10 Cues

10.1 Cues

So you've set up a great look on the stage, and you want to save it to use in your show.

There are four ways of recording your lighting on Titan.

Cue: This is a single look. It may contain movement in the form of shapes, and have fade in and fade out times.
Chase: This is a timed sequence of cues, often used for an individual effect.
Cue List: This is a linked sequence of cues, usually used to store and replay an entire show or an element of a show from a "go" button.
Timeline: This is a timed sequence of playbacks which would usually be used to replay a complex cue sequence to a piece of recorded music or a timecoded show.

Chases (Section 11.1), Cue Lists (Section 12.1) and Timelines (Section 13.1) are covered in more detail in the following chapters.

When a Cue, Chase or Cue List is stored on a control, the control is called a **Playback**. You can store in several places:

- On any **fader handle** - the fader controls the intensity of fixtures (you can make the fader control other things using playback Options (Section 10.6)).

- On a **Virtual fader** in the Virtual faders (Section 16.2.8) window on the touchscreen. This works exactly like a physical fader.

- On a **touch button** in the Playbacks window - you can set whether the button latches or flashes the cue using Key Profiles (Section 19.4)

- On a **Macro/Executor button** - again you can use Key Profiles (Section 19.4) to set latch or flash

If you run out of faders to store playbacks, fader wings (Section 4.12) are available for all consoles to add more faders.

Titan's cue functions are very powerful; the first part of this section explains the basics of how the console uses cues.

10.2 Creating a Cue

10.2.1 How Titan Works When Programming

When you select one or more dimmers or fixtures for control, they are loaded into the **Programmer**. You can then use the wheels (Section 7.2.1), palettes (Section 8.1) and effects (Section 9.1) to change the attributes on the fixture and your changes will be stored in the Programmer.

The order in which you selected the fixtures is also stored, and is used with effects (Section 9.1) and the Fixture Overlap (Section 10.5.1) function.

When you record a cue, the contents of the Programmer are saved into the cue. This might be different to what you see on stage as you are only saving your changes, not the output of the console. See **Record Mode** in the next section for different options of what gets saved.

If another fixture is selected after you have changed some attributes then the current list of fixtures in the Programmer is emptied and a new list is started, but any attributes you've changed remain in the Programmer.

When you press <Clear>, the Programmer is emptied. This makes sure you don't record fixtures you don't want. You also need to press <Clear> when you finish programming, because intensity attributes in the programmer will override playbacks.

Fixtures which are in the programmer are shown in mid blue on the touch buttons (Section 7.1.1). Attributes in the programmer (the things you have changed) are shown in cyan on the attribute displays (Section 7.2.1).

Firing a cue does not place the values from the cue in the programmer, so you can't just turn on a playback and record what you see to another cue *(although the Include function lets you do this, see Using Parts of Existing Cues - the Include Function (Section 10.4.4). You can also use Record Stage mode to record what you see on stage)*.

10.2.2 Creating a Cue

1. Press <Clear> to clear the programmer. *This ensures that you are starting with a clean slate.*
2. Set up the look using the fixtures. You can save shapes in a cue. Remember that only fixtures which are selected or have been modified will be saved in the cue (in [Record by Fixture] mode).
3. Press the <Record> button.
4. Press the **Select** button of an empty playback to record the cue. The handles where you can record the cue will flash. You can also record a cue onto a touch button in the Playbacks window.
5. Press <Clear> to clear the programmer

Other useful things to know about recording cues:

- Cues can be recorded to any fader, the macro/executor buttons or the on-screen Playbacks window.

- [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

– [Quick Build] - see next section (Section 10.2.3)

• [Record By Channel] is useful if you want to layer multiple cues to create an effect.

• If you are recording a lot of cues, you can press <Menu Latch> to keep the Record Cue menu active. Press <Menu Latch> again to unlatch the Record Cue menu, press <Exit> to leave the menu.

• The screen immediately above each fader shows a legend for the playback. To set this, from the top-level menu press [Set Legend], then the playback **Select** button, then enter a legend on the keyboard or draw a picture legend. Press <Enter> to store it.
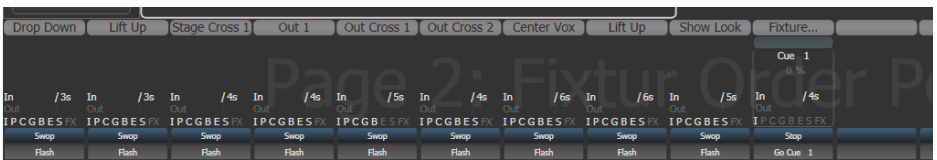
On the Diamond 9, setting \[Halo\] in the Legend menu will set the illumination colo
of the playback fader.

• A **Static Playbacks** workspace is available to show the contents of the macro/executor buttons and (on the Tiger Touch) the 10 static playback faders.

10.2.3 Quick Build Cues

Setting [Record Mode] to **Quick Build** allows you to build a cue, chase or cue list from existing playbacks or palettes (you can also use the Include function to do this).

1. Press Record.
2. Press [Record Mode] and set the mode to Quick Build.
3. Select whether you want to create a Memory, Chase or Cue List using the softkey options.
4. Press the **Select** button of an empty playback where you want to store the item.
5. Fire the playbacks or select palettes that you want to be part of the cue.
6. If saving a Cue/Memory, press [OK] once you have selected all the playbacks or palettes required to store the cue. If recording a chase or cue list press [Append] once you have set up the state for each step/cue then repeat from 5, press <Exit> at the end.

• To insert specific fixtures from a palette or playback, select the fixtures first and then select the palette or playback.
• Quick Build mode is automatically reset back to Record By Fixture once you have finished the recording.

10.2.4 Using Shapes/Effects in Cues

As you would expect, any shapes or Pixel Mapper effects (Section 9.1) you have set up will be saved as part of the cue.

You can create a cue which contains a shape with no base reference values; a shape cue like this can then be fired with other cues to overlay the shape on the cue and give you instant effects based around the settings in that cue. When recording the cue, use **Record by Channel** mode or use the "Off" function (Section 10.4.5)

to remove the other attributes from the programmer.

10.2.5 Blind Mode

Blind mode allows you to program cues without affecting the current look on the stage. This can be very useful for making changes during a live show. Your changes are still shown in the Visualiser window (Section 14.1).

To put the console into blind mode, just press the <Blind> button *(on consoles without a dedicated button, hold down <Avo> and toggle the option between [Blind Inactive] and [Blind Active])*.

If you want to preview a playback on the visualiser without affecting the stage, playbacks can be set to Blind mode using [Playback Options]. To quickly set a playback to blind mode, hold <Blind> and press the playback **select** button. Repeat to make it Live again.

You can fade your blind state to the live output by typing in a fade time number then pressing <Blind>. This allows you to recall several palettes together, or create a live state to be output without needing to save it to a cue.

10.2.6 Recording Cue with a Mask

You can set a mask when recording a cue so that only certain attributes are recorded, the same as you can when recording a palette (Section 8.2.2). In the Record menu, select the [Set Mask] option.

There is an additional option [Clear Record Mask], if this is enabled the mask will automatically be cleared after this record operation. This is good to stop you accidentally leaving the mask set and causing havoc with future cues.

10.2.7 Convert Cue to Chase or Cue List

If you want to convert an existing cue into chase (Section 11.1) or cue list (Section 12.1) by adding further steps, press <Record>, select the cue, then select [Convert to Chase] (or Cue List). The existing cue will become cue 1 and the contents of the programmer will become a new cue 2.

10.3 Cue Playback

Because it's possible to play back a large number of cues at the same time, the console has to have rules on how it combines the output from different cues. These are called **HTP** and **LTP** rules.

10.3.1 Combining Cues with HTP and LTP

Control channels are handled in two ways:

- Dimmer or intensity channels work on the principle of **"Highest Takes Precedence" (HTP)**. If an HTP channel is active at different levels in several cues, the highest level will be output. When you fade out a cue, the HTP channels fade out with it.

