19 System Settings

19.1 System Menu and User Settings

The console has a large number of options to help you set it up just the way you like it. Commonly used options can be set from the User Settings menu which is available on a softkey when you hold down the <Avo> button.

The System menu itself allows you to set up the console hardware including physical DMX outputs, network ports, external monitors and so on.

In this chapter there is also information on how to upgrade the Titan software.

19.2 The System Menu

The System menu is accessed by holding <Avo> and pressing <Disk>, or on Titan Go you can press the <System> button. Some older consoles are also fitted with a key switch or mode switch to get the System menu.

The options in this menu are separated from the other options on the console because you would normally only change them occasionally, or because they can have serious effects on the way the console works and you wouldn't want to change them accidentally.

19.2.1 Network Settings

This option sets up networking parameters for the Ethernet ports on the console - further details on how to control fixtures over a network (Section 21.3) are in the networking section (Section 21.1).

19.2.2 DMX Settings

Allows you to configure how the console outputs DMX. This option is described in detail later in this chapter, in the DMX Output Settings section (Section 19.6.1).

19.2.3 Network DMX Node Settings

Allows you to select how DMX will be output across multiple consoles or processing nodes - read more about Network DMX Node settings (Section 19.2.3).

19.2.4 Synergy Settings

Sets up the Synergy software for linking to an Ai server, see the Synergy setup section (Section 15.2.4).

19.2.5 TitanNet Security

This option sets how the console communicates with other Titan devices as a backup console, for more information see the Linking consoles for multi-user or backup (Section 16.6) section.

19.2.6 User Settings

The User Settings menu may also be accessed from Program mode: hold down the <Avo> button and press [User Settings]. See the User Settings (Section 19.5) section.

19.2.7 Key Profiles

Allows you to modify the functions of some buttons. See section the Key Profiles (Section 19.4) section.

19.2.8 Wipe

The Wipe menu erases the current show. This is the same as the [New Show] option on the Disk menu, but is provided here for old fashioned Avolites users who are used to it being on the System menu.

19.2.9 Triggers

Sets up the console for external triggering such as MIDI or DMX-in. This option is described in detail in the MIDI, DMX or audio triggering (Section 16.4) section.

19.2.10 Assign Masters

This option allows you to assign any playback fader to be a master fader. Various different types of master fader may be assigned. See section Grand Master fader and assignable masters (Section 16.2.1) for more information.

19.2.11 Console Legend

Lets you set the legend of the console, this is displayed in networking screens when you are linking the console to others.

19.2.12 Titan Telemetry

To help Avolites with software development and bug fixing, the console will report anonymous information to Avolites. This includes details about faults that occur, statistics on how long certain functions take, and usage of functions. This information is really useful for improving the software, however if you would prefer to disable it, click the [Telemetry Enabled] button to switch it to [Telemetry Disabled]. Telemetry information will only be sent in any case if the console is connected to the internet.

19.2.13 Display Setup

This option gives you a menu for enabling and disabling external monitor(s) (Section 19.3). If you don't have a monitor connected, set this option to "Disabled" to improve the performance of the console.

19.3 External Displays

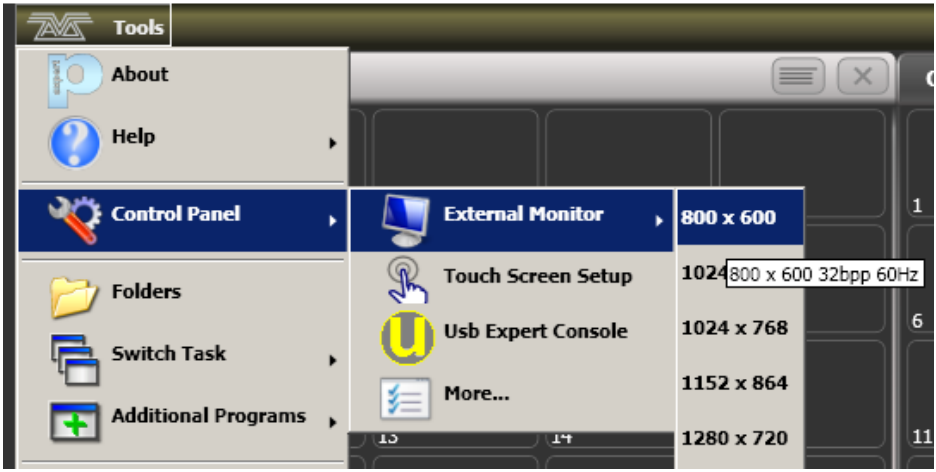
For extra workspace you can connect external monitors to the monitor ports provided on the console (HDMI on Diamond 9, DVI on other consoles, except Pearl Expert and Tiger Touch 1 which are VGA). The Diamond 9 and Sapphire Touch can have two external displays, all other consoles can have one. You can use touch screens, we advise using Windows Touch compatible monitors to avoid driver issues.

For Titan PC Suite (Titan Go / Titan Simulator) you can connect whichever external displays your computer will support, Titan can use up to three of them.

An external display is disabled by default and will show a 'disabled' message. To enable, go to the **System** menu (press <Avo> + <Disk>) and select [Display Setup] then press [External Display Disconnected]. The option will change to [External Display Connected] and the display will be enabled.

> For best performance of the console, disable display outputs you aren't using.

Titan should configure its output to match your monitor. However if this does not work for any reason, on a console you can manually set the resolution from the toolbar. Click 'Tools' at the very top of the touch screen and select 'Control Panel', then 'External Monitor', then select the option to match the resolution of your monitor.



19.4 Key Profiles

The console allows you to reconfigure how the front panel buttons work to suit your method of working. You can save your settings as a Key Profile. Different profiles can be selected for different users or to enhance the operation of the console for a particular use.

There are standard Key Profiles for Run mode, Takeover Run mode, Program mode, Theatre mode and Nightclub mode. These standard profiles cannot be edited, so you always know how they will behave. You can create your own editable profiles using one of the standard profiles as a starting point.

The current settings of the playback buttons are shown on the screen related to each playback fader.

19.4.1 Creating and editing key profiles

To create or edit a profile, go to the **System** menu (press <Avo> + <Disk>) then select [Key Profiles]. You can then use the Manage Profiles menu to View, Edit, Add, Delete or Rename profiles.

You can also create or edit key profiles in the [Handle] tab of playback Options.

Key Profiles can also be viewed from the Show Library window as described in Show Library (Section 5.7.4) section.

When Adding a new profile, you can select an existing profile to copy settings from.

You can also edit Key Profiles from Program mode by holding <Avo>, then selecting [Edit Current Key Profile]. If the current key profile is one of the non-editable system ones, you are prompted to add a new profile or select an existing editable profile.

The current actions for the Black, Blue, Grey and Touch/Executor buttons are shown on the left side of the screen. (On Diamond 9, the Blue buttons are the Select buttons and the Grey buttons are the Flash buttons). Once you select a key type from the menu, the screen shows actions available for that type of button. Only the Sapphire Touch has Black buttons, but Virtual Black buttons can be used with the faders in the Virtual Fader window.

19.4.2 Actions for Buttons

The groups of keys you can set are as follows. The blue or grey fixture/palette buttons only exist on the Pearl Expert, on other consoles these settings will not do anything.

Fixtures

The blue, grey or touch key can be allocated to **Disabled**, **Select**, **Flash**, **Swop**, **Latch**.

> The "Latch" function is equivalent to putting the fader to full for that fixture and touching again returns the fader to 0.

Groups

The blue, grey or touch key can be allocated to **Disabled**, **Select Group**, **Flash Fixtures**, **Timed Flash**, **Flash Master**, **Timed Flash Master**, **Swop Fixtures** - see Fixture Groups (Section 7.4) for more details.

> The option **Group/Flash takes precedence** only applies to the Pearl Expert where it is possible to program a playback on a fader handle and use its flash button as group selector.

Palettes

The palette key or touch button can be allocated to **Disabled** or **Select Palette**.

With **Palette is fired ignoring/with its times** you select whether to take palette times into account when selecting a palette, see Timed Palettes (Section 8.6). This setting is particularly useful when Busking with palettes (Section 3.5.2).

> The option **Palette/Flash takes precedence** only applies to the Pearl Expert where it is possible to program a playback on a fader handle and use its flash button as palette selector.

Cues

Keys and buttons can be allocated to **Disabled**, **Flash**, **Timed Flash**, **Swop**, **Latch**, **Preload**, **Go**, **Tap Tempo**, **Release**, **Select If**.

Chases

Keys and buttons can be allocated to **Disabled**, **Flash**, **Timed Flash**, **Swop**, **Latch**, **Go**, **Stop**, **Preload**, **Connect**, **Tap Tempo**, **Release**, **Select If**.

Cue Lists

These affect playback of cue lists (Section 12.3) and can be assigned to the handle's buttons:

Setting	Action
Disabled	The button will do nothing
Flash	All dimmer levels in the cue will flash to programmed level, when released the levels will return to previous level
Flash and Go	*As Flash*, but when button released the cue list will advance to the next cue
Timed Flash	*As Flash*, but fade in and out times will follow the cue times set
Timed Flash and Go	*As Flash and Go*, but cue list will advance on release
Swop	*As Flash*, but all other fixtures will black out
Latch	*As Flash*, but dimmers will remain active until button pressed again
Go	Cue list will advance to next cue using times
Stop	Stops all fades in the cue list at their current point
Preload	LTP channels of non-illuminated fixtures will move to positions in next cue
Connect	Connects this cue list to controls *(same as pressing <Connect/Cue> then select button of cue list)*
Tap Tempo	Set speed parameter by tapping the button
Next Cue -	Press repeatedly to select the next cue to be output, going backwards
Next Cue +	Press repeatedly to select next cue to output, going forwards
Review Live Cue	Replays the current cue using fade times
Cut Next Cue to Live	Fire the next cue ignoring its times
Snap Back	Cue list will snap back to previous cue without times
Go Back	Cue list will go back to previous cue using fade times
Release	Release the playback using programmed release time
Select If	Press to select all fixtures used in the current cue

Macros

Can be set to **Select** or **Disabled**.

> The option **Macro/Flash takes precedence** only applies to the Pearl Expert where it is possible to program a playback on a fader handle and use its flash button as macro selector.

Options

Allows you to disable the quick record function (double tap on empty handles).

Masters

You can set different button options for [Standard Masters] and [Scene Master].

For Standard Masters the options are **Disabled**, **Selection**, **Flash**, **Latch**, **Connect**, **Tap Tempo**, **Nudge Up**, **Nudge Down**, **Release**, **Reset Multiplier**, **Multiplier x2**, **Freeze**.

Some of these options only operate with particular types of master - the Multiplier options are only for BPM masters, see the BPM Master Options (Section 16.2.2.1). Freeze can be useful to temporarily pause shapes or chases, or does a blackout if used with an intensity master.

For Scene Master the options are **Disabled**, **Preload Scene Mode**, **Exit Scene Mode**, **Enter Scene Mode**, **Commit Changes**, **Commit Changes and Exit Scene Mode**, **Enter or Exit Scene Mode**, **Enter or Commit Scene Mode**,**Reset Scene Mode**. See Scene Master (Section 16.2.5).

19.4.3 Changing the Key Profile

To quickly change the Key Profile, hold the <Avo> button and press [Select Key Profile]. This changes the global Key Profile used for all handles, unless they have an individual Key Profile set as described below.

