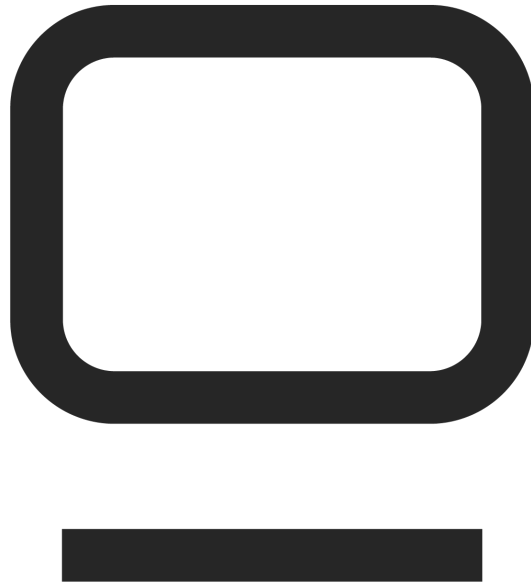


Onyx User Manual



TM

Version: 4.10.1263

Welcome to ONYX

ONYX is envisioned for creative professionals and new beginners alike. It scales from the smallest shows to the largest touring productions with easy-to-use tools and optimized graphical work environments that can adapt to any task and complexity.

Console systems are available in various sizes to accommodate scale and budget. At any point the full system can be run on PC systems with USB connected control surfaces or simply by intuitive touch screen operation.

ONYX is an easy-to-learn and fun-to-use powerful lighting control platform designed for industrial hardware consoles and PC systems. Internally, the consoles work in combination with a carefully customized Operating System. When installed on PC systems it offers the full power of the platform.

ONYX calculates all processing internally and does not require the use of costly external processing nodes. All hardware is enabled to its full potential, while the ONYX keys provides access to up to 128 Universes depending on PC specifications and license level.

DyLOS

Based on a full 3D environment and powerful DirectX graphics processing, the DyLOS engine has been designed from the ground up for power and performance to manage tens of thousands of fixtures and parameters with ease. The DyLOS workflow is natural and follows the same well-known access to any regular stage light programmed with ONYX. Available any time dynamic control of colors, intensity or any other fixture parameter is required, DyLOS is natively integrated into the operation of the console, offering seamless programming and playback through its optimized user interface of live previews, thumbnails, library and FX browsers and dynamic parameter control.

Creative control with DyLOS is truly limitless, offering the designer an incredibly diverse tool set to support the performance with organic color compositions and animations. DyLOS enhances the design process and encourages playful experimentation rather than an overly technical and uninspiring approach of numbers and values. DyLOS is fun to use and easy to navigate, allowing the designer to focus on the creative process.

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New 4.10 Manual Pages

[Telnet](#)

[Telnet and UDP Commands](#)

[NDI Settings](#)

[Audio Settings](#)

[Dynamic Palettes](#)

[Highlight Presets](#)

[Default Values](#)

[Parking](#)

[Offsets](#)

[Ableton Link](#)

[Input Sources](#)

[Input Processors](#)

[Input Source Types](#)

[Connecting Multiple Input Processors](#)

[Using an Input Processor with Dylos](#)

Getting Started

Install Guides

Updating Onyx on a Console

This installation guide covers updating Onyx on a console. For Updating/Installing on a PC please see: [Installing Onyx Update on a PC](#)

Before starting please confirm your console is running Onyx OS 4.10, If you are running a previous version of Onyx OS please see: [Installing the Console OS](#)

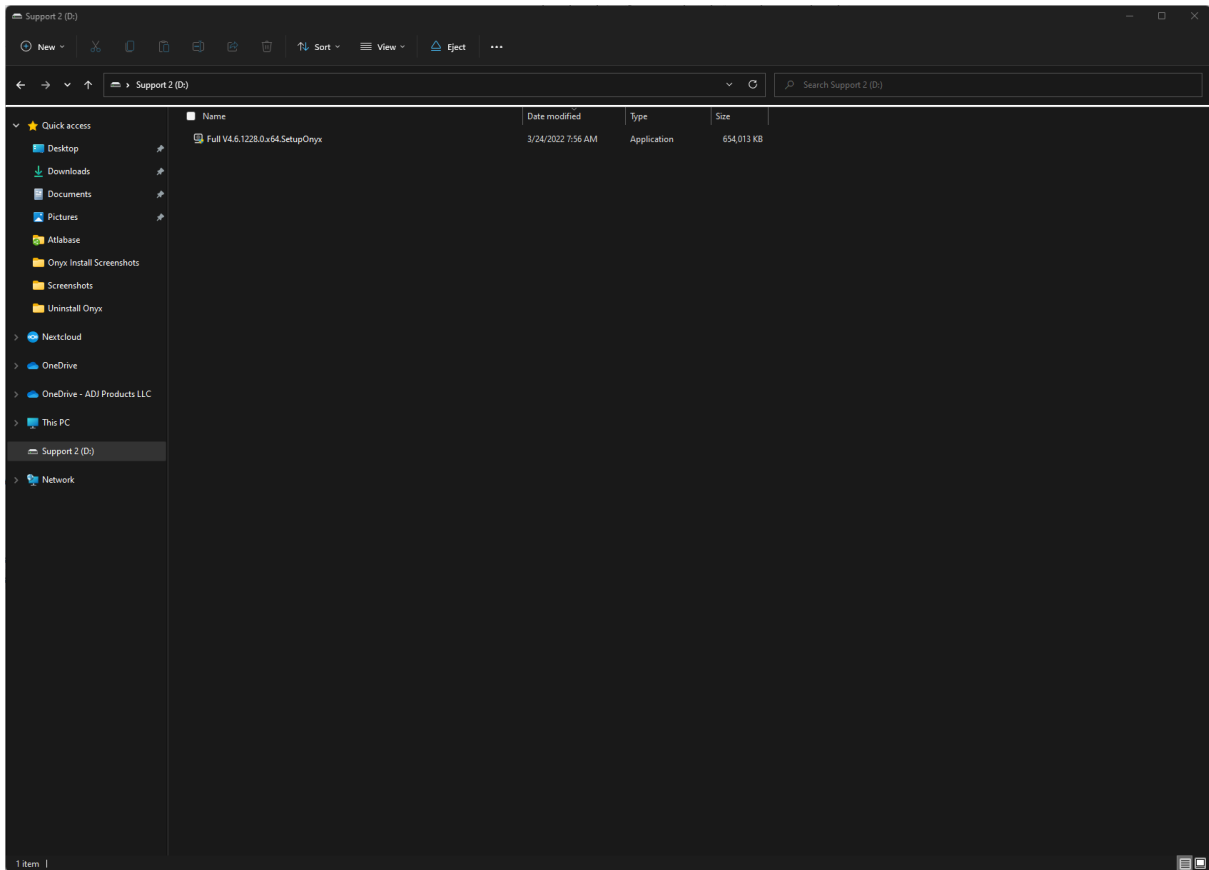
The OS version can be found under Menu>About in the Onyx Menu



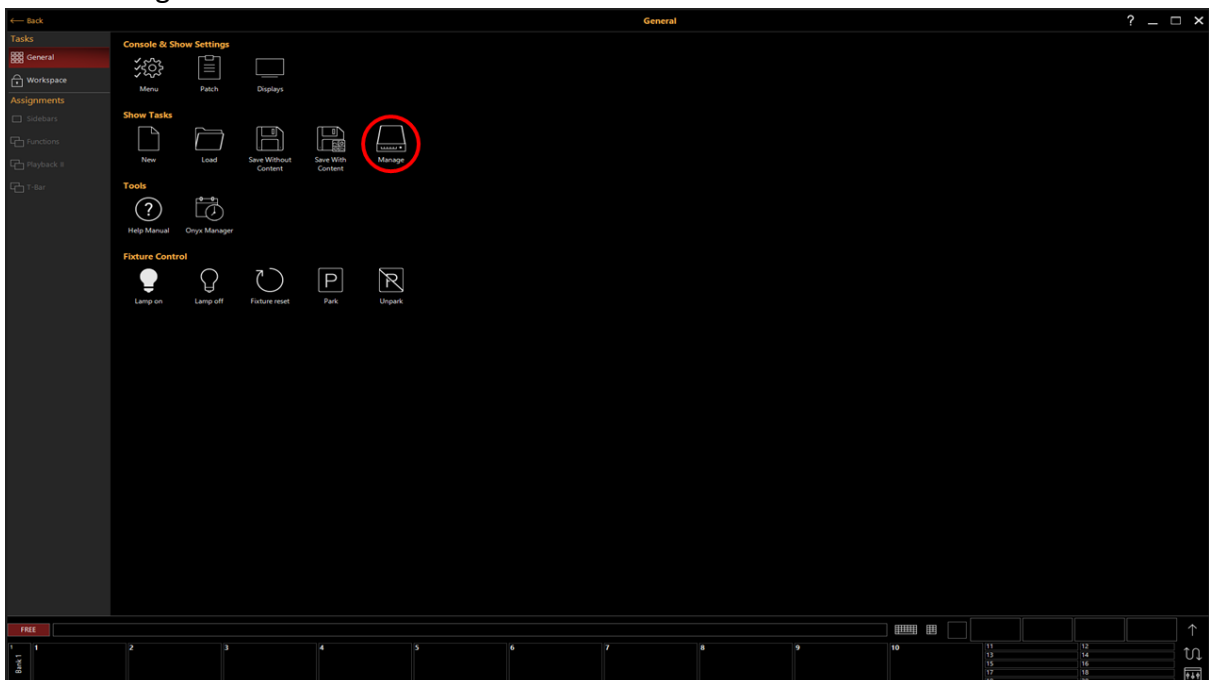
Installing Onyx 4.10

1. Download the Onyx installer, This can be found on the [Download](#) page.

2. Load the installer onto the root folder of a USB thumb drive.

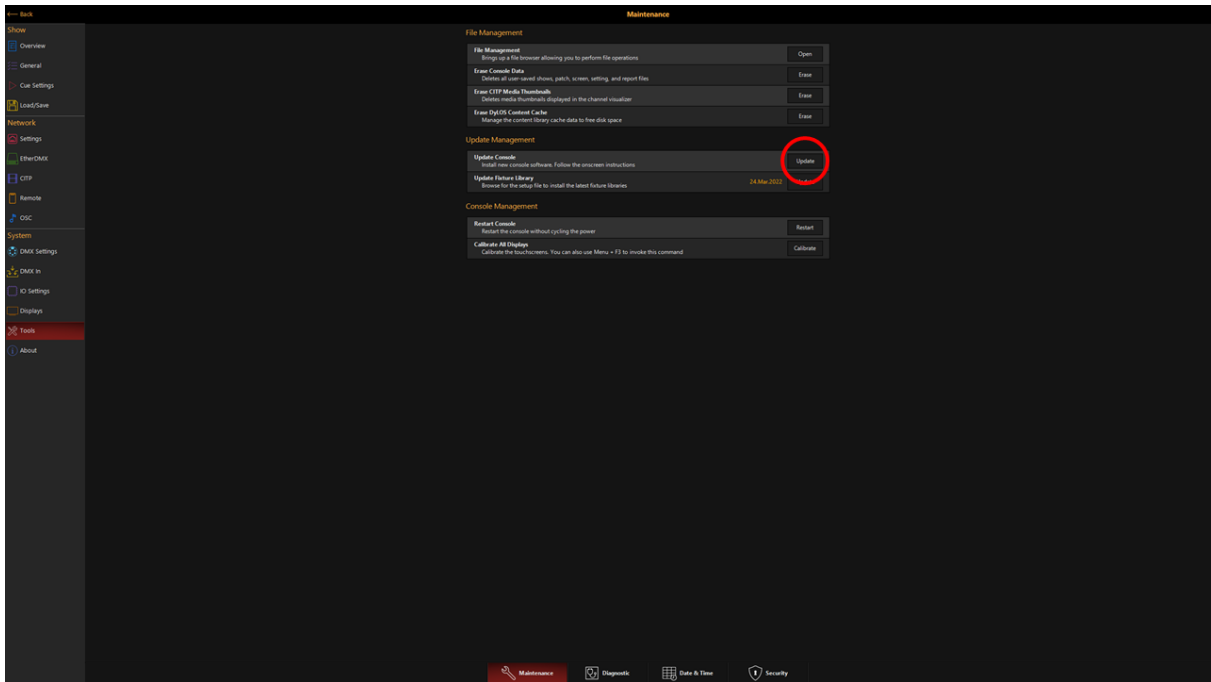


3. Plug the USB thumb drive into a rear USB port of the console.
4. Press the MENU key on the console or the ONYX logo in the upper left corner of the screen.
5. Press Manage



6. Select Tools from the list on the left.

7. Press Update



- 8. Select the USB thumb drive from the list on the left and select the installer.
- 9. Press Install, and follow the onscreen instructions.

Once the console has rebooted it will finish the installation and boot into the updated version of Onyx.

Installing/Updating Onyx on a PC

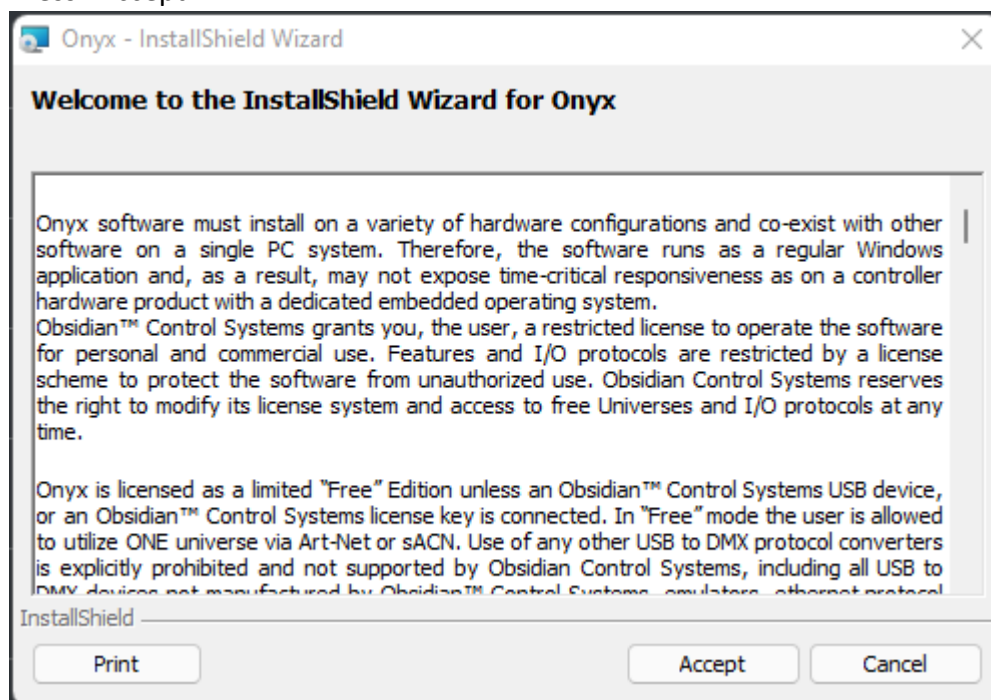
This installation guide covers installing or updating Onyx on a PC system. For Updating/Installing on a console please see: [Installing/Updating Onyx on a Console](#)

Before starting please confirm your system meets the [Minimum PC System Requirements](#). And your system is fully up to date with all Windows Updates.

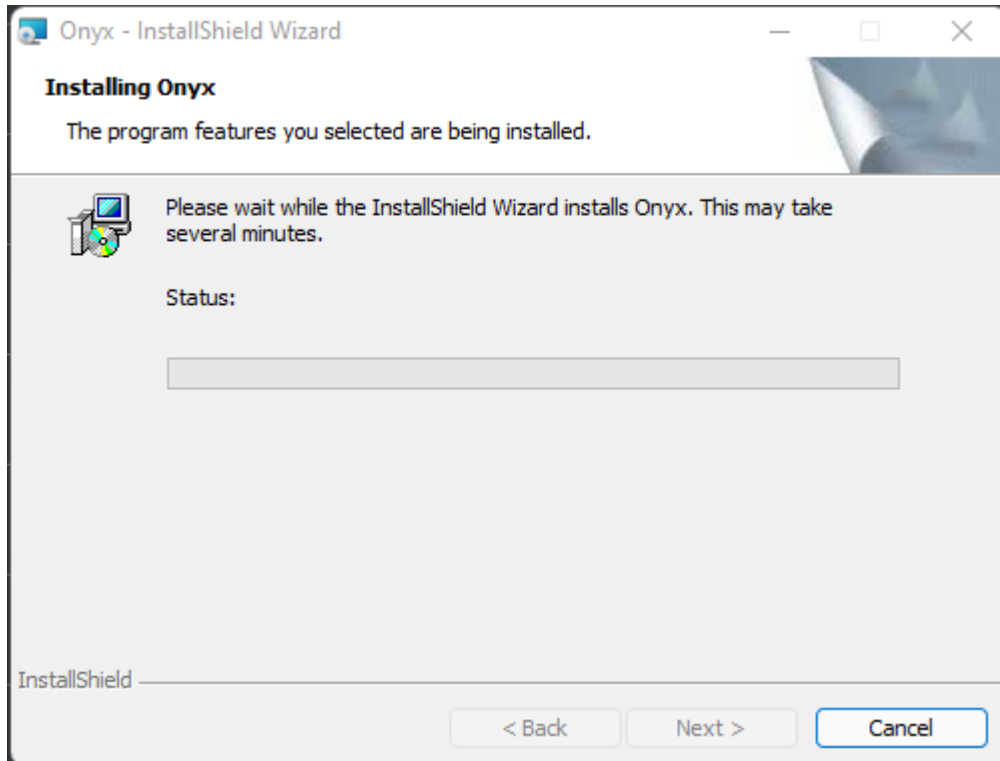
Installing Onyx 4.10

1. Download the latest Onyx installer for PC. This can be found on the [Download](#) page.
2. Open the installer from your downloads folder. (Onyx needs to be installed from an administrator account)
3. Follow the onscreen instructions.

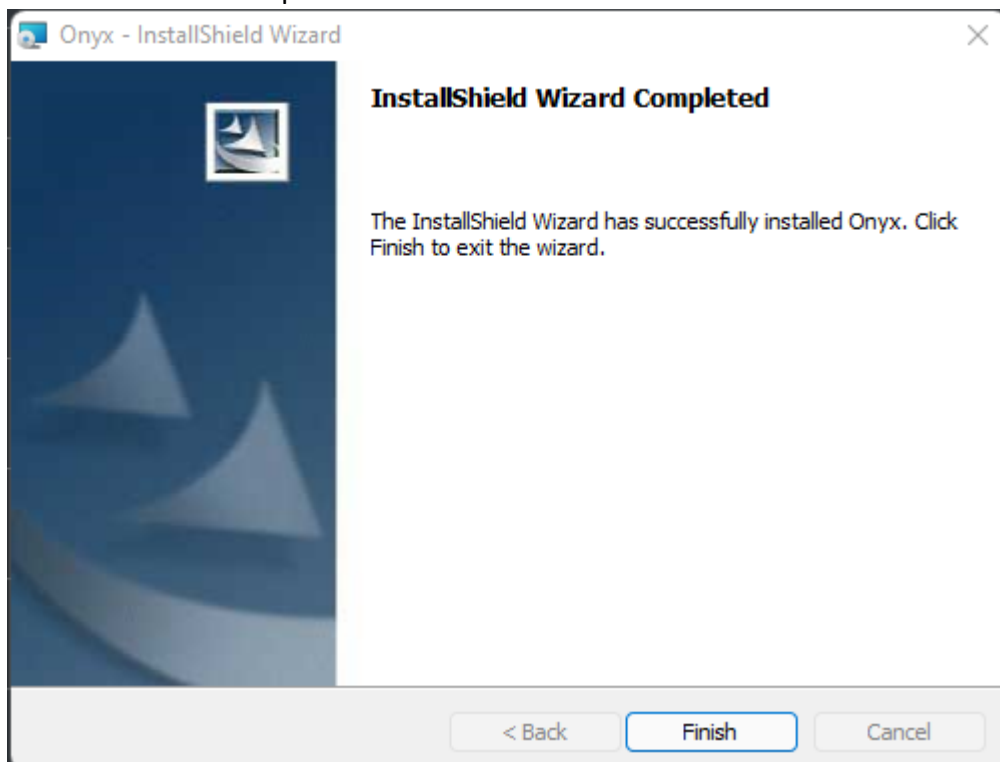
1. Press "Accept"



2. The Installation will start. (This may take several minutes)



3. Press "Finish" to complete the installation.

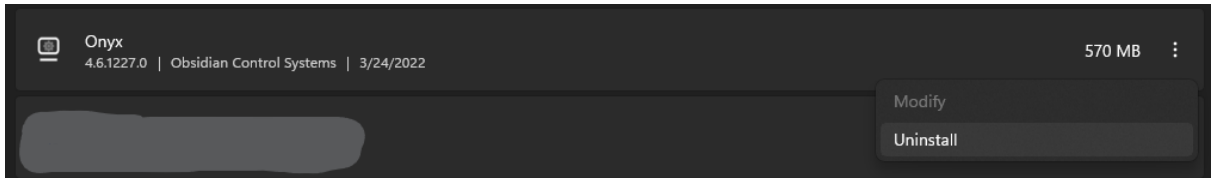


- Once the install is complete, please download and install the most recent [Fixture library](#)
 - [Fixture Library Download](#)
 - How to Install the Fixture Library in Onyx 4.10

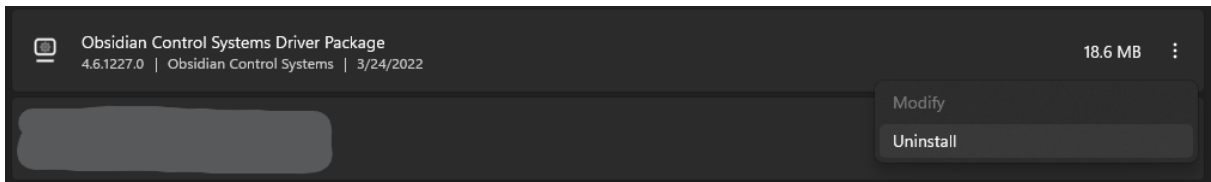
Uninstalling Onyx 4.10

To uninstall Onyx, please follow the steps below.

1. Open the "Add or Remove Program" menu
2. Navigate to "Onyx" and select "Uninstall" then follow the onscreen instructions.



3. Navigate to "Obsidian Control Systems Driver Package" and select "Uninstall" then follow the onscreen instructions.



Installing Onyx OS on a Console

!! WARNING !!

Onyx OS should **NOT** be updated on or before a show unless **ABSOLUTELY** necessary.

Installing or updating the Onyx OS on a Console will **delete** all showfiles files from the console.

Please make backups before proceeding, as you cannot recover these files.

Intro

This guide will cover installing Onyx OS 4.10 on a console running a previous Onyx OS.

If you are already running Onyx OS 4.10 and need to update to the latest Onyx 4.10 version, please follow [Updating Onyx on a Console](#)

!! Notice !!

NX1 consoles REQUIRE a BIOS update before installing Onyx OS 4.10

Please follow the instructions on [how to update BIOS on NX1](#) before continuing with the 4.10 OS install

Required Items

Windows Computer (Windows 10/11)

(1) - USB 3.0 Thumb drive (32 - 64GB)

Downloading the OS

The Onyx OS is available on the [Obsidian Support Download page](#) or from the table below.

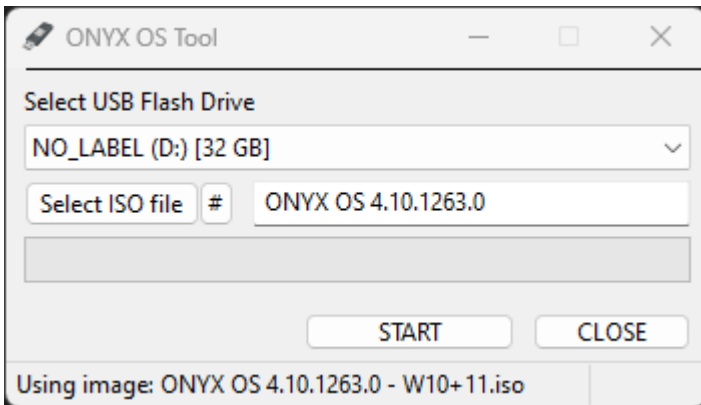
Type	Size	Link	Notes
ONYX OS 4.10 (4. April 2024) (for NX4 - NX2 - NX1 - M6 (ONYX Kit))	12.8 GB	Download	How to Install the ONYX OS This will delete all files on the USB stick and the console! Backup all required files to an external USB drive first. ONYX OS License Agreement

Create an Onyx OS USB stick

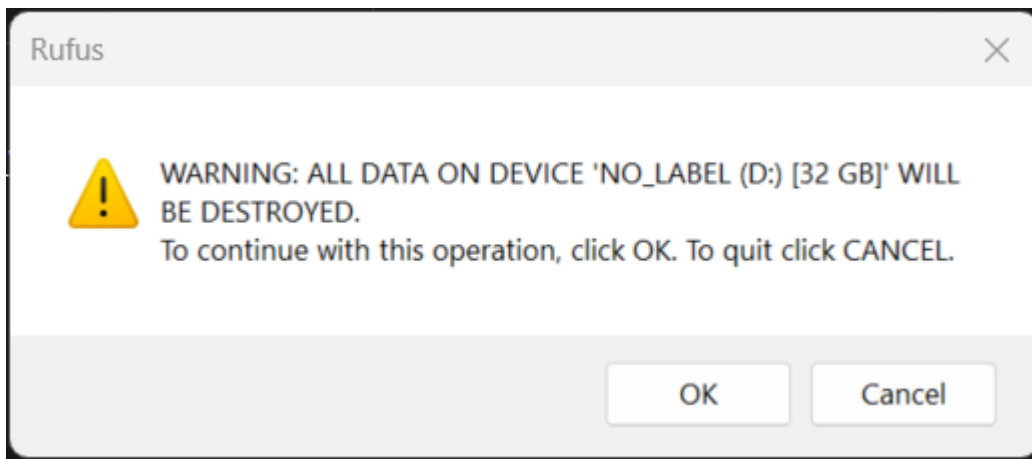
The Onyx OS is provided as a .zip file. Extract the file by right-clicking on it and use "extract all".

A folder will be created with the contents of the zip drive, which are at least the actual OS file ending in .ISO and the ONYX OS Tool.

1. Insert your USB Flash Drive (min 32 GB)
2. Start the ONYX OS Tool



3. Select the USB Drive. **Be careful not to select the wrong drive letter (sd card, external hard drive), this tool will format it completely.**
4. Select the ONYX OS ISO file
5. Click "Start"



6. Press "OK"

7. The tool will take approximately 45min to complete.

Preparing the Console

!! Important !!

Please backup your show files to an external USB drive before installing the BIOS Update.

***** Disconnect all Display and USB connections from the console *****

Installing the OS

NX4, NX2, NX1, & M6 (Onyx Upgrade Kit):

1. Turn the console OFF.
2. Insert the OS USB Drive into a rear USB 3.0 port (Blue Port).
3. Turn ON the console.

!! NOTICE !!

Please be patient. Some of these steps may result in a black screen for several minutes as the OS is installed. Do not shut down the console until the whole procedure is completed. Interrupting the process means to start over from the beginning.

Your screen may be upside down or show "Installing Windows." this is Normal.

Getting Started

The console will show this screen after booting from the OS USB drive.

Press Enter to start the installation.

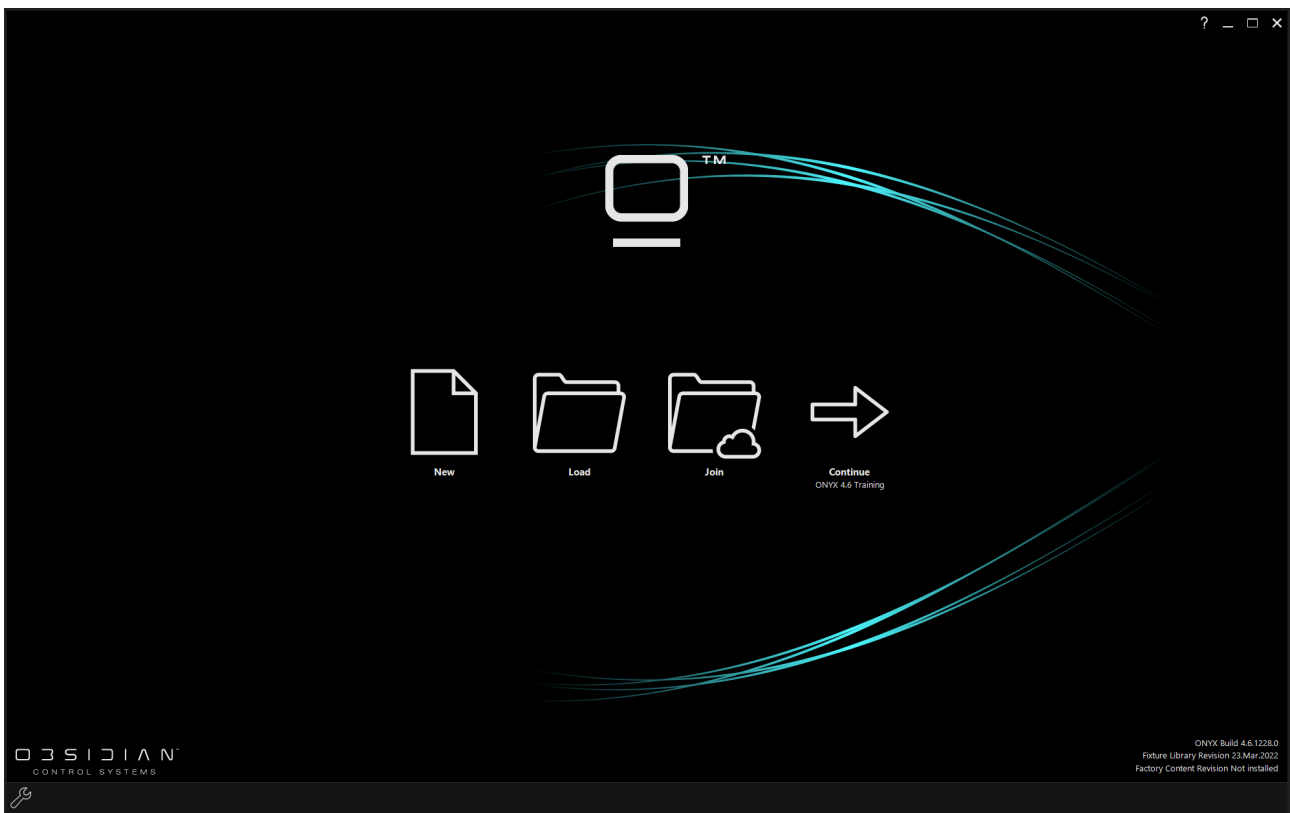


The console will show many screens during the OS installation process; please wait until you see this screen before continuing.



Getting Started

After the console reboots, it will start installing Onyx; please wait for this process to finish. It will be complete when you see the Onyx Launch Screen shown below.



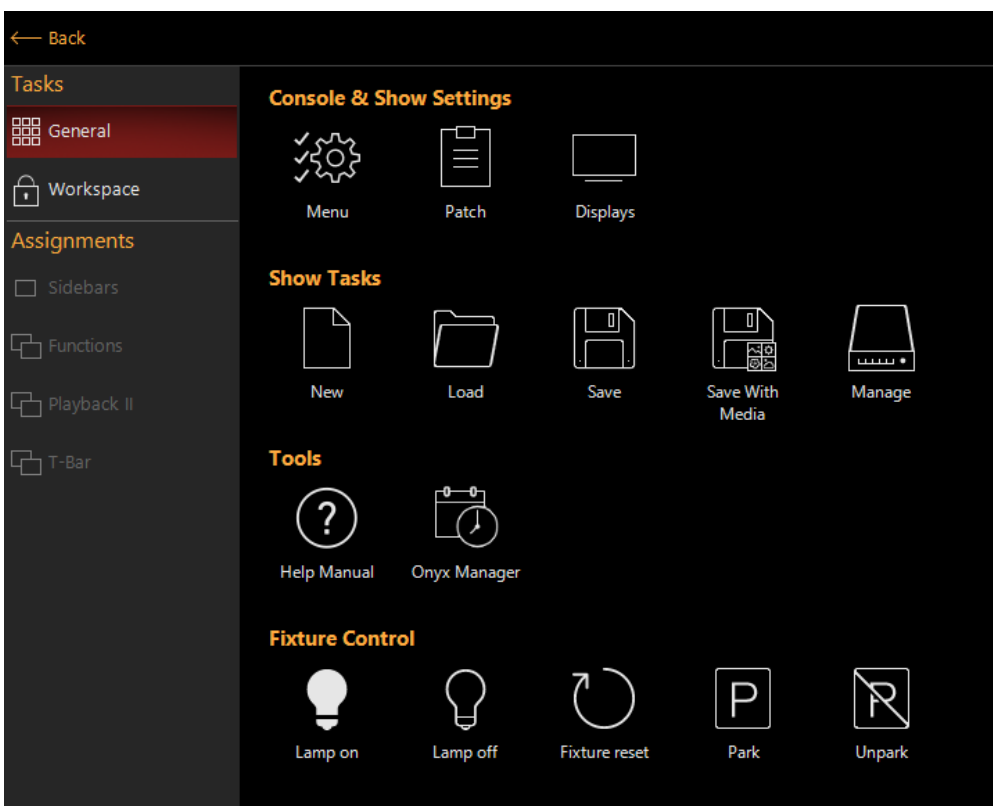
Building a New Patch

This guide will show how to add fixtures into your show file using the Patch.

Adding Fixtures.

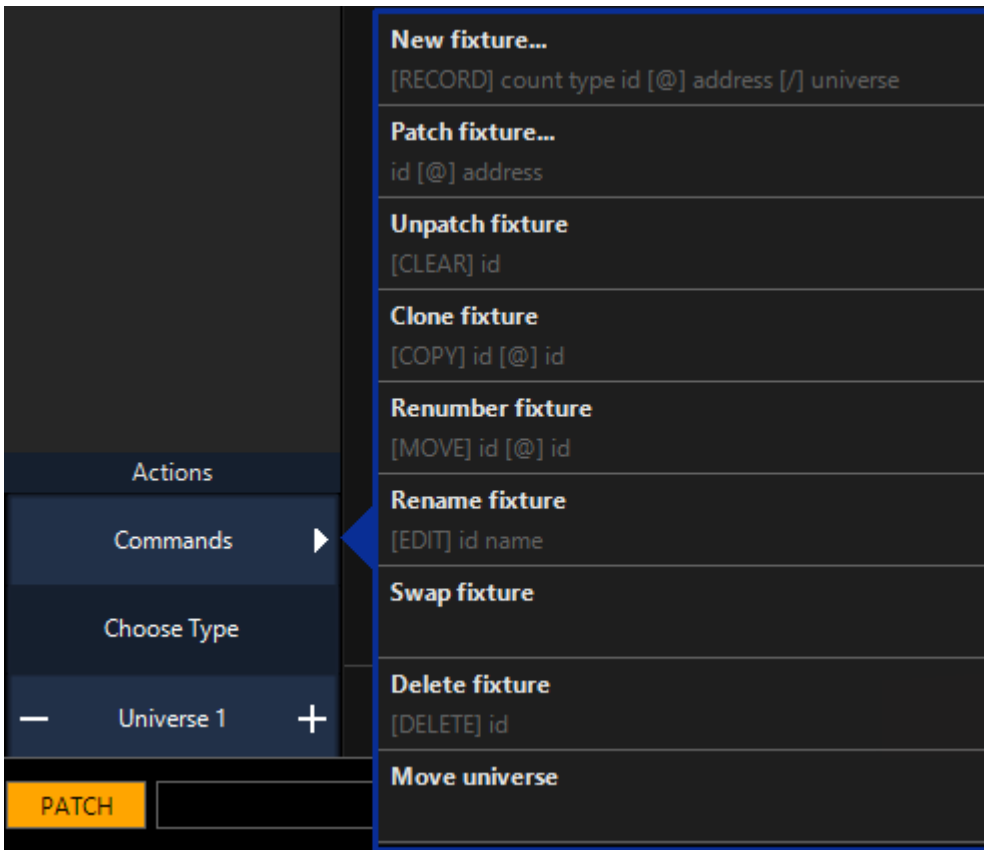
To choose the fixtures you want in the show, and patch them accordingly, you need to enter the patch.

To do this, press the ONYX quick menu button in the top left hand corner of the main screen.

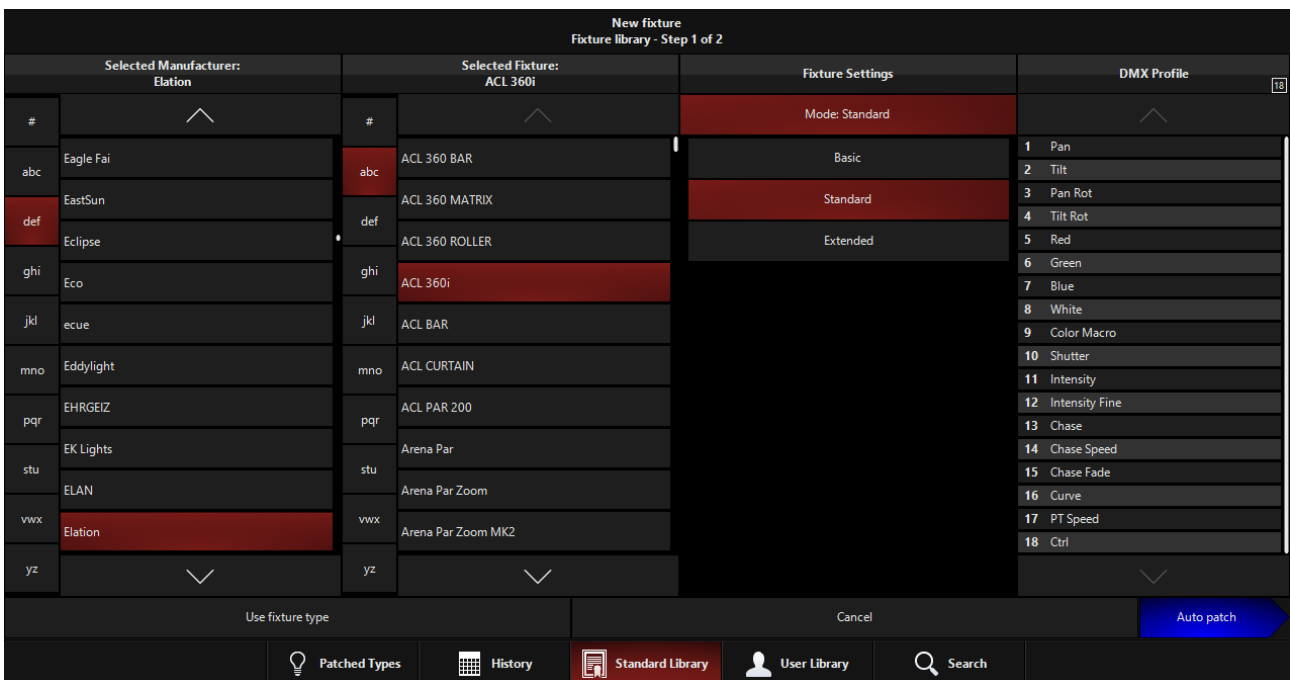


Press the Patch button and ONYX will launch the Patch window.

The easiest way to add new fixtures to the show is with the Auto Patch tool. So, press the Commands Button, then the New Fixture... option.

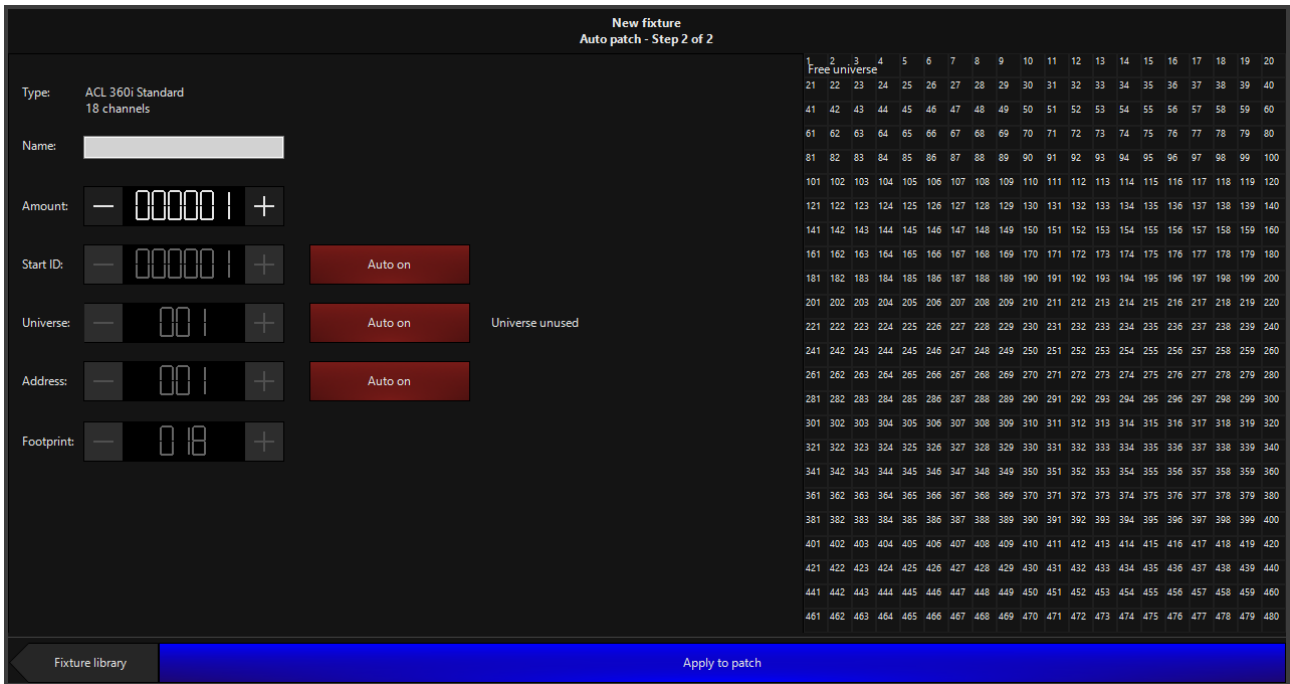


Now you are in the Fixture Library. The library is arranged with manufacturers in the left most column, the fixture type in the second column, the mode in the third column and the DMX protocol readout in the last column.



Navigate to the required manufacturer, fixture and mode by pressing on the available options. You can use the groups of letters to the left of each column to jump through the listings quickly.

Once you have found your fixture and selected the correct mode for your needs, press the blue Auto Patch button in the bottom right hand corner of the window.



Once in the Auto Patch window, simply set the Amount counter to be the total number of the selected fixture you wish to patch.

The Start ID can remain at its default, or be changed to your preference by pressing the "Auto On" button and using the +/- buttons. *The start ID is the unique "fixture number" assigned to each fixture that you will use to call them up on the keypad.*

You can also press on the value and use the number pad on your computer or console. Double-pressing will popup the on-screen number pad.

The Universe and Address can be changed in the same manner. If you leave them to "auto", the console will choose the first available address.

Press Apply to Patch to add the new fixtures to the patch.

Once ONYX has added the fixtures, they will appear in the patch window with their relevant patch data.

Getting Started

ID	Name	Type	Universe	Address	Invert
1		WW Profile 1 Ch	1	474	
2		WW Profile 1 Ch	1	475	
3		WW Profile 1 Ch	1	476	
4		WW Profile 1 Ch	1	477	
5		WW Profile 1 Ch	1	478	
101		Artiste DaVinci Standard	1	1	
102		Artiste DaVinci Standard	1	29	
103		Artiste DaVinci Standard	1	57	
104		Artiste DaVinci Standard	1	85	
105		Artiste DaVinci Standard	1	113	
106		Artiste DaVinci Standard	1	141	
107		Artiste DaVinci Standard	1	169	
108		Artiste DaVinci Standard	1	197	
109		Artiste DaVinci Standard	1	225	
110		Artiste DaVinci Standard	1	253	
111		Artiste DaVinci Standard	1	281	
201		FUZE WASH Z350 15 Ch	1	309	
202		FUZE WASH Z350 15 Ch	1	324	
203		FUZE WASH Z350 15 Ch	1	339	
204		FUZE WASH Z350 15 Ch	1	354	
205		FUZE WASH Z350 15 Ch	1	369	
206		FUZE WASH Z350 15 Ch	1	384	
207		FUZE WASH Z350 15 Ch	1	399	
208		FUZE WASH Z350 15 Ch	1	414	
209		FUZE WASH Z350 15 Ch	1	429	

<
>
<<
>>

Multi Select OFF

Change Color Change

Filter

All fixture types 47	Artiste DaVinci Standard 11
Colour Chorus 72 48 Ch (d) 8	Dartz 360 Extended 12
FUZE WASH Z350 15 Ch 11	WW Profile 1 Ch 5

Fixtures 47

Patched fixtures 47

Non patched fixtures 0

Connecting to Capture

ONYX consoles or PC software can connect with the Capture visualizer via multiple methods, the best method being via [CITP](#).

Via CITP, Capture and ONYX work together via 2-way communication that enables [Patch Import](#) and also control information - allowing you to select fixtures and change parameters via Capture and see it appear in your ONYX programmer!

1. Connect the PC/Mac running Capture with ONYX using a network cable.

In order for the computer running Capture to receive CITP data, it needs to be physically connected to the correct network port on the ONYX Console.

A ONYX Console has two network ports, the one labeled EtherDMX port is the best choice for CITP communication.

Connect this EtherDMX port to the PC network port with an Ethernet cable. If you connect your PC directly to the Console, you might need a cross-over cable (most modern equipment is auto-sensing and will work with a regular cable), or you can use a network hub/switch and 2 regular network cables.

If you are within one PC for both ONYX and Capture, you can use the Microsoft Loopback Adapter.

2. Setup the PC/Mac Network settings to match the ONYX Console.

In order for the computer running Capture to receive the CITP information, it also needs to be logically connected to the correct network.

ONYX usually sends EtherDMX information in the 2.x.x.x network, meaning that the receiver needs to have an IP address that starts with 2, and a sub netmask of 255.0.0.0. The other three numbers of the IP address are less important but the combination must be unique. What is important here is that the computer's IP address and ONYX's IP address are within the same range. If you are using a router in the system, it must also be within the same IP address range.

For more information on the details on this setup, [see CITP](#).

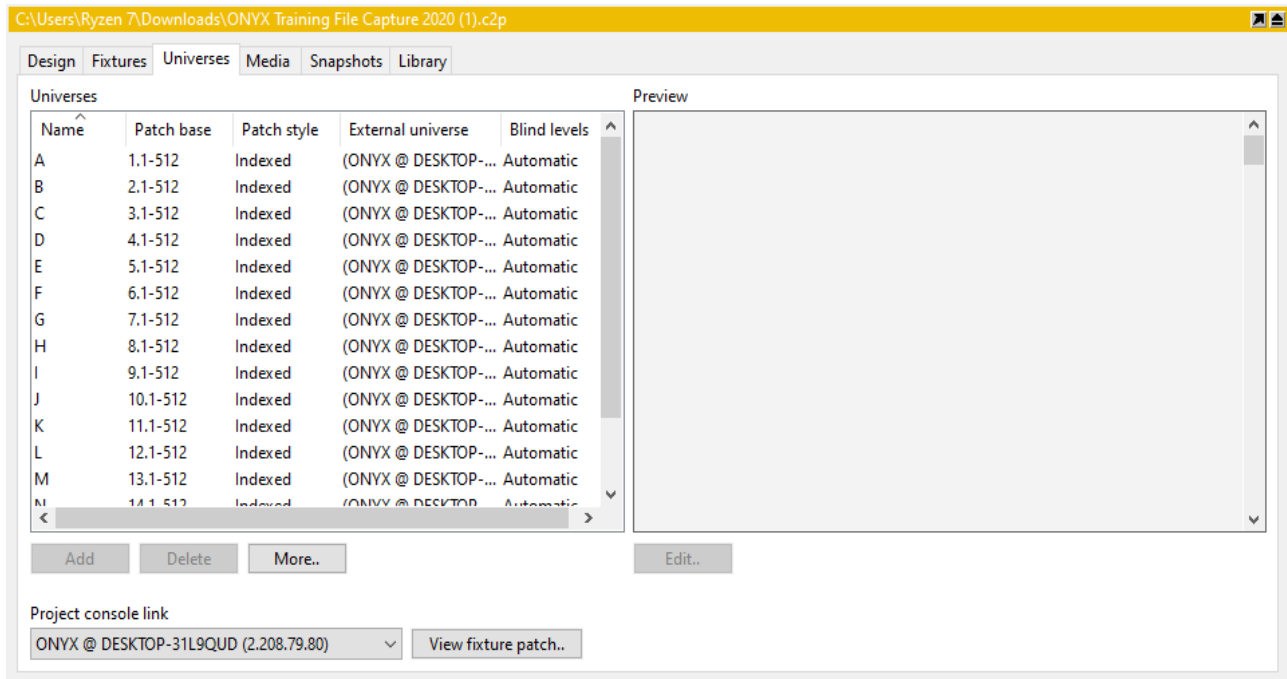
3. Configure Capture.

If the Capture PC/Mac is configured in the same IP range as the console, the CITP universes should appear straight away in the "Universes" tab of the "Project Window" as shown below.

Getting Started

They will automatically assign in numerical order to the universes you have in Capture, however you can customize that by tapping on the "External universe" field.

You will also need to ensure that the ONYX console is selected in "Project console link" at the bottom. This enables the 2-way communication between Capture and ONYX.



Now Capture and ONYX are connected and you are good to work in them together!

General Concepts

If you are an experienced programmer this chapter will give a quick overview of how ONYX "thinks".

If you are a beginner, this chapter will give a useful overview of general terminology and concepts used throughout the manual. **Don't get intimidated by all the new terms and names, they will all make perfect sense once you start using the software.**

Fixtures and Dimmers

ONYX does not separate fixtures and dimmers. A dimmer is simply a single parameter fixture.

A show file can only contain a unique fixture ID once. There is only one fixture "25" in the show. The lack of distinction between dimmers and fixtures means that you don't have to switch between fixture types with identical ID numbers. This makes fixture selection a breeze and eliminates many button presses found on other lighting consoles.

Multi-Part Fixtures

Many modern fixtures, particularly those with many LED's, offer the ability to change different "parts" of the fixture independently. *For example, you may have an LED strip light or LED moving light with 8 controllable segments of RGB color and intensity.*

When working with these types of fixtures, ONYX combines the "parts" together with a "master" fixture. The master will control any parameters that apply to the whole fixture - for example Intensity, Macros, Gobo, etc.

The "part" fixtures are contained within the master and give you control of each "cell" or "part" of the fixture independently. The master is referred by fixture number as "X", and the parts would then be "X.1" through "X.8" (or more, depending on how many parts exist).

If the multi-part fixture is assigned to "301", then we could select the entire fixture as by entering 301 Enter on the command line. To just select the first part fixture, we would type 301.1 Enter.

The Command Line

Thinking of the command line, ONYX utilizes a logically structured command line syntax that orientates itself along established industry standards. Once the general idea of the command structure is understood many commands will come easily to the user as they are modeled along the communication between a lighting designer and a programmer.

"Bring fixture 25 at 80%" is exactly that in the command line: 25 @ 80 Enter.

This system is based on a **Source @ Target "Enter"** based command structure that feels natural and is easily learned.

To get an full overview of all the command line syntax, jump directly to the [Command Line Reference](#)

Programmer and Fixture Parameters

Like other lighting consoles, ONYX uses a programmer window that functions as a toolbox to create and edit fixture parameters.

The programmer has the highest priority over fixture parameter values, unless it is set into the available [Preview](#) mode. Values can be brought into the programmer utilizing the LOAD command and removed from the programmer using the CLEAR command. Many smart shortcuts exist to manage the programmer contents fast and efficiently.

By using the [Live Time](#) functionality, the programmer window can be used as an extension of the playback system allowing elegant modifications of programmed cues on the fly.

Fixtures are modified using an advanced graphical representation of its parameters using the CV or "Channel Visualizer" window. We call these encoders "Attribute Controls". Any functionality supported by a specific fixture type is laid out logically in front of the user and all parameters and options are right at the touch of a button.

Presets

Presets (known elsewhere as palettes or focus groups) are the essential building block for fast programming as well as efficient editing of cues. Presets are divided into functional parameter groups like "Color" or "Gobo" to break fixtures into their logical parts.

Presets can contain fixture values, timing values, and effects values. All of these are referenced into a cue so that **updating the preset will change the resulting playback wherever it was used**, making adjustments easy to accomplish. Presets are by default specific to a parameter group, but can contain as many parameters as desired by the user.

Many experienced programmers spend almost the same amount of time creating their presets as programming actual cues. Think of Presets as the many different colors and shapes of building blocks that allow fast assembly once all the parts are in place.

Cues and CueLists

The desired "look" created in the Programmer window is stored in a cue. Cues can contain as many or as little amount of parameter, timing and effect values as desired.

Multiple cues from various cuelists all can be running at the same time, allowing creative control for unstructured shows as easily as complex and intricately timed playback of structured cuelists like the ones found in a theatrical play.

Standard Cuelists operate in LTP mode, where the most recent cuelist played will take the output to the stage for the parameters contained within it. See the cuelist types below for exceptions.

By default ONYX operates a cuelist with tracked values, meaning only changes are programmed in cues and the output of a cue is the summary of all values combined from previous cues in the same cue list.

Cues can be stored and recalled [in various types](#), for example [submasters](#), [overrides](#), [inhibitive faders](#), [chases](#) and a dedicated [timecode](#) option.

Effects

The ONYX handles [effects \(FX\)](#) as an extension of the fixture parameters. Every parameter has its on individual FX section to modulate its values.

Effects values can be stored without an associated parameter value which allows flexible on the fly adjustment and mixing of effects as well as complex effects speed and size control when working inside a cue list. Effects can also be stored and recalled from a [dedicated FX directory](#).

Playback

Playbacks are available on faders, physical buttons as well as a onscreen button directory to provide fast access to hundreds of cue lists at the same time. While a playback may take different physical forms (button, fader, fader with buttons), the cuelists stored to these playbacks may be moved freely between playbacks of different types at any time.

Grandmaster and Flashmaster

The Grandmaster and Flashmaster are 2 "special" faders which regulate the output from any cuelist or programmer entry in ONYX.

Getting Started

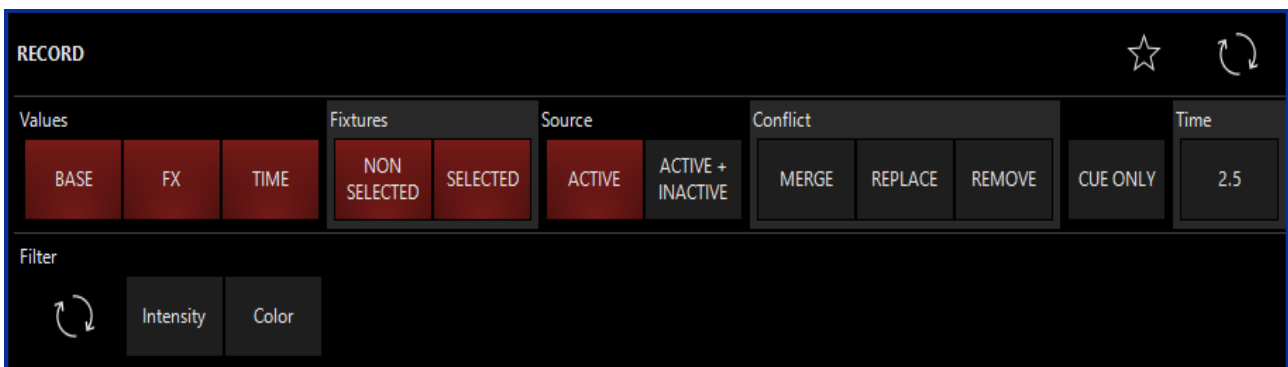
The Grandmaster, when brought down from full, scales all intensity levels from any active playback or programmer entry.

The Flashmaster set the maximum level for when you press a "flash" button on any cuelist. This is also a global setting which affects all playbacks, so it is very powerful.

Tracking

Tracking is a console programming feature which means that only the changes are recorded into a cue.

This is particularly useful where a Cue contains just small adjustments whilst the main "look" remains the same. If a change is made to the main "look", each individual cue will not require updating as the changes will track through the cuelist. ONYX by default only records the changes (Active Values). Sometimes you will want to record both Active and Inactive values into a cue - for example at the start of a new song, you can choose what values you record into a cue in the Record Options window which appears when you hit Record.



Getting Started

Welcome to the getting started help guides. Here you will find some quick instruction guides to help get up and running with Onyx.

Quick Start Guides

- [General Concepts](#)
- [The User Interface](#)
- [Starting a New Show](#)
- [Updating the Fixture Library](#)
- [Importing Factory DyLOS Content](#)
- [Building a New Patch](#)
- [Setting Up DMX Networking](#)
- [Connecting to Capture](#)

Install Guides

- [Installing/Updating Onyx on a PC](#)
- [Updating Onyx on a Console](#)
- [Installing the Console Operating System](#)

Importing Factory DyLOS Content

This guide will cover installing the Obsidian Factory Content Package into DyLOS. For importing custom user content, please see: Importing Custom User Content.

Getting Started

To get started, you will need the following:

1. A computer connected to the internet
2. USB Thumb Drive 16gb+ (If loading onto a Console)
3. An Onyx Console or PC running Onyx version 4.6.xxxx

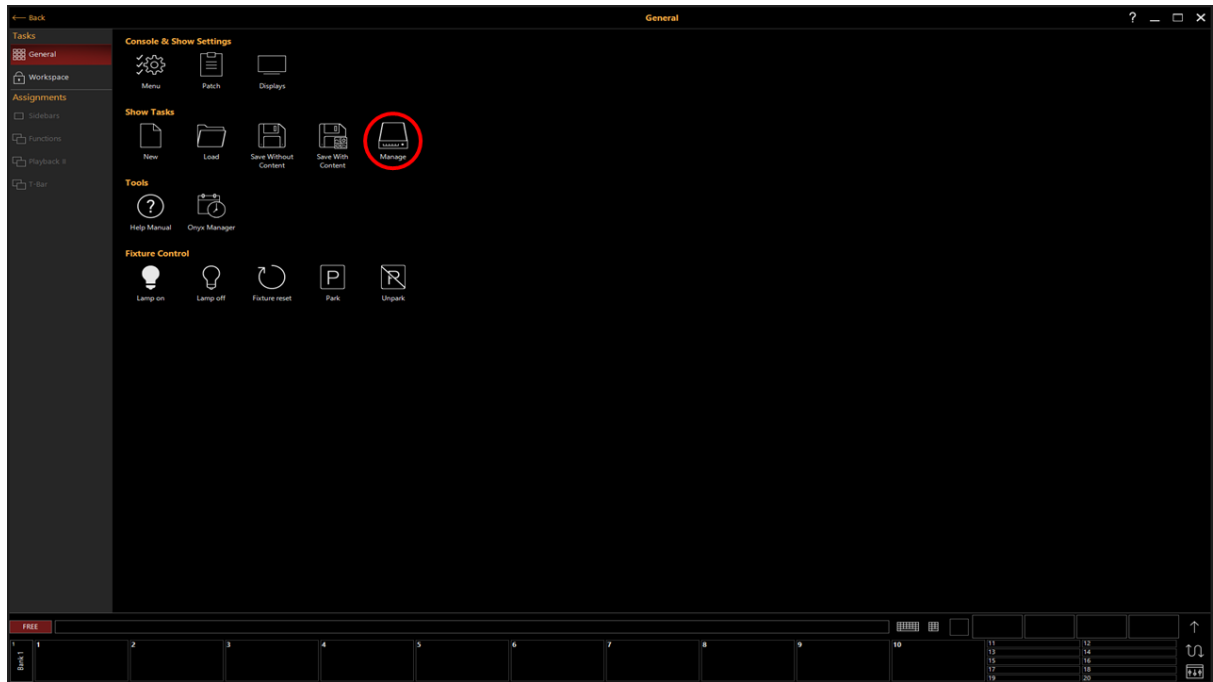
Downloading the Content Package

1. Download the factory content onto your computer from the [Obsidian Downloads](#) website.
 - There are (2) different size options available for download (High Quality) & (Low Quality)
2. Once the download is complete, copy the file to the USB thumb drive if loading onto a console.

Importing the Content Package

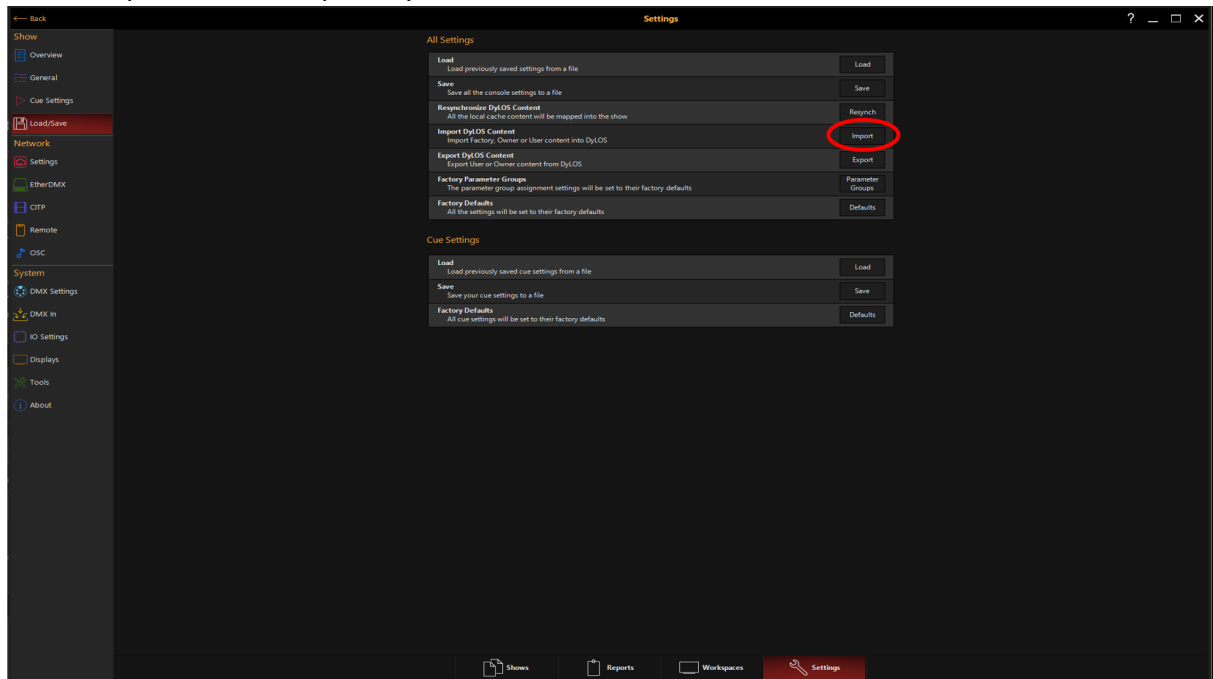
1. If loading onto a console, plug the USB thumb drive into a blue USB port on the rear of the console.
2. Open the Onyx Menu by pressing Menu or selecting the Onyx logo in the upper left corner of the screen.

3. Select Manage



4. From the Menu on the left select Load/Save, then on the bottom, select Settings

5. Select Import next to Import DyLOS Content



6. If on a console, select the Content package from the USB thumb drive and press open, or if on a PC, choose the content package from the downloads folder.

7. Onyx will now import the Factory Content Package.

Setting Up DMX Networking

This guide will cover connecting your Onyx Console or PC running Onyx to an Ether-DMX node via Art-Net.

Defining Terms

Ether-DMX - A term used to describe sending DMX data over a computer network using a protocol (Art-Net / sACN) from a lighting console to a node or fixture.

Ether-DMX Node - A device used to turn an Ether-DMX protocol back into standard DMX.

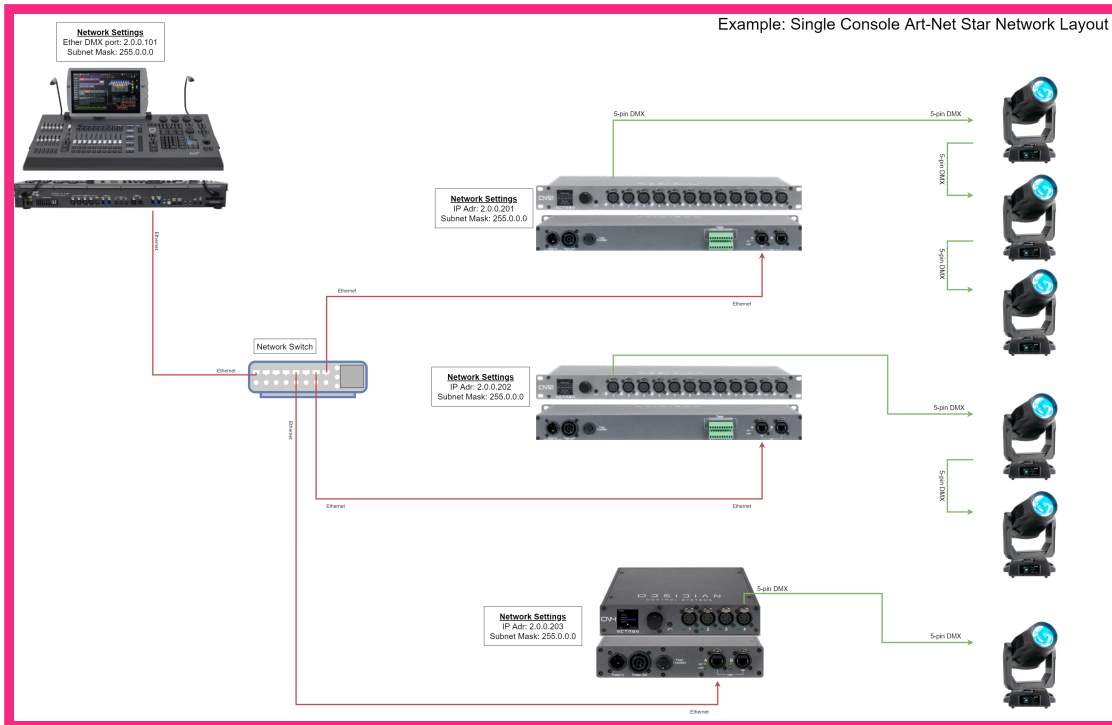
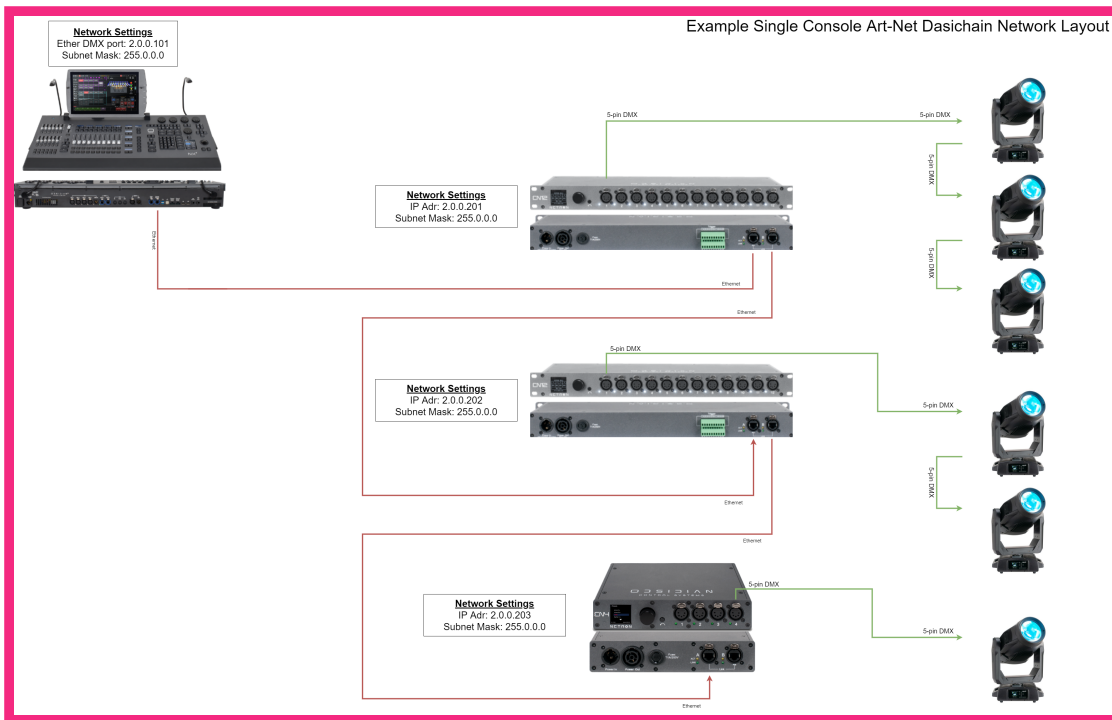
Art-Net - A Ether-DMX protocol used to send DMX data over a network.

sACN - A Ether-DMX protocol used to send DMX data over a network.

IP Address - The Address of a device in a network. (Example: 192.168.1.1)

Subnet Mask - A filter used to divide a network. (Example 255.0.0.0)

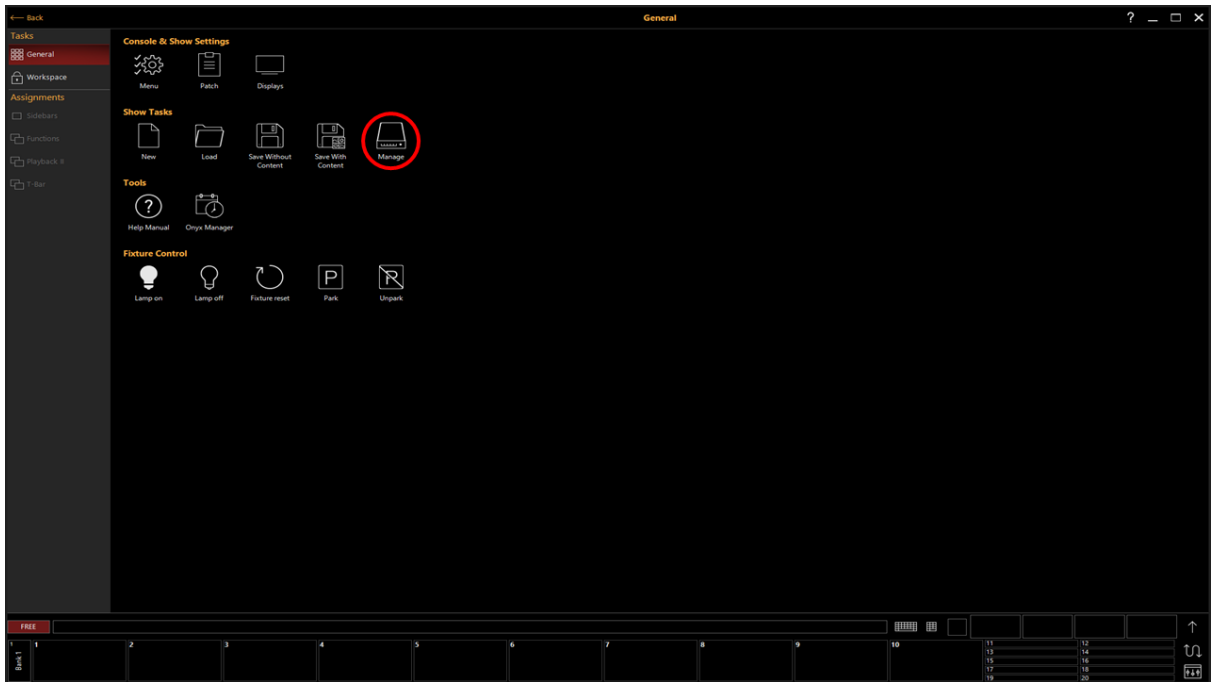
Example of an Art-Net network layout



Setting up Art-Net Output

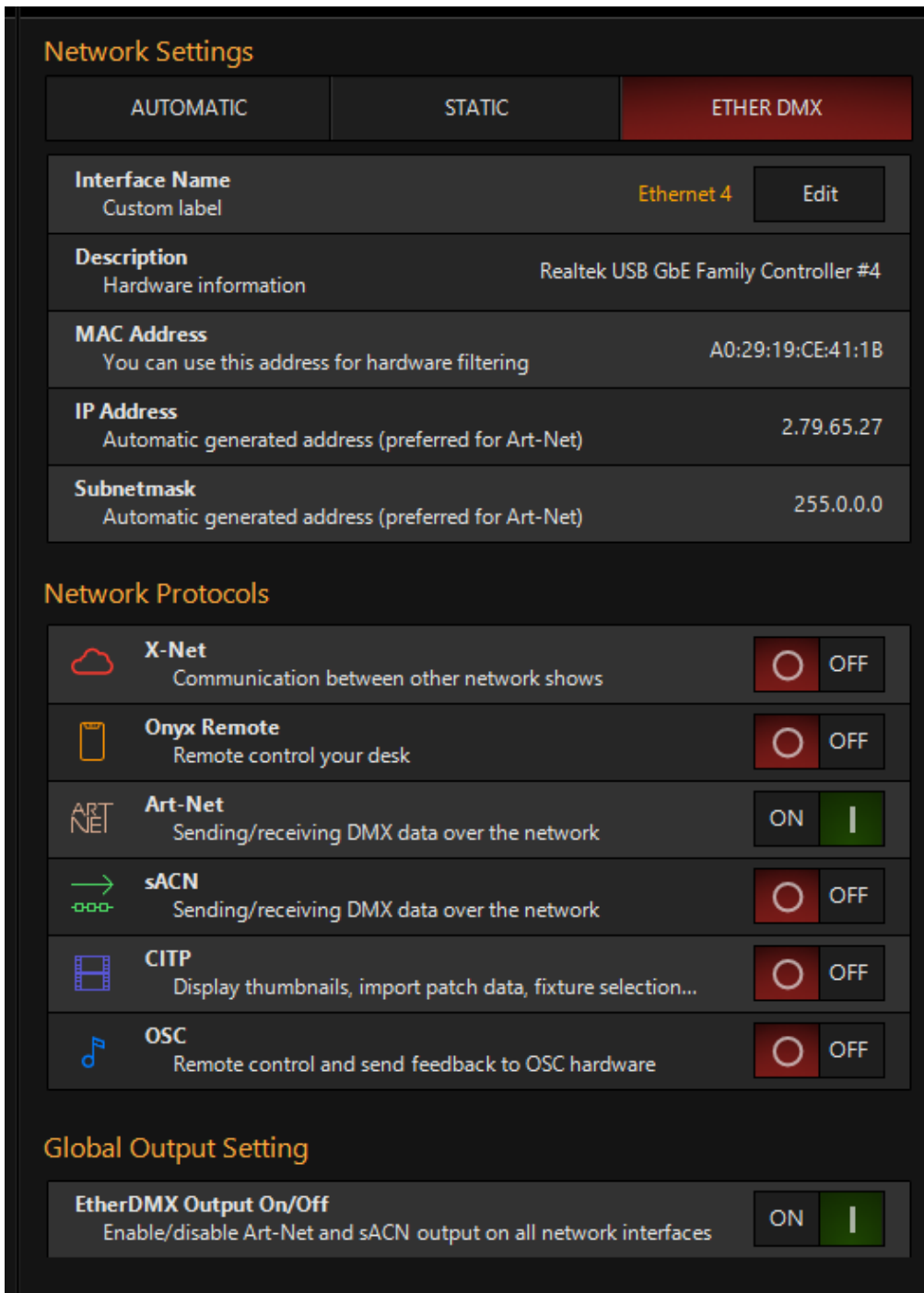
1. Open the Onyx Menu by pressing Menu or selecting the Onyx logo in the upper left corner of the screen.

2. Select Manage



3. From the menu on the left select Setting then on the bottom press Interfaces
4. Select the the network port you are using. And press ETHER DMX from the menu on the right. This will automatically create a unique IP address in the 2.x.x.x range with a subnet mask of 255.0.0.0

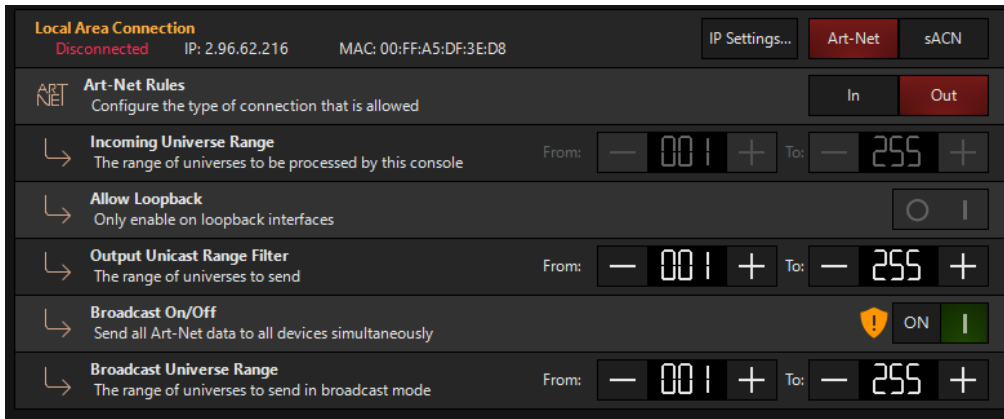
5. Enable Art-Net



6. Press Apply

7. Next Select EtherDMX from the menu on the left of the screen.

8. Confirm that Broadcast On/Off is enabled.

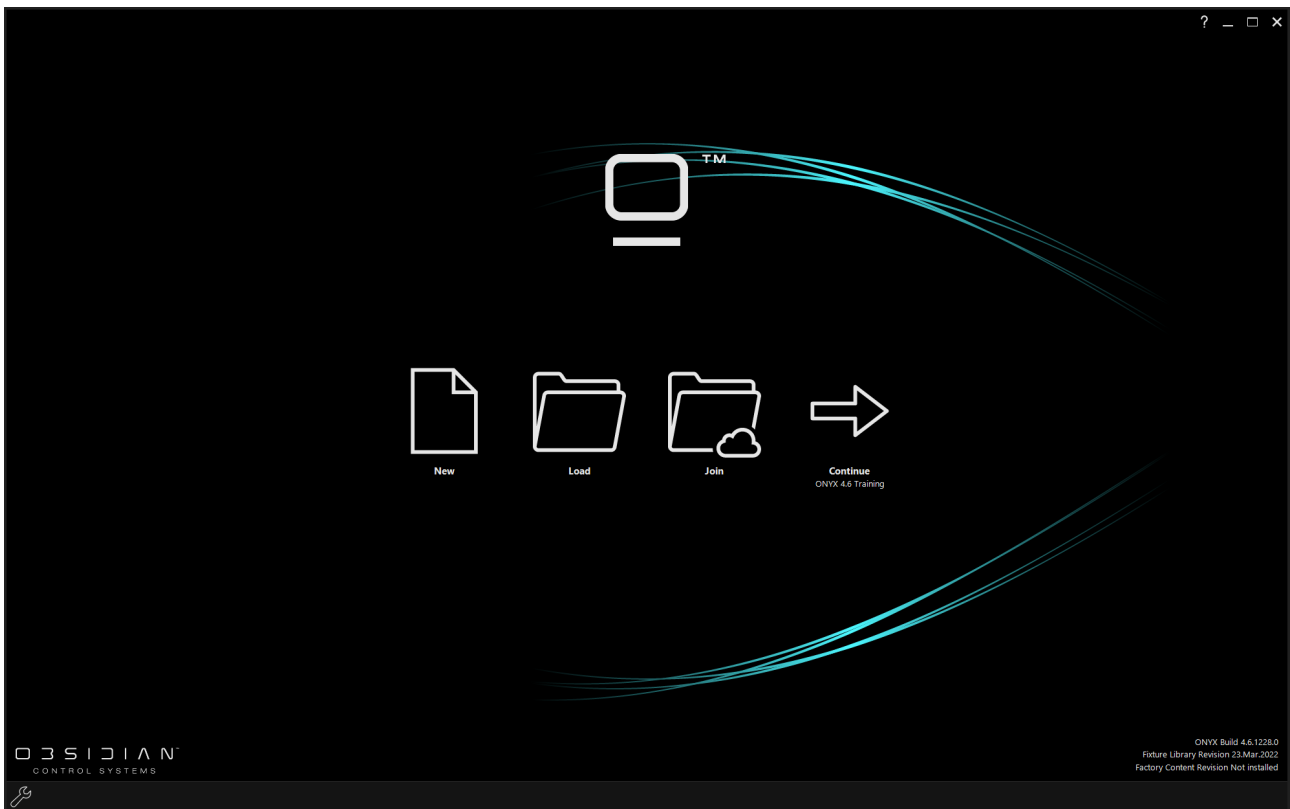


Starting a New Show

This guide will show how to create a new show..

Starting ONYX

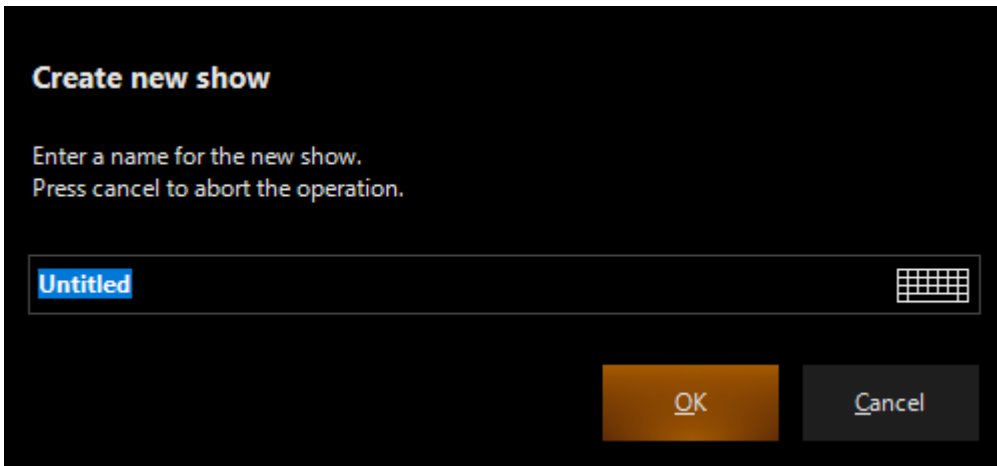
Switch on the power to the console or start ONYX on your PC. Once the console has started, the Launch Menu will appear.



Starting a new show.

In the Launch Menu, choose the New option, and click Yes if prompted then proceed to name your show.

ONYX will now launch a new show with the default settings.



The step: [Building a New Patch](#)

The User Interface

Before we delve into the core of ONYX operation, lets discuss some of the important concepts you should know about when dealing with ONYX.

Navigating the Interface

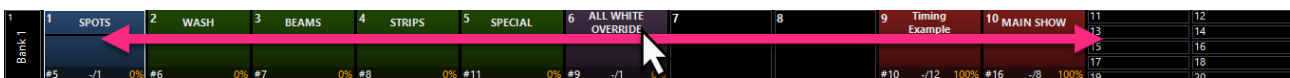
The user-interface has been optimized for touchscreens, which allow the user to work in an environment where everything is accessible from a single finger touch. Whether you're on a console or using ONYX on a PC, the user interface is the same.

Users can simply swipe to move from view to view, access other playback banks quickly or change parameter selection:



Playbacks

Swiping your finger (or clicking and dragging with the mouse) on the Main Playback indicators will advance through [playback banks](#) (pages). Swiping from right to left will go forward one bank, and left to right will go back one bank:

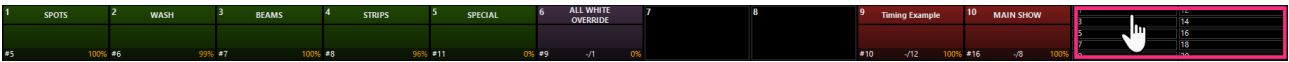


Double-tapping on main playbacks 11-20 will switch them to the main playback faders. You can also use the fader flip icon to switch playbacks:

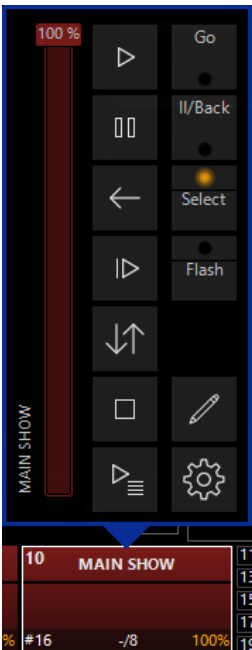
Getting Started



On consoles with motorized faders, the playback level will also move to match it's level:



Double tapping on playback status accesses its functions and options, including Play, Pause, Back, Skip Ahead, Reset Cuelist, Stop, and Direct Cue View, among others.



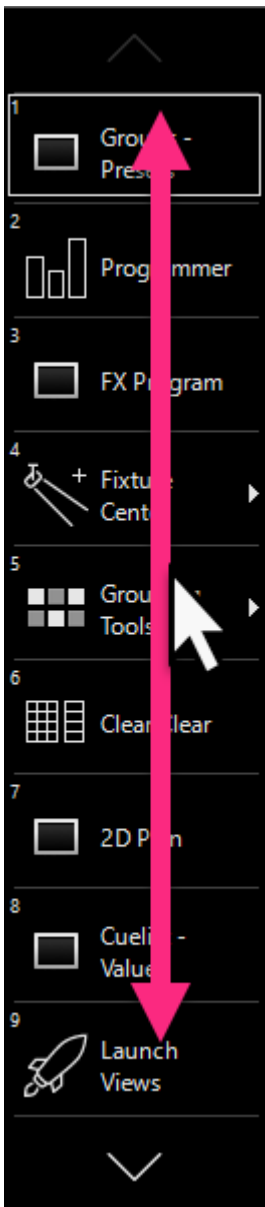
The fader view icon enables you to open a more robust fader view at the bottom of your screen, including a programming keypad:



The Sidebar

Swiping your finger (or clicking and dragging with the mouse) on the sidebar will allow you to access additional pages of sidebar tabs.

Getting Started



The sidebar can be hidden/shown with the sidebar toggle button.

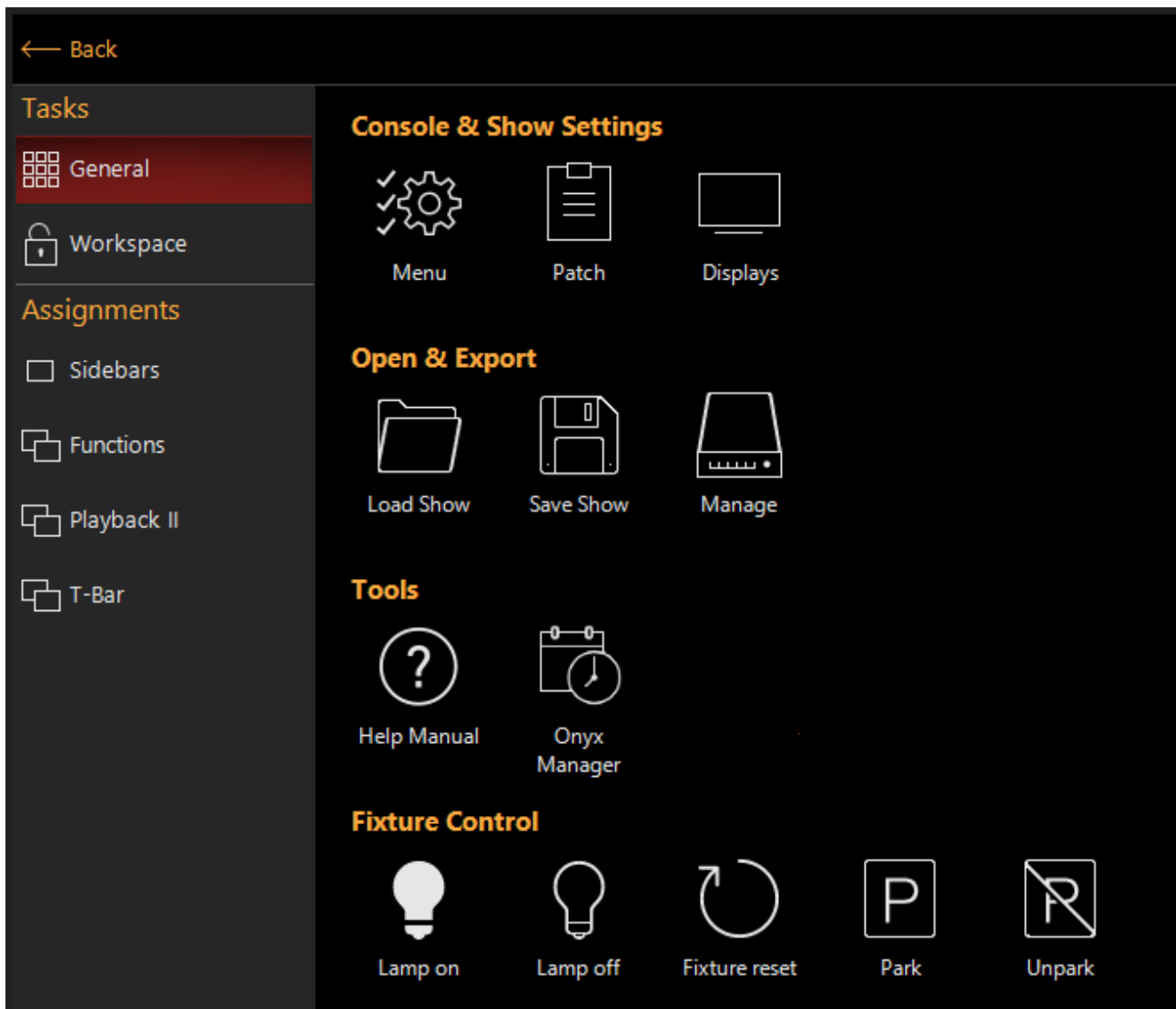


The Top Bar

Let's begin by taking a tour of the top-bar icons. Take a minute and draw your attention to the "question mark" icon in the upper right hand corner. Clicking or touching this button activates "Information Mode" which allows you to then click any element in ONYX to reveal its function.



The ONYX Button in the upper left hand corner allows access to the Quick Menu.



The Workspace button allows you to view, create, and edit the different [Workspaces](#), as well as temporarily launch views.



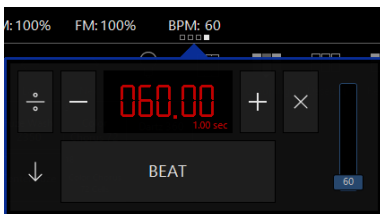
Touching either the GM or FM button will display the [Grandmaster or Flashmaster faders](#).

Getting Started

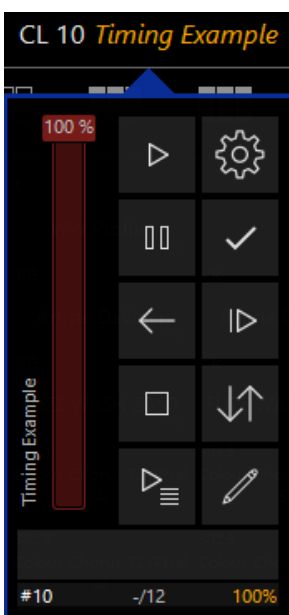


The [Beat Editor](#) function allows you to set global beat value in Beats Per Minute (BPM) and link that value to any of your [Chase Cuelists](#). A shortcut to it is available on the toolbar at the top of the screen, touching the BPM icon will display the editor controls.

Note that this will only appear on the toolbar if at least one chase in the show is set to Global Rate.



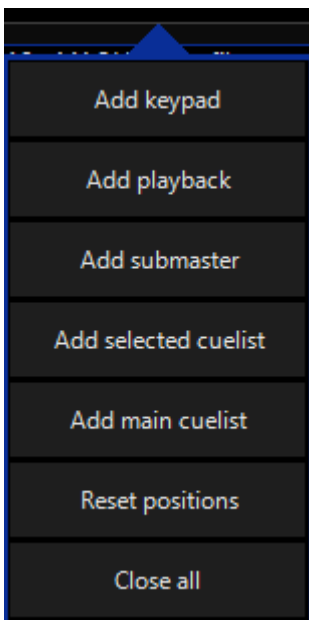
The currently selected cueлист will be displayed along the top of the screen. Touching it will show it's information and controls for quick access on the fly.



Touching the "Faders" button will open the playback faders pop-up over the current screenview.

Getting Started

It can be moved by touching and dragging it. If you are using a multi-touch screen, multiple faders can be moved with multiple fingers. Right clicking on this button will provide some quick shortcuts to playback faders that can be embedded in the current screenview.

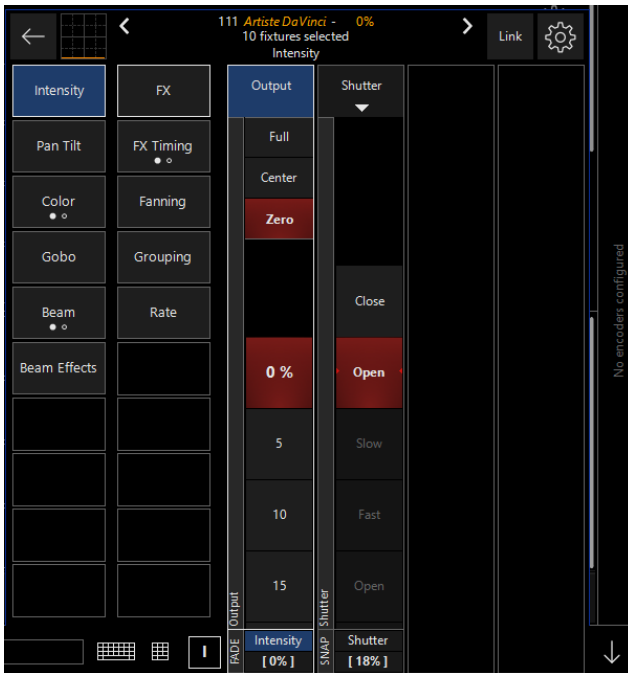


Channel Visualization

The Channel Visualization (Encoders) can be accessed by pressing the arrow button in the bottom right hand corner of the screen or the pop-up toggle in the upper right hand corner.

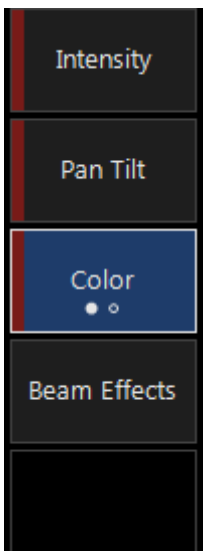
Getting Started

Touching or clicking anywhere on the belt, and moving your finger or mouse will control the parameter you touched. The belts can also be embedded in a screenview just like other screen elements.

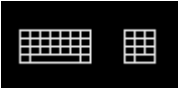


The Parameter Group buttons next to the on-screen belts work just like the encoder wheels or belts on ONYX hardware.

The red bar along the left hand side of the button indicates parameters in this group have been changed, and the blue button background indicates that is the currently selected parameter bank. The white dots below the button label indicate that the group has multiple parameter pages which can be accessed by pressing the button multiple times to page.



Touch the Keyboard or Keypad icons to have them opened over the top of the current screen view. They can be moved/dragged around the screen as needed.



Updating the Fixture Library

This guide will cover updating the fixture library in Onyx 4.10

Getting Started

To get started, you will need the following:

1. A computer connected to the internet
2. USB Thumb Drive (If loading onto a Console)
3. An Onyx Console or PC running Onyx version 4.6.xxxx or later.

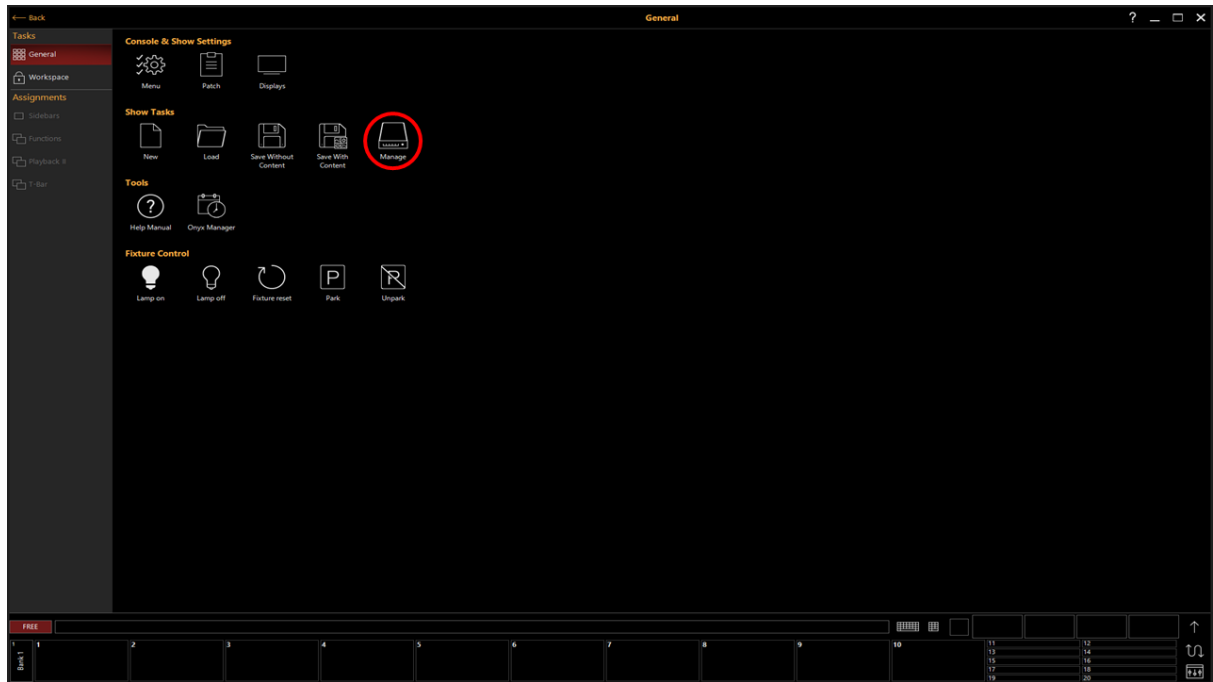
Downloading the Fixture Library

1. Download the fixture library onto your computer from the [Obsidian Downloads](#) website.
 - The fixture library is updated daily with new fixture profiles.
2. Once the download is complete, copy the file to the USB thumb drive if loading onto a console.

Importing the Fixture Library

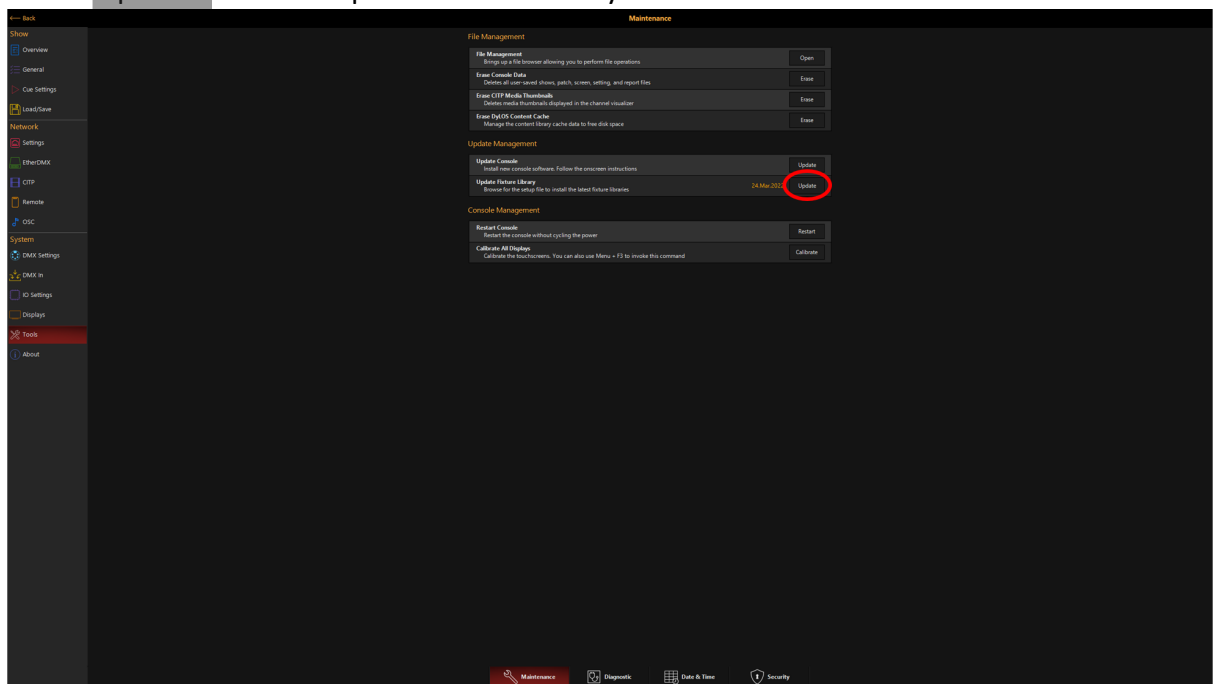
1. If loading onto a console, plug the USB thumb drive into a blue USB port on the rear of the console.
2. Open the Onyx Menu by pressing **Menu** or selecting the Onyx logo in the upper left corner of the screen.

3. Select Manage



4. From the Menu on the left select **Tools**

5. Select **Update** next to "Update Fixture Library."



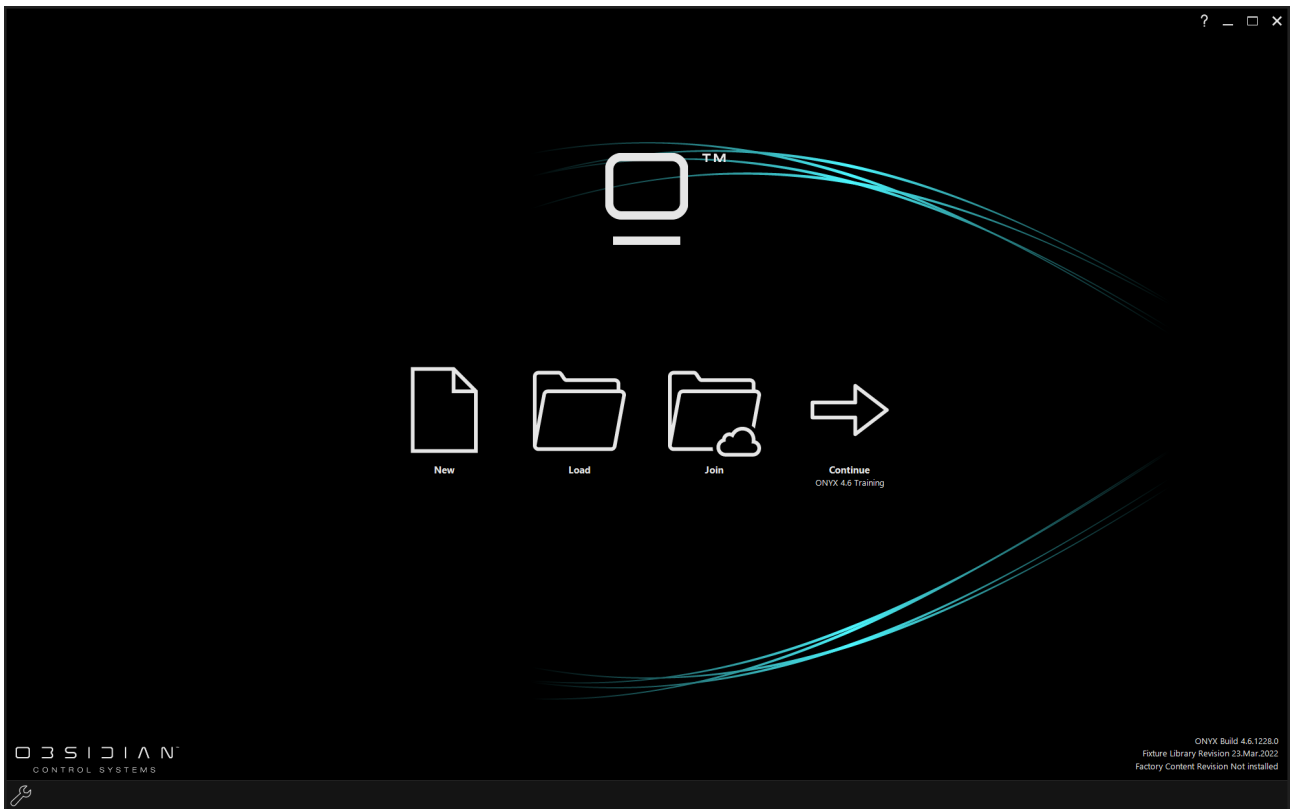
6. If on a console, select the Fixture Library File from the USB thumb drive and press open, or if on a PC, choose Library Fixture File from the downloads folder.

7. Onyx will now update Fixture Library.

Quick Guide To Your First Cue

Starting ONYX

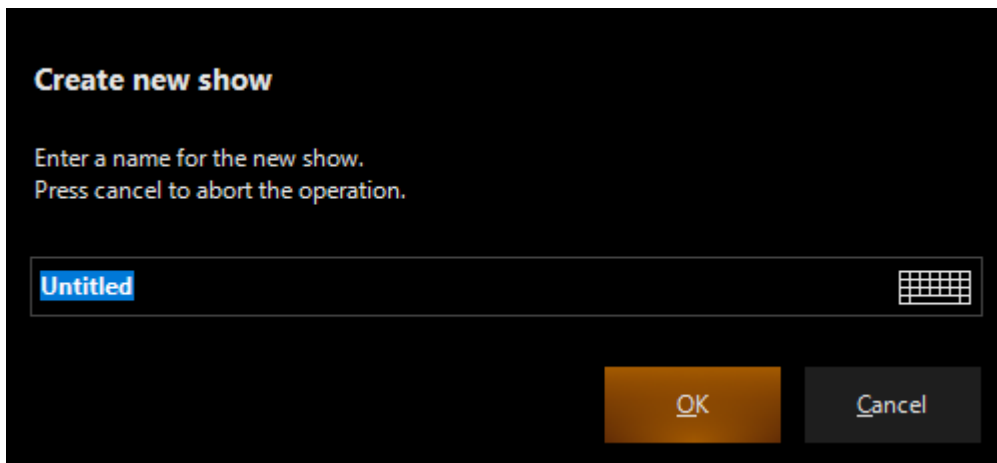
Switch on the power to the console or start ONYX on your PC. Once the console has started, the Launch Menu will appear.



Starting a new show.

In the Launch Menu, choose the New option, and click Yes if prompted then proceed to name your show.

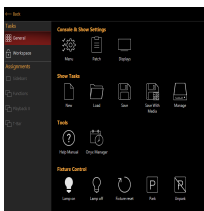
ONYX will now launch a new show with the default settings.



Adding Fixtures.

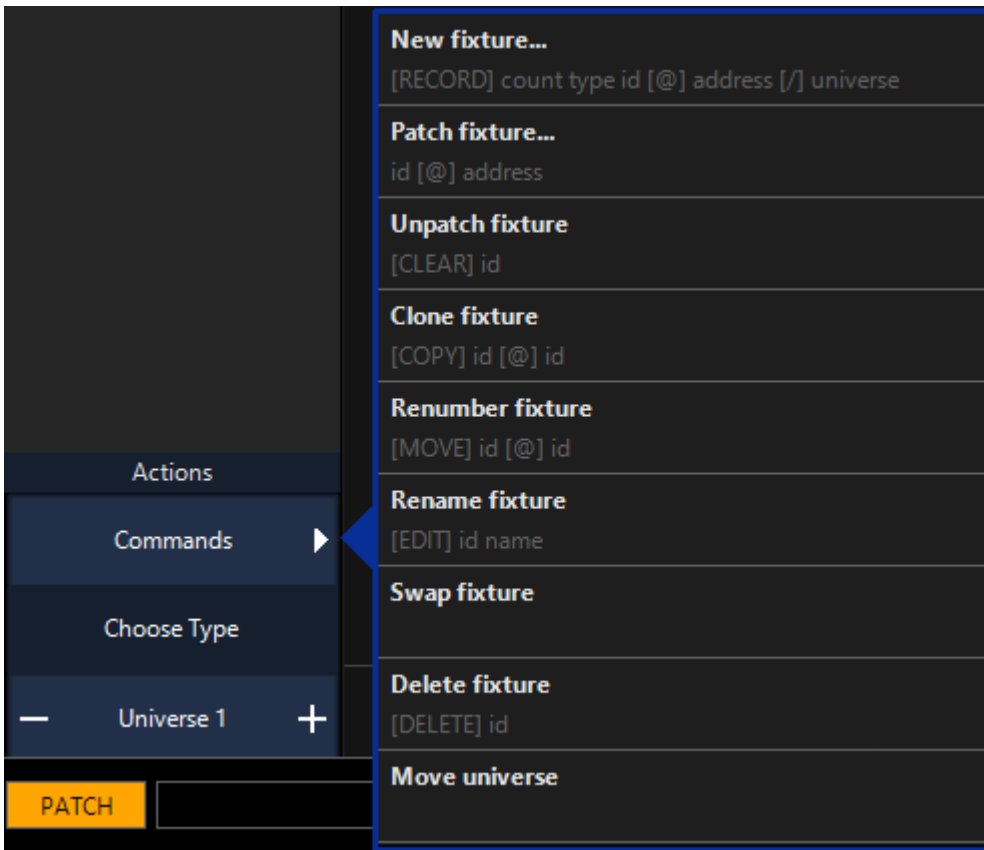
To choose the fixtures you want in the show, and patch them accordingly, you need to enter the patch.

To do this, press the ONYX quick menu button in the top left hand corner of the main screen.

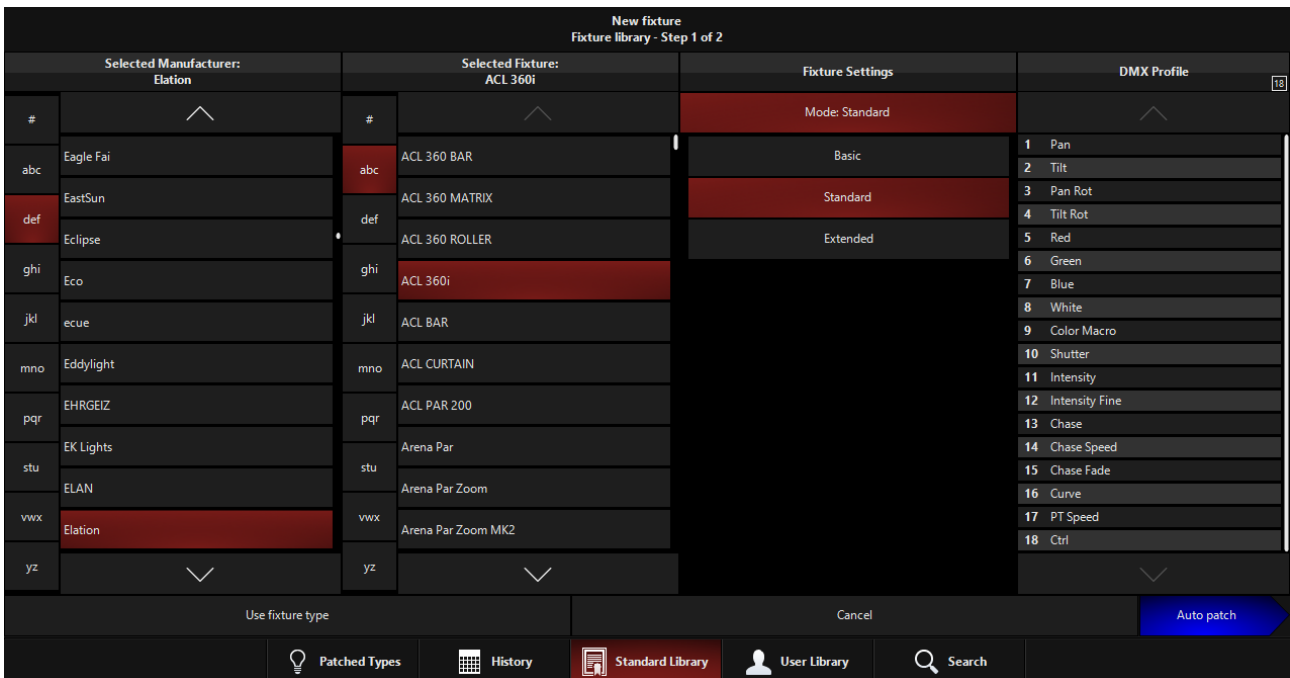


Press the Patch button and ONYX will launch the Patch window.

The easiest way to add new fixtures to the show is with the Auto Patch tool. So, press the Commands Button, then the New Fixture... option.



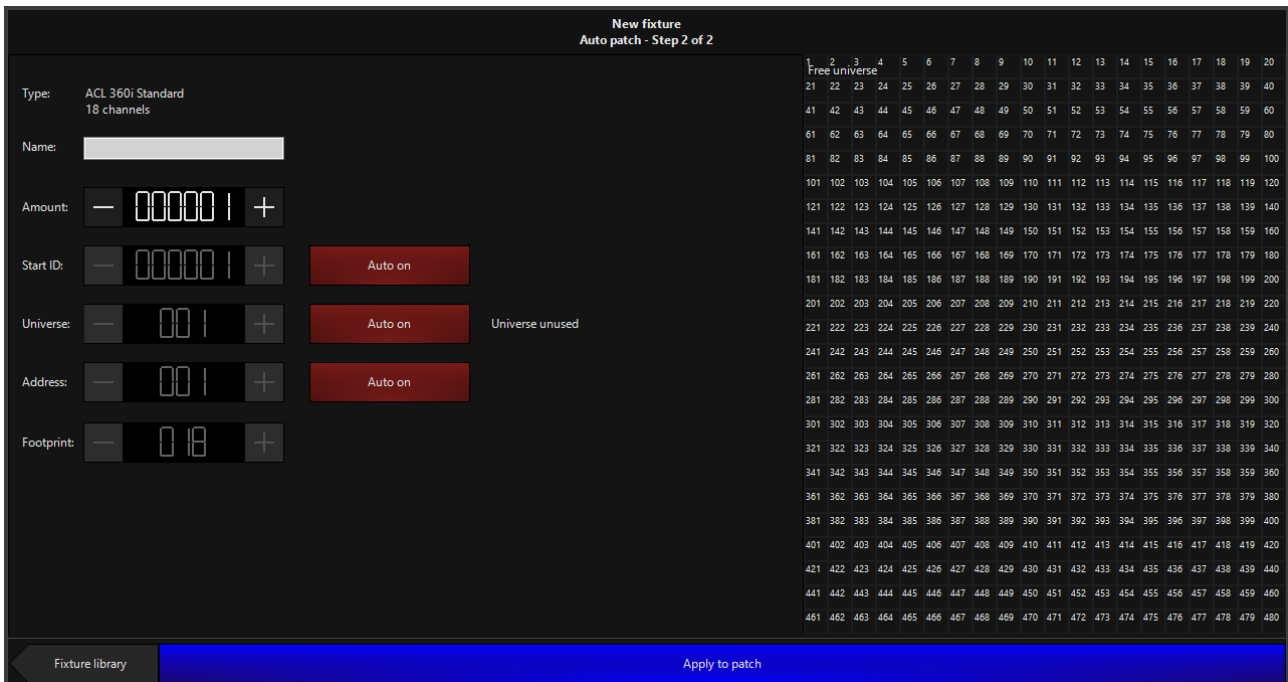
Now you are in the Fixture Library. The library is arranged with manufacturers in the left most column, the fixture type in the second column, the mode in the third column and the DMX protocol readout in the last column.



Navigate to the required manufacturer, fixture and mode by pressing on the available options. You can use the groups of letters to the left of each column to jump through the listings quickly.

Getting Started

Once you have found your fixture and selected the correct mode for your needs, press the blue Auto Patch button in the bottom right hand corner of the window.



Once in the Auto Patch window, simply set the Amount counter to be the total number of the selected fixture you wish to patch.

