RELEASE NOTES

Version History

Version	Release Date	Details
10.0	21/3/16	New features, improvements and fixes.

Version 10.0

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.

2. **Upgrading from: Consoles Before 6.0:**

   For consoles on versions prior to 6.0, the instructions in the V6 Upgrade Guide must be followed before installing version 10.0. A copy of the guide and all the files required can be found here. After V6 Upgrade is complete, please follow the instructions below to upgrade from version 6 to version 10.0.

3. **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.

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 10.0 should download the new Titan Remote V10 app from the relevant app store. The existing apps will continue to work with previous Titan software versions.

New Features

1. **Capture Integration:**

   The Capture Visualiser engine has been integrated into Titan. This provides high quality three dimensional simulation for pre-visualisation and blind mode output over 64 universes.

   Where consoles have a dedicated Visualiser key (including factory workspace shortcuts on executors) pressing this will now open the new Capture Visualiser window. Alternatively there is a new [Capture Visualiser] option in the Open Workspace Window softkeys.

   By default the window will show a perspective view facing the stage and any compatible fixtures patched will automatically appear in the Capture theatre. Where fixtures are selected in Titan they will also highlight in Capture to help idenfity which are being edited. Capture theatres are automatically saved inside normal Titan showfiles.

   There are a number of buttons available in the Capture Visualiser context menu:

- 'Quad View Mode Disabled/Enabled' toggle. When set to 'Disabled' (default), the whole window shows the view currently assigned to Camera 1. Setting to 'Enabled' changes the display to show four camera views simultaneously. This also reveals a new context menu button that toggles between the four camera's. When in this mode the camera selection determines which view is being controlled when adjusting camera positions.
- 'Move Camera' links camera position controls to the wheels and also opens the 'Set Coordinates Values' menu with relevant softkeys representing the available values. These adjust the camera position left/right, up/down and in/out relative to the current view. Selecting a softkey provides a way to input values numerically where the [-] softkey provides a way to input negative values and the [+/-] softkey will toggle the current value between positive and negative.
- 'Rotate Camera' links camera rotation controls to the wheels and softkeys. These rotate the camera on its spot.
- 'Orbit Camera' links camera orbit controls to the wheels and softkeys. These move the camera around the stage.
- 'Position - Orientation' links the wheels to adjust the position and orientation of any selected fixtures. This also automatically changes the Wheel mode to 'Visualiser' where the visualiser controls are assigned to the position attribute group. To regain control of fixture attributes (or times) by wheel, toggle softkey G in the root menu as required. To return to capture controls either toggle back to [Wheels=Visualiser] and select the position attribute group (if different) or select the option from the Capture window context menu again. Pressing the 'Position - Orientation' context option or position attribute group key repeatedly will cycle the wheels through the pages of options. Position moves the fixtures left/right, up/down and forwards/backwards relative to the current view and Orientation rotates each fixture (for example to match the focus position of a conventional fixture or the rigging orientation of a moving head).
- 'Rotation' links the wheels to adjust the whole selection around its centre point (for example to match the location/angle of a truss).
- 'Scale - Fan' provides a way to quickly adjust the relative spacing of the selected fixtures. The Fan function can also be switched on and off using the Fan button and will obey the fan settings (ie. curve, group and split).

Pressing the associated @key or touching the appropriate value in the wheel display will open the Adjust Attribute Value menu where you can input values numerically. Pressing the [Reset to default value] softkey will return the selected value to default. [Mirror Values] will swap between positive and negative values to provide a way to quickly position something symmetrically. The [-] softkey provides a way to input a negative value.

Touching in above or below the wheel value in the touch wheel display will nudge values up or down respectively. For fixture orientation and rotation this will jump in increments of 45 degrees, providing a quick way to align with common real-world scenarios.

'Open Settings' will open a new window called 'Capture Visualiser Settings'. This can also be opened from the Open Workspace Window menu.

Selecting the Cameras tab reveals three touch pads in the main display area. Touching and dragging in these pads provides a quick and intuitive way to position the camera with the option of maintaining attribute wheel control at the same time. The right-most pad can be switched between rotate and orbit modes by selecting the relevant button underneath.

To the left of the pads are quad view buttons. The top-most button toggles in/out of quad view. When in single view the four buttons underneath are greyed out. When in quad view you can use the four buttons to determine which view is currently being controlled.

Above the quad view and pad sections are shortcuts to camera positions. These can be used to quickly recall and assign camera positions for the currently selected view. Four factory positions are provided by default. Pressing the [+] button opens the 'New Capture Camera Position' menu. After inputting a name for the camera position touch the dashed area or press enter to store. You can change the legend for custom positions by pressing [Set Legend] and selecting the position. To delete a position press Delete, select the position and select again or press [Confirm] to remove.

The Stage tab provides a way to add elements such as risers to the theatre. In default theatres there is a floor and back wall element. To add a new element press the [+] button and select an element from the popup. Once added, selecting one or more elements will reveal relevant parameters. Touch the legend section to input a new name for the element. Touch the colour section to reveal a colour picker where you can set the colour of the element. Drag the various sliders to adjust associated values such as size and position or touch the numeric field to connect the control to wheels and open the set value menu. Connected wheel controls are grouped into related sets (for example width/height/depth, position and orientation X/Y/Z). Selected values can be input numerically while in the 'Set Value' menu and can be reset to default by pressing the [Reset to default value] softkey. Where a parameter can have both positive and negative values additional softkeys are provided to set a negative value and to swap the current value between positive and negative. Tapping on the compass button on appropriate controls will snap the parameter to a 45 degree step where each press will increment by 45 degrees. Holding the compass will reveal a popup dial where you can drag to

the desired direction. Double-tapping a parameter will reset it to default. Selected elements can be removed by pressing the trash button. Multiple elements can be selected by toggling the select multiple button on. Adjacent elements can also be selected by marquee.

The Appearance tab provides render and haze settings. Selecting a value will connect wheels to control and allow numeric input along with a [Reset to default values] softkey and, in the case of Exposure, softkeys to input negative values [-] and toggle the current values between positive and negative [+/-].

