



RELEASE NOTES



Version History

Version	Release Date	Details
12.0	14/10/19	New features, improvements and fixes.

Version 12.0

Upgrade Procedure

1. Upgrading from: All Platforms:

Please note that version 12.0 and above will require an AvoKey dongle. This can be purchased from Avolites and is included free of charge for new consoles purchased from 1st June 2019. For consoles where it is not already pre-installed this will need to be licensed and must be inserted in the correct USB port (please refer to AvoKey installation instructions) for the software to be licensed and run. You can find detailed information about the AvoKey dongle and the licensing procedure [here](#).

2. 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.

For all consoles the software must be upgraded by running a version 12.0 recovery stick. You can find links to download the recovery stick creators by selecting the relevant console [here](#). Please follow the installation instructions provided when downloading the recovery stick creator. Note that if version 11.3 or 11.4 has been installed previously the most recent version will be maintained. Unfortunately versions earlier than 11.3 are not compatible with the version 12.0 recovery installer and therefore will not be maintained. Please allow 48 hours for the upgrade and ensure you have backed up any show files you need (it is important shows are saved as full or 'Quick' saves - Autosaves are not forwards compatible between versions). Detailed information can be found [here](#).

After installation, when the console restarts, if this is the first time you have installed version 12 you will need to license the software using the Authenticator which should open automatically. Note that this requires an AvoKey which must be inserted in one of the USB ports. Follow the instructions in the Authenticator to complete the licensing. Once licensed the console will have been fully updated to the new software; you can confirm this by reading the version number in the prompt in system mode (Avo+Disk).

3. Upgrading from: PC any version:

Supported versions of Windows are 64-bit versions of Windows 10 (recommended), Windows 8.1 and Windows 7. This affects Titan Go, 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 [here](#). 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. If this is the first time you have installed version 12 you will need to license the software using the Authenticator which should open automatically. This requires an AvoKey which must be inserted in one of the USB ports. Follow the instructions in the Authenticator to complete the licensing. Once licensed it should be updated to the new software. Please note that this will be the final major version release of Titan to support Windows 7. We recommend users upgrade to Windows 10 at their earliest convenience.

4. Upgrading from: Titan Remote Apps:

Users wishing to use Titan Remote with version 12.0 should download the new Titan Remote V12 app from the relevant app store. The existing apps will continue to work with previous Titan software versions. Please note the Known Issues in v12.0 for the Android app below.

New Features

1. Synergy, Ai Media Server Integration :

Synergy provides a way to easily connect, control, manage content, monitor preview and live output and integrate Avolites Ai servers with Titan.

2. Synergy Settings and Fixtures:

A new 'Synergy Settings' window has been added along with an associated factory workspace shortcut. This window provides a way to connect Titan to Ai, adjust various settings and show related information. This can be opened via [Open Workspace Window]/ [Synergy Settings], PATCH -> [Active Fixtures] -> [Synergy Settings], System -> [Synergy Settings] or by using the factory Synergy Settings workspace shortcut (the latter will set the window to full screen as defined in the workspace shortcut, the other options will restore the window at its last size/location).

Any Ai servers found on the correctly configured network will appear on the left-hand side of the Synergy Settings window. For each server this contains the machine name at the top, its IP address, the current surface count and a list of outputs. When selected, detailed information about the server is shown on the right-hand side of the window. Any errors detected are denoted here with a warning triangle symbol.

With the 'Show Unmatched' toggle enabled (default - highlighted) when one or more Ai servers are connected any 'unmatched' screen fixtures will appear in the middle of the window at the bottom showing the fixture legend (Tag Name), the server machine name, any assigned outputs or, where unassigned 'none' after the server machine name in brackets and the number of layers along with a dotted line between each fixture and the assigned outputs on the server. These all dynamically update to reflect any changes on the servers and can be shown or hidden by toggling the 'Show Unmatched' button.

Pressing the '+' button at the bottom of the window will reveal a popup with options to either add a new surface or to add a new layer to an existing surface (note that only 'Screen' surfaces can be added at the moment). A new 'Synergy Fixtures' window has been added and the 'View Synergy Fixtures' button at the bottom of the Synergy Settings window provides a convenient shortcut to open this. The Synergy Fixtures window is similar to the Fixtures window with the same appearance settings and context menu options except for the toggle to show or hide DMX address. When a surface is added a new Synergy Fixture is created for each layer and automatically assigned to handles in this window. Any Synergy Fixture handles will also appear under Fixtures in the 'Synergy Fixtures' section of the Show Library window. Surfaces added this way start with two layers and will initially be 'Local' and not connected to an Ai server. Selecting a local surface and then a connected server will add a new screen fixture to that server and the associated Synergy Fixtures will now control the layers for that Ai fixture.

Alternatively, if there are any 'Unmatched' fixtures these can be linked directly to a new surface or to an existing surface. Pressing the link button next to the fixture will highlight the fixture in red with a prompt in the properties section of the window and reveal a pulsing 'Link to new Surface' button immediately above. While in this state selecting the pulsing 'Link to new Surface' button will add a new surface and an associated Synergy Fixture linked to each of the layers of the selected Ai fixture. Selecting an existing surface will link the selected Ai fixture to the existing surface and Synergy Fixtures. Note that when linking unmatched fixtures to existing surfaces if the layer count in the existing surface is greater than the Ai fixture additional layers will automatically be added in Ai. Similarly, if the layer count in the existing surface is less than the Ai fixture additional layers (and associated Synergy Fixtures) will automatically be added to the surface accordingly. Selecting the link button again while the fixture is highlighted in red will cancel the link function.

Where a surface is connected to a server it will show the linked fixture legend (Tag Name), server machine name, any assigned outputs or, where unassigned 'none' after the server machine name in brackets. Any assigned outputs will draw as solid lines between the surface and the relevant server output. Where no outputs are assigned this is represented as a single line to the top of the server. Selecting a surface followed by an output on a server will assign or unassign the selected Ai fixture to the selected output. Selecting a surface followed by the top of the server will unassign all outputs.

While surfaces are linked it is not possible to control them locally on the server. Linked surfaces can be unlinked by selecting the surface and then pressing the unlink button. When a surface is unlinked the local server controls will be available.

Selecting a surface will reveal the surface properties on the right-hand side of the window with the surface legend at the top. Canvas Resolution shows the current canvas resolution along with the Resolution Width and Height. If required you can change the canvas resolution either by selecting the Canvas Resolution and choosing one of the preset resolutions or by selecting the Resolution Width or Height where you can input values directly. To change the surface legend either select the pen button at the top-right of the surface properties section or press [Set Legend] and select the surface. Note that any changes to the surface legend will also be reflected in Ai.