The Start ID can remain at its default, or be changed to your preference by pressing the "Auto On" button and using the +/- buttons. *The start ID is the unique "fixture number" assigned to each fixture that you will use to call them up on the keypad.*

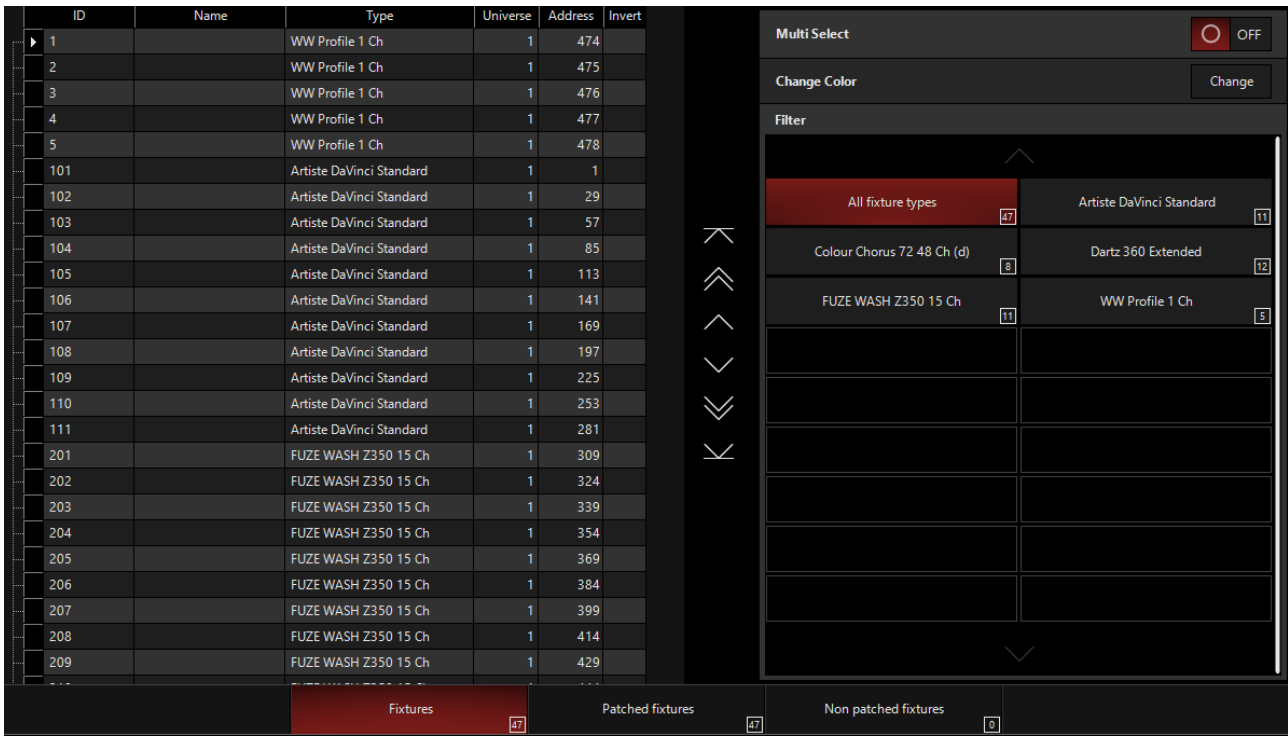
You can also press on the value and use the number pad on your computer or console. Double-pressing will popup the on-screen number pad.

The Universe and Address can be changed in the same manner. If you leave them to "auto", the console will choose the first available address.

Press Apply to Patch to add the new fixtures to the patch.

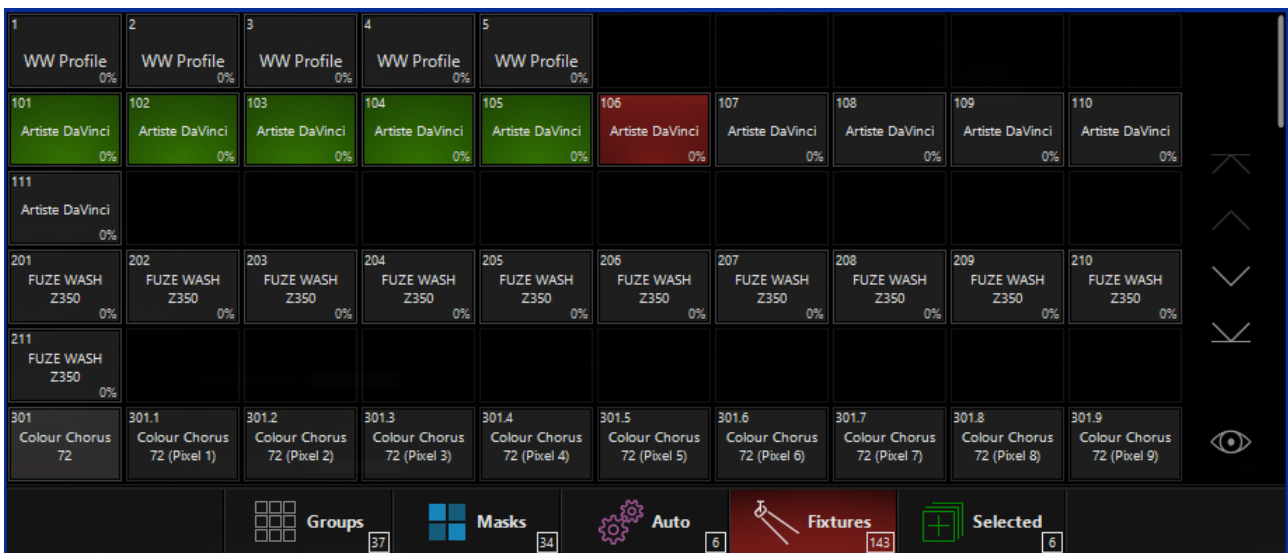
Once ONYX has added the fixtures, they will appear in the patch window with their relevant patch data.

Getting Started



Now press the amber Back button in the upper left hand corner.

If you're in the Compose Workspace (and you are if you have been following this page from the top), press Fixture Center, which is on the sidebar near the middle (position 4). In the window that pops out, press the Fixtures tab and then press to select the fixtures you've just patched. A selected fixture button shows as green, except for the last selected fixture which will be red.



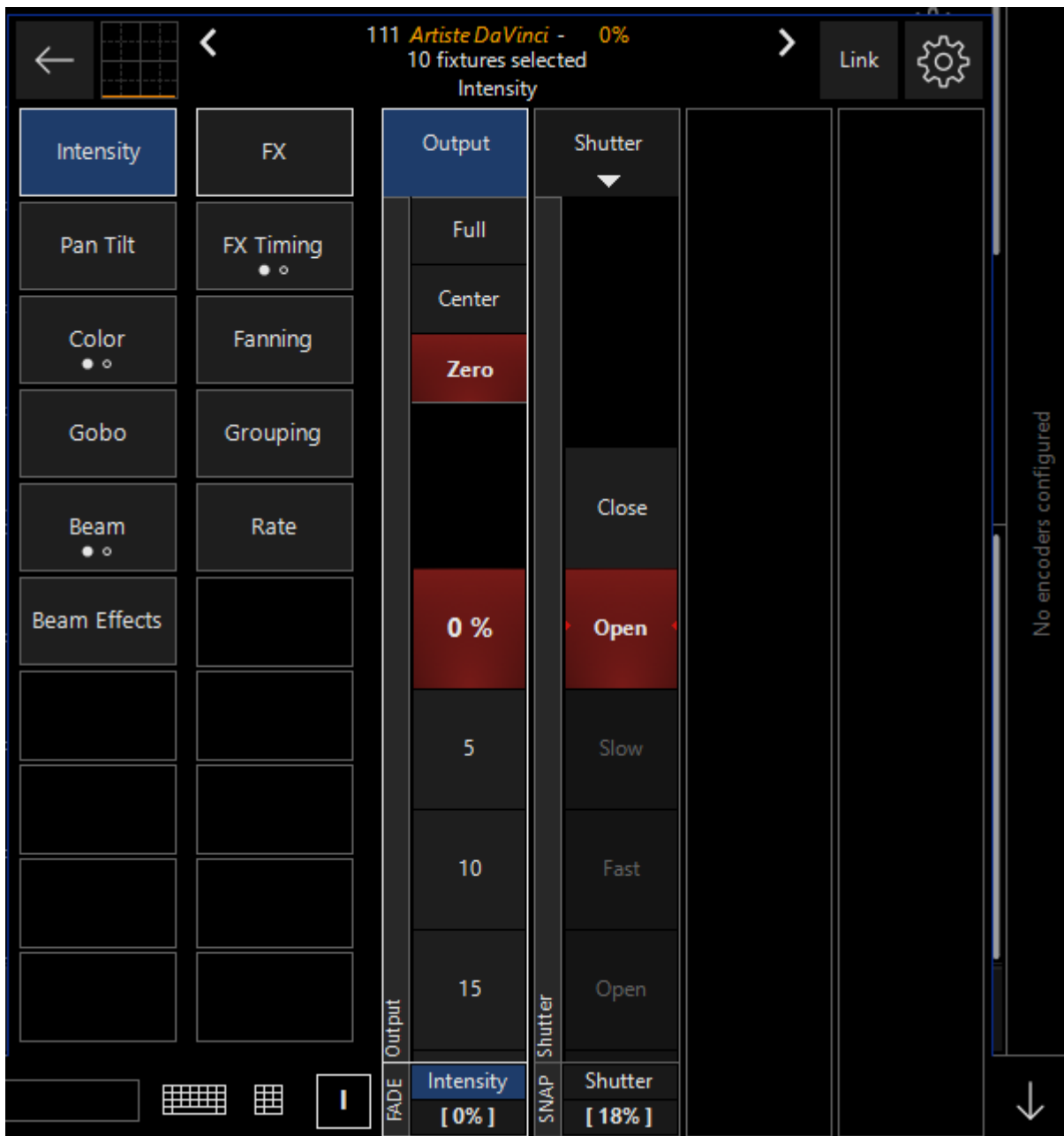
Assigning Parameter Values to the fixtures.

With the fixtures already selected FUZE, you can assign an intensity value by pressing @ 50 ENTER to assign a value of 50%.

Getting Started

Now assign other parameters:

Access the parameter belts by pressing the white arrow in the bottom right corner of the screen, then the parameter control groups & their belts will popup.



On the left side of the popup, you'll see the parameter control groups which apply to the fixtures you have selected. Because not all fixtures have Pan/Tilt attributes, you won't always see that parameter group.

Take a look through all of your fixtures parameters by clicking on the different parameter groups.

Then, move the belts/encoders to manipulate the values. To see which values have been changed, take a look in the Programmer window. You can also see when a parameter is active by looking at the bottom of the parameter belt - if the background is red, the parameter has been activated.

Getting Started

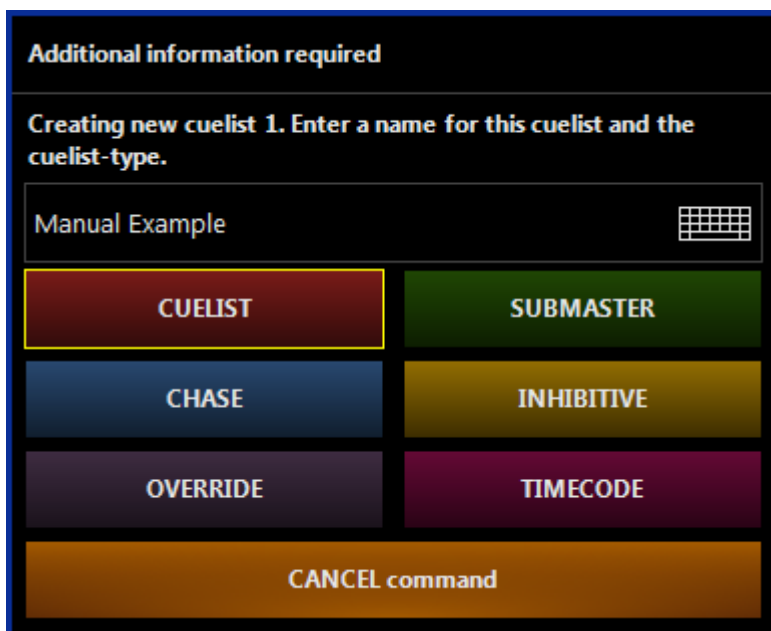
To assign values to individual fixtures, rather than the whole selection, simply press Clear to deselect the fixtures, then select an individual fixture, either in the fixture center or by typing its fixture ID on the keypad and pressing Enter.

Recording a Cue.

Once you have assigned some values to the fixtures, you'll want to record this as a Cue to be played back later.

Press Record then press one of the buttons associated with the playback you want the Cue to be on.

A popup will appear asking which type of Cuelist you would like to record and prompt you to give a name too. Fill in the name field using the onscreen keyboard, then press the red "Cuelist" button to finish recording the Cue.



Now the Cue will be part of the Cuelist you just recorded.

Press the Clear button twice to clear the values from the programmer. (The stage will go dark here).

To Record more Cues, simply select fixtures and manipulate values in the same way, then press Record, and press the select key of the Playback where the Cuelist is located, or choose a new playback to create a new Cuelist.

Playing Back the Cue.

Push the fader up of the Playback where you assigned the Cuelist. Now press the play button at the top of the Playback (it has a number on it, indicating which playback it is). This is the default GO button and will run the Cue you recorded.

If you are recording to a Sub Playback fader, the button under the playback will serve as the GO by default. You may configure this in [Cuelist Options](#).

Networking

Please see the topic list below to get started.

- [CITP](#)
- [Connecting to MSD](#)
- [EtherDMX Settings](#)
- [Networking in ONYX](#)
- [Onyx Remote](#)
- [OSC](#)
- [X-Net](#)
- [NDI Settings](#)

Networking in ONYX

Most modern lighting systems will employ at least 1 type of networking within it's scope - and ONYX is no stranger to networking and networked protocols.

Within the ONYX platform, there are multiple types of networked connections available as you will see throughout this chapter.

They fit within a few main categories:

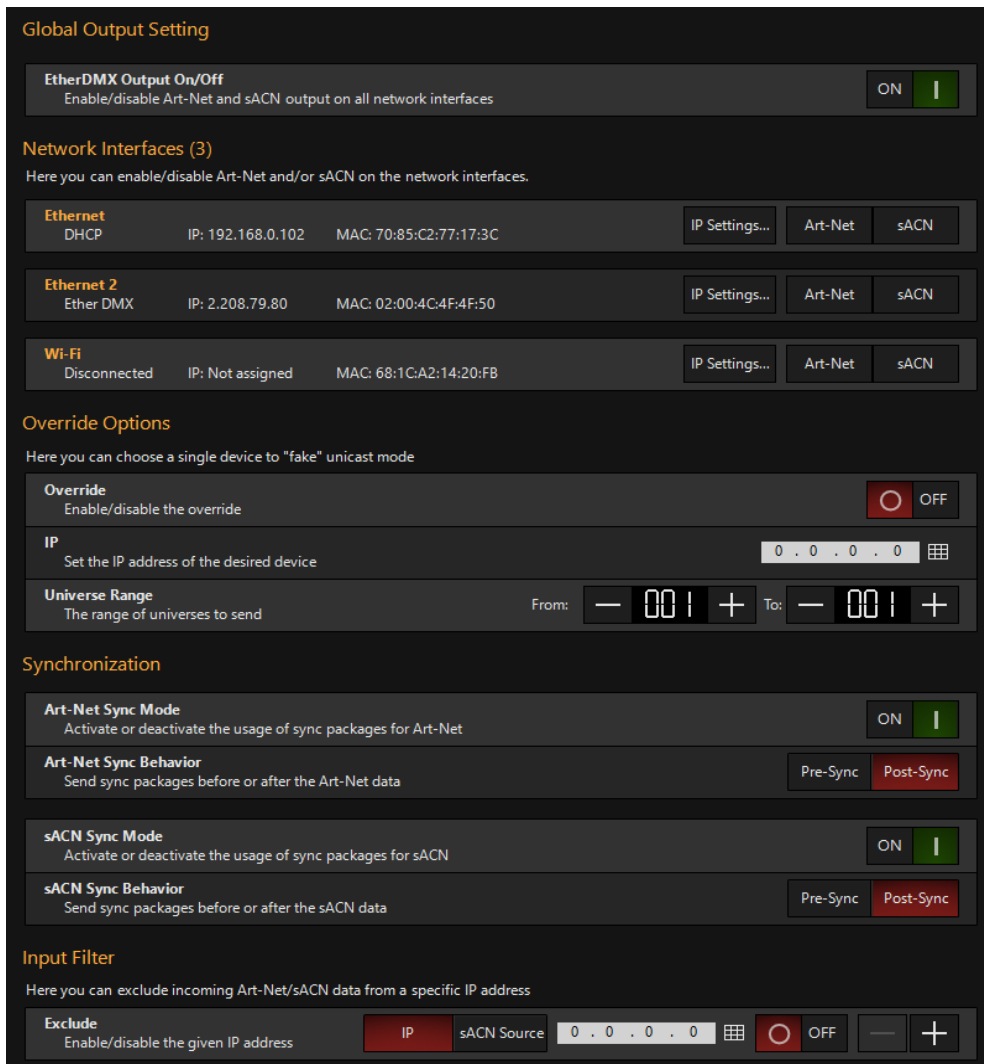
- [X-Net](#): Primary and Secondary Consoles
- [EtherDMX](#): Network-based DMX output to nodes or devices that take Art-Net or sACN directly.
- Other Control Protocols: [OSC](#), [CITP](#), [Timecode](#), and [ONYX Remote](#) are all available.

Each type of networked protocol can be sent and received on one or multiple network interfaces within the same ONYX console or PC. These can be configured to meet your specific needs.

EtherDMX Settings (Art-Net and sACN)

The EtherDMX settings is accessible via the main menu - navigate there by pressing ONYX in the upper-left-hand corner, pressing Menu, and then choose EtherDMX from the menu on the left side. The first page is the EtherDMX Settings.

EtherDMX Settings:



By default, all EtherDMX is off in the ONYX system.

Global Output Setting

Toggle ALL Art-Net and/or sACN output on ALL network interfaces.

Network Interfaces

In this section, you can see each of your network interfaces, and adjust their settings.

Press IP Settings on any network interface to toggle this popup:

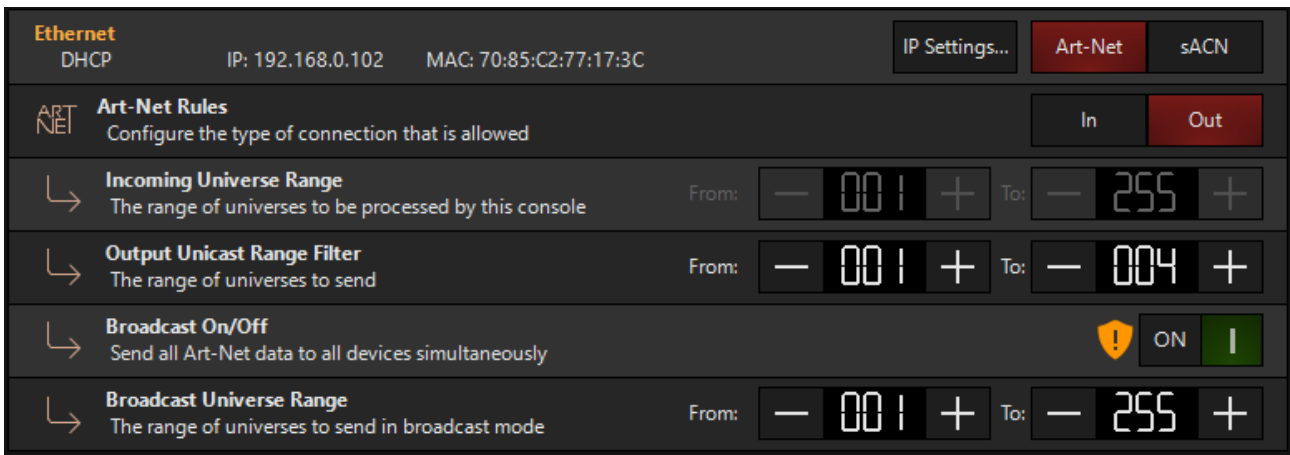
AUTOMATIC		STATIC	ETHER DMX
Interface Name Custom label	Ethernet	<input type="button" value="Edit"/>	
MAC Address You can use this address for hardware filtering	70:85:C2:77:17:3C		
IP Address DHCP or automatic address	192.168.0.102		
Subnetmask DHCP or automatic address	255.255.255.0		
		<input type="button" value="Discard"/>	<input type="button" value="Apply"/>

The pop-up allows you to set the label, type of IP address, and for static, allows you to define the exact IP address and Subnet mask you desire. Using the EtherDMX generated address is preferred for Art-Net, though you can use a Static or Automatic (DHCP) address.

Enabling EtherDMX Types:

When Art-Net and/or sACN are enabled, additional options appear below for the given type of EtherDMX:

Art-Net:



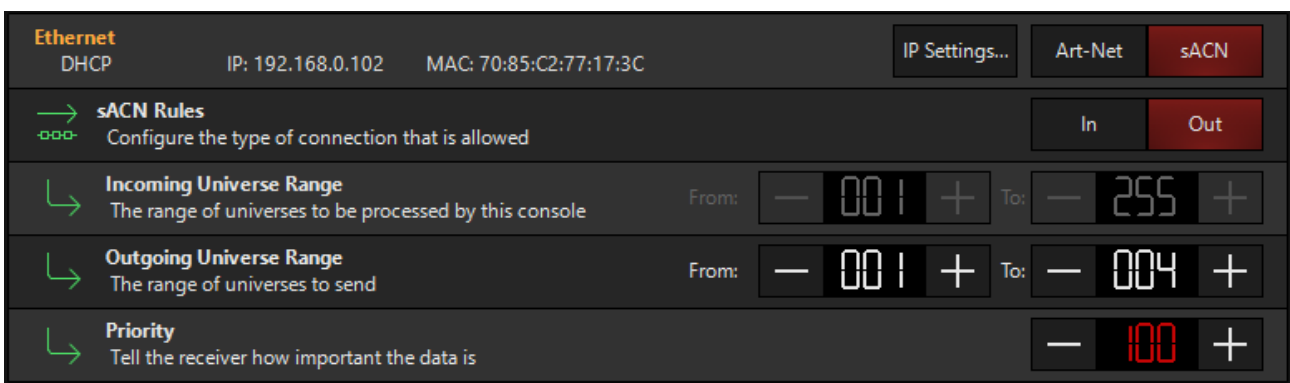
Use these options to set whether the Art-Net is for output, input, or both, set the range of either or both directions, and to turn on Art-Net Broadcast.

Art-Net Broadcast mode causes the console to send all Art-Net data to all devices simultaneously. All Art-Net devices must then parse the incoming data stream looking for data that pertains to them. As a show gets larger, so does the data stream. This can eventually cause performance issues as less-powerful Art-Net devices are forced to read data for all devices all of the time.

Using the configuration boxes, the Art-Net Broadcast can be limited to a range of universes for best performance. It's generally not a good idea to broadcast all 255 universes of Art-Net unless you truly are using them and have network infrastructure that can handle the traffic load.

When Broadcast is OFF, only detected devices (from the Devices tab at the bottom) will receive Art-Net.

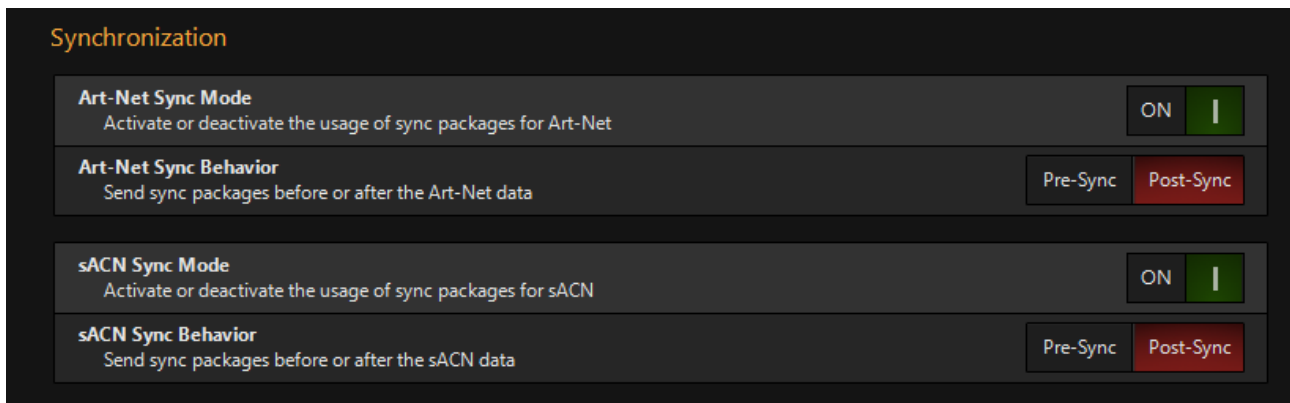
sACN



The sACN settings allow you to set whether the sACN is for output, input, or both, set the range of either or both directions, and set the priority.

The priority range is from 0-200, with 200 being the highest priority. This priority signal can be used when multiple sACN senders exist on the same network to filter which devices gets output at a given time (assuming the sACN receiver acknowledges priority).

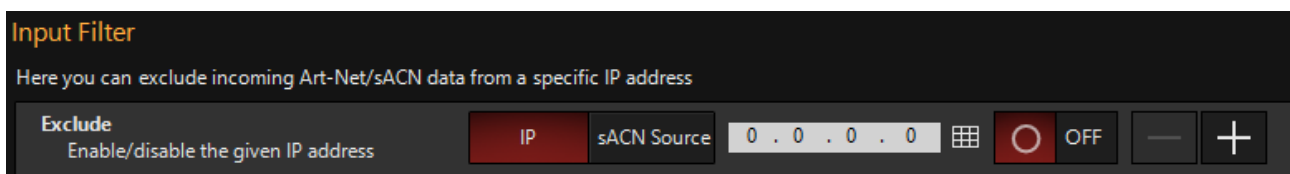
Synchronization



Art-Net or sACN outputs can also be synchronized via the use of sync packets in nodes and other output devices that support sync. This allows for the smoothest possible changes across your entire rig.

Through this menu it can be turned off if desired, and set to pre/post. By default these sync packets are on.

Input Filter



The input filter can be set for to block input for DMX input from specific IP addresses or sACN senders.

If you are already on the network with the IP address you wish to block, and it is sending Art-Net or sACN, then it is simplest to do this via the [DMX Input settings](#).

However, you may also manually enter an IP address or sACN source name here, and toggle it ON.

Additional filters may be created with the "+" symbol, and filters may be deleted with the "-".

Art-Net and sACN Receiver Setup

On the device end of your network, you'll want to ensure that your sACN receivers are set in the same IP address range as ONYX.

In the default "EtherDMX" setup, ONYX will be set in the 2.x.x.x range with a Subnet Mask of 255.0.0.0 . In this scenario, any IP address that begins with "2." and is unique will work in a basic network setup.

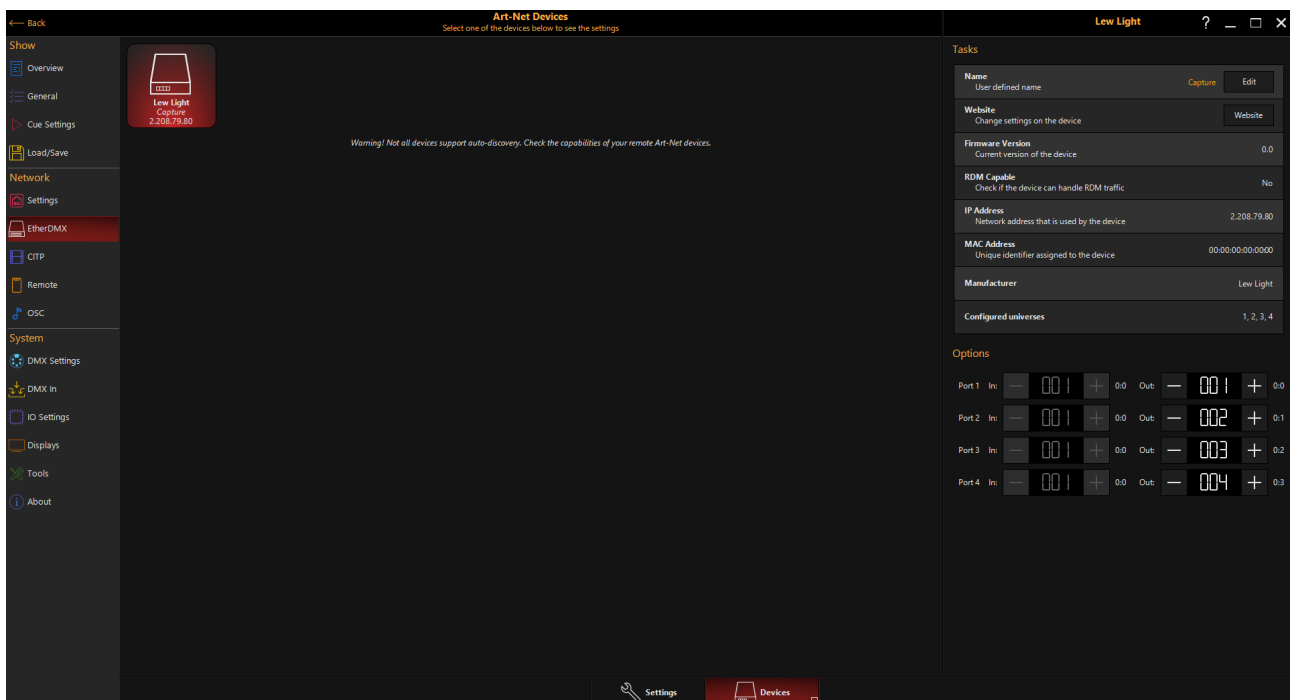
Art-Net Device Remote Management

Some Art-Net devices support remote configuration, and we can configure them via the Devices tab of the EtherDMX window.

This window will be blank if no Art-Net devices are detected, however, if the device does not show it is not a sign that the communication is not working.

Some Art-Net devices do not support remote configuration, but you can still configure them on their own and have them work via Art-Net in ONYX via the Art-Net Broadcast.

Please consult the documentation of the device or check with the manufacturer how to check proper operation of your specific device.



Under the "Tasks" Section on the right, you can manage the Art-Net device.

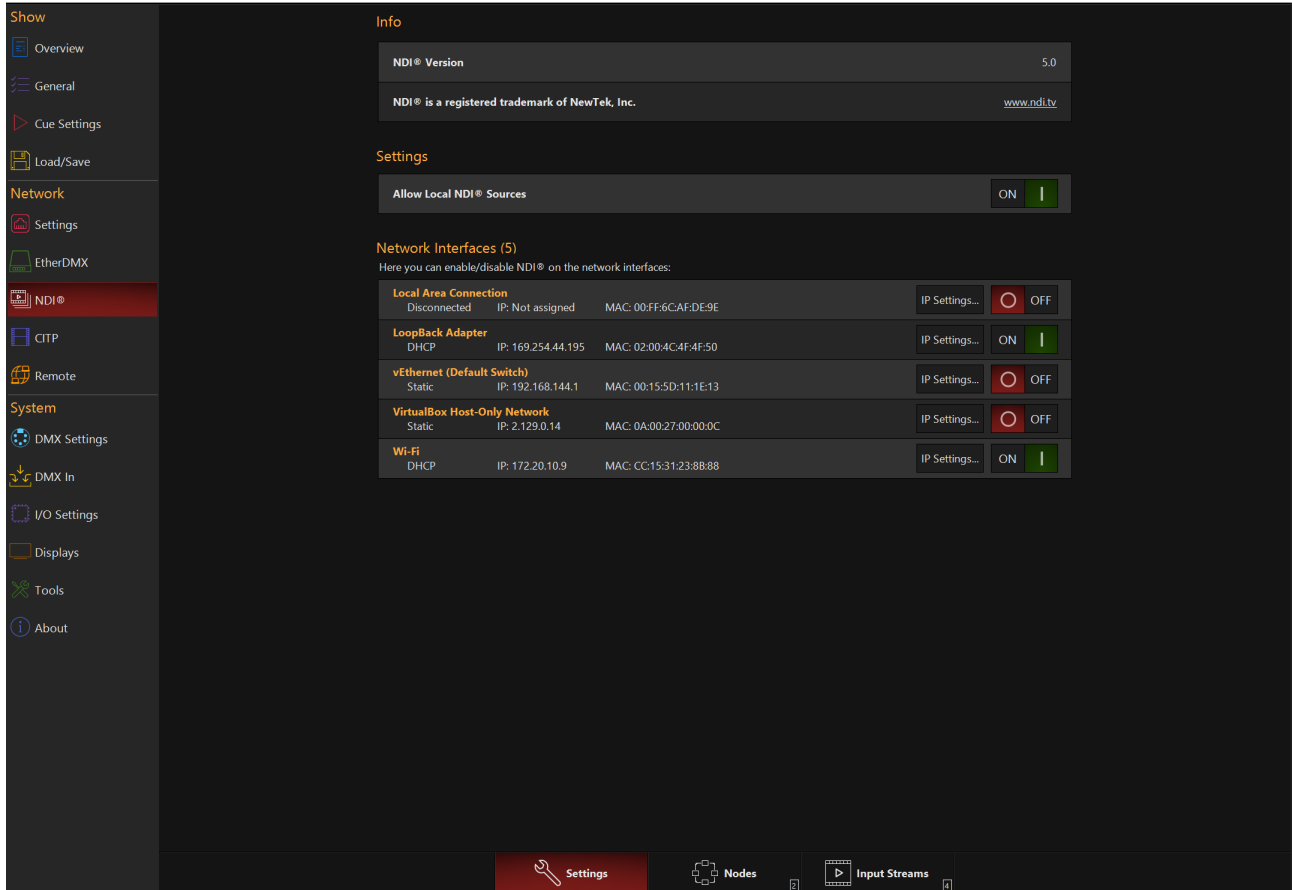
Here you can change the name, and set options for each port. If your Art-Net device supports web configuration, you can press Website to open a popup which will allow you to manage the device on it's own web interface.

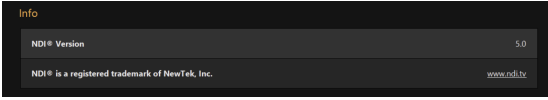
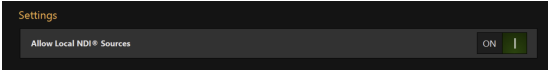
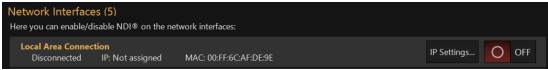
Detected Art-Net devices will be unicast only the assigned universes.

NDI Settings

The NDI protocol receives networked video into Onyx for use in Dylus.

Settings

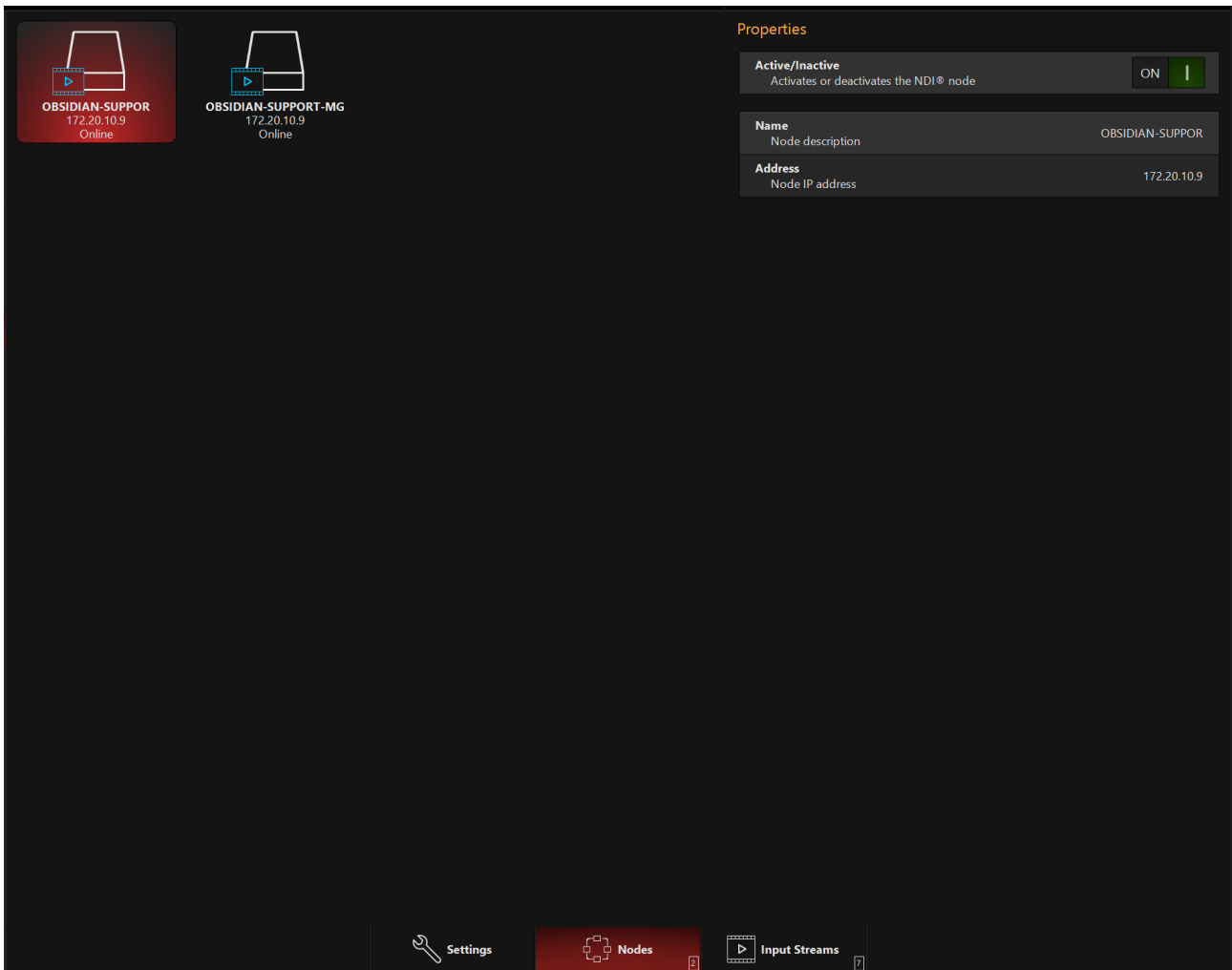


Option	Description
	Shows the current version of NDI installed and trademark information.
	Setting that allows for Local NDI Sources to be accepted.
	<p>Select what interface Onyx should enable NDI on. It can also be set from the Interfaces menu.</p> <p>(Note: this list will change depending on the network interfaces attached to your system)</p>

Nodes

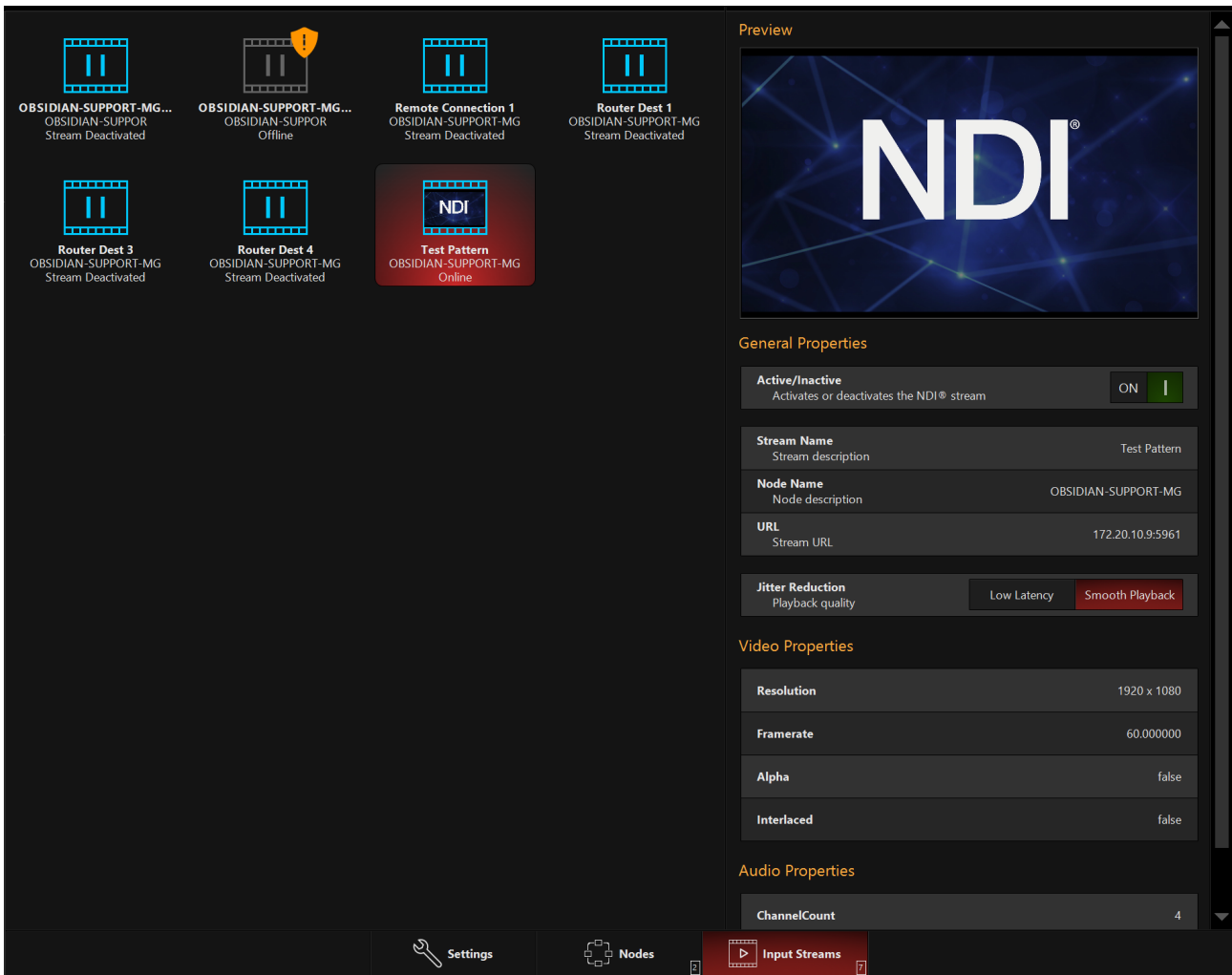
The Nodes menu allows an NDI node on the network to be enabled or disabled.

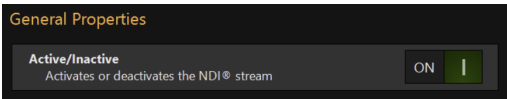
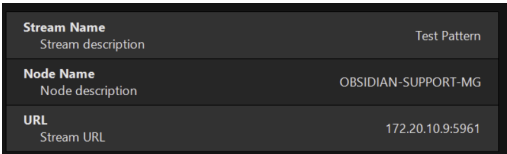
When enabled, Onyx will use the Node as an NDI input; disabled NDI nodes will be ignored.

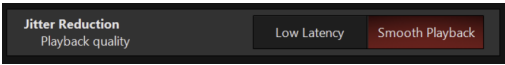
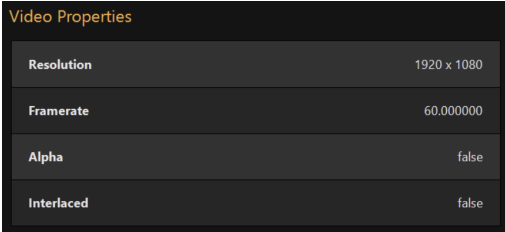
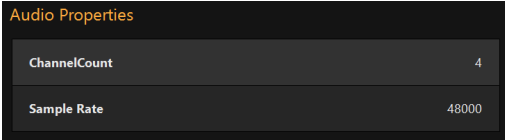


Input Streams

A single NDI node may have multiple streams; this is where a stream can be enabled and configured.



Option	Description
	<p>Sets if an NDI Stream should be received or ignored.</p> <p>*Enabling an NDI stream consumes considerable resources (CPU and network). It is good practice to disable unused streams.</p>
	<p>General Stream information</p> <p>Stream Name: Name of the NDI Stream.</p> <p>Node Name: Name of the NDI Node on the network sending the stream.</p> <p>URL: IP address and port of the sending NDI Node.</p>

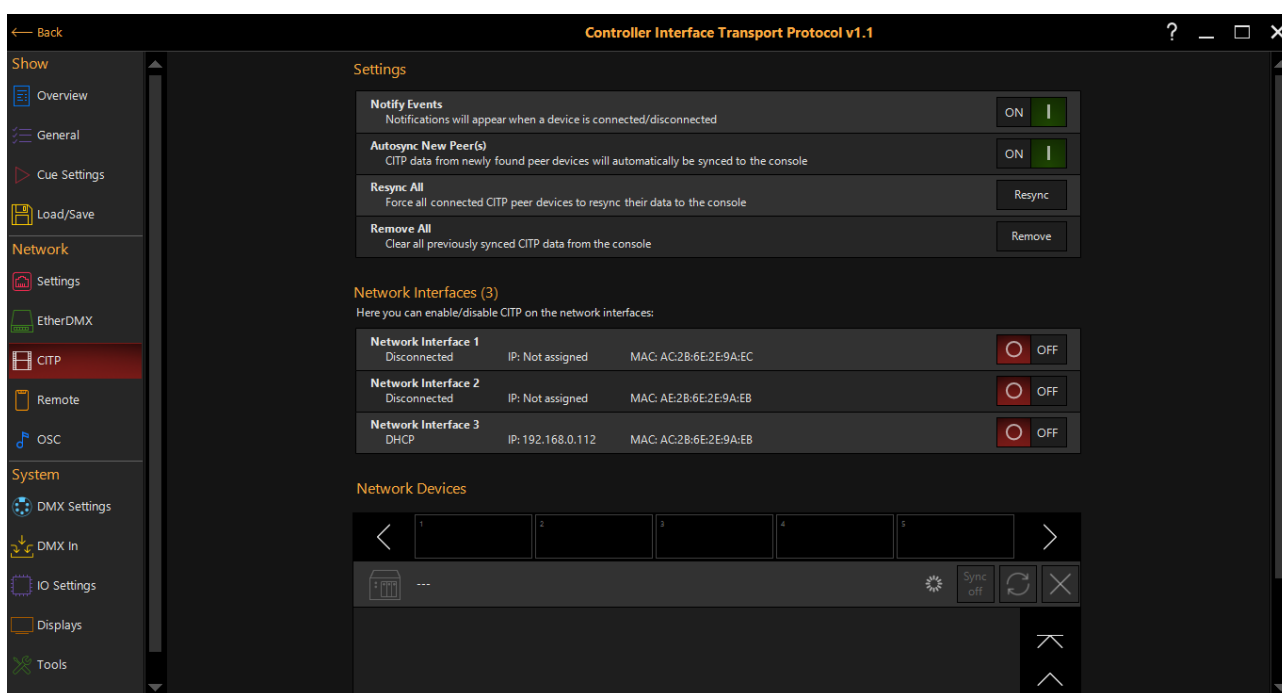
 <p>The screenshot shows a 'Jitter Reduction' control panel. Below the title, it says 'Playback quality'. There are two buttons: 'Low Latency' (highlighted in red) and 'Smooth Playback'.</p>	<p><u>Jitter Reduction</u></p> <p><u>Low Latency:</u> Onyx will prioritize Lower Latency processing.</p> <p><u>Smooth Playback:</u> Onyx will prioritize Smoother Playback, which may add additional latency.</p>								
 <p>The screenshot shows 'Video Properties' with the following details:</p> <table border="1"> <tr> <td>Resolution</td> <td>1920 x 1080</td> </tr> <tr> <td>Framerate</td> <td>60.000000</td> </tr> <tr> <td>Alpha</td> <td>false</td> </tr> <tr> <td>Interlaced</td> <td>false</td> </tr> </table>	Resolution	1920 x 1080	Framerate	60.000000	Alpha	false	Interlaced	false	<p><u>Video Stream Information</u></p> <p><u>Resolution:</u> Incoming video stream resolution.</p> <p><u>Framerate:</u> Incoming video stream framerate.</p> <p><u>Alpha:</u> Does the incoming video stream have an Alpha layer?</p> <p><u>Interlaced:</u> Is the incoming video stream interlaced?</p>
Resolution	1920 x 1080								
Framerate	60.000000								
Alpha	false								
Interlaced	false								
 <p>The screenshot shows 'Audio Properties' with the following details:</p> <table border="1"> <tr> <td>ChannelCount</td> <td>4</td> </tr> <tr> <td>Sample Rate</td> <td>48000</td> </tr> </table>	ChannelCount	4	Sample Rate	48000	<p><u>Audio Properties</u></p> <p><u>Channel Count:</u> Displays how many audio channels are in the incoming NDI stream.</p> <p><u>Sample Rate:</u> Displays the sample rate of the incoming audio stream.</p>				
ChannelCount	4								
Sample Rate	48000								

CITP

The CITP Protocol allows integration between ONYX and a compatible Media Server, visualizer, or any tool implementing CITP.

Thumbnails of the Media available on the Media Server can be pushed across the network so they can be viewed in the parameter belts and the common parameters window - as shown below.

ONYX automatically detects Media Servers on the network and synchronization will happen automatically on the provision CITP is enabled and the DMX patch information match up on both the Media Server/visualizer and in ONYX.



CITP Configuration

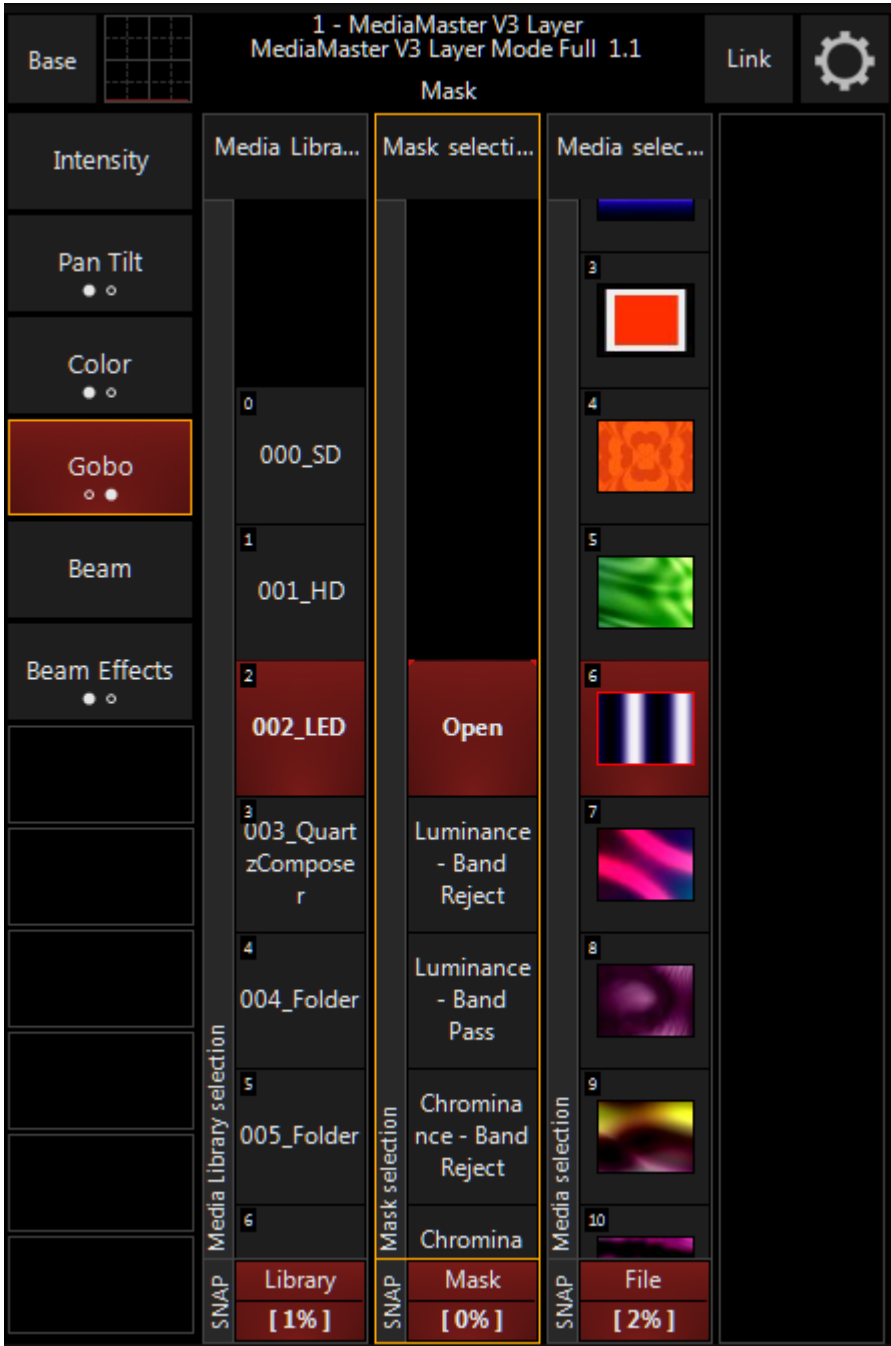
To configure CITP on the console:

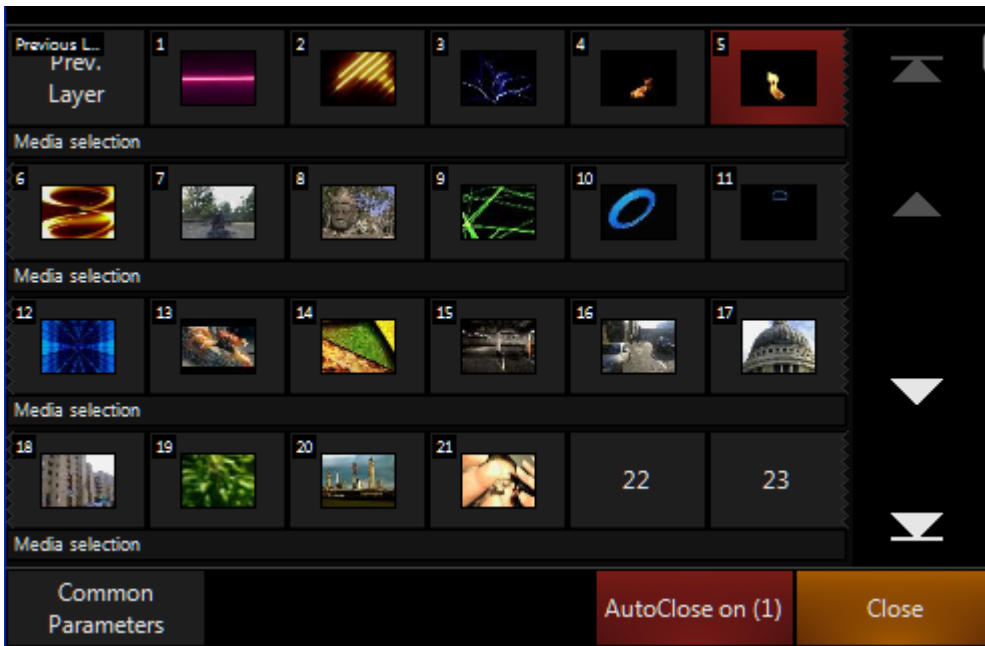
1. Access the Menu by pressing MENU key on the Console front panel, or pressing ONYX in the upper left hand corner and then choosing Menu.
2. Navigate to the Settings page under Network, then access the Interfaces section on the bottom toolbar.
3. On the EtherDMX Interface - Make a note of the IP Address.
4. On the EtherDMX Interface - Ensure CITP is enabled on the interface you wish to use.
5. Navigate to the CITP tab.
6. Verify that CITP is enabled on the EtherDMX Interface.

As soon as the configuration is complete, ONYX should start to receive the media thumbnails. Once synchronization has finished, its good practice to turn syncing off in the CITP Thumbs window until a re-sync is required.

Arkaos

To transfer thumbnails over the network...





The Arkaos system must be connected to the "EtherDMX" network port of the console. With the Arkaos implementation, both CIP and Art-Net can be sent/received on the same network interface. The Arkaos fixtures must be patched in ONYX and addressed accordingly on the Arkaos system. The Arkaos system also needs to be in the same IP range as the console.

CITP Patch Import

CITP can also be used to import patch from compatible visualizers and other tools. [See Patch Import for instructions and information.](#)

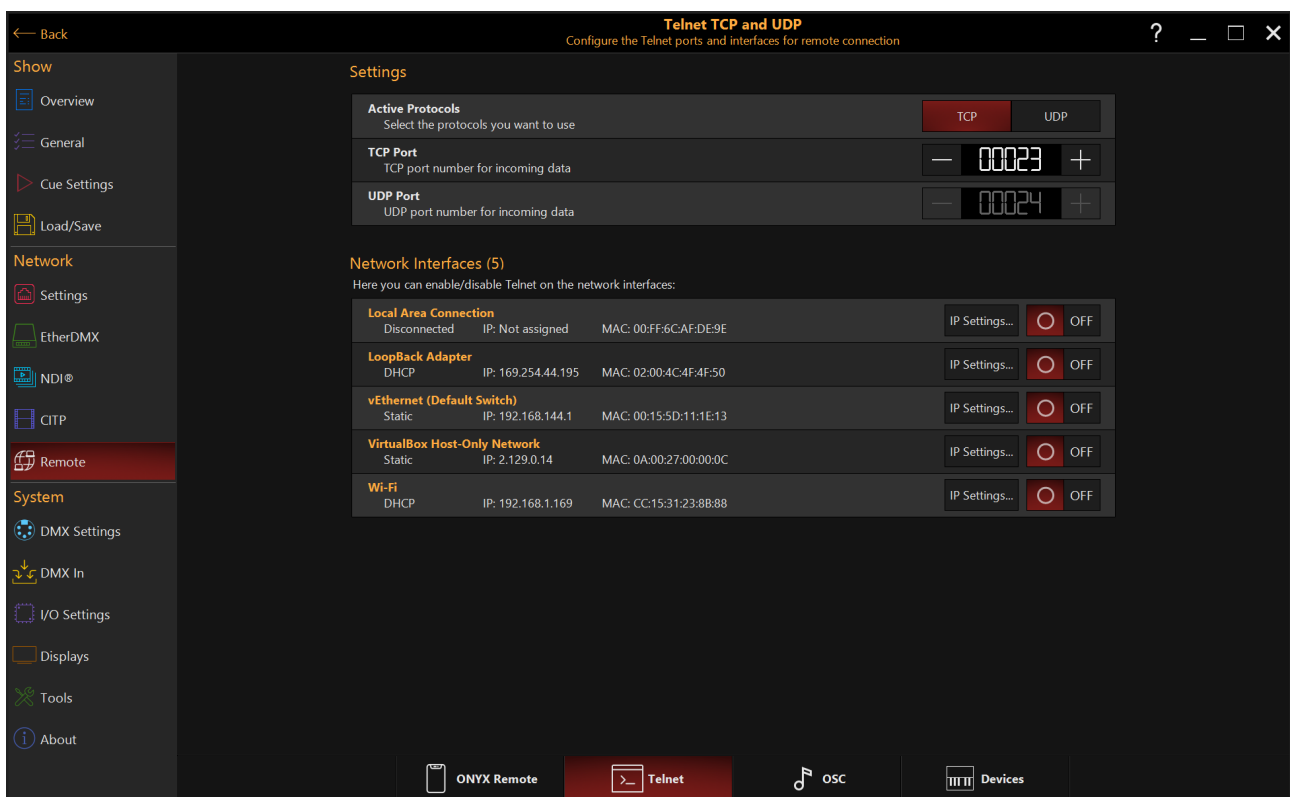
Remote

Telnet

Telnet

Onyx can accept Telnet (UDP or TCP) network commands for triggering playback and various command line operations. Telnet requires Onyx 4.10 or later.

A complete list of [Telnet commands](#).



Telnet and UDP Commands

The Onyx Telnet and UDP server can be used to remotely control Onyx using a command line base interface.

A list of Telnet and a list of UDP commands is available below.

To open the Telnet on the local PC for testing, the Telnet server must be enabled and assigned to a TCP/IP port

For example: If the server port used is 2323 the Telnet can be open entering the following as a command in the Run menu of Windows telnet:127.0.0.1:2323

If a telnet client is not installed on the PC, it can be added using the Add/Remove features in the Windows control panel.

Telnet commands will return a response.

For UDP command simply send the string followed by a carriage return.

No responses are sent back from UDP commands.

Telnet Commands

Command Name	Command Syntax	Discription	Example
Clear Clear	CLRCLR	Presses "Clear" twice to clear the programmer	CLRCLR
Go Cuelist	GQL #	Go Cuelist where # is the Cuelist Number	GQL 14
Release Cuelist	RQL #	Release Cuelist where # is the Cuelist Number	RQL 14
Pause Cuelist	PQL #	Pause Cuelist where # is the Cuelist Number	PQL 4
Go To Cue	GTQ #,#	Go to Cuelist where first # is the Cuelist Number and second is the cue number (full cue and point cue numbers supported)	Example 1: GTQ 14,3 Example 2: GTQ 14,4.1

Networking

Release All Overrides	RAO	Release All Override Cuelists	RAO
Release All Cuelist Dimmer First	RAQLDF	Releases All Cuelists Dimmer First Fade Out	RAQLDF
Release All Cuelist and Override	RAQLO	Releases All Cuelist and Overrides	RAQLO
Release All Cuelists	RAQL	Release All Cuelists	RAQL
Set Cuelist Level	SQL #,#	Set Cuelist Fader Level where the first # is Cuelist Number, and the second is the level (0-255)	SQL 12,255

OSC

OSC, or "Open Sound Control", is another way to gain remote control of the ONYX controls from external sources.

OSC offers full control of ONYX's main playbacks, playback buttons, F-Keys, command keys and more!

Note - When using a PC, there are some restrictions on OSC in FREE and NOVA mode. [See ONYX PC Modes for more information.](#)

One of the most popular ways to use OSC is via the TouchOSC app, available on tablets and phones - scroll down to see directions specific to setting up the TouchOSC app.

OSC Reference

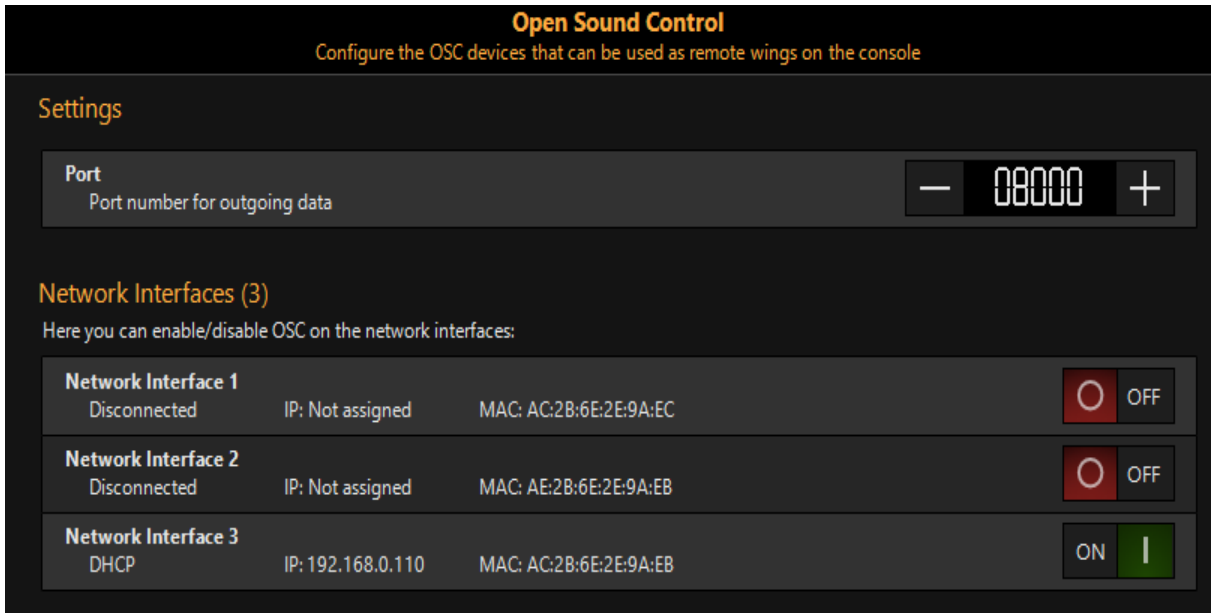
All supported OSC commands are documented in this PDF: [OSC MAPPING V1.20.pdf](#)

OSC Configuration (Any OSC Device)

To set up OSC on the Console:

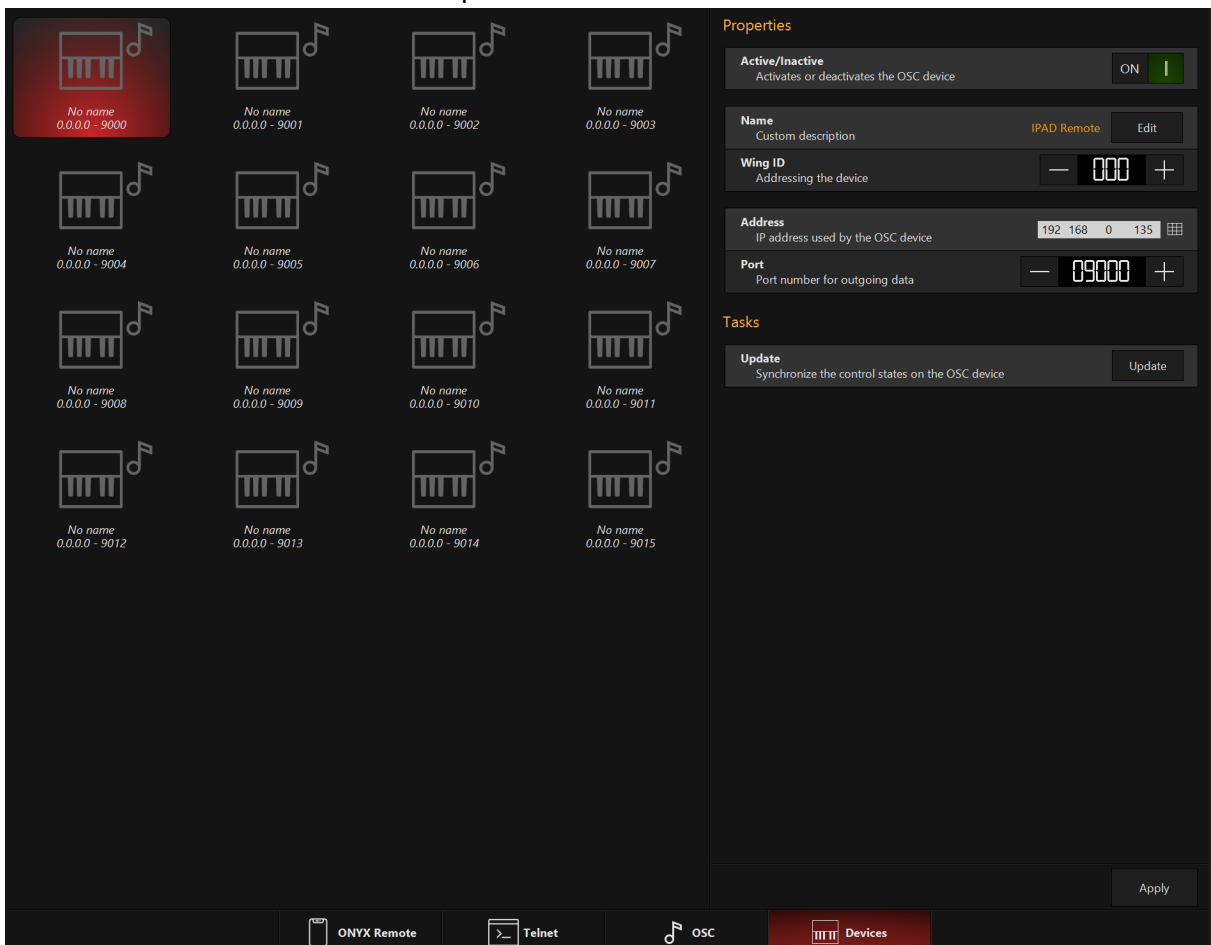
1. Access the menu by pressing the MENU button or ONYX in the upper left hand corner, then press Main Menu.
2. Under Network, press Settings, and then press Interfaces on the bottom navigation. Ensure that the IP Settings are set to "AUTOMATIC" and that OSC is enabled on the "REMOTE" adapter.
3. Press Apply.
4. Navigate to the OSC page.

- Under Settings enable OSC on the "Remote" network interface.



- Under Devices Activate the first OSC Device using the Properties options on the right column.

- Enter a name for the Device - example "iPad Remote"



- Enter the IP Address of the OSC device. If using TouchOSC, the "Configuration" page in the TouchOSC app will show you your device's IP address.

Networking

9. Ensure the Incoming Port used by the OSC device matches the settings on the iPad.
10. Press Update and Apply.
11. In the Touch OSC app or other device, press the Refresh Button on tab 6 (Config).

The console and the remote should begin to communicate.

TouchOSC Setup and Configuration

The "Touch OSC" app, available for iOS and Android devices has a specifically designed ONYX skin designed for iPhone and iPad. Using the app, you can use your device as a remote focus and play-back tool for ONYX.

[OSC Layouts](#)

In the folder you will find both a layout sized for iPads and other tablets, as well as one designed for phones.

Before using TouchOSC, be sure to install the TouchOSC application from your device's app store (iTunes, Google Play, Amazon).

Installing Your Layout

There are a few different ways to get your Touch OSC layout installed on your device.

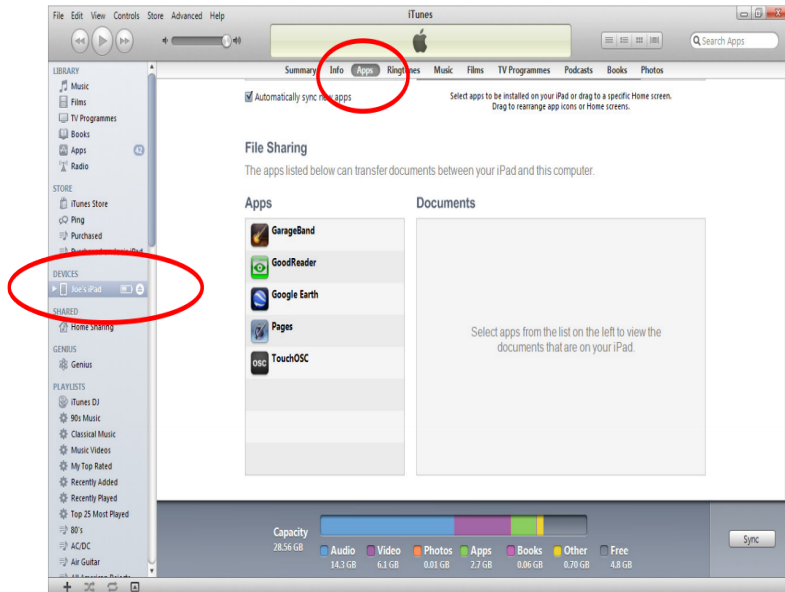
Android: Installing Layout Downloaded on Your Device

The easiest way to install your layout on Android is to first download it to your device from the link provided at the top of this page.

- Once downloaded, open the TouchOSC app.
- The app will launch to the Settings screen, and you can press "Layout". If your app launched to a layout, press the circle in the upper right hand corner.
- Now press "Add from File". You'll now be able to navigate to your system's download folder, where you may select the layout.
- Scroll down and select the layout you have just added. The layouts are organized in alphabetical order.

iOS: When syncing the device with iTunes, you can install the layout inside the Touch OSC app:

1. Select the Device on the left hand side in iTunes



2. Navigate to the Apps Tab
3. At the bottom of that tab is a "File Sharing" area
4. Select the OSC App
5. Hit the "Add" button



6. Browse to the layout you wish to install.
7. Re-Sync the device to iTunes and the layout will be available on the device.

Android or iOS: Installing via TouchOSC Editor

You can also install the TouchOSC Editor program, which allows you to edit and customize TouchOSC layouts, as well as sync layouts from the PC directly to the TouchOSC app. You can download free TouchOSC editor here: <https://hexler.net/software/touchosc>.

Once you've installed the application on your computer, you can press "Sync" in the top navigation, and a window will pop up with instructions on how to load it into your device over wireless.

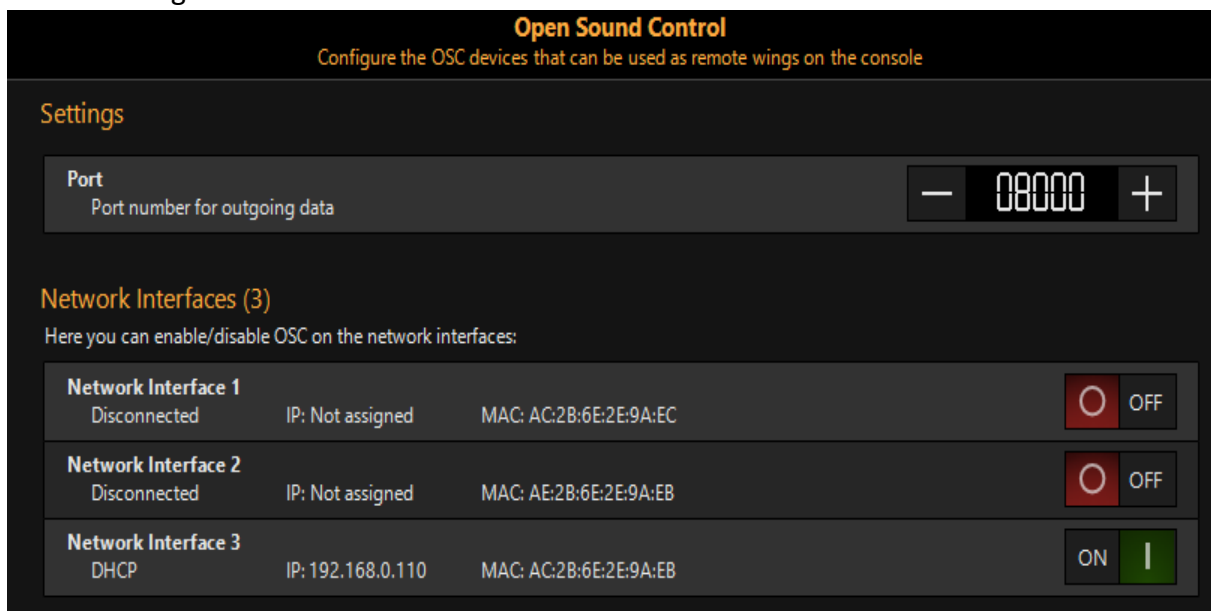
Configuring Your Device

1. On the device, disable Mobile Data.
2. Connect the ONYX "Remote" network interface to a wireless router or access device. Connect the iOS device to the same router/access point.
3. Both Console and iOS device should be set to obtain an IP address automatically. For more complex network requirements, assign a static IP Address on the devices accordingly.

Configure the Console

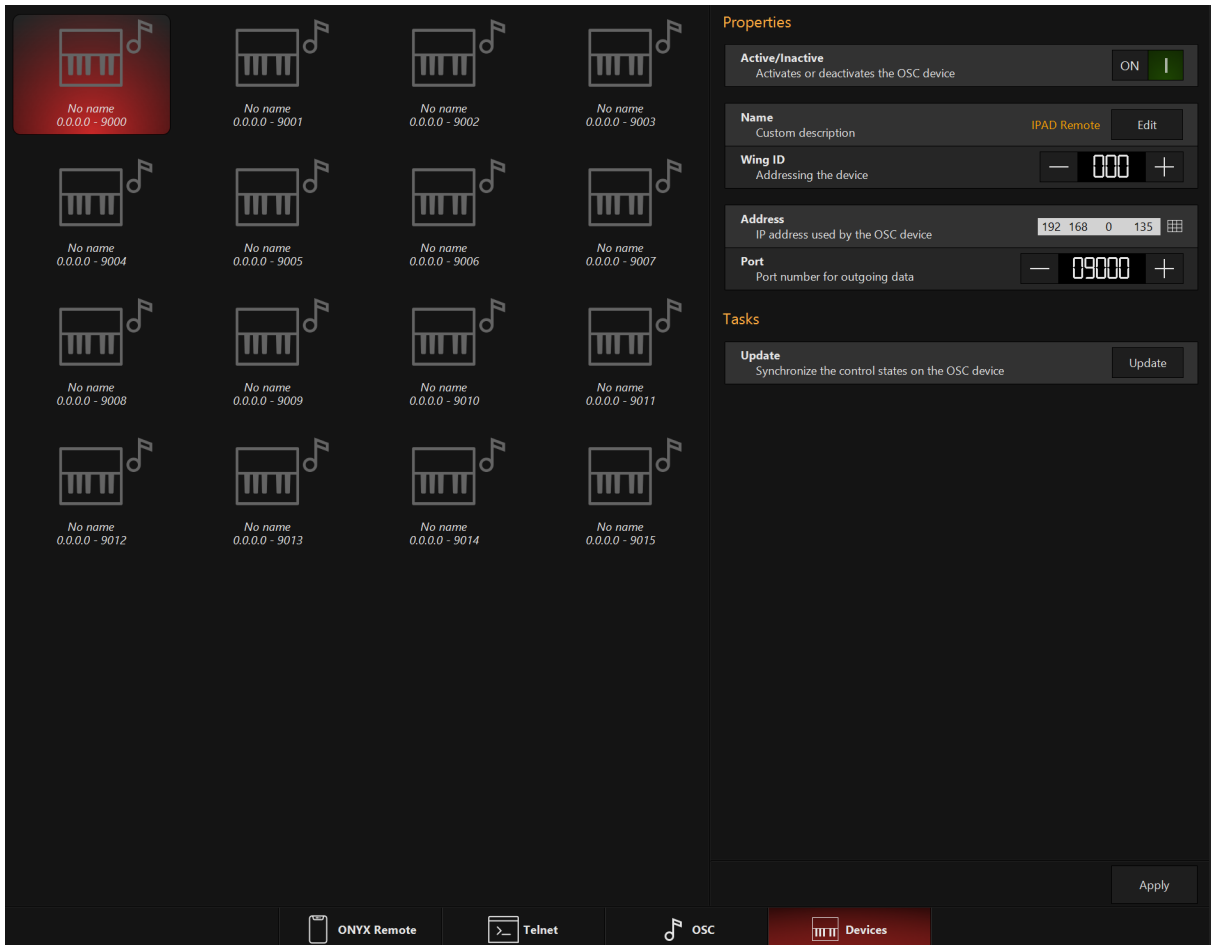
To set up OSC on the Console:

1. Access the menu by pressing the MENU button or ONYX in the upper left hand corner, then press Main Menu.
2. Under Network, press Settings, and then press Interfaces on the bottom navigation. Ensure that the IP Settings are set to "AUTOMATIC" and that OSC is enabled on the "REMOTE" adapter.
3. Press Apply.
4. Navigate to the OSC page.
5. Under Settings enable OSC on the "Remote" network interface.



6. Under Devices Activate the first OSC Device using the Properties options on the right column.

7. Enter a name for the Device - example "iPad Remote"



8. Enter the IP Address of the OSC device. The "Configuration" page in the TouchOSC app will show you your device's IP address.
9. Ensure the Incoming Port used by the OSC device matches the settings on the iPad.
10. Press Update and Apply.
11. In the Touch OSC app, press the Refresh Button on tab 6 (Config).

If you are in FREE or NOVA mode, OSC is locked. However, you may start a free trial on this page of via the licensing popup, for more info see [MIDI, Timecode, and OSC Playback Trial](#).

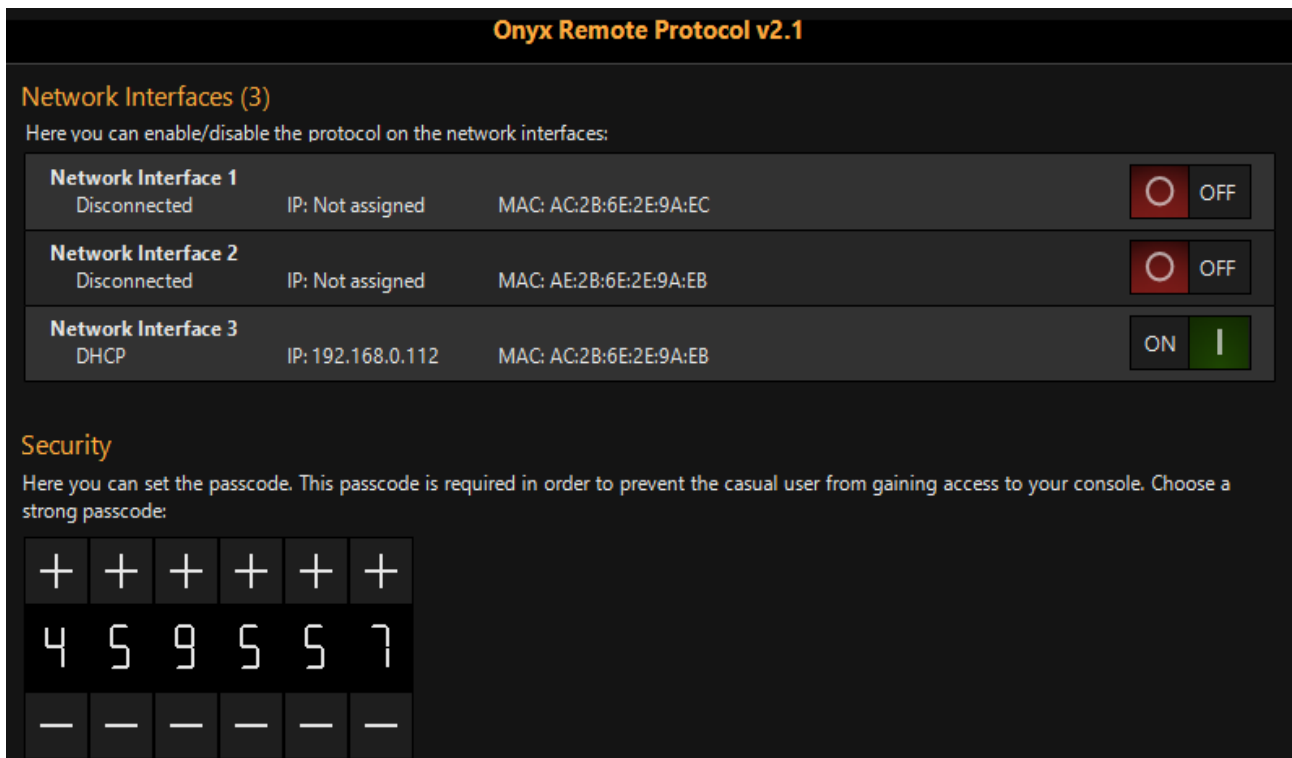
The console and the remote should begin to communicate.

ONYX Remote

The ONYX Remote is an app for the iPhone or iOS which allows remote, wireless control of the console.

This handy tool can be used for many applications including remote focus, remote cue execution and fixture testing.

In order to use the ONYX Remote app, you must have a wireless access point or router attached to ONYX. The device running the app must then be connected to this access point.



ONYX Remote Settings:

Option	Description
Network Interfaces	Enable/Disable the ONYX Remote system per each network interface. By default, this is disabled.
Passcode	Here you may choose a passcode of your liking. The passcode is required in order to prevent the casual user from gaining access to your console. <i>Therefore, please change it so it's not set to the default!</i>

To setup ONYX Remote a wireless router/access point will need to be connected to the "Remote" network interface.

The router/access point should be set to give out IP Addresses automatically (DHCP).

To Configure ONYX:

1. Access the Menu by pressing MENU, or press ONYX in the upper left hand corner and choose Menu.
2. Navigate to the Settings section under Network.
3. Navigate to the Interfaces page from the bottom navigation.
4. Enable the ONYX Remote option on the right hand side for the "Remote" network interface.
5. Press Apply
6. Navigate to the ONYX Remote Tab
7. Make a note of the security passcode.

To Configure the iOS device:

1. Join the router/wireless access point network.
2. Ensure the IP address is in the same range as the console.
3. In the ONYX Remote app, press the desired console name to connect to it. Make sure to enter your passcode correctly!

X-Net

ONYX Consoles have the ability to link together on a network via their proprietary network protocol, X-Net, in order to allow Primary and secondary setup for consoles.

DMX output is not switched between the Primary and Secondary console, if a live switch is required due to a problem with the Primary Console then swapping the DMX Cables and Art-Net output from the Primary to the Secondary is required. Both Primary and Secondary console need to have the same amount of licenses available at all times otherwise full DMX output will not be possible.

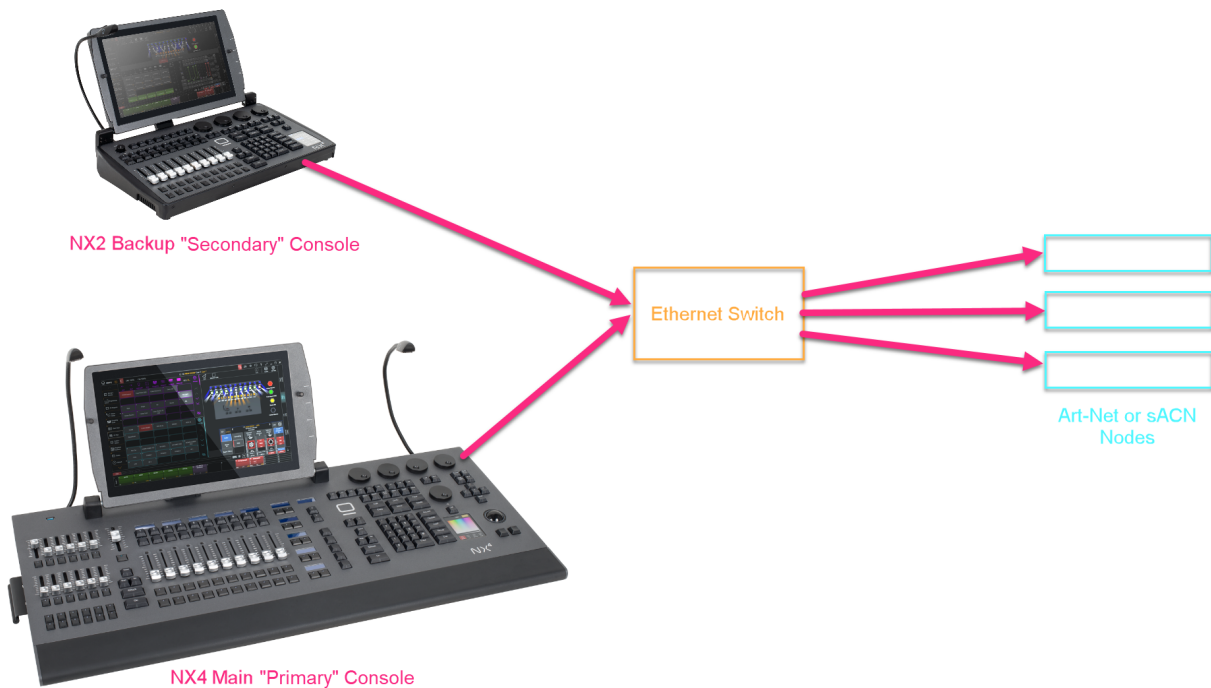
If the DMX output is purely via Art-Net or sACN, connect both output devices to a network switch and disable Art-Net/sACN output on the Secondary console (otherwise there will be a conflict).

If a live switch is needed, simply turn the Art-Net/sACN output of the Primary off and turn the Art-Net/sACN of the Secondary console on, and you can continue to run the show from where the Primary console left off. Art-Net ON/OFF toggle is assignable to a Function Key. See the [Sidebar and Function Keys](#) section for more information.

The Primary Console is the Console that the show is running on, all other Consoles are "Secondaries" that "Join" the show via the network. Currently, the following data is synchronized between the Primary and Secondary Consoles:

- All Cue and Preset data
- All Playback operation
- All Programmer operation
- All Patch Data
- X-Net chat window

Here is a simple diagram that demonstrates a simple Primary/Secondary console setup (Press to enlarge):



You can optionally push the following from the Primary console to selected Secondary Consoles:

- A remote command to "Push" the network show from the Primary to a Secondary console
- A remote command to "Leave" the network show. This will remotely remove a Secondary console from the network show.

All Primary and Secondary consoles can view show data of a network show both prior to joining it and once joined.

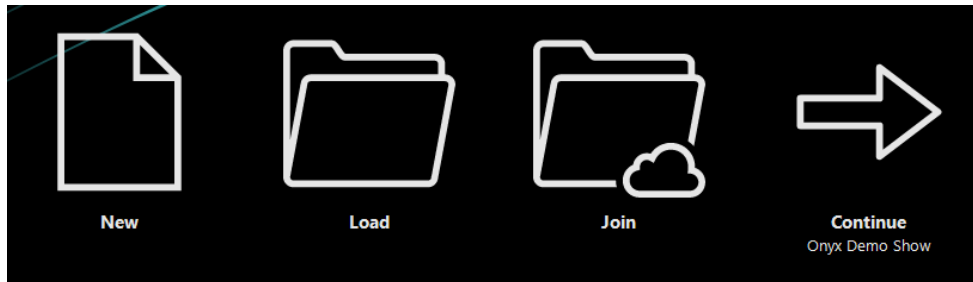
It is important to note that the "Show" name and the "File" name are different. The network show may be called "Main Auditorium" but the Saved show file may be called "Friday Morning".

To change the name of a show:

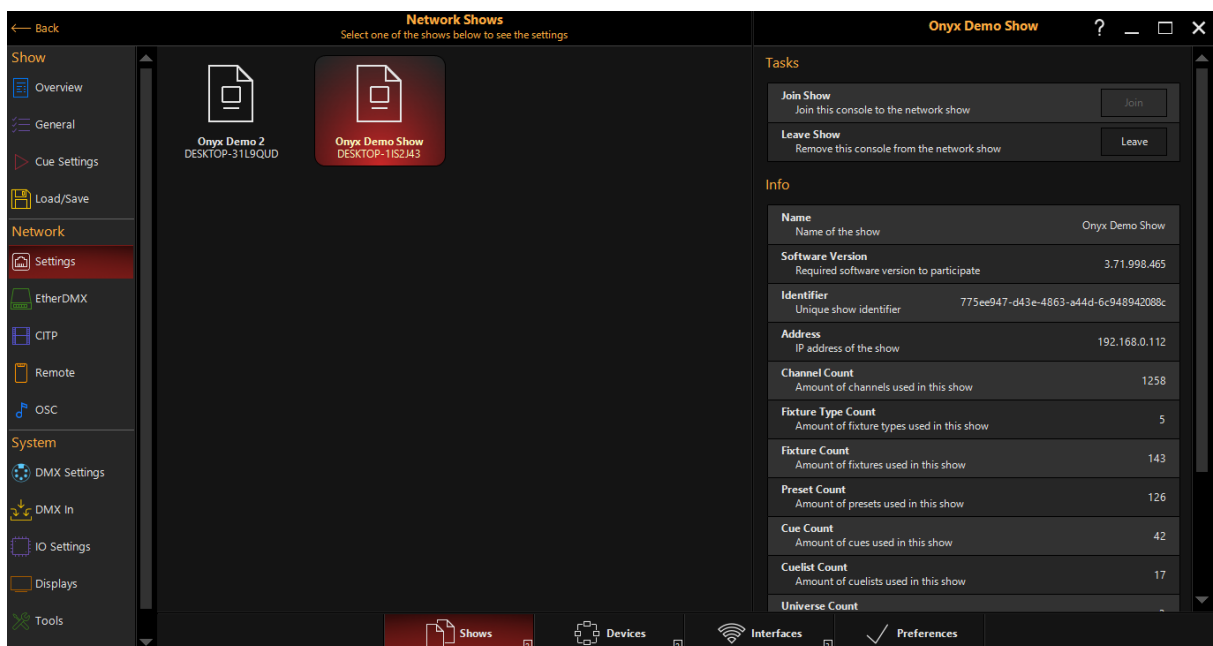
1. Access the Console Menu by pressing MENU, or pressing ONYX in the upper left hand corner, and then pressing Menu.
2. Navigate to the Overview section on the left sidebar under "Show".
3. Press the Edit... button next to the current show name.
4. Enter a new show name on screen.
5. Press "OK" to finish.

To Join a network show on Startup:

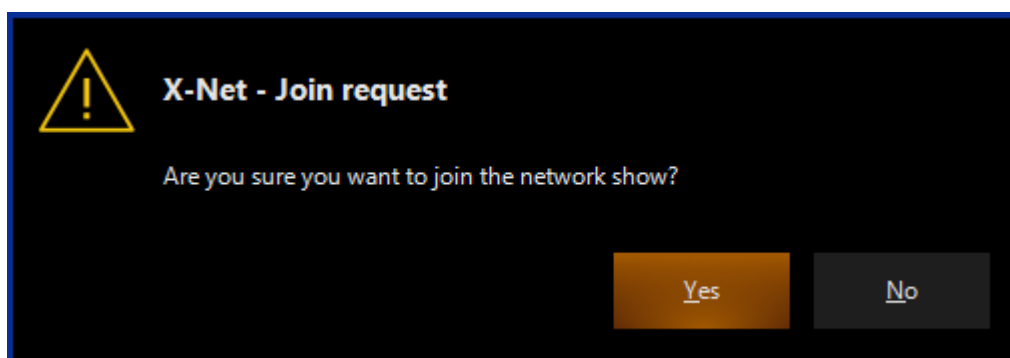
1. On startup choose the "Join Show" Option.



2. Choose the desired show from the network shows window, and press Join in the upper right corner. All online shows will display here.



3. Confirm you wish to join a network show.



To Join a Network show once the console has fully booted:

1. Access the Menu by hitting MENU, or by pressing ONYX in the upper left hand corner and then pressing Menu.
2. Navigate to the Settings page, under Network.
3. Navigate to the Shows section from the bottom bar.
4. Choose a network show by pressing it on the screen
5. Under "Tasks" on the right hand side, press Join.

6. Press Yes from the popup to confirm you wish to join this network show.

Connecting to MSD

1. Connect the PC running MSD with ONYX.

In order for the computer running MSD to receive Art-Net network packages, it needs to be physically connected to the correct network port on the ONYX.

A ONYX Console usually has a two network ports, the one labeled EtherDMX port is the sACN/Art-Net output adapter.

Connect this EtherDMX port to the PC network port with an Ethernet cable. If you connect your PC directly to the Console, you might need a cross-over cable (most modern equipment is auto-sensing and will work with a regular cable), or you can use a network hub/switch and 2 regular network cables.

2. Setup the PC Network settings to match the Console.

In order for the computer running MSD to receive Art-Net network packages, it also needs to be logically connected to the correct network.

ONYX usually sends it's DMX values to Art-Net nodes that are in the 2.x.x.x network, meaning that the receiver needs to have an IP address that starts with 2, and a sub netmask of 255.0.0.0. The other three numbers of the IP address are less important but the combination must be unique.

3. Configure Console.

Ensure that Art-Net is enabled on the console and that the packages are broadcast (Please see Art-Net section on how to check this).

If the console is set up to only transmit the Art-Net packages to detected nodes then you can run into problems, as MSD isn't recognized as Art-Net node, so it won't receive the Art-Net packages.

4. Configure MSD.

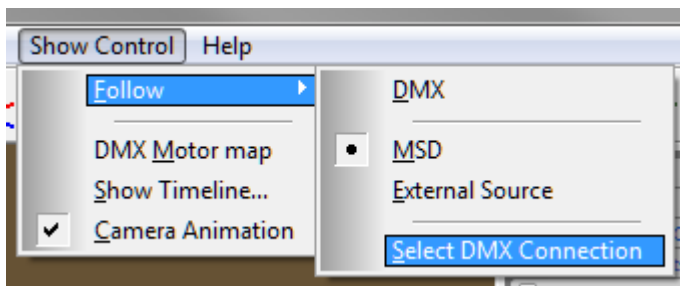
To configure MSD to use Art-Net as DMX input, you need to select the correct DMX Connection.

In MSD, there are 2 connections available for Art-Net, one called 'Art-Net DMX Node' and one called 'Art-Net DMX Node (No Transmit)'.

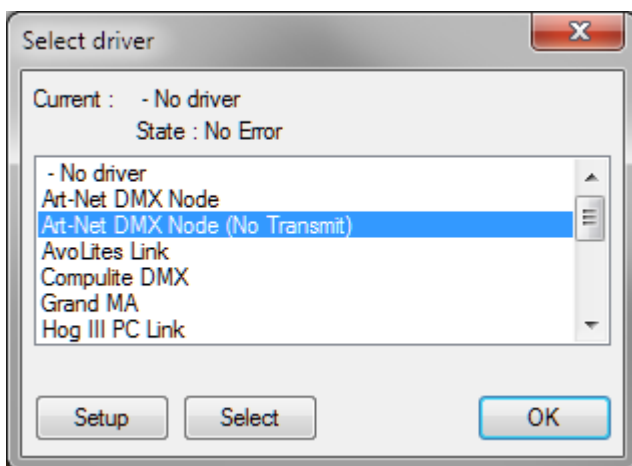
The first one enables MSD to send and receive Art-Net packages, while the second only receives Art-Net packages.

If you just want to follow what the Console is sending, it is better to select the second connection, which has a better performance and does not cause any interference in the Art-Net communication, because it is not sending any Art-Net packages of its own.

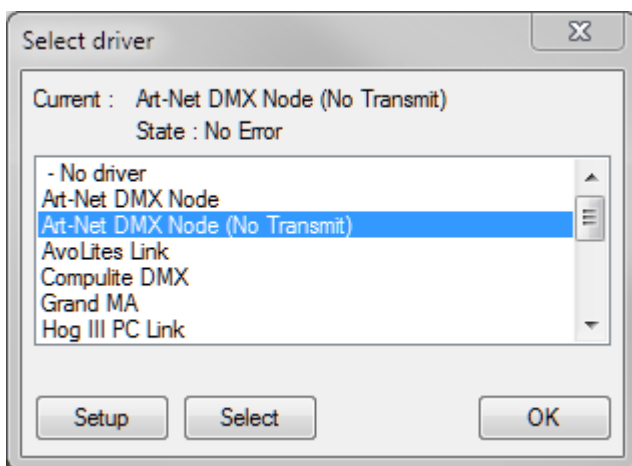
To select the 'Art-Net DMX Node (No Transmit)' connection, start the MSD 3D Visualizer module and select 'Select DMX Connection' from the 'Show Control – Follow' menu.



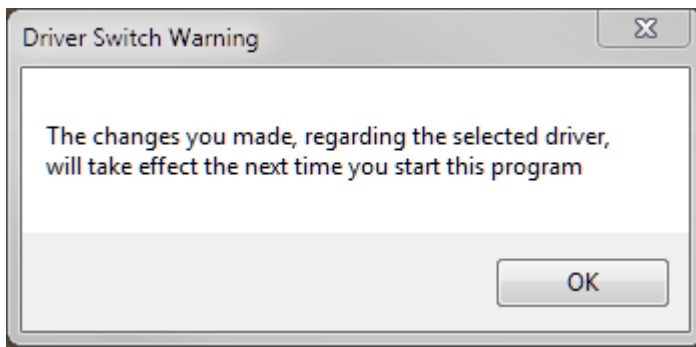
A dialog will open where you see all the available MSD Connections, which you installed during the MSD installation process. Select 'Art-Net DMX Node (No Transmit)' and press the 'Select' button.



This will change the current status at the top of the dialog.

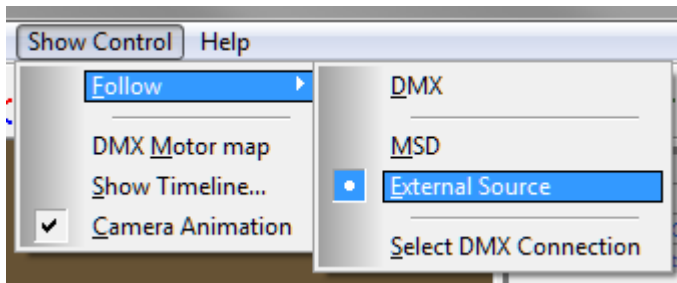


Now press the 'OK' button to finalize your selection. A dialog will pop-up with the following warning:



You will have to close down and restart the program to re-initialize the program with the correct connection.

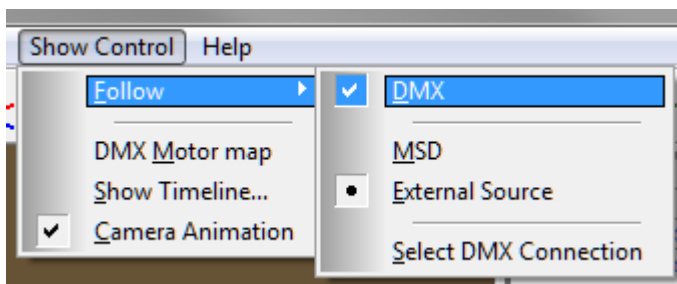
After restarting the program, make sure that the MSD Visualizer is using the external connection as its input source for DMX. (The other option being 'MSD' where another MSD module is used as input.)



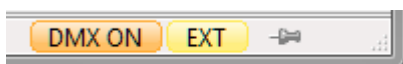
You can also see which of these two is selected in the status bar of the program, in the bottom right. It should state 'Ext' in the right button for 'External Source'.



In this image, you can also see (in the red button) that the 'DMX in' option is currently disabled, so to enable DMX in, you have to select it in the 'Show Control – Follow' menu, by making sure the 'DMX' option is checked.



This will change button in the status bar to 'DMX ON' and the color will change to orange, meaning DMX is ready to receive data.



Networking

When MSD is detecting changes in the incoming DMX (so not just receiving Art-Net packages, but actual changes in DMX values), the button will turn green. (If there are no changes in the DMX values it receives for a while, MSD will turn the button back to orange.)



So a good way to check if you are receiving DMX is to have the console send a continuous stream of changing values, using a macro of some sort and check if the DMX button turns green.

Commandline

Please see the topic list below to get started.

- [Commandline Reference](#)
- [Keyboard Shortcuts](#)
- [Using the Commandline](#)

Command Line Reference

The Command Line is a very powerful tool that can allow you to quickly perform a variety of functions. For your reference, these functions are listed in groups below:

Shortcuts

Below are some commonly used “shortcuts” or quick commands.

Command	Description
[.] [ENTER]	Selects all fixtures in the Programmer
[0] [ENTER]	Deselects all fixtures in the Programmer
[.] [0] [ENTER]	Grabs every patched fixture in the entire show and puts it into the Programmer
[CUE] [X] [ENTER]	Goes to the specified cue in the specified time
[SNAP + [CUE] [X] [ENTER]	Goes to the specified cue in time zero
[SNAP] + [REL]	Fades all fixtures to zero and then releases them from all playback controls in the specified time
[REL] + [SNAP]	Releases all attributes of all fixtures in all playback controls simultaneously
[EDIT] [ENTER]	Loads all attributes of the active cue in the selected cuelist into the Programmer for editing
[RECORD] [ENTER]	Records the contents of the Programmer into the next available whole numbered cue in the selected cuelist.
[LOAD] [LOAD] [LOAD] [ENTER]	Loads the current output of all playbacks into the Programmer

Command Line Status

The Command Line shows the current status of the operation.

Blind



All operations are sent to the programmer but the programmer is not sent to the DMX output. Live/Blind can be toggled with PREVIEW.

Highlight



Selected fixtures assume the Highlight state which usually is Open White with Intensity at 100%. Highlight can be customized from the [Highlight tab in the Default window](#).

Patch



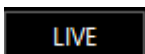
ONYX is in the patch mode and all operations are sent to the patch spreadsheet displayed above the Command Line.

Offline / Free



With no device connected, ONYX can still be used to output up to 4 universes. For more, see [ONYX Licensing](#).

Live



The indicator beside the command line will read "Live" when ONYX USB hardware is connected. For more, see [ONYX Licensing](#).

Note: Grey text in the Command Line indicates that this was the previous command and the Command Line is now clear.

Fixture Selection

Commandline

All fixture selection can also be done visually from the Fixture and Group windows, or via the command line and number keypad.

[Learn more about Selecting Fixtures and Groups here.](#)

This section is going to outline how to select fixtures with the command line and key pad.

Command	Description
1 ENTER	Selects fixture 1
1 + 10 ENTER	Selects fixture 1 + 10
1 THRU 10 ENTER	Selects fixture 1 through 10
1 THRU 10 - 8 ENTER	Selects fixture 1 through 10 minus fixture 8 (1-7, 9-10)
3 + 10 + 1 ENTER	Selects fixture 3 and 10 and 1 (<i>and stores the order of selection</i>)
+ 15 ENTER	Adds fixture 15 to current selection
- 7 ENTER	Deselect fixture 7 from the current selection
GROUP 8 ENTER	Selects Group 8
- GROUP 5 ENTER	Deselects Group 5
NEXT	Advance forward through selected fixtures or select next set of fixture mask
PREVIOUS	Step backwards through selected fixtures or select previous set of fixture mask
NEXT + PREVIOUS	Reactivate fixture selection, used when a grouping tool/mask is in place or when next/last has been used within a selection.
Selection Shortcuts	
. ENTER	Selects all fixtures currently in the programmer
0 ENTER	Deselects all fixtures currently in the programmer

Commandline

Command	Description
. 0 ENTER	Selects all fixtures patched into the current showfile
/ ENTER	Inverts fixture selection in the programmer

Grouping

ONYX can combine fixtures and groups in patterns to create useful fixture selections.

It also allows to use the patterns as masks for powerful offsets and value spreads with the Fanning and Effects tools.

The function is accessed from the Parameter Group Button "Grouping" in the right side (or second page) of the Parameter Control buttons.

[Learn more about using the Grouping Tools here.](#)

Command	Description
Revert	Reactivate fixture selection
Invert	Invert fixture selection in the programmer
Invert Mask	Invert selection within selected fixture mask
Random	Randomizes selection order to use with Fanned timings and Effect delay (Step or Wave per x)
Reverse	Sorts the current selection by the reversed ID #'s
Sort	Sorts current selection order by their ID #'s
Off	Turn off grouping.
Every X	Current fixture selection is divided into every "X" fixtures, where X is the number you select. Use NEXT to advance through masked selection
Block of X	Current fixture selection is divided into blocks of "X" fixtures.
Divide by X	Current fixture selection is divided into "X" equal parts.

Command	Description
Mirror per X	Current fixtures are selecting in a mirror, with "X" being the total number of fixtures selected at one time.
Group	NEXT/PREVIOUS advances in Groups. Groups can be used as Fan and Effect Offset Points.
Fan <> (Grouping Tools Command)	Values are applied to all fixtures in selection all calculated value spreads (Fanning and Effect Offsets) use the Grouping Tools.

Conditional Fixture Selection

This feature allows to select fixtures based on their current state in the playback on stage, for example all RED fixtures that are pointing to the DRUMS preset, or all fixtures that are currently 100% Intensity.

The command can be executed with an empty programmer to query the entire patch.

If fixtures are already selected in the programmer, the query is only considering those fixtures. This allows to select a Group first, e.g. all Washlights, then to select all BLUE fixtures.

The command can be executed as a selection tool with GROUP or as capture tool using LOAD.

Command	Description
Group , then touch Preset Button	Selects all fixtures that currently use the preset in the output
Group @ Preset + Preset + Preset Enter	Selects all fixtures that currently use all of the selected presets in the output
(hold) Group Touch Preset + Preset + Preset	Also selects all fixtures that currently use all of the selected presets in the output.
Group FULL	Selects all fixtures at 100% Intensity in the output
Group Enter	Selects all fixtures above 0% in the output
Group @ 20 Enter	Selects all fixtures with exactly 20% Intensity
Group @ 50+ Enter	Selects all fixtures with 50% and higher Intensity
Group @ 30- Enter	Selects all fixtures with 30% and less Intensity
Group @ 20 THRU 80 Enter	Selects all fixtures with from (and including) 20% to 80% Intensity
Load Preset Button Enter	Read output for all fixtures that currently use the preset in the output
(hold) Load Preset + Preset + Preset	Loads output for all fixtures that currently use all of the selected presets in the output
Load Group FULL	Read output for all fixtures at 100% Intensity in the output
Load Group @ 20 Enter	Read output for all fixtures with exactly 20% Intensity

Commandline

Command	Description
Load Group @ 50+ Enter	Read output for all fixtures with 50% and higher Intensity
Load Group @ 30- Enter	Read output for all fixtures with 30% and less Intensity
Load Group @ 20 THRU 80 Enter	Read output for all fixtures with from (and including) 20% to 80% Intensity

Intensity Commands

Intensity commands are used to assign dimmer levels to the fixture without needing to access the parameter controls.

They also allow to add or subtract values and they can be used to spread / fan levels across the fixture selection for more dynamic looks.

This is especially interesting in combination with the [Grouping feature](#).

Command	Description
[SELECTION] FULL	Set Intensity for [SELECTION] to 100 % (e.g. 10 FULL) and confirm fixture selection
[SELECTION] @ 25 ENTER	Set Intensity for [SELECTION] to 25 % (e.g. 15 @ 25 Enter)
[SELECTION] @ + 15 ENTER	Add 15 % Intensity to [SELECTION]] (e.g. Group 5 @ + 15 Enter)
[SELECTION] @ - 25 ENTER	Subtract 25% Intensity from [SELECTION] (e.g. 15 @ - 25 Enter)
[SELECTION] @ 0 THRU 100 ENTER	Spread the Intensity across the [SELECTION] from 0 to 100% (e.g. @ 0 > 100 Enter)
[SELECTION] @ 0 THRU 100 THRU 0 ENTER	Spread the Intensity across the [SELECTION] from 0% to 100% to 0% (e.g. @ 0 > 100 > 0 Enter)

Parameter Commands

Values can be entered directly for specific parameters, e.g. Magenta at 50%. It also possible to fan values across a selection with THRU.

Presets can be selected directly from the Command Line with the @ key and the Parameter Buttons.

Command	Description
[Selection] @ Parameter Group # Enter	Selects Preset # in Parameter Group specified, e.g. @ Color 10 Enter
[Selection] @ Parameter Button # Enter	Assigns Value to Parameter, (Percent or DMX depends on Programmer setting) e.g. @ Magenta 50 Enter
[SELECTION] @ Parameter Button 0 THRU 100 ENTER	Spread the Value across the [SELECTION] from 0 to 100% (e.g. @ Cyan 0 > 100 Enter)
[SELECTION] @ Parameter Button 0 THRU 100 THRU 0 ENTER	Spread the Value across the [SELECTION] from 0% to 100% to 0% (e.g. @ Iris 0 > 100 > 0 Enter)

Playback Select

The selected cuelist is used for all modifications, options and CUE commands. Throughout the various ONYX hardware, there are different buttons that default to the select button.

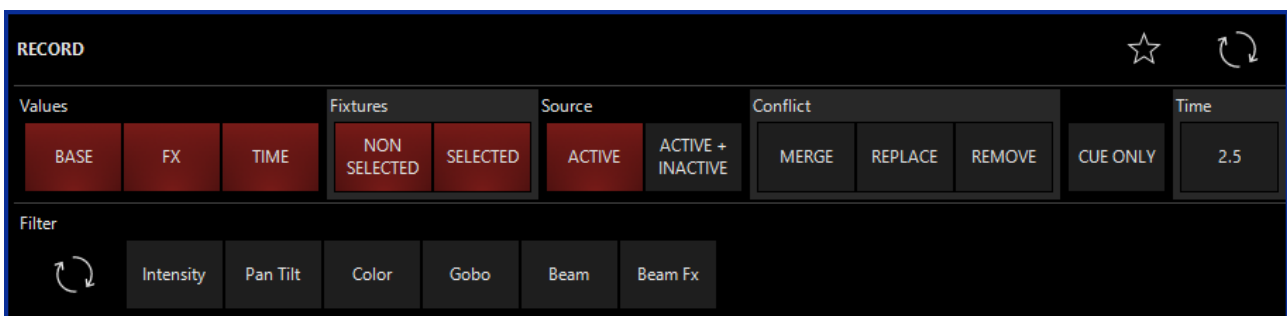
This is customizable through the [Function Assignments](#).

Command	Description
Main Playback Fader/Playback Module	Default is the topmost button, but can be customized. Also can be selected using the touch screen.
Button Module	Default is LCD button, but can be customized.
Submaster Module / M-Play	When empty the flash button acts as SELECT. You can also hold Select and press the flash button on an occupied submaster.
Playback Buttons	The screen button acts based on the chosen Mode above (Go, Pause, Select). Empty buttons are always SELECT
Cuelist Buttons	The cuelist directory buttons always act as SELECT

Record

Record is used to create new items in the showfile or to overwrite an existing one. A popup will ask for confirmation and overwriting choices depending on the item.

A toolbar is used to further define filters and options for RECORD. [Read more about the Record Options here](#).



Command	Description
RECORD [PLAYBACK SELECT]	Add new cue to end of specific playback If playback is empty asks for cuelist type to create
RECORD CUE # ENTER	Record Cue to specific Cue # in current selected cuelist
RECORD CUE # THRU # ENTER (e.g. RECORD CUE 2 THRU 10 ENTER)	If cues exist in range only merging in existing cues is possible If cue range is not existing, all cues within the range are created
RECORD CUE # + # + # THRU # ENTER	If cues exist conflict popups appear per cue
RECORD CUE # [PLAYBACK SELECT]	Record Cue to playback at the entered number.
RECORD GROUP # ENTER	Create new fixture Group and store fixture order and fixture filter settings. If Group exists, pop up asks to MERGE or REPLACE

Commandline

Command	Description
RECORD GROUP Button	Create new fixture Group and store fixture order and fixture filter settings. If Group exists, pop up asks to MERGE or REPLACE
RECORD PRESET Button	Create new preset If existing preset is touched, pop up asks to MERGE or REPLACE. Default filter only records only values of selected pre-set paramter group, or filtered parameters as set in Record toolbar
(Hold) RECORD Screenview Button	Record new screenview

Edit

Editing is used to change an existing item of the showfile.

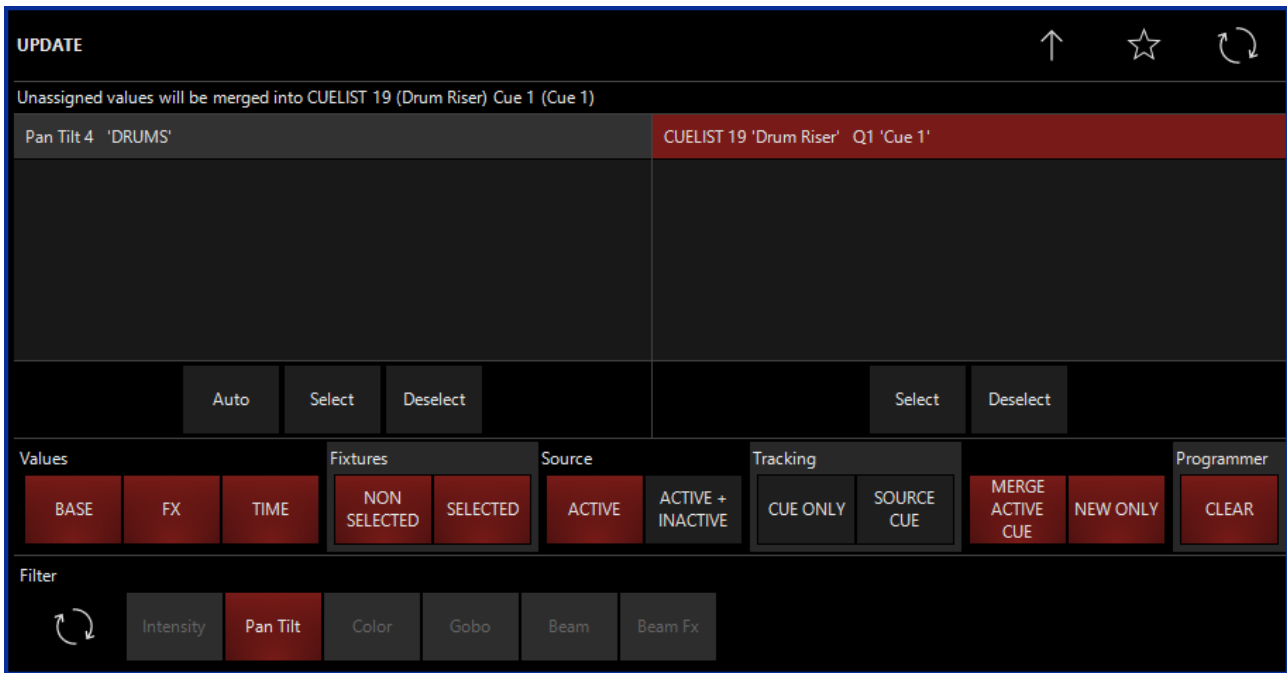
Command	Description
EDIT Preset Button	Edit the preset in the programmer, confirm changes of the changes with UPDATE
EDIT ENTER	Edit the current active cue of the currently selected cuelist into the programmer for editing, confirm with UPDATE
EDIT CUE # ENTER	Edit the cue # of the currently selected cuelist into the programmer for editing, confirm with UPDATE
EDIT Group Button	Edit the group in the programmer, confirm with UPDATE
EDIT GROUP 4 ENTER	Edit group 4 in the programmer, confirm with UPDATE
EDIT BANK ENTER	Renaming of current Bank
(Hold) EDIT Screenview button	Bring up popout to "Unlock and Edit"
(Hold) EDIT F-Key	Edit shortcut functions for Function keys

Update

Update is either used to confirm a open EDIT command or it is used to trace current programmer values into the playback and offer direct updating of many playbacks and presets at once.

This is called "auto-update" and will open a popup to select options and include/exclude presets and cuelists.

[Learn more about Update here.](#)



Command

Description

UPDATE (confirm popups) UPDATE

Uses current programmer values to trace current cues and presets using them toolbar allows to select / deselect which cues and presets to update. Second UPDATE press confirms command.

Copy

Copy is used to duplicate an item, such as a Group, Preset, Media Content, or Cue.

Copy Cue also shows some additional filter options in a toolbar.

Command

Description

COPY Preset Button> Preset Button

Create copy of existing preset

COPY Group Button

Create copy of existing group

COPY GROUP 5 @ 10 ENTER

Create copy of existing group

Create a copy of the playback on new destination.

COPY PLAYBACK SELECT > PLAYBACK SELECT

Destinations are Submaster Faders, Playback Buttons, Playback Faders, Virtual Playback Buttons This does NOT create a new cuelist

COPY CUELIST BUTTON PLAYBACK SELECT

Assigns the cuelist to a playback.

COPY CUELIST BUTTON CUELIST BUTTON

Create copy of the cuelist. This DOES create a new cuelist

COPY CUE 5 @ 15 ENTER

Copy cue 5 to 15 on currently selected cuelist

COPY CUE 5 @ 15 PLAYBACK SELECT

Copy cue 5 from current selected cuelist to cue 15 on specific playback cuelist

COPY CUE 5 @ PLAYBACK SELECT

Copy cue 5 from current selected cuelist to a new cue at the end of specified playback

Move

Commandline

Move is used to rearrange items, such as a Group, Preset, Media Content, or Cue.

