Version History

<table>
<thead>
<tr>
<th>Version</th>
<th>Release Date</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td>2/5/17</td>
<td>New features, improvements and fixes. (Revised: 26/4/17)</td>
</tr>
</tbody>
</table>

Version 10.1

Upgrade Procedure

1. **Upgrading from: All Consoles:**

   Please note that version 10 and above will not work on original Tiger Touch and Pearl Expert consoles without the 'Pro' upgrade including the UPS board. Additionally all consoles require 4GB of RAM and a 40GB SSD. Please contact Avolites for further information.

   **V10.1 ASP panel update warning**
   
   - When upgrading the firmware for the Arena ASP board it is normal for both screens to go black for over one minute. Do not power down the console during this period, as this will interrupt the update.
   - The screens will return to normally automatically, in the rare cases that they do not (after 3 minutes) press the panel reset button on the back to kick-start the panel and screens.
   - The external screen will not be affected and therefore we advise to use one during the process of updating the ASP board.

2. **Upgrading from: Consoles 6.0 and above:**

   For consoles the software must be upgraded by running a version 10.0 recovery stick. You can download the 10.0 recovery stick from [here](#). Please follow the instructions given when downloading the recovery stick to install version 10.0. When running the recovery stick, selecting Standard Recovery will retain any shows saved on the console and preserve your previous license. If you are running a Full Erase recovery then you can reuse the license which was emailed to you previously.

3. **Upgrading from: Consoles 10.0:**

   Please ensure you save and backup your shows before attempting to upgrade any software. An automated upgrade path from Titan 10.0 is provided. You can download the latest Titan software by clicking on the relevant console [here](#). Full instructions for upgrading both with an installer and a recovery stick are supplied with the download and can be found in the console manual. The installer upgrade procedure is reproduced briefly below: Please save the software to the root directory of a USB stick or other media and follow these instructions: Insert the USB stick in the console and select Control Panel > Titan Installers > Titan 10.1 Setup on the tools menu. Follow the instructions presented by the installer, taking care to read each step carefully. Once the setup completes you need to restart the console. When the console restarts it should be updated to the new software, please check this by reading the version number in system mode.

4. **Upgrading from: PC any version:**

   Please note that as of version 7.0 Windows XP and Vista operating systems are no longer supported. Supported versions on Windows are Windows 7, Windows 8, Windows 8.1 and Windows 10. This affects Titan One, Titan Mobile, Titan Simulator and Personality Builder. Please ensure you save and backup your shows before attempting to upgrade any software. You can download the latest Titan software by clicking on the relevant console [here](#). Please download the setup file to your computer. When it has finished downloading find the setup file and double click to run it. Follow the instructions presented by the installer, taking care to read each step carefully. Once the setup completes you need to restart the computer.

5. **Upgrading from: Titan Remote Apps:**

   Users wishing to use Titan Remote with version 10.1 should download the new Titan Remote V10.1 app from the relevant app store. The existing apps will continue to work with previous Titan software versions.
New Features

1. Beats and Sync:

Chase and effect speed control/options have been significantly overhauled.

BPM Masters now incorporate both a BPM speed and a synchronisation time. When a playback is attached to a BPM Master all of its shapes and effects will be synchronised to the tap time of the BPM master. If you fire a playback halfway between beats the shapes will start half way through the cycle.

When selecting Speed Source in the effects category of playback options there are two new softkeys - [Free Run] and [Local].

By default this is set to [Free Run] and behaves as per previous versions where any shapes or effects will synchronise when the playback or cue is fired and run at their recorded or live speeds.

When set to [Local Clock] the playback will act like its own BPM Master; the recorded shape or effect speeds and speed on fader setting are overridden and will instead all synchronise together in phase and to the beat according to the 'Speed' parameter of the playback. A 'Tap Tempo' action has also been added to the key profile options for cues and cuelists and if an associated key is set to tap tempo, tapping the key will set the playback speed and synchronisation time providing a way to tap local shape and effect speeds in cues and cuelists in the same way as chases. When tapping the speed either via [Local Clock] source or via a BPM master, chase steps, associated shapes, effects in cues or cuelists will synchronise to the tap. When BPM masters are set as the speed source any associated effects or chases will automatically lock in sync when fired, even if they are fired part way through the beat.

In the Shape Generator menu there is a new [Beat Count] softkey. The 'Beat Count' determines how a controlling speed is applied to the shape. By default this is set to 1 which will mean each beat corresponds to the whole shape cycle and is how previous versions behaved. Pressing the [Beat Count] softkey will open the 'Beats Per Cycle' menu where you can input a value or select [Match to Spread] which will automatically set the beat count to the current spread value. This is particularly useful when using dimmer shapes. Selecting [Custom] will switch back to the beat count value that was last input.

In the Effect Editor for Key Frame Shapes there is a new 'Beats Per Cycle' parameter. This works in the same way as with 'normal' shapes whereby the default setting is 'Custom' with a value of 1 which will mean each beat corresponds to the whole shape cycle. Selecting the value will open a softkey menu where you can input a new value or [Reset to default value]. This will also connect the 'Beats Per Cycle' control to wheel A. Selecting the 'Spread' option will set the beat count to match the current spread value and the 'Keyframes' button will match the beat to each frame. Each key frame shape and layer can have its own beat settings and these can be viewed or edited after recording via the Key Frame Shape Effect View where a new 'Beats Per Cycle' column has been added.

It is now possible to set multipliers or dividers on playbacks and cues. These work independently to the speed source and can be used to modify controlling speeds of chases or effects, for example you could have two chases, both set to be controlled by the same BPM master but where one of the chases runs at half the speed of the other.