Each surface is automatically given a different halo colour. This is shown around the surface and in any lines connecting to surfaces/outputs. By default the layers within a surface will use the surface halo colour and when the Fixture Halos user setting is set to 'Auto' these will show

around the Synergy Fixture handles which can help identify which surface a particular fixture handle is associated with. If desired it is possible to set this to a custom colour either by selecting the surface and then the colour button at the top-right of the surface properties section which will reveal a colour picker where you can set the colour or by pressing [Set Legend] followed by the surface and then [Halo].

Selecting a layer will reveal the layer properties on the right-hand side of the window with the layer legend at the top. Speed Source shows the current speed source used to scale the clip playback speed and selecting this will reveal a popup where you can select one of the various sources. To change the surface legend either select the pen button at the top-right of the layer properties section or press [Set Legend] and select the layer (or layer handle). Note that any changes to the layer legend will also be reflected in the fixture handle and vice-versa. It is also possible to set a layer specific halo colour if required either by selecting the layer and then the colour button at the top-right of the layer properties section which will reveal a colour picker where you can set the colour or by pressing [Set Legend] followed by the layer (or layer handle) and then [Halo]. To revert to using the surface halo press [Set Legend] followed by the layer (or layer handle) then [Halo] followed by [Remove Halo].

Selecting a surface or layer and pressing the trashcan button will delete the selection. Similarly, pressing [Delete] followed by a surface or layer will delete the selected item. Layers can also be deleted by pressing [Delete] and then selecting one or more Synergy fixture handles. Any linked surfaces or layers deleted in Titan will also be deleted in Ai.

Synergy Fixtures are similar to non-Synergy Fixtures except they do not have a DMX line or address and will not show in the patch window. Selecting one or more Synergy Fixtures will place the layer in the programmer with all of the controls available on the wheels or in the Attribute Editor. Adjusting controls will place them in the programmer and cues can be recorded following the record mode and mask as usual. The majority of the controls are the same as when patching an Ai as an active fixture or manually from the patch fixture menu. Where Synergy Fixtures are linked to Ai fixtures the Bank, Clip and FX functions are populated directly from Ai. Banks and Clips are named according to the names of the banks and media on the server and are collected together in a new 'Media Selection' page in the Attribute Editor window which will only show banks that have been added and, similarly, only contain tiles for clips included in the selected bank, arranged in a grid and represented by a thumbnail. If a bank does not contain any clips a 'No Media' function will be shown instead. Pressing the text (T) icon at the top-right of the Attribute Editor Media Selection page will toggle the clip name overlay on/off. When recording palettes with the default palette record mode (Mixed) or using quick record in the Media or Gobos and Beams palette windows, both the bank and clip will automatically be recorded if one or the other is in the programmer (in the same way as pan and tilt in the Position palette window and colour mixing controls in the Colours palette window record).

3. **Media Browser:**

A new Media Browser window has been added. This provides a way to view and upload media from Titan.

The left-hand side of the window shows local drives, folders and supported media files and the right-hand side shows Ai servers and the current content. Any available local drives will appear in the 'Drives' section on the left-hand side showing the drive type/icon and assigned letter. When local storage devices are added or removed the local drive options on the left-hand side will update accordingly. Selecting an available local drive in the left-hand 'Drives' column will reveal any folders and supported media files in the root of that drive and selecting a folder will reveal any folders and supported media files in that folder. There are also shortcuts to local Windows 'special' folders. The current local path is displayed above the local contents and pressing the Up button (up arrow) will move up (back) one folder level. Any linked servers will appear at the top of the right-hand side of the window with the machine name and a vertical bar indicating used space in blue. Selecting the server will reveal the media contents of that server with the machine name at the top followed by the media path as set in the server and then the used/available space with free space difference denoted in brackets. If there is less than 10% space remaining on the drive a warning will also appear in red along with a yellow warning triangle. The currently selected bank is shown immediately underneath that with any media files in that bank shown below. Selecting the bank will reveal a pop-up containing all available banks. If there are more banks than can be displayed in the pop-up a scroll bar will appear. Selecting a bank will show any files in that bank. Pressing the add bank button (+) to the right of the bank will open the 'Add Bank' softkey menu. Selecting [Add Bank], pressing ENTER or a <return> key on a keyboard will add a new bank to Ai. If a bank name has been input the bank will use this name. If the name is left empty it will use a default 'TitanBank x' name where x starts at 1 and increments for each new bank added without a name. Pressing the refresh button (circle with an arrow) will update to reflect any servers that may have been linked or unlinked or any banks/media that have been added/removed on the server since the last time the window was opened. Where more than one server is linked pressing the 'All' button at the top will collect the media files together in a simplified view. All drives, folders and files are sorted alphabetically with folders before files. If there are more files or folders than can fit in the current window a scroll bar will appear. Supported media files will show their full file name including extension, an icon indicating type to the left of the file name, their time-stamp below the filename in light grey and the file size to the right. Selecting local

files on the left-hand side will highlight them with the total size and number of files in the selection shown at the bottom. Files can be selected from more than one drive or folder and can be toggled in/out of the selection by clicking or dragging across them. Pressing the 'Clear' button at the top of the window will clear the selection and pressing the 'All' button will select all files in the current drive/folder. If any of the selected files have the same name as in the currently selected server/bank, the files in the server will highlight in red with a warning triangle and a warning triangle will also appear next to the 'Upload' button. This is to alert you that these files will be replaced if you choose to upload while they are selected.

If one or more local files is selected the 'Upload' button at the bottom-right corner of the window will become available. Pressing this will reveal an upload screen with the name of all files queued for upload on the left-hand side. If there are more files queued for upload than can fit in the current window size a scroll bar will appear. Where more than one file has been selected for upload they are uploaded to the selected server/bank one at a time in the order added. An hourglass next to a file in the queue indicates upload in progress, a dash (-) indicates pending upload, a green tick indicates the file upload has completed successfully and a red 'x' indicates the file has failed to upload successfully. The current file being uploaded is shown in the middle with the progress of the individual file upload at the bottom as a progress bar, percentage and transferred/total file size in KB, the name of the file above this and the machine name of the destination server above that. Additionally the name of the file currently being uploaded and destination server machine name are shown in the prompt area with a spinner. A bar representing the total progress of all files being uploaded is shown at the top of this window along with the total percentage completed. Pressing the 'Add Files' button will return to the Media Browser window with a bar showing the total upload progress and percentage at the bottom. If one or more files is selected the 'Add to Queue' button will become available at the bottom-right corner of the window. Selecting this will return to the upload screen and the selected file(s) will be added to the end of the upload queue. Pressing on the upload progress bar in the Media Browser window will return you to the upload progress screen. When enabled the Bandwidth Saver switch at the bottom of the upload page throttles the upload speed to reduce impact on the network. This can be toggled on/off at any time while files are being uploaded and will take effect immediately. The Bandwidth Saver state will persist and default is turned off (i.e. disabled/full speed). When all queued files have finished uploading the page will return to the Media Browser. If required the upload can be cancelled at any time by pressing the 'Cancel Upload' button. This will immediately cancel the current and any pending files in the upload queue and return to the Media Browser window where the files will still be selected.