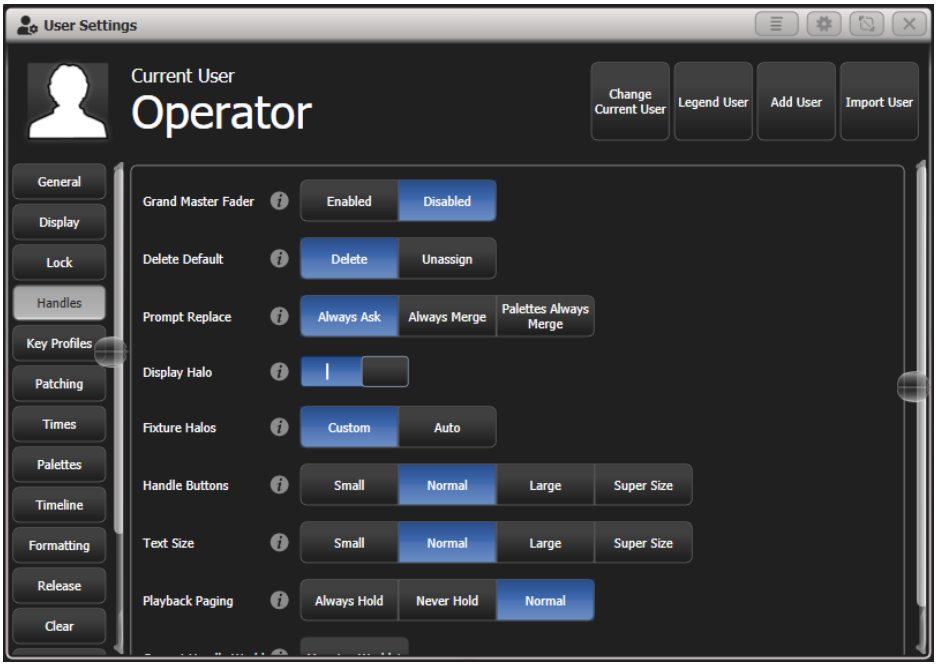
19.4.4 Individual Key Profiles for playbacks

Each playback can have an individual Key Profile allocated to it. This allows you to customise the panel button functions differently for each playback. The Key Profile for the playback is selected using the [Handles] option on playback Options. If the playback Key Profile is set to [Global], the default global profile for Cue / Chase / Cue List is used.

You can quickly set the Key Profile for a playback by selecting the handle while holding the <Options> button down.

19.5 User Settings

The User Settings menu may be accessed from the [User Settings] softkey on the **System** menu. You can also get it directly from any other menu by holding down the <Avo> button and pressing [User Settings].



A window will open showing the user settings, or you can also set the same options using the softkey options. User Settings are individual for each User and you can change the User from this screen.

> Click on the {i} button for a help window on each setting.

Options are divided into categories on the softkeys or in the tabs down the left hand side. The default setting is ***shown in bold***.

19.5.1 General

Option	Action
Chase Snap	*On:* the <Next Step> and <Prev Step> buttons will snap to the new state in chases ***Off:*** programmed fades will be shown This is the same function as the <Snap> button which features on some consoles.
Cue List Snap	*On:* the <Next Step> and <Prev Step> buttons will snap to the new state in cue lists ***Off:*** programmed fades will be shown.
Clear Record Mask	***On:*** the record mask is cleared back to All Enabled when you enter the Record function *Off:* the record mask remains as you previously set it.
Copy Cues	***Copy Tracked Values:*** tracked values will copy when you copy a cue from a tracked cue list. *Don't Copy Tracked Values:* only the values from the cue itself will be copied
Run Startup Playbacks	***On:*** Playbacks set to Startup in Options will run on startup. *Off*: Disables startup playbacks from running. This option allows you to globally disable startup playbacks.
System Render Rate (Hz)	Sets the output rate of DMX frames from 1-44 frames per second *(default 40)*. You can reduce this if processing of a complex show is slowing down the console.

19.5.2 Display

Option	Action
External Display	***On:*** External display is enabled *Off:* External display is disabled.
External Screen Workspace Shortcuts	***On:*** Each screen has its own Workspace Shortcut buttons (shown down the side of the screen on external screens). This allows you to recall different window layouts separately on each screen rather than changing all screens. *Off:* The Workspace buttons on the main screen control all screens.
Virtual Hardware	***Auto:*** Titan Go will automatically hide the virtual control buttons if a T3 or Titan Mobile is connected *Enabled:* The virtual control buttons are always shown *Disabled:* The virtual control buttons are always hidden.

Option	Action
Fullscreen Mode	*On:* The Titan Go application will be displayed fullscreen ***Off:*** The Titan Go application will be displayed in a window.

- The bottom two options are only shown when using the Titan Go application.
- These options can also be set from **System** menu, in the **Display Setup** option.
- You can also press F11 to change the Titan Go application to full screen display.

19.5.3 Lock

Option	Action
Lock Screen Background	Sets a picture to be displayed when the console is locked.
Venue Mode Workspace	Selects workspace (from softkeys) to be used when console is locked.
Venue Mode Password	If set, allows staff to unlock the console into Venue Mode from fully locked
Programmer Password	If set, fully unlocks the console. “68340” will also always unlock the console.
Lock on Startup	***Shutdown state:*** Console will start up in the lock state it was in when shut down. *Locked:* Console will always start up fully locked *Venue Mode Workspace:* Console will start up showing Venue Mode workspace.

19.5.4 Handles

Option	Action
Grand Master Fader	*On:* Grand Master fader is enabled (some consoles do not have this fader). ***Off:*** Grand Master fader is disabled. This can be handy if it gets broken or if you wish to disable it to avoid confusing inexperienced operators.
Delete Default	***Delete:*** Items are deleted when you press Delete and double tap them. *Unassign:* items are released from the handle and become unassigned - can be reassigned from the Show Library.

Option	Action
Prompt Replace	When you try to save to a handle or playback which is already used ***Always Ask:*** the console will always prompt Cancel/Replace/Merge *Always Merge:* the console will never prompt and will just merge *Palettes Always Merge:* the console will prompt Cancel/Replace/Merge unless you are saving a palette when it will just merge
Display Halo	***On:*** Coloured halos are shown on buttons. *Off:* Halos are not shown.
Fixture Halos	*Custom:* Fixture buttons show user-defined halo colours if defined, otherwise no halo. ***Auto:*** Fixture buttons are coloured using automatic fixture colours. See Halo (Section 6.3.6)
Handle Buttons	Sets the default size of the touch buttons to *Small*, ***Normal***, *Large* or *Super Size*. This can be overridden separately in any window.
Text Size	Sets the default size of the text used in touch buttons to *Small*, ***Normal***, *Large* or *Super Size*. This can be overridden separately in any window.
Playback Paging	Sets how the playback faders behave when you change page with a playback active. *Always Hold:* - sets the standard behaviour for non-motorised faders where the fader keeps control of the active playback when the page is changed and has to be lowered to zero before a playback on the new page can be fired. *Never Hold:* - the standard behaviour for motorised faders where the fader always relates to the current page. To regain control of a playback from another page you have to go back to that page and level match the fader (which is done automatically by motorised fader). ***Normal:*** sets the normal mode for the console type. When a playback is active from another page the display area goes purple and the page number is shown at the top in light blue.
Current Handle World	Sets the handle world - read more about Handle Worlds (Section 5.5.2).

19.5.5 Key Profiles

Allows you to select and edit key profiles using the softkeys. See Key Profiles (Section 19.4) for more info.

19.5.6 Patching

Option	Action
Warn Before Parking Fixtures	Sets the console action when you patch a fixture which overwrites the DMX channels of another fixture. This causes the overwritten fixture to be “parked”. ***Always:*** console will warn you. *Never:* console will park the fixture without warning you. See Parked fixtures (Section 6.2.8)
DMX Address	Sets whether the DMX address of fixtures is shown in the fixture touch buttons.
Auto Groups	Sets whether the console will automatically create new groups for fixtures when you patch. See Auto Groups (Section 7.4.1.3).
Preset Palettes	Sets whether preset palettes should be created when fixtures are patched. You can also turn this on when patching using the [Create Preset Palettes] softkey. ***Do Not Create:*** no palettes will be created. *Create On Workspaces:* palettes will be created in Colour/Gobo/Position workspace windows. *Create On Presets:* palettes will be created on preset buttons. This option only works for Pearl Expert.

19.5.7 Times

Option	Action
Tempo Units	Sets the units for displaying tempo, *Seconds* or ***Beats per Minute***.
Connected View Sets	Sets the console action when you change the speed of a connected chase. ***Speed:*** The console will modify the saved speed of the chase. *Temporary Speed:* The console will not save the modified speed, and the next time the chase is fired it will go back to its programmed speed.
Preload Time	Sets a fade time for the Preload function, default 2 seconds. This value would normally be set for quiet fixture movement.
Times Format	Selects between ***HH:MM:SS*** format and *Seconds* format. In *HH:MM:SS* format the console will convert any number you enter into hours minutes and seconds.

Option	Action
Compensate for Rate Grand Master	***On:*** When a tempo is tapped on a BPM master it will not be affected by the Rate Grand Master being set to less than 100%. *Off:* Tempo will be scaled by Rate Grand Master.

19.5.8 Palettes

Option	Action
Quick Palettes	***On:*** Enables the Quick Palette recall function which sets a palette to all applicable fixtures if nothing is selected - see Quick Palettes (Section 8.3.4). *Off:* Quick Palettes are disabled. If no fixtures are selected, recalling a palette does nothing.
Minimum Palette Mode	Sets what type of palettes can be created when recording palettes. ***Global:*** All palettes are stored as Global. *Shared:* all palettes are stored as Shared. *Normal:* All palettes are stored as Normal.
Add New Palette Channels	***On:*** new channels added into palettes will output in playbacks using those palettes. *Off:* new channels will not output. You can use this to force palettes to output in its original unedited state.
Auto Legend	***On:*** New items will automatically have legends generated for them (colour scribbles for colours or descriptive legends for other functions). *Off:* New items are given numeric legends.
Highlight Active Palettes	***On:*** Active palettes are shown as highlighted in the workspace windows. *Off:* Active palettes are not highlighted.
Filter Relevant Palettes	***On:*** Palettes which do not contain settings for the currently selected fixtures will be greyed out. *Off:* Palette buttons are not greyed out.
Master Palette Time	Sets the default fade time to be used when recalling palettes live. See Master Time for Palettes for more information.
Master Palette Overlap	Sets the default overlap to be used when fading palettes.
Record Nested Palettes	***On:*** Palettes containing other source palettes will be updated when you change the source palette. *Off:* Nested palettes are not updated. See Nested Palettes (Section 8.2.3) for more detail.

Option	Action
Preset Palettes	This is the same as the option in the Patching section, see above (Section 6).

19.5.9 Timeline

Option	Action
Default Playback Length	Sets the default duration of a playback when first added to the timeline.
Timeline Skip Length	Sets the amount of time the “skip forward” and “skip back” actions will jump by.
Display Frame Rate	The framerate to be used for displaying timecode time. ***“Follow Source”*** sets the framerate to match the incoming timecode source.
Auto-Simplify	***On:*** Triggers will be automatically simplified after a live record *Off:* Triggers will not be simplified. See Auto Simplify (Section 13.2.1.1) for more detail.
Auto-Open View	*None:* No view will be opened when recording a new timeline ***Timeline:*** The timeline graphical window will open *Timeline and Table:* The graphical and table view windows will both open.