Command	Description
MOVE GROUP Button > GROUP Button	Move Group button to a new #
MOVE GROUP 5 @ 10 ENTER	Move Group 5 to Group 10
MOVE PRESET Button>PRESET Button	Move Preset button Preset can be moved between different preset pages, e g Move a Color preset to the P/T Preset page
MOVE PLAYBACK SELECT > PLAYBACK SELECT	Move cuelist to a different playback
MOVE CUELIST Button > CUELIST Button	Move cuelist to new #. Macros referencing this cuelist will be updated automatically
MOVE CUELIST Button > PLAYBACK SELECT	Assign the cuelist to a playback
MOVE CUE 5 @ 15 ENTER	Move cue 5 to 15 on currently selected cuelist
MOVE CUE 5 THRU 8 @ 15 ENTER	Move cue 5 through 8 to cue 15 on current selected cuelist

Delete

Delete is used to remove items from the show, such as a Group, Preset, Media Content, or Cue.

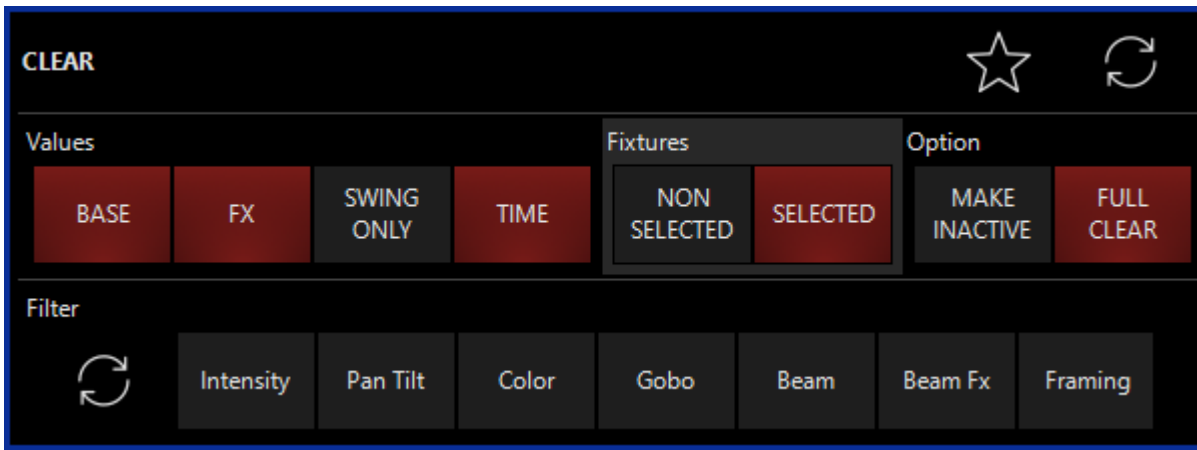
Command	Description
DELETE PRESET Button ENTER	Delete a preset
(hold) DELETE PRESET Button (release) DELETE	Delete a preset
DELETE GROUP Button ENTER	Delete a group
(hold) DELETE GROUP Button (release) DELETE	Delete a Group
DELETE GROUP 12 ENTER	Deletes Group 12
DELETE PLAYBACK SELECT ENTER	Removes the Cuelist from the Playback
(hold) DELETE PLAYBACK SELECT (release) DELETE	Removes the Cuelist from the Playback
DELETE CUELIST Button ENTER	Delete a Cuelist
(hold) DELETE CUELIST Button (release) DELETE	Delete a Cuelist
DELETE CUE 8 ENTER	Delete Cue 8
DELETE CUE 8 THRU 12 ENTER	Delete Cue 8 through 12
DELETE CUE 8 THRU 12 + 21 ENTER	Deletes Cue 8 through 12 and Cue 21

Clear

Clear is used to remove values from the programmer. It also is a shortcut for unpatching which is described in the PATCH section.

A toolbar allows filtering and multiple option in executing the CLEAR function.

[Learn more about Clear here.](#)

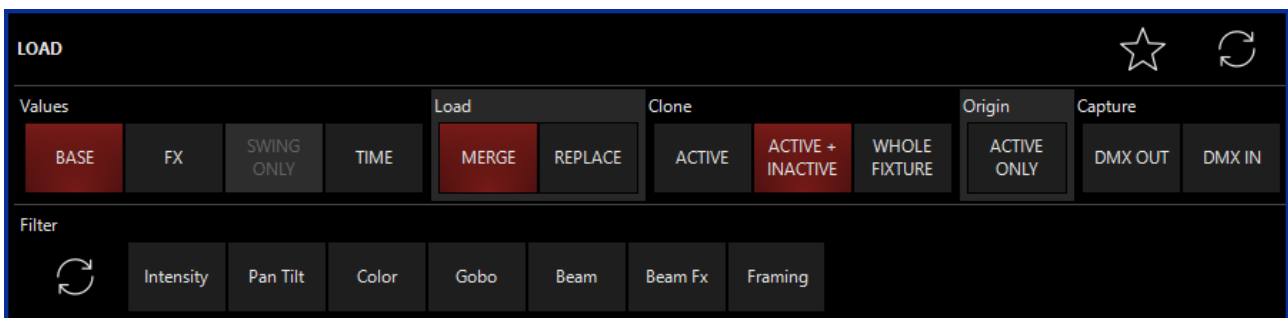


Command	Description
CLEAR ENTER	Removes all values from current selected fixtures in programmer
CLEAR SELECTION ENTER	Removes all values from fixtures in SELECTION e.g. Clear 5 Enter, Clear Group 10 Enter, Clear 8 thru 15 Enter
CLEAR CLEAR	All values and all fixture selection is removed from the programmer
(hold) CLEAR Parameter Group Button	Removes the values out of the programmer (e.g. Color)
(hold) CLEAR Parameter Button	Removes the value out of the programmer. Note that on some consoles, the parameter button is equal to pushing down the encoder wheel.
(hold) CLEAR multiple Group or fixture buttons	Removes all values from specific fixtures or groups
CLEAR Fixture button	Removes all values for the specific fixture
CLEAR Touchscreen GROUP	Removes all values for the specific Group

Load

Load has two main functions. Capturing a parameters current value from the output, and cloning / copying values across fixtures in the programmer.

[Learn more about Load here.](#)



Commandline

Command	Description
LOAD LOAD	Read current output for all selected fixtures
LOAD SELECTION ENTER	Read current output for fixture in [SELECTION] e.g. Load 5 thru 10 Enter or Load Group 3 Enter
(hold) LOAD Fixture button	Read current output for specific fixture
(hold) LOAD Touchedscreen GROUP	Read current output for specific Group
(hold) LOAD Parameter Group button	Read current output for all parameters in selected button (e.g. capture all color parameters)
(hold) LOAD Parameter button	Read current output for all parameters in selected button (e.g. LOAD Magenta)
(hold) LOAD multiple Group or fixture buttons	Read current output for specific Groups or Fixtures
	Copy values (clone) to the destination selection from the source selection
LOAD Destination SELECTION @ Source SELECTION ENTER	Examples: Load 1 @ 5 ENTER Load Group 5 @1 ENTER Load 3 Thru 9 @ 1 Thru 3 ENTER Load 1 THRU 5 @ 15 THRU 10 ENTER
LOAD @ Source SELECTION ENTER	Copy values (clone) to the current selection from the source selection (uses selection/ command order) Example: Load @ 5 Enter
LOAD SELECTION @ CUE # ENTER	Extract the values for the selection out of the specific cue Example: Load 1 @ Cue 10 Enter
LOAD @ CUE # ENTER	Extract values for the current selection out of the specific cue
LOAD ENTER (no selection in programmer)	Load all active playback values into the programmer and select all current active fixtures

Cue

Cue is used to target a CUE directly for execution on the selected cuelist and will read GOTO CUE on the Command Line.

Some commands may also require CUE like COPY, MOVE, DELETE and LOAD.

Commandline

Command	Description
CUE # ENTER	Goto Cue in selected cuelist
CUE # PLAYBACK SELECT	Goto Cue in specific Playback button cuelist
CUE # CUELIST BUTTON	Goto Cue in specific Virtual cuelist

(hold) [SNAP] before confirming the command to jump to the cue with no timing

Parameter Timings (Fade & Delay)

Fade and Delay timings are used to set specific timings for parameters. Fanned timings are a very powerful tool for dynamic looks, especially when used with the GROUPING tool.

All commands shown can be executed with DELAY instead of FADE

Command	Description
Fade & Delay	
FADE Parameter button # ENTER	Assign fadetime to the specified parameter group (e.g. Color) of current selection
FADE Parameter button # ENTER	Assign fadetime to specific channel (e.g. Magenta) of current selection
FADE # ENTER	Assign fadetime to all parameters of the current selection

Command	Description
Remove timings from programmer with [-]	
FADE Parameter button - ENTER	Removes all fade times and reverts them back to use base cue fade time
FADE Parameter button - ENTER	Removes all fade times and reverts them back to use base cue fade time
FADE - ENTER	Removes all fade times and reverts them back to use base cue fade time

Command **Description**
Split times for Intensities can be entered with [/]

FADE Intensity 2 / 4 ENTER	4s fade time for incoming intensities, 2s for outgoing intensities
FADE Intensity 8 / ENTER	8s fade time in, out time is untouched
FADE Intensity / 1 ENTER	1s fade time out, in time is untouched
FADE Intensity 5 / - ENTER	5s fade time in, out time gets removed

Command **Description**
Fanned (spread) timing can be created with THRU

DELAY or Parameter button @ 0 THRU 10 ENTER	Spread the delay time evenly from 0 to 10s across the selected fixtures (in order of selection)
... @ 0 THRU 5 THRU 0	Spread the delay time from 0s to 5s in the center to 0s at the end of the selection
... @ 2 THRU 0 THRU 2	Spreads 2s on the edge to 0s in the center
Multiple THRU commands are possible; split times can be fanned separately for in/out	
All combinations with fanning and split times are possible	
Intensity 2 THRU 8 / 4 ENTER	Incoming fades are spread from 2s to 8s, outgoing fades are a simple 4s

Command **Description**
Parameter time offset

FADE or Parameter Button + 5 ENTER	Adds 5s to every parameter fade time
FADE or Parameter Button - 5 ENTER	Subtracts 5s from every parameter fade time
DELAY or Parameter Button + 0 THRU 4 ENTER	Adds a fanned range of 0 > 4 s to every parameter time

This syntax can be used with individual parameters, or you can press the Parameter Group Button to include the whole parameter group in your fade or delay timing.

Bank

Banks can be accessed directly on the consoles Playback Section

Command	Description
BANK # ENTER	Goto Bank #

Cuelist Options

The [Cuelist Options](#) window is designed as an Editor. By default the surface is protected.

To enable any changes the cuelist window has to be switched to EDIT Mode. This mode is active as long as the button is red.

Command	Description
Touch name cell, type name, ENTER	Change cue name; changing multiple cells at once enumerates the name, e.g Gobo 1, Gobo 2, Gobo 3...
Touch Trigger cell, select Trigger Mode, # Enter	Change Cue Trigger to Go / Follow / Wait and assign x seconds for Follow or Wait
Touch Trigger cell, select Trigger Mode, Enter	Toggle trigger mode without changing the time
Touch Trigger cell, 3 Enter	Change trigger time to 3s without changing trigger mode
Touch Fade, 4 ENTER	Change cue Base Fade time to 4s
Touch Fade, 4/2 ENTER	Assign split base fade time 4s in, 2s out to cue
Touch Fade, 5 / Enter	Change in time to 5s, leave out time
Touch Fade, / 8 Enter	Leave in time, change out time to 8s
Touch Delay, 2 / 6 ENTER	Assign split base delay time of 2s in, 6s out to cue
Touch Delay, 2 ENTER	Change cue Base Delay time to 2s
Touch Delay, 5 / Enter	Change delay in time to 5s, leave out time
Touch Fade Mode, change to Fade All, Snap All, Default	Changes the cue to make all parameters SNAP or FADE
Touch Fade (Delay) Override , 3 Enter	Changes all parameter delay times to 3s
Touch Fade (Delay) Override , 1 THRU 3 Enter	Changes lowest and highest parameter times in cue (and adjust all times in between relatively)
Touch Fade (Delay) Override, - Enter	Removes all parameter times out of the cue (all parameter will use the cue base time again)
Touch Fade (Delay) Override, + 2 Enter	Adds 2s to every parameter time in the cue
Touch Fade (Delay) Override, - 3 Enter	Subtracts 3s from every parameter time in the cue
Touch Comment	Change the cue comment (text only)

Extra features for TimeCode Cuelists:

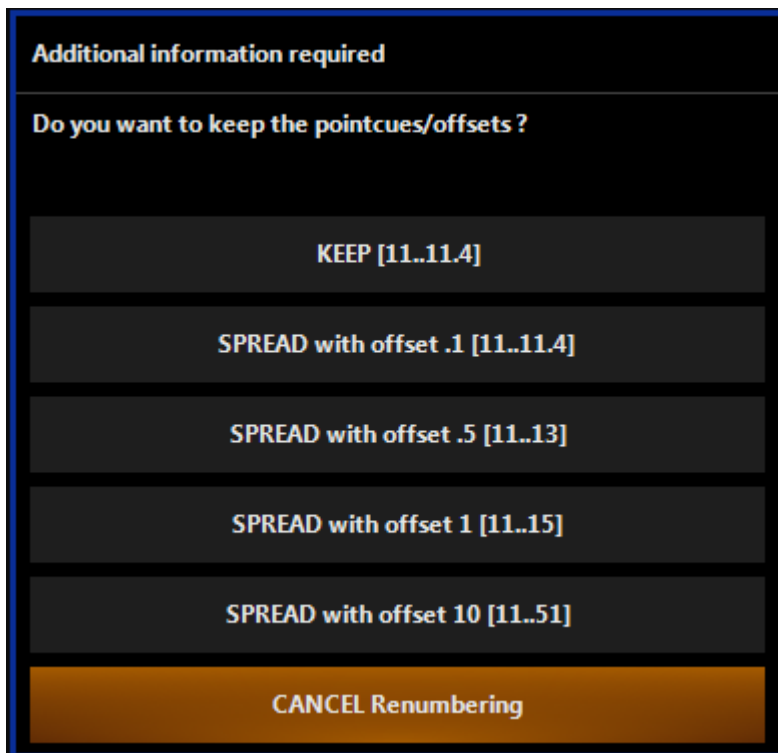
Command	Description
Timecode Cuelist Mode Only	
Touch TimeCode cell, enter new TimeCode Enter	Changes timecode time
Touch TimeCode cell, + 15 Enter	Adds 15 frames to existing timecode

Commandline

Command	Description
Timecode Cuelist Mode Only	
Touch range of TimeCode cells, - 5 Enter	Subtract 5 frames from range of cues
Touch TimeCode cell, - - Enter	Erases timecode and reverts to manual trigger
Touch MACRO	Change cue macro
LINK; touch CUE	Select destination cue to jump to
LINK; touch AMOUNT	Specify amount of links to be executed

Cuelist Renumber

Cue numbers can only be changed when the Renumber mode is active (red).



Command	Description
Touch Cue 3 cell, 15 Enter	Renumbers cue 3 to cue 15
Select range of Cue # cells, 10 Enter	Assigns range of cues to new start at cue # 10, Pop-Up will offer different spreads: by .1 (10.1, 10.2, 10.3....) by 5 (10, 10.5, 11, 11.5...) by 1 (10, 11, 12...) by 10 (10, 20, 30, 40...) leave untouched (leaves spacing intact, e.g. 1 1.5 2 renumbered to 10 creates 10 10.5 and 11)

Patch (Command Line)

ONYX provides a patch Command Line that allows many different combinations.

Commandline

In addition to the Command Line, adding of fixtures and assigning addresses also offers a [Auto Patch mode](#).

Patching is active as long as the Command Line indicates "PATCH".



Command	Description
Choose TYPE	Fixture type from existing fixtures in show or new types out of fixture library
(AutoID) (AutoAddress) (AutoDMXUniverse)	Console suggested values for automatic fixture IDs and addressing
UNIVERSE # ENTER	Select Universe # for patching and viewing
Universe " < " or " > "	Scrolls through available Universes with the <> touch-screen buttons
RECORD 20 Choose TYPE, Use Fixture Type (AutoID) ENTER	Adds 20 fixtures of TYPE to the patch at next available fixture ID
RECORD 20 Choose TYPE, Use Fixture Type 101 ENTER	Adds 20 fixtures of TYPE to the patch starting at ID 101
RECORD 20 Choose TYPE, Use Fixture Type (AutoID) @ 201 ENTER	Adds 20 fixtures of TYPE starting at the next available ID and patches it to address 201
RECORD 20 Choose TYPE, Use Fixture Type 101 @ 201 ENTER	Adds 20 fixtures of TYPE starting at ID 101 and patches it to address 201
RECORD Choose TYPE, Use Fixture Type (AutoID) ENTER	Adds one fixture of TYPE to the patch
RECORD Choose TYPE, Use Fixture Type 101 ENTER	Adds one fixture of TYPE to the patch at ID 101
RECORD Choose TYPE, Use Fixture Type 101 + 105 + 108 ENTER	Adds fixtures 101, 105, 108 of TYPE
RECORD Choose TYPE, Use Fixture Type 101 THRU 110 ENTER	Adds fixtures 101 > 110 of TYPE
RECORD Choose TYPE, Use Fixture Type 101 @ 201 ENTER	Add fixture 101 of TYPE and patch it to address 201
RECORD Choose TYPE, Use Fixture Type 101 + 105 + 108 @ 201 ENTER	Add fixture 101, 105, 108 of TYPE and patch it to address 201
RECORD Choose TYPE, Use Fixture Type 101 THRU 110 @ 201 ENTER	Add fixture 101 > 110 of TYPE and patch it to address 201
115 @ 401 ENTER	Patch fixture ID 115 to address 401
115 @ / 5 ENTER	Patch fixture ID 115 to the next available address on universe 5
115 THRU 121 @ 5 ENTER	Patch fixture ID 115 > 121 to address 5
115 @ (AutoAddress)	Patch fixture 115 at next available DMX address
115 + 120 THRU 125 @ 201 ENTER	Patch fixture 115 and 120 > 125 @ address 201
51 THRU 31 @ 354 ENTER	Patches 51 > 31 to address 354 using the inverted fixture order
101 @ 1 + 15 + 91 ENTER	Patch fixture 101 at address 1, 15, 91

Command	Description
101 @ 5 THRU 25	Patch fixture 101 at address 5 > 25
1.1 @ 105	Patches fixture part 1 of ID 1 to address 105
1.1 THRU 10 1 @ 105	Patches fixture part 1 of ID 1 > 10 to address 105
(patching @ address can also be done by touching the address cells)	
CLEAR 101 ENTER	Clear (unpatch) the DMX address of fixture 101
CLEAR 101 + 105 ENTER	Unpatch fixture 101 and 105
CLEAR 1 + 5 THRU 10 ENTER	Unpatch fixture 1 and 5 > 10
CLEAR 101 @ 15 ENTER	Unpatch address 15 from fixture 101
CLEAR @ 91 ENTER	Unpatch address 91 from a fixture in current Universe
CLEAR /5 ENTER	Unpatch all fixtures in universe 5
DELETE 101 ENTER	Delete fixture 101 from the showfile
DELETE 101 + 105 ENTER	Delete fixture 101, 105 from the showfile
DELETE 101 + 105 THRU 110 ENTER	Delete fixture 101, 105 > 110 from the showfile
MOVE 1 @ 5 ENTER	Renumber fixture ID 1 to ID 5 (if 5 is available)
MOVE 1 THRU 10 @ 51 ENTER	Renumber fixture 1 > 10 to ID 51
(renumbering IDs can also be done by touching the ID cells)	
Touch NAME cell (Name) ENTER	Renames the fixture to (Name)

Patch (Cloning Fixtures)

Sometimes it is necessary to add fixtures to a show after programming is completed. ONYX allows you to clone and duplicate fixtures in the patch easily using natural language. This results in the new fixtures being added into all cues, presets and groups.

Cloning allows also to duplicate programming to a different fixture type. It will try to emulate the original fixture as close as possible during the command.

Cloning is easy to do via the graphical interface. [Learn how to use Cloning here.](#)

You also can clone via the command line:

Command Line examples

Command	Description
COPY 1 @ 301	Copies all cue values, preset values and group memberships from fixture 1 to fixture 301
COPY 1 @ 301 + 305	Copies all cue values, preset values and group memberships from fixture 1 to fixture 301 and 305
COPY 1 THRU 10 @ 310 THRU 301	Copies all cue values, preset values and group memberships from fixture 1 > 10 to fixture 310 > 301
COPY 1 + 8 @ 301 + 305	Copies all cue values, preset values and group memberships from fixture 1 to 301 and fixture 8 to 305

Keyboard Shortcuts

ONYX provides a number of keyboard shortcuts that are especially useful when on a PC.

To use the shortcuts, press Ctrl + "KEY". This can also be latched using "Scroll Lock". When on, Ctrl does not need to be pressed)

Key	Console Key	Key	Console Key
A	@	Delete	Clear
B	Bank	Shift+Delete	Delete
C	Copy	Pg Up	Next
D	Delay Time	Pg Down	Last
E	Edit	Space Bar	Main GO
F	Fade Time	Backspace	β
G	Group	TAB	Main Pause/Back
H	Highlight	>.	.
I	Full	?/	/
J	Previous Bank	Home	Snap
K	Next Bank	End	Release
L	Load	Home+End	Snap+Rel
M	Move	End+Home	Rel+Snap
N	Undo	-	-
O	Macro	+	+
P	Preview (Blind)	Enter	Enter
Q	Cue		CV Mode (Future)
R	Record		Programmer Mode (Future)
S	Save Show		Arrow Mode (Future)
T	Thru		
U	Update		
V	Playback View (Future)		
W			
X	Menu		
Y	Belt Resolution (Toggle Modes)		
Z	Snapshot (Future)		

Other Shortcuts

Key	Console Key	Key	Console Key
CTRL + F1	Select Screenview 1/9	F1	User De-

Key	Console Key	Key	Con- sole Key fin- able User De- fin- able User De- fin- able User De- fin- able User De- fin- able User De- fin- able User De- fin- able User De- fin- able User De-
CTRL + F2	Select Screenview 2/10	F2	
CTRL + F3	Select Screenview 3/11	F3	
CTRL + F4	Select Screenview 4/12	F4	
CTRL + F5	Select Screenview 5/13	F5	
CTRL + F6	Select Screenview 6/14	F6	
CTRL + F7	Select Screenview 7/15	F7	
CTRL + F8	Select Screenview 8/16	F8	
CTRL + F9	Toggle View Bank	F9	
		F10	
		F11	
		F12	

Key	Console Key	Key	Console Key
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Playback Keys

Key	Console Key	Key	Console Key	Console Key
ALT + 1	Select Fader 1 (LCD)	CTR-L + 1	Fader 1 (Top Row)	Ctrl + 1 (Fader 1) Shift (Top Row)
ALT + 2	Select Fader 2 (LCD)	CTR-L + 2	Fader 2 (Top Row)	Ctrl + 2 (Fader 2) Shift (Top Row)
ALT + 3	Select Fader 3 (LCD)	CTR-L + 3	Fader 3 (Top Row)	Ctrl + 3 (Fader 3) Shift (Top Row)
ALT + 4	Select Fader 4 (LCD)	CTR-L + 4	Fader 4 (Top Row)	Ctrl + 4 (Fader 4) Shift (Top Row)
ALT + 5	Select Fader 5 (LCD)	CTR-L + 5	Fader 5 (Top Row)	Ctrl + 5 (Fader 5) Shift (Top Row)
ALT + 6	Select Fader 6 (LCD)	CTR-L + 6	Fader 6 (Top Row)	Ctrl + 6 (Fader 6) Shift (Top Row)
ALT + 7	Select Fader 7 (LCD)	CTR-L + 7	Fader 7 (Top Row)	Ctrl + 7 (Fader 7) Shift (Top Row)
ALT + 8	Select Fader 8 (LCD)	CTR-L + 8	Fader 8 (Top Row)	Ctrl + 8 (Fader 8) Shift (Top Row)
ALT + 9	Select Fader 9 (LCD)	CTR-L + 9	Fader 9 (Top Row)	Ctrl + 9 (Fader 9) Shift (Top Row)

Key	Console Key	Key	Console Key	Console Key
ALT + 0	Select Fader 10 (LCD)	CTR-L + 10	Fader 10 (Top Row)	Ctrl + Shift + 10 (Top Row) Fader 10
Key	Console Key	Key	Console Key	Console Key
Ctrl + Home + 1	Snap Forward Fader 1	Ctrl + Home + Shift + 1	Snap Back Fader 1	Ctrl + End + 1 Release Fader 1
Ctrl + Home + 2	Snap Forward Fader 2	Ctrl + Home + Shift + 2	Snap Back Fader 2	Ctrl + End + 2 Release Fader 2
Ctrl + Home + 3	Snap Forward Fader 3	Ctrl + Home + Shift + 3	Snap Back Fader 3	Ctrl + End + 3 Release Fader 3
Ctrl + Home + 4	Snap Forward Fader 4	Ctrl + Home + Shift + 4	Snap Back Fader 4	Ctrl + End + 4 Release Fader 4
Ctrl + Home + 5	Snap Forward Fader 5	Ctrl + Home + Shift + 5	Snap Back Fader 5	Ctrl + End + 5 Release Fader 5
Ctrl + Home + 6	Snap Forward Fader 6	Ctrl + Home + Shift + 6	Snap Back Fader 6	Ctrl + End + 6 Release Fader 6
Ctrl + Home + 7	Snap Forward Fader 7	Ctrl + Home + Shift + 7	Snap Back Fader 7	Ctrl + End + 7 Release Fader 7

Key	Console Key	Key	Console Key	Con-sole Key
Ctrl + Home + 8	Snap Forward Fader 8	Ctrl + Home + Shift + 8	Snap Back Fader 8	Ctrl + End + 8 Re-lease Fader 8
Ctrl + Home + 9	Snap Forward Fader 9	Ctrl + Home + Shift + 9	Snap Back Fader 9	Ctrl + End + 9 Re-lease Fader 9
Ctrl + Home + 10	Snap Forward Fader 10	Ctrl + Home + Shift + 10	Snap Back Fader 10	Ctrl + End + 10 Re-lease Fader 10

Using the Command Line

ONYX utilizes a logically structured command line syntax that orientates itself along established industry standards.

Once the general idea of the command structure is understood, many commands will come easily to you as they are modeled along the communication between a lighting designer and a programmer.

"Bring fixture 25 at 80%" is exactly that in the command line: 25 @ 80 Enter.

This system is based on a Source @ Target Enter based command structure that feels natural and is easily learned.

If you know the number(s) of the fixture(s) you wish to select, you can use the 0-9 keypad buttons to specify the fixture numbers and the + (and), - (except) and Thru (through) buttons to modify your selection. ONYX allows simple as well as complex fixture selection.

A full list of Commands can be found in [Command Line Reference](#).

Remember, in ONYX every light has its own fixture ID number.

Some examples are:

Basic Fixture Selection

1 Enter	Selects fixture 1.
1 + 2 Enter	Selects fixture 1 and 2.
1 Thru 5 Enter	Selects fixture 1 through 5.
1 Thru 5 + 21 Thru 25 Enter	Selects fixtures 1 through 5 and 21 through 25.
1 Thru 5 - 4 Enter	Selects fixtures 1, 2, 3 and 5. (but not 4!)

Using the above buttons in conjunction with the @ (at) or Full buttons allows you to set specified fixtures to specified intensity values. When using Full, you don't have to press @.

For example:

Selecting Fixtures & Specifying Intensity

- 1 Full Brings the intensity of fixture 1 to 100%
- 1 + 2 Full Brings the intensity of fixtures 1 and 2 to 100%.
- 1 Thru 5 @ 50 Enter Brings the intensity of fixtures 1 through 5 to 50%.

Use "@" When Assigning Non-Full Intensities:

- 1 Thru 5 + 21 Thru 25 @ 75 Enter Brings the intensity of fixtures 1 through 5 and 21 through 25 to 75 percent.
- 1 Thru 5 - 4 @ 95 Enter Brings the intensity of fixtures 1, 2, 3 and 5 to 95%

ONYX allows you to rapidly assign a range of intensities to a range of fixtures as follows:

Intensity Fanning

- 1 Thru 5 @ 50 Thru 100 Enter* Brings the intensity of fixture 1 to 50%, fixture 2 to 62%, fixture 3 to 75%, etc.
- 1 Thru 5 @ 50 Thru 10 Enter Puts fixture 1 at 50% and each of the following fixtures 10% lower.

*Note that you can not use FULL here as this would drive all fixtures to 100% instantly.

ONYX provides four keypad shortcuts to rapidly select fixtures in the Programmer:

Selection Shortcuts - Selecting/Deselecting All Fixtures in the Programmer

- . Enter Selects every fixture in the Programmer
- 0 Enter Deselects every fixture in the Programmer
- / Enter Inverts the current fixture selection. Those that are selected will become deselected and vice versa. Note that this only applies to fixtures in the Programmer.
- . 0 Enter Selects all fixtures that are patched in your show (regardless of whether they are in the Programmer or not).

Deselecting Specific Fixtures

Once you have finished adjusting the desired attributes of the selected fixtures, you can deselect those fixtures in a number of different ways. Note that deselected fixtures and their attribute values (whether active or inactive) remain in the Programmer until cleared or recorded.

To deselect a specific fixture or fixtures using the keypad, press the - (minus) button followed by the desired fixture number(s) and the + (and), - (except) and Thru (through) buttons to modify your selection, for example:

- 6 Thru 10 Enter

You can use the Next and Last buttons to scroll through the fixtures or, if a mask is enabled (see [Using the Grouping Tools](#)), scroll through sets of the fixtures.

You can click on or touch active fixtures in the Fixtures screen to deselect them, or press Deselect All at the bottom of that window.

Clearing Selected Fixtures

To clear all attributes for a selected fixture or fixtures from the Programmer, press Clear once followed by the fixture number(s), for example:

Clear 31 Thru 35 Enter

Clearing All Fixtures

To completely clear the Programmer of all fixtures, press Clear twice.

The first time you press Clear, the "Clear Options" pop up will appear. The second time you press Clear, all fixtures will be cleared and the Programmer will be emptied.

It is also possible to clear only selected attributes of specified fixtures.

The Clear command is discussed in more detail under [Clearing the Programmer](#).

When bringing fixtures to Full you are not required to use the "@" or "Enter" buttons, but you still can if it brings you joy. When entering any other value, these buttons are required.

Hardware Assignments

Please see the topic list below to get started.

- [Local DMX Menu](#)
- [NX-K Encoder Selection](#)
- [Wing ID's](#)

NX-K Encoder Selection

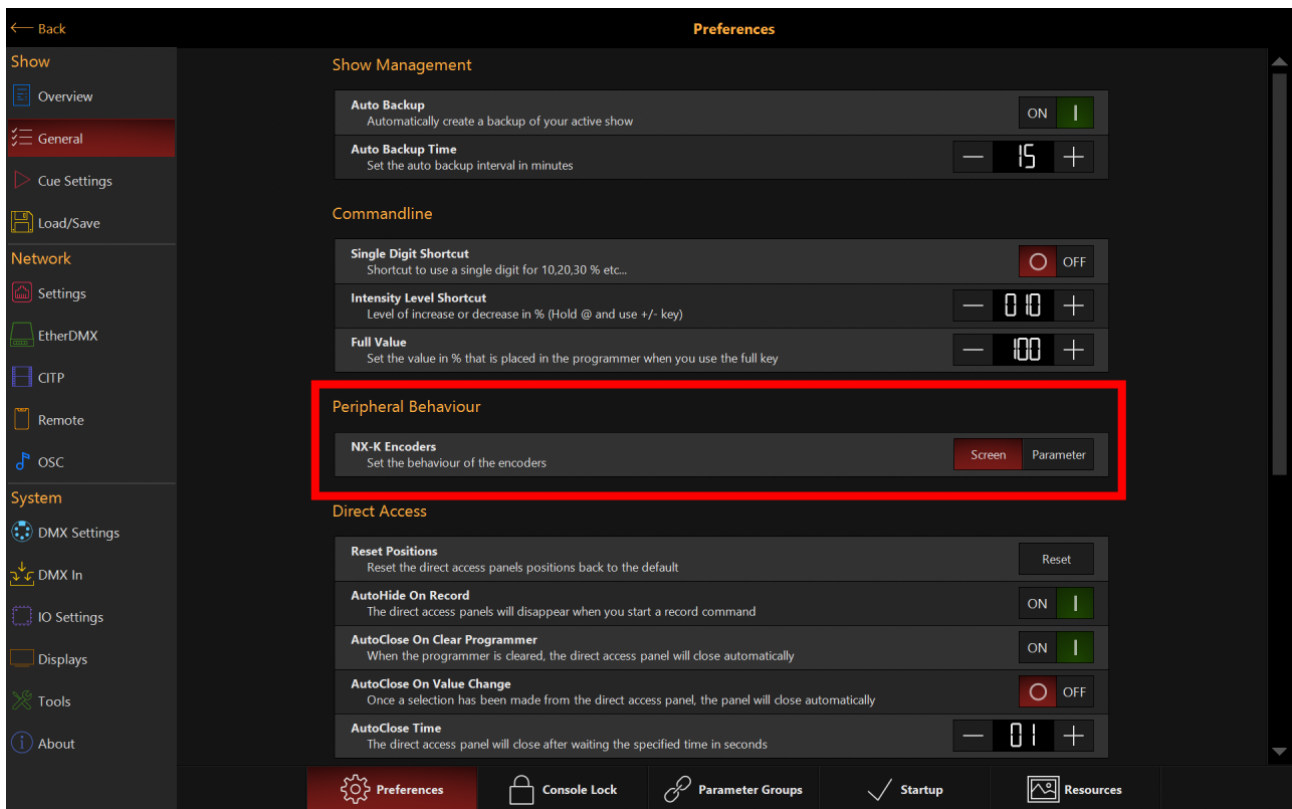
The NX-K includes (4) mini encoders that can be assigned to the main encoders (Parameter) or the screen encoders (screen)

Main encoders (Parameter) will mirror the 4 main encoders that follow the selected parameter group.

Screen encoders (Screen) mimic the screen encoders found on the NX2 and NX4. These can be assigned directly to a parameter, regardless of the currently selected parameter group.



This can be assigned in the Main Menu under General



Local DMX Menu

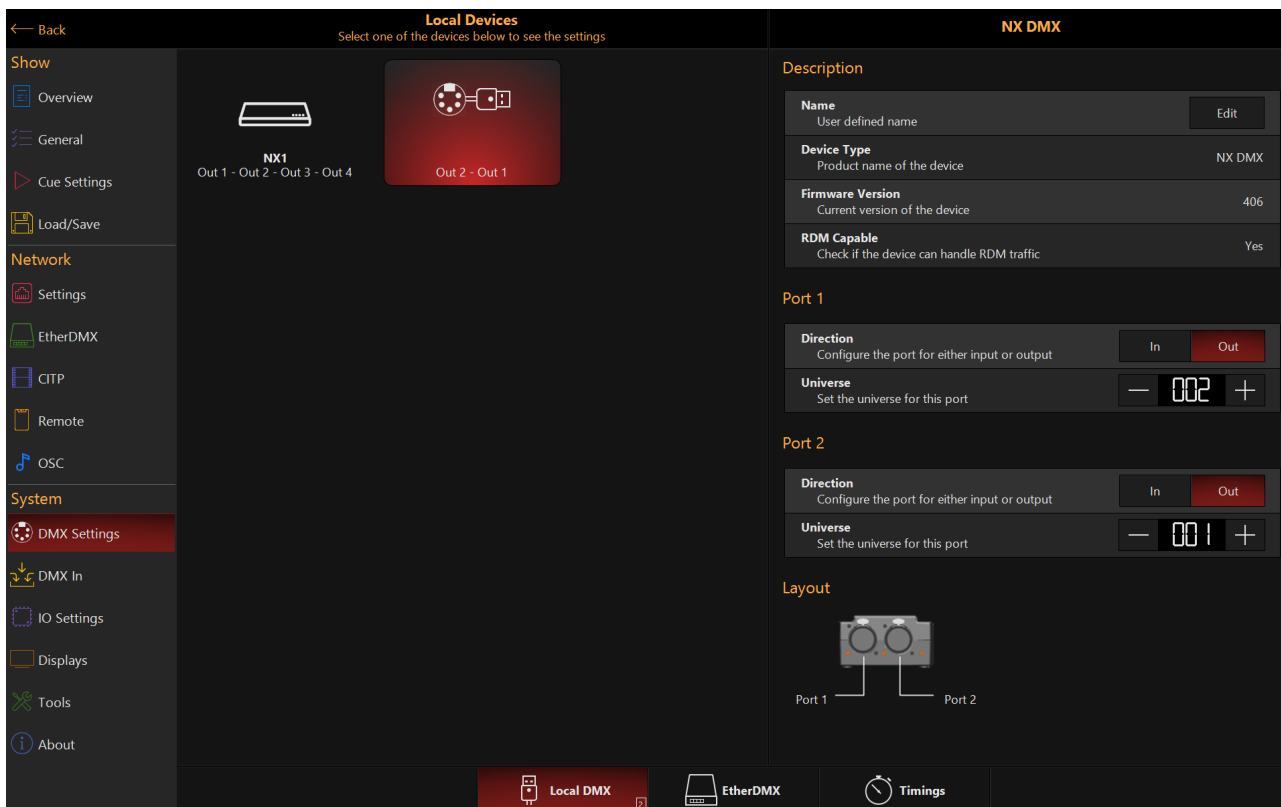
The Local DMX Menu is new in 4.8 and replaces the previous USB2DMX Menu for assigning universes to local attached DMX ports.

This includes the following devices:

- NX4 (4 Local Outputs)
- NX2/NX-Wing (4 Local Outputs)
- NX1 (4 Local Outputs)
- NX-P (4 Local Outputs)
- NX-Touch (1 Local Output)
- NX-DMX (2 Local Outputs)
- For a complete list of supported local DMX devices, including legacy devices, please see our [license matrix](#)

From this menu, you can:

- Name Devices
- Assign the DMX port as an Input or Output
- Assign the DMX Universe
- Assign [Wing ID's](#)



Wing ID's

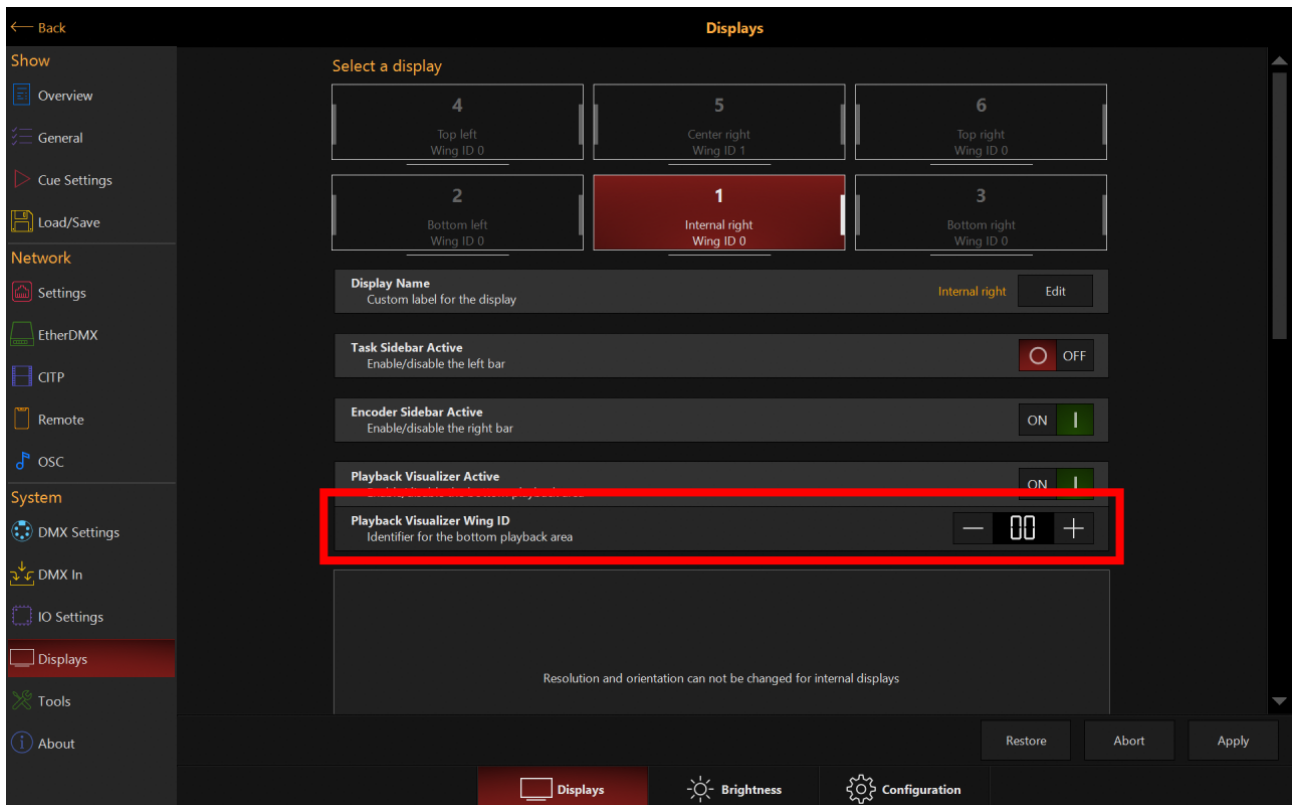
New with ONYX 4.8 is the introduction of assignable Wing ID's.

This allows for different playback devices (NX-P, NX-Touch) attached to ONYX to display different banks independently from the main playback and each other.

In addition to the physical devices assigned to a Wing ID, the Playback Visualizer at the bottom of each screen can also be assigned to a Wing ID.

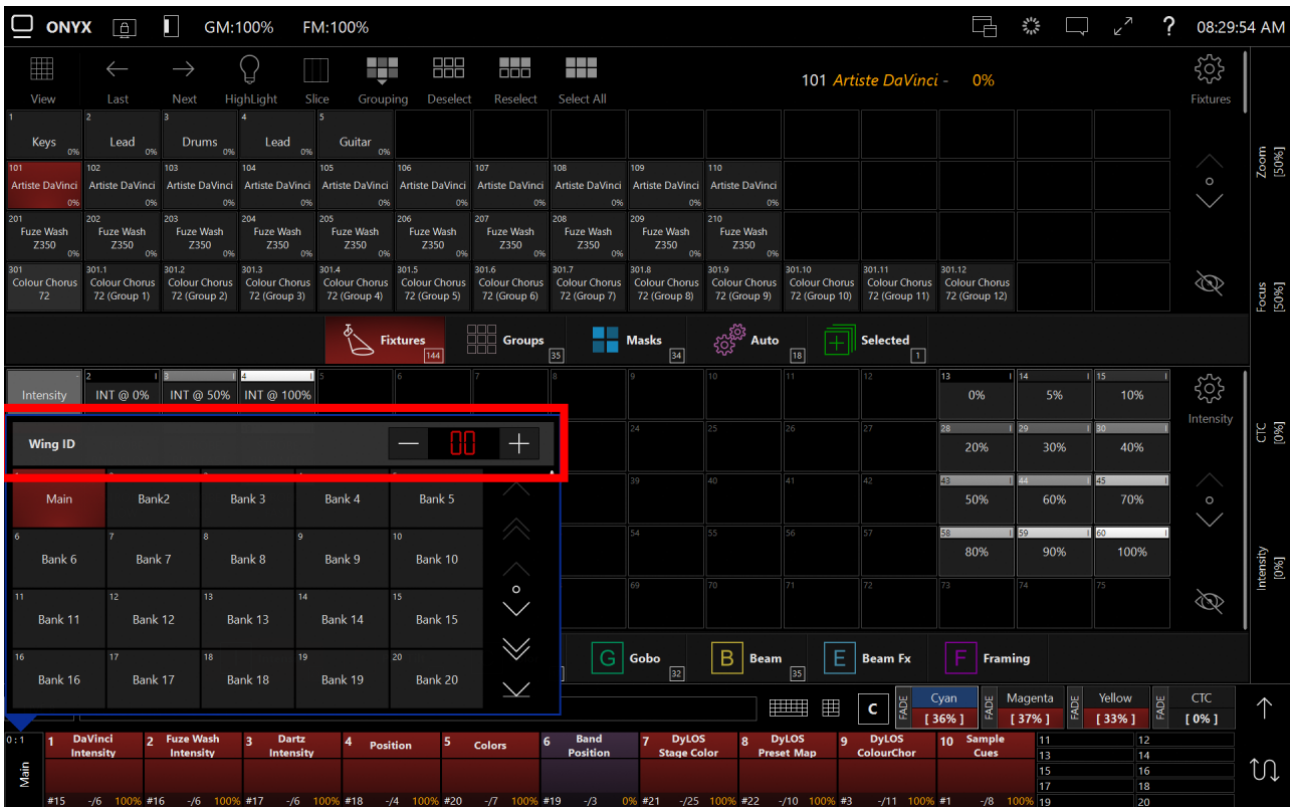
This can be done in two ways.

1) In the displays menu (Menu>Displays):

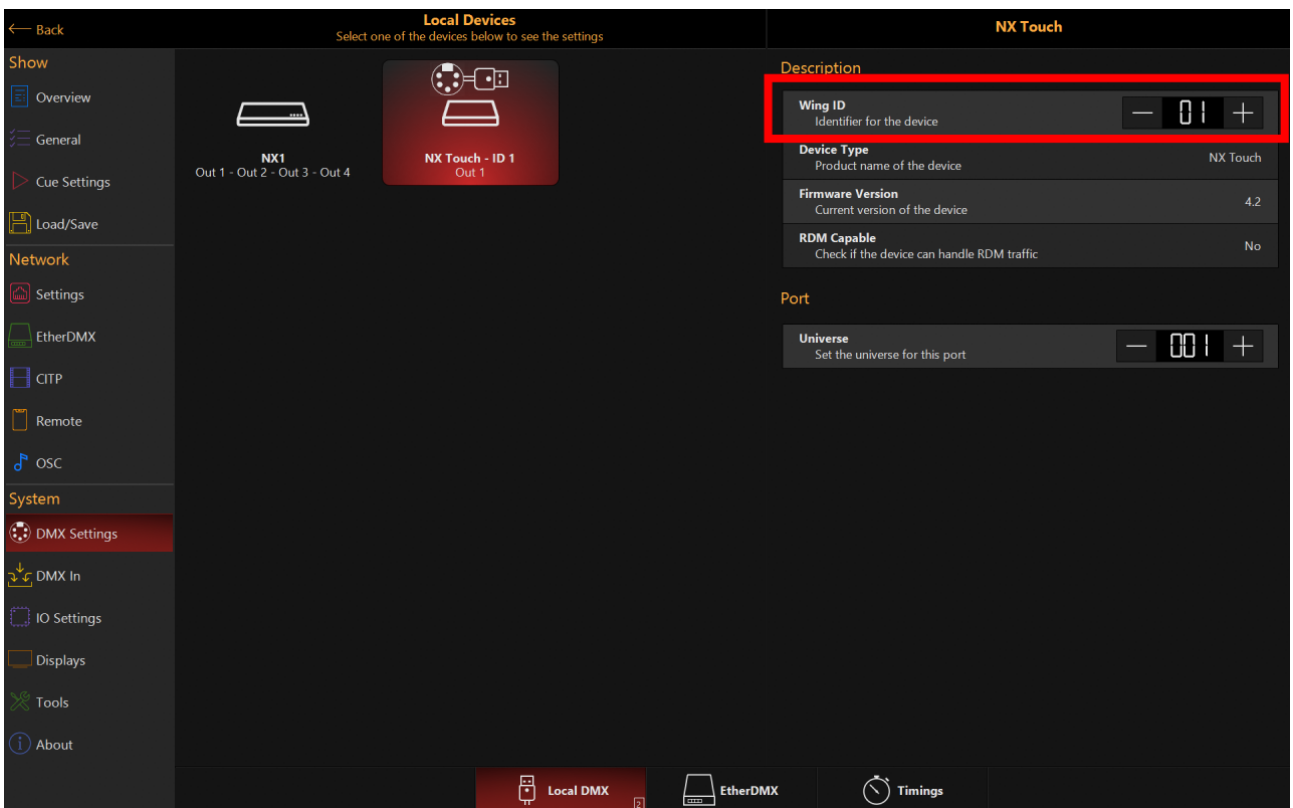


2) In the Bank Selection pop up:

Hardware Assignments



The physical playback device Wing ID can be assigned using the [Local DMX menu](#) located under (Menu>DMX Settings>Local DMX)



Playback

Please see the topic list below to get started.

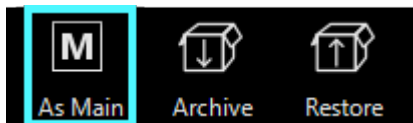
- [Cuelist Directory](#)
- [Cues and Cuelists](#)
- [Active Cuelists Window](#)
- [Beat Editor](#)
- [Changing Global Cue Timing](#)
- [Main Playback Pages \(Banks\)](#)
- [Moving, Copying and Deleting Cuelists on Playback Controls](#)
- [Playback Controls](#)
- [Playback Status](#)
- [Releasing Cuelists](#)
- [Selecting Cuelists](#)
- [The Main GO Control](#)
- [Tracking](#)
- [Virtual Playback Buttons](#)

Cuelist Directory

Please see the topic list below to get started.

- [As Main](#)
- [Color Coding Cuelists in the Directory](#)
- [Copying and Moving Cuelists Within the Cuelist Directory](#)
- [Cuelist Directory](#)
- [Deleting Cuelists From The Cuelist Directory](#)
- [Hibernate Archive & Restore](#)
- [Playing back & Controlling Cuelists directly from the Directory](#)

As Main



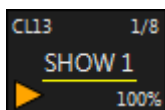
It is possible to set any Cuelist as the Main Cuelist. The Main Cuelist is controlled by the “Main Go” buttons. Only one Cuelist may be designated as the Main Cuelist at any time.

If no Cuelist is designated as the Main Cuelist, the selected Cuelist is controlled by the Main Go buttons.

Setting a Cuelist as the Main Cuelist:

1. In the Cuelist Directory, touch/click the Cuelist to be set as the Main Cuelist.
2. Press AS MAIN at the top of the Cuelist Directory.

The Cuelist will now be displayed with a yellow line below its name to denote its special “as Main” status.



To remove the Main Cuelist designation, select the Cuelist in the Cuelist Directory and press As Main again, or select another Cuelist to be your Main Cuelist.

Tip: The "As Main" designation resets when the show is reloaded. You can use a [Cue Macro](#) with a blank cuelist set to "[Autostart at Boot](#)" from the Startup settings to re-enable it automatically at each startup or load.

Color Coding Cuelists in the Directory

It's possible to color code the contents of directory items for ease of identification and organization.

Two different options are available and can be used separately or together; according to user preference.

By default, both are disabled.

The first option is "Cuelist Type Color", this simply puts a colored border around the edge of the Cuelist button in the directory corresponding with its Cuelist type. IE, Cuelists appear with a red border, Chases with a blue border, etc.

The second option is "Cuelist Color", this option allows you to put a colored tag on the Cuelist button to further suit user identification.

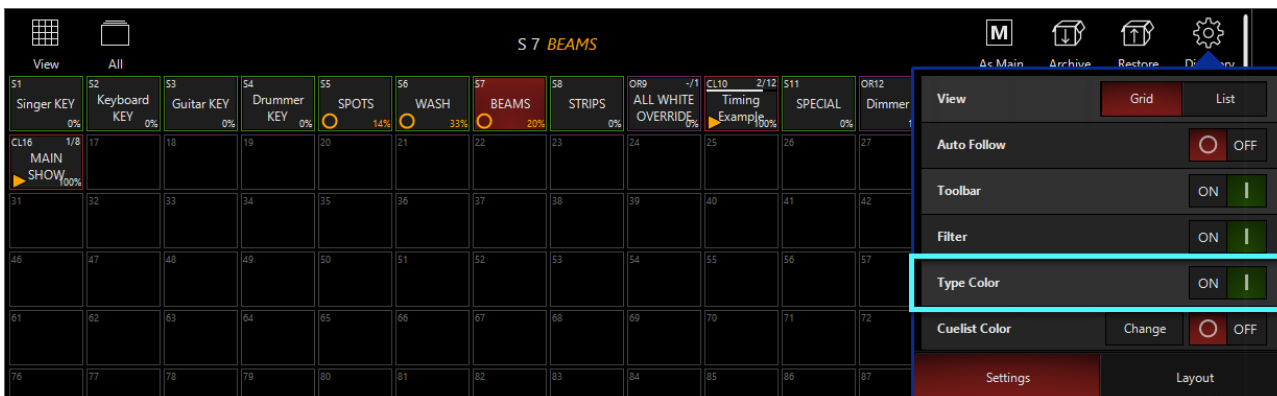
The Cuelist Color option is completely user definable and is shown in this instance with a Blue label. In the last example, with both options enabled, the button has a green border, with the user defined color tag within the button.

The options are shown here:



To Color Code the Directory grid by Cuelist Type:

1. Open the Cuelist Directory.
2. Press the "Options" button in the top right hand corner of the window.
3. Enable the "Type Color" option. ***This option is turned on by default.***

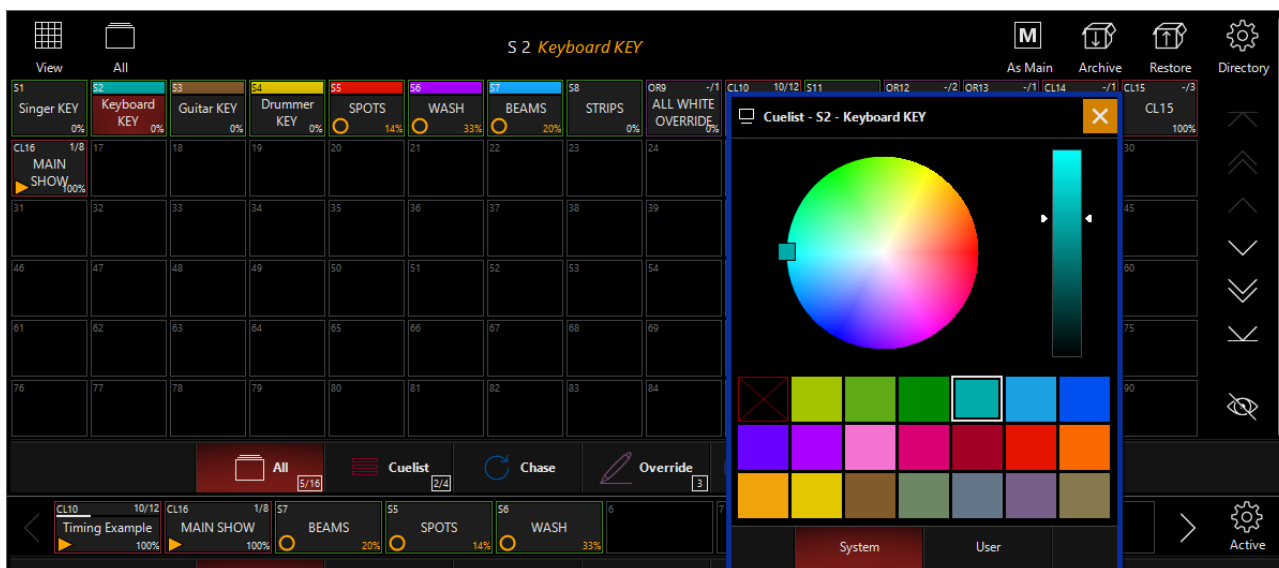


As you can see, the buttons in the Cuelist Directory are now outlined according to the Cuelist type.

To Color Code the Directory grid by Cuelist Color (User Defined):

Playback

1. Open the Cuelist Directory.
2. Press the "Options" button in the top right hand corner of the window.
3. Under "Cuelist Color" toggle the option to "ON".
4. Press the "Change" Button associated with the Cuelist Color option.
5. A pop-up window shows a color picker as well as a number of predefined color tags.
6. Click/Touch a Cuelist in the directory and then pick a color from the options.
7. Repeat the process of touching a Cuelist, then applying a color to color code the desired cuelists.
8. To finish, close the pop-up color picker by pressing the small [X] icon in the top right corner. The Cuelists will retain their color settings until either the color is changed, or the option is turned off again.



Storing a User Defined Color in the Picker

You may have a specific shade of color you wish to reuse later on for other items, if so, you can store that selected in the "User" tab of the pop-up color picker. To store a user defined color:

1. Open the Cuelist Directory
2. Press the "Options" button in the top right hand corner or the window
3. Press the "Change" Button associated with the Cuelist Color option.
4. Navigate to the "User" tab.
5. Click/Touch an empty color button, then mix the shade required in the picker. The color selected in the picker will be automatically stored to the user button for later use.

Both the "Type Color" and "Cuelist Color" can also be enabled in the [Virtual Playback Buttons](#), and assigning them follows the same process that is outlined here.

Copying and Moving Cuelists Within the Cuelist Directory

Moving and Copying from the Cuelist Directory

In the case of the cuelist directory, moving and copying to playback controls or playback buttons are identical functions.

To Copy from the Cuelist Directory to a Playback Fader:

1. Press Copy
2. Select the desired Cuelist from the Cuelist Directory.
3. Press the target Playback Select (where you wish to copy the cuelist).

You can copy the same Cuelist to as many different Playback Controls on as many banks as you wish. However, as with copying a Cuelist from one Playback Fader to another, any changes made in one Cuelist, will be reflected in all others.

Also, changes made to a Cuelist on a Playback Fader will affect the same Cuelist if it is found on a playback button page as well.

To Copy from the Cuelist Directory to a Playback Button:

1. Press Copy
2. Select the desired Cuelist from the Cuelist Directory.
3. Bring up the Playback Buttons window. (Or skip this step, if it is a physical button)
4. Press the target Playback Button (where you wish to copy the cuelist).

Again, you can make as many copies as you wish, but they are all still the same Cuelist so changes made in any one, will affect all copies. This includes copies found on Playback Controls.

Moving a Cuelist from the Cuelist Directory to a Playback Fader or Playback Button is exactly the same as copying it. The same rules apply.

Moving and Copying Within the Cuelist Directory

Moving or Copying a Cuelist from one location in the Cuelist Directory to another is simple task to do, but it is important to understand what is happening.

To Copy to another Directory location (Creating a duplicate, unique Cuelist)

1. Press Copy
2. Select the desired Cuelist from the Cuelist Directory.
3. Press the target location in the Cuelist Directory.

When you perform this function, you have made an actual copy.

Playback

There is no relationship between the two Cuelists with the one exception that the copy will retain the same name.

The reason for this is that when you select the original Cuelist, it is assigned a number (such as Cuelist 8); when you copy it to a new location, that location has its own Cuelist number.

Therefore, by copying Cuelist 8 and “pasting” it into a new Cuelist button, you have, in effect created a new Cuelist, which you can then change while retaining the original Cuelist in its original form.

To Move between two Directory locations

1. Press Move
2. Select the desired Cuelist from the Cuelist Directory.
3. Press the target location (where you wish to move the Cuelist).

When you move a Cuelist from one location to another, you are destroying the old Cuelist and creating a new one.

If you move from Cuelist 8 to Cuelist 12, Cuelist 8 no longer exists.

However, the ONYX will automatically update all Playback Controls, Playback Buttons and Cuelist Macros with the new location of the Cuelist. It is safe to organize your Cuelists in the Cuelist Directory without affecting your show.

Cuelist Directory

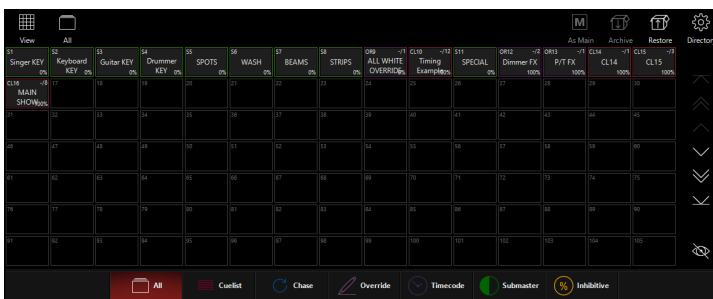
Playback controls (faders or buttons) are not where Cuelists are actually stored.

When you record a cue, you're actually recording it into the cuelist directory. The Playback faders and buttons simply contain a link to the Cuelist in the Cuelist Directory, much the same way a Windows shortcut contains a link to a file or folder.

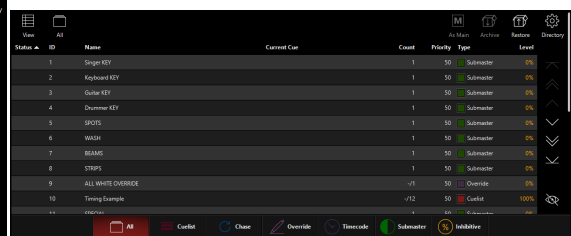
Therefore, if a cuelist is on multiple playback controls, they will both work together to control the same Cuelist.

Cuelist Directory Screen

Cuelist Directory Grid View Mode

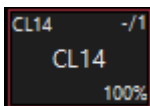


Cuelist Directory List View Mode

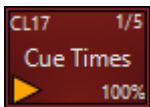


The cuelist buttons are dynamic and contain a great deal of information. Some examples of cuelist buttons are shown below:

Button



Explanation
This is the basic Cuelist display. "CL14" tells you it is Cuelist number 14 and the type is "cuelist". "-" indicates the Cuelist is reset to the beginning. "5" indicates there are 5 cues in the list.



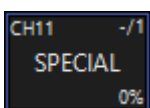
The yellow icon in this display indicates that the Cuelist is controlling fixtures. "1/5" indicates that the cuelist is at cue number 1.



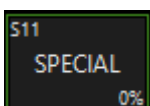
The dynamic horizontal bar indicates the Cuelist is fading a cue. The "2" tells you which cue is currently running. The red background indicates that this is the selected cuelist.



The pause icon in this display indicates that this Cuelist is paused. The vertical red bar indicates that the Cuelist is in the middle of a cue, in this case cue number 5.



Here we have a chase (CH) cuelist called "Chase Example" (how original) currently controlling fixtures and a fading (dynamic bar) active on cue 3 of 3.



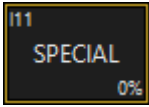
This is how a Submaster (S) appears in the Cuelist directory. It is not controlling fixtures.

Button

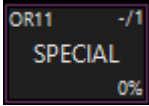
Explanation



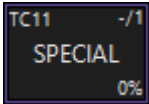
This is how a Submaster (S) appears in the Cuelist directory. It is controlling fixtures.



This is how an Inhibitive (I) appears in the Cuelist directory. It is not controlling fixtures. Inhibitive masters were previously known as "Group" masters.

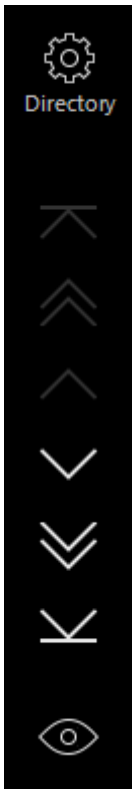


This is an example of an Override Cuelist (OR). The yellow icon indicates that it is controlling fixtures.



This is a Timecode Cuelist (TC).

On the right hand side of the Cuelist Directory window you will find a series of navigation controls. While the up and down arrows should be familiar to you by now, the eye button at the bottom may not be. The eye will simply jump to the page in the directory that has the selected Cuelist on.



Deleting Cuelists From The Cuelist Directory

Warning!

When you delete a Cuelist from the Cuelist Directory, you delete it from the console!

All instances of it on Playback Controls and Buttons are removed as well. A Cuelist deleted from the Cuelist Directory is completely and irrevocably removed from the show file. Gone. See ya'. Bye.

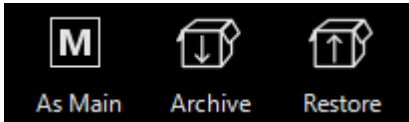
Once deleted, your only recourse is to load a backup show file.

To delete a cuelist from the directory:

1. Press Delete.
2. Select the cuelist to delete from the Cuelist Directory.
3. You sure now? Okay, you were warned, press Enter.

Hibernate (Archive) and Restore

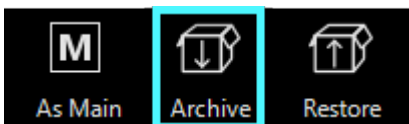
The soft buttons at the top of the Cuelist Directory screen allow for a significant amount of control in how Cuelists are accessed and controlled.



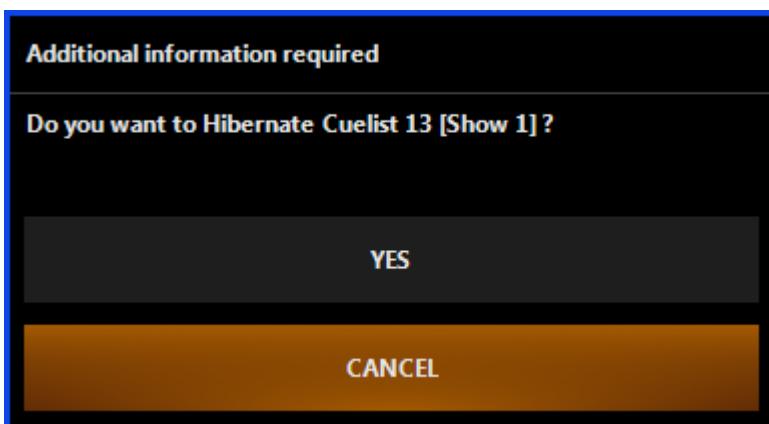
Each of these functions is described below.

There may be times that it is desirable to remove a specific Cuelist from a show without deleting it. For this purpose, ONYX has a Hibernate function. A Cuelist that has been “Hibernated,” will be removed from all Playback Controls and the Cuelist Directory, but will not be deleted. It is instead placed into “storage,” where it can not be inadvertently accessed easily.

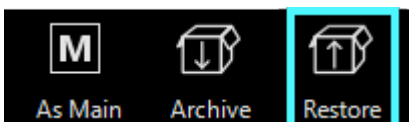
To Hibernate (Archive) a Cuelist:



1. Select the Cuelist to be “Hibernated” (Archived) in the Cuelist Directory.
2. Press Archive.
3. A pop-up window will appear. Select Yes to hibernate the cuelist or Cancel to leave the cuelist in its current position.



Restore a Cuelist



Playback

The Restore button is used to bring back Cuelists that have been Hibernated (Archived). Note that while restored Cuelists will be put back in the Cuelist Directory, they will not be returned to Playback Controls or the Playback Buttons.

When the “Restore” button at the top of the cuelist directory screen is pressed, the Restore window will open.

Here you can see “Hibernated” Cuelists and the four buttons across the top of the screen that allow you to take action on those Cuelists.

The “Back Arrow” button returns you to the cuelist directory. The other three buttons require you to first select a Cuelist by touching it. When a Cuelist is selected, its contents are displayed in the right hand portion of the screen:

The screenshot shows a software interface with a dark background. At the top left is a back arrow icon. The title 'Archive' is centered at the top. Below the title is a table with two columns: 'Archive' and 'Cues'. The 'Archive' column has headers 'No. ▲' and 'Name', and a 'Restore' button with an upward arrow icon. The 'Cues' column has headers 'No. ▲', 'Name', 'Comment', and 'Load' (with an upward arrow icon). The first row in the 'Archive' column is highlighted in red and contains '1' and 'SHOW 1'. The 'Cues' column contains a list of cues numbered 1 through 8, each with an upward arrow icon in the 'Load' column.

No. ▲	Name	Restore	No. ▲	Name	Comment	Load
1	SHOW 1	↑	1			↑
			2	Cue 2		↑
			3	Cue 3		↑
			4	Cue 4		↑
			5	Cue 5		↑
			6	Cue 6		↑
			7	Cue 7		↑
			8	Cue 8		↑

There are now two actions that can be taken:

Option

Description

After selecting a Cuelist, pressing the arrow button next to it in the left hand column will place the Cuelist back into the Cuelist Directory.

Restore

Note that when your Cuelist is restored, it will not necessarily be returned to its original position.

It will be placed in the next highest position of any of your currently recorded Cuelists regardless of any open Cuelist slots that might be available. Example: if you have Cuelists 1-4 and 6-10 in the cuelist directory and you restore a Cuelist from hibernation, it will not be placed in Cuelist 5; it will be placed in Cuelist 11.

Load Cue

With a Cuelist selected, you can then select a specific cue and by pressing arrow button next to it, in the right hand column, load it into the Programmer. Note that only non-tracked values are loaded with this command (i.e. tracking is not employed).

Option

Description

To load a different cue, select the cue and then press "Load Cue" arrow button again. This does not return the Cuelist to the directory, but does allow access to its contents, so the contents of the Hibernated list can be stored in a new Cuelist.

Expert Tip: Got a big show?

How are you going to keep track of the hundreds of Cuelists that may accumulate during programming?

Every Programmer has a different method for organizing the Cuelists in a showfile. The most popular method seems to be the "Rows and Columns" method. The main Cuelist for each song is placed in the first column (1, 21, 31, etc.) and related Cuelists (Chases, Overrides, etc.) are placed in the row with the main cuelist (22-30, 32-40, etc.).

In this fashion, all of the Cuelists associated with a song can be found quickly and easily, even by someone unfamiliar with the show.

Plus, if the operator accidentally deletes a Cuelist from a bank, they won't have such a hard time finding it to put it back! Remember that new Cuelists are always created next to the highest-numbered existing Cuelist.

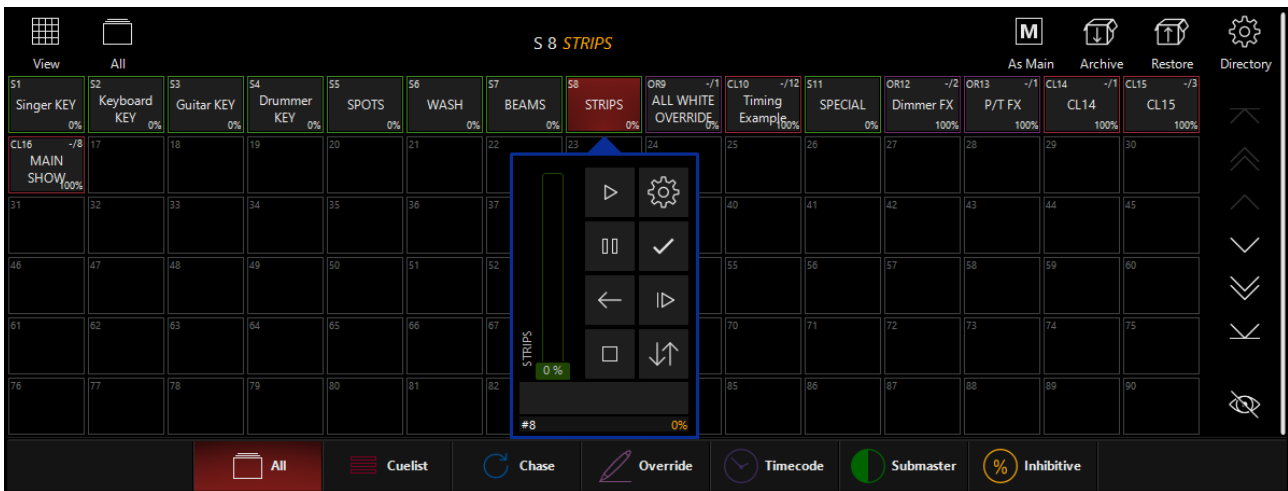
If your highest-numbered Cuelist is 1001, then a newly created cuelist will appear at 1002. To maintain the "Rows and Columns" organization, you'll need to be vigilant as you create a show and make sure that you move your new Cuelists to their appropriate positions.

Playing back & Controlling Cuelists directly from the Directory

The Cuelist Directory has the ability to double up as more virtual playbacks as well as just the main storage space for the show Cuelists. A number of functions are available for playback of items directly from this window.

The first option available is direct access to playback functions for any Cuelist. Simply press the cuelist and the status bar along the top of the directory can be pressed to show the playback controls for the Cuelist that was touched.

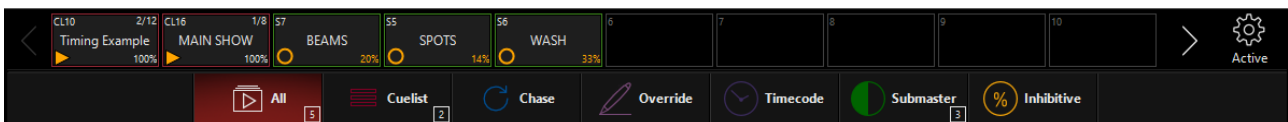
You can also double press on the cuelist's button and the playback controls will pop up.



The second available function, allows access to the active Cuelists from within the directory, without having to change windows.

Simply touch the All icon located in the top left corner of the window and the directory switches to show the Running Cuelists.

You can control active Cuelists just like you can in the directory, press one and then use the status bar at the top of the window to access its playback controls.



Cues and Cuelists

Please see the topic list below to get started.

- [Cue Timing](#)
- [Cuelist Options](#)
- [Cuelist Types](#)
- [Modifying Cues](#)
- [Creating Cuelists](#)
- [Cuelist Auto Mark \(Move In Black\)](#)
- [Record Options](#)
- [Recording A Simple Cue](#)
- [The Selected Cuelist Window](#)
- [Unblocking a Cuelist](#)

Cue Timing

Please see the topic list below to get started.

- [Setting Cue Links](#)
- [Setting Cue Timing](#)
- [Setting Cue Triggers](#)
- [Setting Split Timing On Cues](#)

Setting Cue Links

ONYX allows you to insert a special type of cue that will link one cue to another in the same cuelist. In this way, you can go forward or backward through the list in a non-sequential order.

When selecting a specific cue for functions such as linking and macros, press or click the cue number, not the cue name. Clicking in the “Name” column is how you edit the cue’s name.

To Link Cues:

1. Select the desired cuelist and ensure the Edit Mode is on.
2. Highlight the cue you wish to link from and press the Insert Link button at the top of the cuelist.

OPTIONS	Follow Values	ADD MACRO	EDIT MODE	Cuelist 75			PRE-SELECT FOR NEXT GO				
	Follow Cue	INSERT LINK		Link Example							
	Follow Grid	MARK toggle	RENUMBER	No	Name	Trigger		Delay	Fade	Fade mode	Path
				1	Cue 1	Go	0s	2.50s	Default		
				2	Cue 2	Go	0s	2.50s	Default		
				3	Cue 3	Go	0s	2.50s	Default		
				4	Cue 4	Go	0s	2.50s	Default		
				5	Cue 5	Go	0s	2.50s	Default		
				6	Cue 6	Go	0s	2.50s	Default		
				6.5	** LINK **	Go	CUE ???	INFINITE [-]			
				7	Cue 7	Go	0s	2.50s	Default		
				8	Cue 8	Go	0s	2.50s	Default		
				9	Cue 9	Go	0s	2.50s	Default		

By selecting cue 6 as the cue to link from, cue 6.5 has been created.

3. Under the Delay column, press CUE???. The command line will read SET CUE 6.5 LINK TO CUE @.
4. Press xx (cue number to link to) and Enter.
5. By default, the number of times the link will be repeated (the “Count”) is infinite [-]. To edit this, under the Fade column, press INFINITE [-]. The command line will read SET CUE 6.5 LOOP COUNT @.

6. Press xx (number of times the link is to loop back) Enter.

OPTIONS		Follow Values	ADD MACRO	EDIT MODE	Cuelist 75		PRE-SELECT FOR NEXT GO	
	Follow Cue	INSERT LINK			Link Example			
	Follow Grid	MARK toggle	RENUMBER					
No	Name	Trigger	Delay	Fade	Fade mode	Path	Comment	
1	Cue 1	Go	0s	2.50s	Default	/		
2	Cue 2	Go	0s	2.50s	Default	/		
3	Cue 3	Go	0s	2.50s	Default	/		
4	Cue 4	Go	0s	2.50s	Default	/		
5	Cue 5	Go	0s	2.50s	Default	/		
6	Cue 6	Go	0s	2.50s	Default	/		
6.5	** LINK **	Go	CUE 3	COUNT 4		/		
7	Cue 7	Go	0s	2.50s	Default	/		
8	Cue 8	Go	0s	2.50s	Default	/		
9	Cue 9	Go	0s	2.50s	Default	/		

In the above example, you can see that cue 6 will link back to cue 3 four times and then advance to cue 7. If cue 7 were set as a Wait or a Follow, it would automatically advance after the fourth loop back to cue 3.

When linking cues forward (i.e. linking cue 3 to cue 6), the Count will not apply. Every time you go through cue 3, you will link forward to cue 6.

Setting Cue Timing

ONYX allows for very flexible timing parameters. These can be set by the individual or group of cues or by the individual or group of fixture attributes.

The minimum cue time is zero and the maximum is one hour. These times can be set in increments of thousandths (i.e. 1.234 seconds) and all times are set in seconds.

Setting a Cue’s Base Fade Time

The most broad type of timing is the “base” times for cues. This is the default time for all parameters in a specific cue. It is the time that all attributes will use unless overridden and provided with a different time. (See [“Setting Split Timing on Cues”](#).)

The default base time can be selected in the “Time” section of the Record Options window when the cue is recorded. We’ll change the base cue time on cue 2 to 5 seconds using the following steps:

1. Ensure that Edit Mode is active.
2. Press or click on the cell that contains the Fade Time for Cue 2. The cell will highlight in red and the command line will read Set Cue 2 Fade.
3. On the keypad, type 5 Enter.

The cell will now show a time of 5 seconds.

The screenshot shows the ONYX software interface. At the top, there are several buttons: 'Follow Values', 'ADD MACRO', 'EDIT MODE', 'Follow Cue', 'INSERT LINK', 'Cue Times', 'Follow Grid', 'MARK toggle', 'RENUMBER', and 'PRE-SELECT FOR NEXT GO'. Below these buttons is a table with the following columns: 'No', 'Name', 'Trigger', 'Delay', 'Fade', 'Fademode', and 'Path Comment'. The table contains five rows of cues. The second row, 'Cue 2', is highlighted in red, and its 'Fade' column value is '5s'.

No	Name	Trigger	Delay	Fade	Fademode	Path Comment
1	Cue 1	Go	0s	2.50s	Default	/
2	Cue 2	Go	0s	5s	Default	/
3	Cue 3	Go	0s	2.50s	Default	/
4	Cue 4	Go	0s	2.50s	Default	/
5	Cue 5	Go	0s	2.50s	Default	/

You can also select a range of cues by pressing and dragging.

To change the base time to 5 seconds for all cues:

1. Ensure that Edit Mode is active.
2. Select the Fade time for all the cues pressing and dragging. The cells will highlight in red and the command line will read Set Cue 1+2+3+4+5 Fade.
3. Press 5 Enter.

OPTIONS	Follow Values	ADD MACRO	EDIT MODE	Cuelist 17			PRE-SELECT FOR NEXT GO
	Follow Cue	INSERT LINK		Cue Times			
	Follow Grid	MARK toggle	RENUMBER				
No	Name	Trigger	Delay	Fade	Fademode	Path	Comment
1	Cue 1	Go	0s	5s	Default	/	
2	Cue 2	Go	0s	5s	Default	/	
3	Cue 3	Go	0s	5s	Default	/	
4	Cue 4	Go	0s	5s	Default	/	
5	Cue 5	Go	0s	5s	Default	/	

Setting a Cue’s Base Delay Time

The base Delay time of a cue is the amount of time after the go trigger for that cue has executed and the time that the cue actually begins. By default, this time is zero. The process for changing the base Delay time is identical to that of changing the base Fade time, both for individual cues and for cue ranges.

Setting Cue Triggers

The trigger for a cue determines what event is required for that trigger to execute. The most basic is the "Go" trigger which merely requires pressing the appropriate GO button. The ONYX supports three other trigger types, Wait, Follow and Timecode, [but Timecode is discussed here](#).

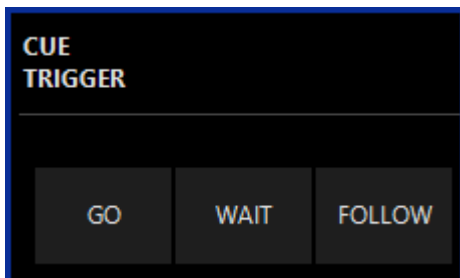
Wait and Follow will both automatically advance cues down the cuelist when set as triggers.

Setting a Wait Trigger

A cue with a wait time will automatically execute "X" seconds after the previous cue is executed, it is important to note that the cue will be triggered regardless of whether or not the previous cue has finished its fades. That is to say that if a cue is created with a wait time of 7 seconds, it will automatically begin 7 seconds after the previous cue starts.

To set a Wait trigger, use the following procedure:

1. Confirm that Edit Mode is unlocked.
2. Select the desired Cuelist by pressing the appropriate Cuelist Selection Button.
3. Press the current trigger value (Go, Follow, or Wait) of the desired cue.
4. The following pop-up window will appear:



5. Press the Wait option.
6. The command line will now read Cue Trigger Cue 1 Wait @
7. Enter the desired Wait time (in seconds)
8. Press Enter to complete the command

Setting a Follow Trigger

A cue with a follow time will automatically execute x seconds after the previous cue has completed its parameter moves. That is to say that if a cue is created with a follow time of 7 seconds, it will automatically begin 7 seconds after the previous cue finishes.

The procedure to set a follow trigger is the same as that used in setting a wait trigger except that in step 5, press the Follow button.

Setting Split Timing on Cues

Split Cue Timing

ONYX allows for the “splitting” of both fade and delay timing.

When a cue is split, fixtures whose intensity is increasing (up moves), can be set at a different time than those fixtures that are decreasing in intensity (down moves.)

Not only that, but you can apply this timing to any individual attribute inside of ONYX.

Don't gloss over this section of the manual!

Split timings can even be saved to presets and allow you easily build fancy-looking wipes, fades and other transitions across your stage.

Note that the time set for the up move will also act as the base time for the cue.

That is to say that if a cue has an up time of 10 seconds, all attributes of all fixtures will move at ten seconds except where overrides are entered.

The downtime will affect only the intensity attribute of any fixtures that are decreasing in that cue; all other attributes will take their timing from the up time.

To Set a Split Time For A Whole Cue:

- Select the Fade or Delay time cells of the desired cue(s) by clicking and dragging, or touching and dragging the cells.
- Enter the up time, remembering that this will also serve as the base time for the fade or delay
- Press the / button
- Enter the downtime
- Press Enter

To Remove a Split Time:

1. Select the Fade or Delay time cells of the desired cue(s) as described above.
2. Enter the base time desired
3. Press Enter

Setting an Individual Attribute Fade Time

Aside from setting base times for cues, you can set specific times for any attribute or attribute group of any fixture or group of fixtures. These times override the base cue timing and range from 0 seconds to one hour.

For our example, we'll use cue 1 with a base time of 5 seconds but we're going to change the intensity timing to zero.

1. Select the desired cuelist.
2. Select the fixtures who's fade time you wish to change.
3. Select the attribute group with the desired attribute with the attribute group buttons. Use Intensity for this example.
4. Press the Fade button.
5. Press the Intensity parameter button.
6. Press 0 on the keypad.

Once you have done this, you will see the following in the command line:

```
SET FADE Intensity @ 0
```

This indicates that the selected fixtures will be set to an intensity fade time of zero.

7. Press Enter to add the change into the Programmer:

The screenshot shows the 'Programmer' interface with three buttons at the top: 'SHOW BASE', 'SHOW FX', and 'SHOW TIMINGS'. Below these buttons, the text 'Artiste DaVinci Standard' is displayed. A table lists fixtures 101 through 111. Each fixture has a 'Number' column, an 'Intensity' column, and a 'Shutter' column. The 'Intensity' column for all fixtures shows '0s', indicating that the fade time has been set to zero. Fixture 111 is highlighted in red.

Number	Intensity	Shutter
101	0s	-
102	0s	-
103	0s	-
104	0s	-
105	0s	-
107	0s	-
108	0s	-
109	0s	-
110	0s	-
111	0s	-

Here we can see that fixtures 101-111 have fade times of 0 seconds associated with them for

Playback

intensity. So, all the fixtures will now "Snap" on in 0 seconds regardless of the cue fade time.

To finish the process:

8. Press Record Cue 1 Enter and press Merge from the popup that appears.

Cue 1 has now been updated with the new cue override times as is reflected in the Selected Cuelist window:

No	Name	Trigger	Delay	Fade	Override	Fade mode	Path	Comment
1	Cue 1	Go	0s	2.50s	0s	Default		
2	Cue 2	Go	0s	2.50s		Default		
3	Cue 3	Go	0s	5s		Default		

Looking at cue 1, you can see that under the header "Override" to the right of "Fade" a value of "0s" is displayed.

This indicates that at least one attribute on at least one fixture has overridden the default fade time and that it/they have a time of 0 seconds.

Had we programmed it so that half of the fixtures faded-in in time zero while the other half faded-in in 10 seconds, the display would read "0s>>10s."

Now, let's add some rocket fuel and first record this to a preset:

Follow the previous example, steps 1-7.

Then, press Record and press a Preset button in the Intensity Presents window to record this as a preset.

Clear your Programmer.

Now, you can simply use the Preset you just created to set your timing as you record cues in the future. If use the THRU command when setting your fade times, you can create some really cool "fan" type transitions on your stage that you can apply really quickly via a preset!

This also works with Delay, in the same manner.

Setting the Fade Time for an Attribute Group

In the example above, we examined how to set a fade time for an individual attribute (intensity). It is also possible to set the fade time for an entire attribute group, such as color.

To do so:

1. Select the desired Cuelist.
2. Select the fixtures you wish to change.
3. Press the Fade button.
4. Press the Color Parameter Button.
5. Press 0 (or the time of your choice) on the keypad.

6. Press Enter.

We can see that all the color attributes have been set to a fade time of 0 seconds by looking at the Programmer screen:

SHOW BASE		SHOW FX		SHOW TIMINGS		Programmer		
Artiste DaVinci Standard								
Number	Cyan	Magenta	Yellow	CTC	Color	Color Macro		
101	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
102	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
103	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
104	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
105	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
107	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
108	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
109	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
110	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		
111	-	-	-	-	-	-		
FADE	0s	0s	0s	0s	0s	0s		

7. Press Record Cue xx Merge Enter to complete the process.

Setting an Attribute Delay Time

An attribute's delay time is the amount of time between when the cue starts, and when the attribute begins its fade. The attribute delay time is set in much the same way as the attribute or attribute group fade time.

We will program a cue such that the Artiste DaVinci's will move 2.5 seconds using the following procedure:

1. Select the desired Cuelist.
2. Press the Artiste DaVinci group button to select the fixtures.
3. Press the Delay button.
4. Press the Pan Tilt Parameter Group Button.
5. Press 2.5 Enter to set the pan and tilt delay to 2.5 seconds.
6. We can now see that the Pan and Tilt attributes of the Artiste DaVinci's all have a delay time of 2.5 seconds.

To complete this process:

7. Press Record Cue xx Merge Enter.

Note that a single attribute can have its delay time set by pressing the hard button for that specific attribute in the same way that one would set a fade time for a specific attribute.

Setting a Staggered Delay Time (Delay Fanning)

ONYX makes it very quick and simple to fan the attributes of a group of fixtures. Fanning can be defined as taking a delay time range (such as 0 to 11 seconds) and applying that delay evenly across a group of fixtures.

For example, if you did specify a delay of 0 to 11 seconds and then applied that delay evenly across 12 fixtures, fixture one would begin its move as soon as the cue began, fixture 2 would delay one second, fixture 3 would delay two seconds, etc.

To examine how this works, follow these steps...

1. Select the Dartz 360 group and press Full.
2. Press Record and the Select Button on an empty playback control to create cue 1 in a new Cuelist.
3. Press the Pan Tilt Parameter Group Button.
4. Using the tilt track belt/wheel, set tilt to 40%.
5. Press the Delay button.
6. Press the Pan Tilt Parameter Group Button.
7. On the keypad, press 0 Thru 10.

At this point if you look at the command line, you'll see the following:

```
SET DELAY Pan Tilt @ 0>10
```

8. Press Enter. The delay values are now in the programmer.

SHOW BASE	SHOW FX	SHOW TIMINGS	Programmer			
<i>Dartz 360 Extended</i>						
Number	Pan	Tilt	Pan Rot	Tilt Rot	Intensity	
401	50%	40%	-	-	100%	
DELAY	0s	0s	0s	0s		
402	50%	40%	-	-	100%	
DELAY	0.90s	0.90s	0.90s	0.90s		
403	50%	40%	-	-	100%	
DELAY	1.81s	1.81s	1.81s	1.81s		
404	50%	40%	-	-	100%	
DELAY	2.72s	2.72s	2.72s	2.72s		
405	50%	40%	-	-	100%	
DELAY	3.63s	3.63s	3.63s	3.63s		
406	50%	40%	-	-	100%	
DELAY	4.54s	4.54s	4.54s	4.54s		
407	50%	40%	-	-	100%	
DELAY	5.45s	5.45s	5.45s	5.45s		
408	50%	40%	-	-	100%	
DELAY	6.36s	6.36s	6.36s	6.36s		
409	50%	40%	-	-	100%	
DELAY	7.27s	7.27s	7.27s	7.27s		
410	50%	40%	-	-	100%	
DELAY	8.18s	8.18s	8.18s	8.18s		
411	50%	40%	-	-	100%	
DELAY	9.09s	9.09s	9.09s	9.09s		
412	50%	40%	-	-	100%	
DELAY	10s	10s	10s	10s		

By looking at the Programmer, you can see that the delay time of zero to 10 seconds has been evenly distributed across the 12 fixtures.

To complete this operation:

9. Press Record and the Cuelist Selection Button used to create cue 1.
10. Clear the Programmer by pressing Clear Clear.
11. Press Go on your cuelist and watch the transition between cue 1 and cue 2 in the 2D Plan view!

And, you can add rocket fuel to your delay times by recording them to a preset first, then a cue, just as described above in "Now, let's add some rocket fuel and first record this to a preset:"

Delay Fanning From Multiple Points

In much the same way that a standard fan is created, you can change the delay time so that the fade will begin at multiple points throughout the selected fixtures.

For example:

1. Press Edit Cue 1 Enter.
2. Select the desired fixtures.
3. Press the Delay button.

Playback

4. Press the Pan Tilt Parameter Group Button.
5. On the keypad, press 0 Thru 5 Thru 0 Enter.
6. Press Update.

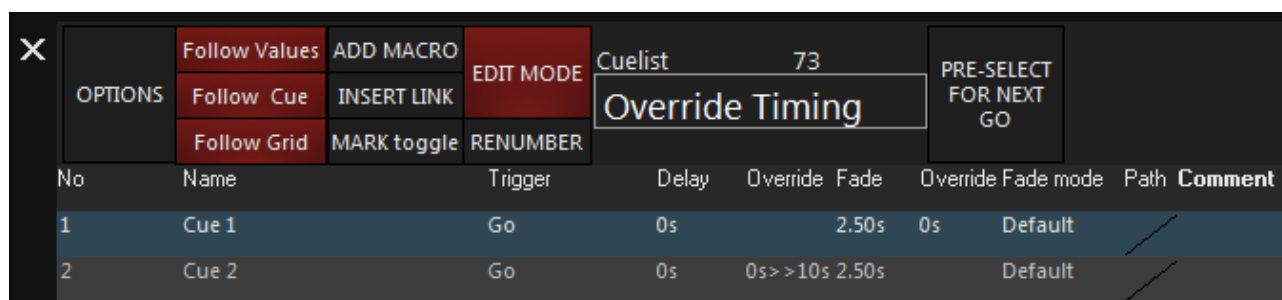
Now, when cue 1 is executed, you will see that the fan begins from the beginning and end of the selected fixtures and works its way towards the middle. Conversely, had we wished to start in the middle and work out, we would set the delay time to 5 Thru 0 Thru 5. It is possible to use multiple “Thru” commands to construct your fan effect.

Setting a Staggered Fade Time (Fade Fanning)

Fade timing may also be fanned using the same procedures described above for fanning the delay timings.

Changing Cue Overrides

When setting either a standard or staggered fade or delay time, a new field is added in the Selected Cuelist window showing the override time(s) for the affected cue(s).



No	Name	Trigger	Delay	Override	Fade	Override Fade mode	Path	Comment
1	Cue 1	Go	0s		2.50s	0s	Default	
2	Cue 2	Go	0s	0s >> 10s	2.50s		Default	

Here we can see that Cue 1 has a fade override of zero seconds and Cue 2 has a delay override ranging from zero to ten seconds. While you can not see here which fixtures are affected - go to the Cuelist Values window - at least one attribute of one fixture will be affected whenever the override column is displayed. Changing these times is done in much the same way that a base fade or delay time is changed.

To change “standard” overrides

1. Select the fade or delay override time of the desired cue by pressing or clicking on it. You can also click and drag to select a number of cues simultaneously.
2. Enter the new fade/delay time
3. Press Enter

To change “ranged” overrides

1. Select the fade or delay ranged time (such as 0s >> 10s in the example above) by pressing or clicking on it
2. Enter the new lower range
3. Press Thru

Playback

4. Enter the new upper range
5. Press Enter

Note that when an override time is changed in this manner, any and all fixtures with override times in them will be affected, regardless of attribute category.

If the color and pan/tilt attributes are both set with an override of 5 seconds and the override is then changed to 10 seconds, both color and pan/tilt will be affected.

However, when attributes within a cue are set at different values and the range is changed as described above, those attributes will move in proportion to one another.

Example: Doubling the time:

Select five fixtures and assign their color attributes to a fade of zero to eight and their pan/tilt attributes to a fade of zero to four and record this as a cue. When we press Edit Cue 1 Enter we will see Programmer and Selected Cuelist screens similar to this:

SHOW BASE	SHOW FX	SHOW TIMINGS	Programmer						
Artiste DaVinci Standard									
Number	Cyan	Magenta	Yellow	CTC	Color	Color Macro	Pan	Tilt	
101	-	-	-	-	-	-	-	-	-
FADE	0s	0s	0s	0s	0s	0s	0s	0s	0s
102	-	-	-	-	-	-	-	-	-
FADE	2s	2s	2s	2s	2s	2s	1s	1s	
103	-	-	-	-	-	-	-	-	-
FADE	4s	4s	4s	4s	4s	4s	2s	2s	
104	-	-	-	-	-	-	-	-	-
FADE	6s	6s	6s	6s	6s	6s	3s	3s	
105	-	-	-	-	-	-	-	-	-
FADE	8s	8s	8s	8s	8s	8s	4s	4s	

OPTIONS	Follow Values	ADD MACRO	EDIT MODE	Cuelist	19	PRE-SELECT FOR NEXT GO		
	Follow Cue	INSERT LINK		CL19				
	Follow Grid	MARK toggle	RENUMBER					
No	Name	Trigger	Delay	Fade	Override	Fademode	Path	Comment
1	Cue 1	Go	0s	2.50s	0s >> 8s	Default		

We can see that the override timings have been evenly distributed as specified. Now, clear the Programmer (Clear Clear) and, by selecting the fade override cell in the cuelist (remember EDIT MODE), change the timing to 0 THRU 16 and re-record as cue 1. Again press Edit Cue 1 Enter and the following should appear on the Programmer screen:

SHOW BASE	SHOW FX	SHOW TIMINGS	Cue "Cue 1" [1] Cuelist "CL19" [19]						
Artiste DaVinci Standard									
Number	Cyan	Magenta	Yellow	CTC	Color	Color Macro	Pan	Tilt	
101	-	-	-	-	-	-	-	-	-
FADE	0s	0s	0s	0s	0s	0s	0s	0s	0s
102	-	-	-	-	-	-	-	-	-
FADE	4s	4s	4s	4s	4s	4s	2s	2s	
103	-	-	-	-	-	-	-	-	-
FADE	8s	8s	8s	8s	8s	8s	4s	4s	
104	-	-	-	-	-	-	-	-	-
FADE	12s	12s	12s	12s	12s	12s	6s	6s	
105	-	-	-	-	-	-	-	-	-
FADE	16s	16s	16s	16s	16s	16s	8s	8s	

By taking the original override time from "0s>>8s" to "0s>>16s", we doubled the fade overrides and they have been increased proportionately and relatively to one another.

Removing Overridden Fade and Delay Times from Cues

To remove an override from an entire cue

1. Select the cell(s) containing the override time to be removed
2. Press the - (minus) button
3. Press Enter

It is also possible to remove only some of the overrides in a cue using the Clear Options pop-up (see "[Clear Options](#)").

To remove overrides from some fixtures in a cue:

1. Press the Load button
2. Enter the desired fixtures on the command line (for example, 1 THRU 6)
3. Press @ Cue xx where xx is the cue number to be altered
4. Press the Enter button. (The values have been loaded into the programmer)
5. Press Clear
6. Select the Timing Values option from the Clear Options pop-up window. Also deselect Base Values and Effects Values and apply any other filters desired.
7. Press Enter
8. Press Update to update the relevant cue.

Cuelist Options

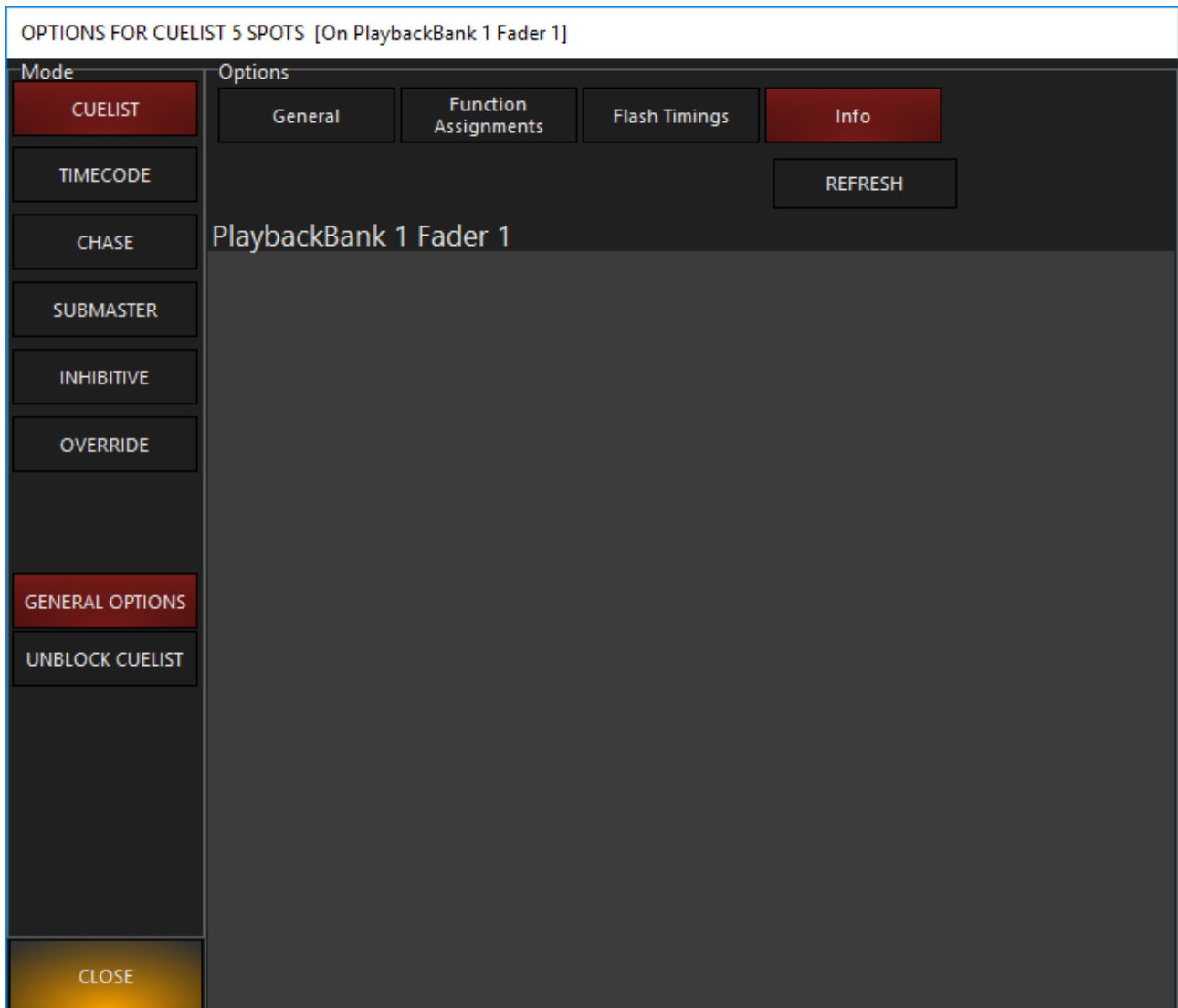
Please see the topic list below to get started.

- [Cuelist Info](#)
- [Cuelist Options](#)
- [Flash Timings](#)
- [Function Assignments](#)
- [General Cuelist Options](#)

Cuelist Info

The Cuelist Info window is accessed by pressing the Info button at the top right corner of the Cuelist Options window. This window shows where the currently selected cuelist is placed on the console playback faders.

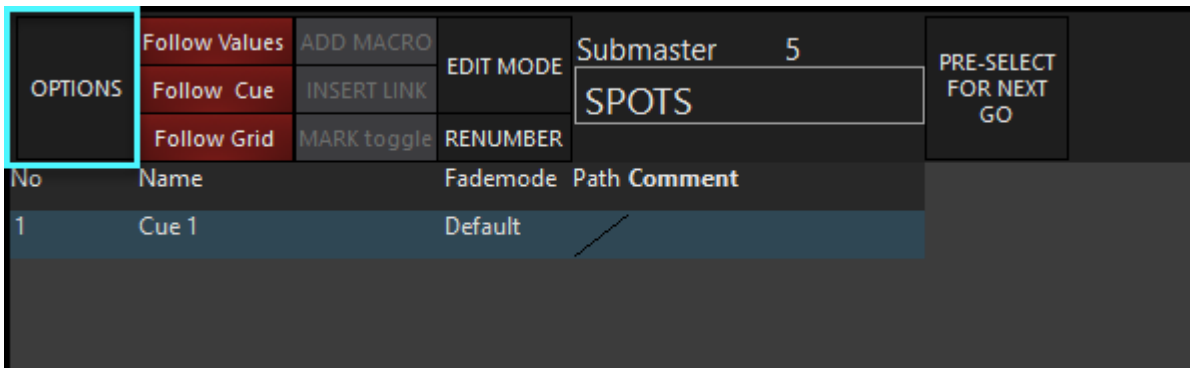
This can be helpful when determining where a cuelist is used in a show, especially if you have put a cuelist in many different places!



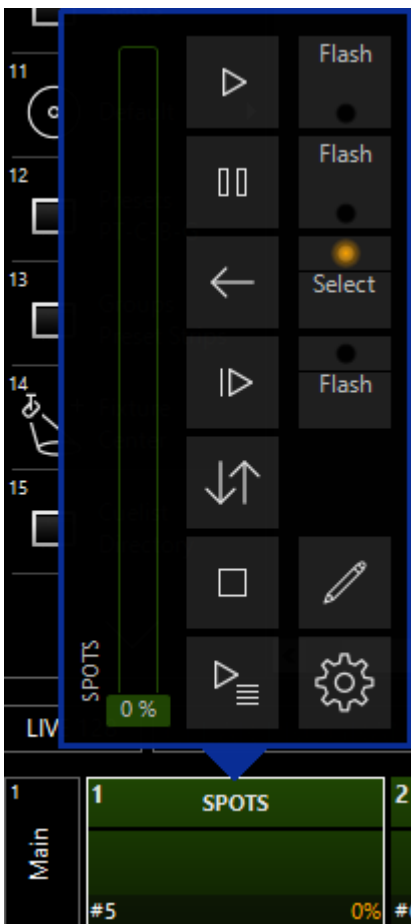
Cuelist Options

Cuelist Options is a window that allows you to customize how the selected playback reacts, beyond just the playback type.

The Cuelist Options window can be accessed by pressing the Options button in the Cuelist Values view, from the playback popup or by right clicking on the playback assignment.



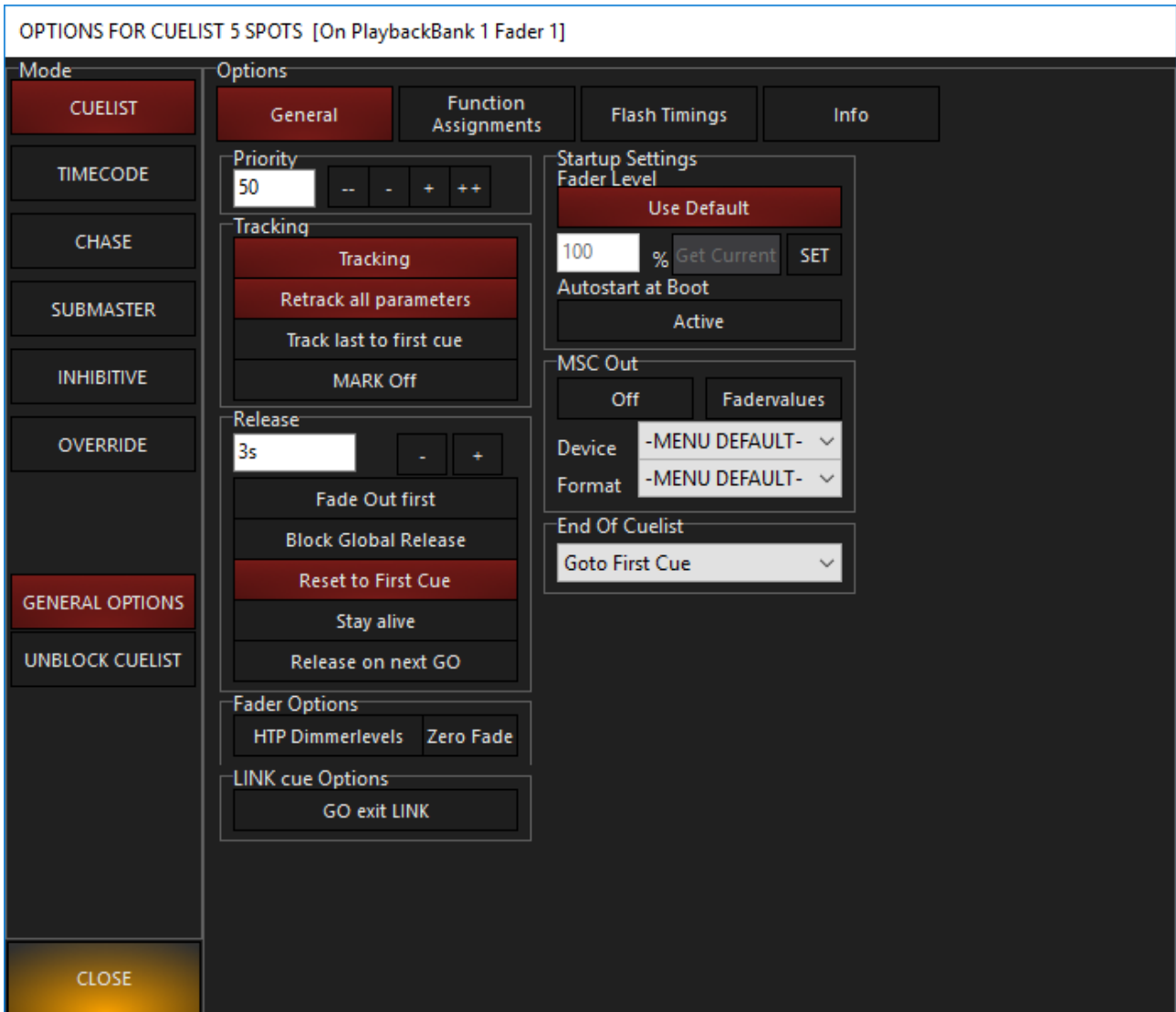
You may also right click on a cuelist in the Main Playback Bank Indicator, then the Options will open. You may also double tap on the cuelist in the Main Playback Bank Indicator and use the wheel icon to open the options. The options can be accessed in this manner for any cuelist type.



Playback

The Cuelist Options window is split into two distinct parts, Mode and Options.

The Mode column, on the left side, allows you to change the type of cuelist from the available [cuelist types](#).



For now, we will focus on the Cuelist Options.

To the right of the cuelist modes are several other settings that may be applied to the cuelist.

There are a "standard" set of options that appear for every cuelist, and then additional options for each type of cuelist. (except for Cuelist - this just has the standard options).

Common Cuelist Options

There are five Cuelist Option groups that are common to each type of cuelist. These groups are explained below, and in greater detail below the following chart.

The groups that are specific to a certain cuelist type will be discussed on each cuelist type page.

Playback

Item	Explanation
Priority	This sets the priority of a cuelist.
Tracking	This determines how the cuelist deals with tracked values. It also includes a control for the console's Auto Mark feature. For more information, see "Auto Mark."
Release	This section determines behavior when a cuelist is released or restarted.
Fader Options	This determines the behavior of fixture intensity in relation to the positioning of the cuelist fader.
LINK cue Option	GO exit LINK will allow you to force exiting a loop created by links, by pressing GO.
Startup Settings	Here you can set a default fader level or cause the cuelist to run automatically on console power up. (Autostart at Boot)
MSC Out	Allows you to enable MIDI Show Control output from this cuelist.
End of Cuelist	Gives you different options to choose from when you hit the end of your cuelist. The default is to loop back to the first cue.

Priority

The console assigns a priority to every cuelist. The priority setting can range from 1 to 100 with 100 being the highest priority and 50 being the default. A higher priority cuelist will take precedence over a lower priority cuelist. The priority setting can be incremented or decremented by one (+ and -) or ten (++ and --). The behavior of fixtures in the cuelist depends on the order in which the cuelists are activated and the contents of the cuelist.

Tracking Cuelist Options

The Tracking section of the Cuelist Options screen contains settings that can have a very significant impact on the behavior of cues in your show.

Tracking (DEFAULT ON)

As mentioned earlier, ONYX is, by default a tracking console.

When a change is made, it tracks that information forward through the cuelist.

When tracking is off for a cuelist the only information that is recorded into that cue or played back is the information that is in the Programmer when the cue is recorded.

For example, if cue one contained intensity information only and cue 2 contained pan/tilt information only when it was recorded, with tracking turned off, the fixtures will move when cue 2 is executed, but, as there was no intensity information in the Programmer at the time cue 2 was recorded, the fixtures will fade to zero intensity.

Playback

Retrack all parameters (DEFAULT ON)

As mentioned earlier, the console is a "Latest Takes Precedence" console. This means that a recorded cue contains only those values that have changed from the previous cue.

When going through the cuelist sequentially from the top, this wouldn't necessarily be noticed.

However, if you were to start in the middle of the cuelist you might see, for example, only a color change if that was all that was recorded in that cue.

The Backtrack function will read the state of the cue rather than just the attribute information recorded in that cue.

In other words, it will look back to the previous cues and apply all attribute changes that have been made up to that point. By doing this, if you start in the middle of the cuelist, the look on stage will be the same as if you had stepped through the cuelist from the beginning.

Track last to first cue (DEFAULT OFF)

When stepping forward from the last cue, the cuelist will cycle back to the first cue. With "Track last to first cue" enabled, values that were active in the last cue, but are null in the first cue will persist as the cuelist loops back to the first cue. When this is disabled, the values will become null again when looping to the first cue.

MARK Off (DEFAULT OFF)

The MARK function is discussed in detail later. For more information, see "[Auto Mark](#)."

Release

The Release Cuelist Options determine behavior when a cuelist is released or restarted.

Fade Out first (DEFAULT OFF)

When enabled, intensity values will fade out in the specified default time first, and then all other attributes will follow once the intensity has reached zero, again in the specified default time.

Block Global Release (DEFAULT OFF)

When selected, global release commands are ignored. Common uses for this include houselights, worklight, hazers, or any other element that needs to remain active unless deliberately released.

Reset to First Cue

When enabled (red), the cuelist resets to cue 1 when released. When disabled (gray), the cuelist does not reset, it will resume from the stopping point on the next go.

Stay alive (DEFAULT OFF)

Stay alive determines the actions of attributes that are common between two different cuelists. When Stay alive is activated, cuelists will continue to run in the background when overridden, but their parameters will not be active unless the overriding cuelist releases.

An example is the best way to describe the function of Stay alive:

Example with Stay alive ON:

1. Cuelist A controls attributes x, y, and z.
2. Cuelist B controls attributes x, y, z, and any other attributes.
3. In Cuelist A, Stay alive is ON (highlighted in red.)
4. Cuelist A is running. When cuelist B starts, cuelist B takes control of attributes x, y, and z.
5. Cuelist A stays running, but cuelist B controls the parameters.
6. When Cuelist B is released, attributes x, y, and z go back to Cuelist A's control.

Example with Stay alive OFF:

1. Cuelist A controls attributes x, y, and z.
2. Cuelist B controls attributes x, y, z, and any other attributes.
3. In Cuelist A, Stay alive is Off (not highlighted in red.)
4. Cuelist A is running. When cuelist B starts, cuelist B takes control of attributes x, y, and z.
5. Cuelist A releases because cuelist B is controlling attributes x, y, and z.
6. When cuelist B is released, attributes x, y, and z return to their default settings (assuming no other cuelist with Stay alive enabled exists with those attributes).

In order for Stay alive to function in the manner described above, the cue in cuelist B must contain all the attributes of the cue in cuelist A. Otherwise, when cuelist B is released, those attributes taken from A will be sent to zero

Release on next GO (DEFAULT OFF)

When this option is selected, **the next Go command from any other cuelist** (not the cuelist that you are modifying) will release the current cuelist.

Fader Options

Item	Explanation
HTP Dimmer levels	When enabled (red), this option changes the fader's default LTP behavior to HTP (highest takes precedence). HTP dimmer levels will neither override nor be overridden by LTP faders.
Zero Fade Dimmers	When using HTP dimmer levels, this option causes the intensity to snap to programmed levels, ignoring the cue fade time.

LINK Cue Options

GO Exit LINK will allow you to force exiting a loop created by links, by pressing GO.

To explain further, let's pretend you made a cuelist with 5 cues.

Cues 1-4 get set up using LINK to repeat in order infinite times.

Cue 5 is a "dump out" look.

By turning on GO Exit LINK, you may now press the GO button for that cuelist to dump out of the link loop.

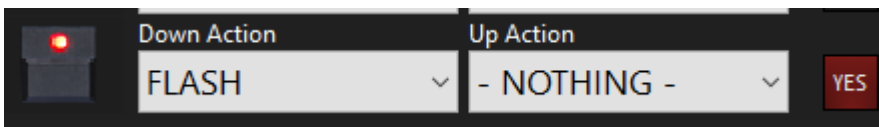
Note that you must be in a "delay" state - no cues fading in or out - for GO to exit the link.

Flash Timings

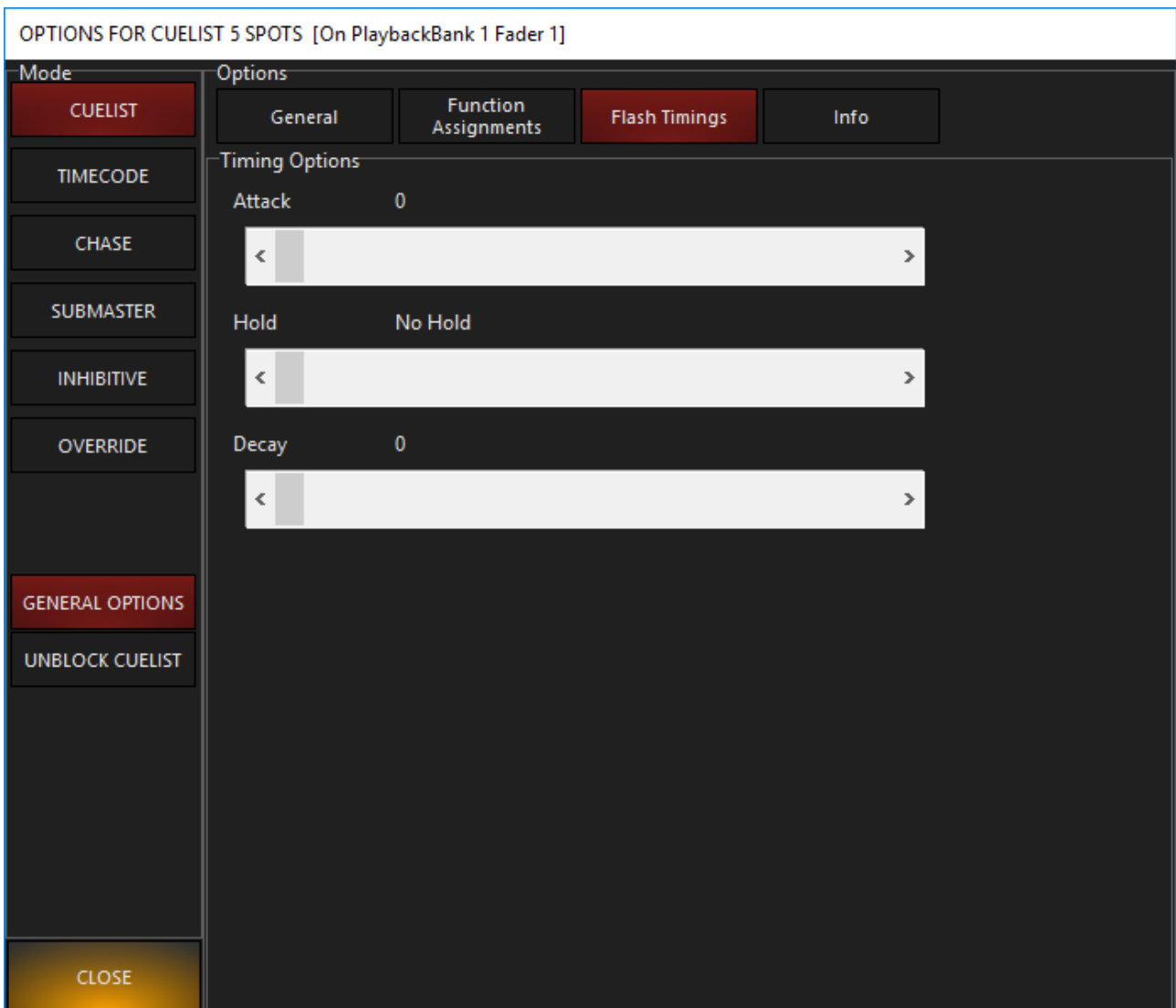
In the flash timings tab of the cuelist options, ONYX allows you to set a flash timing that you can then assign to a flash button to make your LED's look a little less harsh when flashing!

