

sunlite

Sunlite Suite 3 User Guide V1.23

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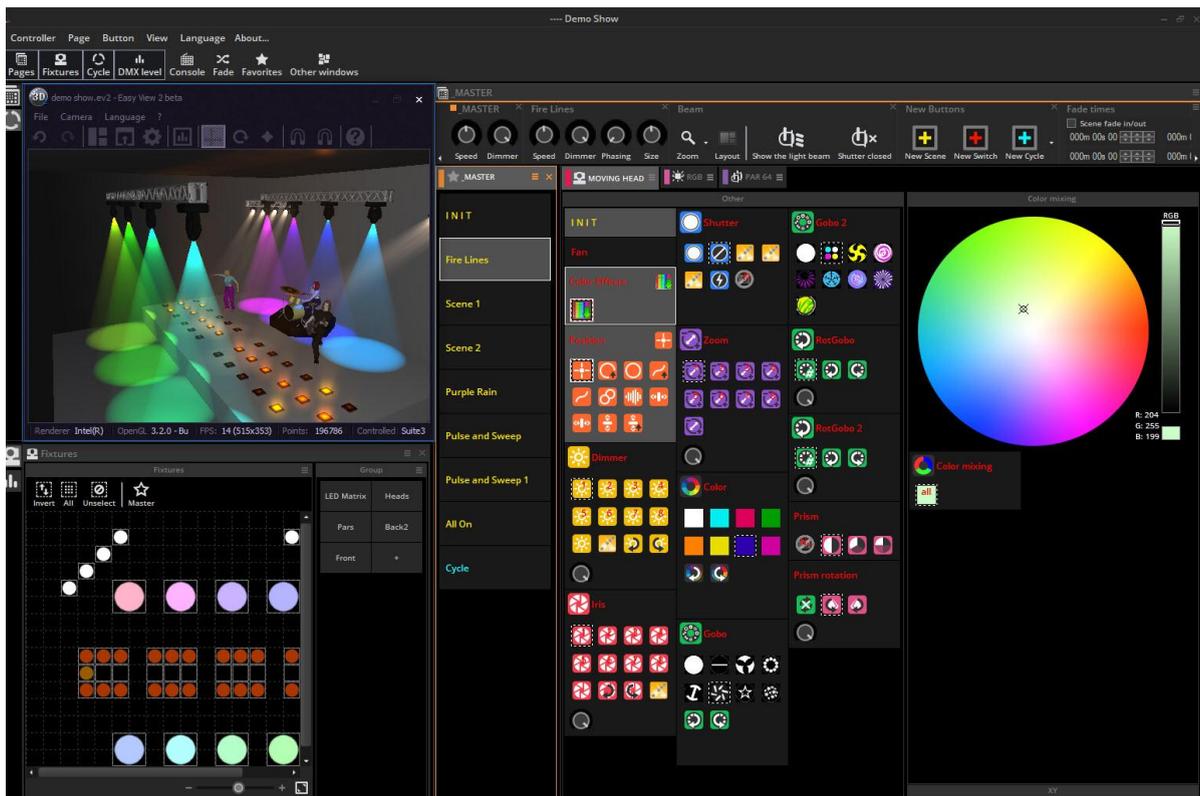
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Introduction

Welcome to Sunlite Suite 3! You are probably eager to get dive straight into the software so we have made the first two chapters short and simple. The aim of the first chapter is to prepare you for using the software. The second chapter explains the foundations of the software. If you are completely new to Sunlite Suite or lighting programming, the first two chapters should be enough to get you started.



Before We Start

Checklist

Before starting, make sure you have all the required tools. You should have a package with:

- USB-DMX interface
- PC or laptop computer running Microsoft Windows 10 64-bit
- USB cable
- Download the latest Sunlite Suite 3 software from www.sunlitepro.com

Computer Requirements

- A modern PC running Windows 10 64-bit
(If using Windows 10 N or KN editions, install 'Media feature pack for Windows 10 N and Windows 10 KN editions' from support.microsoft.com)
- A multi-core processor
- A screen resolution of at least 1280x768 (a higher resolution of 1920x1080 or more is recommended)
- 4GB RAM minimum (8GB recommended).
- The 3D visualizer requires a powerful Open GL 3.2 compliant graphics card with at least 1GB graphics memory or more (2GB+ recommended). Integrated graphics are not recommended.

What's new in Sunlite Suite 3?

This chapter is for Sunlite Suite 2 users and outlines some of the new features in Sunlite Suite 3.

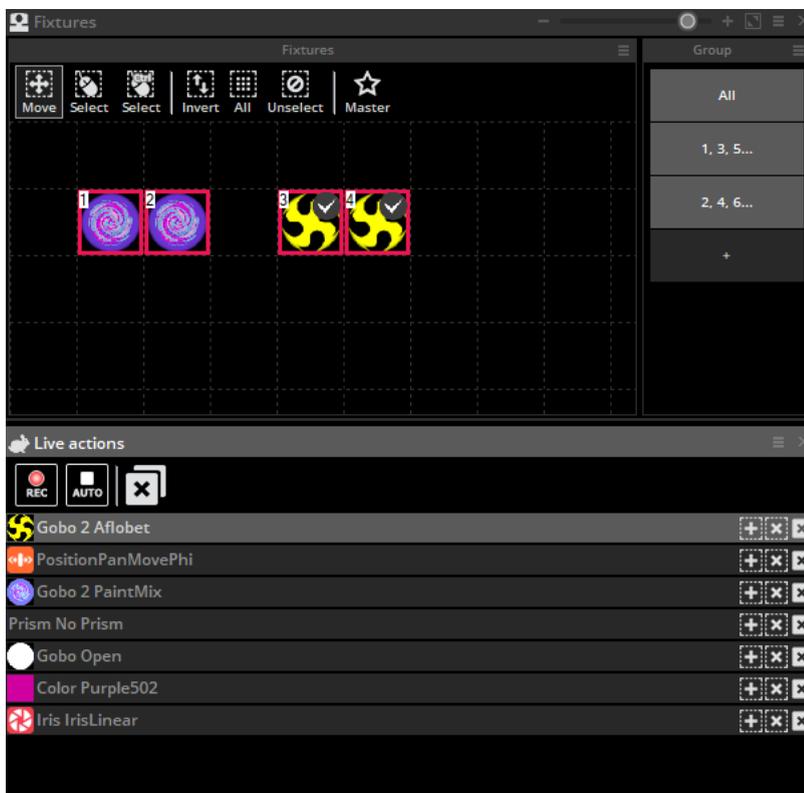
User interface

The user interface has been re-designed to make it easier to perform tasks more quickly and some features have been relocated to make them more accessible.

- The icons around the software have been updated so that they can be displayed more clearly on higher resolution displays. Preset icons now follow a new color scheme:
 - Orange for position effects
 - Blue for shutter effects
 - Green for Gobo effects
 - Pink for Prism effects
 - Red for Iris effects
 - Yellow for Dimmer effects
 - Purple for Zoom effects
- We have brought back the menu bar from Sunlite Suite 1 and have re-designed the ribbon bar to save space and allow for the various features of the software to be

easily located. For example, features related to a page are available from the Page menu.

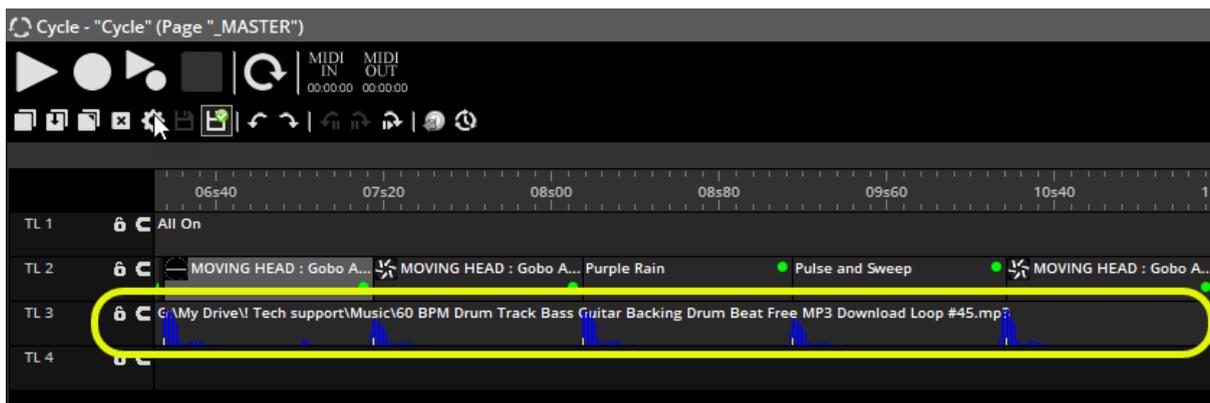
- Docked pages are now combined within the same view, sharing the same ribbon bar. This allows for a cleaner user interface and easier window management when dealing with a high number of pages. The pages are also color coded which gives a clearer outline of the currently selected page.
- Within each page, higher zoom levels are now available making it easier for use with a touchscreen. A full screen button is also available in the upper right corner of several views.
- Each view contains a menu to the top right containing all functionality related to the view. For example, to change the way a fixture is displayed in the 2D fixture view, click the menu to the upper right of the Fixture view, or to create a new console, click the menu to the upper right of the Console view.
- Several views now contain a bar to the upper right to zoom the contents of the corresponding view.
- It is now possible to view more than one console at a time, side by side, and also undock console views.
- Live control functions have been moved from the Group view and into two new Live Actions view (whereby actions on the page are only applied to the selected fixtures, with the selection being temporarily saved within the Live action), and Fixture selection edits (whereby the fixture selection of the button is modified, with the new selection being temporarily saved inside the button).



Other features such as OS2L (Virtual DJ) and Audio Analysis (from audio input) are available with Express Mode.

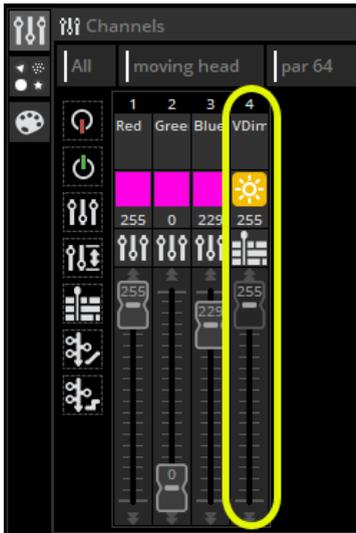
New Cycle Editor

- Easy Show software has been removed in Sunlite Suite 3, and all the functionality has been integrated into the Cycle view. This allows for multiple audio/video timelines to be easily integrated within the project without the need to set up triggering between 2 different pieces of software.
- There are now 2 types of timeline available:
 - The timeline of triggers (e.g. SCENE ON, SCENE OFF) as was included with Suite 2
 - The new block timeline which works in a similar way to Easy Show and allows for the automation of Speed/Dimmer/Size/Phase
- Drag and drop audio blocks directly onto a Cycle timeline.
- The Cycle can now analyse the BPM of an audio track allowing for Scenes and Switches to be easily snapped to the beat.



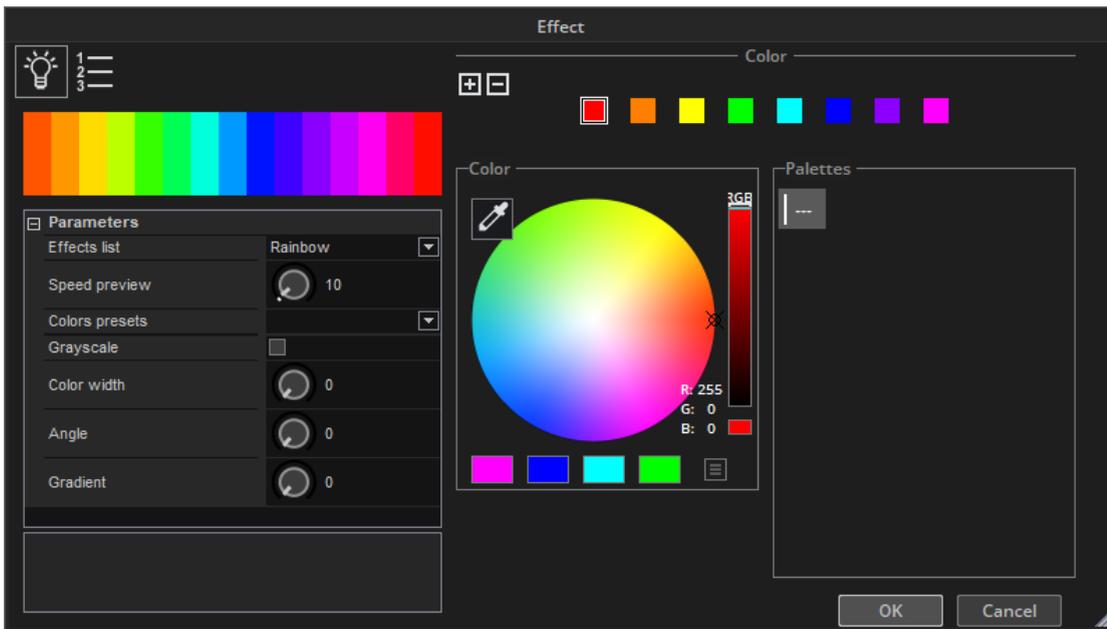
Programming Functions

- The new FAN function allows for a set of values to be spread across a selection of fixtures. For example, the beams of a selection of lights to be easily spread out into a FAN formation. The FAN tool is available to the upper right of each Preset view within the Editor and can also be applied to an Easy Time block by right clicking the block.
- A new switch priority called MLT (Multiply the current level) is now available. This will multiply the % of all channels inside the switch by their current value. This allows for Sub-Master dimmers to be created for any selection of fixtures instead of relying only on the page dimmers.
- A new virtual dimmer is now added to all fixtures without a dimmer channel. This allows for dimming effects to be easily applied to color mixing fixtures. The virtual dimmer is very powerful when combined with the Chaser and Curve effects, or when used with the new MLT Switch mode.



New Effects Engine

Sunlite Suite 3 features a brand new effects engine, allowing for a wider variety of color mixing and Matrix effects to be applied to fixtures.

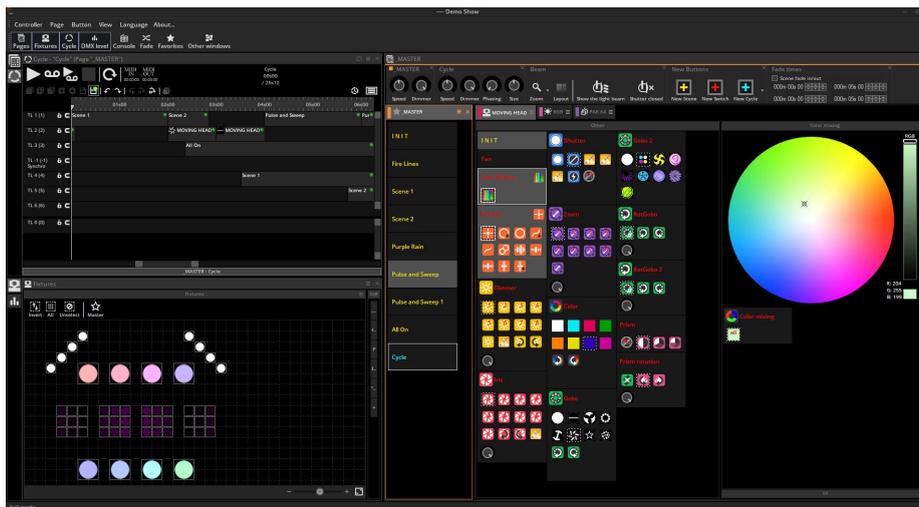


The Sunlite Package

Here is a brief overview of all the software in the Sunlite package.

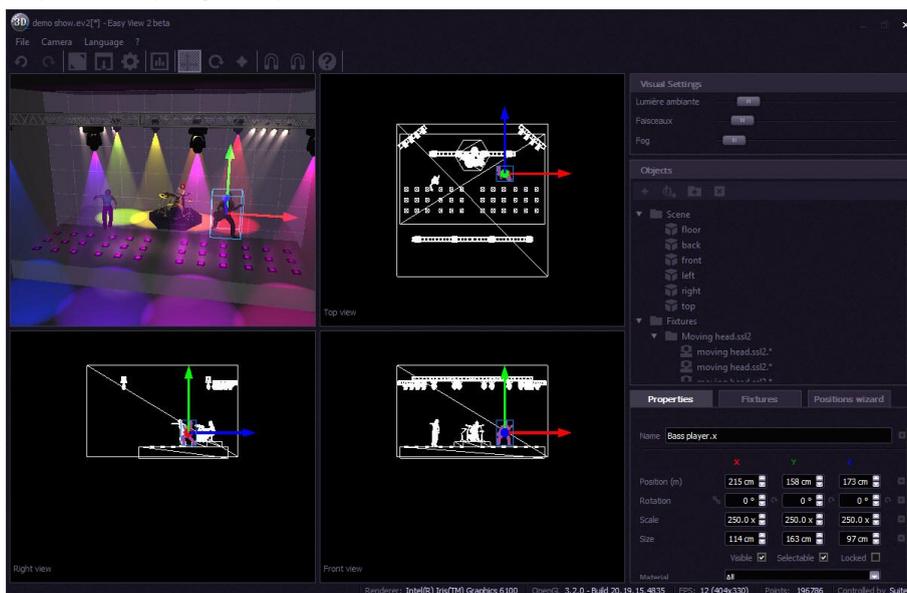
Sunlite Suite 3

This is the main piece of DMX lighting programming software. Quickly and easily program complex effects with moving fixtures. Trigger with audio, MIDI, DMX, OSC, Virtual DJ, time and many other methods. Copy scenes onto an SD card to play them without a computer.



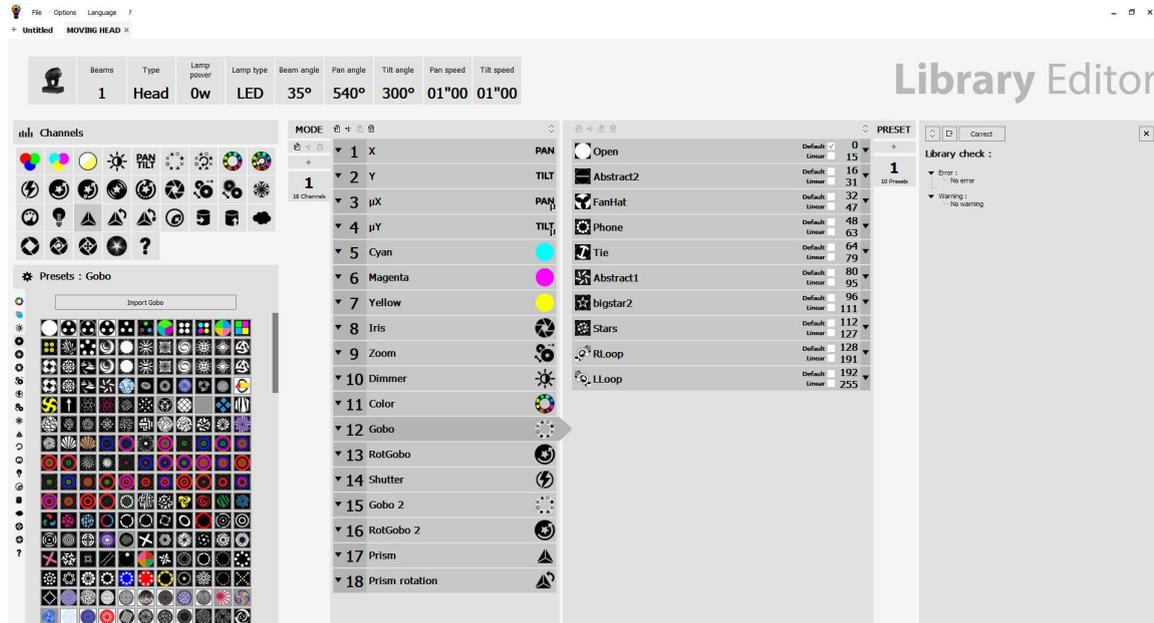
Easy View 2

Our real-time 3D visualiser allows you to pre-program your show without lighting fixtures. This software will show you all of your lighting effects in the same way as they would look if your actual lighting fixtures were connected to the computer. This software is not required to program your show.



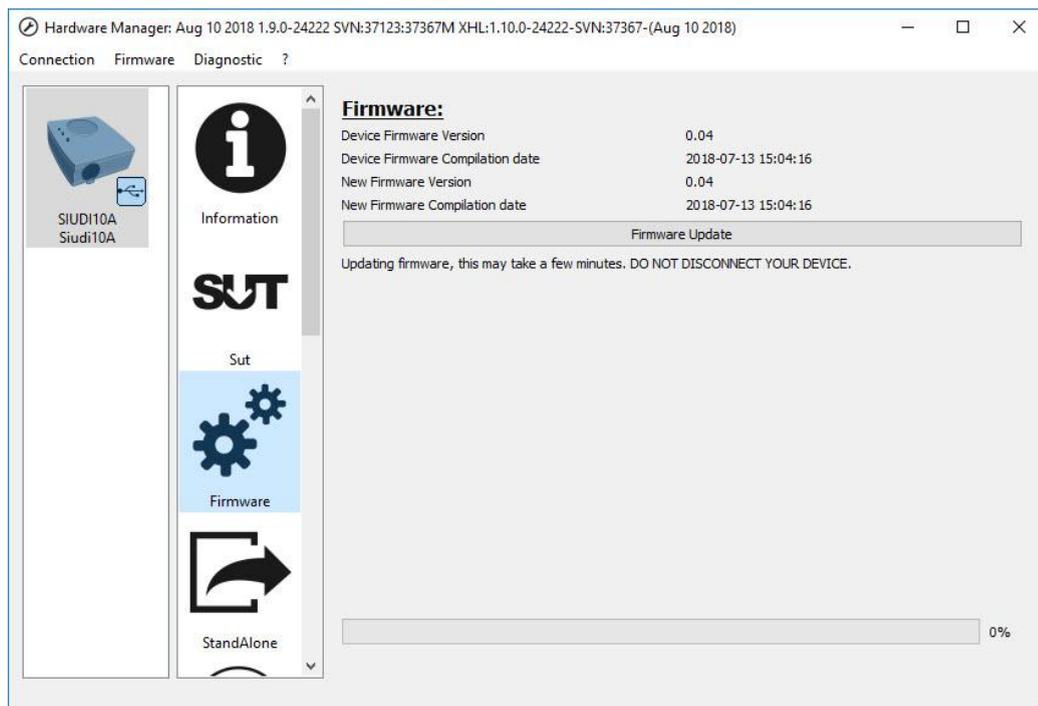
Scanlibrary Editor

Create your own profiles or modify existing profiles for lighting fixtures. Many effects are included (colour, gobo, gobo rotation, prism, etc).



Hardware Manager

An essential tool for configuring and testing your DMX interface. Perform many functions including but not limited to updating the firmware, configuring settings and testing hardware.

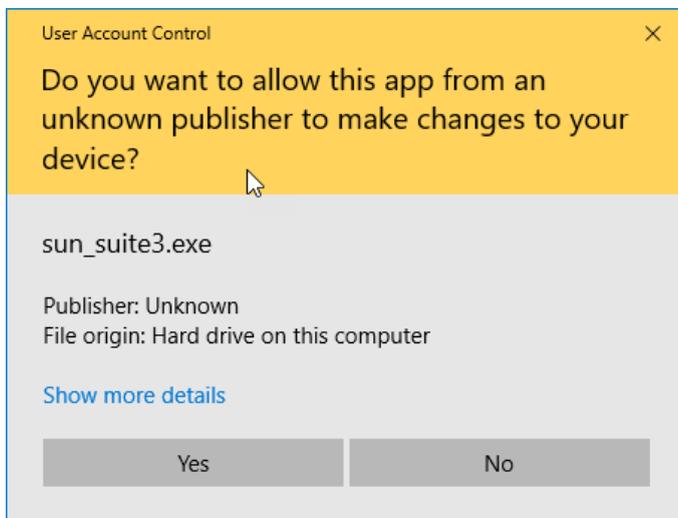


Software and Hardware Installation

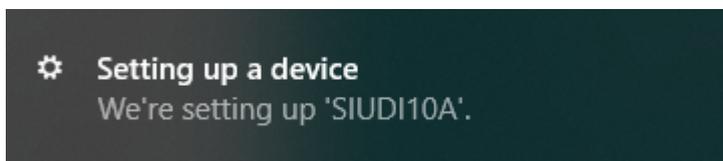
Installation

Download the latest Sunlite Suite 3 software from www.sunlitepro.com.

Follow the on-screen instructions to install the software. The DMX interface USB drivers will be installed during the software installation. If a dialog appears to say “Do you want to allow this app from an unknown publisher to make changes to your computer?” answer Yes.



Once the software installation is complete, connect your interface to the USB socket. A notification will be shown on the taskbar once the device has been setup with Windows. Do not start the software until the driver installation is finished, otherwise your device will not be detected.



Connect the Male (3/5 pins) end of the XLR cable into the Sunlite Suite 3 DMX interface and connect the female (3/5 holes) end of the XLR into your first fixture.

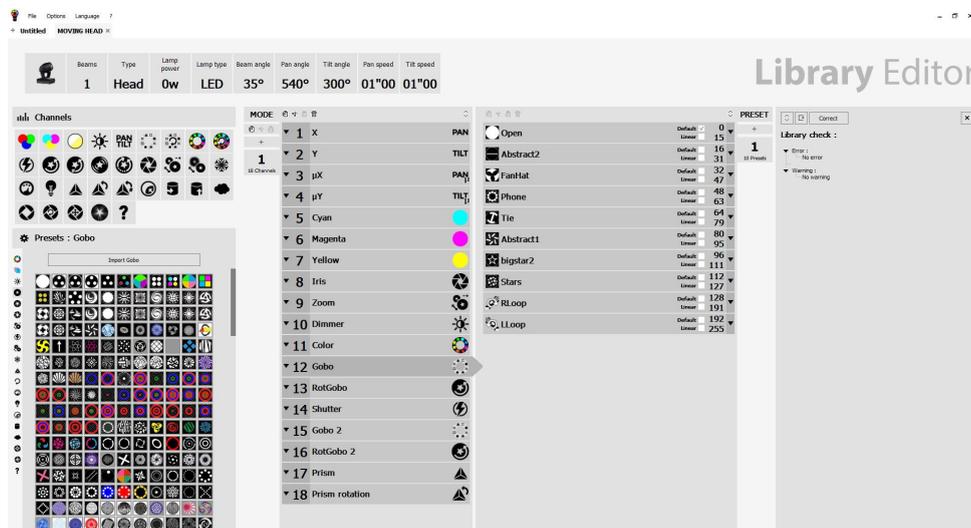
Set the DMX address ID of each fixture on the DMX bus. Refer to your fixture documentation to find out how to do this.

Fixture Profiles

Profile Editor

All of the attributes of a DMX device are saved in a special file called the "Fixture Profile" or .SSL2 file. The more accurate the fixture profile, the easier it will be to program your lighting with Sunlite Suite 3. If you have an incomplete fixture profile, Sunlite Suite 3 will not understand the lights you want to control and therefore make it very difficult for you to program your lighting fixtures.

There is a profile for almost every fixture on the market. Fixture profiles can be created and edited with the "Scan Library" editor software.



Express vs Full Mode

Sunlite Suite 3 can operate in either *Express Mode* or *Full Mode* depending on the licence available on your device. For example, the Sunlite-BC and EC both come with Express Mode and the Sunlite-FC comes with Full Mode.

Full Mode has these additional features:

1. Audio and Video: Mix light effects, audio and video on a Cycle timeline. You can also launch a media file from a scene using the multimedia settings.
2. Time Triggers / Calendar - ie. set a scene or switch to come on at certain dates/times
3. Midi Timecode (MTC) can be used to sync a cycle timeline with a 3rd party multimedia app that supports MTC. For example you may want to sync a lightshow with an audio track or video. e.g. TimeLord is a useful app for testing MTC with an MP3 file. Cubase also supports MTC.

Note that Sound-to-light features such as OS2L communication (Virtual DJ software) and Audio Analysis (from audio input) are available with Express Mode.

By default the Sunlite-BC and EC models comes with Express and the Sunlite-FC and RC models come with Full Mode.

You can check if you have the Express or Full Mode licence using HardwareManager. Open HardwareManager (installed with Suite 3), connect your device and check the SUT screen.

If your controller has an Express licence and you want to try Full Mode, go to <https://store.dmxsoft.com/> to add a 30 day trial licence or purchase a 1 year or unlimited time licence.

Quick Start

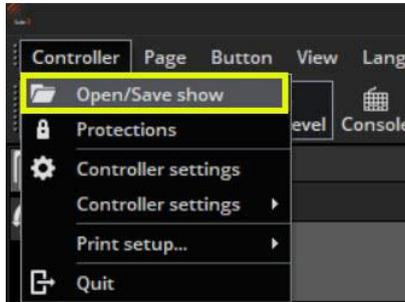
Main Sunlite Suite 3 Concepts

The main concepts of Sunlite Suite 3 are **Pages**, **Scenes** and **Switches**.

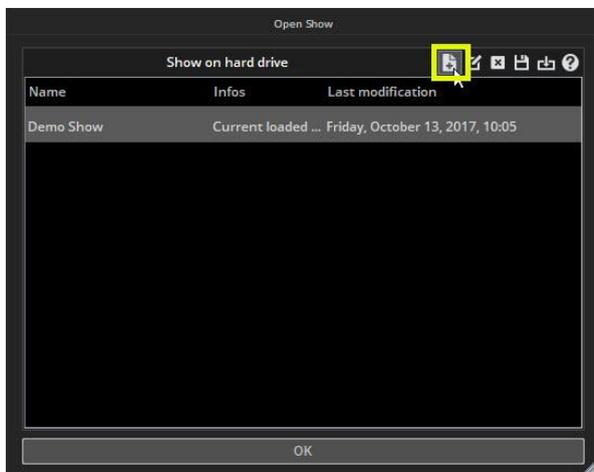
1. Each fixture type has its own **Page**.
2. Each page contains **Scenes** and **Switches**.
3. A **Scene** controls multiple channel types. E.g. Colour AND gobo AND xy. Only one **Scene** can be activated on a **Page** at one time.
4. A **Switch** controls one channel type. E.g. color OR gobo OR xy. It is possible to have as many **Switches** activated as you like (as long as they don't affect the same channel type). For example, you could have a **Scene** whereby the lights are moving and dimming up and down. You can then make a "red wash" **Switch** and when the **Switch** is activated, the moving **Scene** will carry on, but the lights turn red. **Switches** are good for quick temporary changes and **Scenes** are where you would typically store your main lighting programming.

Creating Your First Show

Open Sunlite Suite 3. The open the show dialog can be found from the Controller menu.

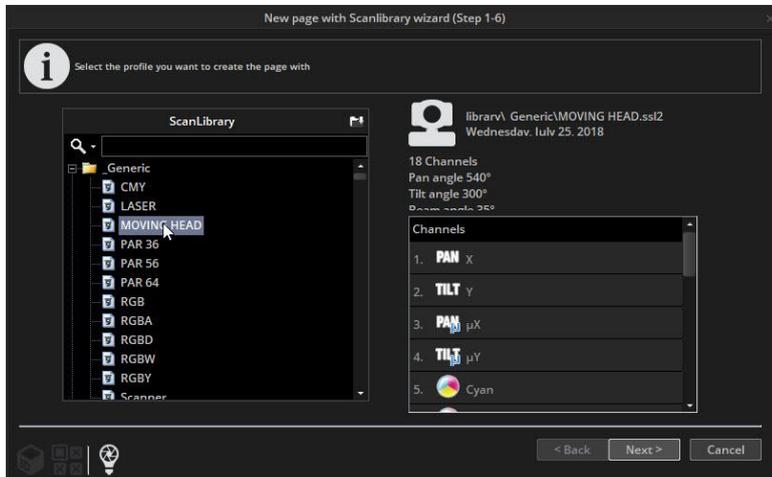


Click here to create a new show.



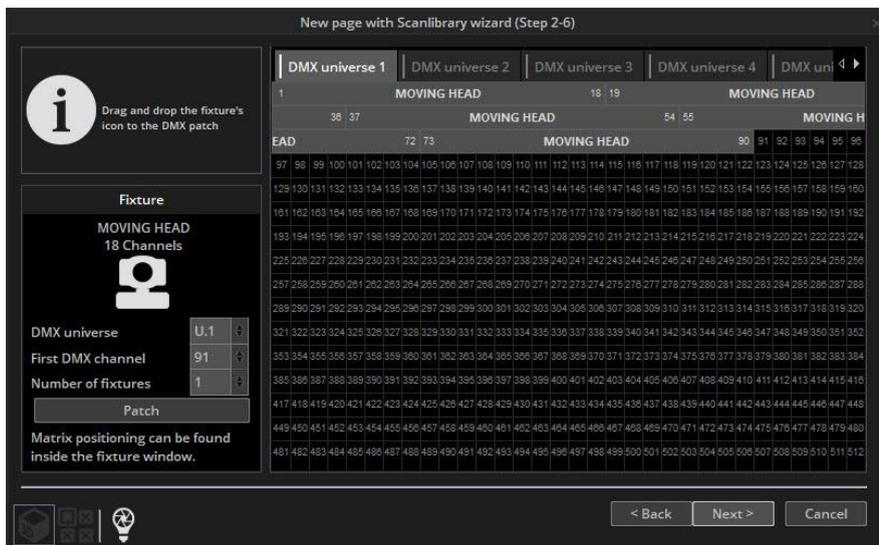
Step 1

Select your fixture from the left. Fixtures are ordered by manufacturer. In the example above we are creating a page for a Moving Head which can be found in the "Generic" folder.



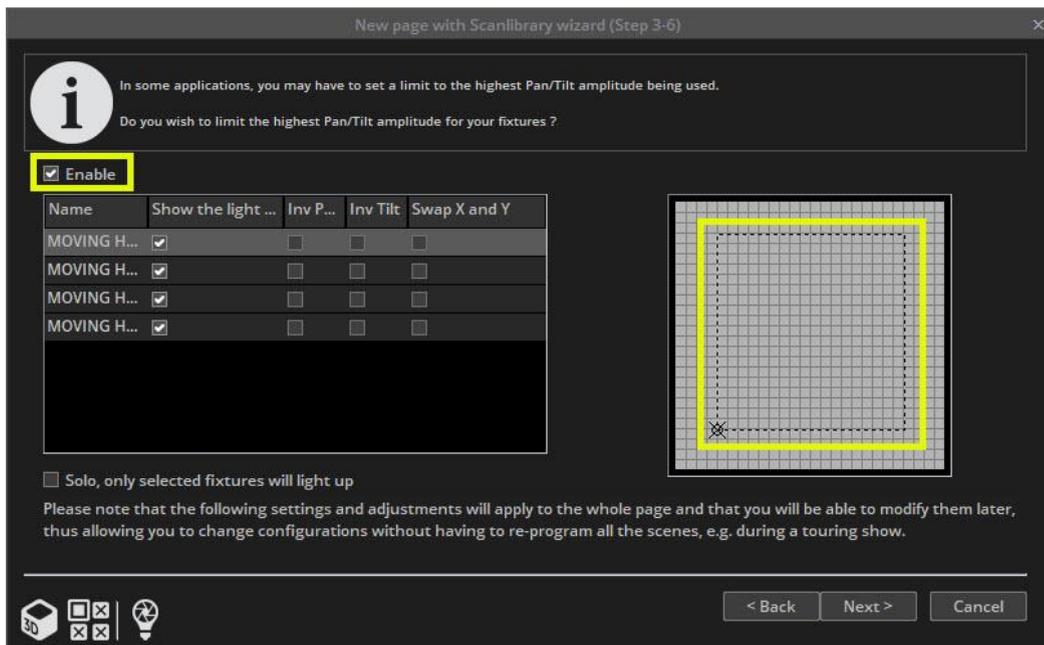
Step 2

The software needs to know how many fixtures are being used and the starting DMX address. In the example below we have 8 moving heads starting at address 1. You can also access the Scanlibrary Editor from this patch window. The button to the left of the Scanlibrary button allows you temporarily stop DMX output from all other pages for testing purposes. The last icon to the left opens the Easy View 2 software.



Step 3

Using the grid on the right hand side you can limit the pan/tilt values of a selection of fixtures. For example, if you are using a moving head in the corner of a room, you can set the area so that the beam is not pointing at the back wall.



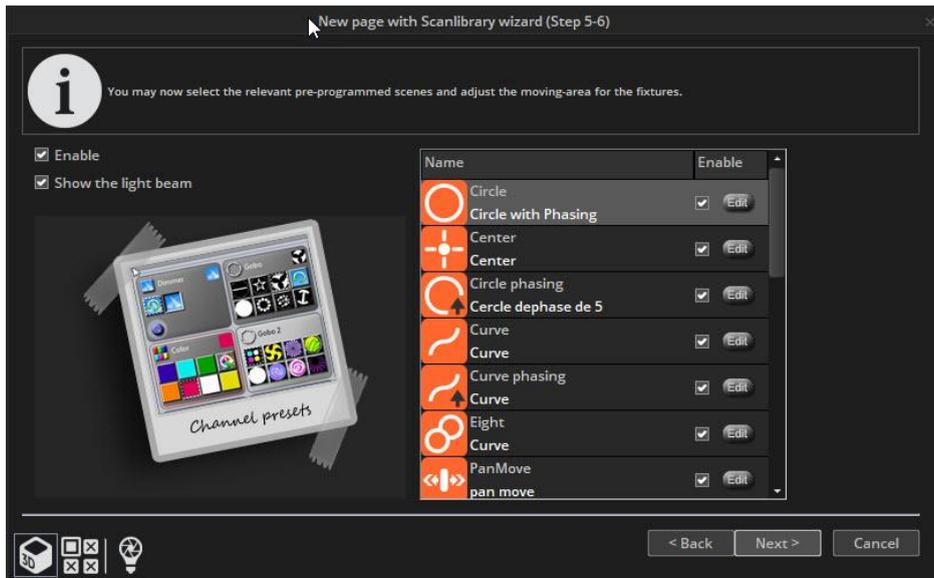
Step 4

The software will now create pre-programmed Switches for many of the common presets of the fixture.



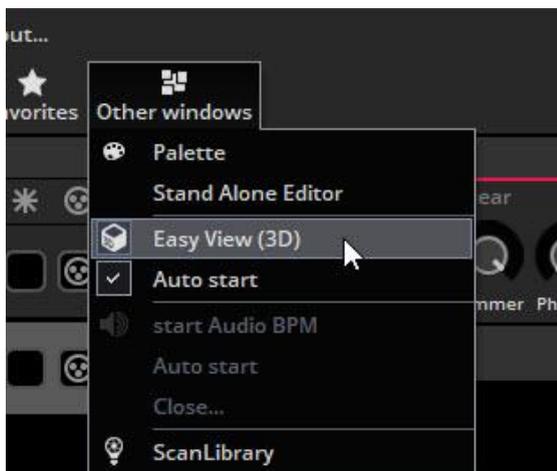
Step 5

The software can also create a variety of pre-programmed effects.



Step 6

You have now created your first page. The views can be rearranged by dragging and dropping. Easy View 2 can be opened by clicking 'Other Windows' to see what has been generated.



Creating Your First Scene

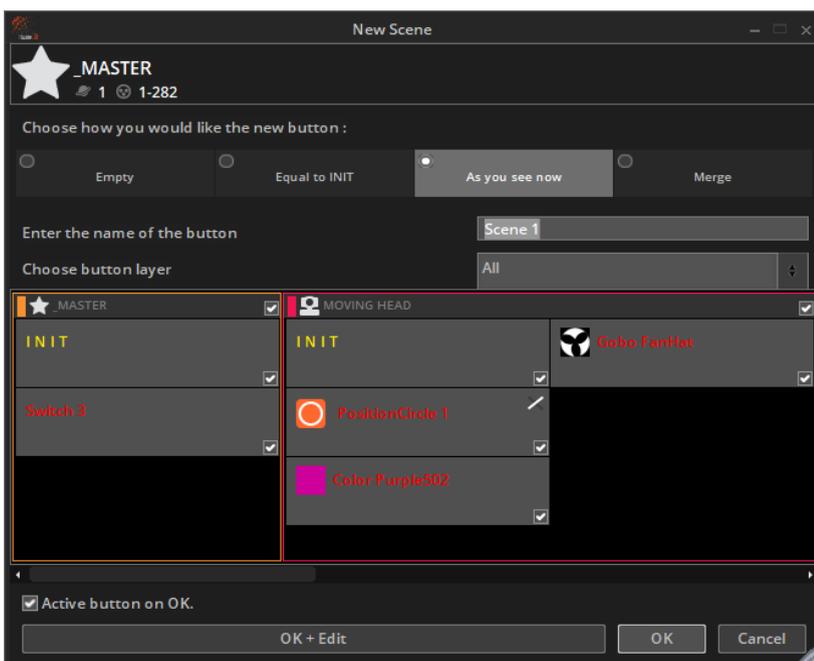
Notice that all of your pre-programmed buttons have a title shown in red. This means that the button is a **Switch** button. A **Switch** button usually controls just one property. For example here are 9 gobo switches. (These are compressed together to save space.)