In the Edit Chase Times menu ([Edit Times]<chase playback>) there is a new [Speed Multiplier] softkey and in the touch playback options for chases there is a new 'Speed Multiplier' parameter in the 'Playback' category. By default this is set to 'x1'. Selecting this will open the 'Chase Speed Multiplier' softkey menu where you can input a custom value or select one of the most popular options: '/4' (run at a quarter of the speed) ,'/2' (run at half speed), 'x1' (normal speed), 'x2' (run at twice the speed) and 'x4' (run at four times the speed). Custom values input can be toggled between a multiplier or divider by pressing the [Multiply or Divide] softkey.

Similarly, it is possible to set multipliers or dividers for shapes or key frame shapes on a per cue basis. A new 'Effect Speed' column has been added to Playback View. Selecting an effect speed cell will open the Cue Effect Speed Multiplier where you can input a custom value or chose one of the popular options in the same way as for chases above. These will modify any shapes or key frame shapes contained within the cue and default to 'x1'.

It is also possible to set speed multipliers or dividers on BPM masters. This provides a way to determine the relationship between what is tapped and associated targets independent of the target multiplier along with the ability to vary this as required. The current multiplier and BPM are shown in the playback touch area.

There are three new softkeys in BPM master playback options. By default the BPM master fader controls BPM with the playback touch area showing the current BPM in a large font size above the current multiplier in a smaller font size. Toggling softkey E to [Multiplier On Fader] changes the fader to control the multiplier and swaps the values in the playback touch area so that the current multiplier is shown in a large font size above the current BPM speed in a
smaller size. [Multiplier Scale] determines the range of multiplier options available on the fader. By default this is set to '/8 to x8'. Selecting this will toggle between '/2 to x2', '/4 to x4', '/8 to x8', '/16 to x16' and '/32 to x32'. While in [Multiplier On Fader] mode it is also possible to input multipliers values that are within the scale directly by typing the value numerically and the selecting the BPM master handle. Multipliers set while in [Multiplier On Fader] mode are retained when in [BPM On Fader] and where keys are set to Tap Tempo actions, tapping will always set the BPM speed, regardless of mode. By default softkey F is set to [Keep Multiplier On Tap]. In this mode the master multiplier is retained when tapping a BPM master and with the multiplier being applied to the tap and associated targets (for example with a multiplier of x2, tapping at 120 BPM will send a speed of 240 BPM to the target). Alternatively this can be toggled to [Reset Multiplier On Tap] where tapping a BPM master will immediately revert the multiplier to 'x1'. This can be used to ensure that the tapped speed is transferred to the target regardless of what the multiplier might have been set to. This can also be set via User Settings/Times. Additionally, [Reset Multiplier], [Multiplier x2], [Multiplier /2] and [Zero Multiplier] key profile actions can now be assigned to master handle buttons and when in [Multiplier On Fader] mode, the [Nudge Up] and [Nudge Down] actions will increase the multiplier by x2 or decrease the divider by /2 respectively. Where there are multipliers in both the BPM master and associated targets they will be applied additively, for example if a BPM master has multiplier 'x2' and an associated target chase also has a 'x2' multiplier, the chase will run at four times the speed tapped on the master.

It is also possible to place the speed, effect multiplier, speed multiplier and speed source parameters in programmer which will set the chosen options when recording new or merging into existing cues. This provides an alternative method to set these parameters and is particularly useful if you need to quickly set the same parameters on a number of new or existing playbacks or cues.

Pressing TIME followed by the OPTIONS key will reveal the 'Edit Programmer Rate Settings' softkey menu. To place a local speed in the programmer select softkey A and input the required value, select softkey B to place an effect multiplier/divider in the programmer, select softkey C to place a speed multiplier/divider in the programmer and softkey D to place the speed source in the programmer. If [Local Clock] is chosen as the speed source an extra [Tap Tempo] option will appear on softkey G. Tapping this will automatically set the local speed value according to the tapped speed. Where relevant the associated softkeys will highlight to show when parameters are in the programmer and when recording new or merging into existing playbacks or cues any parameters in the programmer will automatically set or update their associated options.

Additionally, pressing INCLUDE followed by a speed master will automatically place it in the programmer as speed source which can then be recorded or merged into playbacks.

In User Settings/Times there is a new 'Compensate for Rate Grand Master' switch. When enabled (default) and a rate grand master has been assigned, tapping on a BPM master will compensate for the level of the rate grand master if it is not 100%. This ensures that the result is in time with the tap, regardless of the current rate grand master level. When turned off the tapped speed transferred to any targets will be affected by the rate grand master level.

It is now possible to connect to rate and BPM masters. Pressing Cue/Connect followed by a rate master or rate grand master will connect wheels to the level allowing the rate to be adjusted by wheel. Pressing Cue/Connect followed by a BPM master will connect wheels to speed and 'Edge Sync'. Touching above or below the rate or speed in the wheel touch display area will nudge the associated value up or down. Pressing the associated wheel at key or touching on the value itself will open a softkey menu where you can input numerically or [Release] (resets speed and multiplier to default). Wheeling the 'Edge Sync' control provides a way to nudge the synchronisation forwards or backwards wheeling clockwise or anticlockwise respectively.

Pro DJ Tap trigger mappings have been added. When enabled, this maps master to BPM Master 1, Layer A to BPM Master 2 and Layer B to BPM Master 3.

The tap tempo function now averages taps.

2. **Scene Master:**

A new type of master called 'Scene Master' has been added. This provides a way to prepare a 'scene' in advance which might comprise a number of different cues, palettes and timings and then fire them all at the same time once ready.