- Ambient Lighting adjusts the level of background light.
- Atmosphere adjusts the amount of haze.
- Atmosphere Contrast sets the variance in density - a level of 100% will have the most variance; a level of 0% will be perfectly consistent.
- Atmosphere Speed sets the speed of simulated smoke movement where 100 is fastest and 0 is stop (if contrast is set to 0 this will have no effect).
- Exposure adjustment sets the simulated camera exposure.
- Bloom Amount sets the 'bloom' level at the light source. This is the 'glow' or 'halo' effect of bright sources on cameras.
- Rendering Settings Detail sets the render quality between low, medium and high. 'High' provides the highest quality simulation but requires the most resources. Chosing lower leves of detail reduces the resources required.

The Show tab provides options to import and export Capture theatres. Available shows for import are shown on the right-hand side with a Capture thumbnail. Where multiple drives are present they can be filtered with the drive buttons on the left-hand side. After selecting a show press [Import] to load the chosen theatre. After the theatre has loaded press <enter> or [Confirm] to finish. Pressing the Export button opens the 'Export Capture Show Drives' menu. To save the current theatre ensure a drive is selected, type a name for the theatre and then press <enter> or [Export]. Press [Confirm] or <enter> again to complete.

To clear the current theatre press Wipe followed by [Confirm].

When the Auto Update switch is set to the on position (default) compatible fixtures patched, exchanged or deleted in Titan are automatically added/changed/removed in the Capture theatre respectively. This function can be disabled by toggling the switch to the off position (for example if you are using a theatre created in a stand-alone version of Capture). Note that the Auto Update function will not work for compatible fixtures patched in previous versions of Titan until they are exchanged or updated using the Update Personality function.

2. **Cue Undo:**

The Undo function has been significantly expanded to allow undo/redo of cue programming and a large number of other console functions along with an accompanying command history.

The touch prompt area layout has been changed with current user shown on the top left and current key profile on the top right. The remaining space now shows a command history when in the root or shift menus. A new [Undo History] window is also available providing an enlarged view of the command history. Touching on the prompt area will automatically open the Undo History window. The current step is shown in bold and with an arrow (in the prompt) or in red (in the Undo History window). Use Undo and Redo to step backwards and forwards through the command history or touch in the Undo History window to go directly to a particular restore point. Where at least one step has been undone subsequent steps will be greyed out indicating they can be 'redone'. Up to 20 'programmer' and 100 'engine' restore points are remembered for undo and where commands cannot be undone they are tagged with a 'no-entry' warning symbol (red circle with a slash through it).

There is a context menu toggle [Show only current user] (default) / [Show all users and consoles]. When set to [Show all users and consoles]a separate column will appear for each user with the user name at the top and the current user in the left-most column. If one or more consoles are connected in a session a console type icon and console legend will also be shown at the top of each column. Undo/redo operations only apply to the current user.

3. **Intensity View:**

A new 'Intensity View' window has been added. This provides an easy way to view and edit just the intensity level of fixtures in one place.

This can be opened either by pressing Open/View followed by Intensity/Dimmer or via the [Open Workspace Window] softkey menu.

There are various filters and options available to customise the view but the core elements are a handle representing each fixture with a bar meter and numeric value displaying the current intensity level as a percentage where 'FL' indicates 100%. Both live and blind values are shown. If the level is at zero the handle will also slightly grey out.

Additionally, colours and symbols are used to indicate fade transitions, tracking and effects

where applicable:

- Intensities fading in are represented in light blue with an up arrow.
- Intensities fading out are represented in green with a down arrow.
- Where values are tracking from previous cues in a cuelist they are shown in magenta with an equal ('=') sign.
- Where the intensity is tracked in a solo or block cue it will show in red with a 'no entry' symbol (red circle with a slash).
- Where intensity levels are being controlled by an effect they are shown in yellow with a tilde symbol.

These handles are selectable providing a way to adjust values directly. The bar at the top of the handle represents the current selection state using the same style as other fixture handles (dark blue = not in programmer, medium blue = in programmer and light blue = selected).

The intensity view context menu provides various customisation options:

Pressing the first option ([All] by default) will open a submenu of options:

- [All] will show the current intensity level of all patched fixtures.
- [Stage] will show all intensities that are above zero.
- [Programmer] will only show intensities for fixtures currently in the programmer.
- [Selected] will only show intensities for fixtures currently selected.
- [Live cues] will only show intensities coming from active cues.
- [Connected cue] will show just intensities for fixtures in the currently connected cue (for cue-lists or chases).
- [Frozen] will show all fixtures whose intensity is currently frozen.

The [Sort] context menu option toggles between three different sort options:

- [User Number] will display handles from left to right and top to bottom following the user number order.
- [Last Selected] orders by selection history with the most recently selected fixture top left.
- [DMX address] sorts in order of DMX address.

Pressing the [Search] button will open a prompt where you can input characters to search for. This will search both legend and user number for matches and will filter matching handles as you type. When a view is filtered by search the current search string will be shown in a bar at the top of the window. This can be selected at any time to modify the search filter. Pressing the [X] button on the right-hand side of this bar will remove the search and restore the filtered handles.

[View If] can be used to filter handles to those in groups and/or playbacks. Pressing View If will cause all playbacks and groups to highlight in red and, where applicable, flash the handle LED. Selecting one will filter the intensity view to just fixtures contained in that group or playback. In the case of a chase or list this will be for all cues in the playback. It is also possible to filter a combination, for example all fixtures in group x that are in playback y. When the view is being filtered in this way the current filter syntax will appear at the top of the window. This can be selected at any time to modify the filter. Pressing the [X] button on the right-hand side of this bar will remove the filter and restore any filtered handles.

There is also a context menu button to [Open Channel Grid]. This provides a quick way to jump to the channel grid which has a similar context menu button to open intensity view so you can flip-flop between them should you wish.

In the window appearance settings there are further customisation options. The handle size will automatically adjust depending on the appearance option settings to maximise the available space:

- Fixture Filters Shown/Hidden. When set to 'Shown' (default), a column on the left of the view will appear with buttons to filter the view by fixture type.
- User Number Hidden/User Number Shown/DMX Address Shown. When 'User Number Shown' is selected the user number of the fixture will appear in the top left of the handle. When 'DMX Address Shown' is selected the DMX address for the fixture will appear in the top left of the handle.
- Legend Shown/Hidden. When set to 'Shown' the fixture text legend will appear in the top right of the handle.
- Cue Information Shown/Hidden. When set to 'Shown', if the current intensity value for a fixture is coming from an active playback, the playback legend will be shown in the handle. Where the playback is a chase or list the cue number or legend (if set) will be shown underneath.