To set this up, you first want to go to [Function Assignments](#) inside of the Cuelist Options window. **This is a very important step!**

At the end of the "row" that your flash button is on (configurable to any of the buttons), you'll see a column labeled "Timed", and you can click on the No and change it to Yes.



Now, head over to the Flash Timings tab. This is where you can set and customize the actual timing of the flash:



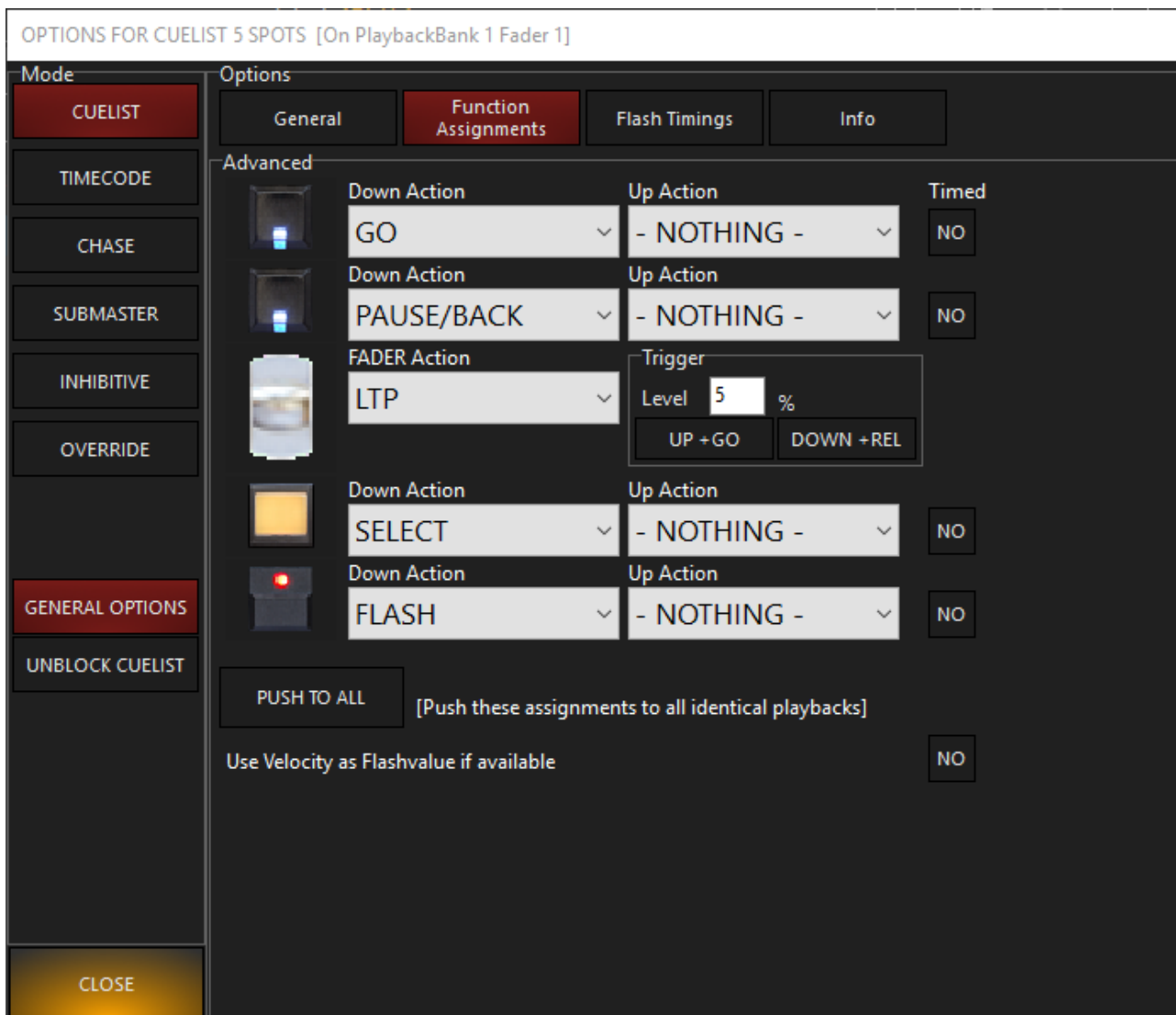
Playback

	Control	Description
Attack		This sets the amount of time that the flash button will use to bring the cue up.
Hold		This sets the amount of time that the flash button will hold at full. You can move this control all the way to the right for "Infinite Hold" which allows you to take your finger off the flash button, and the cue will stay at full until you press the flash button again.
Decay		Opposite of attack, this is the amount of time that the flash button will fade out the cue in.



Function Assignments

Default Button Behavior

For versatility, ONYX allows playback buttons and faders to be configured to suit your own needs. Configuration occurs in the [Cuelist Options](#) window.

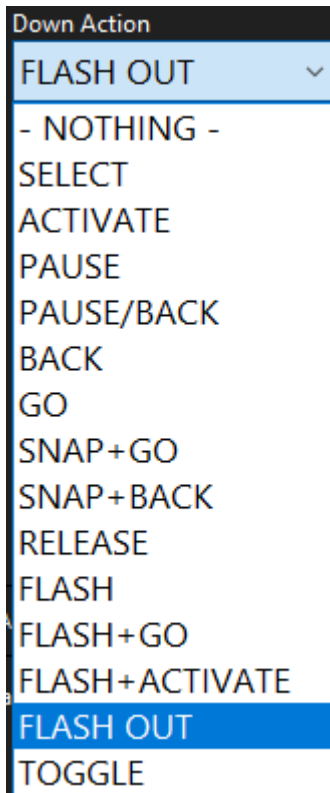


Button	Name	Explanation
	Playback Button 1	This button defaults to "Go" and executes cues in ascending order when pressed.
	Playback Button 2	This button defaults to "Pause/Back" and will pause a cue during execution or execute cues in reverse order when pressed.
	Fader	In a normal cuelist, the fader controls the intensity value of the cuelist. It defaults to LTP (Latest Takes Precedence). The Fader can also be configured as HTP (Highest Takes Precedence). In this setting, the cuelist with

Button	Name	Explanation
	Playback Select Button	The Select Button defaults to Select and is used to select a cuelist for editing, viewing, main GO, etc.
	Flash Button	The Flash button defaults to Flash and will temporarily set an active Cuelist's intensity level to full.

Button Down Action Options

When a button is pressed, the Button Down Action is activated. Following is a list of available options... Please note, not all function assignments are available for all types of cuelist. Some Cuelist types have restricted options available for function assignments.



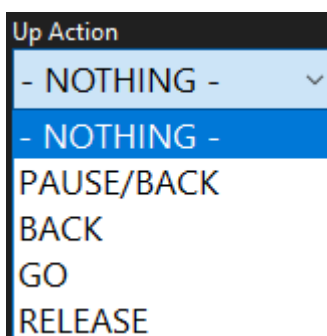
Item	Explanation
Nothing	This function deactivates the Button Down Action.
Select	This function is used to select the cuelist for editing, viewing, main GO, etc.
Activate	The activate function will "reassert" an active cuelist while remaining in the current active cue. It effectively brings the cuelist to the "top."
Pause	When pressed while a cue is running, the cuelist will pause any fade in progress. To resume the fade from where it left off, press Go again.
Pause/Back	When pressed while a cue is running, the cuelist will pause any fade in progress. To resume the fade from where it left off, press Go again. When pressed while paused or when a cue is not running, it will execute the previous cue. The time used to return to that cue is the timing set for the cue you are returning to.

Playback

Item	Explanation
Back	When pressed while paused or when a cue is not running, it will execute the previous cue. The time used to return to that cue is the timing set for the cue you are returning to.
Go	When pressed, the cuelist will activate and advance to the next cue. If the cuelist is paused, pressing this button will resume the fade from where it left off.
Snap+Go	When "SNAP+GO" is selected and pressed, the cuelist will activate and advance to the next cue with zero timing. The values in the cuelist "SNAP" into place.
Snap+Back	When "SNAP+BACK" is selected and pressed, the cuelist will activate and advance to the previous cue with zero timing. The values in the cuelist "SNAP" into place.
Release	When selected, the button will act as an additional means of releasing the cuelist.
Flash	When configured as a Flash button, pressing this button will drive the current cue in the associated cuelist to full, regardless of the position of the fader (also known as "Bump button).
Flash+Go	When "FLASH+GO" is selected, pressing the button down will advance to the next cue in the cuelist and drive that cue to full, regardless of the position of the fader.
Flash+Activate	When "FLASH+GO" is selected, pressing the button down will activate the current cue in the cuelist without moving forward and drive that cue to full, regardless of the position of the fader.
Flash OUT	The Opposite of Flash - If the fader is up, Flash Out will bump intensities to 0%.
Toggle	When "TOGGLE" is selected, pressing the button once will activate the current cue in the cuelist and pressing the button again will release the cuelist.

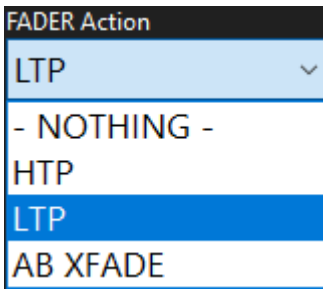
Button Up Action Options

After pressing a button, when you let up on the button, the Up Action is activated. Again, much like before, certain cuelist types have restricted Up Action options. Following is a list of available Button Up Actions, which are described in the chart above.



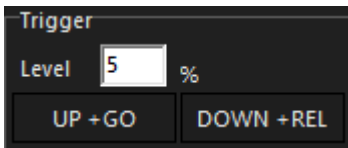
Fader Options

A fader can be configured to behave in different ways.



Item	Explanation
Nothing	When selected, moving the fader will have no effect on the intensity of the cuelist.
HTP	This sets the fader to HTP mode. In this setting, the cuelist with the highest intensity value will persist
LTP	This sets the fader to LTP mode. In this setting the intensity of the last executed cuelist will override all other cuelists with an equal or lesser priority.
AB XFade	This sets the fade into crossfade mode. In this setting, moving the fader up will advance to the next cue, moving it down will advance again, moving it up will advance again and so on. This is useful for controlling the speed of fades manually between cues in theatrical situations.

Fader Trigger Options



Item	Explanation
Level	When UP+GO is selected, the Trigger Level determines what value the fader must exceed before those functions are executed. The default is 5%.
Up + Go	When enabled, once the fader exceeds the Trigger Level, the cuelist will activate and advance to the next cue. If the cuelist is paused, pressing this button will resume the fade from where it left off.
Down + Rel	When enabled, once the fader is set back to zero, the cuelist will be released.

Push To All

The "Push to All[Push these assignments to all identical playbacks" button will sync any additional playbacks that you have the same cuelist located on.

Use Velocity as Flashvalue if available

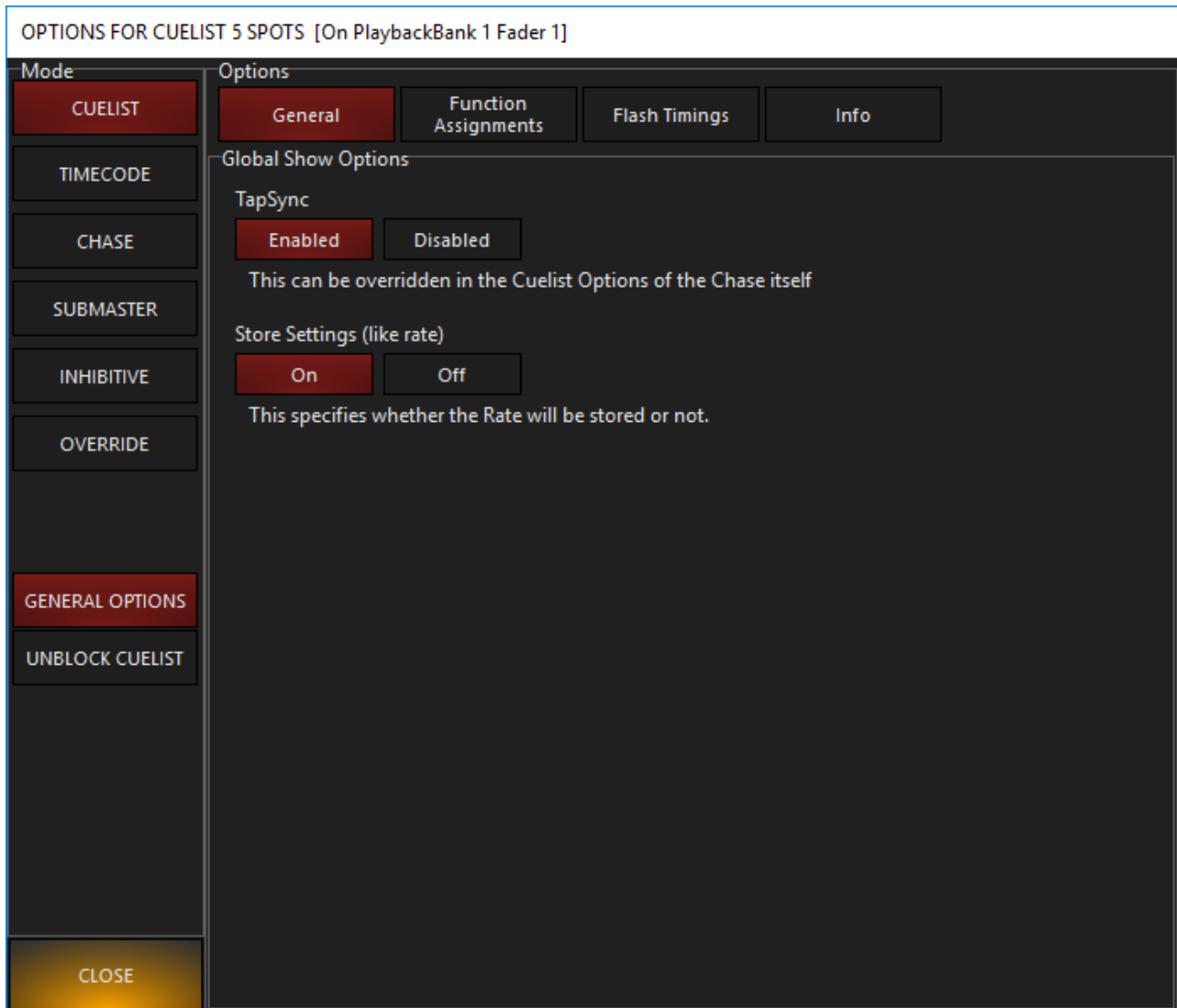
This option works with the NX-Touch and legacy M-Touch and M-Play controllers which feature velocity-sensitive flash buttons. When enabled, the flash button reacts in a variable manner depen-

Playback

dent on the strength of the push on the button. When disabled, the flash button activates the cuelist to full, as normal.

General Cuelist Options

To access the General Options, press the "GENERAL OPTIONS" button, found in the lower-left corner of the [Cuelist Options](#) window. The General Options contain some Global Options which are also available in the Console's Cue Settings menu.



Tap Sync

This is the console global setting for [Chase](#) Tap Sync.

Store Settings (like rate)

This is the console global setting that determines whether changes to a chase's settings will be stored. For more information on chase settings, see "[Chase Options](#)."

Cuelist Types

Please see the topic list below to get started.

- [Chase](#)
- [Cuelist](#)
- [Cuelist Types](#)
- [Inhibitive](#)
- [Override](#)
- [Override with Q-Blender](#)
- [Submaster](#)
- [Timecode](#)

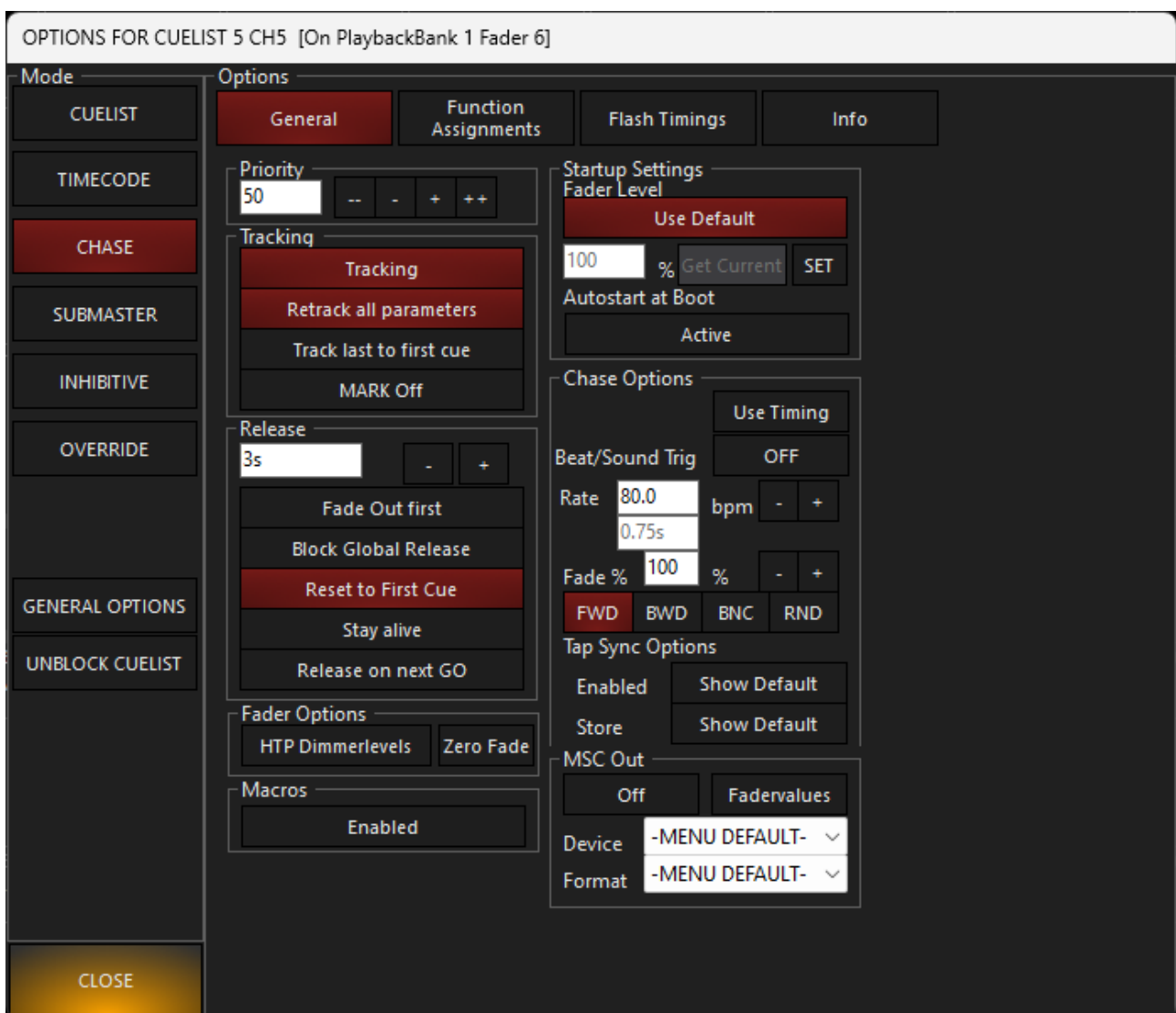
Chase

A chase cue list is one that when executed will automatically go from the first cue to the last cue and then loop to the start and continue again until the cue list is released.

Any cue list can be used as a chase.

When a cue list is set as a chase, each individual cue becomes one “step” in the cue list.

To set a cue list to chase, select the cue list and press the Options button in the upper-left hand corner of the Selected Cue List window. When the Cue List Options window opens, press the Chase button found at the left-hand side of the screen.



When the Chase mode is selected a new box “Chase Options” is opened in the lower right hand corner of the options window. From here you can set the beats-per-minute rate of cue execution and the fade percentage, amongst other things.

Playback

Option	Explanation
Use Timing (default Off)	When selected, the chase will step through the cues deriving their timing from any attribute times that were recorded in the cues.
Beat/Sound Trigger	When selected, ONYX will use the selected Input Beat Provider to set the BPM rate of the Chase list.
Beats Per Minute (BPM)	This setting determines the length of time between the execution of each step of a chase. The default is 80 BPM 1 step every 0.75 seconds. You can increment or decrement the BPM by using the “+” and “-” soft buttons to the right of the BPM display. <i>If you are using the Global Rate, this will be ignored.</i>
Fade%	This is the amount of time that each step will actually move. For example, if you set the bpm to 15, or 4 seconds per step, and then set the Fade% to 25, each step would execute/move in 1 second (25% of 4 seconds) and then be idle for 3 seconds before executing the next step. You can increment or decrement the Fade% by using the “+” and “-” soft buttons to the right of the Fade% display. You can also use the Playback Command track belt to alter this value.
FWD (Forward) (Default)	These button refers to the progression of the cues through the cuelist. When selected, the cuelist will progress from the first to the last cue and then loop back to the top of the cuelist again and repeat.
BWD (Backward)	Also known as “backward” the order that the cues are executed is reversed, starting with the last cue in the list and reversing the order to the first cue, then restarting with the last cue again.
BNC (Bounce)	The “bounce” function runs through the cuelist first in forward and then in reverse. In a 4 cue cuelist, the cues would execute in the order of 1,2,3,4,3,2,1,2.....etc.
RND (Random)	The cues will execute in a random order.
Tap Sync Options	While it is possible to set the timing for the steps by using BPM or the “Use Timing” functions, it is also possible to set the timing of the step speed using the “Tap sync” function. When enabled, the GO button for the chase cuelist is used to determine the speed of the chase. By “tapping” the go button repeatedly, the console will automatically determine the BPM and adjust the speed of the chase accordingly.
Show Default	When selected, the show's global TapSync settings are used. These can be set in the console menu at Show>Cue Settings>TapSync. (Force TapSync)
Enabled (Show Default ON)	When selected, this will allow the GO button to determine the speed of the chase.
Update Cuelist Default (Show Default ON)	When the TapSync feature is used, it is an override to the recorded timing of the cuelist and is not, by default recorded. When selected, the “Update Cuelist Default” will record and recall the timing that was previously set using Tap Sync.

Playback

While the Fade% and BPM settings can be changed “live” using the Live Time playback controls, in the case of the Fade%, it is suggested that the setting be changed in the Cue Options window as it is much more accurate.

You can now run the chase by closing the “Cue Options” pop-up and pressing the go button on the appropriate playback fader.

Macros

The Enabled button allows you to enable cue list macros for the selected chase. By default, chase cue lists do not allow macros.

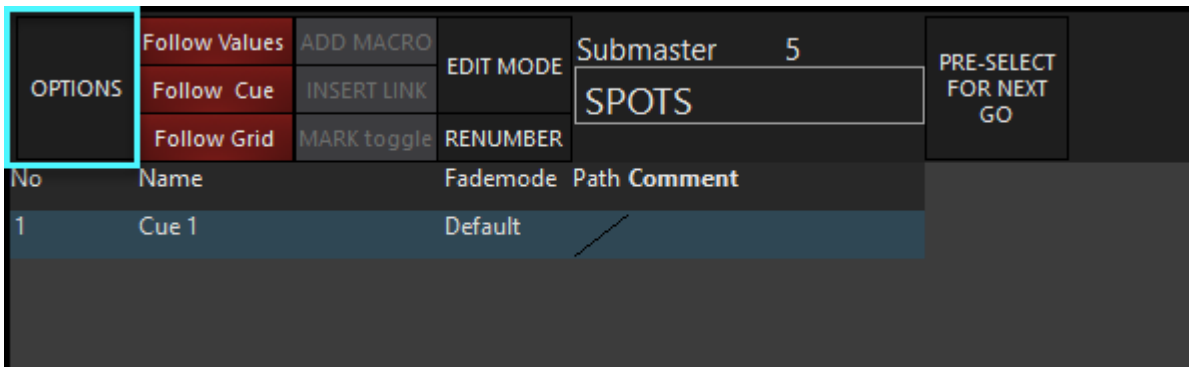
Cuelist

The default type of cuelist when you launch a new show is the "regular" cuelist, which is colored red.

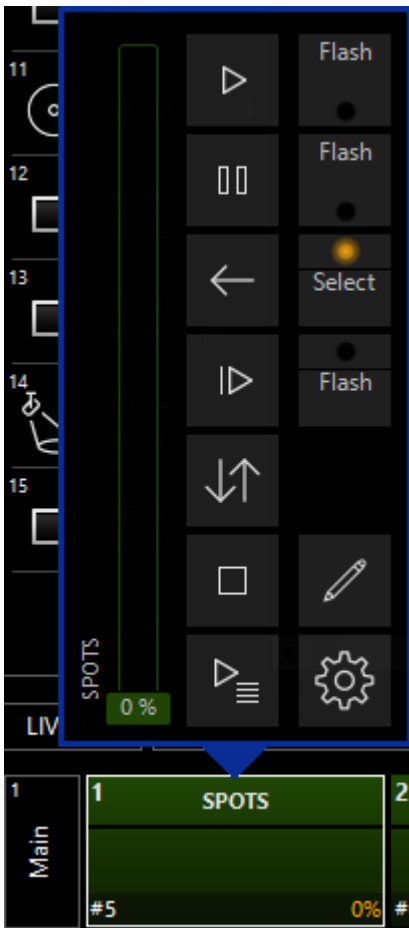
This type of cuelist works a lot like cuelists in other lighting consoles. When you press play and the fader is up, all of the parameters fade in at the time set.

When you bring the fader up or down, it controls only the intensity - the rest of the parameters will fade in whether the fader is up or not!

The type selection is chosen when the cuelist is recorded and can later be changed in the Cuelist Options window, which you access by pressing the Options button in the Cuelist Values view, from the playback popup or by right clicking on the playback assignment.



You may also right click on a cuelist in the Main Playback Bank Indicator, then the Options will open. You may also double tap on the cuelist in the Main Playback Bank Indicator and use the "gear" icon to open the options. The options can be accessed in this manner for any cuelist type.



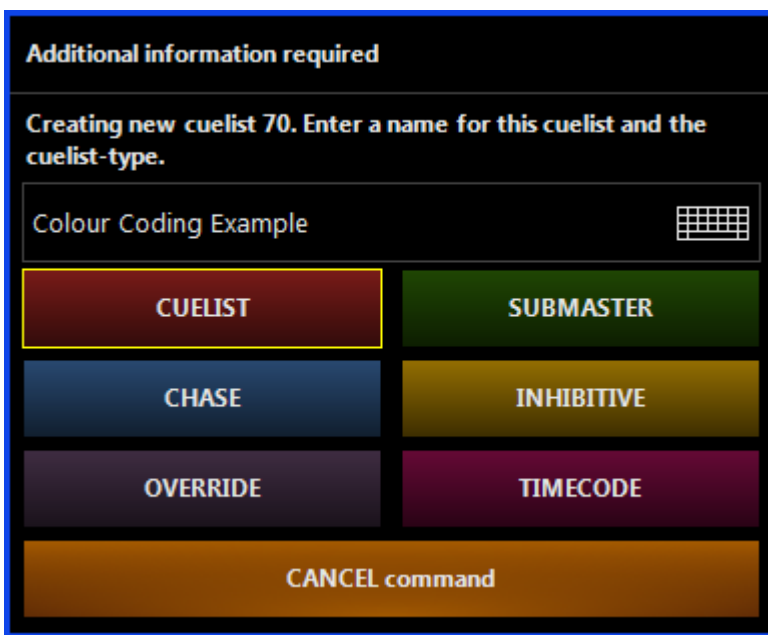
Once inside the cuelist options, you'll see the "General" pane for the Cuelist type. Since the regular cuelist shares all of its' options with the other types of cuelists, you can learn more about them in [Cuelist Options](#).

Cuelist Types

ONYX offers various ways to operate cuelists. Different cuelist types behave differently and have different default function assignments and behavior. This section outlines the different cuelist modes and subsequent options.

Cuelist types are initially set during recording, **but can be changed at any point in the future**, using the [Cuelist Options](#).

Cuelists are color coded for ease of identification. See examples below.



5 Bank 5	1	Cue 1 Example	2	Chase Example	3	Override Example	4	Submaster Example	5	Inhibitive Example	10	TC Example				
	3	Cue 3			1	Cue 1					1	Timecode Trigger 1				
	4	Cue 4			2	Cue 2					2	Timecode Trigger 2				
	#75	3/10	100%	#76	-/2	100%	#13	1/8	100%	#77	100%	#78	100%	#13	1/8	100%

In the next few pages of this section, we'll go over each type of cuelist and teach you about what makes it unique. Then, we'll go over all of the different options available for customizing your cuelists.

Inhibitive

The Inhibitive can not be used to raise the level of the fixtures it contains, but the position of its associated fader will determine the output of the fixture(s) that are recorded in cue 1 of the Inhibitive Cuelist.

For example, if a fixture is in a Cuelist at 100%, but the Inhibitive fader is set to 25%, then the output of the fixture will be 25%.

The Inhibitive works on a proportional basis. This means that when set to 50%, all fixtures within the Inhibitive that are active in other Cuelists will be outputting 50% of whatever their recorded value is.

The intensity level of the fixture recorded in the Inhibitive is not used in calculating the output. However only those fixtures with an intensity value of 3% or higher in cue 1 of the Inhibitive Cuelist will be affected by the fader level.

If a fixture is contained in one or more Inhibitives, all of those Inhibitive faders must be up for the fixture's intensity to read on stage. The lowest Inhibitive fader with the particular fixture assigned will ultimately determine the output of that fixture.

Inhibitive Fader Options

Only the Startup Settings are available for an Inhibitive:

OPTIONS FOR CUELIST 5 SPOTS [On PlaybackBank 1 Fader 1]

Mode

CUELIST

TIMECODE

CHASE

SUBMASTER

INHIBITIVE

OVERRIDE

GENERAL OPTIONS

UNBLOCK CUELIST

CLOSE

Options

General Function Assignments Flash Timings Info

Inhibitive Fader. Output will be the result of the proportional value of the cue.

Startup Settings
Fader Level

Use Default

100 % Get Current SET

Override

Override cuelists work via LTP, but at a higher priority than other LTP cuelists. They have the following characteristics:

- The levels for attributes assigned to a cue in an Override cuelist override the attribute levels in other types of cuelists. They do not override the Programmer and the Grand Master.
- The fader crossfades all attributes in the Override cue. At 0%, the Override cuelist has no control; at 100% it has full control.
- Cuelist priority settings do not apply to Overrides; all Overrides have the same priority. If there are two Override cuelists playing, then latest takes precedence.
- Tracking does not work in Override cuelists.
- The update function does not work fully as it does with other cuelist types. Use record or edit instead.

The default fader behavior for an Override enables UP+GO and DOWN+RELEASE, so that raising and lowering the fader will activate and release the Override automatically. This can be changed in the "[Function Assignments](#)" section of the Cuelist Options window.

Override Example

To demonstrate the behavior of an Override cuelist, do the following:

1. Release all playbacks (hold Snap and press Release) and clear the Programmer (Clear Clear).
2. Select all Artiste DaVinci Profiles and set them to full intensity (Group 1 Full).
3. Load the Pan/Tilt default values (@ Pan Tilt 0 Enter). You can also right click on the parameter buttons in the lower right hand corner and press "Load Channel"
4. Lets add a color and a gobo and get it rotating for good measure. Your Programmer screen should look something like this:

Artiste DaVinci Standard							
Number	Gobo 1	Gobo 1 Rot	Gobo 2	Animation	Color	Intensity	Shutter
101	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
102	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
103	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
104	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
105	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
107	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
108	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
109	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
110	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
111	21%	-	-	-	28%	100%	18%
FX Shutter	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						
FX Intensity	Swing 0 Speed 0 Mode 0 Delay 0 Shift 0 Wait 0 Swing Y 0 FXMode 0						

5. Record this to an empty playback and set the cuelist type to Override.
6. Clear the Programmer.

You have now created an override cue. To see how it works, perform the following steps:

1. Start any cuelist that contains Artiste DaVinci Profiles.
2. Take the Override fader to 100%.

The Override cue has taken control of the pan, tilt, intensity, color, and gobo 1 attributes. Other attributes such as focus and iris are unaffected. You can master the amount of control the override exerts by raising and lowering its fader.

3. Release the override cue or pull fader down.

The attributes that were overridden by the cue are returned to their previous setting - they were only temporarily overridden.

Override Options

The only "special" option for Overrides is to enable the Q-Blender...[and that's a big enough topic for it's own page.](#)

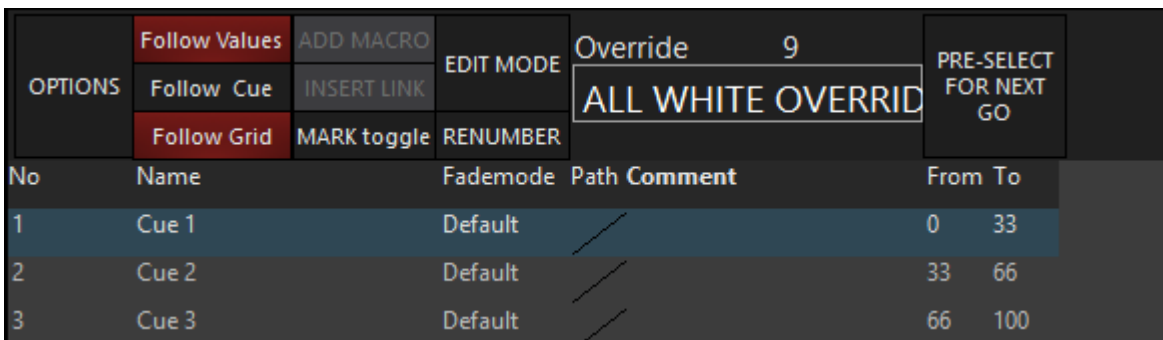
Override with Q-Blender

Using the Override Cuelist mode, a further option of "Q-Blender" is available. Q-Blender is a unique feature only available in ONYX that allows you to spread multiple cues across the range of a fader.

In the below image, we can see that on the right hand side we have further option columns available labeled "From" and "To". These options refer to what range of the fader that particular cue is linked to.

In the example here, we see that Cue 1 will trigger at 0% and be active until 33%, Cue 2 will trigger on 33% and remain active until 66%, Cue 3 will trigger on 66% and remain active until the fader reaches 100%.

The "From" and "To" fields can only be edited if the "Edit Mode" button is enabled in the Cuelist window, but they will automatically adjust if you add or remove cues for an even distribution.

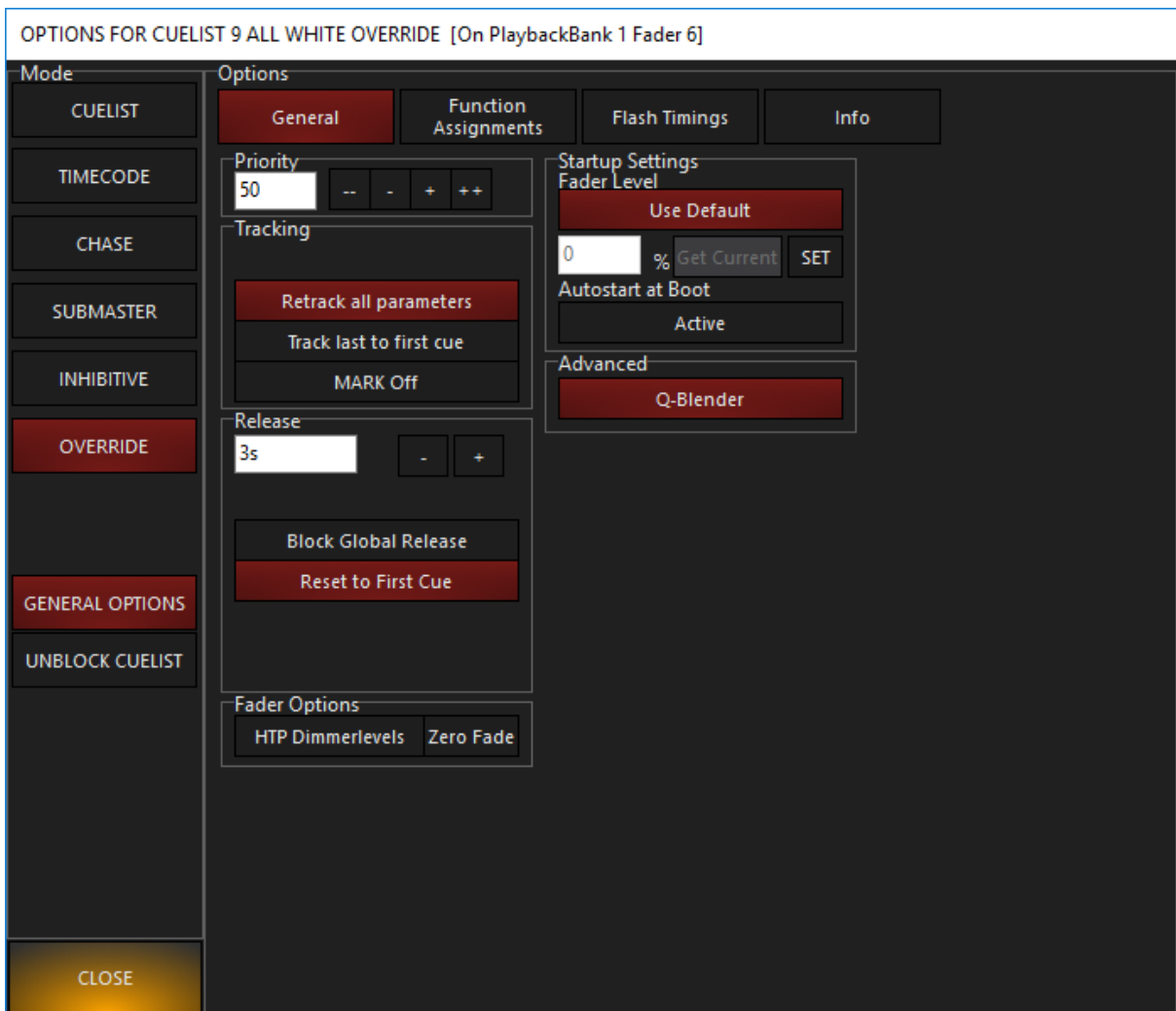


No	Name	Fademode	Path	Comment	From	To
1	Cue 1	Default	/		0	33
2	Cue 2	Default	/		33	66
3	Cue 3	Default	/		66	100

Enabling the Q-Blender Option

To activate the Q-Blender option on an Override Cuelist:

1. Select the Cuelist.
2. Access the Cuelist options.
3. Press the Q-Blender button to activate the feature as shown.



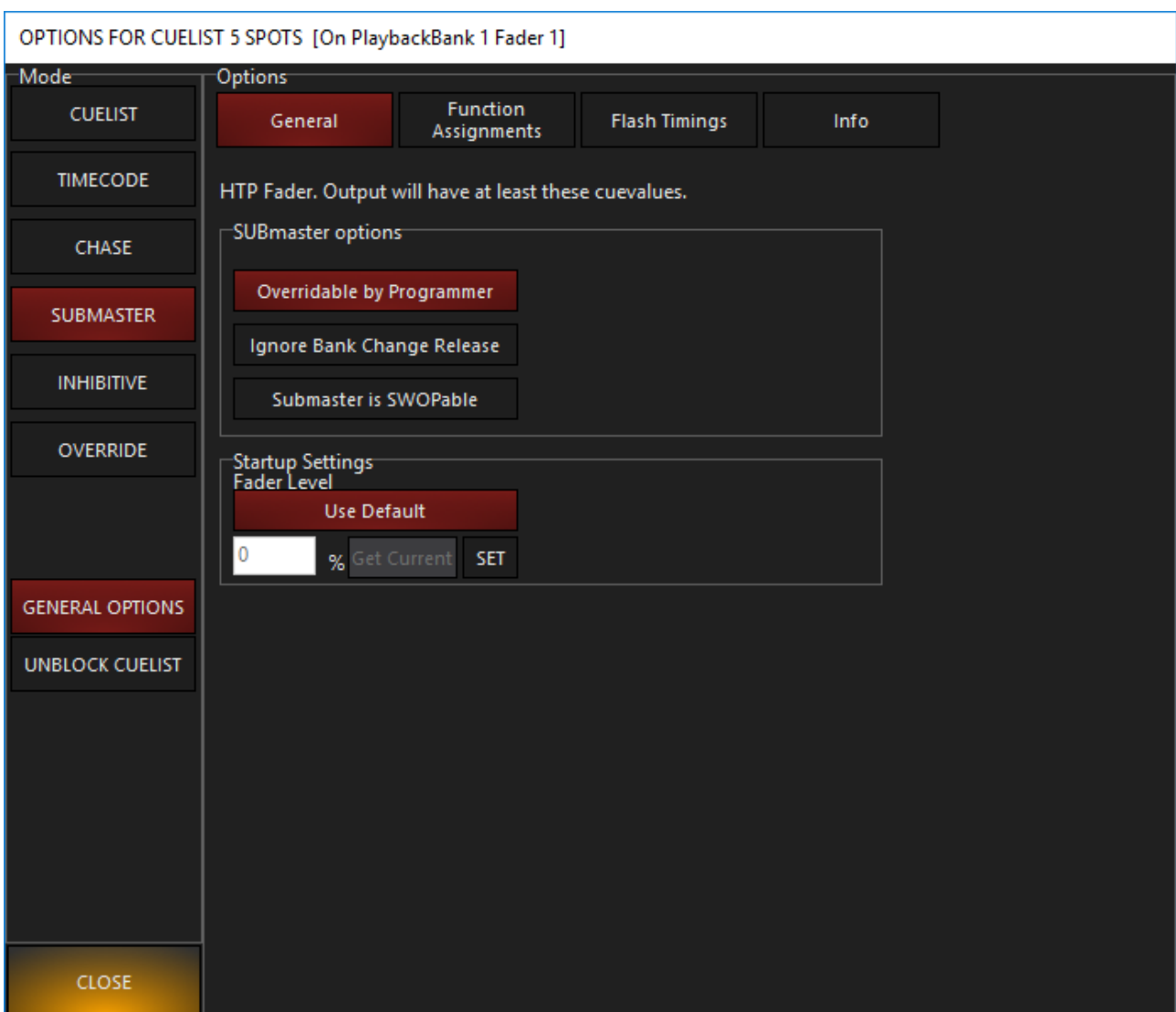
Your cuelist is now a Q-Blender! Go head and raise your fader, and if you have multiple cues, you'll see how this fader works as you move the fader.

Submaster

When the cuelist type is set to Submaster, the intensity information of cue 1 in that cuelist will be controlled by the associated fader. As the fader is raised, the intensity will raise to the values recorded in the submaster.

Other cuelists can drive the fixtures contained in that submaster to a higher level, but they cannot lower the fixtures lower than the submaster. This is called "Highest Takes Precedence".

Submaster Options



There are 3 separate options that can be set for a Submaster.

Item	Explanation
Overrideable by Programmer (default ON)	<p>When selected (and it is by default), the Programmer can override the submaster and cause the intensity levels of the fixtures on the submaster to go higher or lower.</p> <p>When deselected, the Programmer will have no effect on the levels of the Submaster.</p> <p>It is worth noting, however, that even if the changes are not being output to the stage, you may still bring a fixture down below the level of the Submaster in the programmer and record it in a cue - it just won't show it until you bring the Submaster down!</p>
Ignore Bank Change Release (default OFF)	<p>With this setting enabled (checked) the Submaster ignores the Global Submaster Reset setting found in the menu under Show > Settings > Playback. (See "Reset Submaster fader levels to default on inactive banks".) When disabled (and appropriately configured under Show Settings), the Submaster will go to zero when you change banks.</p>
Submaster is SWOPable (default OFF)	<p>This option allows the Go button for the selected Submaster to act as a "Solo" button. That is to say, when the Go button is pressed, all intensity channels in all other Cuelists, Submasters AND the Programmer will be forced to a level of zero. Multiple Submasters with this option set to on can be used simultaneously in a "pile-on" manner. When released, the previous levels will be restored to the stage. Note that only intensity levels are affected; pan, tilt, color, etc. will continue with whatever fade was in progress.</p>

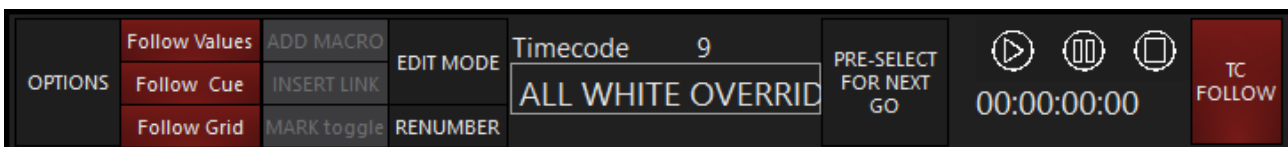
Submasters are NOT affected by the Release button.

Timecode





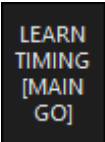
ONYX allows for the connection to an external time clock for the synchronized triggering of cues. When using timecode in an [X-Net](#) session, the Primary ONYX device will accept and follow the timecode given.

You can set up the Timecode preferences in the Main Menu. See Menu>[System](#)>Timecode.

Timecode Cuelist Header



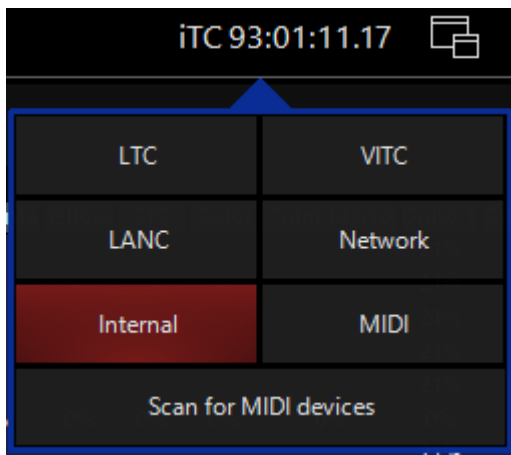
You will note several buttons available in "Cuelist Values" for the Timecode Cuelist:

Button	Description
00:00:00:00	This is where the received timecode is displayed. The format is HH:MM:SS:FF. HH is hours, MM is minutes, SS is seconds and FF is frames.
	The Play button is used to start SMPTE when using the internal timecode generator.
	The Pause button is used to stop the internal timecode generator without resetting it to zero. To resume, press the Play button.
	The stop button is used to stop the internal timecode generator. Pressing this button will cause the clock to reset to 00:00:00:00
	When set to on, the Cuelist will "listen" to the selected timecode generator and the Cuelist will follow the timecode. When turned off, incoming timecode will be ignored. If turned on while timecode is running, the Cuelist will advance to the last executed cue as determined by the timecode value.
	When selected and a timecode source is present, pressing the console's Main Go button will automatically capture the time-

Playback

Button	Description
	code time that the cue was executed and save it with the cue for later playback.
	Pressing Go on the Cuelists Go button will simply advance the Cuelist without capturing the timecode time. This is useful if you want some cues to follow timecode, but some cues to be triggered manually.

When Timecode is live, you will also see a display near the top right of the main ONYX window. Pressing this display will allow you to quickly switch types of Timecode or Scan for MIDI devices:



Working with the Timecode Cuelist

Setting a Mark Cue

In order for timecode to trigger a Cuelist, that Cuelist must be active.

You must already be running a cue in the Cuelist for timecode to trigger later cues.

This is accomplished by recording a “mark” cue.

In this instance, a mark cue is a cue that contains no information, it simply starts the Cuelist.

An example would be to record a “.5” cue before the first cue in your Cuelist.

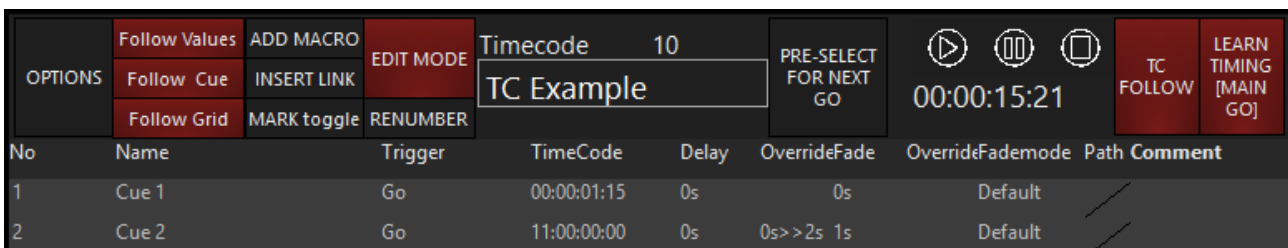
This would be a manual cue with no information in it. Any cues that follow that have a timecode trigger would then be executed.

Changing Cue Trigger Times Manually

When you first set the cuelist to the Timecode type, all of the times will be listed as “Manual Trigger.” This means that timecode will not execute the cue.

ONYX allows you to change the trigger time by manually entering the values for hours, minutes, seconds and frames in much the same way you would change the time of a standard cue. Recalling that the format for SMPTE timecode is HH:MM:SS:FF, use the following steps to set the trigger time:

1. With Edit Mode on, press or click the legend Manual Trigger [--] on the cue you wish change. The command line will read **Set Cue xx TC Time**
2. To set the trigger time to 1 second and 15 frames press 1 1 5 Enter.
3. To set the time to 11 hours, press 1 1 0 0 0 0 0 Enter.



You can increment or decrement an individual or selected range of cues by using the + and - buttons.

- To add 5 minutes to an individual or range of cues select the cue timing(s) and press + 5 0 0 0 0 Enter.
- To delete 5 minutes from an individual or range of cues select the cue timing(s) and press - 5 0 0 0 0 Enter.

If you wish, you can reset a trigger time to manual by selecting the desired cue timing(s) and pressing --(minus minus) Enter.

Timecode and other Triggers

A timecoded Cuelist will still take advantage of other trigger types such as Follow and Wait.

If a Follow or Wait trigger has been set for a cue, it will override any timecode trigger time that has been set for that cue.

You can also use the Go and Pause/Back buttons for a timecoded Cuelist.

Pressing Go will manually advance the Cuelist. When the timecode then “catches up” to your position in the Cuelist, it will begin to trigger cues based on their trigger time again.

Note that the cues that have already been executed manually will **not** be re-executed via the timecode signal.

Playback

Pressing the Pause/Back button will pause your advancement in the cue list.

To resume, press Go and the Cuelist will jump to the last completed timecode triggered cue.

Copying Timecode Cues

There are two different ways of copying timecode (or any other type) cues. If selected individually and copied to a new cuelist (ex: Copy Cue x Thru y @ Select Button) the specified cues will be copied to the designated Cuelist but without the attached SMPTE timings. To keep the timings with the cues, go to the cuelist directory and in that window copy the entire cuelist as a new cuelist.

Preparing LTC Timecode tracks

To create Linear Timecode (LTC) tracks compatible with ONYX please consider the following criteria:

- The SMPTE signal must have a minimum level of 0.116Vpp (Volts peak to peak)
- The maximum level allowed is 2.12Vpp
- When mastering LTC tracks, use a level of -18db

Problems with SMPTE can be occur due to:

- Hum/noise on the line
- Over-talk when the signal was recorded

Timecode level for LTC can be adjusted from the [Timecode settings which are found in the Menu, Main Menu, IO Settings, and Timecode.](#)

Modifying Cues

Please see the topic list below to get started.

- [Cue Macros](#)
- [Copying A Cue](#)
- [Deleting a Cue](#)
- [Editing a Cue](#)
- [Modifying Cues](#)
- [Moving a Cue](#)
- [Re-Recording a Cue](#)
- [Recording A Range Of Cues](#)
- [Removing Attributes from Cues](#)
- [Renumbering Cues](#)
- [Updating Cues](#)

Cue Macros

Please see the topic list below to get started.

- [Cue Macros](#)
- [Deleting or Editing Cue Macros](#)
- [Midi Macros](#)

Cue Macros

Macros are a device used to trigger a Cuelist or event from a cuelist. By default, macros are only enabled on regular Cuelists and Timecode Cuelists,

[but can be enabled on Chase Cuelists as well.](#)

The Macro is inserted into the Cuelist and will automatically trigger when the cue directly above it is executed. *Multiple macros may be inserted per cue.*

Macro Types

ONYX currently supports 18 different Macro types.

Macro Type	Action
Trigger	Same as pressing Go button on specified Cuelist.
Release	Will release the specified Cuelist.
Pause	Will pause any cue running in the specified Cuelist.
Select	Selects the specified Cuelist.
SelectMain	Changes the Cuelist assigned to the Main Go area. (See "As Main")
	Loads the specified bank onto the playback controls.
GoToBank	When selected, the option of changing the bank on the main console (default) or an attached Playback Wing module is presented in a pull down window. Playback Wing modules are identified as "Wing ID 0" through "Wing ID 36." Wing ID's are determined by setting a DIP switch found on the wing module. For details on setting these IDs, please refer to your Playback Wing Manual.
GoToSubBank	Much like the GoToBank macro, but relevant to the Submaster modules instead.
ScriptExecute	This option is for executing scripts for use with ONYX Manager
Rel All	This will release all standard, chase, timecode, and override Cuelists. You can also specify a single Cuelist that is not to be released.
Rel All CL	This will release all standard, chase, and timecode Cuelists, but not overrides. You can also specify a single Cuelist that is not to be released
Rel All OR	This will release all override Cuelists, but not chases, timecode, or standard Cuelists. You can also specify a single Cuelist that is not to be released.
Set CL Value	This macro will allow you to proportionately adjust the intensity values of a specified Cuelist.
Midi Macro	A MIDI macro allows you to use MIDI to trigger Cuelists and accomplish other functions.
Rel Cuelists	This macro will allow you to release a specific cuelist or range of Cuelists. Note that if releasing a range of Cuelists, they must be continuous. You can also set the re-

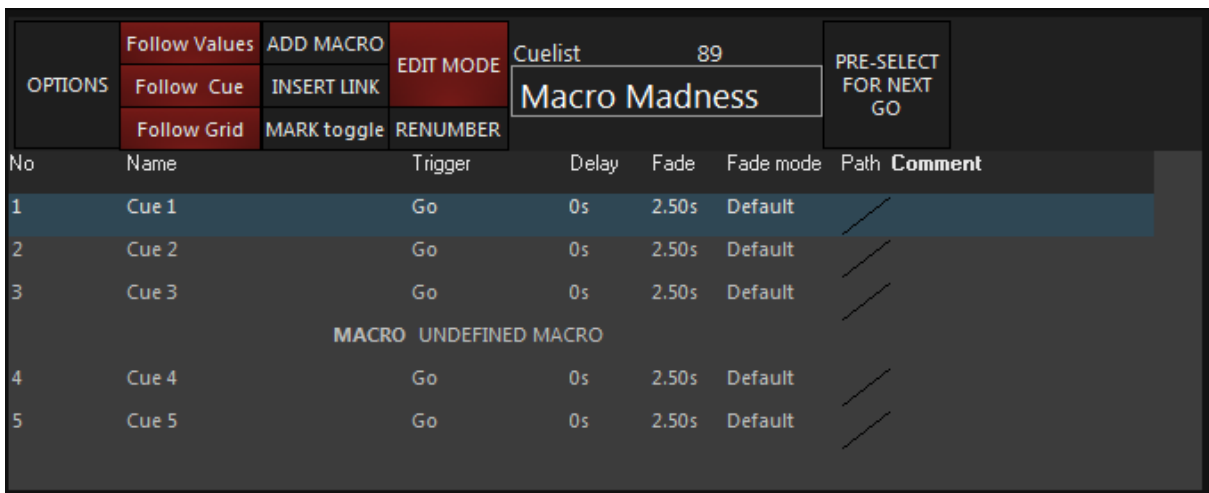
Playback

Macro Type	Action
	lease time of the Cuelist using either the default or 0 to 10 seconds in 1/2 second increments.
Rel Banks	Release Banks allows you to release a specific bank or, by selecting “Inactive” you can release any banks that are not currently loaded on the console or any ONYX Playback Wings that may be attached.
Rel This Cuelist	Releases the Cuelist to which the macro is attached.
External Macro	Contact Obsidian Support for further information.
Timecode	Start, Pause or Reset the internal timecode. Learn more about Timecode here.

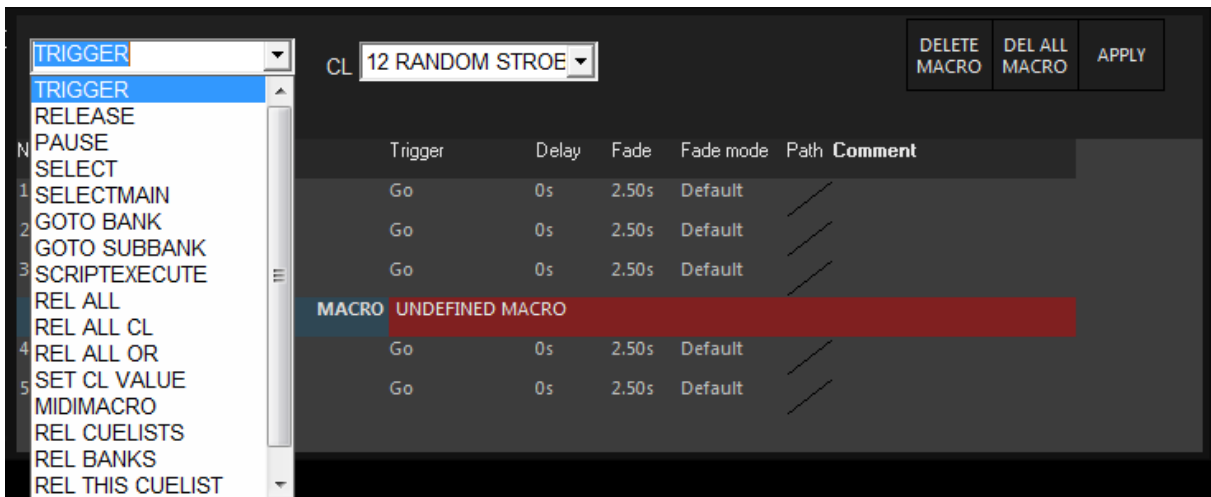
Creating a Macro

To use a macro in a cuelist, follow this procedure:

1. Select the desired cuelist and view it in the Selected Cuelist screen.
2. Highlight the cue that you wish to have trigger the macro. *The macro will execute as soon as the cue starts.*
3. Enable edit mode and press Add Macro. A line for the macro is added below the cue.
4. To select the effect of the macro, touch Undefined Macro.



When selected, the Macro Editing screen will appear at the top of the cuelist:

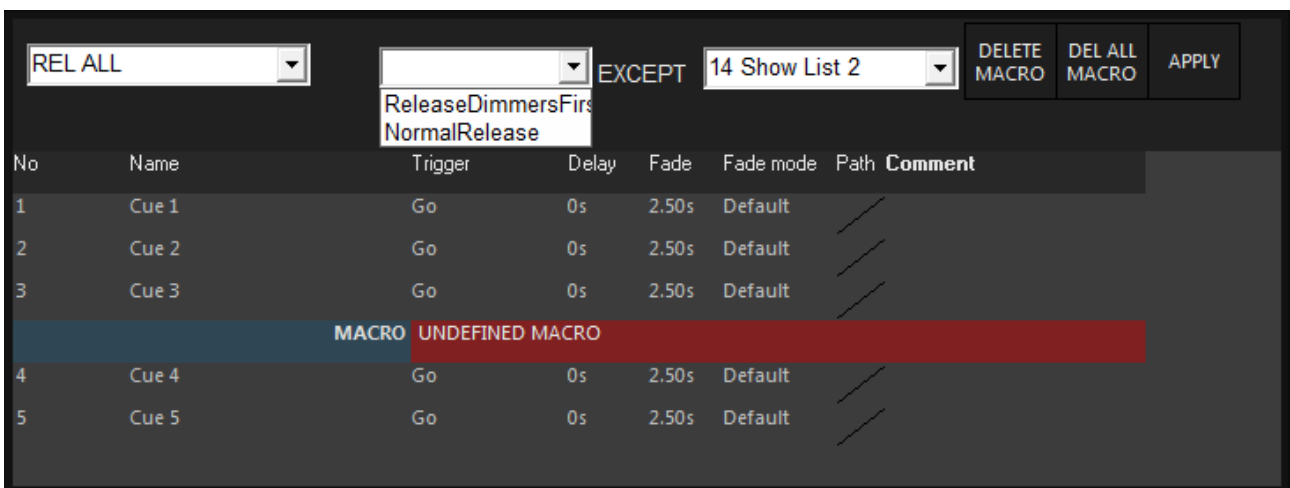


5. From the left pull down menu, select the macro type.
6. From the right pull down menu select any cuelist.
7. Select APPLY to save your changes. If you do not see the APPLY button, [adjust your view to be wider](#).

This cuelist needn't necessarily be loaded into a playback fader. A macro can be used to trigger any cuelist in the cuelist directory.

Macro Modifiers

Certain macro types, specifically “Rel All,” “Rel All Cl,” and “Rel All Or” have slightly different modifiers. In these macros, you can specify how you wish to have the Cuelists released and if there are to be any exceptions.



In the above example, you can see that all Cuelists will be released (Rel All).

The next drop down box allows you to select whether you will have intensity fade out first and then other attributes, or if all attributes will fade simultaneously.

Note that the release time for all Cuelists released will be as specified for each Cuelist in the Cuelist options selection (see “ [Default Release Time](#) ”).

Playback

The final drop-down allows you to specify a single Cuelist that will not be affected by the macro.

Mastering the Level of a Cuelist Using a Macro

Using the “Set CL Value” macro allows you to change the intensity levels of another Cuelist. This is a proportional change in much the same way that pulling down the playback fader would affect that Cuelist. In fact, if the cuelist is on a physical playback, the fader will move to the specified level.

The screenshot shows a software interface for managing cues. At the top, there is a dropdown menu set to 'SET CL VALUE', followed by a dropdown for 'CL 4 FOH', and another dropdown for '50%'. To the right are three buttons: 'DELETE MACRO', 'DEL ALL MACRO', and 'APPLY'. Below this is a table of cues with columns for 'No', 'Name', 'Trigger', 'Delay', 'Fade', and 'Comment'. The table contains five rows of cues. A red bar highlights a row labeled 'MACRO UNDEFINED MACRO'. A dropdown menu is open over the '50%' dropdown, showing a list of percentages from 0% to 100% in 10% increments, with 50% highlighted in blue.

No	Name	Trigger	Delay	Fade	Comment
1	Cue 1	Go	0s	2.50s	
2	Cue 2	Go	0s	2.50s	
3	Cue 3	Go	0s	2.50s	
MACRO		UNDEFINED MACRO			
4	Cue 4	Go	0s	2.50s	
5	Cue 5	Go	0s	2.50s	Default

In the example above, you can see that when cue 3 is reached, the intensities of all fixtures in all cues of Cuelist 4 will be reduced by 50% of their recorded value.

Deleting or Editing Cue Macros

Once inserted into a cuelist, a macro can later be edited or deleted. Use the following procedure:

1. Select the desired cuelist and view it in the Selected Cuelist screen.
2. Enable Edit Mode.
3. Press the macro action (the cell that contains the macro type).
4. To edit the macro, enter any changes in the trigger or cuelist selection then press Apply.
5. To delete the macro, press Delete Macro. If the cue has multiple macros, pressing Del All Macro will delete all macros recorded with the cue (not all macros in the cuelist).
6. The edits to the macro will be applied after hitting Apply.

MIDI Macros

ONYX implements MIDI commands through the use of macros.

A basic understanding of MIDI and MIDI equipment is strongly advised and is beyond the scope of this document, although enough information will be given for basic MIDI operation.

MIDI Macro Physical Connection

On the back of some ONYX consoles there is a MIDI in and out port, and on others it is available as an optional add-on.

On a PC, any MIDI interface or USB-MIDI interface that can connect to the Windows MIDI drivers can be used as well.

The in ports connect to the output from the MIDI generating device (synthesizer, PC, etc.)

ONYX does not generate MIDI messages, but does pass them along for processing by other MIDI equipment in the system.

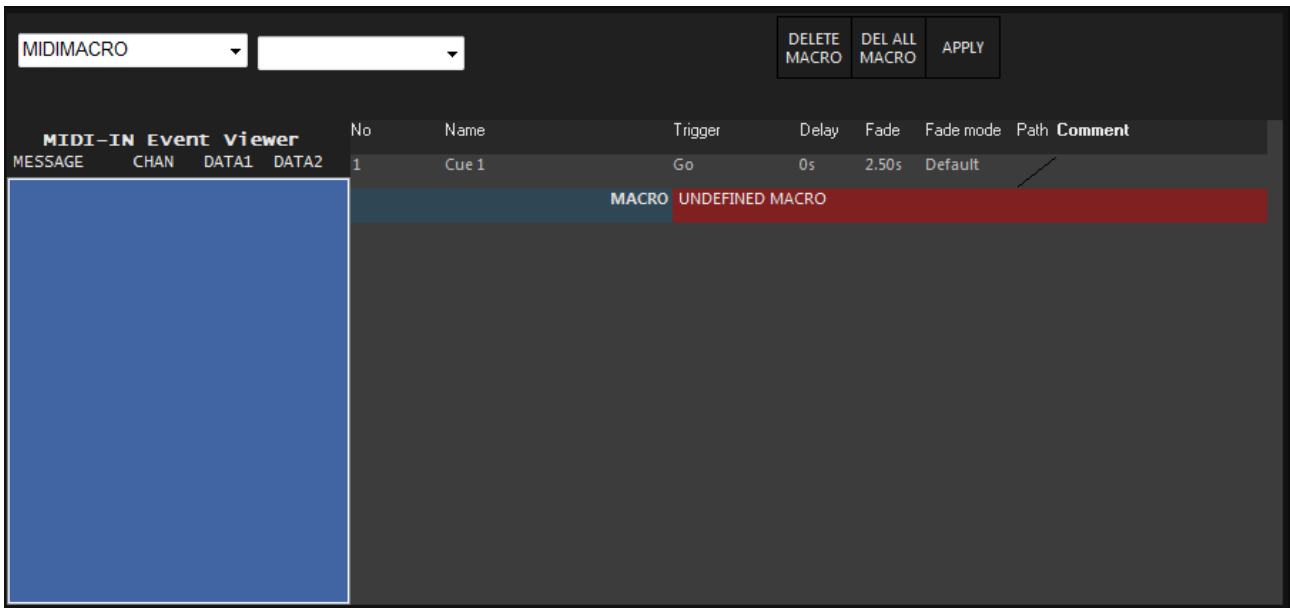
MIDI Macro Programming

While MIDI Macros can easily be put into existing Cuelists and can be very useful there, you may find it easier to manipulate MIDI control by using a separate Cuelist or Cuelists.

This is how the examples in this manual will be displayed.

This can easily be done by recording a "blank" cue (a cue when no information is in the Programmer) to an unused bank.

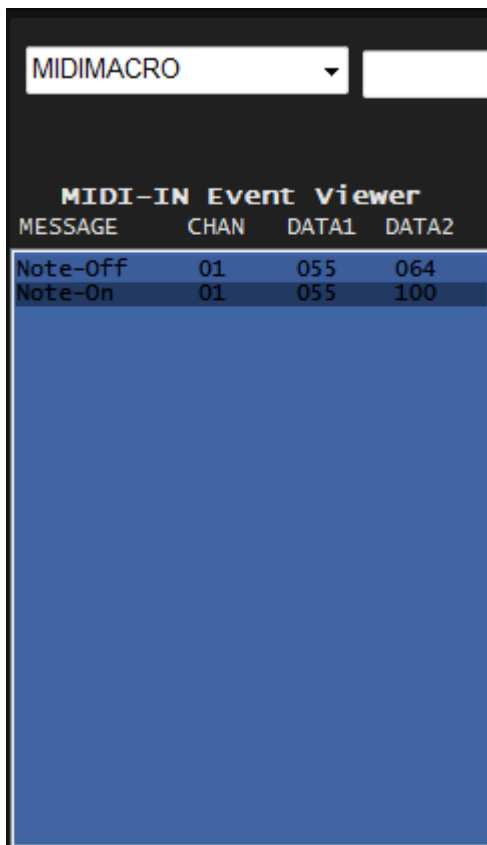
Once done, add a macro to the cue and from the pull down list select "MIDIMACRO." When you have done this, you will see the "MIDI In Event Viewer."



The MIDI-In Event Viewer consists of four columns:

Option	Description
Message	Under this column, you will find what type of MIDI message has been received by the console such as “Note On,” “Note Off,” etc.
Channel	MIDI employs 16 discreet channels. This column identifies which channel the message came from.
Data 1	Every MIDI message consists of a minimum of two data bytes. The meaning of these data messages changes depending upon the message type. As an example, if the message is “Note On” or “Note” off, Data 1 will display the value assigned to a specific note (such as C#). Each note in the MIDI protocol has a specific value assigned to it. Note that the ONYX display is numeric from 0-127 while MIDI protocol is frequently shown as hexadecimal (00-FF).
Data 2	Similar to “Data 1” except that where Data 1 will often identify a object (such as a note in the harmonic scale), Data 2 will define an action for that note such as on or off.

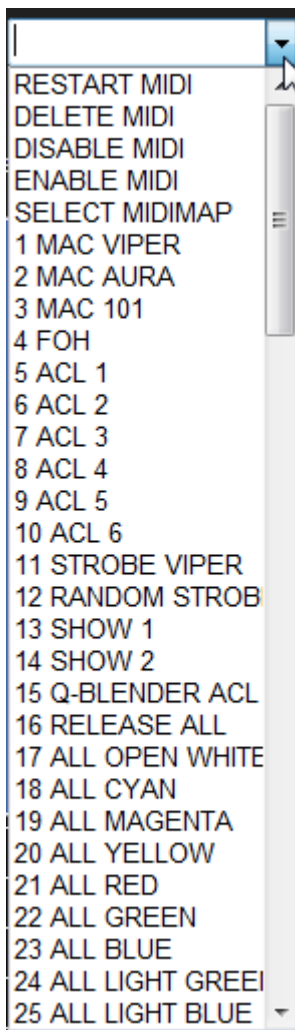
Once you have your MIDI In Event Window open, you can then test your physical connection by playing or sending a MIDI note from your MIDI device. If your connection is good, the note played will be displayed in the Event Window.



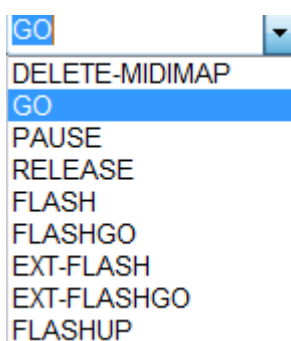
The last message received is displayed at the top of the list.

In the example above you can see that the first message was a Note-Off from Channel 1 where Data 1 was 055 (C#) and Data 2 was 064. The second message was the same except it was a Note-On and Data 2 was 100.

The drop-down menu to the right of the macro type drop-down contains the various Cuelists that the MIDI macro can be assigned to as well as 5 "global" MIDI macros.



The five global MIDI macros will be discussed later in this section. Once you select the Cuelist you wish to manipulate with the specific MIDI macro you are programming, the screen will change and present you with more options:



This menu contains 9 different actions:

Option	Description
Delete Midimap	The MIDImap feature is not yet implemented. Therefore, the Delete MIDImap feature is also not yet implemented.
Go (default)	This will act as a normal Go command on the cuelist.
Pause	This will pause and fade or effect in progress.
Release	This will release the specified cuelist.

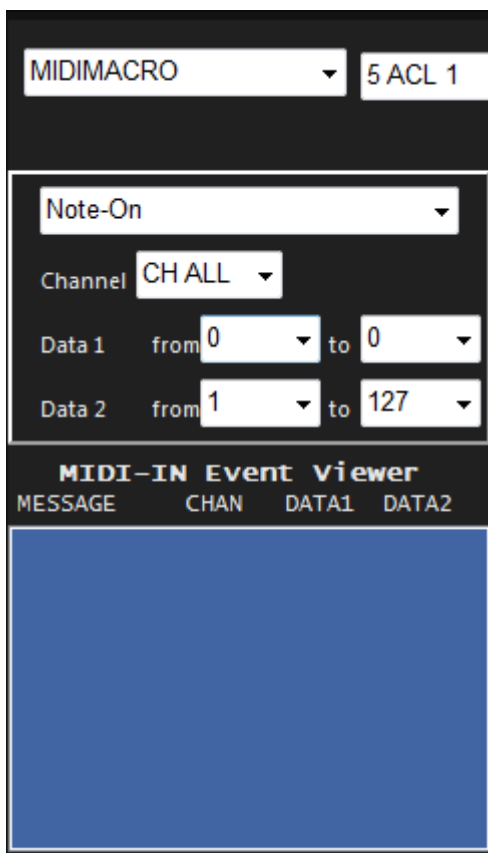
Playback

Option	Description
Flash	This will press and hold the flash (bump) button on the specified cuelist.
FlashGo	This will press and hold the flash button and then rapidly execute a go command.
Ext-Flash	This is similar to a Flash command, except that the level of the flash is determined by the information in the Data 2 field. For example, if you wanted a cue to flash to 50%, you would use a command with Data 2 at 64 such as a Note Off command.
Ext-FlashGo	Similar to the FlashGo listed above except that as with Ext Flash, Data 2 is used to set the level of the flash.
FlashUp	The FlashUp command is the equivalent of taking your finger off the flash button. By having a separate command for Flash and Flash up, you can maintain the flash without having to continuously hold down a button.

Remember that MIDI is hexadecimal protocol and as such, has values of 0-127. Fifty percent of 127 is 63.5 which rounds to 64.

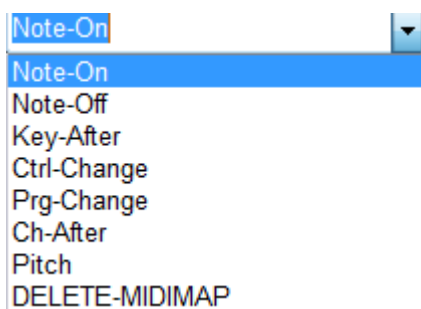
Please be aware that all “Flash” commands and “Pause/Release” commands will work with MIDI-macros regardless of the setting of the “default button” in Cuelist Options.

You will also notice that below the Cuelist and Command drop down menus that there are some extra options. This section determines what type of MIDI command will act as the trigger for the macro.



At the top of this section is a drop-down menu with eight MIDI commands.

Playback



As discussed earlier, it is beyond the scope of this manual to provide the full specification for all available MIDI commands. However, there are many resources available both in printed media and via the internet.

That being said, for the purposes of demonstration, it is important to understand the following two MIDI commands:

Option	Description
Note-On	This is a MIDI command that signifies the beginning of when a specific note is played.
Note-Off	This MIDI command signifies that a specific note is no longer being played.

You can select any of the commands listed except “DELETE-MIDIMAP”. For our example, we’ll use “Note On.”

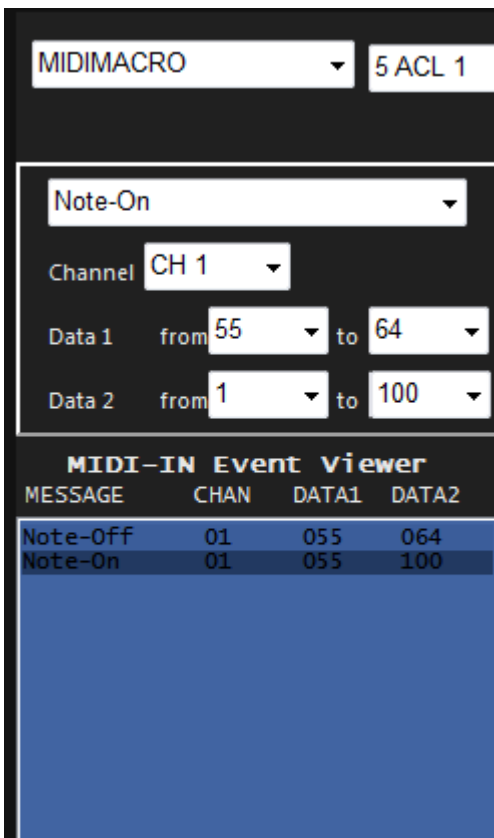
Below the MIDI command selection drop-down menu are five smaller drop-down menus:

Option	Description
Channel	As mentioned earlier, MIDI supports 16 discreet channels. You can use this drop-down menu to determine which channel the console will “listen” to for its MIDI message for this macro.
Data 1 “from” and “to”	These two fields are used to determine the range of Data 1 messages to be acted upon. MIDI ranges from 0-127. You can enter either a very specific MIDI command (from 45 to 45) or accept any MIDI Data 1 command (from 0 to 127).
Data 2 “from” and “to”	These fields are used as above, except they pertain to Data 2.

If we were to select the MIDI command “Note On,” set our Channel to 1, Data 1 from 55 to 64 and Data 2 from 1 to 127, we would execute a Go command on Cuelist 5 every time the keyboard played C#. This is a lot of data to enter, but there is a shortcut.

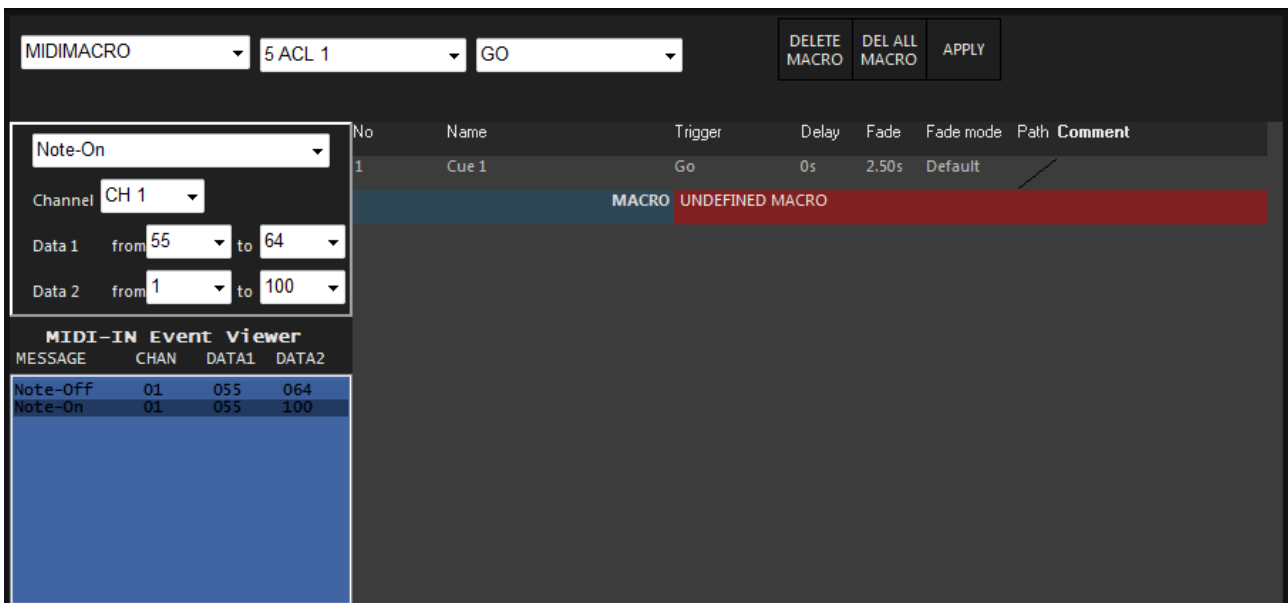
Instead of entering all the MIDI data manually, once the MIDI Macro has been set up with its Cuelist selection (cuelist 9) and action (Go), you can play the desired key on the keyboard. It will show up in the MIDI In Event Viewer and you can then click on it and the data will be loaded into the appropriate windows.

Playback



By clicking on the Note On command in the MIDI In Event Viewer, the command Note On, the channel number and the Data 1 and 2 information are automatically pasted into their respective fields.

When all information for your MIDI Macro has been entered, the screen will be similar to this:



You can see that the Macro is a MIDI Macro that will send cue list 5 a Go command when it sees a Note Off command on MIDI channel 1 with Data 1 at 55 (C#) and any value in Data 2. Pressing Apply will complete the macro.

Playing MIDI macros

As with any other type of macro, in order for a MIDI Macro to become active, the cue that it is attached to must have been executed. Also, be aware that if you are using any of the “flash” MIDI Macros, the target cuelist (such as cuelist 5 in the example above) must be active for the flash to work.

Global MIDI Macros

As mentioned earlier, there are five global MIDI Macros. A global MIDI Macro is one which affects all other MIDI Macros that the console is processing.

Option	Description
Restart Midi	This function is not currently implemented.
Delete Midi	This MIDI Macro will stop (release) all MIDI Macros from acting on received MIDI commands. In order to order for MIDI Macros to once again act on incoming MIDI messages, the cues that the MIDI Macros are attached to must be executed again.
Disable Midi	Disable MIDI will ignore all incoming MIDI messages without actually stopping other MIDImacro cues from playing.
Enable Midi	If MIDI has been disabled, the Enable MIDI macro will allow the Console to once again act on incoming MIDI messages.
Select Midi Map	This function is not currently implemented.

When working with MIDI Macros, you may find it useful to create one Cuelist that has Disable Midi and Enable MIDI Macro cue in it and a second Cuelist that has a Delete MIDI Macro in it. In this way, you can easily pause and then resume and MIDI Macros or cancel all running MIDI Macros.

A Note about Deleting Midi Macros and Cuelists

Once a MIDI Macro has been executed, it will continue to accept incoming MIDI commands even after the cue containing the MIDI Macro or the Cuelist containing the MIDI Macro has been deleted. The only way to stop the MIDI Macro from accepting MIDI commands short of rebooting the Console is to use the Global MIDI command of Delete MIDI.

MIDI Macro Summary

Step-by-step example of how to create a MIDI Macro.

1. Create a new cue (either a blank cue or not)
2. Press Add Macro
3. Press Undefined Macro on the cue
4. Select MIDIMACRO from the drop-down list

Playback

5. Select the target cue list that the MIDI Macro is to affect from the drop-down list (or select desired Global MIDI Macro)
6. Select the action to be taken on the target cue list (such as Go)
7. On your MIDI generating device, send the MIDI command you wish to have activate the MIDI Macro

(Alternatively, you may manually enter the MIDI command values)

8. From the MIDI In Event Viewer, select the MIDI event and click on it
9. Press Apply to record the macro

MIDI Timecode (MTC)

MIDI Timecode is also supported. For more information, please see “ [Timecode](#) ”.

Copying a Cue

A cue can be copied from one location in a cuelist to a new location or can be copied to a different cuelist.

To copy a single cue within the same cuelist:

1. Select the desired Cuelist.
2. Press COPY CUE X @ Y ENTER where X is the source cue and Y is the number of the cue you are copying too.

The copy will be created with all the information of the previous cue (including the cue label). Note that you can not copy a cue into an already existing cue.

To copy a single cue to a different Cuelist:

1. Select the desired Cuelist
2. Press COPY CUE X @ [Playback Select Button], where X is the cue number and the Playback Select is the select button for the cuelist you wish to copy to.

The cue will be recorded into the target Cuelist and will maintain its original cue number. Again, if the cue already exists, the copy will not record into the target Cuelist.

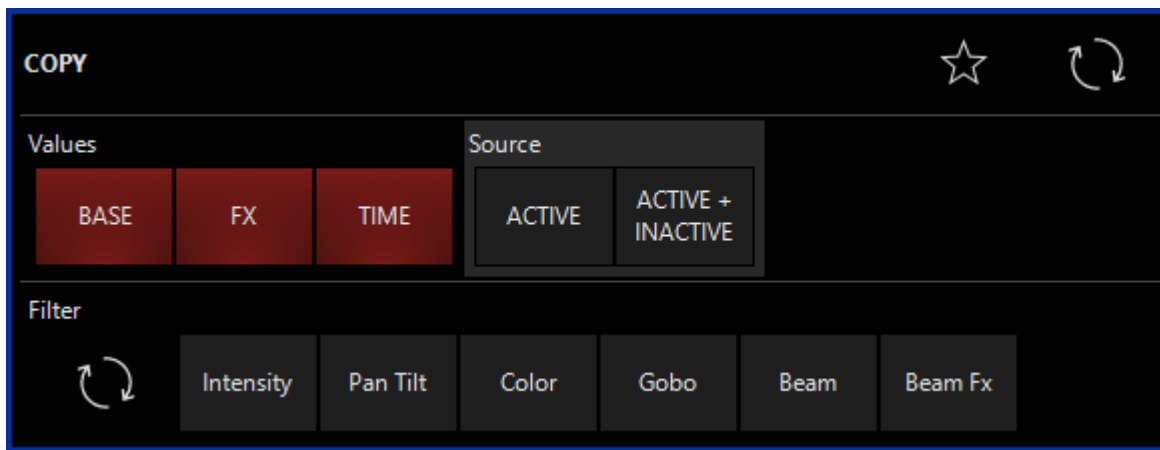
To copy a cue to a specific cue number in a different Cuelist:

1. Select the desired Cuelist
2. Press COPY CUE X @ Y [Playback Select], where X is the Cue number being copied, Y is the destination cue number and the Playback Select Button is the select button for the Cuelist the destination cue is in.

This will copy the specified cue to the target Cuelist at the specified cue number.

Filtering Copied Cues

Whenever the command line reads COPY CUE, the following pop-up appears:



The Copy Cue Options pop-up allows you to filter which attribute groups and values are recorded in much the same the way Record Options window works (for a complete description, please see “[The Record Options Window](#)”).

Again, note that you can not copy information into an already existing cue; this window will only filter the contents of new cues that are created from existing cues.

Copying a Range of Cues

Copying a range of cues works in much the same way that copying an individual cue does.

Specifically, you may not copy a cue range into any cue that already exists. When attempted, the copy function will fail.

However, with 99 “insert cues” allowed between each cue, the Console allows for several cues to be placed between the existing cues. For example, create 10 cues in a cuelist.

If we wanted to copy cues 2 through 10 so that they immediately followed cue 1, the command Copy Cue 2 Thru 10 @ 1 Enter would be invalid as cue 1 already exists. However, using the command Copy Cue 2 Thru 10 @ 1.1 Enter is a valid command and would result in the following:

OPTIONS		Follow Values	ADD MACRO	EDIT MODE	Cuelist 17		PRE-SELECT FOR NEXT GO
		Follow Cue	INSERT LINK		CL17		
		Follow Grid	MARK toggle	RENUMBER			
No	Name	Trigger	Delay	Fade	Fademode	Path	Comment
1	Cue 1	Go	0s	2.50s	Default	/	
1.1	Cue 2	Go	0s	2.50s	Default	/	
1.2	Cue 3	Go	0s	2.50s	Default	/	
1.3	Cue 4	Go	0s	2.50s	Default	/	
1.4	Cue 5	Go	0s	2.50s	Default	/	
1.5	Cue 6	Go	0s	2.50s	Default	/	
1.6	Cue 7	Go	0s	2.50s	Default	/	
1.7	Cue 8	Go	0s	2.50s	Default	/	
1.8	Cue 9	Go	0s	2.50s	Default	/	
1.9	Cue 10	Go	0s	2.50s	Default	/	
2	Cue 2	Go	0s	2.50s	Default	/	
3	Cue 3	Go	0s	2.50s	Default	/	
4	Cue 4	Go	0s	2.50s	Default	/	
5	Cue 5	Go	0s	2.50s	Default	/	
6	Cue 6	Go	0s	2.50s	Default	/	
7	Cue 7	Go	0s	2.50s	Default	/	
8	Cue 8	Go	0s	2.50s	Default	/	
9	Cue 9	Go	0s	2.50s	Default	/	
10	Cue 10	Go	0s	2.50s	Default	/	

Here you can see that cue 2 has been copied to cue 1.1, cue 3 has been copied to cue 1.2, etc. Also note that the original cue names (Cue 2, Cue 3, etc.) remain the same.

While copying cues between existing cue numbers will cause “point cues” to be created, the inverse is not true. For example, the command line syntax Copy Cue 1.1 Thru 1.5 @ 11 Enter will result in the following:

OPTIONS		Follow Values	ADD MACRO	EDIT MODE	Cuelist 17		PRE-SELECT FOR NEXT GO
		Follow Cue	INSERT LINK		CL17		
		Follow Grid	MARK toggle	RENUMBER			
No	Name	Trigger	Delay	Fade	Fademode	Path	Comment
1.5	Cue 6	Go	0s	2.50s	Default	/	
1.6	Cue 7	Go	0s	2.50s	Default	/	
1.7	Cue 8	Go	0s	2.50s	Default	/	
1.8	Cue 9	Go	0s	2.50s	Default	/	
1.9	Cue 10	Go	0s	2.50s	Default	/	
2	Cue 2	Go	0s	2.50s	Default	/	
3	Cue 3	Go	0s	2.50s	Default	/	
4	Cue 4	Go	0s	2.50s	Default	/	
5	Cue 5	Go	0s	2.50s	Default	/	
6	Cue 6	Go	0s	2.50s	Default	/	
7	Cue 7	Go	0s	2.50s	Default	/	
8	Cue 8	Go	0s	2.50s	Default	/	
9	Cue 9	Go	0s	2.50s	Default	/	
10	Cue 10	Go	0s	2.50s	Default	/	
11	Cue 2	Go	0s	2.50s	Default	/	
11.1	Cue 3	Go	0s	2.50s	Default	/	
11.2	Cue 4	Go	0s	2.50s	Default	/	
11.3	Cue 5	Go	0s	2.50s	Default	/	
11.4	Cue 6	Go	0s	2.50s	Default	/	

In the previous example, the “point cues” were created. But this time, as the cues were copied to the bottom of the Cuelist, you can see that the first cue was copied as a whole number cue (as specified) and the remainder were copied as “point cues.”

Deleting a Cue

If, once a cue has been recorded, it is determined that it is no longer adding to the aesthetic quality of your production, it can be deleted. You can only delete a cue from the selected Cuelist.

To delete a cue:

1. Select the desired Cuelist that has the Cue to be deleted.
2. Press DELETE CUE X ENTER where "X" is the Cue number

The specified cue will be removed from the cuelist.

You can also delete a range of cues using the following syntax:

1. Select the desired Cuelist that has the Cues to be deleted.
2. Press DELETE CUE X THRU Y ENTER where "X" is the first Cue number in the range and "Y" is the last number in the range.

Warning: Delete actions CANNOT be undone using the [Undo](#) function!

Editing a Cue

The Edit command can be used to load a cue into the Programmer. Once you have made your changes, you can press Update to save them back to the original cue.

Note that the update function works differently when editing a cue than it does when using it as described in [Updating Cues](#). When editing cues, the update will not effect any other active cues. **All attribute values, whether assigned or unassigned, are saved in the cue being edited.**

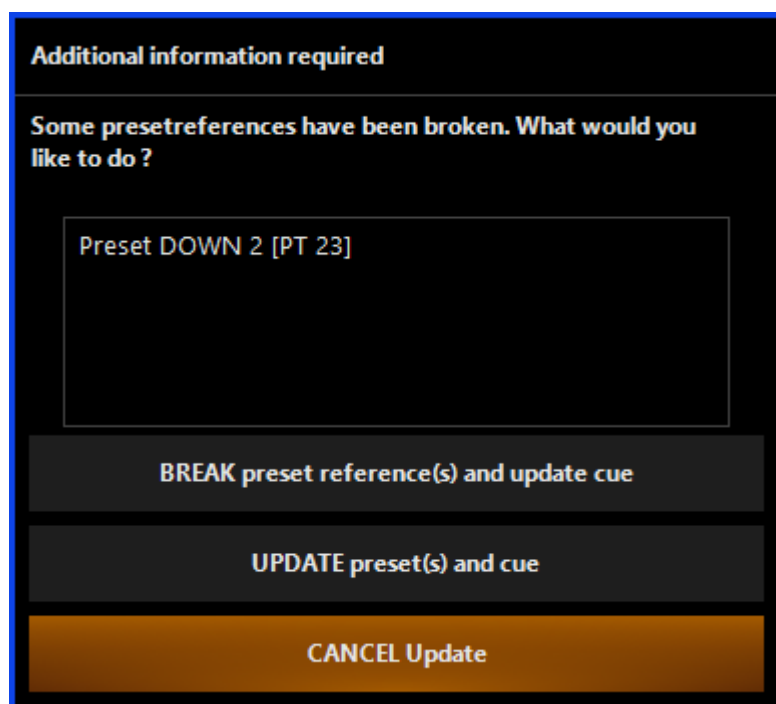
To begin, select a cuelist. I've got the demo show loaded, and have selected "Cuelist 10 - Main Show".

Enter EDIT Cue 1 ENTER to bring Cue 1 of the selected cuelist into the programmer.

Now, go ahead and change the Pan and Tilt values of Artiste Davinci Fixture 101.

Press Update.

Because changes affect one or more of the presets, the following window pops up:



This window tells us that at least one of the fixtures referenced the Pan/Tilt Preset “Down 2”, but has been changed. We are then given three options.

Option	Description
BREAK preset reference(s) and update cue.	This will record the information into the cue, but the preset reference will be broken. This means that if changes were later made to the “Drums” pan/tilt preset, this cue would not be updated.

Playback

Option	Description
UPDATE presets(s) and cue	This option will record the changes made into the source presets and the selected cue. Note that by selecting this option, you will also be changing any other cues that use the “Drums” pan/tilt preset.
CANCEL Update	Selecting this will cancel the update, but will keep your cue in the programming for further editing.

Modifying Cues

Once a cue has been recorded, there are a number of ways that it can be modified including copying, deleting and re-recording.

In this chapter we will also examine the use of the Update and Edit features in altering the contents of existing cues and how to move, copy and renumber both individual cues and cue ranges.

Moving a Cue

It is possible to move a cue from one position in a Cuelist to a different position in the same Cuelist.

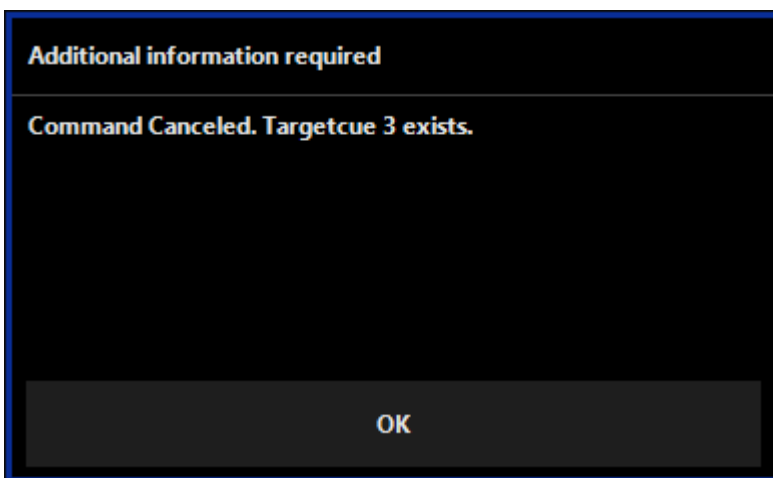
It is not possible to move a cue from one Cuelist to another. *(However, if you need to do this, you can simply play that cue back, and use the [Load](#) function, and record as a new cue)*

Moving is similar to copying a cue except that the cue is “cut” from its original position and “pasted” to the new one.

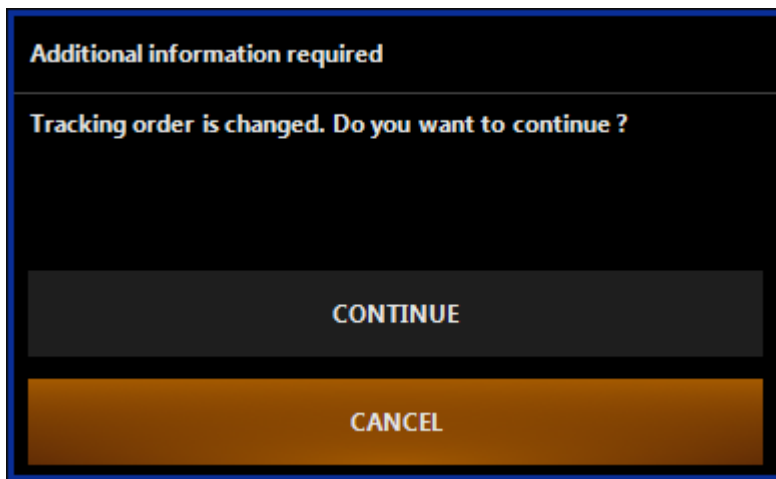
To move a cue:

1. Select the desired Cuelist
2. Press MOVE CUE X @ Y ENTER where "X" is the original cue number and "Y" is the new cue number.

As with copying a cue, it is not possible to move a cue to an already existing cue. If you attempt to do so, you will see the following warning:



If however it is a valid command you will receive the following notification:



Pressing Cancel will abort the command and the cue will remain in its original position.

Pressing Continue will complete the command and the cue will move to the new position.

When a cue that has been linked to by another cue is moved, the link will automatically update so that the link remains intact. That is to say, if cue 10 has a link to cue 4 and then cue 4 is moved to cue 6.1, cue 10 will now link to cue 6.1.

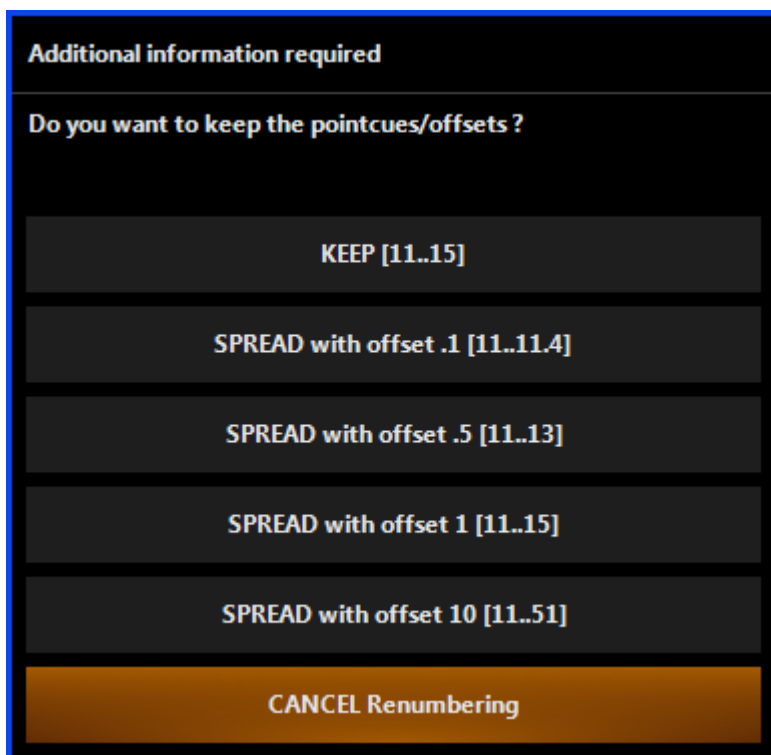
Warning:

Moving a cue can result in a change in the tracking order! If the first cue in a Cuelist is moved to the last cue in the cuelist, the second cue will likely look different than it did before the move. Use this command with caution.

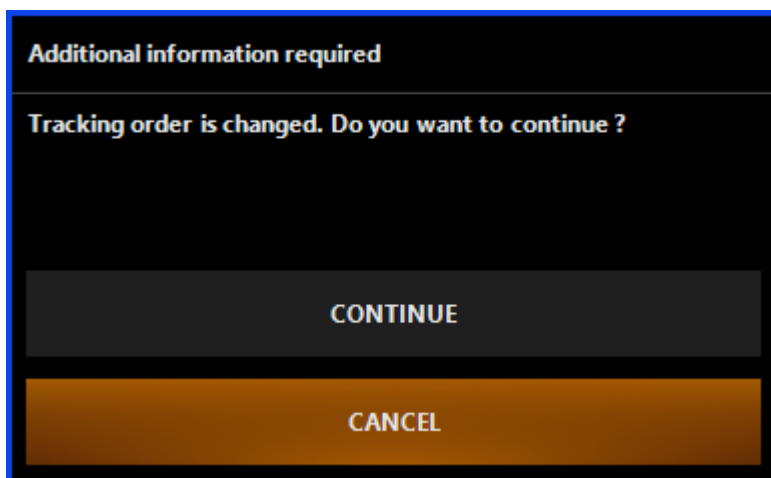
Moving a Range of Cues

As with copying cues, it is possible to move a range of cues. And, as with moving a single cue, it is not possible to move a range of cues to a position that would cause an overlapping of an existing cue or cues. Again, similar to copying cues, "insert cues" can be created, but there are certain options.

To understand how moving a range of cues works, for each of the examples below, again create a cue list with 10 cues in it. When complete, select the Cuelist and press Move Cue 1 Thru 5 @ 11 Enter. The following pop-up window will appear:



A number of different options as to the number of the moved cues is now presented. Before we dive into those, note that there will be a warning displayed once you do choose how you want to move the cues, explaining that the tracking order will be changed:



This means that any tracking from previous cues that did happen before, will move with the cues - so you might get something that looks very different from what you had before! Consider the consequences for a moment, then press Continue if you still want to move the cues.

Let's dive in to the options:

- Keep - This option will keep the original series separated by the same numeric value specified before.

OPTIONS		Follow Values	ADD MACRO	EDIT MODE	Cuelist 10		PRE-SELECT FOR NEXT GO
		Follow Cue	INSERT LINK		Timing Example		
		Follow Grid	MARK toggle		RENUMBER		
No	Name	Trigger	Delay	OverrideFade	OverrideFademode	Path Co	
5.5	Cue 5.5	Follow 3s	0s	2s	Default		
5.6	Cue 5.6	Follow 0s	0s	0s	Default		
6	Cue 6	Follow 3s	0s	2.50s	Default		
7	Cue 7	Follow 3s	0s	0s > 2s 0s	Default		
8	Cue 8	Follow 3s	0s	0s > 2s 0s	Default		
9	Cue 9	Follow 3s	0s	0s > 2s 0s	Default		
10	Cue 10	Follow 3s	0s	0s > 2s 1s	1s	Default	
11	Cue 1	Follow 3s	0s	0s	Default		
12	Cue 2	Follow 3s	0s	0s > 2s 1s	Default		
13	Cue 3	Follow 3s	0s	0s > 2s 2s	Default		
14	Cue 4	Follow 3s	0s	2.50s	Default		
15	Cue 5	Follow 3s	0s	2.50s	Default		

You can see that cues 1 through 5 are no longer in the cuelist, but have been moved to the bottom of the cuelist. The “Keep” option also maintained their previous numeric relationship to each other. For example, cue 1 is now cue 11, cue 2 is now cue 12, etc. As with copying a cue, the original cue names have not changed.

- Spread with offset .1 - All cues, regardless of their original numbering (i.e. whole numbers or insert cues) will be forced to increment by “.1” with each cue as shown:

OPTIONS	Follow Values	ADD MACRO	EDIT MODE	Cuelist 10		PRE-SELECT FOR NEXT GO
	Follow Cue	INSERT LINK		Timing Example		
	Follow Grid	MARK toggle		RENUMBER		
No	Name	Trigger	Delay	OverrideFade	OverrideFademode	Path C
5.5	Cue 5.5	Follow 3s	0s	2s	Default	
5.6	Cue 5.6	Follow 0s	0s	0s	Default	
6	Cue 6	Follow 3s	0s	2.50s	Default	
7	Cue 7	Follow 3s	0s	0s>>2s 0s	Default	
8	Cue 8	Follow 3s	0s	0s>>2s 0s	Default	
9	Cue 9	Follow 3s	0s	0s>>2s 0s	Default	
10	Cue 10	Follow 3s	0s	0s>>2s 1s 1s	Default	
11	Cue 1	Follow 3s	0s	0s	Default	
11.1	Cue 2	Follow 3s	0s	0s>>2s 1s	Default	
11.2	Cue 3	Follow 3s	0s	0s>>2s 2s	Default	
11.3	Cue 4	Follow 3s	0s	2.50s	Default	
11.4	Cue 5	Follow 3s	0s	2.50s	Default	

- You can see again that cues 1 through 5 are no longer in the cuelist but have been moved to cues 11 through 11.4 with each cue being incremented by .1.
- Spread with offset .5 - Similar to “Spread with offset.1” except that each cue to be moved will be incremented by .5. For example, if the first cue is set to 11.3, the next will be at 11.8 and so on.
- Spread with offset 1 - Each cue to be moved will be separated by 1 full step. Again, if the first cue is set to 11.3, the next will be at 12.3 and so on, regardless of their current offset/separation.
- Spread with offset 10 - Each cue moved will be incremented by 10 from the first cue. If the first cue is 11.3, the next will be 21.3, etc.
- Cancel - This command will cancel the move and leave the cues in their original position within the cuelist.

Move options that are not viable will not be highlighted. If for example you were to move cues 7 through 9 to cue 6.1, the Separate with offset 10 would not be available as an option.

It should be noted that it is possible to move a range of cues into any range where it will fit, even if some of those cue numbers overlap. For example, again create a cuelist with 10 cues numbered 1 through 10 and then delete cue 4. You can now move the remaining cues to fill the void left by cue 4 by pressing Move Cue 5 Thru 10 @ 4 Enter. The cuelist will now be numbered sequentially from cue 1 to cue 9.

If a cue range is moved that contains a cue or cues that have been linked to by other cues, the link(s) will automatically update so that the link(s) remain intact. That is to say, if cue 10 has a link to cue 4 and then cue 4 is moved to cue 6.1, cue 10 will now link to cue 6.1.

Warning:

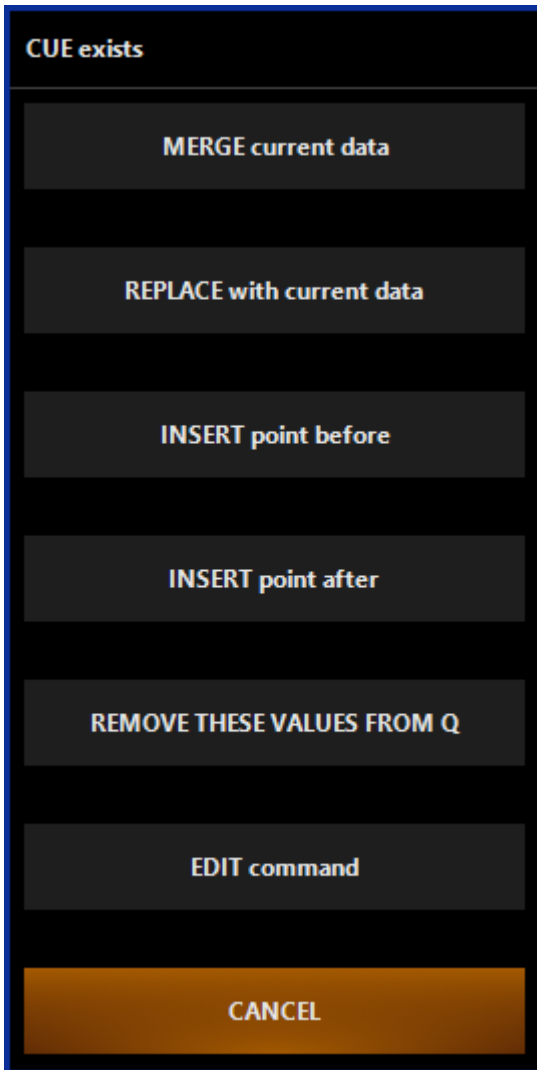
As with moving a single cue, moving a range of cues can result in a very different cuelist!

Re-Recording a Cue

Re-recording a cue is as simple as bringing some values into your programmer, then enter Record Cue X Enter, where "X" is the cue in the Selected Cuelist that you wish to re-record.

You can then use the [Record Options window](#) to determine if it should merge, replace, etc.

If none of the record options are selected, a second pop-up window appears, (you're going to have to make up your mind at some point). You are given a variety of choices:



A range of cues may be re-recorded as well, in which case you will likely want to select the merge option.

Option	Description
MERGE current data	The merge command will add all selected attributes to the target cue, group or preset. Attributes that were previously in the cue, group or preset will not be overwritten unless they are included in the information to be added.
REPLACE with current data.	Where Merge adds information, the Replace function will overwrite all existing attributes. Any previously existing attribute values will be erased and the

Option	Description
	contents of the Programmer will be inserted. This can be used with cues, groups and presets.
INSERT point before	Used exclusively with cues, this command will insert the specified Programmer data as a “point cue” immediately before the target cue.
INSERT point after	Same as “Insert Before” except information is added after the target cue.
REMOVE THESE VALUES FROM Q	This function is similar to the Clear command and requires additional discussion. Please see Removing Attributes from a Cue .
EDIT command	This option stops the command and allows you to change the command in the command line.
CANCEL	This option cancels the command completely, the attributes will remain in the Programmer ready for you to use elsewhere.

Recording a Range of Cues

The Console allows multiple cues to be recorded simultaneously. This is referred to as “range recording.” An example of range recording is Record Cue 3 + 4 + 5 Enter, which will record the contents of the Programmer into cues 3, 4, and 5.

When recording a range of cues, the values are recorded into each cue as active values.

Using the example above, if after recording your range of cues you then make a change in cue 3, it will not track through to the following cues. This is similar to recording each of the cues as “Cue Only.” However, to restore tracking to the cuelist, you can use the “Unblock Cuelist” button in the Cuelist Options window. See [“Unblock Cuelist”](#).

Removing Attributes from Cues

The Remove function is similar to the [Clear](#) function except that where the Clear function will remove an attribute from the programmer, the Remove function will remove the attribute from a cue.

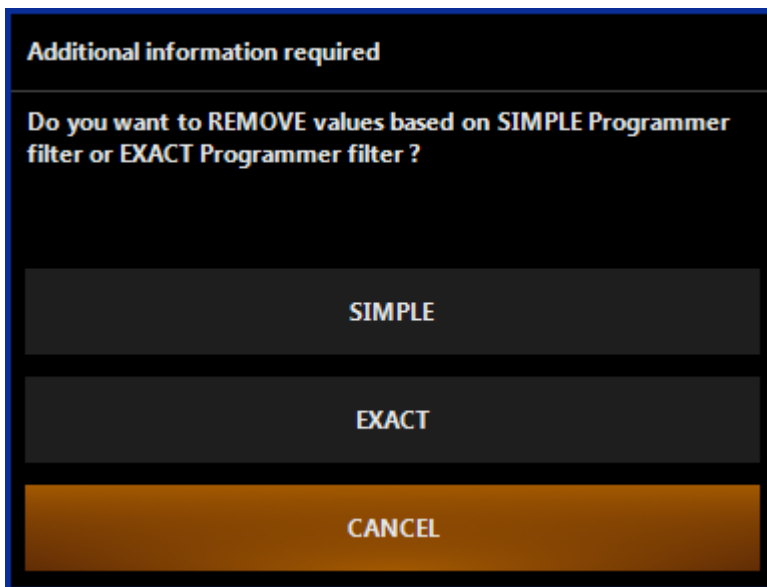
To see how Record Remove works, follow these steps:

1. Using the Artiste DaVinci's from the ONYX training file, record a cue 1 using intensity, pan, tilt, and gobo.
2. Press Clear twice to clear the Programmer and playback the cue.
3. Select the 11 Artiste DaVinci's - 101 THRU 111 ENTER.
4. Place a value in the Programmer for the "Gobo 1" wheel. It can be any non-null value. (This will work for any other attribute as well).

The screenshot shows a software interface with three buttons at the top: 'SHOW BASE', 'SHOW FX', and 'SHOW TIMINGS'. Below these buttons is the title 'Programmer' and the subtitle 'Artiste DaVinci Standard'. A table displays cue data with columns for 'Number', 'Gobo 1', 'Gobo 1 Rot', 'Gobo 2', and 'Animation'. The 'Number' column ranges from 101 to 111. The 'Gobo 1' column shows '27%' for all cues, while the other columns show dashes. The row for cue 111 is highlighted in red.

Number	Gobo 1	Gobo 1 Rot	Gobo 2	Animation
101	27%	-	-	-
102	27%	-	-	-
103	27%	-	-	-
104	27%	-	-	-
105	27%	-	-	-
106	27%	-	-	-
107	27%	-	-	-
108	27%	-	-	-
109	27%	-	-	-
110	27%	-	-	-
111	27%	-	-	-

5. Press Record to bring up the Record Options pop-up
6. Select Remove
7. Press Cue 1 Enter
8. The Record Remove pop up window will open.



You have the following options.

9.
 - Simple: Any value for the specified attribute will be removed from the cue. All fixtures with that attribute in the Programmer will be set to null, regardless of their current level.
 - Exact: Only values at the same precise level will be removed. Example: If a cue has some fixtures at 50% cyan and others at 100% cyan, then bringing the fixtures to 100% cyan and executing an Exact Record Remove will only remove the values from the fixtures at 100%. The cyan levels of the other fixtures will remain at 50%.
 - Cancel: Cancels the command, but leaves the parameters active in the programmer.
10. Select Simple. The gobo attribute levels are removed from the cue.
11. Press Clear Clear to Clear the Programmer.

Remove can also be used with a range of cues as in:

Record Remove 1 Thru 3 + 9 Enter. This would remove values from cues 1, 2, 3 and 9.

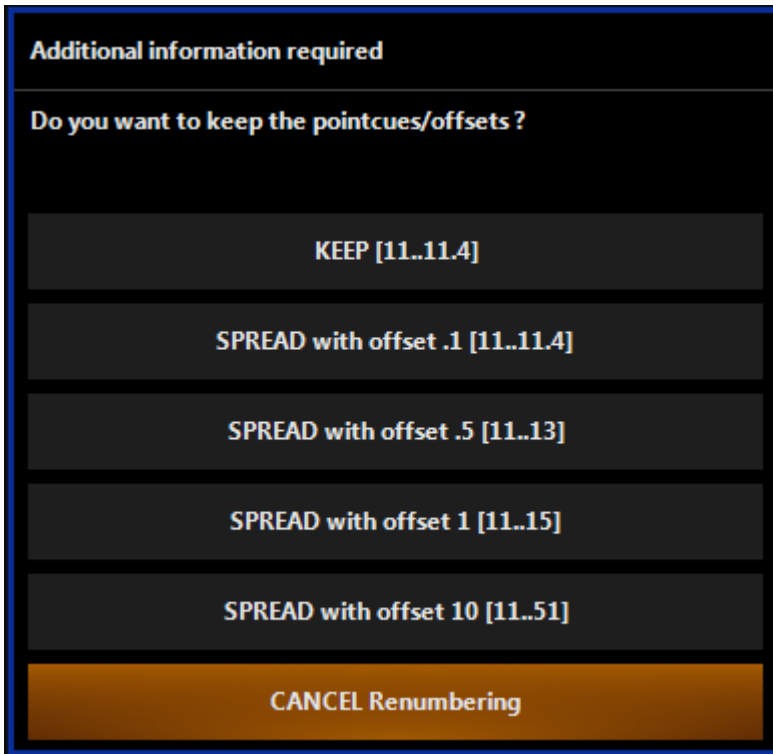
Renumbering Cues

Renumbering a Cuelist allows you to change the cue number without copying or moving the contents of the actual cue. To renumber a cue or cues:

1. Select the cuelist you want to work with and navigate to the "Cuelist Values" view.
2. Press EDIT MODE at the top of the screen so that it is highlighted in red.
3. Activate Cuelist renumbering by pressing or clicking on the Renumber button in the Selected Cuelist window.

No	Name	Trigger	Delay	Override	Fade	Override Fade mode	Path C
5.5	Cue 5.5	Follow 3s	0s	2s		Default	/
5.6	Cue 5.6	Follow 0s	0s	0s		Default	/
6	Cue 6	Follow 3s	0s	2.50s		Default	/
7	Cue 7	Follow 3s	0s	0s > 2s	0s	Default	/
8	Cue 8	Follow 3s	0s	0s > 2s	0s	Default	/
9	Cue 9	Follow 3s	0s	0s > 2s	0s	Default	/
10	Cue 10	Follow 3s	0s	0s > 2s	1s	1s Default	/
11	Cue 1	Follow 3s	0s	0s		Default	/
11.1	Cue 2	Follow 3s	0s	0s > 2s	1s	Default	/
11.2	Cue 3	Follow 3s	0s	0s > 2s	2s	Default	/
11.3	Cue 4	Follow 3s	0s	2.50s		Default	/
11.4	Cue 5	Follow 3s	0s	2.50s		Default	/

4. Select the cue or cues to be renumbered by pressing or clicking on the desired cues in the "No" column. Multiple sequential cues can be selected by "dragging" down the list.
5. Enter the new cue number for the first cue in the list and press Enter.
6. The Move Options pop-up, described in [Moving a Range of Cues](#) will appear. Select the desired option.



As with moving a cue or range of cues, if a cue range is moved that contains a cue or cues that have been linked to by other cues, the link(s) will automatically update so that the link(s) remain intact.