Master key profiles have now been split into 'Standard Masters' and 'Scene Master'. When using the default 'Program' key profile with scene masters assigned to playback faders the blue key enters or exits preset mode and the grey key commits the preset to live. On consoles with black keys the default action is to exit preset mode. If the scene master is assigned to an executor key or playback workspace handle the program profile action is to enter preset mode or commit preset to live. Other key profile actions available are 'Disabled', 'Enter scene Mode', 'Commit Changes and Exit scene mode' and 'Preload scene Mode' which will preset any LTP controls ready in place so that they don't fade in by fader or timed commit. Additionally, AVO + scene master or RELEASE + scene master can be used to exit preset mode.
When a Scene Master is first assigned it defaults to ‘Live’ mode. In this mode the touch playback area will show ‘LIVE’ and any changes will happen live on stage as usual. When ‘preset’ mode is entered the handle changes to read ‘PRESET’ and highlights in purple. In this mode changes can be setup in dark and then committed to live when ready. This can include firing/ killing or releasing playbacks, go cues in cue lists, applying palettes or programmer. Any changes made in preset mode are represented in purple and while in ‘Preset’ mode the internal visualiser will change to reflect the preset output.

Where a scene master is assigned to a playback fader the fader can be used to manually fade the preset to live and there is a percentage value and bar level indicator in the touch playbacks area to show its progress. Normally all controls will fade in and out proportionally according to fader level. If the ‘Preloads scene Mode’ action has been assigned to a button, pressing this will load any preset LTP controls ready in place so that only intensity will fade by fader. There are three different fader modes available by toggling softkey C[Playb Options]. By default this is set to [Auto Commit and Invert]. In this mode once the fader reaches 100% the preset will be automatically committed and the fader is inverted ready to fade in and commit the next preset state. [Auto Commit] is similar except the preset state can only ever be faded by lifting the fader. After reaching 100% the fader must be lowered to zero before the next preset state can be faded. When set to [Manual Commit] the fader will never commit providing a way to fade a preset state in and out of full as much as is required. In this mode the preset state can be committed by pressing a button which has a relevant key profile action assigned (ie. [Commit Changes], [Commit Changes and Exit scene Mode] or [Enters or Commits scene Mode]).

When committing to live any times in cues or palettes or live palette times will be used. This can include combinations, for example, fire intensity cue with 1s fade in, apply colour palette to fixture group over 2s and apply position palette to fixture group over 5s - on commit all will fire with their respective times. It is also possible to commit to live over a specified time by entering the value in seconds followed by commit. In this case the live time will take precedence over any recorded cue times while preserving any live palette times where relevant.

3. **Link Shapes to Groups:**

Shapes and Key Frame Shapes created using groups will now maintain links to the groups in the same way as pixel maps providing a way to reuse and edit fixture orders or layouts across multiple cues rather than setup/edit each one individually.

If a group is selected when creating a shape or key frame shape its layout and fixture order will be used. Adding/removing fixtures to/from a group or changing its fixture order/layout will directly affect any shapes or key frame shapes linked to that group. If a linked group is deleted the layout and fixture order will be preserved in any associated cues. Undoing this will restore the link.

Fixtures can be added to a group by selecting the fixtures followed by RECORD/<group handle> or [Merge]. Similarly, you can replace the contents of a group while maintaining links by selecting the fixtures followed by RECORD/<group handle> or [Replace]. You can also add or remove fixtures from a link while maintaining links by toggling fixture handles on/off in the ‘Edit Groups’ menu (GROUP/[Edit Groups]).

If [Add/Remove Fixtures] is used to remove fixtures from a shape that are currently linked to a group a [Remove Fixtures] confirmation softkey will be shown along with a prompt explaining that the link between the shape and group will be broken. Pressing [Remove Fixtures] at this point will remove the fixtures and break the link. Pressing [Cancel] will keep the fixtures and link.

The fixture order and layout of a group can be adjusted either via [Edit Times]/<group handle>/[Fixture Order] or [Edit Layout], [Shapes And Effects]/[Pixel Mapper]/[Edit Group Layout]/<group handle>, GROUP/[Edit groups]/[Fixture Order] or [Edit Layout] and, where shapes are in the programmer or being edited live, [Shapes And Effects]/[Shape Generator]/[Edit]/[Edit Fixtures/Groups]/[Edit Groups]/<group>/[Fixture Order] or [Edit Layout].

(note that after removing from or adding fixtures to a group it may also be necessary to edit the order and/or layout)

4. **Timed Flash on Cuelists and Chases:**

It is now possible to set fade in and fade out times for a timed flash independently to times used when fired by fader. For chases this means it is possible to make a chase fade in and out when flashed while maintaining speed and crossfade. New [Flash Fade In] and [Flash Fade Out] options have been added to playback options for cues, chases and cuelists. By default these are set to [AsIn] and [AsOut] respectively in which case a timed flash will follow the timings set in the cue. Values input here will override cue timings when using timed flash.

5. **Open Playback View on Connect:**

A new option called ‘Auto View On Connect’ has been added to the Wheels category in User Settings. By default this set to ‘Off’. If ‘Chases’, ‘Cue Lists’ or ‘Chases And Lists’ is selected,
connecting to an appropriate playback will cause the associated playback view to open automatically. This provides a way to keep the view in sync with the current connection and works in conjunction with (but is not dependent on) the similar 'Auto Connect' options. For example, if 'Auto Connect' and 'Auto View On Connect' are both set to Chases and Lists then firing a chase or cue list or connecting manually will cause the associated playback to open automatically. If, in this example 'Auto Connect' is turned off, then the playback view will only open when manually connected.

6. **Release Priority:**

It is now possible to set a priority level for release. This provides a way to exclude playbacks from release. In User Settings/Release there is a new 'Release Priority' setting and in the 'Release Playback' menu there is a new [Release Priority] toggle on softkey F. By default this priority is set to 'Programmer'. When using the 'Release Playback' menu pressing the [Release Priority] softkey will cycle through the various priority levels (ie. 'Low', 'Normal', 'High', 'Programmer' and 'Very High'). When pressing the [Release All Playbacks By Priority] button, double-tapping Release or using the factory release macros only playbacks that are equal to or below the Release Priority setting will be released. Shift (AVO) + Release will override the priority setting and release all. Individual playback release is unaffected (ie. Release/<select playback handle>.