The Auto Transcode switch determines whether Ai will automatically start transcoding any uploaded video files that are not currently encoded with the AiM codec when they have finished uploading. Ai prefers video files that are encoded using the AiM codec. Other types may fail to play or playback with reduced performance. It is therefore important that all videos are encoded with the AiM codec. When enabled (default) this ensures that any uploaded video media from Titan is automatically encoded with the AiM codec without having to manually trigger the process on the server. When the switch is turned off a red halo is shown around it to alert you that this is not enabled. When enabled transcoding will begin as soon as a file has finished uploading. When viewing the relevant server/bank in the Media Selection page of the Attribute Editor, video clips that have not been encoded are represented with a grey hourglass thumbnail and red halo. Where video clips are currently being encoded they are represented with an amber hourglass thumbnail and amber halo. Successfully transcoded video clips are shown with a thumbnail of the video content. If a file has failed to transcode it will be shown with a red cross thumbnail.

4. **Video Multi View:**

A new Video Multi View window has been added. This provides a way to view up to 6 live video streams from linked Ai servers & their fixtures.

By default this view is set to show one preview. Selecting the Change Layout option from the window's context menu will reveal five layouts as graphical representations. These are: single view, quad (2x2) view, a six screen view comprising two large screens above and four smaller screens below, a five screen view comprising one large screen and four smaller screen above and a dual view where the screens are arranged vertically. Selecting one of these will change the layout in the window accordingly. Clicking on a view will reveal the 'Select Video Stream' popup with live previews of the current media/output of all connected servers/fixtures/layers with the machine name of the server at the top of the preview and the fixture name (and layer number where relevant) at the bottom. The 'Automatic NDI Previews' setting needs to be enabled for this to work. If this is not enabled the 'Select Video Stream' will show a 'Waiting for NDI streams' spinner along with a prompt to check that NDI is enabled. You can view and toggle this setting for each server on the network via Titan in the selected server properties section of the Synergy Settings window and this is mirrored in the Ai settings. If there are more streams available than can fit in the current window a scroll bar will appear. Selecting one of the previews will assign it to the selected view. The 'Clear Stream' button located in the top-right corner of the Select Video Stream popup will remove the stream from the selected view and the close button ('X') will close the Select Video Stream popup without making any changes. Views without previews assigned are shown in grey with an add ('+') symbol in the middle.

5. **Lightmap:**

A new feature called 'Lightmap' has been added. This provides a way to stream Ai colour data through any colour mixing fixtures in groups.

An Ai element has been added to the Pixel Mapper Effect Editor. Selecting this will add a 'Video Overlay' effect and reveal the associated properties. Any available surfaces will appear next to the Source Surface and selecting one will assign that output as the colour source for the associated group. The Red, Green and Blue Balance properties can be used to tune how much of the associated component from the source is used in the pixel map. These can be adjusted by dragging the slider or numerically or by wheel by selecting the value field to connect the properties to the wheels. Note that Ai elements currently take priority over other Pixel Map effects or layers regardless of the order in the stack and when an Ai element is added the layer options are deliberately removed as any other layers would always be at a lower priority and therefore never do anything.

A 'Media Options' submenu has been added to the Layout Editor context menu to assist with the alignment of fixtures when using Ai sources.

Selecting 'Show Video Overlay' will reveal the 'Select Video Stream' popup with live previews of the current media/output of all connected servers/fixtures/layers with the machine name of the server at the top of the preview and the fixture name (and layer number where relevant) at the bottom. Selecting one will overlay the layout with the chosen preview providing a way to see how the content relates to the fixtures/cells in the layout in order to align them accurately. Selecting the 'Show Video Overlay' a second time will remove the video overlay from the layout editor.

Selecting 'Match Surface Resolution' open the 'Match Surface Resolution' menu with a softkey for any available surfaces and their names. If there are more surfaces available than will fit a previous and next softkey will appear which can be used to cycle through pages. Selecting a surface from the softkeys will set the grid size of the layout to match the canvas resolution of the surface automatically providing 1->1 pixel->fixture/cell layout for absolute accuracy if required. Pressing Exit will return to the previous menu without making any changes.

Selecting 'Position Overlay' will open the 'Toggle Fixture Position Overlay' menu with a softkey for any available surfaces and their names. Selecting a surface from the softkeys will overlay XYZ lines on the chosen surface (and, subsequently, in the video overlay if enabled and the same surface). These centre on the cell selection and provide a way to see exactly which part of the stream will be used to determine the colour information for the fixture/cell. If one cell is selected the position overlay lines will be shown in white. If more than one cell is selected the position overlay lines for the top-left most cell will be shown in green with the bottom-right most cell in red and the centre of the two in blue. Additionally, where more than one cell is selected, the rectangular area from the top-left most to bottom-right most cell selection will be rendered at a reduced intensity to visualise the area of the canvas being sampled. The position overlays can be toggled on/off for any available surfaces by pressing the associated softkey in the Toggle Fixture Position Overlay menu where overlays that are currently on are highlighted in blue and pressing the [Clear All Position Overlays] in the Toggle Fixture Position Overlay menu will turn off the position overlays for all available surfaces.

Selecting the 'Sample Region Overlay' toggle will add or remove an overlay of sample regions for the video stream currently being overlaid in the layout editor. This provides a way to see regions of the content that are being sampled and how they relate to fixtures/cells in the layout in order to align them accurately. The layout editor context menu option 'Show Video Overlay' must be enabled for this to work. If it is currently disabled selecting the 'Sample Region Overlay' option will reveal the 'Select Video Stream' popup and selecting one of the previews will overlay the layout with the chosen preview and overlay the sample regions. These are represented as a scrolling dashed white outline and reduced intensity. Selecting the Sample Region Overlay option again will remove the sample region overlay from the layout editor.

The 'Wheel Control' toggle has been changed to a three-way toggle where 'Position & Angle' (default) is equivalent to having wheel control enabled and links the wheels to control the X/Y position and angle of selected cells in the layout editor. 'Cell Scale' is a new function which connects the wheels to a 'Cell Scale' parameter which allows you to adjust the relative positions of cells in multi-cell fixtures as a percentage. This provides a way to scale multi-cell fixtures in a layout to help align them with the content used to determine the colour values if required. Touching the up/down areas in the wheel view will nudge the scale up/down respectively by 25% relative to the current value. Pressing the @ button will open the 'Adjust Layout Values' menu where you can input a value numerically to set the scale accurately if required.

