear/remove a previously assigned image, click the remove icon.

NOTE: Only .png .jpg and .jpeg images are accepted.

Transparencies within .png images are permitted.

Background Colour

Sets the background colour of the override page.

NOTE: If a background image has also been set, only the set background image will show over any set background colours.

If a specified background image has any transparency, the background colour will show through.

Playlist Sort Method

This setting specifies how playlists (Schedule tab) and playlist buttons (Override tab) are sorted allowing the user to switches between Alphabetical and User-defined sorting modes:

Alphabetical: Playlists will be automatically ordered alphabetically by their name, this is the default setting.

User: Playlists can be ordered manually by the user from both the Schedule and Overview tab views.

See Playlist Sorting (on the next page) for more information on how to sort playlists manually.

Playlist Properties

From within the Override tab, pressing on the Edit… button in the top left will open the Override Properties and enable editing. Left-clicking any button will also open the Playlist Properties tab below the Override Properties tab. From the Playlist Properties tab it is possible to do the following:

NOTE: Ctrl + Left-click allows you to select multiple buttons to edit at the same time.

Background Image

Set the selected button(s) background to an image. To add an image, click on the folder icon. To clear/remove a previously assigned image, click the remove icon.

NOTE: Only .png .jpg and .jpeg images are accepted.

Transparencies within .png images are permitted.

Background Colour

Set the selected button(s) background to a single colour from a colour picker.

NOTE: If a background image has also been set, only the set background image will show over any set background colours.

If a specified background image has any transparency, the background colour will show through.

Text Colour

Set the selected button(s) text colour to a single colour using the colour picker.

Playlist Sorting

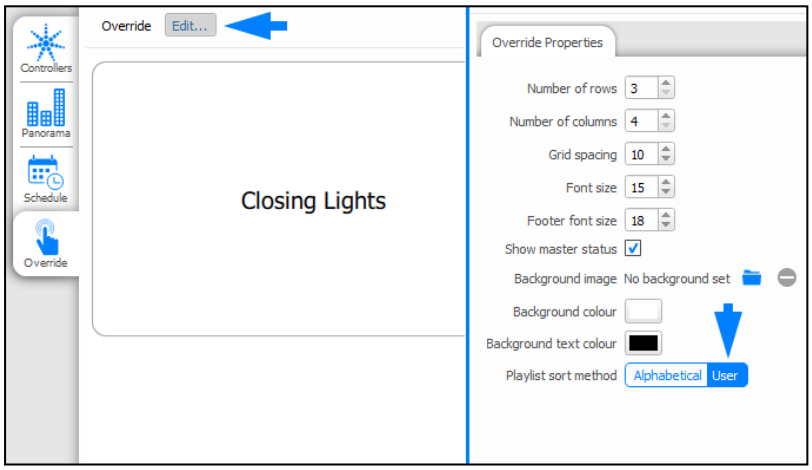
Newly created Locations (.pdl) will by default automatically sort all playlists alphabetically. Once User-defined sorting is enabled from the Override Properties tab, see Playlist Sort Method (on the previous page), then the user may specify the playlist order manually from either the Schedule or Overview tabs. The order of playlists (Schedule tab) and playlist buttons (Override tab) automatically sync so any changes made to one will take effect in the other.

Below are details of how to sort playlists manually from both the Schedule and Override tabs:

Override Tab Playlist Sorting

From the Overview tab:

1. Click Edit and in the Override Properties tab set Playlist Sort Method to User.

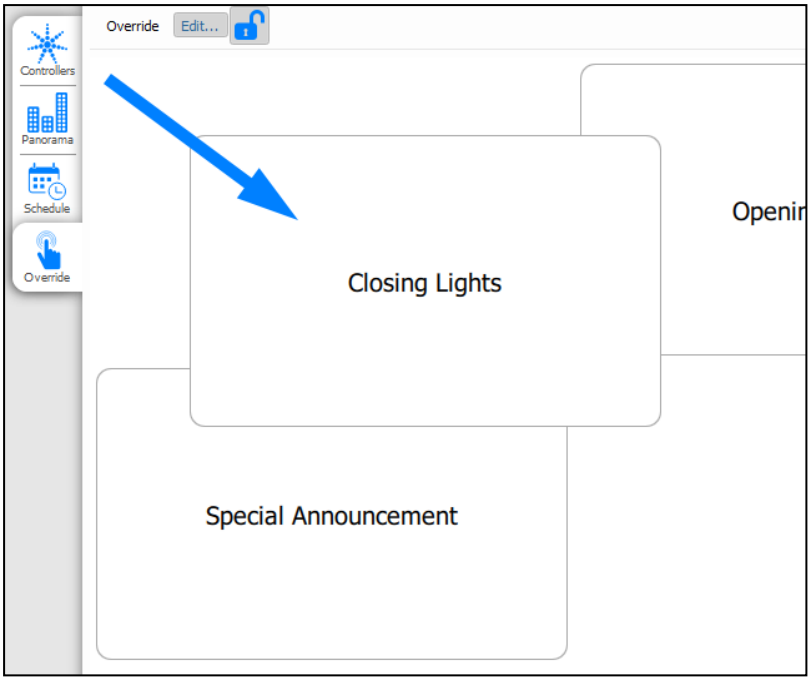


NOTE: Once the Edit... button has been clicked all playlist buttons are put into an edit only state meaning that clicking them will only open the Playlist Properties tab rather than starting the playlist.

2. Once enabled, the "move playlists with mouse" lock icon will appear in the top left corner next to the Edit… button. To enable drag and drop playlist button sorting, the lock must be clicked so that it displays the unlocked icon.

NOTE: Once the "move playlists with mouse" has been unlocked it puts the playlist buttons into a drag and drop only state whereby both the Override Properties and Playlist Properties tabs will be locked. In this mode clicking the playlist buttons will not start the playlists.

3. Now playlist buttons can be left-click dragged and dropped into the desired order.

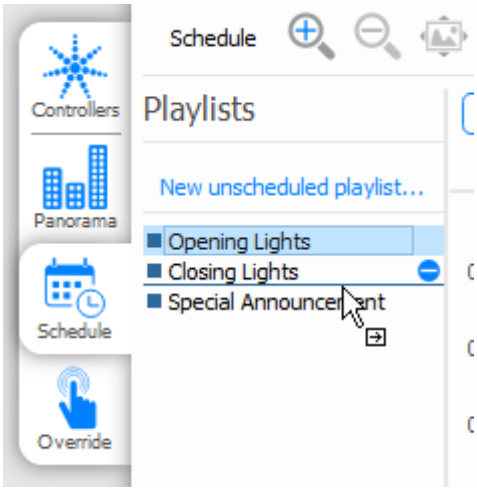


NOTE: The playlist button ordering goes from left to right, top to bottom; the top left item will translate to being the top playlist in the Schedule tab.

4. When finished make sure to click again the "move playlists with mouse" lock button so as to lock it again . Until this is done other buttons and tabs will be unclickable.

Schedule Tab Playlist Sorting

From the Schedule tab simply hold either left or right click to drag any playlist to the desired position.



Main Menu Tools Overview

The Main Menu contains a number of useful tools that influence how a Director Location (.pdl) behaves and allows the user to manage multiple aspects of it. It includes:

- Location (.pdl) File Management

  All standard management tools to open, close, create new, and save / save as you Location (.pdl).

- Set Calendar Locale... (on the facing page)

  Access to calendar options allowing to set a geographic location for improved scheduling functionality.

- Preferences - Menu Settings (on page 44)

  To set general, scheduling, and syncing options for the current Location (.pdl) file.

- Security...

  Enabling and managing User Access Level Permissions to the Location (.pdl) file.