7. **Timed Release All:**

It is now possible to release all over a temporary time. n + Release/Release will release all playbacks by priority over n seconds. n + AVO/Release will release all playbacks over n seconds. This will override master and local playback release times.

8. **Auto Run Playbacks on Start:**

It is now possible to make playbacks automatically fire when the show is loaded. This is particularly useful in unsupervised/installation applications (for example in the event of a power failure) or to automatically strike lamps via macros etc.

A global 'Auto Run Startup Playbacks' toggle switch has been added to the general category of User Settings and a new [Run On Startup] toggle switch has been added to [Playback Options] in the Playback category. By default this is turned off. If this is turned on and the global setting is enabled (default) then any associated playbacks will fire when the software is started or when loading the show. If required this can be disabled via the user setting option rather than having to change the setting on individual playbacks.

Where a playback is set to automatically run on startup a power symbol watermark will be shown in the associated handle and a 'Show Startup Playbacks' filter has been added to the Show Library context menu. When enabled only playbacks set to automatically run on startup will be shown in the playbacks section providing a way to quickly see what will automatically run on startup.

9. **Lock Startup Show:**

A new [Start Up Show] option has been added to the Disk menu. By default this is set to 'Unlocked'. Pressing this will open the 'Start Up Show Lock Settings' menu with softkey options to [Create And Lock Show] or [Cancel]. Selecting [Create And Lock Show] will immediately save the current show as a startup show and the disk menu softkey will now be highlighted as [Start Up Show Locked]. Pressing the button when in this state will reveal softkeys to [Update Show] or [Unlock] where [Update Show] will update the startup show to the current state. While locked any changes made to the show after this point will be ignored when the software is closed and when it is restarted it will revert back to the state of the show at the point when it was locked. This setting persists between restarts and provides a way to ensure shows always start in a particular state.

10. **PC Suite Confirmation on Exit:**

When closing Titan PC suite (Titan Mobile, TitanOne and Titan Simulator), a 'Close Software?' confirmation prompt will appear. This helps prevent accidentally closing the application. Pressing 'Ok' will close the software. Pressing 'Cancel' will cancel and return to the application.

11. **Attribute Editor Cell Layout:**

In previous versions the cell handles for multi-cell fixtures could often appear in a seemingly random order in Attribute Editor. This has been changed so that the handles now appear with the same real-world layout as used for pixel mapping making it much easier to understand which cells you are editing. Additionally it is now possible to marquee select a range of cells if required.

A new context menu toggle has been added to the Attribute Editor workspace to show (default) or hide cells where applicable.

(Note that where fixtures only have a single column of cells they will always be represented as a horizontal line for convenience.)
12. **Block Running Shapes:**

A new [Block Shapes] softkey has been added to the 'Shapes And Effects' menu. Pressing this will open the 'Block Running Shapes' menu where any currently active shapes from cuelists will appear along with a [Block All Shapes] softkey. When a shape is selected it will stop running and highlight in blue to show it is blocked. Recording this into a cuelist will set the selected shapes to block where tracked from previous cues. [Block All Shapes] will stop all running shapes and when recorded into a cuelist will set any shapes tracked from previous cues to block.

13. **Release Key Profile for Masters:**

A [Release] action has been added to the key profile options for Intensity, Rate, BPM and Size masters. This will reset the associated master to its default values.

14. **Select If Key Profile:**

A 'Select If' action has been added to the key profile options for cues, cuelists and chases. When assigned pressing this will select any fixtures used in the current cue of the associated playback.

15. **Multi-user Capture:**

It is now possible to open Capture on all consoles in a multi-console session with any changes synchronised across the instances.

16. **Indicate Attributes Overridden by Priority:**

Where an attribute in programmer that is connected to a wheel is currently overridden by a playback with a higher priority a 'PRIORITY' watermark will appear in the touch wheel display for that attribute.

17. **Media Workspace Window:**

A new workspace window called 'Media' has been added. This provides a dedicated space to store media server palettes such as clips and when CITP thumbnail capable active fixtures are patched an image of the clip will be used for the legend. When using quick record this workspace will mask to include Intensity, Gobo, Beam, Effect and Special groups (these are the same as the 'Gobos and Beams' palette workspace). If required you can also record groups, workspace shortcuts and macros.

18. **Titan Server:**

It is now possible to run TitanNet Processors (TNP's) as a stand-alone console. When set to console mode it is also possible to attach a Titan Mobile.

This is ideal for situations such as unattended installs where a rack mountable controller is preferable. The TNP can perform all the functions of a standard console and has a number of interface options on the touch screen for firing playbacks and setting up your show. Using multi user a standard console can be connected to the system for the purposes of additional control or updating the show file.

19. **AI/Phase master:**

It is now possible to create a keyframe shape that has its position driven by sampling pixel values in AI. This allows you to create advance attribute effects linked to the video server output in 2D space.

To use this feature you need to have a network connection to an AI server that has the Titan Media module patched and running. The fixture type within AI that phase is linked to must be a pixel map fixture. When the console discovers the AI server over the network it will appear in the TitanNet Overview tab of the DMX settings. You must assign at least one DMX line to the media server for the phase master to work. You now need to select a group which has a valid layout and create a keyframe shape from the group. The layout in the group determines the pixels in the video used to control the keyframe position. Normally black will be at the start of the timeline and white will map to the end of the keyframe shape timeline. When creating the keyframe shape you need to turn on the Phase Master option. Now the keyframe shape position is directly linked to the video pixel brightness. As you change the video brightness the respective fixtures will obey the position within the keyframe shape.

**Improvements**

1. **Enhanced colour model:**

   New colours have been added to colour picker model to improve compatibility with LED fixtures including UV (or purple/indigo), lime (or light green/mint) and 'additive' cyan and yellow.