6. Synergy and Speed Masters:

We now send the BPM/Speed master speeds and edges to the Ai software when connected via Synergy, this enables you to make use of the current master levels through the Ai software. Assigning a rate master to a Synergy layer will apply its value to the 'Playback Speed' attribute. Assigning a BPM master to a Synergy Layer will lock the 'Beat Sync' and 'BPM' attributes for that layer. 'Beat Sync' will be locked to 'Enabled' and 'BPM' will be locked to the level of the BPM master, changing the level of the BPM master will change the BPM in Ai. This

works in conjunction with the value of the 'Video Beats' attribute which governs how many beats the current clip should be playing over. The rate grand master will always apply its level to the 'Playback Speed' of the layer. If under the control of a BPM master it will also apply to the 'BPM' attribute.

7. **Lock Screen Image:**

It is now possible to display a background image when the console is locked.

A new general user setting called 'Lock Screen Background' has been added. Selecting this will open the Select Lock Screen Image menu and the shell keyboard where you can draw an image, select one from the library or import a new image. Pressing the [Scaling Mode] softkey will toggle between 'None' (1:1 pixels), 'Letterbox' (scales the image so that it fills either the horizontal or vertical width of any given display, whichever is the lesser, while maintaining aspect ratio), 'Fill' (scales the image to fill either the width or height of any given display, whichever is the greater, while maintaining aspect ratio) and 'Stretch' (scales the image to fill both the height and width of any given display - the aspect ratio is not maintained). Pressing the [Clear] softkey will remove any images from the background. Where an image has been set it will appear in the Lock Screen Background button in the User Settings window and in the background of all displays according to the scaling mode when the console is locked. After a few seconds of no input activity the 'Enter password to unlock' prompt will fade out. This will appear again if there is any keyboard or mouse input allowing you to input the unlock code. If no background image has been set 'Tap To Set' will appear in the Lock Screen Background button in the User Settings window and the background of all displays will be grey when the console is locked.

8. **USB MIDI Devices:**

You can now connect MIDI devices to the console either through the MIDI port or via USB. The device must support the DirectX MIDI driver. This makes connecting devices that use MIDI over USB simpler. This feature is not enabled on T1; you must be using T2 or upwards. When a USB MIDI device is connected it will appear in USB Expert Console and function just like any MIDI device connected to the MIDI port. You can use USB MIDI to assign triggers or read timecode as well as send MIDI commands through Macros. This feature may be used to connect a MIDI fader wing or buttons to the T2.

9. **Trigger Mapping Macros:**

It is now possible to enable or disable trigger mappings via macros. Some factory macros have been added to enable, disable or toggle the state of trigger mappings 1 thru 5 and these can be used as templates for creating macros to enable or disable other trigger mappings if required.

10. **Pixel Mapper Effect View Group:**

A new 'Groups' column has been added to the Pixel Mapper Effect View. This makes it possible to see which group a particular effect is associated with and also provides a shortcut to the layout editor for that group. When viewing a pixel effect a group handle will appear in the groups column for each effect. This shows the group user number and legend associated with that effect and selecting this handle will open the layout editor for that group.

11. **System Render Rate:**

A new general user setting called 'System Render Rate' has been added. This provides a way to reduce the DMX frame rate when the processor overhead is impacting performance in shows with large numbers of fixtures. Normally the DMX frame rate is 40Hz (default). If this is selected you can input any whole value in the range 1-44 representing the rate in frames per second.

12. **Synchronous Streaming ACN:**

We have updated our Streaming ACN implementation to support the latest synchronous DMX over network. This option is disabled by default and must be enabled by going to DMX settings and setting the sACN Synchronization Address to anything but zero. This sets the universe used to synchronise all DMX frames sent from this device. Listening devices will receive all DMX frames and then wait for a packet on the synchronisation universe before using or re-transmitting the DMX frames. If a device does not support synchronisation then this is just ignored. To return back to non-synchronised sACN simply set the Synchronization Address back to zero. Using synchronous sACN will result in significant improvements across receiving devices and reduce tearing from non-synchronised universes.

13. **Colour Filter Rendering Accuracy, Names, Sort and Search:**

The Colour Filter selection feature in the Attribute Editor Colour Mix tab has been overhauled. Colour filter rendering accuracy is significantly improved, meaning the output colour generated for a specific colour filter should more closely match designers' expectations. The interface also now features faster loading/rendering, filter names, filter numbers including letter and zero prefixes, and the ability to search, to sort by filter number or hue and to show filters all manufacturers.

On the left-hand side of the Filters window a new '(Show All)' option has been added. When this is selected (default) all filters across all manufacturers are shown. A new search bar has been added above the filters. Selecting this will open the 'Search Filter Library' menu where you can input a search string to filter the filters. The search will work across both the filter name and number and within the manufacturer type selection and the search will be maintained while switching between manufacturer types. A new 'Order Filters by' context menu toggle option has been added. Select this to toggle between 'Order Filters by Number' (default) and 'Order Filters by Hue'; filter display will respect this selection even when searching for a specific filter or viewing a single manufacturer.

14. **Added T2 Support:**

This version adds support for the T2 USB Interface. This can either be used as a complete system with Titan Go, or to add 2 DMX Ports, a SMPTE Port, or Audio Triggers port to a console.

Improvements

1. **DMX Frame Synchronization:**

The physical DMX output has been overhauled so that it is now synchronised to the fade engine to ensure all DMX frames output at the same time across all nodes in the system. This guarantees every fixture receives the same DMX values within a tolerance of 5ms. This avoids frames getting slightly out of order which could affect the accuracy of linear fades on certain fixtures and cause tearing across TNP's. The default frame rate is 40Hz. This can be adjusted in the User Settings from 1 to 44Hz. This is particularly important when using fast responding fixtures such as LED fixtures. It will reduce the potential of seeing tearing across fixtures although is still dependant on specific fixture implementations when receiving DMX. The system will constantly monitor the synchronisation across all DMX outputs across the system; if any variance is detected steps will be taken to bring the frame synchronisation back in line. You may see slight variances in the frame rate as it tries to do this.

2. **Colour Model Improvements:**

The colour system used to calculate colours for RGB+ fixtures (i.e. RGBA, RGBAW etc.) have been significantly improved. Colours generated via the colour picker or pixel mapping engine should be brighter, more saturated, and more correctly balanced.

3. **Capture 2018:**

The Capture Visualiser component has been updated to the 2018 version with improved rendering and simulation.

4. **Fixture selection speed:**

Fixture selection speed has been improved.

5. **Copy palette speed:**

The speed of copying normal palettes has been improved.

6. **Titan Remote show loading:**

Improved reliability and speed of loading shows on the remote.

