

12 Cue Lists

12.1 Cue Lists

Cue Lists (sometimes known as stacks or cue stacks) allow you to record a sequence of **cues** (Section 10.1), each of which can have its own **timings** (Section 12.5) and can be triggered by the **Go** button or **run automatically to the next cue** (Section 12.3). This allows you to build a complete show in a single list and is ideal for **theatrical shows** (Section 12.8) where the show must be exactly the same each time. Cue lists can also be useful in busked shows, especially on consoles with a small number of playback faders, to offer a number of different looks on one fader.

Cue lists differ from **chases** (Section 11.1) in the way the console handles changes between cues. Cue lists **track** fixture state from previous cues and will only change the fixture state if you have modified that fixture in the cue; if there are no changes stored for the fixture, it will remain in the same state. **Chases** (Section 11.1) on the other hand would crossfade between cues, fading out all fixtures which have no stored information in the new cue.

You can change the tracking behaviour of cue lists using the **tracking option** (Section 12.3.3) for each cue: Block, This Cue Only and Solo - see Tracking in the **Cue List Playback** (Section 12.3) section).

To view the contents of a cue list, touch the playback screen relating to the fader or press <Open/View> then the **Select** button of the playback.

Cues	Legend	Delay In	Fade In	Delay Out	Fade Out	Fixture Overlap	Link	Link Offset	Move In Dark (MID)	MID Inhibit	MID Delay	MID Fade	Curve	Tracking	Autoload	Autoload Times	Effect Speed	Timerscode (Disconnected)	Notes	Macros	View Cue	View Shape
1	Yab warm	0	0	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global		Cue Time	× 1	Disabled			View	
2	Cue 2	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global		Cue Time	× 1	Disabled			View	
3	Blackout	0	0.5	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Block		Cue Time	× 1	Disabled			View	
4	Cue 4	0	1	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global		Cue Time	× 1	Disabled			View	Circle
5	Cue 5	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global		Cue Time	× 1	Disabled			View	Circle
6	Cue 6	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Load Cue 2	Cue Time	× 1	Disabled			View	Circle
7	Cue 7	0	0.5	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global		Cue Time	× 1	Disabled			View	

12.2 Creating a Cue List

12.2.1 Programming a Cue List

Programming a cue list is similar to **recording a chase** (Section 11.2).

You need to set up the look on the stage for each cue and then add it to the cue list. If you want to set fade times, you can either set them while saving the cues or **later** (Section 12.5).

1. Press <Record> then [Create Cue List].
2. Press the **Select** button of the playback where you want to store the Cue List (*you can also store cue lists in the Playbacks window*).
3. Select the **Record Mode** (Section 12.2.1.1) of the console: by Fixture, Channel, Stage or Quick

Build; if you are using tracking, [Record Mode Channel] is best as you are sure to only record the attributes you have explicitly set, but you do need to make sure you have changed all the things you want to be recorded so they are in the programmer.

4. Set the default Fade and Delay times, and automatic cue linking, using [Set Times]. These settings will be allocated to every new cue.
5. Set up the look for the first cue, either manually or by using <Include> (see [Include Function](#)) on existing cues. You can use the [Shape Generator \(Section 9.2\)](#) and the [Pixel Mapper \(Section 9.4\)](#).
6. If you require a **legend** for the cue, set it now using [Legend]. You can also change this later using [Unfold \(Section 12.4.4\)](#) or [Set Legend \(Section 12.2.2\)](#) (see next section).
7. Press the **Select** button of the handle or [Append Cue] to store the programmer contents as Cue 1 of the cue list.
8. Repeat steps 5 - 7 for additional cues. Do not press <Clear> in between cues, unless you want levels to track through from previous cues, as any faders moving to zero will not be stored. If you do press clear, you must make sure that all channels you want to record are selected or in the programmer (inverted display).
9. Press <Exit> to finish when you have stored all the cues.

- You can [reopen the cue list \(Section 12.4\)](#) to add more cues by repeating the procedure above; this does not affect any cues already stored in the cue list.
- To add more cues to the end of the existing cues press [Append cue].
- To edit an existing cue, press [Cue Number=] and type the cue number to edit. Make the changes then press [Update Cue x].
- To insert new cues, see [Editing Cue Lists \(Section 12.4\)](#).
- The **Advanced Options menu** allows you to renumber all the cues, and to change the number of an existing cue.
- There is no limit to the number of cues in a cue list.
- Cue lists offer a **Move In Dark** function which will move fixtures to the correct position for their next cue while they are set to zero intensity. See the [Move In Dark \(MID\) \(Section 12.3.4\)](#) functions section.
- You can change the [tracking mode \(Section 12.3.3\)](#) of each cue.

Record Mode

[Record Mode] lets you select **Record By Fixture** (all attributes of any modified or selected fixture are saved), **Record By Channel** (only modified attributes are saved), **Record Stage** (all fixtures with a non-zero dimmer channel are saved) or **Quick Build** (allows you to build a cue from other playbacks or palettes; select the playbacks/palettes you wish to use and press [OK]).

Record By Channel is useful if you want to layer this cue list with other playbacks to create an effect.

12.2.2 Changing Legends for Cues in a Cue List

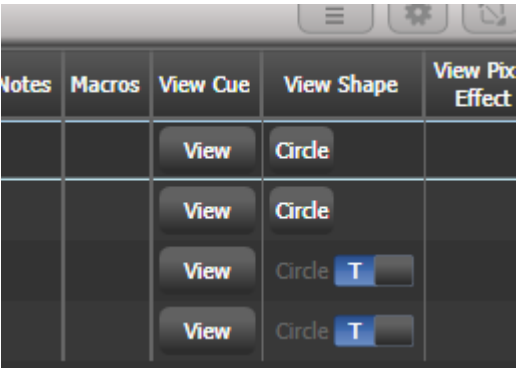
You can set a legend for each cue, which is shown on the screen when running the cue list and can be helpful for keeping track of where you are.

1. Press [Set Legend] in the top level menu. If you are setting legends for several cues, press <Menu Latch> to latch the Set Legend menu.
2. Press the **Select** button of the Cue List.
3. The cues in the cue list are shown on the screen. Touch the list or use Wheel A to select which cue is to be renamed.
4. Press [Cue Legend] and type the legend on the keyboard, then press <Enter>.
5. If you latched the menu, you can continue to set legends for other cues, or press <Exit> to finish.

12.2.3 Shape Tracking in Cue Lists

Shapes can track between cues in cue lists. If shape tracking is enabled, a shape started in a cue will continue through following cues. Shape tracking is enabled using the [Shape Tracking] option in the playback Options for the cue list - see [Cue List Options \(Section 10.6.2\)](#).

Cues containing shapes have a button for each shape.



In the following cues where shapes are tracking, an option switch is shown for each active shape:

Setting	Action
T	Allows the shape to track to the next cue
B	Blocks the shape so it will not appear in following cues

The cue itself can also have options set to block all shapes, see [Cue List Options \(Section 10.6.2\)](#).

You can also block attributes for shapes independently during recording using the **@** menu. Select the Attribute**** using the attribute bank buttons, press <@> then the <FX> group button. The softkeys will then give the options [Block Shape] and [Unblock Shape]. If an attribute is set to **Blocked** the wheel display will show a “Blocked” watermark.

If the **Shape Tracking** option in [Cue list options \(Section 10.6.2\)](#) is not enabled, shapes in each cue are independent from each other. If an identical shape (with the same size and speed) is saved in a following cue then the shape will continue running rather than restarting.

12.2.4 Autoloading a Playback within a Cue List

You can program a cue within a cue list to automatically load one or more playbacks when the cue fires. The playback can be a single cue, a chase or another cue list. This can be a useful way to trigger chases or effects from the cue list.

You can either automatically save active playbacks as **Autoloads**, or you can manually allocate **Autoloads** to cues.

To automatically record active playbacks as Autoloads:

1. After selecting **Cue List Record**, turn on [Autoload Live Playbacks] in the [Advanced Options] menu of the cue list record screen.
 2. Turn on the playbacks you wish to load for this cue.
 3. **Save the cue.** Active playbacks will be saved as Autoloads.

To manually edit autoloads use the playback view for the cue list:

1. Press <Open/View>
 2. Press the **Select button** of the Cue List.
 3. The cues in the cue list are shown on the screen. Click on the **Autoload** you wish to change.
(You will need to set the window to full screen size or scroll across to see the Autoload column. If the Autoload column is not shown, click on the Show All button on the left of the window.)