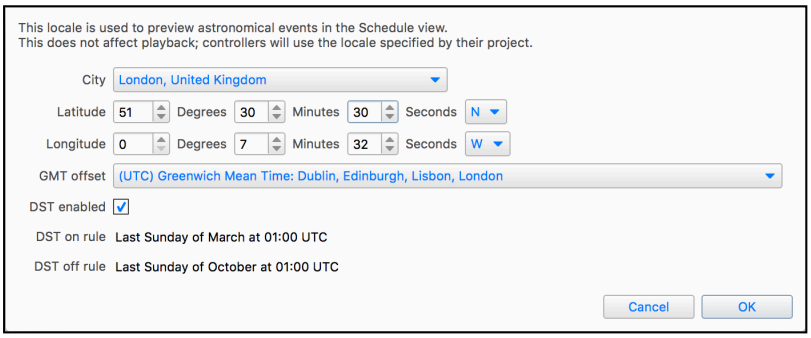
- About, Help, and Feedback

  For more information about the Director software, help documentation, and how to send feedback.

Set Calendar Locale...

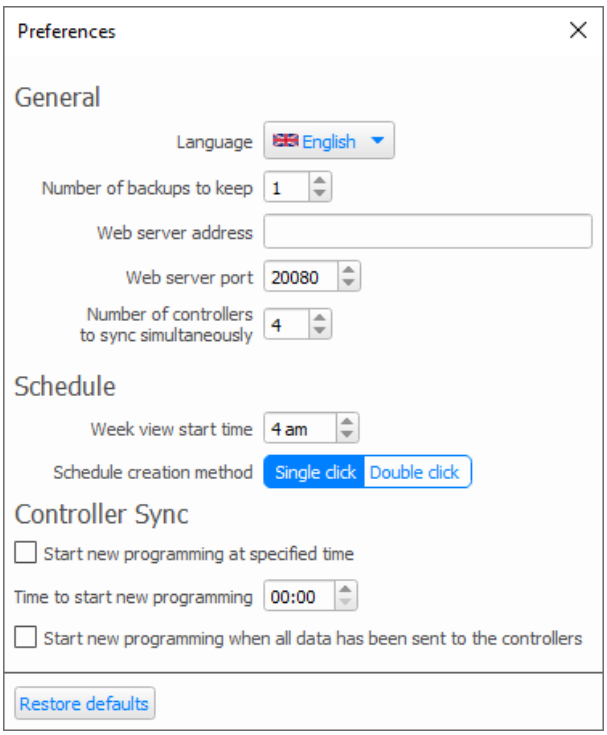
Schedules can be configured to link to astronomical events; these rely on all the associated controllers from imported Project (.pd2) files knowing their geographic location(s). Upon syncing, Director will use the specified geographic locations of each individual controller to calculate their respective times for local astronomical events.

To ensure the Calendar view is accurate for previewing astronomical events, set a locale for your Location (.pdl) by pressing ☰ and clicking Set Calendar Locale... Setting a locale for your Location (.pdl) does not affect how the controllers will behave; all associated controllers will use the geographic locale specified by their Project (.pd2).



The searchable city list can be used to find the nearest city, alternatively the specific latitude and longitude can be set numerically.

Preferences - Menu Settings



General

Language	Choose the desired interface language.
Number of backups to keep	When saving a Location (.pdl), previous versions can be kept as a backup (they will be given a new name). This preference specifies how many to keep
Web server address	Used to specify the sync server IP address that the controller(s) should use when operating over remote networks.
Web server port	The local port that controllers connect to when they sync media data from Director. If the computer running Director is behind a firewall (from the controller's perspective), this port will need to be allowed through for sync to function correctly.
Number of controllers to sync simultaneously	Syncing a large number of controllers simultaneously can use a lot of bandwidth, so this property can reduce the number of controllers to sync to at the same time.

Schedule

Week view start time	The Week view shows the times during the day and this preference determines when the times should wrap from one day to the next
Schedule creation method	Clicking on the calendar can create a Schedule and the selected time/date. This preference determines the method that is used to create this (single or double click)

Controller Sync

These options are to set the default behaviour for Controller Sync.

Start new programming at spe-	Whenever a new sync from Director to the controllers is performed it will take effect on the controllers at the specified time (hh:mm).

cified time	
Start new programming when all data has been sent to the controllers	To void controllers syncing and starting up at disparate times (due to variation in upload times), enabling this option will ensure the controllers will start their new programming only once all controllers have successfully synced.