7. **Shape wheel controls in root menu:**

Previously, when there was a shape in the programmer there was no way to connect the wheels to phase, offset, beats or cycles from the root menu, the root menu wheel mode softkey did not update to reflect when the wheels were connected to speed, size and spread and toggling the wheel mode when they were would cause them to disconnect and the shape (FX) bank would have to be (re)selected to reconnect. Now, when there is a shape in the programmer, selecting the shape (FX) attribute bank while in the root menu will connect the wheels to shape controls and update the root menu wheel mode to show the shape controls that are currently connected. Further presses of the shape (FX) attribute bank or root menu wheel mode softkey will cycle through all the available pages and update the wheel mode softkey accordingly. Selecting any of the other attribute banks will restore the previously selected wheel mode and connect the wheels to the attribute, time, delay or visualiser where available/relevant. Additionally, when entering the Edit Shape menu ([Shapes And Effects] -> [Shape Generator] -> [Edit]) the wheels will now always automatically connect to the shape controls.

8. **Shell About Box Size:**

Previously, after installing a large number of versions of Titan, the Shell 'About' box could become very large and exceed the height of a single display. This has now been improved so that it cannot become larger than a display and a scroll bar will appear if there are more items

than a can fit.

9. **Kill Autoloads when removed from Cue List:**

If any cues fired from an autoload in a cuelist are active when the autoload that fired them is removed from the cuelist cue the autoloading cues are now killed.

10. **Titan Go fader touch zone:**

The fader touch zone in Titan Go has been improved so that you can touch anywhere in the fader zone to adjust the fader level rather than directly on the fader.

11. **Refire active playbacks when connecting to TNP nodes:**

Active playbacks are now refired on (re)connection to TNP nodes.

12. **Explicit personality version numbering (Personalities and Personality Builder):**

A Personality Version parameter has been added to personality files and the fixture properties section in Personality Builder. The version number is used to determine if there are any more recent versions of personalities available when using the Update Personality function in Titan version 12.0 and later where a new file starts at number 0 and higher numbers indicate more recent. Previously this was achieved by counting the history entries which was vulnerable, particularly if you were not aware it was important to add a history tag after making changes for this to work properly. Personality Builder will now automatically increment this number when it detects changes have been made to a file to ensure the update personality function works correctly although it can be set manually if required. Personality files without this information will fall back on the history entry count to determine version number.

13. **Bind Android remote to Wi-Fi interface:**

Android devices detect many of the networks used by Titan Remote as having poor network connectivity because they often cannot reach the internet. If Android detects a mobile data network that does have internet connectivity it will often automatically use that instead of the configured Wi-Fi network, resulting in no connection with Titan Remote. To prevent this, Titan Remote now binds to a Wi-Fi interface explicitly when using Android.

14. **Select a useful attribute bank on editor becoming non-empty:**

If, when starting a new selection there are no controls in the current attribute bank for the fixtures, the attribute bank selection will now automatically switch to the first one that does contain controls so that the wheels will always do something useful when you start a new selection.

15. **Temporary Attribute Banks:**

After selecting cells in the Channel Grid window the attribute bank will now return to the bank that was previously selected.

16. **Don't recall set list scroll position with workspace shortcut:**

Previously workspace shortcuts containing the set list window would remember the set list scroll bar position and restore this position when recalling the workspace. This has been changed so that the set list scroll position is now ignored when recalling a workspace containing the set list window and the scroll bar will still be in the position it was in the last time the window was open.

17. **DMX settings spinner:**

A spinner will now be shown in the DMX Settings window while line assignment is in progress so that it is obvious that something is happening and to prevent trying to do other things until it has finished.

18. **Set list terminate edit track note on tab change:**

Previously if, while editing a track note in the Set List window, you selected the Workspace & Macros tab and then selected the Notes tab again, the notes section would still be in the edit mode but would not recognise any input and you would have to turn edit mode off and on again to continue edits. This has been changed so that selecting another tab will automatically exit the edit mode.

19. **Set list page legend update:**

Changes to page legends will now propagate to tracks in set lists built using the 'Pages' option. Legending a track directly will break the page link allowing independent legends if required.

Changes

1. **Upgrade to Software Protection and Licensing:**

In our continuing mission to reduce counterfeit consoles using Avolites designed and created software, we have introduced a new software protection platform. This is a significant upgrade on our previous protection and uses a much more secure hardware dongle, the AvoKey, to protect the software. You should have already received details on how to upgrade your console, if you need more information then please visit <http://www.avolites.com/avokey>.

The new system will lock the software to a connected AvoKey and the software will not run if the AvoKey is not present or is removed during operation. New products will ship with the AvoKey built in and transferring devices such as the Titan Mobile between PCs will also transfer the license.

PC Suite will no longer need to be licensed on each computer on which it is run; it is automatically unlocked by connecting an AvoKey. The new licensing system is designed to be more resilient than the previous system; users should only have to licence their AvoKey once, and are then be able to use it with any computer.

This new protection system is much harder for counterfeit manufacturers to overcome as it uses real time protection and encryption. These are similar to those used in bank cards.

2. **Mode 3 now crossfades out pixel map effects:**

Mode 3 playbacks previously used to ignore running Pixel Map effects when crossfading out other playbacks. Mode 3 playbacks now correctly affect running pixel maps in other playbacks following the normal Mode 3 behaviour.

3. **TitanOne rebranded to Titan Go:**

TitanOne has been rebranded as 'Titan Go'. The Titan Go application is used for both the original TitanOne and latest T1 and T2 USB interfaces.

4. **Active Fixture menu:**

Pressing [Patch] followed by the [Active Fixtures] softkey now opens a new 'Select an Active Fixture type' menu. Pressing [Synergy Settings] will open the Synergy Settings window. Pressing [CITP Media Servers] will open the 'Select Active Fixture' menu where any available CITP media servers connected on the network will appear as softkeys and selecting one will open the 'Patch Active Fixture' menu with relevant patch options. Pressing [CITP Visualisers] will open the 'Select Active Fixture' menu where any available CITP visualisers connected on the network will appear as softkeys and selecting one will open the 'Patch Active Fixture' menu with relevant patch options.

5. **Limit integrated Capture fixture patch:**

The maximum number of fixtures that can be added to the integrated Capture Visualiser has been limited at 1000 to prevent running out of memory on some consoles.

6. **Clear programmer when changing handle worlds:**

Previously, when changing handle worlds with fixtures selected, the wrong attributes could become available when changing attribute bank. The programmer is now cleared when changing handle worlds.

7. **DMX Settings tab name:**

The 'TitanNet Overview' tab in the DMX Settings window has been renamed to 'DMX Overview'.