Updating Cues

The Update function is a powerful tool for applying values in the Programmer to cues and presets. If you don't know what you're doing, though, a quick Update Update can have some unexpected consequences and make a mess of your cuelists and presets in a jiffy!

How the Update Function Works - Assigned Vs Unassigned Values

In order to understand how Update works, we need to introduce two more terms: assigned values and unassigned values.

An assigned value is a non-null (0-100%) value for any fixture attribute that is under the control of an active Cuelist.

An unassigned value is a non-null value (0-100%) for any attribute that is **not** under the control of an active Cuelist.

It will all be much clearer if you follow this example:

1. Select 2 Artiste DaVinci's.
2. Bring them up to full intensity and record a cuelist called "Full".
3. Bring up a color and record the color attributes to a second cuelist called "Color".
4. Clear the Programmer and release the Cuelists. (They should be in this state if you did not press Go.)
5. Press the Go button on your "Full" playback to make the Cuelist active.
6. Select the two DaVinci's, bring them to 50% intensity, and give them a really cool color in the Programmer.

At this point, "Full" is active and outputting dimmer levels, "Color" is inactive, and the Programmer look something this:

SHOW BASE	SHOW FX	SHOW TIMINGS	Programmer			
<i>Artiste DaVinci Standard</i>						
Number	Intensity	Shutter	Cyan	Magenta	Yellow	
101	50%	-	0%	0%	100%	
102	50%	-	0%	0%	100%	

The intensity attribute values for the two fixtures are assigned values because the dimmer levels are under the control of the "Full" Cuelist. The CMY values are unassigned values because nothing else is controlling the color channels.

The Color Cuelist is inactive. If you now started the Color Cuelist, the CMY values would go from being unassigned to being assigned.

Hold on to those cues, we'll use them again in a moment!

Default Update Behavior

By default, the Update function does three things:

- It overwrites the existing fixture attribute values in an active cue with the values in the Programmer that are assigned to it.
- If the attribute values in the cue are linked to presets, it modifies the presets as well.
- It merges unassigned values into the current cue of the selected cuelist. The selected cuelist must be active. If it is not active, Update leaves unassigned values in the Programmer.

The result of an Update depends on which cues and Cuelists are active, which Cuelist is selected, and even whether or not the selected Cuelist is active.

If more than one active Cuelist controls the attributes, latest takes precedence.

It's a bit complicated, but ONYX tells you exactly what's getting updated in a window that pops up when you press Update. It's one you shouldn't ignore!

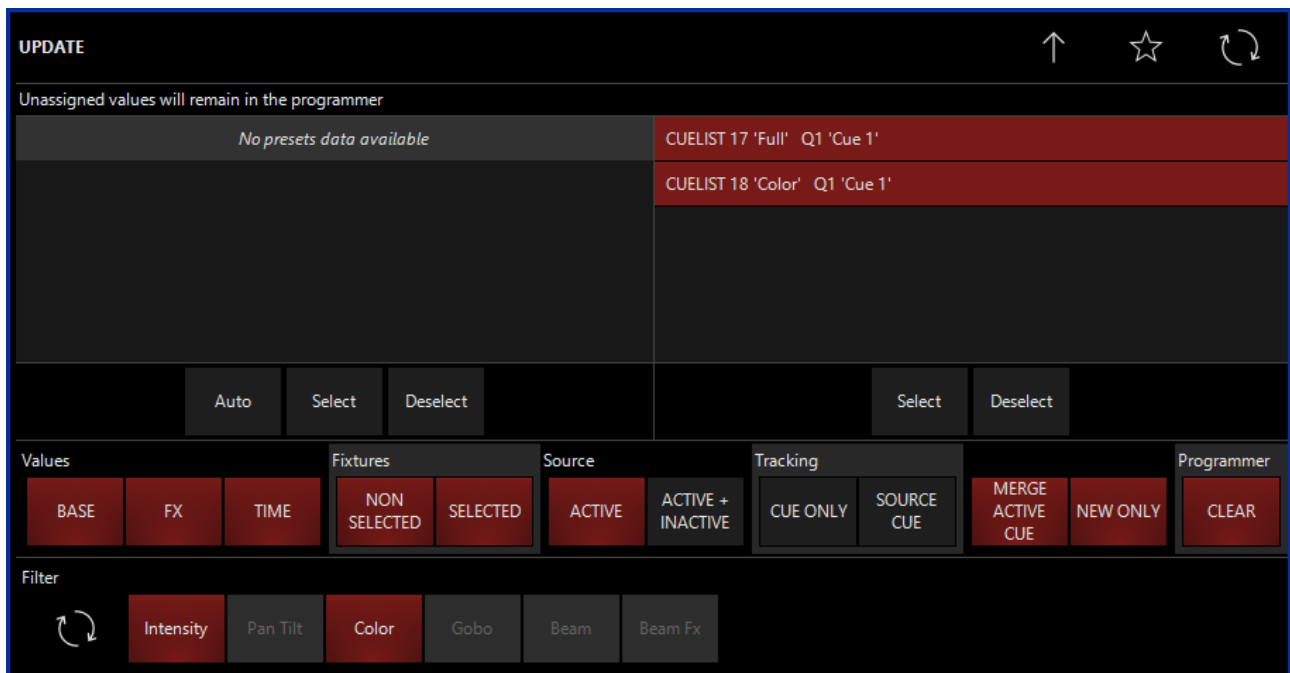
Lets get back to our two Artiste DaVinci's and try a few simple examples to see how Update works. Start again with intensity and color values in the Programmer.

SHOW BASE	SHOW FX	SHOW TIMINGS	Programmer			
<i>Artiste DaVinci Standard</i>						
Number	Intensity	Shutter	Cyan	Magenta	Yellow	
101	50%	-	0%	0%	100%	
102	50%	-	0%	0%	100%	

Example 1: "Full" and "Color" are active. No Cuelist is the selected Cuelist

Start the "Full" and "Color" Cuelists and press the Select Button on an empty playback so there is no selected Cuelist.

Pressing Update once will show the Update Options pop-up:



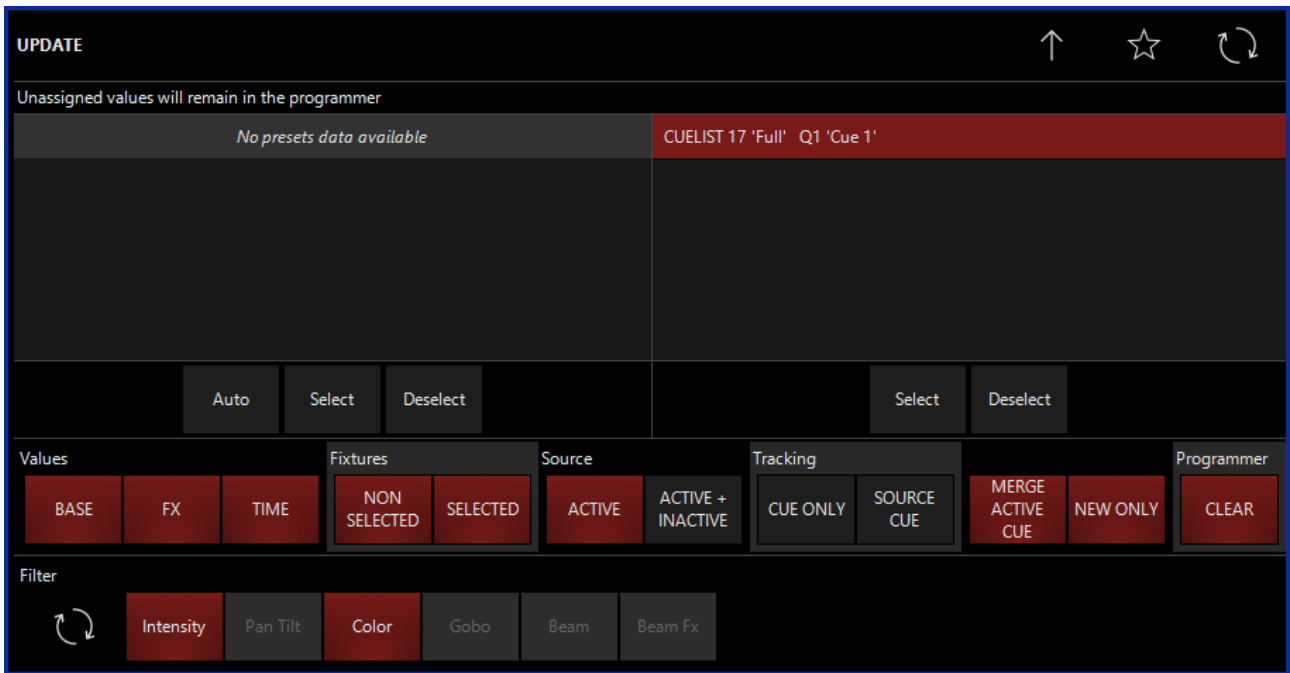
In this case, because both cuelists are active, all values are assigned. The field on the right informs us that cue 1 in “Full” and cue 1 in “Color” will be updated.

You can deselect either or both of the cuelists at this point. If you do, the assigned values will remain in the Programmer. Otherwise, pressing Update or Enter will replace the intensity level in “Full” and the color levels in “Color”.

Example 2: “Full” is active, “Color” is inactive, no Cuelist is the selected Cuelist

Set up the same situation but this time release the “Color” Cuelist.

Pressing Update brings up this window:

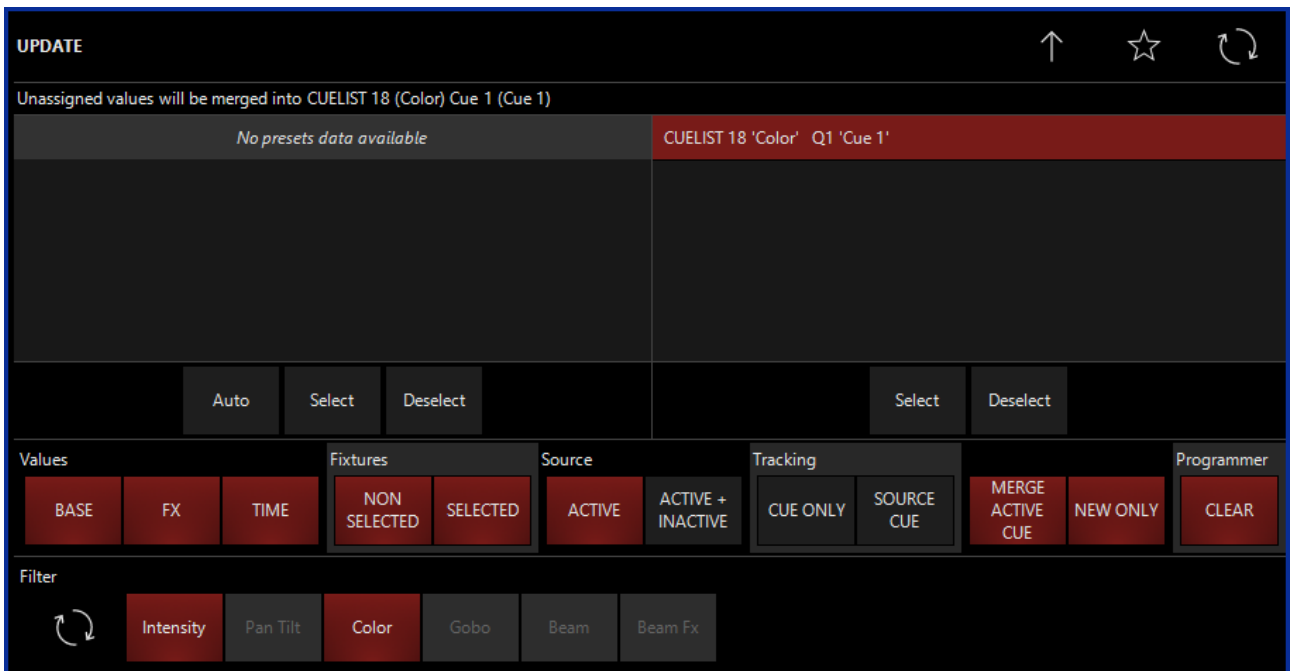


The pop-up tells us only “Full” will be updated. The color levels are unassigned and looking for the selected Cuelist, but there is none so they remain in the Programmer after pressing Update will confirm this.

Example 3: “Full” is inactive, “Color” is both active and the selected Cuelist

This time press to deselect Full and press the button for Color to make it the selected Cuelist. Now press a Go button at the top of the playback control.

Guess what happens when we press Update?



Playback

Because “Full” is inactive, the intensity levels are unassigned. The fine print at the top says that unassigned values will be merged into CUELIST 18 (Color) Cue 1 (Cue 1)

Press Update and then take a look at cue 1 of “Color”.

Number	Cyan	Magenta	Yellow	Intensity
101	0%	0%	100%	100%
102	0%	79%	5%	100%

There are our intensity values in the “Color” cuelist. Think about this for a moment.

Update merges all unassigned values in the Programmer into the current cue of the selected cuelist (if it’s active).

Now that’s an easy way to edit a cue, whether you intend to or not!

This behavior, though, can be disabled by deselecting the Merge Active Cue option in the Update Options window.

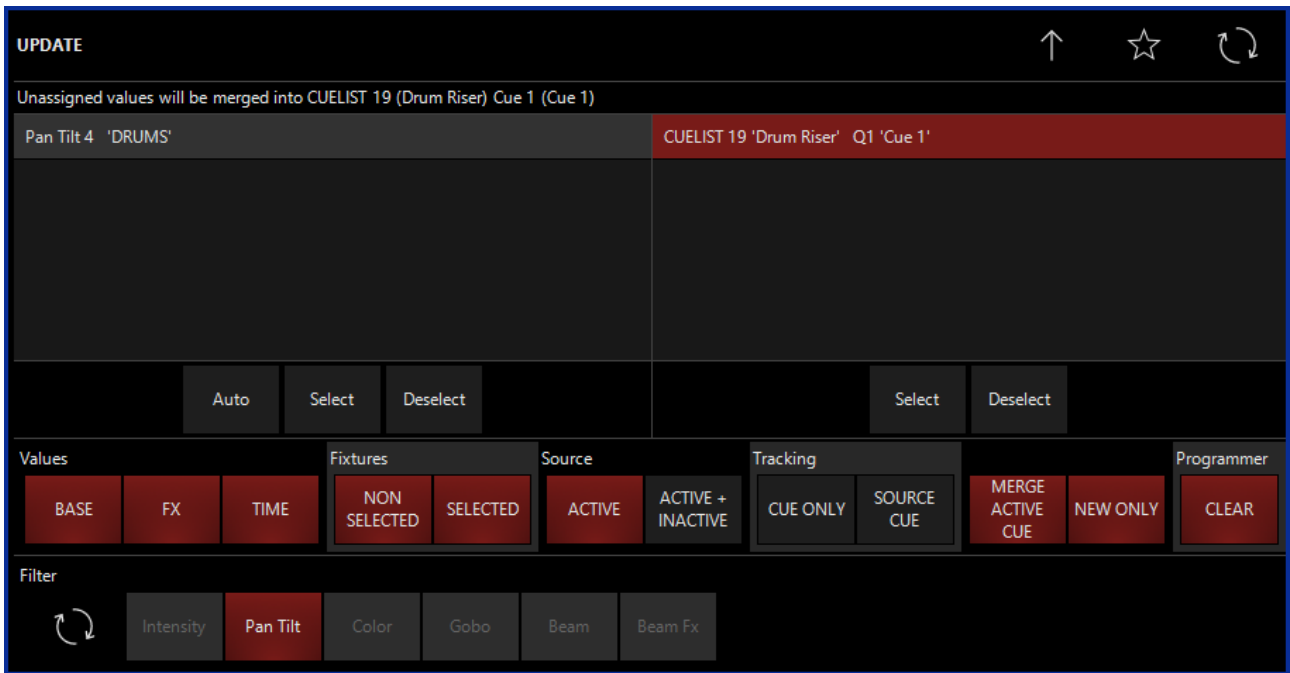
Example 4: Neither “Full” or “Color” are active, a third cuelist is active and is the selected cuelist.

In this case, both the intensity and color values are unassigned and the update will merge them into whatever cuelist is currently selected, if it is active.

Updating and Presets

If attribute values are linked to a preset, Update will also replace the values in that preset. You can prevent this, however, by deselecting the presets in the pop-up window.

Say you have a cue that uses a pan/tilt preset for the drum riser in an active Cuelist and then you load the cue’s fixtures into the Programmer, change the pan and tilt values, and update the cue. The cues/presets selection window might look something like this:

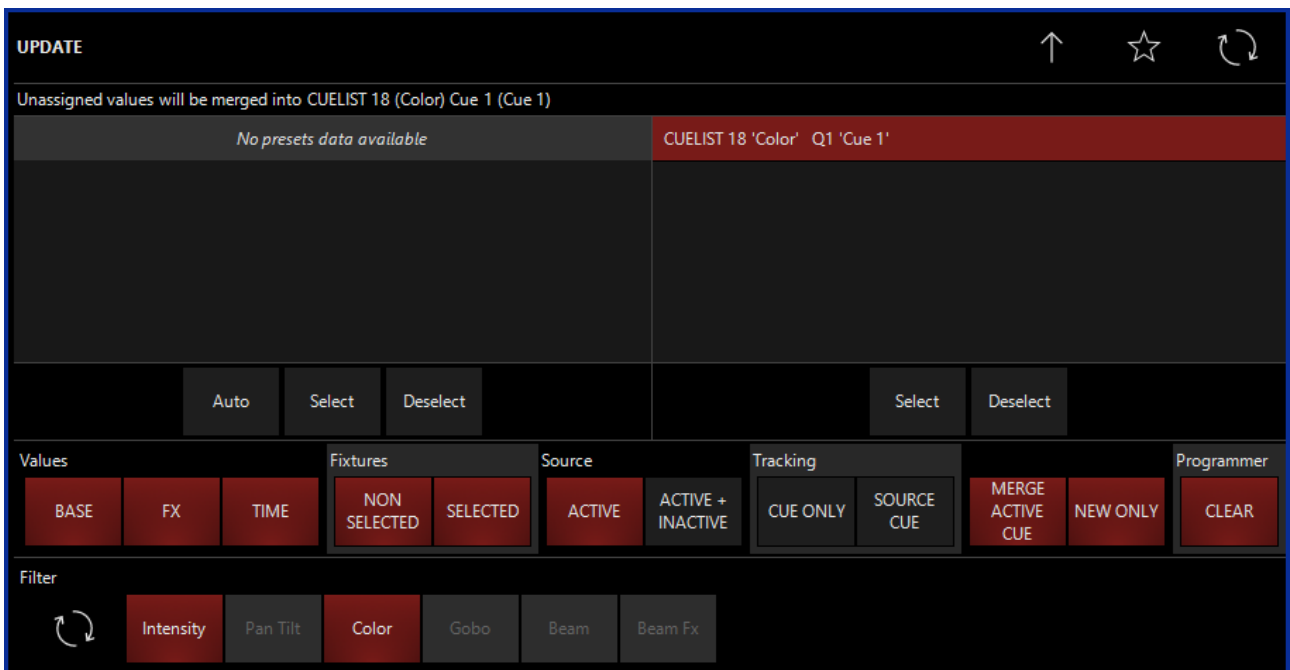


As you can see in the “Presets” field on the left, Update can update the "Drums" preset as well as the Cuelist 19. However, we don't have Pan Tilt 4 'DRUMS' selected in red, so only the cue will be updated.

We can select and deselect any cuelists that show up in this window to decide whether or not we want to update them. If I want to update my 'DRUMS' preset, I can just press it and it will be highlighted in red like the Cue on the right.

Update Options

Except when editing a cue (where Update performs a little differently), the “Update Options” appear when you press Update as part of the overall Update window. It's at the bottom:



Playback

Lets look at the different categories.

Values Category

These three filters determine which attribute types will be updated. All of these filters default to ON.

Option	Description
BASE	When selected the “Base Values,” those defined in the Intensity, Pan Tilt, Color, Gobo, Beam, Beam Effects and Framing attribute groups found on the attribute group buttons will be updated.
FX	When selected, the “FX Channels,” those defined in the FX and FX Timing attribute groups found on the attribute group buttons will be updated.
TIME	These values are associated with the “Delay” and “Fade” overrides used to control when and how long a particular attribute will move. For more information, see “ Setting an Individual Attribute Fade Time ” and “ Setting an Attribute Delay Time ” .

Fixtures Category

This category allows you to determine which fixtures in the Programmer are used in an Update function and what happens to those attributes in the Programmer when the function is executed. All of these filters default to ON.

Option	Description
SELECTED FIXTURES	When enabled, attributes for all fixtures selected in the Programmer will be updated.
NON SELECTED FIXTURES	When enabled, attributes for all fixtures that are not selected in the Programmer will be updated.

Source Category

This is similar to the Update Rules category except, instead of determining which fixtures will be used, here we select which attributes will be used.

Option	Description
ACTIVE ONLY (default ON)	Attributes that are active (i.e. displayed in the Programmer in white) will be updated.
ACTIVE + INACTIVE (default OFF)	Both active and inactive attributes will be updated.

Tracking Category

These options allow us to work with tracking from the cues around the cue we're updating. It'll make more sense in the description below.

Option	Description
CUE ONLY	<p>The "CUE ONLY" button breaks the normal updating method.</p> <p>ONYX is a tracking console. That is to say that when a change is made, it tracks that information forward through the cuelist.</p> <p>There are occasions when you may wish to update information into only one specific cue without it tracking forward. The "Cue Only" button will allow that.</p> <p>When selected, information that is recorded into that cue will not track forward to the next cue(s). It will be contained only within that cue. The one exception to this is when you use "Cue Only" on the last cue in the cuelist. In that case, the information will track forward if a new cue is added later.</p>
SOURCE CUE	<p>This option will track backwards any changes you've made to values that were previously tracked from a different cue.</p> <p>For example, you are editing Cue 8, and dimmer number 4 was at 50%, but is now at Full. You select SOURCE CUE when updating, and ONYX looks back and finds that dimmer number 4 was placed at 50% back in Cue 5.</p> <p>ONYX now goes ahead and changes the value for dimmer 4 back in Cue 5, and that continues to track forward as previous.</p> <p>As you may see, this can be really powerful, and allow you to update many past cues at once!</p>

Extra Options Category

This category contains options that don't fit into the other categories. Both of these options default to ON.

Option	Description
MERGE ACTIVE CUE	<p>By default, unassigned values in the Programmer will be merged into the current (active) cue of the selected Cuelist.</p> <p>If this option is turned off, only assigned values will be updated and any unassigned values will remain in the Programmer.</p>
NEW ONLY	<p>When you deselect a cuelist in the Cues / Presets Selection window, its assigned values normally have nowhere to go and remain in the Programmer after an update.</p> <p>When “New Only” is turned off, though, these unloved values will merged into the current cue of the selected cuelist.</p>

Programmer Category

This category allows you to determine which fixtures in the Programmer are used in an Update function and what happens to those attributes in the Programmer when the function is executed.

Option	Description
CLEAR	<p>By default, when you complete an Update command, the Programmer will be cleared.</p> <p>Deselecting this option will leave all attributes in the Programmer.</p>

Filter Category

These filters determine which attribute groups will be updated.

Option	Description
Intensity	Attributes in the Intensity attribute group will be updated.
Pan Tilt	Attributes in the Pan Tilt attribute group will be updated.
Color	Attributes in the Color attribute group will be updated.
Gobo	Attributes in the Gobo attribute group will be updated.
Beam	Attributes in the Beam attribute group will be updated.
Beam Effects	Attributes in the Beam Effects attribute group will be updated.
Framing	Attributes in the Framing attribute group will be updated.

Option

Description



Using this icon resets any filters you've selected and sets the options back to the default.

Update Options Save and Reset

In the upper right hand corner of the Update window, we see 2 icons that we can use to save our favorite Update settings to default:

Option

Description



Show/Hide the Update Options under the Preset and Cue Selector section of the Update window.



Causes the console to “remember” any of the filters you have applied so that the next time you press Update, those same filters will be selected. Note: there is no feedback when you press this button (it doesn't change color).



Causes the Update Options window to return to its default filter setting.

Creating Cuelists

Cuelists are made up of multiple cues that you record in ONYX.

Cues from various cuelists all can be running at the same time, allowing for complex creative control for unstructured shows as simply as complex pre-structured cuelists like the ones found in a theatrical play.

By default, ONYX operates a cuelist with tracked values, meaning only changes are programmed in cues and the output of a cue is the summary of all values combined from previous cues in the same cue list.

Cues can be stored and recalled in [various types](#), for example submasters, inhibitive faders, chases and a dedicated timecode option.

When creating and playing your cues, it's important to realize that ONYX is a "Latest Takes Precedence" (LTP) console.

There are two basic things you need to know about LTP consoles.

First, as the term implies, **the latest (or most recent) instructions generally have precedence over earlier instructions.**

If you execute two or more cues with different values for the same fixture attribute, say the first cue calls the Rings gobo in all Artiste DaVinci's and the second cue calls the Triangles gobo, then the value that gets expressed on stage will be the latest one called.

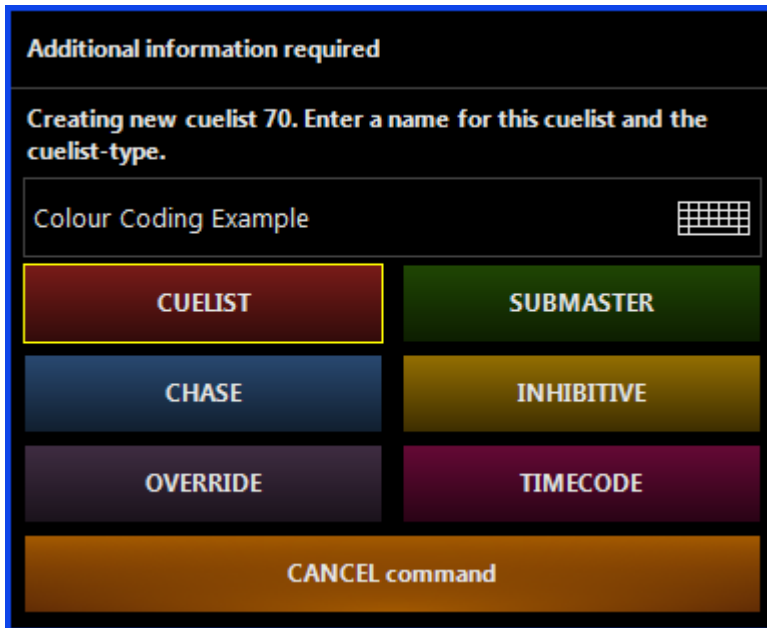
If a cue has no value (also known as a null) for a specific fixture attribute, then it has no control of that attribute.

A cue will not override earlier values for an attribute if it doesn't have a value of it's own to replace it with. If you removed the second cue's gobo values for the Artiste DaVinci's on stage right, then executing it would call the Blocks in the other Artiste DaVinci's, but those on stage right would stay with the Triangles because the second cue has no control of the gobo attribute in these fixtures. That's the second thing you need to know.

Example: Recording Cues

It will be helpful to create a cuelist with 5 cues as described below before taking a look at the rest of this chapter:

1. Select a group(s) of fixtures and focus them.
2. Press Record. The Record Options pop-up will display.
3. Press the Select button on an empty playback control. The following pop-up window will appear when you record the first cue into a new cuelist:



4. At this point you may provide the cue list with a label using the built-in keyboard. If left blank, the cue list name will default to the cue list number. For now, leave this field blank.
5. Select a cue list type of Cue list. The cue will automatically be assigned to the playback control and become the selected cue list. By default, the motorized fader will raise to full, the Select button will be lit, and cue 1 will be recorded.
6. Without clearing the Programmer, change the attributes on the selected fixtures and repeat steps 1-4 until you have a total of 5 cues in this same cue list.

The thin yellow box around Cue list indicates that this was the last chosen Cue list type. When recording a new Cue list the last chosen cue list type can be chosen by using Enter as a shortcut.

Cuelist Mark (Move In Black)

Sometimes it is desirable to have fixtures preset in a position, with colors, gobos, and other parameters already set before a cue is run.

Rather than sweeping from their last position or scrolling through various attributes, the fixtures are simply "there" when it fades in.

A fixture that is preset with a position or other attributes prior to fading in is said to be "Marked." While it is entirely possible to achieve this manually during programming, the process can be simplified with a little automation.

ONYX conveniently provides a MARK function just for this purpose...

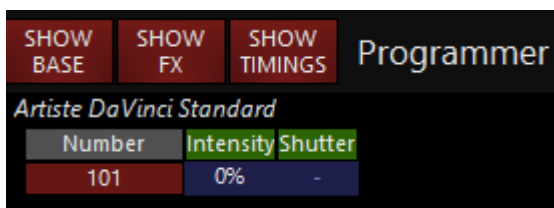
The MARK function looks for fixtures with 0% intensity (tracked or active) and reads ahead, giving them attribute values for the upcoming cue. It is activated in the Cuelist Options window under the "Tracking" heading.

Fixtures with a null intensity value will not be marked; they must have an intensity value of 0%.

A tracked value of 0% is valid. In other words the fixture must already have values in the Cuelist before the "up" cue otherwise, they will not be marked. They must be at 0% in the same cuelist as the mark cue.

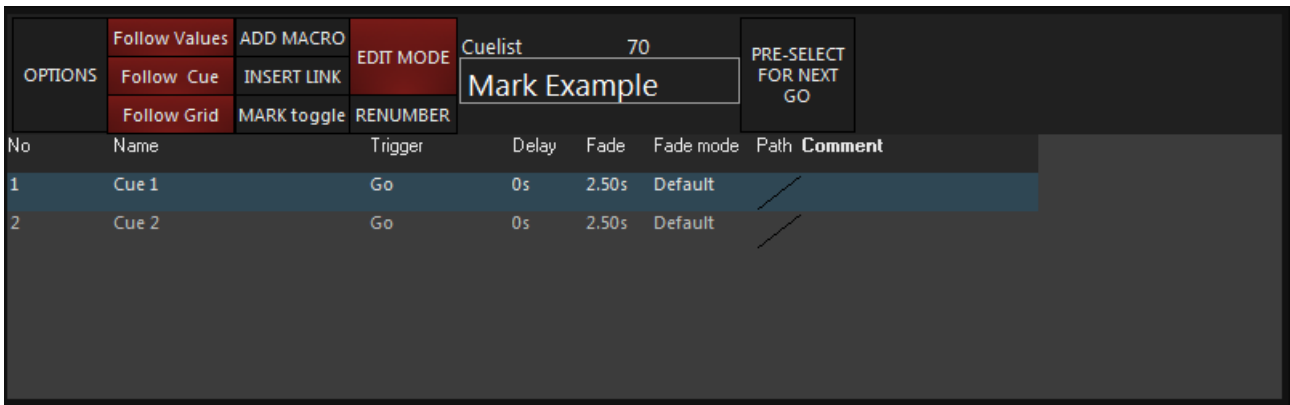
Mark Per Cuelist

To demonstrate the MARK function, we'll begin by selecting Artiste DaVinci number 101 and giving it 0% intensity. Record this in a new cuelist as cue 1.



Now select fixtures 1 and 2, bring the Intensity to Full, and give them some Pan, Tilt and Color values. Store this as cue 2.

Playback



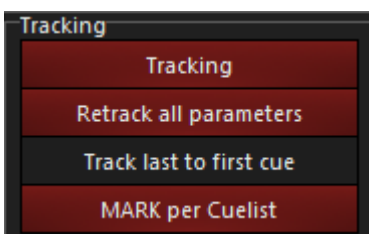
Press GO and observe that the Color and Pan Tilt values remain unchanged in cue 1. For the sake of illustration, we will use the 2D Plan View Screen to view the fixtures, which are off and centered:

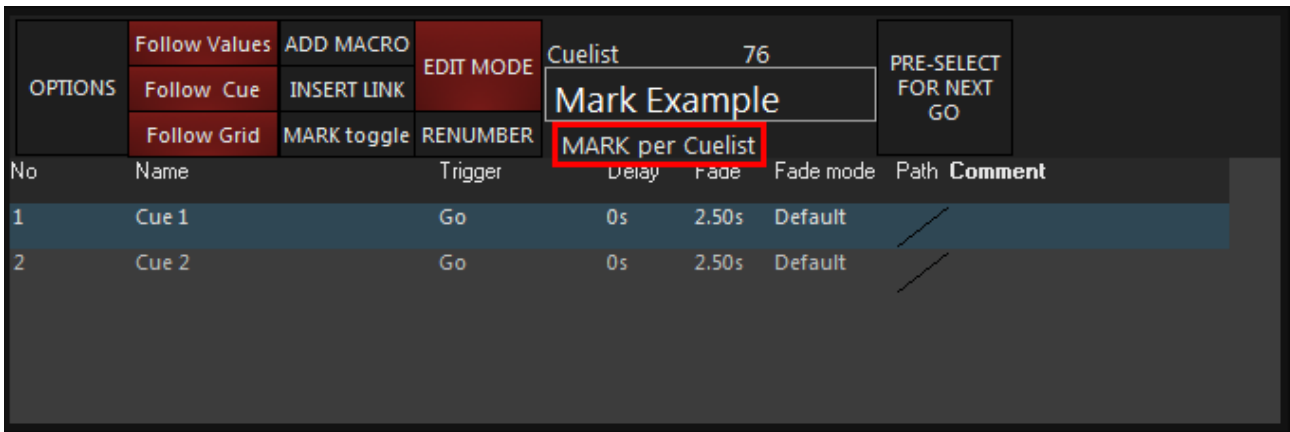


Press GO to execute cue 2 and observe that fixtures 1 and 2 fade to the values you recorded. I chose Magenta with a tilt forward and a bit of pan right. It looks nice.



In the Cuelist Options window, enable MARK per Cuelist. The Selected Cuelist screen will display MARK per Cuelist just below the cuelist name.





Now make sure the cuelist is inactive by holding REL and pressing the cuelist GO button (for more information, see "[Releasing Cuelists.htm](#)").

Changes to the MARK settings will not take effect until the cuelist has been released.

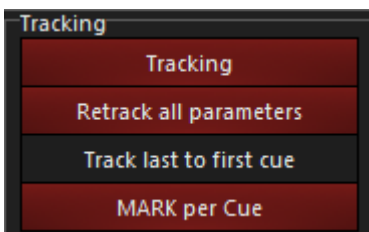
Execute cue 1 again by pressing the GO button and observe that fixture 1 has magically faded to its cue 2 values, but has no intensity. Also note that fixture 2 is unchanged since it has no intensity value (active or tracked) in cue 1. Fixture 1 is Marked and ready for cue 2.



Now, when you press GO, cue 2 will load, and fixture 102 will swing into place and transition color. Fixture 1 will merely fade up intensity, it is already in its color and position!

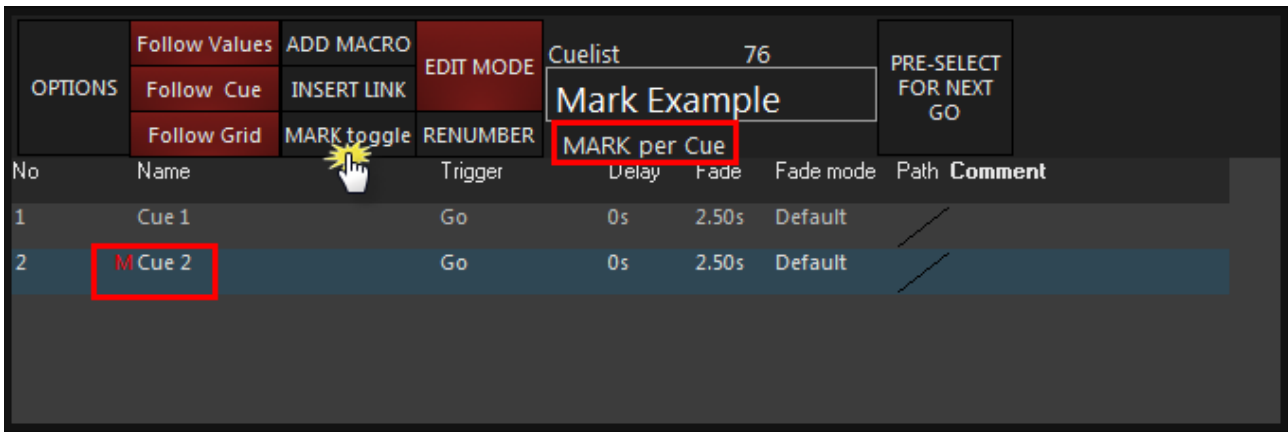
Mark Per Cue

If you only want fixtures to mark automatically for certain cues, you can use MARK per cue... In the Cuelist Options window, enable MARK per Cue.



Select the cue that you want fixtures to MARK in preparation for and click or press MARK toggle. A red "M" will appear to the left of the cue name to indicate that fixtures with 0% intensity in the preceding cue will mark automatically.

Playback



The screenshot displays a software interface for managing a cue list. At the top, there are several control buttons: 'Follow Values', 'ADD MACRO', 'EDIT MODE', 'Follow Cue', 'INSERT LINK', 'MARK per Cue' (highlighted with a red box), 'Follow Grid', 'MARK toggle', and 'RENUMBER'. A 'PRE-SELECT FOR NEXT GO' button is also visible. The main area shows a table with columns: 'No', 'Name', 'Trigger', 'Delay', 'Fade', 'Fade mode', 'Path', and 'Comment'. The table contains two rows: '1 Cue 1' and '2 M Cue 2' (where 'M' is highlighted with a red box). A mouse cursor is pointing at the 'MARK toggle' button.

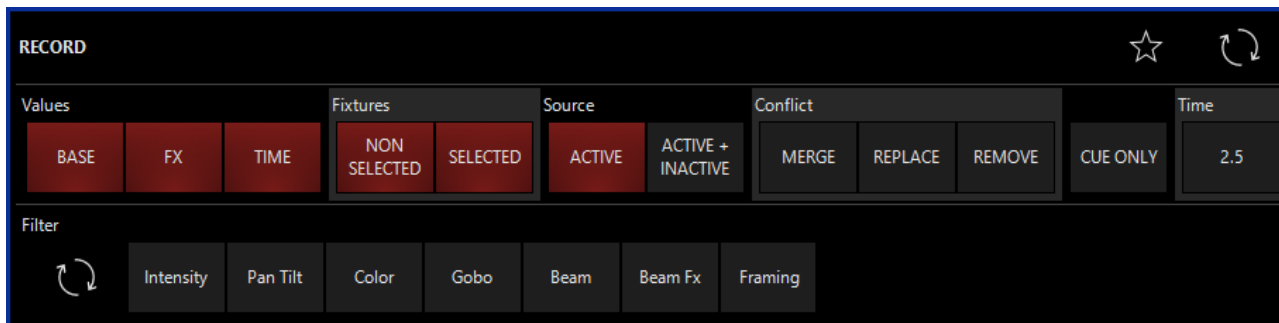
No	Name	Trigger	Delay	Fade	Fade mode	Path	Comment
1	Cue 1	Go	0s	2.50s	Default		
2	M Cue 2	Go	0s	2.50s	Default		

The Auto Mark feature is non-destructive; the cue list is not changed in any way and disabling the function will revert the behavior of the cue list.

Record Options

The Record Options pop-up is a powerful tool in the creation of groups and presets, but is especially well suited to manipulating cue data. The Record Options pop-up can be used to filter exactly which attributes from the Programmer are recorded into a cue, group or preset and, in the case of cues, where it is recorded. It pops up whenever the Record button is pressed.

Lets look at each category of recording options:



Conflict Category

The options in this category relate primarily to cues.

Option	Description
MERGE	The merge command will add all selected attributes to the target cue, group or preset. Attributes that were previously in the cue, group or preset will not be overwritten unless they are included in the information to be added.
REPLACE	Where Merge adds information, the Replace function will overwrite all existing attributes. Any previously existing attribute values will be erased and the contents of the Programmer will be inserted. This can be used with cues, groups and presets.
REMOVE	This function is similar to the Clear command and requires additional discussion - but do learn to use it, it will help you a lot! Please see Removing Values from a Cue .

Source Category

This category allows you to include or filter out inactive attributes. For a definition of inactive attributes, see "[The Programmer Screen](#)"

Option	Description
ACTIVE ONLY	Only active attributes will be recorded.
ACTIVE + INACTIVE	Both active and inactive attributes will be recorded.

Values Category

These three filters determine which attribute types will be recorded.

Playback

Option	Description
BASE	When deselected the “Base Parameters,” such as CMY, pan/tilt, intensity will not be recorded.
EFFECT	When deselected, the “Effects Parameters,” those defined in the FX and FX Timing attribute groups found on the attribute group buttons will not be recorded.
TIMING	These values are those that are associated with the “Delay” and “Fade” attributes used to control when and how long a particular attribute will move. For more information, please see “ Setting an Individual Attribute Fade Time ” and “ Setting an Attribute Delay Time ”.

Cue Only Category

The "CUE ONLY" button breaks the normal recording method.

ONYX is a tracking console. That is to say that when a change is made, it tracks that information forward through the cuelist.

There are occasions when you may wish to record information into only one specific cue without it tracking forward. The “Cue Only” button will allow that.

When selected, information that is recorded into that cue will not track forward to the next cue(s). It will be contained only within that cue. The one exception to this is when “Cue Only” is selected and you record a new cue directly after the cue that you recorded with cue only. In that case, the information will track forward.

Fixtures Category

The filters in this category allow you to select the fixtures to record into cues and presets. It does not apply when recording groups. The filters may be combined to record both selected and non-selected fixtures.


Option	Description
SELECTED	Selected fixtures (on red or bright green fields) are recorded in cues and presets.
NON-SELECTED	Non-selected fixtures (on blue or dark green fields) are recorded in cues and presets.

Filter Category

These filters determine which attribute groups will be recorded into a cue, group or preset. **Note that only available fixture attribute filters will show in the pop-up.** That is to say, if there are no fixtures in the show using the Beam Effects, or Framing attribute groups, that particular filter option will not show in the pop-up.



Option	Description
Intensity	Attributes in the Intensity attribute group will be recorded.
Pan Tilt	Attributes in the Pan Tilt attribute group will be recorded.
Color	Attributes in the Color attribute group will be recorded.
Gobo	Attributes in the Gobo attribute group will be recorded.

Playback

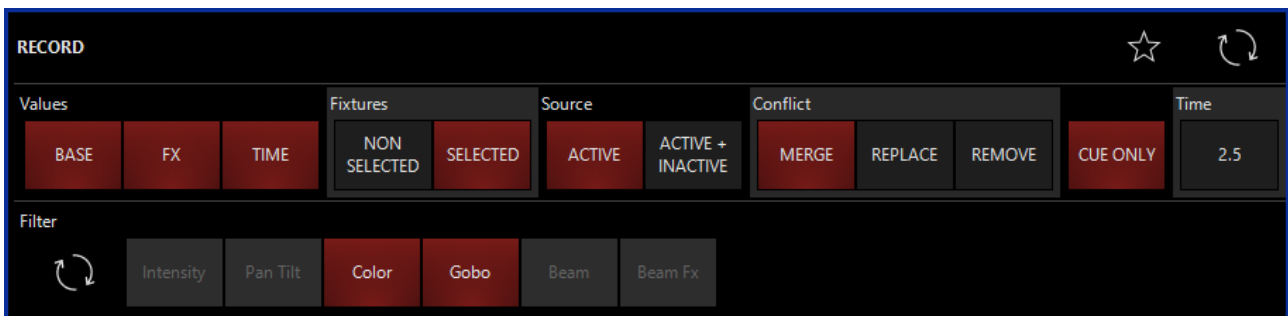
Option	Description
Beam	Attributes in the Beam attribute group will be recorded.
Beam FX	Attributes in the Beam Effects attribute group will be recorded.
Framing	Attributes in the Framing attribute group will be recorded.
	Clears all selected filters from the Filter Category

Record Options Save and Reset

In the upper right hand corner of the Record Options window, we see 2 icons that we can use to save our favorite Record settings to default.

Option	Description
	Causes the console to “remember” any of the filters you have applied so that the next time you press Record, those same filters will be selected.
	Causes the Record Options pop-up to return to its default filter setting.

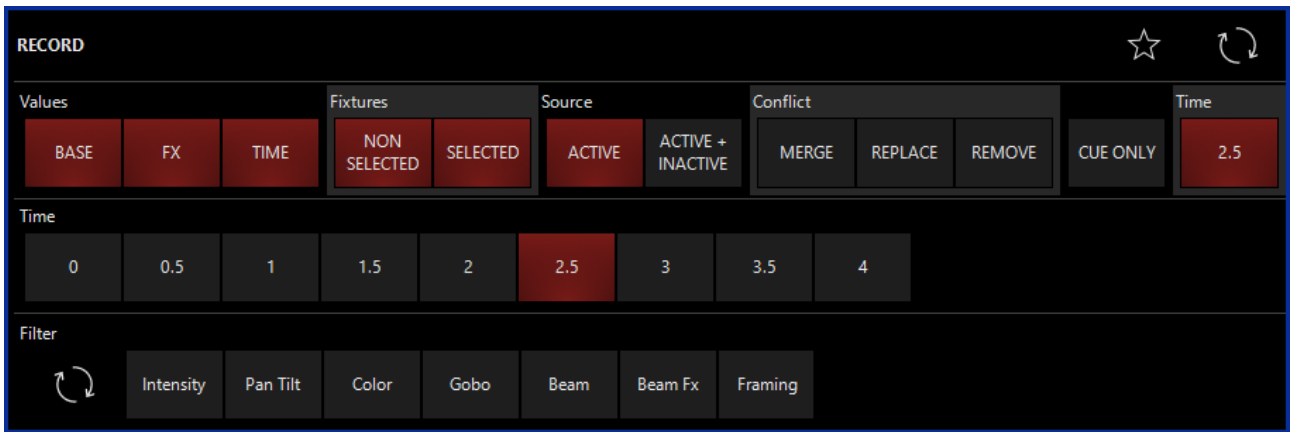
Filters can be combined in many ways so that, for example, you could merge only active values for gobo and color into one cue without tracking as shown below.



Time Category

The Time category buttons are not filters; they simply provide a convenient way to select the fade time when recording cues.

To change the cue fade times, press the value listed on the Time button. Then, you'll see a pop-down area that will contain different fade time choices.



The values that populate the buttons are determined in the menu under Show > Settings > Cue Fade Times.

Recording a Simple Cue

Now that you can manipulate the fixtures, let's explore ways of storing those beautiful cues to be played back later...

Cues are the primary means of programming looks in ONYX. Your cues are saved in various types of cuelists that are assigned to - and executed by - the playback controls.

The desired "look" created in the Programmer window is stored in a cue, which is inside a cuelist. Cues can contain as many or as little amount of parameter, timing and effect values as desired.

Your First Cue

There are three primary ways of recording the contents of the Programmer into a cue. The first is to press Record and then press the selection button of the desired cuelist playback. *This will either be the topmost physical button above a fader, or the on-screen indicator at the bottom of the ONYX interface.*

When you do this, the cue will be added to the end of the cuelist as the next "whole" number. If you select an empty playback, you will first be prompted to type a name (if desired) and select the [cuelist type](#) (Cuelist, Chase, Override, etc.) and then the information in the Programmer will be saved as cue 1.

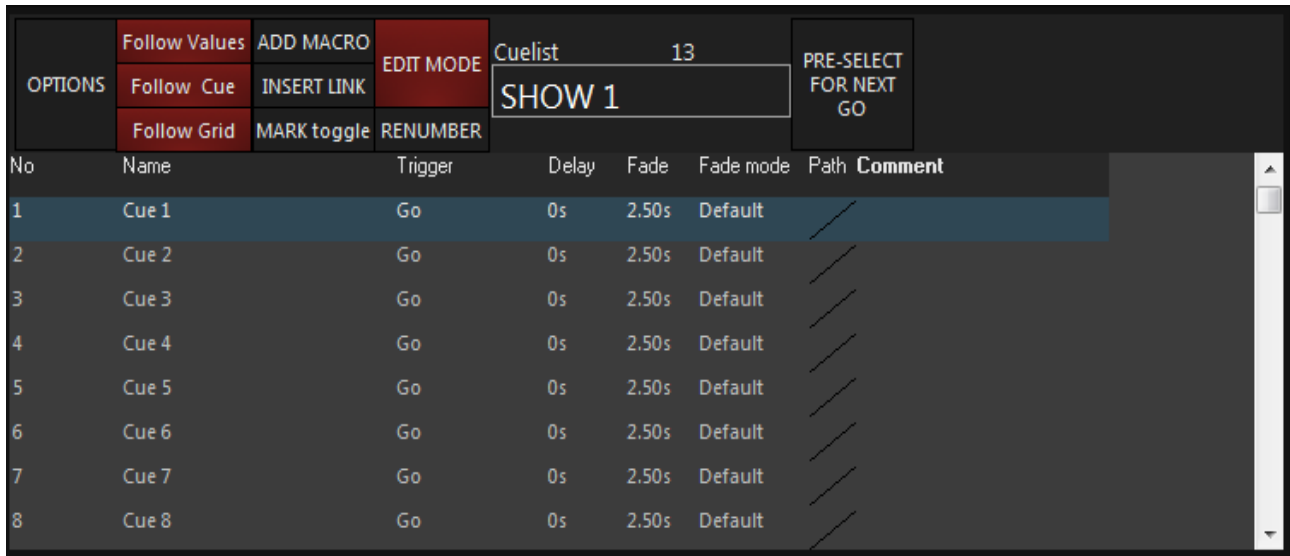
The second way to save the information as a cue is to specify the cue number using the keypad. The information will then be saved as the specified cue number in the selected cuelist. For example:

Record Cue 21 Enter - will save the information as cue 21 in the currently selected Cuelist.

The third way to save information as a cue is to simply press Record Enter. This will save the information as the next whole numbered cue in the selected cuelist.

Using any of these methods to record a cue will result in the Record Options popping up. For simple cues, this can be ignored but as you will read on the next page, this is quite a useful set of options, but don't worry, they are formatted in a similar manner to the already discussed [Clear](#) and [Load](#) options.

The Selected Cuelist Window



The Selected Cuelist screen is the primary display for manipulating Cuelists. You access the screen by pressing the Cuelist - Values view button, it is on the left side of this view.

Button Description

The Selected Cuelist screen contains a number of buttons with varying levels of functionality in the header of the Cuelist.

Option	Description
OPTIONS	This button accesses the options for the selected cuelist, a further, for more info see the Cuelist Options chapter.
Follow Values (Default ON)	When this button is highlighted (red), the carat, the “>>” next to Cue 1 that indicates the current cue will advance as each cue is executed, but the cuelist will not automatically scroll down following the carat. The highlight bar (the bright blue bar shown over Cue 1) will remain on the last selected cue.
Follow Cue (Default on)	With only Follow Cue selected, the carat and the highlight bar advance together as cues are executed, but the screen will not automatically scroll if the cuelist is longer than the number of cues that can be displayed on the screen.
Follow Grid (Default on)	Again, the carat will advance as cues are executed and the highlight bar remains at the last selected cue, but when Follow Grid is selected, the cuelist will automatically scroll down following the carat.
ADD MACRO	This button is adds a Macro to execute when the cue is triggered. Macros are covered here.
INSERT LINK	This button is adds a link to another cue in the cuelist. Links specifically, will be covered later in this manual.

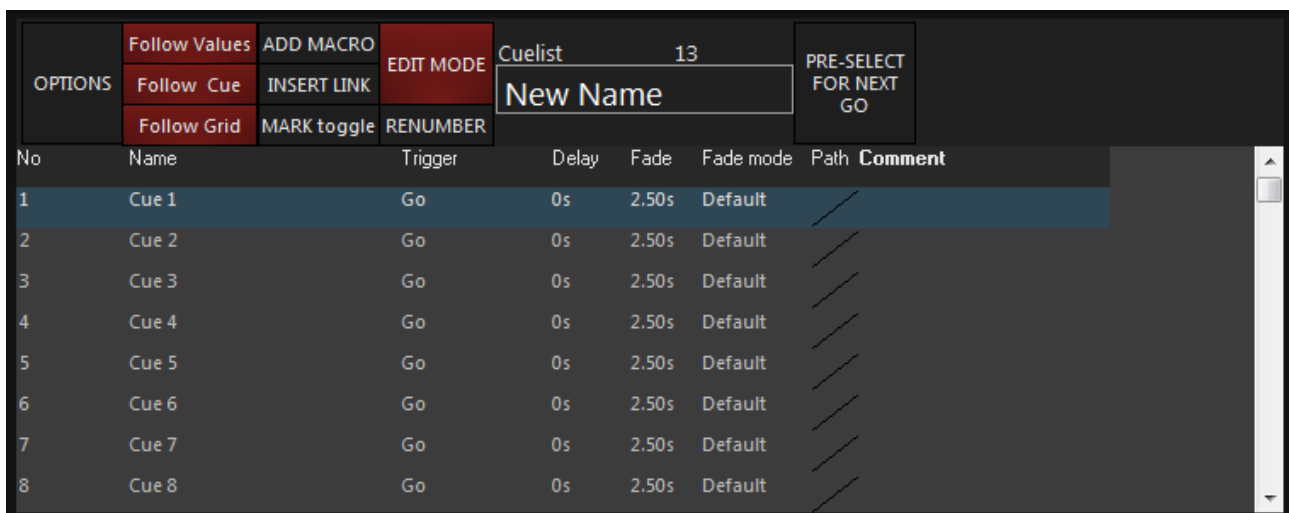
Option	Description
MARK Toggle	This button enables and disables the auto-marking feature for the selected cue. Read about Mark Here.
RENUMBER	When selected (highlighted in red) this button allows for the renumbering of cues as described in the “ Renumbering Cues ” chapter. When deselected, pressing or clicking on the cue numbers will load the information for the selected cue into the “Cuelist Values” screen.
EDIT MODE	This button toggles access the Add Macro, Insert Link, Name, Trigger, Delay, Fade, Fade Mode, Path, and Comment cue modifiers thereby preventing accidental changes. By default, Edit Mode is disabled. Please note that “Edit Mode” does not prevent the recording, deselecting or editing of cue contents; it pertains only to the cue modifiers listed above. Also, the “Edit Mode” button will maintain its state (locked or unlocked) regardless of the Cuelist or view displayed.
PRE-SELECT FOR NEXT GO	When enabled (red), you can jump to any cue in the Cuelist by selecting it in the number (No) column. The cue specified will have a red box around its number and will execute on the next Go.

In addition to these buttons, you will find text that tells you the cue type (Cuelist, Chase, Override, etc.) and the Cuelist number (in this case Cuelist 13). Directly below this is the Cuelist label. By default, the Cuelist label is the same as the Cuelist number.

To edit this label:

1. Ensure that Edit Mode is active (red)
2. Select the default text (Cuelist xx) by touching or clicking on the text on the touch screen.
3. The text will highlight in red.
4. Using the keyboard, enter the desired text.
5. Press Enter and the Cuelist will be relabeled.

Note that the new label is also displayed in the appropriate Cuelist selection and that the Cuelist number, found above the label on the touch screen remains unchanged.



Cuelist Table Description

Just below the Selected Cuelist screen buttons are eight columns, each of which provide specific information about the cues in the list.

Option	Description										
No	This is the cue number. The cue number can range from .0001 to 99999.9999										
Name	The default cue name is the same as the cue number. The process to change the cue name is similar to changing the Cuelist name and is detailed below.										
Trigger	The four trigger types (Go, Wait, Follow and Timecode) and any associated timings are listed here. Further information on triggers can be found in " Setting Cue Triggers ".										
Delay	Any delay time is displayed here. An "Override" column will be added to the right of the Delay column if a Delay Override is recorded. Cue timing is discussed later in this manual.										
Fade	The fade time of the cue is displayed here. An "Override" column will be added to the right of the Fade column if a Fade Override is recorded. Cue timing is discussed in the next section.										
Fade Mode	There are three fade modes. <table border="1"> <tbody> <tr> <td>Default Fade</td> <td>All attributes in the cue will snap or fade as denoted in the Attribute Controls.</td> </tr> <tr> <td>Snap All Channels</td> <td>All attributes in the cue snap. Fade times recorded into the cue will be overridden.</td> </tr> <tr> <td>Fade All Channels</td> <td>All attributes fade using recorded cue timing, including those that snap by default.</td> </tr> </tbody> </table>	Default Fade	All attributes in the cue will snap or fade as denoted in the Attribute Controls.	Snap All Channels	All attributes in the cue snap. Fade times recorded into the cue will be overridden.	Fade All Channels	All attributes fade using recorded cue timing, including those that snap by default.				
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Snap All Channels	All attributes in the cue snap. Fade times recorded into the cue will be overridden.										
Fade All Channels	All attributes fade using recorded cue timing, including those that snap by default.										
Path	This is the fade style, or "path". The path is selected by clicking the graphic in the path column (with Edit Mode enabled) and selecting the desired style in the pop-up window. The five path styles are: <table border="1"> <tbody> <tr> <td>Linear (Default)</td> <td>The fade is even over the fade time.</td> </tr> <tr> <td>Accelerate</td> <td>The fade starts slowly and speeds up.</td> </tr> <tr> <td>Break</td> <td>The fade starts fast and slows down.</td> </tr> <tr> <td>Accelerate - Break</td> <td>The fade starts slow, speeds up, then slows again.</td> </tr> <tr> <td>Shake</td> <td>The fade oscillates progressively towards the level.</td> </tr> </tbody> </table>	Linear (Default)	The fade is even over the fade time.	Accelerate	The fade starts slowly and speeds up.	Break	The fade starts fast and slows down.	Accelerate - Break	The fade starts slow, speeds up, then slows again.	Shake	The fade oscillates progressively towards the level.
Linear (Default)	The fade is even over the fade time.										
Accelerate	The fade starts slowly and speeds up.										
Break	The fade starts fast and slows down.										
Accelerate - Break	The fade starts slow, speeds up, then slows again.										
Shake	The fade oscillates progressively towards the level.										
Comment	This column allows you to insert notes or comments about the cue. Up to 21 characters can be entered. The process to enter a comment is similar to other labeling functions and is detailed below.										

Labeling a Cue

1. Ensure that Edit Mode is active.
2. Select the default text (Cue xx) by touching or clicking on the text on the touch screen.
3. The text will be highlighted in red.
4. Using the keyboard, type in the desired text.
5. Press Enter and the cue will be relabeled.

Labeling a Comment

1. Ensure that Edit Mode is active
2. Select the comment to be edited by touching or clicking on the text on the touch screen.
3. The column will highlight in red.
4. Using the keyboard, enter the desired text.
5. Press Enter and the comment will be applied.

Unblocking a Cuelist

As mentioned earlier, the ONYX is an LTP console.

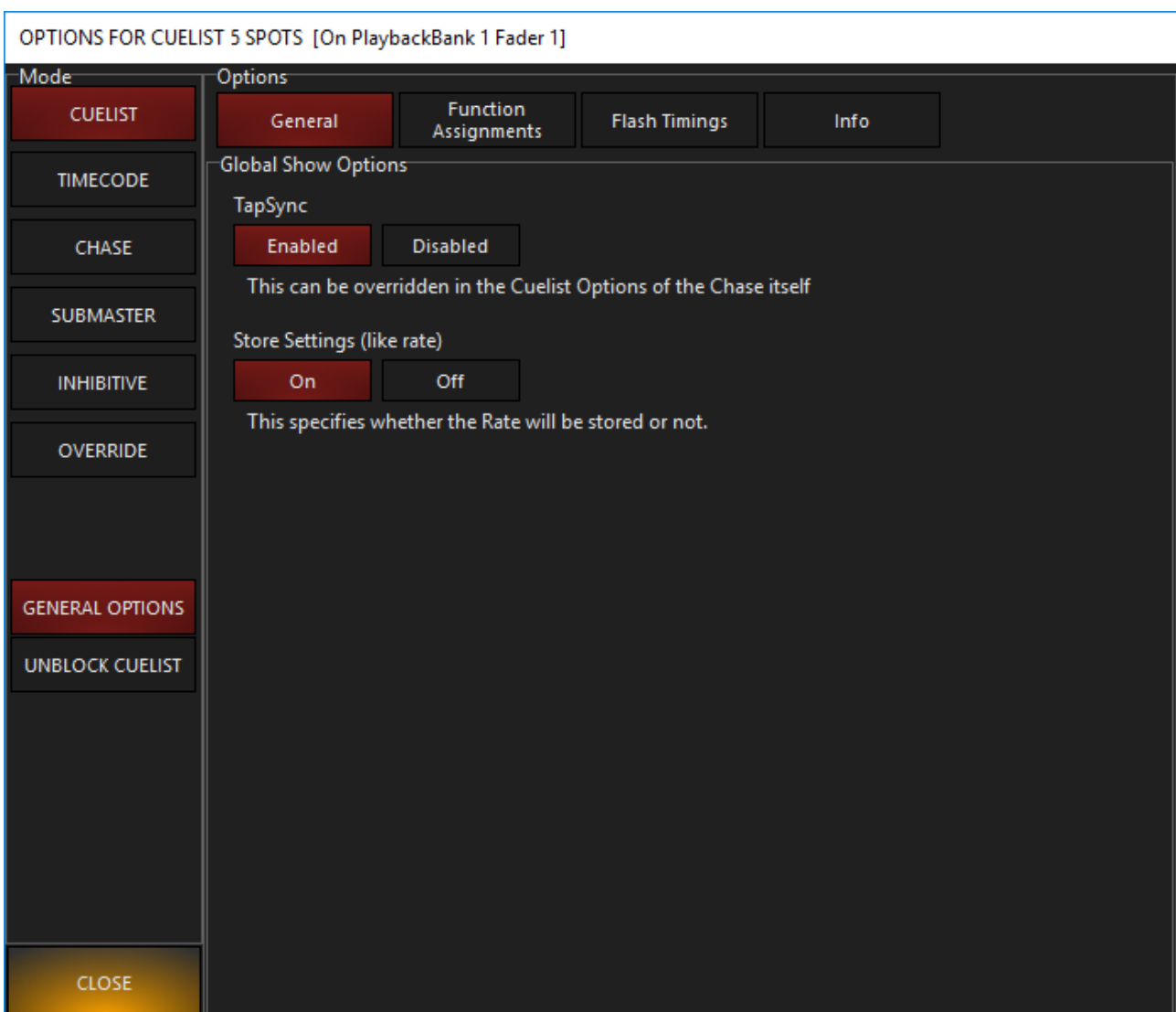
It is expected that an attributes value will track from cue to cue until it is specifically given a new value.

However, it is possible to inadvertently “block” that tracking action.

For example, if in cue 1 you have fixture 1 at full and you then copy a cue from a different cuelist that also has fixture 1 at full and you then record that as cue 2, fixture 1 will have a “hard” (non-tracked) value of full in both cue 1 and 2.

This means that a change to the intensity of fixture 1 in cue 1 would not track through cue 2.

Pressing the UNBLOCK CUELIST button removes those blocks and allows for normal tracking. The UNBLOCK CUELIST button is located on the bottom left hand side of the Cuelist Options window and will be relevant to the Cuelist that is selected at the time.



Using the UNBLOCK CUELIST Command

To Unblock a cuelist, open the [Cuelist Options](#) popup and press the UNBLOCK CUELIST button located in the lower-left portion of the window. The Command Line will display UNBLOCK CUELIST CUE.

At this point you can either press Enter to unblock the entire cuelist or you can enter a range of cues and press Enter. When entering a range of cues, only the cues contained in the range will be unblocked.

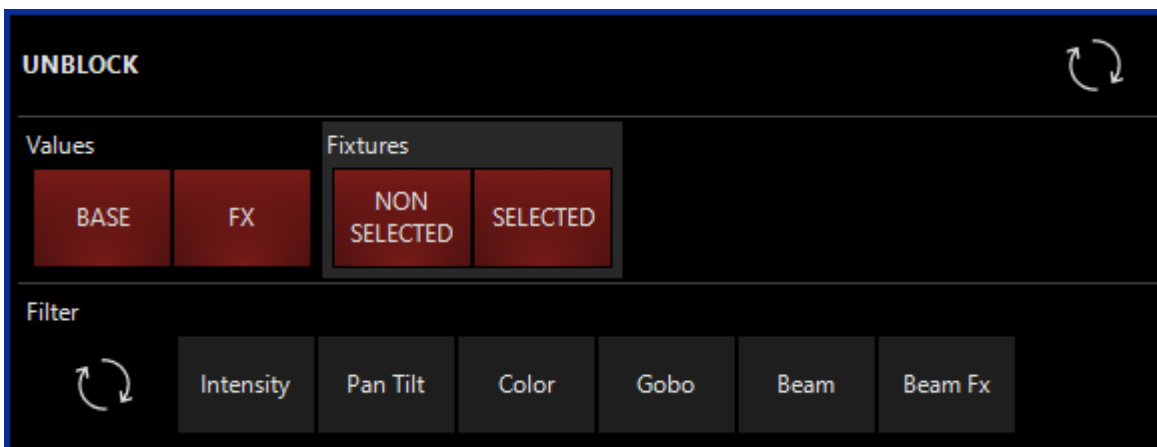
When unblocking a range of cues, only a simple range will be accepted.

For instance, UNBLOCK CUELIST CUE 1 THROUGH 6 Enter will do just that, but UNBLOCK CUELIST CUE 1 THROUGH 2 + 4 THROUGH 5 Enter" will fail silently.

UNBLOCK Options Pop-up

When you press the UNBLOCK CUELIST button, the UNBLOCK Options Pop-up appears to allow you to filter the values that are being unblocked. These filters work in exactly the same way as the [Record Options](#).

A powerful feature of the UNBLOCK options window is the Selection filter. By deselecting the NON SELECTED filter, you can unblock only the fixtures you have selected in the programmer.



Unblocking Example

Suppose that you have 3 cues. In the first cue, fixture 1 and fixture 2 have a hard intensity value of 100%. In the second cue, only fixture 1 has a hard value of 100% while fixture 2's intensity value has tracked from cue 1.

Fixture Numbering	1	2
Cue 1	100%	100%

Playback

Fixture Numbering	1	2
Cue 2	100%	100%
Cue 3	100%	100%

Let's say you have decided to reduce the intensity of both fixtures to 81% and have recorded that value into cue 1. All is well in cue 1, but, uh oh, fixture 1 fades back to 100% in cue 2 because its intensity has a hard value in cue 2.

It is blocked and does not track from cue 1.

Fixture Numbering	1	2
Cue 1	81%	81%
Cue 2	100%	81%
Cue 3	100%	81%

Let's go back to our original cues...

Fixture Numbering	1	2
Cue 1	100%	100%
Cue 2	100%	100%
Cue 3	100%	100%

Now, in order to prevent fixture 1's intensity from being blocked in cue 2, we could edit cue 2 and deactivate the intensity value. We could also [Remove](#) the value from cue 2. But what if there are 100 fixtures with blocked values across 50 cues?

The UNBLOCK CUELIST command searched through the cues looking redundant hard values. It then gets rid of the redundant hard values. The following chart shows the result of the UNBLOCK CUELIST command...

Fixture Numbering	1	2
Cue 1	100%	100%
Cue 2	100%	100%
Cue 3	100%	100%

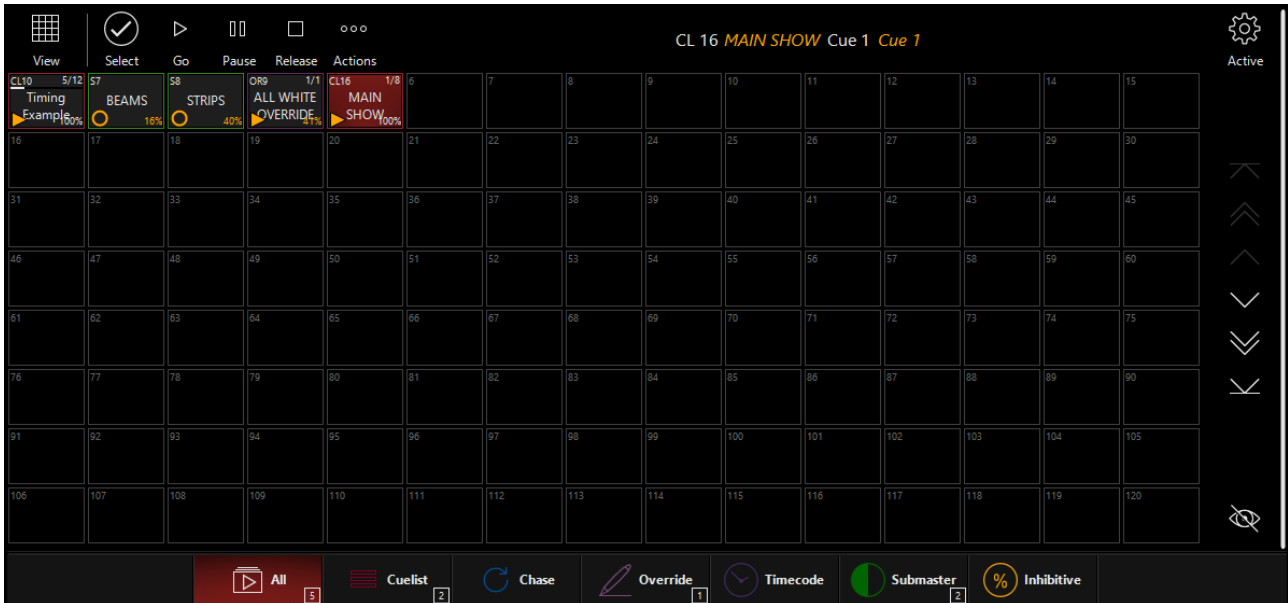
Voila! ONYX found the duplicate value and got rid of it, clearing the way for nice, clean tracking.

Active Cuelists Window

The Active Cuelists Screen automatically populates with active Cuelists.

Highlighting a Cuelist on this screen will make it the selected Cuelist. If no main Cuelist is designated, you can then use the Main Go area buttons to control the Cuelist. Note: if you designate the selected Cuelist by a different method, this list will not update to reflect the change.

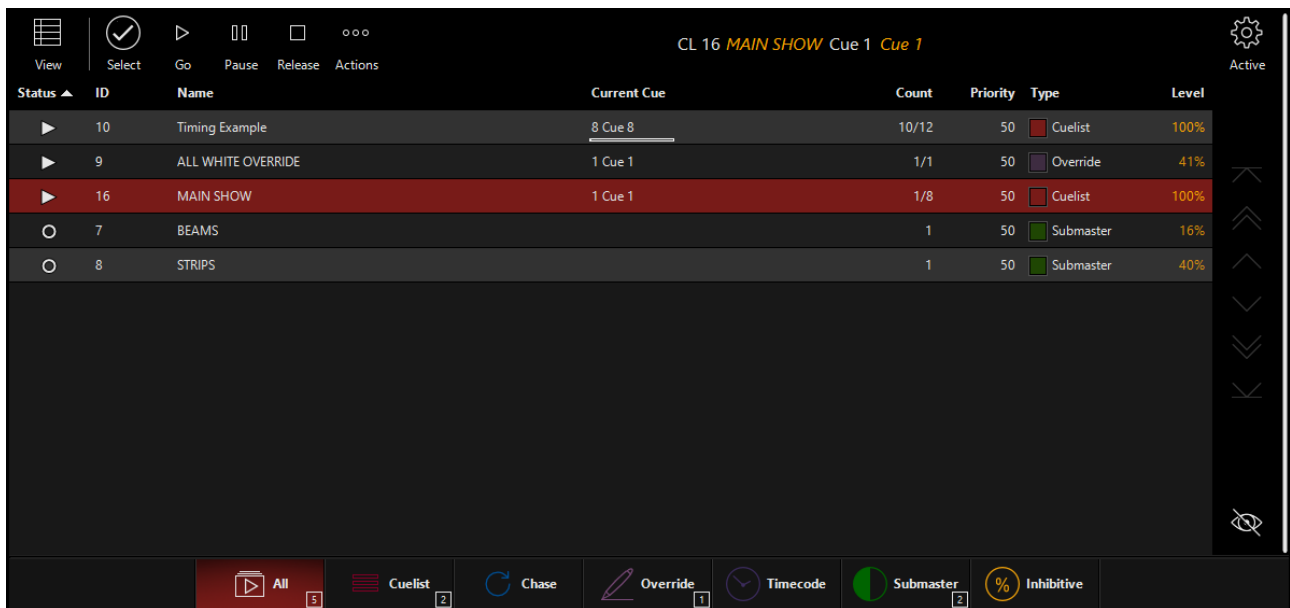
The window has tabs to filter down to specific Cuelist types.



Note that the Active Cuelists window shows the Cuelist Color Codes where applicable.

Much like other playback windows, the status bar along the top of the window shows the selected Cuelists name, number and current cue number & name. Touching this bar will cause the Direct Cuelist Access pop-up to open for quick control of the Cuelists fader level and other playback functions.






The window can also be viewed in list mode, by pressing the Grid/List toggle button in the top left corner of the window:



Irregardless of the mode the window is in (Grid or List), there are playback controls in the top left corner of the screen to facilitate quick control of active Cuelists, if you are familiar with the Virtual Playback Buttons then you will already find these controls familiar:

Button

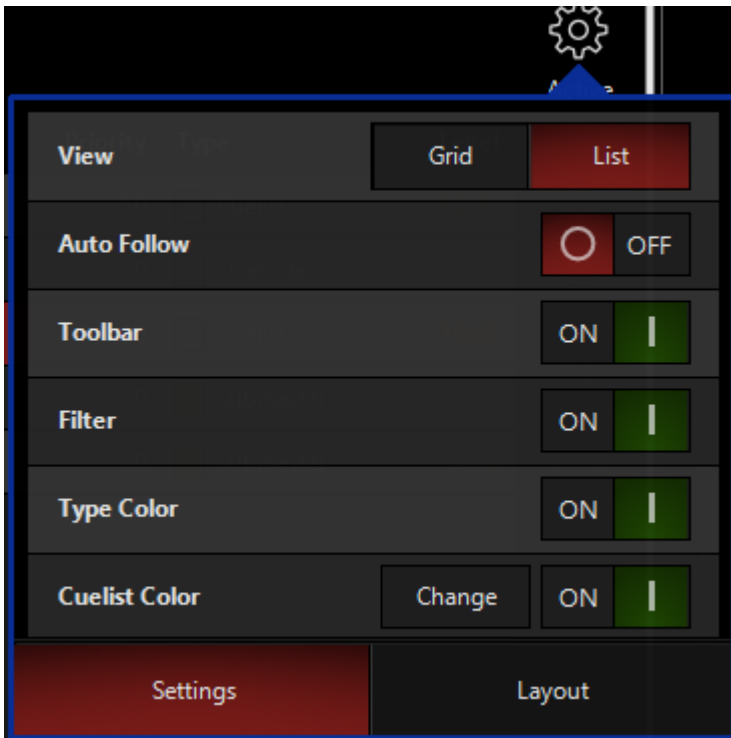
Explanation

-  Select makes the specified cuelist the selected cuelist, the one that is controlled by the Playback Command and loaded into the Selected Cuelist screen.
-  GO, touching a Cuelist in this mode will execute a Go action, much like pressing a physical Go button on the Playback Controls.
-  Pause, touching a Cuelist in this mode will pause any current fade and place the Cuelist in a paused state.
-  Release, touching a Cuelist in this mode will Release it and stop the Cuelist issuing changes to fixtures.
-  Direct Cuelist Access, touching a Cuelist in this mode will bring up the direct access pop-up for the Cuelist which hosts access to a fader and further playback functions.

When you select any of these buttons, your selection will be marked with a white circle around the icon.

Active Cuelists Window Options

You can access the options for this window, by simply pressing the "Options" button in the top right hand corner of the window. This will present the following pop-up:








Option	Description
View	The Grid and List button allow you to toggle between the Grid view and List view for the window. This is also accessible from a dedicated button outside the options.
Auto Follow	When "Auto Follow" is switched on, ONYX will scroll the window to the currently selected cuelist.
Toolbar	The Toolbar option toggles the Toolbar along the top of the window On/Off.
Filter	The Filter option toggles the Filter along the bottom of the window On/Off.
Type Color	Type Color allows the window to show Cuelists color coded by type. IE, Cuelists appear Red, Chases will appear Blue etc.
Cuelist Color	Cuelist Color allows you to change the Color tag assigned to a Cuelist, this can also be achieved in the Cuelist Directory. Any changes here will reflect back in the Directory. See " Color Coding Cuelists " for more information.

Beat Editor (Legacy)



The Beat Editor function allows you to set global beat value in Beats Per Minute (BPM) and link that value to any of your [Chase Cuelists](#). It is also linked to the Beat button that appears on various ONYX control surfaces, and is available as a [Sidebar Function Key](#).

Beat Editor Explanation

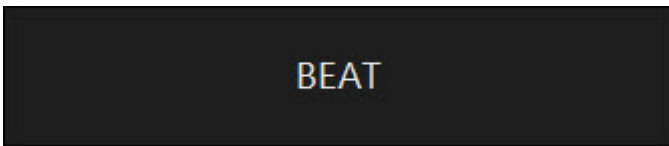
Item	Explanation
	<p>The divide button allows you to divide the current beat by 2. This is a useful function if the beat suddenly halves, mid show.</p>
	<p>The minus button allows you to subtract beat values from the overall amount.</p>
	<p>The BPM readout shows the current BPM.</p>
	<p>The plus button allows you to add beat values to the overall amount.</p>
	<p>The multiple button allows you to multiple the current beat by 2. This is useful if the beat sudden-</p>

Item

Explanation



ly doubles, mid show. (or if you realized you were tapping the tempo at half speed) The expand button is only visible in the beat control popup of the main toolbar. The expand button toggles the linked chases between visible and invisible in the popup to save space. The beat button is the primary way of assigning a BPM value. Tapping the button in time with the beat will set the value accordingly.



It is also linked to the Beat button that appears on various ONYX control surfaces, and is available as a [Sidebar Function Key](#).



The beat fader is another way of adjusting the beat value. This is useful if the beat is getting faster over a period of time.

70	▶	Cool Chase 1	3/4	100%
71		Cool Chase 2	-/8	100%

Once you link chases to the Beat Control. They become visible in the ex-

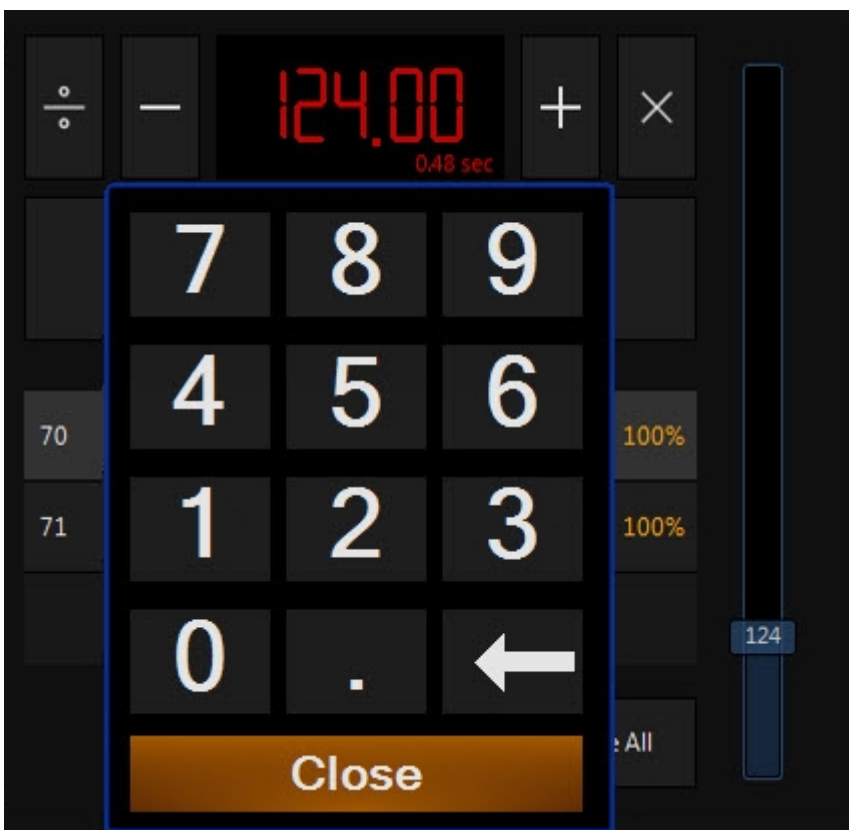
Item

Explanation

panded Beat Editor. You can touch chases to play them (if they are not already running).

It also shows you the name of the chase, its current cue and how many cues are in the list in total, and the intensity value of the list.

Clicking on the list for a second time will release it.



The keypad can be used to enter a BPM value just like other value entry in ONYX. Simply double tap (or click) on the BPM readout and the keypad will appear over the top.



The Release All button will release all chases assigned to the Beat Editor.

Accessing the Beat Editor

This is accomplished by either tapping on its icon in the main toolbar along the top of the screen, or adding the element to one of your screenviews.

Adding the Beat Editor Element to a View

Adding the Beat Editor to any view is simple - just follow the instructions for [creating a View](#), and you'll find the Beat Editor window under Windows, then Playback.

Assigning a BPM value

There are a number of ways to assign a BPM value.

1. Tap the Beat button.
2. Move the Beat Editor fader up or down.
3. Use the + and - buttons to assign a value.
4. Double press the BPM readout to assign a new value with the onscreen keypad.

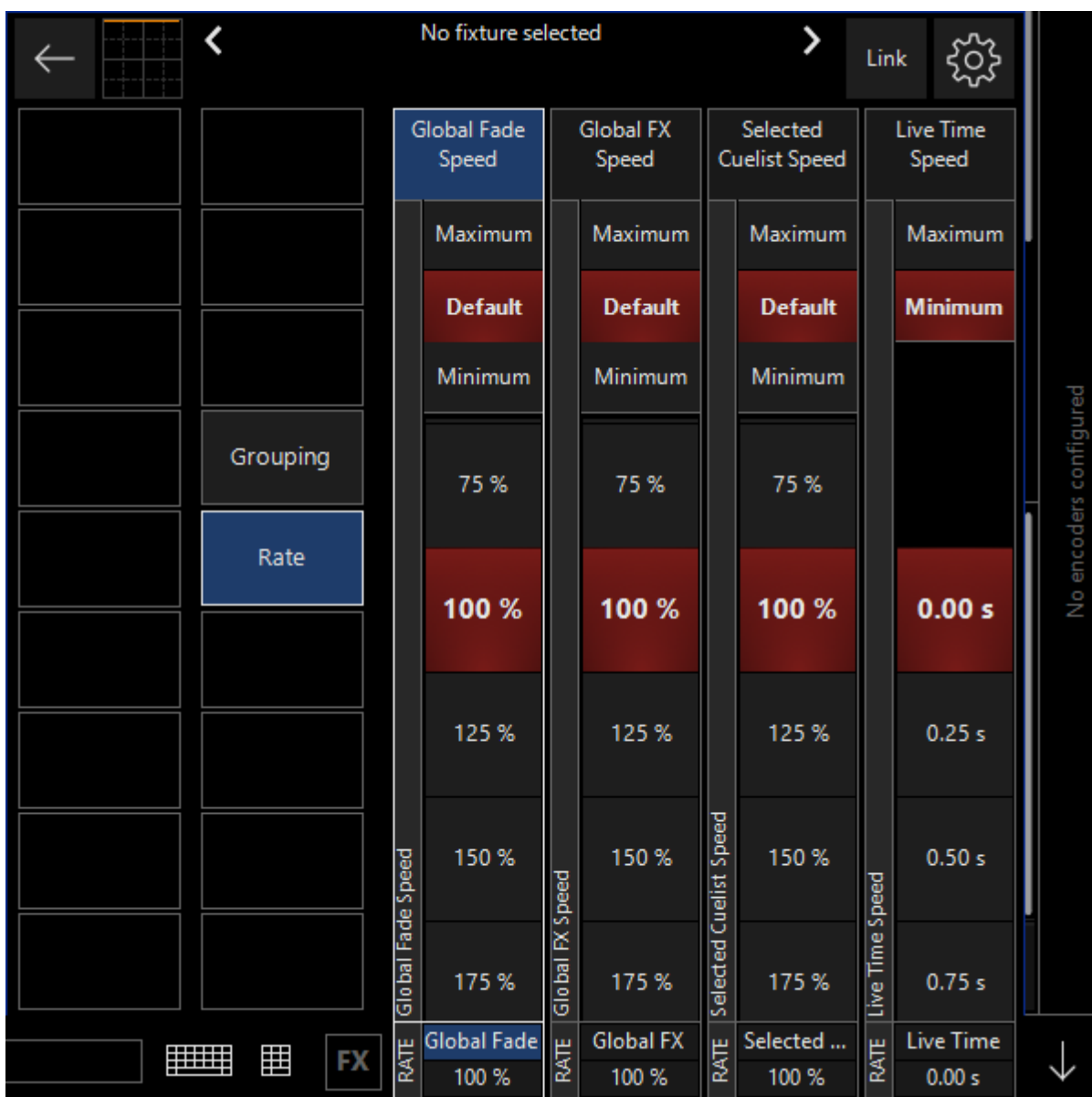
Changing Global Cue Timing

ONYX allows you to change the timing of Cuelists during playback with the Global Cue Timing controls.

The functions found here are “Global Fade Speed,” “Global FX Speed”, “Selected Cuelist Speed”, and “Live Time.” To access these features, select a cuelist and then press the Rate parameter group button in the Channel Visualizer/Attribute Controls or on the surface of your ONYX hardware.

Each of the four Global Cue Timing functions shown above correspond to the track belts directly below them in much the same way that attribute control works when a fixture is selected for manipulation. The default speed of 100% can also be rapidly selected by pressing the area of the touch screen labeled Default for the first three functions.

Note that when a change is made to the default settings, a red background appears behind the appropriate function to indicate it has been changed.



The Selected Cuelist Speed control will not be visible if there is no cuelist selected.

Global Fade Speed

The "Global" function allows you to incrementally change the times on all Cuelists.

The range available is from 1% to 1000% of their recorded speed. Again, this will affect all Cuelists.

This function acts as a multiplier on all recorded Cuelists.

For example, if there is a cue that is recorded with a time of 20 seconds in one cuelist, and another recorded at 10 seconds in a different cuelist, and the Global time is set to 200% (i.e. twice as fast as the recorded speed), then the first cue will execute in 10 seconds and the second will execute in 5 seconds. If you set the Global rate to 50%, the first cue will execute in 40 seconds, and the second cue will execute in 20 seconds.

As with attribute functions, you can use a direct access window (entered by double-pressing on the parameter name) or the encoder to adjust the timing.

Global FX Rate

Similar to the Global function discussed above, the "Global FX" adjusts the speed of all effects that are running on any recorded cuelist. Note that this affects the FX speed only, not overall cue timing.

Selected Cuelist Rate

This is also quite similar to the Global function, but only the timing of the selected cuelist will be affected; all other cuelists will continue to run with their previously recorded times.

The Selected Cuelist Speed control will not be visible if there is no cuelist selected.

It is also important to realize that the Selected Cuelist function and the "Global" function work cumulatively. In other words, if both Global and Selected are set to 200%, a cue recorded to execute in 4 seconds will execute in 1 second.

Live Time

Live Time does not affect the timing of cues, but rather affects the speed at which changes in the Programmer happen on stage. The range can be set from 0 to 60 seconds.

This can be particularly useful when transitioning from Blind to Live. Also note that when clearing the Programmer, this time will be applied.

This function can also be known as Sneak timing or Fade Changes, it is discussed more in the "[Live Programming](#)" section.

Main Playback Pages (Banks)

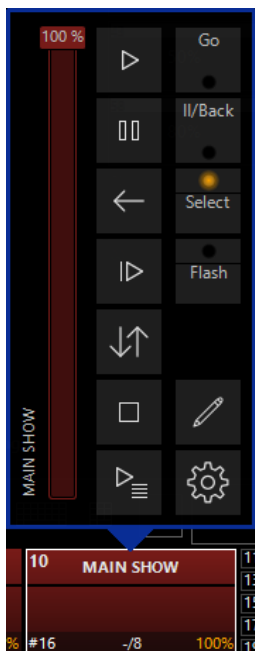
ONYX supports 500 playback pages called “banks”.

Each bank contains 10 Cuelists that correspond to the 10 playback controls, plus an additional 10 buttons to the right, which are available on some ONYX hardware.

Bank Display

1 SPOTS	2 WASH	3 BEAMS	4 STRIPS	5	6 ALL WHITE OVERRIDE	7	8	9 Timing Example	10 MAIN SHOW	11	12
										13	14
										15	16
#5	14%	#6	33%	#7	20%	#8	0%			17	18
					#9	-/1	0%			19	20

Individual Playbacks can be double-pressed to reveal an actions pop-up:



Double tapping on playback status accesses its functions and options, including Play, Pause, Back, Skip Ahead, Reset Cuelist, Stop, and Direct Cue View, among others. In particular, the Direct Cue View is popped out via this icon:



The Direct Cue View allows you to view, scroll and GoTo any cue within the cuelist on command. **Pressing on the Cue's name will press GO on that cue - be careful!**



Bank List

The bank list is displayed at the bottom of the Playback screen. The active bank is shown on the left.

Touching the active bank icon will show a popup allowing you to jump to other banks.



In the example shown above, the console is currently in bank 1. Taking a look at the cuelists, we can see the following from left to right, top to bottom:

Playback

- The playback control number, the Cuelist priority, and fader level
- A dynamic progress indicator (if currently fading a cue)
- The Cuelist type, Cuelist number, current cue/total cues
- The number and name of the current cue
- The number and name of the next cue in the Cuelist

Cuelists are also color coded by type as shown in the above example. The selected cuelist will have a white box drawn around it.

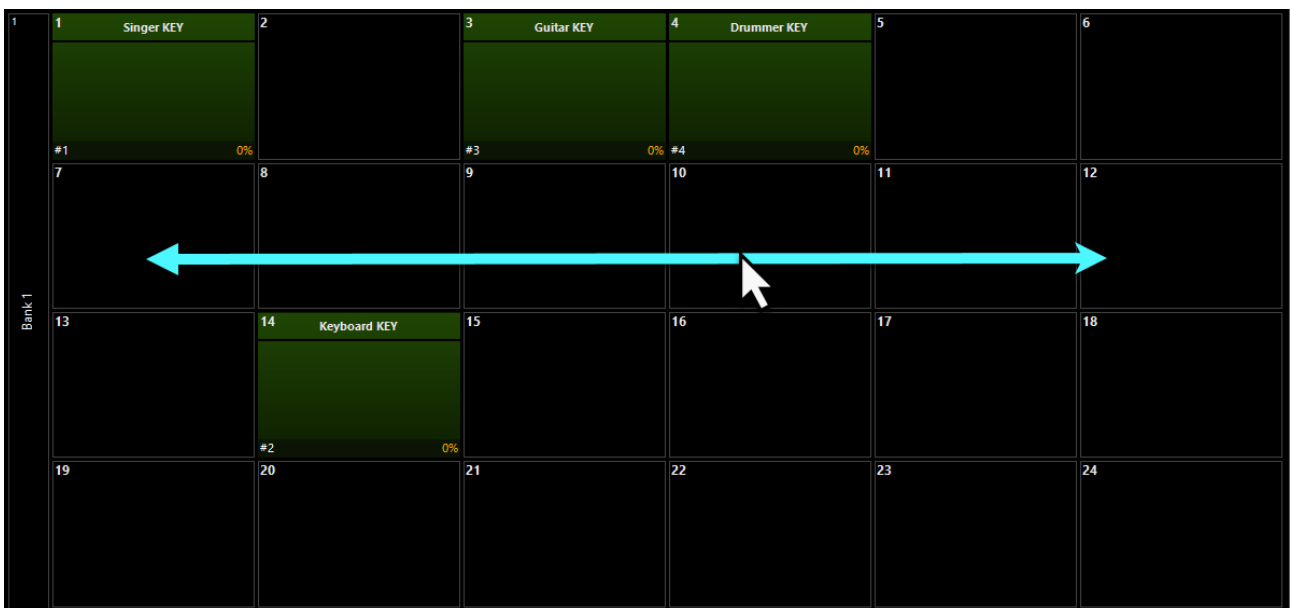
Changing Banks

There are several ways to change banks. You can scroll through bank pages using the jog wheel to the left of the playback controls, press the "Next Bank" and "Prev Bank" Playback Command buttons, press Bank XX Enter to select bank xx or, press a bank label on the touch screen.

The [NX4](#) also features bank change buttons above the "Main Go" area to the left of the Main Playback faders.

Changing banks using swipe gestures

Swiping your finger across the Main Playback Bank Status or the Sub Playback Bank Status will advance through banks. Swiping right to left will go forward one bank, and left to right will go back one bank.



Labeling a Bank

Banks can be named.

To change the bank label:

1. Go to the bank whose label you wish to change.
2. Press Edit
3. Press the Bank button.
4. Type the label text.
5. Press Enter.

On the Submaster module which is part of the M6 console, there is no bank jog wheel, a quick shortcut to access sub banks on this module is to hold down BANK and when doing so, the flash keys on the module become shortcuts to the sub banks. For example, hold BANK and press the 6th flash key, and the module will advance to sub bank 6.

You can select a cuelist by touching or clicking it on this screen.

Moving, Copying and Deleting Cuelists on Playback Controls

Moving a Cuelist to a Playback Fader on the Same Bank

To move a cuelist from one playback fader to another on the same bank, use the following procedure:

1. Press Move.
2. Press the Playback Select button of the Cuelist you wish to move.
3. Press the target Playback Select button of where you wish to move the cuelist.

Moving a Cuelist to a Playback Fader on a Different Bank

To move a Cuelist from one playback fader to another on a different bank, use the following procedure:

1. Press Move.
2. Press the Playback Select button of the Cuelist you wish to move.
3. Using the using the jog wheel to the left of the playback controls, or the other bank controls, scroll to the desired destination bank.
4. Press the target Playback Select button (where you wish to move the cuelist).
5. The Cuelist will be moved to the specified bank and fader.

Moving a Cuelist to a Playback Fader on a Different Bank Using the Command Line

1. Press Move.
2. Press the Playback Select button of the cuelist you wish to move.
3. The command line will read Move Cuelist Playback Fader BB.nn “BB” corresponds to the bank number of the source cuelist and “nn” corresponds to the fader number of the source cuelist.
4. Press @ BB.nn Enter,
5. The cuelist will be moved to the specified bank and fader.

Copying a Cuelist to a Playback Fader on the Same Bank

Copying a Cuelist from one Playback fader to another is quite similar to moving a cue.

1. Press Copy.
2. Press the Playback Select button of the Cuelist you wish to copy.
3. Press the target Playback Select button (where you wish to copy the cuelist).

Just as you can move Cuelists across banks, you can copy across banks as well. You are also prohibited from copying to a playback that already has a cuelist.

Playback

There is however, one very important thing to note: when you copy a Cuelist from one playback fader to another, you are not creating a copy per se, as much as you are creating a clone.

Any changes made in one Cuelist, the original or the copy, will be reflected in the other. It is Cuelist, but in two locations.

Copying a Cuelist to a fader on a different bank is accomplished in the same manner as moving a Cuelist to a different bank.

Note: If you wish to create a separate, unique copy of a Cuelist, you can do so in the [Cuelist Directory](#).

Removing Cuelists from Playback Controls

To remove a Cuelist from a playback fader:

1. Press Delete.
2. Press the Playback Select button of the Cuelist you wish to delete.
3. Press Enter.

You just accidentally removed a cuelist? Don't worry. See "[Cuelist Directory](#)".

Playback Controls

ONYX allows flexible playback and is adaptable for many styles of shows. With a variety of different hardware options available, you can bring different ONYX devices together to make your ideal control surface.

In addition to physical hardware, ONYX also features on-screen playback buttons that can be easily triggered with a mouse or touchscreen.

There are 3 different types of playbacks in ONYX - Main Playbacks, Sub Playbacks and Playback Buttons.

These is not to be confused with [Cuelist Types](#) - like Override, Chase, Submaster and Timecode!

Playback types are simply a way to keep the various playbacks you may find on your hardware separated and organized, and any cuelist type can be placed upon any playback type.

In general, Main Playbacks offer up to 2 buttons above the fader, the fader itself, and 2 buttons below the fader. Not all hardware will offer all of these buttons on it's Main Playbacks - for example - the [NX Touch](#) has 2 buttons above, but only 1 below on it's playback faders.

Sub Playbacks offer up to 1 button, and up to 1 fader. Take for example, the [NX4](#), which features 12 Sub Playback faders on it's left side, with 12 play/bump buttons below and 24 playback buttons at the bottom. All of these are Sub Playbacks.

Playback Buttons are virtual, button based playbacks which you can have as one of your windows inside of ONYX.

All Buttons and Faders are configurable via the Cuelist Options - [Function Assignments](#) section.,

Playback Status

On ONYX hardware, the buttons will light up either red, yellow or green and may flash.

These colors are a helpful guide to you as to what's going on with your playbacks. Here's what they mean:

- An unlit button indicates that the playback is empty.
- Solid Green indicates that the Cuelist is cross fading or the Submaster is active.
- Solid Red indicates that the Cuelist is active.
- Solid Yellow indicates that the cuelist is selected.
- Flashing Red indicates that the Cuelist cross-fading is paused.
- Flashing Yellow indicated that the Cuelist is Selected, and Crossfading is paused.
- A Rapidly Flashing Yellow indicates that the physical fader is at a different level than the cuelist attached to it!
- Holding down the Select key in the "Main Playback Control" Section of the console will turn all Select Buttons LEDs red on Playbacks that are occupied by a cuelist. Any Playbacks that are empty will have unlit LED Select keys.

Releasing Cuelists

Releasing (or clearing) a cuelist will cause the selected playback control to cease outputting instructions to its associated fixtures and cancels any cues, chases, overrides, or timecode cues. You can release a specific cuelist or you can release all cuelists.

Releasing an Individual Cuelist

To release an individual cuelist:

- Press and hold the Rel button.
- Press the Go button of the playback control for the desired cuelist.
- Release both buttons.

If an individual cuelist is fully overridden by other cuelist(s), it will automatically be released unless "Stay Alive" is enabled in the [Cuelist Options](#).

Releasing All Cuelists

There are two ways to release all Cuelists. The first releases everything at once, and the second releases intensities first, then the rest of the parameters. This is a secret ninja move to clearing our your cues in a really slick way - don't gloss over this!

Rel + Snap

All attributes in all faders on all banks will return to their "home" position in the default fade time.

- Press and hold the Rel and then press the Snap hard button (above the Main Go).
- Release both buttons

Snap + Rel

All intensity values of all fixtures on all pages will fade to zero and then all other attributes in all faders on all banks will return to their "home" position.

- Press and hold the Snap and then the Rel hard buttons (above the Main Go)
- Release both buttons

You can also release all or specified Cuelists using macros. Please see "[Using Macros](#)" for complete information

Selecting Cuelists

There can be any number of active Cuelists, but there can only be one selected cue list at any time.

What is the selected cue list?

ONYX has several functions, commands, and screens that only work with one - and only one - cue list at a time such as the Playback command functions, the cue edit function, the "Selected Cue List" and "Cue List Values" windows, and the "Selected Cue List" playback timing control.

The selected cue list is the one that is acted upon or displayed by these functions, commands, and windows.

You can select a cue list to be the selected cue list by

- Pressing the Select Button of a playback control.
- Selecting it from the Cue List Directory screen.
- Selecting it from the Playback screen.
- Pressing Select or +Select and then pressing its button in the Playback Buttons screen, or selecting it from the Active Cue Lists screen.
- Touching its status area usually found above the playback fader section.

When a Cue List is running on a Playback with no select key assigned to it, you must use the Select key located above the Main Playback Controls (Pictured). Hold down the Select key, this shows which playbacks have Cue Lists assigned to them, then press one of the buttons pertaining to the Playback/Cue List you wish to select.

You may also double click the Select key to activate "Select Lock". In this mode, all playback buttons become select keys temporarily until "Select Lock" is disabled. To Disable Select Lock, hit the Select key again.

The Main GO Control

This area consists of five buttons.

The Main Go and Main II/Back (pause/back) buttons are convenient, fast-access buttons for fading the next cue and pausing/fading the previous cue in the cuelist designated as the main cuelist.

If no cuelist is [designated "as main"](#), then the Main II/Back and Go buttons control the selected cuelist.

To select a cuelist and make it the selected list, simply press its associated Select button.

The Snap and Rel buttons are used in conjunction with other buttons. In the table below, (button a) + (button b) means press-and-hold button a and press button b.

The Select Button will function as a normal select button if the "Main GO" section is assigned to a cuelist "As Main". If not it can be held down so you can touch the "GO" button of a playback that doesn't have a "Select" function assigned to one of its playback keys. This is useful functionality for Playback Buttons and Submasters.

Combination	Function
Snap + Main Go	Snaps the next cue in the selected cuelist.
Snap + Any Go	Snaps the next cue in the cuelist assigned to the playback.
Snap + Cue XX	Snaps cue XX in the selected cuelist.
Snap + Main II/Back	Snaps the previous cue in the assigned cuelist.
Snap + Any Pause	Snaps the previous cue in the cuelist assigned to the playback.
Snap + Rel	Global release: All active Cuelists (except those set to "Ignore Global Release") release by fading intensity to zero first and then returning all other attributes to their default. The "Default Release Time" applies to this combination.
Rel + Snap	Global release: All active Cuelists (except those set to "Ignore Global Release") release by simultaneously fading all attributes to their default. The "Default Release Time" applies to this combination.
Rel + Main Go	Releases the selected cuelist.
Rel + Any Go	Releases the cuelist assigned to the playback.

Note that if no Cuelist is designated "As Main", the applicable snap and release functions control the selected Cuelist instead.

Tracking

Tracking is a console programming feature which means that only the changes are Recorded into a Cue.

Values that have not changed, do not get assigned a value. You may have seen this called a "null" value before.

This is particularly useful where a Cue contains just small adjustments whilst the main "look" remains the same.

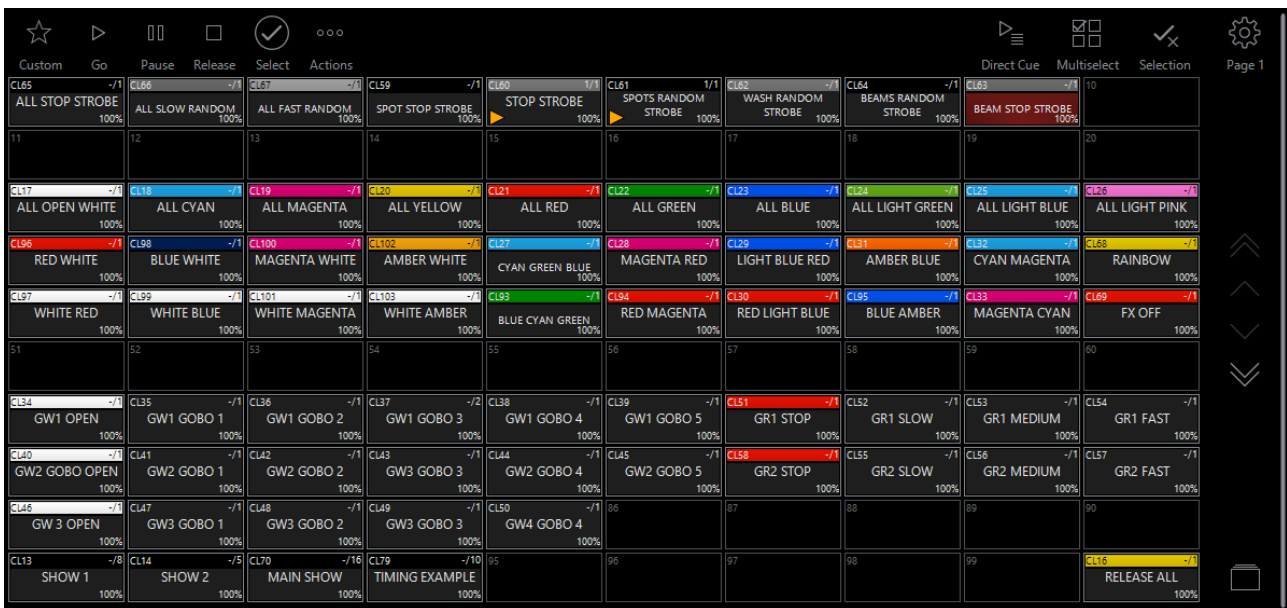
If a change is made to the main "look", each individual cue will not require updating as the changes will track through the cuelist.

ONYX by default only records the changes (Active Values). Sometimes you will want to record both Active and Inactive values into a cue - for example at the start of a new song, you can choose what values you record into a cue in the [Record Options window](#) which appears when you hit the Record button.

Virtual Playback Buttons

The Playback Buttons window presents an alternative way of displaying information to be used instead of or in conjunction with the Playback Controls. While the detailed level of information that is readily accessible in a playback fader is hidden, the rapid access to a large number of Cuelists presents you with the ability to make very quick changes. There are 100 pages of buttons, each (by default) containing 100 buttons in a 10 by 10 arrangement.

The Playback Buttons Window



At the top of the screen you can see the controls for the playback buttons. The up and down arrows at the right side increment and decrement through the 100 available Playback Button pages.

The “Go,” (Play Button) “Pause,” (II Button) and “Release” (Stop Button)buttons have the same function as described elsewhere but the order you press them in is reversed. Whereas with a playback fader you select the Cuelist and then the function, in the Playback Buttons page, you select the function and then the Cuelist.

The other buttons on this page are described below:



Custom, touching a Cuelist in this mode will execute the Up and Down function assignment of that Cuelist. The Function Assignments can be changed in the Cuelist Options. (Right click on the Playback Button to quickly access the Options.)



GO, touching a Cuelist in this mode will execute a Go action, much like pressing a physical Go button on the Playback Controls.



Pause, touching a Cuelist in this mode will pause any current fade and place the Cuelist in a paused state.



Release, touching a Cuelist in this mode will Release it and stop the Cuelist issuing changes to fixtures.

Playback



Select makes the specified cue list the selected cue list, the one that is controlled by the Playback Command and loaded into the Selected Cue List screen.



Direct Cue List Access, touching a Cue List in this mode will bring up the direct access pop-up for the Cue List which hosts access to a fader and further playback functions.



Direct Cue, in this mode touching a will present a pop-up window next to it with a list displaying the cues in that cue list. You can then jump to any cue in the cue list.



Multiselect, in this mode you can select multiple Cue Lists to issue a Go or Release command to them all at the same time. To use this function, press the Multiselect button, touch the desired Cue Lists then finally hit the Go or Release button.



Select Cue List, displays the current selection action when touching a Cue List. Off: performs the default Go, Pause, or Release command. On: this makes the specified Cue List the Selected Cue List along with the default Go, Pause or Release command. Chases (CH): this limits the functionality to Chases only, when touching a Cue List that is not a chase with this mode enabled, the default Go, Pause or Release action will be executed as normal but it will not be selected.



Options and page number indicator.

Moving and Copying Playback Buttons

Moving and copying Cue Lists in the Playback Button window works just like moving and copying in the Playback Banks.

Be aware that the same rules apply when copying a cue list: you're not creating a new Cue List, merely copying one. What's done in or to the copy will be done in and to the original.

Moving Playback Buttons

To Move a Cue List from the Playback Buttons window:

- Press Move.
- Select the Cue List to Move on the touchscreen.
- Press the new button you want the Cue List to be on, or the Select key of the physical playback.

Copying Playback Buttons

To Copy a Cue List from the Playback Buttons window:

- Press Copy.
- Select the Cue List to copy on the touchscreen.
- Press the new button you want the Cue List to be on, or the Select key of the physical playback.

Deleting Playback Buttons

To delete a Cue List from the Playback Buttons window:

1. Press Delete.

Playback

2. Select the Cuelist to delete on the touch screen.
3. Press Enter.

Color Coding Cuelists in the Virtual Playback Buttons

To color code cuelists from the Virtual Playback Buttons, simply follow the guide to [Color Coding Cuelists in the Cuelist Directory](#).

Whether you color code the cuelist in the Cuelist Directory or on the buttons, the cuelist color is assigned at the cuelist level, and will be shown in both windows, if the feature is enabled.

Programming

Please see the topic list below to get started.

- [Fixtures and Groups](#)
- [2D Plan View](#)
- [Manipulating Fixtures](#)
- [Presets](#)
- [FX](#)
- [DyLOS](#)

Fixtures and Groups

Please see the topic list below to get started.

- [Selecting Fixtures](#)
- [The Fixture Center](#)
- [Using the Commandline](#)
- [Selecting Active Fixtures](#)
- [Groups](#)

Fixtures and Groups

Please see the topic list below to get started.

- [Selecting Fixtures](#)
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- [Using the Commandline](#)
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- [Groups](#)

Groups

Please see the topic list below to get started.

- [Groups](#)
- [Selecting Groups](#)
- [Recording Groups](#)
- [Editing Groups](#)
- [Copying and Moving Groups](#)
- [Using the Grouping Tools](#)

Using the Grouping Tools

Please see the topic list below to get started.

- [Using the Grouping Tools](#)
- [Using the Predefined Groups Tools Masks](#)
- [Recovering Fixture Selection Masks](#)

Onyx User Manual - Programming/Fixtures and Groups/Groups/Using the Grouping Tools

Please see the topic list below to get started.

- [Using the Grouping Tools](#)
- [Using the Predefined Groups Tools Masks](#)
- [Recoring Fixture Selection Masks](#)

Recording Fixture Selection Masks

The real power of fixture selection masks becomes evident when you combine them with the ability to record as groups. There are 2 types of stored selection masks, Masks and Fast Selects. The Masks can be applied to the existing fixture selection and the Fast Select is stored along with a selection. Let's examine them both in more detail.

Masks

When starting a new show file, the Grouping Tools screen is automatically populated with a series of special groups called Masks, which can be found by clicking Masks in the bottom right corner of the Grouping Tools window.

Masks are essentially shortcuts to apply pre-defined fixture selection masks to the current selection.

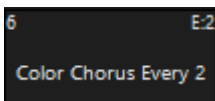
To apply a Mask:

1. Select some fixtures using any of the [fixture selection methods](#) described in this manual. For our example we will select fixtures 101 Thru 111.
2. Click or touch the desired Mask on the Grouping Tools Masks screen.

Interact with the masked selection as you would normally, using the Next/Last buttons or the attribute fanning controls. (For more info on fixture selection masks, see the chapter on "[Using the Grouping Tools Screen](#)")

Fast Selects

A Fast Select is simply a Mask which has already been applied to a selection, and is stored in ONYX as a group:



You can see the mask noted in the upper right corner of the group tile.

For instance, you could record a Fast Select of every other wash fixture. Once you have this stored, you can instantly recall this selection by pressing the Group, and interact with it using the Next/Last buttons.

To record a Fast Select:

1. Select some fixtures using any of the fixture selection methods described in this manual.
2. On the Grouping Tools Screen, choose a grouping type and value.

Programming

3. Press Record and touch or click on an empty group on the Fixture Groups screen.
4. As with a standard group, type a name for the new group and press Enter.

When recalled, the fixtures will be selected with the fixture selection mask applied. You can now interact with the fixtures using the Next/Last buttons or the attribute fanning controls.

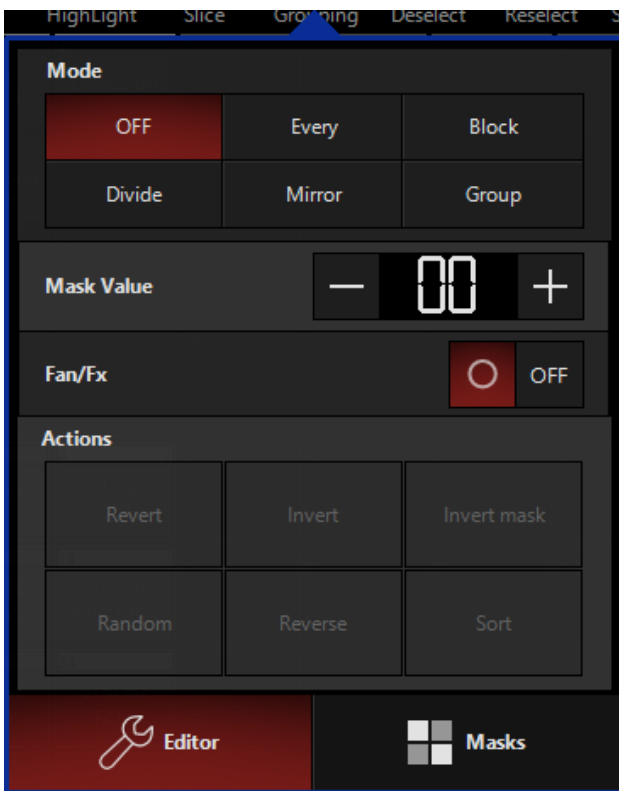
Using the Grouping Tools

Grouping Tools is a powerful tool that allows for the easy division of selected fixtures into various subsets.

It is very useful when creating fixture groups.

When combined with the Next/Last buttons, rapid manipulation of selected fixtures becomes possible. The Grouping Tools screen is shown below. You can find this window at the top of the Groups window, and it's also available as a sidebar button, function key and via the encoders.

Using the Grouping Tools is simple - just select Fixtures, apply a Mode, Mask Value, possibly apply to Fan/FX and Actions. Look below for the full description and guide on using the Grouping Tools:



Step 1: Mode

To use the Grouping Tools, first select any number of fixtures greater than 1 or a group/groups.

Now press Grouping from the Fixture Center window to open the Grouping Tools.

You're now able to choose from the following "modes" to split up your selection:

Option	Description
OFF	Turns off the grouping tools.

Op-tion	Description
Every	Selects fixtures in a linear fashion, only selecting Every "X" number of fixtures, where "X" is the Mask Value.
Block	Selects fixtures in segments of the Mask Value. Using "4" as your mask value would select fixtures in segments of 4.
Divide	Splits the total selection into subsets by the Mask Value. Using 2 will split your fixtures in half, while using 3 will split in 3rds.
Mirror	Selects fixtures in a mirrored fashion, where the Mask Value equals the total amount of fixtures selected at one time. Using a value of 2 selects the 2 outermost fixtures, then moves in as you press "next/last".
Group	When multiple groups have been selected, this selects one of those groups at a time. <i>Mask Value does not apply.</i>

Step 2: Mask Value

Now that you've selected a Mode, setting a Mask Value will modify the total number of fixtures selected, in a fashion dependent on the Mode selected.

For example a value of 3, when using Every will selected every 3rd fixture.

The Last/Next keys allows you to advance through the sets defined by the grouping tools. In this example, you would then have 3 sets of fixtures to toggle through with Last/Next.

Step 3: Fan/FX

This toggle switch allows you to switch between applying Fan/FX to the current grouping selection, vs the whole selection. While it may seem a little confusing at first, it's actually quite simple and very powerful.

For example, select some fixtures and set them to a Mode of "Every" and a Mask Value of "2".

When Fan/FX OFF, anything you do in the Programmer, with the Fan Tool, or FX will only apply to the half of the lights that is actively selected.

With Fan/FX ON, you'll see the 2 halves of the fixtures now being fanned or applying FX against each other.

Step 4: Actions

The very last section of the Grouping Tools window allows you to modify the selection you've made above. Here is what they do:

Option	Description
Revert	If you have made changes in the fixture order, pressing this button on the Selected Fixtures screen will revert the selected fixtures to their original selection order. Note that this does not necessarily mean that they will be in numerical order. If you selected fixtures 24 through 1 and then made changes to that order, pressing Revert to selection will return them to 24 through 1 again.
Invert	This soft button is the equivalent to the / Enter command. When pressed, those fixtures in the Programmer that are selected will become deselected and vice-versa.
Invert Mask	This feature works in much the same way Invert selection works. When pressed, all masked fixtures become unmasked and vice-versa. For more details see " Mask Options ".
Random	The order of the selected fixtures in the Programmer can be randomized by pressing the Random on the Selected Fixture list.
Reverse	Similar to randomizing the order of the fixture selection, you can reverse the order by pressing the Reverse soft button. This will flip the current selection order regardless of whether fixtures are selected or deselected. Reverse can be used in conjunction with Random.
Sort	The Sort soft button will sort any selected fixtures by their fixture number from lowest to highest.

Using the Predefined Grouping Tools Masks

At the bottom right corner of the Grouping Tools window is the Masks button.

The predefined masks are automatically available, and allow you to quickly apply a Mode and Mask Value with a simple press:



Copying and Moving Groups

To Move or Copy an Individual Group

To move an individual group, you can use the Move button using the following syntax:

Move Group xx @ yy Enter

Alternatively, you can press the Move button, then press the desired group on the touch screen and then press its new location.

If you wish to copy a group, use the Copy button and the following command line syntax:

Copy Group xx @ yy Enter

Or you can press the Copy button, then press the desired group on the touch screen and then press the location for the copy. By default, the copy will have the same name as the original.