- All other channels work on the principle of **"Latest Takes Precedence" (LTP)**. The latest change takes over from any other values, so the most recent cue to be turned on is the one which is output. When you fade out a cue, LTP channels retain their values until changed by another cue.

10.3.2 Playing Back a Cue

To fire (play back) a cue, raise the fader. (Make sure there are no values in the programmer by pressing the <Clear> button, because anything in the programmer will override the playback).

- You can fire several cues at once.

- The HTP levels in the cue will be mastered by the fader level; for example if you set the fader at 50% then all HTP levels will be 50% of their programmed values.

- LTP channels are triggered as soon as the fader goes above 0%. If a fade time is programmed the LTP channels will start to fade; if there is no fade time they will snap to position *(unless the cue is set to Mode 2 in which case they fade with the fader position; see the timings section Fader Modes (Section 10.5.1.1) for details of modes).*

- You can **Flash** the cue by pressing the Flash button. You can **Swop** (solo) the cue by pressing the Select button (all other active cues will turn off while the button is pressed). This assumes you haven't reassigned the function of the buttons using Key Profiles (Section 19.4), see below.

- You can **Preload** the cue by assigning the Preload function to one of the handle buttons using Key Profiles (Section 19.4). Preload sets the attributes of fixtures in the playback which are not currently active in any other playbacks. *This is useful to avoid the fixtures visibly moving into position or changing colours or gobos when you raise the fader of the cue.*

To assign Preload, hold <Avo> and press [Edit Key Profile], then press the button you want to assign (also see Key Profiles (Section 19.4)). Note that this will assign the function to all buttons of the same type.

- You can fire a one-shot cue with timings by assigning the Go function to one of the handle buttons using Key Profiles (Section 19.4). This allows you to fire the cue without needing to hold down a button while the timing completes. You can also fire the cue again without needing to release it.

- You can set playbacks to high **priority** if you do not want them to be overridden by other playbacks using the same fixtures. For example, if you have a couple of fixtures acting as a spotlight, but they are also programmed into some colour washes, you probably want the spotlight cue to take priority over the colour washes. See Priority (Section 10.6.2.3) in playback Options (Section 10.6).

10.3.3 Changing Playback Pages

The console allows multiple pages of playbacks. Page buttons are provided near the faders or you can also touch the top and bottom of the roller graphic on the screen. If you touch the middle of the roller graphic you can jump to a page number by entering the number.

> If you have stored cues on the touch select buttons, you select different pages using the Playbacks page touch buttons.

If you change to a new page while some playbacks are fired, the playbacks on the old page remain active. The way playback faders behave across different pages can be set with the [Playback Paging] user setting (Section 19.5.4). The settings are [Always Hold] or [Never Hold], and these options work differently depending on whether your console has motorised faders or not.

Consoles without Motorised Faders

- The default mode is [Always Hold]. If you want to fire a cue on a fader which is already up from a previous page, lower the fader to zero then raise it again. The cue from the previous page will stop and the cue from the new page will fire.

- If changed to [Never Hold] then you can have active faders on multiple pages by level matching the fader. To fire a playback on a new page you have to return the fader to zero (the playback on the old page will continue). When you raise the fader, the playback on the new page will fire. If you return to a page with an active playback, the fader will not resume control of the playback until it matches the current level of the playback. This prevents the playback level jumping when the fader is first moved. If a playback is active from another page the display area is purple and shows the page number at the top in light blue.

The setting [Normal] gives the default state, for consoles without motorised faders this is [Always Hold].

Consoles with Motorised Faders

- The default mode is [Never Hold]. When you change pages the playback faders will move to show the state of the playbacks on that page and you can directly control all playbacks on the page. If you want to kill a playback on a previous page you need to return to the page it is on and lower the fader back to zero. If a playback is active from another page the display area is purple and shows the page number at the top in light blue.

- If changed to [Always Hold] then each fader can be active only on one page at any time - so the console behaves as if it did not have motorised faders, see above.

The setting [Normal] gives the default state, for consoles with motorised faders this is [Never Hold].

- You can set a legend for each playback page. The legend is shown on the 'Pages' roller on the screen. Use [Set Legend] from the main Program menu then [Page Legends]. While in this menu you can change the page to set legends for different pages.

- If your console features the 20 executor buttons on the top right of the console, they can be paged using two of the macro buttons. The page change macros are part of the fixture library; if you do not see the macros, download and install the latest library. The same applies to the 10 static playback faders on the Tiger Touch.

10.3.4 Viewing Active Playbacks

The Active Playbacks window shows details of which playbacks are active. When you have a number of layered playbacks with different effects, this provides an easy way to see which playback is causing which effect. Each button shows the playback legend, which page they are from and which attributes are affected. To show the window double press <Open/View> then press [Active Playbacks] from the window select buttons which pop up.
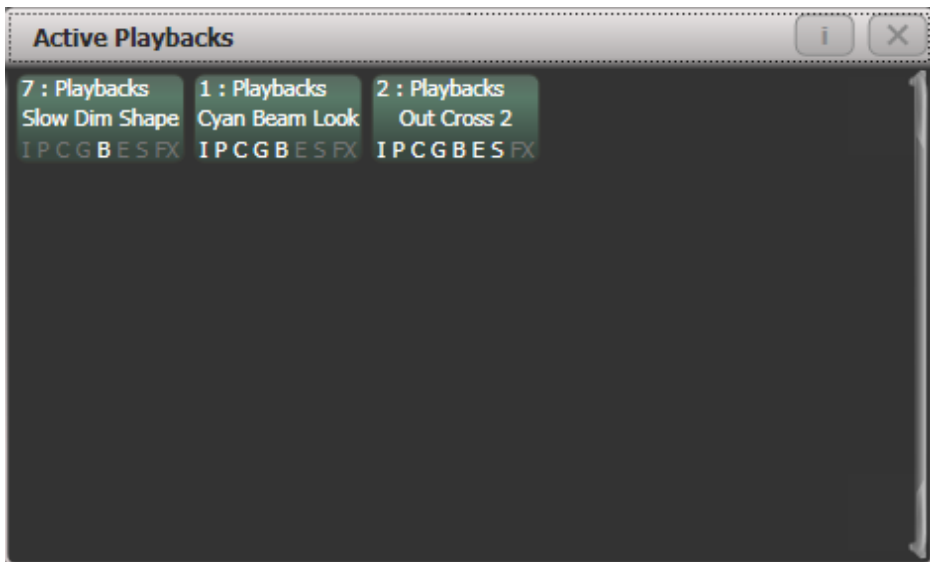
Click on a playback to instantly **kill** it. You can also press [Options] followed by the playback in this window to change parameters of the playback.

10.3.5 Speed and Size Masters

Playbacks can be assigned to Speed and Size Masters which allow you to modify the speed and size of shapes or effects (Section 9.1) stored in a cue using a separate master fader (or in the case of chases, to modify the speed of the chase (Section 11.5.4)). *This is really useful to modify the look when several playbacks are running at the same time.*

You can also assign the fader of the playback the effect is stored in to control shape speed or size using the Fader Settings (Section 10.6.4) in playback Options (Section 10.6).

See Speed and Size Masters (Section 10.3.5) for more details.

10.3.6 Release

Normally when you kill a playback by lowering the fader, the LTP attributes will be left in the last state set by the playback. Sometimes you don't want this, for example if you have a strobe cue, you don't want the strobing to carry on when you kill the cue. The **Release** function lets you set how attributes will return to their previous values.

You can set a mask so that some or all attributes will automatically release from the playback when the playback is killed - see Release Mask (Section 10.3.7) below. For a cue this will happen when all fade times

have completed, unless you change the Kill Point (Section 10.6.4) option in the cue options.