- Attribute Mask Shown/Hidden. When set to 'Shown' the IPCGBESFX indicators will appear and highlight when related attribute groups are in the programmer.
- Halo Colour Custom/Auto. When set to 'Auto', the border for any handles where the fixture does not have a user defined halo will be drawn with the automatic fixture type colour. Wherever fixtures have user set halo's these will take preference. When set to 'Custom', only the borders for handles where the fixture has a user set halo will be shown. This is the same as the options in User Settings and the Fixture workspace context menu.
- Fixture Cells Shown/Hidden. When set to 'Shown', separate handles will appear for every cell of any multi-celled fixtures along with the 'master' fixture handle. This can provide a convenient and quick way to select and manipulate cell attributes.

When the view is filtered to 'Live Cues' or 'Connected Cue', there is extra window appearance toggle 'Tracked Fixtures Shown/Hidden'. When set to 'Shown', fixtures with values tracked from previous cues will be shown/ When set to 'Hidden' any fixtures with intensity values tracked from previous cues will not be shown.

4. **Custom Workspaces:**

Workspaces can now be set to custom sizes and are no longer limited to the 'quad' view layouts.

An extra window layout button has been added to the workspace title bar. Selecting this opens the Window Layout menu and puts all available screens into window layout mode with a 12 x 8 grid superimposed and the outlines of any background windows showing through to the foreground so that you can see the current size of all windows even if they are normally obscured by windows in front.

With the softkey option [Edit All Windows] set to 'Off' (default), the currently selected window will be highlighted with arrows in the top left and bottom right corners. Touching and dragging one of the corner buttons will resize the window to the nearest grid position. Touching and dragging anywhere other than the corners will set a new position and size accordingly. Tapping once anywhere other than the corners will set a start corner position which will highlight in red and prompt to tap elsewhere to set the opposite corner. With the softkey option [Resize Neighbours] set to 'On' (default), dragging by the corners will cause any adjacent windows to resize to accomodate wherever possible. When [Resize Neighbours] is set to 'Off' the size and position of windows not being edited will be maintained. After dragging or tapping twice the window layout mode will automatically exit. If you tap once on a corner arrow or tap twice in the same place the previous window size will remain and the layout mode will exit. This is to prevent accidentally setting a window that is only 1x1 grid size.

With the sofkey option [Edit All Windows] set to 'On', corner arrows will appear for all open windows in the display allowing adjustment of all window sizes and positions at once. This option can also be toggled on/off with the latch menu button. Once you have completed editing windows in this mode press exit, <enter> or the [Ok] softkey to finish.

In both modes the window contents are shown while editing so that you can see how the changes look.

In window options two buttons called 'Rows' and 'Columns' have been added to the appearance section. By default these are set to dynamic meaning the number of rows and columns will adjust to best fit the window and button size. Selecting the rows or columns button changes the button size toggle to a new option [Button Size Set Rows & Columns] and makes it possible to input specific quantities for the number of rows and columns. In this mode the buttons will resize to fit the current workspace size maintaining the set number of rows and columns (including whether pages are set to show or hide). This is particularly useful when fixtures are laid out to represent their locations on stage and you want to maintain the layout regardless of window size or position. The rows and columns values are remembered for each window meaning you can toggle back in/out of standard handle sizes without having to input the quantities again.

The last position, size and appearance settings will be remembered for each window type and will be restored each time the window is opened. The size, position and appearance are all stored in workspace shortcuts meaning you can have an unlimited number of preset positions and handle layouts for any window or combination of windows.

Toggling Size/Position and Min/Max (either via dedicated buttons where available or via the Window Options softkeys) at any time will override any custom size and position and use the statard quad view locations. This can be particularly useful if you cannot access the window layout button on the title bar where windows are too narrow.

5. **Shape Tracking:**

Tracking for shapes in cue-lists has now been fully implemented.

In the cue list playback options there is a new [Shape Tracking] option.

- [Shape Tracking Local] follows the main playback option [Tracking (on/off)].
- [Shape Tracking On/Off] turns shape tracking on/off independently of the main tracking setting.

By default this is set to local except for shows from older versions of Titan where it will be turned off.

With tracking turned on, cues containing source shape(s) have buttons for each shape with subsequent cues representing tracked shapes as greyed out. Where a shape is tracking from a previous cue a toggle switch will appear to set whether to continue tracking to the next cue (blue 'T', default) or block (white 'B'). When set to block the shape will be removed from subsequent cues. Similarly, while a cue is set to block any tracked shapes will be removed from it and any subsequent cues. If a cue is set to Solo any tracked shapes will be removed from that cue only.

There are two additional cue tracking options - [Solo Excluding Shapes] and [Block Shapes]. If a cue is set to Solo Excluding Shapes any tracked shapes other than dimmer will still function, providing a way to have a cue that solos everything except non-dimmer shapes. Setting to Block Shapes will ensure any tracked shapes will not continue beyond this cue, even if a shape is added later to a preceeding cue. This provides a way to guarantee all shapes will stop at this point independently of other controls. Where a cue is disabled any cue or individual shape blocks will be ignored and tracking to subsequent cues will be restored where appropriate.

It is also possible to block and unblock per attribute during recording via the @ menu. Pressing an @ key for a wheel connected to an attribute will cause the shape button LED to flash on consoles with the dedicated button. Pressing the Shape button or FX attribute group button at this point will reveal [Block Shape] and [Unblock Shape] softkeys and selecting one of these options will set the attribute currently connected to that wheel to block or unblock respectively. @ Shape/Shape will shortcut to block. If an attribute has been set to block or unblock a watermark will appear in the touch wheel display reflecting this.

6. **Live Shape Control:**

It is now possible to make live adjustments to shapes running from playbacks.