Playback View - Cue List 7																							
Cues	Legend	Delay In	Fade In	Delay Out	Fade Out	Feature Overlay	Link	Link Offset	Move In Dark (MD)	MD Inhibit	MD Delay	MD Fade	Curve	Tracking	Autoload	Autoload Times	Effect Speed	Timecode (Disconnected)	Notes	Macros	View Cue	View Shape	
<div>Options</div> <div>Show All</div> <div>Times</div>	1	Tab warm	0	0	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1	Disabled			View		
	2	Cue 2	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1	Disabled			View		
	3	Blackout	0	0.5	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Block	Cue Time	× 1	Disabled			View		
	4	Cue 4	0	1	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1	Disabled			View	Circle	
	5	Cue 5	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1	Disabled			View	Circle 1	
	6	Cue 6	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Load Cue 2	Cue Time	× 1	Disabled			View	Circle 2
	7	Cue 7	0	0.5	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	0	Linear	Global	Cue Time	× 1	Disabled			View	

4. Press the **Select button** of the playback which is to be loaded. The playback legend appears on the softkeys.
5. You can continue to add Autoloads to other cues, or press <Exit> to finish.

The Autoloaded playback will be fired when the cue starts, and killed when the cue list moves on to the next cue, unless you have also loaded the playback into the next cue.

You can set options for each Autoloaded playback by pressing the softkey where the Autoloaded playback is shown.

For a cue, the only option is [Remove this Autoload].

For a chase or cue list, **softkey B** lets you select whether to load the playback from the *start*, to start at a *specific cue*, or to press *Go* on the target playback.

In the Autoload Times column you can set fade in, fade out and delay times for the autoloated playback. Normally the autoloat will use the times set for the cue, but you can also select [Use Individual Target Times] which will use the times set in the autoloated playback, or you can set independent times yourself.

12.2.5 Running a Key Macro from a Cue List

You can program a cue within a cue list to trigger a key macro. This allows you to set up custom actions which can be performed when a cue in a cue list fires; for example you may want to lamp on your fixtures as the first cue in the cue list.

1. Press <Open/View> then the **Select** button for the cue list to open its Playback View window.
2. In the **Playback View window**, find the cue you want to add a macro to.
3. Scroll across to the **Macros** column and click on the Macros grid cell for the appropriate cue.
4. Press the button(s) for the macro(s) you want to attach to the step, or press [Add] and choose an action from the list.
5. The **Macros** column shows the macros you have added.

You can remove macros by selecting the cue, pressing the softkey for the macro you wish to remove and then pressing [Remove Link].

12.2.6 Keyboard Shortcuts/Syntax for Cue Lists

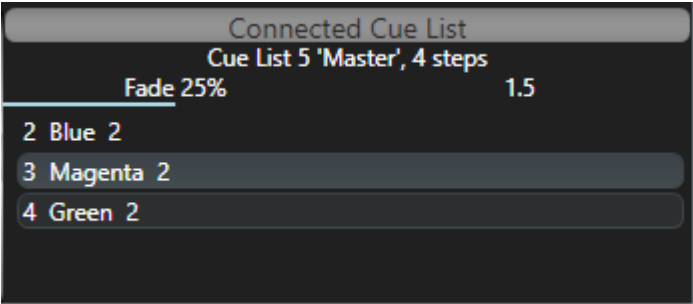
The following keyboard syntax can be used for fast cue list recording and editing. These commands work for the selected or currently connected playback where **n** is the cue number. See also the [Theatre Programming \(Section 12.8\)](#) section and the [Titan Quick Reference \(Section 22.1\)](#) section.

Shortcut	Action
<Record>, <Connect/Cue>, n, <Enter>	Record cue n
<Copy>, <Connect/Cue>, n	Copy cue n
<Delete>, <Connect/Cue>, n	Delete cue n
<Include>, <Connect/Cue>, n	Include cue n
<Connect/Cue>, n, <Go>	Go cue n

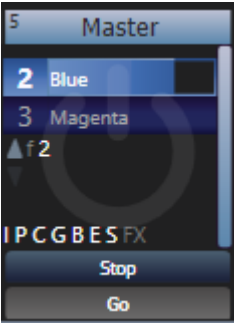
12.3 Cue List Playback

12.3.1 Running a Cue List

Raise the fader of the cue list and press the <Go> button to run the first cue. The wheel display section of the screen shows the cue list status; the current cue is highlighted and the next cue has a grey box around it (On Diamond 9 the cue list status is shown at the bottom of the Editor screen).



Also the playback legend display for the cue list shows information about the cue list. The current cue is shown at the top in light blue, with the next cue below in dark blue. Fade progress of the cue is shown in a bar graph in the light blue bar. Below this the times for the next cue are shown - in time with up arrow and out time with down arrow, d for delay and f for fade. If the cue list is set to manual crossfade a red 'M' is shown.



You can also open the Playback View window to show more details of the cue list by clicking the Cue List legend area or press <Open/View> then the **Select** button of the playback. This shows all the timings, links and tracking status and is very useful when running a **theatre show** (Section 12.8) on a cue list.

The option **Auto View On Connect** in the **Wheels** tab of **User Settings** (Section 19.5.16)) if enabled will automatically open the relevant Playback View window when you fire a cue list.

Playback View - Cue List 5 'Master'									
Cues		Legend	Delay In	Fade In	Delay Out	Fade Out	Fixture Overlap	Link	Link Offset
Options Show All Times	1	Orange Look	0	2	As In	As In	100	After Previous	10s
	2	Blue	0	2	As In	As In	100	After Previous	10s
	3	Magenta	0	2	As In	As In	100	After Previous	10s
	4	Green	0	2	As In	As In	100	After Previous	10s

When times are in progress on a cue, green progress bars are shown in the Playback View window - the left hand column shows overall progress, and each timing section shows its own progress.

The Playback View will autoscroll to keep the active cue on-screen. You can change the way the autoscroll works using the view options (click the {Cog} button at the top of the window).

- The HTP levels of cues in the cue list are mastered by the fader level.

- You can **pause** a fade by pressing the <Stop> button above <Go>. Press <Go> again to resume the fade.
- You can **skip** to any cue in the cue list by selecting a “next” cue using Wheel A, or using the left/right arrow keys. When you press <Go>, the cue list will run that cue next. If you decide you don’t want to skip, you can reset the cue list (so the next cue will be the cue after the current cue) by pressing the <Prev Cue> and <Next Cue> buttons together.
- You can go back to the previous cue following fade times by pressing <Stop> while the cue list is paused.
- You can snap back to the previous cue by pressing the <Snap Back> button (*not on all consoles*).
- Turning on the <Snap> button will cause the <Prev>/<Next> buttons to snap immediately to the cue rather than going to the previous/next cue using the programmed times. There is also an option **Chase snap** in the **General** tab of **User Settings** (Section 19.5.1) which enables this mode on consoles which don’t have the button.
- You can jump directly to a cue by pressing <Connect/Cue>, then typing in the desired cue number, then pressing <Enter> or softkey A.
Alternatively at the top level menu you can type the cue number then press <Connect/Cue>. (This button may be labelled <Connect> or <Cue> depending on the console).
- You can use **Key Profiles** (Section 19.4) to set the buttons of the playback to have various functions including **Go**, **Stop**, **Connect**, **Next Cue**, **Prev Cue**, **Cut Next Cue To Live**, and **Snap Back**, see **Key Profiles** (Section 3.4.4).
- When you lower the fader for a cue list, the HTP channels will fade out, but the cue list will remain active. The section below details how to **kill the cue list** (Section 12.3.2).
- You can use **timecode** to play back a cue list automatically. See section **Cue List Timing** (Section 12.5.5).
- You can change the time for the next cue by entering the time on the keypad then pressing <Go>. You can jump to another cue and set a different time by typing the cue number then press <Connect/Cue>, then type the time and press <Go>.

12.3.2 Killing a Cue List

Once a cue list is fired, it remains active until you kill it. You do this by holding down the <Avo> button and pressing the **Select** button of the cue list’s handle.

You can change this in the playback **Options** (Section 10.6) to make the cue list automatically clear when the fader reaches zero (press <Options> or the menu button [Options] at the program menu, then press the **Select** button of the cue list, then select [Fader] [Fader Mode Intensity Kill At 0].

You can also use **Key Profiles** (Section 3.4.4) to configure one of the handle buttons to release the cue list.

While the cue list remains active, any shapes/effects stored in the current cue will run even if the fader is at zero. If you are working with a cue list and have unexplained shapes occurring, check all cue lists have been killed.

12.3.3 Tracking

By default, cue lists run in tracking mode. Only changes in attributes are stored, everything else just continues at the level it was previously set to. Tracking mode is usually used for **theatrical performances** (Section 12.8) because it makes editing much easier; if you need to adjust a dimmer level at the start of a scene, you don't have to go through and change the level on every cue for that scene, the change just tracks through the other cues until a new level is stored.

You can enable or disable Tracking mode globally for the whole cue list, or each cue can have Tracking mode set individually from the Playback View window (or Options, [Cue Options]).