8. **Remove panel reset page from installers:**

Panel resets are no longer a requirement of the installation process and therefore this page has been removed from the installer dialog.

9. **Exit Select Shape menu will no longer return to Root Menu:**

Previously pressing [Exit] in the 'Select Shape' menu would return to the 'Shape Generator' menu. It now just goes up one level to the previous 'Select Shape Category Menu' as expected.

10. **Tapping menu prompts no longer closes menus:**

Previously, tapping on the prompt text in a menu would cause most menus to close. This was counter-intuitive and made it difficult to modify values in text-entry prompts. Tapping on prompts no longer causes them to close by default. In the root menu, tapping the prompt continues to open the Undo History window as before.

11. **Cue legend not centred on handle:**

Minor tweak to cue legend centring to account for the user number.

12. **Telemetry/Diagnostic Reporting:**

To allow us to improve the quality and reliability of our products we have included a telemetry reporting system. This will automatically send to Avolites anonymous information to help us diagnose faults and improve the software. This information includes details about faults that occur, statistics on how long certain functions take and usage information about specific functions. This information is really useful for us to further improve the software however if you would prefer to disable it please go to the System menu and disable Telemetry.

Bugs Fixed

1. **Panel lockup in patch view:**

Fixed an issue where the panel would sometimes hang when pressing enter after selecting a column header in the Patch View window.

2. **Cue view stuck after selecting column header for attributes with no level information:**

Fixed an issue where the cue view window could get stuck after selecting an attribute cell containing no level information followed by the attribute column header.

3. **Cue view won't open:**

Fixed an issue where legends with curly braces would prevent playback and cue view from opening.

4. **Show won't load on restart after update personality:**

Fixed an issue where the show would fail to load when starting the software after updating any personalities.

5. **Shutdown file not deleted on load show with missing TNP:**

Previously when continuing to load a show with TNPs assigned without the TNPs connected, the shutdown show was not deleted as it would normally be. If the session subsequently ended unexpectedly this shutdown show would load on restart rather than giving you options to recover your show, making it look like you had lost any changes that had been made. The shutdown show is now deleted as expected.

6. **Cells lost after exchange:**

Fixed an issue where extra cells added following a fixture exchange would be lost when loading the show.

7. **Fixtures and cues missing when loading v10 show:**

Fixed various issues that could cause shows to not load correctly from previous versions.

8. **Lock startup show broken:**

The lock startup show function was not working. This has now been resolved.

9. **Flash with fire first cue fires cue 2:**

Fixed an issue where flashing an inactive cuelist with fire first cue enabled would result in cue 2 firing instead of cue 1 and timed flash would use the fade in time from cue 1.

10. **Cues with fade out time set to not used don't fire:**

Fixed an issue where cues with a fade out time set to 'not used' sometimes did not fire.

11. **Pixel map effects ignore fade times:**

Fixed an issue where pixel maps would not fade correctly between cues when there were no fixture attributes in the cue.

12. **Pixel map layer master intensity on fader:**

Fixed an issue where adjusting the fader level of pixel map layer masters assigned to faders would not adjust the intensity of associated pixel map layers reliably.

13. **Timed Scene Master Commit for Pixel Map effects snap:**

Fixed an issue where, when using a Scene Master and committing a Pixel Map effect from preset mode to live with a fade time, the effect would snap rather than fade in.

14. **Scene Master would snap programmer values during fades to live:**

If a playback was fired in Live, and a Scene Master's preset mode was entered and values were put in the programmer, and then the Scene Master was faded live, if values in the

programmer conflicted with values in the playbacks previously fired, those values would snap at the beginning of the fade. Scene Masters now behave correctly when programmers and live playbacks interact. Live changes to the scene master programmer during the Scene Master transition also now behave correctly instead of snapping live.

15. **Playbacks would not behave correctly if mode changed between 0 and 1 whilst fired:**

Playbacks could be killed erroneously or ignore their newly-set fade out times if their mode was changed between 0 and 1 whilst the playback was fired. Playbacks now act correctly when the mode is changed whilst they are fired.

16. **Blind edit key frame outputs live:**

Fixed an issue where editing a keyframe shape frame in the effect editor while in blind mode would output live.

17. **Local chase speed snaps after tap rate master:**

Fixed an issue where, if a chase speed was changed by tapping an associated rate master, adjusting the speed of the chase by connected wheel would snap back to the speed prior to tapping.

18. **Reduced performance with Capture Visualiser window open:**

Fixed an issue where the responsiveness of some actions was compromised when the Capture Visualiser window was open.

19. **Curves don't work with virtual dimmers:**

Fixed an issue where control curves did not work properly with virtual dimmers.

20. **Can't set sub fixture curves via super fixture:**

Fixed an issue where applying a fixture curve to the master control in a multi-cell fixture would not apply to the associated subfixture controls (cells).

21. **Any handle can be tapped to confirm delete:**

Fixed an issue where selecting any handle on the second press would confirm a delete action. This consequently also meant that attempting to change the selection for deletion would result in the original selection being deleted.

22. **Shape palettes on subfixtures don't work:**

Fixed an issue where shape palettes recorded on sub fixtures would not work.

23. **Locate dimmer doesn't work with clear located attributes enabled:**

Fixed an issue where dimmers would not locate when the clear located attributes option was enabled.

24. **Delete set list macro deletes all:**

Fixed an issue where deleting one set list macro would delete all set list macros.

25. **Cue list legend highlight:**

Previously when selecting new cues in cue lists after editing a cue legend without pressing enter or exit would position the cursor in the current legend of the selected cue at an offset equal to the length of the previously edited legend. If the length of the current legend of the new cue was greater than the previously edited legend this would mean the cursor would be positioned part way through the legend and any inputs would add to the current legend from that point unless you moved the cursor and/or deleted. This has been changed so that selecting a new cue will always highlight the existing legend where an input will replace or pressing the left or right cursor key on a keyboard will jump the cursor to the beginning or end of the existing legend respectively.

26. **Pixel mapper saturated colours:**

Fixed an issue where it was not possible to achieve fully saturated colours with pixel map effects on fixtures with RGB+ colour models such as RGBW or RGBA.

27. **Using scroll bar deselects selected rows in Cue View:**

Fixed an issue where selected rows in Cue View would be deselected the first time you touched the scroll bar.

28. **Functions wrong and inaccessible after changing conditions:**

Fixed an issue where in certain situations it was not possible to adjust the range of a control's

function after locate where its availability was dependent on functions selected in other controls.

29. **Selected key profile wrong on load:**

Fixed an issue where the selected key profile would sometimes reset to program after loading a show.