After pressing connect, if there are any active shapes (either from playbacks or in the programmer) the Shape button LED will flash on consoles which have a separate key. Pressing the Shape button will reveal the 'Select Shape' menu where each shape will be represented on a softkey. Alternatively (particularly for consoles that do not have the Shape key), the 'Select Shape' menu can be accessed via [Shapes and Effects]/[Shape Generator]/[Edit]. The shape source (either 'Programmer' or 'Cue') is shown above the shape and by default all available shapes are selected ready for editing. Pressing the appropriate softkeys will toggle shapes in/out of the editor. Once the selection is complete either press the shape key again or press <enter> to connect the chosen shapes to the wheels.

Adjusting the parameters either by wheel or by numeric entry will affect the live output of all connected shapes and propogates directly into any source playbacks (much like changing connected chase speeds). Softkey G will page between the various parameters on wheels and is highlighted in blue to signify they are not controlling level. Attribute control can be regained by pressing an attribute group button. To get back to shape control press the shape key again or select the FX attribute group in the touch wheels area

7. **Size Masters:**

An new set of assignable 'Size' masters have been added. These can be found either via Record/[Create Master] or from the System Menu/[Assign Masters].

A new [Size Source] option has been added to the playback options. When set to 'Local' (default), the size of effects in the playback will be controlled according to the local settings. When set to one of the four masters the size of any effects in the playback will be proportionally controlled by the selected size master. There is also a 'Size Grand Master'. When assigned this will proportionally control the size of all running effects (including those in the programmer).

By default the fader scale for size masters is set to 200%. This can be toggled via playback options between 100/200/400/600 and 1000%. Additionally the scale for any size master can be set numerically by inputting the number as a percentage then selecting the relevant size master. The current value for each size master along with a graphical bar representing the current level proportional to the chosen scale is shown in the playbacks touch area.

8. **New Key Frame Shape Directions:**

Two new directions have been added to key frame shape directions: Outside -> Inside and Random.

9. **Shape Direction:**

Direction options are now available for 'normal' shapes. These make use of the 2D fixture layout stored in groups to quickly create shapes that run across fixtures in particular directions.

In the Shape Generator menu the [Reverse Selected Fixtures] softkey has been replaced with [Direction]. Pressing this will reveal the direction submenu where you can chose from the various new direction softkeys along with reverse selected fixtures which has now moved here. This menu can be latched so that you can quickly try different directions and see the results.

10. **Motion Blur:**

A new type of animation called 'Motion Blur' has been added to Pixel Map Effects. This is a 'Global' effect that, when added, will create a trail effect across all animated elements in a pixel map effect.

While in the Effect Editor, pressing the [+] button and selecting the Animations tab will reveal the motion blur effect in the 'Global Effects' section. This is represented as a white box moving left to right with a trail behind it. Selecting this will add it to the top of the pixel map effect tree and open the 'Blur Amount' parameter slider. Adjust this (or select the value box to input numerically, connect to wheels and reset) to set how much trail is left where zero means no trail and 100 is the maximum.

11. **Blind to Live:**

You can now convert blind programmer values directly to live output. This provides a way to send blind values live to stage without having to record to a playback first. It also provides a method of firing a number of palettes simultaneously (with or without timing) in a busking scenario.

To invoke blind to live, while in blind mode with values in the programmer, input a number representing the global fade time in seconds (can be zero) and then press the Blind key to fire. Any controls in the blind programmer with global times will then fade to live over the set time. Where controls have times set in the programmer (including those recalled from palettes) these will be used in preference. Any fixture overlap values will also be obeyed.

12. **Ignore Chase Fade Times On Paused Step:**

A new user setting [Chase Snap Enabled/Disabled (default)] has been added. When enabled, using the next and prev chase control buttons on a paused chase will fire the steps without fade times. This mimics the Classic function.

13. **Multiple Fixture Import Mapping:**

Import mapping now supports one to many making it possible to duplicate controls from one source fixture to multiple target fixtures in a show.

While in the show library mapper after selecting a source fixture you can drag select over target fixtures to map to a range of fixtures. Where the target fixtures are not adjacent you can select the source fixture again and chose additional target fixtures.

There are two new options in the Show Library context menu. When 'Mapped Fixtures' is set to 'Hidden', any source fixtures that have been mapped to at least one target fixture will be removed from the list. When set to 'Shown', any source fixtures that have been mapped to a target fixture will be denoted by a green tick watermark along with a list of the user numbers of the target fixtures they are mapped to. By setting 'Mapping Selection' to 'Latched', it is possible to choose multiple target fixtures.

After selecting 'Clear Fixture Mapping' you can now select source fixtures (assuming Mapped Fixtures is set to Shown), including ranges of, to clear all target mappings associated with those particular fixtures. Alternatively individual targets can be removed by selecting the target fixtures and all mappings can be removed by selecting the sofkey option [Clear All Mappings].

14. **Set List Macros:**

It is now possible to fire macros and/or workspace shortcuts in set lists.

New buttons have been added to the bottom-right of the set list window to add macros and workspace shortcuts. After touching the add workspace button either select an existing workspace shortcut or press the [Record Workspace] softkey to add the shortcut or current workspace to the current track respectively. If a track already contains a workspace, softkey options to [Overwrite] or [Cancel] will appear. When a track containing a workspace shortcut is fired (either by pressing play or by changing page in set list mode) the associated workspace will open.

Touching the add macro button will reveal a popup submenu with options for [Set List] or [Track]. [Set List] will apply chosen macros globally to the whole list (even if new tracks are added later) which will fire with every track. [Track] will apply to the current track only. After choosing the global or track option, a softkey menu will appear containing all available

macros. Selecting a macro will then link it to the whole list or current track. There is no limit to the number of macros that can be linked. Any macros linked to a track will fire when the associated track is fired (either by pressing play or by changing page in set list mode). Any macros linked to the global set list will fire when any track is fired.

At the top of the set list window there are also two new tab buttons. When [Notes] is selected the right-hand side of the window will show any notes associated with the current track. When [Workspace & Macros] is selected any global macros and any macros or workspaces associated with the current track will be shown. Global macros will appear as handles at the top under the section 'Set List Macros'. 'Track Macros' are macros specific to the current track and 'Workspaces' are workspace shortcuts assigned to the current track. Any workspaces or macros assigned can also be fired directly by touching the respective handle. To delete an item press the Delete key, select the item and then use the [Remove] softkey to confirm.