Security - Setting User Access Permissions

If your Director Location (.pdl) is to be accessed by multiple users and you wish to protect it from being changed, it is possible to create user logins for each Location (.pdl) with varying degrees of user access level permissions. Logins with defined access levels are set on a per-Location (.pdl) basis. There are 3 available user access levels that can be set for each created user login:

Admin Admin users have full access to the entirety of the Location (.pdl).

Schedule Schedule level users are no longer able to modify Panoramas or the Projects (.pd2) loaded into the Location (.pdl), but have full access to the Schedule and Override modes.

Override Override-level users will be limited to only interact with the Override mode.

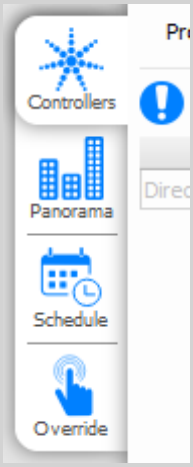
NOTE: Both Schedule and Override have restricted access to the Controller mode tab, however not to the same degree. Neither are allowed to manage the Designer Projects (.pd2) loaded. However, Schedule users are still given permission to access the Controller Sync panel (see Syncing Data (on page 16)), whereas Override users are not.

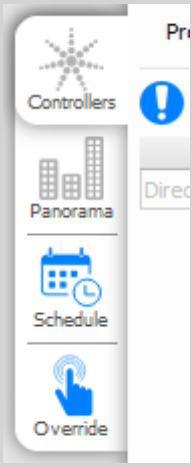
Below is a summary of what each user access levels allows access to within that Director Location (.pdl):

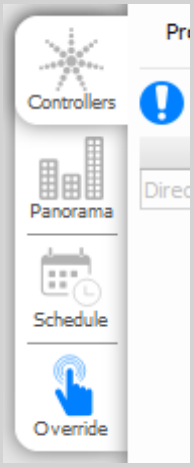
Table: Summary of user access level permissions to Director Location (.pdl) files.

User Access Level	Access Level Tier	Accessible Modes		
		Panorama	Schedule	Override
Admin	1	✓	✓	✓
Schedule	2	Restricted	✓	✓
Override	3	Restricted	Restricted	✓

NOTE: Users with lower access level (tier) permission logins will not be able to edit parameters within restricted Modes. They will however still be able to view them. Restricted Mode Tabs will appear greyed out to emphasise which have restricted access.

Normal access: 

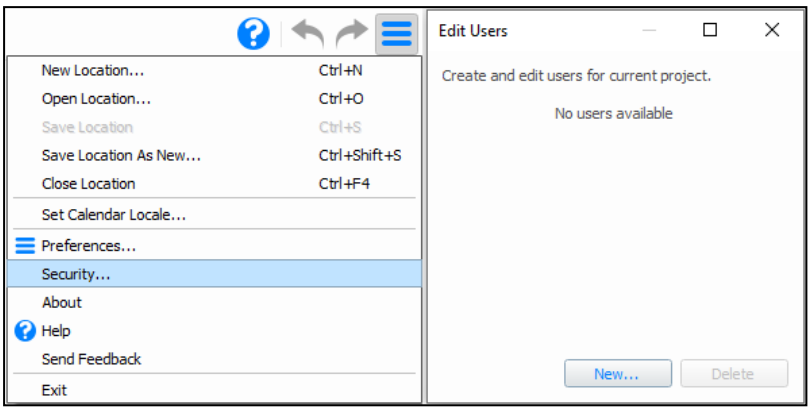
Schedule access: 

Override access: 