Settings are:

Setting	Action
[Global] <i>(default)</i>	Obeys the global setting for the cue list.
[Track]	The cue will track
[Block]	The cue will not take tracking states from previous cues. All subsequent cues will track from the Block cue.
[Solo Excluding Shapes]	No states are tracked into or out of the cue, but shapes will track into the cue, except for dimmer shapes which will not track. This lets you have a cue that solos all levels but allows non-dimmer shapes to continue.
[Cue Only]	Changes in this cue will not track to subsequent cues. Tracked values from previous cues will be restored in subsequent cues.
[Solo]	No states are tracked into or out of a solo cue. States from previous cues will track to subsequent cues but will not appear in the solo cue.
[Block Shapes]	Any tracked shapes will stop from this cue. Other attributes will continue to be tracked. This lets you create a point where you can guarantee all shapes will stop.

You can view and edit how levels track between cues using the [Tracking View \(Section 12.4.5\)](#).

12.3.4 Move In Dark (MID) Functions

When using moving lights in theatre, often you would like them to be positioned ready for the next cue so that you do not see them moving. The Move In Dark function does this by automatically positioning the fixture for the next cue when it is not lit.

Move In Dark options can be set either for the whole cue list or for individual cues.

Options for the whole cue list are set by pressing <Options> (or the [Options] softkey on the top level menu) then the select button for the cue list, then [Playback].

Setting	Action
[Disabled]	Prevents Move In Dark functions for all cues in the cue list regardless of the individual cue settings
[Early]	Will attempt to position a fixture as soon as possible unless overridden in an individual cue
[Late]	Will position the fixture as late as possible
[Off] <i>(default)</i>	Turns off Move In Dark unless enabled in individual cues

For individual cues the options are set using the Playback Window.

Setting	Action
[Global] <i>(default)</i>	Uses the cue list's global setting
[Cue Number]	Specifies a cue where you would like the move to occur
[Cue Offset]	Specifies a preferred number of cues in advance
[Disabled]	Prevents Move In Dark for this cue
[Early]	Will move as early as possible
[Late]	Will move as late as possible

Move In Dark delay and Move In Dark fade times can be set for the whole cue list or for each cue using the Set Times menu. Each cue also has a Move In Dark Inhibit option which prevents any movements during that cue (useful if you need to prevent fixture noise at a particular point).

If the fixture has its intensity above zero or Move In Dark is inhibited when the Move In Dark is supposed to

occur, the console will attempt the movement in the nearest suitable cue instead.

12.3.5 Key Profile Options for Cue Lists

Using **Key Profiles** (Section 19.4), you can assign different functions to the buttons of the playback handle. (*The Sapphire Touch also has an additional black button*). If the cue list is stored on a touch button you can assign a function to that. See **Key Profiles** (Section 3.4.4) for a full list of functions.

12.4 Editing Cue Lists

This section describes how to edit cues within a cue list. To copy, move or delete an entire cue list see the section **Copying, Moving, Linking and Deleting** (Section 12.7).

- To edit cues using keypad syntax commands, see **Theatre Programming** (Section 12.8).

12.4.1 Playback View Window

The easiest way to edit a cue list is using the Playback View window (press <Open/View> then the **Select** button for the cue list to open it). This shows a grid with each cue and allows you to change most features of the cue. Select the item you want to change in the grid, and the softkeys will offer you options for what you can change.

Playback View - Cue List 7																				
Cues	Legend	Delay In	Fade In	Delay Out	Fade Out	Picture Overlay	Link	Link Offset	Move to Dark (MD)	MD Inhibit	MD Delay	MD Fade	Curve	Tracking	Autoload	Autoload Times	Effect Speed	Timecode (Disconnected)	Notes	
Options	1	Tab warm	0	0	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1			
	2	Cue 2	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1	Disabled	View	
Show All	3	Blackout	0	0.5	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Block	Cue Time	× 1	Disabled	View	
Times	4	Cue 4	0	1	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1	Disabled	View	
	5	Cue 5	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1	Disabled	View	
	6	Cue 6	0	2	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Load Cue 2	Cue Time	× 1	Disabled	View
	7	Cue 7	0	0.5	As In	As In	100	Wait For Go	Disabled	Global	<input type="checkbox"/>	0	0	Linear	Global	Cue Time	× 1	Disabled	View	

To change multiple cues at once, draw a box across the items you want to change.

Also, the **Intensity View window** (Section 7.3.2) is useful for seeing the state of all fixtures.

12.4.2 Editing Values in Cue View Window

You can edit the value of every fixture in each cue using the Cue View window. Press the **View** button in the column *View Cue* at the right hand end of the **Playback View window** (Section 12.4.1).

Attributes	Number	Order	Tracking	Dimmer	Pan	Tilt	Colour Func	Colour	Red	Green	Blue	Gobo 1 Fun	Gobo 1
Rb Pointe	1	1		0	53.01	1.4	Fixed	Magenta					
Rb Pointe	2	2		0	51	1.4	Fixed	Magenta					
Rb Pointe	3	3		0	49	1.4	Fixed	Magenta					
Rb Pointe	4	4		0	46.99	1.4	Fixed	Magenta					
LED6m 150	5	0	Tracked		70.19	46.78			100	0	100		
LED6m 150	6	0	Tracked		65.18	46.78			100	0	100		
LED6m 150	11	0	Tracked		40.25	46.78			100	0	100		
LED6m 150	12	0	Tracked		35.24	46.78			100	0	100		
e8 Bm 1RE	13	1		100	44.29	67.11	Fixed	Colour 9				Fixed	Gobo 10
e8 Bm 1RE	14	2		100	45.93	67.11	Fixed	Colour 9				Fixed	Gobo 10
e8 Bm 1RE	15	3		100	47.56	67.11	Fixed	Colour 9				Fixed	Gobo 10
e8 Bm 1RE	16	4		100	49.19	67.11	Fixed	Colour 9				Fixed	Gobo 10
e8 Bm 1RE	17	5		100	50.81	67.11	Fixed	Colour 9				Fixed	Gobo 10
e8 Bm 1RE	18	6		100	52.44	67.11	Fixed	Colour 9				Fixed	Gobo 10
e8 Bm 1RE	19	7		100	54.07	67.11	Fixed	Colour 9				Fixed	Gobo 10
e8 Bm 1RE	20	8		100	55.71	67.11	Fixed	Colour 9				Fixed	Gobo 10

You can then click on the values you want to change and edit them using the softkeys.

- The context menu buttons allow you to view levels, shapes, effects and times for each attribute of each fixture in each cue.
- You can remove values from fixtures by selecting the value(s) in the grid and pressing the [Off] softkey. Values set to **Off** can be restored later by pressing [On].
- You can remove fixtures from the cue by selecting the fixture(s) in the left hand column and pressing [Remove Fixtures].
- If levels are set from a palette, the {View Palettes} context menu button either shows you the palette used, or the underlying value.
- Values have different colours to show their tracking status. Use the **Tracking View** window to edit how values are tracking between cues.
 - **White** means an unchanged hard (untracked) value.
 - **Green** means a hard value where the level has reduced.
 - **Cyan** means an initial value or a hard value where the level has increased.
 - **Magenta** means a tracked value (The *Tracking* column will also show *Tracked*).
 - **Red** means a block.
- You can hide tracked values using the {Show/Hide Tracked Values} context menu button.

12.4.3 Moving, Copying and Deleting Individual Cues

There are several ways to copy or move cues within a cue list. You can also move cues to other cue lists.

You can use **Unfold** (as described in the next section (Section 12.4.4)).

To move a cue you can either click and drag the cue in the **Playback View window** (Section 12.4.1), or click on the cue number and use the [Change To] softkey to enter the new cue number - once you have changed the number the cue will move to its correct position in the list.

To delete a cue press <Delete>, select the cue in the window, and tap the cue again, or press <Enter> or [Confirm] to confirm.

You can also use a command-line style series of keypresses:

- **{fader select}** is a playback fader select button, **n** is the cue number and sections in square brackets are optional. The <@> button is the one by the numeric keypad.

Keypresses	Action
<Copy> {fader select} n <@> m <Enter>	Copy cue n as new cue m in the same cue list
<Move> {fader select} n <@> m <Enter>	Move cue n to cue m in the same cue list
<Copy> {fader select} n <@> <@> <Delete> {fader select} n <Enter> <Enter>	Copy cue n as new cue at end of same cue list Delete cue n
<Copy> {fader select} n {fader select} m <Enter>	Copy cue n as new cue m in a different cue list
<Copy> {fader select} n {fader select} <Enter>	Copy cue n as new cue at the end of a different cue list

- For the **copy** commands, you can use <Move> in place of <Copy> to **move** cues. For consoles which don't have a <Move> button you can press (<Avo> and <Copy>) together to get Move.
- You can change multiple cues using <Thru>, <And> and [Not]. For example to copy cues 3, 4, 5, 7, 10 into a new block of cues starting at cue 20 you could do
 <Copy> {fader select} 3 <Thru> 7 [Not] 6 <And> 10 <@> 20 <Enter>
- You can press <Enter> instead of <@> if you are more familiar with that key sequence, for example to copy a cue onto the end of a cue list you can do <Copy> {fader select} **n** <Enter> <Enter>

12.4.4 Editing a Cue List using Unfold

As an alternative way of editing a cue list, the <Unfold> button places each cue of the cue list on one of the playback faders. This allows you to fire and edit each step individually as if it was a stand-alone cue.