15. **Playback Control Macros:**

A new set of macros has been added to control playbacks. These are particularly useful when used within cue lists and set lists:

- [Fire First Playback]. This will fire the first playback on the currently selected page.
- [Fire First Playback Page 1]. This will fire the first playback on page 1, regardless of current page.
- [Fire Playback 1]. This will fire the playback with user number 1.
- [Kill First Playback]. This will kill the first playback on the currently selected page.
- [Kill First Playback Page 1]. This will kill the first playback on page 1, regardless of current page.
- [Kill Playback 1]. This will kill the playback with user number 1.
- [Release First Playback]. This will release the first playback on the currently selected page.
- [Release First Playback Page 1]. This will release the first playback on page 1, regardless of current page.
- [Release Playback 1]. This will release the playback with user number 1.
- [Release Me]. This will release the associated playback (cuelist).
- [Gobo My Cue 1]. This will go to cue 1 of the associated cuelist.

Note that if required it is relatively easy to create custom macros that apply to other playbacks, pages or cues where relevant by using the factory macro xml as a guide.

16. **Web API:**

It is now possible to remotely control console functions via HTML providing a way to create custom interfaces with specific layouts and capabilities. This is available for all stand-alone consoles and Titan Mobile. Further details will be provided in separate documentation.

17. **Halo:**

It is now possible to set colour 'halos' for handles in addition to text or picture legends. This changes the colour of the border drawn around the handle to make it easier to find or identify items. In the touch playbacks area the halo is drawn around the playback text legend space at the top.

Pressing [Set Legend] and selecting one or more handles will reveal the new softkey option [Halo]. Pressing this will open the 'Set Halo' menu and reveal a colour picker popup on touch consoles with some 'system colours' palettes underneath. Alternatively selecting the [System Colours] softkey will reveal the system colours on softkeys. Selecting one of the system colours softkeys or touching on the colour picker or on one of the system colour palettes will set the chosen handle(s) halo to the selected colour and exit the set legend menu completely unless it was latched. Halos can be removed via [Set Legend]/select handle(s)/[Halo]/[Remove Halo]. The colour picker can also be latched open providing a way to quickly set a different halo for a number of handles in turn.

For fixture handles it is also possible to use the fixture type colour automatically assigned during patch by changing the User Setting Fixture Halos to 'Auto'. In this mode any fixture handles that do not have a user set halo will use the automatic colour. When set to 'Custom' only user set halo's will be displayed. All handle halo's can be globally toggled on/off via the User Settings 'Display Halo' setting. Note that fixture handles (and the associated user settings) are also used (and can be set via) the Intensity View workspace. Fixture Halo's Auto/Custom can also be toggled in the Fixture and Intensity workspace appearance settings. Where a custom halo has been set on a fixture this will also be shown in Fixture View. If a custom halo has not been set, Fixture View will show the automatic fixture type halo.

When turned on, handle halo's are also shown in the Show Library workspace, including in import and mapping. Additionally, it is possible to set halos for other items such as set lists and tracks, playback view column filters and capture cameras.

A new static colour tag column has been added to the left side of DMX view, Channel Grid, Cue View and Palette View to help identify fixtures. Where user halo's have not been set for fixture handles the automatic fixture type colour assigned during patch will be used. Wherever fixture handles have user set halo's these will take precedence, including in patch view. These columns are always on and not affected by the halo user settings.

18. **Import User Settings and Key Profiles:**

It is now possible to import users and key profiles from other shows.

Two new tabs have been added to the Show Library workspace.

When the current show is selected, switching to the [Users] tab will present a view showing the currently selected user and a list of all available users represented by their text and picture legends. Selecting the [Change Current User] button will reveal a popup with all available users where you can select a new user. Pressing [Legend User] will open the set legend menu from where you can set text and/or picture legends for the current user. [Add User] will open the 'Create a New User' menu. Inputting a new name here and pressing [Ok] or <enter> will create a new user based on the current settings and immediately change to this user. Selecting the User Setting button will open the new User Settings window where you can view and edit the settings corresponding to the current user.

Where at least one show has been added to import, selecting an imported show will reveal all available users in that show. Touching a user will highlight it in red and open the 'Import User' menu where there are softkey options to either [Import Over Current User] or [Import as New User]. Importing as a new user will automatically select this as the current user and preserve the previous user. When set to on (default) the [Force Import Key Profiles] toggle softkey will cause all the key profiles to import from the selected show at the same time as importing the user. If you prefer, this option can be turned off allow key profiles to be managed manually.

Switching the Show Library tab to Key Profiles, available key profiles for the selected show will appear on the left of the window and selecting these will reveal a visual description showing the various assignments for that profile. Where an imported show is selected the profile will also highlight in red along with the softkey [Import Key Profile]. Pressing this will add the chosen key profile to the current show.

19. **User Setting UI:**

User Settings have been separated into submenus and include a number of settings that were previously only available in separate menus. In addition to the softkeys these are all now available in a touch friendly window.

Selecting User Settings from the shift or system menu will open the new User Settings window. This provides an easy way to view and adjust all the console user settings and switch or create new users.

The settings are divided into a number of sub-sections which can be selected on the left side of the window. The settings that have been added that were previously only available in separate menus are:

- Preset Palettes Disabled/On Workspaces/On Presets (from patch fixture options menu).
- Show/Hide DMX Address (from fixture workspace context menu).
- Record Nested Palettes On/Off (from record palette menu).
- Master Palette Time and Master Overlap Time (from the palette menu).
- Manage Handle Worlds (from the disk menu).
- Release To Home and Master Release Time (from the release playback menu).
- Clear options.

Tooltips have been provided to help understand the various settings. Clicking on the small 'i' button or any where on the setting title will reveal a popup with relevant information. Touching again anywhere will close the prompt.