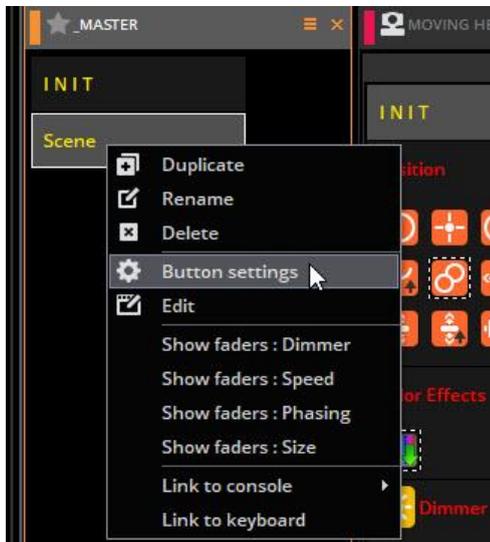
A new **Scene** can be created here.



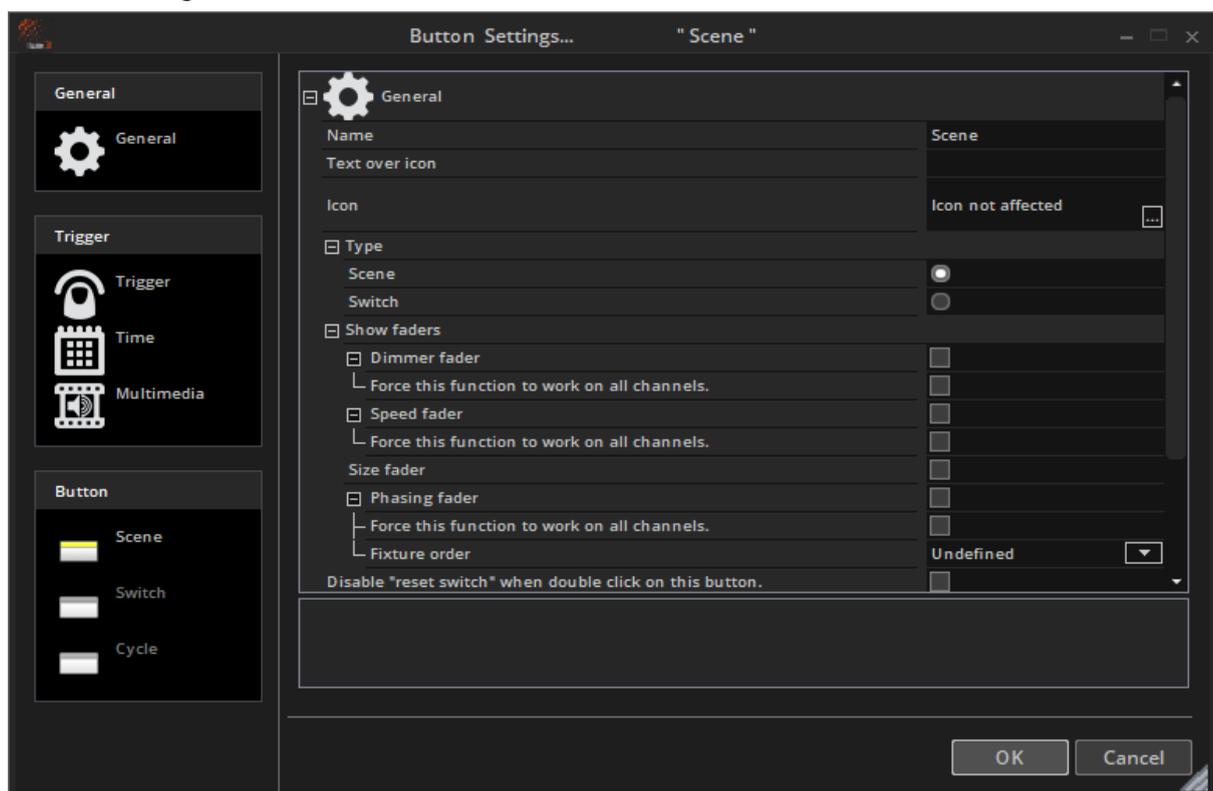
When "As you see now" is selected, everything you see from currently active **Switches** will be saved into the **Scene**.



You can find more options for scenes using the button settings menu. Shift + right click on a button and select *Button settings*.



Button Settings window.

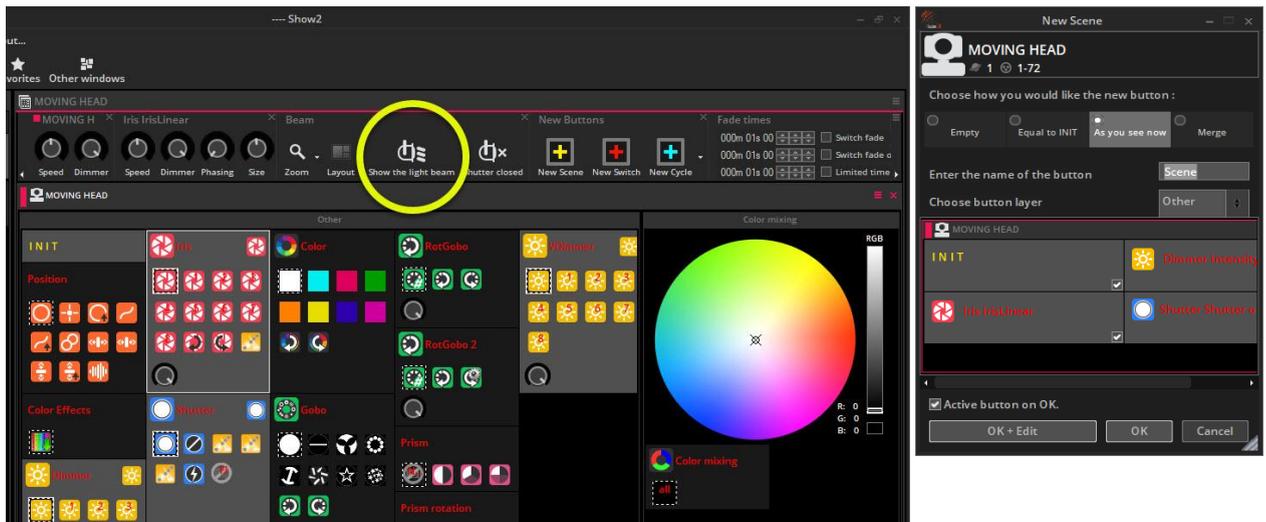


Double clicking a Scene or Switch will deactivate all other buttons.

Editing a Scene with EasyStep

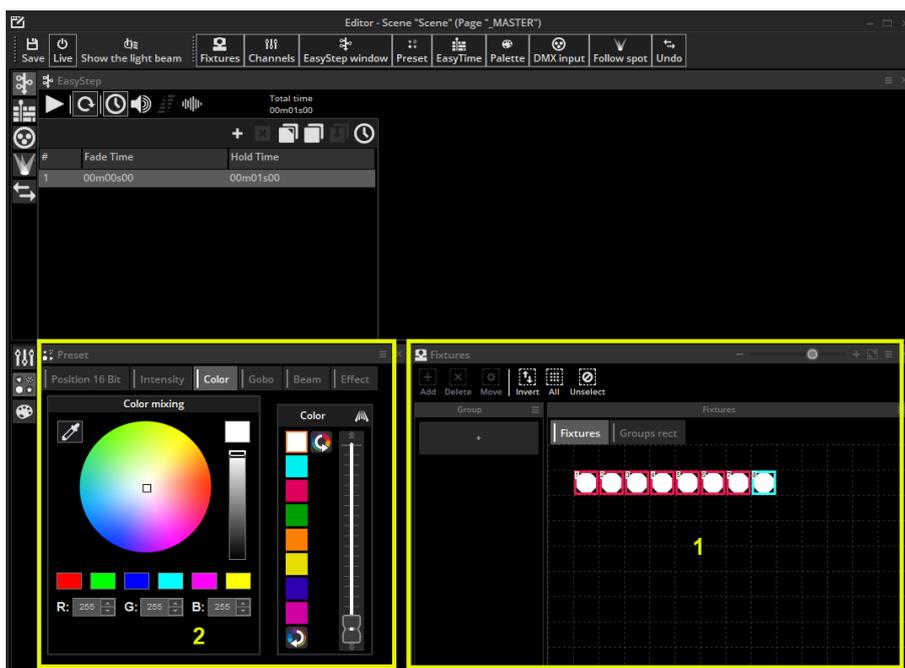
Step 1 Turn on the Light Beam

Scenes and Switches can be edited using the EasyStep tool or the EasyTime tool. In this chapter, we will create a simple movement using the EasyStep tool. Click the beam open icon to automatically activate the shutter, iris and dimmer channels. Create a new Scene, make sure “As you see now” is selected and select “OK+Edit”



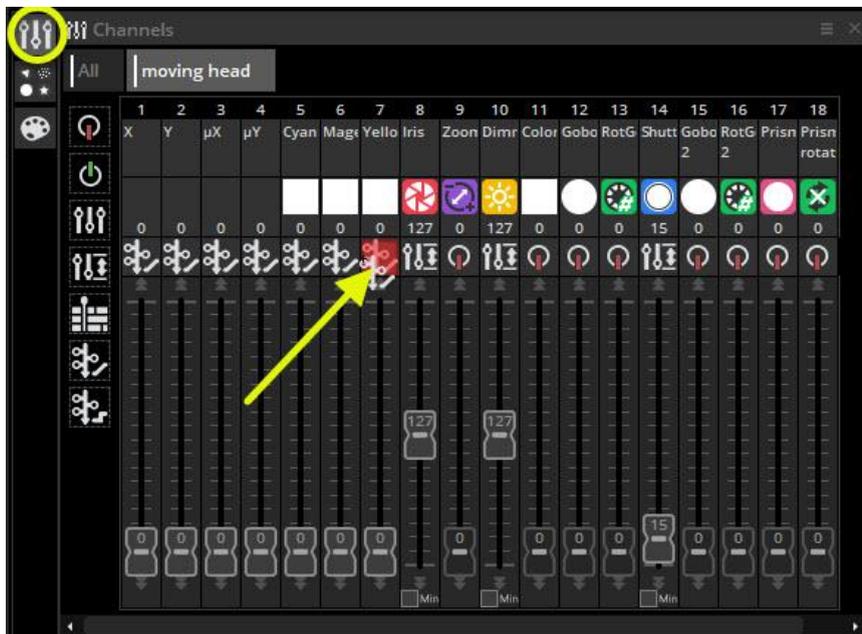
Step 2 Select Fixtures to edit

Select the fixtures you wish the control here(1). Presets can be modified here(2).



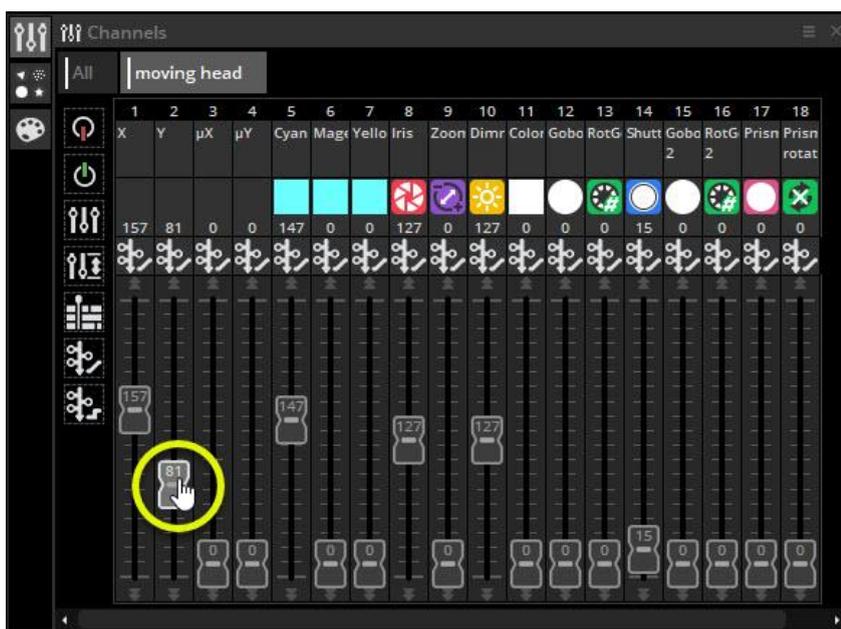
Step 3 Assign the EasyStep channel function to the relevant channels

Channel functions can be set here. All channels are set to *Off* by default. To make a simple movement pattern, assign the EasyStep channel function to the pan and tilt channels. Drag the EasyStep icon here and hold CTRL to select multiple channels.



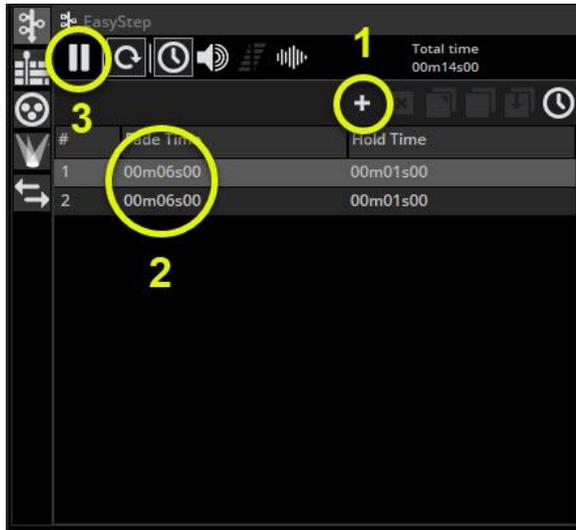
Step 4 Adjust Fixtures

In addition to the preset tab, you can also adjust your fixtures using the faders tab. Move the X and Y faders to position the fixtures. Make sure you have the Easy View 2 3D window open to see the movement.



Step 5 Create a new step and preview

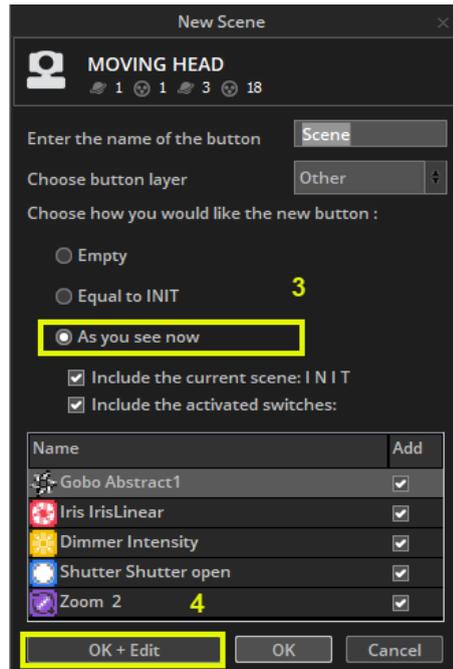
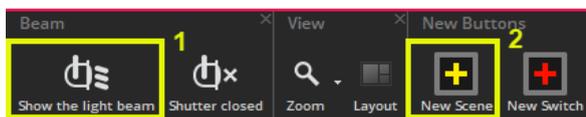
Once the values have been adjusted click here (1) to create a new step. Move the X and Y faders to the second position. Set a fade time and/or hold time for each step by double clicking on the step time (2) or by selecting the clock button. EasyStep sequences can be previewed by clicking the preview button (3).



Editing a Scene with EasyTime

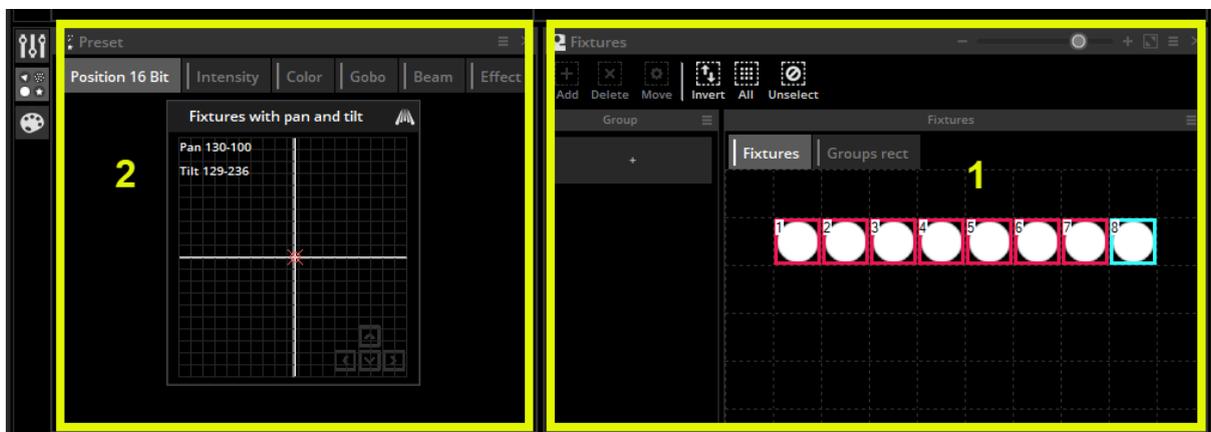
Step 1 Turn on the light beam

Click the open beam button(1) to automatically open the dimmer, iris and shutter. Create a new scene (2), make sure “As you see now”(3) is selected and select “OK + Edit” (4).



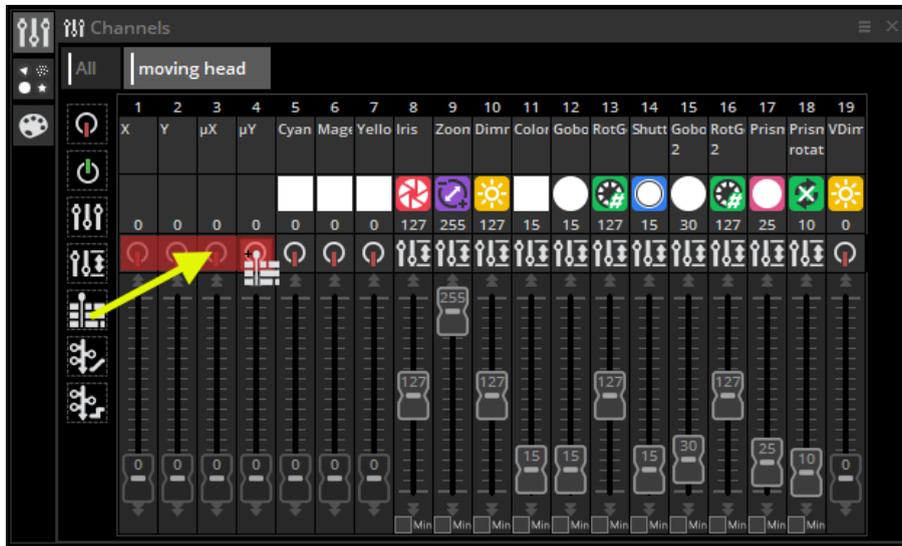
Step 2 Select fixtures to edit

Select the fixtures you want to control from fixture view(1). Presets can be modified here(2) in the preset view. Hidden views can be added from the toolbar at the top of the page(3).



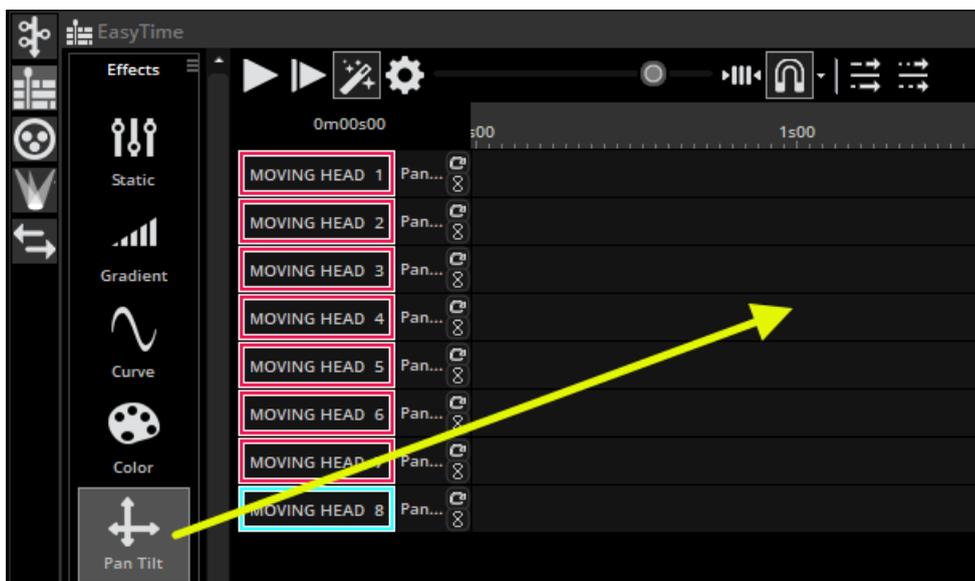
Step 3 Assign EasyTime function to channels

Assign the EasyTime channel function(1) to the channels you want to control. Drag the EasyTime channel function here and hold CTRL to assign the function to multiple channels.



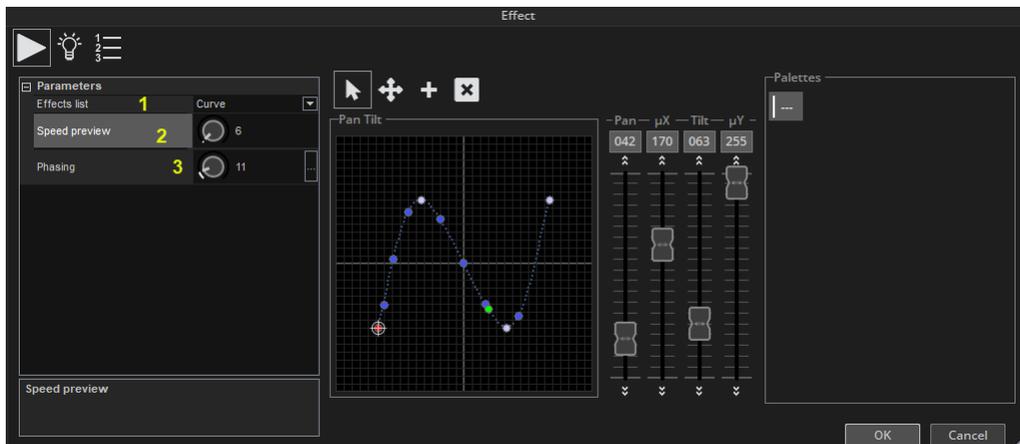
Step 4 Drag an Effect to the timeline

Drag the pan/tilt effect



Step 5 Editing your effect

Select "Curve"(1) from the Effect List. From this window you can change some aspects of the effect. You can change the speed of the preview (2) and change the phasing (3). For more information on the effects used with EasyTime see the EasyTime Effects chapter.

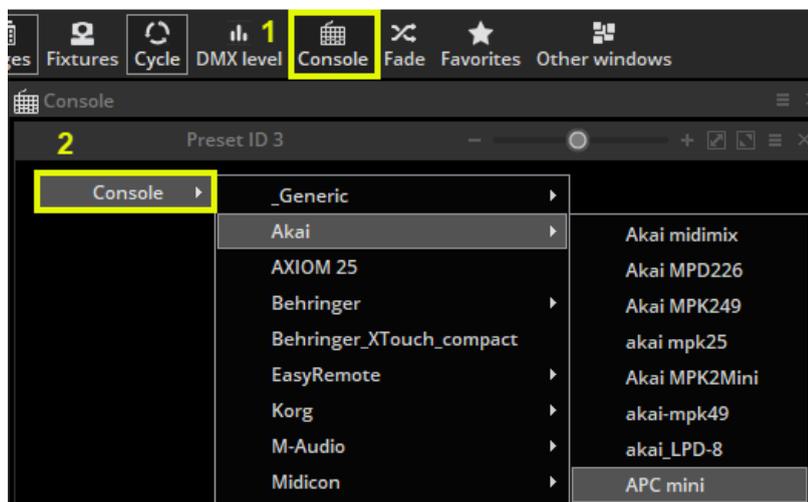


Using a Midi Controller

Midi Controller

Almost all software features can be mapped to a MIDI controller. For example, dimmers can be controlled by faders, Scenes can be triggered by buttons and commands such as 'BPM Tap', 'Fixture selection' and 'Live record' can be mapped.

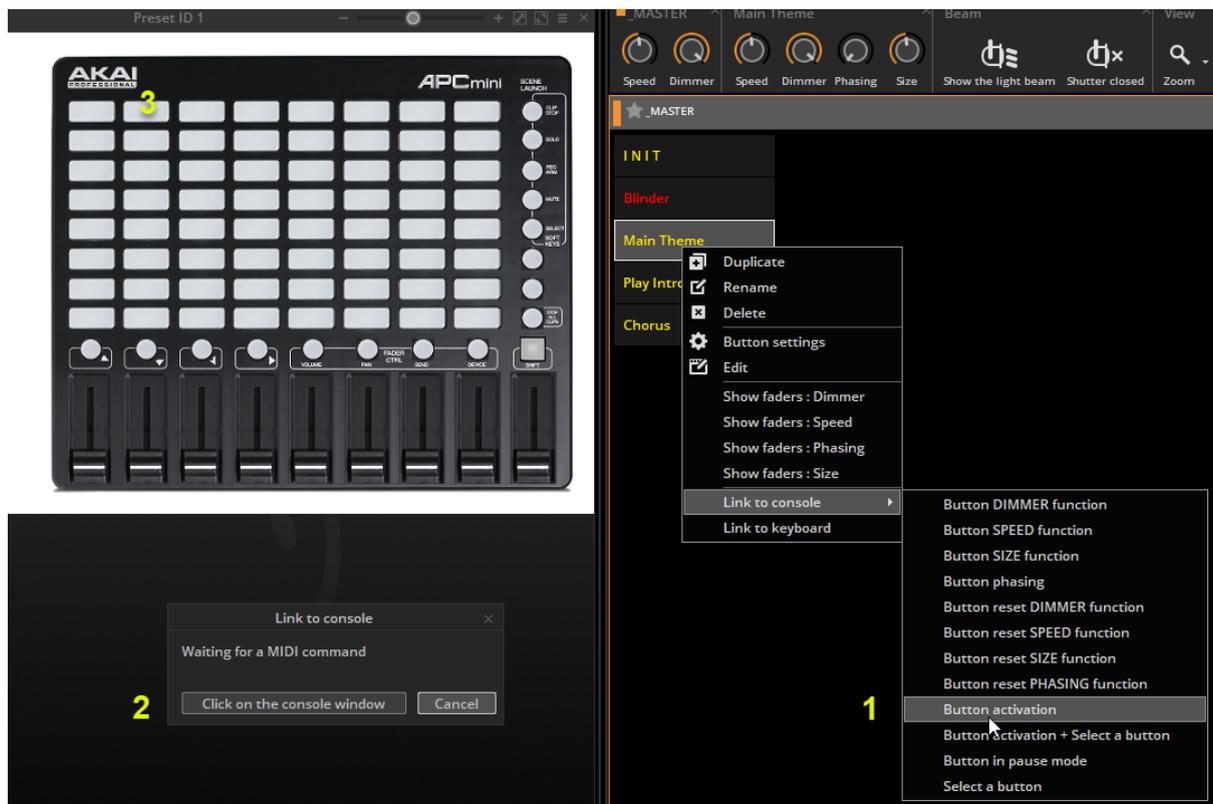
To map a MIDI console, open the console window(1) and right click (2) in the console window to choose which you want to add. If your console is not listed, this can be built with the Console Builder application available from the 'Other Windows' in the View menu on the ribbon bar.



There are a range of consoles which are pre-mapped. These mappings are documented within the appendix section towards the end of this manual. If a pre-mapped console is available, a message box will appear when a console is added asking if you would like to load the mappings.

To manually map the console yourself:

- shift+right click a scene/switch/cycle
- select 'Link to console'
- choose the command you would like to map
- move the corresponding fader/dial/button on the MIDI controller



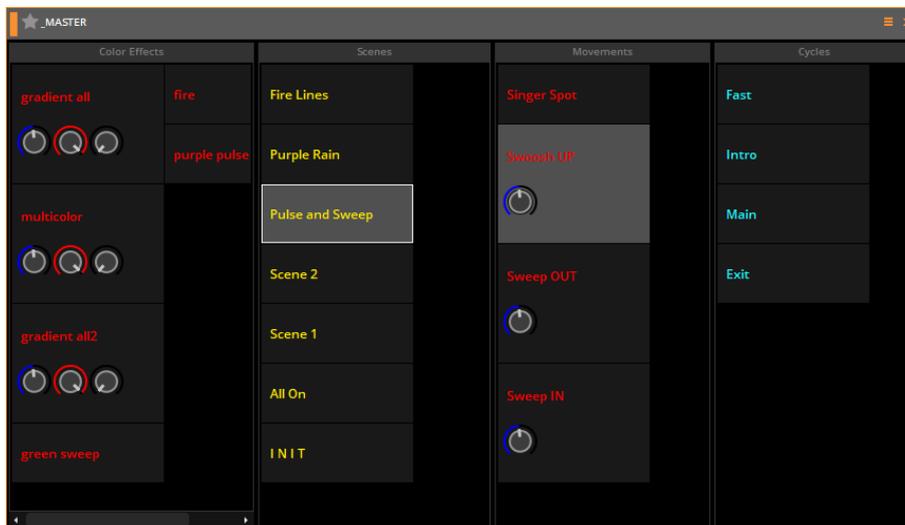
For more information on controlling the software from MIDI/DMX/tablet/smartphone, see the 'External Control & Triggering' chapter.

Programming

The Master Page

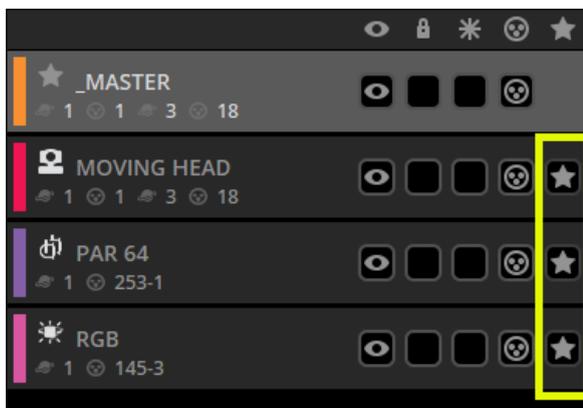
What is the Master Page?

The Master page is a combination of all the other pages in your show. It allows you to create Scenes, Switches and Cycles which contain programming for more than one fixture type. The Master page is usually your main live view, where you will add your final programming.



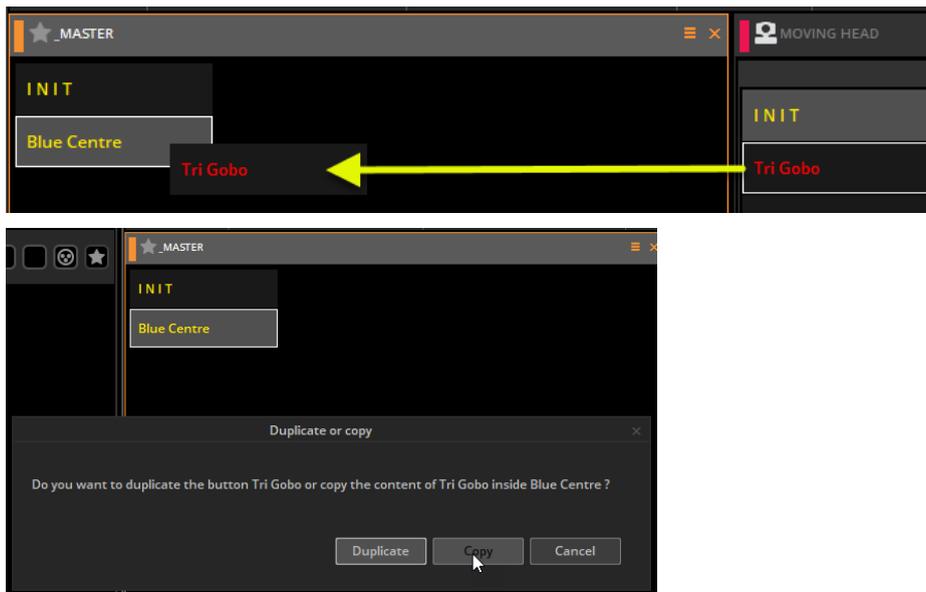
Programming the Master page

In the image below we have pages for some moving heads, par64 and RGB fixtures. By default, pages are created already linked to the Master page. When enabled, this link is displayed as a star next to the page name (see highlighted below) and it allows the fixtures to be controlled from the Master page.

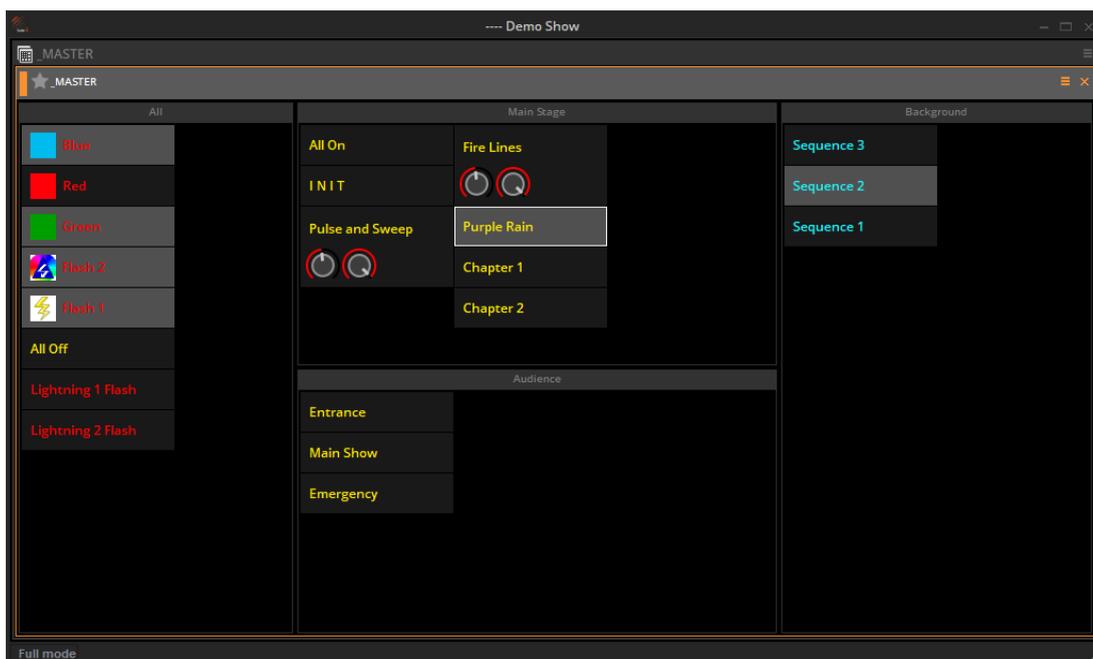


Buttons on the Master page are created in the same way as on any fixture page. If you create a button and select the “As You See Now” option, all currently activated buttons in all pages will be saved (as long as the page is attached to the Master page).

Scenes can be modified quickly without the need to go inside the button editor. To modify a parameter, ctrl+right click and drag a Switch from a fixture page to the Master page button you wish to modify and select “copy”. In the example below we are changing the moving head gobo.



If you are making a show for somebody else to use, or if you are limited on screen space, you can close and dock all other windows and have just the Master page enabled. See the access privileges topic for more information.



Cycles

What is a Cycle?

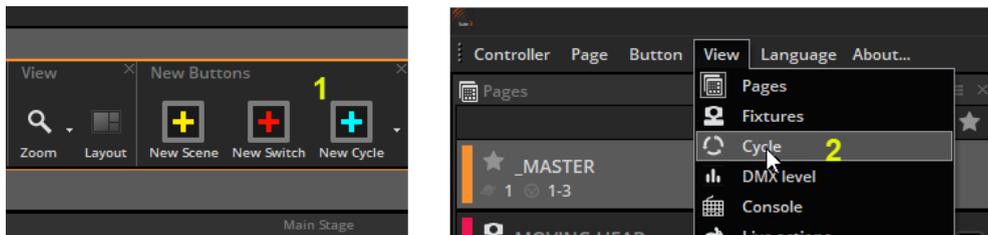
A Cycle is an ordered cue list of Scenes and Switches which can be played back sequentially and synchronised with audio and video files. A Cycle can consist of the following elements:

- A Scene
- A Switch
- Another Cycle
- An audio file
- A video file

Cycle elements can be viewed as:

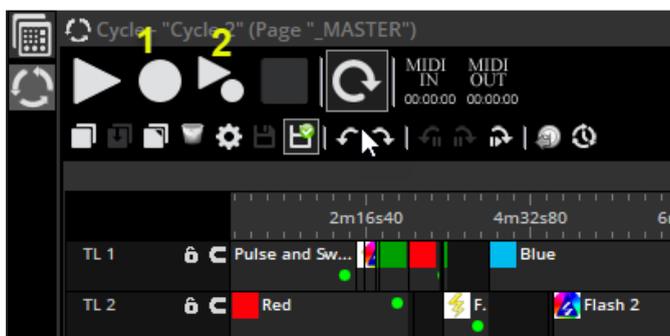
- A list
- Timeline trigger markers
- Timeline blocks.

Click here (1) to open the Cycle view and click here(2) to create a new Cycle.



Recording a Cycle

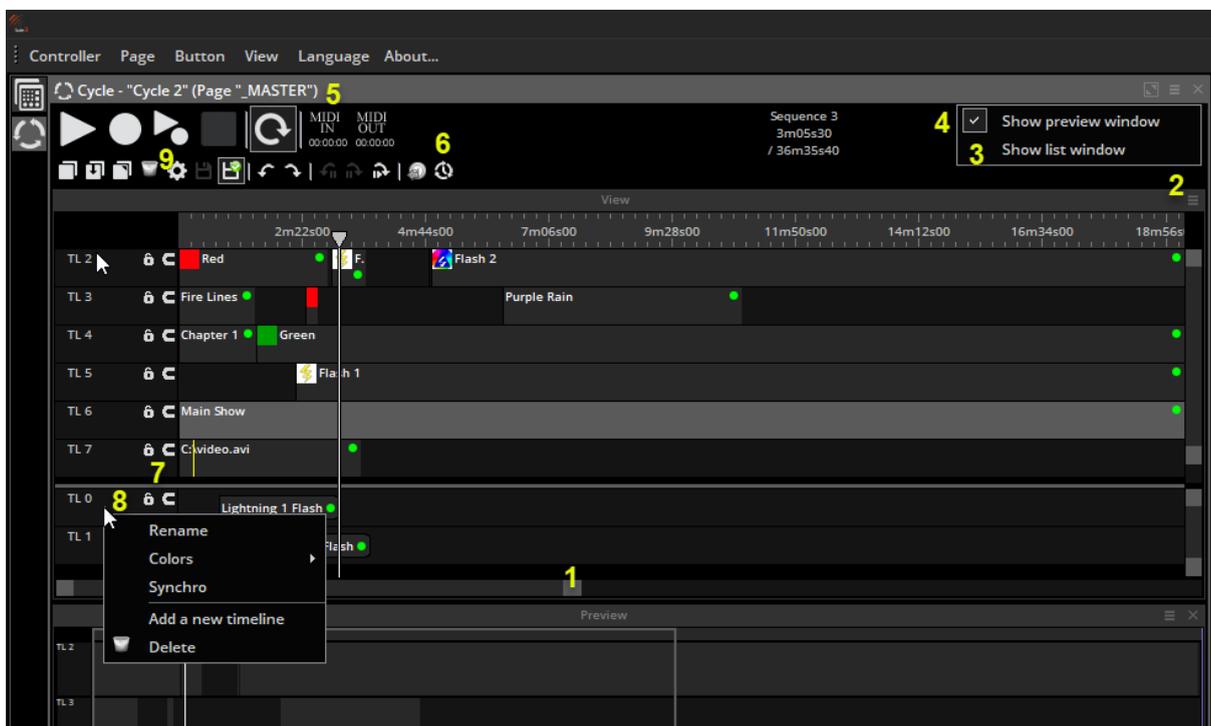
To record a Cycle; click record(1), select a combination of Scenes and Switches then click record again when you are done. Additional button presses can be recorded whilst playing a Cycle by selecting the play/record button(2). Scenes and Switches may also be added by holding Ctrl+Right clicking and dragging onto the timeline.