1. Press <Unfold>, then the **Select** button of the cue list to be edited.
2. Cues are loaded into the **playback faders**. The display shows the cue numbers and legends (*go to the next or previous set of cues using softkeys F and G*).
3. Raise a **playback fader** to output the contents of that cue (*fade times will operate as programmed*).
4. *Various Unfold options are available, detailed below.*
5. Press <Unfold> again to exit unfold mode.

- To **edit** the contents of a cue: Press <Clear> to empty the programmer, raise the fader to output the cue, make the changes, press [Record Step], then the **Select** button for the cue number.
- To **merge** the programmer into the live step, double tap [Record Step].
- To change the times or cue linking for the cue, press [Edit Times], then the **Select** button for the cue, then set the times (see [Cue List Timing \(Section 12.5\)](#))
- To **insert** a new cue, set up the look for the new cue, press B [Insert Step], then press the playback button where you want the new cue to go. All following cues will be shifted on by one and the new cue will be given a number in between the two existing cues (*for example, if you press playback 3, your new cue will be 2.5*).
- To **move** or **copy** a cue, press the <Move> or <Copy> button, press the **select** button for the cue you want to move or copy, then press the **select** button where you want it to go.
- To **delete** a cue, press the <Delete> button then the **select** button for the cue you want to delete. Press the **select** button again to confirm.
- To change the **cue legend**, press [Set Step Legend] then the playback **select** for the step you want to change.
- If the cue list has more cues than there are playback faders, you can swop to the next page using softkeys F and G.

12.4.5 Editing tracked cues using Tracking View

The Tracking View window allows you to see and edit how dimmer levels and other attributes are tracked between cues in a cue list. This is really useful to tidy up a show after a frantic programming session if you've saved hard values accidentally instead of using tracking, or to work out where an incorrectly tracked value is coming from.

To show the Tracking View, use the context menu in the Playback View to select {View Tracking}.

- You can also double-press <Open/View> and select Tracking View from the workspaces menu, but then you need to select which Cue List you want to view, from the list on the softkeys.
- You can select a different cue list to view using the context menu {Select Cue List} option.

Tracking View - Cue List 1				CONNECTED CUE LIST MODE									
Attributes		Legend	Tracking	9. Dim Dimmer	10. Dim Dimmer	11. Dim Dimmer	12. Dim Dimmer	13. Dim Dimmer	14. Dim Dimmer	15. Dim Dimmer	16. Dim Dimmer	17. Dim Dimmer	
All	I	7.2	Cue 7.2	Global	90.8	90.8	90.8	90.8	90.8	89.0	90.8	89.0	
P	C	7.4	Cue 7.4	Global	73.4	73.4	73.4	73.4	73.4	55.4	79.8	55.4	
B	E	7.5	Cue 7.5	Global	83.6	83.6	83.6	83.6	83.6	81.8	83.6	81.8	
	S	8	Cue 8	Global	54.9	54.9	54.9	54.9	54.9	40.1	38.3	54.9	38.3
Filter By		9	Cue 9	Global	83.6	83.6	83.6	83.6	83.6	83.6	81.8	83.6	81.8
Bank Selection		10	Cue 10	Global	71.2	71.2	71.2	71.2	71.2	69.4	71.2	69.4	
Fixture Selection		11	Cue 11	Global	83.6	83.6	83.6	83.6	83.6	81.8	83.6	81.8	
Fixture Type		12	Cue 12	Global	80.0	80.0	80.0	80.0	80.0	83.6	0.0	80.0	0.0
		13	Cue 13	Global	14.3	14.3	14.3	14.3	14.3	83.6	40.2	14.3	0.0
<input type="checkbox"/> All Fixtures		14	Cue 14	Global	84.4	84.4	84.4	84.4	84.4	83.6	22.4	84.4	74.1
<input type="checkbox"/> Dimmer		15	Cue 15	Global	84.4	84.4	84.4	84.4	84.4	83.6	22.4	84.4	0.0
<input checked="" type="checkbox"/> RGB, 5 DMX		16	Cue 16	Global	100.0	100.0	100.0	100.0	100.0	100.0	22.4	100.0	0.0
<input checked="" type="checkbox"/> RGBW, 8 DMX		16.1	Cue 16.1	Global	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<input checked="" type="checkbox"/> Robin BMFL Spot		16.2	Cue 16.2	Global	44.7	44.7	44.7	44.7	44.7	44.7	44.0	44.7	44.0
<input checked="" type="checkbox"/> Robin SPIDER		17	Cue 17	Block	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<input checked="" type="checkbox"/> RGB, 8 DMX		18	Cue 18	Global	0.0	0.0	0.0	0.0	0.0	0.0	45.1	0.0	0.0
		19	Cue 19	Global	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.0	23.0
		20	Cue 20	Global	33.1	33.1	33.1	33.1	33.1	0.0	23.0	33.1	23.0
		22	Cue 22	Global	33.1	33.1	33.1	33.1	33.1	0.0	23.0	33.1	23.0
		23	Cue 23	Global	33.1	33.1	33.1	33.1	33.1	0.0	23.0	33.1	23.0
		24	Cue 24	Global	41.6	41.6	41.6	41.6	41.6	8.5	31.5	41.6	31.5

The cues are listed in the grid showing the attribute values stored in each cue. The tracking state is shown by colour: - **White** means an unchanged hard (untracked) value. - **Green** means a hard value where the level has reduced. - **Cyan** means an initial value or a hard value where the level has increased. - **Magenta** means a tracked value. - **Red** means a block.

On the left side of the window, you can filter the fixtures and attributes shown in the grid to show only: - one of the IPCGBES attribute banks, or All - the current attribute bank as selected on the console buttons - the currently selected fixtures - a particular type of fixture patched in the show.

By selecting one or more values in the grid, you can do the following from the softkey options. Press <Exit> to deselect all values in the grid.

- [Select Function] gives a submenu with various levels or fixture functions.
- [Tracking] gives a submenu where you can change the tracking mode.
- [Set Hard Value] will record the values in the selected cells as hard values.
- [Delete] will remove all hard (untracked) values in selected cells. Has no effect on tracked values.
- [Delete Redundant] will remove hard values if the same value would have tracked into the cue. You can use this to delete hard values and return cues to being tracked in multiple columns / rows by selecting the column / row headers.

- [Off] Set selected attributes to Off.
- [On] Set selected attributes to On (for more information about On/Off see [Off \(Section 10.4.5\)](#)).

If any fixture or attribute has been set to non-global, then a letter after the value shows T (Track), B (Block), C (Cue Only) or S (Solo).

Tracking View display options

Using the window appearance menu button {Cog} you can change the following display options for the Tracking View:

- {Column Size} can be set to Small, Normal, Large, Super Size.
- {Window Scroll} can be set to automatically scroll on the {Next Cue}, or require {Manual} scrolling.
- {Scroll offset from top} sets how many past cues are visible above the current cue.
- {Palettes} sets how attributes display when a palette has been stored. You can choose {Hidden} (displays value only), {Legend Only} (shows the palette legend), or {Legend and Value} (shows legend, and also value if the column is wide enough).

You can also show or hide various parts of the display to make more space in the window: - {Attribute Filters} - {Selection Filters} - {Fixture Filters} - {Tracking Column} - {Legend Column} - {Fixture Legends} - {Scroll Bars}

In the Context menu for the Tracking View screen there are Sort and Filter options: - {Attributes} can be sorted in IPCGBES Bank Order or by Current Bank First where the selected attribute bank shows first, followed by the others. - {Window Scroll} can be sorted by User Number, Last Selected and DMX Address. - {Columns} can be sorted as Fixture then Attribute (each fixture listed with all its attributes) or Attribute then Fixture (same attributes listed together).

For the Filter options - {By Current Wheels} links the Attribute filters to the currently selected attribute bank (also changing the attribute bank filter in the Tracking View window will change the attribute bank for the wheels when this option is enabled). - {By Fixture Selection} links the window to currently selected fixtures when enabled.

12.4.6 Using Update to Change Tracked Cues

Because fixture settings in a cue list are [tracked \(Section 12.3.3\)](#) through from previous cues, if you want to edit a setting you need to find the cue where it was originally stored as a hard value.