Attributes will go back to the state set in the most recent previous playback until no playbacks are left to be released. If the [Release to Home] setting on the Release menu is Enabled, channels will go to the power-on state, which you can program (see Programming the Release / Power On State (Section 10.3.9)). If the option is disabled, channels will remain in the state of the last playback.

You can also configure the key profile so that the handle buttons can be used to release the playback using Key Profiles (Section 19.4).

Channels will always release with a fade time, this defaults to 2 seconds but you can change it using [Master Release Time] in the Release menu. You can also set an individual release time for the playback from the Release tab (Section 10.6.6) of playback options.

- You can kill a playback by pressing <Avo> + the **Select** button of the playback, which has the same effect as pulling the fader to zero. For a cue, the fade out times will still apply and the cue will release when the fades are completed. This can also be useful for Cue Lists which (depending on their options) may stay fired even when the fader is lowered to zero.

- You can instantly release a running playback by pressing <Release>, then the **Select** button of the playback to be released. This uses a Temporary Release Mask (Section 10.3.7.3) as described below. Fade out times of cues will be ignored and the release will start immediately, but will use the set release time.

- You can **Release All** running playbacks by double pressing <Release>. The user setting Release Priority (Section 10.3.6) sets which playback priority levels will be released. You can protect against unintended Release All by setting the Release Priority to Low - this would only release playbacks with Low priority, if you had any set up.

- Playback handles will highlight in yellow during the time they are releasing, to show that they are still affecting the output.

10.3.7 Release Mask

You can configure which attributes will release from a playback when it is killed using the **Release Mask**. There is a **Global** release mask which is the default setting, or you can set a **Local** release mask which overrides the global mask for a particular playback. If you start a release using the <Release> button then a **Temporary** release mask is used which just affects the current release operation.

Global Release Mask

If no local release mask is set for the playback, attributes release according to this mask when the playback is killed. The default is for no attributes to release, so all LTP attributes will remain at their last value.

Set the Global Release Mask from the **Release Menu** by pressing <Release> then [Global Release Mask]. The softkey and the lit Attribute Bank buttons show which attribute groups are enabled - use the Attribute Bank buttons or the softkeys to enable or disable attribute groups.

There are also separate Timeline release settings which override the normal release settings (including the Local release mask) when playbacks are being fired by a timeline. These are set in the options for the timeline (Section 10.6.6).

Local Release Mask

Set a local release mask if you need to have specific settings for that playback. The mask for a playback is set in the Release tab (Section 10.6.6) of the playback options.

Temporary Release Mask

If you are releasing a playback (or the programmer) using the <Release> button then a temporary mask is used. This starts off with everything set, so all attributes will release. Press the Attribute Bank buttons to set a different mask - when you press the first button all the other attribute groups will clear.

- You can type a release time on the keypad before you press <Release> to override the global release fade time.

10.3.8 Other release operations

Releasing a page of playbacks

You can use the Release function to release a whole page of playbacks in one operation. Press <Release> then the <Goto Page> button, or touch the current page in the playbacks view. You will get the following options:

 [Release this Page] - releases all active playbacks on the current page and playback fader group

 [Release Playbacks Not On This Page] - releases any active playback on the same fader group from another page

 [Release All Playbacks In This Group] - releases any active playback in the fader group.

The release will use the Temporary Release Mask (Section 10.3.7.3) as described above.

> **"Fader Group"** refers to a particular area of the console, for example the main faders below the screen on a Tiger Touch or the top row on the left hand side of the Arena.

Releasing the programmer contents

You can release the programmer contents by pressing <Release>, then set the attributes you want to release in the temporary mask, then press <Clear>. You can type a release time on the keypad before you press <Release> to override the global time.

You can release a single attribute on a wheel from the programmer by pressing <Release> then the <Wheel @> button. This can be useful during programming if you accidentally set a value you didn't want, or when busking a show to gently remove a temporary fixture change you made.

Releasing a master

You can reset a master to default state by pressing <Release> then the **Select** button of the master. You can reset all masters to default state by pressing <Release> then [Release all Masters]. This will set the level of the master so that it has no effect (full for intensity masters, 100% for speed masters, and so on).

10.3.9 Programming the Release / Power On State

You can program the state which fixtures will go to at power on, or when all playbacks are released. It can be useful to program this as a general lighting state so that there is some light on the stage when the console powers up, or when all playbacks are released.

The release state can be programmed in Shared mode or Individual mode. In Shared mode you just have to set the desired state for one of each type of fixture, and that state will be used for all fixtures of that type. In Individual mode, the state of each fixture will be recorded individually as you have set it.

> 1. Set up the look you want.
> 2. Press <Record>, then <Release>.
> 3. Select [Shared values] or [Individual values].
> 4. Press the [Record] softkey.
> 5. The Release state is saved.

> To test, fire some playbacks, then release them by pressing <Release> followed by the select button of the playback. The fixtures should return to your programmed release state.

10.3.10 Turning Off Individual Fixtures

You can turn off individual fixtures or certain attributes of them using the **Off** menu. The programmed values will remain in the playback but will not be applied when the playback is recalled. You can, however, re-enable the values in the cue view.

Press <Off> button followed by a playback to open the 'Off Playback with Mask' menu. Select the fixtures to be turned off, set mask as required and then press [Off] to turn the fixtures/attributes/shapes off.

On Titan consoles that do not have separate <Release> and <Off> buttons, pressing <Off> followed by a playback will release it which is not what you want. On these select the softkey [Off Playback Values] then select the playback.

10.3.11 Playback Groups

Playbacks can be assigned to groups. This allows you to create a set of playbacks which automatically switch off other playbacks in the same group. This can be useful when you have playbacks setting colours on executor buttons so only the most recent playback stays active, or to make life easier when busking so you don't end up with lots of playbacks fired which have superseded each other.

This is described in detail in the chapter on Running the Show, see Playback Groups (Section 10.3.11).
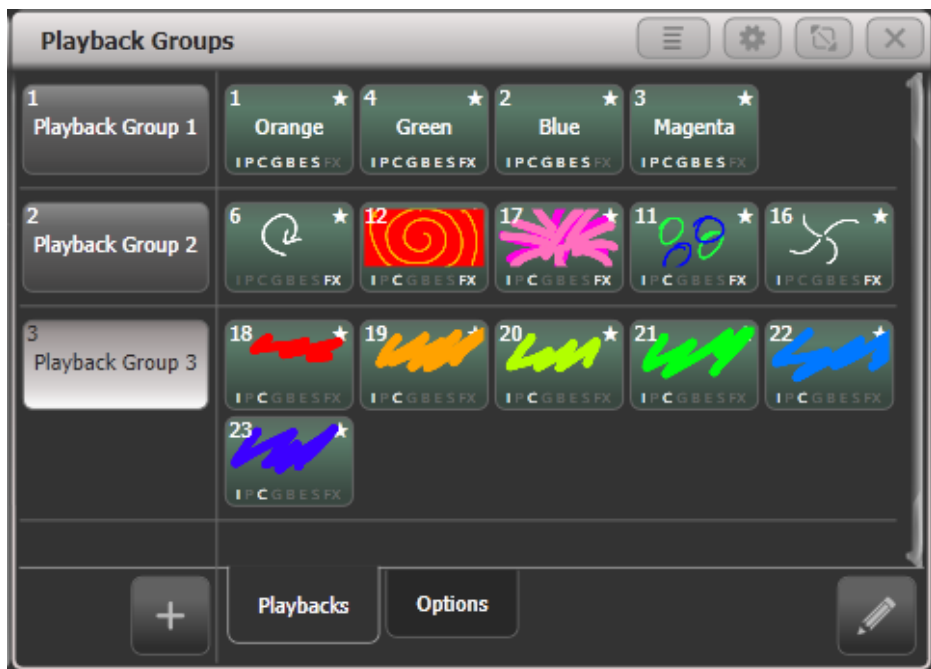
10.4 Editing Cues

10.4.1 Editing a Cue by Merging

You can edit any part of a cue you have already saved simply by making the changes and saving the new information on top of the cue.