Navigating around the Cycle view

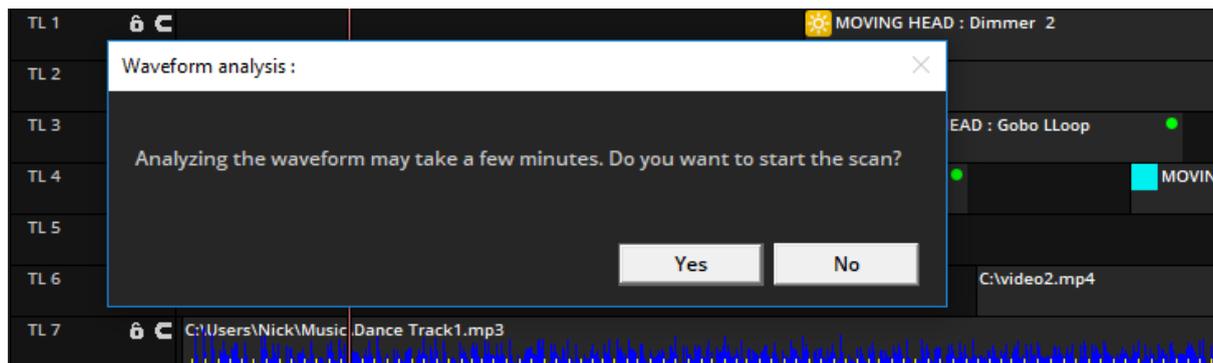
To edit a Cycle button, hold ctrl and click on a Cycle. By default, the Cycle view is split into two parts. The upper part displays blocks representing the start and end time of an element. The lower part shows trigger markers. The trigger markers are useful if you wish to tell an element to only start or stop. Trigger markers represent 'one shot' triggers and do not have a duration or end time.

- Dragging the horizontal bar allows you to increase the portion of the view used for Cycle blocks or triggers (1).
- The order of the timeline, trigger, and block areas can be changed here (2).
- A list of Cycle elements can be viewed by clicking here(3)
- A global preview of the Cycle timeline can be viewed by clicking here (4)
- Cycle elements can be moved around the timeline by clicking and dragging
- A Cycle can be triggered by Midi Time Code by clicking here(5) (See the Midi Time Code chapter for more information)
- A Cycle will play up to the end marker. To change the Cycle end time, drag the end marker or click here(6) to enter an end time manually.
- The two buttons here(7) allow for a timeline to be locked, and for blocks to be snapped to objects closeby
- Right click to the left of the timeline to change the color, rename, delete, or create a new timeline. *Syncro* sets the timeline to the master for synchronisation purposes (8)
- Click here(9) for advanced button settings



Adding Audio and Video

Audio and video files can be added to a Cycle simply by dragging and dropping the file onto the corresponding timeline. Once a file has been dropped, you will be asked if you wish to analyse the waveform.. This is necessary to view an image of the waveform on the block. You will also be asked if you wish to detect beats. Detecting beats allows for other blocks to be snapped to the detected beats for quick and easy Audio/Lighting synchronisation.



Navigating a Cycle

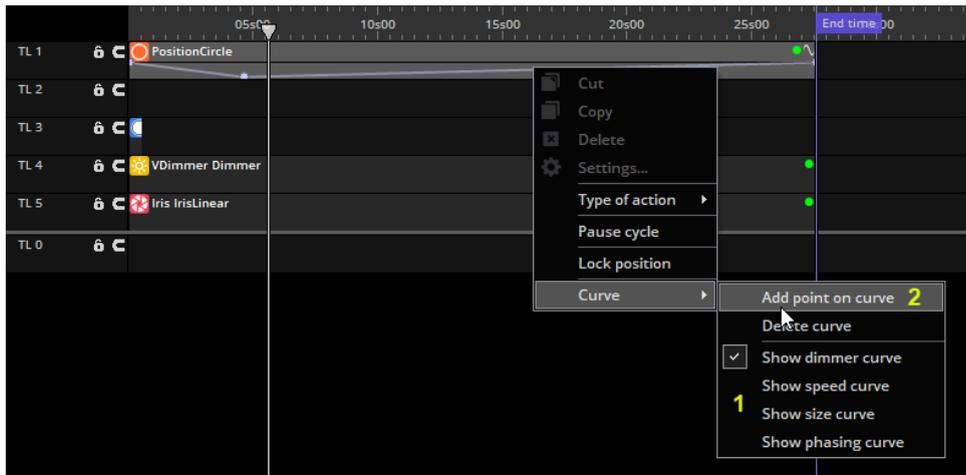
Once a Cycle is selected, it is played automatically. Several additional navigation options are available on the toolbar:

1. Previous/Next : jumps the cursor to the previous or next element
2. Previous/Next pause element : jumps the cursor to the previous or next element which is set to a pause element. Use the right click menu on any element or marker to set the pause state. This is useful if you are controlling a pre-programmed show and you want to manually skip through a list of elements (similar to the GO button on a traditional lighting console).
3. Move next element to current time: this will move the position of the next element to the position of the current cursor. This is useful if you have already recorded the order in which the blocks occur, but need to re-adjust the timing of the blocks live. Make a space by shifting all blocks to the end of the timeline, hit play, then hit this button at each 'cue point' and the next block will be moved to the current time.



Cycle Automation

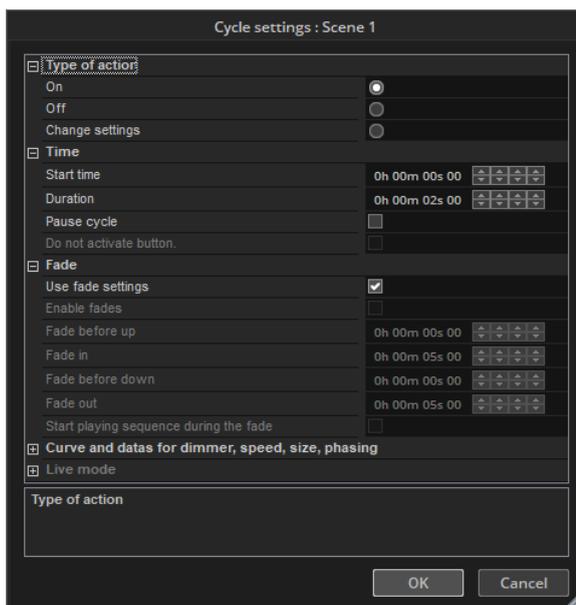
The dimmer, speed, size and phasing of an Scene/Switch element, and the volume of an Audio/Video element can be automated by adding points inside the timeline block. Click here (1) to select which curve to view, then click the + button here (2) to add automation points.



Cycle Element Settings

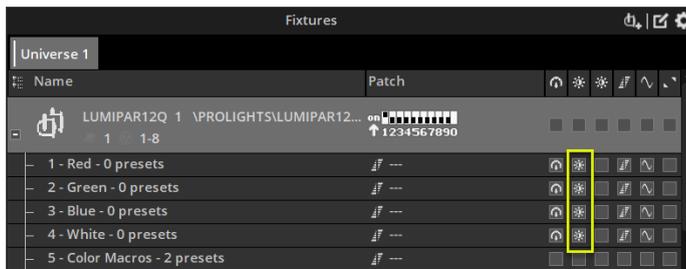
The Cycle element settings allow you to determine what the element will do when it is triggered within the cycle.

- Type of action: determines if the element is switched On, switched Off or has a live modification applied such as speed/dimmer/size/phase
- Time: manually set the time at which the element is triggered. *Pause cycle* will pause the Cycle when the cursor reaches the element. This is useful if you are controlling a pre-programmed show and you want to manually skip through a list of elements (similar to the GO button on a traditional lighting console)
- Fade: modify the elements fade settings
- Curve and data for dimmer, speed, size, phasing: allows you to change the Dimmer, Speed, Size and Phasing properties of the element
- Live- Allows you to add and remove fixtures from the button



Scene Fading

We can set fade times between scenes. This is useful if we want to fade between two static positions, or fade the dimmer. The fade function must be enabled on the master channels. This can be done from the patch tab within the page settings. Some channel types and presets come with dimming enabled. Dimming is enabled on channels 1-4 in the fixture below.

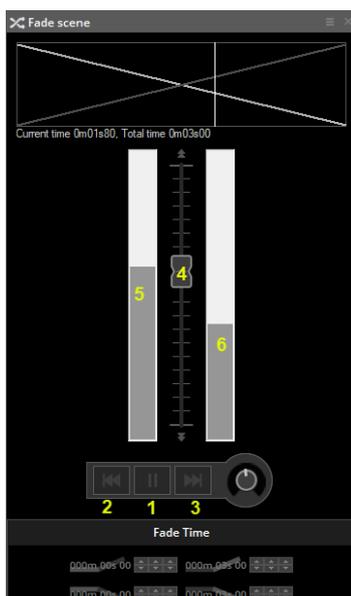


Fade times can be added from the page toolbar at the top of the page (image below). Here you can set the (1) *time before fade in*, (2) *fade in time*, (3) *time before fade out* and (4) *fade out time*.



Whether to use the *fade in* or *fade out* is determined by the current DMX level of the fading channel. The *fade in* is used if the current value is lower than the value of the fading scene. The *fade out* is used if the current DMX value is higher than that of the fading scene.

Fade times can also be added from the button settings menu under the scene option. You can also choose to manually control the fading from the scene settings page.

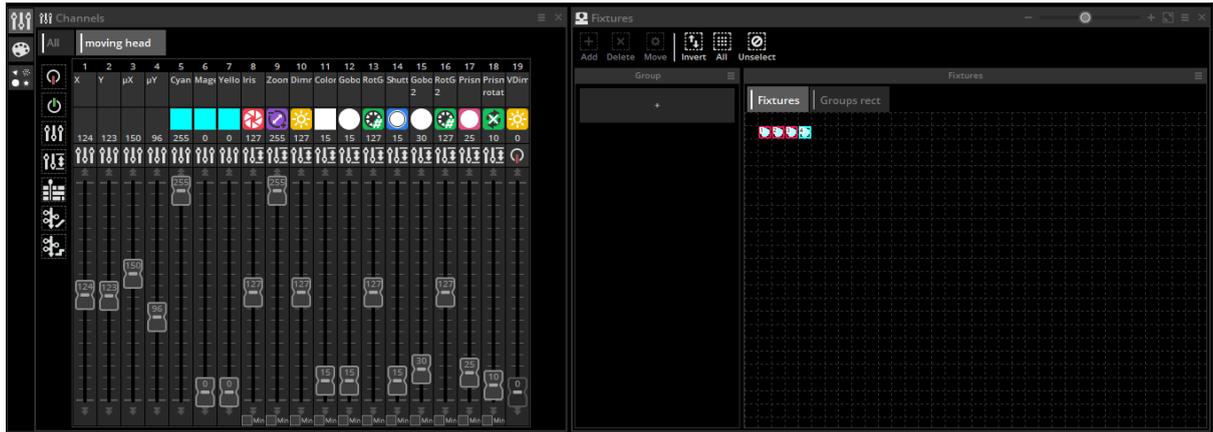


To visualise the fade, open up the Fade view. A fade can be paused (1), skipped to the beginning(2)/end(3) or controlled manually(4) using the fader (if manual fade is enabled within the scene settings). In the Fade view, the bar on the left(5) represents the *fade in* and the bar on the right(6) shows the *fade out*. The lines at the top of the Fade view show a graphical representation of the fades for the corresponding Scene.

Button Editor

Channels

Select 'Edit' from the "Button" menu to access the button editor. You can also ctrl+click the button. To edit a fixture, select the fixtures you wish to edit from the Fixtures view. The channels will appear in the channels window.



Preset Tabs

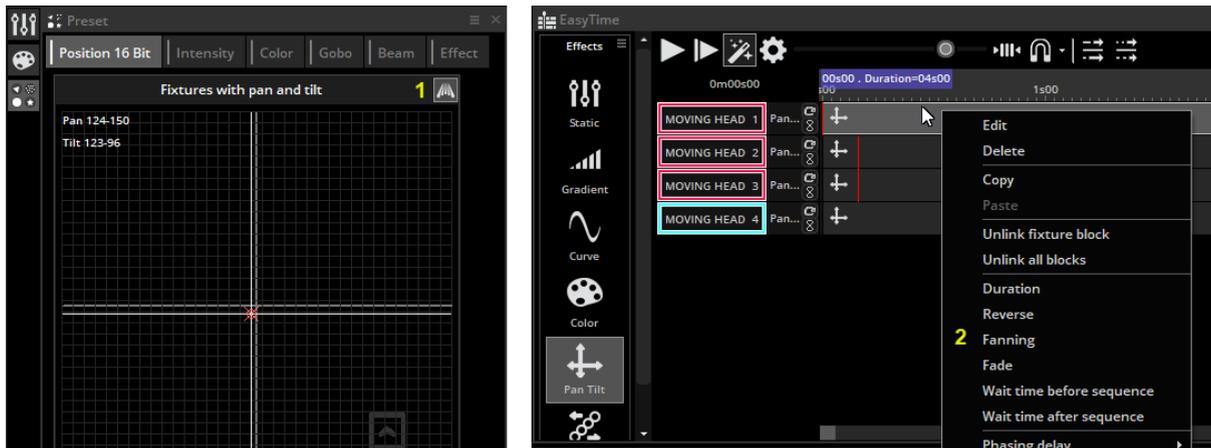
The Preset tabs allow for quicker modification of presets. A color wheel allows you to modify the color of a fixture and the X-Y grid allows you to change the selected fixtures position. To use the preset tabs you must have the *Dimmer*, *EasyStep* or *ON* channel function assigned.

If you are editing a button on the Master page and are working with multiple fixtures of different types, the Preset window is able to understand common channels between the fixtures. For example, if you are using a CMY moving head, and an LED RGB panel, you will be able to modify the color of both fixtures with a single color wheel.



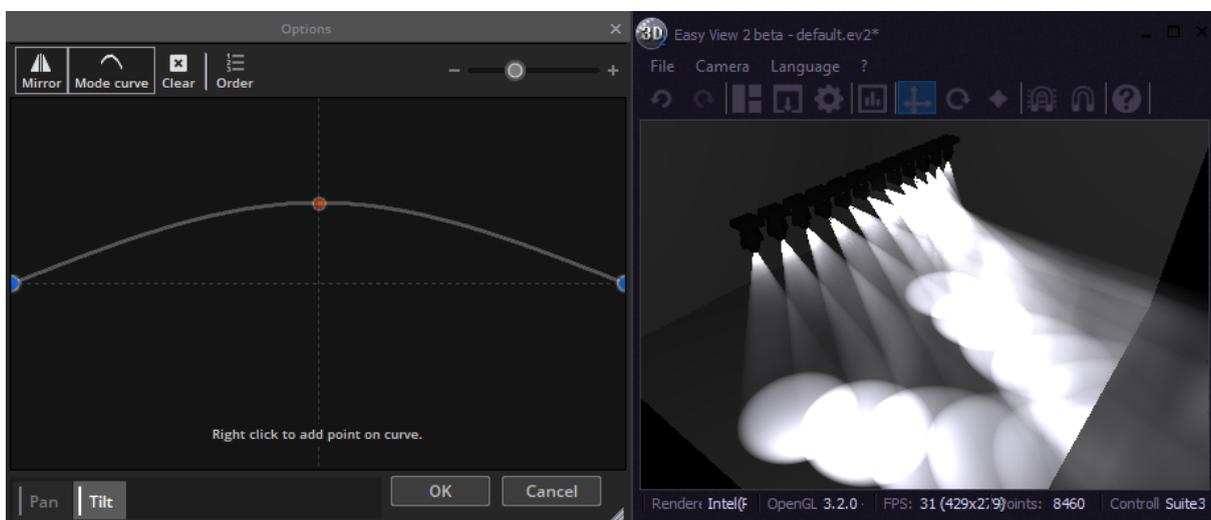
Fanning

A range of values can be applied across a selection of fixtures. For example a range of position values can be applied across a selection of Moving Head lights to create a fan effect, or a range of dimmer values may be applied across a selection of beams to create a dimmer gradient effect. Click towards the upper right of a preset control (1) to open the Fanning Options window, or right click an easy time block and select 'Fanning' (2).



The fanning options window shows a horizontal line with the left point representing the starting value of the selected preset, and the right point representing the ending value of the preset. Drag the ends of the horizontal bar up and down to adjust these values.

By default, the operation mode is set to *Mirror* allowing for the end point to adjust to the opposite value as the starting point. Disabling *Mirror* allows for these values to be set manually. Right clicking the curve adds another point, allowing for additional values to be added. Clicking *Curve Mode* will draw a curve between the points. Clicking 'Order' will open the Fixture Order window allowing for the fan to be applied in a different fixture order.



Using the Channel Window

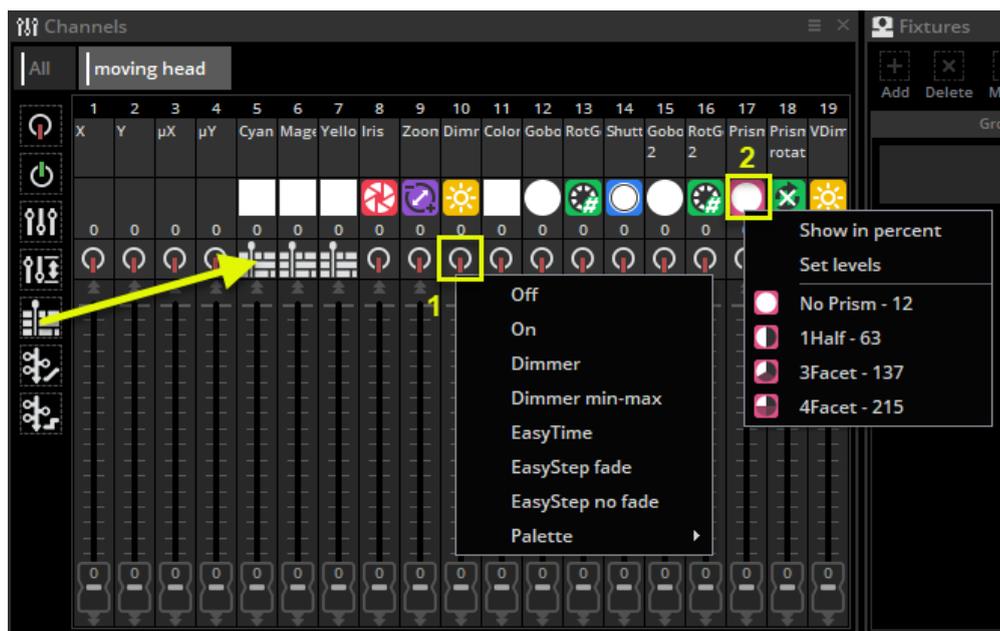
The button editor allows you to modify DMX channels in a variety of different ways. Before editing your Scene, it is important to make sure that each DMX channel is assigned to the correct function. To assign a channel function, drag one of the icons from the left onto the top of a channel. Hold ctrl to drag onto multiple channels at once.

Function types:

- Off: Deactivates the channel
- On: Allows manual adjustment of the channel fader
- Dimmer: Allows manual adjustment of the channel fader. The channel will fade between the set value and 0 if the button dimmer dial is moved
- Dimmer Min-Max: Allows a minimum and maximum value to be set. The channel will fade between the minimum and maximum values if the button dimmer dial is moved. Select the "Min" checkbox at the bottom of the fader to set the minimum value
- EasyTime: Allows the channel to be edited using the EasyTime tool
- EasyStep Fade: Allows the channel to be edited using the EasyStep tool
- EasyStep Cut: Allows the channel to be edited using the EasyStep tool but ignores any fade commands. This is useful for a gobo or shutter channel

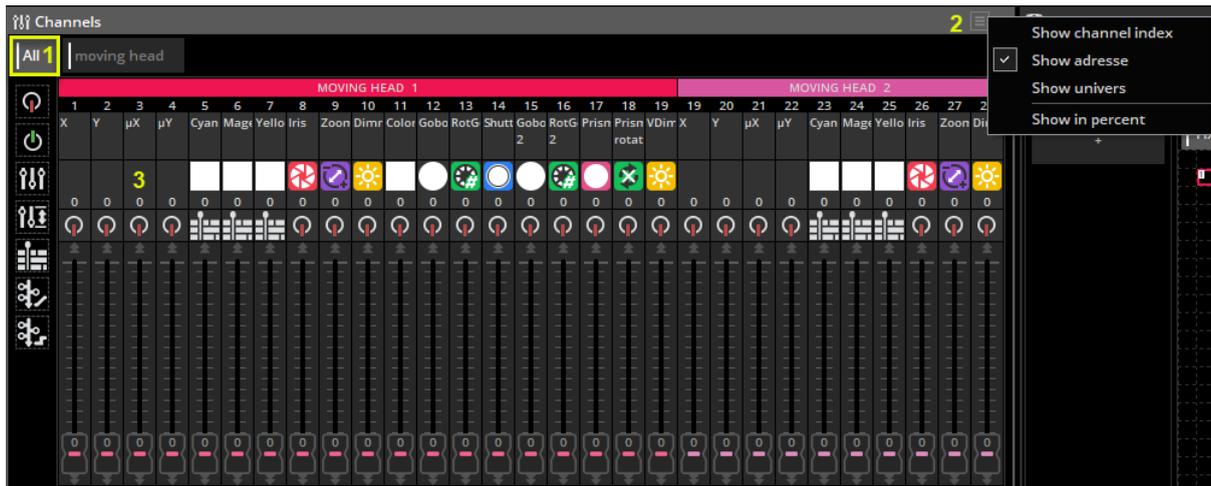
Other options:

- To jump to a particular function, right click here(1) and select the function.
- To jump to a particular preset (eg. gobo holes, color red, shutter closed), right click here(2) and select the preset.
- Double click the white number to manually type the DMX value or %

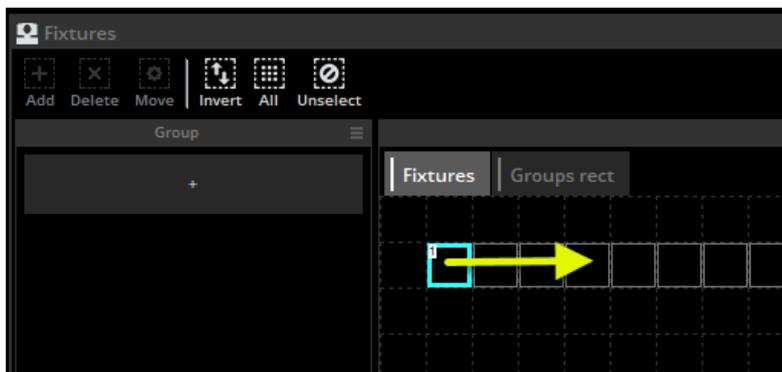


Select the "All" tab (1) to see the channels of all your fixtures.

- You can number your fixtures by index, channel address or universe number by clicking the menu (2) to the top right of the channels view
- The top right menu also allows you to toggle between DMX value and % value (3)
- Double click on one of the white numbers (3) to manually enter a DMX or % value
- Tip: when using the All channels tab, docking the window at the bottom of the button editor will allow you to see more DMX channel faders, giving a similar view as the button editor in Sunlite Suite 1

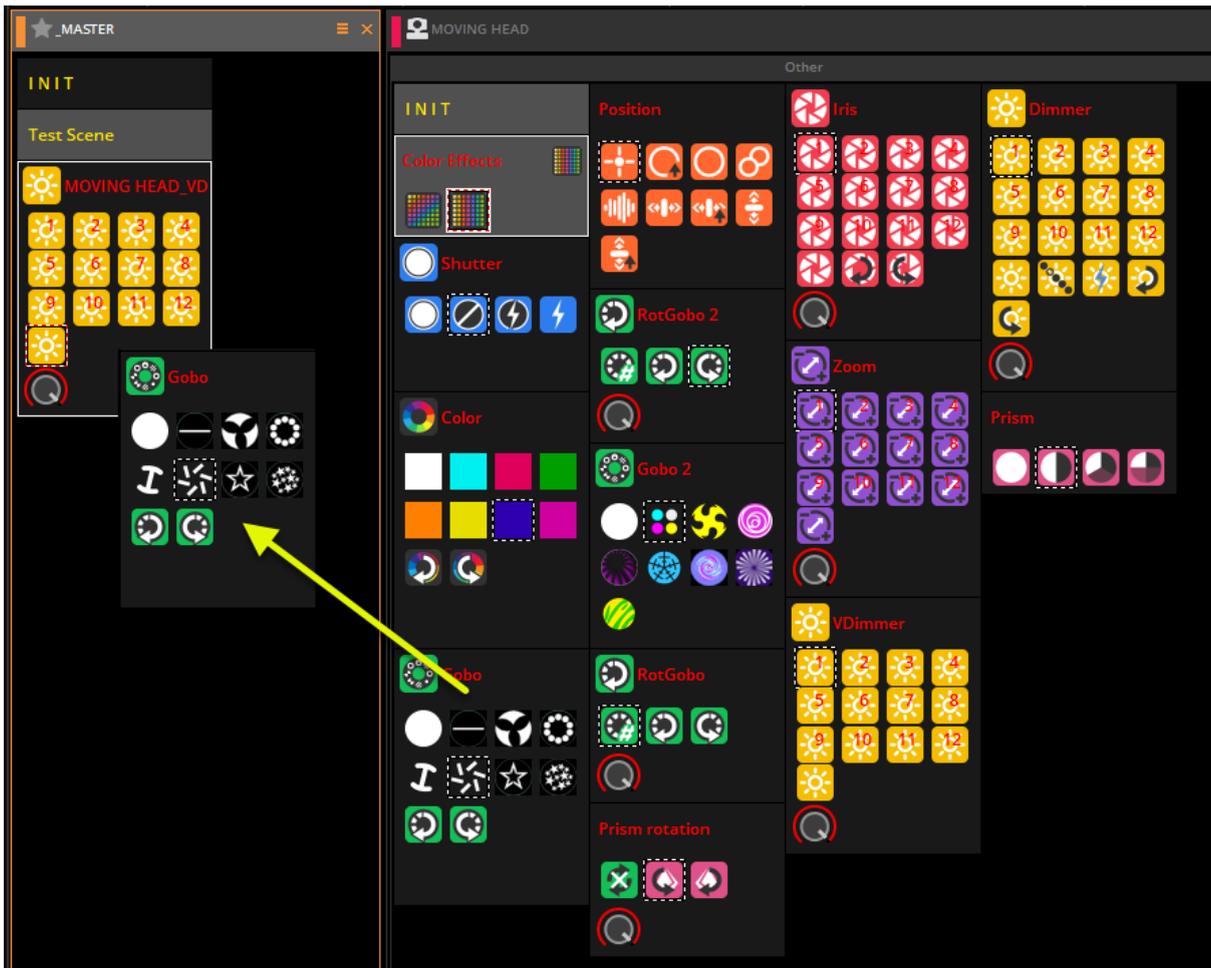


Dragging a fixture on top of another will copy all editor data including dimmer, EasyTime and EasyStep.



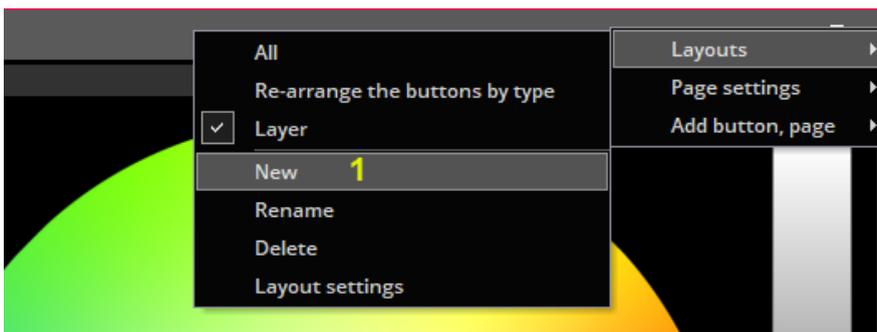
Arranging Buttons

Buttons can be arranged in a variety of different ways. Ctrl+right click and drag a button to manually change its position.

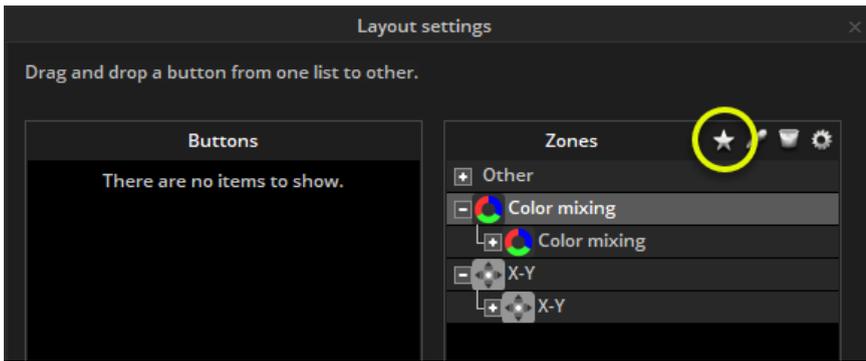


Custom Layouts

Custom layouts can be created here (1).



Click here to create a new zone for your layout, then simply drag your buttons into the relevant zone. Click the settings button if you want to embed a color mixing wheel or XY grid inside the zone.

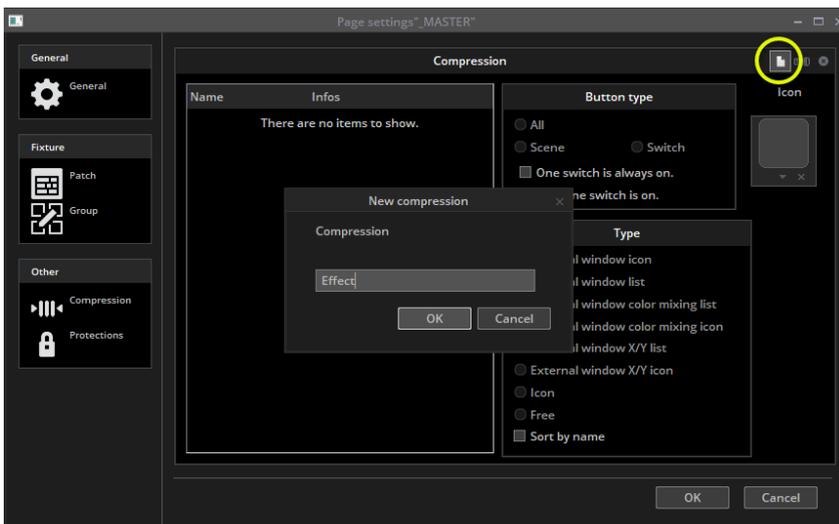


Compression

Common switches can be compressed into one button. For example all the gobo switches are grouped into one switch button like the example shown below.



To create a compression, make sure the Scenes or Switches you want to compress are named with a common prefix. In the example below we have 4 scenes which start with the prefix "Effect".



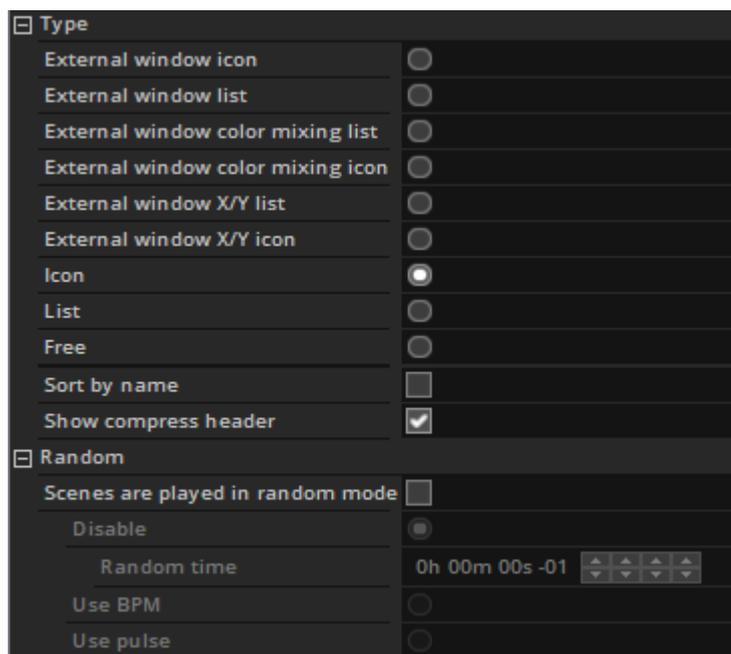
Several different compression types can be created.

- External window icon: a dialog pops up with the button icons
- External window list: a dialog pops up with a list of the buttons

- External window color mixing list: a dialog pops up with a list of the buttons and a color mixing wheel
- External window color mixing icon: a dialog pops up with the buttons icons and a color mixing wheel
- External window X/Y list: a dialog pops up with a list of the buttons and an X/Y grid
- External window X/Y icon: a dialog pops up with the buttons icons and an X/Y grid
- Icon: the default compression type whereby the icons are embedded within a section inside the page
- List :
- Free : it's like normal button but buttons respond to compress properties

Other options include:

- One Switch is always on: a minimum of one Switch will always be activated inside the compression
- Only one Switch is on: only one single Switch can be activated at a time within the compression
- Sort by name: the Switches inside the compression will automatically be sorted into alphabetical order
- Show the Compression name in header
- Random : start random button in compression every x time, BPM or music pulse

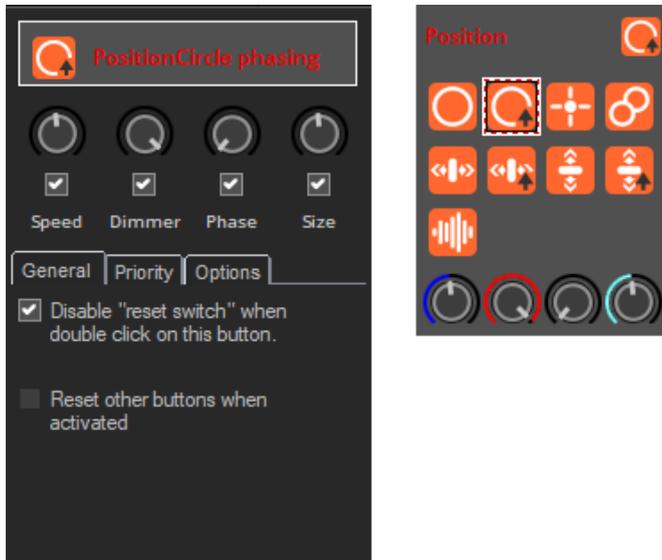


Button Speed, Dimmer, Size, Phasing

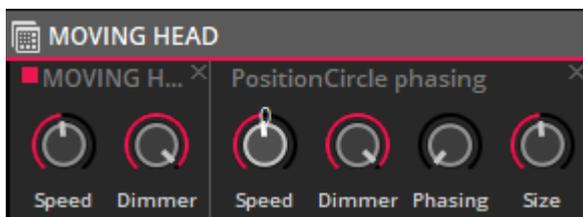
The dimmer, speed, size and phasing of a button can be changed by shift+right clicking a button and selecting "Show Faders:" from the menu, or by shift+clicking on the button and selecting one of the dials.

- Speed: Changes the speed of an EasyTime or EasyStep sequence

- Dimmer: Fades any channels with the dimmer or dimmer min/max property assigned. Dimmer and Color mixing channels are also adjusted unless they are set to OFF
- Phasing: Takes an EasyTime sequence and starts it at a later point in the sequence for each fixture
- Size: Takes a pan/tilt effect and changes the size

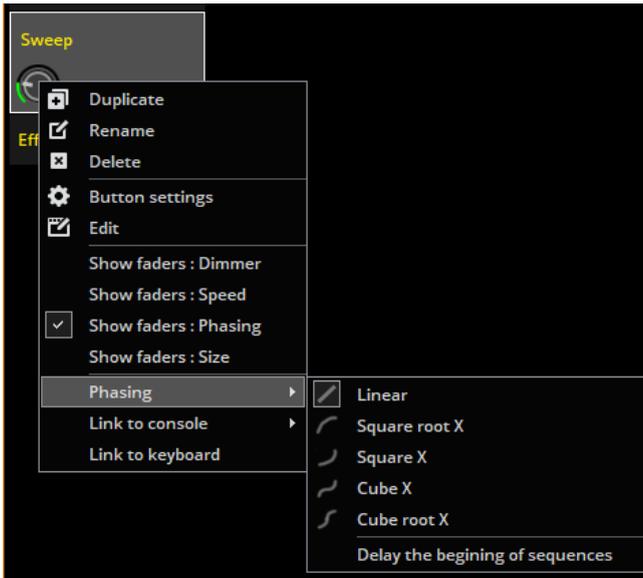


Speed, Dimmer, Size and Phasing dials can also be accessed at the top of the fixture page. Page dimmer and speed dials can be accessed to the left.



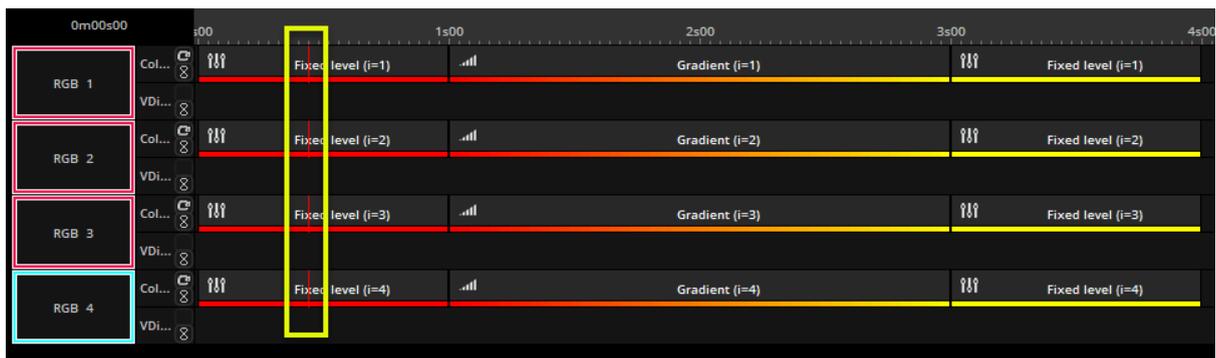
Advanced Phasing

Shift+right click a Switch phasing dial to view the advanced phasing menu. Here we can determine how the software will apply phasing a Switch.



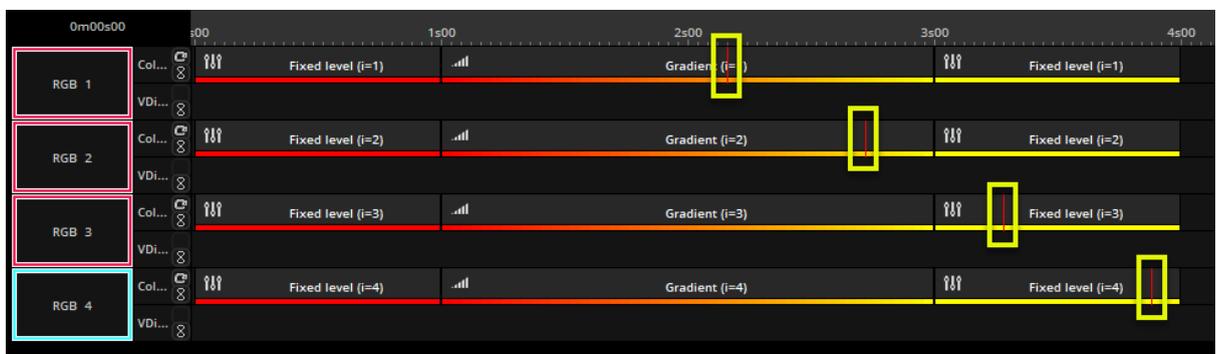
No Phasing

When no phasing is applied, the example sequence here fades from red to yellow.



Linear Phasing

When phasing is added, the sequence starts at a later point for each fixture. As the phasing dial is increased, the time between each of the fixtures starting points increases.

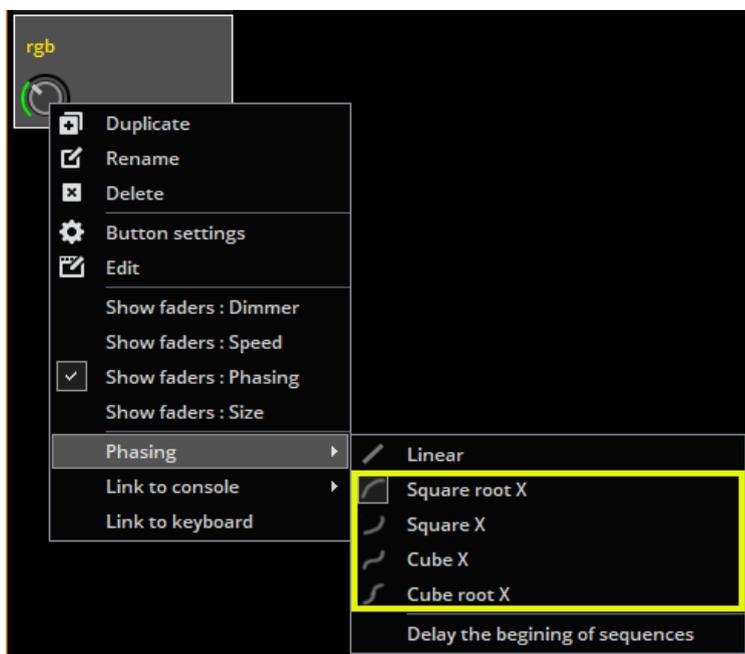


Non-Linear Phasing

When linear phasing is applied, the difference between each of the fixtures starting time is the same.