The current user is shown at the top of the window with both picture and text legend. Selecting the [Change Current User] button will reveal a popup with all available users where you can select a new user. Pressing [Legend User] will open the set legend menu from where you can set text and/or picture legends for the current user. [Add User] will open the 'Create a New User'. Inputting a new name here and pressing [Ok] or <enter> will create a new user based on the current settings and immediately change to this user. Pressing [Import User] will open the Show Library from where you can import users (and the associated settings) from other shows.

When the User Setting window has automatically been opened via the shift or system menu options, pressing exit will automatically close it again. The window is also available in the [Open Workspace Window] menu and when opened this way will remain open until manually closed.

20. **Playback Options:**

Playback Options have now been separated into submenus and, in addition to the softkeys, are also available in a touch friendly window.

In Playback View there are two tabs on the left-hand side. When [Cues] is selected the view will show the cues and various parameters as before. Selecting [Options] will reveal all the available playback options for the playback type. The options are divided into a number of sub-sections which can be selected on the left side of the window. Touching some options (such as key profiles and release mask) will reveal popup submenus with further options. Tooltips have been provided to help understand the various options. Clicking on the small 'i' button or anywhere on the option title will reveal a popup with relevant information. Touching again anywhere will close the prompt.

The tab selection is remembered when selecting new playbacks meaning you can easily move switch between playbacks and set or compare the options.

Note that the fader mode option (mode 0/1/2/3) is also now available from playback options as well as in [Edit Times] and for chases and cue-lists, the 'Renumber All Cues' option has been moved into the playback view context menu.

21. **Playback View Columns:**

It is now possible to filter which columns appear in playback view to make it easier to see the items you need and avoid having to scroll. Multiple filter shortcuts can be stored and recalled.

There is a new Playback View context menu option called 'Edit Columns'. Selecting this will open the Playback View Columns menu with each column represented by a sofkey. Columns can be toggled in/out of view by pressing the relevant softkey. Pressing Record will reveal an [Add] button. Pressing this or anywhere in the column filters area will add the filter to the left-hand side of the window. If an existing filter is selected softkey options to [Cancel], [Replace] or [Add New] are provided.

Filters can be legended (including picture legends and halos) either prior to recording by inputting a name or later via [Set Legend]/select filter. Factory [Show All] and [Times] filters are available by default. Filters can be deleted by pressing delete, followed by the filter and then either a second press or [Confirm] to complete. Finally there is a toggle option to show/hide column filters in the display appearance options.

22. **Playback View Cue Progress:**

Cue progress indicators have been added to playback view for chases and cue lists to make it easier to visualise various timings.

For each cue a green bar will fill from left to right on top of the cue number representing the entire progress of that cue. Additionally there are separate bars underneath various timing parameter cells to show the relative progress of these individual items. For chases these are Delay In, Fade In and Fade Out. For cue-lists these are Delay In, Fade In, Delay Out, Fade Out and Link Offset.

Where move in dark (MiD) is enabled an indicator will flash underneath the MiD cells which are currently suitable for the move.

23. **DMX View Fixture Filter:**

Fixture and attribute filters have now been added to the DMX output window. This helps make it easier to find specific information, particularly when problem solving on site.

Buttons representing all patched fixture types along with the IPCGBES attributes are shown on the left-hand side. Selecting a fixture type will filter the display to only show channels used by that fixture type on the selected line. Selecting an attribute button will filter to show just the channels associated with that attribute group. Fixture type and attribute filters can be used in combination. All fixtures and ALL attributes buttons are provided to restore the relevant filter to show all.

Additionally, an extra static colour tag column has been added to make it easier to identify multiple fixture types. Where a halo has not been set on the fixture handle these follow the default fixture type colours assigned in patch. If a halo has been set on the fixture handle this will follow the user halo colour instead.

Two new toggles have been added to the window appearance settings - [Attribute Filters Hidden/Shown] and [Fixture Filters Hidden/Shown]. By default both are set to Shown. When toggled to Hidden any related filters will automatically be reset to 'All' and when both are hidden the filter section is removed from the window.

24. **Ai Media Controls:**

Two new graphical UI interfaces have been added providing intuitive control of various Ai functions.

After patching Ai these appear in the Attribute Editor under [Image Control] and [Media Control].

[Image Control] provides UI controls for Image Size, Aspect Mode and Aspect Ratio. The three Aspect Ratio options can be selected from buttons at the top of the display. Aspect Ratio can be adjusted by touching and dragging in the screen representation. Image Size can be adjusted by dragging the vertical slider. A grid scale grid is superimosed over the screen representation and adjusting Aspect Ratio will dynamically adjust this to reflect the current scale. All controls can be reset to locate values by selecting the [Reset] button. Touching on the zoom parameter will connect it for adjustment by wheel or numeric input. A [Reset to default value] softkey will also appear which will reset just Image Size to its locate value.

[Media Control] provides UI controls for Play Mode, Play Speed, In Point, Out Point and Timecode. Play Mode controls are at the top of the window. From left to right these are: 'In Frame', 'Loop REV', 'Once REV', 'Pause', 'Sync MTC', 'Stop', 'Once FWD', 'Loop FWD' and 'Out Frame'. Below these are MTC controls representing 'MTC Hour', 'MTC Minute', 'MTC Second' and 'MTC Frame'. Use the up/down buttons above and below the control to raise or lower the respective value or select the pencil button to input a time. The input syntax is xx:xx:xx with a decimal point represeting frame. For example typing 0111 will set 1 minute and 11 seconds. typing 01.11 will set 1 second and 11 frames. An additional softkey will also appear which will reset the timecode to zero. Below the MTC controls are three sliders representing Play Speed, In Point and Out Point. Drag these sliders to set the associated control value or touch the parameter value for wheel or numeric control. An additional softkey will also appear which will reset the associated control to its locate value.

25. **Swap DMX Address:**

It is now possible to quickly swap the DMX addresses of patched fixtures, for example if something has been rigged in the wrong order.