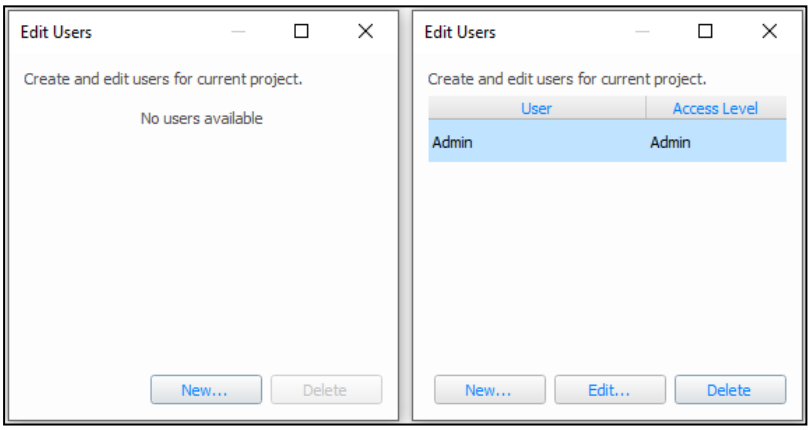
Create User Logins With Different Access Levels

NOTE: Users with a non-admin access level login can only create new user logins with the same or lower access level tier (see table Summary of user access level permissions to Director Location (.pdl) files. (above) for tier level specification); e.g. a user with a Schedule access level will be able to create more users with either Schedule or Override access levels, but won't be able to make any with an Admin access level.

1. Access the Edit Users panel by going to the ☰ Main Menu in the top-right corner of the Director window and selecting Security…

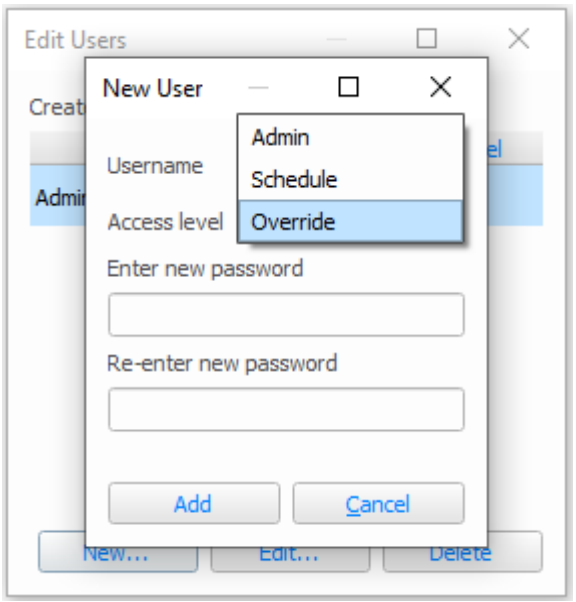


2. Click on New… to create the first user. Add a username and password for that user. Passwords entered are case-sensitive.



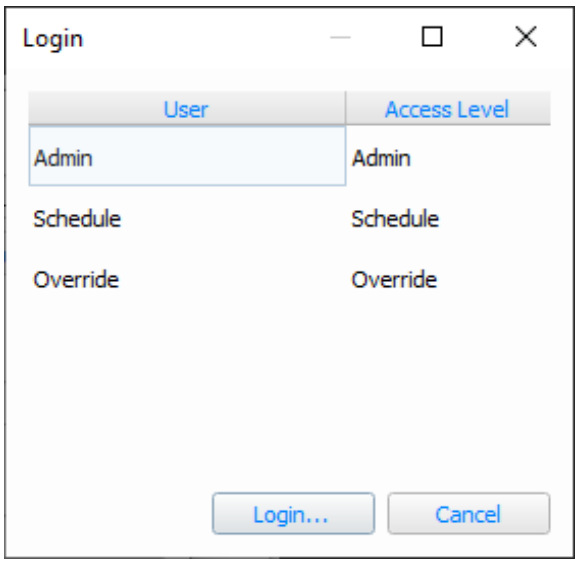
NOTE: The first user created **MUST** be an Admin-level user. Multiple Admin-level users are allowed.