30. **Quick record menu shows wrong user number:**

Previously when quick recording palettes or workspaces the user number softkey would always prefill with user number 1 regardless of whether it was in use rather than the next available user number and the user number softkey would be missing entirely from the quick record menu when quick recording workspaces unless you happened to have previously been editing the user number when quick recording palettes. This has been changed so that the user number softkey prefills empty in the quick record menu and is now always available when quick recording workspaces.

31. **No warning for invalid numeric palette or group recall:**

Previously the palette and group softkeys in the numeric entry menu did not fully validate the user number entered, and could result in a warning not being shown when an invalid user number was entered when it should be. For palettes, the softkey considered any existing user number as valid and therefore did not show a warning triangle when there was no palette with the user number matching the input. Groups would permit user numbers with decimals to be entered. These issues have now been fixed so that the palette and group softkeys show a warning triangle for any numeric input that does not match an existing palette or group user number.

32. **Can't set line for parked fixtures before address in repatch menu:**

Previously attempts to set the line of a parked fixture before setting the address in the repatch fixture menu would be ignored. It is now possible to set the line of a parked fixture before setting the address in the repatch fixture menu.

33. **Shape view range delete only deletes last shape:**

Previously, when more than one shape was selected to delete in shape view, pressing [Confirm] would only delete the last shape in the selection. All shapes in the selection will now be deleted as expected.

34. **SelectIf does not select fixtures containing just pixel map effects:**

Fixed an issue where SelectIf would not select fixtures in associated playbacks where the fixtures only contained pixel map effects.

35. **Dimmer shapes don't filter in intensity view:**

Previously active cues containing only dimmer shapes would not appear in the intensity view when filtered to Stage or Live Cue. Dimmer shapes are now considered as intensity controls and will appear in intensity view when filtered.

36. **Cannot double tap to delete Set List workspace:**

Previously, selecting the handle a second time when attempting to delete a workspace from a track in the set list window would do nothing and you would have to use the [Confirm] softkey to complete the action. It is now possible to double-tap to delete workspaces assigned to tracks in the set list window.

37. **Enter does not confirm delete Set List workspace:**

Fixed an issue where it was not possible to use [Enter] to confirm the deletion of a workspace assigned to a track in the Set List window.

38. **User Settings softkey menu always resets page on exit submenu:**

Previously, exiting one of the User Settings softkey sub-menus would always return to the first page of the User Settings menu. It now remembers the page you were in and returns there when exiting a submenu.

39. **Random Pixel Map effects across TNPs:**

Previously, running random pixel map effects such as random spawn on fixtures distributed over more than one node would result in a different effect on each node. The TNPs now synchronise their sources of randomness correctly with the Master console to ensure the effect is generated consistently across all nodes.

40. **Copies of fixture type groups are also type groups:**

Fixed an issue where copies of fixture type groups ('All xxx') would also function as type

groups meaning they would no longer work after a fixture exchange.

41. Loading mismatched Capture theatre fails:

Fixed an issue where attempting to load a Capture theatre originally exported from Titan into a different show could take a long time and not load correctly.

42. sACN Input Triggers reading channel 512 incorrectly:

Fixed an issue where sACN triggers on channel 512 would incorrectly read as as channel 0 on the following universe.

43. DMX triggers above channel 494 broken for certain consoles:

Fixes to physical DMX trigger inputs on Arena, Sapphire Touch and Tiger Touch 2 consoles. Specifically channels above 494.

44. Capture element properties not saving:

Fixed an issue where some of the Capture element properties would not save properly in Titan show files.

45. Picture legends - keyboard does not open after being closed manually:

Previously, if the shell keyboard was opened by selecting the [Picture] softkey in the Set Legend menu and then closed manually it would not reopen when selecting the [Picture] softkey again without exiting and re-entering the Set Legend menu. This has now been resolved.

46. Add new set list via [Record] adds track:

Previously, when attempting to add a new set list by pressing [Record] and then selecting the dotted add new list zone that appears in the Set List window, a new list with one track would be created and the new track would use any legend input rather than the list itself which would use the default. This has been fixed so that adding a list this way will only add the list without any tracks and any legend input will apply to the new list.

47. Cannot copy or move macros from set list window:

Previously pressing copy or move and selecting a macro handle assigned to a set list track would highlight the handle in red but selecting a destination handle would do nothing. Attempting to select a macro handle in the set list window to copy or move will now display a 'Cannot copy/move from set lists' warning prompt and the handle will no longer highlight.

48. Refire pixel map:

Fixed an issue where the refire pixel map button wasn't working correctly in the effect editor.

49. Trigger enabled button sync:

Fixed an issue where the Enabled/Disabled softkey in the Triggers menu would not update to reflect associated changes made in the Triggers window and could become out of sync.

50. Timecode workspace source selection:

Fixed an issue where selecting the perimeter of the timecode source buttons in the Timecode windows would highlight the source as selected but didn't actually select the source.

51. Break Group References button styling:

Fixed an issue where, after selecting the [Break Group References] softkey in the Shape Fixtures Order menu, the text for the button would remain.

52. Locate after selective clear:

Fixed an issue where it was sometimes not possible to locate fixtures after selectively clearing all controls.

53. Titan Health Check fails to fix touch screen settings:

Fixed an issue where Titan Health Check would fail to fix the display settings on certain consoles.

54. Edit exchange mapping ranges by softkey:

Fixed an issue where editing exchange mapping ranges numerically via the softkey menu would not apply and would be ignored.

55. Chase step information wrong:

Fixed an issue where the current step shown in the handle of active chases in the Playbacks window could become incorrect after deleting/inserting and renumbering.

56. **Set list does not remember status of live or parked tracks filter:**

Fixed an issue where the set list window would not remember the all/ live/ parked filter when stored in a workspace and would always recall with the filter set to all.

57. **Set list does not show set list macros without track selected:**

Fixed an issue where any set list macros that had been added would not show in the Set List macros when viewing the Workspace & Macros page of the Set List window unless a track was selected.

58. **Playback view only shows last macro added:**

Previously, where more than one macro had been added to a cue in a cuelist, the macros cell in the playback view would only show the last macro added. It will now show all macros added separated by a semicolon.

59. **Pearl Expert LCD distorted when connected to speed masters:**

Fixed an issue where the size of the controls on the internal LCD display in the Pearl Expert would be distorted when connected to a speed master.

60. **Intensity masters don't update LED state live:**

Fixed an issue where the LED flash at zero and constant illumination > 0 state of intensity masters did not update for live changes and only changed when switching page.

61. **Internal touch screen calibration wrong after connecting external touch display:**

Previously connecting an external touch screen could cause the touch calibration of the internal screen to become inverted in certain consoles. The touch sensor settings are now reassigned whenever display settings change (such as adding or removing a display).

62. **Release mask toggle:**

Fixed an issue where pressing an attribute bank key to set the release mask in playback options would exclude all other attribute groups and if the attribute group was already included it would not immediately toggle to excluded as expected.