From Patch View, after selecting one or more fixture address cells, the 'Edit DMX Address' menu will appear with the new [Swap Fixture Addresses] option on softkey G. Pressing this will open the Swap Fixtures menu with a softkey toggle option [One for One]/[Retain Layout]. When set to [One to One], selecting an identical number of fixtures will cause the addresses of the original selection to swap with those selected in the Swap Fixtures. If the quantity of source fixtures doesn't match the quantity of destination fixtures the software will prompt you to ensure the source and destination match. Pressing the [Ok] confirmation softkey will return to the Swap Fixtures menu. When the toggle option is set to [Retain Layout] and there is a mismatch between the source and destination quantities it will attempt to retain the same destination layout as in the source. Where this conflicts with patched fixtures it will prompt with an option to [Park Conflicting] or [Cancel].

26. **Multiple Adapter Output:**

By default DMX is now output on all network adapters with options to disable. This ensures Art-Net and sACN will work regardless of which port is connected and allows simultaneous transmission (for example one to live, one to visualiser etc.). This also solves a problem where adapters might change on disconnect/connect of a network cable even if it was to the same port, resulting in loss of output.

In the DMX Module Properties for Streaming ACN and Art-Net in DMX Settings, each available Local Area Connection will appear with it's current IP and a toggle switch to enable/disable respectively.

27. **Multiversion:**

It is now possible to install multiple versions of Titan on consoles. This is particularly useful for showfile compatibility where you need to use a show created in an older version. To change version go to Tools/Switch Software.

28. **Arena and Quartz Simulator:**

The Arena and Quartz consoles have now been added to Titan Simulator

29. **Highlight with Orientation:**

Where fixtures with three or more cells are opened in the Layout Editor the top left cell is now represented as a green cell and the bottom right as red. Enabling highlight while in this view will cause the top left and bottom right cells of selected fixtures to change to green and red respectively to help orientate fixtures to match the real world. Highlight can be toggled by the dedicated button or via a new context menu item. Where the multi-celled fixtures only have dimmers the top left cell will be highlighted at 40% (with the remainder at full).

30. **Page Release:**

Pressing Release followed by the Goto Page button or touching the current page in touch page view will open the 'Release Playbacks on Faders menu with three new softkey options.

- [Release This Page] will release all active playbacks on the current page and playback fader group.
- [Release Playbacks Not On This Page] which will release any active playbacks on other pages according to fader group (particularly useful where different playbacks on the same fader are active on multiple pages).
- [Release All Playbacks In This Group] will release all playbacks according to fader group.

In all cases 'group' here refers to the particular area of the console, for example the main faders below the touch screen in a Tiger Touch or Arena is one group and the top and bottom rows on a Tiger Touch wing or the left-hand side of the Arena are two separate groups.

[Release This Page] and [Release Playbacks Not On This Page] are also available in the Goto Playback Page menu available when touching the current page in the touch page wheel display.

31. **Palette Fade Time Macros:**

A new set of macros has been added to set master palette time and overlap values. For Master Time these are 0, 0.5, 2, 3, 5, 8, 10, 15 and 20 seconds. For Master Overlap these are 0, 25, 50, 75 and 100%.

32. **sACN Priority Macros:**

A new set of macros has been added to set the Streaming ACN merge priority. These are 0, 50, 75, 100, 125, 150 and 200.

33. **Range DMX Line Assignment:**

It is now possible to assign a number of Art-Net and sACN universes to lines automatically. Selecting an sACN or Art-Net node now reveals [Universe] and [Quantity] softkeys. Inputting a universe start address and a quantity and then selecting a line will automatically add to multiple lines sequentially from the line selected incrementing the universe by one each time according to the quantity value.

Improvements

1. **Minimum palette mode:**

An new user setting has been added called 'Minimum Palette Mode' which determines the limits of the automatic palette type when recording. Options are Global/Shared/Normal. When set to Global if identical values are detected for all fixtures selected it will default to Global. When set to Shared identical values for all fixtures will default to shared. When set to Normal identical values will default to normal. This is useful where the automatic selection was not desirable, particularly in the case of global.

2. **Master display refresh:**

The display refresh rate for masters has been increased for smoother UI feedback when adjusting a master level.

3. **Highlight wheel select softkey:**

When wheel control is not level the softkey is now highlighted in blue to help make it clear which mode the wheels are in.

4. **Patch view highlight during selection:**

Drag selecting fixtures in patch view while in the patch menu now highlights during selection so you can see exactly what you are selecting.

5. **Set list re-run:**

Pressing the play button in a set list now restarts the current track including any macros, workspace shortcuts and page changes.

6. **Button styling:**

Various buttons including softkeys, toggle switches, context menu and window appearance options have been restyled to make it clearer and easier to see when certain items have been selected/enabled or switched on/off etc. Where available, the window title bar context menu popup now also animates on opening.

7. **Tooltips:**

Tooltip help prompts have been added to many of the touch options. Wherever available an 'i' inside a circle will be shown. Touching this or anywhere on the option title will reveal a popup with information about the particular setting. Touch again anywhere to close.

8. **Reports include sub fixture cells:**

   Previously patch reports showed all the cells of a multi-cell fixture which was unhelpful. Reports now only show the master fixture.

9. **Numeric fields auto open keyboard:**

   Editing numeric items such as fade times would cause the keyboard to auto open which was unnecessary given that numeric values can (and usually would) be input from the numeric pad. This has therefore been changed so that the keyboard no longer automatically opens for numeric fields.

10. **Set cuelist notes from cell:**

    It is now possible to input notes for a cuelist cue directly by touching the associated notes cell in playback view.

11. **Cue linking options:**

    When selecting link or link offset cells in cuelist playback view there are two new submenus to make setting the associated options easier.

12. **Record tracking mode:**

    It is now possible to set the tracking mode prior to recording via a softkey in the record menu.

13. **TNP clock sync warning:**

    The software will now prompt if the TNP clock sync has been lost. This would indicate there may be significant problems with the network.

14. **Additional Programs:**

    Icons and new options have been added to the Tools menu. Notably 'Log Viewer Pro' provides an easy way to get to the log viewer and 'TeamViewer' for remote assitance. Both options are for support.

15. **Record master flashes available handles:**

    When assigning masters the LED on available handles will now flash.

16. **Patch to handle restrictions:**

    It is now possible to patch fixtures on playback faders and executors.

Changes

1. **Open Workspace Window menu sorted alphabetically:**

   The Open Workspace Window menu softkeys are now sorted alphabetically.