1. Press <Clear> to empty the programmer.
2. Fire the cue you want to edit, so you can see what you are doing.* Kill all other cues to avoid confusion.*
3. Select the fixtures you want to change, and make the changes.
4. Press <Record>.
5. Press the playback **Select** button for the cue you are editing.
6. Press [Merge] *(the cue being edited is highlighted on the screen)*.
7. The console will merge the existing cue with your changes. Unchanged information is not affected.

- If you want to overwrite the cue entirely, use the option [Replace] at step 6 - but remember that unless you are in **"Record by Stage"** mode, any fixtures you haven't changed won't be saved.

- To speed up editing, you can set the console to "Always Merge" the cue. This option is set in the **Handles tab** of User Settings (Section 19.5.4) (press <Avo> and select [User Settings]).

- You can also press the **Select** button for the cue a second time to select the **"Merge"** option (quicker than selecting the softkey [Merge] option).

10.4.2 Updating Stored Values and Palettes used in a Cue

If during a show you need to quickly update a cue, or a palette used in a cue *(for example you fire a green cue and the fixtures turn out to be not quite the right colour)* the <Update> function lets you quickly update either the cue itself or the palettes used in the cue.

For instant update of a fired cue, change the fixture settings and press <Update> twice.

1. With the cue fired, select the fixtures and change them to the settings you want to store.
2. Press <Update> *(on consoles without an Update button press <Record Cue>, [Update])*.
3. Press <Enter> to immediately store the new values to the cue.

Alternatively, the softkeys show a list of palettes (Section 8.1) 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.

- You can also select which palettes will be affected by pressing the palette's button twice.

- If you manually set an attribute in the cue which was set by a palette, then press <Update> <Update>, the palette will be removed from the cue. If you want to update the palette, use the softkey options or press the palette button.

- If you change an attribute using a different palette, the new palette will be stored instead.

10.4.3 Playback and Cue View

To see the current timings of the cue, touch the playbacks display for the fader, or press <Open/View> then the **Select** button of the playback you want to view. The screen will show details of the delay, fade, overlap and curve settings for the cue. You can touch each item to enable editing.

If a shape or pixel map effect (Section 9.1) is stored in the cue, you can view or edit the effect by clicking the button in the appropriate column.

The **Effect Speed** column allows you to set a multiplier or divider for the speed of effects in the cue.

The **Times** button on the left removes some of the columns, showing only timing related information.
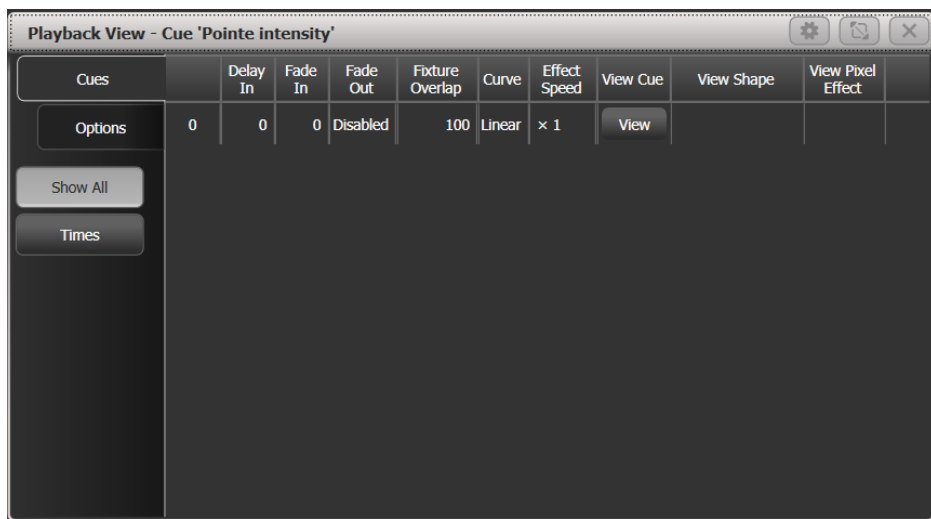
Filter Columns

You can configure which columns are shown in the Playback View using the [Edit Columns] context menu button. Once you have set a view you can save it to a filter button which appears below the Times button on the left.

1. Press [Edit Columns] on the context menu.
2. Using the softkeys, enable or disable the columns to get the view you want.
3. Press <Record>. An [Add] button will appear at the bottom of the screen.
4. Press the [Add] button to create a filter button for this view.
5. You can set a legend and colour halo for the filter button using the normal [Set Legend] function.
6. You can delete filter buttons by pressing <Delete> then the button.

Cue View

If you touch the View button at the right hand end of the row or the [View Cue] context button, the Cue View window opens, showing you details of the settings individual timings for all the fixtures in the cue.

The Cue View has four different views: **Levels**, **Palettes**, **Times** & **Shapes**. Views are selected using the context buttons to the left of the menu buttons.

- The **Levels** view shows the individual attribute values for each fixture.

- The **Palettes** view shows which palettes have been used to record the cue. Palettes are shown by their legends. Where an absolute value was saved rather than a palette, the value is shown instead. Again you can edit or remove the values.

- The **Times** view shows individual attribute timings for fixtures. If global timings are set, no times are shown in the cue view.

- The **Shapes** view shows which attributes of each fixture are running shapes.

Filter which **attributes** you are shown using the All/IPCGBES buttons in the top left corner.

Filter which **fixtures** you are shown using the fixture type buttons on the left.

Edit Values in Cue View

You can **edit** or **remove** one or more individual control values in the cue:

1. Touch or drag over the required control values in the grid to select them - *they will be highlighted in blue*
2. The softkeys then give you available settings for that control value, or you can directly edit values by typing numeric values and pressing <Enter>
3. You can turn attributes On and Off using the <Off> button and the [On] softkey. Off temporarily removes a value from the cue, it can later be restored using [On].
4. You can remove a fixture completely from the cue by selecting the fixture then pressing the [Remove Fixtures] softkey.

Any changes take immediate effect.

10.4.4 Using Parts of Existing Cues - the Include Function

The Include function lets you load selected parts of a cue back into the programmer. (Normally, only manual changes to fixtures are put in the programmer). You can then use this to make a new cue. This is useful if you want to make a cue which is similar to one you already have, or to build a new cue from various parts of other cues. It's also useful when editing shapes in cues.

There are two modes, **Quick Include** and **Advanced Include**. Quick Include simply reloads the whole cue. Advanced Include allows you to specify which attributes of which fixtures you want to load into the programmer. So, for example, if you have a cue which contains position, colour and gobo information for 8 fixtures, you can use the include function to load only the colour information for 4 of the fixtures into the programmer. You could then Include position information from another cue into the programmer, and build up a new cue using information from several existing cues.

If you Include a chase (Section 11.1) or cue list (Section 12.1), the screen shows you a list of the cues within it, and you select the one you want to Include using Wheel A or by touching the cue. You can also type in the cue number to Include.

1. Press <Include>.
2. Press [Quick Include] or [Advanced mode] if you want to change the mode.
3. Press the **Select** button of the cue you want to include into the programmer. If you are in **Quick Include** mode, this Includes the cue and finishes.
4. If you are in **Advanced Include**, all fixtures in the cue will be selected. If you don't want them all, deselect the fixtures you don't want. The fixtures in the cue are highlighted on the screen and on the fixture buttons.
5. Use [Set Mask] or the Attribute Bank buttons to select which Attributes you want to include *(all are included by default - [Softkey C] turns them all off and [Softkey D] turns them all on)*. [Softkey E] lets you include or exclude Shapes from the cue.
6. Press <Enter>. The selected attributes of the selected fixtures will be loaded into the programmer.
7. **Repeat steps 2 - 6** to include other attributes from the same fixtures, or **repeat steps 1 - 6** to include other fixtures.