To Move or Copy a Range of Groups

It is also possible to move or copy a number of different groups simultaneously. You cannot use the touch screen for this operation; you must use the keypad. The following is an example of the syntax utilized in this command:

Move Group 1 Thru 4 @ 20 Enter

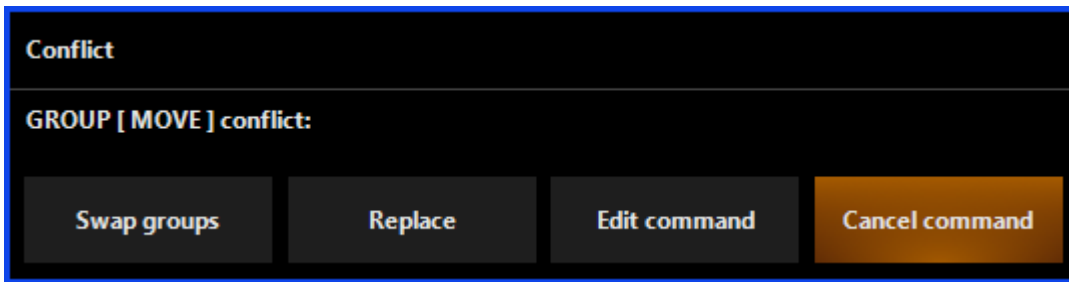
The following screen is the result of that move:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
									Key Light	Keys	Singer	Gtr	Drums	ALL
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Center Davinci	Center Fuze	Color Chorus 72 Cells		Ariste Davinci	Fuze Wash Z350	Color Chorus 72	Dartz 360							
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Stage Right Davinci	Stage Right Fuze Wash													
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Stage Left Davinci	Stage Left Fuze Wash													

Note that the Dartz 360 Group, formerly group 4 has moved to group 23 and the previous 3 groups have all moved together as well.

In the event that one or more of the groups to be moved lands on an already recorded group, a pop up window will appear offering five options. For this example, we will be using group 20 thru

23 (the ones we just moved from 1-4) again with the following syntax - Move Group 20 Thru 23 @ 10 Enter. This will present the following popup:



We are presented with 4 options:

Swap Groups - Choosing Swap Groups will simply tell the console to swap the groups around. In this example the following syntax was used again-Move Group 20 Thru 23 @ 10 Enter. When you press Swap Groups, the Groups that were in 20-23 are now in 10-13, and the Groups that were in 10-13 are now in 20-23.

1	2	3	4	5	6	7	8	9	10	Ariste Davinci	11	Fuze Wash Z350	12	Color Chorus 72	13	Dartz 360	14	Drums	15	ALL									
16	Center Davinci	17	Center Fuze	18	Color Chorus 72 Cells	19	Key Light	20	Keys	21	Singer	22	Gtr	23		24		25		26		27		28		29		30	
31	Stage Right Davinci	32	Stage Right Fuze Wash	33		34		35		36		37		38		39		40		41		42		43		44		45	
46	Stage Left Davinci	47	Stage Left Fuze Wash	48		49		50		51		52		53		54		55		56		57		58		59		60	

Replace - Choosing Replace, ONYX will replace Groups 10 thru 13 with Groups 20 thru 23.

Edit Command - Brings the command line back into focus, and allows you to change the command.

Cancel Command- Cancel is similar to abort, except the entire command would be ignored. The entire action, whether or not there is an empty group in the target range is canceled. Note - If all of the target groups are empty, no options will appear. Move and Copy commands cannot be undone.

When using the Copy Command with a range of groups, the syntax remains the same as when using Move. The only difference is there is no Swap function.

Editing and Deleting Groups

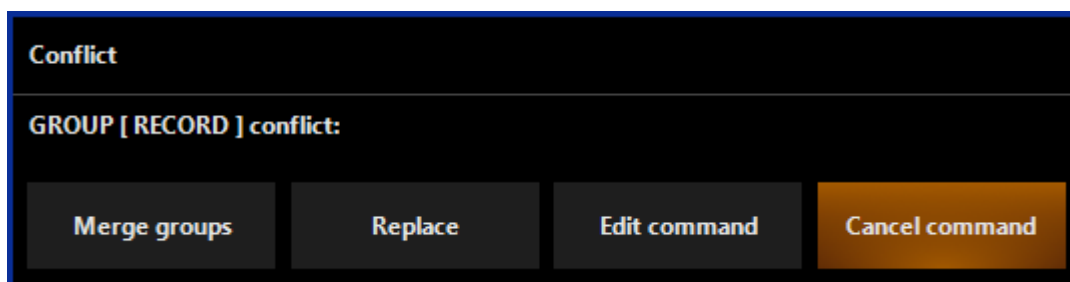
ONYX provides two ways to edit a group.

You can merge fixtures into the group, or you can replace the fixtures in the group with currently selected fixtures.

Merge only adds new contents, while **Replace** disregards anything previously in the group, and overwrites it with the current selection in the programmer.

To Add or Replace Fixtures in a Group:

1. Select the desired fixture(s) to put in the group.
2. Press Record and the button of the group to change. The following pop-up window appears:



To add the selected fixtures to the group, select Merge groups, or to replace the fixtures currently in the group with the selected fixtures, select Replace

You also can Edit Command to make changes in the command line or Cancel Command to clear out the command line.

To Remove a Fixture from a Group:

1. Select the desired group to load it into the Programmer.
2. Press - (minus) xx where xx is the fixture number(s) you wish removed from the group.
3. Press Record and the group number of the original group.
4. Press Replace

Deleting a Group

To delete a group, press the Delete button, then the desired group, and finally Enter. Alternatively, you can press and hold the Delete button and then select a group using the touch screen.

Programming

Once all Groups to be deleted are touched, let go of Delete and they will be removed from the grid. Deleted groups are truly gone, so be careful what you delete! Thankfully, ONYX will ask you to confirm any deletion of a group before the command is completed.

Groups

Groups allow you to select multiple fixtures with a single button or keypad entry. A Group is any set of fixtures you create to be able to select in one press - fixtures can be of different types, and can be created in different orders.

The order in which the fixtures are entered is stored with the group. In other words, you can store one group with your Artiste DaVinci's sorted 1-24 and a second group that has them sorted as 24-1. While these 2 groups select the exact same fixtures, the order is different. When you use Fanning, Grouping Tools, or FX you will see the commands applied to these 2 groups in the opposite way.

You can also define a selection mask when recording a group. This allows for the rapid selection of subsets of the group, for example, every 3rd fixture, fixtures in blocks of 4, etc., using the Next/Last hard buttons. For more information on storing selection masks, see [Using the Grouping Tools](#).

ONYX is capable of managing thousands of groups. To scroll through Group pages, use the arrow buttons on the right hand side of the window.

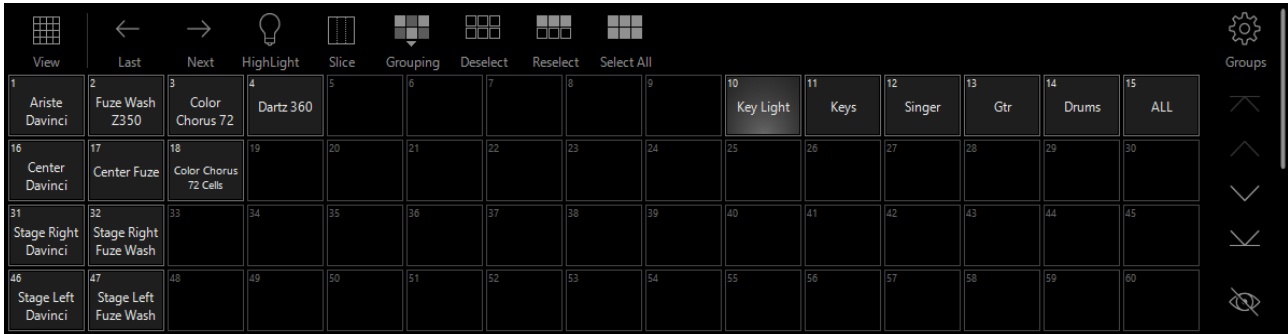
Onyx User Manual - Programming/Fixtures and Groups/Groups

Please see the topic list below to get started.

- [Groups](#)
- [Selecting Groups](#)
- [Recording Groups](#)
- [Editing Groups](#)
- [Copying and Moving Groups](#)
- [Using the Grouping Tools](#)

Recording Groups

Groups are recorded and stored on the Fixture Groups screen.



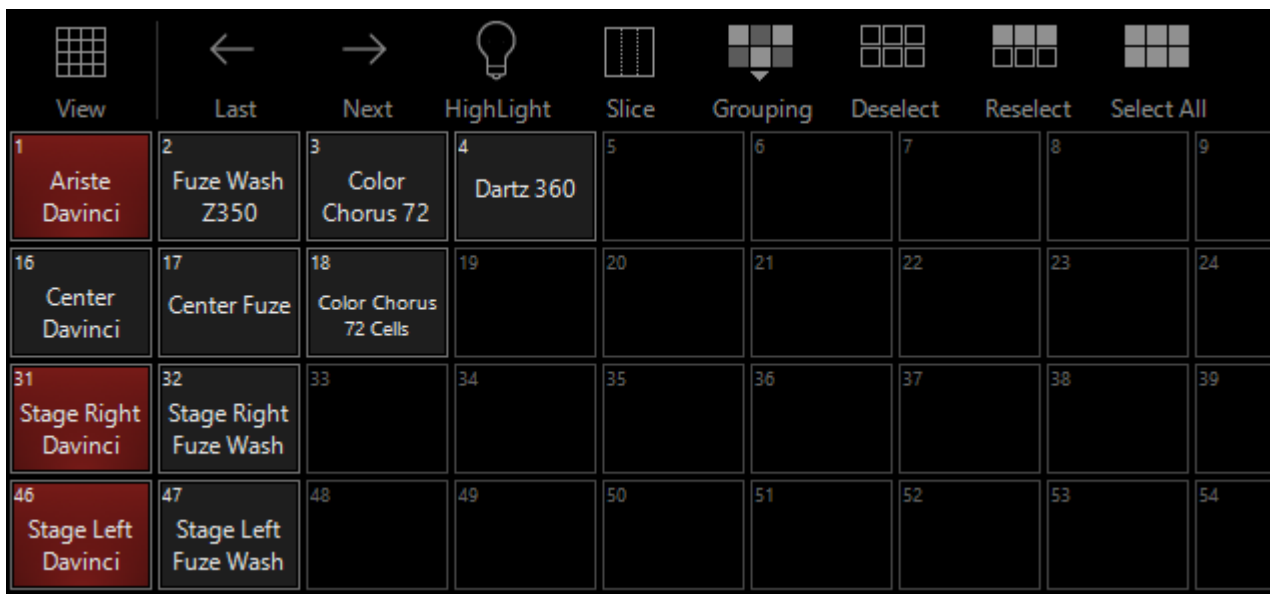
To record a group, select fixtures as described earlier. Once selected, press Record and then press the desired group button on the Fixture Groups screen. Pull out the keyboard, type in a label, press Enter, and it's done.

Another way to do it is to select some fixtures and then using the keypad enter Record Group XX Name Enter.

To label or re-label a group after it's been created, just select it, type a name and press Enter. *Note: The name will appear in the command line as part of any of these commands.*

Selecting Groups

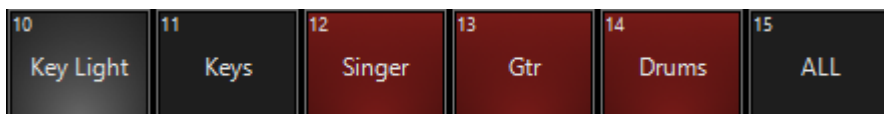
When a group is selected, it is highlighted in red in the group screen. Further, any group that is a subset of that group is also highlighted in red. For example, if you were to select the group Artiste DaVinci the groups Stage Right DaVinci and Stage Left DaVinci would also be highlighted.



The selection of groups is a toggle based process.

If a group is not selected, pressing its button will select it but if it is already selected, pressing the button will deselect it.

Again, if you were to press ALL, all of the stage position group buttons would highlight. If you were to then press Keys, then the Gtr, Drums and Singer would still be highlighted, but the lights on the Keyboard player would no longer be selected.



Selecting Active Fixtures

In order to communicate in a more human-like language, ONYX allows you to select fixtures based on their current state in the playback on stage. For example, you could select all RED fixtures that are pointing to the DRUMS preset, or all fixtures that are currently 100% Intensity.

The command can be executed with an empty programmer to query the entire patch.

Or, if fixtures are already selected in the programmer, the command will only consider those fixtures.

This sounds complicated, but it's really not. Once you get used to it, you'll probably find yourself using it all the time!

How to Select Active Fixtures

This allows you to select a Group first, e.g. "all Washlights", then to drill down further to all BLUE fixtures within that group.

Selecting Active Fixtures by Preset is executed as Group xx, where xx is a preset soft button.

Selecting Active Fixtures by Intensity value is executed as Group @ xx Enter where xx is an intensity value. In the case of Group @ Full, the Enter is implied.

You can also select all fixtures above or below an intensity value, such as:

Group @ +50 Enter

which selects all fixtures with an intensity value above 50%.

If you'd like to select fixtures sharing several preset values, you can hold down the Group button while you press multiple preset soft buttons. Releasing the Group button will execute the query.

Note that this command will only select fixtures that have values from ALL of the presets you specify. In other words, holding Group and pressing Blue Drums will only select fixtures that are both blue AND pointing at the drummer.

Example - Selecting "Green" Fixtures

Let's say that you have a cue on the stage with fixtures in red and green. The artist yells over the PA that he hates green. Instead of looking in the cuelist values, trying to figure out which fixtures are green, selecting them and changing them to blue, you can quickly do the following...

1. Clear Clear (to ensure that the programmer is empty)
2. Group Green - Pressing your preset labeled "Green".
3. Blue Sets the Green fixtures to your preset labeled "Blue".

As long as you used a preset color when you recorded the cue, the console will find all fixtures with the color preset "Green" and select them for you. You can now update the cue, making the artist very happy (as long as he likes blue).

Load (Active Fixture Capture)

With Load, you can query the console to find fixtures based on their current state in the playback on stage. Load allows you to not only select the fixtures that meet the preset or level you've chosen, but to also bring them into the programmer to manipulate them.

To use Load, press Load xx, then select Load Options Enter, where xx is a preset. When you press Load, the Load Options popup will appear, allowing you to filter which attributes you want to capture.

You can capture by intensity value with the following syntax:

Load Group @ xx Enter where xx is an intensity value.

Load Group @ Full

When using load, you must press Enter to execute the command. Like many functions inside ONYX, Load is simple to use, but can do some very complex things. [Learn all of the details of Load here.](#)

Selecting Fixtures

Congratulations! If you've made it to this point, you most likely have your lights patched, and have a understanding of how the ONYX interface works.

The very first step to programming your lights is simply selecting fixtures. As you head down the navigation bar for this section, you'll learn different ways to select fixtures in ONYX.

As we begin this section, it is important to understand the following definitions:

A selected fixture is one that is currently editable using the encoders and other parameter controls.

A deselected fixture is one that is loaded in the Programmer but is not affected by the encoders and other parameter controls.

ONYX uses color coding to indicate the various states of fixtures loaded in the Programmer. The color codes are as follows:

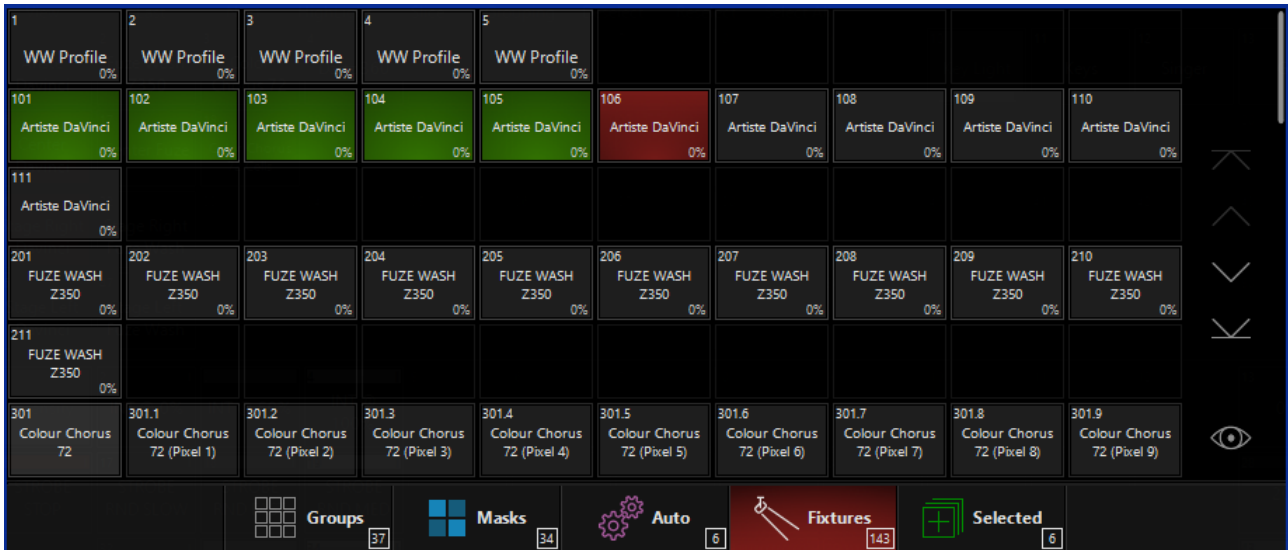
Number	Cyan	Magenta	Yellow	CTC	Color	Color Macro	Intensity	Pan	Tilt
101	0%	100%	0%	-	-	-	64%	100%	50%
102	0%	100%	0%	-	-	-	64%	100%	50%
103	0%	100%	0%	-	-	-	64%	100%	50%
104	0%	100%	0%	-	-	-	64%	100%	50%
105	0%	100%	0%	-	-	-	64%	100%	50%
107	0%	100%	0%	-	-	-	64%	100%	50%
108	0%	100%	0%	-	-	-	64%	100%	50%
109	0%	100%	0%	-	-	-	64%	100%	50%
110	0%	100%	0%	-	-	-	64%	100%	50%
111	0%	100%	0%	-	-	-	64%	100%	50%

Item	Color	Explanation
Number 1 2	Grey	Deselected fixture. It is in Programmer but will be unaffected by changes.
3 4 5	Bright Green	Selected fixture. When multiple fixtures are selected, all but the last selected fixture (shown in red) have this color.
6	Red	Last selected fixture. Only one fixture displays in red: this is the specific fixture represented in the Attribute Controls.
7 8	Dark Green	Deselected fixture. This color indicates a fixture that was selected but has been overridden by the "Next/Last" commands or the Fixture Selection Mask (described below). Pressing "revert to selected" in the Fixture Selection Mask window will return it to selected (green).








The Fixture Center

The Fixture Center window is essentially a combination of both the Groups and Fixtures window's into one, more powerful and easier to manage window that handles the fixtures and groups in the showfile as well as their associated functions such as grouping tools - all in one place.

It's a great place to select fixtures from as you begin programming. Just click on any fixture or groups from the tabs, and they will be selected, or deselected if they were already selected.



The following table briefly explains the other functions available in the Fixture Center window.

But- ton	Explanation
	The View button toggles the window between grid view and list view. Grid view houses the buttons we use to select items such as Groups and Fixtures. The list view shows these items as well as their contents and other information. This will be explained in more detail later in the chapter.
	The Last button simply jumps backward to the previous fixture in your current fixture selection.
	The Next button simply jumps forward to the next fixture in your current fixture selection.
	The Highlight button will "highlight" fixtures that are selected. That is, it brings them (generally) to full and open. If you wish, you can modify the highlight presets - the instructions are here.
	The Slice/Range toggle button is a very powerful function designed to work with multi-part fixtures such as a Color Chorus Batten, ACL 360 Matrix, or multi cell LED batten. It lets you select either a full range of the fixtures, or a partial sub range. See below for more information about Slice,
	The Grouping button is simply a shortcut to access the Grouping Tool feature as a pop-up within the window.
	The Deselect button will deselect any currently selected fixtures. This button is the equivalent of the [0] [ENTER] command.

**But-
ton**

Explanation



The Reselect button will simply reselect the last selected fixture selection. Its a useful function if you accidentally Deselected a complex fixture arrangement.



The Select All button will select all fixtures patched in the showfile. This button is equivalent of the [,] [0] [ENTER] command.

Using the Slice function

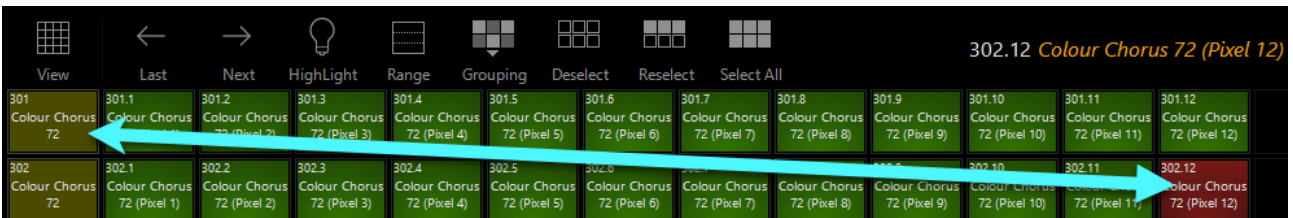
The Slice function is a very powerful function that works particularly well with multipart fixtures.

Previously, when selecting ranges of multipart fixtures, it was difficult to select just ranges of the parts (or cells) that fixture had. With the Slice function, you can now easily toggle between whether you want to select a whole range or just a "slice" of the range.

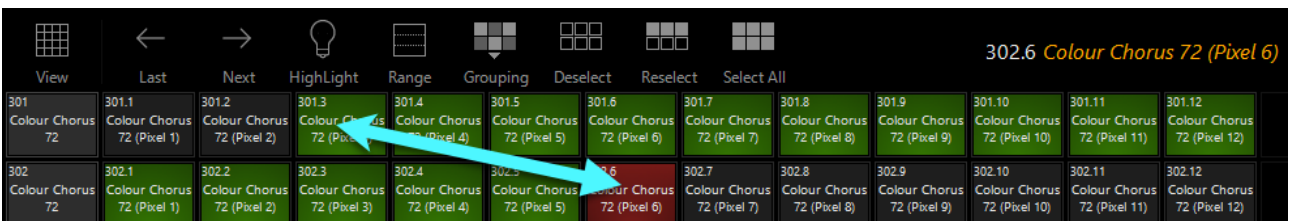
Here are some examples of slicing and how the selection is affected by it.

Slice Off (Range)

We can see here, that with Slice turned off, selecting 301.1 thru 302.12 selects all of the parts of the fixture, as well as the master part as expected. You can see the slice icon is turned vertical and reads "Range".



Here is a second example with Slice turned off. Selecting 301.3 thru 302.6 selects the last 10 cells of fixture 301 and then parts 1-6 of fixture 302.



Slice On

We see here that with Slice turned on, things are quite different. Selecting 301.1 thru 303.4 only selects a block of parts between the two points, not the whole range.

View	Last	Next	HighLight	Slice	Grouping	Deselect	Reselect	Select All
301 Colour Chorus 72	301.1 Colour Chorus 72 (Pixel 1)	301.2 Colour Chorus 72 (Pixel 2)	301.3 Colour Chorus 72 (Pixel 3)	301.4 Colour Chorus 72 (Pixel 4)	301.5 Colour Chorus 72 (Pixel 5)	301.6 Colour Chorus 72 (Pixel 6)	301.7 Colour Chorus 72 (Pixel 7)	301.8 Colour Chorus 72 (Pixel 8)
302 Colour Chorus 72	302.1 Colour Chorus 72 (Pixel 1)	302.2 Colour Chorus 72 (Pixel 2)	302.3 Colour Chorus 72 (Pixel 3)	302.4 Colour Chorus 72 (Pixel 4)	302.5 Colour Chorus 72 (Pixel 5)	302.6 Colour Chorus 72 (Pixel 6)	302.7 Colour Chorus 72 (Pixel 7)	302.8 Colour Chorus 72 (Pixel 8)
303 Colour Chorus 72	303.1 Colour Chorus 72 (Pixel 1)	303.2 Colour Chorus 72 (Pixel 2)	303.3 Colour Chorus 72 (Pixel 3)	303.4 Colour Chorus 72 (Pixel 4)	303.5 Colour Chorus 72 (Pixel 5)	303.6 Colour Chorus 72 (Pixel 6)	303.7 Colour Chorus 72 (Pixel 7)	303.8 Colour Chorus 72 (Pixel 8)
304 Colour Chorus 72	304.1 Colour Chorus 72 (Pixel 1)	304.2 Colour Chorus 72 (Pixel 2)	304.3 Colour Chorus 72 (Pixel 3)	304.4 Colour Chorus 72 (Pixel 4)	304.5 Colour Chorus 72 (Pixel 5)	304.6 Colour Chorus 72 (Pixel 6)	304.7 Colour Chorus 72 (Pixel 7)	304.8 Colour Chorus 72 (Pixel 8)

We see here, again - with slice turned on - that selecting 301.4 thru 304.4 only selects the .4 fixture parts, and nothing else.

View	Last	Next	HighLight	Slice	Grouping	Deselect	Reselect	Select All
301 Colour Chorus 72	301.1 Colour Chorus 72 (Pixel 1)	301.2 Colour Chorus 72 (Pixel 2)	301.3 Colour Chorus 72 (Pixel 3)	301.4 Colour Chorus 72 (Pixel 4)	301.5 Colour Chorus 72 (Pixel 5)	301.6 Colour Chorus 72 (Pixel 6)	301.7 Colour Chorus 72 (Pixel 7)	301.8 Colour Chorus 72 (Pixel 8)
302 Colour Chorus 72	302.1 Colour Chorus 72 (Pixel 1)	302.2 Colour Chorus 72 (Pixel 2)	302.3 Colour Chorus 72 (Pixel 3)	302.4 Colour Chorus 72 (Pixel 4)	302.5 Colour Chorus 72 (Pixel 5)	302.6 Colour Chorus 72 (Pixel 6)	302.7 Colour Chorus 72 (Pixel 7)	302.8 Colour Chorus 72 (Pixel 8)
303 Colour Chorus 72	303.1 Colour Chorus 72 (Pixel 1)	303.2 Colour Chorus 72 (Pixel 2)	303.3 Colour Chorus 72 (Pixel 3)	303.4 Colour Chorus 72 (Pixel 4)	303.5 Colour Chorus 72 (Pixel 5)	303.6 Colour Chorus 72 (Pixel 6)	303.7 Colour Chorus 72 (Pixel 7)	303.8 Colour Chorus 72 (Pixel 8)
304 Colour Chorus 72	304.1 Colour Chorus 72 (Pixel 1)	304.2 Colour Chorus 72 (Pixel 2)	304.3 Colour Chorus 72 (Pixel 3)	304.4 Colour Chorus 72 (Pixel 4)	304.5 Colour Chorus 72 (Pixel 5)	304.6 Colour Chorus 72 (Pixel 6)	304.7 Colour Chorus 72 (Pixel 7)	304.8 Colour Chorus 72 (Pixel 8)

Using the Slice function

2D Plan View

Please see the topic list below to get started.

- [2D Plan Options](#)
- [2D Plan Pages](#)
- [2D Plan View](#)
- [Adding a Background Image](#)
- [Adding Elements](#)
- [Aligning Elements](#)
- [Deleting Elements from the 2D Plan](#)
- [Edit Mode Options](#)
- [Using Layers](#)

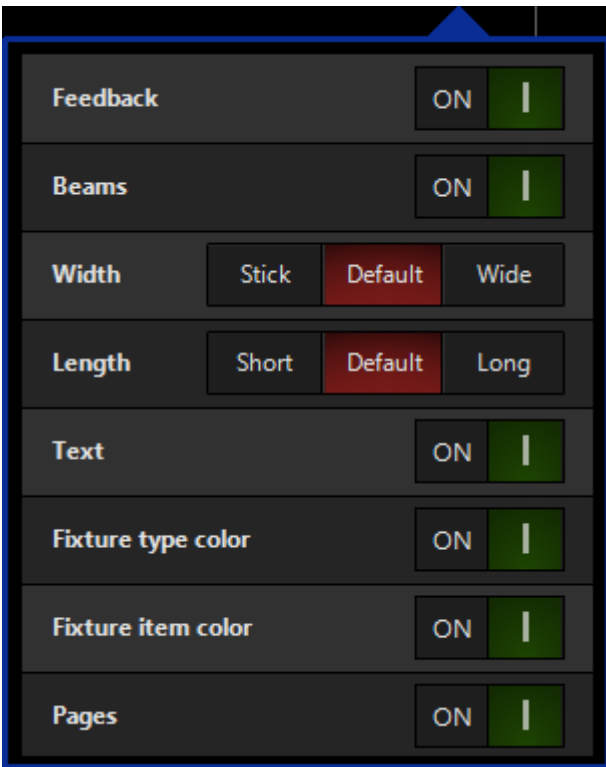
2D Plan Options

There are a number of options for the 2D Plan View. These will be explained below.

To Access the 2D Plan Options. Press the 2D button -



The options will toggle open below the button -



Option



Explanation

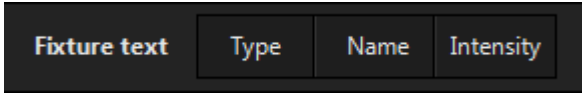
The Feedback option toggles on/off the parameter feedback on the Plan such as Intensity, Color and Pan & Tilt.

The Beams option allows you to keep parameter feedback within the fixture icon on the plan, but toggle off the beam representations if so desired.

The Width option directly relates to the Beams shown on the plan. It can be set to Stick which gives a very thin line representing the beam, default and wide which looks like a more natural beam.

The Length option directly relates to the Beams shown on the plan. It can be set to Short, Default and Long.

Option



Explanation

The Text option toggles on and off the text associated with items placed on the Plan such as Groups.

The Fixture Text option allows you to toggle on text which shows below fixtures placed on the plan. It can either be Fixture Type, the Name (as defined in the patch) or the Intensity. By default, non of these options are turned on. Only one option can be active at a time, and clicking the option for a second time will toggle it back off again.

The Fixture Type Color option relates to the Fixture Type Color defined in the patch. This can be toggled on and off for the 2D Plan, whilst retaining the color elsewhere in the show.

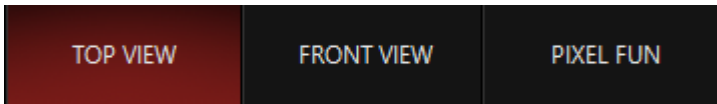
The Fixture Item Color option relates to the Fixture Color defined in the patch or Fixture Center. This can be toggled on and off for the 2D Plan, whilst retaining the color elsewhere in the show.

The Pages option toggles the Page toolbar along the bottom of the 2D Plan on and off.

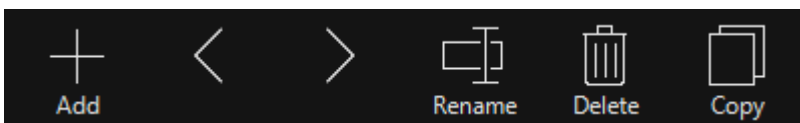
2D Plan Pages

Just as we can have multiple layers in our 2D Plan, we can have multiple pages (or separate 2D views).



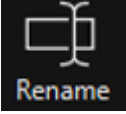
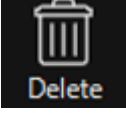
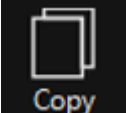
Pages are found at the bottom of the 2D Plan view:



When we enter Edit mode, by pressing the Live icon at the top of the 2D Plan view, we will also see the page editing tools on the bottom of the 2D Plan screen:



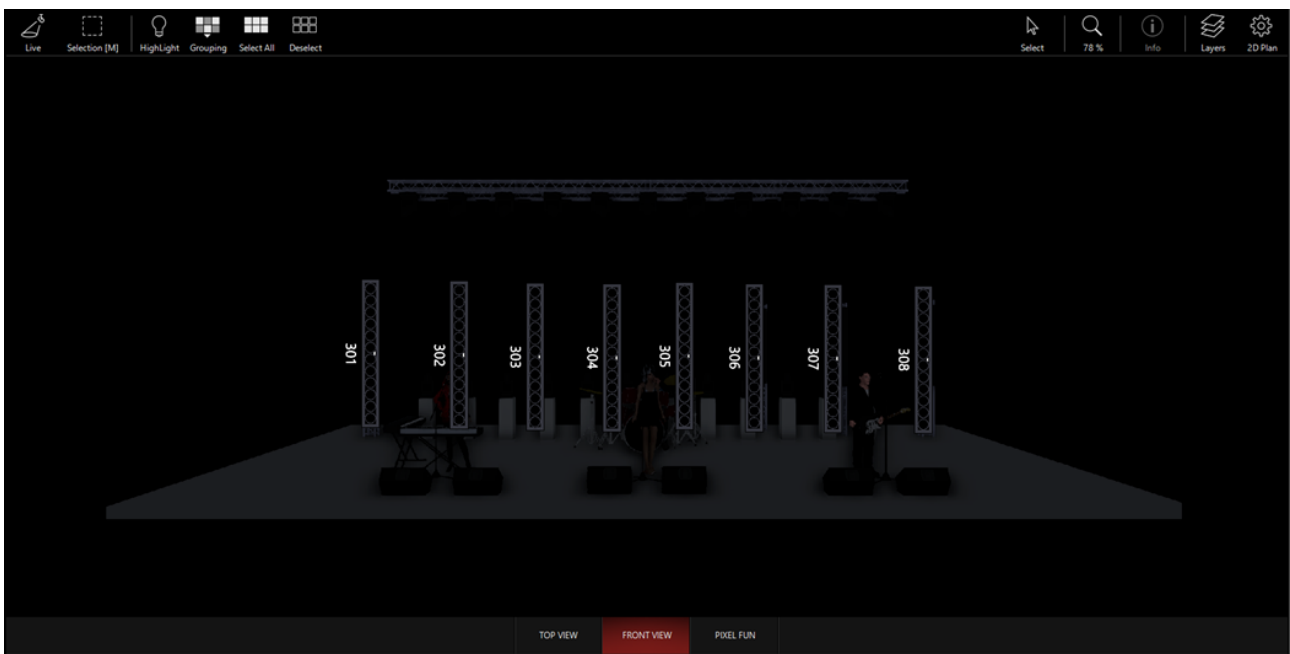
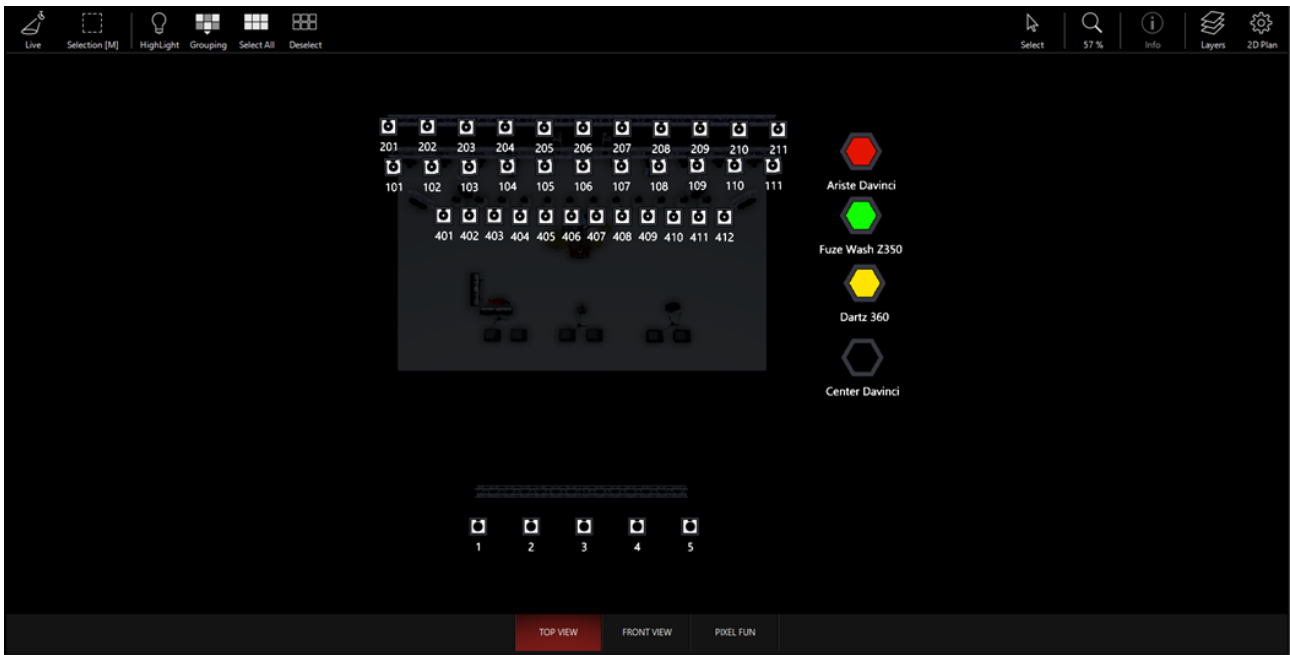
The functions here are pretty simple:

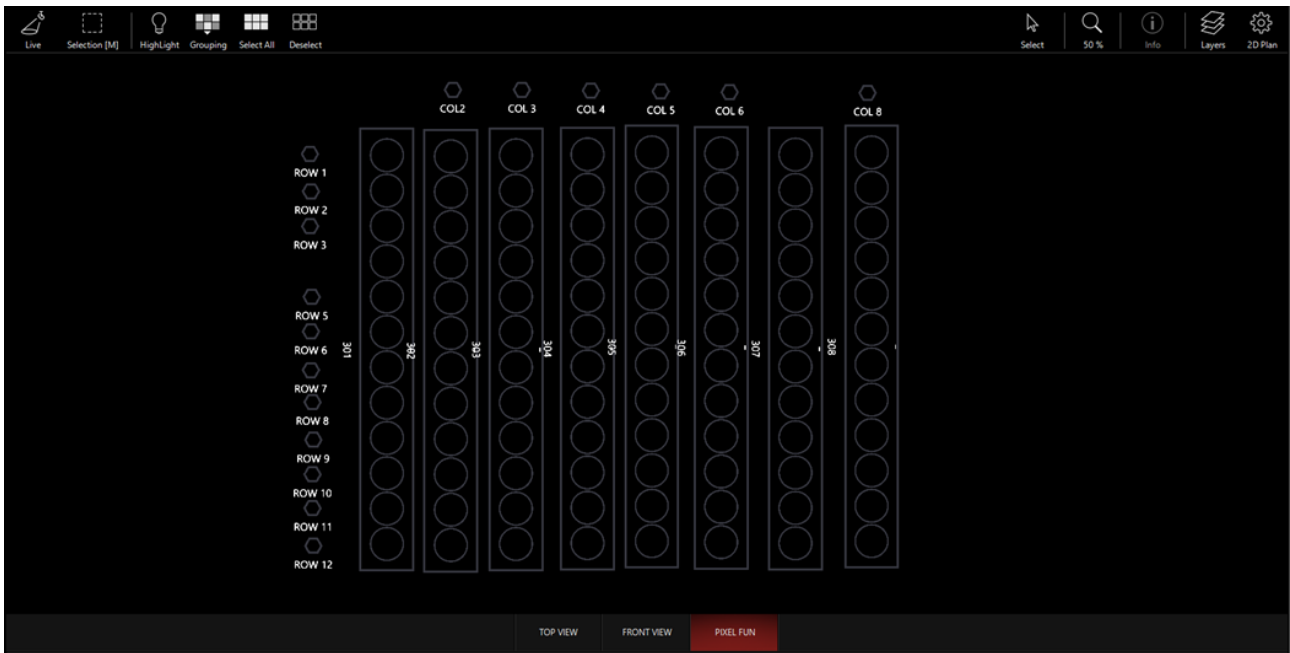
Button	Description
	Add a new page.
	Move the selected page left or right.
	Rename the current page.
	Delete the current page - you will have to confirm via a popup box.
	Copy selected page.

2D Plan View

The 2D Plan View feature allows you to build powerful topographical layouts for Fixtures and Groups within your showfile, as well as add background images and objects. 2D Plan views are also generated from 3d visualizer imports using via [Patch Import](#).

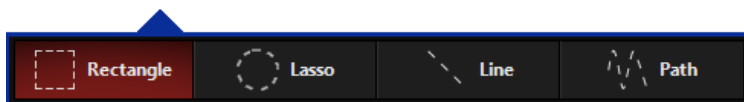
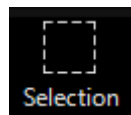
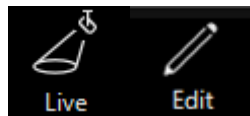
For example:






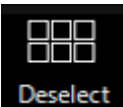



Button

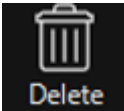

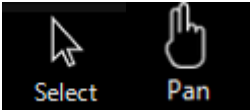
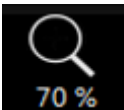
Explanation



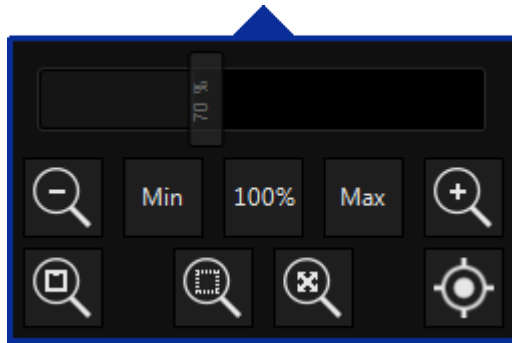
The Live button toggles between both Live mode and Edit mode. In Live mode, changes cannot be made to the 2D Plan and the fixtures will not show their output information such as intensity, color or pan & tilt. Edit mode allows you to edit the plan. The selection mode button allows you to toggle between multiple types of selections. The buttons icon will always denote which selection type is the currently selected, in this case "Rectangle". The Selection Options allow you to select elements on the 2D Plan in a number of different ways. Rectangle al-

Button	Explanation
	<p>allows you to draw a box around the elements you wish to select. Lasso allows you to draw a non-rectangular shape around the objects. Line allows you to draw a line through the objects and path allows you to draw a flexible line through the objects you wish to select.</p> <p>The Highlight button is simply an on-screen replication of the Highlight button on the console. For more information, see Highlight.</p>
	<p>The Grouping Button toggles open the Grouping Tool pop-up. For more information see Grouping Tools.</p>
	<p>The Select All button will select all fixtures on the current page of the 2D Plan.</p>
	<p>The Deselect button will Deselect all fixtures on the current page of the 2D Plan.</p>
	<p>The Add button only appears on the top toolbar when the 2D Plan is in Edit mode. The Add button allows you to add elements to the 2D Plan such as Fixtures, Groups or Objects. For more information see</p>

(Top Toolbar)

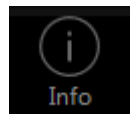
Button	Explanation
 (Top Toolbar)	<p>Adding Elements to the 2D Plan View.</p> <p>The Delete button only appears on the top toolbar when the 2D Plan is in Edit mode. The Delete button allows you to delete elements from the 2D Plan such as Fixtures, Groups or Objects. For more information see Deleting Elements from the 2D Plan View.</p>
 (Top Toolbar)	<p>The Align button only appears on the top toolbar when the 2D Plan is in Edit mode. The Align button will open the Align options. For more information see Aligning Elements.</p>
	<p>The Select button toggles between Select and Pan modes. In select mode, the primary input such as the Left Mouse button or Touch will select elements. When in Pan mode, the primary input will pan around the 2D Plan. Note that you can use the Right Mouse button to pan around whilst in Select mode.</p>
	<p>The Scale button toggles the scale options popup on and off.</p>

Button



Explanation

The Scale options popup allows you to control the scale of the Plan by the use of multiple options including the Slider along the top. - and + scale buttons. Minimum scale, 100% scale (default) and Maximum scale.



(Bottom Toolbar)



The Layers button toggles the Layer view on and off. For more information see [Using Layers](#).

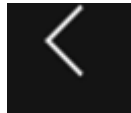
The 2D Plan options button toggles the options for the Plan on and off. For more information see [2D Plan Options](#).

The Add Page button only appears on the bottom toolbar when the 2D Plan is in Edit mode. The button is used to add pages to the 2D Plan. For more information see [2D Plan Pages](#).

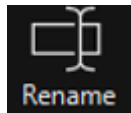
The Move Page Right button only appears on the bottom toolbar when the 2D Plan is in Edit mode. Pressing the button once moves the current page to the right in the current page order. For

Button

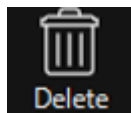
Explanation



more information see [2D Plan Pages](#).
The Move Page Left button only appears on the bottom toolbar when the 2D Plan is in Edit mode. Pressing the button once moves the current page to the left in the current page order. For more information see [2D Plan Pages](#).

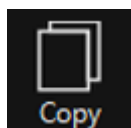


The Rename button only appears on the bottom toolbar when the 2D Plan is in Edit mode. Pressing the button allows you to rename the current Page. For more information see [2D Plan Pages](#).



The Delete Page button only appears on the bottom toolbar when the 2D Plan is in Edit mode. Pressing the button will delete the currently selected Page. This action cannot be undone. For more information see [2D Plan Pages](#).

(Bottom Toolbar)



The Copy Page button only appears on the bottom toolbar when the 2D Plan is in Edit mode. Pressing the button will copy the current page to a new page with the same name

Button

Explanation

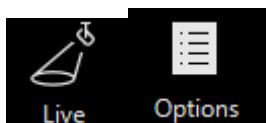
at the end of the current list of pages on the bottom toolbar. For more information see [2D Plan Pages.](#)

Adding a Background Image

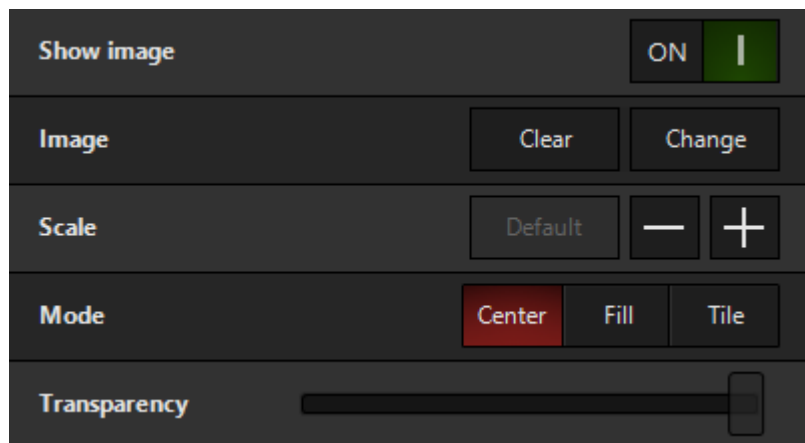
Each 2D Plan Page is also able to feature a background image, which you are able to set transparency to.

This could be your logo, a picture of the plot or stage, or maybe a picture of your cat. Any file in the ".png" format will work.

To set a background image, first enter Edit mode by clicking the Live icon, and then make sure the Options sidebar is open by clicking the Options icon:



The bottom half of the options tab is all about the background image:



Here, we can first press Change next to the word "**Image**". This will pop up a file explorer so that you can locate and select your image. This is also where you can Clear to get rid of any image and have a blank background.

Now you can use the **Scale** option to make the image larger or smaller.

Mode allows you to either center, fill (ignore zoom), or tile (repeat) your image.

Transparency allows you to make your image partially transparent, so that you can see your lights more clearly.

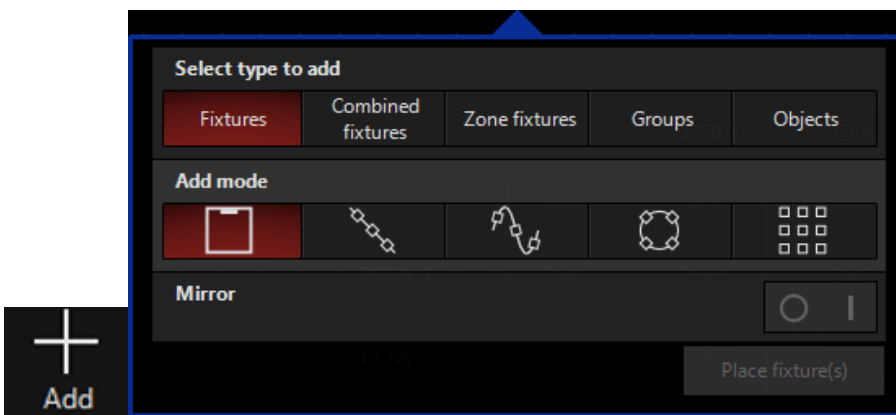
Adding Elements to the 2D Plan View

The 2D Plan View can display individual fixtures, groups, grouping tool masks and objects.

To add elements to the 2D view, first enter "Edit Mode" by pressing the triangle icon labeled Live Mode:



Then, press Add, and you'll see this popup:



In the top segment of the popup, you're able to select to add Fixture, Combined Fixtures, Zone Fixtures, Groups or Objects.

Once you've chosen the type to add, you can press below to select the specific elements you wish to add to the 2D Plan View. Fixtures need to be selected before pressing Add.

The other elements will toggle, such as Group, where you see a miniature version of the Groups window.

If you are using Zone Fixtures for the first time in a show file, you'll need to first press Enable DyLOS Support.

At the bottom of the Groups tab, you are also able to select between Groups, Masks and Auto Groups:



Next, select the add mode. This determines how you'll add the selected elements to the 2D Plan view:



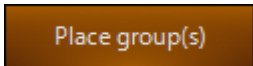
Last, you can choose to mirror our fixtures:



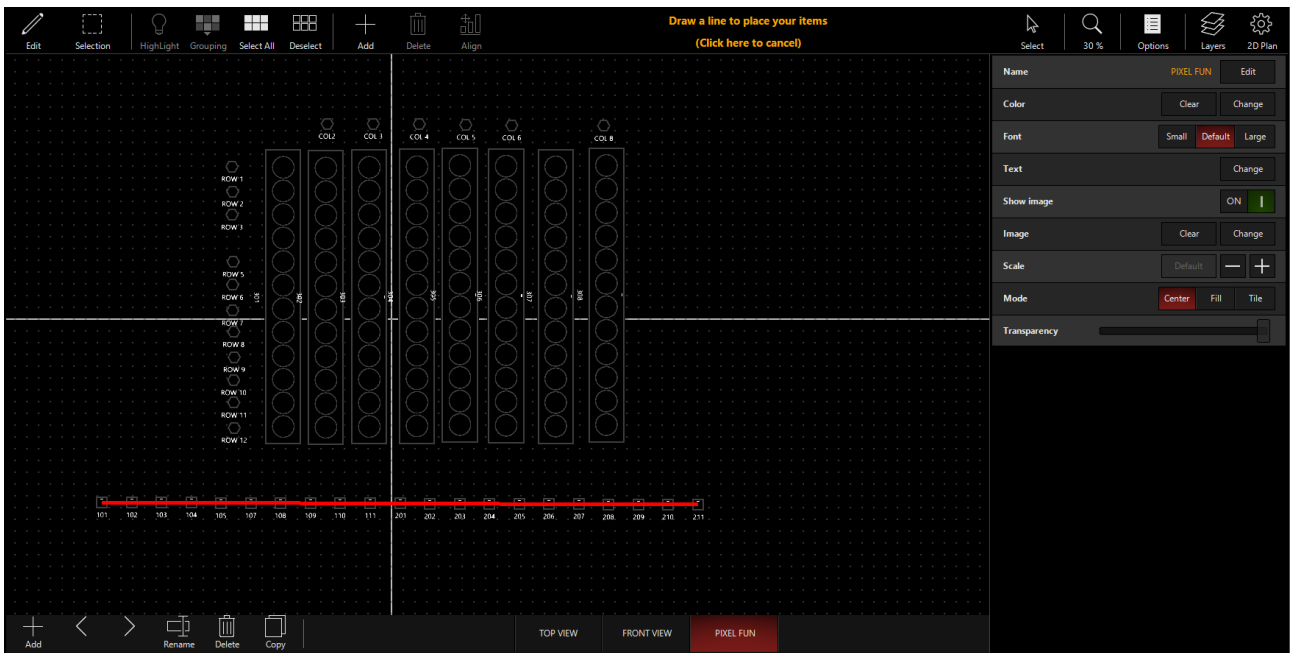
And if you turn that on, you'll be able to choose "Custom", "Horizontal", or "Vertical": This will allow you to set the mirror line you desire.



Last, press the Place button. It will read "Place X", with X being Fixtures, Combined Fixtures, Zone Fixtures, Groups or Objects, depending on the tab you're in:



Now, you'll see instructions at the top of the 2D Plan window directing you to use the tool you've selected. For example, in this image, I'm using the "Line" add mode:



Continue to add more Fixtures, Groups and Objects, until you are finished. Then, press the Edit icon to get back into Live mode:



Using the Grid Add Mode

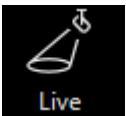
The Grid add mode works just like the standard add modes, but offers the ability to place fixtures in a grid. When you select the grid mode, you'll see the ability to set the number of columns. ONYX will automatically calculate the number of rows based upon the total number of elements selected.



Align Elements

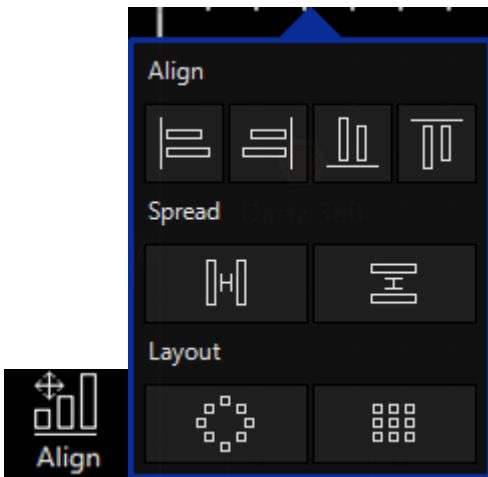
You can use the align functions inside of 2D Plan to clean up the look of your 2D Plan View.

If you're not already editing your 2D Plan View enter "Edit Mode" by pressing the triangle icon labeled Live Mode:






The icon will then change to say Edit Mode. Next, select some elements that you wish to align by pressing and dragging a box around them.

Now, press Align on the top menu bar:



And you'll find a variety of ways to align your fixtures:

Button	Explanation
	All selected elements will either be aligned to the left, right, top of the bottom-most item.
	Spread will even out the spaces between the selected elements for a nice, even spread- either vertically or horizontally.
	Layout allows you to either arrange the selected elements in a circle or grid formation.

When you press any of these buttons, the popup will stay active so that you can use multiple align or spread options.

The Layout buttons will open options that allow you to customize either the radius of the circle, or the mode, columns, and spacing of the grid:

Radius	-	01	+
Apply			

Mode	Normal	Snake	
Columns	-	01	+
Spacing X	-	00	+
Spacing Y	-	00	+
Apply			

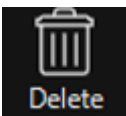
Deleting Elements from the 2D Plan

If you need to delete elements from the 2D Plan View, you'll first need to enter Edit mode, if you are not already there.

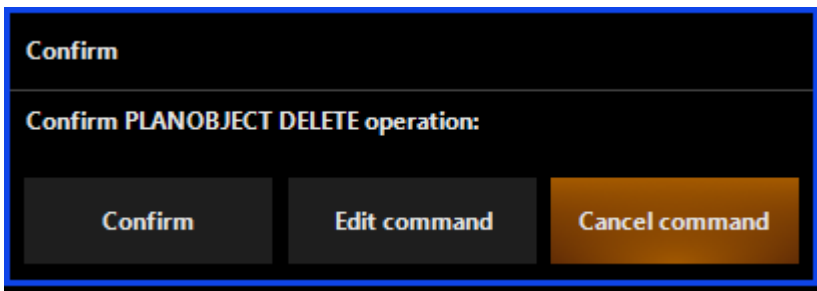
Enter "Edit Mode" by pressing the triangle icon labeled Live Mode:



Now, simply select the elements you wish to delete, and press the Delete icon:

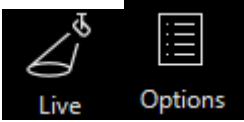


You'll then need to confirm the deletion, or you may edit and command or cancel:



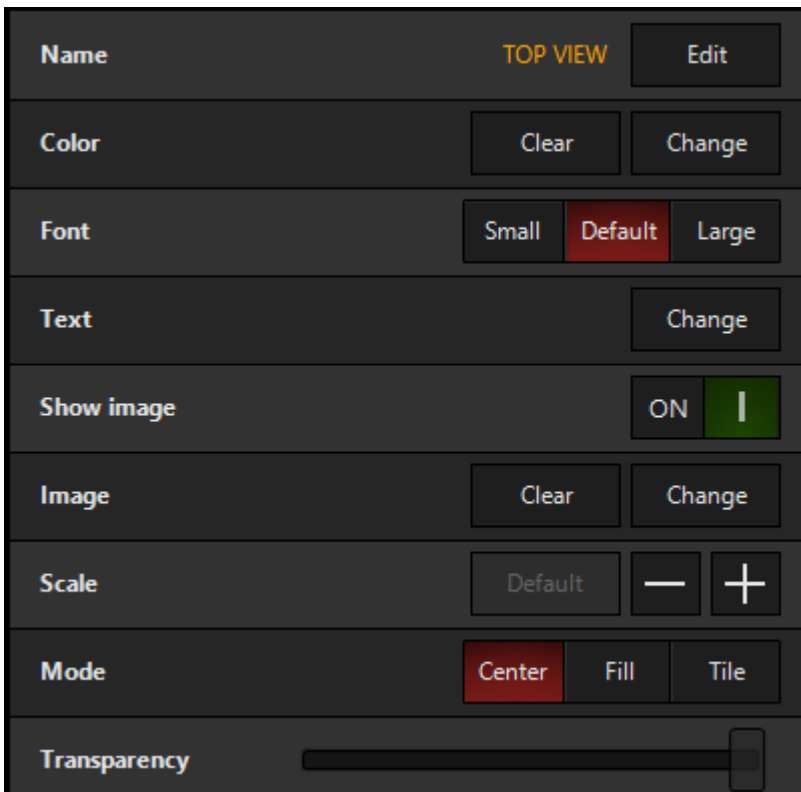
Edit Mode Options

To view and change the Edit Mode Options, first enter Edit mode by clicking the Live icon, and then make sure the Options sidebar is open by clicking the Options icon:



Here, you will see one of 2 sets of options - depending on whether you have any elements selected.

If you do not have any elements selected, you will see:



Name - Allows you name your current page from the sidebar.

Color - Allows you to change the background color of the 2D view IF there is no background image loaded.

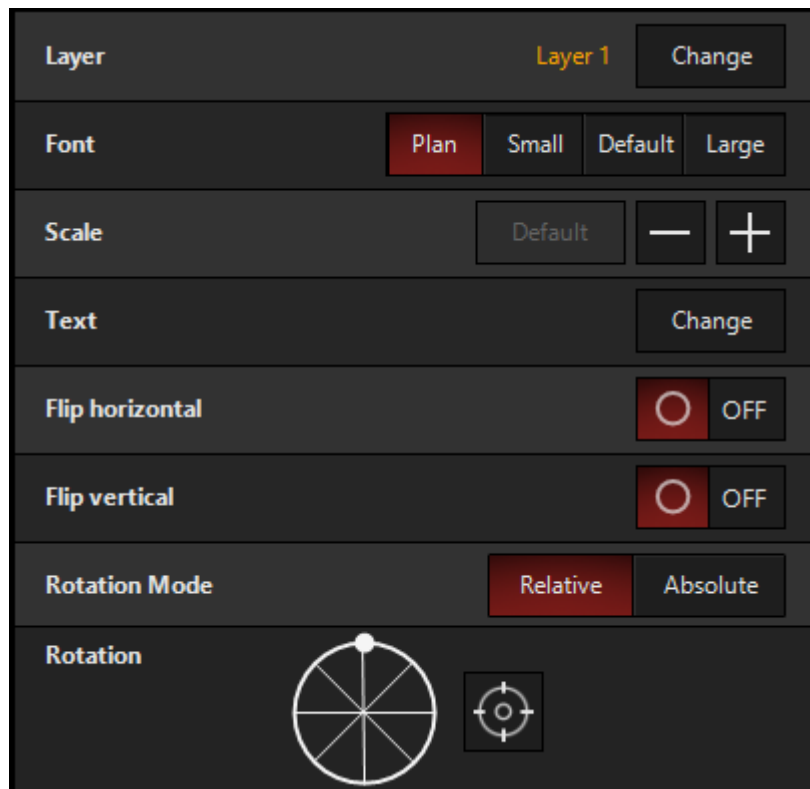
Font - Allows you to adjust the font size to match your screen.

Text - Allows you to customize what text is displayed for each fixture in the 2D Plan - i.e. Type, ID Number, Intensity Level.

Transparency - Allows you to set the transparency of Zone content in [DyLOS](#) or the background images.

[The rest of the options are all about the background image - learn how to use them here.](#)

If you do have elements selected, you will see:



Layer - Allows you to change the layer that the selected element(s) are displayed on.

Font - Allows you to adjust the font size to match your screen for the selected elements.

Scale - Allows you to change the size of the selected elements

Text - Allows you to customize the text displayed under the selected elements.

Flip horizontal and Flip vertical- flip the selected element.

Rotation Mode: When rotating multiple elements, if some were previously rotated, choosing Relative allows you to continue the existing rotation and rotate them based on their start position. Absolute, on the other hand, "snaps" all fixtures to the same rotation, matching the position on the rotation wheel.

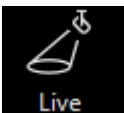
Rotation: Allows you to rotate the selected elements, or use the crosshairs button to re-set them to standard rotation.

Using Layers

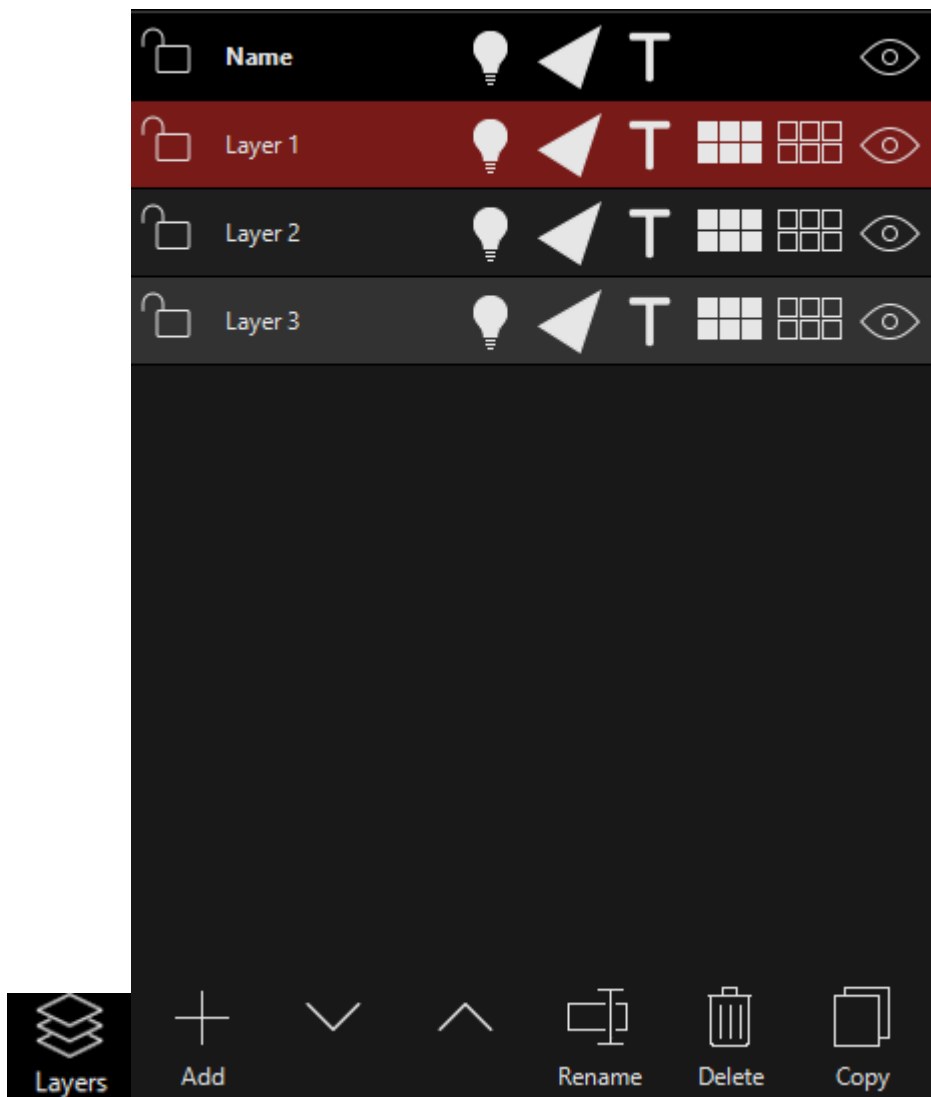
Like other graphically-oriented programs, ONYX allows you to organize your 2D Plan elements into layers. These layers then help you stay organized as you build your show.

Opening the Layers Tab

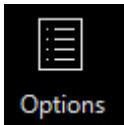
First enter "Edit Mode" by pressing the triangle icon labeled Live:



Then, press the Layers icon, in the upper right hand corner of the 2D Plan window, and you'll see this popout:



It may also be helpful to close the options using the options icon if it is open:



By default, your 2D Plan will have 1 layer, but you can add, re-order, rename, delete and copy as well as use some other functions. Once you're done editing, press the Edit icon

Layers Reference

While the icons in the layers tab are quite simple, here is an explanation to how they all work.

Layer Editing Functions:

Button	Description
	Add a new layer.
	Move the selected layer up or down.
	Rename the current layer.
	Delete the current layer - you will have to confirm via a popup box.
	Copy selected layer.

Layer functions available in Live or Edit Mode:

But- ton	Description
	<p>Lock layer - this prevents any changes from happening to the layer.</p> <ul style="list-style-type: none"> In "Edit" mode, this prevents editing of the layer in the 2D plan.

But- ton

Description

- In "Live" mode, this prevents selecting fixtures from that layer via the 2D Plan.



Show/Hide Intensity - hides the intensity indicator in Live mode.



Show/Hide Beams - hides the beam visualization in 2D.



Show/Hide Text - hides any text.



Select All - Selects all fixtures in the layer.



Deselect All - Deselects all fixtures in the layer.



Layer Visibility - Shows and hides the layer.

Manipulating Fixtures

Please see the topic list below to get started.

- [Fixture Parameter Window](#)
- [Activating Attributes](#)
- [Clearing Attributes](#)
- [Fixture Control Commands](#)
- [Fixture Fanning](#)
- [Live Programming](#)
- [Programmer Control](#)
- [Programmer Modes](#)
- [The Programmer](#)
- [Undo](#)
- [Using the Load Command](#)

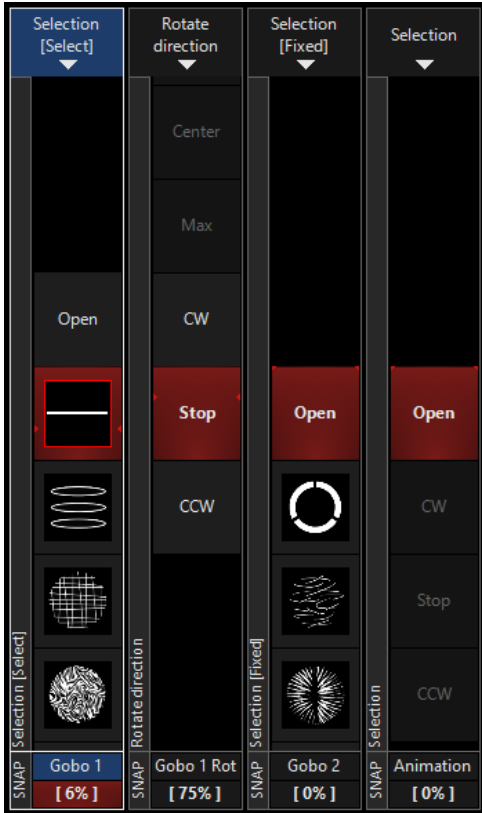
Fixture Parameter Window

Please see the topic list below to get started.

- [Attribute Control](#)
- [Attribute Info](#)
- [Attribute Options](#)
- [Attribute Popup \(Direct Access\)](#)
- [Fixture Parameter Window](#)
- [Manual Fixture Parameter Window](#)

Attribute Control

The right side of the Fixture Parameters window contains information regarding the specified attributes of the selected fixture(s) and a means to control them.



Four columns are displayed for any attribute group selected (such as "Gobo" displayed above).

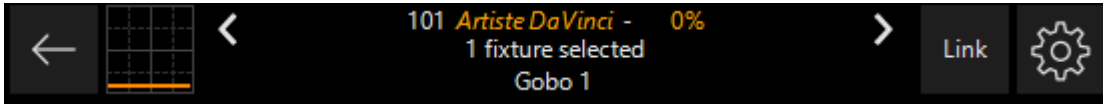
Each column pertains to a specific attribute of the last selected (red) fixture and displays the current level of that attribute. The attribute assigned to each column is identified by a box near the bottom of the screen; in this case "Gobo 1", "Gobo 1 Rot", "Gobo 2", "Animation". Under the name, you can also see the current percentage

The values of these attributes can be changed in two different ways: you can touch or click on the touch screen to select the desired setting or you can use the corresponding encoder belt or wheel to scroll through the values.




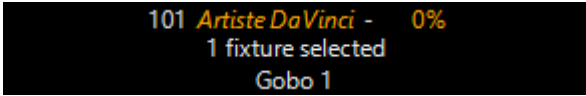



The visualiser belts have gradients or steps in to provide quick shortcuts to gobo slots,color slots or even a particular percentage of a linear parameter - E.G. 50% Dimmer.

Attribute Info

At the top of the attribute control columns is some information about the current fixture and parameter.



The first line of text indicates the fixture type of the selected fixture. The second line indicates the current parameter.

Icon	Explanation
	This button will launch the " Common Parameters " popout window.
	The scope shows the level (indicated with a amber line) of the selected parameter, or the modulation of the selected parameter if an effect is running.
	This icon is an on-screen replication of the Last hard key.
	The info bar shows the selected fixture number, type, intensity level, the total number of fixtures selected and the current parameter selected.
	This icon is an on-screen replication of the Next key.
	This icon toggles FX Link .
	This icon is the CV Options but-

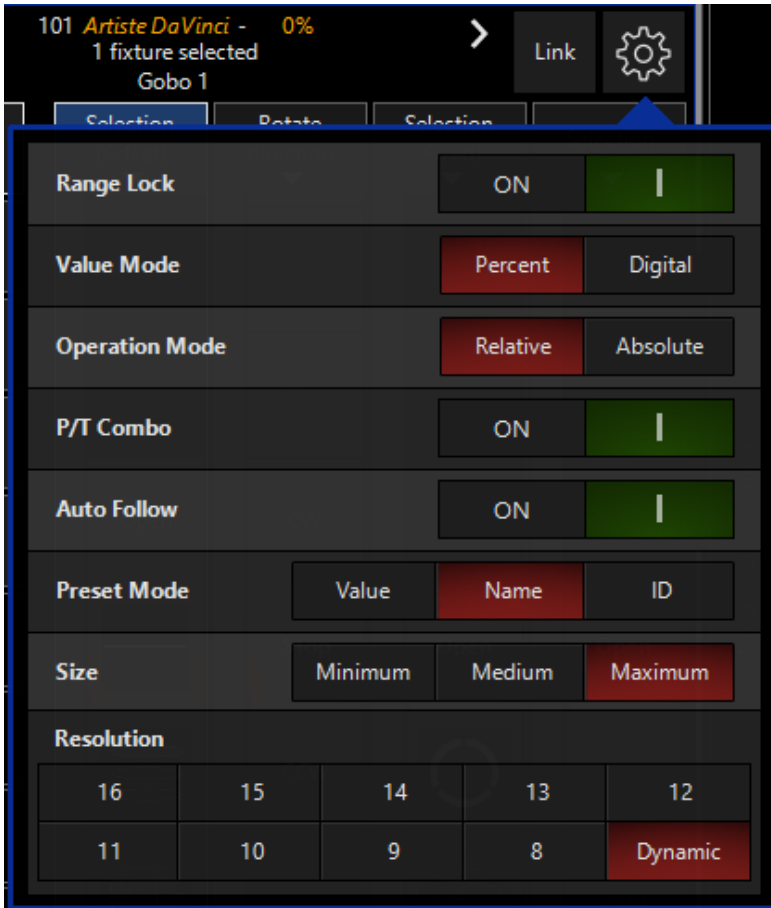
Icon

Explanation

[ton](#). This will be discussed more in the next section.

Attribute Options

Located at the bottom center of the Fixture Parameters screen are five Options controls. These controls can be shown or hidden by pressing the cog in the upper right hand corner of the Fixture Parameter Window.



Icon/Option

Name

Explanation



Range lock toggle

Enables/Disables Range Lock for parameters. Range lock helps keep you within the "sub-parameter" when a parameter has multiple functions.

For example, some fixtures put the strobe function on the con-

Icon/Option

Name

Explanation

control channel. Range lock will keep you in strobe as you move the encoder, so that you don't accidentally reset the fixture!

Toggles the display of raw DMX values between Percent and Digital. This option is also available in the Programmer Screen and will affect DMX value displays in the Programmer and the Fixture Parameter Screen.

This toggle determines how fixtures with different values for the same attribute will react with each other.

For example, if we select fixtures 1 thru 5 and 1,2,4, and 5 are set at an intensity of 10% and fixture 3 is set at an intensity of 50%, when "relative" is selected, rolling up the intensity track belt will increase the intensity of the selected fixtures



Percent/Digital toggle



Relative/Absolute toggle

Icon/Option

Name

Explanation

relative to one another.

If the toggle is set to “absolute” then all fixtures will jump to the level of the highest numbered fixture when the track belt is moved.

This feature is particularly useful with the pan/tilt attributes however, please note that while it works well with the track belts, it does not function with the trackball

This is an abbreviation for “Pan/Tilt Combine” is used to separate pan and tilt when building FX. [Jump to FX here.](#)

By default, the belts follow whatever LCD key or parameter group is selected on the mini touchscreen.

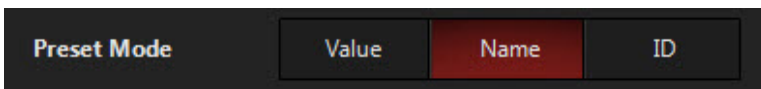
This toggle determines whether presets will show their value, name or ID on the belts when a fixture has a preset applied.



Pan/Tilt Combo toggle



Auto Follow toggle

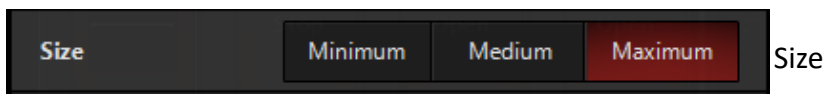


Preset Mode toggle

Icon/Option

Name

Explanation



Size

Changes the viewable size of the encoder strips on the screen - very helpful when working with smaller displays!



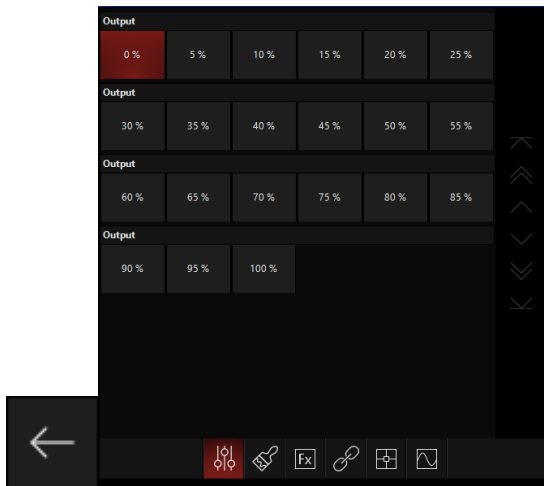
Resolution

Located at the bottom of the menu is the control resolution box. Pressing or clicking on this box will cycle the setting between 16 and 8 bits in one step increments with 16 bit providing the highest degree of resolution and 8 bit providing coarser, but faster control of selected attributes.

With the "Dynamic" option enabled, ONYX will change the resolution of the belts/wheels depending on the type of parameter selected for the best control of the parameter.

Attribute Popout (Direct Access)

At the top of the Fixture Parameter Window, there is a left-pointing arrow that pushes out the Direct Access windows. These are a handy way to get a precise, graphical selection of various parameters:

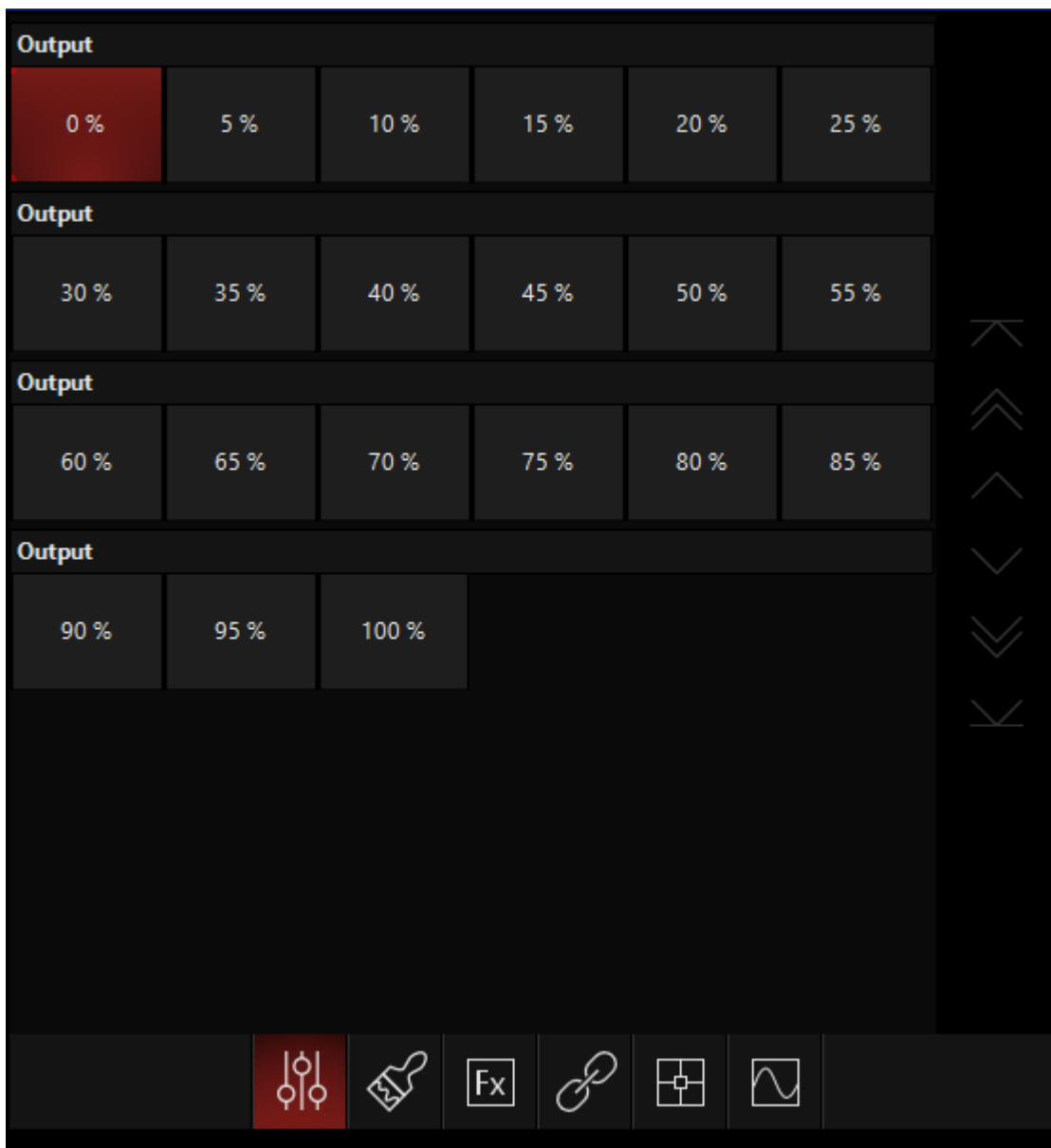


You can also access these windows by double-pressing the parameter button in the bottom right corner, or the encoder wheel, and as the window "Common Parameters".

At the bottom of this popout are a variety of different windows, which each work with different parameters.

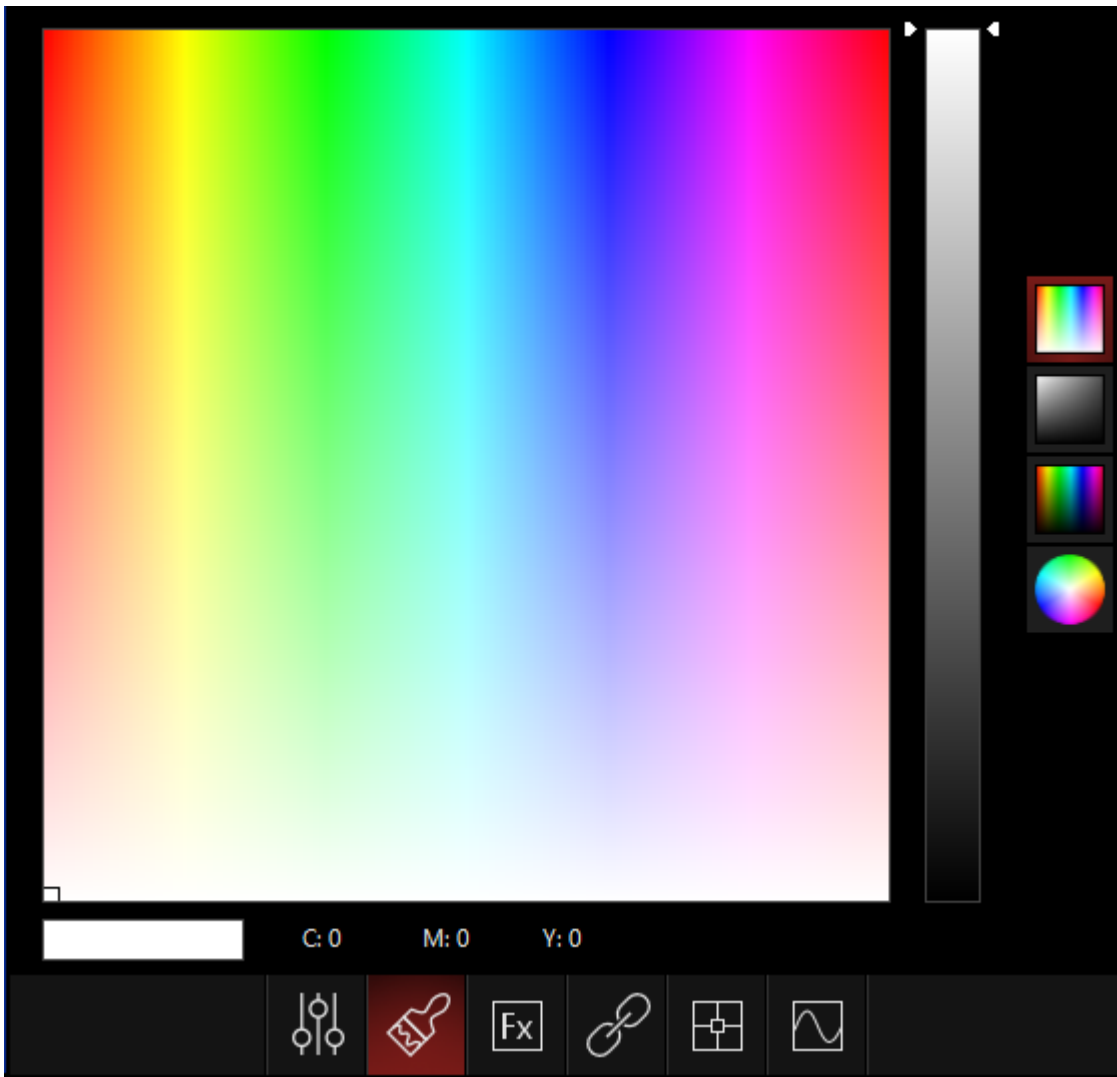
Below, see each window with an explanation of how it works:

Channel



Shown above with Intensity selected, this window simply shows you the selected parameter and offers step buttons to press. For graphical parameters, such as gobos, an image of the gobo is shown if included in the fixture library.

Color Picker



The Color Picker window allows you to graphically select a color, simply by pressing. On the right side, you can see a few different ways to view the color spectrum as you choose.

ONYX profiles also auto detect whether to use CMY, RGB or HSV in the color picker window. No user intervention is needed, although it can be selected and used as desired.

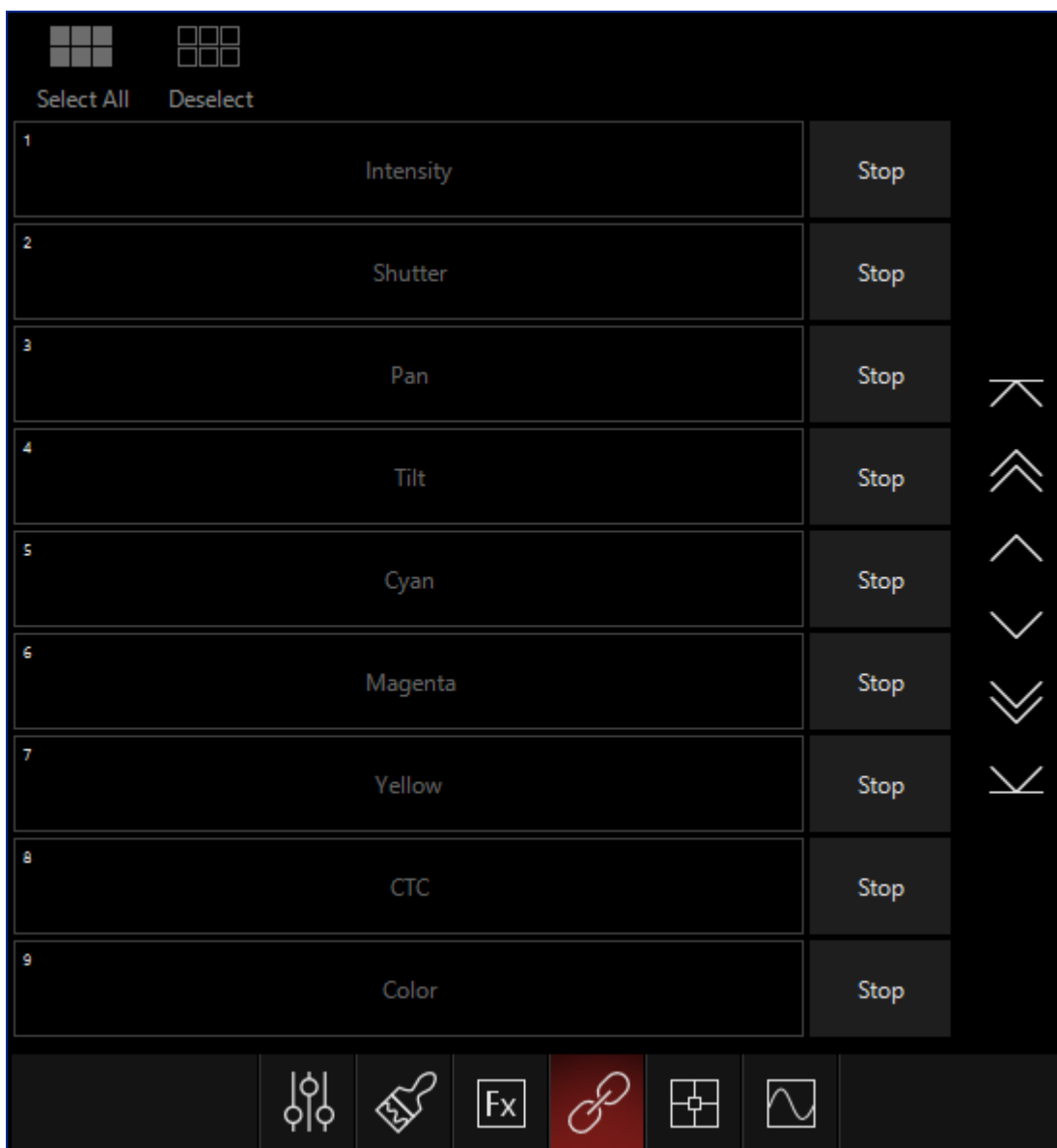
FX Parameters

Swing					
Stop	2 % 1/64	3 % 1/32	6 % 1/16	13 % 1/8	19 % 3/16
Swing					
25 % 1/4	38 % 3/8	50 % 1/2	63 % 5/8	75 % 3/4	88 % 7/8
Swing					
100 % 1:1	125 % 1 1/4	150 % 1 1/2	175 % 1 3/4	188 % 1 7/8	200 % 2:1
Swing					
225 % 2 1/4	238 % 2 3/8	250 % 2 1/2	Maximum		

FADE	Swing [0]	FADE	Speed [0]	SNAP	Mode [Fx 1]	SNAP	Multiplier [x 1]	SNAP	Wave [1]	SNAP	Step [1]
SNAP	Delay [0]	SNAP	Shift [0]	SNAP	Wait [0]						

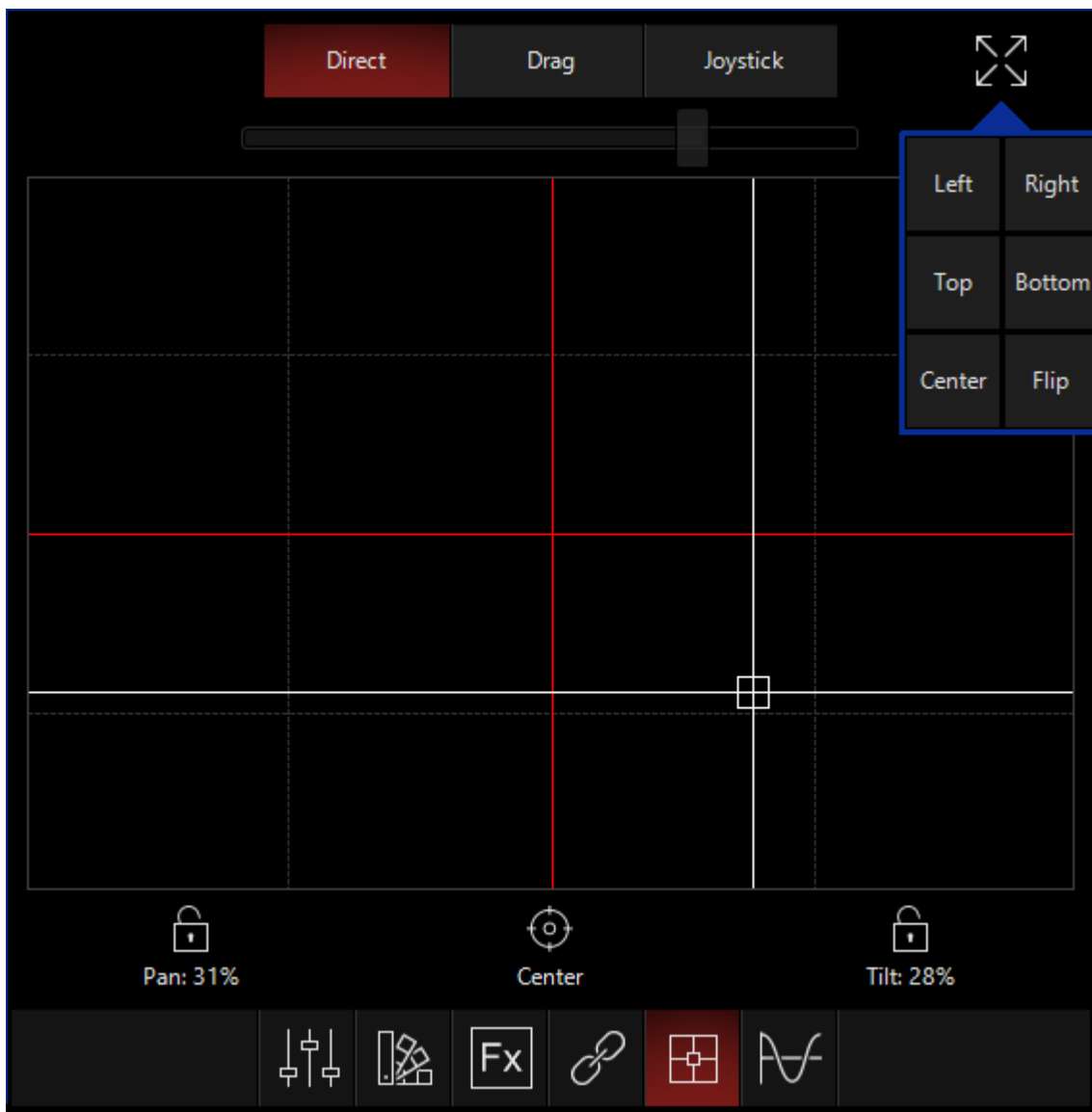
In this window, the different FX parameters are all listed on buttons near the bottom, with the current selected parameter shown in the main window area with selectable steps.

FX Link



The FX Link window allows you to easily view and see the parameters you are working with in FX Link and also gives you a Stop control for each parameter.

Pan/Tilt



Not only does this window display the relation of Pan and Tilt together, but it allows gives you 3 ways to modify them.

At the top of the screen, Direct allows you to press anywhere in the 2D plane to bring the Pan/Tilt position there. Drag allows you to click anywhere on the plane and shift the Pan/Tilt. Joystick gives you a clickable control from the center of the plane. As you drag in any direction, the lights begin to shift in that direction. The further you drag, the faster the lights move!

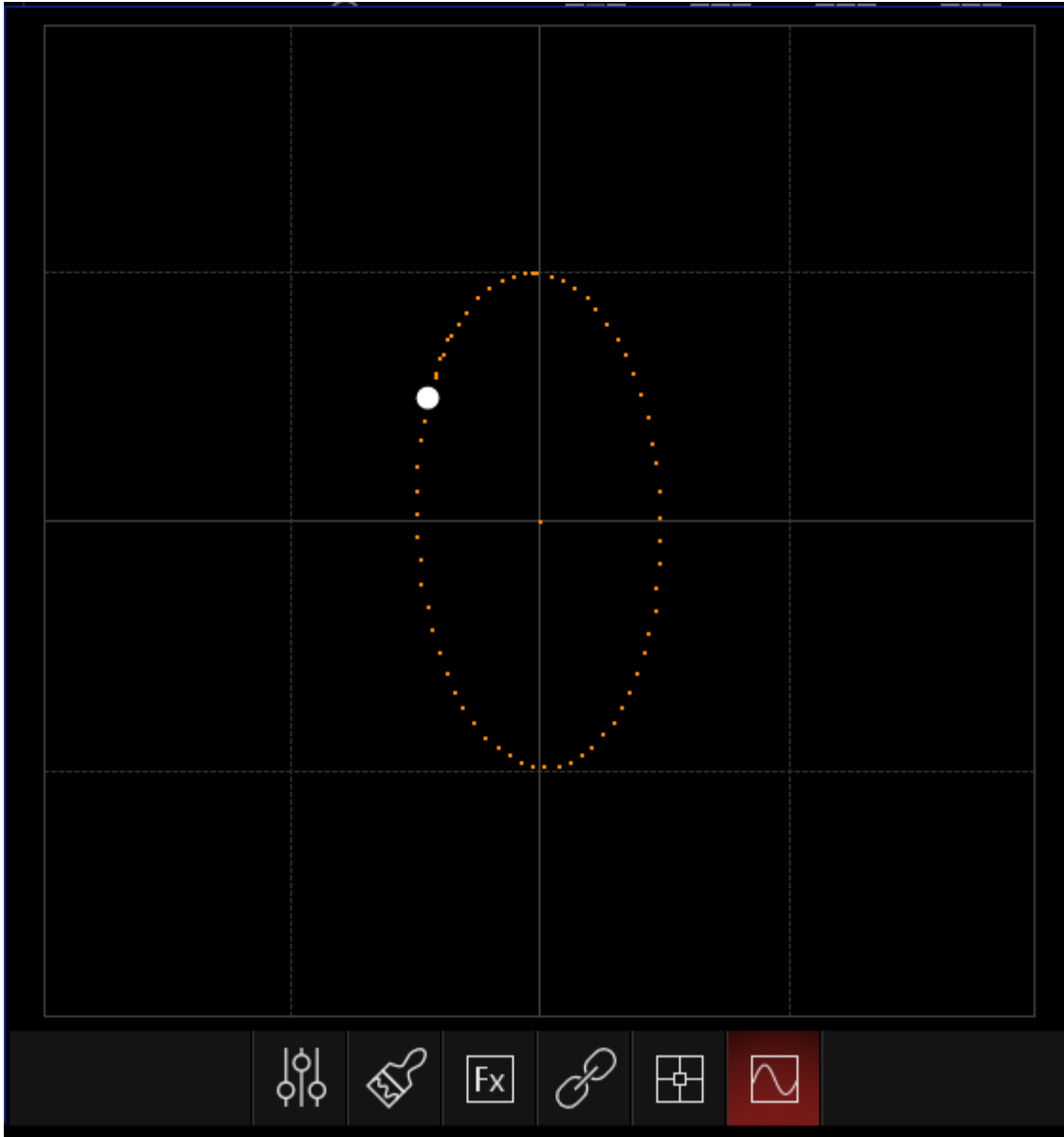
There are also a set of quick commands for the Pan/Tilt available in the upper-right-hand corner of this popup, accessed by pressing the expanding arrows:



As seen above, this opens a popup that allow you to quickly send all of your moving light to a variety of locations, including flipping the pan and tilt percentage.

Near the bottom of this window, we see that we can use the lock icons to lock our pan or tilt, and bring the light back to center with the center icon.

FX Scope

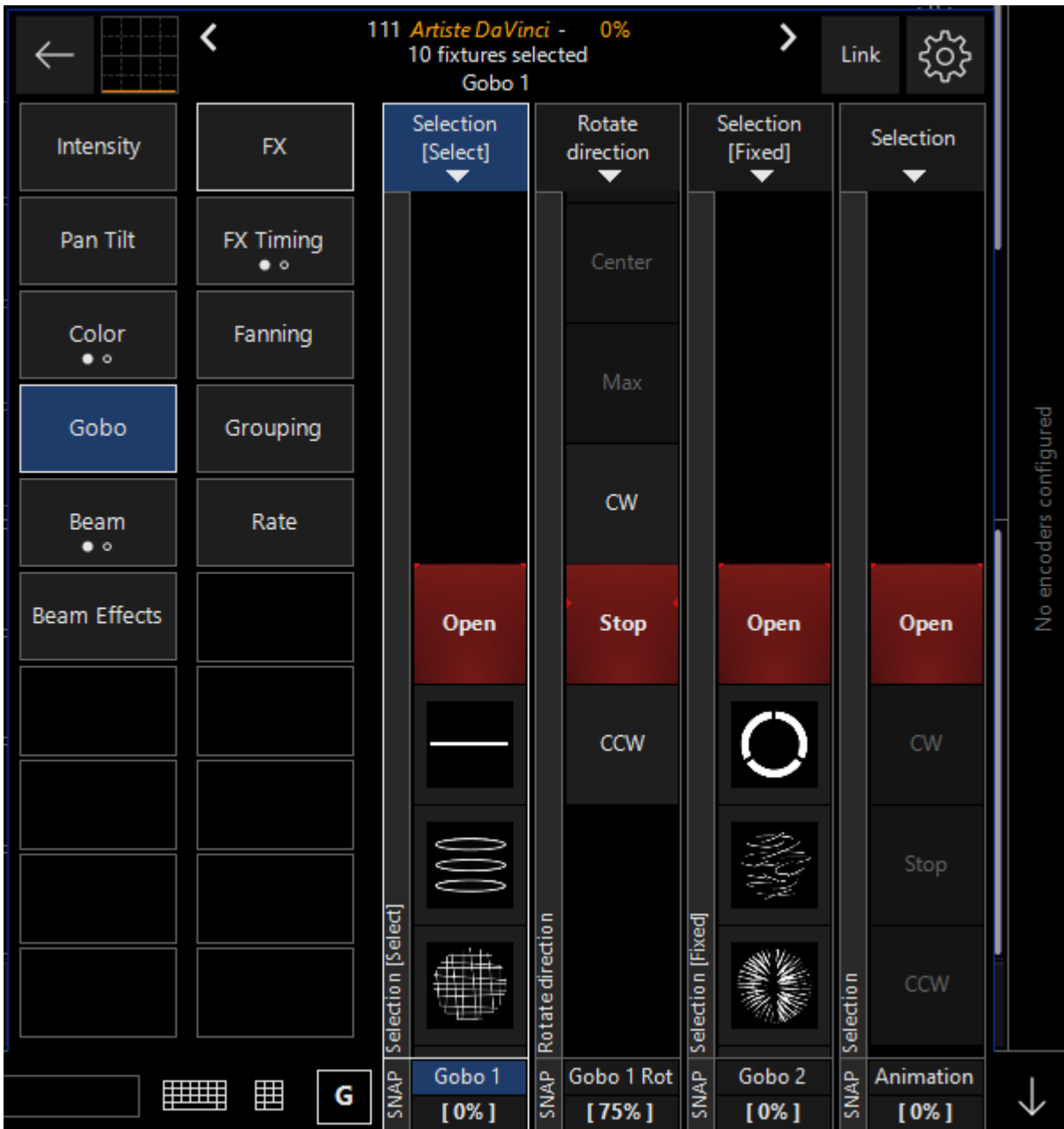


The FX scope gives you a visual representation of what your FX are doing. For most parameters, this is represented by a line which moves up and down, following the FX path.

For Pan/Tilt, it moves on 2 axis, as shown above.

Fixture Parameter Window

When a fixture or fixtures are selected, the Fixture Parameters screen is loaded with information concerning the selected fixture. The information that is loaded is dependent on the attributes of the selected fixtures. When multiple fixture types are selected, all the various attributes will be displayed in the Programmer. In the view below we have selected fixture 101, a Artiste DaVinci, and are displaying the Gobo information:



There's a lot of information on this screen so we'll look at it in smaller sections. Follow the next pages in the navigation to learn it all!

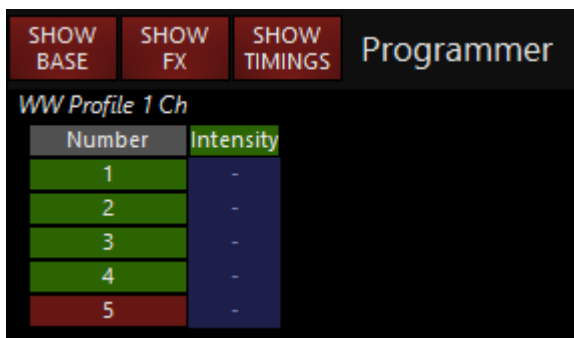
Activating Parameters

There are four ways to load information into the Programmer:

1. Selecting a fixture or fixtures.
2. Using the Edit button to edit cues.
3. Using the Load button to load groups, attribute groups or individual attributes.
4. Selecting a preset with the “Apply on Empty” option enabled.

Activating Using Fixture Selection

Selecting fixtures or groups, for example with the command 1 Thru 5 Enter, loads them into the Programmer in a selected state with null values.



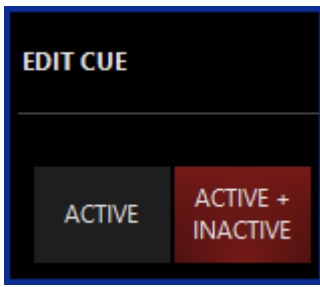
Number	Intensity
1	-
2	-
3	-
4	-
5	-

[Learn more ways to select fixtures here.](#)

Activating Parameters in the Programmer Using Edit

Another way to activate parameters in the Programmer is to use the Edit Cue command. To do so, you must first make the cuelist that you want to edit the selected cuelist. You can select it by pressing its select key, or touching its playback assignment on the touchscreen (The part of the touchscreen above the playback that shows its name, current cue etc). You can then press Edit Cue X Enter to load the values of cue number X of that cuelist. If you don't enter a cue number, the current cue will be loaded.

When you press Edit, the Edit Options window pops up that allows you to filter out inactive (tracked) values.



For example, if a cue has the values shown here:

SHOW BASE	SHOW FX	SHOW TIMINGS	Cue "Cue 2" [2] Cuelist "Timing Example" [10]																			Preset Name	Percentage		
Artiste DaVinci Standard																									
Number	Intensity	Shutter	Pan	Tilt	Cyan	Magenta	Yellow	CTC	Color	Color Macro	Gobo 1	Gobo 1 Rot	Gobo 2	Animation	Zoom	Focus	Iris	Frost	Prism	Prism Rot	AutoFocus	AutoFocus Adj	Ctrl	Curv	
101	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s
102	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s
103	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s
104	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s
105	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s
106	100%	-	HOME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
107	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s
108	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s
109	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s
110	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s
111	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s
FUZE WASH Z350 15 Ch																									
Number	Intensity	Shutter	Pan	Tilt	Red	Green	Blue	Zoom																	
201	100%	-	-	-	90%	27%	0%	ZOOM 75%																	
202	100%	-	-	-	90%	27%	0%	ZOOM 75%																	
203	100%	-	-	-	90%	27%	0%	ZOOM 75%																	
204	100%	-	-	-	90%	27%	0%	ZOOM 75%																	
205	100%	-	-	-	90%	27%	0%	ZOOM 75%																	
206	100%	-	-	-	90%	27%	0%	ZOOM 75%																	
207	100%	-	-	-	90%	27%	0%	ZOOM 75%																	

Then selecting “Active” would filter out the inactive (tracked) values and result in the following parameters being pulled into the programmer.

SHOW BASE	SHOW FX	SHOW TIMINGS	Cue "Cue 2" [2] Cuelist "Timing Example" [10]																			Preset Name	Percentage		
Artiste DaVinci Standard																									
Number	Intensity	Shutter	Pan	Tilt	Cyan	Magenta	Yellow	CTC	Color	Color Macro	Gobo 1	Gobo 1 Rot	Gobo 2	Animation	Zoom	Focus	Iris	Frost	Prism	Prism Rot	AutoFocus	AutoFocus Adj	Ctrl	Curv	
101	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s
102	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s
103	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s
104	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s
105	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s
107	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s	2s
108	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s	1.50s
109	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s	1s
110	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s	0.50s
111	100%	18%	UP 3	0%	100%	100%	0%	0%	0%	0%	0%	75%	0%	0%	ZOOM 0%	50%	0%	0%	0%	75%	0%	0%	0%	0%	0%
DELAY	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s
Dartz 360 Extended																									
Number	Intensity	Shutter	Pan	Tilt	Pan Rot	Tilt Rot	Red	Green	Blue	Gobo	Focus	Frost	Prism 1	Prism 1 Rot	Prism 2	Prism 2 Rot	Ctrl	Curve	PT Speed						
401	100%	18%	UP 3	0%	0%	100%	0%	0%	0%	0%	50%	0%	0%	75%	0%	75%	0%	0%	0%						
DELAY	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s						
402	100%	18%	UP 3	0%	0%	100%	0%	0%	0%	0%	50%	0%	0%	75%	0%	75%	0%	0%	0%						
DELAY	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s	0.40s						
403	100%	18%	UP 3	0%	0%	100%	0%	0%	0%	0%	50%	0%	0%	75%	0%	75%	0%	0%	0%						
DELAY	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s	0.80s						
404	100%	18%	UP 3	0%	0%	100%																			

Note that fixtures are not selected when loading parameters from a cue into the Programmer using Edit.

We can now select any or all of these fixtures and make the desired changes. We can also add fixtures to the Programmer using either conventional fixture selection methods or by using the Load function described below.

For information about saving changes made to a cue, please see "[Editing a Cue](#)".

Clearing Attributes

Fixture and attribute information entered into the Programmer will remain there until it is cleared. The “Clear” button serves four different functions within the Programmer: it can be used to deselect active fixtures; it can be used to clear the Programmer entirely; or it can be used to clear specific attributes or attribute groups. It can also be used to make specific parameter groups inactive.

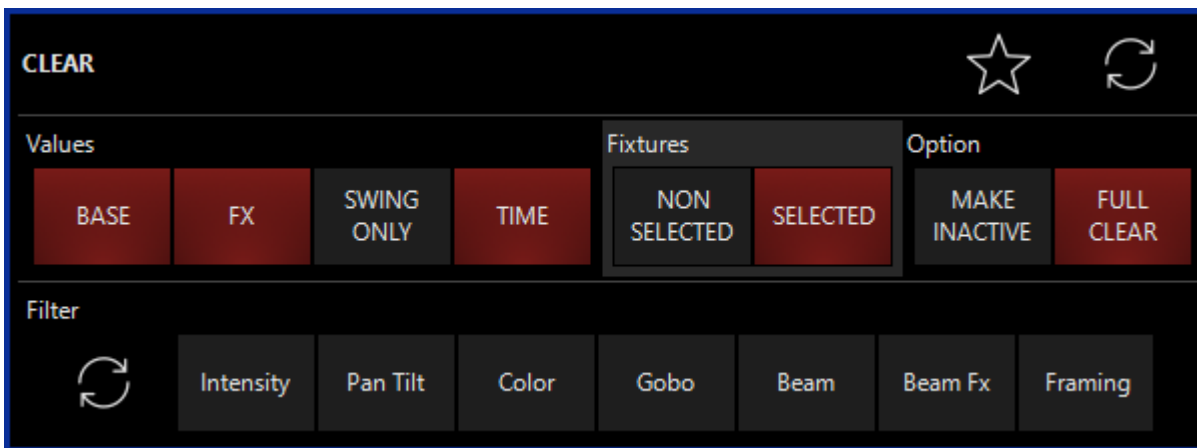
Pressing Clear once will deselect any selected fixtures.

Pressing Clear twice will fully clear the programmer.

Holding Clear and pressing an parameter, parameter group, or fixture will clear only that item.

Read below for more precise clearing commands:

The Clear Options popup:



The Clear Options popup is used not merely to clear fixtures, but also to make attributes inactive. When you first press the Clear button, the Clear Options pops up:

Option	Description
Values	"BASE", "FX" "SWING ONLY", and "TIME" allow you to filter whether or not you wish to clear these types of parameters from the Programmer.
Fixtures	By default, only selected fixtures are deactivated. However, choosing "non-selected" will allow you to deactivate non-selected fixtures.
Option	"Make Inactive" gives the the ability to keep attributes in the Programmer (but deactivate them). "Full Clear" is selected

Option	Description
Filter	<p>by default, and removes attributes from the Programmer.</p> <p>Filters out specific attribute groups. By default, all attribute groups are selected, but you can select individual groups if you only want to clear certain information. Using the "circle arrows" icon on the left will clear any selections you've made in this section.</p>

Clearing Individual Attributes

While the Clear Options window is quite useful and effective in clearing out attribute groups, it is also possible to clear individual attributes using the Clear button or by right-clicking on the Channel Visualizer.

Example: To clear the “Cyan” attribute from only the first 5 Artiste DaVinci Profiles, we would use the following keystrokes:

1. Select fixtures by pressing 101 THRU 105 ENTER
2. Select the Color parameter group via the physical buttons or on-screen popup.
3. Press and hold the Clear button.
4. Press the Cyan encoder button, or on-screen encoder (in the lower right hand corner)

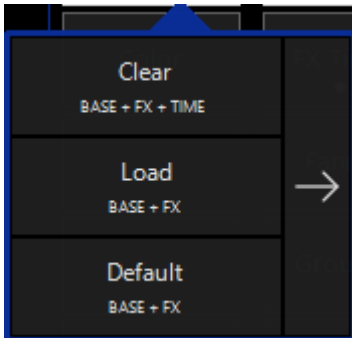
The Programmer screen will then look like this:

Number	Cyan	Magenta	Yellow	CTC	Color	Color Macro	Intensity	Pan	Tilt
101	-	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
102	-	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
103	-	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
104	-	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
105	-	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
107	100%	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
108	100%	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
109	100%	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
110	100%	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT
111	100%	0%	0%	-	-	-	INT @ 50%	DOWN	FANED TILT

You can see that the cyan attribute on the first 5 Artiste DaVinci Profiles is now set to null. This is sometimes referred to as “knocking out.”

Right-Clicking in the Channel Visualizer

You can also gain the same result when right-clicking on a parameter group on screen or on the Channel Visualizer. This pop-up appears:



In the example above, you could right-click on the Cyan parameter and then press Clear to remove all Cyan parameters from the selected lights.

Pressing the right-arrow reveals the following options:



In this pop-up, you can choose whether to clear any combination of base, FX, FX Swing (SWING ONLY), and Time parameters by pressing their buttons. The default state is shown in this screenshot.

Example: Removing Entire Fixtures from the Programmer

To remove (knock out) unwanted fixtures from the Programmer, use the following process:

Press Clear, then your Fixture ID Number (Example: 101), then Enter.

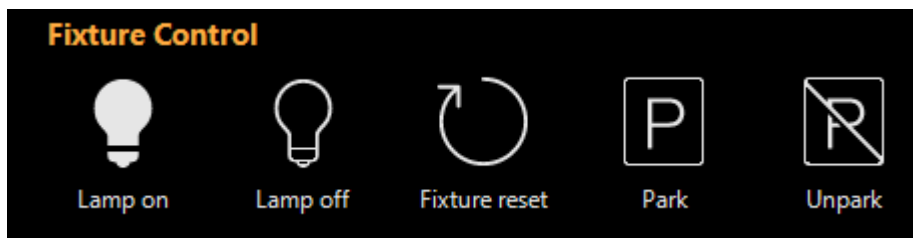
Base attributes refer to things like intensity, pan and tilt, and color that can be manipulated using the attribute track belts, attribute pickers, etc.

Expert Tip: You can quickly knock out currently selected fixtures by pressing Clear Enter and then 0 Enter.

Fixture Control Commands

Fixture commands such as Lamp ON, Lamp OFF, Reset, Park and Unpark can be accessed by pressing Menu, or by entering the quick menu via ONYX in the upper left hand corner.

Then, in the quick menu you'll see the commands listed:



To use the commands, simply select all the fixtures you wish to send the command to, then enter the menu and press the button for Lamp On, Lamp Off or Fixture Reset.

When using the Lamp On and Lamp Off commands, the console will "stagger" DMX output randomly so that the command is not received by all the fixtures simultaneously.

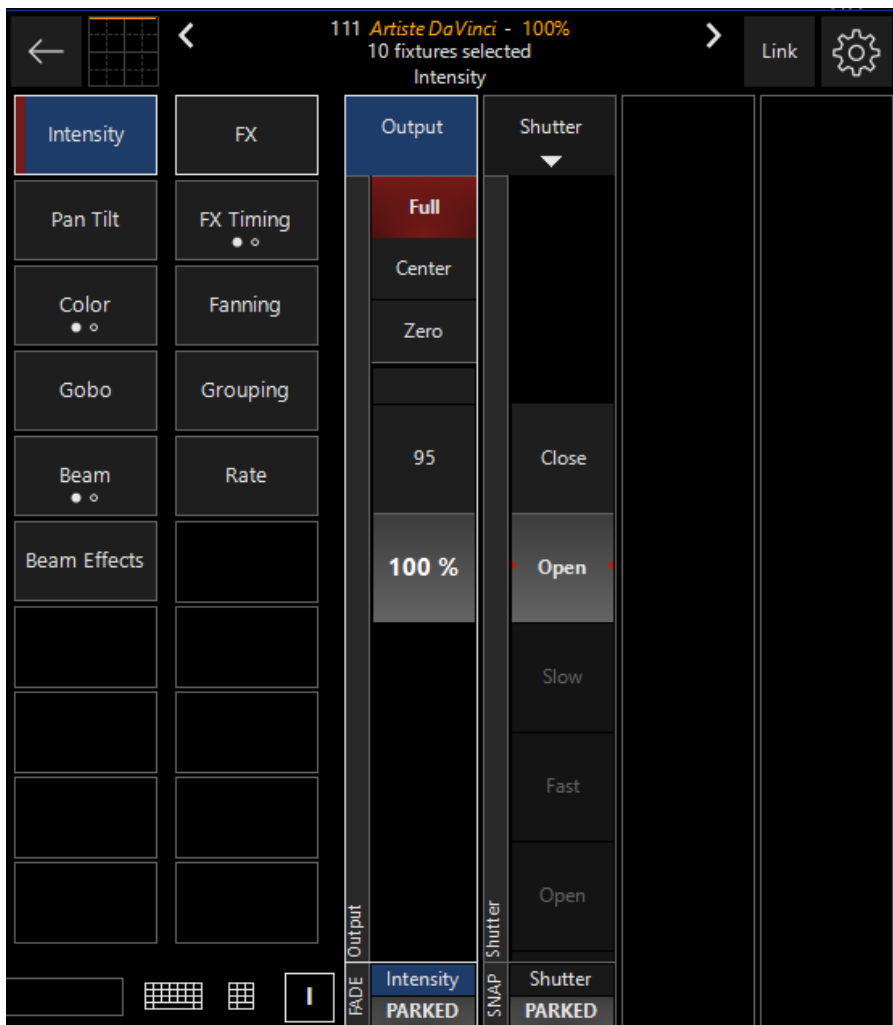
Park

Whole fixtures can be "Parked" at their current output via the fixture commands window.

To access available Park commands:

1. Select the fixtures you wish to Park.
2. Assign values.
3. Hold Menu or press ONYX to access the menu from the upper left corner.
4. Press Park under fixture commands.