2. **Capture invert pan/tilt:**
It is now possible to invert pan and tilt for Capture fixtures providing a way to simulate similar options on real-world fixtures. Where relevant the 'Invert Pan' and 'Invert Tilt' controls will connect to wheels in the 'Beam' attribute group for selected fixtures when the wheels are in Visualiser mode ([Wheels=Visualiser]). By default these are set to 'No'. Use the associated wheel or touch in above or below the value to toggle to Yes/No as required. Alternatively, touching on the display or pressing the associated @ button will provide an [Invert] toggle on softkey A along with a [Reset to default value] option on softkey B.

3. **Auto Group Legend:**
   Auto groups will now use legends input when patched.

4. **PC Suite Keyboard Focus:**
   Previously when using Titan PC Suite it was sometimes not possible to input using the keyboard until the application title bar was clicked. This has been improved so that now clicking anywhere in the window will focus the keyboard.

5. **Save speed:**
   The amount of time taken to save shows when using full and quicksaves has been reduced.

6. **Channel Grid column width:**
   The column size in Channel Grid can now be toggled between five fixed widths in the window appearance settings. Options are 'Tiny', 'Small', 'Normal' (default), 'Large' and 'Super Size'.

7. **Highlight current shape direction:**
   The currently selected shape direction is now highlighted in the softkey menu.

8. **Range Renumber Groups:**
   It is now possible renumber a range of groups.

9. **Automatically close context menu:**
   Previously when selecting certain functions from the drop-down context menus the menu would remain which could obscure selected options such as search. The drop-down context menu will now automatically close when selecting these functions.

10. **Shape Fixture View global property:**
    When editing shape properties via Shape Fixture View a new [Set to Global] softkey has been added to the 'Set Shape Property Value for Fixtures' menu to provide a way to change edited values back to global.

11. **Display imported key profile:**
    After importing a key profile it will now switch to the current show and highlight the newly imported profile to confirm that the import was successful.

12. **Import user from Disk/Users menu:**
    It is now possible to import users from the Disk/[Users] menu. An [Import User] softkey has been added to the 'Manage Users' menu.

13. **Capture camera positions from Capture window:**
    A 'Camera Positions' button has been added to the Capture Visualiser context menu to provide a way to change the Capture views without having to open the Capture Visualiser Settings window. Selecting this will reveal a sub menu where you can toggle quad view on/off, toggle between the four views where applicable and select any of the factory or custom camera positions. Press exit to end Capture Window control.

14. **Show fixtures with Capture personalities:**
    A new 'Capture' column has been added to the Patch View Personality List along with a 'Capture Available' field in Fixture View. Where personalities can currently be represented in Capture they will be shown with a tag in these fields.

15. **Image Control zoom slider non-linear:**
    The zoom slider in the Attribute Editor Image Control pane has been made non-linear to provide greater precision at the lower end.

16. **Disable RDM option:**
    A new 'Block RDM' switch has been added to the DMX Module Properties for Streaming ACN and Art-Net in DMX Settings. By default this is turned off. Toggling to On will prevent RDM
information from being transmitted on the associated protocol.

17. **Wheel acceleration per user:**
   The 'Wheel Sensitivity' User Setting is now stored in a per user basis and changes to this value can be undone/redone.

18. **Verbose load show errors:**
   The load progress screen has been overhauled. If problems have been detected while loading the show warnings or errors will be shown against the relevant section along with verbose details in the event log and options to fix if possible.

19. **More curves:**
   Additional linear playback and dimmer curve options have now been added from 10% in 5% increments. Note that you will need to install the latest personality library in order to use these.

20. **Harmonisation of effect parameters:**
   Similar effect parameters now all use the same formatting for normal shapes and key frame shapes and between wheels/ across various consoles and windows.

21. **Copy/ Move playback cues:**
   When moving or copying cues within or across playbacks the undo history now shows a more exact description of the operation (i.e. whether it is move or copy)

22. **Console remains locked after restart:**
   The console lock state is now preserved after shutting down or restarting the software. Previously, restarting the software would always unlock a locked console. This has now been changed so that a locked console will remain locked after shutting down/restarting the show and the screen will prompt to enter the password. If the password has been forgotten the code '68340' will unlock the console.

23. **TNP Stability Enhancements:**
   In previous software versions the TNP system relied on a highly reliable network connection between all devices to function correctly. Loss of connection between a device may have caused elements of the show to be lost or fixtures to appear with the legend "Fixture" and control would be lost. To recover the fixtures a re-load of the last save would be required.

   To improve the stability of the system and ensure that even when a problem occurs with your network the show remains intact we have introduced a number of changes. Most notably the show is continuously synced back to the master console so in the event that any TNP becomes uncontactable you have a number of options. During the time while the TNP is missing you can still save the show successfully and then choose either to fix the issue or move the lines to a working TNP. Once the fault has been resolved the system will continue to work with no loss of information from the show.

   It is important to note that whilst your show data will remain safe you will still be required to fix any errors to restore control of your lights. Having a reliable and stable network is still a requirement to ensuring you have a functioning TNP system.

24. **Unassign DMX line:**
   It is now possible to unassign unused lines from consoles and TNP's. Selecting one or more assigned lines in DMX Settings/TitanNet Overview will reveal the 'TitanNet Lines Selected' softkey menu. Selecting [Unassign Lines] will unassign the selected lines from consoles or TNP's.

**Known Issues**

1. **TNP's can drop out with fades on pixel map masters:**
   In a large TNP system that is busy sometimes running a fade on a pixel map master either by running a timed palette on that master or by recording the master values into a cue and running the cue may cause a TNP to temporarily drop out and reconnect. To avoid this issue either set the fade time of pixel map master attributes to 0 or record the pixel maps without using the layer master.