> In **Quick Include** mode, you can set a mask for the include by pressing one or more of the attribute bank buttons before you select the cue to include.

10.4.5 Deactivate Attributes from Cues Using "Off"

The <Off> button allows you to temporarily deactivate an attribute which has been stored in a cue, as if you'd never recorded it. You can activate it again later.

For example, suppose you recorded a cue which had fixtures at a certain position, with the colour set to green. If you later decide that you don't want a colour recalled at all with this cue, so that the playback will position the fixtures but leave the colour set by previous playbacks, you can set the colour values to Off in the programmer, which when saved will deactivate those values in the cue. You can also use the Off function to deactivate complete fixtures in a cue.

Setting an attribute to **Off** is not the same as recording an attribute at zero, since this would change the attribute when the cue was fired. You are just marking this attribute as deactivated, so the attribute will remain unchanged when the cue is fired.

1. Press <Off>, then [Off Playback Values] followed by the **Select** button of the playback to be changed.
2. All fixtures in the playback will automatically select. If you only want to change some fixtures to **Off**, change the selection.
3. By default the attribute mask is set so all attributes will be changed to Off. Press [Set Mask] to choose which attributes will be set to **Off**.
4. Press the [Off] softkey

You can also use <Include> to set values to Off.

1. Use the **Quick Include** function (described in previous section) to load the cue you want to change into the programmer.
2. Press <Off> to display the Off menu.
3. All fixtures in the cue will be selected. If you don't want to change them all, deselect the fixtures you don't want.
4. Use the Attribute Bank buttons to toggle which attributes you want to change. Then press the [Attributes Off] softkey to set them to Off. The bottom softkeys also give options such as [Dimmer Off].
5. Press <Record>, press the **Select** button of the cue, then select [Replace] to update it.

- To turn off all attributes of all selected fixtures, press <Off> then [Selected Fixtures Off].

- You can **merge** *"Off"* attributes into a cue without including it first.

- You can also remove attributes from palettes using the **Off** function.

- Another way to remove attributes is from the Cue View window (Section 10.4.3.2).

- Attributes set to **Off** can be restored to their previous value using the **On** function. Set the attribute to **On** and **merge** it into the cue.

10.5 Cue Timing

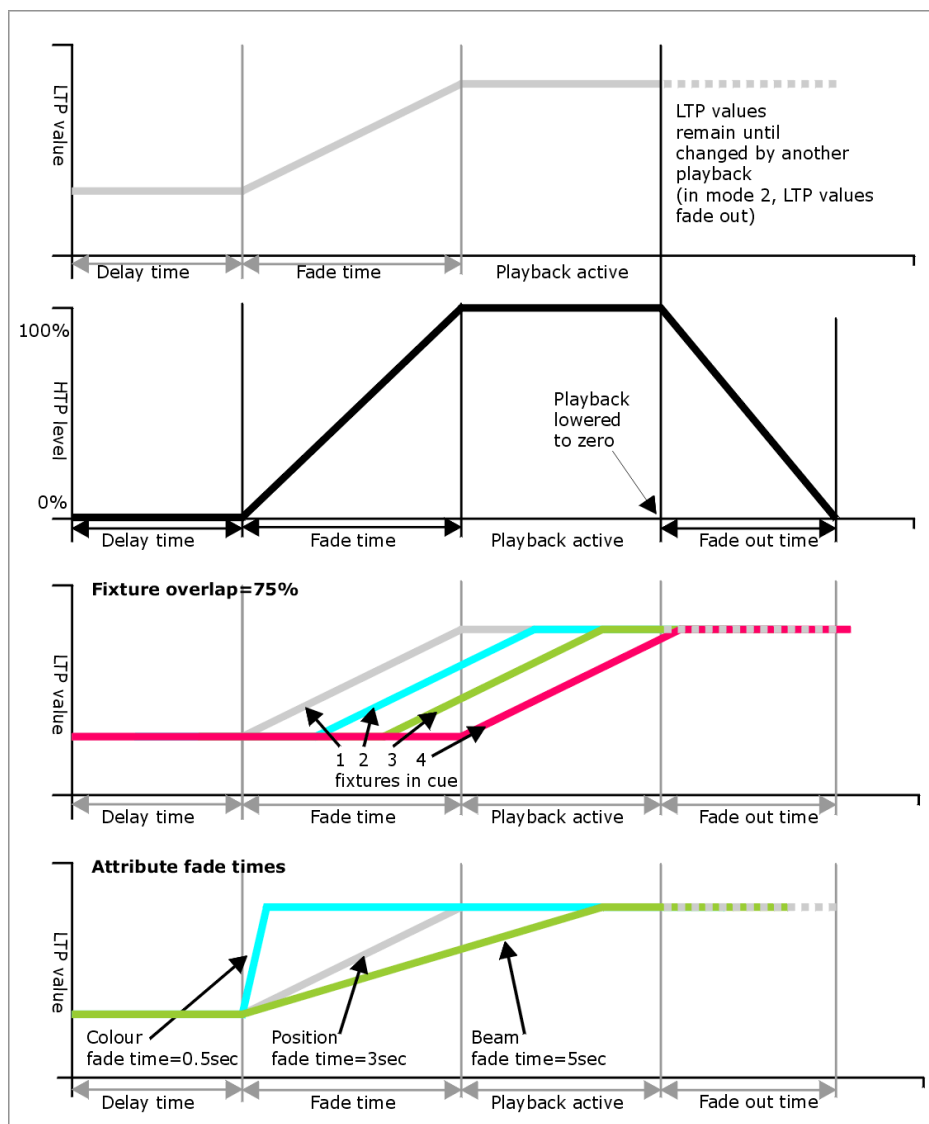The console allows a wide variety of timing functions for each cue.

10.5.1 Fade Times and Fixture Overlap

When programming a cue, you can set a delay, fade in and fade out time for each attribute of each fixture, or globally for the cue. Shapes in the cue will also be affected, depending on the fade mode (Section 10.5.1.1).

> If you enter times more than 60 seconds, Titan will automatically split the time into minutes and seconds, for example enter **115** to set **1:15** *(1 min 15 seconds)*. Entering more digits will set hours, minutes, seconds.

You can delay the fade times between fixtures in a cue so that the cue is applied sequentially to each fixture. This is called **Fixture Overlap** and can create *"peel off"* or *"roll"* style effects.

In the graphic below, the top diagram shows how the LTP channels change when used with delay, fade and fade out times. The second diagram shows how the HTP channels change. The third and fourth diagrams show what happens to the LTP channels when fixture overlap and attribute fade are used.

Delay time | Fade time | Playback active

LTP value
LTP values remain until changed by another playback (in mode 2, LTP values fade out)

100%
HTP level
0%
Playback lowered to zero
Delay time | Fade time | Playback active | Fade out time

Fixture overlap=75%
LTP value
1 2 3 4
fixtures in cue
Delay time | Fade time | Playback active | Fade out time

Attribute fade times
LTP value
Colour fade time=0.5sec | Position fade time=3sec | Beam fade time=5sec
Delay time | Fade time | Playback active | Fade out time

All times which you have set while programming the fixtures/dimmers will be recorded when you save the cue.

You can also edit times of a cue you have already saved like this:

1. Press [Edit Times] at the top level menu
2. Press the **Select** button of the cue
3. Press [Fade Mode x] to set the cue mode. *This sets how the times are used, see below (Section 10.5.1.1).*
4. Press [Delay time] to set the delay before the cue starts, [Fade time] to set the fade-in time of the cue, and [Fade out time] to set the fade-out time of the cue.
5. Type the new time (in seconds) using the numeric keypad and press <Enter> to save it.
6. Press [Fixture Overlap] to change the overlap, then enter **0 - 100** on the keypad.
    100% means all fixtures fade together.
    0% means that the first fixture will finish its fade before the next one starts.
    50% means that the 2nd fixture will start fading when the first one is half way through its fade.