19.5.10 Formatting

Option	Action
Channel Levels	Sets how you enter channel levels when using numeric entry of levels *Set In Tens:* enter one digit for the channel level, 5 = 50%. ***Set in Units:*** enter two digits, 50 = 50%.
Number Style	Sets how channel values are displayed in Cue View and Palette View. *Precise:* will include all decimal places. *Rounded:* round to nearest whole number. ***Dynamic:*** show decimals where appropriate, remove trailing zeros.

19.5.11 Release

Option	Action
Release To Home	***On:*** when the last active playback is released fixtures will return to home values. *Off:* LTP channels will remain set.
Master Release Time	Sets the default release time.
Release Priority	The playback priority used with the Release menu or when running Release macros - *Low*, *Normal*, *High*, ***Programmer***, *Very High*. Playbacks with priority below this level will be released by the *Release All* function (double press <Release>).

- Setting Release Priority to **Low** can be useful to protect against accidentally turning off all playbacks by an unintended double press of <Release> - with this setting only playbacks set to Low Priority (if you had any running) would be released.
- These settings can also be changed from the Release menu.

19.5.12 Clear

Option	Action
Auto Reset Mask	***On:*** The Clear Mask will reset to include all attributes after every clear. *Off:* The Clear Mask will remain how you last set it.
Zero Preset Fader Levels	***On:*** Intensity levels set on fixtures patched to fader handles will be zeroed and removed from the programmer when clear is pressed. *Off:* Intensity levels will be will remain set but will be removed from the programmer.
Release to Playback Values	*On:* LTP channels will release to the values set in the last playback when Clear is pressed. ***Off:*** LTP channels will not change when Clear is pressed.
Clear Cue Times	***On:*** Cue times in the programmer are reset to defaults when Clear is pressed. *Off:* Cue times set in the programmer will remain.
Clear Rate Settings	***On:*** The rate settings in the programmer are reset to default when Clear is pressed. *Off:* Rate settings set in the programmer will remain.

Option	Action
Clear Direction	***On:*** Direction in the programmer is reset to default when Clear is pressed. *Off:* Direction set in the programmer will remain.
Clear Selected Fixtures	*On:* Only fixtures which are currently selected will be cleared from the programmer when Clear is pressed. If no fixtures are selected then all fixtures are cleared. ***Off:*** All fixtures are cleared from the programmer whether any are selected or not.
Action Precedence	Sets a two-stage action for presses of the Clear button: ***Selection With Programmer***: Any press of the button clears both the fixture selection and all fixture changes in the programmer *Selection Then Programmer*: If any fixtures are selected, fixture selection is cleared on button press. If no fixtures are selected then the programmer is cleared. *Programmer Then Selection*: If there are any changes in the programmer, then the programmer is cleared on button press. If there's nothing in the programmer then fixture selection is cleared.

- These settings can also be changed from the Clear menu if you hold down the <Clear> button.

19.5.13 LEDs

Option	Action
Fixture LEDs	Sets how the button LED behaves when a fixture is patched to a fader handle. ***Show Occupation:*** The LED shows handle patched (dim) and selected (bright) state. *Mimic Intensity:* The LED shows fixture intensity level. **The options below only function when *Show Occupation* is selected**
LED Empty Level	Sets level for unpatched handle.
LED Occupied Level	Sets level for occupied but unselected handle.
LED Programmer Level	Level if fixture is in the programmer.
LED Selected Level	Level if fixture is selected.

19.5.14 Effects

Option	Action
Swop Shapes	Sets how shapes react to another playback being fired in Swop mode. ***All Shapes:*** All running shapes from other playbacks are stopped. *Intensity Shapes:* Only intensity shapes from other playbacks stop.
Shape Behaviour	Sets how Shapes and Key Frame Shapes combine with other playbacks. ***Overlay:*** Shapes / Key Frame Shapes will overlay all other values. *LTP:* Shapes / Key Frame Shapes will work in LTP mode where later changes will override the shape. See Saving a key frame shape to a cue (Section 9.3.3).

19.5.15 Timecode

Option	Action
Kill Out of Range Playbacks	*On:* Kills the playback if the incoming timecode is outside the timecode values included in the playback. ***Off:*** The playback will remain active.
MIDI Device ID	Sets the Device ID when using MIDI show control commands.
MIDI Glitch Detection	***On:*** Enables the glitch options below. *Off:* Glitch detection is disabled.
MIDI Glitch Tolerance	Sets the maximum amount of time a MIDI timecode can jump by without being seen as a glitch.
MIDI Glitch Timeout	Sets the amount of time the console should ignore MIDI timecode for after a glitch has been detected.

- Read more about MIDI Triggers (Section 16.4)

19.5.16 Wheels

Option	Action
Wheel Sensitivity	Set the sensitivity of the encoder wheels using **Wheel A**. Default ***50%***.

Option	Action
Pan & Tilt Threshold	***On:*** Enable Pan/Tilt threshold options below. *Off:* Disable Pan/Tilt threshold options below.
Pan Threshold	Sets the sensitivity of the Pan control if above option enabled. Larger numbers make Pan work slower. Default ***5s***.
Tilt Threshold	Sets the sensitivity of the Tilt control if above option enabled. Larger numbers make Tilt work slower. Default ***4s***.
Auto Connect	*Off:* Chases and Cue Lists will not auto-connect to the wheels when the playback is fired. *Chases:* Chases will auto-connect. *Cue Lists:* Cue Lists will auto-connect. ***Chases and Lists:*** Chases and Cue Lists will auto-connect.
Auto View on Connect	***Off:*** Chases and Cue Lists will not open their Playback View window view when fired. *Chases:* Chases will open their Playback View. *Cue Lists:* Cue Lists will open their Playback View. *Chases and Lists:* Chases and Cue Lists will both open their Playback View window when fired.
Press and Hold Fan	*On:* Changes the Fan function so that it only works while the Fan button is held down. This avoids the common user error of leaving Fan turned on accidentally. ***Off:*** The Fan button toggles on and off as normal.

19.6 DMX Output Mapping

Control data from the console may be output from the XLR sockets on the console, and by Art-Net or sACN universes over Ethernet.

All consoles can control up to 64 universes except **T1** which is limited to one single universe (fixed at universe 1), **T2** to two universes (fixed at universes 1-2) and **T3** to sixteen universes (fixed at universes 1-16 - expandable with optional extra licence).

The console itself will generate DMX output for up to 16 universes, above that you can network the console to one or more Avolites TitanNet Processing (TNP) nodes (Section 18.1). This off-loads the DMX processing, allowing the console to control up to 64 universes of DMX in total (a TNP will not increase the number of universes available from T1 / T2 / T3).

> Apart from T1/T2/T3, the software does not actually limit the number of universes from a single console to 16, but performance of the console may be degraded depending on the complexity of the content and the number of fixtures patched. A warning will be shown in the processing load

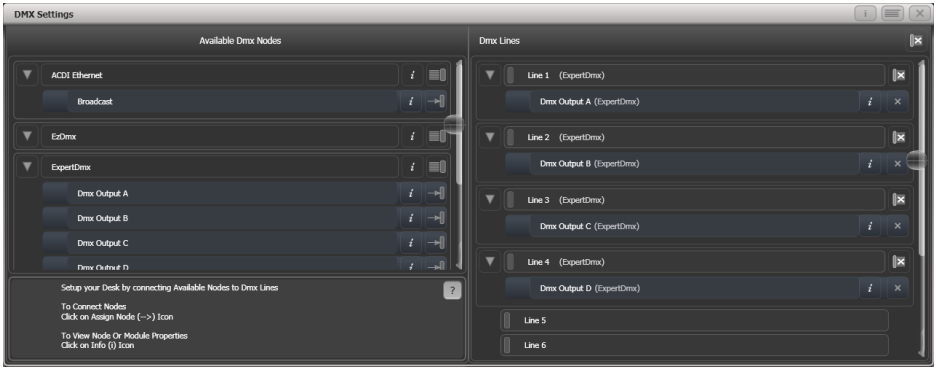
section of the TitanNet overview.

19.6.1 Configuring DMX Outputs

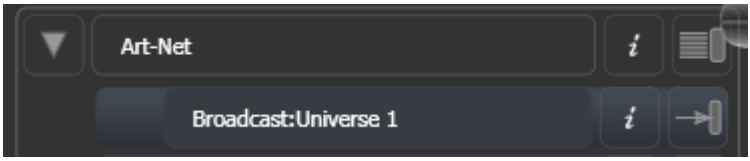
From the **System** menu (press <Avo> + <Disk>) select [DMX Settings].

The window will initially show the node tab relating to the console itself. It shows a list of available DMX *nodes* (places where you can send the DMX to) on the left, and a list of the available DMX *lines* (outputs generated by the console) on the right. Each DMX line can send data to one or more nodes. If you assign more than one node to a line, those nodes receive duplicated data. If you have Art-Net/sACN nodes or TNP units connected they will show on the left hand side.

On the right hand side, under each DMX line there is a list of which nodes are linked to that line. The default setting on a new show is for the physical DMX outputs on the console to be linked to the first DMX lines.



To assign a node to a line, click on the node on the left hand side (e.g. on **Expert DMX A**) and then on the line (right hand side) you want this node to be assigned to. The node will be removed from the pane on the left hand side as it is not unassigned any more, and will appear on the right hand side under the line it is assigned to.

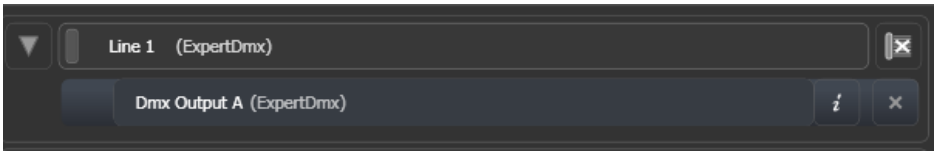


To delete a node from the DMX lines, click on the {X} button. To delete all nodes from a line, click on the **Group delete button** (the {X} button on the DMX line). To delete all nodes from all lines, click on the {X} button close to the header DMX lines.

In order to change the assignment, i.e. to assign a node to a different line, you need to delete it from the line it is assigned to (by clicking on the {X}) first - the node now appears as unassigned on the left hand side - and can now assign it to a different line.

When patching Art-Net and sACN nodes you can patch a number of universes in one go: select the first node you want to assign (i.e. sACN: Universe 1) on the left hand side enter values for [Universe] and [Quantity] with the softkeys, and then click on the line from which on you want to assign this. Titan will then patch the number of universes on consecutive lines.

You can show information about the DMX nodes once they are assigned, or the DMX output modules, by clicking the {Cog} button. For Ethernet/network type nodes, this allows you to set detailed properties such as IP address ranges and net masks.



If you have TNPs (Section 18.1) connected, these can be individually configured using the tabs across the top of the screen.

> When transferring shows between different console types, and especially when you have used the simulator, it's a good idea to check the DMX output settings to make sure the settings are what you expected. If you created a new show on the simulator, no outputs will be connected.