63. **Lock screen message missing from wing displays:**

Fixed an issue where the LCD displays in wings did not display a lock screen message when the console was locked.

64. **Set key profile menu name missing:**

Previously, when setting key profile functions, the softkey menu had no name. This has been resolved.

65. **TNP In console mode could hide [Record] and [Update] behind shell:**

When operating a TNP in console mode, it was possible for the [Record] and [Update] keys to be hidden behind the shell when using an external display. The shell no longer obscures these buttons.

66. **F1 would not open help:**

Fixed an issue where pressing F1 would not open the manual.

67. **Attribute Editor can crash when selecting fixtures if cells are missing user numbers:**

Resolved an issue where, if one or more cells in a multi-celled fixture were missing fixture user numbers and the fixture was selected, attempting to open the Attribute Editor would fail.

68. **Wi-Fi connection and subnet mask details incorrect on Android Remote:**

The Wi-Fi network SSID and subnet mask displayed in the console connection screen of the Android Remote were incorrect. The correct details are now displayed if the user grants the appropriate permissions for this data to be obtained.

69. **Remote could freeze when opening Titan Emulator multiple times:**

If the Titan Emulator had already been loaded when attempting to connect to the Titan Emulator in the Titan Remote app, the app could freeze. This has now been resolved.

70. **Attribute group times via softkeys not working:**

Fixed an issue where attempting to set attribute fade times via the softkey menu would not work.

Known Issues

1. **Downgrading to previous versions is unsupported:**

Please note that using upgrade installers for older versions of Titan after running the V12 recovery is not currently supported and will prevent the console from starting if attempted. If you need to downgrade to a previous version it is important that this is done via a relevant recovery stick only. Consoles not starting following an attempt to use an earlier upgrade installer can be fixed by running a recovery stick and selecting Full Erase option (if recovering to a version prior to V12, you can reuse the license which was emailed to you previously).

When downgrading from V12 to previous versions of Titan it is also important that the Sapphire DMX panel firmware is downgraded in any consoles with ST-DMX cards (Sapphire Touch, TitanNet Processor, Tiger Touch II and Arena). This is because new features in the firmware are not compatible with previous versions. To downgrade the firmware open USB Expert Console and put any Sapphire DMX Panels into Boot Mode. This is found in the Service Tab. When the panels have re-appeared in boot mode, select Program which will open a file dialog. In the file dialog navigate to C:\Program Files (x86)\Avolites\UsbExpert\Panel Software and select the st_dmx.bin file. This will now install the previous ST-DMX firmware. Once this is complete do the same on all Sapphire DMX panels and then exit Boot mode. Now restart the console and you should now be OK to use the previous version of Titan. When you next upgrade to V12 you will need to carry out the firmware update again.

2. **Automatically assigned physical DMX output assignments can go missing when assigning lines to a TNP :**

Sometimes, when assigning lines to a TNP, the automatic physical DMX output assignments can be made incorrectly, resulting in some physical ports not outputting DMX. Furthermore, the physical output ports can then appear to be missing in DMX Settings.

To resolve this, users should use the Clear All DMX Assignments button in the top right-hand corner of the DMX Lines pane of the DMX Settings window, before reassigning output lines manually as required.

3. **Touchscreen input on Tiger Touch II consoles can become inverted after running calibration:**

In some circumstances, it is possible for the touchscreen calibration utility on a Tiger Touch II to leave the touch input inverted. Users of Tiger Touch II consoles are advised not to run the calibration utility at this time.

If you have been affected by this issue, an interim workaround can be applied by running the calibration utility and tapping the targets upside down, so that the touchscreen is re-calibrated to the correct orientation.

4. **Cue Numbers all turn green when opening playback:**

After toggling OFF Chase Snap in the User Settings page, then opening the Playback View window for a chase with multiple steps, all four steps appear with a green indication that the cue is fired.

5. **Master console sometimes gets stuck in safe mode:**

The Master console sometimes gets stuck in safe mode when the network cable is removed mid-session and the backup takes over and then reassigned to be the backup console after reconnecting the network cable to the original master. Most of the time the backup console automatically relinquishes control of the TNP and the Master automatically reconnects to the TNP, sometimes the backup console gives you a softkey option of allowing the master console to assign all lines to the TNP, and every now and then the master console gets stuck in safe mode.

6. **Connecting an external touchscreen to a certain TNPs causes internal touchscreen issues:**

If an external touchscreen is connected to a TNP containing an LV67H motherboard, the internal touchscreen will not be assigned correctly, and will be mapped to the wrong screen.

7. **Android Remote has issues discovering Titan consoles and can disconnect during use:**

Due to a bug discovered in the Android operating system, certain newer Android phones may fail to discover Titan sessions on the network, and may disconnect seemingly at random while in use. We have published detailed guidance on how to mitigate this issue as FAQ 10035, which can be found at <https://www.avolites.com/support/titan-troubleshooting>. Users wishing for more information on the bug in Android (which we have reported to Google) can find more information at <https://issuetracker.google.com/issues/132686258>.

8. Remote may crash in particularly complex showfiles:

Due to a bug in the underlying communication system, the Titan Remote app may crash when loading or using particularly complex showfiles. Whilst we have made efforts to mitigate this problem, crashes may still occur. If this happens you can usually restart the app to continue.

9. Cannot run Ai and PC Suite on the same host in a Synergy Session:

It is not currently possible to use Synergy in PC Suite if Ai is on the same machine.

10. Output can pause occasionally for a short time:

In certain situations under heavy load, the output can pause briefly.

11. Synergy Lightmap can very occasionally allow underlying fixture colour to display at high workloads:

In certain situations where system load is higher than the specified maximum, fixtures running a Synergy Lightmap can occasionally show their underlying fixture colour rather than the colour obtained via Synergy.

12. Synergy Multiview re-establishes NDI streams when window moved between screens:

If the Synergy Multiview window is moved between console screens, the NDI streams must be re-established, which takes a few seconds.

13. Move in dark doesn't act during the link wait time:

Move in dark could act during a cue link time, but it doesn't.

14. Undo programmer releases all Quick Palette applications:

When undoing a change to the programmer, all previously applied quick palettes are released.

15. Pixel maps in single cues do not fade over fade-in time:

Pixel mapped effects do not respect the fade-in time set on a single-cue playback.

16. Layout Editor Triangle Arrange feature fails on certain fixture types:

In layout editor, the triangle arrange feature does not set the height correctly when arranging groups of certain fixtures.

17. Go key profile on cue playbacks cause fade to snap through black:

If the key profile for a cue playback is set to go and a fade-in time is set for the playback, then pressing the 'Go' key profile will cause the playback to fade in from black, instead of crossfading fixtures from their previous state.