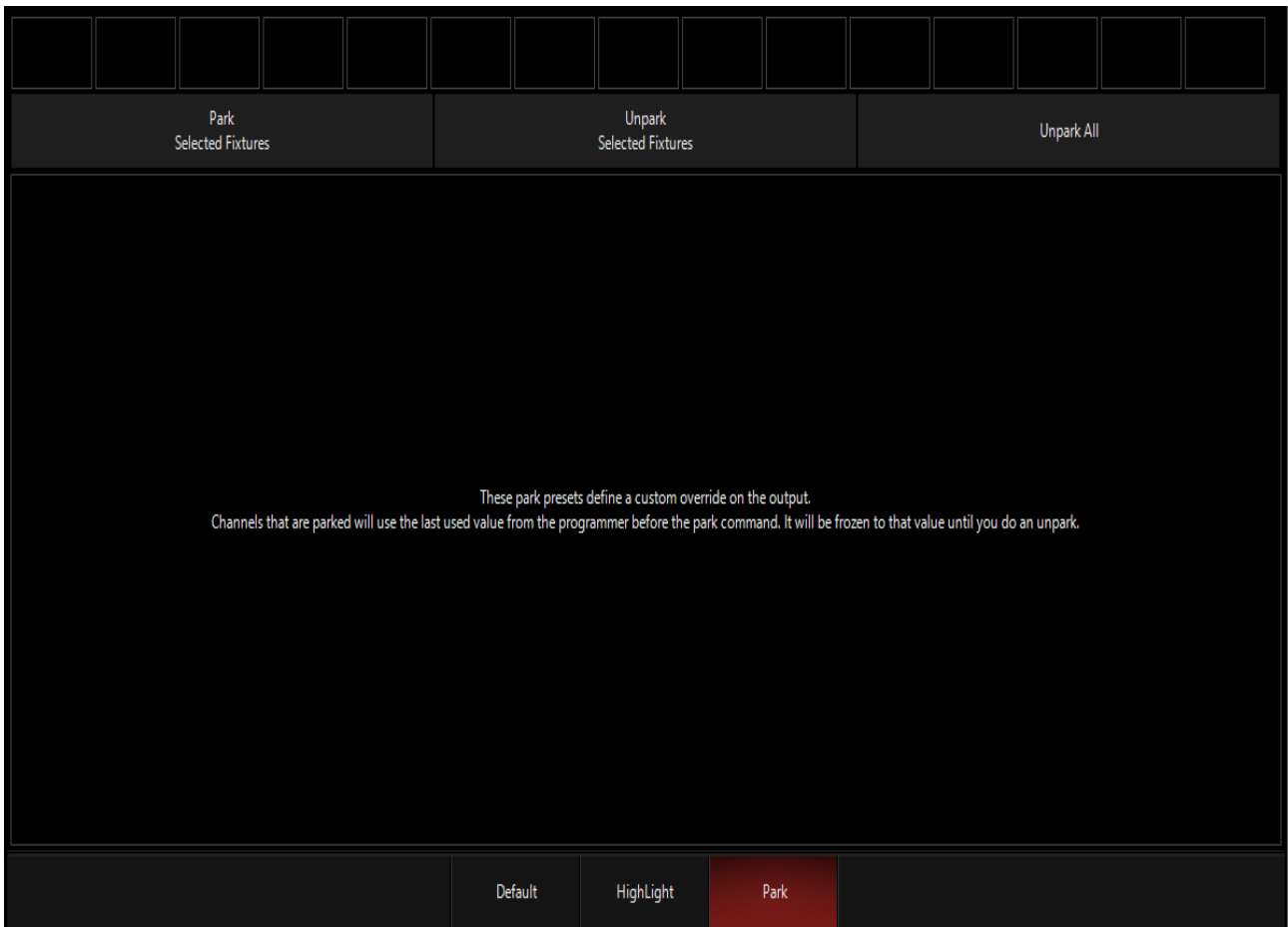
The fixture(s) are now parked at the values you assigned. Fixture parameters can still be recorded into cues as normal but the values will not be output. Parked fixtures will display in Gray in the parameters window as shown below.



You may also Unpark via the same method. Select the fixtures, press ONYX to enter the quick menu, and press Unpark.

Park Commands in the Default Window

Park Commands can also be accessed through the "Default" Window, which is under Programmer [when you are assigning function keys and sidebar buttons.](#)



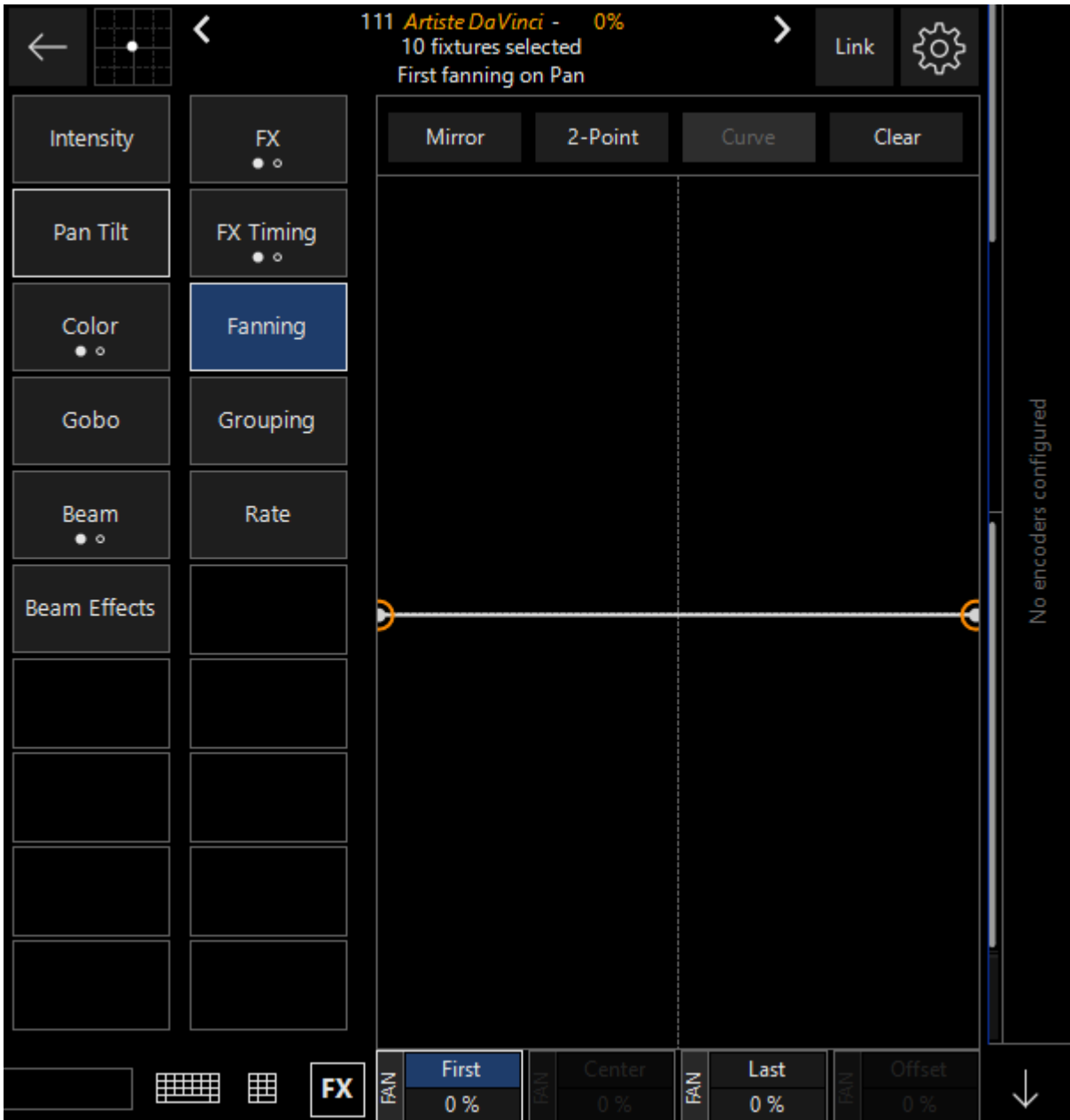
In this window, it is simple to Park The Selected Fixtures, Unpark Selected Fixtures, and Unpark All Fixtures via the buttons at the top.

Fixture Fanning

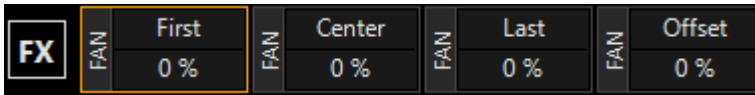
The Fan tools provide a powerful means to manipulate a group of fixtures by spreading their attribute values over a range.

To bring up the fan tools, select some fixtures and bring up the CV popup by using the up arrow in the bottom right corner. Then press the parameter group button labeled “Fan”.

The Channel Visualizer will now look something like the screen shot below.



The encoders/belts of the console will be mapped as follows:



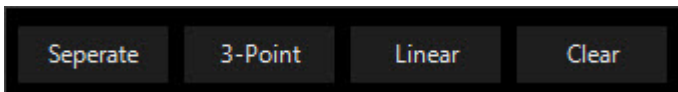
Near the bottom of the screen are 4 labels that identify the function of the track belts.

Option	Description
First	This label corresponds to the left point (as indicated by the white dot in the fan display) and controls the position of the first fixture selected in the fan.
Center	Center designates the center point of the fan. <i>(Only available with 3 point fanning)</i>
Last	Last is the right white dot on the fan display and controls the position of the last fixture selected in the fan
Offset	Offset is used to control how far toward “First” or “Last” the center point is considered to be. <i>(Only available with 3 point fanning)</i>

Each of these settings can be adjusted between -100% and + 100%. In the display above they are all shown at zero percent as indicated in the box below each label.

Note that the attribute that will be affected by the fan position control elements is pan (“Fan on Pan”). This is determined by first selecting the attribute type “Pan Tilt” and then pressing the button in the column labeled “Pan”.

Above this are 4 toggles. Pressing or clicking on them will cause them to change from one type of effect on the fan to another. The buttons and their alternate are both shown below:



Default

Alternate

Mirror - When Mirror is selected, the first and right points will mirror each other. For example, if the first point is used to pan left, the last point will automatically move right and equal, but opposite amount.

Seperate - When selected, Separate allows the first and last points to move independently. That is to say, if the first point is used to pan left, that first fixture and all other fixtures except for the last will move left propor-

Default

Alternate

2-Point 2-Point - When active, 2-Point allows for the manipulation of first and last fixtures to determine the fan and the center point is used to determine the fan's overall position

3-Point tionately to one another. 3-Point - When 3-Point is visible, the first and last points are left unaffected by changes to the center point. Instead, an arc is formed.

Curve Curve - Curve will cause the fixtures in the fan to follow a curvilinear path. The degree of the curve is determined by the center point when in 3-Point mode

Linear Linear - Similar to curve, except that instead of a curved path, a linear one is followed. This is the only mode available in 2-point fan.

Clear Clear - Pressing this button will clear all fan effects.

Clear Clear - Pressing this button will clear all fan effects.

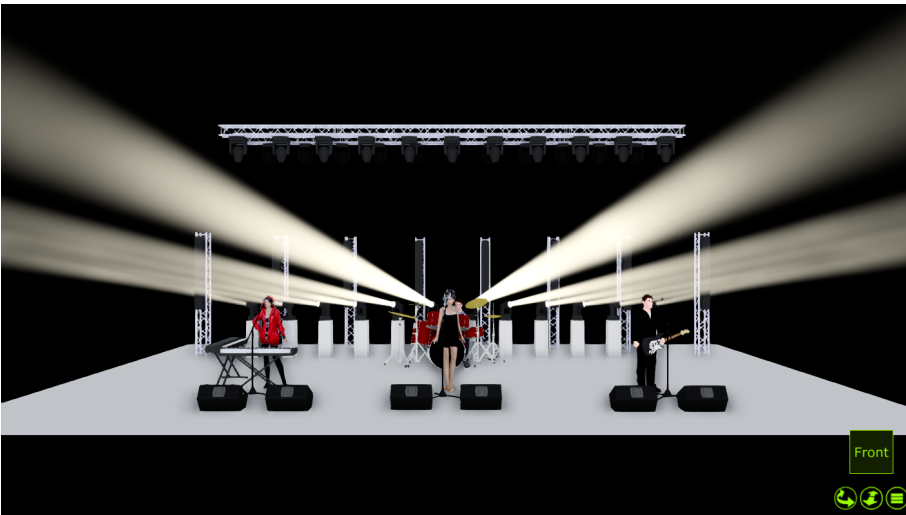
Examples of Fixture Fanning

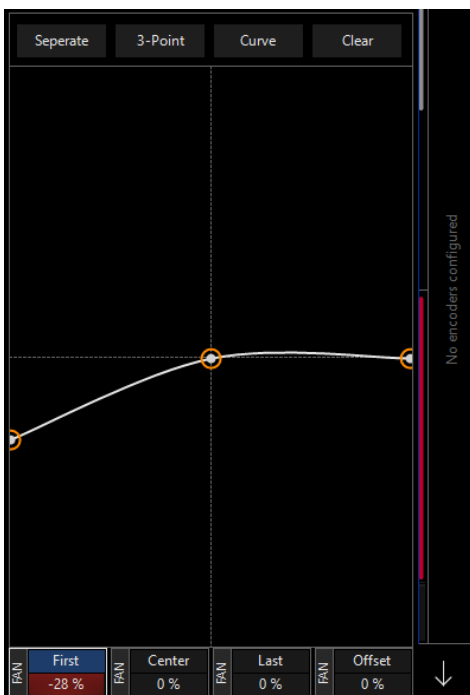
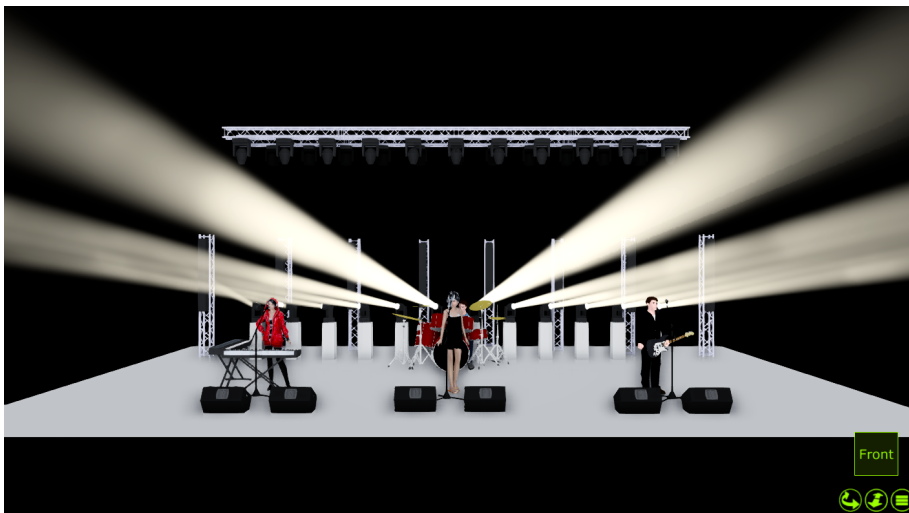
The Dartz 360 Group of fixtures will be used for this example. Build a crowd blinder position preset as shown below to use as a starting point.



Mirror vs Separate Fan

Starting at the “Blinder” preset that we just created, with “Fan on Pan” in 3-Point linear mode the following shows the difference between Mirror and Separate modes when moving only the First fan attribute track belt.



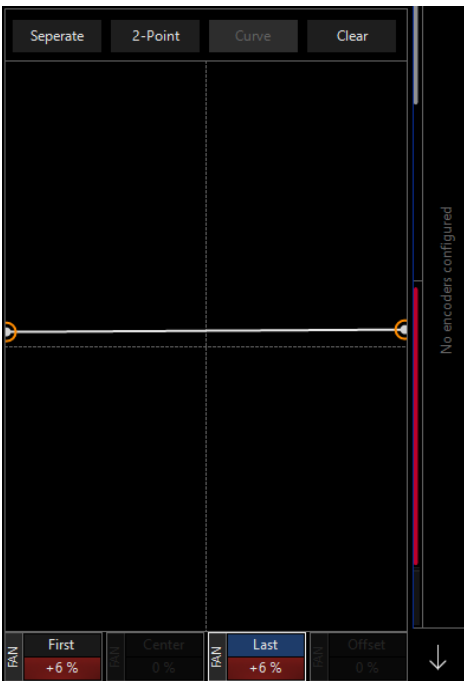


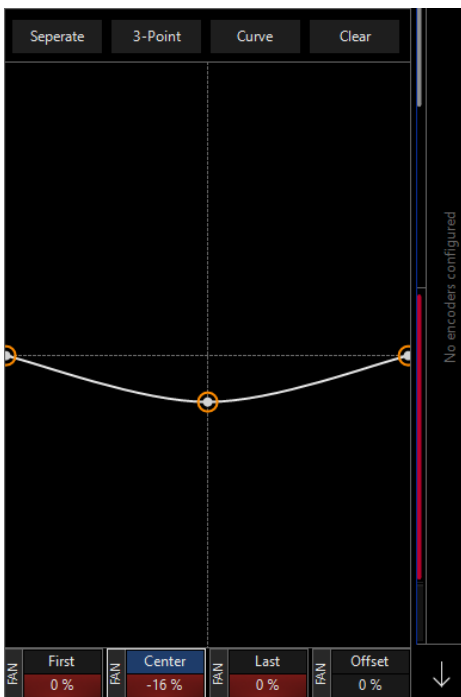
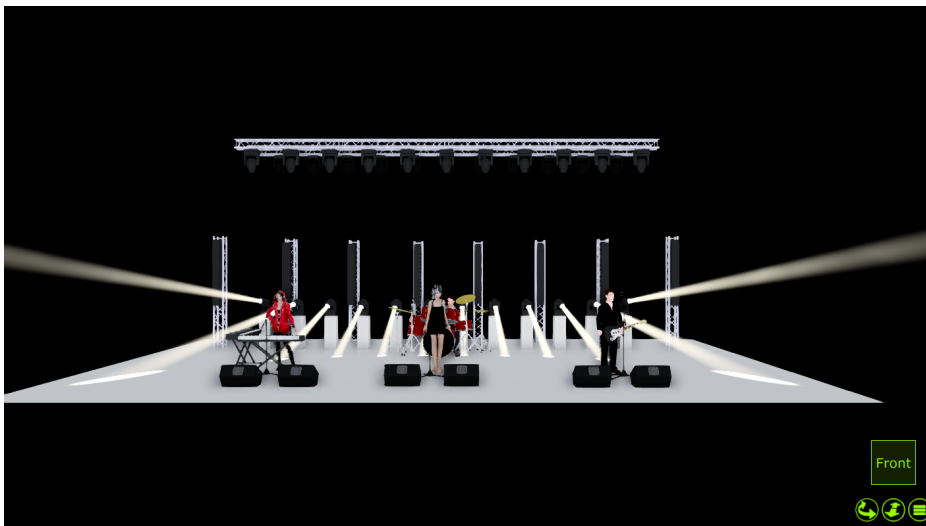
As you can see, in the Mirror example, the First and Last attributes are at +/-16% even though only the First fan attribute was adjusted. This is because as the First fan attribute was altered to -16%, the Last fan attribute mirrored it and moved to +16%.

In the Separate example the First fan attribute is at -28% but the Last fan attribute has remained at 0%. You can see how the left half of the lights moved much, and the right half moved very little. Look at the left-most light - it's actually turned so much it's pointing behind the stage!

2-Point vs. 3-Point Fan

Start at the “blinder” preset that you created above. With “Fan on Tilt” in separate and linear mode, the following shows the difference between 2-Point and 3-Point modes.

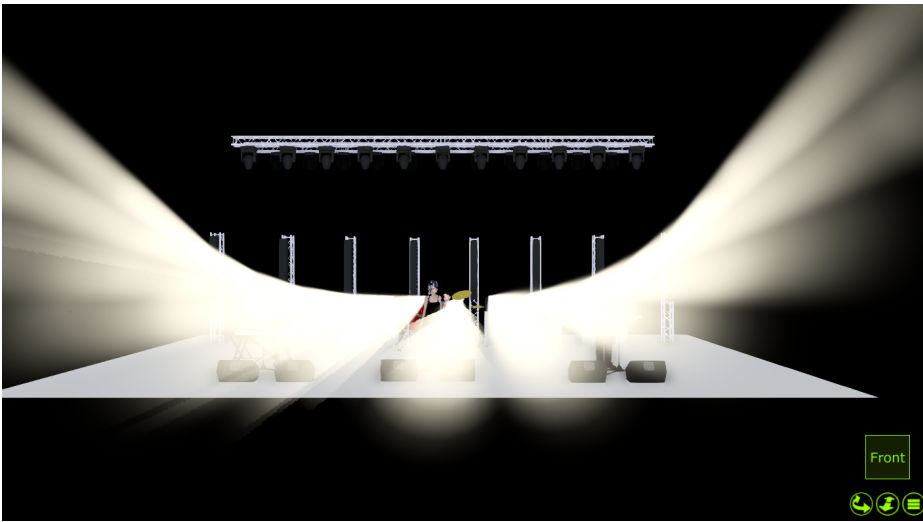




In the 2-Point example, moving the Center fan attribute only to +6% resulted in both the First and Last fan attributes also moving to +6%. In other words, it acted much like the traditional tilt attribute. In the 3-Point example, moving the Center attribute to -16% left the First and Last attributes unchanged (0%) and distributed a percentage of change to all fixtures between the first and last fixtures selected.

Curve vs Linear Fan

Select the Dartz 360's and tilt them forward to 30%, with "Fan on Tilt" in mirror and 3-Point modes, the following shows the difference between Linear and Curve options within the Fan window.

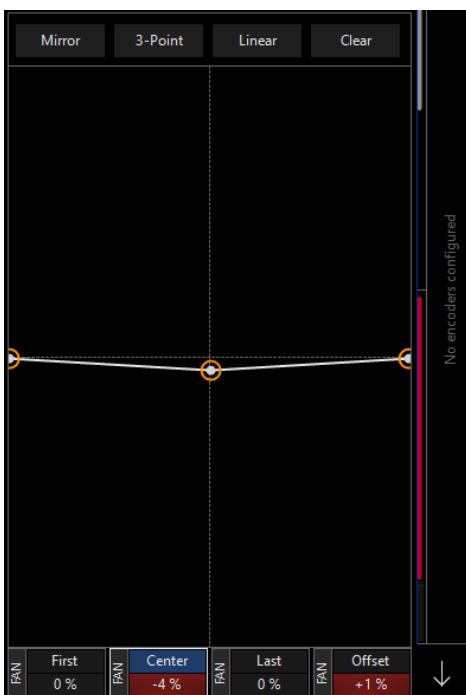
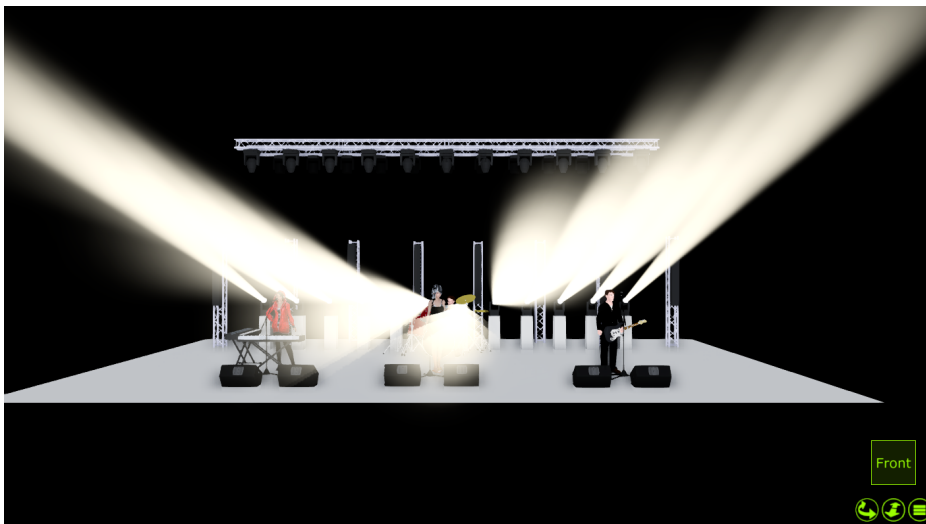


Mirror 3-Point Curve Clear

No encoders configured

FAN	First	FAN	Center	FAN	Last	FAN	Offset
	0 %		-4 %		0 %		+1 %

↓



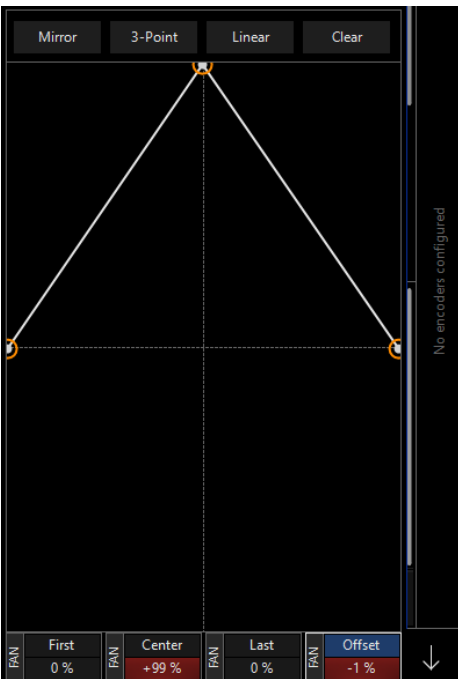
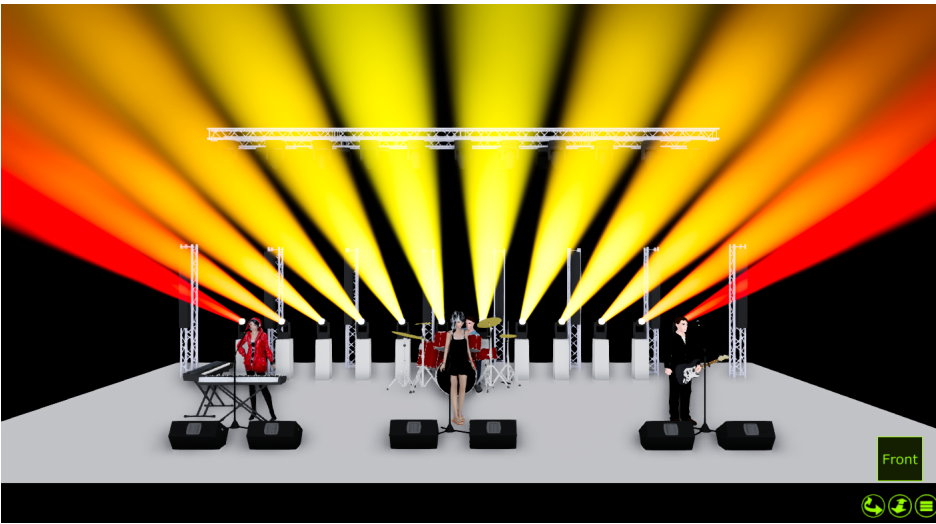
Moving only the Center fan attribute to -4% in **Curve** mode results with a nice, smooth curve to the lights. However, when in **Linear** mode, it's no longer a curve, but a straight "V" type shape.

You can likely see from this example show both types of fanning can be useful in your show.

Other Fan Types

The examples above have used the pan and tilt attributes to demonstrate the fanning functions. However, it should be noted that any attribute can take advantage of the fanning function.

In the this example, the linear 3-point fan is used on the green attribute. The color is achieved by bringing red to full and uses a mirrored 3-point linear fan with the Center fan attribute at +100%.

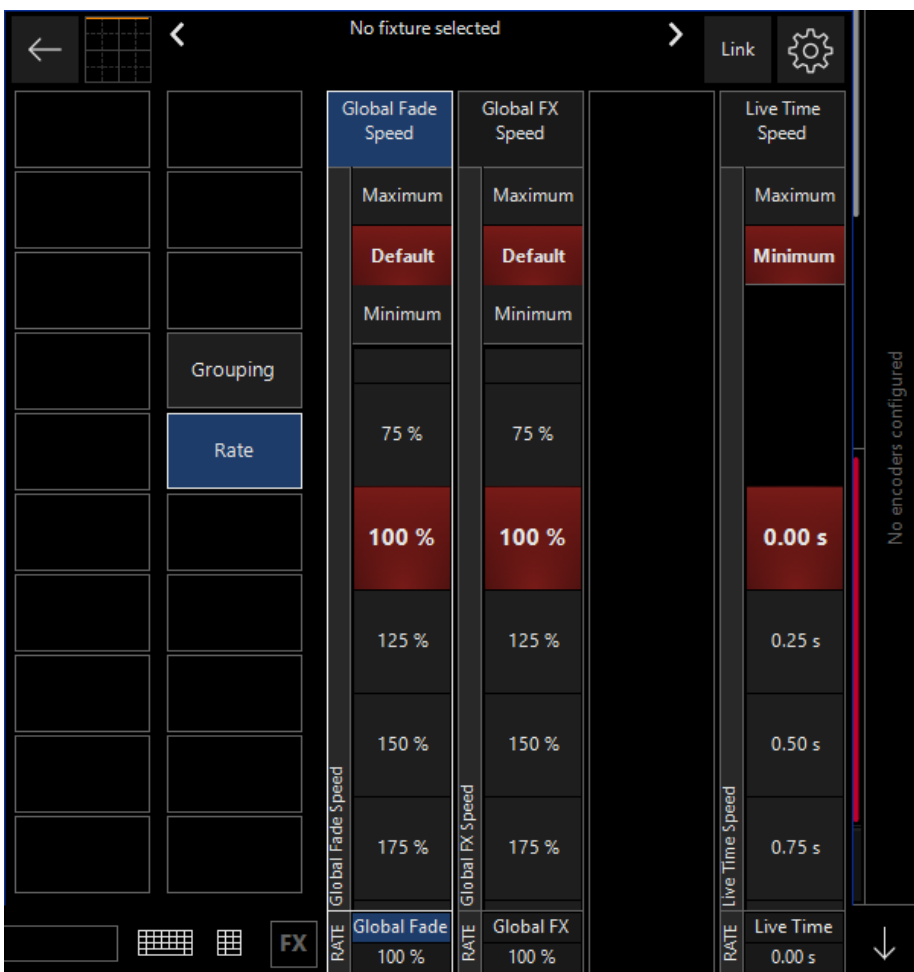


Live Programming

If you change the "Live Time" parameter in the Rate section of the encoders, any changes you make will appear on stage over the selected Live Time.

For example, if you have have selected your Color Chorus 72, and press FULL they will fade to full in whatever time the Live Time is set to. This is useful for making changes on the fly during a performance.

Not only that, but if you use Blind, you can enable/disable your entire programmer at the Live Time. Pressing Preview will enable/disable at the time set as the live time. This can be very powerful when punting lights live!



Learn more about the other timing options available in this window here: [Changing Global Cue Timing](#).

Programmer Control

When you select a fixture or a number of fixtures you will notice several changes on the console. These changes are primarily found in the Programmer screen and Attribute Controls, but a number of the screens are also affected. We'll start by [selecting a fixture](#) and viewing some of the relevant windows and areas on the console.

On ONYX consoles, you'll find 4 encoders and a small touchscreen for controlling fixtures in the programmer. You'll find this same layout in the bottom right corner of the ONYX software.

The Attribute Groups that will display are:

Option	Description
Intensity	This contains the Intensity and Shutter attributes.
Pan/Tilt	This contains the Position attributes.
Color	This contains the Color attributes.
Gobo	This contains the Gobo 1, Gobo 1 Rot, Gobo 2, Gobo 2 Rot, Anim, Anim Rot attributes.
Beam	This contains the Zoom, Focus, Iris, Frost and Prism attributes.
Beam Effects	This contains excess beam attribute controls such as macro channels.
Framing	This contains framing shutter attributes.
Unused Channels	This contains channels that are not assigned to other attribute groups.

Furthermore, on the right hand side of the mini touchscreen (or second layer of LCD buttons) there is access to a number of other important programming functions such as:

Option	Description
FX	This contains the FX controls for the selected attribute.
FX Timing	This contains FX Timing controls for the selected attribute.
Fanning	This contains Fanning controls for the selected attribute.
Grouping	This contains quick access to the grouping/mask selection tools.
Rate	This contains the Live Time and Global Timing attributes.

If there is more than one page in the attribute group, a number of dots will appear under the name of the group indicating how many pages there are (the black dot represents the current page).

Programming

Pressing an attribute group button multiple times will cycle through the pages of available attributes in that group.

You may also swipe along the top of the mini touchscreen to page between attributes too. Swiping upwards on the left hand side of the mini touchscreen will load further attribute groups such as Beam Effects or Framing.

Note that the only attribute groups to display will be the ones used by patched fixtures, for example, if there are no fixtures patched in the show that use the Framing attribute group, then the Framing attribute group will not appear under the attribute controls.

Attribute Color Codes for Parameters and Parameter Groups

As you manipulate the different attributes of your fixtures, you will notice the individual parameters and parameter groups change colors in the console

Option	Description
Green	The fixture(s) is selected and the attribute controls are available on the attribute controls, but no changes to the attributes have been made.
Red	An attribute group that is active in the programmer, but has not yet been recorded.
Orange	An attribute group that has previously been recorded but remains in the programmer and is therefore, inactive.

Programmer Modes

There are two Programmer modes: “live” and “blind” (or “Preview”)

In live mode, all levels in the Programmer are sent to the DMX output and have the highest priority. (You can see levels coming from the Programmer in the Live Output window, they’re the ones highlighted in red.)

Nothing, with the exception of the Grandmaster or a submaster specifically set to ignore the Programmer, overrides the Programmer in live mode.

In blind mode, levels in the Programmer are not output; however, they can still be recorded into cues, groups, presets, etc. They simply won’t be seen on stage. When in blind mode, “BLIND” appears in the header of the Programmer screen.

To toggle between live and blind modes, press the Preview button.

If you use the [Live Time](#) function, Blind will enable/disable at the time set as the live time. This can be very powerful when punting lights live!

The Programmer - How it Works

The Programmer window displays information on the fixtures that are currently under your direct control.

Any time you select a fixture, it is brought into the programmer. As you work with individual attributes of that fixture, they are brought into the programmer as well.

These attributes stay in the programmer until the programmer is cleared. The programmer has the highest priority over fixture parameter values, unless it is set into [BLIND \(Preview\)](#) mode.

Think of the programmer as a painter's work-in-progress.

While the end goal is generally to record the contents of the programmer into a Group, Preset or Cue, the programmer is a temporary space where you can work with the fixtures until it's exactly as you want it. Fixtures are modified using an advanced graphical representation of its parameters using the CV or "Channel View" window. Any functionality supported by a specific fixture type is laid out logically in front of the user and all parameters and options are right at the touch of a button.

It is also possible to load portions of or entire cues, groups, and presets into the Programmer for editing. When you record or update a cue, group or preset, only that information contained in the Programmer will be recorded or updated.

Values can be brought into the programmer utilizing the [LOAD](#) command and removed from the programmer using the [CLEAR](#) command. Many smart shortcuts exist to manage the programmer contents fast and efficiently.

By using the [Live Time](#) functionality the programmer window can be used as an extension of the playback system allowing elegant modifications of programmed cues on the fly. Using Live Time and Blind (Preview) together give you even more powerful results!

Fixture and Attribute States and Color Codes

Artiste DaVinci Standard							
Number	Intensity	Shutter	Pan	Tilt	Color	Gobo 1	Prism
101	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
102	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
103	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
104	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
105	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
107	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
108	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
109	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
110	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		
111	-	-	LEAD SINGER	YELLOW	GOGO 1 OPEN 3- FACET PRISM		

FUZE WASH Z350 15 Ch							
Number	Intensity	Shutter	Pan	Tilt	Red	Green	Blue
201	-	-	LEAD SINGER		CYAN MIX		
202	-	-	LEAD SINGER		CYAN MIX		
203	-	-	LEAD SINGER		CYAN MIX		
204	-	-	LEAD SINGER		CYAN MIX		
205	-	-	LEAD SINGER		CYAN MIX		
206	-	-	LEAD SINGER		CYAN MIX		
207	-	-	LEAD SINGER		CYAN MIX		
208	-	-	LEAD SINGER		CYAN MIX		
209	-	-	LEAD SINGER		CYAN MIX		
210	-	-	LEAD SINGER		CYAN MIX		
211	-	-	LEAD SINGER		CYAN MIX		

Within the Programmer, fixtures can be selected or deselected and their attribute values can be active, inactive, or null.

Selected Fixture

A selected fixture is one that is under the control of the programming tools. Multiple fixtures of different types may be selected at any time. All but the last selected fixture are displayed on a light green field like fixtures 1 and 2.

1	100%	13%	PIANO	0%	100%	100%	0%
2	100%	13%	PIANO	0%	100%	100%	0%

The programming tools and displays are configured for the last selected fixture, which is displayed on a red field like fixture 3.

3	100%	13%	PIANO	0%	100%	100%	0%
---	------	-----	-------	----	------	------	----

Deselected Fixture

Within the Programmer, a deselected fixture is one that is in the programmer but is not under the control of the programming tools. It may be selected using any of the fixture selection techniques.

Deselected fixtures are shown on a gray or dark green field. The difference is that you can select fixtures on the dark green fields - in blocks if a mask has been applied - using the Next/Last buttons.

4	100%	13%	PIANO	0%	100%	100%	0%
5	100%	13%	PIANO	0%	100%	100%	0%
6	100%	13%	PIANO	0%	100%	100%	0%

35	0%	100%	100%	100%	0%	0%	0%	0%	9%
36	0%	100%	100%	100%	0%	0%	0%	0%	9%
37	0%	100%	100%	100%	0%	0%	0%	0%	9%
38	0%	100%	100%	100%	0%	0%	0%	0%	9%

Active Channel

Intensity	Shutter
100%	13%
100%	13%
100%	13%
100%	13%
100%	13%
100%	13%

In the Programmer, an active channel is a channel at any level from 0 to 100% that has been loaded in the active state (most cases) or set to a level using the programming controls, and that has not yet been recorded into a cue. Active channels are displayed in white and are recorded into cues and presets unless filtered out. Active channels are also known as "Hard Values:".

Cyan	Magenta	Yellow
0%	100%	100%
0%	100%	100%
0%	100%	100%
0%	100%	100%
0%	100%	100%
0%	100%	100%

An inactive channel is a channel that has been loaded in the inactive state (using edit cue), or was active but has either been recorded into a cue (most likely) or forced to inactive using Clear. Inactive channels are displayed in light blue and are not recorded into cues and presets unless specifically included via the Record Pop-up.

Null Channel

Zoom
-
-
-
-
-
-

When talking about the Programmer, a null channel is a channel for a fixture attribute that has neither been loaded or adjusted. The attribute may be at a level in presets and cues, but it is not in the Programmer. If the attribute column appears, null channels are represented by a "-".

When talking about cues and cuelists, a null channel is one that is not at a level. For a null channel, nothing will be recorded.

Presets

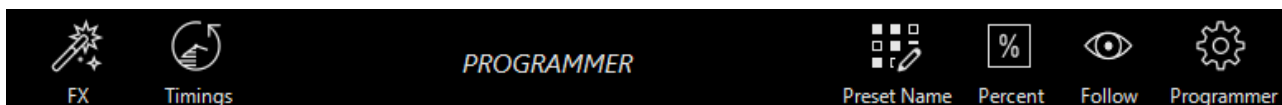
Pan	Tilt
PIANO	
PIANO	
PIANO	
PIANO	
PIANO	
PIANO	

Values in the Programmer that are linked to a preset are shown on a blue-green background. In this case, the values are active.

Programmer Filters

The programmer view offers a number of filters that make it simpler to drill-down and find just the fixture and/or type of parameters you are looking for. Enabling and disabling programmer filters will hide parameters from the programmer. However, those parameters are still in the programmer and will be recorded unless cleared, even if you can't see them because of a filter!

Across the top of the programmer screen, we see the "FX" and "Timing" icons:

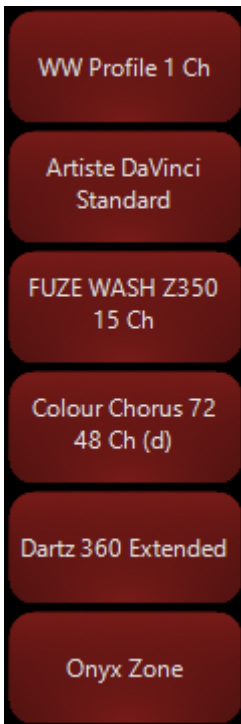


These are filters for the [FX parameters](#) and [timing parameters](#). Pressing them hides the parameters, and the icon becomes crossed out:



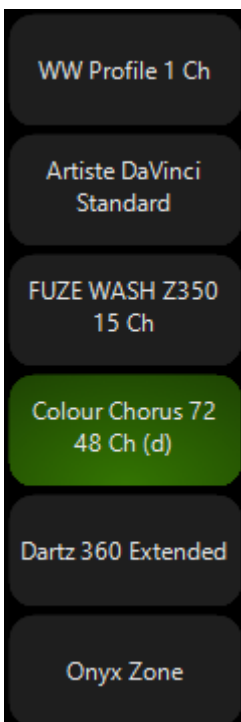
There are also fixture type filters down the left side of the programmer:

Programming



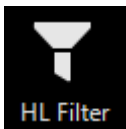
Pressing these large icons hides the given fixture type. Fixture types in Red are shown.

Holding down for a long-press on any type enables "Exclusive" mode:



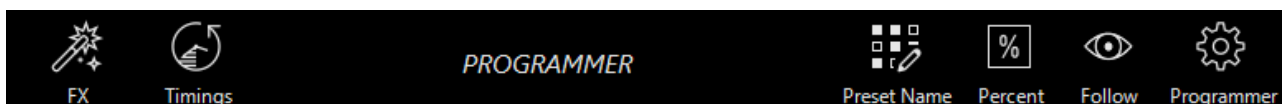
In exclusive mode, only that type of fixture is seen.

We can modify filters at will, or clear the type filters by pressing the filter icon:



Programmer Top Buttons

The top of the Programmer screen is shown below.



On the left we see the symbols for FX and Timings. These are filters, see the section "Programmer Filters" above for more.

On the right of the word "Programmer", we have some options to change how different parameters are viewed in the programmer screen:

Option	Description
Preset Name / Preset Value / Preset ID	This button will toggle between "Preset Name," where the label taken from a preset is displayed; "Preset Number," where the page and number of the preset are displayed; and "Preset Value" where the numeric value of the preset is displayed. The numeric value will be either percentage or decimal as determined by the Percentage Toggle. If the selected fixtures are at a value that is not determined by a preset, the Preset Name Toggle will have no effect.
Percent / Digital	This button will toggle the values displayed between a decimal percentage (0-100%) and digital (DMX) values (0-255 for 8-bit attributes and 0-65,535 for 16-bit attributes).
Follow	Indicates that the programmer will jump to fixtures selected when they are out of view by scrolling. This can be turned off with the setting "Auto-Follow" from the "Programmer cog" to the right.

The screen shot below shows all of these features in use.



This Programmer screen shot shows you that all Fuze Wash Z350 fixture's are running a position effect. The Fuze Wash's have a position fade in time of 5 seconds. All Fixtures are pointing at the "Lead Singer", are at 25% intensity and Red.

[Control of timing is covered here](#), and [effects are covered here](#).

Begin using the programmer by [Activating Parameters](#).

Undo

The ONYX provides a programmer undo function as a convenience to the user. If you, for instance, if you accidentally clear the programmer before storing a cue, you can press Undo and the values will be restored to the programmer.

Undo only affects changes in the programmer - it does not revert record operations. So, you can sleep soundly knowing that pressing Undo will not make your cues disappear!

Using the Load Command

Activating Parameters in the Programmer using Load

The Load command is extremely powerful and can be used to load the complete output, groups, cues, attribute groups, or individual attributes of selected fixtures.

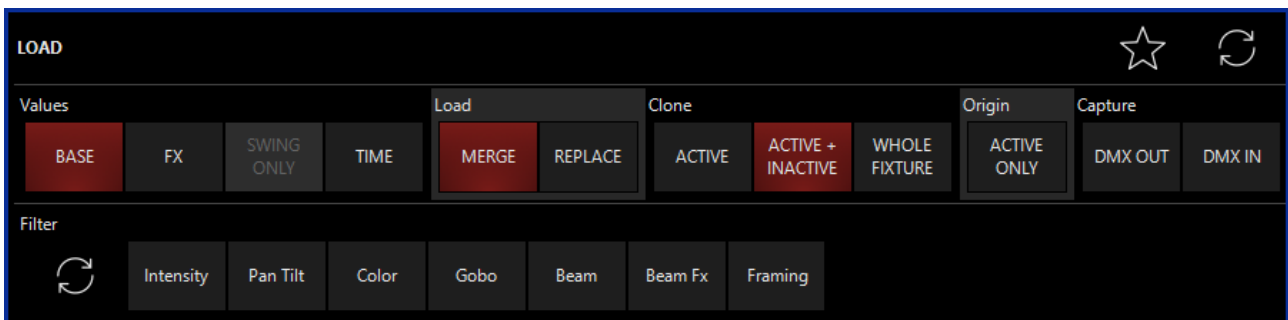
Load allows you to clone the attribute values from one fixture to another fixture.

Understanding how the Load function performs is necessary in order to get the most out of ONYX.

Load differs from Edit in that where Edit will read information on attributes in a cue that have been recorded with values in them, by default Load reads all of the specified base attribute values of the selected fixtures, whether they are at a value or not. Load also differs from Edit because it brings in information from all active cues - not just the one you've selected!

If one or more of the attributes that is read by a Load function is at a level (for example the attribute is in an active cue), then that value will be loaded into the Programmer.

The Load Options Popup:



In it's simplest form, we can use Load to bring all of the parameters of fixtures that are currently in use, into our programmer:

1. Press Load.
2. Set your filters as desired.
3. Press Enter.

The desired data will then be loaded into the programmer.

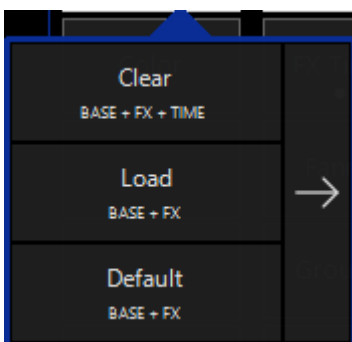
The Load Options window contains the following categories which you can simply press to toggle.

Option	Description
Values	"Base", "FX", and "Time" allow you to filter whether or not you wish to bring these types of parameters into the Programmer. By default, only

Option	Description
Load	<p>base values are selected. If you've used FX that you wish to load, you'll need to select FX, as well as select "Time" if you've set custom timings.</p> <p>“Merge” and “Replace” are identical functions when loading the Programmer. That is to say, attribute values will always be merged into the Programmer.</p> <p>When using Load to copy parameters from one fixture to another, these filter determine whether only "Active" parameters will be copied, or whether "Active and Inactive" will be copied.</p>
Clone	<p>Lastly, "Whole Fixture" copies all parameters, even if they're at the default value.</p> <p>For more information on cloning fixtures, please see “Using Load to Clone Fixtures”, which is below on this page.</p>
Origin	<p>Contains one button, “Active Only”, that filters out inactive values. When deselected, inactive values are loaded as active values.</p>
Capture	<p>Allows you to load raw DMX values from your DMX output or an input source.</p> <p>Capturing from DMX output is especially powerful as you can select a static state from a FX that is running as regular parameters and then use it in the programmer to make a new preset or cue.</p>
Filter	<p>Filters out specific attribute groups. By default, all attribute groups are loaded, but you can select individual groups if you only want to load certain information. Using the "circle arrows" icon on the left will clear any selections you've made in this section.</p>

The Load Right-Click Popup

Right-clicking on a Channel Visualization strip or parameter group indicator will launch a pop-up where you may Clear, Load, or Load Defaults:



Programming

Pressing the Load button here will bring the same result as pressing the Load key and pressing the channel visualizer.

Pressing Default will Load the selected fixtures at the selected parameter or parameter group into the programmer at their [Default Preset values](#).

This pop-up can also be expanded with the right-arrow:



Expanding allows you to filter down to only Base, FX, FX Swing (SWING ONLY) and/or Time values for the given parameter or parameter group.

LOAD Syntax Examples

While you can do a lot with the Load information we've already covered, Load can do even more!

Below are many different pieces of syntax that you can use to load certain things into the programmer - speeding up your programming and making you a programming rockstar!

Activating Groups

To activate a group and put all of its parameters into the Programmer, you can either

- Press Load, select the desired group on the touch screen, and then press Enter,
- Press and hold Load and then touch the desired Group. When you release the Load button, the group will be activated, or
- From the keypad, press Group (number) Load Enter.

All parameters of the group (based on the filters you have selected) will be loaded into the Programmer. If any of those attributes are driven to a level by a playback, that level information will be loaded into the Programmer, otherwise the default values are loaded.

Note that it is quite possible that more than one cue may be affecting different parameters of an individual fixture. If this is the case, then the level information from all the different cues will be loaded into the Programmer. You can then make changes as desired and save them to a new group, cue or preset or merge them into an existing group, cue or preset.

Using LOAD LOAD

Double-pressing Load (or pressing Load Enter) is a very rapid means of capturing a "snapshot" of the output and loading it into the Programmer. You'll probably want to clear the Programmer first.

Programming

- With no fixtures or groups selected, pressing Load Load or Load Enter activates the current output of all playbacks into the Programmer.
- With fixtures or groups selected, pressing Load Load or Load Enter activates all current playback levels for the fixtures selected into the Programmer.
- Pressing .0 Load Load or .0 Load Enter activates all current levels for all patched fixtures into the Programmer.

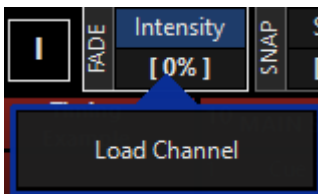
Activating An Individual Parameter

While the Load Options window is useful in loading the contents of a specific attribute group into the Programmer, it is possible to load in a single attribute as well. Follow the steps below to load a single attribute:

1. With a cue running, select the group "Artiste DaVinci" on the Fixture Groups screen.
2. Press the Intensity button in the Attribute Controls button section (if not already selected). Note that it is important to select the appropriate group before proceeding with the next step otherwise, the entire attribute group will be loaded, not the individual attribute.
3. Press and hold the Load button.
4. Press the hard button corresponding to the "Intensity" attribute on the screen, or press in the physical encoder wheel on a console.
5. Release the Load button.

You can also load individual parameters by right-clicking on the parameter button show on the encoders in the bottom right corner of the screen.

Then press Load Channel.



The Programmer screen will then look similar to this:

SHOW BASE	SHOW FX	SHOW TIMINGS	Programmer		
<i>Artiste DaVinci Standard</i>					
	Number	Intensity	Shutter		
	101	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	102	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	103	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	104	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	105	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	107	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	108	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	109	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	110	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0
	111	70%	-		
	FX Intensity	Swing 0	Speed 0	Mode 0	Delay 0

You'll note that while the shutter attribute of the Intensity attribute group is still null, the intensity attribute has been loaded. Also loaded are the intensity FX values.

These can either be cleared (see "[Clearing the Programmer](#)") or hidden with the "Show FX" button at the top of the Programmer as shown below.

SHOW BASE	SHOW FX	SHOW TIMINGS	Programmer		
<i>Artiste DaVinci Standard</i>					
	Number	Intensity	Shutter		
	101	70%	-		
	102	70%	-		
	103	70%	-		
	104	70%	-		
	105	70%	-		
	107	70%	-		
	108	70%	-		
	109	70%	-		
	110	70%	-		
	111	70%	-		

While this hides the FX values, they are still in the Programmer and will still be recorded (unless filtered out in the options window of the relevant command). Note the small turquoise rectangle next to the fixture number indicating that there are hidden values in the Programmer.

Using Load to Clone Fixture Values

Programming

Aside from its usefulness in loading information into the Programmer, the Load function can also be used to copy information from one (or more) fixture(s) to one or more other fixtures. This process is known as “cloning.” *Note: If you wish to clone all attributes of a certain fixture(s) to new fixture(s), [it's generally easier to use the clone tool](#). Using Load to clone is helpful when you only want to clone certain attributes.*

When cloning, there are two types of fixtures: source and target.

Source Fixture - This is a fixture loaded in the Programmer that contains the information you wish to clone to another fixture.

Target Fixture - This is the fixture that you wish to have mimic the source fixture.

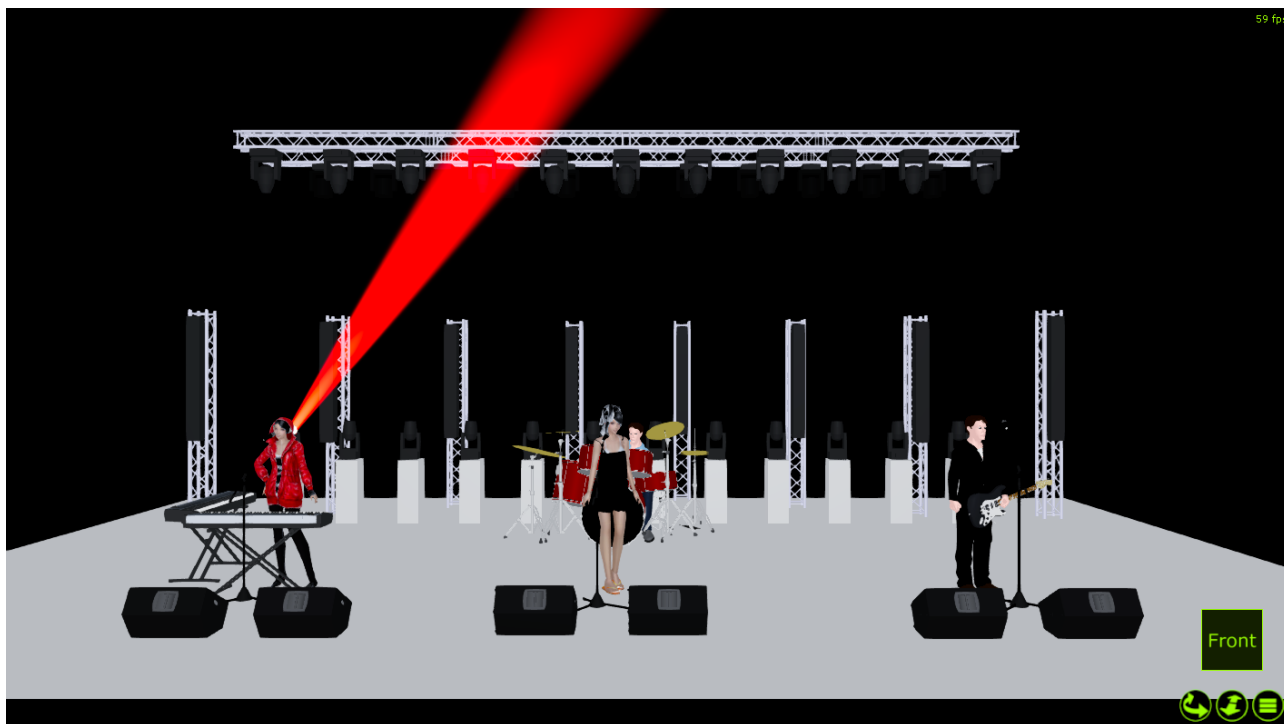
Please note that the source fixture(s) must be loaded into the Programmer in order for it to be cloned.

To Clone a Fixture to another Fixture

When cloning a fixture the syntax is Load xx @ yy Enter where xx is the target and yy is the source. For our example, we will use the Dartz 360, fixtures 401 through 412.

1. Select fixture 401 at full and set the pan, tilt and color attributes to non-null values.

Dartz 360 Extended								
Number	Pan	Tilt	Pan Rot	Tilt Rot	Red	Green	Blue	Intensity
401	10%	69%	-	-	100%	0%	0%	100%



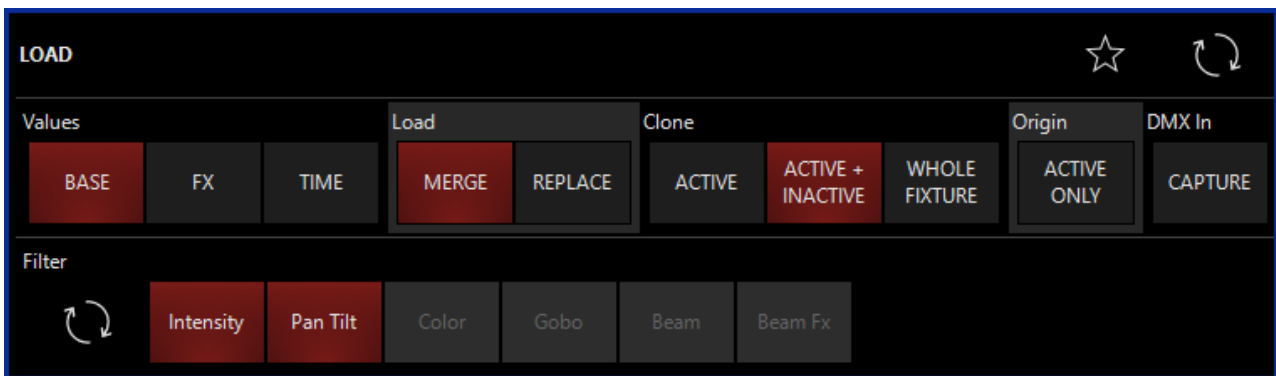
- Press the Dartz 360 Group Button LOAD @ 401 ENTER.

Dartz 360 Extended

Number	Pan	Tilt	Pan Rot	Tilt Rot	Red	Green	Blue	Intensity
401	10%	69%	-	-	100%	0%	0%	100%
402	10%	69%	-	-	100%	0%	0%	100%
403	10%	69%	-	-	100%	0%	0%	100%
404	10%	69%	-	-	100%	0%	0%	100%
405	10%	69%	-	-	100%	0%	0%	100%
406	10%	69%	-	-	100%	0%	0%	100%
407	10%	69%	-	-	100%	0%	0%	100%
408	10%	69%	-	-	100%	0%	0%	100%
409	10%	69%	-	-	100%	0%	0%	100%
410	10%	69%	-	-	100%	0%	0%	100%
411	10%	69%	-	-	100%	0%	0%	100%
412	10%	69%	-	-	100%	0%	0%	100%



Using the filtering in the Load Options window, it is possible to select which specific attributes you wish to have the target fixtures clone from the source fixture. If you wished to have the targets clone only the position and the intensity of the source, you would set your filter accordingly.

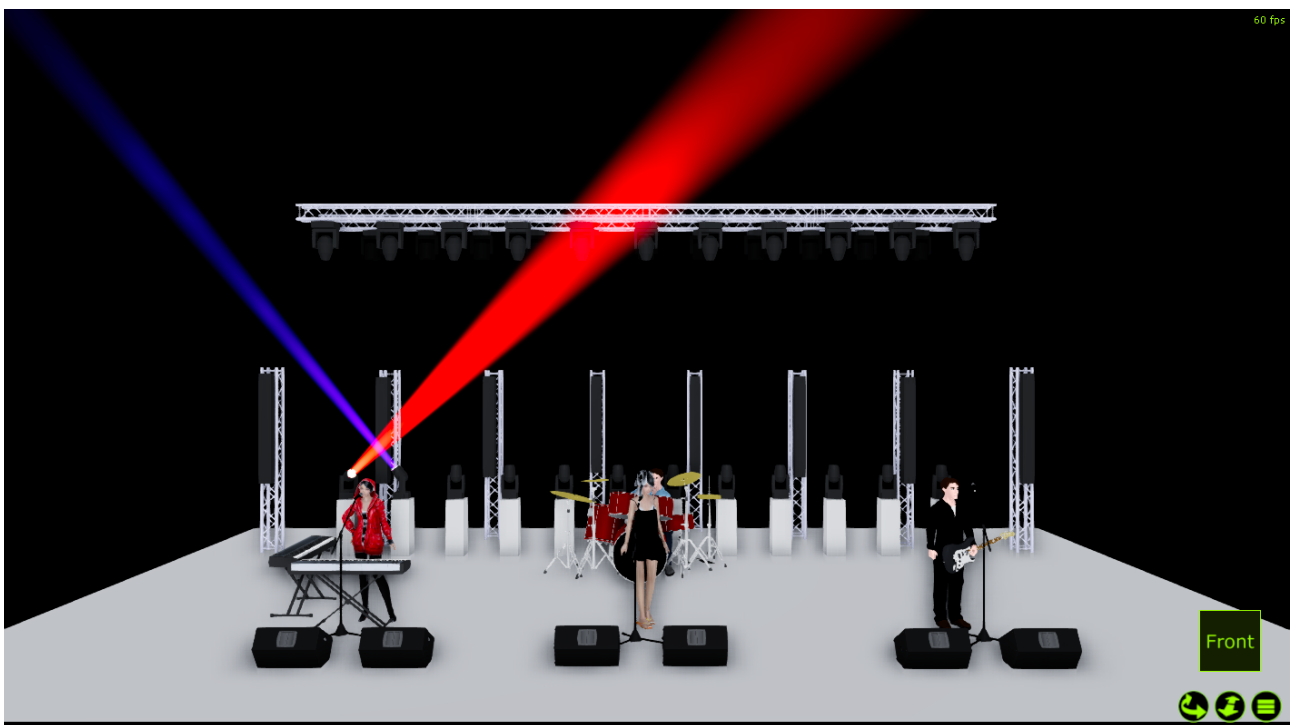




You can also clone more than one fixture to a number of other fixtures.

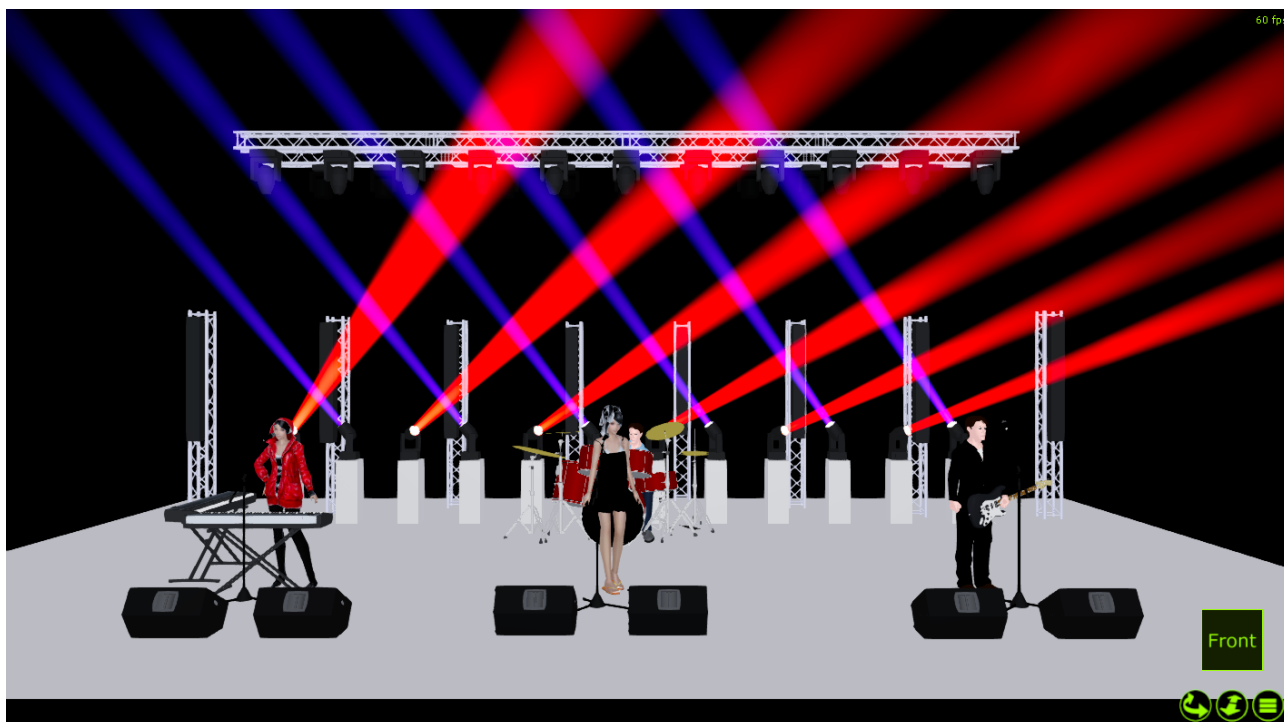
1. Select fixture 401, bring it to full and set the pan, tilt and color attributes of that fixture to a “non-null” value. Select fixture 402 and do the same.

Dartz 360 Extended						
Number	Red	Green	Blue	Pan	Tilt	Intensity
401	100%	0%	0%	10%	69%	100%
402	5%	0%	100%	30%	40%	100%



Press the Dartz 360 Group button LOAD @ 401 + 402 ENTER

Dartz 360 Extended						
Number	Red	Green	Blue	Pan	Tilt	Intensity
401	100%	0%	0%	10%	69%	100%
402	5%	0%	100%	30%	40%	100%
403	100%	0%	0%	10%	69%	100%
404	5%	0%	100%	30%	40%	100%
405	100%	0%	0%	10%	69%	100%
406	5%	0%	100%	30%	40%	100%
407	100%	0%	0%	10%	69%	100%
408	5%	0%	100%	30%	40%	100%
409	100%	0%	0%	10%	69%	100%
410	5%	0%	100%	30%	40%	100%
411	100%	0%	0%	10%	69%	100%
412	5%	0%	100%	30%	40%	100%



Other Cloning Commands

It is possible to clone across groups. For example Load Group xx @ yy Enter. *You can also complete this command by selecting your group numbers via the on-screen group buttons.*

Clone commands can also work between different types of fixtures, but there are some obvious limitations.

For example, you will not be able to clone your gobo information from your Artiste DaVinci spots to your Dartz 360 washes. Nor can you clone color information between CMY and fixed color wheel fixtures...but you can clone CMY to RGB!

All common information between fixture types will be cloned.

Loading a Fixture with Cue Information

Programming

It is also possible to extract information from a previously recorded cue in a selected cuelist. As with the earlier examples, you may apply filters to determine the specific information that will be brought into the Programmer.

To extract cue information first select a cuelist (see "[Selecting a Cuelist](#)" for more information), and then use the syntax (selected Fixtures or Groups) Load @ Cue xx Enter where xx is a previously recorded cue number from which you wish to extract information.

Parking

A new parking system was introduced in 4.10.

The new system introduces per-parameter parking. This allows for a fixture's parameter to be parked (Pan Tilt, for example) and all non-parked parameters to remain un-parked.

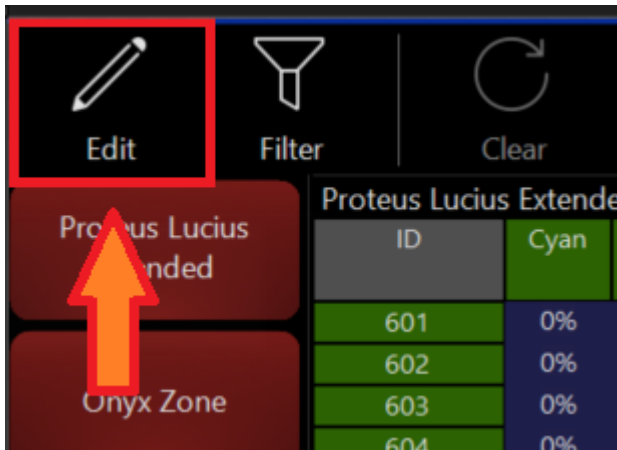


Only Parameters modified when Edit mode is enabled will be affected.

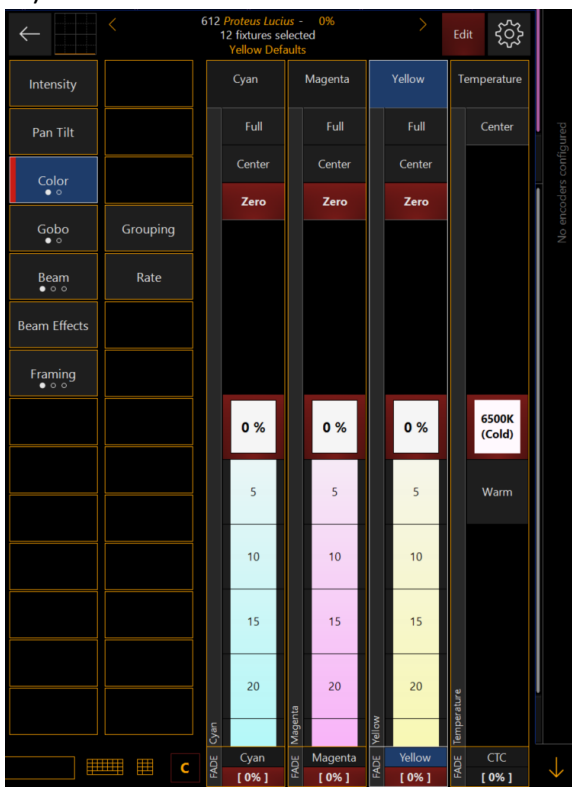
Parking a single Parameter

1. Open the Park window (Located by default in the Output Center view 11)

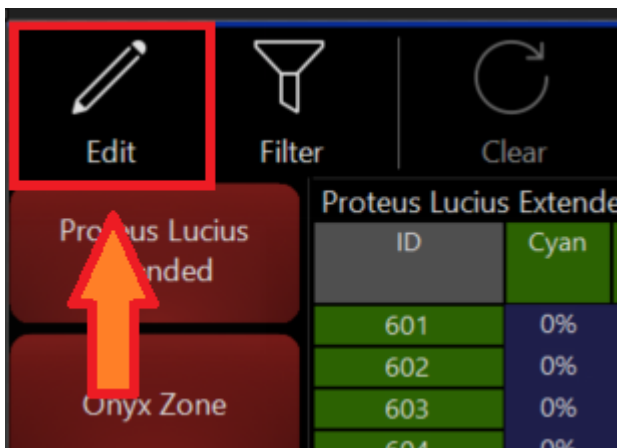
2. Press Edit in the upper left



3. Select the fixtures that you wish to modify
4. Change the fixture parameters into the desired Parked value using the CV (channel visualizer)



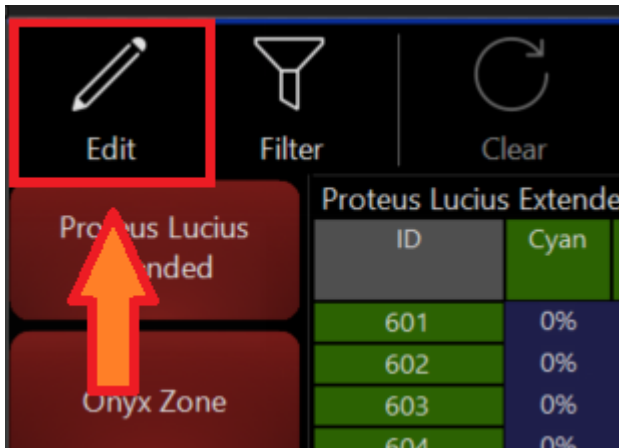
5. Press Edit in the Park window to exit.



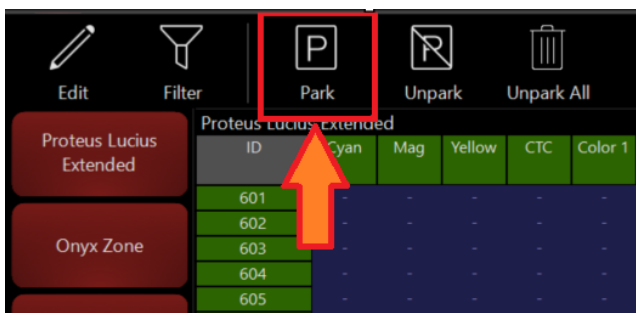
Parking an Entire Fixture

Option 1

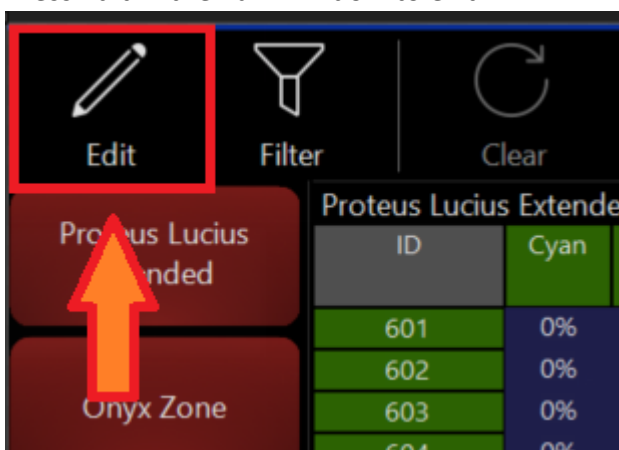
1. Open the Park window (Located by default in the Output Center view 11)
2. Press Edit in the upper left



3. Select the fixtures that you wish to park
4. Press Park



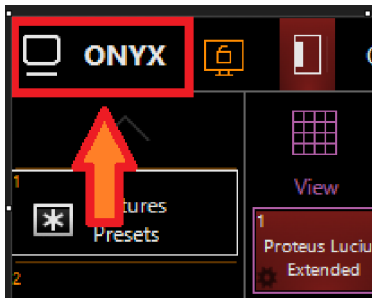
5. Press Edit in the Park window to exit.



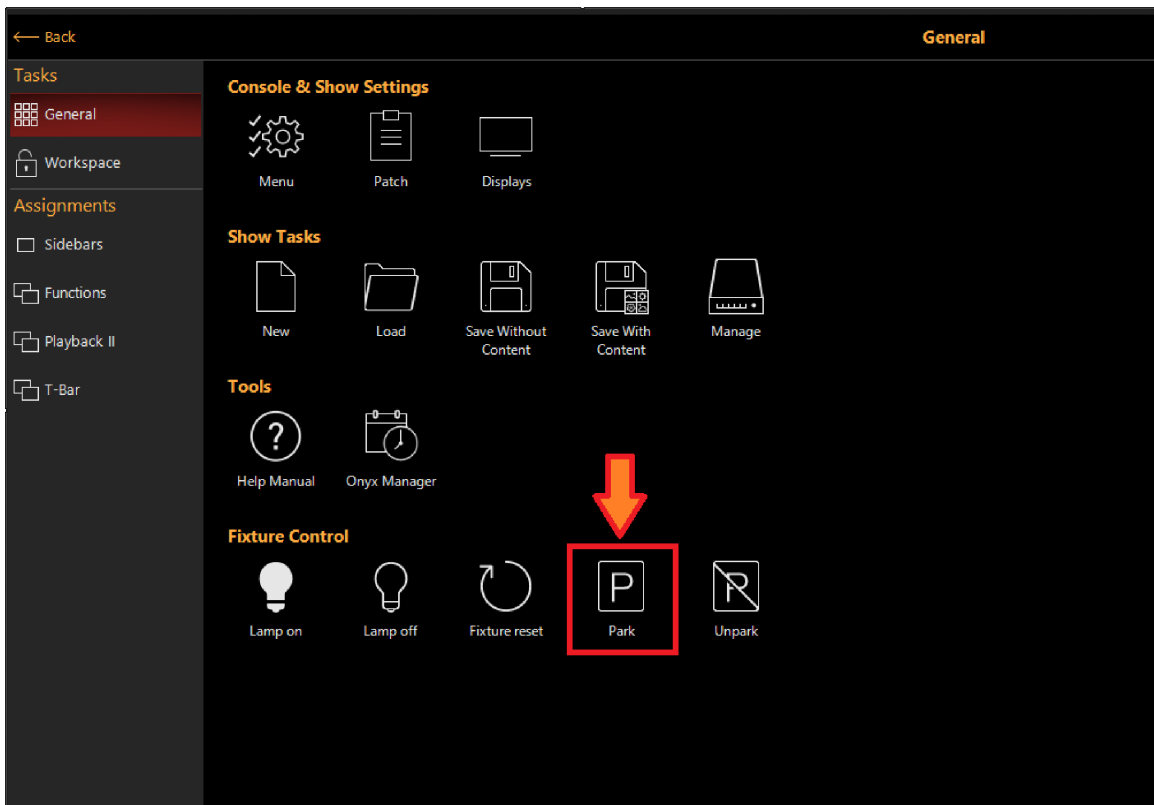
Option 2

1. Select the fixture you wish to park

2. Open the Quick Menu (Onyx Logo in the upper left)



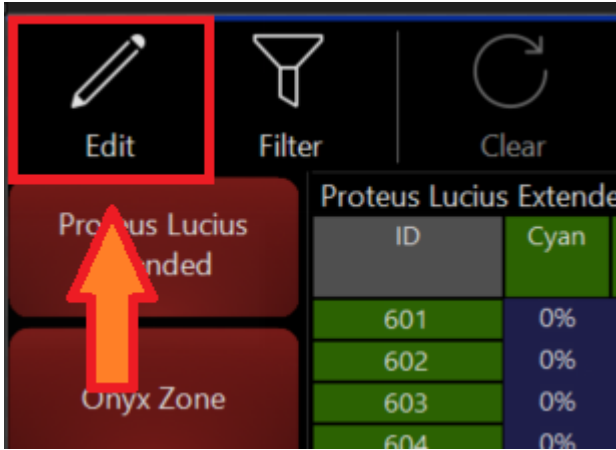
3. Press Park



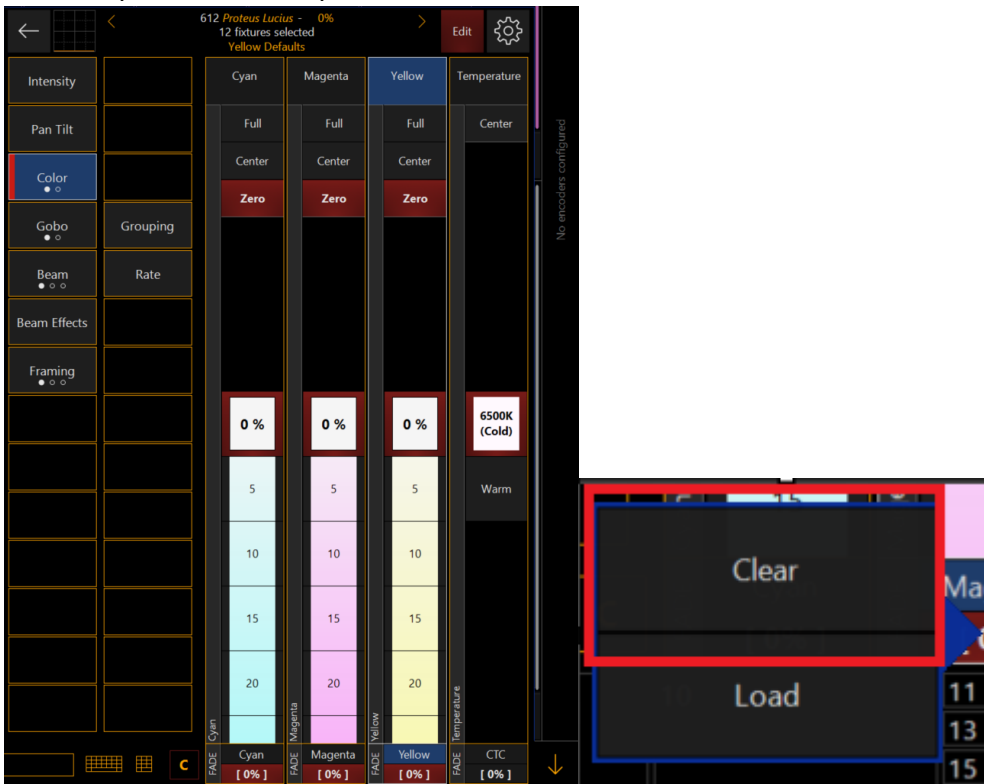
Unparking a Single Parameter

1. Open the Park window (Located by default in the Output Center view 11)

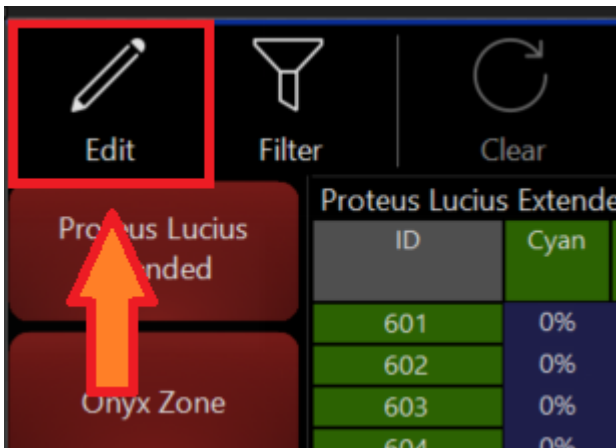
- 2. Press Edit in the upper left



- 3. Select the fixtures that you wish to modify
- 4. Hold Clear and press the fixture parameters in the CV (channel visualizer), you can also right click the parameter and press clear if on PC.



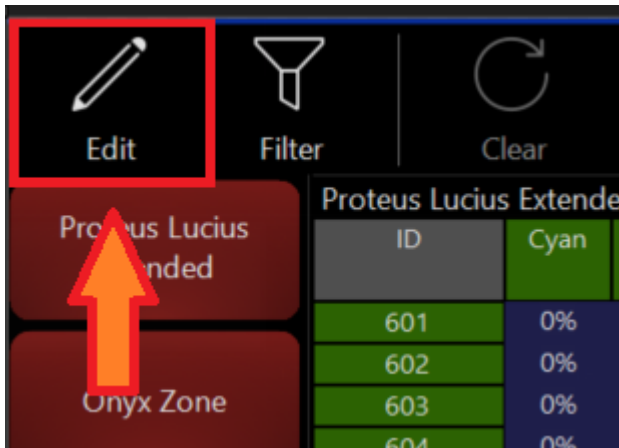
- 5. Press Edit in the Park window to exit.



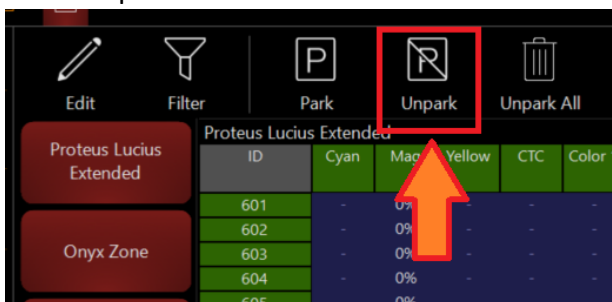
Unparking an Entire Fixture

Option 1

1. Open the Park window (Located by default in the Output Center view 11)
2. Press Edit in the upper left



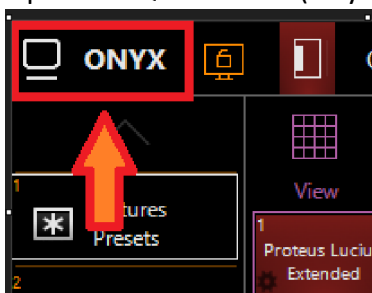
3. Select the fixtures that you wish to unpark
4. Press Unpark



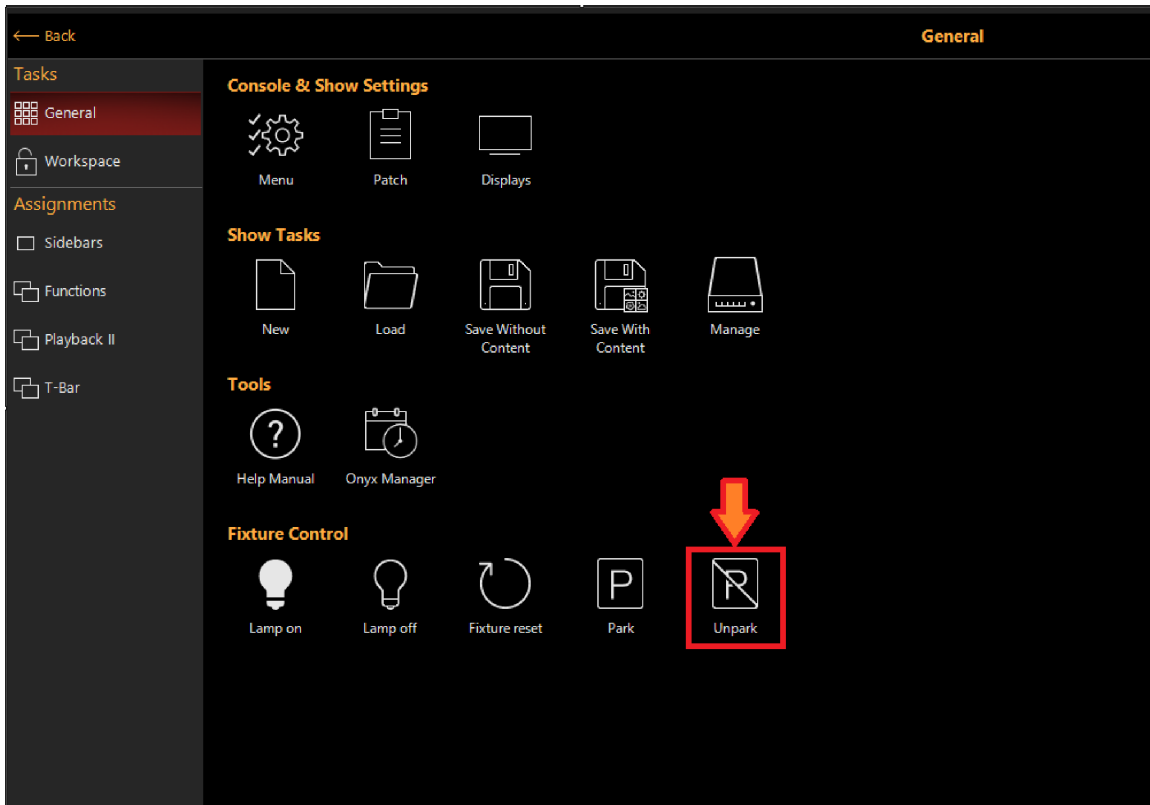
5. Press Edit in the Park window to confirm and Unpark the selected fixture.

Option 2

1. Select the fixture you wish to park
2. Open the Quick Menu (Onyx Logo in the upper left)

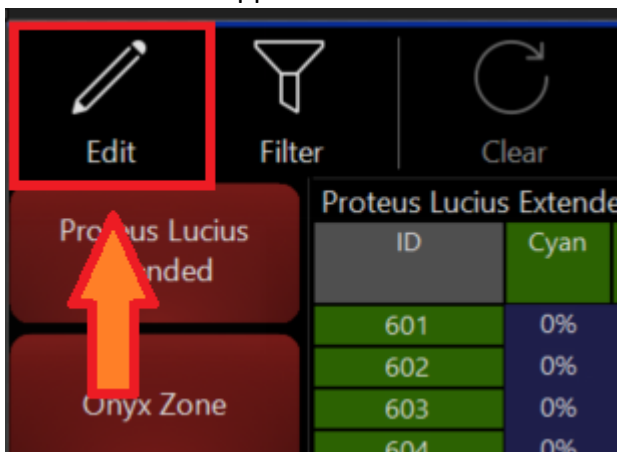


3. Press Unpark

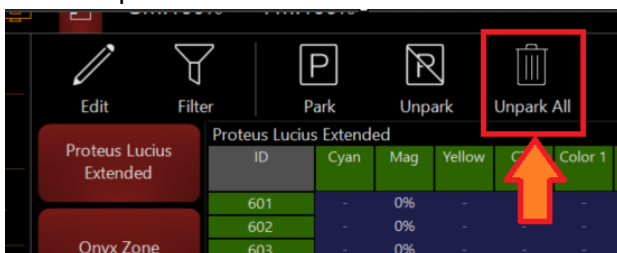


Unparking All Fixtures

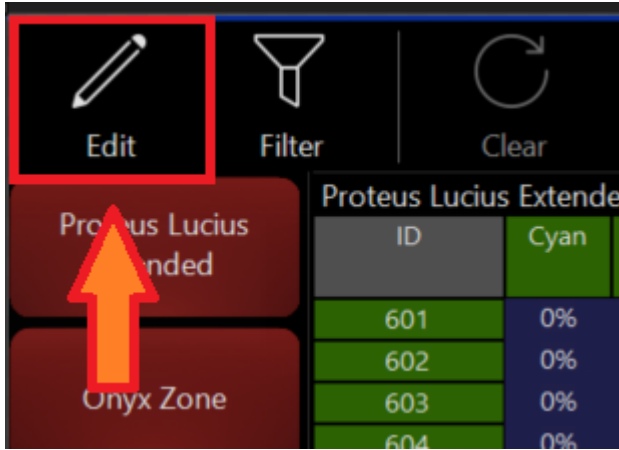
1. Open the Park window (Located by default in the Output Center view 11)
2. Press Edit in the upper left



3. Press Unpark All

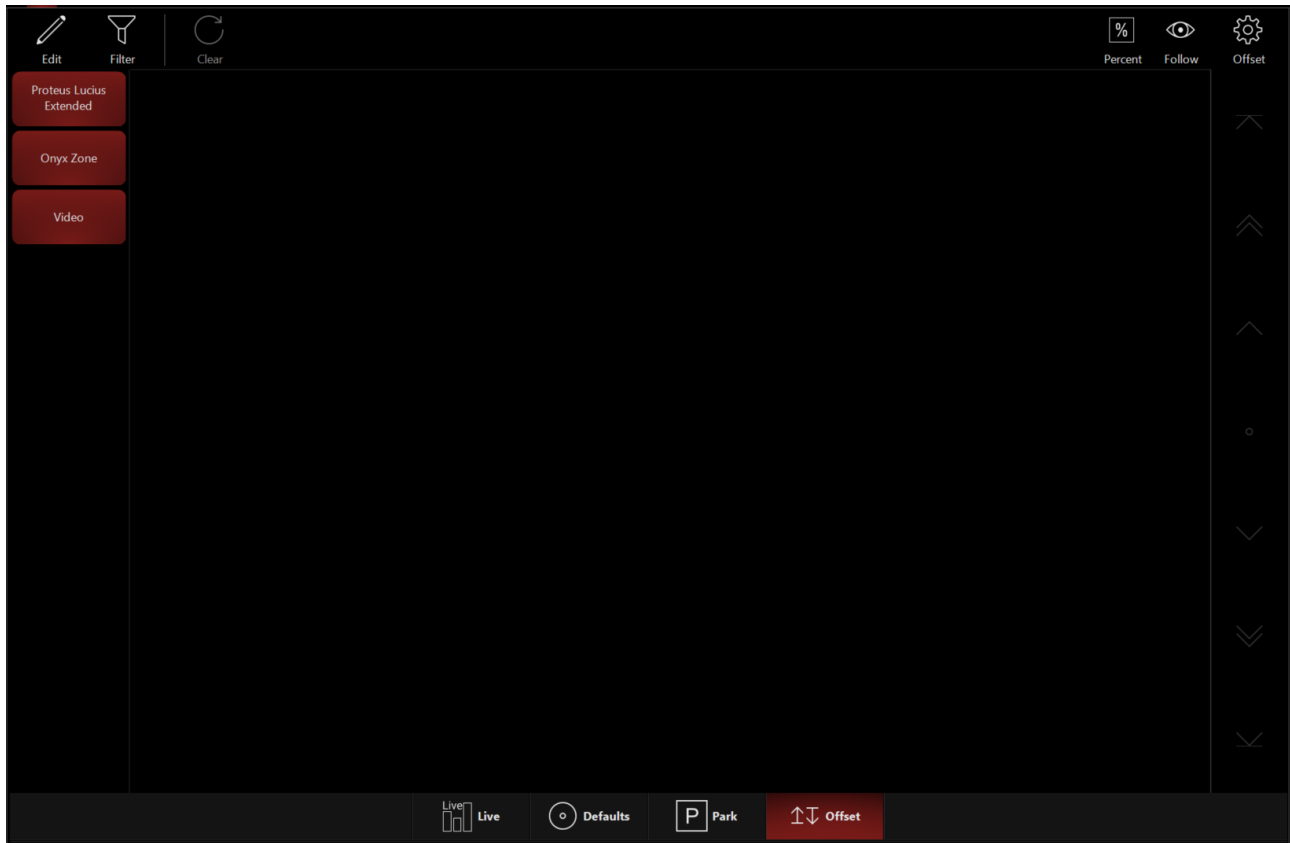


4. Press Edit in the park window to exit.



Offsets

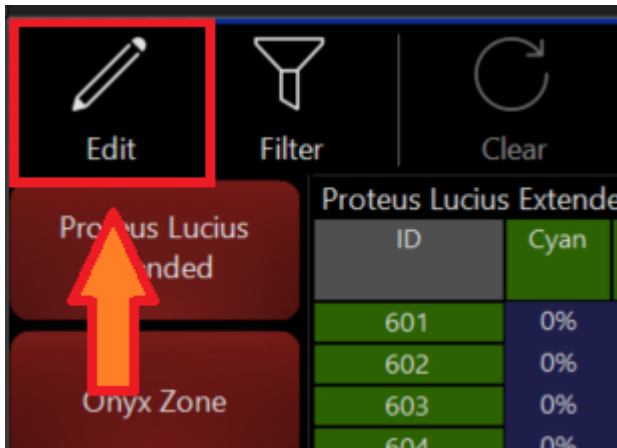
Offsets allow for a value to be offset from its stored value. For example, if a fixture is hung and rotated 90* from what was programmed, an offset can be applied to correct it.



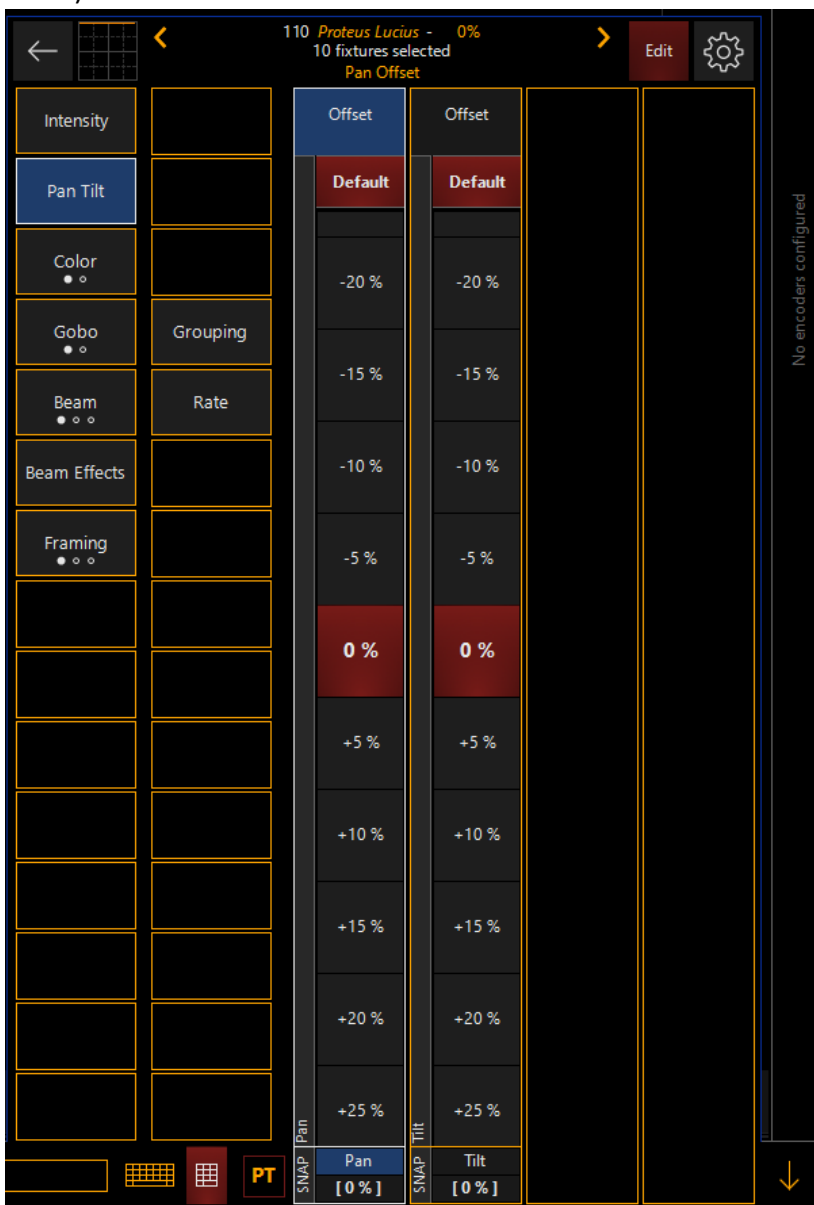
Applying an Offset to a Fixture Parameter

1. Open the Offsets window (Located by default in the Output Center view 11)

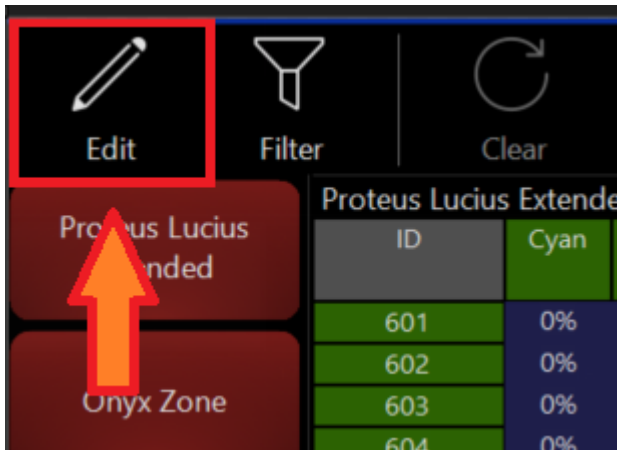
2. Press Edit in the upper left



3. Select the fixtures that you wish to modify
4. Change the fixture parameters into the new desired offset value using the CV (channel visualizer)

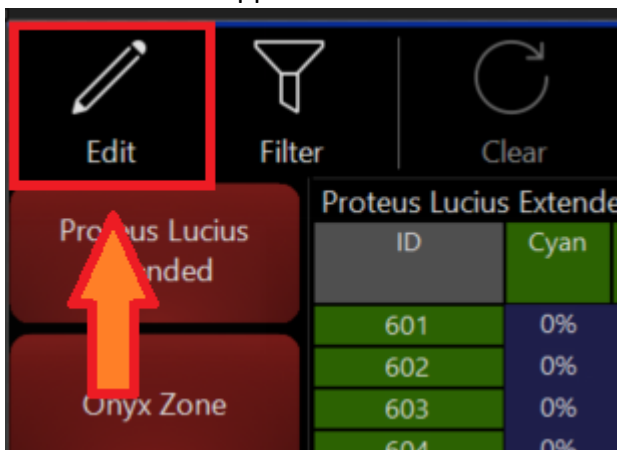


5. Press Edit in the offset window to exit.

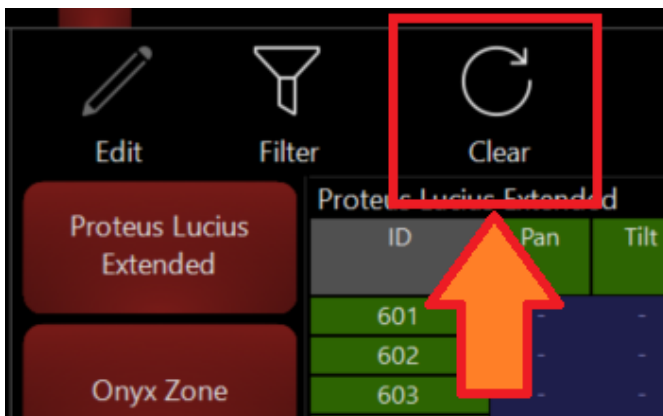


Clearing an Offset

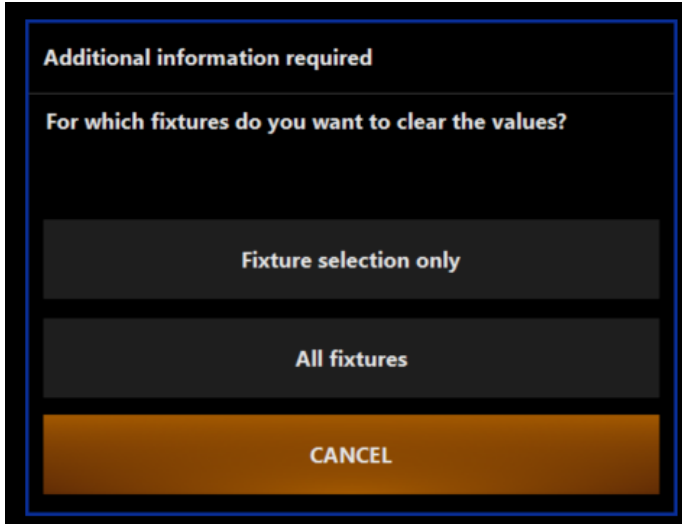
1. Clear the programmer
2. Open the Offsets window (Located by default in the Output Center view 11)
3. Press Edit in the upper left



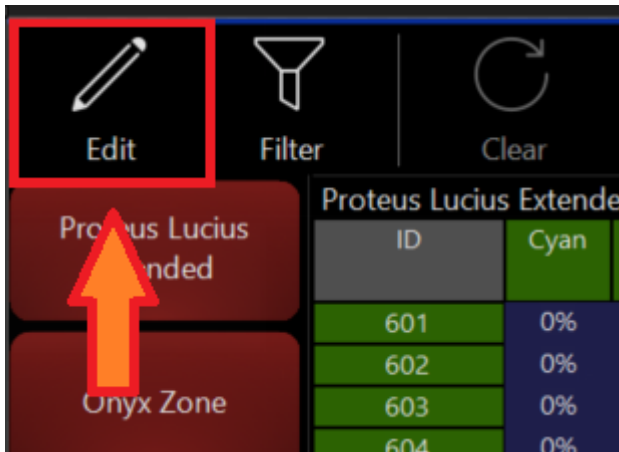
4. Select the fixtures that you wish to clear the offset from
5. Press Clear in the Offset window



6. Select if you want to clear Fixture Selection Only or All Fixtures



7. Press Edit in the offset window to exit.



Presets

Please see the topic list below to get started.

- [Applying Presets](#)
- [Color Coding Presets](#)
- [Copying and Moving Presets](#)
- [Default Preset](#)
- [Editing Presets](#)
- [Embedded Presets](#)
- [HighLight Presets](#)
- [Presets](#)
- [Presets and Effects](#)
- [Presets and Timing](#)
- [Recording Presets](#)
- [The Preset Window](#)

Applying Presets

The usual method of applying a preset is touching it on the preset screen after selecting fixtures.

If no fixtures are selected and you press a preset, all fixtures recorded in the preset will become active in the programmer with the preset values. However, no fixtures are selected, so you'll have to select fixtures to begin working with them.

You can also just enter the preset number on the command line after you have selected your fixtures. This can be done with the following syntax:

Step 1: 101 THRU 112 ENTER [\(More on Selecting Fixtures\)](#)

Step 2: @ [Parameter Group Button] [Preset Number] Enter

While that seems a bit complex in writing, it really is as simple as selecting fixtures, pressing the parameter group button (either on screen, or on a ONYX console), then entering the preset number and pressing enter.

Quick Tip: Entering 0 as the preset number loads the default values for that attribute group.

Default Values

The Default Values system was updated in Onyx 4.10

The default values (sometimes known as the home values/preset) are the values that define the default values for all fixture parameters in the show. That is to say, the fixtures will be at these values when not active in the programmer and no playbacks are running.

You can access the Default Values through the Default Values window or popout tab - [both configurable to Function Keys or Sidebars](#), and also available on sidebar button 11 of the Compose workspace by default.

Proteus Lucius Extended		ID	Int	Strobe	Dim Fnc	Pan	Tilt	Cyan	Mag	Yellow	CTC	Color 1	Col Macro	Gobo 1	Gobo 1 Ind	Gobo 2	Gobo 2 Ind	Gobo 3	Anim 1	Anim 1 Ind	Zoom	Focus	AutoFocus	Iris	Frost 1	Frost 2	
Proteus Lucius Extended	601	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	
	602	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	
	603	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	
	604	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	
	605	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	
	606	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	0%
	607	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	0%
	608	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	0%
	609	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	0%
	610	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	0%
611	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	0%	
612	0%	18%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	25%	0%	0%	25%	50%	50%	0%	0%	0%	0%	0%	
Onyx Zone		ID	Int	Opacity	Speed Master	Weight Mode	Mapping Weight	Direct Weight	Pan	Tilt	Spin	Rotation Fnc	X	Y	Width	Height	Z	Depth	Red	Green	Blue	Shape Type	Library	File	Anim FX 1	Zo	
		613.0.0	0%	100%	50%	0%	50%	50%	25%	25%	25%	100%	50%	50%	50%	50%	50%	50%	0%	0%	0%	0%	0%	0%	87%	50%	
Onyx Mapping		ID	Mapping Mode	Mapping Filter	Opacity Mode	Opacity Mapping	Brightness	Contrast	Red	Green	Blue	Gamma	White	Preset A	Preset B	Preset C	Gray Level	Mapping Radius	FX 1	FX 2	FX 3	FX 4					
		613.0.4	2%	0%	0%	100%	50%	75%	50%	50%	50%	50%	50%	0%	0%	0%	0%	50%	50%	50%	50%						
Onyx Source		ID	Int	Opacity	Brightness	Contrast	Speed Master	Pan	Tilt	Rotation Fnc	Distance	X	Y	Width	Height	Red	Green	Blue	Sat	Palette Mode	Palette Library	Palette File	Source Type	Library	File	Rot	
		613.1.1	100%	0%	50%	75%	50%	25%	25%	100%	50%	50%	50%	50%	100%	100%	100%	75%	0%	0%	0%	2%	0%	0%	25%		
Onyx Effect		ID	Int	Opacity	Brightness	Contrast	Speed Master	Pan	Tilt	Rotation Fnc	Distance	X	Y	Width	Height	Red	Green	Blue	Sat	Color Fnc	Palette Mode	Palette Library	Palette File	Effect Type	Library	Effect Mode	
		613.1.2	100%	100%	50%	75%	50%	25%	25%	100%	50%	50%	50%	50%	100%	100%	100%	75%	0%	0%	0%	0%	0%	0%	1%	0%	
		613.1.3	100%	100%	50%	75%	50%	25%	25%	100%	50%	50%	50%	50%	100%	100%	100%	75%	0%	0%	0%	0%	0%	0%	1%	0%	
Video		ID	Int	Opacity	Brightness	Contrast	Width	Height	Sat	Palette Mode	Palette Library	Palette File	Color Picker	Rot	Zoom	Zoom Center X	Zoom Center Y	Scale Mode	FX 1	FX 2	FX 3	FX 4					
		614.1.1	100%	0%	50%	75%	50%	50%	75%	0%	0%	0%	0%	25%	50%	50%	50%	0%	0%	50%	100%	50%					

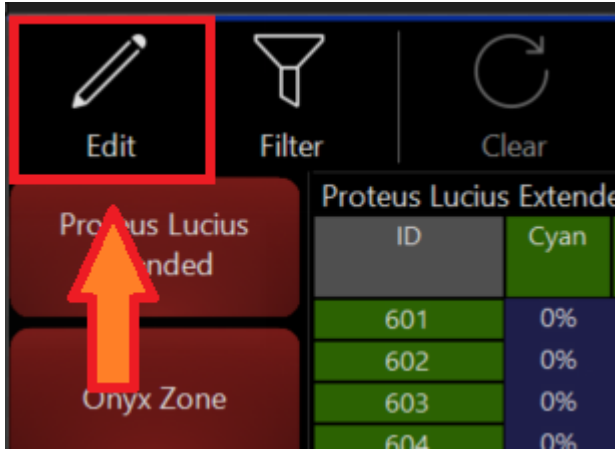
Modifying Default Values

You can customize the default values for any fixture attribute by recording the desired levels to the “Defaults” Values in the Default window. (Changes to default values cannot be deleted or reset, but they can be re-recorded.)

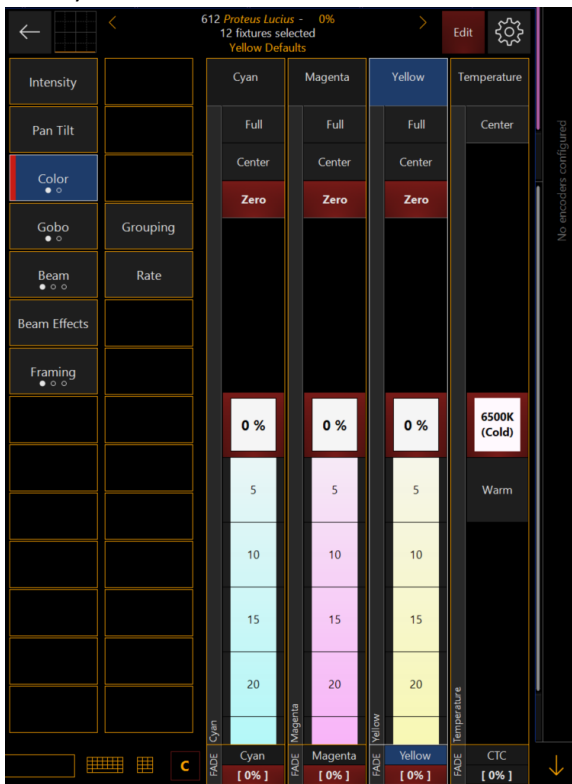
Default values can be modified in two main workflows.

Workflow 1

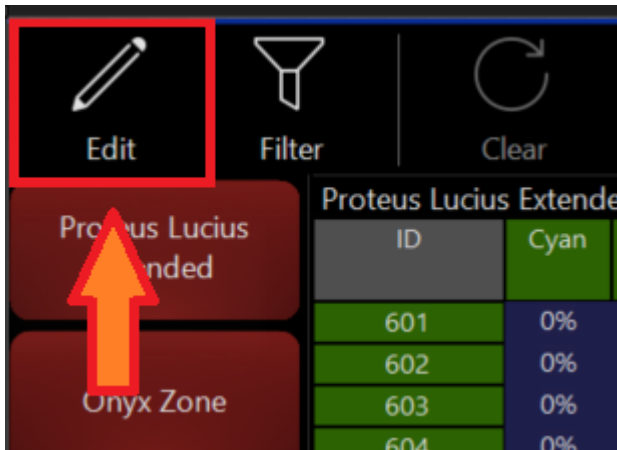
1. Open the Default Values window
2. Press Edit in the upper left



3. Select the fixtures that you wish to modify
4. Change the fixture parameters into the new desired default value using the CV (channel visualizer)

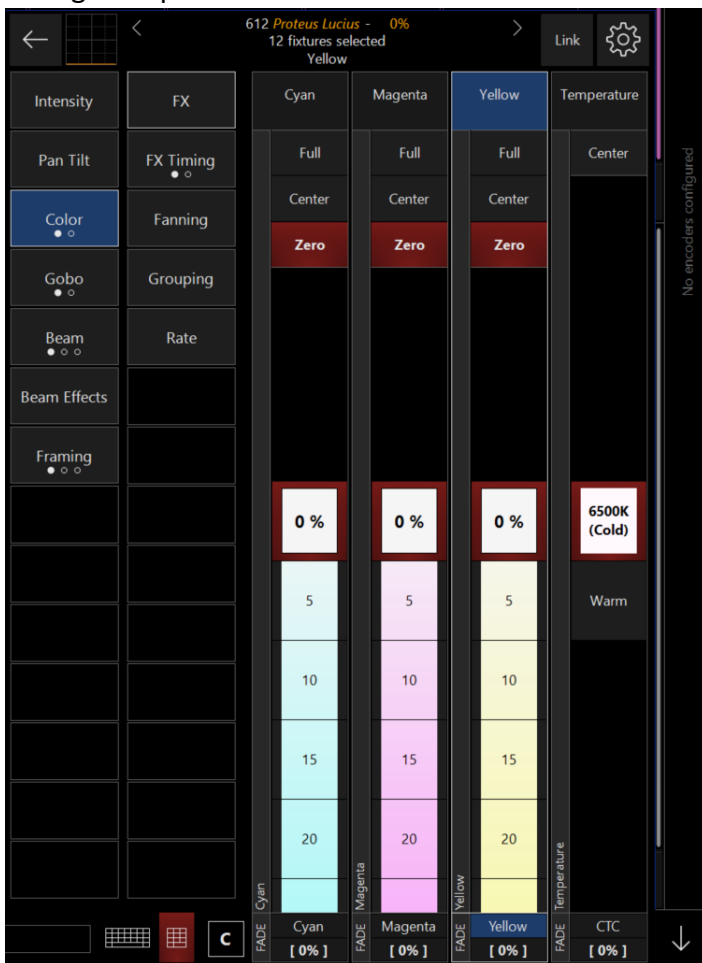


5. Press Edit in the defaults window to exit.



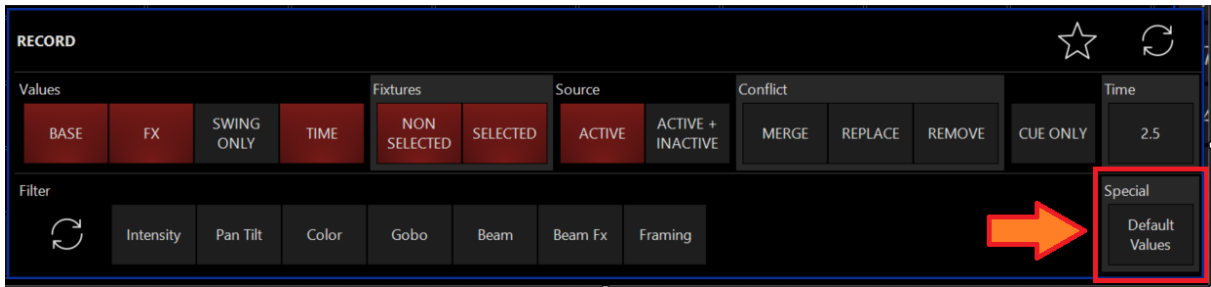
Workflow 2

1. Clear the programmer (optional)
2. Select the fixtures you wish to modify
3. Change the parameters to the new desired default value using the CV (channel visualizer)

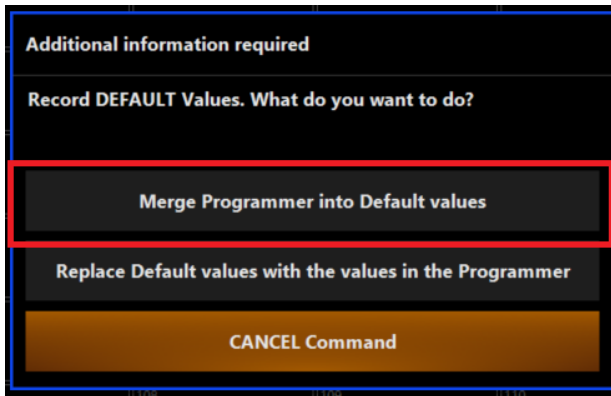


4. Press Record

5. In the record popup, select Default Values



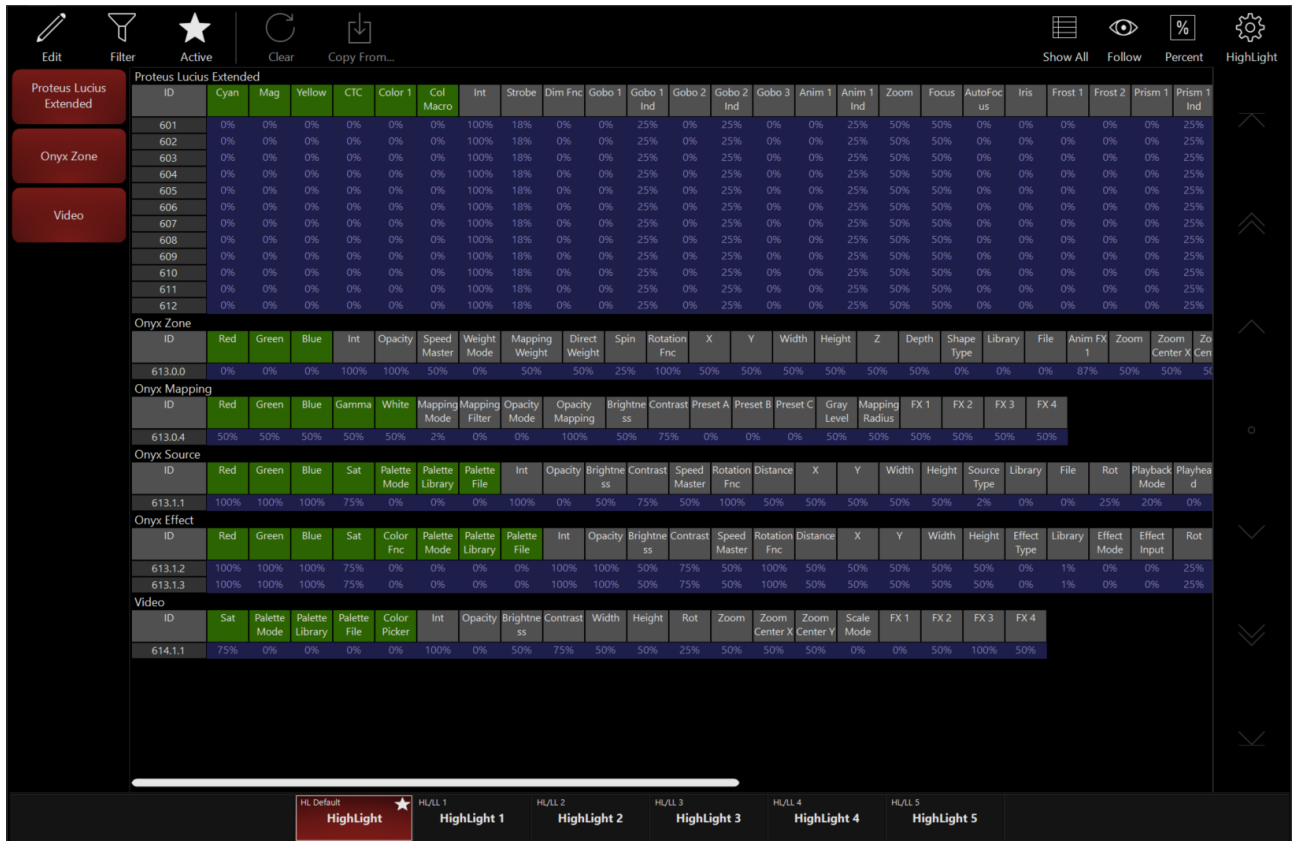
6. Select Merge Programmer into Default values



Highlight Presets

Similar to the Default Preset, we can define what happens to each fixture in our show when we press HighLight.