2. **TNP's can reconnect when saving the show:**
   In a large TNP system saving the show manually or by QuickSave may cause one or more TNP's to disconnect and reconnect which will be seen as a pause in the output and an error in the event log. Auto saves are not affected. To avoid this issue do not do a full save while the show is running.
3. **Copies of global shape palettes are empty:**

   Attempting to copy a global shape palette will currently result in an empty palette that doesn't do anything. As a workaround select a suitable fixture, apply the palette and then record a new version on an empty palette handle, ensuring the palette type is set to global. Normally (using default settings) as long as only one type of fixture has been selected this will automatically be detected as a global palette and will therefore record as such but in some circumstances you may need to manually change it to manual (for example if 'Minimum Palette Mode' is set to anything other than 'Global' in User Settings).

**Changes**

1. **Disabled DMX on restart:**
   
   Previously if DMX was disabled it would re-enable when the software was restarted. This has been changed so that the disabled state is preserved.

2. **Capture appearance:**

   Some of the Capture appearance settings have been renamed to make the function clearer. 'Atmosphere' is now called 'Smoke Density', 'Atmosphere Contrast' is now 'Smoke Variation' and 'Atmosphere Speed' is now 'Smoke Speed'.

3. **Attribute group times 'not used':**

   Previously where attribute group times were not set the softkeys would read 'not used'. This has been changed so that they now show 'Global' instead.

**Bugs Fixed**

1. **Crash after delete/repatch fixtures with Capture open:**

   Fixed an issue where deleting fixtures and then repatching other fixtures to the address of the deleted fixtures would cause Titan to hang.

2. **Convert to cue list broken:**

   Previously when attempting to record into a memory cue selecting the [Convert to Cue List] option would do nothing and then prevent page change. This has now been fixed.

3. **Autoload fails if previous cue still fading:**

   Previously if an autoload cue was fired before a previous cue had completed its fade the autoload would fail. This has now been fixed.

4. **Autoload chases don’t kill:**

   Previously when autoloading chases from cuelists sometimes the chase could remain active when the cue that autoloaded was not. This has now been resolved.

5. **Blind to live intensity always fades from zero:**

   Previously fading a blind intensity value to live over a live intensity cue would always fade from zero causing the live intensity to change unexpectedly. Blind to live will now always fade values from the current live output.

6. **Global fade out delays and then snaps out:**

   Fixed an issue where a combination of attribute and global (playback) fade times in modes 1-3 would calculate the fades incorrectly causing snap in/ delay out then snap off instead of fades.

7. **HTP release fades:**

   Fixed an issue where HTP release fades would prevent other fades.

8. **Mode 2 and 3 don’t follow release time:**

   Previously when mode 2 or mode 3 cues were released they would ignore the release time and snap off. They now follow the release time correctly.

9. **Global in time:**

   Fixed an issue where global times could prevent cues from working where they also had individual attribute times.

10. **TNP reconnect didn’t kill previous cues:**

    Fixed an issue where after temporarily disconnecting and then reconnecting a TNP it would still
have active cues that had since been killed on the master.

11. **MiD and dimmer shapes:**

   Previously fixtures could move in dark during dimmer shapes. This has now been fixed so that dimmer shapes will prevent move in dark functions.

12. **Block shape sync:**

   Previously firing and killing a block shape in mode 2 on top of an active shape with the same fixtures/attributes would result in the mode 2 cue fixtures being out of sync with other fixtures in the shape. The fixtures will now fade back in sync.

13. **Mode 2 block shape doesn’t restore shapes when killed:**

   Fixed an issue where firing a block shape in mode 2 would not restore other shapes after it was killed.

14. **Chases ignore release without home:**

   Fixed an issue where chases that were set to cue release would still release to home values when the release without home user setting was enabled. Cue release now obeys the release without home function.

15. **Chase cue release and off:**

   Fixed an issue where cue release didn’t work with off values in chases.

16. **Pixel maps in cue lists don’t fire if the fader is at zero:**

   Previously pixel map effect cues would only fire if the fader was lifted. This has now been resolved.

17. **Can’t flash pixel maps in cuelist:**

   Previously it was not possible flash pixel map effects in a cuelist. This has now been resolved.

18. **Shared and normal palette times ignored with empty global or shared:**

   Previously if a palette contained a combination of global or shared attribute control values along with shared or normal times respectively they would not fire with times. This has been fixed.

19. **Edits in cue view do not output live:**

   Previously editing values of live cues in cue view would not update the live output. Editing live cues via cue view now updates the output immediately.

20. **Update palette on live chase with cue release releases to home:**

   Fixed an issue where updating a palette in blind with live chases with cue release on would result in the chase releasing to home rather than the updated palette.

21. **Cuelists with fire first cue enabled will skip the first cue in timecode:**

   Fixed an issue where time code would skip the first cue when fire first cue was enabled.

22. **Using go to record timecode skips cues:**

   Fixed an issue where using go to record timecode could skip cues.

23. **Blocked information lost on copy:**

   Fixed an issue where blocking information was lost when copying tracked cuelists.

24. **Cannot remove fixtures from cues after merge block:**

   Fixed an issue where merging as cue only into a blocked cue would incorrectly track to following cues which could then not be removed.

25. **Copy or move tracked shape can leave cuelist in inconsistent state:**

   Previously if a cue containing a tracked shape was moved or copied to a location where it cannot be tracked (ie. before the original shape, after the shape has been blocked or to a different playback), it would end up in the wrong state and might not work correctly. This has been fixed so that a new copy of the shape will be created if it cannot be tracked in the destination.

26. **Copy cue between playbacks fails with error:**
Previously attempting to copy a cue from a chase to a cuelist would fail with an error. This now works correctly.

27. **Copy cue syntax ignores decimal point:**
   Fixed an issue where entering point values when using the copy cue syntax would result in the wrong cue number.

28. **Backspace with floating point cue numbers:**
   Fixed an issue where pressing back after entering a decimal point when entering cue numbers would cause the cursor to jump to before the decimal point meaning you could accidentally end up with the wrong cue number if you were not looking.

29. **Cuelist auto window scroll broken:**
   Previously the playback view auto window scroll settings did not work. This has now been fixed.