2. **Master numeric entry:**

   Numeric entry for all relevant masters is now restricted to the maximum level set for the particular master. If a value higher than the maximum is applied, the master will go to its maximum level. This is to avoid the issue where it would not be possible to regain fader control until a new value within the maximum range was set numerically or tapped (where appropriate).

3. **Legacy Visualiser:**

   With the integration of Capture the old Visualiser has been changed to 'Legacy Visualiser'.

4. **Blind active/inactive softkey:**

   On consoles with a physical Blind button holding this presented a blind active/inactive button on softkey A. This has now been removed as it was not required.

5. **Autoload and Macro playback options:**

   Autoload and Macro playback option softkeys for cuelists have been removed as they are only applicable to individual cues.

6. **Removed wide/narrow button in channel grid context:**

   The Wide/Narrow toggle option in the Channel Grid context menu was a legacy function and no longer had any effect. It has therefore been removed.

Bugs Fixed

1. **Block shapes interfere with shapes fired on top:**

   Previously if shapes with parameters on fader were fired after an active block all cue then fader actions on one of the shapes could affect the other unexpectedly. This has been resolved.

2. **Timed flash on mode 2 or 3 shape playbacks snap out:**

   Previously if a shape playback set to mode 2 or 3 was fired via timed flash it would delay for the fade value and then snap out after releasing the flash button. They now fade out over the specified time correctly.

3. **Shapes get stuck after timed flash:**

   Where a cue containing a shape had a release mask set and was fired via flash with times, the shape would continue after releasing the flash button. This has been resolved.

4. **Cue release breaks release to home:**

   Previously where a chase playback had a release mask and the cue release option was also enabled it would fail to release to home values. This has been fixed.

5. **Intensity shape flash in cue list:**

   Previously dimmer shapes in cuelists would not fire by flash. This has now been fixed.

6. **Shape on sub fixture ignores selection pattern:**

   Previously where a selection had been filtered by a pattern selection, shapes on sub fixtures would ignore the selection filter and apply to all fixtures originally selected. The shape now applies to the filter correctly.

7. **Looped timecode fires disabled cues:**

   Previously where cues in a cuelist were fired from timecode disabled cues would fire after the timecode looped. This has been fixed.

8. **Autoload chase gets stuck:**

   Where a cue autoloaded a chase and was linked with a subsequent cue where the linked offset was set to zero seconds the chase would never stop once fired. This has now been resolved.

9. **Clear All Blind Playbacks not working:**

   Previously, on consoles with a physical Blind button, holding this and selecting the [Clear All Blind Playbacks] did not work. This has now been fixed.

10. **Invert doesn't update DMX:**

    Previously if a dimmer was inverted and values were changed directly from 0 - 100% or vice-versa, the output would not update until nudged. This has now been resolved.

11. **Wheels across ranges:**

    Previously when transitioning from a fixed value to a range by wheel it was possible for the value to jump unexpectedly in certain situations. This has been resolved.

12. **Global shape palette import:**

    In certain circumstances imported global shape palettes wouldn't work. This has been fixed.

13. **Handles disappear from show library when switching users and handle worlds:**

    Fixed an issue where handles would disappear from the show library when switching users and handleworlds

14. **Gaps in group layouts:**

    When creating a group of cells a gap of empty spaces equivalent to the number of master fixtures would incorrectly be inserted into the group layout. This has now been fixed.

15. **Filter relevant palettes delay after merge:**

    Previously if you merged values into a palette that did not originally contain relevant controls, it would remain greyed out for a few seconds before showing as relevant. This now updates immediately.

16. **Find Fixture corrupts output of patched fixtures:**

    After using the Find Fixture function and turning it off, the output of patched fixtures would

not restore correctly until values were nudged. DMX output is now refreshed correctly on exiting find fixture.

17. **Find Fixture refresh after exchange:**

Previously find fixture would not locate fixtures following an exchange operation until it was toggled off/on. This has now been resolved.

18. **Workspace doesn't extend when required:**

Fixed an issue where workspaces would not always extend to show all items when recalled from workspace shortcuts.

19. **Rate grand master doesn't affect pixel map programmer:**

Fixed an issue where a rate grand master would not affect pixel map effects in the programmer.

20. **Pixelmap autolocate:**

When creating a combination of pixel map and key frame shapes it was possible for the autolocate to turn off on the pixelmap fixtures. This has been resolved.

21. **Off Playback Values results in empty playback view:**

Previously if you used the OFF/[Off Playback Values] function on a cuelist an empty playback view would open. The fully populated view now opens as expected.

22. **Edit palette menu remains after quick record palette:**

Previously if you performed a quick record palette while in the edit palette menu the softkeys would be wrong. It now returns to the correct menu.

23. **Key Frame Shape stuck after Clear All Programmers:**

After using the [Clear All Programmers] function while in record key frames mode it would appear to get stuck. Selecting Clear All Programmers will now exit the record key frames mode so that it is obvious you have deleted the shape.

24. **Pixel map masters occupy DMX channels:**

In certain circumstances (usually when loading a show from an older version) if any pixel map masters were assigned they would show as occupying DMX channels preventing patching to these addresses. This has now been resolved.

25. **Acn gateway loses settings:**

Previously the sACN gateway could lose settings if the network adapter was disconnected on startup. This has been resolved.

26. **Console in backup hang:**

Resolved a rare issue where a console left in backup mode for a long time (approx 12 hours) could hang.

27. **ProPlex Art-Net to DMX box crashes console:**

Previously with RDM enabled on a port connected to a Pro Plex Art-Net converter box, connecting an RDM fixture to one of the Pro Plex outputs would cause Titan to crash. This has been fixed.

28. **Preload corrups memory:**

In certain situations it was possible for memory to become corrupt when using preload in cuelists. This has now been resolved.

29. **Fixture view attributes:**

Resolved an issue where it was not possible to set invert or freeze attributes from fixture view when using certain languages.

30. **Multi user level match:**

Previously in multi-user sessions with consoles without motorised faders, fader level matching shared playbacks across consoles did not work correctly. This has been resolved.

31. **Multiple shapes across multiple types:**

Fixed an issue where, with multiple fixture types in the programmer, it was not possible to adjust the spread of all shapes simultaneously.