The order of the fixtures is set by the order you selected them *(but you can change this, see Changing Fixture Order (Section 10.5.2))*.

7. Press <Exit> to get out of Edit Times mode.

*   You can also set independent times for the **IPCGBES** attribute groups, and for each individual attribute, *(see Setting Attribute Fade Times for a Cue (Section 10.5.3) for details of this)*.

*   You can quickly set times from the keypad using the <Time> button, e.g. <Time> <5> <And> <2> sets 5 sec fade in and 2 sec fade out. *(The Time button is the button previously labelled <Set> on Titan Mobile and Sapphire Touch, and <Next Time> on Tiger Touch and Pearl Expert)*.

Fade Modes

The times you enter are affected by the cue mode which is set using the [Fade Mode] option. This option can also be set from playback [Options], [Fader]:

*   [Mode 0] - Channels will fade in as set by the fade time. The Fade Out time is ignored. If times are set to zero, the HTP channels fade in with the 0-100% position of the playback fader and the LTP channels will snap.

*   [Mode 1] - Channels fade in as set by the fade time. HTP channels fade out as set by the fade out times (LTP channels remain as set in the cue). If times are set to zero, the HTP levels will fade in and out with the fader and the LTP channels will snap when the cue is fired.

*   [Mode 2] - Channels will fade in as set by the fade time. The Fade Out time is ignored. However, the fade will stop when the fader position is reached, so if the fader is set to 50%, the attributes will stop half way to their programmed position. You can reverse the fade back to the original position by moving the fader back. If times are set to zero, both HTP and LTP channels are controlled by the fader position.

    In this mode LTP channels revert to their previous settings when the cue is deactivated.

Mode 2 is useful when used with a pan/tilt cue for manually tracking a spot across a stage or down a catwalk using the fader position, or for colour mixing using RGB fixtures.

- [Mode 3] - Crossfade cue. All channels, including intensity channels, will fade to the settings in the new cue. All other cues fade out and all other active playbacks become inactive; if you need to re-fire a playback, take the fader to zero and put it up again.

> If the cue includes shapes, then the shape will change with fade times. The changes will be timed for a [Mode 1] cue and controlled by the fader position for a [Mode 2] cue. This allows you to create a shape which gets bigger or faster as you push up the fader.

10.5.2 Changing Fixture Order

You can change the order of the fixtures stored in a cue. Normally this is set to the order in which you selected the fixtures when the cue was created, or the order stored in the group if you selected a group, but you might want to change this *(for example to pair up fixtures so they move together when using Fixture Overlap (Section 10.5.1))*.

1. Press [Edit Times] at the top level menu
2. Press the **Select** button of the cue to be changed
3. Press [Fixture Order]
4. Set the sequence number to start from by pressing [Step Number]
5. If you want the sequence number to increase automatically, set [Autoincrement] to **On**. If you want some fixtures to have the same sequence number, set it to **Off**.
6. Touch the **Select** buttons of the fixture(s) you want to place in that position in the sequence. The sequence number is shown in green in the top right hand corner of the fixture select touch buttons.

7. Press <Exit> to finish.

- You can set several fixtures to have the same sequence number. This means, for example, when used with Fixture Overlap (Section 10.5.1) they will all do the same thing at the same time.

- You can remove a fixture from the sequence by turning off [Autoincrement] and pressing the fixture button twice. The fixture sequence will show X. Touch the button again to put it back in the sequence.

10.5.3 Setting Attribute Fade Times for a Cue

You can set individual fade times for each attribute group (such as Position). If you set a time, it overrides the normal times.

To set an attribute group fade time:

1. Press [Edit Times] at the top level menu
2. Press the **Select** button of the cue to be changed
3. Press the Attribute Bank button (IPCGBES buttons, or attribute keys on the right hand side on older consoles) for the attribute you want to change
4. Press [Delay =] to set delay time or [Fade =] to set fade time
5. Type the new time using the numeric keypad and press <Enter> to save it, or press [Use Global] to delete the attribute times and go back to the normal times.
6. Press <Enter> to save the changes.

You can take this even further and set individual fade times for each fixture. When you select the cue to be changed, you will see that all the fixtures in the cue are selected. To set attribute times for only certain fixtures, change the fixture selection using the fixture buttons.

The Cue View window (Section 10.4.3.2) will display when editing cue timings to help you see what you are editing. You can touch fixtures or attributes in the grid to select which items are going to be edited.

Press the <All> button to select all fixtures in the cue.

When you are in the Set Attribute Times menu you can only select fixtures which are in the cue you are editing.

10.5.4 Editing Times in the Programmer

You can check and edit the times which are set in the programmer before saving a cue. You can also set times into the programmer and merge (Section 10.4.1) them into cues as a quick way of updating times, just like you would with attribute values.

Press the <Time> button to access this menu.

> On Titan Mobile and Sapphire Touch, the Time button is the key above <Clear> (previously labelled <Set>). On Pearl Expert and Tiger Touch it is the key previously labelled <Next Time>.

The menu allows you to set cue times, or times for all attributes of a fixture, attribute groups or individual attributes.

Using the <Time> button there are various quick shortcuts to setting times.

- <Time> <5> = 5 sec fade in

- <CUE> <3> <Time> <5> = 5 sec fade in on connected playback's cue 3

- <Time> <FIXTURE> <5> = 5 sec fade in for all attributes of selected fixtures

- <Time> <FIXTURE> <G> <5> = 5 sec fade in for gobo attribute group of selected fixtures

- <Time> <FIXTURE> <@B> <5> = 5 sec fade in for attribute connected to wheel B on selected fixtures

- <5> <@> <3> = 5 sec fade in, 3 sec delay

- <5> <AND> <2> = 5 sec fade in, 2 sec fade out

- <1> <THRO> <10> = times spread across fixtures according to selection order

Individual attribute times can also be set from the wheels, using the [Wheels] softkey option on the root menu.

Using the <Options> button while showing the times allows you to set the **Speed**, **Effect Multiplier**, **Speed Multiplier** and **speed source** in the programmer. Speed and Speed Multiplier would only do anything if you create a chase (Section 11.1) and would have no effect in a cue.
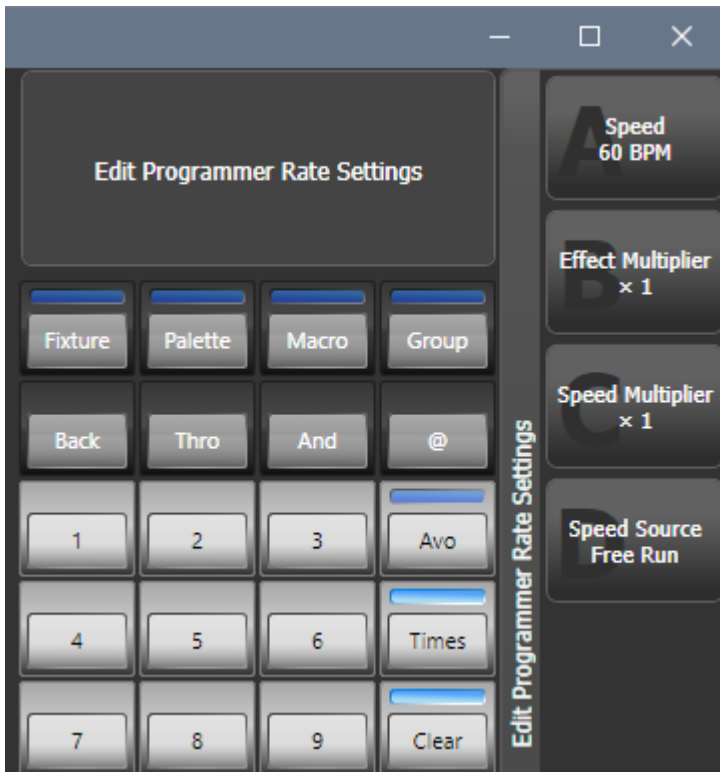
10.6 Playback Options

To set options for a cue, chase or cue list, press <Options> (or the [Options] softkey on the top level menu), then press the **Select** button of the playback to be edited. The Options window will open allowing you to

set a wide range of options for how the playback will work, including Times. (You can also set the options using the softkeys.)