The **Update** function will go back through the cue list from the currently fired cue and automatically update the correct cue.

1. With the cue list fired, select the fixtures and change them to the settings you want to store.
2. Press <Update> (<Record Cue>, [Update] if the console doesn't have an Update button).
3. Press <Enter> to immediately store the new values to the cue list.

Alternatively, the softkeys show a list of palettes and playbacks which can be updated. Select or deselect these as required.

If you have used the softkey options, press <Enter> to complete the update.

If the attributes you have changed were **tracked** (Section 12.3.3) through from a previous cue, Update will update that cue rather than the current one.

12.4.7 Editing a Cue List Which is Running

You can also edit cues in a cue list while you are running it without using **Unfold** (Section 12.4.4).

1. **Fire the cue list** by raising its fader.
2. Use **Wheel A** to select the cue number you want to change then the <Go> button to jump to it. (On Pearl Expert/Tiger Touch 1 press the white ↔ button above the Snap Back button instead of <Go>)
3. Press <Clear> to make sure the programmer is empty.
4. Make the changes that you want to the current step.
5. Press <Record> then <Connect/Cue>, then select [Replace], [Merge] or [Insert After] to save the changes. (On Pearl Expert and Tiger Touch 1 use the Rec Step button)
6. Press the <Go> button (on Pearl Expert and Tiger Touch 1 the white ↔ button) to jump on to the next step.

- You can merge your changes into the current live cue by pressing <Record> <Connect/Cue> <Connect/Cue>.

12.4.8 Edit Times of a Running Cue List

You can edit the times for a cue using the <Live Time> and <Next Time> buttons (*not on all consoles*) as follows:

1. **Fire the cue list** by raising its fader.
2. Use **Wheel A** to select the cue number you want to change then the <Go> button to jump to it (on Pearl Expert and Tiger Touch 1 the white ↔ button)
3. Press <Live Time> to set the times for the current step, or <Next Time> for the next step. The Live and Next step numbers are shown on the display above the controller wheel.
4. Use the softkeys to set the times, linking and overlap settings you want (see **Cue List Timing** (Section 12.5) for a description of the times). If you set the link option to [Link With Previous

Cue] or [Link after Previous Cue] then this cue will not wait for the <Go> button but will start automatically.

5. Press the <Go> button (*on Pearl Expert and Tiger Touch 1 the white ↔ button*) to jump on to the next step.

- The <Review> button lets you test the live step with the new timings.

You can also use <Unfold> to set the times as described in the *Unfold section above (Section 12.4.4)*.

12.4.9 Editing a Cue List While Recording

You can edit cues while you are in the Record Cue List menu.

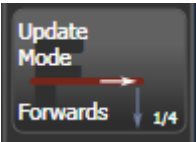
1. Press [Cue Number=x] and type the cue number to be edited.
2. The console will jump to the cue and show the output.
3. Make the changes that you want to the programming of the current step, or to the timings using [Edit Cue x Times].
4. Press [Update Cue x] or the Rec Step button to save the changes.

Update Mode

The [Update Mode] softkey allows you to set how changes in the cue will be tracked.

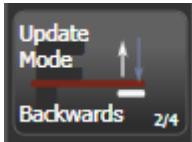
Update Mode	Action
-------------	--------

Forwards



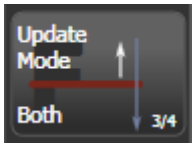
Updates the channels in the current cue and tracks following cues until the channels are next changed. The values in cues before this one will not be changed.

Backwards



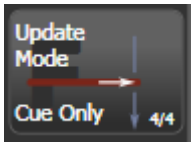
Updates the current cue and tracks backwards through cues until the channels were last changed.

Both



Updates the current cue, tracking backwards through previous cues from the previous change and forwards through following cues to the next change.

Cue Only



Just sets the current cue.

You can't change the cue number using this menu - if you press [Cue Number] this will change the cue you are editing. Use [Advanced Options] to change cue numbers.

12.4.10 Updating Values in a Range of Cues

You can **merge** or **replace** values in a range of cues in a cue list (or a chase). This can be done either from the keypad or from the [Playback View \(Section 12.4.1\)](#).

From [Playback View \(Section 12.4.1\)](#), press <Record> then select a cue or range of cues by touching and dragging over the required cues. Select [Merge] or [Replace] (or press <Enter> to merge). The current programmer will be merged into all of the selected cues.

From the keypad, connect the cue list (or chase) and press <Rec Step>. Then use the syntax **n <THRU> m** to select a range or **n <And> m** to select cues which aren't together. The selected cues will highlight in red in the [Playback View \(Section 12.4.1\)](#) if you have it open. When you have selected all desired cues press <Enter>, then select [Merge] or [Replace] (or just press <Enter> again to merge).

12.4.11 Disabling a Cue

You can temporarily disable a cue using the **Disable** option at the right hand end of the **Playback View window** (Section 12.4.1). Tick the **Disabled** checkbox and the softkeys let you set [Cue Disabled Yes]. When a cue is set to **Disabled** it will be skipped. This can be a useful way to remove a cue, but still be able to put it back in later.

12.4.12 Extracting a Cue from a Cue List with Include

You can reload a single cue out of a cue list into the programmer using the **Include function** (Section 10.4.4). Press <Include>, select the cue list, enter the cue number to be included, then press [Include Cue].

If you want to do this from the currently connected cue list, Press <Include>, <Connect/Cue>, type the cue number, [Include Cue].

This is useful if you want to reuse a state from a cue list in another playback. It is also useful if you want to edit shapes/effects in a cue, although you can also do this from the **Playback View window** (Section 12.4.1).

12.4.13 How Merged values are stored into cues

When merging into a cue containing the same fixtures, that information will always be recorded “by channel” regardless of what the record mode is set to. Otherwise merging into a cue would overwrite all the values you have for a fixture so instead it just merges the attributes that are tagged in the programmer. You can keep the console in “Record by Fixture” mode when editing cues and let the console handle it with Tracking Record.

Fixtures that do not exist in the cue already will be recorded “by fixture”, this is usually best for theatre programming as it ensures that fixtures have all their attributes set to defaults (even if they are changed later or by another playback).

12.5 Cue List Timing

12.5.1 Time and Fade Options for Cue Lists

The easiest way to set timing options for cues in cue lists is using the Playback View grid display (press <Open/View> then the **Select** button of the playback). Tap on the value you want to change, or drag to select multiple values to change. You can also select the *active cue* using **Wheel A** or by pressing [Select Cue Number] softkey in the **Edit Times** menu for the cue list. You can select a range of values using **Wheel B**.

Once you have selected values to change, the softkeys show you what you are setting.

Playback View - Cue List 7									
Cues		Legend	Delay In	Fade In	Delay Out	Fade Out	Fixture Overlap	Link	Link Offset
Options Show All Times	1	Tab warm	0	0	As In	As In	100	Wait For Go	Disabled
	2	Cue 2	0	2	As In	As In	100	Wait For Go	Disabled
	3	Blackout	0	0.5	As In	As In	100	Wait For Go	Disabled
	4	Cue 4	0	1	As In	As In	100	Wait For Go	Disabled
	5	Cue 5	0	2	As In	As In	100	Wait For Go	Disabled
	6	Cue 6	0	2	As In	As In	100	Wait For Go	Disabled
	7	Cue 7	0	0.5	As In	As In	100	Wait For Go	Disabled

For each cue you can independently set fade times for fixtures which are fading in (to a higher dimmer level) and fixtures which are fading out/down (to a lower dimmer level). The fade-out times are normally set to be “As In”, so the “Fade In” time will be used for all fixtures.

LTP channels (all attributes other than brightness) will fade using the “Fade In” time.

- [Fade In] sets the fade time of fixtures which are fading to a higher dimmer level than in the previous cue, and also fade time of LTP channels. If the Fade/Delay Out times are set to “As In” (default) then this will also set the fade time of fixtures which are fading to a lower dimmer level. Type a time in seconds and press <Enter>.
- [Delay In] sets the delay time between pressing <Go> (or other cue trigger) and the start of the fade-in.
- [Fade Out] sets the fade time of fixtures which are fading out/down to a lower dimmer level than in the previous cue. It is set by default to be “As In”, the same as the fade in time. To go back to “As In”, delete the time and leave the box blank.
- [Delay Out] sets the delay time between pressing <Go> (or other cue trigger) and the start of the fade-out. It is set by default to be “As In”, the same as the delay in time. To go back to “As In”, delete the time and leave the box blank.