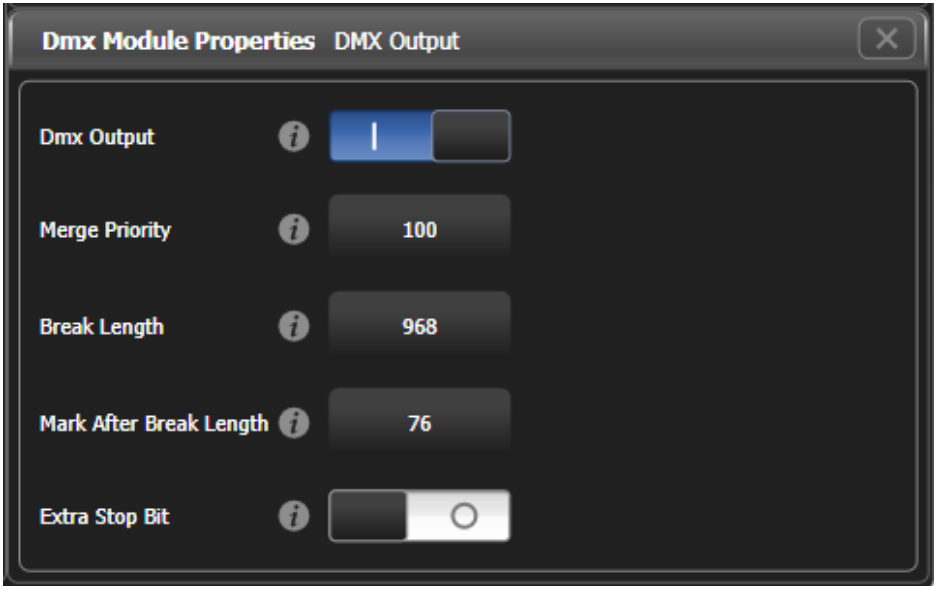
19.6.2 Module Properties

A module is a method of sending DMX (such as Art-Net, or sACN) and can be thought of as a collection of nodes.

You can set properties for DMX512 outputs, Art-Net or sACN by going to the DMX Settings window (from the **System** menu (press <Avo> + <Disk>) select [DMX Settings]). The left-hand side of the DMX Settings window lists the possible output nodes on this console, split into different module types. Click the {Cog} icon at the right hand side of the module type (DMX Output, Art-Net, Streaming ACN or Visualiser).

This allows you to adjust settings for each module, and for the network protocols to select which network adapter to use to output the protocol. All consoles except Quartz and Expert have two network adapters, Quartz has one, and on Titan PC Suite (Titan Go / Simulator) this depends on your computer; many laptops will have a wired network adapter and also a WiFi (wireless) adapter, both of which will be shown.

DMX Output Properties



DMX output: Allows you to temporarily disable the output

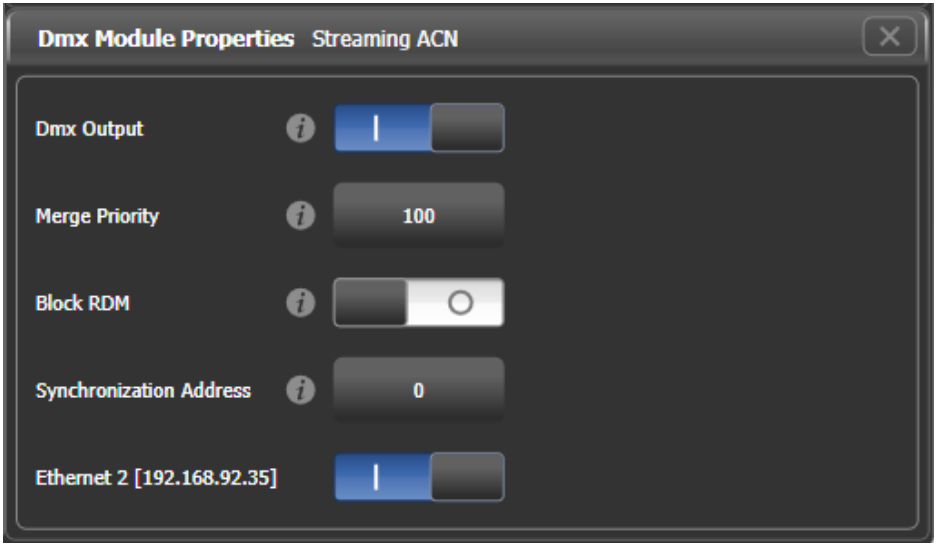
Merge Priority: A value between 0 and 200 where higher numbers have priority, 100 is default. For this DMX output, sets the priority of the DMX from this Titan console over incoming sACN being merged from other sources. You also need to set up DMX Merge using Network DMX Node Settings (Section 19.2.3).

Break Length: Adjusts the DMX spacing which can be helpful for slow fixtures. If fixtures or dimmers show an occasional glitch try increasing this number. Some dimmers will require this to be 4000us in order to work smoothly. Default 968uS.

Mark After Break Length: Usually this will not need to be adjusted, but it can be increased to give fixtures a bit more time to receive the first DMX channel. Default 76uS.

Extra Stop Bit: Enabling this adds an extra Stop Bit to each byte which gives slow fixtures a bit more time to receive the DMX data. This option can sometimes solve issues where fixtures can be seen regularly glitching.

sACN Properties



DMX output: Allows you to temporarily disable the output

Merge Priority: A value between 0 and 200 where higher numbers have priority, 100 is default. Sets the sACN priority parameter of this sACN universe being output from Titan. The priority is used on devices receiving multiple sACN streams to determine which data is output.

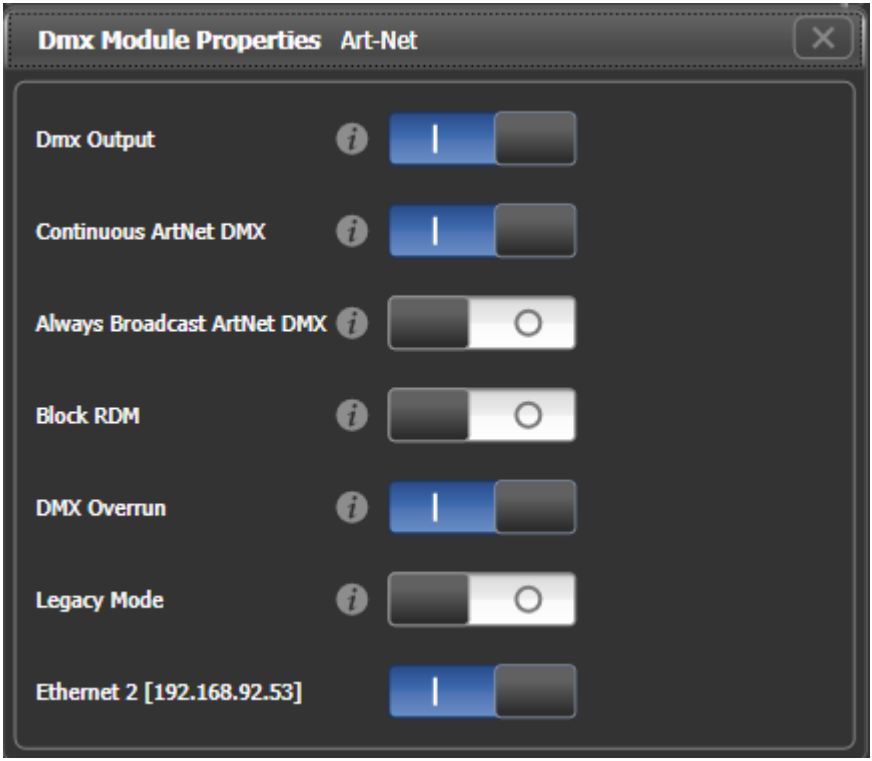
> This is often used to connect a backup console into a system by giving it a lower sACN priority setting than the master.

Block RDM: If enabled, RDM traffic is blocked on this module.

Synchronization Address: If not zero, sets the universe used to synchronise the DMX frames sent from the console. Listening devices will receive all DMX frames and then wait for a packet on the synchronisation universe before using or retransmitting the DMX frames. Synchronous sACN reduces tearing effects which can result from non-synchronised universes. If set to zero, synchronisation is disabled.

Ethernet xxx: Selects whether you want this protocol outputting on this Ethernet adapter. If there are multiple adaptors in the system you can select more than one, and identical information will be sent out on each one.

Art-Net Properties



DMX output: Allows you to temporarily disable the output

Continuous Art-Net DMX: The Art-Net specification allows the console to only send out changes in the DMX. This setting makes the console send the Art-Net packets continuously even if there is no change.

Always Broadcast Art-Net DMX: Sets all Art-Net packets to Broadcast mode, meaning they are sent to all nodes. Otherwise the packets are addressed to the specific node they are intended for, which reduces network traffic but requires more careful setting up of network addresses.

Block RDM: If enabled, RDM traffic is blocked on this module.

DMX Overrun: Some Art-Net nodes ignore changes until they are sent more than once. If this option is enabled then at least 3 packets are sent for every change

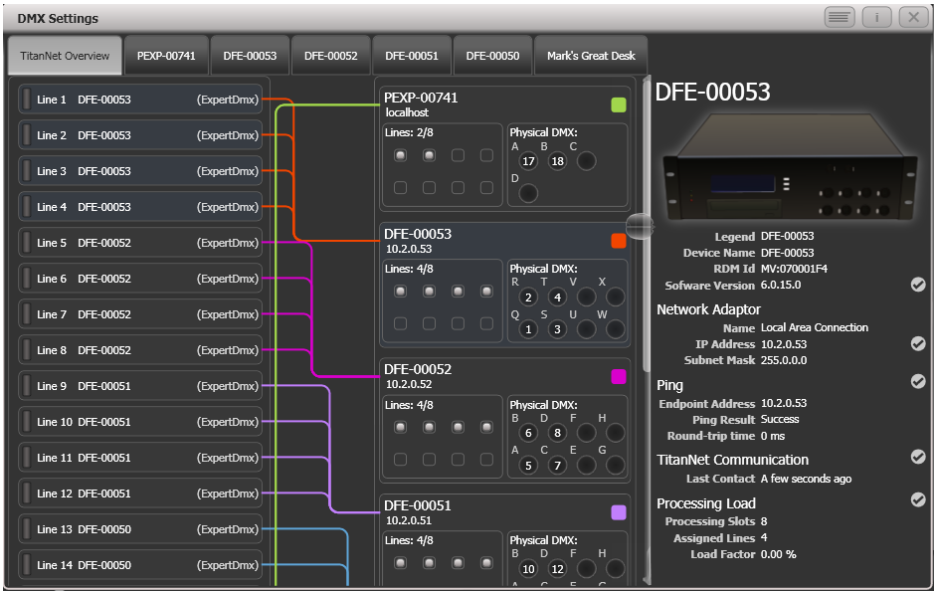
Legacy Mode: If enabled, Art-Net is broadcast continuously from the console at a high rate. May affect console performance.

Ethernet xxx: Selects whether you want this protocol outputting on this Ethernet adapter. If there are multiple adaptors in the system you can select more than one, and identical information will be sent out on each one.

> ArtPoll messages can be disabled via a registry setting. This is occasionally needed for Art-Net fixtures which don't support ArtPoll. If you need to do this or if ArtPoll messages aren't being sent when they should be, contact Avolites Support for instructions on how to change this.

19.6.3 DMX Overview

If you select the DMX Overview tab at the top of the window, you can see all the TNPs (Section 18.1) which are connected and which output lines they are allocated to.