3. Create more users with different access level permissions by clicking New… and then specifying the desired user access level in the Access Level drop-down menu. Also enter a username and password,



4. Save the Location (.pdl) to confirm all changes to the user list.

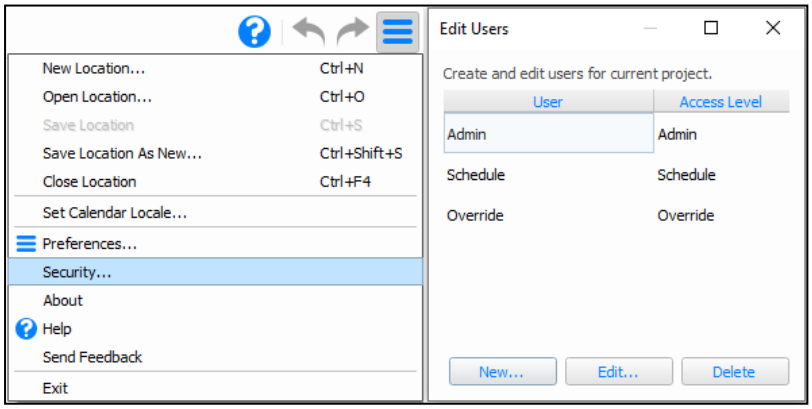
5. Upon re-opening the Director Location (.pdl) a user login will appear. Upon entering the password for a given user login Director will open up with the specified access level permissions applied.



Modifying And Deleting Users

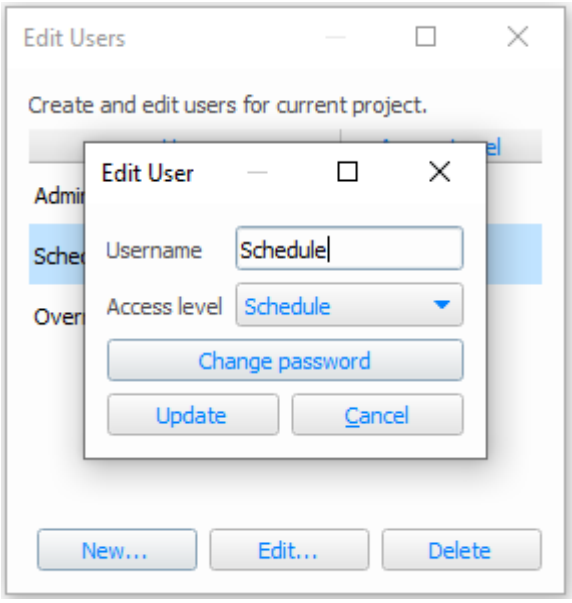
NOTE: Users with a non-admin access level can only affect user logins on the same or lower access tier (see table Summary of user access level permissions to Director Location (.pdl) files. (on page 46) for tier level specification); a user with a Schedule Access Level will be able to modify/delete users on Schedule or Override Access Levels, but not Admin.

1. Access the Edit Users panel by going to the ☰ Main Menu in the top-right corner of the Director window and selecting Security…

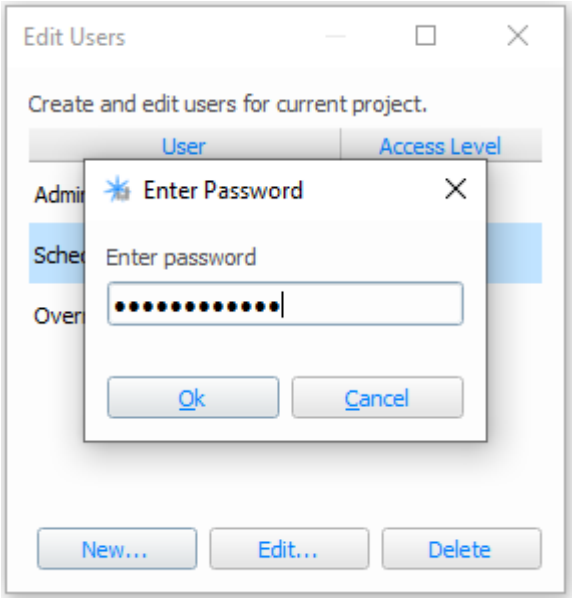


2. Select a user that is either to be modified or deleted by left-click highlighting it within the Edit Users list.

   a. **To modify**: click the Edit… button which will open the Edit User panel. Here the username, password, and access level can all be modified for that user. Once modifications have been made click Update to confirm changes.