There are 4 different non-linear phasing types available. With non-linear phasing, the difference between each of the fixtures starting times changes. The difference between each of the fixtures starting time gets shorter. This can be used to great effect to produce a sequence which looks like an object falling for example.

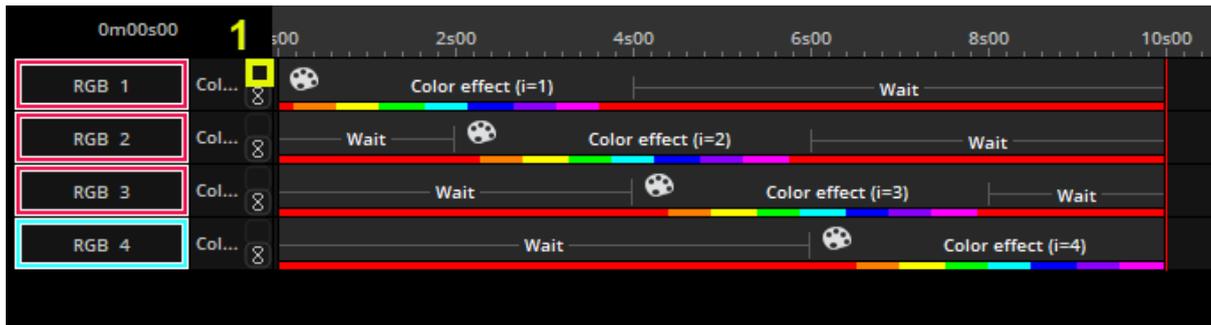
Cube root x can often be used to create wave and rippling effects.



Delayed Phasing

When "Delay the beginning of sequences" is selected, the phasing is linear, however instead of changing the starting point of the sequence for each fixture, it holds the first step of the sequence and adds a delay. This is very useful for creating color sweeps!

Note: "Looping" must be switched off (1) for this type of phasing to work because the last frame of each timeline is frozen to compensate for the delay at the beginning.



Switch Behaviour

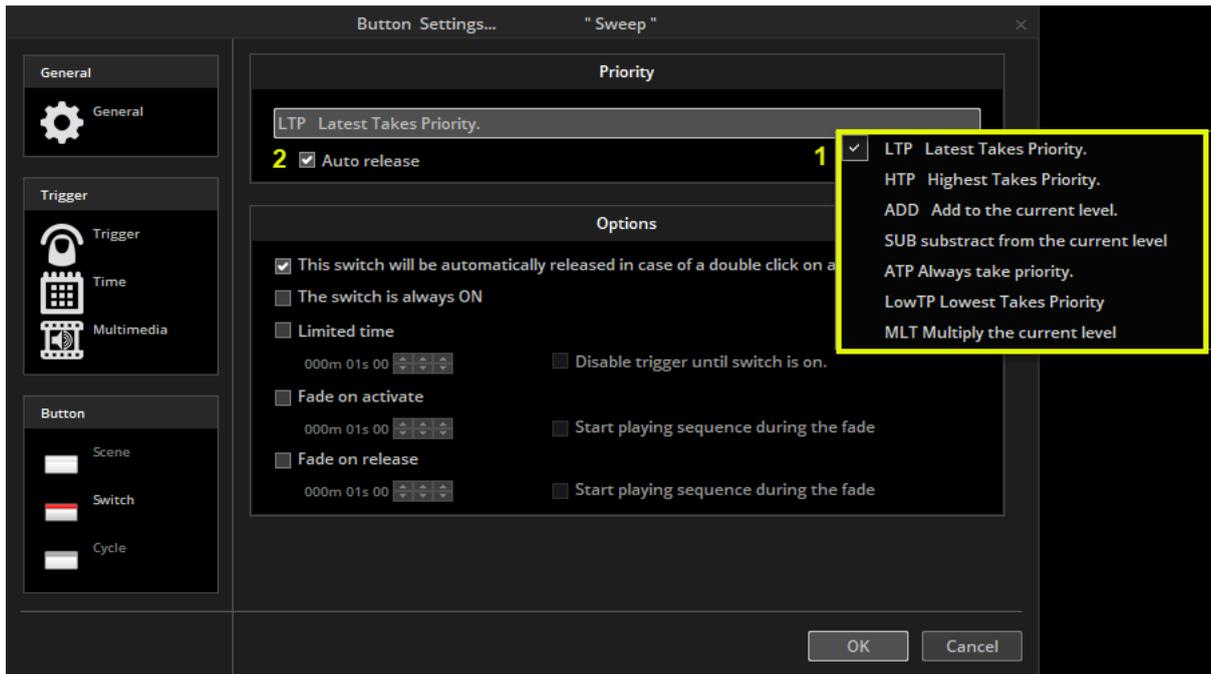
Priority

Usually a Switch should control a single channel type, with Scenes being left to control a combination of different channels. However, sometimes it's necessary to combine different channels inside of a single Switch, or to activate several Switches which use the same channels. By default, the value of a channel set inside a Switch overrides the existing value of the channel. However this can be changed within the *Button Settings* window.

The following options are available :

- Latest Takes Priority (LTP): the value will override the existing value. If all the channels used in the Switch are the same as the channels used in other Switches, the other Switches will be released.
- Highest Takes Priority (HTP): if the value is higher than the existing value, it will be sent. Otherwise, it will be ignored.
- Add to the current level (ADD): the value will be added to the existing value.
- Subtract from the current level (SUB): The value will be subtracted from the existing value.
- Always Take Priority (ATP): the value will always override the existing value, even if it's changed afterwards by another Switch (unless the other Switch is also set to ATP)
- Lowest Takes Priority (LowTP): if the value is lower than the existing value, it will be sent. Otherwise, it will be ignored.
- Multiply the current level (MLT): the % of the value will be multiplied by the existing value. This is useful for creating submaster dimmers.

The *Auto Release* option will release the Switch automatically if all channels are being used by other Switches and the other switches are set to LTP.



Other Options

Several other options are available in the Switch Button Settings window to set Switch triggering priority and fading options:

- This switch will automatically be released in case of a double click on another one: does what it says!
- The switch is always ON: the Switch will always remain on regardless of what else is triggered or double clicked
- Limited time: the Switch will turn off after the specified period
 - Disable trigger until Switch is on: This will stop a switch being re-triggered, if it has 1) been activated by a Port Trigger and 2) has not yet been released by the Limited Time setting. Useful to stop a switch being retriggered by an external sensor or button while playing. You can set a Port trigger for a button on the Button Settings > Trigger screen. See the section on 'Interface Ports' for more information.
 - Fade on activate: The values within the Switch will be gradually faded from their currently set values over the specified period
 - Start playing the sequence during the fade: if the Switch contains a dynamic EasyStep or EasyTime sequence. The sequence will begin to play as soon as the Switch is activated. If unchecked, the Scene will pause on the first frame until the fade is complete.
- Fade on release: as above but when the switch is released

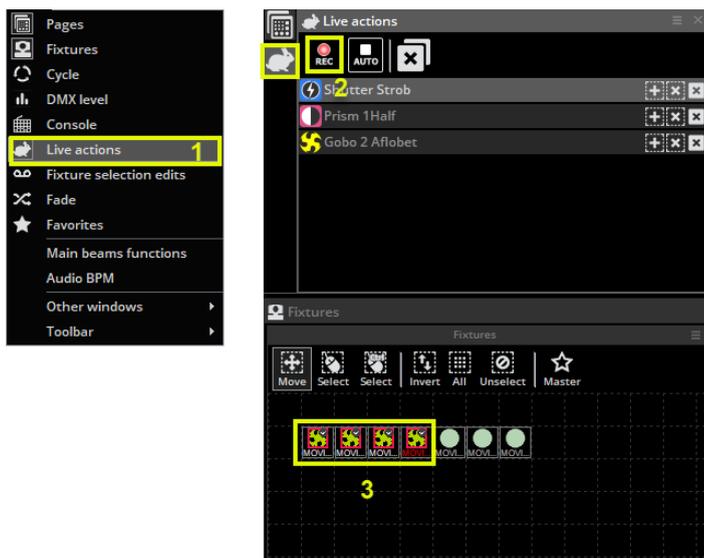
Live Control

Live Fixtures

When the automatically generated Scenes and Switches are selected, all the fixtures on the page respond to the button presses. Using the Live Fixture view (located in the View Menu), it is possible to have independent control of the fixtures without the need to edit the active Scene or Switch.

- From the menu, open View > Live Actions (1)
- Click REC (2)
- Select the fixture(s) you wish to control in the Fixtures Window (3)
- Press Scenes and Switches buttons. These actions are recorded to only the selected fixtures which will display a tick (3). The selected fixtures will continue to be controlled by the Live view window even after recording has stopped.

Note: Pressing the AUTO button (2) makes the record button release after a Scene or Switch has been pressed.



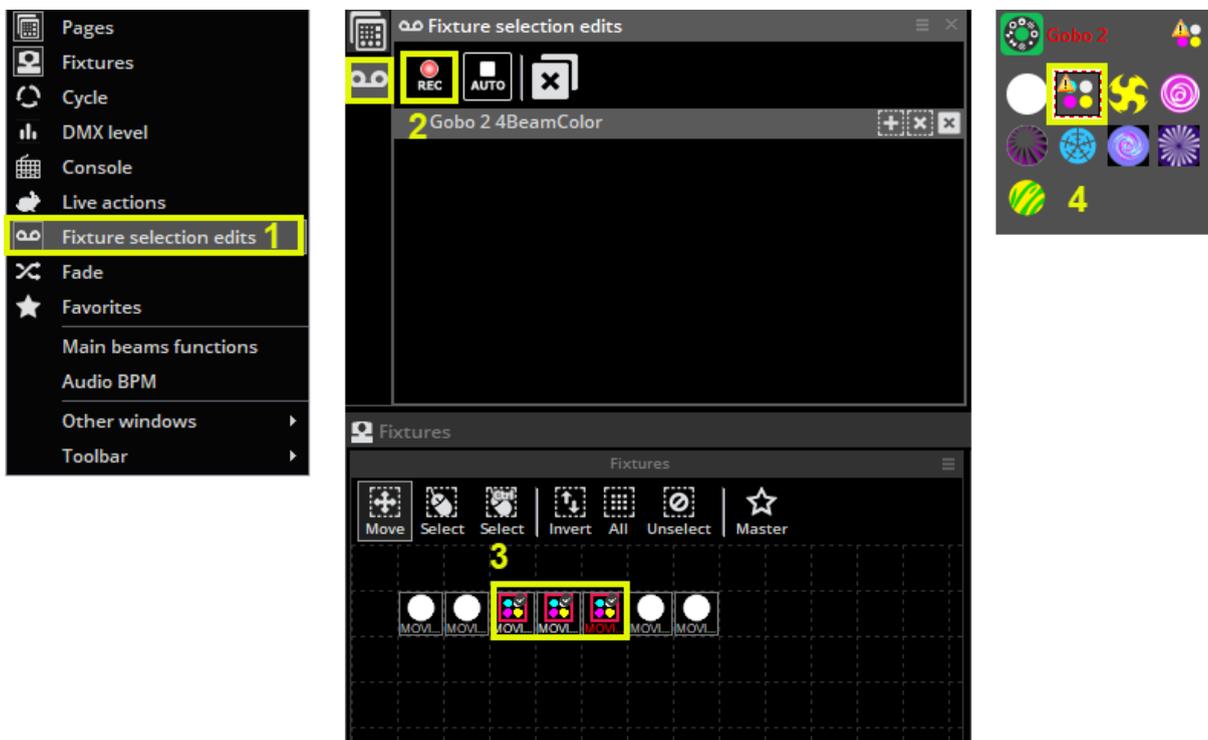
When fixtures are controlled live, you will see a list of edits. Fixtures can be added (4) or removed (5) from the edit on the list. An edit can be removed using the “X” at the end of the row. To remove all the edits, click the larger “X” at the top of the view (6).

You can think of Live Fixtures as a layer on top of the regular Scenes and Switches that only affect selected fixtures. With REC deselected, you can continue to control your other fixtures without affecting the Live Fixture edits layered on top.

Fixtures Selection Edits

Using Fixture Selection Edits, it is possible to have independent control of the fixtures without the need to edit the active Scene or Switch. The key difference from *Live Fixtures* is that the edits are stored inside a Scene or Switch button. Whenever you select the Scene or Switch button, only the selected fixtures will be affected.

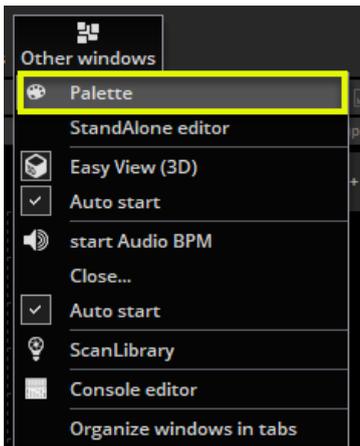
- From the menu, open View > *Fixture Selection Edits* (1)
- Click REC (2)
- Select the fixture(s) you wish to control in the Fixtures Window (3)
- Press Scenes and Switches buttons (e.g. Gobo) (4). These actions are recorded to only the selected fixtures and stored inside the button. You will see a warning triangle appear to show that Fixture Selection Edits are active on the button.



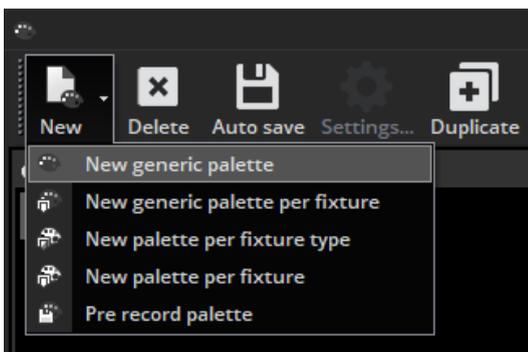
Note: If you open a Switch or Scene button in the button editor window you will not see any changes to the channels from the Fixture Selection Editors.

Palettes

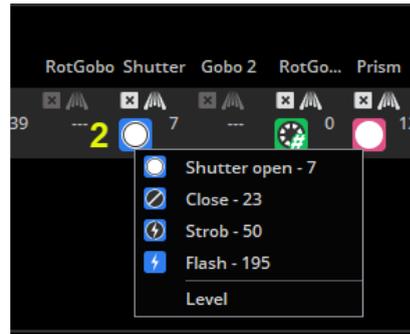
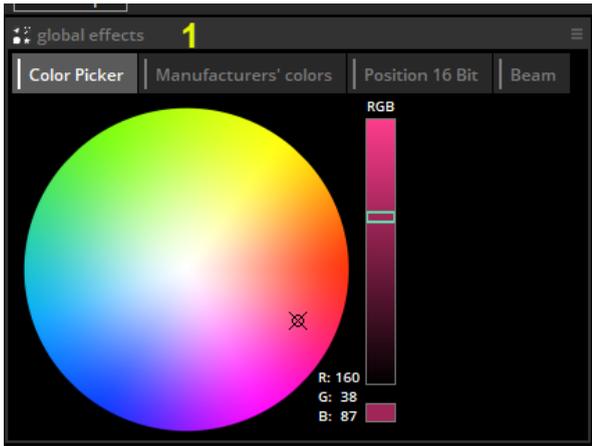
Palettes are very powerful when programming lighting. Imagine you are on a tour and you get to a different venue and realize you need to move your drums 2 meters backwards, you now have to change each of your Scenes. This can be time consuming! With Sunlite Suite 3, we can set up Palettes. These can be useful if you need to update a set of Scenes at once. The Palettes window is found under the *Other windows* Menu.



New Palettes can be created here. If you want to create a preset palette such as a gobo or a color wheel color select “New Palette per fixture”. If you want to create a palette with a variable preset such as pan/tilt, a color mixing color, a dimmer, iris or zoom preset you will need to select “New Generic Palette Per Fixture”. See the next topic, *Palette Types (advanced)*, for more information.



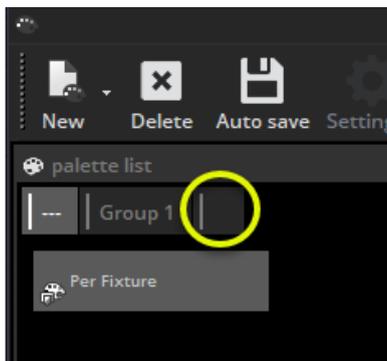
Use the global effects panel(1) to adjust your fixtures or right click and select a preset a preset tab below(2) (not available when using Generic Palettes). Hold shift to assign the same preset to all selected fixtures.



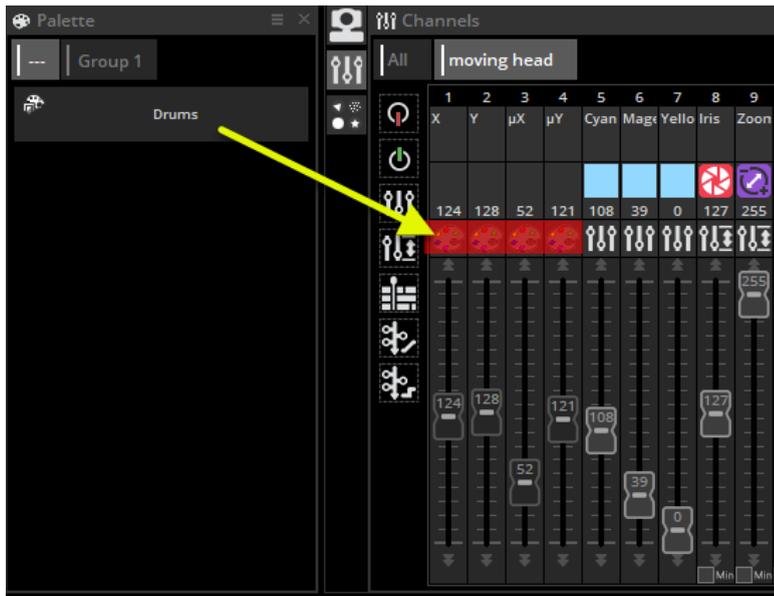
To delete a preset from a palette, click the “X”



New Palette groups can be created here.

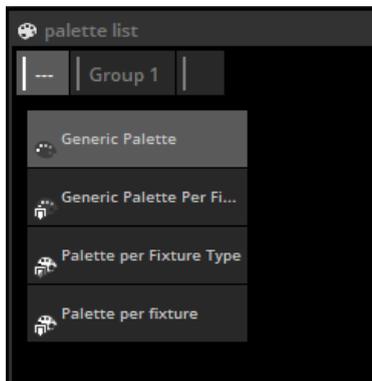


Palettes can be applied to scenes within the button editor. Drag the palette onto the desired channel and hold ctrl to select multiple channels. Palettes can also be dragged directly onto a fixture, an EasyStep step or an EasyTime constant level block. For information on how to use a palette inside a dynamic effect, see the advanced palettes topic.



Palette Types (advanced)

The previous topic described how to create a palette and assign it to a scene. This topic will explain the various palette types.



Standard and Generic Palettes

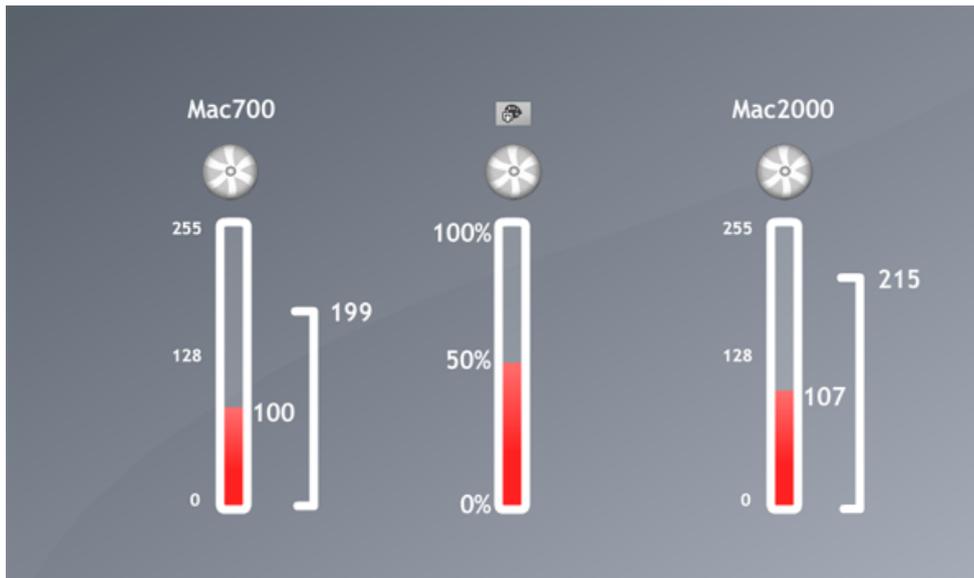
There are two types of palettes, a **Standard** palette and a **Generic** palette.

The *standard* palette saves a DMX value, for example DMX value 251 on the gobo channel. A *generic* palette saves the property of a preset, for example dimmer 50% or Zoom 20 degrees. Standard palettes are useful if you want to send the same DMX value to all selected fixtures, or call a particular preset such as "Gobo Holes". Generic palettes are useful if you need to save a variable length preset such as dimmer, iris, focus or zoom amongst different types of fixtures. If the fixture profile has been set up correctly, this is very useful for matching up properties between lighting fixtures. For example, imagine you have 2 moving heads with a different zoom range. You can quickly set the zoom to 20 degrees and the software will translate this to the appropriate DMX value so that both the beams look the same.

Generic Palette Example

Imagine we want to use some Martin Mac 700's and Mac 2000's. The range of their iris sizes are different.

In this case, we create a generic palette with 50% value and the software will output whatever DMX value is 50% of the iris size. The DMX value 100 will be sent to the Mac 700 and the value 107 will be sent to the Mac 2000.



Generic Palette Example 2

Imagine that you want to create some dimmer palettes. Dimmer palettes can be useful as the light output can look different depending on the size of the venue and the other lights you are using.

Let's say you want to set 75% intensity, however, some of your fixtures have inverted dimmers. In this case you just need to create a generic palette for the dimmer and set the intensity to 75%. It won't matter which brand of fixture you insert, what channel or range the dimmer is, whether it is inverted or not. The software will send the corresponding DMX value to make sure the brightness of the light is 75%.

Palette Per Fixture and Per Fixture Type

Standard palettes can be created per fixture or per fixture type. Palettes per fixture type can be included inside EasyTime effects, however palettes per fixture cannot. This is because, when an EasyTime effect is built it does not ask for information about each individual fixture, it simply asks for the amount of fixtures and the individual properties of the fixture type. From this, the effect is generated.

For example, let's say we want to use a color palette inside a rainbow effect. If we were to take a palette per fixture, the color of each fixture could be different, so the effect would not know which color to take to generate the rainbow.

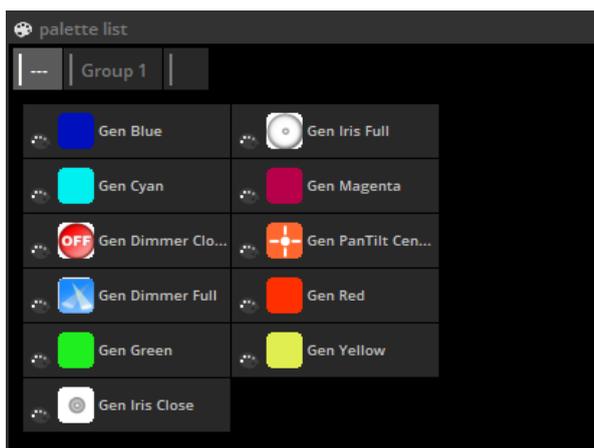
Palettes per fixture type can also be useful in circumstances where the amount of fixtures changes. Let's say we have 2 different fixture types with the same gobos but in a different order. We could create a set of gobo palettes so we only have to click one button to access the same gobo from both fixtures. If we had a palette per fixture, we would have to create the palette for each individual fixture. If we added more fixtures at a later date, these would then have to be updated. If we create the palette per fixture type, then we can add as many fixtures as and when we want without the need to think about the palette!

Generic Palettes

Generic palettes are primarily used for colors. They can be applied to any fixture and also any fixture type. For example, if you create a generic palette with the color "fire red" (picked from the color wheel), this palette can be used on any CMY or RGB fixture to turn the color "fire red". If you are creating a matrix effect on a *Rect*, you must use a generic palette. This is because *Rects* can cross several fixture types, they only know how to create colors, they know nothing about the properties or type of fixture it's being applied to. If you have a palette per fixture type with 2 colors stored on 2 different types of fixture, the *Rect* would not know which color to take to generate the effect.

Pre-Recorded Palettes

Pre-Recorded palettes are put together by the software depending on which fixtures you are using.



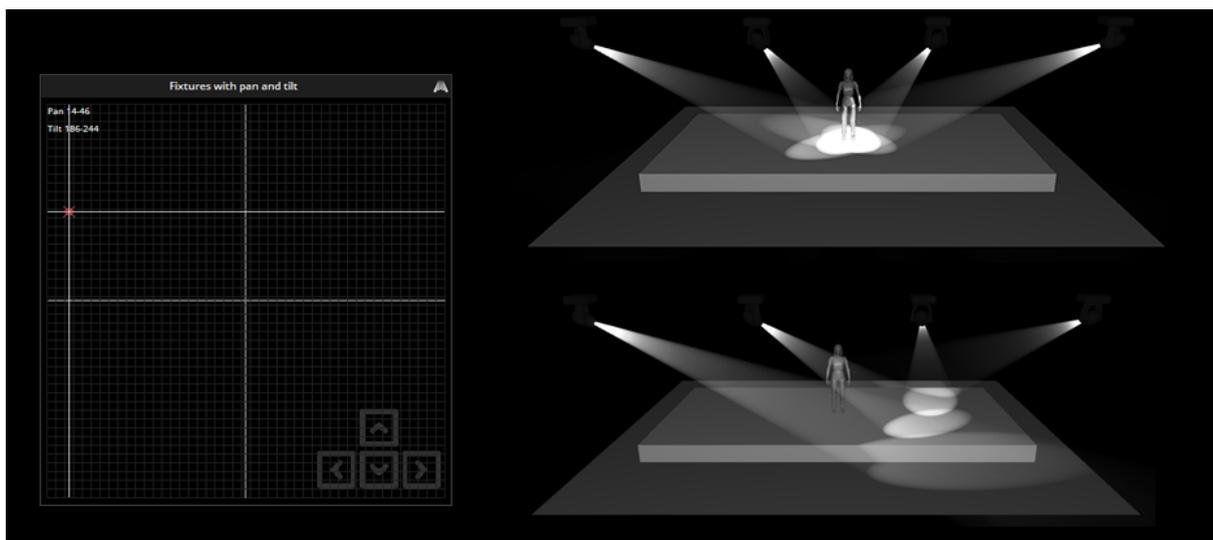
Followspot

What is a followspot?

A followspot is typically a powerful spotlight which lights up a performer on a stage. As the performer moves around the stage, the spot will follow ensuring there is always a good light coverage over the performer so that they stand out from everything else that's happening on stage.

The problem with the followspot is that shadows are created around the performer and the light is not always evenly dispersed around the performer. For example, when the performer is at the side of the stage, the light may only cover one half of their body. The solution is to use 2 or more followspots. Using multiple spots on the performer can look great, however this requires multiple operators.

Using the XY grid, you can position a selection of lighting fixtures so that the beam points in the same place, by holding **ctl** and moving one of the points, the others will follow relatively. This works well in a small area, however the beams quickly become out of sync.

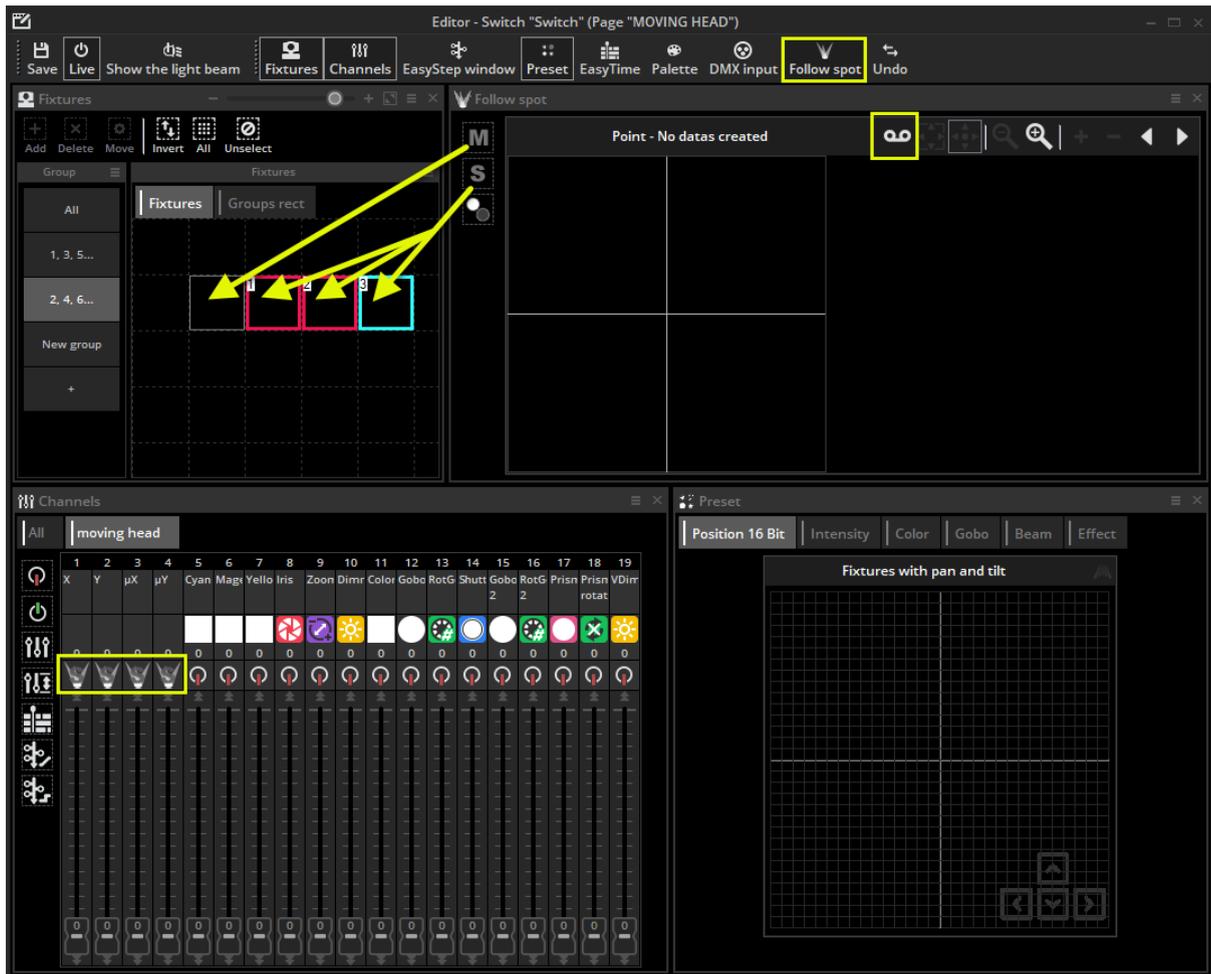


Setting up the Followspot

The followspot tool allows you to calibrate a set of points on the stage. Once the points have been calibrated, all slave fixtures will perfectly follow the master feature.

To set up the followspot:

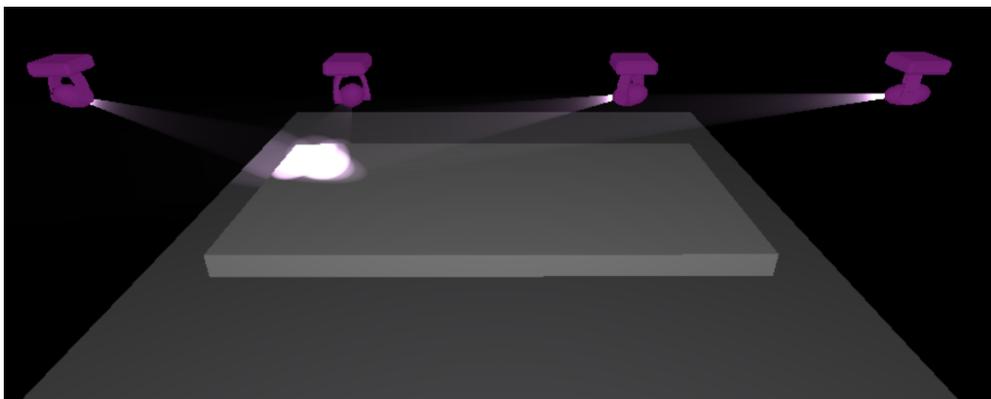
- Create a Switch (the followspot only works with Switches) and call it 'Followspot'
- Click 'OK and Edit' and open the followspot tool
- Drag the 'M' onto the master fixture and the 'S' onto the slave fixtures.
- Click record to begin calibrating the points



Calibrating the Points

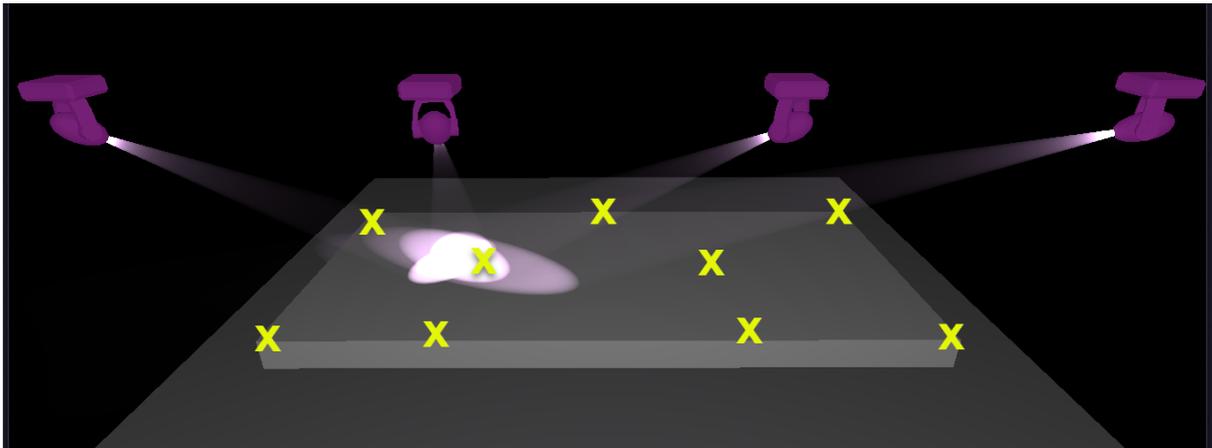
Move the master beam to the corner of the area you want to calibrate. This can be done using the faders or the XY grid. Use the arrows on the keyboard to finely adjust the point. You can change the mouse and keyboard precision by right clicking on the grid. It is best to use a small iris size like in the example for an accurate calibration.

Once the master beam has been set, move the slave beams to the same point ensuring they are all in the same quadrant of the XY grid as it's usually possible to set the same position with 2 different XY values.



Click the + button to add a new calibration point, and move the master and slave fixtures to the center top of the stage. A quick way to do this is to select all fixtures and hold ctl whilst moving the point on the XY grid, this way all fixtures stay close and you can perfect the calibration using the arrow keys.

The number of calibration points required depends on the positioning of the lighting fixtures and the size of the area you want to cover. In the example below, there are 9 calibrated points. Generally, the closer to the X axis you get, the more points you'll need to calibrate.



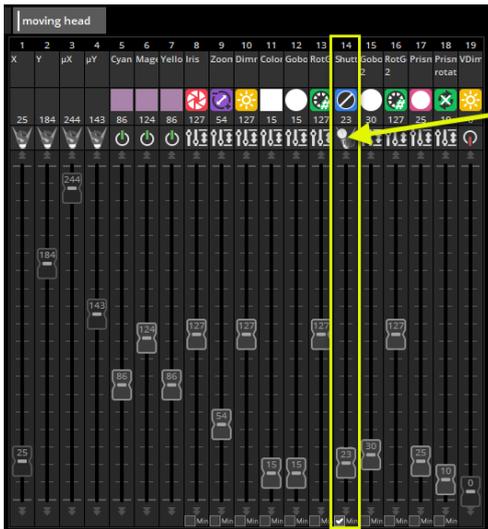
As you build your followspot, you'll notice a followspot area will be created. This highlighted area shows where the lighting fixtures will be synchronized.

The followspot toolbar functions include:

- Record(1): When this button is pressed, all pan and tilt movements will be recorded. If you want to test your followspot, release this button and move the master fixture
- Move area(2): when zoomed in, dragging in the followspot window will move the visible area
- Move point(3): dragging in the followspot window will move the point
- Zoom in/out
- Add point: adds a new calibration point
- Remove point: removes a calibration point
- Arrows: moves between each calibrated point

The 3rd button on the left(4) allows you to close the shutter of a lighting fixture when it's positioned outside the calibrated area. To set this up:

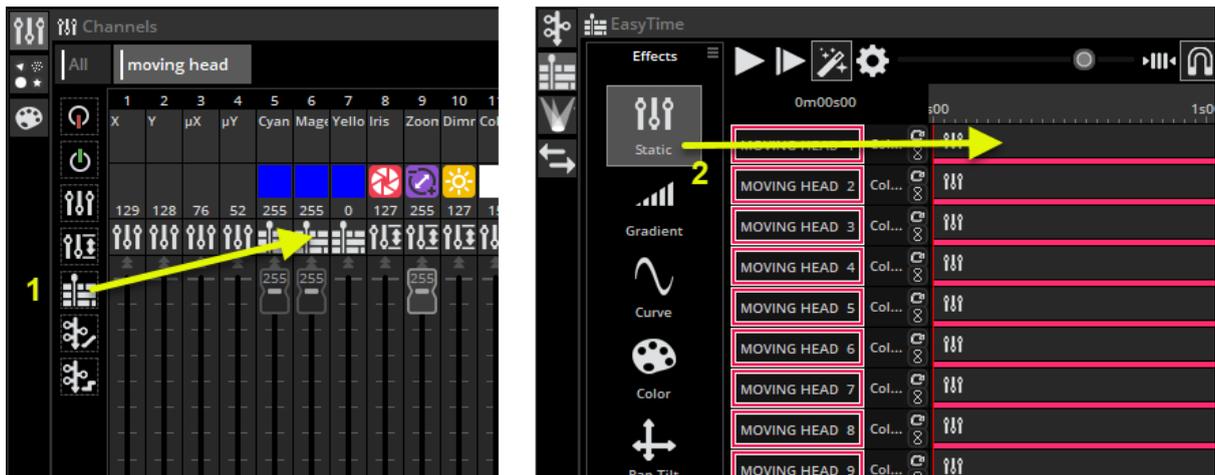
- Drag and drop this icon onto the shutter channel
- Set the fader so that the shutter is open
- Click the 'min' checkbox at the bottom of the fader
- Set the fader so that the shutter is off



Once the editor has been closed and saved, all slave fixtures will follow the master fixture as long as the switch is activated. The switch works in 'Always take priority' mode to override any pan/tilt values on slave fixtures.

EasyTime Effects

To use the EasyTime effects, first make sure that you have selected the relevant fixtures and have assigned the EasyTime mode to the channels you want to control (1). To assign an effect to your channels, drag it from the effects panel onto an empty space on the timeline (2).

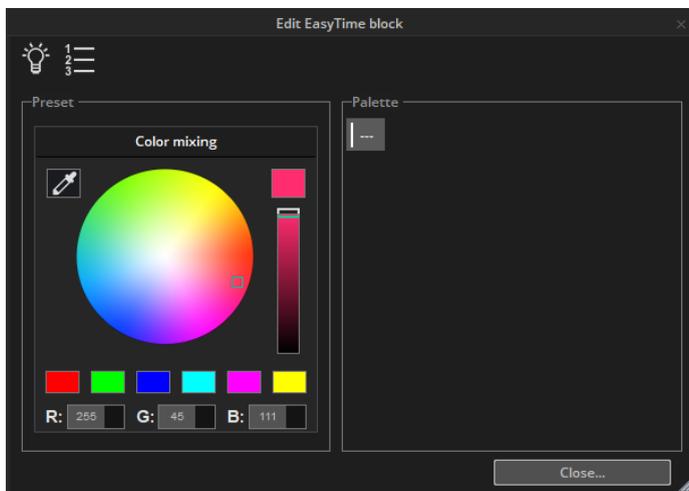


Static

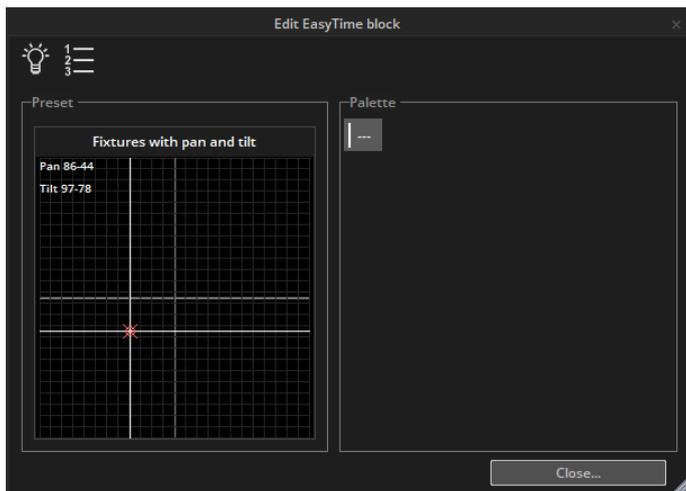
Static Effect

Static is the most basic effect. Depending on which type of channel you drag the effect onto, a different set of options will be available.