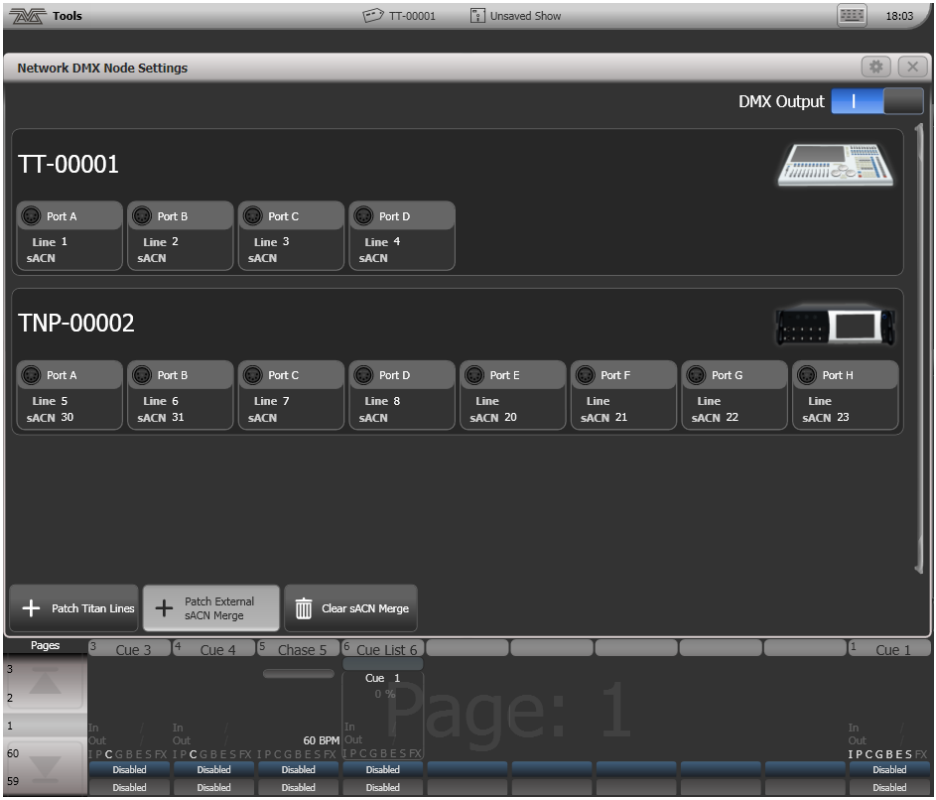
The left side of the window shows the 64 possible DMX output lines on the console. To the right of this are the processing nodes which are connected, the top one being the console itself. Each node shows how the lines are allocated to the physical outputs on the device. Clicking this area will open the detail tab for the node.

Clicking any one of the nodes will show detailed information about that node on the right, including the IP address, number of available processing slots, number of lines assigned, status of the connection with the node, and the processing load of the device. If more lines are assigned than the maximum number of slots, a warning will be displayed.

If a show is loaded that had fixtures and lines assigned to processing nodes which are no longer found on the TitanNet network, a dialog will appear listing nodes in use and available nodes, giving you the option to reassign the lines.

19.6.4 Network DMX Node Settings

The Network DMX Node Settings window allows you to set up how the local Titan output will combine with sACN universes from other sources in a system where you have multiple consoles or processing nodes connected. From the **System** menu (press <Avo> + <Disk>) select [Network DMX Node Settings].



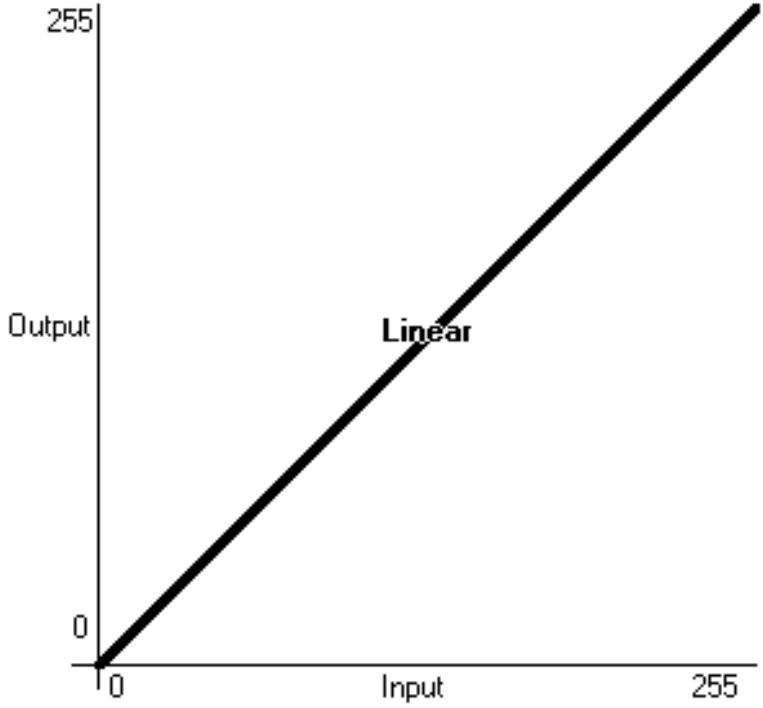
To assign a universe to an output port, click on **Patch Titan Lines** or **Patch External sACN Merge**, set [Universe] number then click on a port to assign.

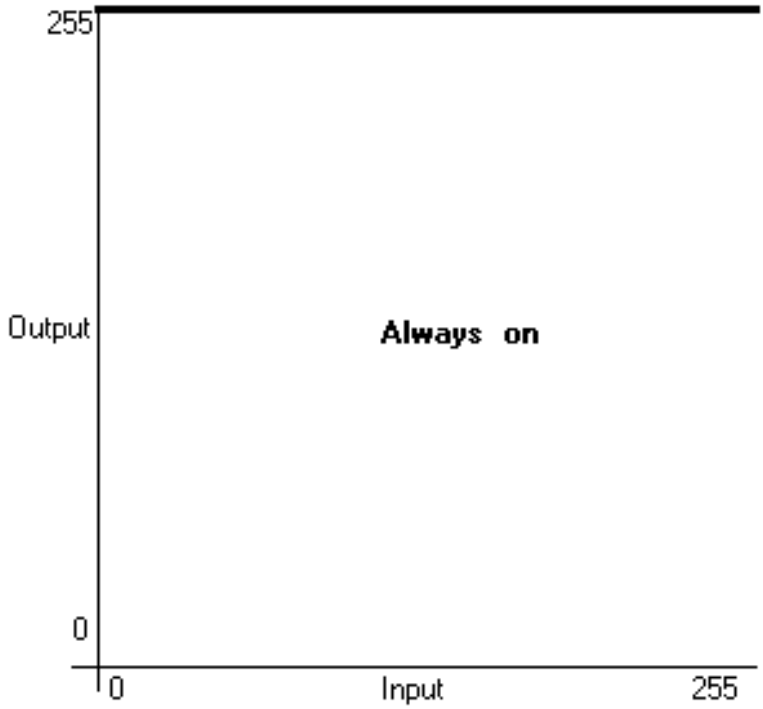
To remove an assignment, click on **Clear sACN Merge** then select a port.

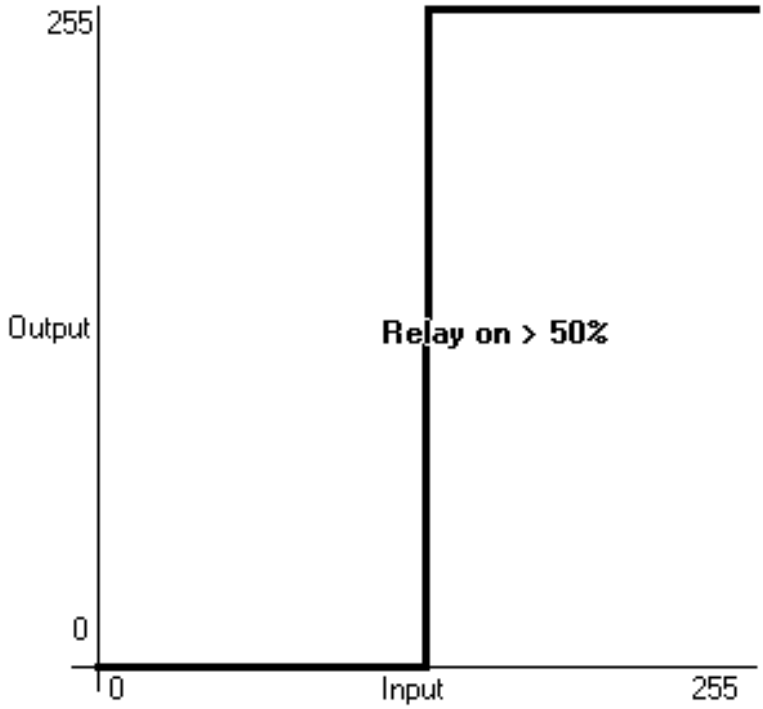
- For local DMX outputs, you can set the priority of the Titan output vs. the sACN stream using the Merge Priority option on each node, see DMX Output Properties .
- The DMX Output switch can be used to disable all DMX output.

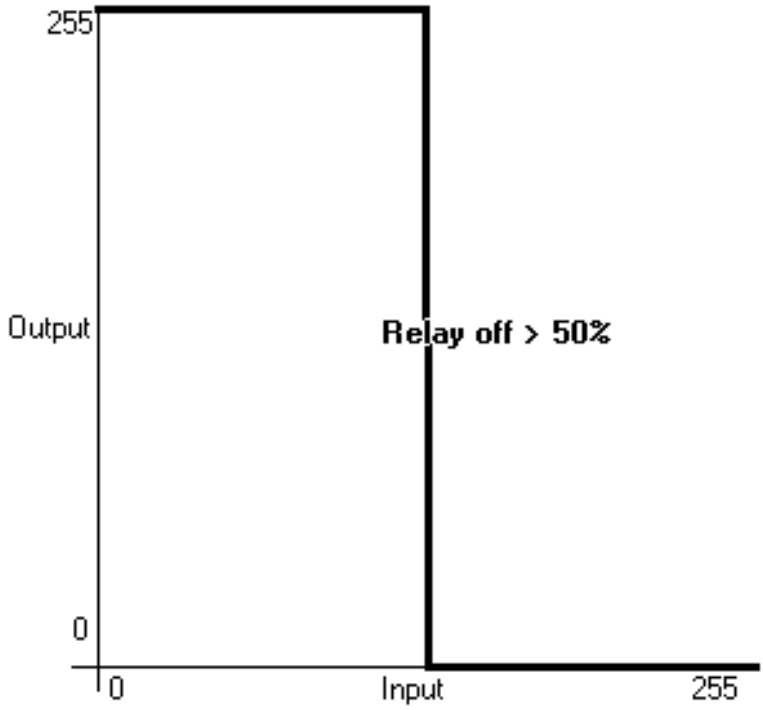
19.7 Curves

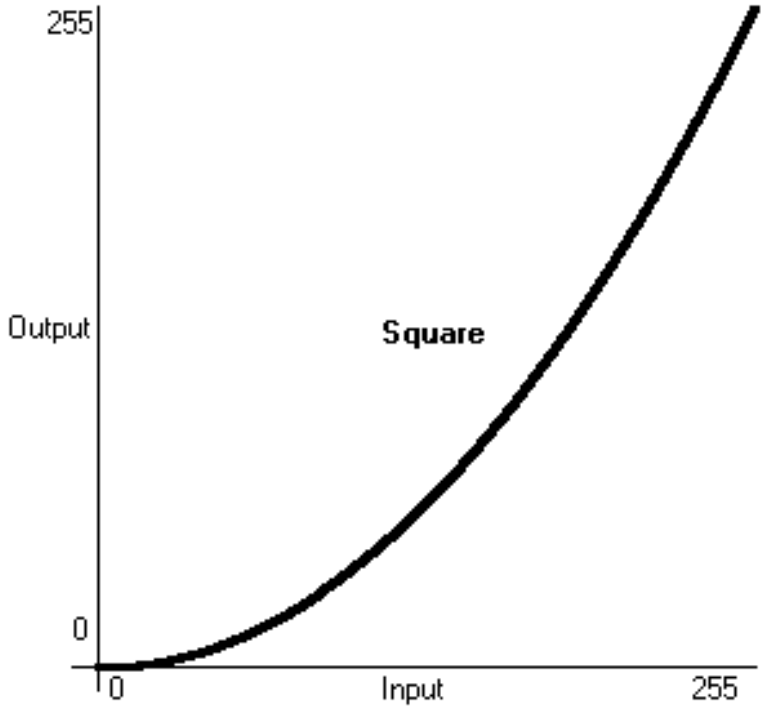
The console provides a variety of curves which set how the console tracks fades in playbacks; either the same speed all the way (linear), or starting and ending gently but faster in the middle, and various other options. Curves are used in various places in the console, one example is in the playback [Options] menu - see Playback options (Section 10.6).