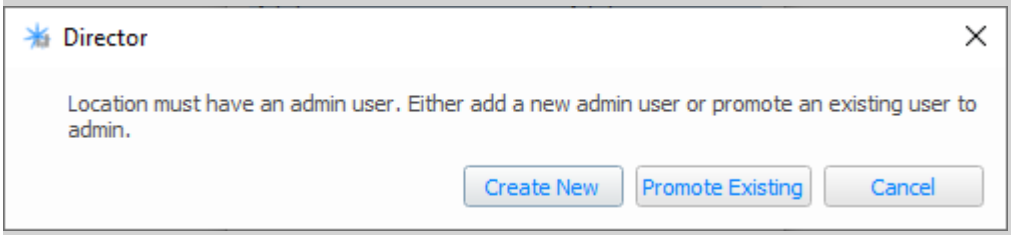


b. **To delete**: click the Delete button, this will open a password prompt. Enter that user's password and press Ok to confirm the deletion.



3. Save the Location (.pdl) to confirm all changes to the user list.

NOTE: There must **ALWAYS** be an admin-level user if user logins are created. Should the last Admin-level user login be deleted Director will request a new admin-level login be created, or a current one be upgraded to Admin access level.



To remove all users first remove all non-admin users, then proceed to remove all admin-level users. Once done save the Location (.pdl), this will remove the login pop-up when opening your Director Location (.pdl).

Software Release Notes

Release Notes

These are provided within the Designer software.

Software Licences

GPL

Portions of this software are licensed under the GNU General Public License version 2. The license is available within the software.

To obtain this software either visit www.carallon.com or send a stamped self-addressed envelope containing a blank CD or USB memory stick to:

GPL Compliance,
Carallon Limited,
272 Gunnersbury Avenue,
Chiswick,
London, W4 5QB
England

System Limits & Capacities

Pharos Director imposes the following limits on new Director Locations (.pdl) which can not be exceeded:

Designer Projects (.pd2)	200	The maximum number of Designer Projects (.pd2) that can be imported into a Director Location (.pdl)
Controllers	800 (40 per Project (.pd2))	The maximum number of controllers across all Designer Projects (.pd2)
Panoramas	50	The maximum number of Panoramas in the Location (.pdl)
Project Items	5000	The maximum number of Project Items (added to Panoramas) in the Location (.pdl)
Maximum Panorama Dimensions	16384 x 16384 pixels	The maximum available space for a Panorama
Playlists	1000	The maximum number of playlist that can be created
Scheduled events	1000	The maximum number of scheduled events that you can have on your calendar (excluding recurrences)

As you can see from the above limits, the Pharos control system can scale to an impressive size that rivals even state-of-the-art lighting consoles.

For very large projects, or projects where some of the above limitations are restrictive, please contact support to discuss your requirements in advance.

Glossary

A

Astro

This refers to astronomical times that are the daily variable times for Nautical and Civil Dusk/Dawn as well as Sunrise and Sunset.

C

Content Target

A VLC output layer that media or effects can be mapped onto before being output to fixtures.

I

IP Address

"Internet Protocol" address, in the form xxx.xxx.xxx.xxx, which specifies the unique address for networked equipment.

L

Location (.pdl)

A Pharos Director file that contains links to Project (.pd2) files, Pixel Matrices and Content Targets layouts, Playlists and Schedules

P

Panorama

A canvas onto which Pixel Matrices and Content Targets are placed (as in real life) to map content onto

Pixel Matrix

A two-dimensional array of fixtures such that each fixture, or element within a compound fixture, is mapped to a pixel of the array.

Playlist

A collection of Actions to perform e.g. Starting a timeline, playing some media etc. A playlist can be linked to a Schedule event or available as a button to be started in the Override Mode.

Project (.pd2)

A Pharos Designer save file.

R

Replication

A "copy" of a Project (.pd2) file with a different collection of hardware

Revision

If a Controller is showing Incorrect in the Revision column, it indicates that the Project (.pd2) file in Designer has been saved since last being loaded into Director. Press the Load .pd2 toolbar button to update to the latest version of the Project (.pd2) file

S

Schedule

A calendar event set to play a Playlist with optional recurrence.

Sync

The process of sending content from the Director Location (.pdl) file to associated controllers.