12.5.2 Cue Linking & Link Offset

Cues in cue lists may be linked together, allowing you to build up complex self-timed sequences. The link options are set using the softkeys and are:

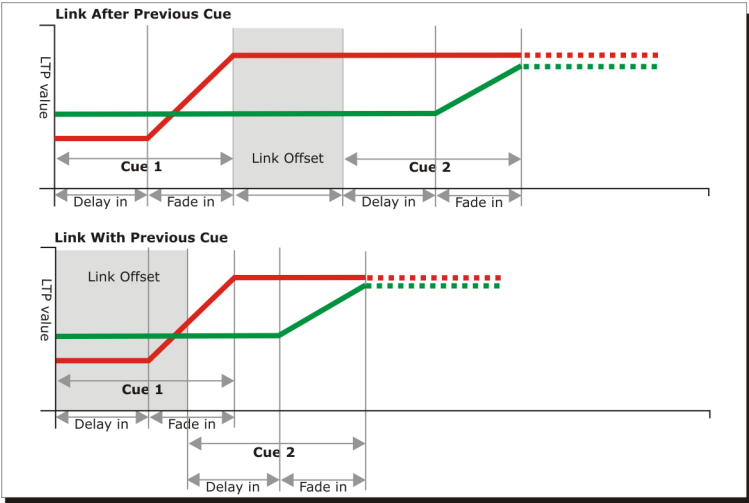
Link Option

Action

[Link Wait For Go]

The cue waits for the Go button to be pressed then fires immediately. *Link Offset is disabled.*

Link Option	Action
[Link After Previous Cue]	The cue fires when the previous cue has finished its delay in and fade in times. A Link Offset can be set to add a delay between the previous cue finishing and this cue firing. The offset can be given as a time in seconds, or as a percentage of the fade time of the previous cue.
[Link With Previous Cue]	The cue fires at the same time as the previous cue fires. A Link Offset can be set to add a delay between the previous cue firing and this cue firing, set either in seconds or as a percentage of the fade time of the previous cue.



These options allow you to create complex self timed sequences by building up simple steps. For example if you wanted the following effect:

- <Go> is pressed, fixture one starts fading up over 20s
- After 10s fixture two fades up over 15s
- Both lights stay on for 5s
- Both lights go off in 3s

You could program

- **Cue 1** - Fixture 1 @ 100%, Fade In 20s, Link Wait For Go

- **Cue 2** - Fixture 2 @ 100%, Fade In 15s, Link With Previous, Link Offset 10s
- **Cue 3** - Fixture 1 AND 2 @ 0%, Fade Out 3s, Link After Previous, Link Offset 5s

To obtain the effect which was called “*cue overlap*” in previous versions of software, use [Link With Previous Cue] and set a percentage Link Offset time. Link Offset of 100% is equivalent to Cue Overlap of 0% and vice versa.

12.5.3 Individual Attribute Fade Times

You can set individual fade times for each **IPCGBES** attribute group. You can also select which fixtures this is applied to. For example you can make the position change take 2 seconds, but the colour change take 10 seconds.

Additionally you can set individual times for each attribute so you could make the pan fade over a different time to the tilt.

To set times for an attribute group, first select the [Edit Times] menu and go to the cue you want to set as [described above \(Section 12.5.1\)](#), then press [Next] to go to the second page of options.

1. Press [Attribute times].
2. All fixtures in the cue will be selected. *If you don't want to change the times for any fixtures, deselect them now.* You can press the <ALL> button (below Next Time) to select all fixtures in the cue or <Avo> + <ALL> to deselect all fixtures.
3. Press the softkey for the attribute group you want to change.
4. Press [Delay] to set the **delay time**, or press [Fade] to set the **fade time**. Press [Use Global] to remove the attribute group timing and go back to the normal delay/fade times for the cue.

You can use [Individual Attributes] to set times for one attribute within the group, for example just Pan from within the Position group. You can also use the [Cue View window \(Section 12.4.2\)](#) to set times for individual attributes.

12.5.4 Fixture Overlap

For each cue you can set a fixture overlap, which creates an effect where the fixtures in the cue are changed in sequence rather than all at the same time. This is described in more detail in [Cue Timing \(Section 10.5.1\)](#).

12.5.5 Running a Cue List to Timecode

The console can run a cue list automatically to a timecode. This is very useful for complex performances which must be exactly the same time every time, or for unattended operation. Each step in the cue list is assigned a time at which it will run.

See also **Timelines (Section 13.1)** which offer a more streamlined way of producing a show to timecode.

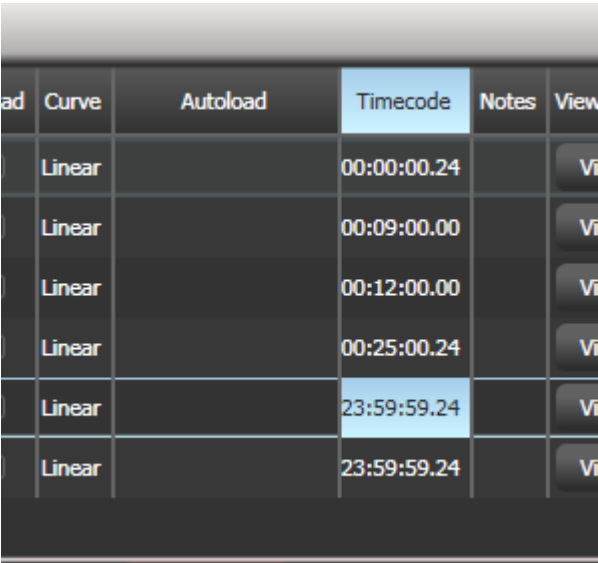
The console can have up to 4 separate timecode sources. For each, the timecode can be read from the system clock, from an internal timecode source, from MIDI, SMPTE or from Winamp. Internal timecode is useful for programming a sequence which will later be triggered by an external timecode source.

1. **Connect** the cue list for which you want to set timecode.
2. Press [Timecode] on the top-level menu.
3. Press **softkey A** to select Timecode 1-4, and **softkey B** to select the desired timecode source.
4. Press [Record].
5. Start the timecode source. *If using internal timecode, press [Play] to start it.*
6. Press the red <Go> button to step each cue at the time you wish the cue to start.
7. Press [Record] when you have finished.

To play back a timecoded cue list, press [Connected Cue Lists] on the Timecode menu and select the cue list which is to be played. Then press [Timer Disabled/Enabled] to enable the timecode input. Note that the **Timer Disabled/Enabled** toggle affects all four timecode streams as it is a general timecode switch. If you just want to disable a specific timecode stream then set its source to **No Timecode** at Step 3.

When you start the timecode source (or press [Play] if using internal timecode), each cue will fire as the timecode matches its programmed time.

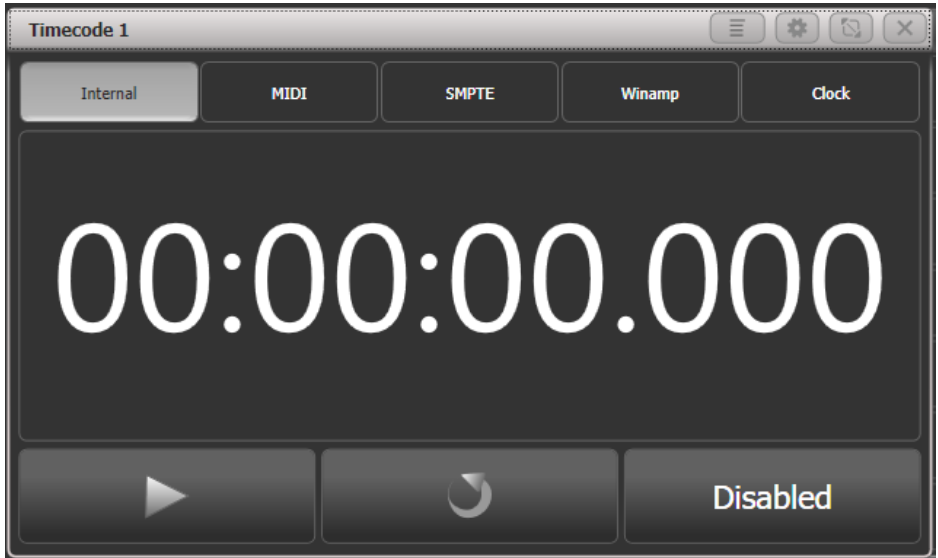
In order to edit a cue's timecode, select the cue's timecode cell in Playback View and enter the correct time, or - using the menu buttons - press [Edit Times], enter the cue number, toggle to the 3rd page of this menu with [Next], click [Timecode =] and enter the new timestamp.



ad	Curve	Autoload	Timecode	Notes	View
	Linear		00:00:00.24		Vi
	Linear		00:09:00.00		Vi
	Linear		00:12:00.00		Vi
	Linear		00:25:00.24		Vi
	Linear		23:59:59.24		Vi
	Linear		23:59:59.24		Vi

While editing a time you can also use **Wheel B** to select multiple cues, and use the softkey options to enter a value to change the time of all the cues: [Timecode =] sets the timecode directly while a value set with [Offset =] can be used in [Add +] or [Subtract -], to shift all selected timestamps by this timespan.