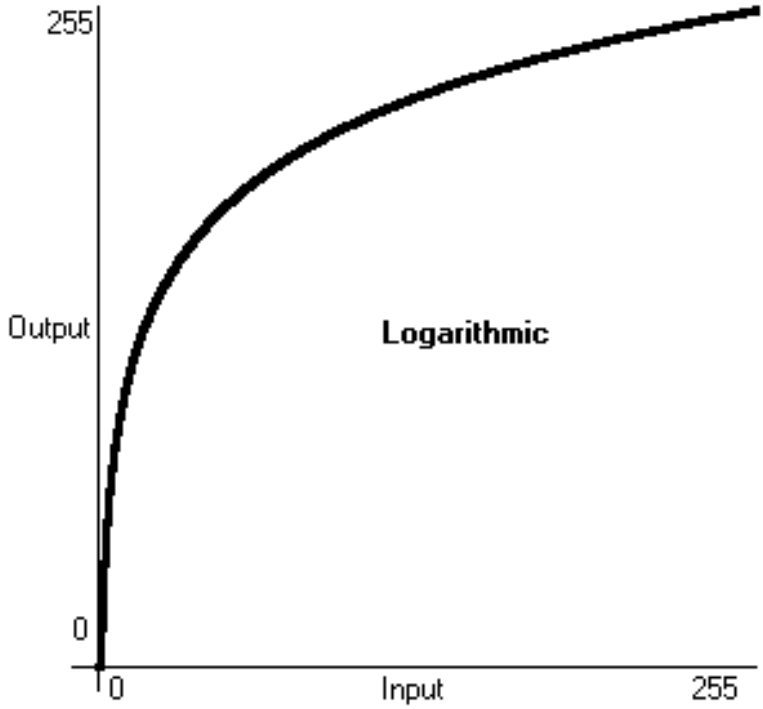


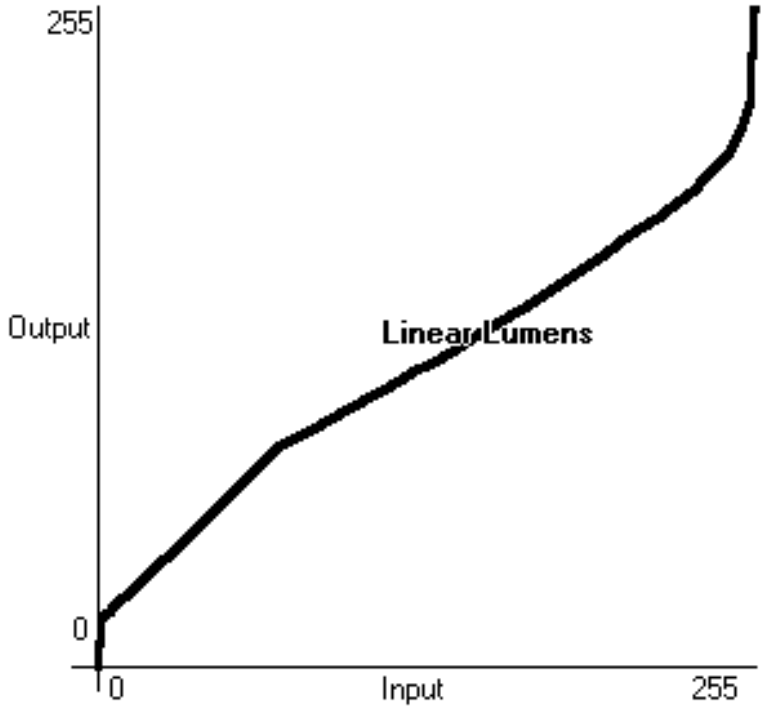

255
Output
Always on
0
0
Input
255

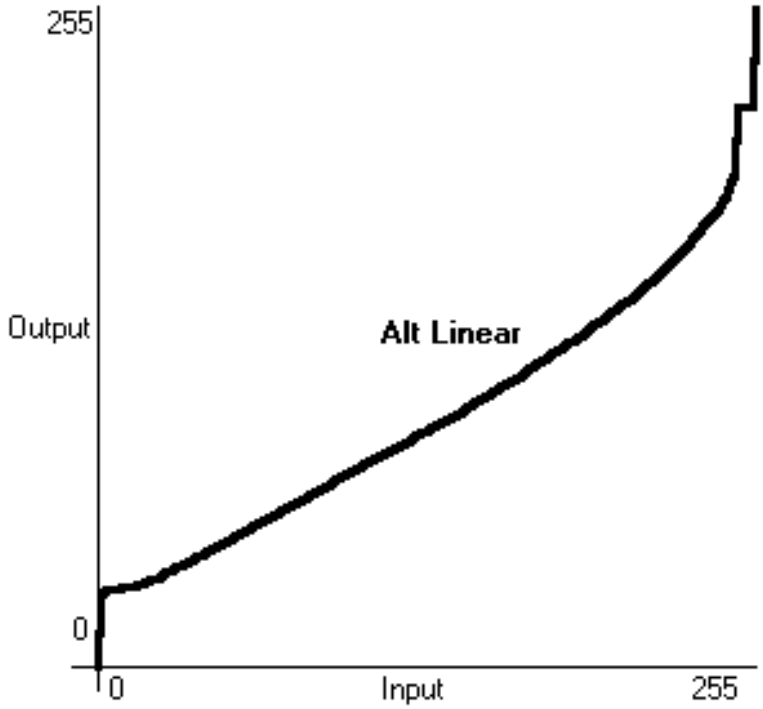

255
Output
Relay on > 50%
0
0
Input
255

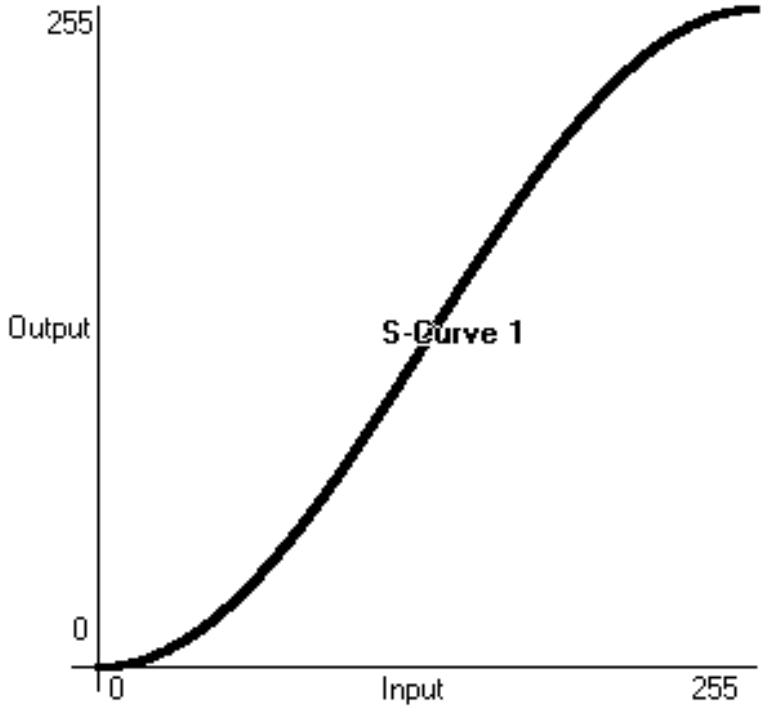

255
Output
Relay off > 50%
0
0
Input
255

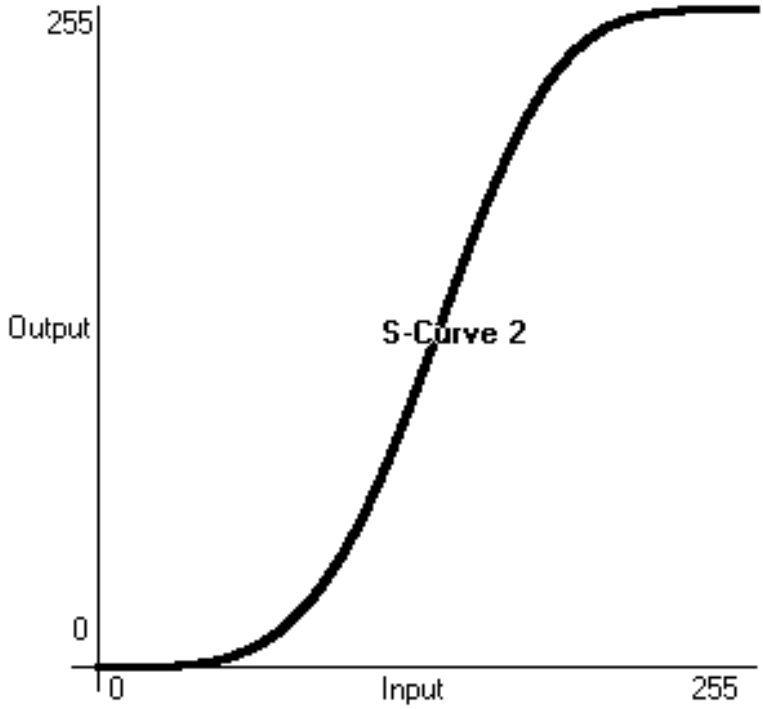

255
Output
Square
0
0
Input
255

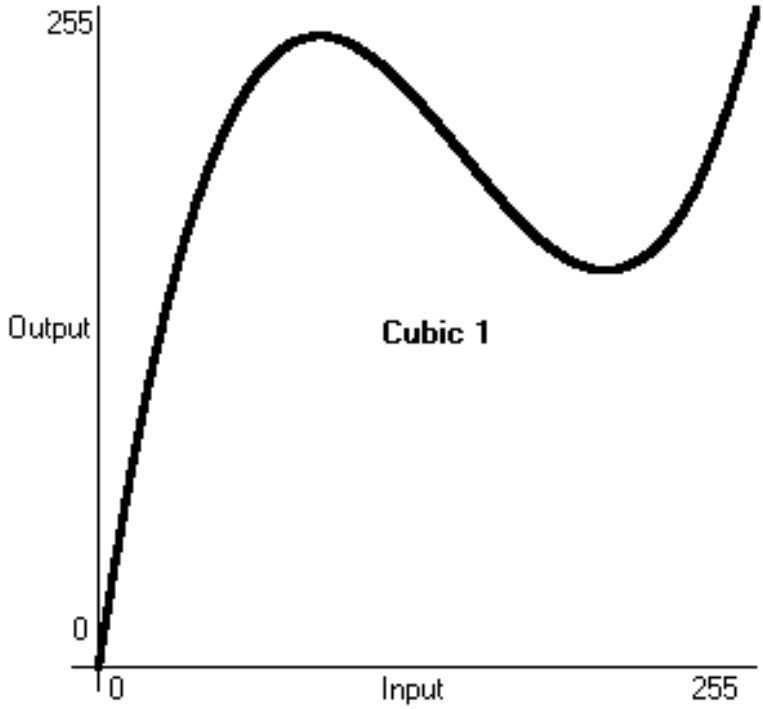

255
Output
Logarithmic
0
0
Input
255

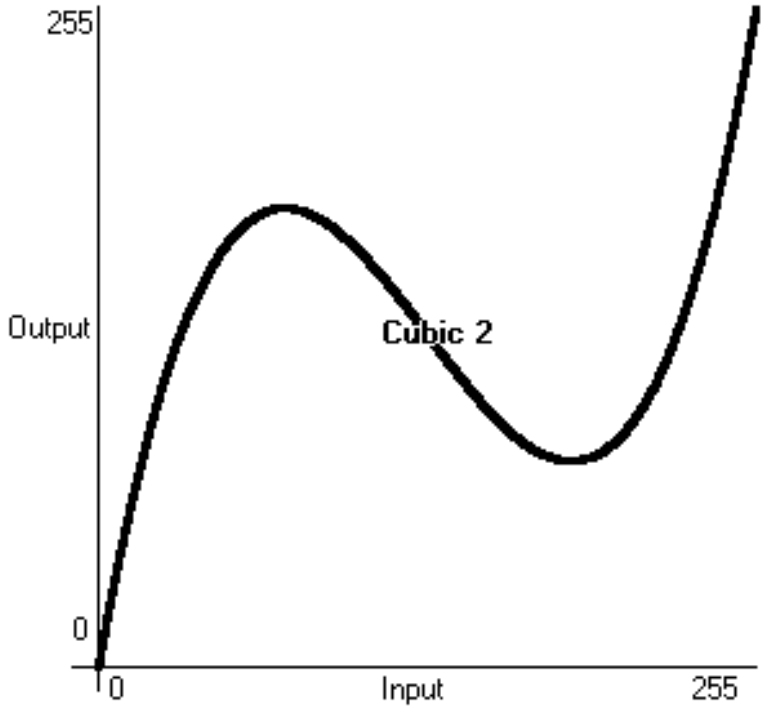

255
Output
Linear Lumens
0
0
Input
255

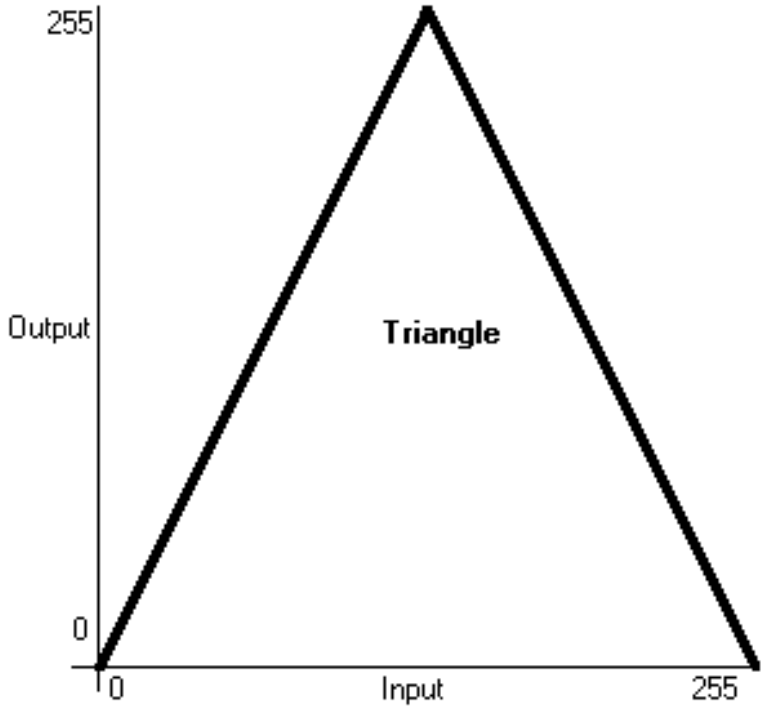

255
Output
Alt Linear
0
0
Input
255

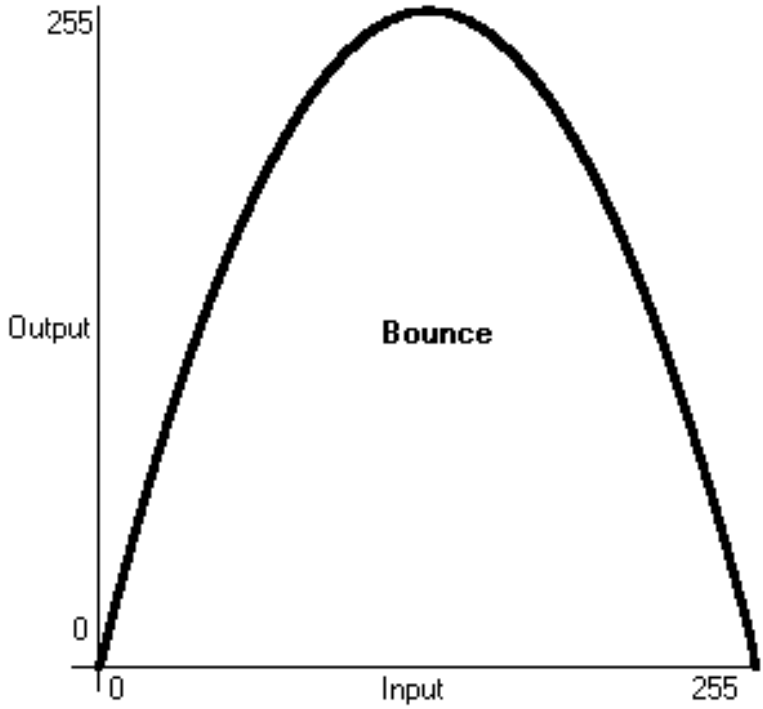

255
Output
S-Curve 1
0
0
Input
255

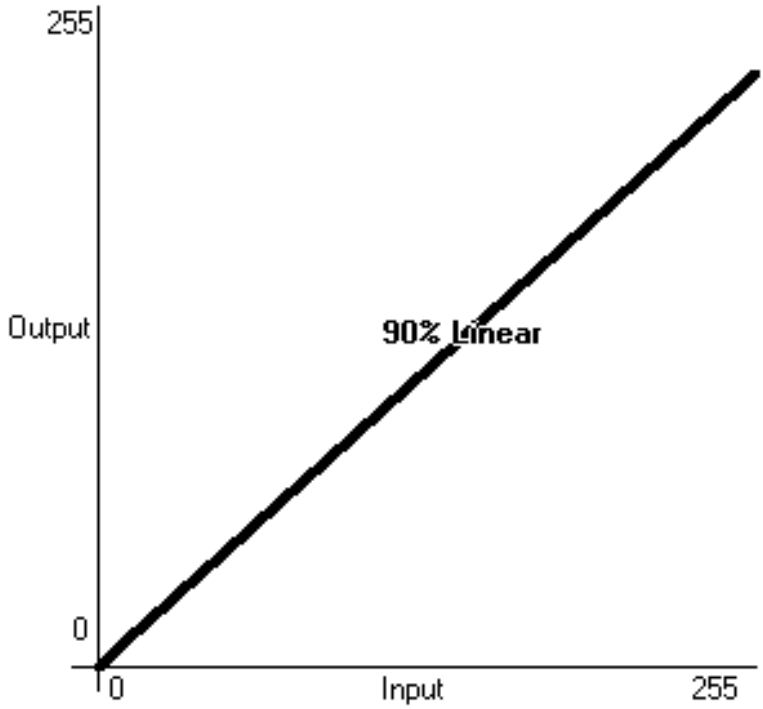

255
Output
S-Curve 2
0
0
Input
255

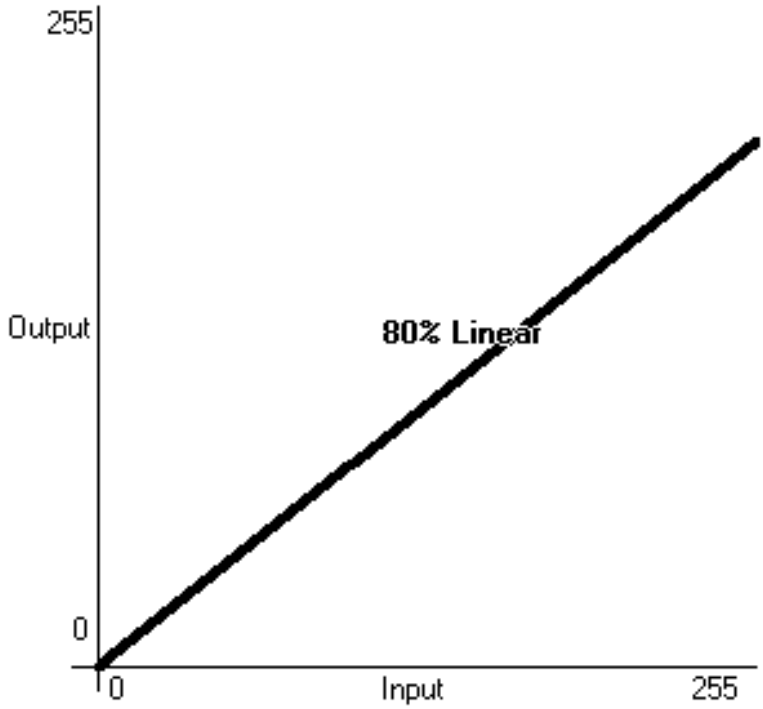

255
Output
Cubic 1
0
0
Input
255


255
Output
Cubic 2
0
0
Input
255


255
Output
Triangle
0
0
Input
255


255
Output
Bounce
0
0
Input
255


255
Output
90% Linear
0
0
Input
255



19.8 Upgrading the Software

The console operating software is under constant revision by the Avolites team. You can always download the latest version of the software from the Avolites website: http://www.avolites.com.

> From v10 it is possible to keep the older versions of Titan installed on a console when you install a new version, which is useful for backwards compatibility if you need to load a show created in an older version. To swap between versions go to Switch Software on the Tools menu.

- The Titan PC Suite software, used for T1, T2, T3, Titan Mobile and Titan Simulator, is installed simply by running the “PC Suite” installer program as with any other Windows application. Please ensure you have exited the Titan software before running the installer. The “Titan Go” application is now used with all hardware (there is no longer a separate Titan Mobile application).
- If you are upgrading the software from a version earlier than v12, you will have to obtain an AvoKey

USB dongle from Avolites and license the software. See the Software Licensing (Section 19.9.2) section for details of how to do this. Once the console is fitted with a licensed AvoKey you do not need to re-license it when upgrading to subsequent versions.