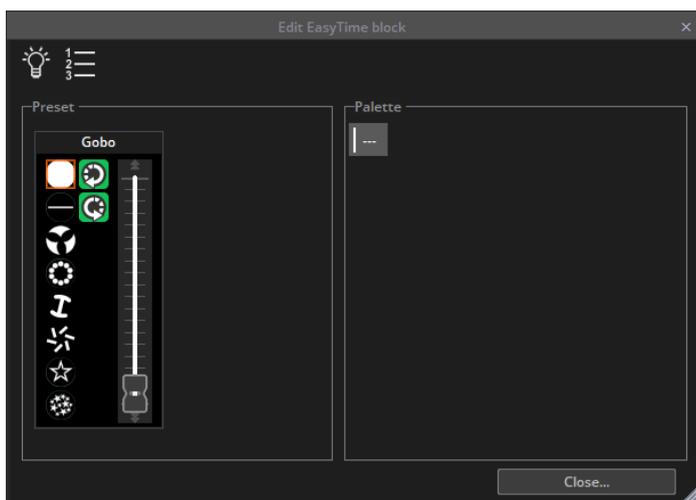
If the static effect is dragged onto color mixing channels (e.g. rgb, rgbw, cmy) the color wheel tools will appear on the left. If you have created a color Palette using the Palettes window these will appear on the right.



Drag a static effect onto a pan/tilt channel of a moving fixture and you can modify the position by dragging on the X/Y grid, or by choosing a palette if one has been created.



If an effect is dragged onto a gobo, color wheel, iris or dimmer channel, you can select from one of the channel presets.

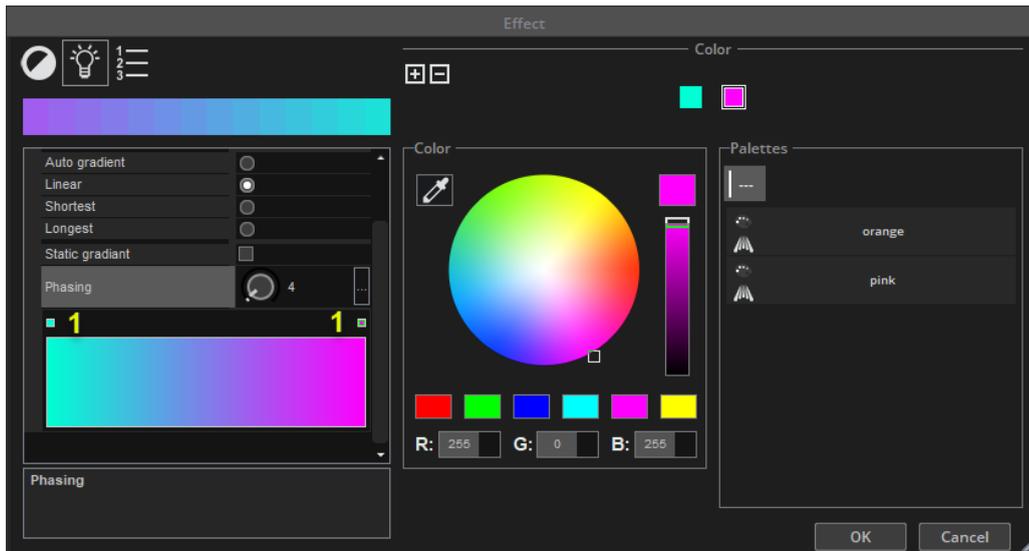


Gradient

Gradient Effect

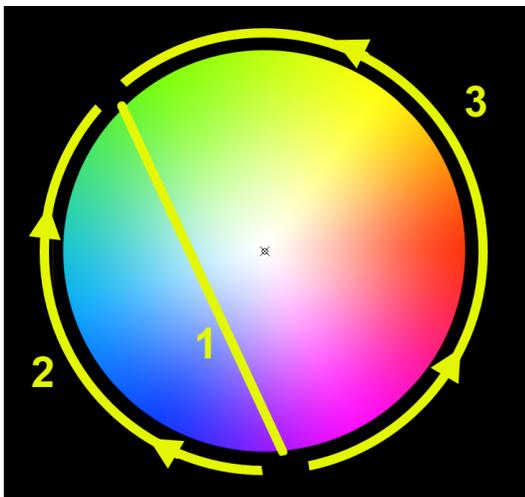
The gradient effect works in the same way as the static effect, however it allows you fade between DMX values (colors, positions..)

Start and end colors can be changed by selecting here (1). Colors can be added by double clicking inside the gradient.



The gradient type can be changed:

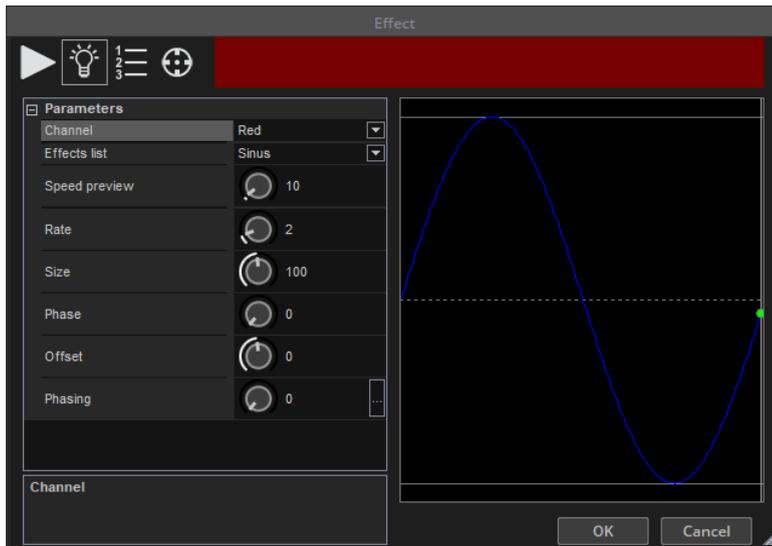
- Auto gradient: Automatically fades between the blocks before and after the effect
- Linear(1): Fades between 2 points on the color wheel (there will be a dip in the brightness as the marker passes through the center of the wheel)
- Shortest(2): Fades around the color wheel in the shortest direction
- Longest(3): Fades around the color wheel in the longest direction. This is useful when creating rainbow effects all around the color wheel by setting the start and end colors as the same.



Curve

Curve Effect

With the curves effect, basic mathematical formulas can be used to adjust a channel. In this example, the red color level is being adjusted with a sinus wave.



Parameters:

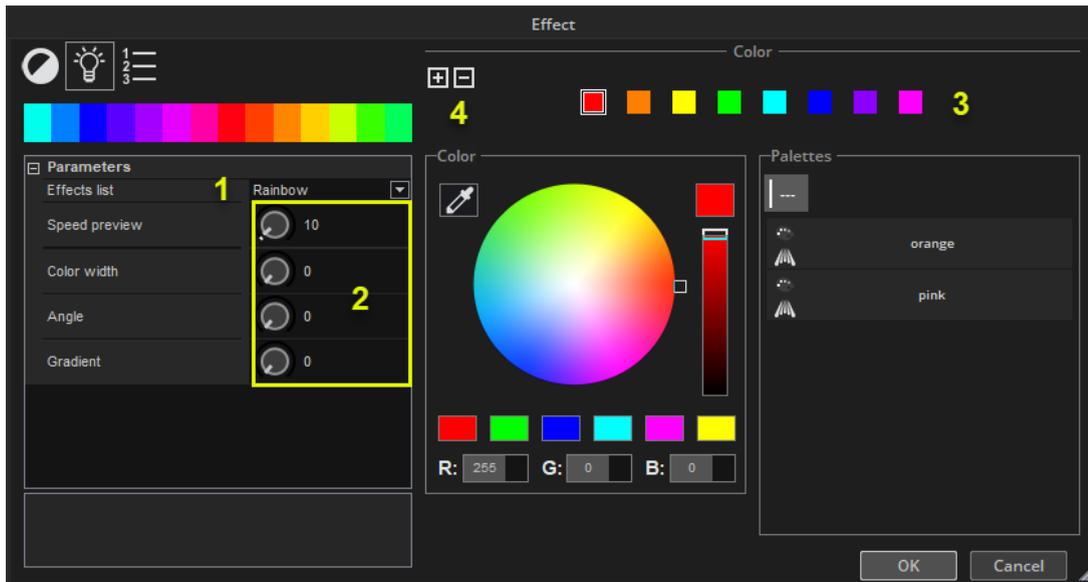
- Channel : Select the red, blue or green channel for your curve effect. By activating curve effects on multiple channels you can mix any color.
- Effects list: Different curve types can be selected here.
- Speed Preview: Adjust the speed of the preview shown in the area at the top.
- Rate : Change the frequency of the wave by adjusting the ratio. This will speed up your pattern.
- Size : Used to stretch the wave, changing the amplitude.
- Phase : Move the wave backwards and forwards.
- Offset : Move the wave up or down
- Phasing : This parameter moves each fixture to a different point along the curve by giving each a different phase. Remember that for phasing to work, you must have multiple fixtures and the software must be told in which order your fixtures are positioned. For more information on phasing, see the EasyTime Phasing topic.

Color

Color Effect

The color mixing effects tool does exactly this. It mixes colors together to create fantastic looking effects very quickly.

- Select a color effect type(1)
- Change the parameters of the effect. (2) The parameters change depending on the effect selected.
- To change the color, simply select the color and drag around the color wheel(3)
- To change the number of colors, use the + and - buttons (4)

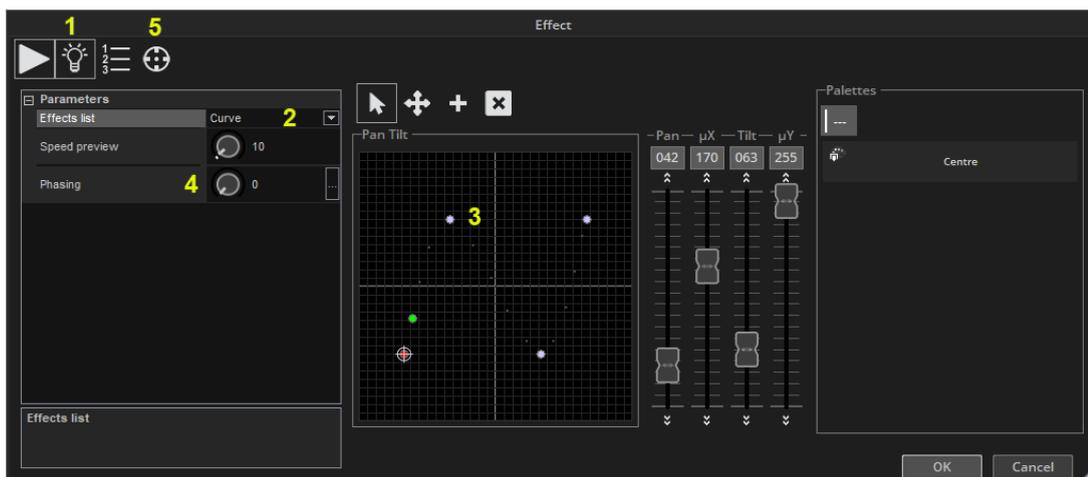


Pan Tilt

Pan Tilt effect

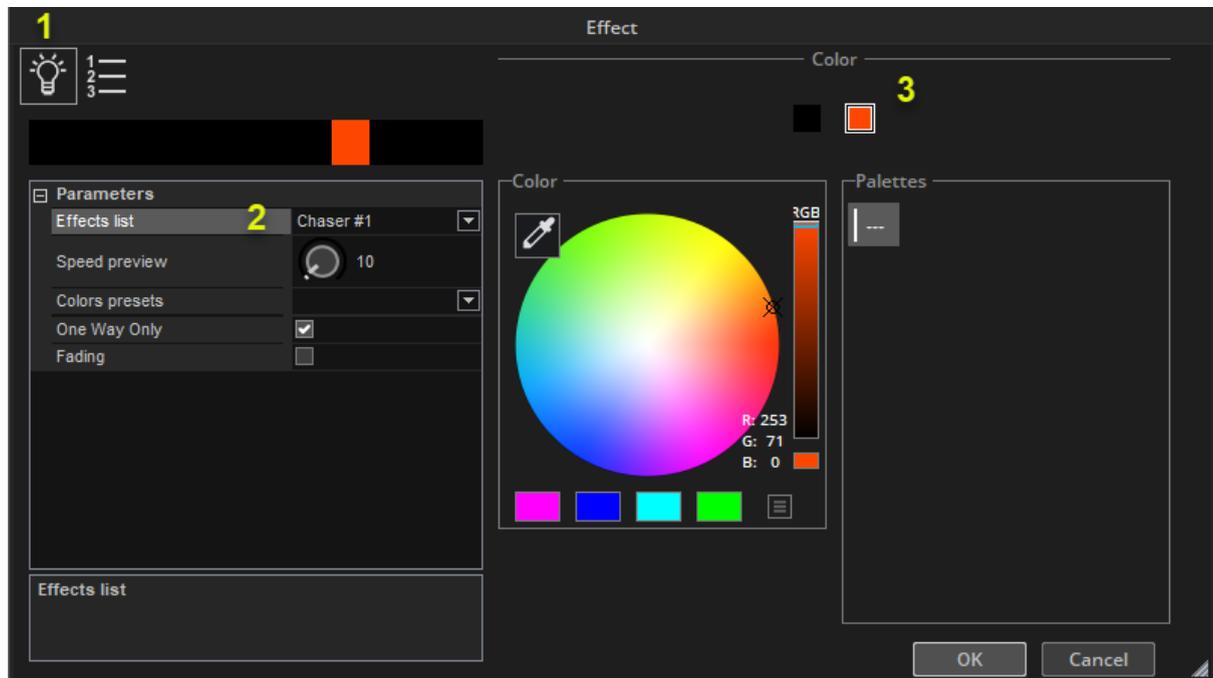
This effect is to be used on any pan or tilt channels of a fixture. It allows you to quickly and easily create moving patterns.

- Click here (1) to switch the light beam on. This will not be saved as part of the effect but it will allow you to see your fixtures as you adjust the position
- Select the shape you wish to create here(2)
- Alter the shape of the circle by dragging the points(3)
- Phasing can be added here(4)
- Set the centre point using a Palette (5)



Chaser

Easy create chasers with this effect, giving the illusion of lights moving along a line.

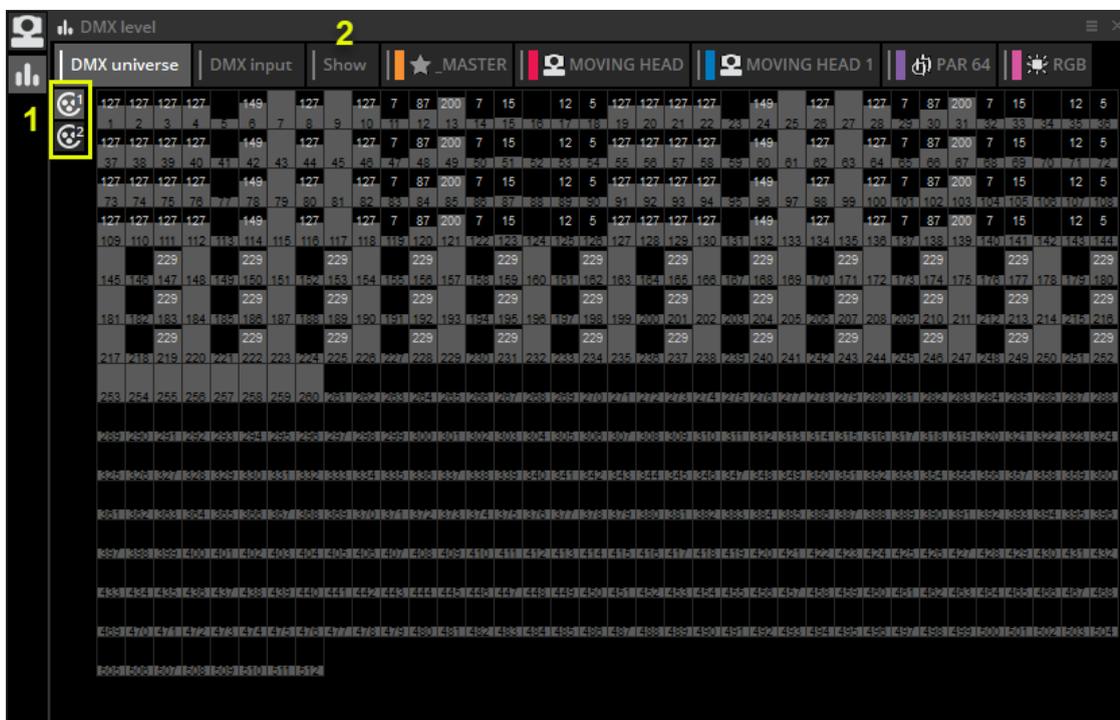


- Click the light bulb (1) to switch the light beam on. This will not be saved as part of the effect but it will allow you to see your fixtures as you adjust the position.
- Select the chaser effect type (2) and parameters
- Select and change the colors used by the effect (3)

Fixture Management

DMX Level

The DMX Level view displays the final DMX output for all the channels in your current show. It is divided by universe on the top left(1). In addition to the DMX output, DMX input can be viewed. The *Show* tab (2) displays the beam state of all the fixtures in the show. Tabs are available along the top to filter the DMX output view for a selected page. The view can be customised by clicking on *Settings*, available from the top left menu. From here you can change the color, fonts, and which images are shown.

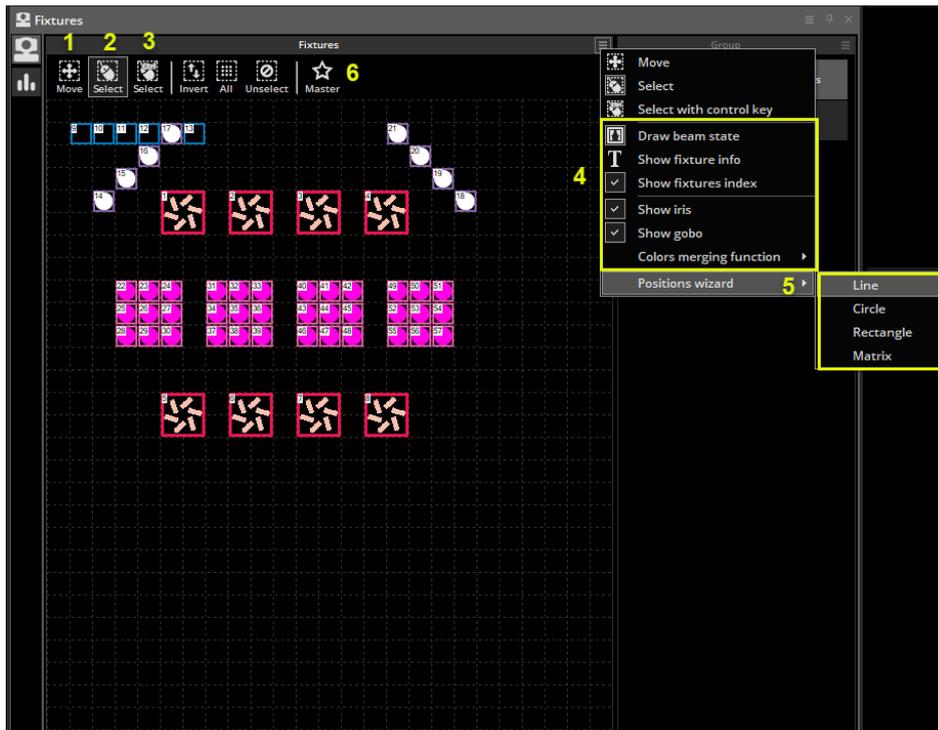


Fixtures

The Fixtures view allows for fixtures to be arranged and grouped for quick selection. It also shows the real-time state of the color and gobo.

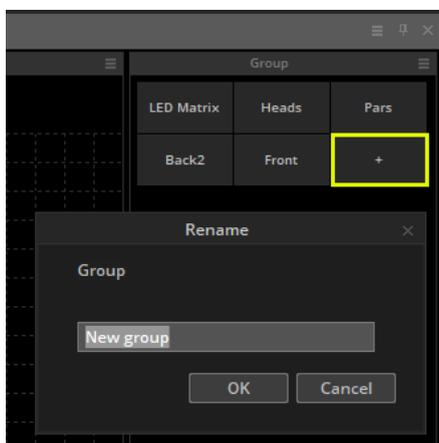
1. Fixtures can be moved by selecting the move tool (1) and then dragging.
2. There are 2 selection modes.
 - a. Select (2) : every new fixture clicked will be added to your existing selection. Useful if using a tablet without a CTRL key.

- b. Select with control key (3) : To select multiple fixtures you must hold down the CTRL key while selecting. Without CTRL, your previous selection will be deselected.
3. Fixture display options can be changed by clicking here (4).
4. Moving each fixture can be time consuming when using large amounts of fixtures. Click here (5) to position your fixtures into a shape.
5. A different fixture view will appear depending on the selected page. To always show the fixtures included on the master page regardless of the select page, click here (6).



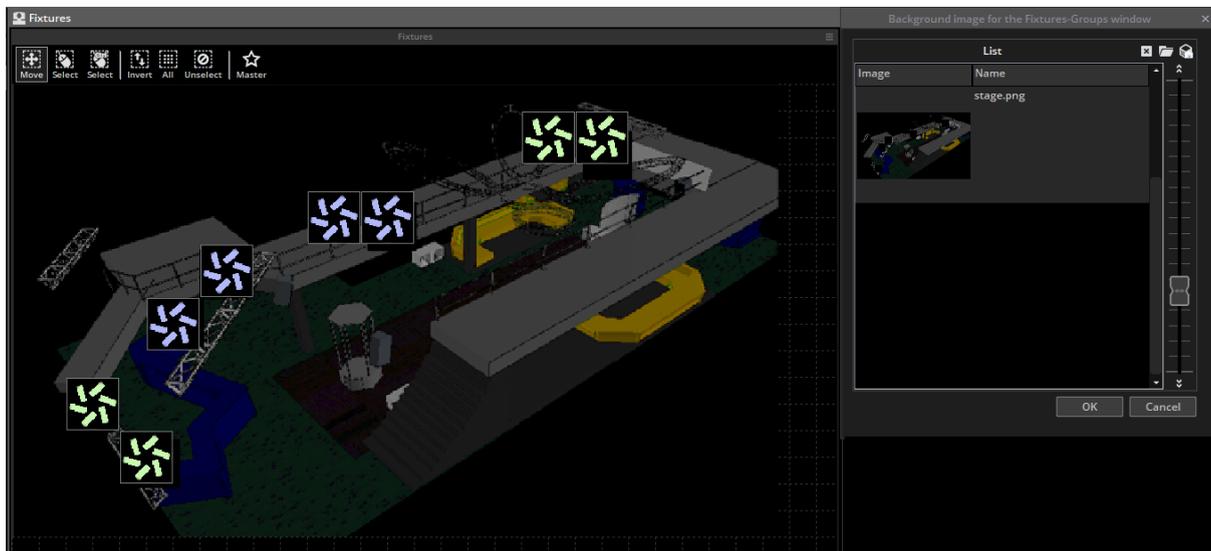
Fixture Groups

Select the fixtures you wish to use in a group and then create a new group here. Right click to edit, delete or rename.



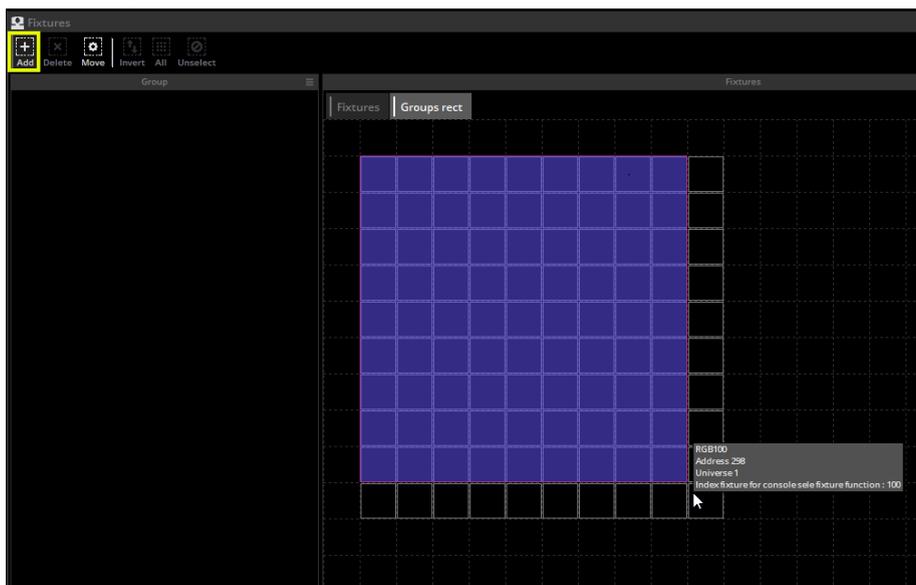
Background Image

To select a background for the Fixtures view, right click and select *Background Picture*. Images can be imported or copied from the 3D visualiser. Use the fader to change the size of the background image.

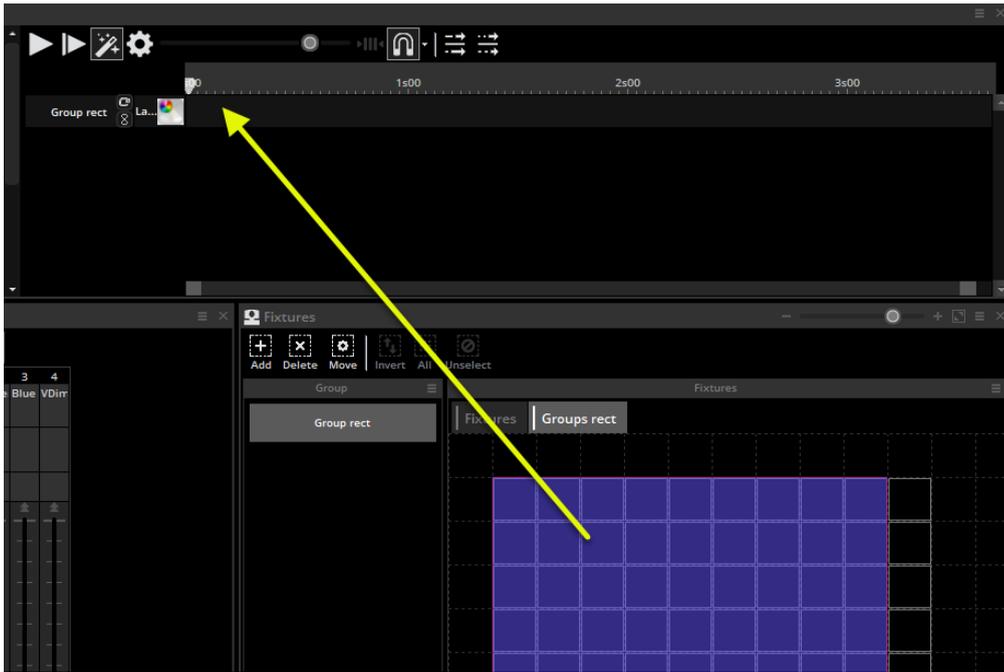


Rects

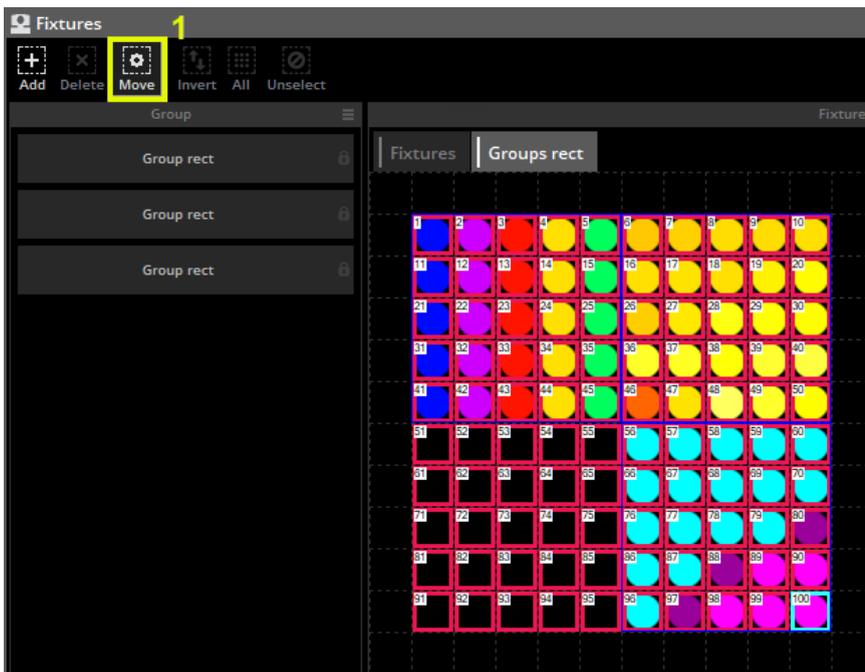
Using EasyTime, we can apply an effect to a selection of fixtures, or to a *Rect*. A *Rect* is a virtual zone where a sequence can be played. You can for instance, play several sequences on the same LED matrix at different positions using several Rects. Rects can be created on the "Groups Rect" tab within the fixtures window of the button editor.



To apply an effect onto a Rect, drag the Rect into the timeline view to create a new timeline. You can now drag your effects onto the timeline in the usual way.



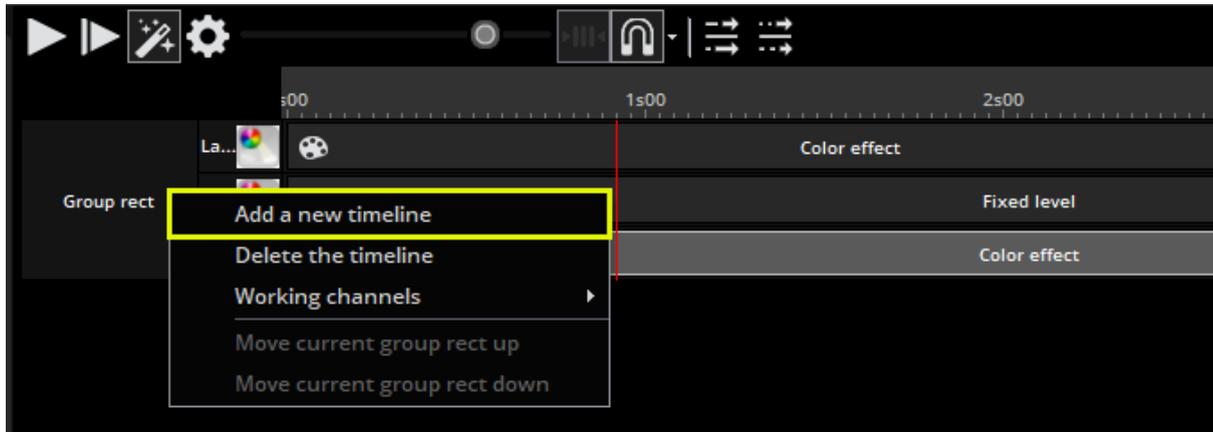
You can create as many rects as you wish. They can be resized and moved by selecting Move (1, image below).



Rect Layers

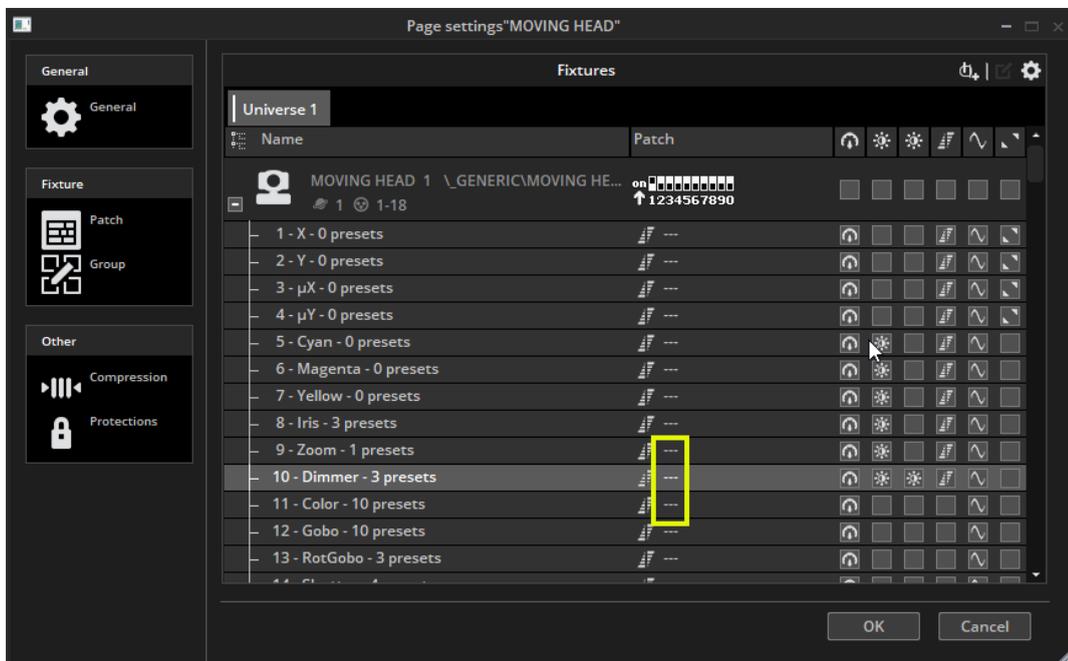
Additional layers can be added to a rect timeline by right clicking and selecting *Add new timeline*. The opacity of a layer can be modified by right clicking the layer and selecting *opacity*. In addition to changing the opacity a mask can be added to the area, for example perhaps you would like all the black areas of a layer to be transparent. Use the fader on the right to adjust the sensitivity of the transparency.

Note: The start of a timeline cannot be empty. This is why if you try to drag an effect along the timeline, it will remain at the start. To create the effect of a blank area at the beginning of your timeline you could use a static block with values set to black or off.

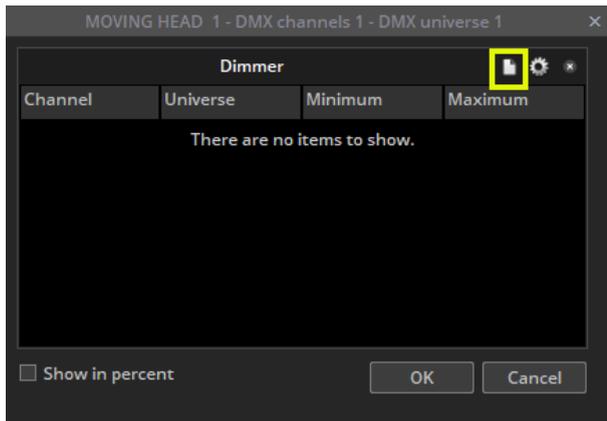


Advanced Patching

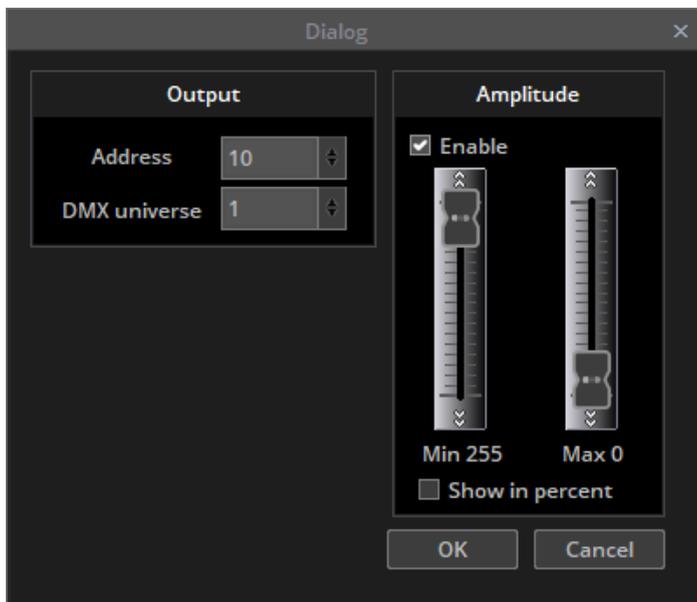
The software has many advanced patching capabilities. These can be found on the patch tab with in the page settings window. The patch of a channel can be modified by clicking in the patch area.



Click here to set up a new patch.

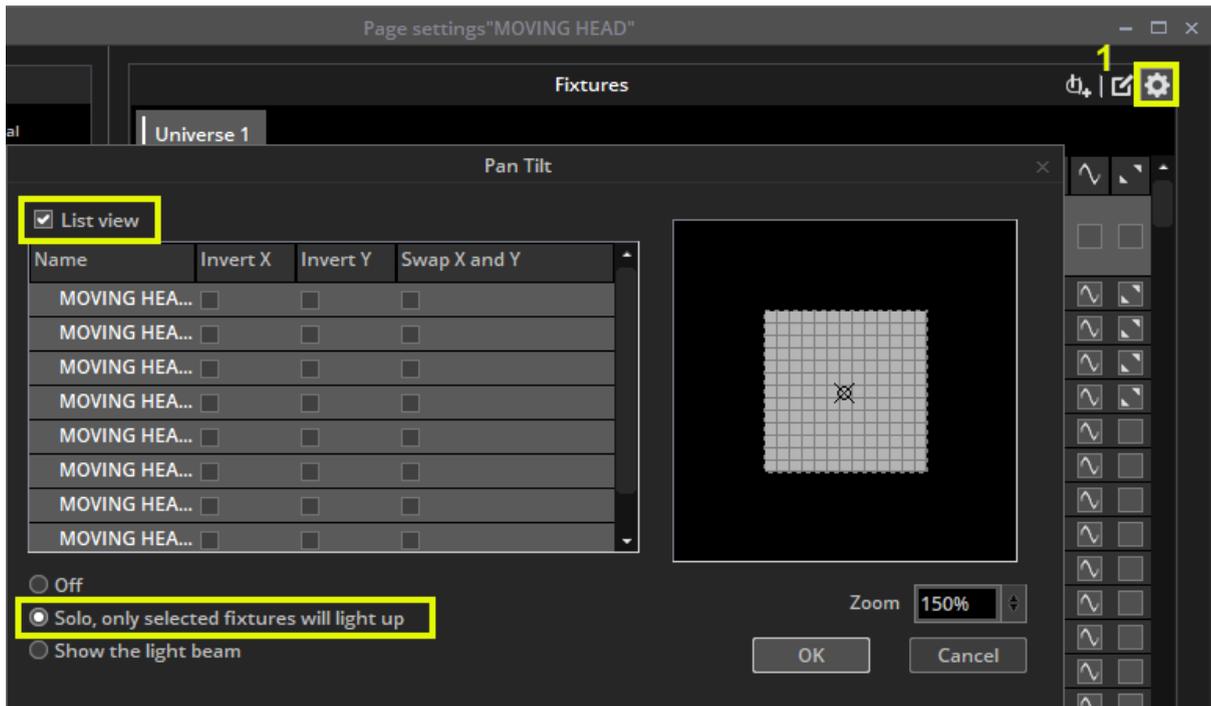


The output channel and universe can be set on the left and the minimum and maximum amplitude can be set to scale channel values down. Setting the minimum to 255 and the maximum to 0 will invert the channel. This can be useful when using unusual fixtures whereby the dimmer is at 100% when the channel value is 0.



It is possible to limit the highest pan and tilt value of a fixture. This is useful if you have a fixture in the corner of a room and you don't want the fixture to point at the wall. It can also be used to calibrate a fixtures moving sequence if not programmed with palettes.