You can also set Times for the playback (Section 10.5), using the <Time> button or the [Times] softkey rather than Options.

The options are split into different categories using tabs down the left hand side. Click on the [i] button for a help window on each setting. The options shown below in the pictures are for a normal cue, for cue lists and chases the options are different (and are described in the Cue List chapter and the Chases chapter).

> You can select multiple playbacks if you want to set the options the same on all of them. If the current option settings are the same on all selected playbacks, then the display shows the current option selected; otherwise a star is shown next to the options and no option is shown selected.

10.6.1 Handle Tab
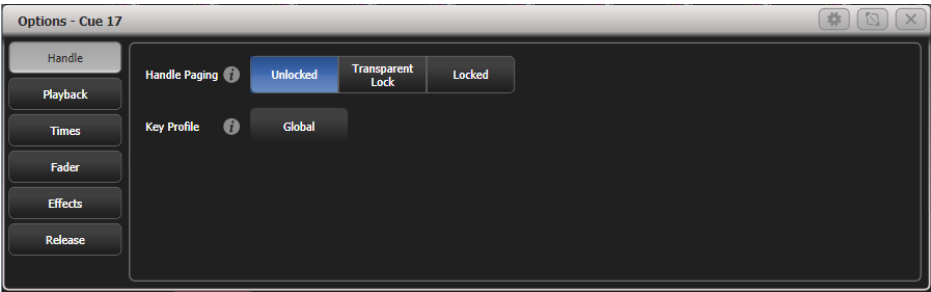
Handle Paging

Allows you to lock the playback on a handle so that it always appears on that handle no matter what page is selected. This is useful if you have some general playbacks you want on every page, without having to copy the playback onto each page.

Setting	Action
Unlocked	This playback will change with the pages as normal
Transparent Lock	This playback will appear on all pages where the handle is unprogrammed
Locked	This playback will appear on all pages. Playbacks programmed on this handle on other pages will not be accessible.

Key Profile

Sets the key profile (Section 19.4) individually for this playback. Global sets the back to the global default setting for playbacks. A shortcut to change the key profile for a playback is to hold the <Options> button down while pressing the handle select.

10.6.2 Playback Tab

Blind

Sets this individual playback to **Blind** mode. The playback will then output only to Visualiser, not to the stage. This can be very useful if you need to program and test a cue during a live show.

Cross Fade HTP

If on, makes the HTP (dimmer) channels in this cue override other HTP channels, obeying the priority (Section 10.6.2.3) settings. Normally if a dimmer channel was up in another cue, the highest dimmer setting would continue to be output, but this option lets you create a playback that will override this behaviour, so if you specifically need some fixtures to be at 50%, this option will let you do that.

Priority

Allows you to configure how playbacks will behave if you turn on two playbacks controlling the same fixture. The priority can be set to **Low**, **Normal**, **High**, **Programmer** or **Very High** (*Programmer* gives the same level as manually set attributes in the programmer). If a fixture is being controlled by a playback and you turn on a playback of the same or higher priority, then the new playback will take over. However, if the new playback is set to lower priority than the first playback, the fixture will not change.

This is useful if, for example, you've programmed looks using all your fixtures, then you decide you want a couple of them to spotlight a singer. If you set the spotlight playback to be high priority, then while it is active no other playback will affect the spotlight fixtures.

> Priority is useful when using **Swop** buttons for strobe-type effects where you want to black out everything else. If you have a position shape running on other fixtures, you don't want that to stop during the Swop, or it will look messy when you release the Swop button. So set the shape playback to have a higher priority than the strobe playback, and it will keep going during the strobe and continue smoothly when you release the Swop button.

Attributes set by manually applying a palette to a fixture will override all playback priorities except Very High.

Run On Startup

Sets this playback to run when the console powers on. This can be globally disabled by the **Run Startup Playbacks** option in the **General** tab of User Settings (Section 19.5.1) *(turned on by default)*.

This can be very useful for unattended applications to set up an initial lighting state.

Power on playbacks show a Power symbol watermark in the playback information area above the fader. If you open the Show Library window (Section 5.7) there is a context button to Show Startup Playbacks which allows you to list all the playbacks which are set to run on startup.

10.6.3 Times tab
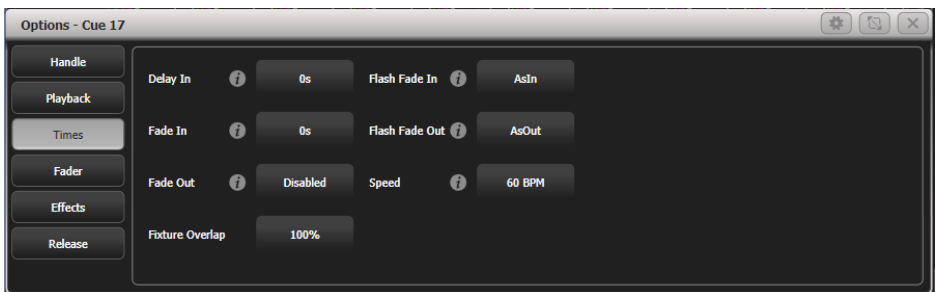
Delay In / Fade In / Fade Out

Sets the delay time before fade, and the fade in and fade out times for the playback. These times can also be set using the <TIME> button.

Fixture Overlap

Fixture overlap 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).
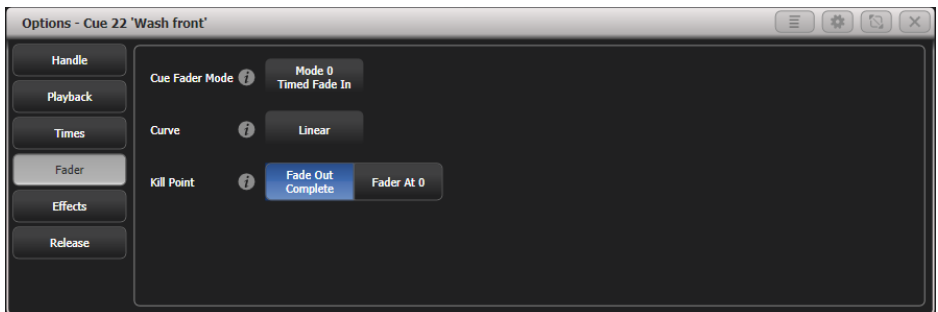

Flash Fade In / Flash Fade Out

Sets the fade in/fade out time for this playback when it is fired using the flash button. By default these are set to *"As In"* and *"As Out"* which will use the fade time set for the playback in the Times menu (Section 10.5). This option allows you to set a different flash action for the playback. *Note that the Key Profile (Section 19.4) for the flash button must be set to* **Timed Flash** *for this to work.*

Speed

Default speed for shapes/effects in this playback in BPM. This can be overridden by a Rate or BPM master (Section 10.3.5).

10.6.4 Fader Tab

Cue Fader Mode

Sets how the fader position affects the cue output.