- It can take some time to install new software, especially if you have to do a recovery install, so this is not a job for a show day!
- Always make a backup of your show files before upgrading the console software.

Software upgrades for consoles are installed from a USB drive. Depending on the updates included in the new version, and which version you are updating from, it may be necessary to use a separate PC or laptop to create a "Recovery Installer" USB drive. The instructions on the Avolites website will tell you whether you can do an **Upgrade** or whether you need to make a **Recovery Installer**. Please contact Avolites Support if you need help with this. There is also a link to the **Recovery Creator Guide** at the bottom of the downloads page.

19.8.1 Console Update Procedure (Recovery Installer)

1. Go to the Downloads page on the Avolites website and select your console. Download the Recovery Creator software to your PC.
2. Insert a blank 16GB USB drive into your PC and run the Recovery Creator software to create a bootable Recovery Installer drive. (see the **Recovery Creator Guide** on the website for more details).
3. Insert the USB drive into the console and power on the console. The console should boot into a "Recovery Environment".
4. Select the "Standard Recovery" option and follow the instructions on screen.

19.8.2 Console Update Procedure (Upgrade File)

1. Go to the Downloads page on the Avolites website and select your console. Check if an Upgrade installer is available to upgrade from your current version - if not, use the Recovery Installer procedure above.
2. Download the Upgrade Installer file and copy to a USB drive, then insert into the console.
3. Click the **Tools** menu on the toolbar, then **Control Panel**, then **Titan Installers**. This will list all installers - software and personalities - found in the root directory of the stick (provided you haven't changed their filename).
4. Click the software version to install, and follow the instructions.

   If for whatever reason Titan doesn't show the file in the *Titan Installers* submenu you can find and double-click it through Tools -> Folders.

5. When the installation has completed, a prompt will be shown to restart the console and it will start back up into the version installed.

19.8.3 Titan PC Suite (Titan Go or Titan Simulator Procedure)

1. Ensure Titan software is not running on the computer.
2. Locate the downloaded file **Avolites Titan PC Suite Setup** and double click on it to run it.
3. Click **OK** on the Windows User Account Control warning box.
4. When the installation has completed, a prompt will be shown to restart the computer.

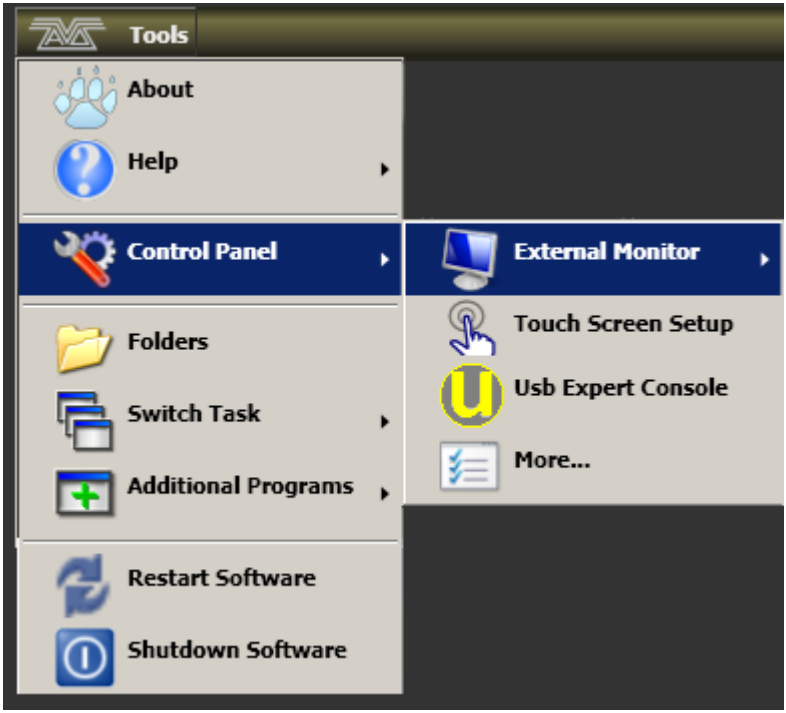
19.8.4 Upgrading panel firmware with USB Expert

After upgrading the software it is sometimes necessary to upgrade the firmware in the various panels which make up the console control surfaces. You can do this using the Avolites USB Expert application which is installed on the console.

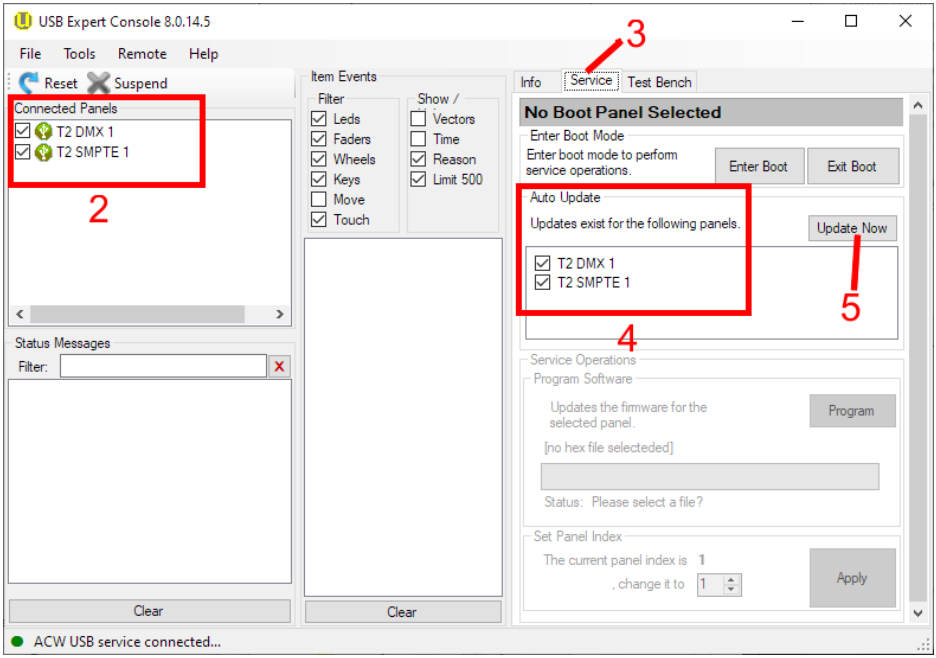
> Sometimes the USB Expert application might be opened automatically after completion of a software upgrade, to prompt you to upgrade panel firmware.

Use the following steps to upgrade panel firmware:

1. In the screen **Tools menu**, click on **Control Panel** and select the **USB Expert Console** option. For a PC-based device or panel such as T1, T2, T3 or Titan Mobile, run **USB Expert Console** from the start menu.



2. You should see a list of the panels on the console in the left hand **Connected Panels** window (the list will vary depending on the console type).



3. On the right hand side of the window select the **Service** tab.

4. In the **Auto Update** box on the right hand side, any required firmware updates will be listed. The list may vary depending on the console type and the updates available - sometimes no updates might be found or needed.

5. If updates are needed, click **Update Now** to start the process and the system will update the panels one by one. A green progress bar will be shown in the bottom part of the window.

6. When the Auto Update box is empty, close USB Expert, shut down the console using the power button, then restart it.

- You can check the status of all panels using the **Connected Panels** window.
- If you are updating a PC-based panel such as Titan Mobile, T1 or T2 and no panels are listed in the Connected Panels window, click on Tools, then Acw Service, then Start.
- You can test the function of all front panel controls using the **Item Events** window in the middle - pressing a button or moving a fader/encoder should show event messages in the window.
- If the panel update has not completed after 10 minutes, press **Exit Boot** regardless and wait for all panels to reappear in the **Connected Panels** window. Then repeat from step 3 to check whether all panels have in fact been updated.

19.9 Recovering and Reinstalling the Console

The console runs on an embedded PC system, and like all computers, there is a possibility of system failure. The console software can be reloaded using the recovery USB stick provided with the console, or you can download a recovery disk creator application from the Downloads section of the Avolites website which will automatically create a recovery stick.

> It may take up to 60 minutes to reinstall the software on the console.

There are three types of recovery available:

Recovery	Version installed	Shows	Personalities	Licence
Standard Recovery	Two most recent	Preserved	Preserved	Preserved
Factory Restore	Recovery version + most recent	Deleted	Recovery version	Preserved
Full Erase	Recovery version	Deleted	Recovery version	*Deleted/Preserved*

> With software version 12 or above the licence is stored on the AvoKey, and even a Full Erase Recovery doesn't delete it, see below (Section 19.9.2).

> Using **Factory Restore** or **Full Erase** will delete all settings and files from the console including show files and user personalities. Any files should be saved to a USB stick before continuing.

Detailed instructions on creating and using a recovery stick can be found with the recovery creator on the Avolites website; depending on the variety and age of your console there are a number of different methods required. The basic procedure is as follows:

19.9.1 Installation Instructions

1. **If recovering a version earlier than v11.1**, you will need to set the console to boot from USB *(see instructions on the Avolites website, which vary depending on your console)*
2. Start console and wait while the memory stick boots up, this can take up to 3 minutes.
3. Once the memory stick has booted, the touch screen will display 'Welcome to (Console Name)', touch **Next** to continue.
4. Please read to the bottom of the licence agreement then touch **Agree** to accept.
5. Select the type of recovery you want to perform *(see table above)*

6. On the next screen check the serial number of the console - this is the number written on the back of the console and should be already filled in for you.
7. Touching **Install** will then begin the recovery
8. Once complete unplug the memory stick and touch the **Restart** button.

After starting the console will install all the software and drivers required to run. This takes approximately 30 minutes to complete during which the console will reboot a number of times. Please do not switch off the console during this process.

19.9.2 Software Licensing

From v12, the software is licensed using an AvoKey USB device.

The Authenticator wizard will take you through the steps to license the software on your console or computer. Once the license is stored on the AvoKey, you should not need to repeat the licensing. For Titan PC Suite (T1/T2 devices, T3 control surface, Titan Mobile control surface), this allows you to use different computers without relicensing as long as the Avolites hardware is connected.

For more details see https://www.avolites.com/avokey

19.10 Cleaning the console

Disconnect the console from the mains supply before cleaning.

To clean the laminated panels, use a non-alcoholic disinfectant solution: - use a damp cloth or cleaning rag and clean the surfaces - prevent excess fluid building up on the edges near switches and faders

> We recommend you don't use alcohol-based cleaners as the lacquer layer on the laminate may lose its shine when exposed to concentrated alcohol-based fluids.

To clean touch screens: Either use the same non-alcoholic disinfectant or a 70% alcohol - 30% water mixture.

- Prevent moisture build up near the edge of the screens as this may impair the touch sensor while it is wet.
- If the touch sensor is affected by moisture, use clean dry paper to dry out the junction between the top of the glass and the foam gasket, by sliding the paper in approximately 6mm and running it around the whole edge of the screen. This may need to be repeated twice with dry paper to get the desired result.

19.11 Release Notes

The Release Notes contain details about features added, improvements, bugs fixed and known issues in each release of the console software.

Release notes for the version of software running on your console can be found by clicking the **Help**, then **Release Notes** option on the toolbar.

The most up-to-date version of the Release Notes can be found on the Avolites website.