You can open a timecode display window for each of the four possible sources to show you the incoming timecode - double press <Open/View> then press [Timecode x] (where x is 1 to 4) from the workspace select buttons.



12.6 Cue List Options

Cue list options are set from the playback [Options \(Section 10.6\)](#). Press <Options> (or the [Options] softkey on the top level menu) then the **Select** button for the cue list you wish to edit.

You can also set the cue list options from the Cue List View window by pressing <Open/View> then the **Select** button of the cue list, then click the **Options** tab.

The Cue List options are mostly the same as for [Cues \(Section 10.6\)](#) and [Chases \(Section 11.6\)](#), only the additional Cue List options are described here.

12.6.1 Handle Tab

All options are the same as for a cue, see [Options \(Section 10.6.1\)](#).

12.6.2 Playback Tab

Blind, Cross Fade HTP, Priority, Run On Startup are the same as for a cue and described in [Playback \(Section 10.6.2\)](#).

Cue Links Disabled

Unlinks all the cues in the cue list even if they are programmed as linked, so you need to press the Go button to move to the next cue.

Loop Action

Sets what will happen at the end of the cue list

Setting	Action
Stop on final cue	Cue list will stop advancing once it reaches the last cue.
Loop	Cue list will go back to first cue after the last. <i>If Move in Dark is enabled, this will also loop.</i>

Move In Dark

Sets the mode for the whole cue list (see *Move In Dark (MID) Functions (Section 12.3.4)*).

Setting	Action
Off	Obeys settings for individual cues (<i>default option</i>)
Disabled	No move in dark even if set in cues
Early	Moves as soon as fixture intensity is 0
Late	Moves in the last cue before the fixture is needed

Shape Tracking

Sets how shapes are tracked between cues.

Setting	Action
Off	Shapes will stop when the next cue starts
On	Shapes will track until stopped or changed in a cue
Local	Follows the tracking option above (<i>default option</i>)

Timecode Source

Allocates which timecode source will be used by this Cue List.

Tracking

Enables or disables Tracking mode (where unchanged settings persist from the previous cues). *Enabled by default.*

12.6.3 Times Tab

All options are the same as for cues, see [Times \(Section 10.6.3\)](#).

12.6.4 Fader Tab

Cue List Fader Mode

Sets how the cue list fader behaves.

Setting	Action
Fader Mode Intensity Kill With Off	The fader masters the overall HTP level and the cue list remains active (connected) even when the fader is lowered to zero.
Fader Mode Intensity Kill At 0	The fader masters the overall HTP level and the cue list is killed when the fader is lowered to zero.
Manual Crossfader	The fader behaves as a manual crossfade control, and the cue list will automatically step on to the next cue when the fader begins travel from top or bottom.

When the fader is in **Manual Crossfader** mode: - A running fade can be “captured” onto the fader for manual control by matching the fader position. - When firing a cue list in manual crossfade the intensity snaps to full when the fader leaves zero. - [Shapes \(Section 9.2\)](#) and [Pixel Mapper \(Section 9.4\)](#) effects will fade in with the manual crossfade, but when the fader returns to 0 they are not removed so may still affect the output. - [Autoloads \(Section 12.2.4\)](#) in the cue list will use their programmed fade times, regardless of the manual crossfade performed by the fader. - Partially completed crossfades can be completed by pressing <Go>.

Fire First Cue

Sets whether the first cue automatically fires when the fader is raised, or if you need to press the <Go> button after raising the fader to fire it.

If you have selected a particular cue in the cue list (using Next Cue / Prev Cue buttons on a connected cue list or by keypad syntax) then the “Fire first cue” option will fire the selected cue rather than the first one when the fader is raised.

12.6.5 Effects Tab

All options are the same as for cues, see [Effects \(Section 10.6.5\)](#).

12.6.6 Release Tab

Release Mask and Release Time are described for cues, see [Release \(Section 10.6.6\)](#).

Cue Release

Sets fixtures to release when moving to the next cue, if they are not programmed in the next cue. This can be useful for creating some effects.

The **Cue Options** which could be set here in previous versions are now set using the Playback View window, press <Open/View> then the select button for the playback. You can edit cue settings directly in the grid.

12.7 Copying

This section describes how to copy, move and delete entire cue lists. The [Editing Cue Lists \(Section 12.4\)](#) section describes how you [copy, move and delete individual cues within a cue list \(Section 12.4.3\)](#).

12.7.1 Copying or Moving a Cue List

Using the <Copy> and <Move> buttons, cue lists can be copied or moved to a new playback, or you can create a linked copy of a playback. Move is useful for tidying up the console. Linked copies are useful if you want the same cue list to appear on different playback pages.

This operation is exactly the same as for Cues and is described in [Copying, Moving, Linking and Deleting \(Section 10.7\)](#).

12.7.2 Deleting a Cue List

You can delete a whole cue list by pressing <Delete> then the **Select** button of the playback to be deleted. Confirm the deletion by pressing the select button again, or the [Confirm] softkey, or <Enter>.

12.8 Theatre Programming Quick Guide

If you are used to programming other theatre-style consoles, you will be more familiar with using a keypad/syntax style interface, rather than the Titan touchscreen. But fear not because you can program a theatre show on Titan using keypad syntax and this is how you do it.

- Labelled buttons on the console are shown like this: <Enter>.
- For commands with a + you hold down the first button while pressing the second. For example <Clear> + <All> means hold down <Clear> then press <All>.
- The <@> button is the one next to the numeric keypad, not the ones near the wheels.
- The <Cue> button is labelled <Connect> or <Connect/Cue> on some consoles.
- The <Through> button is labelled <Thro> on some consoles.
- The <And> and <Through> buttons are not provided as fixed buttons on some consoles, softkey [And] and [Through] options are provided instead.

Each Fixture (or dimmer channel) has a User Number (*which is equivalent to the Channel Number on other consoles*), shown in the top left corner of the fixture button. This is the number **n** shown in the keypad commands below. You can change this number using the [Set Legend] softkey, see section [Changing the Patch \(Section 6.3.5\)](#). Groups also have a User Number.



- Commands can be joined together, until you press <Enter> which executes the command. So you can for example select fixtures and then set an intensity level on them in the same command.
- Once fixtures have been selected you can continue to make changes to them until you press <Clear> or select different fixtures.
- Intensity values are normally set as a 2-digit percentage (so “50” for 50%) but you can change this to single-digit mode in the [Formatting tab of the User Settings \(Section 19.5.10\)](#)

12.8.1 Selecting Fixtures to be controlled

Keypresses	Action
n <Enter>	Select fixture n for control
n <Through> m <Enter>	Select fixtures n through m for control
<Group> n <Enter>	Select fixture group n for control
n <Through> m <And> p	Select fixtures n through m and p for control
n <Through> m <And> p <Through> q	Select fixtures n through m and p through q for control
n <Through> m <Not> p	Select fixtures n through m , but miss out fixture p

- If fixtures have cells or subfixtures (for example, pixel bars) you can individually select cells using the “dot” notation, for example **n** <.> 1 <Through> 4 <Enter> would select the first 4 cells of fixture **n**. See [Celled Fixtures \(Section 22.1.1.1\)](#).

12.8.2 Setting Fixture intensity levels

Keypresses	Action
<@> v <Enter>	Set the currently selected fixtures to v% (<i>see note above about 2-digit %</i>)
<@> <@>	Set the currently selected fixtures to 100%
n <@> v <Enter>	Set fixture n to v%
n <@> <@>	Set fixture n to 100%
n <Through> m <@> v <Enter>	Set fixtures n - m to v%
n <And> m <And> p <@> v <Enter>	Set fixtures n, m, p to v%
<Group> n <@> v <Enter>	Set fixtures in group n to v%

12.8.3 Setting Other Attributes of Intelligent Fixtures

Keypresses	Action
<@> b </> v	Set gel colour v from library b to selected fixtures. (1=Library L, 2=Library R, 3=Library G)
<Gobo> (Turn Wheels)	Set gobo values of selected fixtures as shown above the wheels.
<Gobo> <Wheel @> [Gobo 1]	Set gobo values of selected fixtures as shown on the softkeys. (This uses the <Wheel @> button next to each wheel)

- For setting gel colours, if the console does not have a hardware </> button you need to use an external qwerty keyboard or the touch keyboard. See [Selecting gel colours \(Section 7.2.4.6\)](#).