30. **Can't connect to live shape after swop:**
   Previously after swopping a cue it would not be possible to connect to a live shape. This has now been resolved.

31. **Load show error:**
   Fixed an issue where load show would sometimes fail with an error message despite there being nothing wrong with the show.

32. **Occasionally can lock on load:**
   Fixed an issue where Titan would occasionally hang during load.

33. **Speed master key profiles broken:**
   Fixed an issue where BPM masters would always use default key profiles, regardless of settings.

34. **Time review unpredictable:**
   Previously using the try cue function to test times in programmer would not always replay reliably. This has now been fixed.

35. **Exchange colour mix to fixed pixel mapping:**
   Previously after exchanging from a colour mixing to a fixed colour fixture, pixel maps would be lost. Now they will convert to dimmer and if they are subsequently exchanged back to colour mixing they will revert to the original colours.

36. **Exchange from one control to two maps to both:**
   Previously if a fixture with one control such as gobo was exchanged to a fixture with two it would map to both. Now it will evaluate the options on both of the targets, pick the best match and set the other wheel to its locate value.

37. **Exchange RGB -> CMY -> fixed colour:**
   Fixed an issue where exchanging from RGB -> CMY and then to a fixture with fixed colours only would result in all colour cues reverting to open. Where possible the colours will now be preserved to the closest match.

38. **Exchange mapping not saved in showfile:**
   Previously if a mapping was set and saved and then changed, loading the show would use the new mapping. It will now remember the saved mapping when loaded.

39. **Update personality function id’s:**
   Previously updating a personality could cause functions to change unnecessarily. This has now been fixed so that it will try to keep the same functions wherever possible.

40. **Palette view persists for nested global palettes:**
   Previously updates to nested global source palette values would not be reflected in the target palette view. This has now been resolved.

41. **Cue view out of sync after undo add new palette channels:**
   Previously where cues referenced palettes and new controls were added via the referenced palette and then undone, the cue view would become out of sync and not show the correct
contents. It now shows the correct values with undo and redo.

42. **Shape Fixture View doesn't populate new values on edit:**
   Previously when making edits to parameters via shape fixture view the view would not update to reflect the new values until it was closed and reopened. Edits are now updated live in the cells.

43. **Shape view shows incorrect values for phase and phase offset:**
   Fixed an issue where the phase and phase offset cells in Shape View would always read zero, irrespective of the actual values.

44. **Channel grid home values incorrect after clear:**
   Previously cleared home values would persist as showing the value rather than '-' in channel grid. This has now been resolved.

45. **Channel grid does not populate effects live:**
   Fixed an issue where Channel Grid would not show effects fired/killed while it was open. It will now update to show effects live.

46. **Halos not displayed in certain areas:**
   Fixed issue where halos were not being displayed in the Arena Mini Display, Sapphire Touch workspaces, Mobile Wing, and Static Playbacks & Executors windows.

47. **Workspace quick record picture legend not stored:**
   Previously picture legends drawn when quick recording workspace shortcuts would revert to text on record. This has now been fixed.

48. **Preset palette user numbers:**
   Previously palettes created automatically using the preset palette patch option would not have user numbers which could cause problems with certain functions. This has now been fixed so that they have user numbers.

49. **Picture legends in Active Playbacks window:**
   Previously playbacks in the Active Playbacks window would only show text legends. Now they will appear with picture legends if set.

50. **Undo/redo On not marked in programmer:**
   Fixed an issue where, after setting an attribute to 'On' and then undo/redo would result in the value not being marked as 'in programmer'.

51. **Unfold empty legend indicator:**
   Fixed an issue where occasionally the legend indicator above handles would be empty after unfolding.

52. **Unfold chase cue legends:**
   Previously unfolded chases would not display step legends where set. Now the unfolded cues will appear with their legend.

53. **Undo copy/move fixture type group cannot be redone:**
   Previously, after moving or copying an auto fixture type group, undoing the operation would not remove from the history and redoing would not work. This has now been resolved.

54. **Release all masters slow first use:**
   Previously when using the 'Release All Masters' function for the first time, the masters would all release slowly one after another. They now all release together immediately.

55. **Wheel display programmer sync after undo times:**
   Fixed an issue where the wheel display for times would not show the correct programmer representation after undo.

56. **Capture doesn't show blind playbacks:**
   Previously playbacks set to blind would not show on the internal Capture when fired. This has now been fixed.

57. **Can't set picture legend after setting user number:**
Fixed an issue where attempting to set a picture legend after setting a user number would result in an error.

58. Can’t select cells after selecting master fixture in attribute editor:
Fixed an issue where it was not possible to select cells in the attribute editor after selecting the master fixture.

59. Can’t select cells after adjust attribute values menu:
Previously after entering the ‘Adjust Attribute Values’ menu (wheel @ or touch wheel value) it would not be possible to select cells in the attribute editor. This has now been fixed.

60. Attribute Editor does not show selected cells in certain situations:
Previously if more than one multi-cell fixture was selected and then the cells were selected using the [.]<enter> syntax, using Next/Prev would not highlight the cells in Attribute Editor. This has been resolved.

61. Time only palettes don’t copy:
Previously if a palette only contained time information, copying would result in an empty palette. This has been fixed.

62. No output after swapping fixtures and park:
Fixed an issue where swapping fixture addresses via repatch and park could result in the associated DMX channels being set to zero.

63. Repatch overlap breaks Capture control:
Fixed an issue where repatching a group of fixtures to a new start address that is currently in use by the same fixtures would confuse the internal Capture.

64. Record mask ignored when merging:
Fixed an issue where the record mask would be ignored when merging.

65. Palette merge mode guess:
Fixed an issue where the palette mode could be guessed incorrectly when merging into global palettes.