- The pan tilt dialog can be opened by clicking here(1)
- Select your fixtures, then adjust the size of the square on the right
- Use the target to move the fixtures around the room, notice a red line is drawn to help you resize the square
- You can view your fixtures graphically by deselecting "List View"
- This dialog can also be an effective way to check if the lights are positioned correctly within the fixtures window by checking the "Solo" radio button

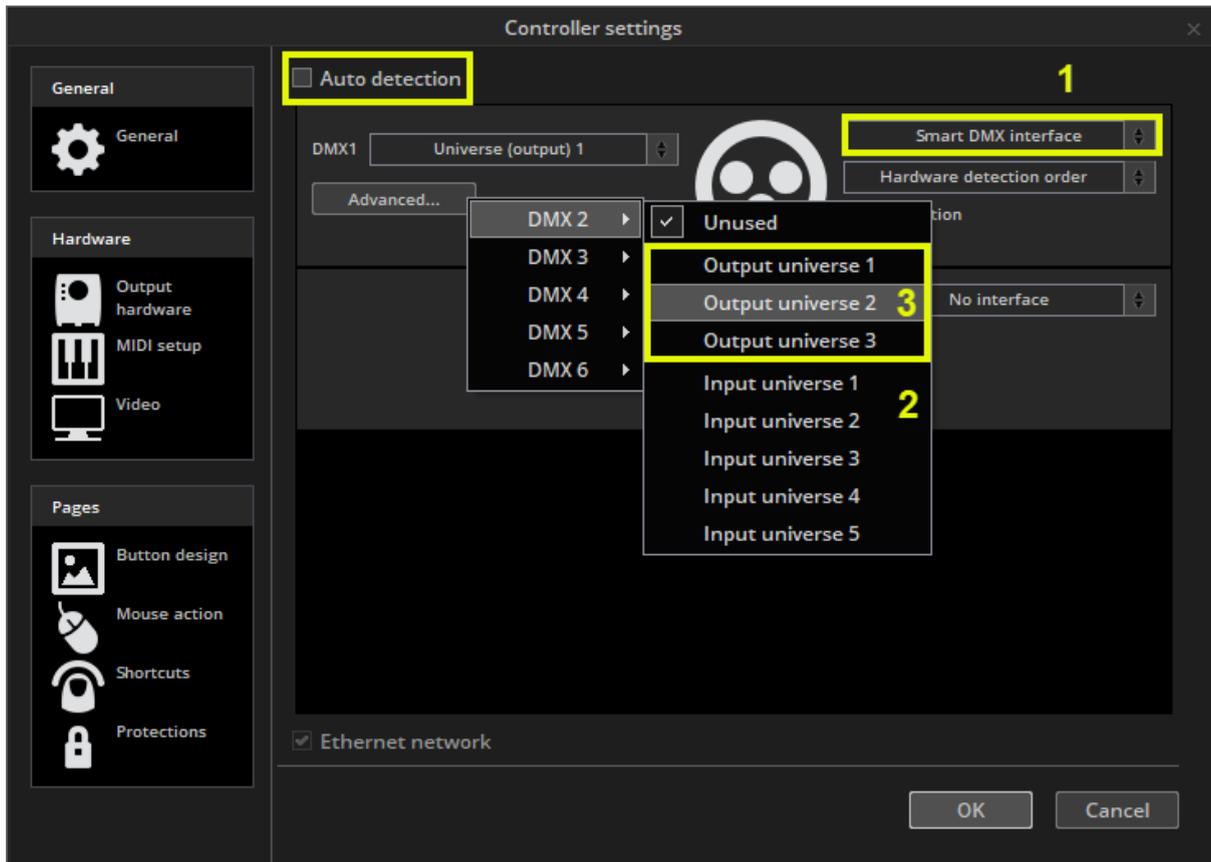


Managing DMX Interfaces and Universes

The software supports multiple universes and interfaces. The universes and interfaces can be modified within the output tab of the Controller Settings. The software is set to automatically select your interfaces by default. Uncheck auto detection to set this up manually. Products can be selected here(1).

Some interfaces have more than one universe. Each universe in the software can be patched to one of the interface outputs, or the DMX output universe can be swapped with a DMX input universe (2) so the show can be triggered from a DMX desk. You can change the order of your interfaces by dragging. You can delete an interface by dragging off the screen.

Note that extra Output Universes will not show in the Advanced menu list (3) unless you have fixtures patched to each of these universes first. In the example below, there fixtures patched to Universe 1,2 & 3 on one of the pages.



ArtNet

If you have an Economy or First Class interface connected, you can output additional universes from your computers Ethernet socket using a protocol which sends DMX over a network. This protocol is called ArtNet.

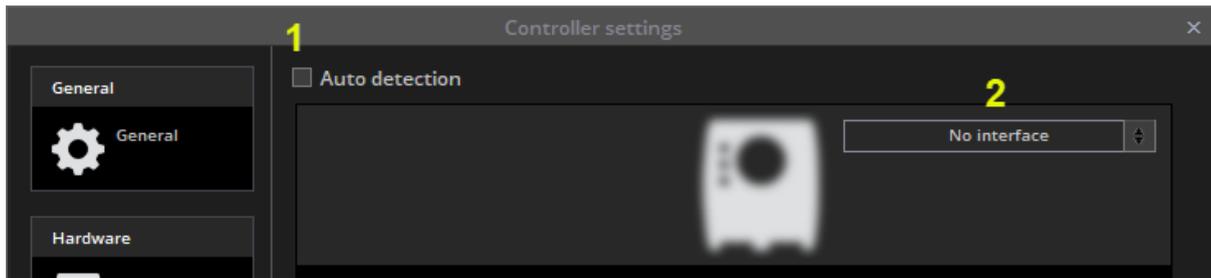
Most of the time, your fixtures won't be able to read the ArtNet protocol and you will have to convert it to DMX using an ArtNet to DMX converter. These can usually convert several universes.

To set up ArtNet:

First, check our website to be sure the connected DMX interface contains an ArtNet licence. If not, you can purchase a licence via the online <http://store.store.dmxsoft.com> as long as your interface is SUT compatible.

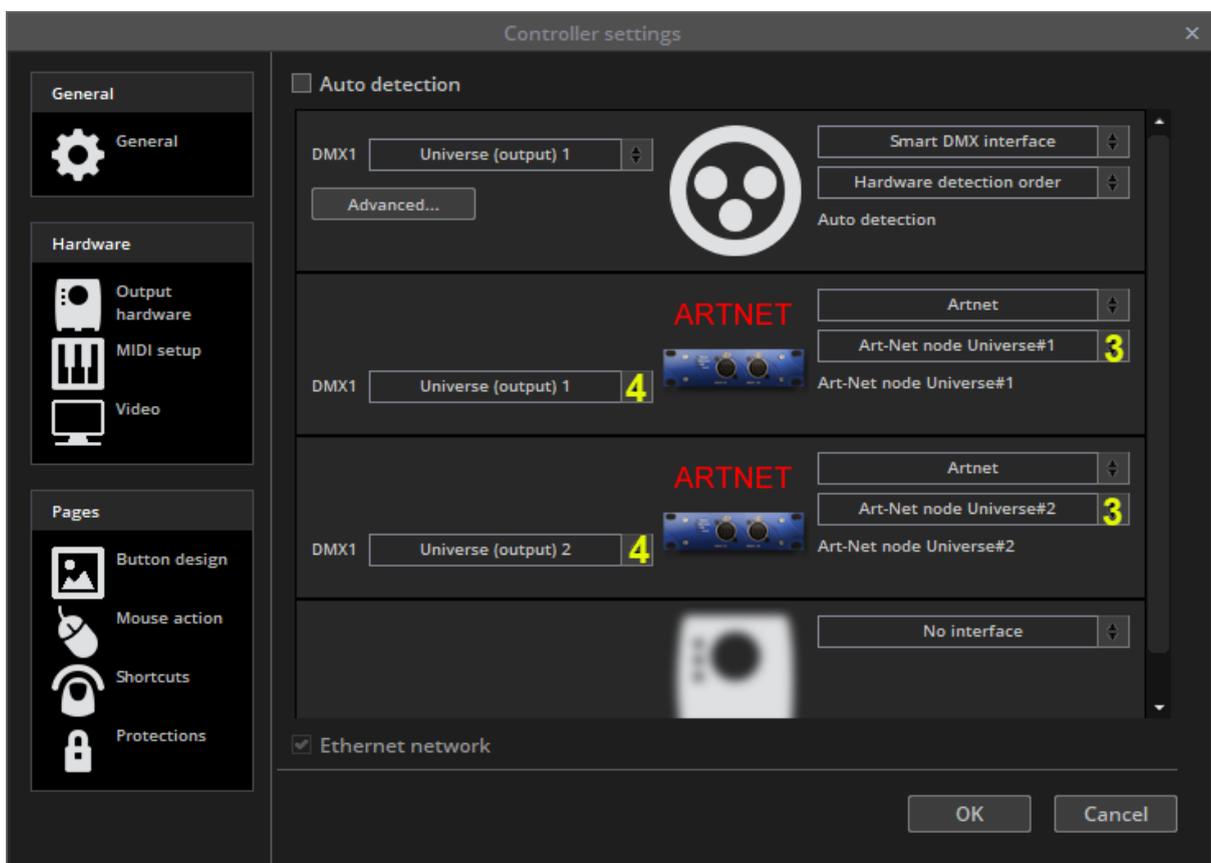
Initial Setup

1. Connect your DMX interface to your PC using a USB cable
2. Connect your computer to the same network as your Artnet Node(s). Consult your Artnet Node documentation to find out how to do this.
3. Connect a DMX Tester or fixture to a DMX port your Artnet Node.



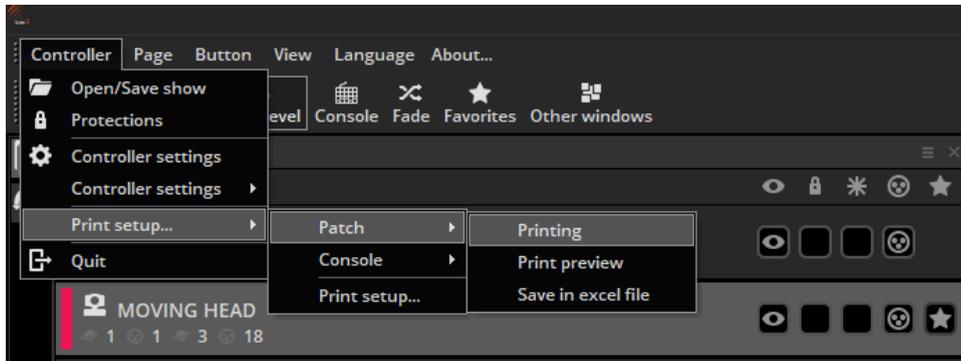
Configure Sunlite Suite 3

1. Open Sunlite Suite 3 and navigate to Controller > Controller Settings in the menu
2. De-select 'Auto detection' (1 above)
3. Where it says 'No interface' (2 above), use the drop-down box to select your dmx interface. For SUT compatible interfaces such as the Sunlite-BC, Sunlite-EC, etc select 'Smart DMX interface' from the list.
4. A 2nd box with 'No interface' selected will appear below. Change this to to 'Artnet'.
5. In the Artnet box, select the Universe number from Sunlite that you want to output using the left drop down box (3 below).
6. Select which Node you want to send the Universe to on the right (4 below).
7. Repeat steps 5 & 6 for any additional universes and Artnet nodes you wish to output.



Printing a Patch

You can print a list of all the fixtures used in your show, their positions and DMX addresses. This can be useful when setting DMX addresses on the fixtures and can also be sent to clients or equipment hire companies.



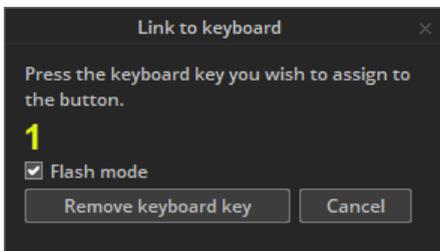
External Control & Triggering

Keyboard

Buttons can be triggered from the computer keyboard. To assign a keyboard trigger, shift+right click a button and select *Link to Keyboard*.



Hit the key you wish to use as a trigger. Click here(1) to set the trigger as a *Flash Trigger*. When you press the key, the button will be activated and when you release the key, the button will be deactivated.



Date & Time

You can trigger a button by date and time. Select a button and open up the button settings. Select the Time tab(1). There are 3 calendar views to choose from(2). Double click within the calendar to set up a time trigger.

Scenes can be triggered at sunrise and sunset. A custom location can be assigned by clicking here (1) and the time of sunrise and sunset will be automatically calculated. A trigger time relative to the sunrise or sunset time can be assigned here(2). For example a scene could be deactivated 4 hours after sunrise.

Start time: 07/08/2019 12:00:00 All day event

Daylight: Sunrise - 04:00:00 2 ? 1

Effective start date time : Wednesday, 07 August 2019, 09h33m00

End time: 07/08/2019 13:00:00

Daylight: Not used - 00:00:00 ?

Recurring events can be triggered daily, weekly, monthly or yearly. We can set up a recurrence range between two dates. For example, you may want to trigger a button at sunset every Saturday over the summer.

Appointment recurrence

Appointment recurrence

Start time: 12:00

Daylight: Sunrise - 00:00:00 ?

Effective start date time : Friday, 07 August 2020, 05h34m00

End time: 12:00

Daylight: Not used - 00:00:00 ?

Duration: 0 minutes

Recurrence pattern

Daily

Weekly Recur every 1 Week(s) on

Monday Tuesday Wednesday Thursday

Monthly

Friday Saturday Sunday

Yearly

Range of recurrence

Start time: 01/05/2019

No end date

End after 10 occurrences

End by 28/09/2019

OK Cancel Remove recurrence

A trigger can be set to activate the button, deactivate the button, or toggle the button on and off every time the trigger is called.

Trigger

Set the button on

Set the button off

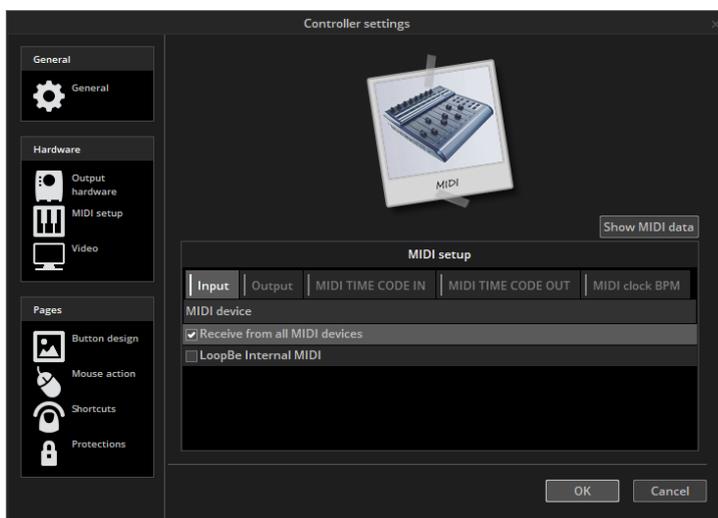
Switch on/off state each trigger time

Console (MIDI, DMX, EasyRemote, Joystick, VirtualDJ)

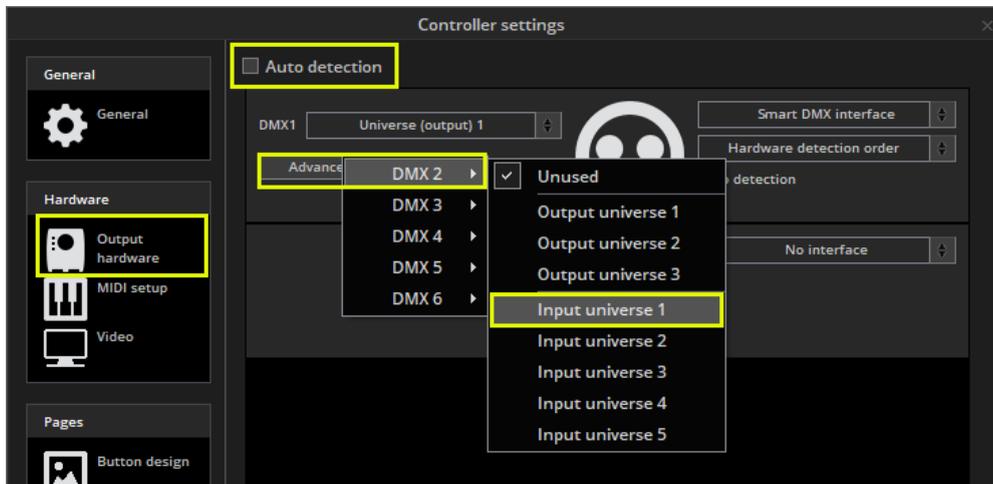
The console is a virtual screen consisting of faders, buttons, dials, color wheels, XY grids and more. The console is a virtual gateway to allow Suite 3 to be controlled from a variety of devices such as a MIDI controller, DMX controller, Joystick or smartphone/tablet running EasyRemote. You can load a pre-made console or use the Console Editor to create an image of your own controller. You can also design a customized layout to be used with a touch screen or the EasyRemote iPhone/iPad/Android app. See the console editor topic for more information on designing your own console.



If you are using MIDI, the software first needs to be told which MIDI port to read from. This can be set within the Controller Settings.

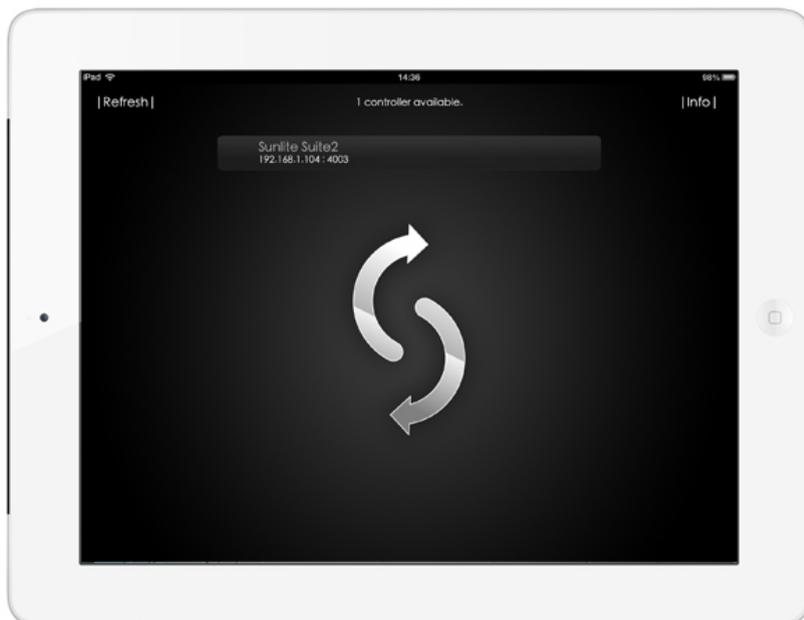


To use the console with a DMX controller, make sure a DMX input universe has been assigned within the interface settings.



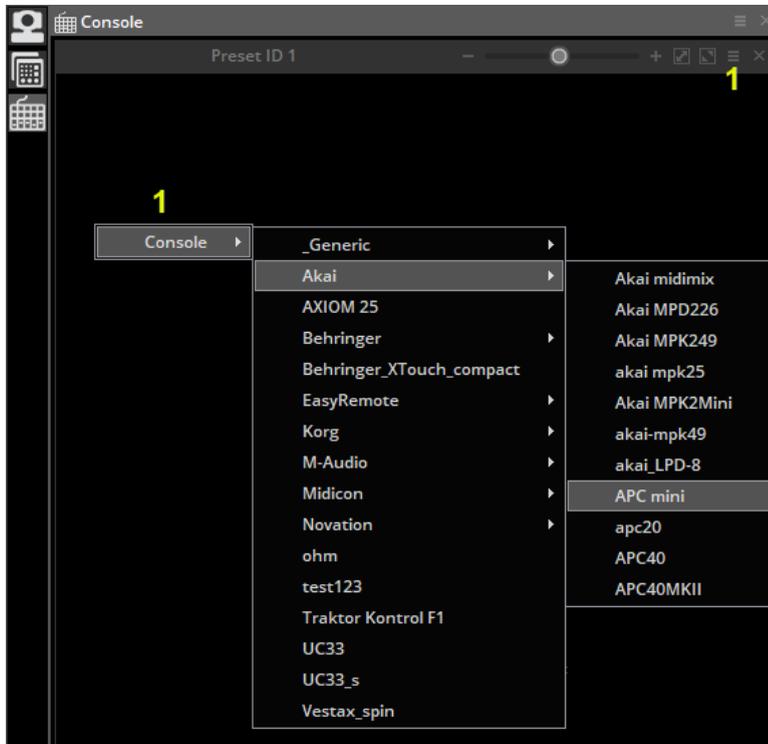
If you want to control the console from an iPhone, iPad or Android device:

- Download the EasyRemote app from the Apple App Store or Google Play
- Make sure the smartphone/tablet is connected to the same WiFi network as the computer running Suite 3
- Start the app
- If the connection is successful and you have a console loaded in the software, you will see Suite 3 appear in the menu
- Easy Remote uses UDP port 4003. If you have a firewall be sure that this port is not blocked



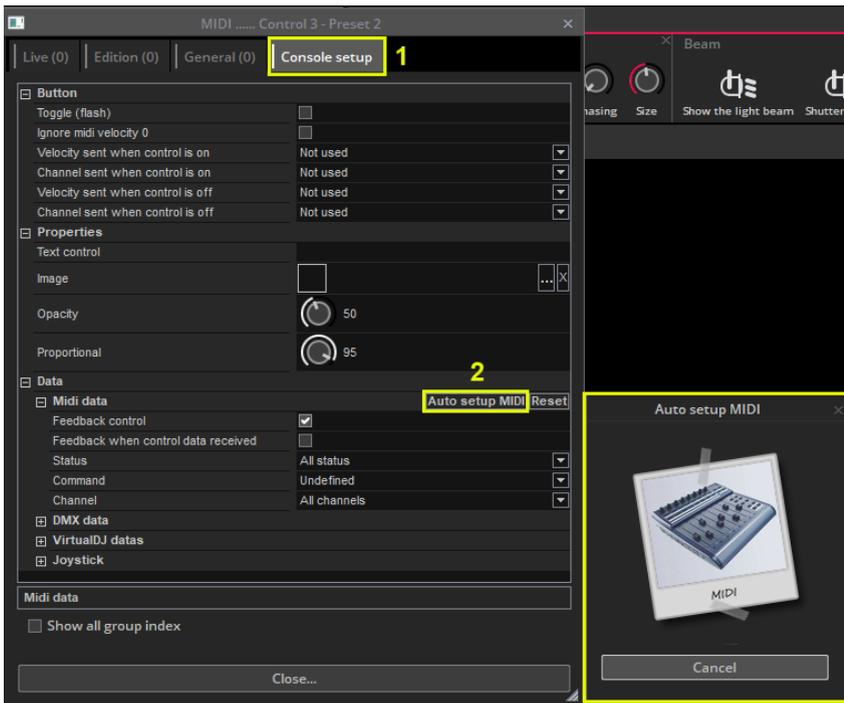
Mapping MIDI controls to the console

Right click here(1) to create a new console preset, and select your controller. If your controller is not listed, you will need to build your own console with the console editor, or map your controls to a similar console.



EasyRemote consoles are automatically mapped, however with a MIDI or DMX console you will need to set up the mapping. Many of the pre-built consoles are mapped, however in some circumstances you will need to map each button/dial/fader on your controller to the console in the software:

1. Right click the button you want to link to your controller
2. Select the Console Setup tab(1)
3. Either enter the parameters in yourself or if you are using a MIDI controller, select "Auto Setup MIDI"(2) and move the corresponding fader/dial/button on your MIDI controller



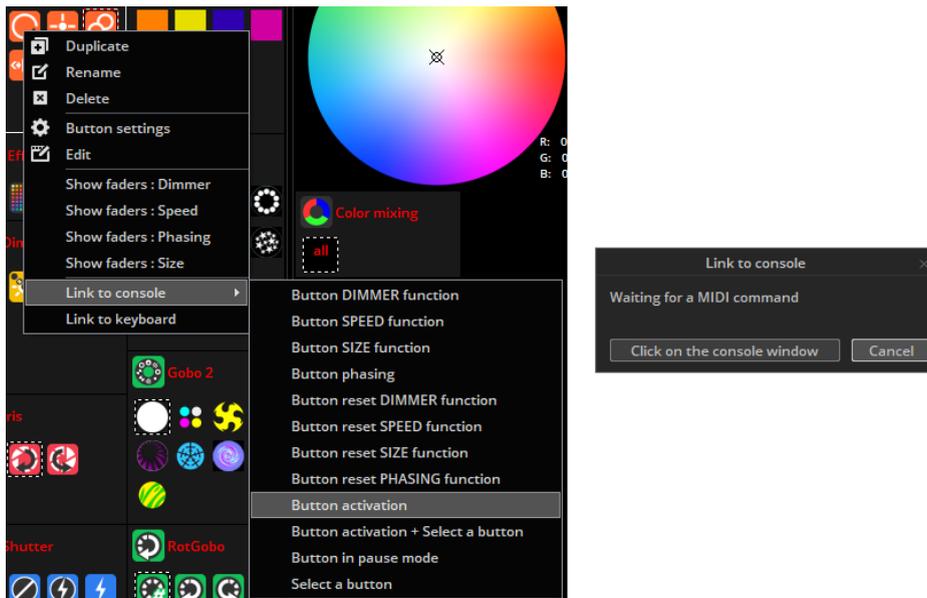
Each command and the corresponding fader can be viewed by clicking the menu button (1) and then clicking settings(2). When all links are in view, the console can look confusing. Select solo(3) to view the selected control only.



Assigning commands

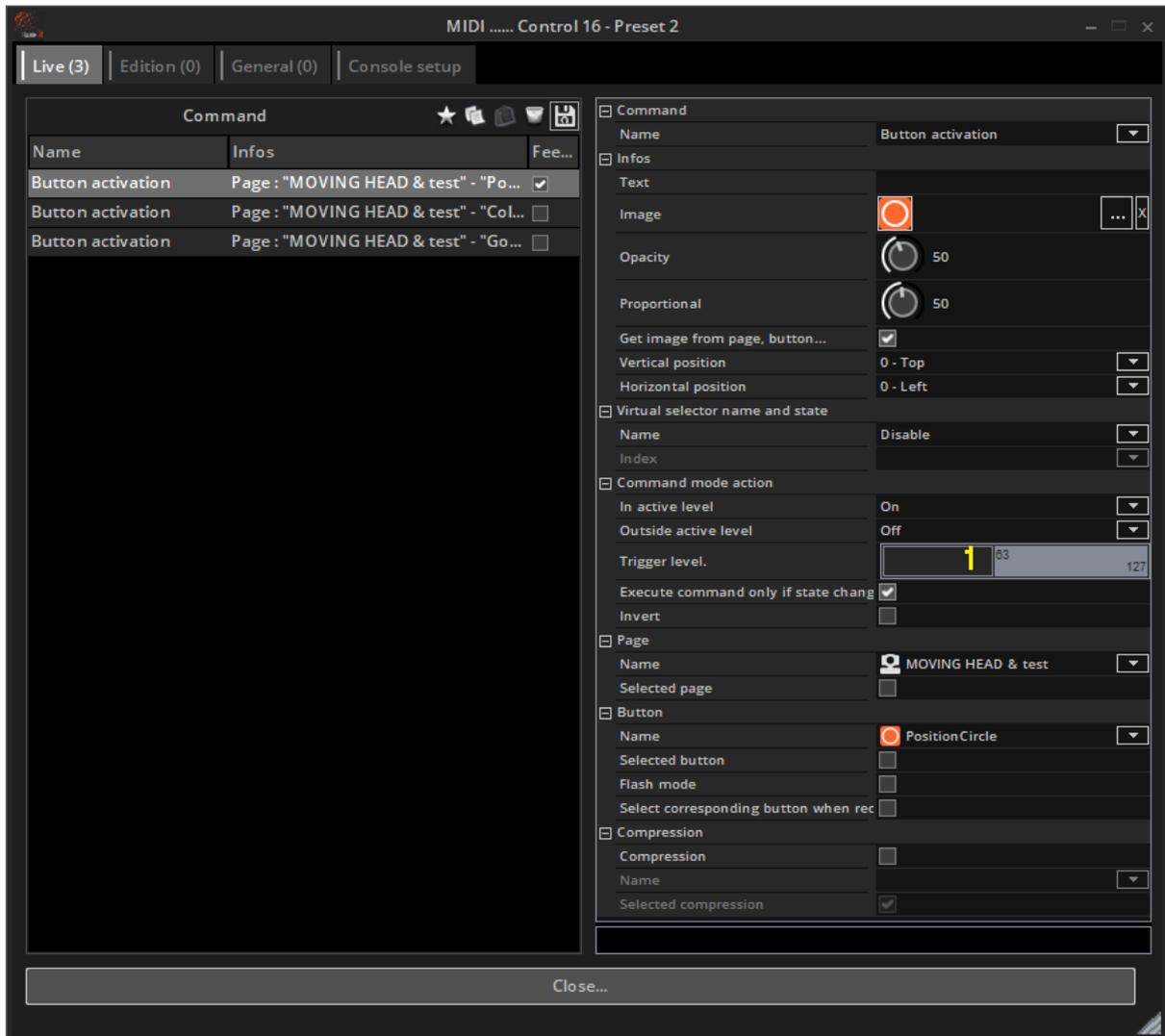
To assign a Suite 3 command to a button on the console:

1. Shift+Right click the desired scene
2. Select "Link to Console"
3. Select the desired action (activate the button, change the dimmer of the button etc..)
4. Select "Click on the Console Window" and select the relevant button inside the console window. If you have a MIDI controller connected, move the relevant fader/button on your controller.

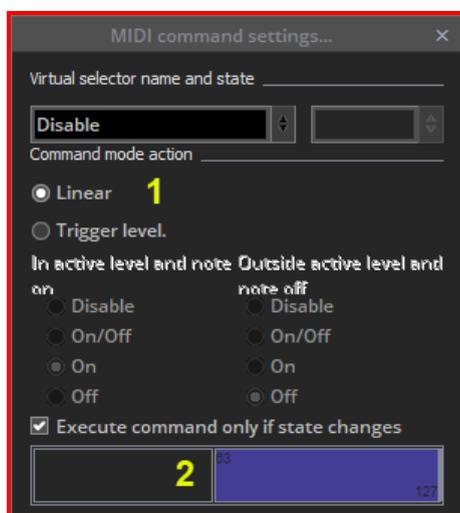


One command on the controller can be used to activate a variety of different commands within the software. For example, you could assign a dial to automatically control the speed of several movement buttons. Right clicking on any button on the console will bring up the console setup window where there are three tabs that allow you to assign a variety of commands to the console. From any of the 3 tabs you can press the star button to access the list of available commands for that tab.

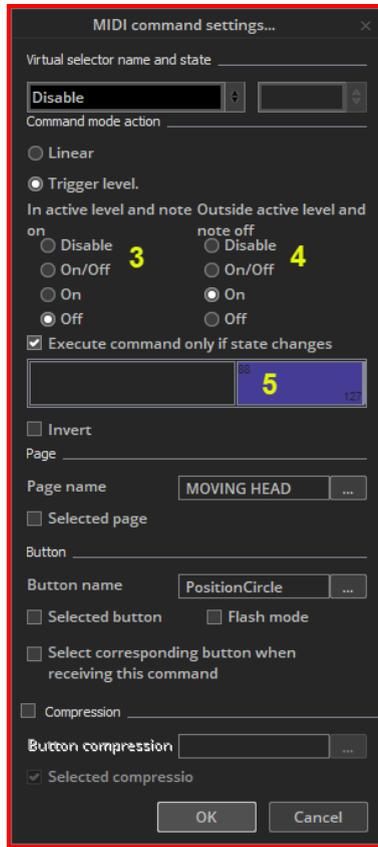
- Live: the live tab allows you to control and assign many of the function for controlling the software in a live setting. From selecting a page, activating a button and even creating live and embedded fixtures.
- Edition: the edition tab gives you the option to control the effects and the editor from your console.
- General: the general tab gives you control of pan/tilt functions as well as RGB/CMY control. You can also create Virtual Selectors from the General tab which allow you to control several different actions from one button depending on the currently active Virtual Selector.



Clicking a command opens the command settings report. From this you can adjust the minimum and maximum value of a slider or dial. In the example below when the console value reaches 63(1) the corresponding command will play.

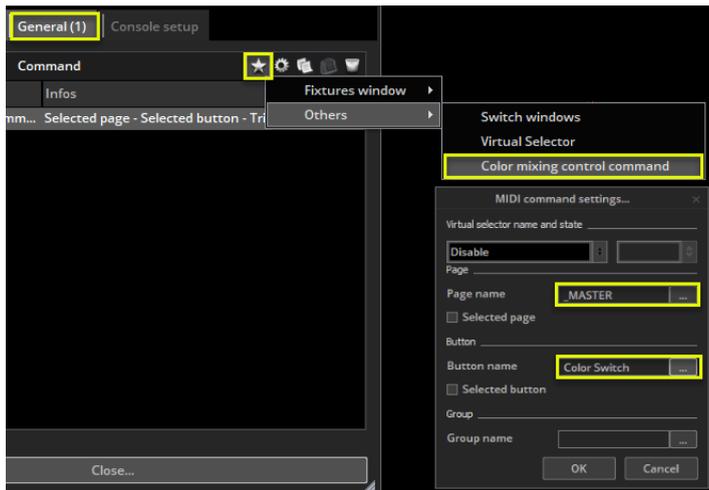


The trigger level option changes the value at which buttons will be triggered by a fader. The next 2 columns control what happens when the console value is within the trigger range(3) and outside of the trigger range(4). You can also move to the purple trigger area(5) along the bar to change the actions of the console fader.



To assign a color wheel or pan/tilt grid:

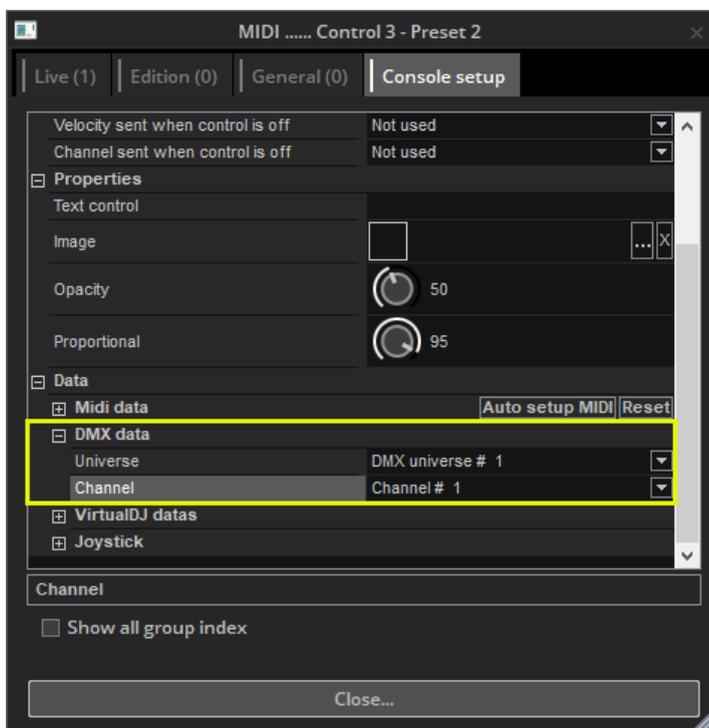
- Right click the color wheel or grid on the console
- Click the 'General' tab
- Click the star on the top right
- Go to Others->'color mixing control command' or 'pan/tilt control command'
- The color wheel or grid can be mapped to a button by selecting the page and button name.
- Be sure that the dimmer property has been assigned to the appropriate channels within the button editor.



DMX

Controls within the software can be mapped to a DMX controller. You can use the Console Editor to create an image of your own DMX controller. See the Console Editor topic for more information. The controller can then be viewed within the console window.

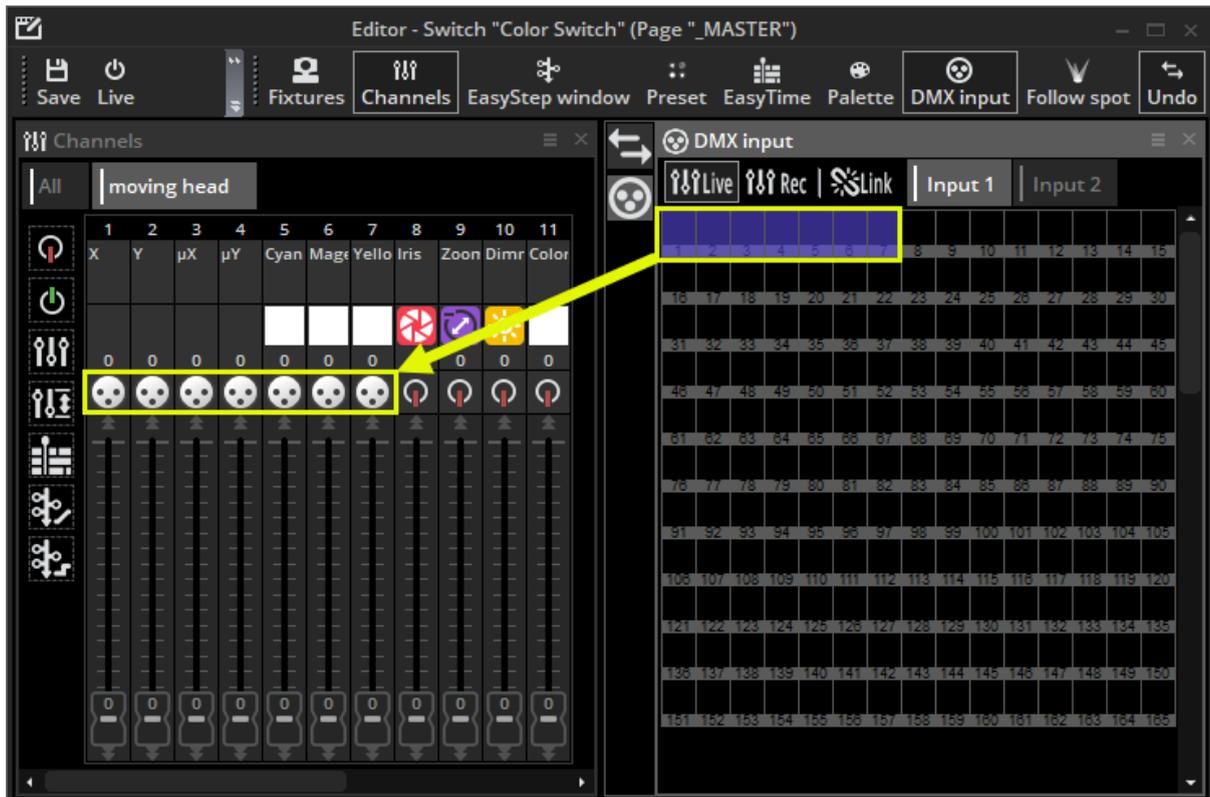
Make sure you have DMX input setup within the Controller Settings, see the *Managing DMX Interfaces and Universes* topic for more information. Once you have created your console, each control must be mapped to a control on the console. To do this, right click on a console control, then select the DMX input universe and channel.



Once the DMX controller is mapped to the Console, you can map the controllers faders, dials and buttons to almost any software feature. See the Console topic for more information.

Direct DMX Patch

A DMX input channel can also be directly assigned to a fixture channel within the button editor. Click here(1) to open the DMX input panel, then drag the desired DMX input channel over to the fixture channel.

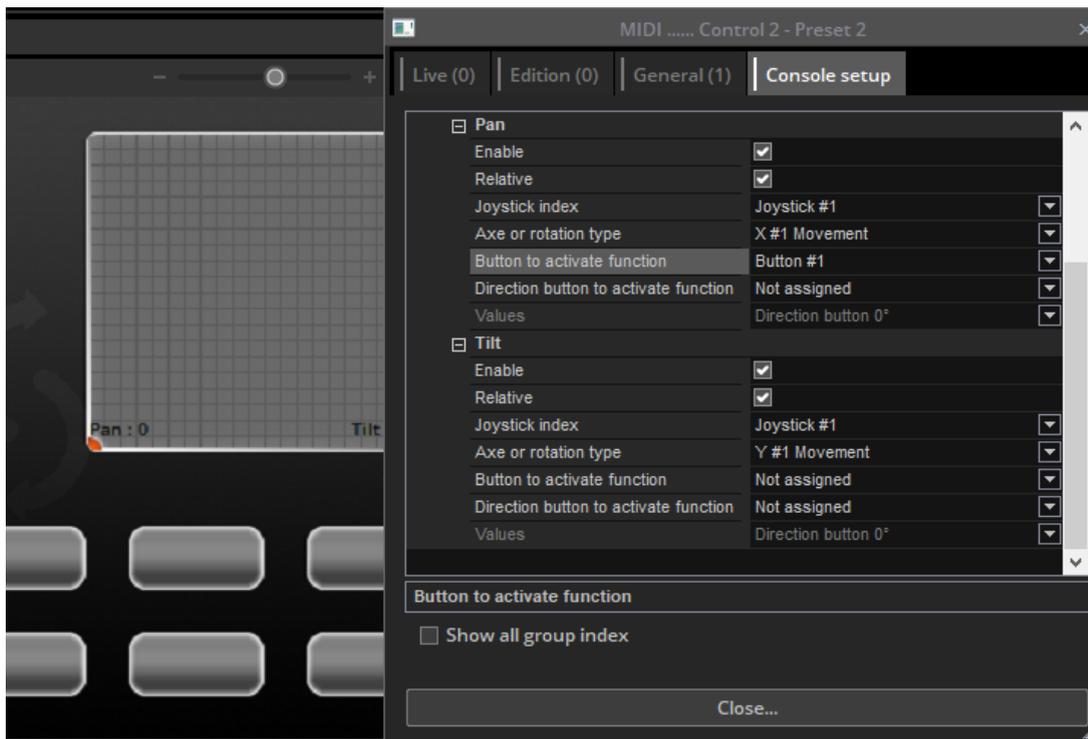


Joystick

You can control a pan and tilt grid with a Joystick. This is set up using the Console.