12.8.4 Clear functions

Keypresses	Action
<Clear>	Snap clear the programmer - this will release edited channels back to programmed state and deselect fixtures <i>(like Cheat on ETC)</i>
t <Clear>	Clear edited channels fading over time t
<Clear> + <All>	Deselect all fixtures, but keep edited values in the programmer

- The Clear function can be changed to operate in a 2-step mode where the first press deselects fixtures, then the 2nd press clears edited values, or the other way around. See [Action Precedence \(Section 19.5.12\)](#) option in the Clear tab of User Settings.

While you hold down <Clear>, other functions are available on the softkeys, allowing you to clear the edited values from only selected fixtures, or to clear values using a mask. See [Clear button hold down options \(Section 7.1.3.1\)](#)

12.8.5 Programming Cues

Titan can have multiple cue lists. To start a cue list press <Record> then select [Create Cue List] from the touch screen. Then press a **Select** button above the fader where you want to store the cue list.

When programming, Titan uses a concept called “the Programmer”. This keeps track of the dimmers/fixture attributes which you have manually changed (or changed with a palette) since you last pressed <Clear>.

The [Record Mode] softkey lets you choose the following ways of programming changes:

- **Record by Channel** will record the individual attributes of fixtures which are in the programmer. So if you have a fixture where you have only changed the pan/tilt, only the pan/tilt will be recorded and the other attributes will not be affected by the cue. This is best for cues which are used to modify other cues (for example a colour-changing cue).
- **Record by Fixture** will record the complete state of fixtures which have any changed attributes in the programmer. So if you have a fixture where you have only changed the pan/tilt, all the other attributes of the fixture will be recorded as well. This is best for cues where you want to be sure that the fixture looks like it was when you programmed it, regardless of its previous state.

- **Record by Stage** will ignore the programmer and record everything which has its intensity set above zero.

Note this means that *if you put up another playback, that won't get recorded* unless you are using “Record by Stage” mode, since the playback isn't in the programmer (see [Creating a Cue \(Section 10.2.2\)](#)). You can use the [Include \(Section 10.4.4\)](#) function to get a playback into the programmer for recording elsewhere.

In addition to the above, if you have [Tracking Mode \(Section 12.3.3\)](#) enabled for the Cue List (the default setting) then the console will not record dimmers/attributes unless they have changed from the previous cue in the Cue List. This is the normal operation of theatrical lighting consoles and makes editing cues easier, since you only have the change the cue where the attribute was originally set.

Keypresses	Action
<Record> [Create Cue List] {fader select}	Start recording a new cue list on this fader
<Record> {fader select} {fader select}	Record the next cue onto the end of the cue list on this fader
<Record> <Cue> n <Enter>	Record cue n (<i>will prompt for merge/overwrite if it exists already</i>)
<Time> t <Enter>	Set fade time into programmer (<i>does not affect stored cues; will save with the next cue you record</i>)
<View> {fader select}	Show the list of cues on screen, click on individual times in the grid to edit them

Copy, Move and Delete commands

Keypresses	Action
<Copy> <Cue> n <@> <Cue> m <Enter>	Copy cue n to new cue m
<Copy> <Cue> n <@> <Enter>	Copy cue n onto the end of the cue list
<Delete> <Cue> n <Enter> <Enter>	Delete cue n (<i>2nd <Enter> confirms</i>)

- For the **copy** commands, you can use <Move> in place of <Copy> to **move** cues. For consoles which don't have a <Move> button you can press (<Avo> and <Copy>) together to get Move.
- You can select multiple cues using <Through>, <And> and [Not]. For example to copy cues 3, 4, 5, 7, 10 into a new block of cues starting at cue 20 you could do
 <Copy> {fader select} **3** <Through> **7** [Not] **6** <And> **10** <@> **20** <Enter>

Block and Follow-On cues

Use the Cue List window to set Block or Follow-On cues (using <View> {fader select}).

- To make a **Block** cue (changes from previous cues do not track), in the Tracking column click the cell for the cue you want to change and select [Block] from the softkeys.
- To make a Follow-On or **linked cue** so they automatically run after each other, click on the “Link” cell (which normally shows “Wait For Go”. Then select from the softkeys [Link After Previous Cue] or [Link With Previous Cue]. For Link After, set the “Delay Out” time to set how long the cue will remain before the next cue starts.

12.8.6 Running Cues

Push up the fader of the cue list to make it active. Titan calls this the *connected* cue list and the control buttons such as Go will operate on this cue list.

Keypresses	Action
<Cue> {fader select}	If another cue list is active, connect this cue list as the current list
<Go>	Run next cue with programmed times
<Cue> n <Go>	Go cue n with programmed times
t <Go>	Next cue go with fade time t
n <Cue> t <Go>	Jump to cue n with fade time t

- If you want moving fixtures to automatically position themselves ready for the next cue, enable the [Move In Dark] option, see **Move In Dark (Section 12.6.2.3)**. This option is Off by default.

12.8.7 Updating Cues

You can update a single cue with the contents of the programmer, or add the same changes to a range of cues.

Keypresses	Action
<Record> <Cue> n <Enter> <Enter>	Update cue n by merging the contents of the programmer and track forwards (<i>will add the cue if it does not already exist</i>).
<Record> <Cue> n <@> <@>	Update cue n only by merging the contents of the programmer, no forward tracking.

Keypresses	Action
<Cue> n <Time> t <Enter>	Set fade time of cue n to t seconds
<Record> <Cue> n <Through> m [Merge]	Merge the contents of the programmer into cues n to m inclusive. <i>(Will add any whole number cues which are missing in that range)</i>
<Update> <Cue> n <Through> m [Update]	Updates cues n to m inclusive with the contents of the programmer <i>(Will not add any cues, or any attributes which were not originally in the cue - see note below about Add Channels option)</i>
<Record> <Update> <Cue> n <Through> m [Update]	Updates cues n to m inclusive with the contents of the programmer <i>(Will not add any whole number cues which are missing, but will add attributes which were not originally in the cue)</i>

- For the **Update** commands you can decide whether or not you want to add attributes which do not already exist in the cues using the [Add Channels] option. If this is set to On, then new attributes will be added to the cue, otherwise only pre-existing attributes will be updated. The **Record Update** command overrides this option to "On".

12.8.8 Updating the current live cue

Often you need to make changes to a cue while the cue is active in a running show. Press <Clear> before you make your changes in the programmer, to be sure that the programmer does not contain any unwanted previous changes.

Keypresses	Action
<Record> <Cue> <Cue>	Update current live cue by merging the contents of the programmer and track forwards.
<Record> <Cue> <@> <@>	Update live cue only by merging the contents of the programmer, no forward tracking.
<Update> <Cue> <Cue>	Update currently existing values in live cue with the contents of the programmer and track forwards <i>(for tracked values, will go back through cues to find the most recent hard value and update that)</i> .
<Update> <Cue> <@> <@>	Update currently existing values in the live cue only, don't track forwards <i>(for tracked values, will go back through cues to find the most recent hard value and update that)</i> .

Keypresses	Action
<Record> <Update> <Cue> <Cue>	Update live cue with the contents of the programmer and track forwards (<i>will add attributes which were not originally in the cue, and go back through cues to update tracked values at the source cue</i>)
<Time> t <Enter> <Record> <Cue> <Cue>	Set fade in time of current cue (You can also edit this in the Cue List Window).

12.8.9 Advanced Time options

Keypresses	Action
<Time> t1 <And> t2 <Enter>	Add fade-in time t1 and fade-out time t2 to programmer, ready to record.
<Time> t1 <And> t2 <Enter> <Record> <Cue> <Cue>	Set fade-in time t1 and fade-out time t2 of currently active cue.
<Time> <Fixture> t <Enter>	Set fade-in time t of currently selected fixtures, ready to record.
<Time> t1 <@> t2 <Enter>	Add fade-in time t1 and delay time t2 to programmer, ready to record.
<Time> <Fixture> t1 <@> t2 <Enter> <Record> <Cue> <Cue>	Set fade-in time t1 and delay time t2 of currently selected fixtures.

12.8.10 Effects/Shapes

You can't select Effects/Shapes from the keypad on Titan, but it's still easy:

1. Select fixtures for control
2. At the top level menu press [Shapes and Effects], [Shape Generator], [Create]
3. Select the type of shape [Dimmer], [Pan/Tilt] etc
4. Select a shape from the softkeys *or from the Shapes window which appears*
5. Set the *Speed, Size, Spread* using the wheels

Shapes will record into cues, and will track through subsequent cues until you stop them. You can stop tracked shapes in the Cue List View window using the **T/B** switch in the View Shape column, see [Shape Tracking in Cue Lists \(Section 12.2.3\)](#).

12.8.11 Macros

You can record a sequence of keypresses as a *Macro*, so that the console can automatically replay your actions. See [Macros \(Section 5.4.3\)](#).

You can include macros in Cue Lists by clicking on the Macros column in the Cue List View window.