66. Deleted shapes don’t remove on replace:
Fixed an issue where shapes in a cue could persist after replacing the cue.

67. Merging on values adds controls to cues that were not originally present:
Previously if an attribute was marked as on in the programmer and merged into a cue, the cue would now contain the current value for that attribute even though it did not exist before. This has now been fixed.

68. Master palette time doesn’t reset on new show:
Previously the master palette time would persist after starting a new show. It now resets to default.

69. Master palette time doesn’t save:
Previously the master palette time would not save/load. This has now been fixed.

70. Fixture type auto groups break after save/load:
Fixed issues with fixture type groups after save/load.

71. Workspace pages don’t recall correctly:
Fixed an issue where workspace shortcuts would not recall the pages of windows correctly where relevant.

72. Record palette breaks when CMY and RGB controls in the same fixture:
Previously where fixtures had a combination of RGB and CMY controls in the same mode palettes could end up recording with the wrong values. Extra reserved colours have now been added to solve this.

73. Dimmer levels from faders don’t work correctly in blind:
Previously where dimmer values were placed in the programmer by fader they would not record
reliably and did not show in the internal Capture. These issues have now been resolved.

74. **Capture shows don’t save in autosave:**
Fixed issues with Capture shows loaded from autosave.

75. **Capture colour properties get stuck:**
Fixed an issue where it was not possible to change the colour of dimmers in Capture after adjusting other properties.

76. **Capture auto update does not patch immediately:**
Previously fixtures patched while Capture auto-update was turned off would not appear when it was turned on until another fixture was patched. Fixtures will now auto-patch correctly.

77. **Can’t delete workspace shortcut from setlist:**
Fixed an issue where it was not possible to delete workspace shortcuts added to setlists.

78. **Set list can’t input notes:**
Previously it was not possible to add notes in set lists. This has now been resolved.

79. **Set list add track auto page name:**
Fixed an issue where the set list track name wouldn’t update to the current page name if the page was changed after pressing add track.

80. **Master release could be set to global:**
Previously it was possible to set the master release time to global which could prevent playback output. Master release can no longer be set to global.

81. **Marquee select in edit group incorrect fixture order:**
Fixed an issue where using marquee select while editing groups could result in the wrong fixture order.

82. **Can’t edit values in playback options window:**
Fixed an issue where it would not be possible to enter numeric values in the touch playback options view if it was opened after using Edit Times.

83. **Lock when loading a show where a cuelist has every cue disabled:**
Fixed an unusual case where disabling every cue in a cuelist in a show would cause Titan to hang when loaded.

84. **Changing user numbers slow:**
Previously changing user numbers over a range of fixtures was rather slow. It is now much faster.

85. **Fixtures from non-local console missing from DMX view:**
Previously in a multiuser session handles patched on a remote console would not appear in the local console DMX view. This has now been fixed.

86. **Cannot patch more than one Ai mode:**
Fixed an issue where it was not possible to patch more than one mode of Ai.

87. **Capture wheels on open:**
Fixed an issue where it was not possible to access visualiser wheel controls if the wheels were set to visualiser before opening the Capture window.

88. **Locate not working correctly as a command terminator:**
Previously, pressing clear after using the syntax `<x>THRU<y><LOCATE>` would not clear the programmer on the first press. This has now been fixed so that locate works correctly as a command terminator.

89. **Capture element properties:**
Previously if a Capture element property was adjusted by slider after that property had been set to a value outside the range of the slider (ie. numerically or by wheel), selecting the value field would cause the value to snap back to the out of range value rather than the current value from the slider. This has now been fixed.
90. **Resize maximised snaps to non-maximised:**
Previously if you tried to freeform resize a maximised window with the option [Edit All Windows On] it would snap to its non-maximised size. This has been resolved.

91. **Freeform workspace wrong check for 1x1:**
Fixed an issue where when resizing a workspace could incorrectly prompt to tap again for any size that was just one grid high or wide. It will now only prompt if the size is 1x1.

92. **TNP set legend:**
Previously when trying to change a TNP legend inputs via the touch keyboard were not shown. This has now been resolved.

93. **Can’t set user number when marquee selection begins on an empty handle:**
Fixed an issue where starting a handle selection from an empty handle would not let you set a user number.

94. **Factory macro highlight:**
Fixed an issue where relevant factory macros would not highlight when pressed unless they were moved to a handle.

95. **Macro LED flash:**
Fixed an issue where the Macro LED didn’t flash during record.

96. **Arena wing masters don’t update values live in LCD:**
Previously masters assigned to the arena wing faders would not update values live on the LCD when adjusted. Now they do.

97. **Intensity display error:**
Fixed a very specific issue where using a combination of syntax to select fixtures in the groups and palettes workspace could result in last fixture showing no intensity on the wheels and channel grid.

98. **Artnet range assignments displays as wrong universe:**
Fixed a display issue where, after applying a range of Art-Net universe assignments in DMX Settings, the first universe would always read as 'Universe 0'.

99. **No warning when patching active fixture to invalid location:**
Previously if an attempt was made to patch an active fixture to an invalid location the warning prompt was missing. This has now been resolved.

100. **Playback view cue appears selected:**
Fixed an issue where the first cue in a cuelist would appear as selected for editing when playback view is first opened.

101. **Select empty fixture handle creates undo point:**
Previously touching an empty fixture handle would create an undo point unnecessarily. This no longer happens.

102. **Cuelist handle displays last cue after killed:**
Previously after killing a cuelist the last cue would still be shown in the handle display. This has now been resolved.

103. **Undo history when changing handle world:**
Previously changing handle world would result in lots of 'FIXME' in the undo history. This no longer happens.

104. **Merge solo cue where previous cue contains the same value:**
Previously attempting to merge a value into a solo cue in a cuelist would not work if the same value existed in a preceding cue. This has now been resolved.

105. **Can’t set extra stop bit from Titan:**
Fixed an issue where enabling the extra stop bit switch in DMX Settings would not enable the setting.