Setting	Action
Mode 0	Channels fade in as set by the fade time. The Fade Out time is ignored. If times are set to zero, the HTP channels fade in with the 0-100% position of the playback fader and the LTP channels will snap.
Mode 1	HTP channels fade in and out as set by the fade out times (LTP channels fade in but then remain as set in the cue). If times are set to zero, the HTP levels will fade in and out with the fader and the LTP channels will snap when the cue is fired.
Mode 2	Both HTP and LTP channels follow the fader position. *Useful when used with a pan/tilt cue for manually tracking a spot across a stage or down a catwalk using the fader position or for mixing colours on RGB fixtures.*
Mode 3	Crossfade cue. All channels, including intensity channels, will fade to the settings in the new cue. All other cues fade out and all other active playbacks become inactive; if you need to re-fire a playback, take the fader to zero and put it up again. *Useful for setting a video playback state.*

This is the same as the Fade Mode (Section 10.5.1.1) option in the [Edit Times] menu.

Curve

Allows you to set a different curve shape for this playback - curves are listed on the softkeys. The various curves are illustrated in the Curves (Section 19.7) section.

Kill Point

Sets where the console will start the Release process on this cue, causing LTP channels to be released back to their previous state. Normally this is set to happen when all fades have completed so the fixture won't change until it has dimmed to zero.

Setting	Action
Fade Out Complete	The cue is killed when all fades have completed.
Fader at 0	The cue is killed when the fader reaches zero.

10.6.5 Effects Tab
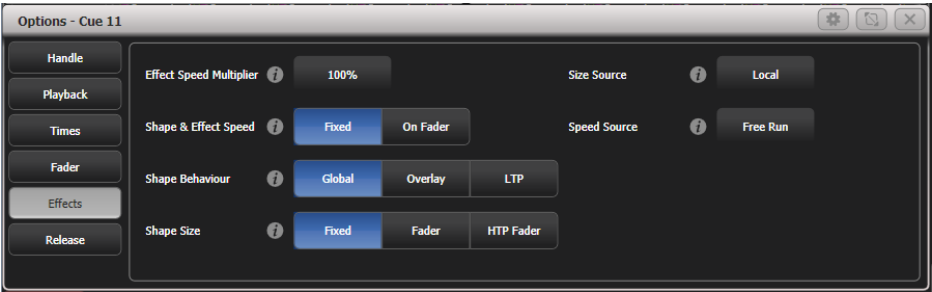
Effect Speed Multiplier

Lets you modify the speed of the effects programmed into this playback.

Shape & Effect Speed

Sets whether the fader position modifies the speed of shapes in this playback. If set to [On Fader] then the speed will change from 0 with the fader at 0, up to the programmed speed with the fader at full. You can use the multiplier option above to get faster speeds than the programmed speed.

> If you have a cue which contains only shapes to overlay on other cues, set the cue to [Size on Fader] and allocate a Speed Master (Section 10.3.5). You can then create lots of different looks out of the shape by varying the size and speed at show time using the playback fader and the speed master.

Shape Behaviour

Controls the behaviour of Shapes and Key Frame Shapes in this playback:

	Setting	Action
	Global	Use global setting from User Settings (Section 10.6.5.3)
	Overlay	Shape continues to run over changes to attributes

	Setting	Action
	LTP	If attributes are changed, the shape will stop running on those attributes

Shape Size

Sets whether the fader position modifies the size of shapes in this playback

|	Setting	Action
	Fixed	No effect
	Fader	Size of all types of shape set by fader position (from 0 up to the programmed size)
	HTP Fader	Only dimmer shapes are controlled by fader position

Size Source

Allows you to allocate a Size Master (Section 10.3.5) to control the size of shapes running in this playback.

Speed Source

Allows you to allocate a Speed Master (Section 10.3.5) to control the size of shapes running in this playback.

10.6.6 Release Tab
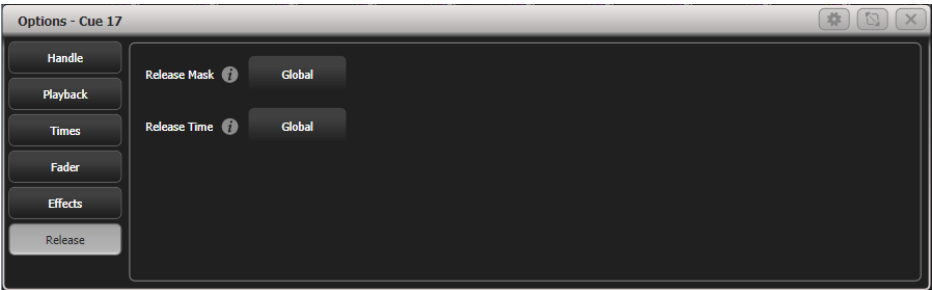
Release Mask

Lets you specify which attributes will be released to their previous state when this playback is killed (you lower the fader to zero).

Normally using the LTP rules, attributes will stay in their last state when you kill a playback. This is not always what you want (for example with a strobe cue, you don't want the strobing to carry on when you kill the cue).

Click the {Global} button to toggle the mask to {Local}, then select which attribute types you want to release. You can also use the Attribute Bank buttons to set the mask.

Global release uses the Global Release Mask (Section 10.3.7.1).

> Release mask is useful when creating a temporary strobe effect on a playback. Set **Mask** to **Local** then **Intensity** to **Include**. Now when you turn off the playback the shutter channel will release to its previous state and the strobe will stop.

You can also use Key Profiles (Section 19.4) to allocate one of the handle buttons to release this playback.

Release Time

Sets a release fade time for this playback. Enter a blank time to return to global (Global release time (Section 10.3.6) is set in the User Settings.)

10.7 Copying

10.7.1 Copying a Cue

Using the <Copy> button you can make a **copy** of an existing cue, or create a new playback which is **linked** to the existing playback. You can **copy** multiple playbacks (which may be cues, chases (Section 11.1) or cue lists (Section 12.1)) in one operation.

Linked cues are handy if you want a cue to appear on more than one page for ease of operation; also the linked cue can have different timings (Section 10.5) and playback Options (Section 10.6) from the cue it's linked to.

> 1. Press <Copy>
> 2. If you want to make a linked copy, press <Copy> again or press the [Link] softkey.
> 3. Press the **select** button of the cue you want to **copy**. You can select a range of playbacks by holding the first button while pressing the last in the range, or use the <Thro> and <And> buttons to add more playbacks to the selection - hold down <And> to keep adding them.
> 4. Press an empty select button where you want it to go, or if you are copying multiple playbacks, where you want them to start.

- The <Menu Latch> button latches the **Copy** menu, so you can keep copying things without having to keep pressing the button. The latched menu will stay active until you press <Menu Latch> to unlatch it.

- [Retain Layout] or [Bunch Up] is used when copying a group of cues with empty playbacks in the group - you can either keep the empty playbacks, or bunch up the used playbacks together.

- The option [Copy Legends] can be changed to [Don't copy legends] so that the copied cues are given default legends.

10.7.2 Moving a Cue

The <Move> button allows you to move one or more cues to a different playback handle. **Move** is useful for tidying up the console after programming to put similar cues together or move them onto different pages.

Again you can move multiple cues by holding down the first playback button while pressing the last in the range or using the <Thro> and <And> buttons as described above and latch the **Move** function using the <Menu Latch> button.

- On older consoles which do not have a hardware button for Move, hold <Avo> while pressing <Copy> to obtain the **Move** function (as printed on the console panel).

- When moving a block of cues, [Swap Items if Required] will attempt to reposition any existing playbacks which are in the way of the moved block. This is useful when rearranging playbacks on a page which is nearly full.

10.7.3 Deleting a Cue

To delete a cue:

1. Press the <Delete> button
2. Press the **select** button of the cue you want to delete
3. Press the **select** button again (or press <Enter>) to confirm the delete

- Instead of deleting the cue you can select [Unassign], this will remove the cue from the handle but retain it for future use. Go to the Show Library (Section 5.7) to reuse unassigned cues.

- Press <Menu Latch> to keep the delete mode active. You can keep deleting using **steps 2 and 3** without having to keep pressing the <Delete> button. Press <Menu Latch> to exit latched delete mode.