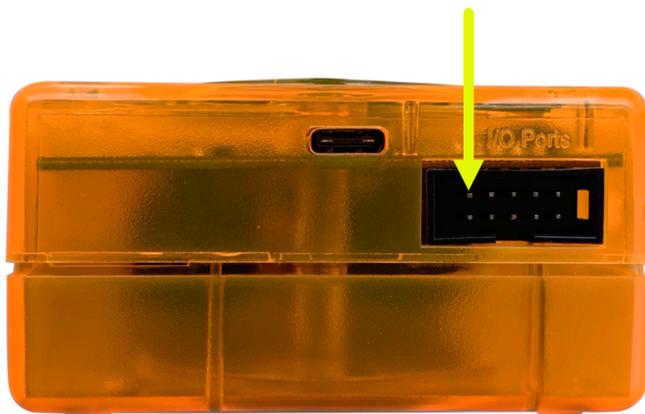
- Create a console with an XY grid or load up an existing console such as '10 buttons, color, Pan Tilt' or 'EasyRemote 2'
- Pair the console with an XY zone or with a group of lighting fixtures (see the console topic or more information)
- Right click the grid and click the 'Console Setup' tab
The following options are available:
 - Pan: Set the Joystick options for the Pan property of the XY grid
 - Tilt: Set the Joystick options for the Tilt property of the XY grid
 - Enable: Allow the joystick to control the grid
 - Joystick index: If you have several joysticks created, you can choose which joystick to use with the selected grid

- Axe or rotation type: Choose which joystick property you want to use to control the Pan or Tilt of the grid. The options listed here depend on the joystick connected. Normally it's best to use the X movement for the Pan and the Y movement for the Tilt
- Button to activate function: A joystick button can be selected which must be held down to activate the control
- Direction button to activate function: If the joystick has a direction button, this can be chosen to activate the control
- Values: If a direction button is chosen to activate the control, choose which direction the button must be set

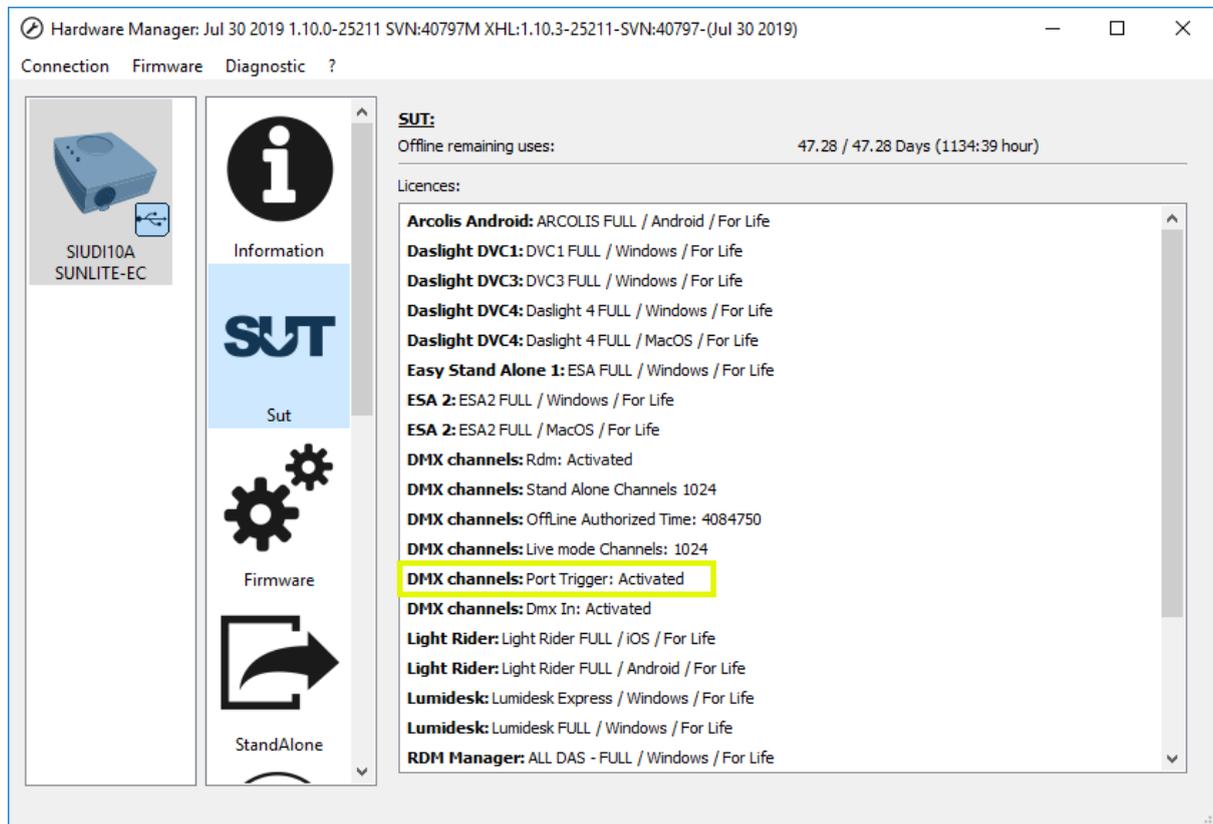


Interface Ports

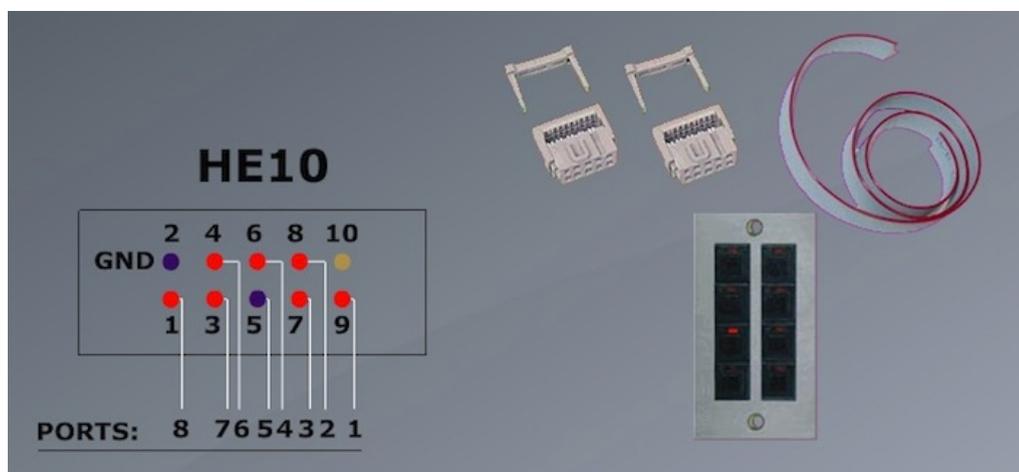
Some DMX interfaces come with 8 dry contact ports at the rear.



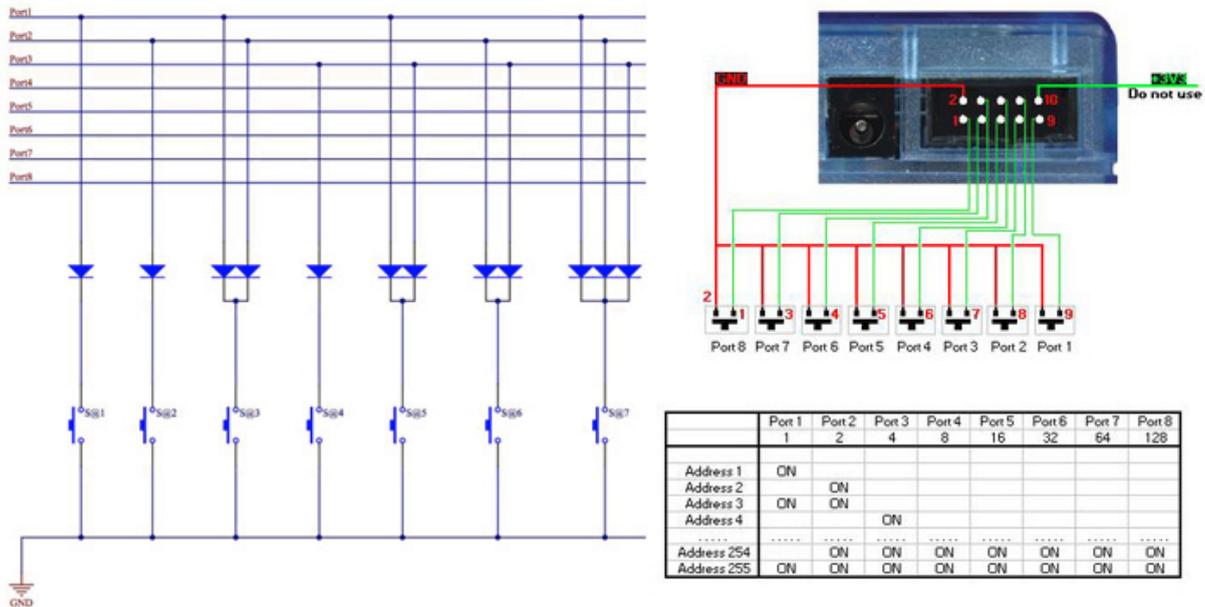
Note: The hardware ports require a SUT licence to work on many DMX interfaces. To check your licence, open HardwareManager tool, connect your interface and check the SUT screen. If you see the line “DMX channels: Port Trigger:Activated” your interface has the licence already. If not, you can purchase a licence for a small fee from store.dmxsoft.com. SUT licences are not required for wall mounted DMX controllers.



This socket is an HE10 interface port socket. You can connect an 8-button touch pad to this socket. This works by bridging each of the 8 trigger pins with the ground pin.

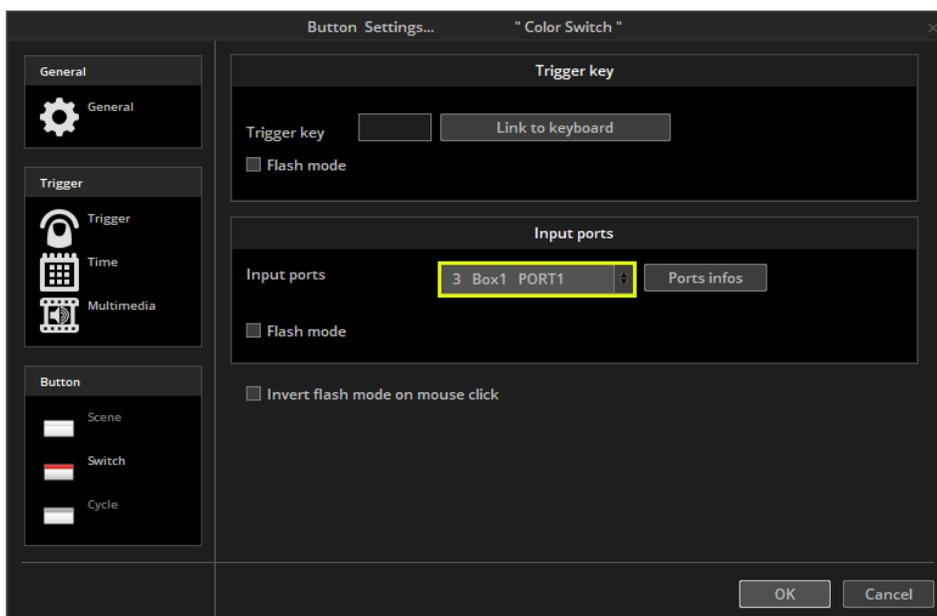


You can connect up to 255 buttons by combining the 8 ports in binary. For example, if ports 1, 2 and 3 are connected to the ground pin, this will trigger address 7. One way of combining the ports from a dry contact switch would be to insert a diode between the switch and the ports. A general purpose diode for small signals can be used such as the 1n4148.



Once the port connections have been set up. They can be assigned to trigger a scene within the scene settings *Trigger* tab. If you are addressing the ports in binary, be sure to select *Address 8* for example, instead of *Port 8*.

You can also set up a port trigger from the previous/next buttons mounted on the interface.

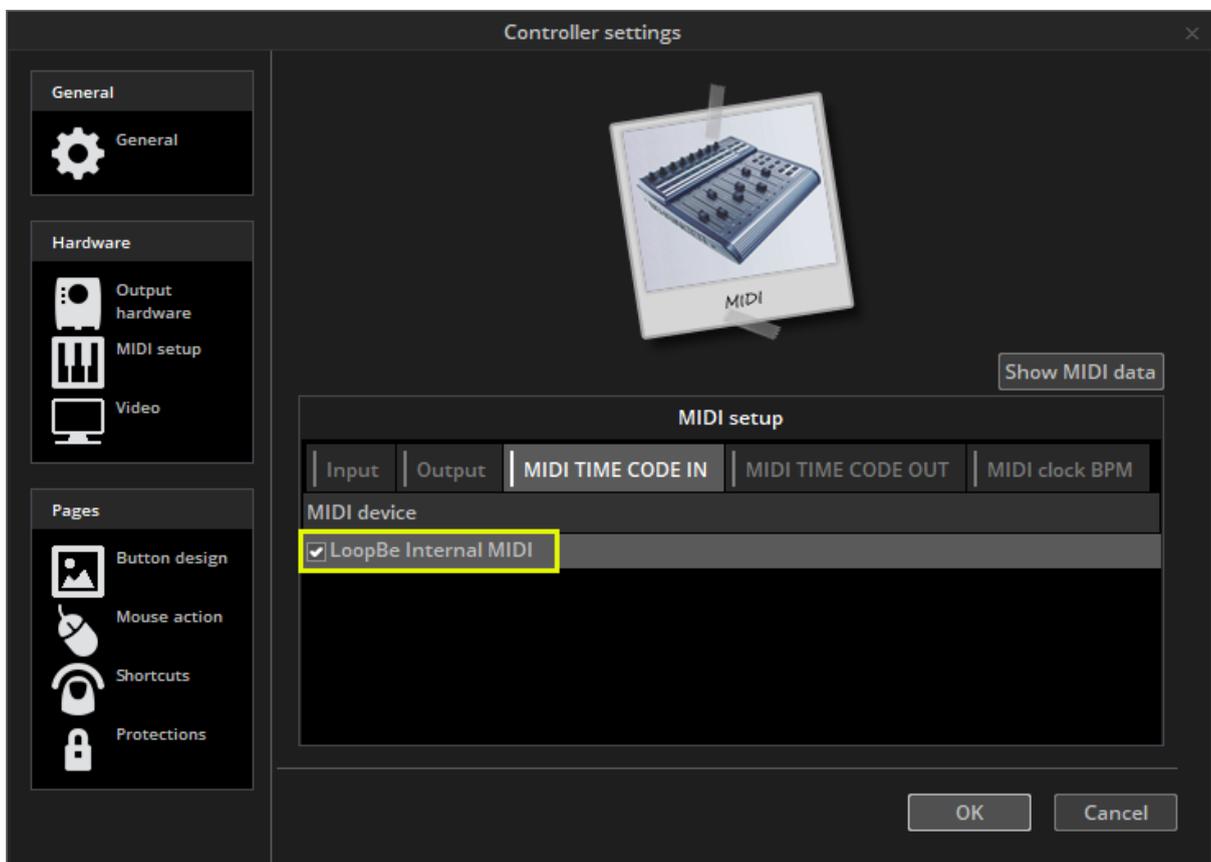


MIDI Time Code (MTC)

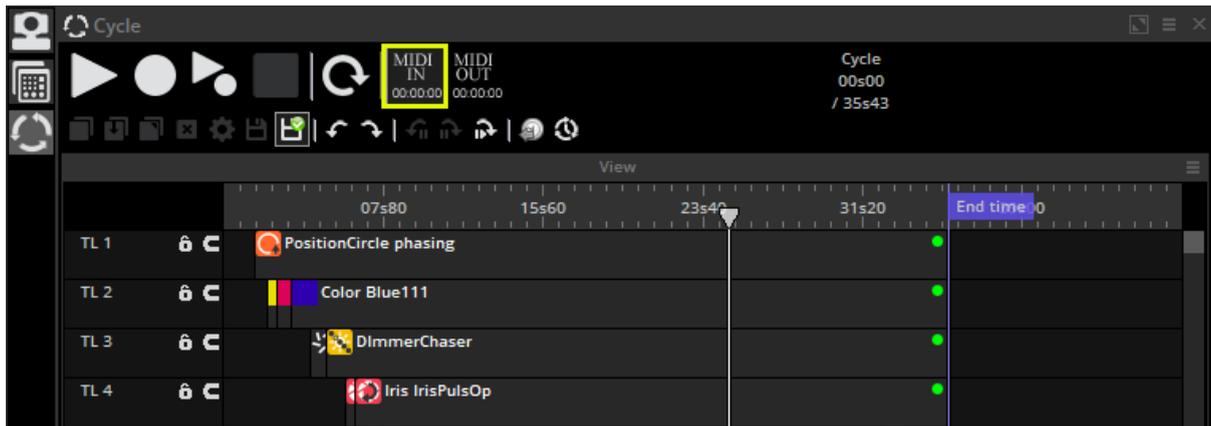
MIDI Time Code (MTC) is a type of MIDI message created for synchronization purposes. You can use Midi Time Code to synchronize a Cycle with an external device such as a CD player, 3rd party video and sound software, or a SMPTE generator.

To use MIDI time code, you first need to make sure you have a MIDI interface connected to your computer.

Go to the general settings and select the MIDI setup tab. Select the device you wish to receive the Time Code from or send the Time Code to. In the example below, we have selected a virtual midi port (provided by third party software) as the input. Virtual midi ports provide an easy way to transfer midi data between software running on the same computer.



Once you have your MIDI Time Code device connected, select the IN button to begin receiving the Time Code signal. To send Time Code to another device whilst the Cycle is playing, select the OUT button.

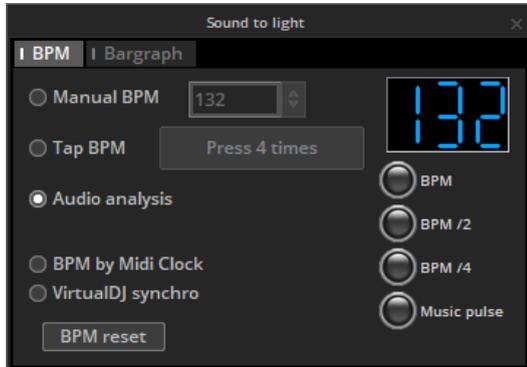


Note : when the Midi In button is enabled on the Cycle window, pressing play will not cause playback to start. The cycle window is listening for MTC data and will only begin playback when this is received by the selected MIDI Device.

Audio

Sound to Light Options

To be able to trigger a scene with audio, you must first select the sound to light detection mode. Click View > Other Windows > Start Audio BPM. This will open the Sound to Light window.



The window presents 5 options:

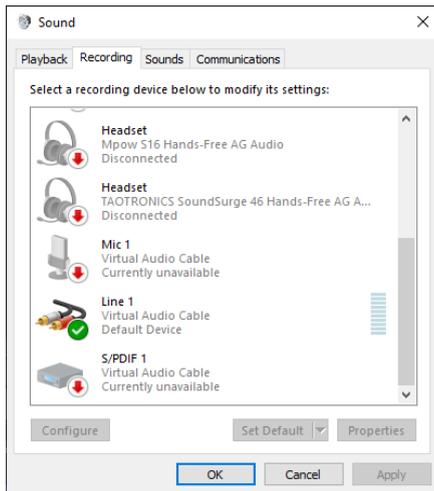
- Manual: Choose a manual BPM (Beats Per Minute) from the combo box
- Tap: Tap out a BPM by pressing the tap button
- Audio Analysis: Calculates a BPM from an incoming audio signal
- BPM by Midi Clock: Detects a midi clock signal sent from high end DJ software and DJ mixers. Note that you will need to select a midi device from the Controller Settings first
- Virtual DJ: as custom synchronisation system used by the Virtual DJ software

BPM by Midi clock is usually the most accurate form of BPM detection because DJ software will analyse the BPM from the audio file before it is played.

Audio Analysis

The audio analysis option allows real-time calculation of audio bpm (temp) and pulse.

To select the correct audio input, select the *Bargraph* tab in the *Sound to Light* window. At the bottom of the Bargraph window you will see a drop down box showing your audio input devices in Windows. You can also view these in your Windows Sound window on the Record tab.



Note: To play audio using software on the same computer it is a little more complicated. You may need to install virtual audio cable software. Set your audio software to play into the virtual audio cable. To hear the audio at the same time you may need to use the virtual audio cable software to repeat it to an output device such as headphones or speakers.

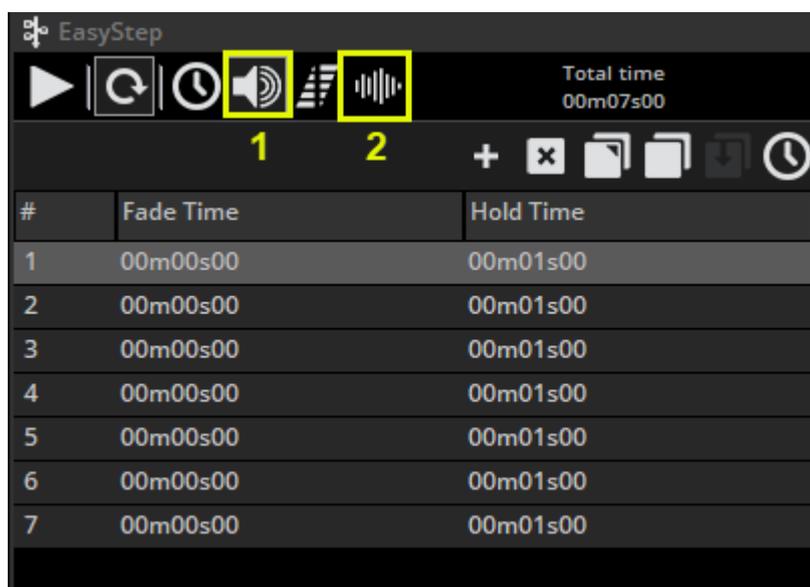


EasyTime and EasyStep sequences can be triggered by audio using music tempo or pulse synchronisation. Selecting tempo synchronisation calculates the average beat (audio BPM) whereas pulse will step on each detected beat. Below you can see how to enable audio sync with Easy Step and EasyTime.

EasyStep with Audio

Click 1 to enable audio tempo synchronization. You also have the option to fade between steps or ...

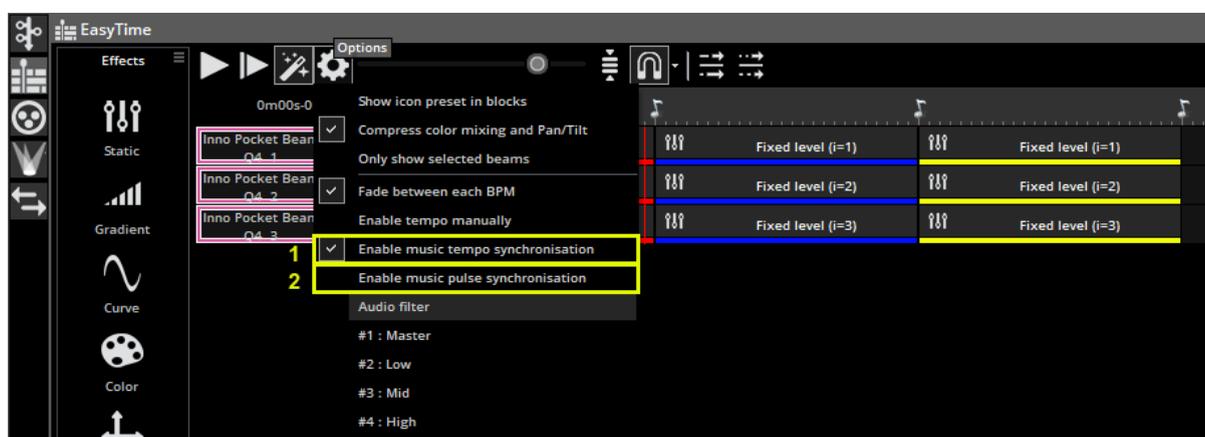
Click 2 to enable audio pulse synchronization.



EasyTime with Audio

Click 1 to enable audio tempo synchronization, or ...

Click 2 to enable audio pulse synchronization



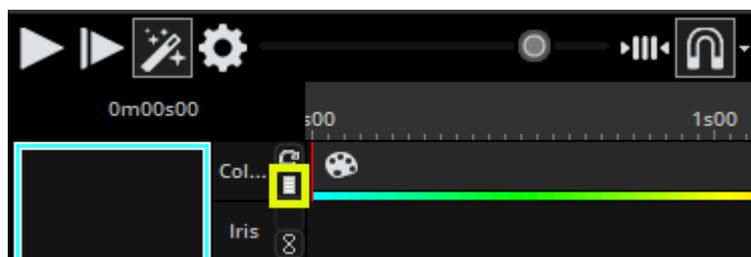
Notice that the timeline values change to music notes. These can be dragged to change where the playhead will jump on each beat. Under Options you can also set the audio filter for pulse synchronisation to Master, Low, Mid or High to determine which part of the audio frequency the pulse detection will analyse. Audio filter has no effect on audio tempo bpm calculation.

Bargraph Detection

The Bargraph allows you to filter a band of audio and link this to an EasyTime timeline. This allows you to create many interesting effects based on the level of audio within a designated frequency band. To set this up:

- Click the Bargraph tab
- Set the Gain (signal level), Attack time (time taken to respond to an increasing audio level), and Release time (time taken to respond to a decreasing audio level), frequency and width
- Add, remove and rename frequency bands by clicking the small white arrow at the top of the band

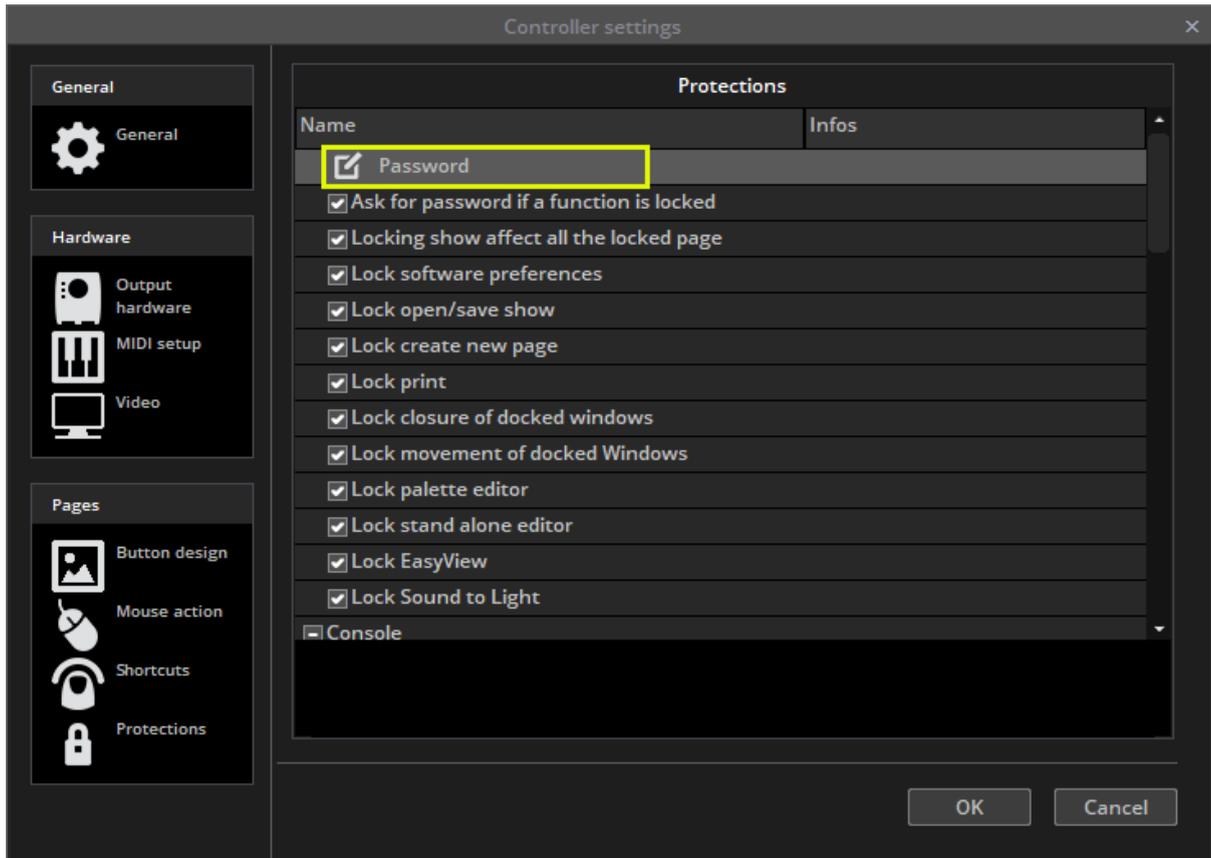
To assign a Bargraph band to an EasyTime timeline, click the egg timer checkbox to toggle between Time and Bargraph mode and right click the checkbox to chose the frequency band you would like the timeline to respond to.



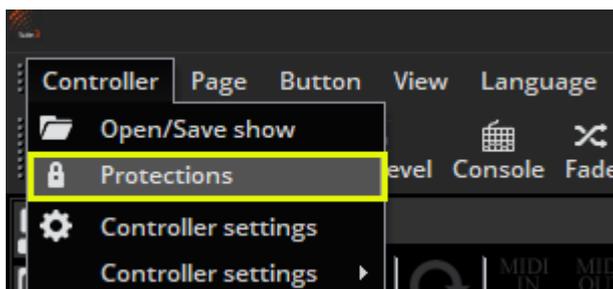
Other Features

Access Privileges

Various parts of the software can be locked and password protected. The access privileges can be set within the Protections tab of the *Controller Settings*. Click [here\(1\)](#) to set a new password.



Click the lock key to lock the selected functions. Notice that a lock icon appears next to each locked function. To lock or unlock the show, select Controller > Protections from the menu, then enter the password, if prompted.

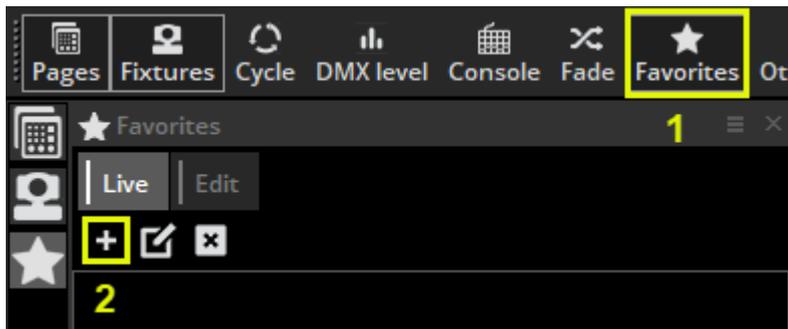


Forgotten Password?

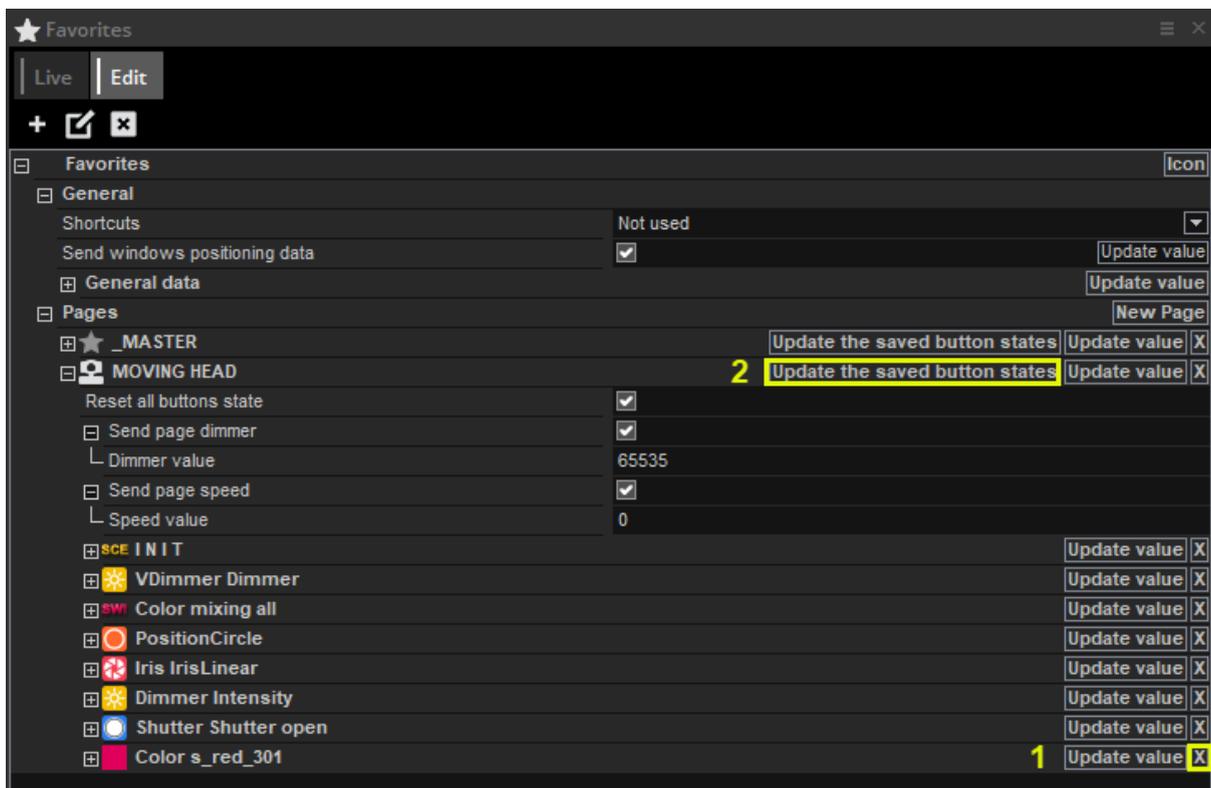
The password is stored in the Global Show XML file. This can be located by navigating to the Datalight folder in the software root directory, selecting your show folder and opening the Global XML file.

Favorites

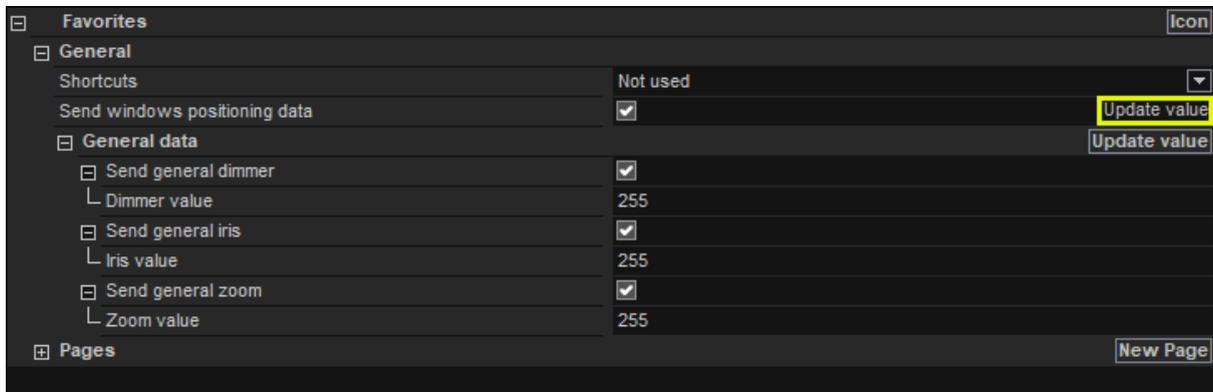
A favourite is like a macro. It allows you to save and recall a software state. The favourites view can be opened here (1) and a new favourite can be created here (2).



Favourites can be modified by selecting the *Edit* tab. Favourites are organised by page. In the example below, the *red* color preset (1) can be removed from the favourite by selecting the X button. To update the state of a particular page, select the buttons you wish to include within the favourite, then select *Update the saved button states* (2).



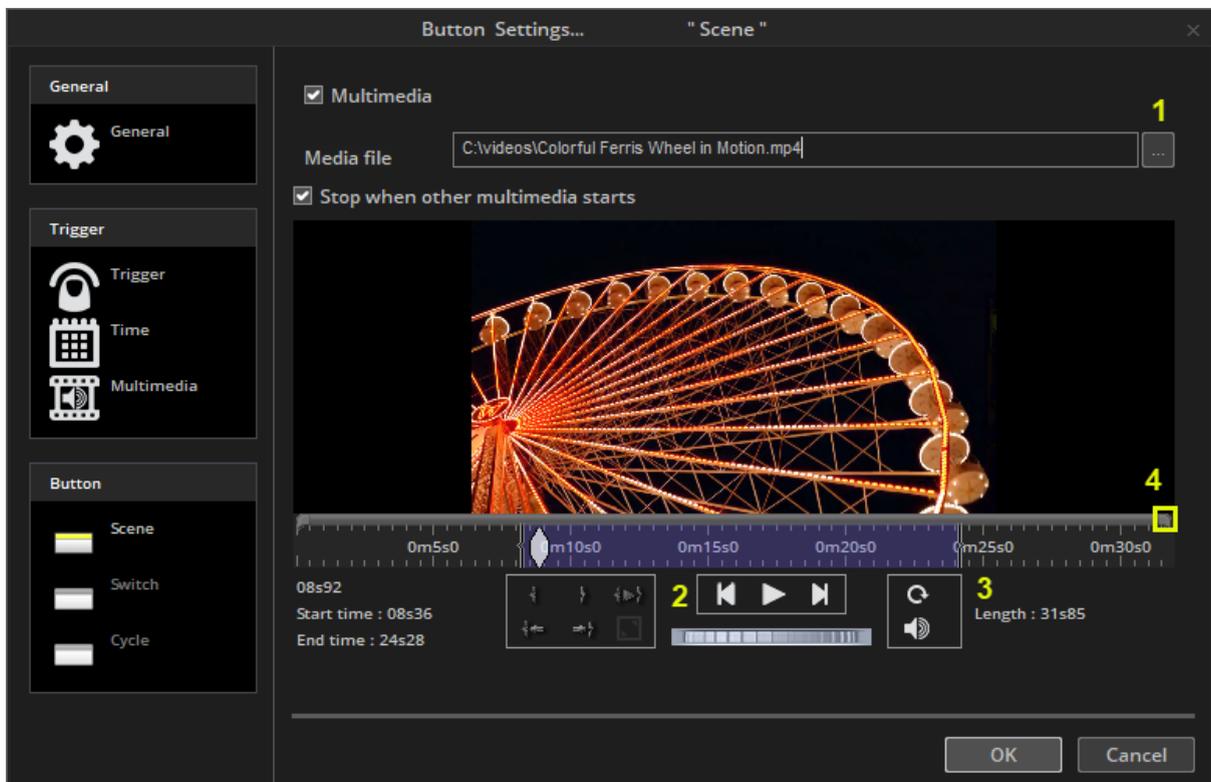
Favourites can also store window positions, this can be done by selecting "Update Value" on the "Send Windows Positioning" parameter.



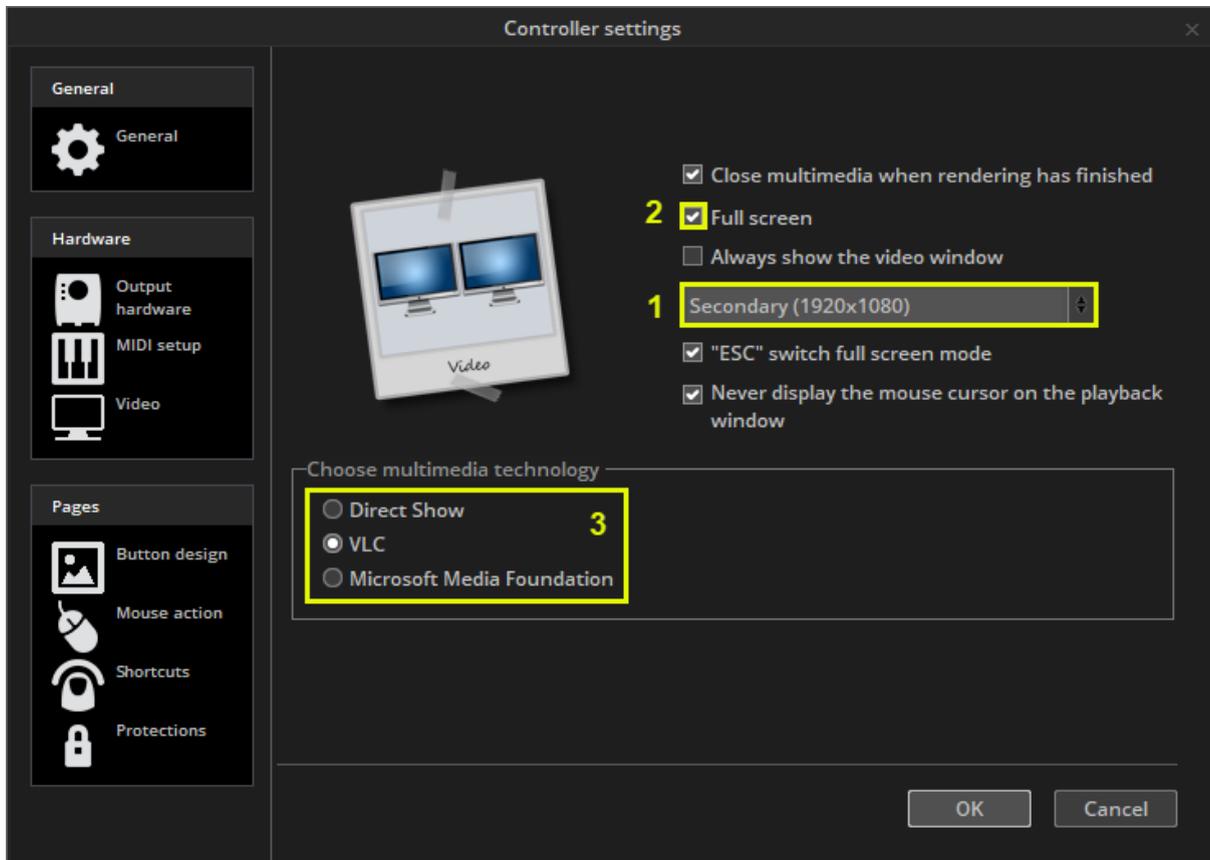
Multimedia

The software is capable of playing audio and video files (if encoded correctly). To insert an audio or video file, select a button, open the button settings and select the Video tab.

- Insert the media file here(1)
- Here(2), we can test our video, and adjust the start and end markers
- Switch between video and sound here(3), and loop your video here
- Drag here (4) to zoom in/out of the timeline



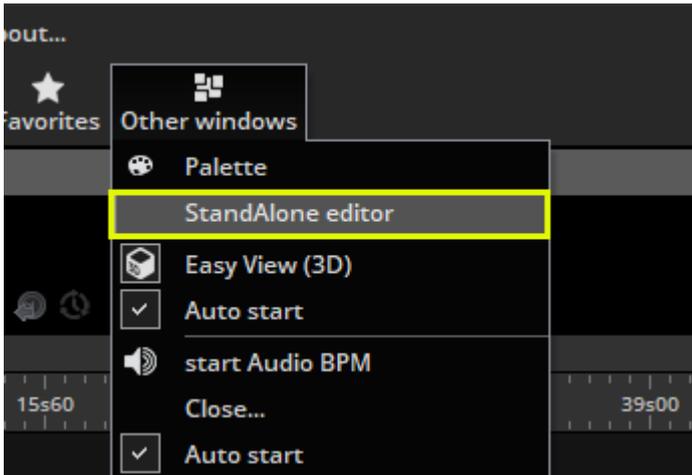
If you wish to output the video out of a secondary monitor (1), this can be set up within the *Controller Settings* on the *Video* screen. You can also set the video to playback in full screen (2) and change the video engine (3). You may need to restart the software before some of these settings are applied.



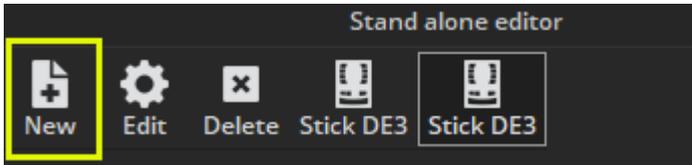
Stand Alone Editor

You can save Scenes and Switches into the stand alone memory of your interface so they can be played without a computer. It is advisable that you back up some of your Scenes into the interface in case of a computer crash. The Stand Alone editor can be accessed here.

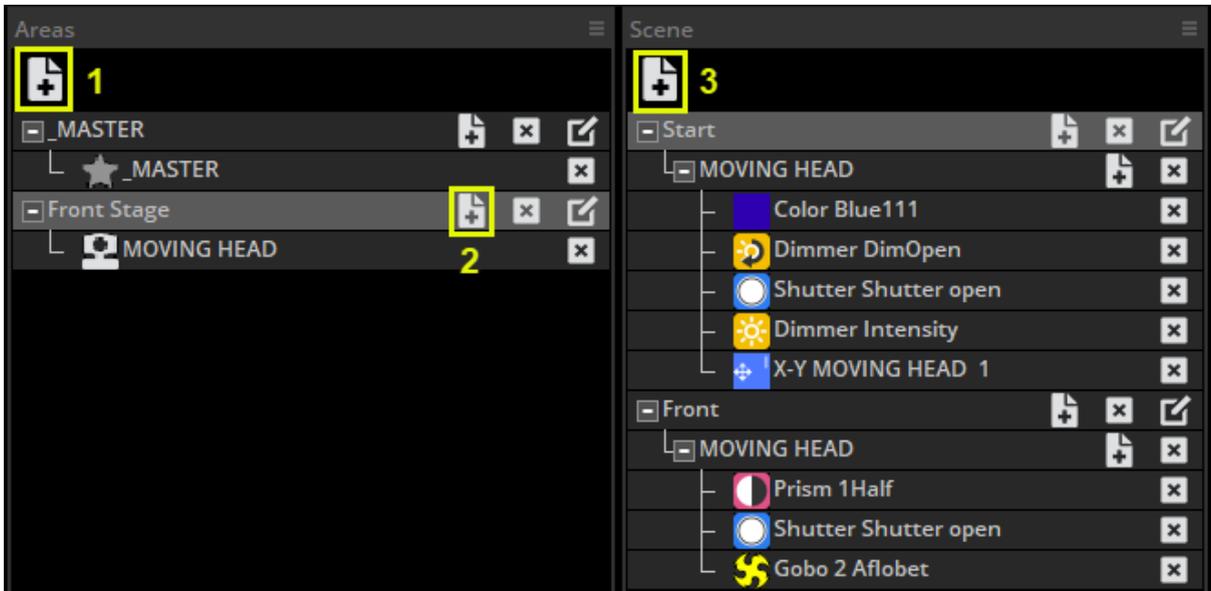
Important: This feature will only work with interfaces which have a removable SD card for storage. For interfaces with internal flash memory you will need to use Easy Stand Alone software.



The memory of several interfaces can be written simultaneously, click here(1) to add an interface.

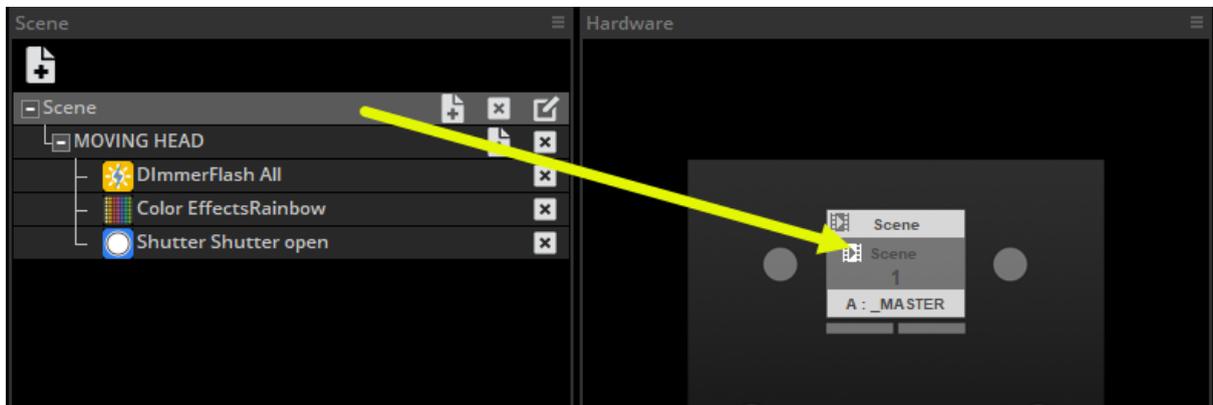


Some interfaces have areas that scenes can be loaded into. New areas can be created here(1). Pages can be assigned to an area by clicking here(2). New stand-alone scenes can be created here(3).

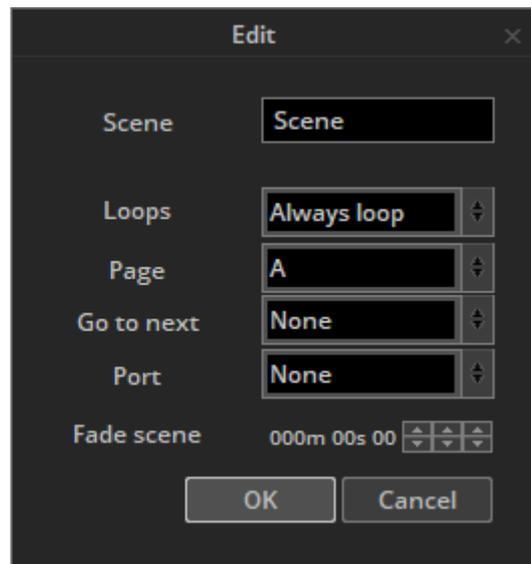
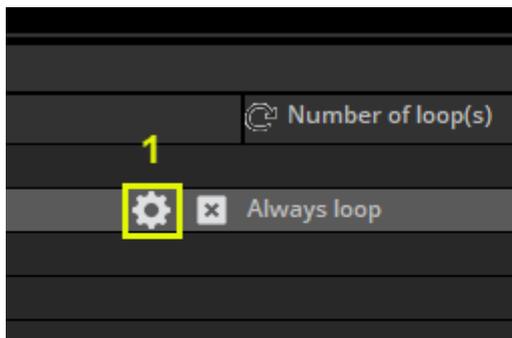


Creating a Stand Alone Scene

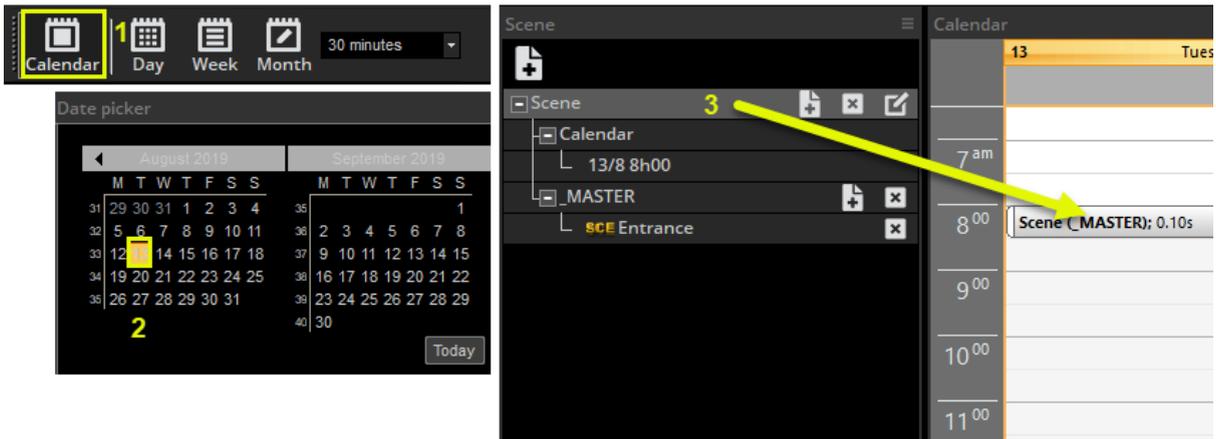
A stand alone scene can contain a combination of SCENE and SWITCH buttons. Click here(1) to insert a new button. Drag the scene from the scenes panel and onto one of the 99 scene spaces. Make sure the correct area is selected.



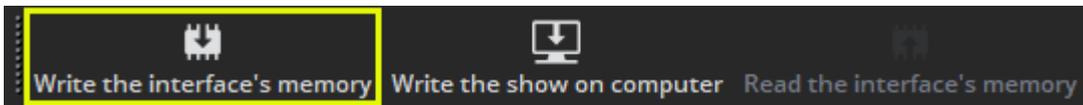
Once your stand-alone scene has been dragged onto the interface, other scene settings such as looping and port triggering can be edited by selecting here(1).



Some interfaces have an internal clock and calendar so the scenes can be triggered by date and time. The date and time triggers can be assigned within the calendar tab (1). Select the date (2) and the scene from the left (3) and drag it over to the calendar. Timing can be modified by double clicking on a scene in the calendar.



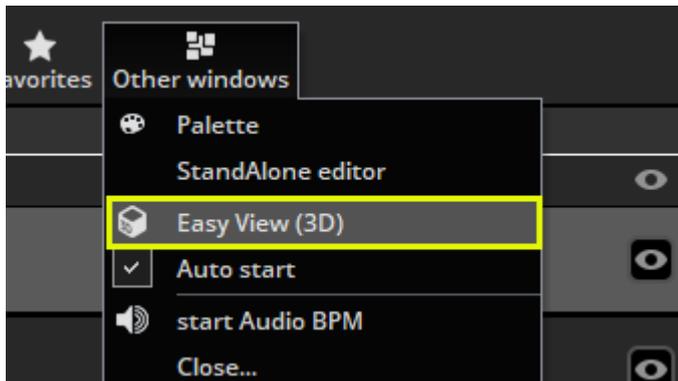
Note: the time triggers created within the button settings are not applied in stand-alone mode. Once the stand alone scenes have been created and assigned, the memory can be written here(1).



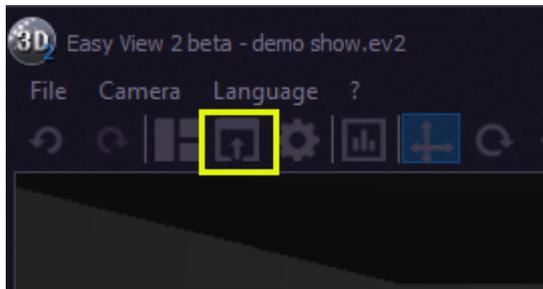
Other Tools

Easy View 2

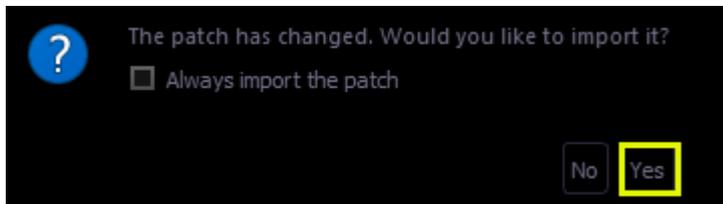
To start the 3D visualizer, select "Easy View (3D)".



The window may appear on top of all other windows, to disable this feature, select view and click here.

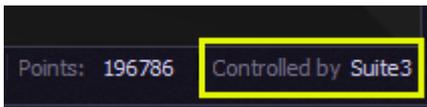


When opening Easy View 2 from the software you will be asked whether to import your patched fixtures. Answering 'yes' will import them into the 3D environment.



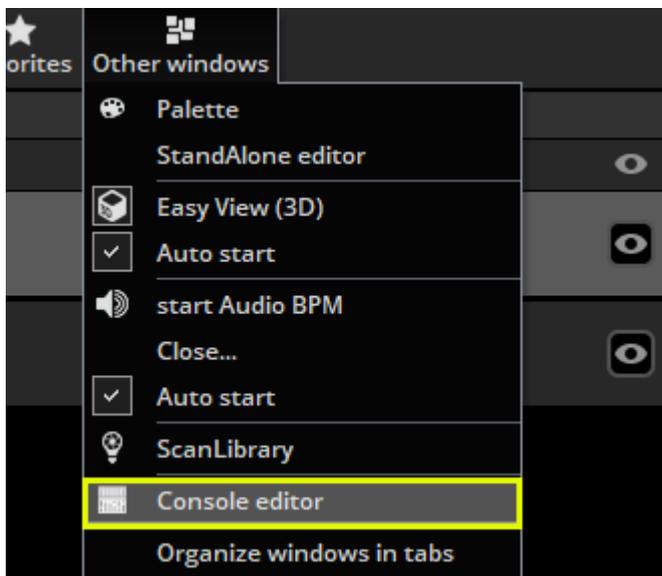
To arrange your fixtures and import other objects, select Build view. To avoid losing your work, make sure to save your Easy View 2 scene using File > Save As.

The fixtures in the 3D visualizer will automatically communicate with your fixtures in the software.



Console Editor

With the console editor, you can create a virtual screen to be controlled via a touchscreen or an iPhone/iPad/Android device using the EasyRemote app. You can also use the console editor to create a graphical representation of your MIDI or DMX controller with moving faders, dials and buttons. These can then be linked to almost all software features. See the Console topic for more information on loading and mapping a pre-made console. The console editor can be opened from the External Windows menu.



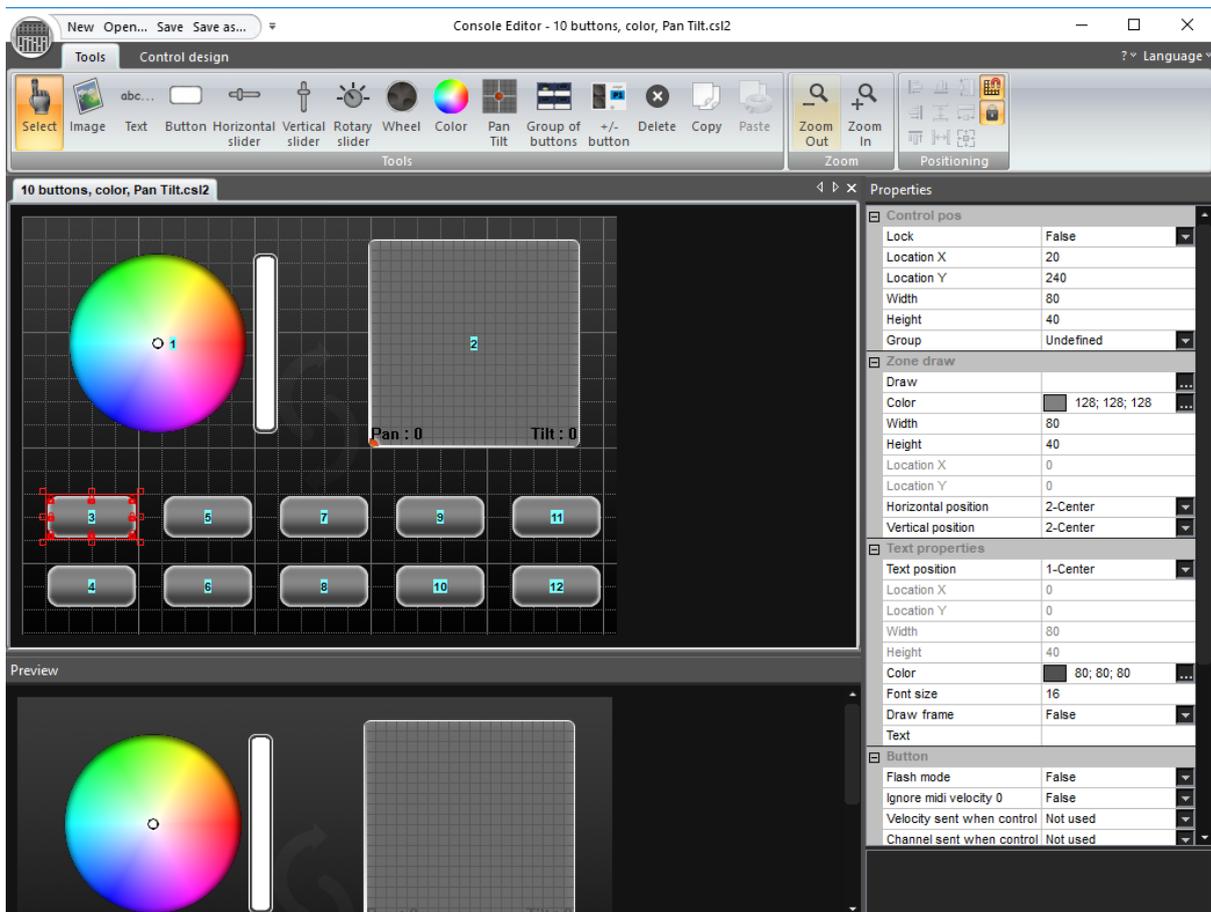
To add a component, select the component from the ribbon and click in the desired place on the console. A list of available components will appear. Click 'Default' to insert a component without a skin. Default components are best for EasyRemote consoles because the component skin is stored within the smartphone/tablet app, therefore the load times are much quicker.

Components can be moved by dragging, be sure that the lock option is disabled in the top right of the ribbon. To re-size an object drag one of the 8 squares. Holding alt and dragging will change the size of the component zone whilst maintaining the size of the component image. Each component zone can contain an image and some text.

The properties of the selected component appear on the right. These include:

- Position
- Size

- Group: Components can be added to a 'Group' (or 'Bank'). A 'Group of buttons' object can then be assigned to the group. This allows for different controls to be mapped to the component depending on the selected group button.
- Zone Draw: Here you can set the size of the image, the control design used (.ccd file), and the position and alignment of the image within the zone.
- Text properties. Each zone can contain an image and some text, here you can set the default text, color, font and alignment within the zone.
- Button: Default button behavior can be set here such as 'Flash mode' (the button is released when you release it with the mouse) and MIDI velocity information.
- Data: This is where MIDI and DMX mappings are made. For iPhone/iPad/Android users, EasyRemote mappings are made automatically.



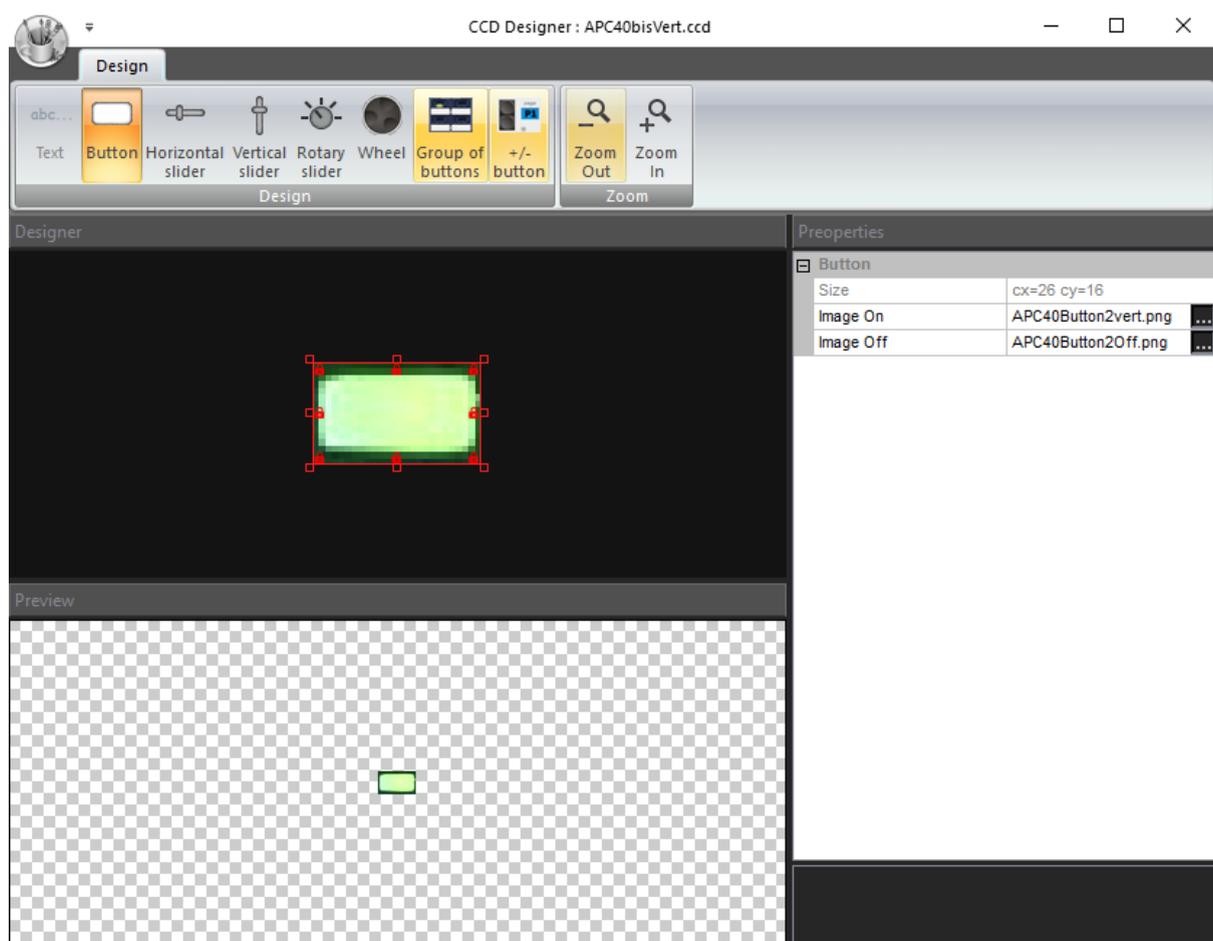
Custom component design

We recommend that 'Default' component designs are used where possible because these can easily be resized, colored, and can be sent over the network to a smartphone or tablet. However in some circumstances it's useful to design a custom skin for a button, fader or dial. The CCD designer can be used for building custom components.

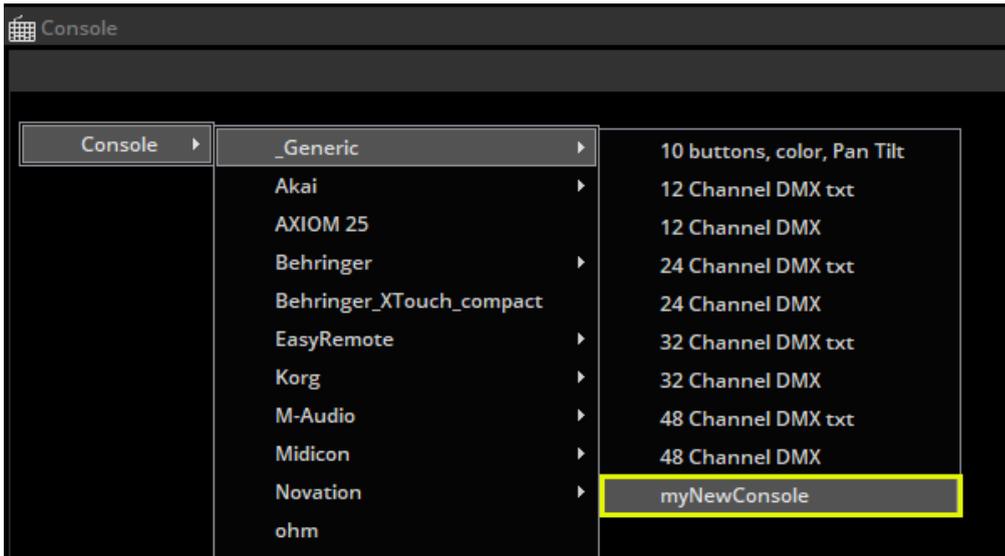
To create a custom component:

1. Click the 'Control design' tab

2. Click the 'New' button on the ribbon bar, or the 'Edit' button to edit an existing CCD file
3. Each CCD file can contain 1 of each component. The component type can be selected from the ribbon bar
4. The component design appears at the top and a preview of the component appears at the bottom
5. The properties can be adjusted on the right such as image, cursor position, cursor image, dial angle...



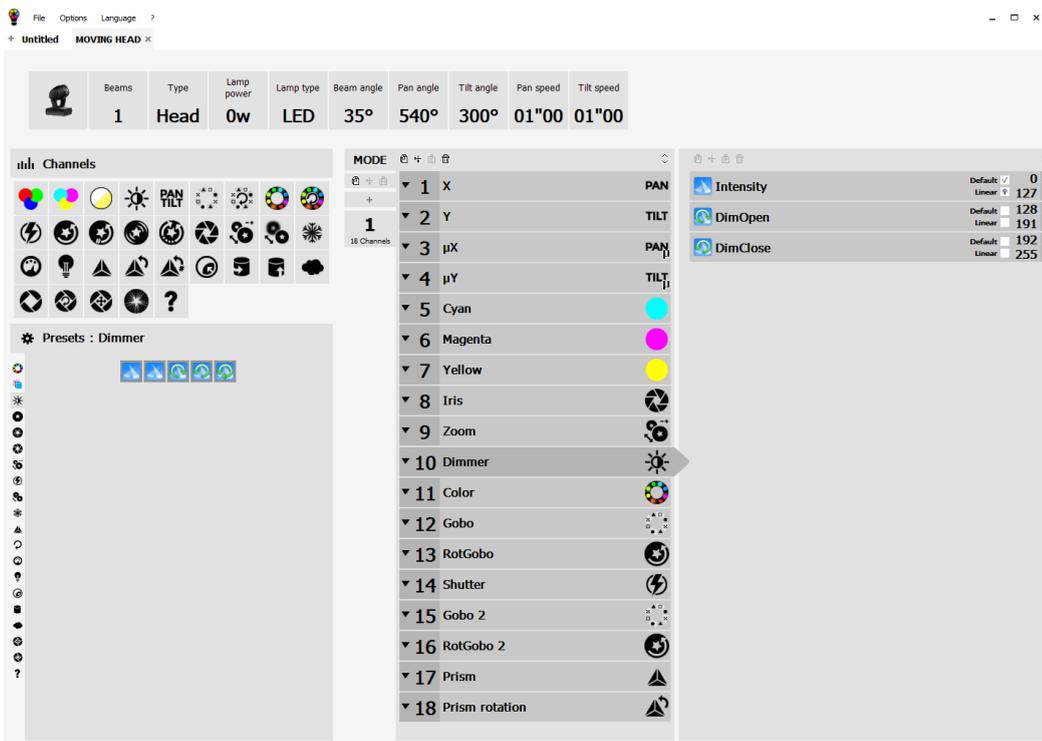
Once your console has been saved, it will appear within the console selection list. See the 'Console (MIDI, DMX, EasyRemote)' topic for more information on mapping a console and assigning software commands.



Scan Library Editor

Scan Library allows you to create your own fixture profile to use with the software. Before creating your own fixture profile, check that it has not already been created by another user, see the SSL forums by logging into your account at www.nicolaudie.com. If you are editing a fixture that is already in use by the software, you will need to restart the software before your changes take effect.

If you want to regenerate the pre programmed buttons after modifying a profile, you will need to re-patch the fixtures. The path window can be accessed from the page settings dialog.

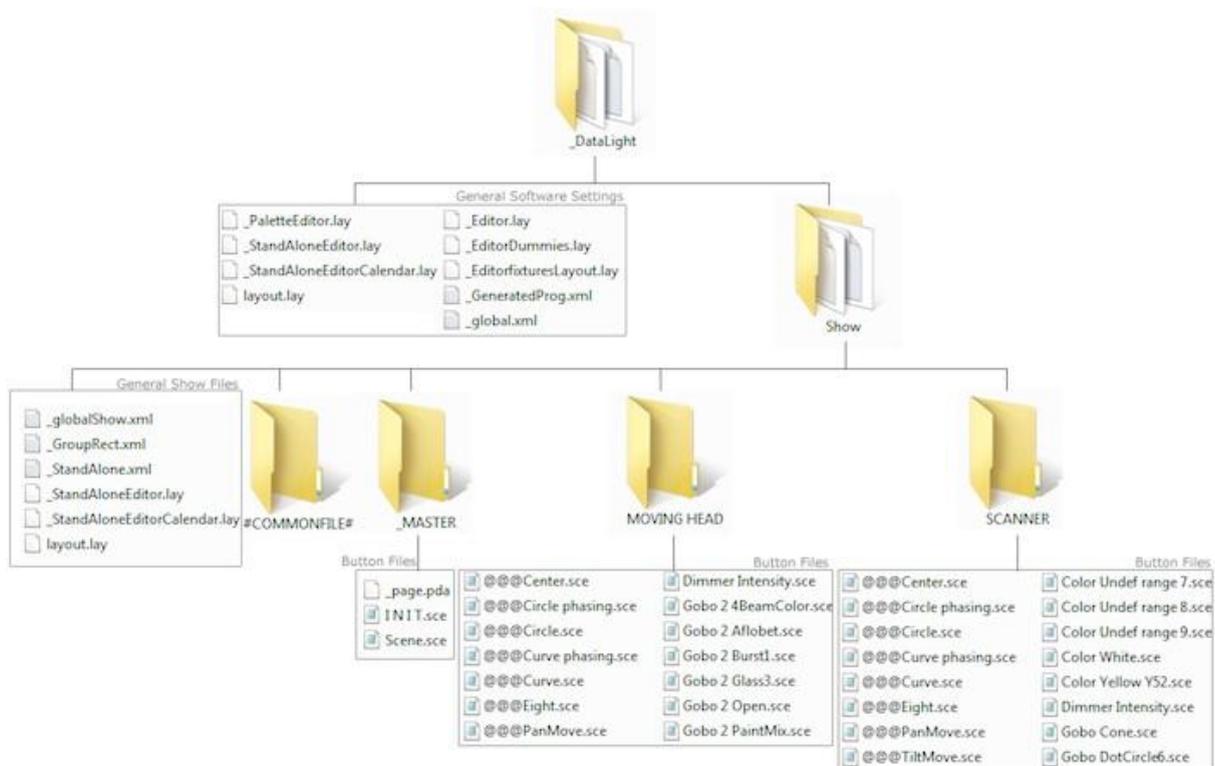


Appendix

Show Structure

Here is a diagram of a show structure. Notice that each button is saved as a separate file. Therefore you only need to manually save what is made within the button editor, everything else is saved automatically. This also makes it very easy to copy page folders and button files between different shows.

Clicking the save button in the open/save show dialog will compress all these files into one single show file allowing you to easily create a backup or use the show on a different computer.



Pre-mapped MIDI controllers

Elation MidiCon Pro

Left Section

The faders and buttons to the left are used to control the pages(1). Each of the 8 columns represents a page. 8 banks of pages can be selected using the up/down arrows giving the possibility to control up to 64 pages. This is expandable to 128 if required by mapping the remaining 8 spare pages.

Each column is mapped to the following:

- Right arrow: Select the next button in the page(2)
- Left arrow: Select the previous button in the page(3)
- Number: Select the page(4)
- Fader: Page dimmer(5)

Center Section

- Master fader: Controls the master dimmer of the entire show(1)
- BO: Opens and closes the beams of all lighting fixtures in the entire show(2)
- 4x4 button matrix: Select an compression/effect type. Use the arrows to cycle through the compressions on the selected page. The bottom right 'Other' button allows you to select buttons which are not included in any compression/effect type
- 5x4 button matrix: Currently unused except for the 'Enter' key which is used to play the selected button. These can be mapped to favorite scenes/switches.(3)
- 5x2 button matrix: These are mapped to software functions. Edit a button, close the button editor, create a scene, create a switch, create a cycle, record a cycle, record a live edit, clear a live edit, tap the BPM, sync the BPM(4)

Right Section

This area is used for choosing fixtures, scenes, switches and cycles on the selected page. 4 banks of 32 buttons are available. The bank can be changed using the up/down arrows giving access to 128 buttons/fixtures/groups. This is expandable to 512 by mapping the remaining 12 spare pages. The function of the 32 buttons depends on the selected mode button to the left:

- Fixt: Selects fixtures
- Grp: Selects groups
- Sel: Selects buttons
- Btn: Plays buttons

Wheel Section

The wheels change the speed, phase, size and dimmer of the selected button. Pressing the wheels will reset to the default value. If a color mix effect type is selected, the wheels will control Red/Cyan, Green/Magenta, Blue/Yellow, Dimmer. If a pan/tilt effect type is selected, the wheels will control Pan, Tilt, 16 bit Pan, 16 bit Tilt. The 2 arrows can be used to jump between selected scene within the selected compression/effect type.



Elation MidiCon 2

Left Section(excluding S Buttons)

- Master fader: Controls the master dimmer of the entire show(1)
- BO: Opens and closes the beams of all lighting fixtures in the entire show(2)
- 4x4 button matrix: Select an compression/effect type. Use the arrows to cycle through the compressions on the selected page. The bottom right '?' button allows you to select buttons which are not included in any compression/effect type(3)
- 5x4 button matrix: Currently unused except for the 'Enter' key which is used to play the selected button. These can be mapped to favorite scenes/switches.
- 5x2 button matrix: These are mapped to software functions. Edit a button, close the button editor, create a scene, create a switch, create a cycle, record a cycle, record a live edit, clear a live edit, tap the BPM, sync the BPM

Center Section

- Master fader: Controls the master dimmer of the entire show
- BO: Opens and closes the beams of all lighting fixtures in the entire show

Right Section

This area is used for choosing fixtures, scenes, switches and cycles on the selected page. 1 bank of 32 buttons is available giving access to 32 buttons/fixtures/groups, this is expandable to 512 by mapping the remaining 15 spare pages. The function of the 32 buttons depends on the selected mode. The mode can be changed using S buttons 1-6.

- S1 Fixt: Selects fixtures
- S2 Grp: Selects groups
- S3 Sel: Selects buttons
- S4 Btn: Plays buttons
- S5 Rec: Record a live edit
- S6 Clear: Clear a live edit
- The 8 letter buttons (A-H) are used to select an effect/compression type.

Wheel Section

The wheels change the speed, phase, size and dimmer of the selected button. Pressing the wheels will reset to the default value. If a color mix effect type is selected, the wheels will control Red/Cyan, Green/Magenta, Blue/Yellow. If a pan/tilt effect type is selected, the wheels will control Pan, Tilt, 16 bit Pan.



Elation MIDICon

Left Section(1)

The faders and buttons to the left are used to control the pages. Each of the 8 columns represents a page. 8 banks of pages can be selected using the up/down arrows giving the possibility to control up to 64 pages. This is expandable to 128 if required by mapping the remaining 8 spare pages.

Each column is mapped to the following:

- Right arrow: Select the next button in the page
- Left arrow: Select the previous button in the page
- Number: Select the page
- Fader: Page dimmer

Center Section(2)

- Master fader: Controls the master dimmer of the entire show
- BO: Opens and closes the beams of all lighting fixtures in the entire show

Right Section(3)

This area is used for choosing fixtures, scenes, switches and cycles on the selected page. 4 banks of 32 buttons are available. The bank can be changed using the up/down arrows giving access to 128 buttons/fixtures/groups. This is expandable to 512 by mapping the remaining 12 spare pages. The function of the 32 buttons depends on the selected mode. The mode can be changed using S buttons 1-4.

- S1 Fixt: Selects fixtures
- S2 Grp: Selects groups
- S3 Sel: Selects buttons
- S4 Btn: Plays buttons
- S5 Rec: Record a live edit
- S6 Clear: Clear a live edit
- The 10 touch sensitive buttons are used to select an effect/compression type

Wheel Section(4)

The wheels change the dimmer, speed and phase of the selected button. Pressing the wheels will reset to the default value. If a color mix effect type is selected, the wheels will control Red/Cyan, Green/Magenta, Blue/Yellow. If a pan/tilt effect type is selected, the wheels will control Pan, Tilt, 16 bit Pan.



Behringer BCF2000

The default mapping of the Behringer BCF2000 features 3 modes which can be selected using the buttons at the bottom right of the console.(1)

Page: used to select and control pages

Button: used to select and control buttons

Fixture: used to make live edits. A live edit allows you to play a Scene or Switch on a selection of fixtures as opposed to all fixtures within a page

Page Mode

In page mode, each of the 8 columns controls a page within the show.

- The encoder dial is used to select a button within a page. Press the encoder to play the selected
- The top row of buttons marked "Play" are used to select a page
- The bottom row of buttons are user assignable as, and can be mapped to most software functions

Button Mode

In button mode, each of the 8 columns is assigned to an effect type. The effect types are written along the top of the console.

- The encoder dial is used to select a button within the effect type. Press the encoder to play the selected button
- The top row of buttons marked 'Play' are used to play the selected button
- The bottom row of buttons are user assignable as with page mode

Fixture Mode

Fixture mode is used for creating live edits. This allows you to play a scene/switch on a selection of fixture. To create a live edit:

- Press the fixture mode button
- Use the 2 rows of 8 buttons to select up to 16 fixtures
- Go to button mode and select and play a scene/switch
- A new live edit will be listed in the bottom right of the fixture window. To clear all live edits, press the 'Clear' button in the bottom right of the console

Encoder groups

By default, the 8 encode dials are used to select buttons. The encoders can also be used to control Speed, Phase and Size of the selected Scene/Switch by pressing the 4 encoder Group buttons at the top right of the console