These settings are in the HighLight window or popout tab and are configurable [to Function Keys or Sidebars](#).



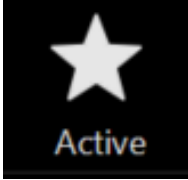
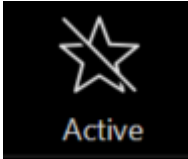
Highlight/Low-Light Scheme

The default behavior of the highlight function is to force the selected fixture to open white at full intensity.

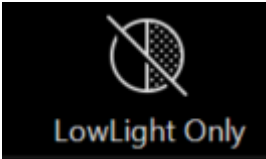
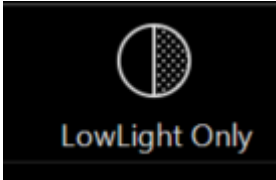
The custom highlight/low-light scheme allows you to define and select five sets of unique presets.

A highlight and a low-light preset can be recorded to each Custom button.

The currently active highlight preset will act on the selected fixture when using the highlight function.

	HighLight Preset <u>Active</u>
	HighLight Preset <u>Inactive</u>

If the “Low-light Selected Only” toggle button is enabled, selected fixtures are forced to the low-light preset.

	LowLight Only <u>Disabled</u>
	LowLight Only <u>Enabled</u>

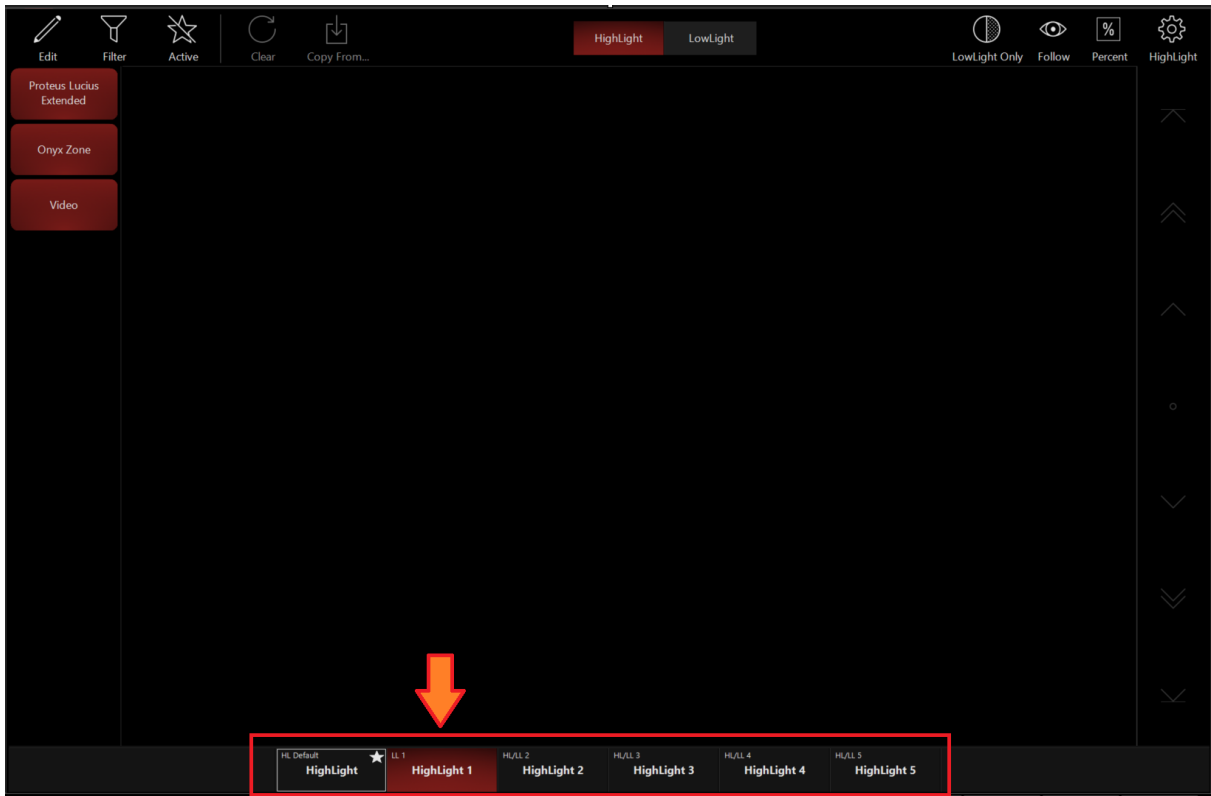
Otherwise, all other fixtures (that were included when recording the preset) are forced to the low-light preset values. If no low-light preset is recorded, the default low-light behavior is expressed.

Recording Custom HighLights & LowLights

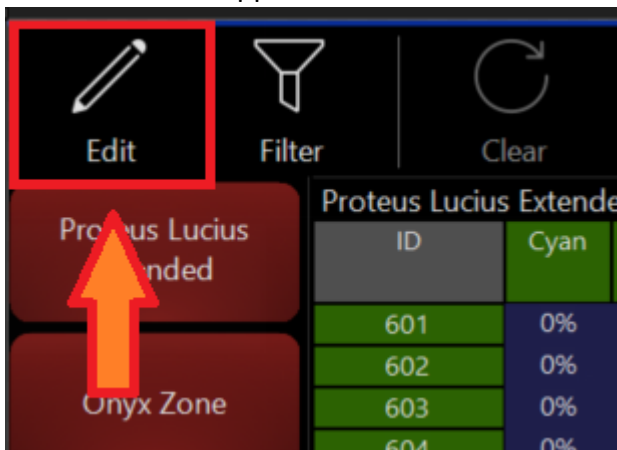
Setting the HighLight Values

1. Open the Highlight Presets window

2. Select a Custom Highlight Preset

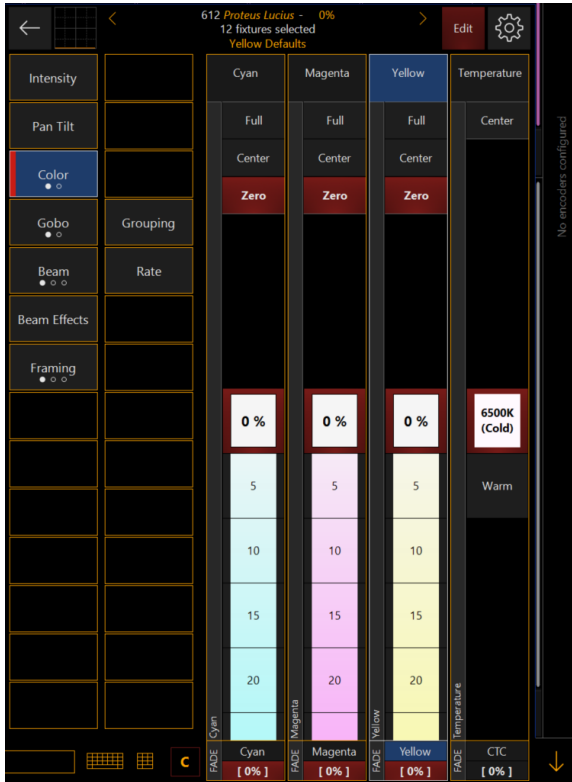


3. Press Edit in the upper left

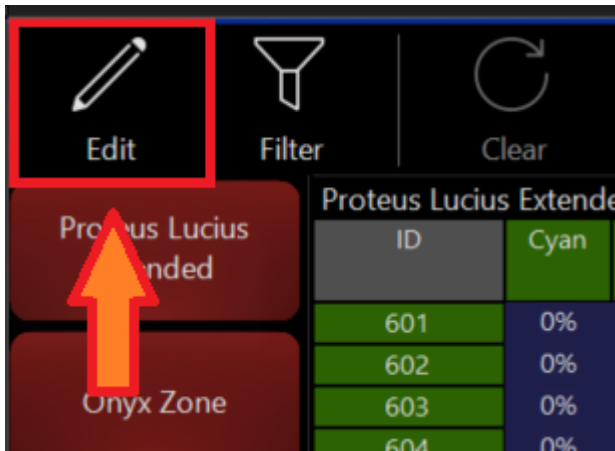


4. Select the fixtures that you wish to add/modify

- Change the fixture parameters into the new desired Highlight value using the CV (channel visualizer)

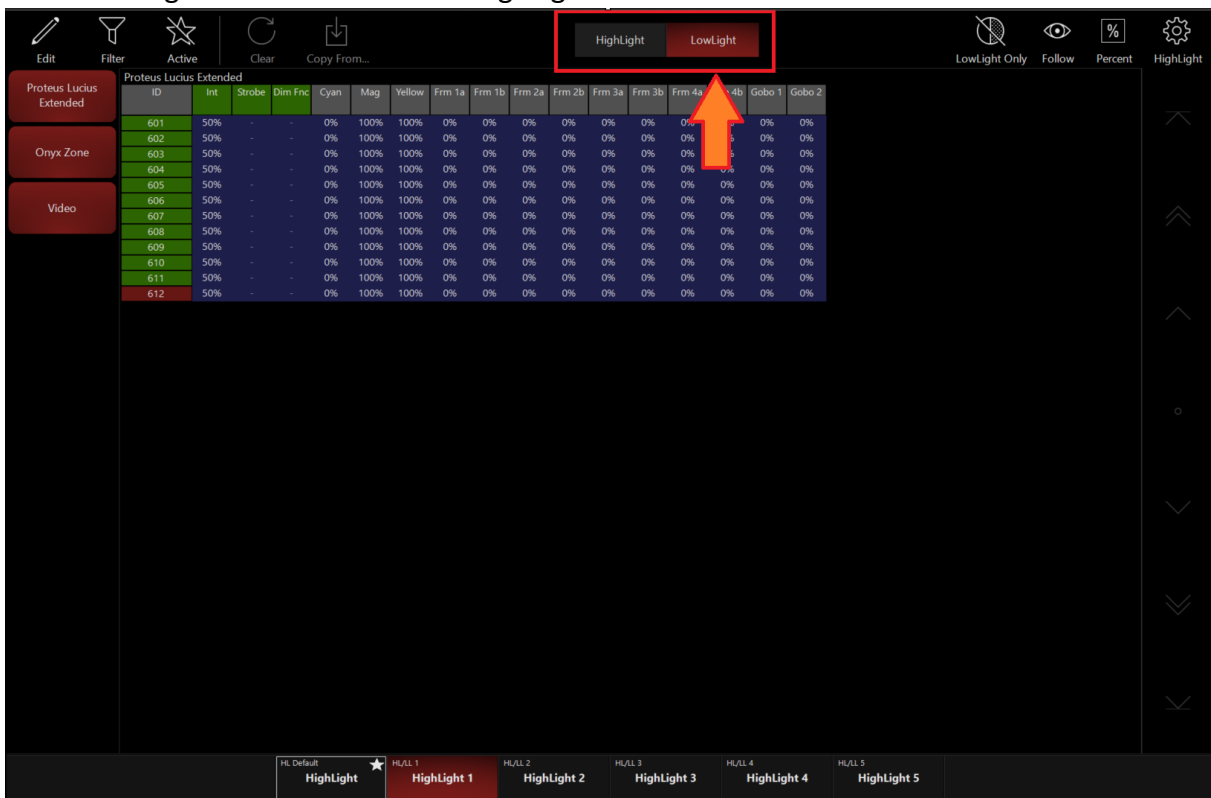


- Press Edit in the Highlight window to exit.

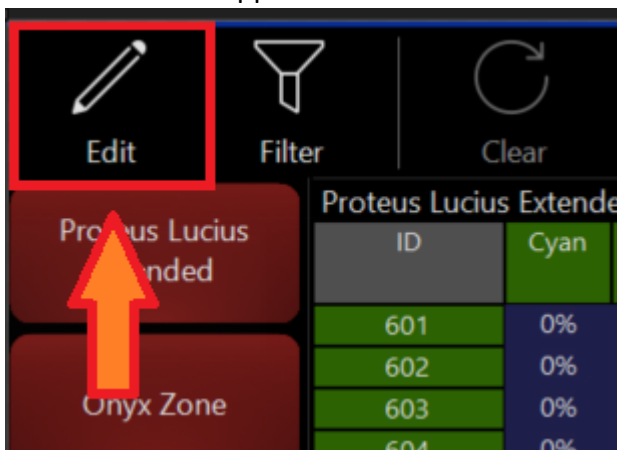


Setting the LowLight Values

7. Select LowLight in the center of the HighLight Window

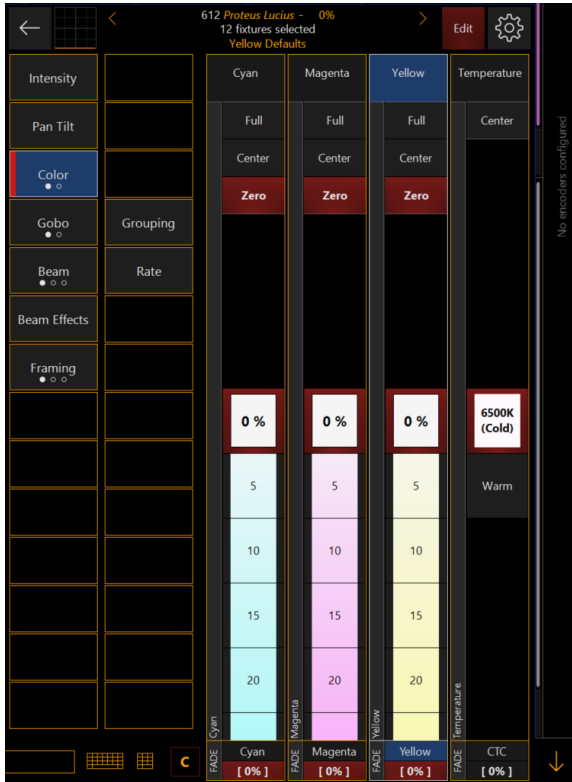


8. Press Edit in the upper left

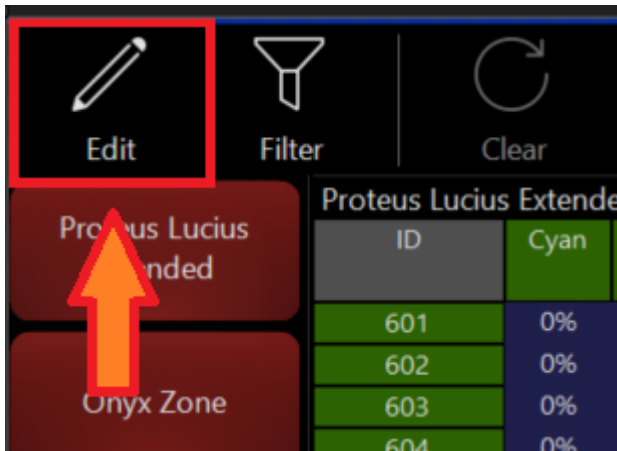


9. Select the fixtures that you wish to add/modify

10. Change the fixture parameters into the new desired LowLight value using the CV (channel visualizer)



11. Press Edit in the Highlight window to exit.



Color Coding Presets

It's possible to color code the contents of directory items for ease of identification and organization.

Two different options are available and can be used separately or together; according to user preference. By default, both are disabled.

The first option is "Preset Color", this option allows you to put a colored tag on the Preset button to suit user identification. For example the Red Preset can have a Red tag, the Green Presets can have Green tags etc.

The second option is "Grid color", this simply changes the background grid color for the window, corresponding to the Preset types. So the grid colors can be different for each preset type, allowing the user to quickly identify which page of presets is active.

The options are shown here:

Preset Color (No grid color)

1 WHITE MIX	2 CYAN MIX	3 MAGENTA MIX	4 MIXED YELLOW	5 MIXED RED	6 MIXED GREEN	7 MIXED BLUE
16 RED	17 BLUE	18 GREEN	19 YELLOW	20 HALF MINUS GREEN	21 CTB	22 TIPTON BLUE
31 WHITE RGB	32 BLACK RGB	33 WHEEL O/W	34	35	36	37
46	47	48	49	50	51	52

Grid Color & Preset Color



As you can see from the images, the Preset color option is completely user definable and is shown in this instance with a matching color labels on the presets defined by the color stored inside them.

The Grid Color defines the color of the directory grid and its outlining text & buttons.

The grid color only pertains to the specific tab in which it is assigned, so the each parameter group's grids can all be different colors. You are free to enable both options simultaneously.

To Color Code the Preset Buttons:

1. Open the Preset window.
2. Press the Options "Gear" icon in the right hand corner of the window.
3. Enable the Preset Color option and press the Change Button associated with it.
4. A pop-up window shows a color picker as well as a number of predefined colors.
5. Press a Preset in the directory and then pick a color from the options.
6. Repeat the process of pressing a Preset, then applying a color to color code the desired Presets.
7. To finish, close the pop-up color picker by pressing the X icon in the top right corner. The Presets will retain their color settings until either the color is changed, or the option is turned off again.

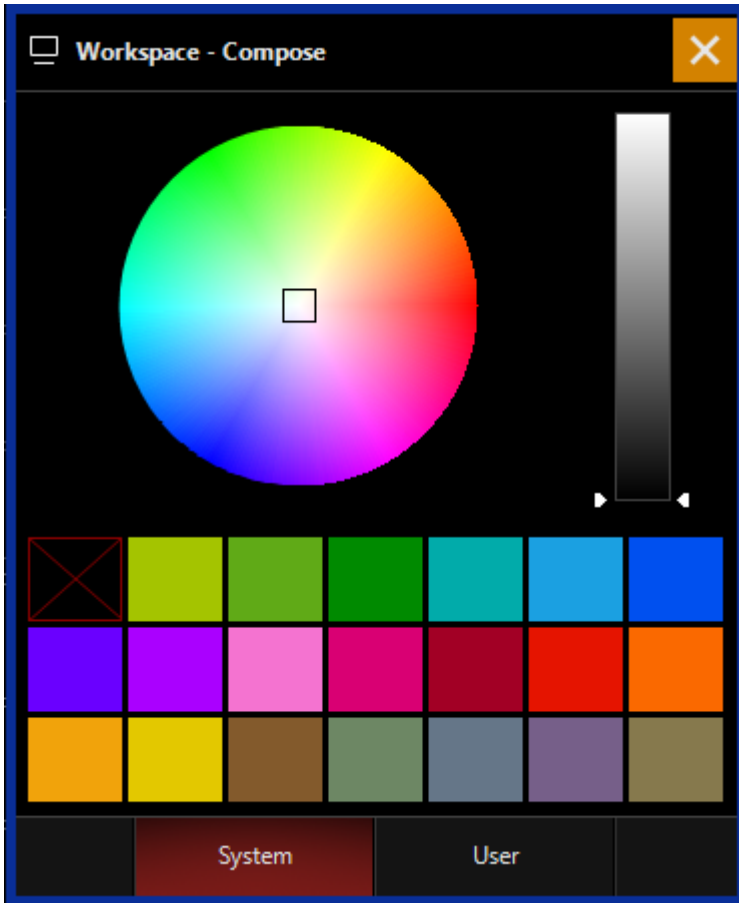
To Color Code the Preset Grids:

1. Open the Preset window.
2. Press the Options "Gear" icon in the right hand corner of the window.
3. Enable the Grid Color option and press the Change button associated with it.
4. A pop-up window shows a color picker as well as a number of predefined colors.
5. Choose a tab to color code using the options on the left hand side, note that each tab can have a different color if desired.

Programming

6. Once finished, close the window using the X icon in the top right hand corner, the tabs will retain their grid color options until either they are changed, or the option is disabled.

For reference, this is what the color picker looks like, both here and for other functions within ONYX:



Copying, Moving and Deleting Presets

To move a preset from one location to the another, press Move, then press the desired preset and then press its new location.

Similarly, to copy a preset, press Copy, then press the desired preset and then press the location for the copy. By default, the copy will be named "Copy of (original preset name)."

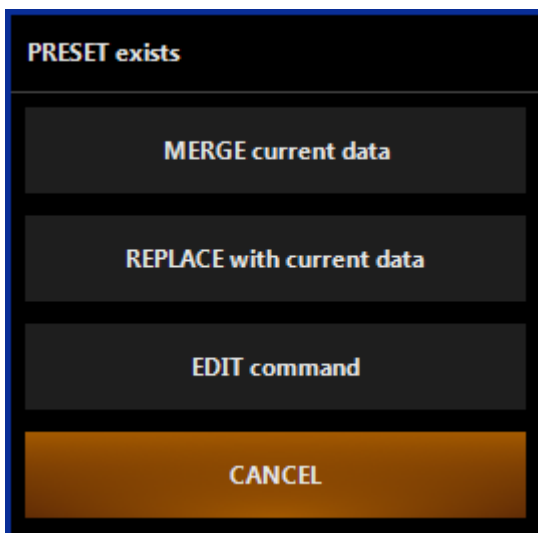
Deleting Presets works very similarly. Press Delete, the press the Preset you wish to delete, and then press Enter.

Editing Presets

As with editing groups, ONYX provides two ways to edit a preset: merging and replacing.

To Add Fixtures to a Preset (Merge)

1. Select and focus the desired fixtures.
2. Press Record and the button of the preset to which you wish to add fixtures. The following pop-up will appear:

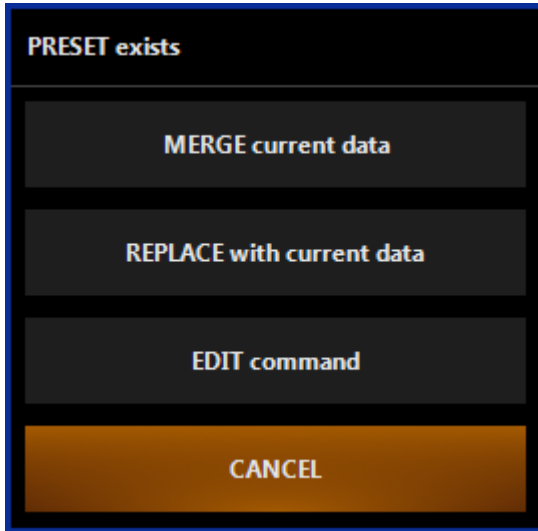


3. Select MERGE current data and the appropriate fixture attributes will be added to the preset.

To Replace the Fixtures in an Existing Preset (Replace)

1. Select and focus the desired fixtures.
2. Press Record and the button of the preset you wish to replace.

3. The following pop-up menu will appear:



4. Select REPLACE with current data and the appropriate fixture attributes will be recorded in the preset.

CANCEL will abort the command and clear the command line.

EDIT command will abort the command but will leave the command line active so that you can edit it and then record again.

Editing the Contents of a Preset

Aside from adding and deleting fixtures in an existing preset, you can also change, for example, the position of a pan/tilt preset by updating the contents of a preset.

To edit the contents of a preset:

1. Press the Edit button
2. Press the preset button on the screen that corresponds to the preset you wish to edit
3. Press Enter. This will load the contents of that preset into the Programmer
4. Make the desired changes
5. Press Update. The changes will be recorded and the Programmer will be cleared.

When using the edit function to change the contents of a preset, it is important to realize that only those attributes originally recorded into that preset can be altered. It is not possible to add new attributes into a preset with this function. Adding new parameters must be done using the merge command, as discussed above.

Presets and the Update Function

By default, the Update function modifies the contents of a preset if you update a cue that uses that preset. To prevent this, the preset must be deselected before executing the update command. This will be discussed more later on in the chapter relevant to Updating Cues.

Deleting a Preset

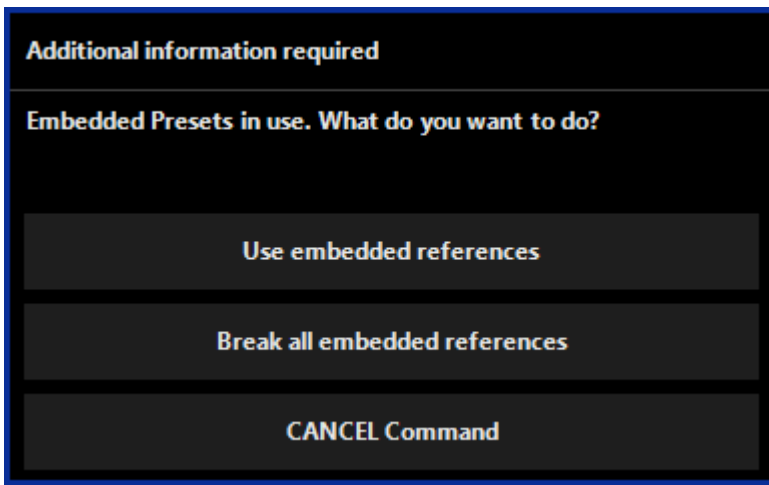
To delete a preset, press the Delete button, the desired preset, and then Enter. Alternatively, you can press and hold the Delete button and then select a preset using the touch screen, releasing the delete button after touching the preset will delete it.

Embedded Presets

It is possible to make a preset that is composed of other presets. These are called “embedded presets” as one or more presets are embedded in another.

While it might be easy to gloss over this as "more technical mumbo-jumbo", this is actually a really powerful and excellent time-saving feature!

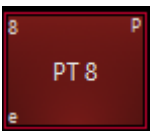
For example, you could have four fixtures, each with its own pan/tilt preset focused on the drum riser. You could then create a fifth preset that contains each of the other four presets. When you go to record this fifth preset, you will see the following window:



You are presented with three options:

Option	Description
Use embedded references	If this is selected, a relationship is set up between the first four presets and the fifth which contains them.
Break all embedded references	If this is selected, no relationship is set up and any that were previously created are removed.
CANCEL command	The record command is ignored.

Once you do create that embedded preset, you'll see a small "e" in the bottom left corner of the preset button:



Using our example of four pan/tilt presets on the drum riser being combined into an embedded fifth preset, let us assume that the drum riser is moved after we have created our fifth preset.

We can update all five of the presets, while recording only the fifth. To do this, bring up your fifth preset then make the required pan/tilt adjustments.

When finished press Record Preset 5 and MERGE. (Note that a Replace command will always break all embedded references.) When you have done this, you will be presented with the following choices:



Option	Description
Update Source Presets	If this option is selected, presets 1-4 will be updated, and therefore preset 5 will be updated as well (because it is made up of presets 1-4)
Break modified embedded references	Using this option will record the changes to preset 5, but presets one through four will remain at their original positions.
CANCEL Command	The record command is ignored.

Presets

Presets (also known as palettes or focus groups in other consoles) are the essential building block for fast programming as well as efficient editing of cues. Presets are divided into functional parameter groups like "Color" or "Gobo" to break fixtures into their logical parts.

Presets can contain **fixture values**, **timing values** and **effects values**.

All of these are referenced into a cue so that updating the preset will change the resulting playback wherever it was used, making adjustments easy to accomplish.

What I really mean to say is "Always use Presets - they will save your sanity when the client walks in and you need to adjust the "Blue" which you recorded into 200 cues!".

Presets are by default specific to a parameter group, but that can be overridden so they contain as many parameters as desired by the user.

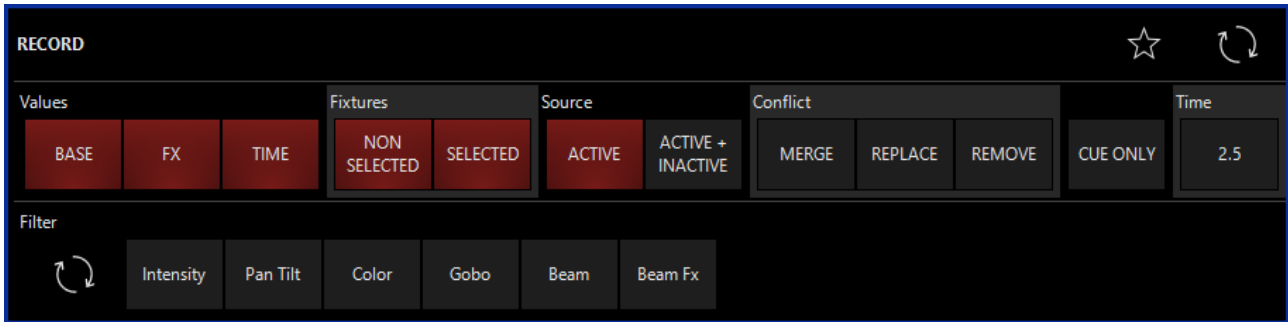
Many experienced programmers spend almost the same amount of time creating their presets as programming actual cues. Think of Presets as the many different colors and shapes of building blocks that allow fast assembly once all the parts are in place.

Presets and Effects

As with presets and timing, effect information can also be recorded into a preset.

[For information on working with effects, please see the chapter on effects.](#)

Note that when recording the effect into the preset, you will need to be certain that the "FX" filter is selected in the "Record Options" pop-up. **It is selected by default.**



Presets and Timing

Aside from attribute level information, it is also possible to record attribute timing information into a preset.

This is done in the same manner as recording level information. If the information is in the Programmer, it can be recorded into the preset.

For information on setting attribute timing values, please refer to “ [Setting an Individual Attribute Fade Time](#) ” and the sections following it for setting other timing values. Once you set the fade time for your attribute, you can store it to a preset to record it at any time!

Expert Tip! Don't overlook this extremely powerful feature of ONYX! Even the most complex fanned timings can be stored as presets and recalled instantly during programming sessions, making you look like a champ!

Recording Presets

The basic procedure for recording a preset is to clear the Programmer, select fixtures, set their levels, bring up the presets window that matches the desired preset attribute (more about this in a moment), press Record, and select a position on the presets page.

Depending on your exact window layout, this may vary slightly.

For example, select fixture 201, Fuze Wash Z350 from the training showfile, and focus it on Center Stage.

Repeat this process with the other Fuze Wash Z350's, fixtures 202 through 211.

With fixtures 202 through 211 focused at Center Stage, selected in the Programmer, and Pan Tilt as the selected attribute group in the preset window press Record and the desired preset on the touch screen.

Labeling your presets works just like groups. Once you've pressed Record, you can then type immediately and press Enter to define a name.

If you missed that opportunity or need to change the name later, simply press the preset button, then type on the keyboard and press Enter to change the name.

Your presets window will now show your new "Center Stage" preset where you recorded it:



Now this is important: by default, presets only contain levels from a single attribute group!

When you record, say, a preset on the color presets page, only color attributes are recorded; all other attributes types are filtered out.

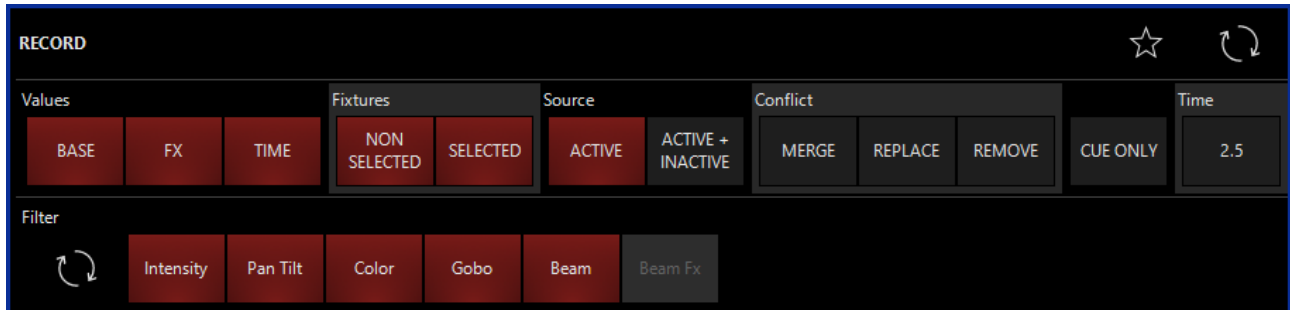
Let's say you take your Artiste DaVinci Profiles and focus them on the drum riser, bring in the rings gobo and a blue color filter, set intensity to full, get everything sharply focused, throw in a random strobe, and then save all this as a preset on the gobo preset page.

Guess what? The only thing saved in the preset is the gobo level!

Programming

Don't dismay. You can override the default recording behavior using the "Record Options" popup to select multiple attribute types when recording presets. So yes, it can be done!

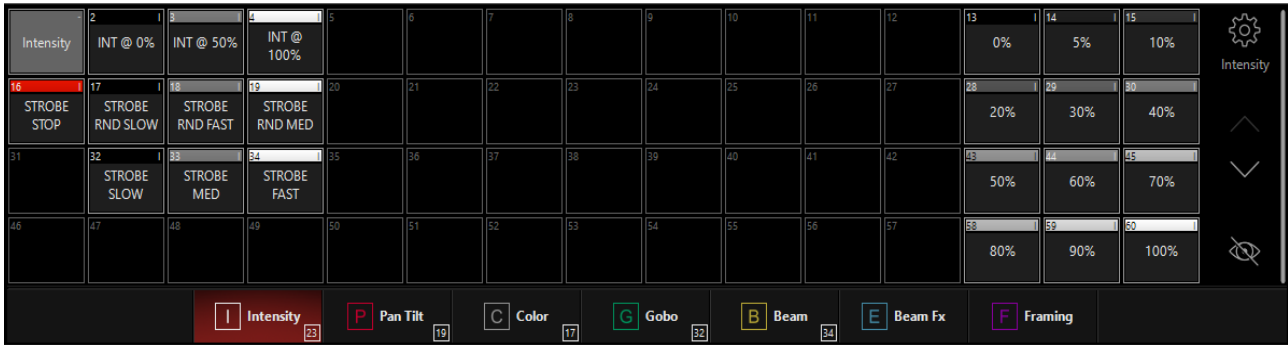
Using our earlier example, if we want to record a color preset that has the Artiste DaVinci Profiles focused on the drum riser, with the rings gobo, blue color filter, intensity at full and random strobe, we would use the following process.



1. Select the Artiste DaVinci Profiles and assign levels
2. Press Record
3. Touch the Intensity, Pan Tilt, Color, Gobo and Beam attribute filters. The popup should look like this:
4. Then touch the preset button you wish to record this to.

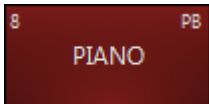
The Preset Window

Activate the preset window by pressing the view button directly over the “Programmer Preset” label on the playback touch screen. At the bottom of the preset screen are navigation buttons with the titles of the parameter groups that are within ONYX - Intensity, Pan Tilt, Color, Gobo, Beam, Beam FX, and Framing.



Preset Button Content Coding

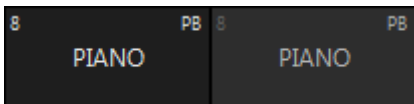
A preset uses a combination of colors and letters to indicate its contents. The type of information is indicated by displaying the first letter of each attribute group recorded in the preset (“P” for Pan Tilt, etc.). Take a closer look at the following example.



The letters “P” and “B” indicate that there is both Pan Tilt and Beam information in the preset.

You’ll also note that the field is red. This indicates that this is the last selected/played preset on the page.

The different shades of gray indicate whether or not a selected fixture is contained within a preset. When you select a fixture, presets that contain that preset appear dark gray, whereas presets that do not contain the selected fixture look lighter, and appear slightly transparent.



FX

Please see the topic list below to get started.

- [FX Controls](#)
- [FX Link](#)
- [FX Macros](#)
- [Synchronized Effects](#)

FX Controls

ONYX handles effects as an extension of the fixture parameters. Every parameter has its own individual FX section to modulate its values, which are stored as regular parameters.

Because of this, FX are able to be manipulated using the [different Cuelist Types](#), as if they were any other parameter.

FX values can also be stored without base value which allows flexible, on the fly adjustment and mixing of effects as well as complex effects speed and effects size control when working inside a cue list. Effects can be stored and recalled from a dedicated FX Macros directory.

ONYX utilizes a very powerful Effects Engine.

You can use either pre-programmed shapes or work on an attribute-by-attribute level to design your own.

FX are created using the attribute controls.

While going through this section of the manual, it will be quite useful to be at your ONYX software or console.

Some terms and concepts that might not be familiar to you will be much easier to grasp if you can follow along and try programming a few effects of your own.

Please note: ONYX handles all attributes the same with the exception of pan and tilt. Pan and Tilt receive a special treatment when "PT Combo" is enabled.

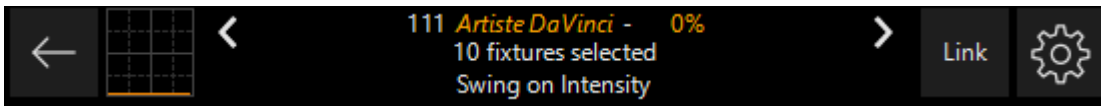
Making Your First FX

Making an FX in ONYX is very simple.

- [First, we select fixtures and work with the last-used parameter.](#)
- [Set a Base \(or Not\)](#)
- [Set the FX Parameters](#)
- [Set the FX Timing Parameters to Offset the FX](#)
- [Optional: Use Effect Grouping](#)
- [Pan/Tilt and "P/T Combo"](#)
- [Program FX inside of Cuelists](#)

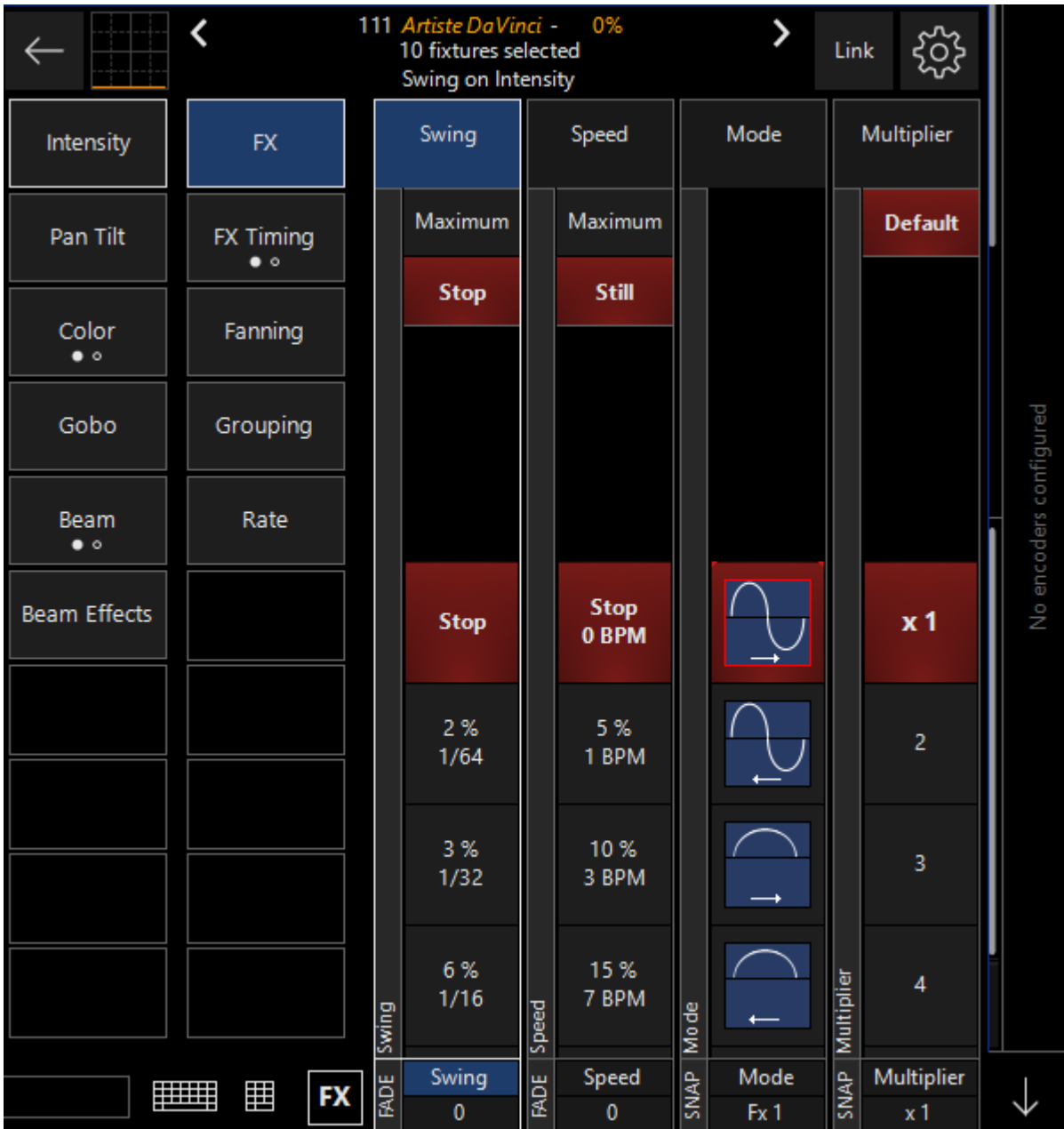
Select Fixtures and Work With The Last-Used Parameter

The last parameter you altered will be displayed at the top of the Parameters window or CV encoders as "[X] on [Parameter]":



It is this parameter that will be affected by an effect once you enter the FX section of the console. If you don't want to use the parameter you last altered, you can choose another parameter by pressing its associated parameter button.

Once you have selected the parameter you wish to apply an effect to, you will need to enter the FX section of the encoders by pressing the FX button:



The FX engine has two sections.

The first is "FX", which consists of the Swing, Speed, Mode and Multiplier controls which form the basis of any FX.

Programming

The parameter group below that is "FX Timing" which hosts the Wave Per X, Step Per X, Effect Grouping Tools, and Delay, Shift, and Wait controls.

Load a group of fixtures into the Programmer and press the FX button. This loads the control elements for the motion of the attribute being controlled by the effect.

The elements are: Swing, Speed, Mode and Multiplier.

Base - Where the FX Begin

All FX elements in ONYX work off the base of the selected attribute.

The base is simply the value for that attribute before any FX are applied.

So for intensity, the base can be anywhere between zero and full.

When we apply an FX element to the intensity, it varies the intensity in relation to the base.

Therefore, if we use an FX that takes the selected attribute **up** from its baseline to 100% but that attribute's baseline is already 100%, the effect element won't have any affect on the attribute.

To put it another way, if fixture 101 is at full and we apply an effect element that goes from zero to 100% and back to zero, we won't see any change in the fixtures intensity.

If however, the fixture were at zero, we would see the intensity rise and fall with the effect.

Setting the FX Parameters

Swing (Size)

Swing can be described as the amount of the FX to be applied to the attribute.

In audio terms, it would be described as the amplitude.

As stated earlier, it affects the selected attribute based on that attributes base value.

Swing can be set anywhere from "Stop" (a value of 0% to over 250% (Maximum - a numerical value of 170). While you can't get real world attributes of your lights to go over 100%, you can set them this way in FX, and then the effect will sit at the end of the parameter's range until it falls back below 100%.

Visually, you'll see the effect come to the end of the parameter's range and then pause for a minute, continuing shortly after.

Speed

Speed determines how fast the selected attribute will execute its swing value.

Again in audio terms, it would be best described as frequency.

While the base of an attribute does not have a great impact on how speed affects the attribute, ***physics and the mechanics of the fixture certainly do.***

If you set a moving head to execute 540 degrees of rotation in 1/4 of a second, it's probably not going to happen!

Instead, the fixture will move back and forth off its base position a very small amount as the swing value cycles back and forth past it faster than the motors can move.

The Speed element can be set from 0% (Stop) to 100% (360 BPM).

Multiplier

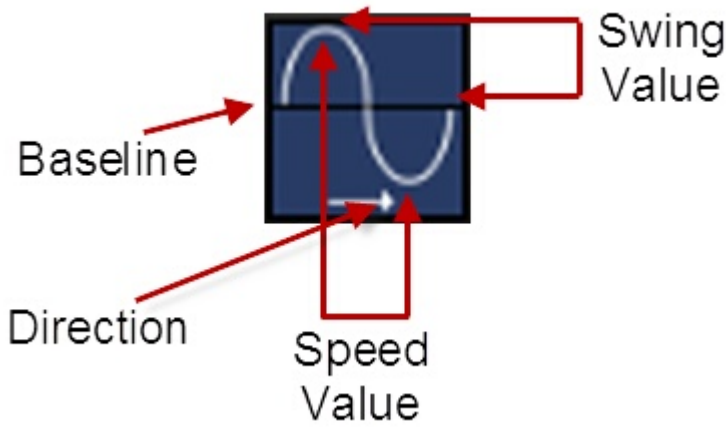
Multiplier is a further speed parameter. Multiplier simply multiplies the speed of the effect by the number in the counter.

Multiplier is useful for obtaining extremely fast speed values for intensity and color effects on LED fixtures.

It's also handy if you want to have 2 similar FX, but one runs at twice the speed, no matter where you [Global Rate](#) is set. You would set the "2X" version of the effect with a multiplier of 2, and all other FX parameters the same.

Mode

The Mode element determines the relationship between the baseline of the attribute and the swing element. These Modes are presented graphically. Below is an example of a Mode with notes to help in interpreting it.



Double clicking the button below the Mode parameter will open up the Mode window so that all of its contents can be easily viewed. In ONYX you may double click the parameter on screen to open the pop-up.



There are 22 modes available in ONYX.



Start at the baseline, fade up the amount specified by the swing element, return to the baseline and then fade below the baseline the same amount before returning to the baseline and starting again.



Identical to mode one except that we fade below the baseline first and the direction of travel is right to left.



Start at the baseline, fade up the amount specified by the swing element and fade back to the baseline.



Identical to mode three except the direction of travel is right to left.



Start at the baseline, fade down the amount specified by the swing element and fade back to the baseline.



Identical to mode five except the direction of travel is right to left.



Start at the baseline, snap (time zero) up the amount specified by the swing element, and then snap below the baseline the same amount before snapping above the baseline again.



Identical to mode seven except that we snap below the baseline first and the direction of travel is right to left.

Modes 9 through 12 require the use of the "Step per X" or the "Shift" element to function correctly.



Start at the baseline, snap up the amount specified by the swing element, and then snap back to the baseline. Changes in the modified attribute are applied from first to last selected fixture.



Similar to above, except changes are applied from last to first selected fixture.



Starts at the baseline and then snaps down the amount specified by the swing element and then returns to the baseline. Changes in the modified attribute are applied from first to last selected fixture.



Similar to above, except changes are applied from last to first selected fixture.

Modes 13 and 14 are effectively the inverse of modes 7 and 8.



The inverse of mode 7... Start at the baseline, step down the amount specified by the swing element, return to the baseline and then step above the baseline the same amount before returning to the baseline and starting again.



Identical to mode 13 except the travel is right to left.



Starts at the baseline then snaps up to the amount specified by the swing value then fades back down to the baseline.



The inverse of mode 15, we fade up to the amount specified by the swing value then snap back down to the baseline.



Starts at the baseline then snaps down to the amount specified by the swing value then fades back up to the the baseline.



The inverse of mode 17, we fade down to the amount specified by the swing value then snap back to the baseline.



Linear based saw mode. Start at the baseline, fade up the amount specified by the swing element, return to the baseline and then

fade below the baseline the same amount before returning to the baseline and starting again.



Identical to mode 19 except that we fade below the baseline first and the direction of travel is right to left.



Ramp mode. Starts at a value below the baseline specified by the swing value, snaps through the baseline to the upper value specified by the swing value then fades back to the baseline.



Ramp mode. Starts at a value below the baseline specified by the swing value, fades through the baseline to the upper value specified by the swing value then snaps back to the baseline.

FX Examples

Example #1

- Select any moving light and bring it to 50%.
- Making sure that “intensity” is the selected attribute, set the Swing level to 100%.
- Set the speed to 20%.

You’ll note that the fixture is now fading from zero to full.

We set intensity attribute to a base of 50%. We are in mode 1 which swings above and below the baseline. Since our base is 50% and our swing is 100%, when the intensity attribute is at the top of the modes shape, we're at full intensity. When we reach the bottom of the mode, we're at zero.

Example #2

- Continuing with the first example, double press the Mode attribute button to open the mode picker.
- Select mode #3 from the drawing above and close the mode window.

You can now see that our fixture is cycling between 50 - 100%

- Take the fixture’s intensity to full.

While it appears the effect has stopped running, it hasn't. Mode #3 never goes below the baseline and our baseline is now 100% (full), so there’s no effect on the intensity attribute.

- Open the mode window and select mode #5.

Predictably, the fixture is now cycling between 50%-100% again.

- Change the swing value to 200%.

And again, the intensity is changing between zero and full.

Example #3

- Select the "Tilt" attribute, and then click the FX parameter group twice to view the second page of attributes.
 - Set "FX Mode" to "P/T Combo Off"
- Press the "FX" parameter group to return to the first page of attributes.
 - Set Swing to 13% and Speed to 20% (12 BPM).

The fixture should now be swinging back and forth.

- When the fixture next reaches the end of a swing, change the speed to 0% (Stop).

You'll note that the fixture has stopped, but it's not at its base. The effect is still "running" but it has, in a manner of speaking, "frozen in time."

- Return the speed to 20% (12 BPM).

At this point you may wish to experiment with the pan/tilt attributes and the effect controls with Pan/Tilt Combo off or on.

In ONYX you can have different attributes on the same fixture running different effects at different speeds. ***All attributes of every fixture can run an effect.***

Set the FX Timing Parameters to Offset the FX

When you're building FX on multiple fixtures, it's not very exciting to have all of the fixtures run the FX at the same exact time. While that may be what you want occasionally, more often you want to offset your FX.

With no offset assigned to an FX, your selected fixtures will all be running the effect at the same time.

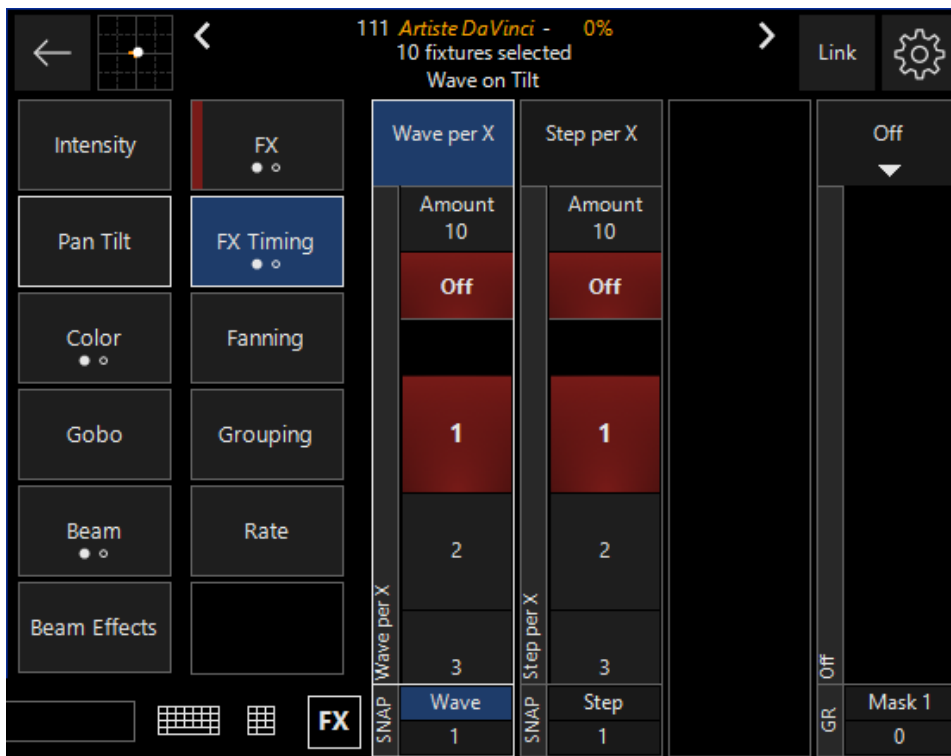
In the FX timing section, we can choose from "Wave" and "Step" as different means to offset our fixtures.

Wave and Step

Once we switch over to the FX Timing parameter group, we see the Wave and Step controls.

If you get to this step and see "Delay, Shift, Wait" on the encoders, press FX Timing again to get back to the first page where Wave and Step reside.

While in the Programmer, you'll see FX values for Delay, Shift and Wait, you can more easily work with these values as Wave and Step. When you select either a Wave value or a Step value, ONYX automatically calculates the Delay, Shift, and Wait values for each fixture, which vary depending on your selection.



The “Amount X” (where X equals the number of fixtures selected) button is used in combination with the “Wave” and “Step” functions. This allows you to quickly set the Wave or Step elements to the total number of fixtures selected. This effectively "spreads" the effect evenly through the selected fixtures so that no two fixtures are performing the same step at the same time.

Wave

Wave offsets the Mode (Shape) of the FX across the number of fixtures selected in the "Wave per X" encoder. In the picture above I have 10 fixtures running an effect.

If I set the Wave to 10, I see the effect mode happen once across my fixtures.

If I set the Wave to 5, I see the effect mode happen twice across my fixtures.

Step

Step is similar to Wave, but a little bit different. When you choose a Step, ONYX will have each fixture complete the mode and then the effect moves on to the next fixture.

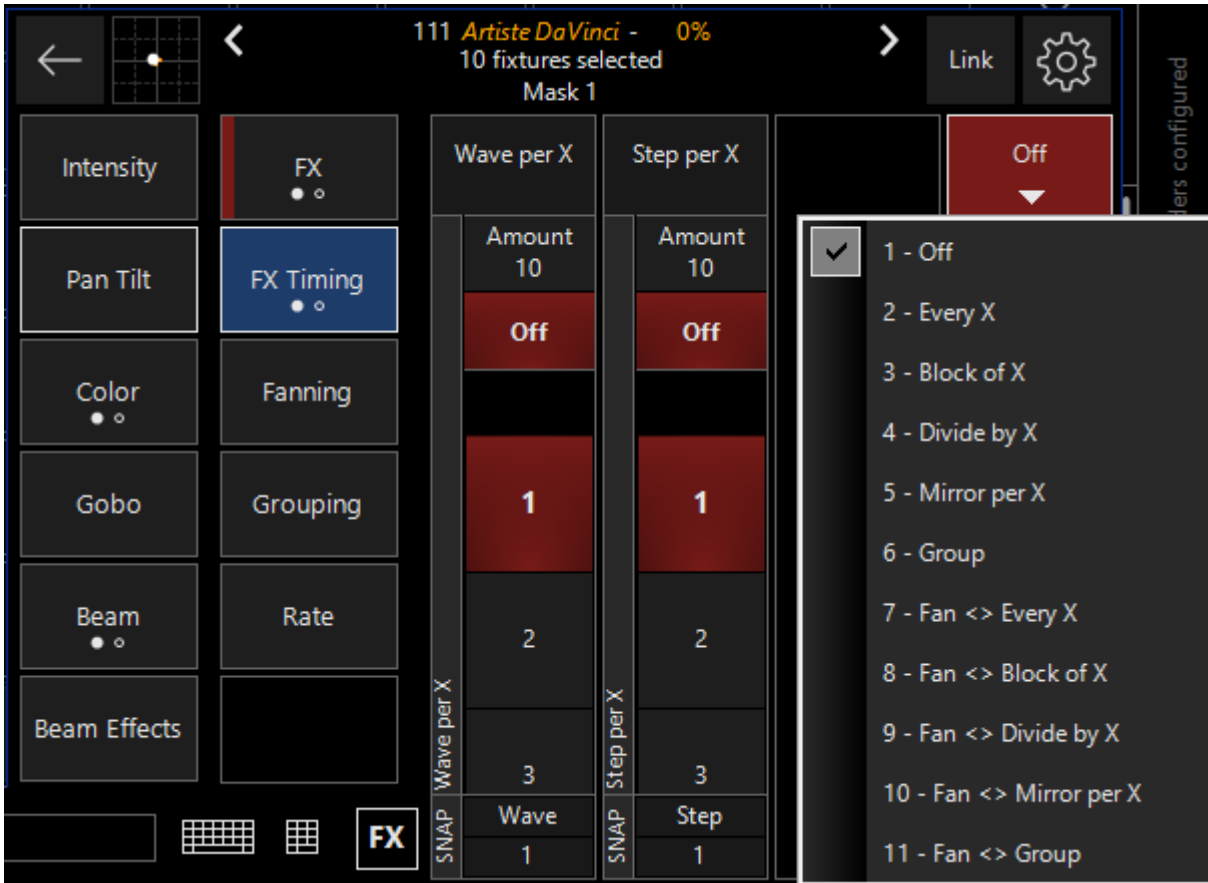
Again, in the picture above, if I set the Step to 10, the effect will happen on 1 fixture at a time, and then pass on to the next fixture.

If I set the Step to 5, the effect will happen on 2 fixtures at a time, and then move on to the next 2.

If I set the Step to 2, half of the fixtures will run the effect, and then the other half. Step can be used to make some intricate "marquee" style chasing effects!

Remember: Wave and Step are 2 different ways to control the same thing (FX Offset). Use only one, and be sure to set the other to "Off" to avoid confusion when programming!

Effect Grouping



The "GR" panel allows you to leverage group mask functions within your FX. With this you can create difficult patterns very quickly.

To enable FX grouping, click or press the tab with the down arrow at the top of the "GR" parameter display (in the above image. it reads "Mirror per X," but the title will change depending on the grouping selected).

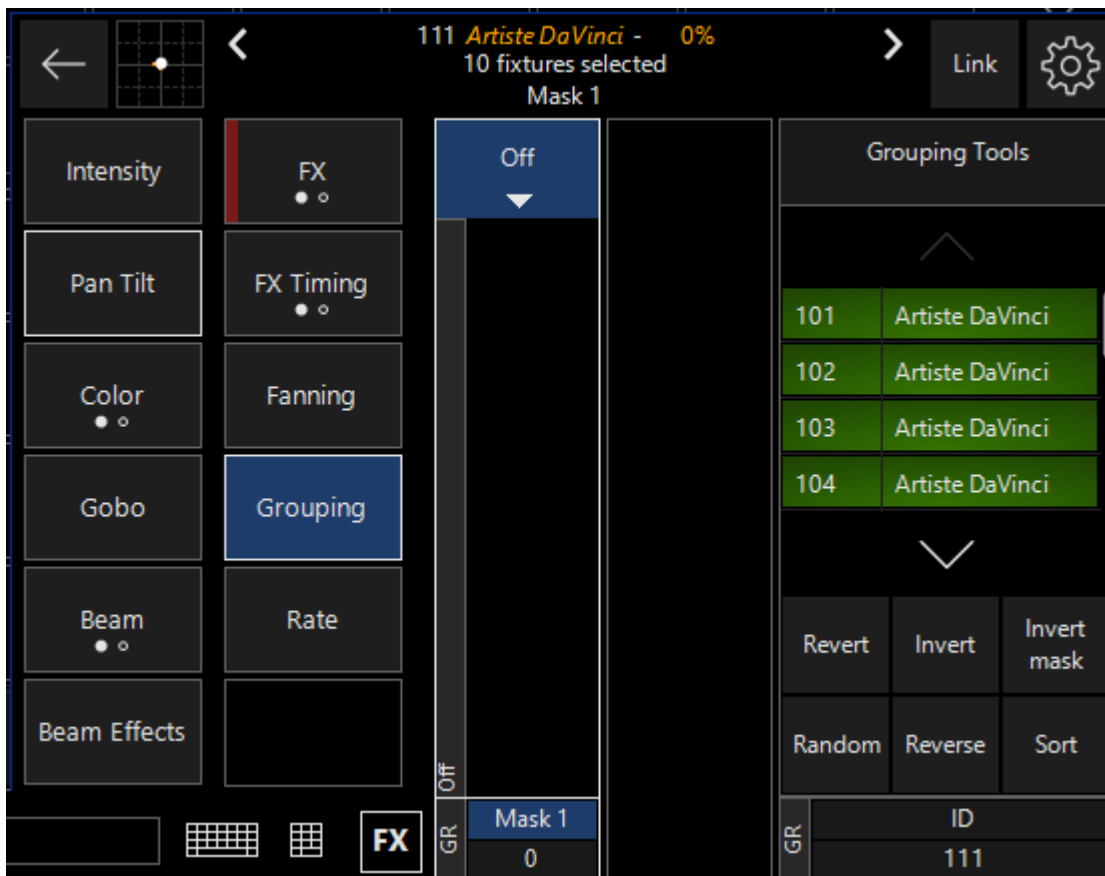
A drop down menu will appear with the available grouping options listed. Select a grouping option by touching or clicking it.

If the grouping requires a mask amount, you can set that by touching in the panel or moving the trackbelt or encoder. For more information, see the chapter on " [Using the Grouping Tools](#) ."

Grouping Actions

You can also access the "actions" which are outlined in [Using the Grouping Tools](#).

To use these, simply press the Grouping parameter group:



You now have access to great filters such as "Random", "Reverse" and "Sort", which can be very helpful when creating FX!

Examples of Effect Grouping

Mirror Intensity Sweep Example

1. Select Group 4 (Dartz 360's)
2. Select the Intensity parameter and set it to 0%
3. Press the FX parameter group.
4. Set Swing to 200% (2:1).
5. Set Speed to 40% (50 BPM)
6. Set the Mode to "FX 8"
7. Under FX Timing, set the Grouping Tools to "Fan <> Mirror per 2" .
8. Set the "Wave Per X" Counter to 12.

You'll now see an intensity effect, where the intensity moves from outside to in across the Dartz 360's.

Every Intensity Sweep Example

1. Select Group 4 (Dartz 360's)
2. Select the Intensity parameter and set it to 0%

Programming

3. Press the FX parameter group.
4. Set Swing to 200% (2:1)
5. Set Speed to 40% (50 BPM)
6. Set the Mode to Mode 7
7. Under the FX Timing parameter group, set the Grouping Tools to "Fan <> Every 4".
8. Set the "Wave Per X" Counter to 6.

You'll now see a intensity "sweep" that resets every 4 fixtures.

Block Intensity Effect Example

1. Select Group 4 (Dartz 360's)
2. Select the Intensity parameter and set it to 0%
3. Press the FX parameter group.
4. Set Swing to 200% (2:1)
5. Set Speed to 40% (50 BPM)
6. Set the Mode to Mode 7
7. Under FX Timing, set the Grouping Tools to "Fan <> Block of 2".
8. Set the "Step Per X" Counter to 6.

You'll see how the effect works in "blocks" of 2 fixtures at a time, repeated 6 times across the 12 fixtures.

Divide Intensity Effect Example

1. Select Group 4 (Dartz 360's)
2. Select the Intensity parameter and set it to 0%
3. Press the FX parameter group.
4. Set Swing to 200% (2:1)
5. Set the speed to 40% (50 BPM)
6. Set the Mode to Mode 7
7. Under the FX Timing parameter group, Set the Grouping Tools to "Fan <> Divide by 4"
8. Set the "Wave Per X" Counter to 6.

This FX will do a "build" across the 4 sets of fixtures that you divided.

Group Intensity Effect Example

1. Select Group 1 (Artiste DaVinci), Group 2 (Fuze Wash Z350) and Group 3 (Dartz 360)
2. Select the Intensity parameter and set it to 0%
3. Press the FX parameter group.
4. Set Swing to 200% (2:1)
5. Set the Speed to 40% (50 BPM)
6. Set the Mode to Mode 7
7. Under the FX Timing parameter group set the Grouping Tools to "Fan <> Group"
8. Set the "Step Per X" Counter to 3.

In this case, each of the 3 groups now runs the effect, then the next begins it.

Pan/Tilt and “P/T Combo”

By default, Pan and Tilt FX always work together, so that it's easier for you to create across both pan and tilt at the same time. Because of this, when you go to build an effect with Pan and Tilt, the options look a little bit different.

You’ll see that the FX section now has four columns: Swing Pan, Swing Tilt, Speed, and Figure. The first 3 columns have been described above.

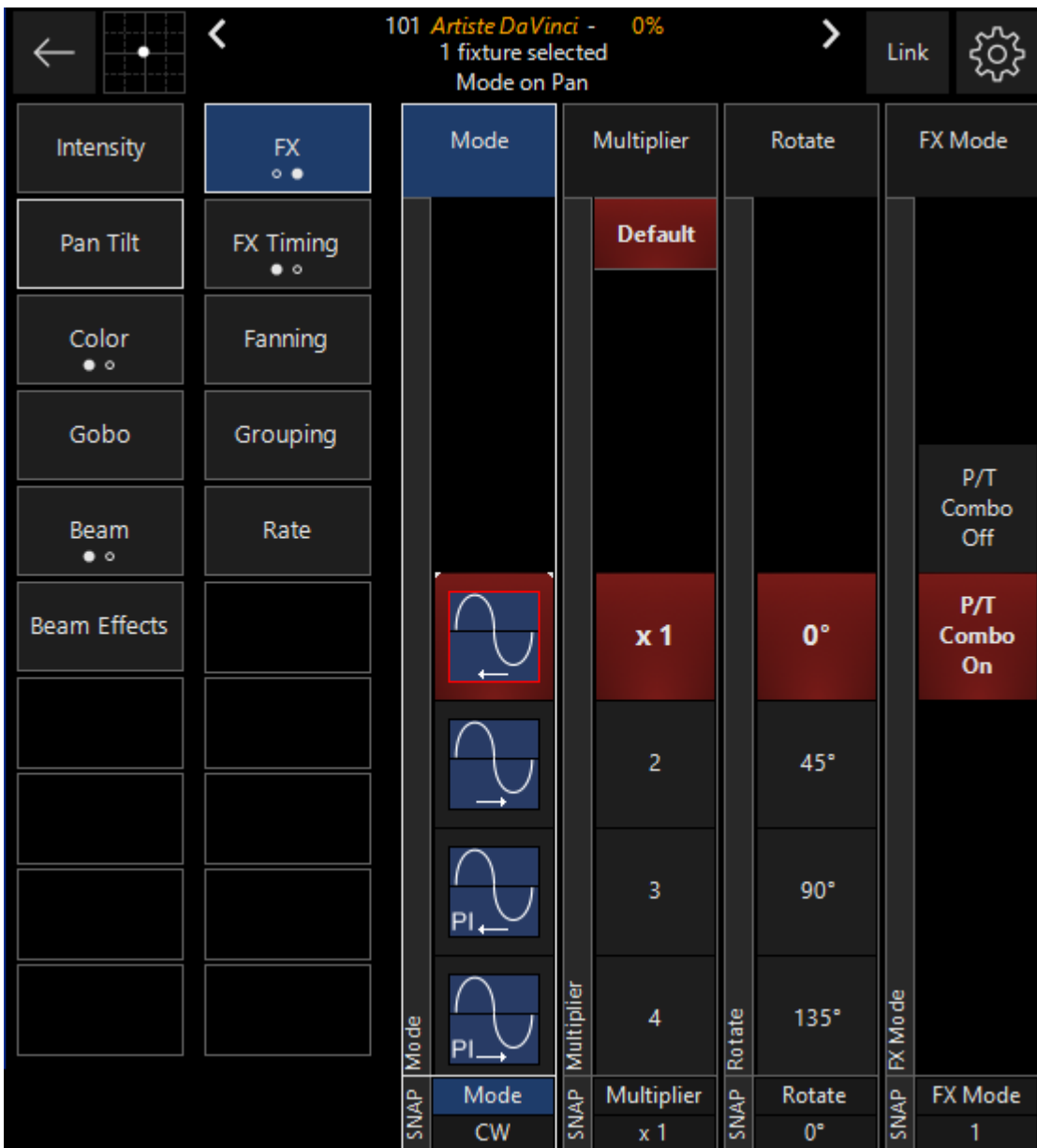


The new column, “Figure” contains a variety of geometric shapes that the fixtures can be programmed to approximate. Altering the swings and speed as well as the baseline will determine the actual movement of the fixture(s).

You can also see all of the "Figures" by double-clicking the parameter name.

You'll also notice that there is now a second "page" of FX parameters.

Click FX again, and you'll be taken to the 2nd page of FX parameters, which only shows for Pan/Tilt Combo FX:



First, we see **Mode**. In Pan/Tilt Combo FX, mode allows you to quickly modify the direction of the whole effect, or parts of it.

On the mode selectors, we can see some have the letters PI and TI.

PI will invert the pan, and TI will invert the tilt. This is a very quick way to get a different shape.

The **multiplier** column works in the same way as regular FX (explained above).

Rotate allows you to adjust FX for fixtures that are hung in a different direction, or whatever creative idea you come up with!

Last, we have **FX Mode**, which allows us to turn on or off P/T combo entirely. When P/T combo is off, Pan and Tilt work independently with FX, just like any other parameter in ONYX.

While they have a few extra controls, for the most part Pan/Tilt FX work much like any other FX. For many FX, it may make sense to use the P/T combo, but it can always be disabled per effect as desired.

FX Inside of Cuelists

It is important to realize that while FX attributes do not pertain to an actual physical device (such as an iris or pan/tilt motor), ONYX treats it the same as any other attribute. This is particularly apparent and useful when discussing LTP.

Effect Values are the same as any other value, they track through the cuelist. The base value and effect value both track independently of the other.

That is to say, if you have a step effect running on Cyan, with a base value of 0% then you record another cue with Cyan at 100%, the effect will still be running in the second cue. This may be desirable, but in the case of you wanting to remove the effect, it will need to be "stomped".

Furthermore, each Effect channel will also track independently of the other effect channels and the associated base value. This is to say that you could change the mode of an effect and the rest of the data will track through to the next cue.

Stomping, or removing, an effect is essentially just assigning its swing value to 0%. For example, make a Cyan effect on the Artiste DaVinci's and record this as Cue 1. Now for Cue 2, we want the Cyan base value to stay the same but we want to remove the effect.

1. Select the Artiste DaVinci's.
2. Set the swing value to 0%
3. Record Cue 2.

Note that in Cue 1 the Cyan effect runs as expected, Cue 2 will stop the effect.

Note that there are FX Macros already generated which contain FX stop for various parameters. For more information on how to use the Macros, [see FX Macros](#).

We can examine some more of this behavior with these examples.

FX "Speed" As its own Cuelist

1. Select a moving light and bring it to full.
2. Select the "Tilt" attribute.
3. In FX, set the Swing to 50%. **Do Not Change The Speed. Leave Speed at zero.**
4. Record this in a new Cuelist of type Cuelist.
5. Without clearing the Programmer, set the Speed to 40%. **Do Not Change The Swing.**
6. Record this in a new Cuelist of type "Override".
7. Execute both Cuelists and take both faders to full.

You can now see the moving light tilting up and down. When you pull down the Override cuelist fader, you have manual control over the speed of the effect. What's more, the other fader will control the intensity of the fixture giving you full control of the look.

Had a speed been entered in the first cue created, the override cue would still have taken control of the fixture. Once the override cue had been released, the fixture would have returned to the original speed.

"Speed" in the same Cuelist

1. Select any group of fixtures. Leave the intensity at 0.
2. Select the intensity attribute.
3. In FX, set Swing to 200%, Speed to 25% and select Mode FX 3.

The fixtures should be fading from zero to full.

4. Press the FX Timing parameter group button and set a shift or delay value.
5. Record as cue 1 in a new cuelist.
6. Without clearing the Programmer, press FX and increase the Speed to 50%.
7. Record as cue 2 in the same cuelist and clear the Programmer.

When we play these cues, we can see that the speed increases when cue 2 is executed. If we make changes in cue 1, we'll see those changes track through and again, all cue 2 will do is increase the speed.

Reference: Delay, Shift and Wait

Delay, Shift, and Wait are the parameters that ONYX uses when you select Wave or Step when creating an effect.

Most users do not need to touch these parameters, and Wave and Step do everything they need.

But since this is the user manual, it's important to cover in case you need to modify them directly.

Delay

The Delay element creates the image of a wave of FX. With the same regular FX running on a group of fixtures, utilizing Delay will cause the fixtures to be at different points in that FX. The number of points along the duration of the effect that the group of fixtures is divided into is set using Delay. While Delay can be set using the encoders, it is highly recommended that you use the touch screen; either the pop-up window or by touching the values listed in the Delay column.

Shift

Shift is similar to delay except where delay divides the effect and distributes the fixtures evenly along its curve, Shift divides the number of fixtures evenly and distributes the effect to them. The pop-up window for Shift is essentially identical to the wave pop-up with the exception that "step" is used instead of "wave."

Wait

The Wait element, unlike some of the other elements found in the FX section, is not expressed as an arbitrary value, but is instead expressed in seconds from 1 to 1000. The wait is the amount of

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time between the completion of an FX, and when the FX restarts. If, for example, you're using an FX that takes 10 seconds to go through all of its steps and you have a wait time of 5, all the fixtures will go through the FX once and will then sit at their baseline for 5 seconds before running the FX again.

FX Link

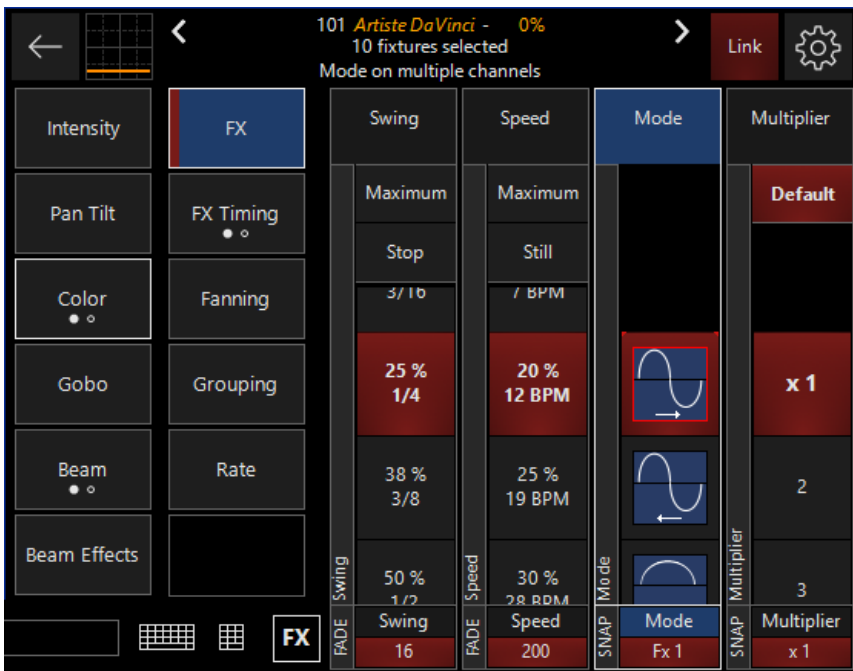
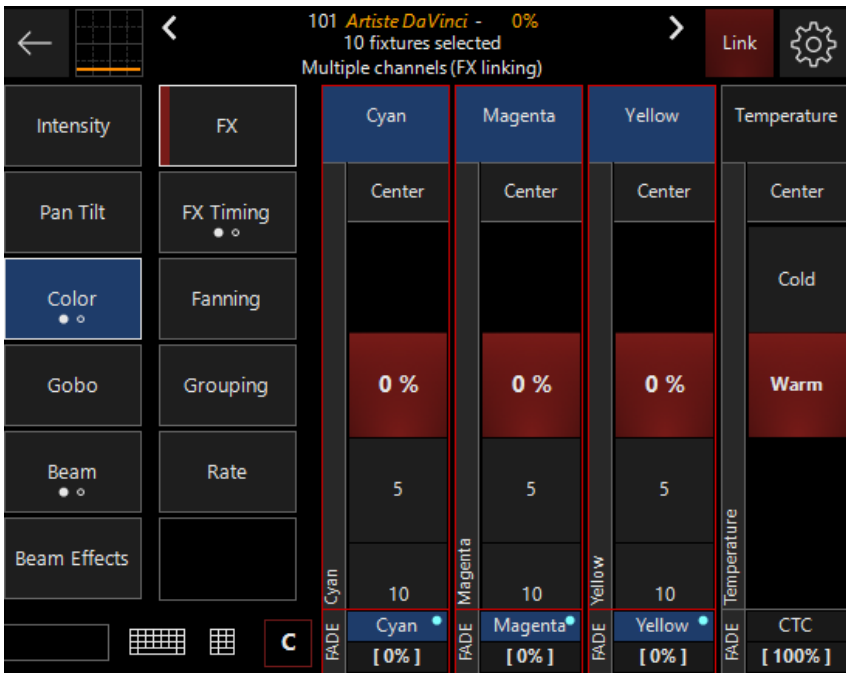
By linking several attributes, effect parameters may be adjusted for those attributes simultaneously.

For instance, if you wanted to create a color effect where Cyan, Magenta and Yellow were all moving at the same speed, you could link those parameters and set the speed for all three at once.

FX Linking is enabled by pressing the Link button found in the fixture parameters control pop-up or under the "Linking" tab in the Common Parameters window, it is also available as a key on ONYX Consoles, or can be assigned to an F-Key. See [Sidebar and Function Keys](#).

In FX Linking mode, the attribute hard-buttons or encoder wheel's click functions act as "Link Toggles" rather than attribute selectors. To toggle an attributes link state, simply press the corresponding attribute button on the console.

If you don't have console hardware, select Link and right click on the label at the bottom of the parameter you wish to link and select Link Channel. Use the same process to unlink the channels. Linked attributes will be surrounded with a red box in the Fixture Parameters Screen as shown here:



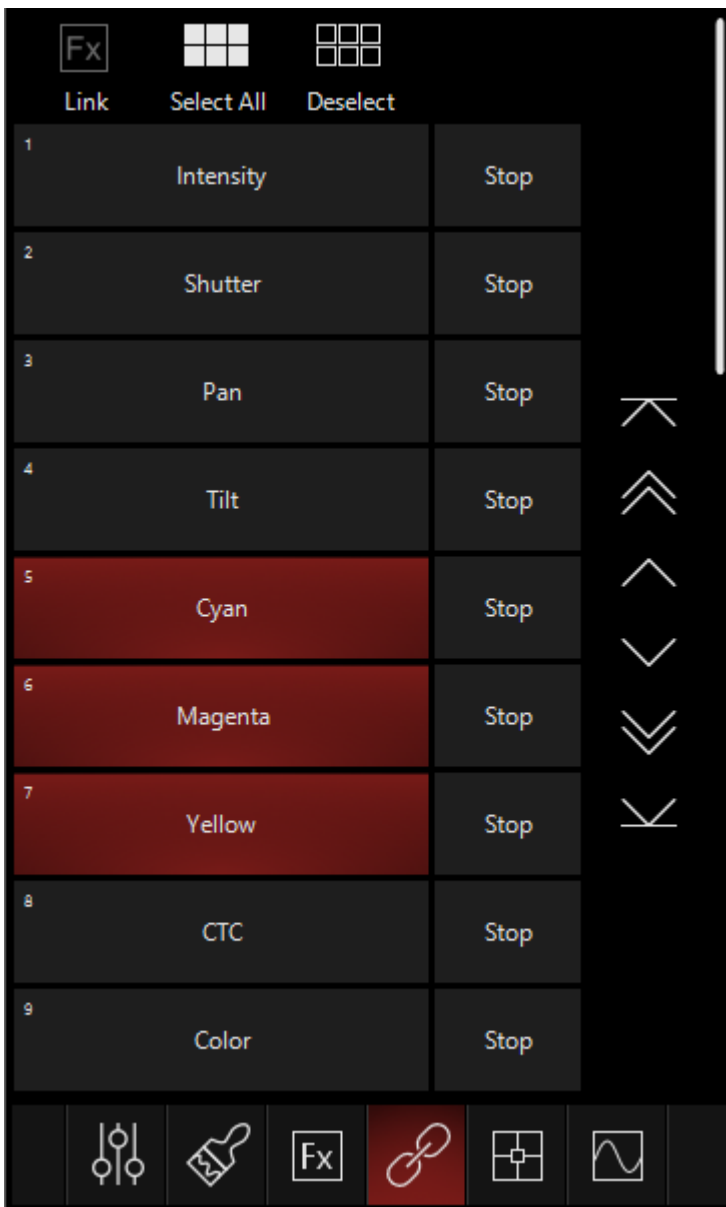
You can see in this window that we have linked the Cyan, Magenta & Yellow and assigned a Swing of 25%, a Speed value of 20% and used the default Mode 1 (sine wave). The parameters have no base in the programmer. Looking at the programmer screen below confirms that the effect values have been assigned to all three color attributes at once:

SHOW BASE	SHOW FX	SHOW TIMINGS	Programmer			
<i>Artiste DaVinci Standard</i>						
Number	Cyan	Magenta	Yellow	CTC	Color	Color Macro
101	-	-	-	-	-	-
FX Cyan	Swing 16 Speed 200 Mode 0					
FX Magenta	Swing 16 Speed 200 Mode 0					
FX Yellow	Swing 16 Speed 200 Mode 0					
102	-	-	-	-	-	-
FX Cyan	Swing 16 Speed 200 Mode 0					
FX Magenta	Swing 16 Speed 200 Mode 0					
FX Yellow	Swing 16 Speed 200 Mode 0					

FX Linking in the Common Parameters Window

You can find the FX Linking functions in the Common Parameters window under the "Linking" tab. One great example of this is in the default "Compose" workspace, where the FX Program view has this window featured on the right. You can also view this by pressing the "left arrow" icon from the CV strips popup, and navigate to the "linked chain" icon at the bottom of the [Direct Access](#) popout.

Parameter linking is enabled or disabled for each parameter by pressing the parameter's corresponding button.



In addition to FX Linking functions, you can also set the Swing value of each parameter to zero by pressing the Stop button. Pressing the Stop button on any linked parameter will also set the other linked parameters to a Swing value of zero.

FX Macros

On creating a new showfile, ONYX creates a set of "FX Macros" that can be found in the FX Macros window.

FX macros are a universal "starting point" that you can use to create FX. You can also store your own FX settings here.

To access the FX Macros Screen, navigate to the FX Program View in the Compose workspace. You'll see these FX Macros:



To use an FX Macro, select some fixtures and press the desired FX Macro button. The fixtures will begin performing the effect in unison. You can now adjust the effect values to suit and add an offset via the Wave or Step controls.

Storing an FX Macro

FX Macros are stored in the same fashion as Presets, with one exception: the values stored into the FX Macro will be derived from the last selected fixture.

Once you've built an effect that you like in the Programmer, press Record and press any empty button in the FX Macros screen. All fixture attributes and effect values of the last selected fixture will be stored into the macro. Fixture timing (Fade/Delay) will be stored.

It is important to note that, unlike Presets, FX Macros are global, that is, an FX Macro stored for a Artiste DaVinci can be applied to a Smarty Hybrid or any other fixture with attributes contained within the macro. Identical values will be applied to all fixtures.

FX Macros are stored as hard values and are NOT referenced. That is to say, updating an FX Macro will NOT update wherever it was used in the showfile, whereas a preset would.

Synchronized Effects

Using the FX Linking covered on the previous page, its possible to create synchronized effects.

For example, we can create an effect that goes from a soft red beam to a hard white, narrow beam.

This example would require an effect running on Magenta, Yellow, Focus and Iris all simultaneously.

The logic with synchronized effects is the same as normal effects covered in the previous section, however because we want the effects to run at the same speed and offset (FX Timing) they must share the same speed and FX Timing values.

Each Effect will have its own unique base value, swing and possibly mode - ***but all effects will eventually share the same timing and speed information.***

Examples of Synchronized Effects

Tilt & Color Can Can:

1. Select Group 4 (Dartz 360's) @ FULL.
2. Starting from their default position, tilt them forward to 30%
3. Set the Green & Blue color channels to 0%, leaving Red at 100%.
4. Press the Tilt parameter wheel/button and hit the FX parameter group (FX on Tilt)
5. Set Swing on Tilt to 25%.
6. Bring the speed up to 40% to check the effect is running correctly then revert speed to 0%
7. Press the Color parameter group and press the Green parameter select it
8. Press the FX parameter group button. (It will display "FX on Green" at the top)
9. Set Swing to 200%.
10. Set the Mode to Mode 1
11. Bring the speed up to 40% to check the effect is running correctly, then revert speed to 0%
12. Press Link.
13. Press the Green and Tilt parameter buttons, or right click on each and press Link Channel. The parameters should be highlighted in Red to show they are linked.
14. Press the FX parameter group and bring the Speed up to 40%

The Dartz 360's should be tilting up and down, as they rise they turn to yellow and as they fall they revert back to red.

15. Press the FX Timing parameter group. Set the "Wave Per X" to 3.

The Dartz 360's should be performing a "Can Can" Type color & position effect.

Cyan/Magenta Effect:

1. Select Group 1 (Artiste DaVinci's) @ FULL.
2. Set Cyan to 100%
3. Set Magenta to 100%
4. Press the Cyan parameter button and hit the FX parameter group (FX on Cyan)
5. Set Swing to 200%
6. Set the Mode to mode 13
7. Set Speed to 40% to check if the effect is running correctly, then revert speed to 0%
8. Press the Color parameter group and press the Magenta parameter button to select it.
9. Press the FX parameter group (FX on Magenta)
10. Set Swing to 200%.
11. Set the Mode to mode 7
12. Set the Speed to 40% to check the effect is running correctly, then revert speed to 0%.
13. Press Link.
14. Press the Cyan and Magenta, or right click on them and press Link Channel. The parameters should be highlighted in Red to show they are linked.
15. Press the FX parameter group and bring the Speed up to 40%

The Artiste DaVinci's should be stepping between full cyan and full magenta.

The Cyan/Magenta effect example is the basis of making any color mix effect. For example Red/Blue. Magenta/Yellow etc as the logic is identical.

The easiest way to create synchronized effects is to build each effect individually, revert the speed to zero, link all the desired parameters together then set the speed and FX Timing at the same time.

DyLOS

Please see the topic list below to get started.

- [Basic Zone Principles](#)
- [Content](#)
- [Mapping](#)
- [DyLOS Examples](#)
- [DYLOS Quickstart](#)
- [Effects 1 and 2](#)
- [Master Fixture](#)
- [Static Palettes](#)
- [Dynamic Palettes](#)
- [Setting Up DYLOS](#)
- [Source](#)
- [What is DYLOS](#)
- [Zone Composer](#)
- [Zone Parameters](#)
- [Zones](#)
- [Input Processors Menu](#)

Basic Zone Principles

Please see the topic list below to get started.

- [Animation](#)
- [Basic Zone Principles](#)
- [Choosing and Manipulating the Content and Effects](#)
- [Masking](#)
- [Opacity](#)
- [Placing the Canvas in 3D Space](#)
- [Thumbnail Modes](#)
- [Zone Output](#)

Animation

Video clips and many of the Generators can have animation within their DyLOS parameters.

For example, any content that has motion will feature this menu in the Zone Parameters:



By default, it carries these settings, being played forward by the arrow, and repeating endlessly. But there are other options, both via the buttons and some that are exclusive to the Encoders/Channel Visualization:

Button	Name	Explanation
	Once	Plays the content once.
	Loop	Plays forward, repeating endlessly.
	Bounce	Plays forward then back, repeating endlessly.
	Swing	Plays forward then back, but on a sine curve. The clip is faster at the ends, and slower in the middle.
	Random	Jumps between random frames within the content.
Encoders/ CV ONLY	Stop	Stops the content. It is not shown on the canvas.
Encoders/ CV ONLY	Absolute	A single frame of the content, with the position determined by the place of the "Mask Playback position" encoder.
Encoders/ CV ONLY	Pause	Pauses the content at the current frame.
Encoders/ CV ONLY	Beat	Sets the playback speed based on the BPM determined via the "Mask Playback Play speed" encoder.
Encoders/ CV ONLY	Beat Bounce	Sets the playback speed based on the BPM determined via the "Mask Playback Play speed" encoder. It follows the "Bounce" method of playback.

Animation with Effects

DyLOS [Effects](#) also offer animation of many of their parameters. Learn more on the [Effects page](#).

Animation with FX

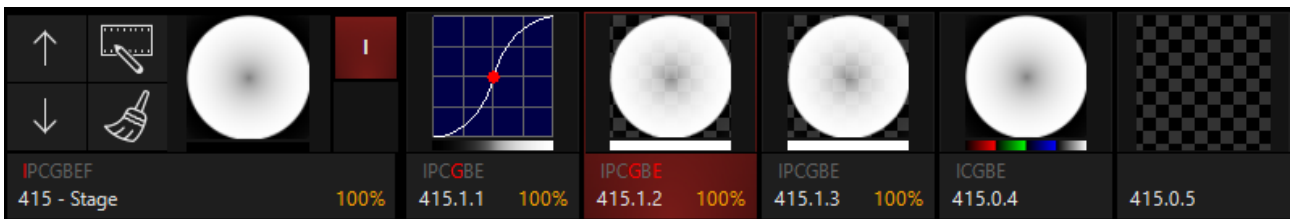
Static content can still be animated using the FX in ONYX.

Programming

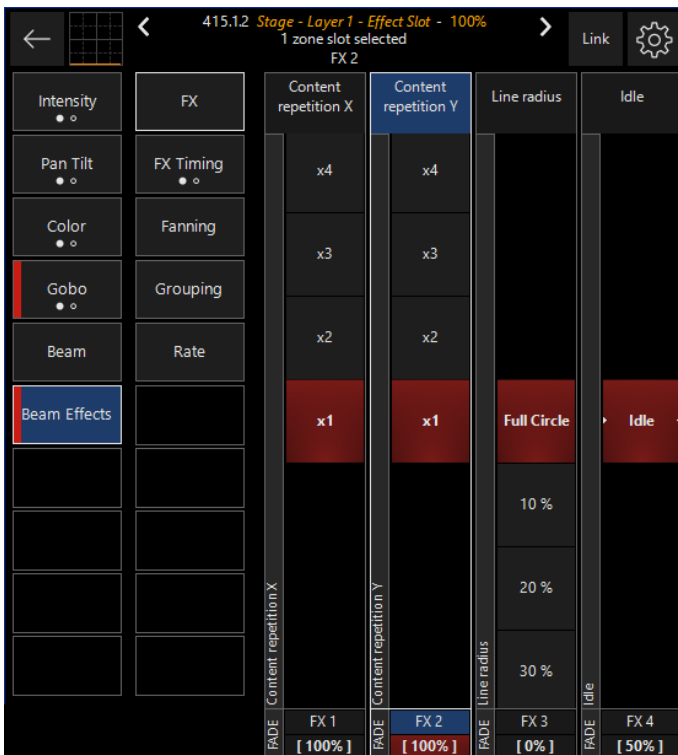
In fact, any parameter of the DyLOS Zone can be used in an FX to change the value dynamically. Because Zones are Fixtures with regular parameters, any parameter that you see on the Channel Visualization can be modified dynamically with the FX. And this unlocks a entire world of possibilities!

Here's a short example.

I've prepared a Zone with the Factory Generator #1 from the Gradient folder and the "Lines" effect from the Deformations folder:



Now, I'll press on the "Effect 1" part fixture (where the Lines effect is applied - as shown above), and open the Channel Visualization to Beam Effects



I've selected the "FX 2" - "Content repetition Y" control by pressing it, and now will press to "FX" and applied these settings:



The result is a cool Zooming effect as the Y repetition of the Effect Layer is smoothly adjusted on the sine curve shape.

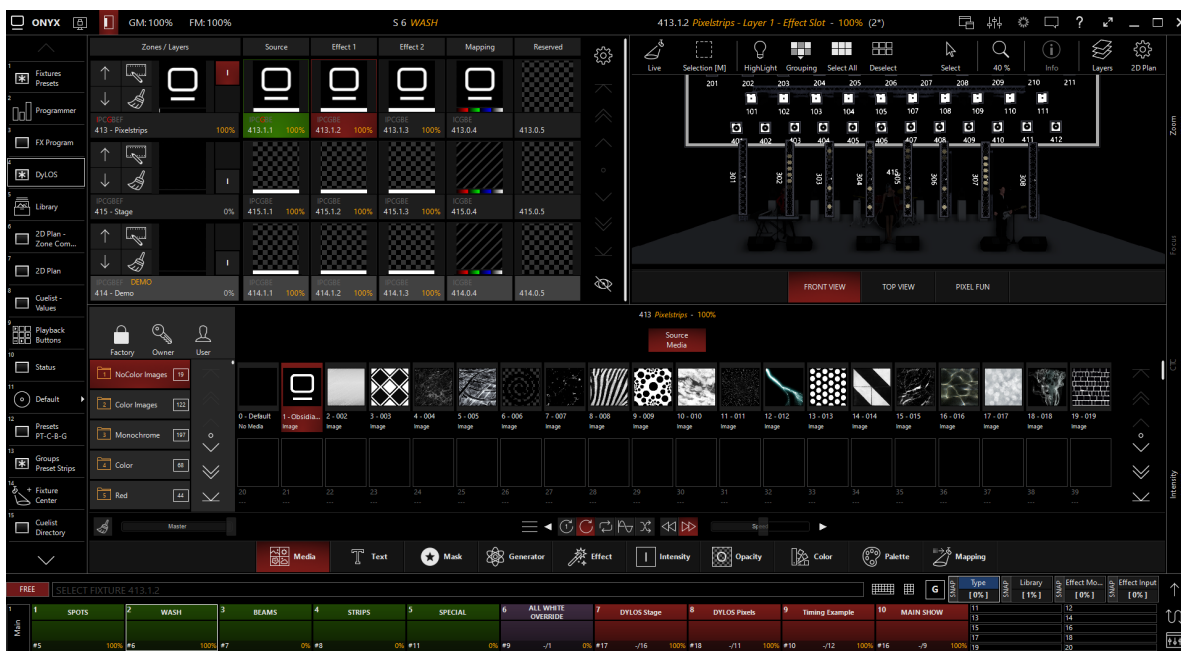
Any DyLOS parameter can be animated like this using the FX in ONYX. [Click here to learn more about the FX in ONYX.](#)

[Now that we understand how to create Animation via DyLOS, it's time to learn a very important concept - how Opacity works in DyLOS!](#)

Basic Zone Principles

In the ONYX 2D plan view you can add [Zones](#) and position them over a specific area. These Zones are individual media servers on their own, playing back a variety of content types including video files and generated content. Zones are rectangular in shape, and can be any aspect ratio - automatically scaling any content live in real time.

Each Zone allows multiple slots to run content or integrated shape animations. These are called [Sources](#) and [Effects](#). We adjust these within the [Zone Composer](#):



Parameters like contrast, opacity, XYZ position, and coloring are automatically available to you once a Zone is created, and these parameters can be applied to each slot individually.

You can select the content, manipulate it just like any other fixture parameter, then store it in cues and presets. **This is incredibly powerful, as the parameters you program within DyLOS work exactly the same way as any other parameter in ONYX. They can be selected, modified and stored like any other fixture in ONYX.**

Understanding these basic zone principles will not only unlock more creative options for your show, but will also lessen your frustrations as you learn DyLOS!

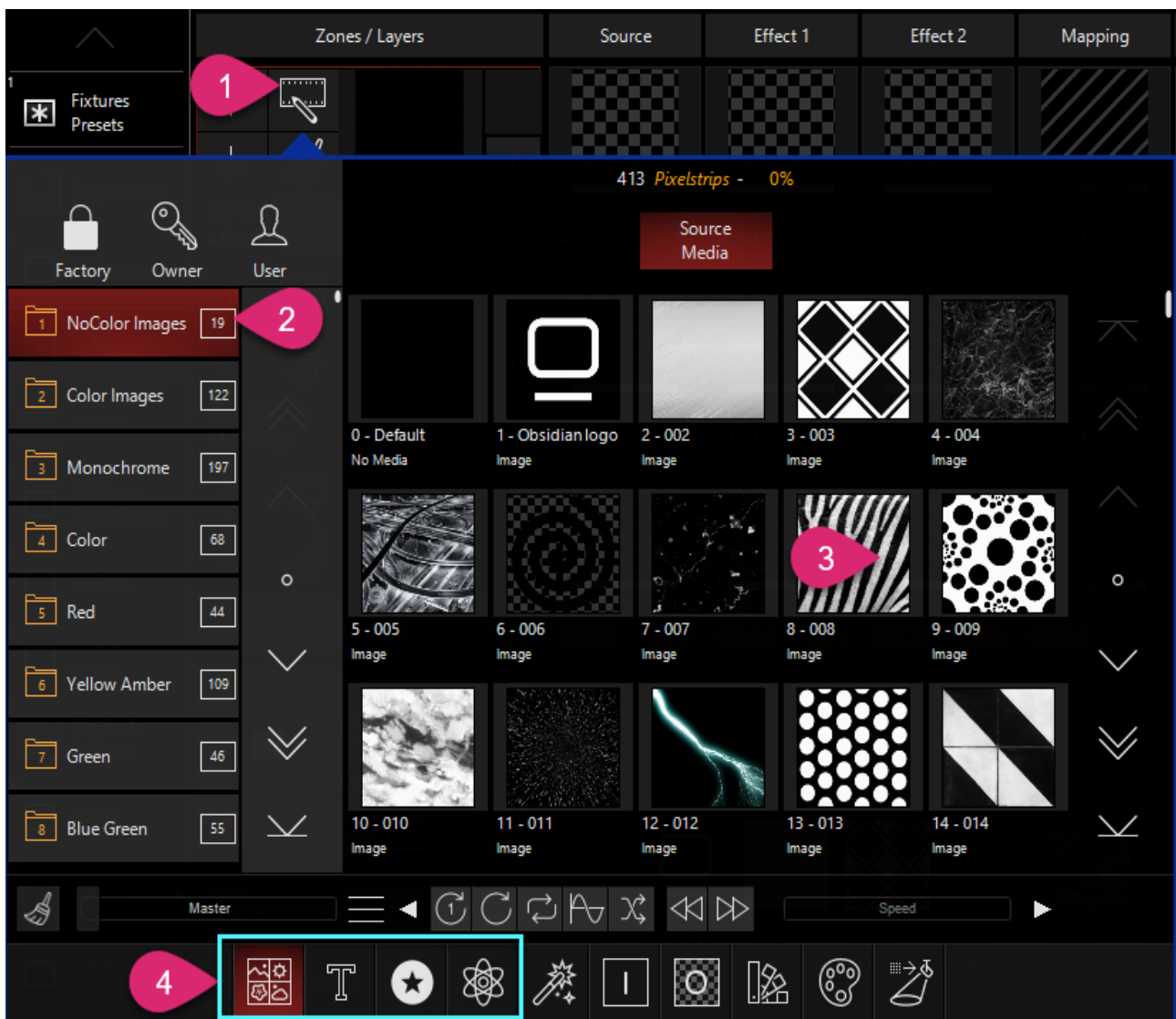
Let's begin with [Placing the Canvas in 3D Space](#).

Choosing and Manipulating the Content and Effects

Choosing the Content and Effects

Content and Effects are chosen from your [Library](#), via the [Zone Composer](#) window. If your library is empty, see [Importing and Exporting Content](#) to learn how to import the Factory Content as well as your own Content.

The process can be graphical, or done via the Channel Visualization/Encoder wheels. Here's how to use the graphical interface:

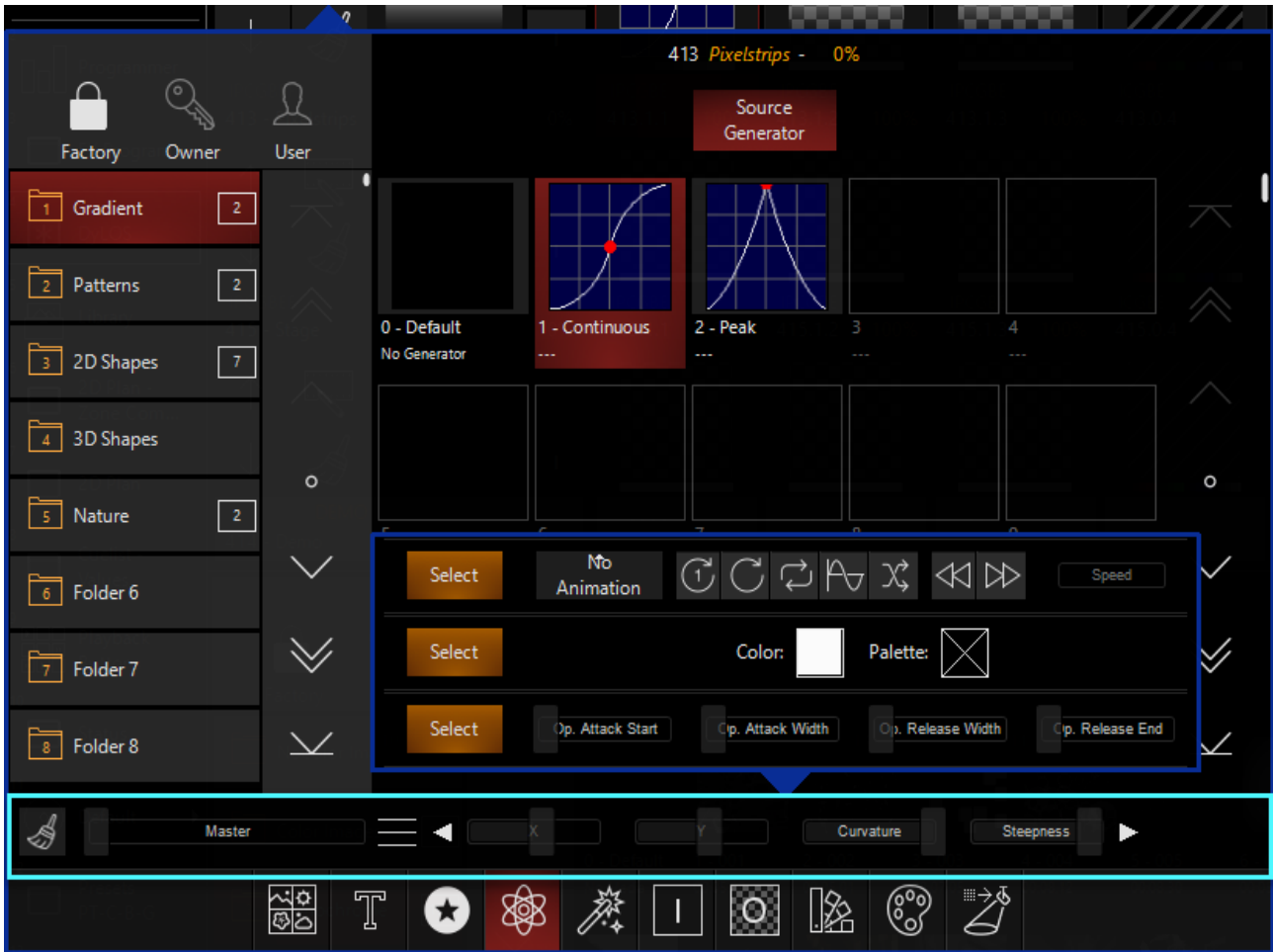


1. Press the "pencil" icon to pop up the Zone Parameters.
2. Choose the folder from the options on the left. By default you are browsing the Factory Content, though you may browse the Owner/User content using the icons above.
3. Press any piece of content to choose it.
4. You can navigate between types of content at the bottom of the pop-up.

As mentioned above, all of these parameters are located within the parameter groups on the Channel Visualization and encoders. Content selection is located under Gobo for the [Source](#), [Effect 1](#), and [Effect 2](#) slots.

Manipulating the Content and Effects

Once a Source content is chosen, Effects can be stacked on top and each slot can be modified. Settings particular to each type of content are available via the menu icon in the middle pane of the Zone Parameters:



Pressing the menu icon (represented by 3 short vertical lines) allows you to see all of the available options and press the amber Select button to feature that set of parameters on the mid-section.

The left and right arrows in this section can be used to cycle through the groups of options as well.

[Effects](#) and [Masks](#) can also be used in the different Effect slots to modify the output.

[Now, let's use Animation to make our DyLOS content more moving!](#)

Masking

Masking allows you to use the different slots in DyLOS to subtract [Media](#) or [Text](#) content over the [Source](#).

Masking may be familiar to you if you work with visual media, as it is a concept that is often used there. The "mask" is a piece of media content or text that is overlaid on the content below. But instead of adding or being placed on top of the lower content, the mask is subtracted from the content it's placed upon.

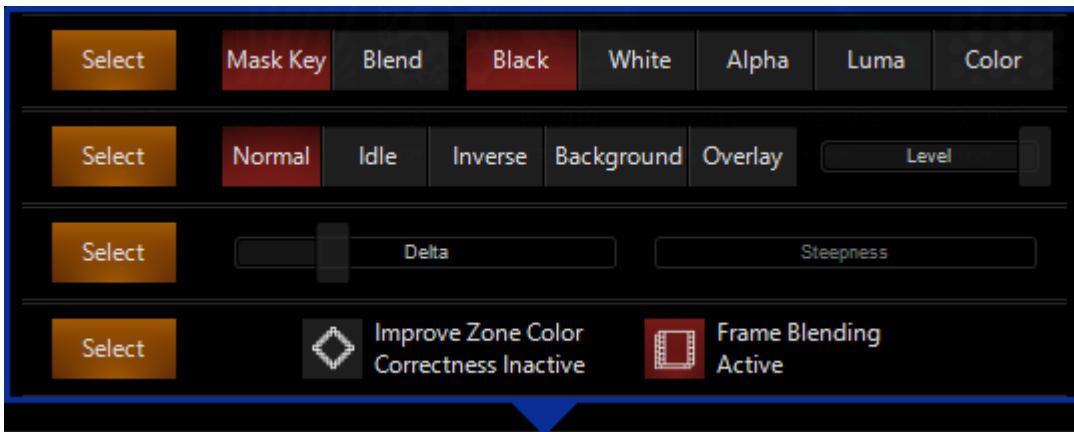
Masks can be applied to the Zone, Effect 1, and/or Effect 2. Like everything in DyLOS, we can assign and work with masks via the touchscreen GUI or via the parameters on the Channel Visualization and Encoder wheels. Both methods can be used interchangeably and adjust the same end parameters.

Mask Parameters

When a Mask is selected, there are additional parameters to configure the mask further.

First, select between the "Mask Key", and "Blend" modes, and then use the parameters available in the GUI or Beam Effects encoders to change the key type:

Mask Key

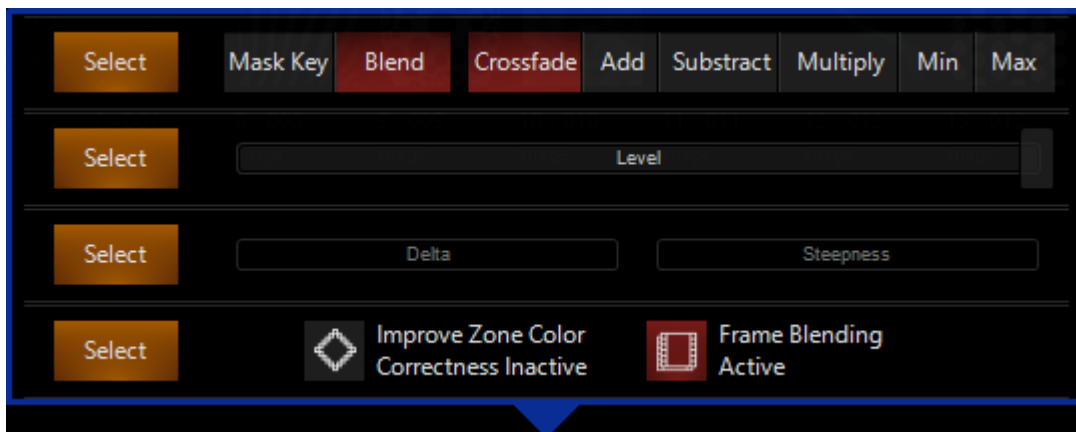


Parameter	Selection	Explanation
FX 1	Black Key	Uses the black areas of the content to determine the key.
	White Key	Uses the white areas of the content to determine the key.
	Alpha Key	Uses the alpha (transparency) areas of the content to determine the key.
	Luma Key	Adjustable key based on the brightness of portions of the content.

Programming

Parameter	Selection	Explanation
FX2	Color Key	Adjustable key based on the color in the content. When the RGB Color parameters of the same slot match a color in the content, the mask activates.
	Normal	Sets the mask to activate on top of the masked slot when the key is met with a varying level of mask saturation.
	Idle	Turns off the mask.
	Inverse	Inverts the mask. For example, if you are using "Black Key", and there is white in the image, the white will activate the mask. Includes a varying level of mask saturation.
	Background	Places the mask under the masked slot, based on the mask key. If you are masking a slot with "Black Key" selected, any black areas in the masked content will be replaced with the mask, but any non-black areas of the masked content will appear on top.
FX3	Overlay	Sets the mask on top of the base content with a varying level of mask saturation.
	Mask Key Delta	Fine control over the key width for the given key type (Normal, Inverse, Background, or Overlay)
FX4	Mask Key Steepness	For Luma and Color Keys, this control allows fine-tuning of the width of the key.

Blend Key

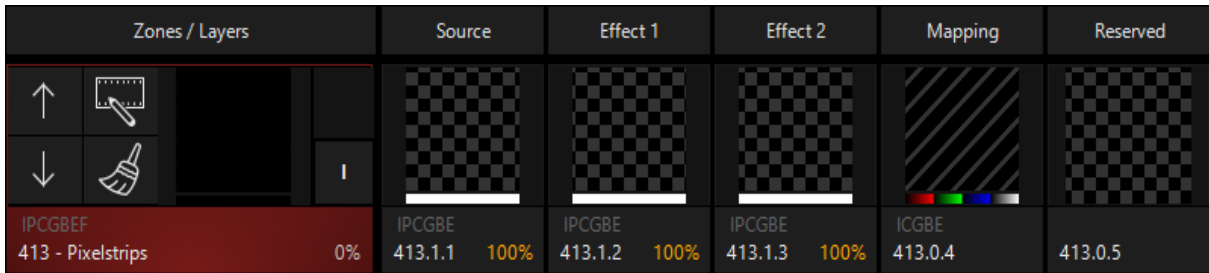


Parameter	Selection	Explanation
FX 1	Crossfade	A simple blend between the base content and the mask. A level of zero gives you only the base, a level of full gives you only the mask, and anywhere in the middle blends the two together.
	Add	Adds the mask on top of the base content anywhere there is brightness in the mask.
	Subtract	Subtracts the mask from the base content anywhere there is brightness in the mask. This blacks out areas of the base image where the full white areas of the mask subtract to fully black.
	Multiply	Overlays the base and mask image together so that the color of the base shows through the bright areas of the mask.

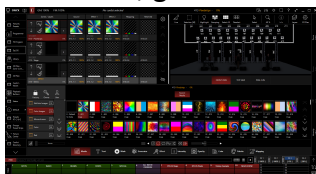
Parameter	Selection	Explanation
FX2	Min	The darkest value, between the base and the mask shows through.
	Max	The brightest value, between the base and the mask shows through.
	Mask Blend Level	The level slider controls the saturation level of the mask in each mode.

Placing and Configuring a Mask via the GUI

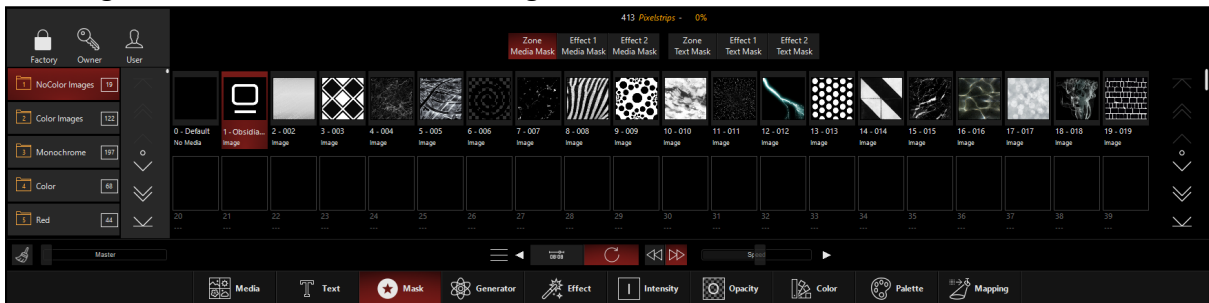
1. Select a Zone by pressing on the Master Fixture in the Zone Composer:



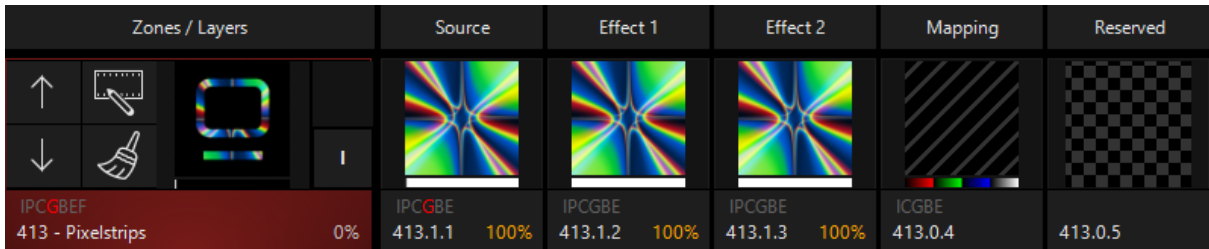
2. In the Zone Parameters (below the Zone Composer in the standard "DyLOS" view), select the Media tab, go to the 2nd folder Color Images and choose the first image:



3. Select the Mask tab, verify that you are on the "Zone Media Mask" at the top and select the 1st image in the first folder NoColor Images:

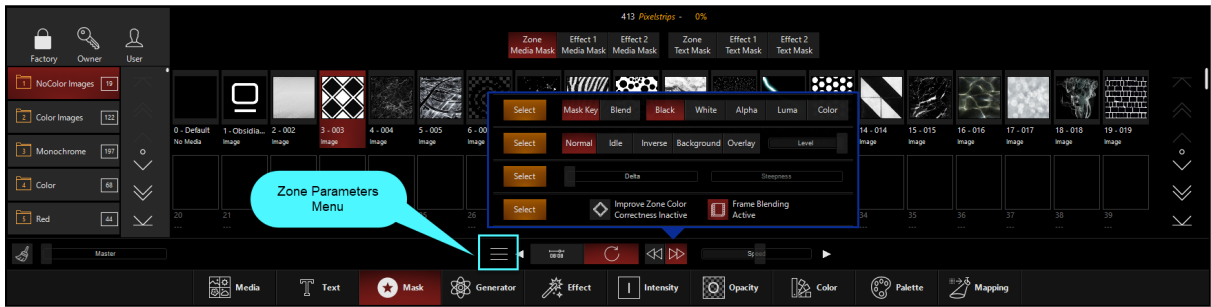


4. This will then give you this image on your Zone Composer:

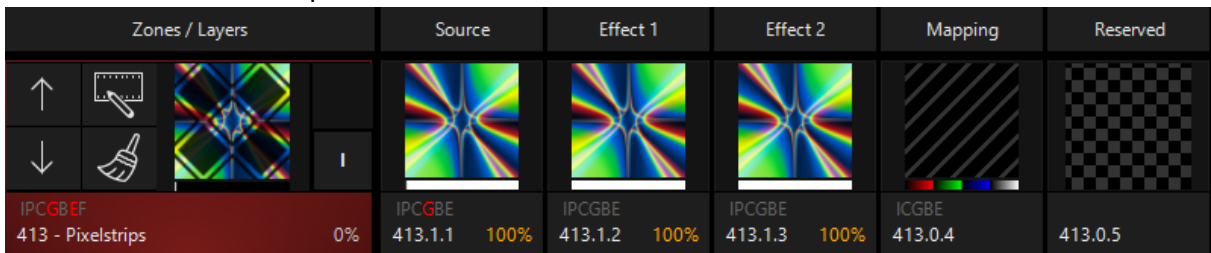


5. But masking can do so much more than this! With zero configuration and a image that contains 100% black and white colors, the default settings work well. But let's select the 3rd image in the same folder. You'll notice that while the image is selected as the "Zone Media Mask", in the Zone Composer you see no active mask. Let's pop up the configuration tools

via the "3 horizontal line" menu button near the bottom of the Zone Parameters:



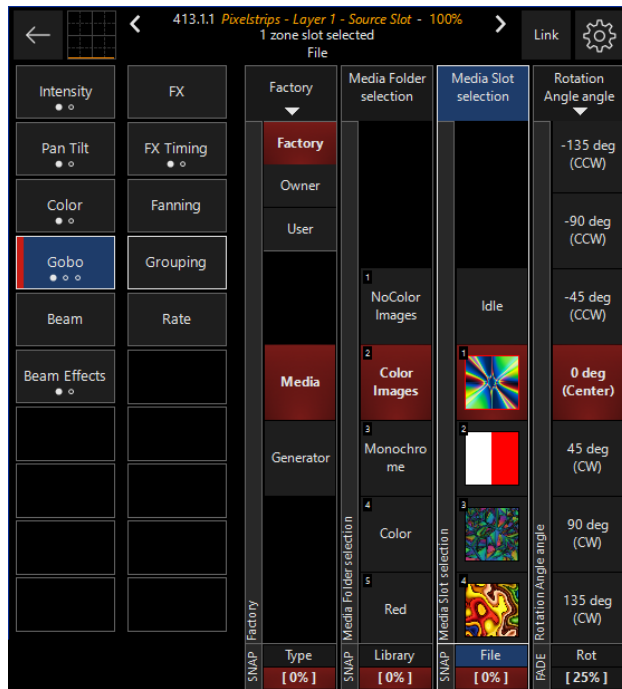
- Here we see a variety of controls that we can use to modify the mask. If you want to dock any of the sets of controls, you can do so via the amber Select button to the left of each row. For this example, simple grab the "Delta" fader and bring it up until you see the mask take effect on the Zone Composer:



With this image, the reason why it doesn't mask correctly on first selection is because the dark diamonds are not black, but dark grey. Similarly, the if we select "White" as our Mask Key, we'll find out that the light areas in this image aren't 100% white either, making it a great example image to illustrate these controls!

Placing and Configuring a Mask via the Encoders or Channel Visualizer

- Select a zone by typing the fixture number of the source and press Enter- in the demo file, you would type 413.1.1 Enter
- On the encoders/Channel Visualizer, select the Gobo parameter group, and then set the first encoder to "Media", the 2nd encoder to "2 - Color Images", the 3rd encoder to "1".



3. It should appear as so:
4. Select the main fixture by typing 413.0 Enter
5. In the Gobo parameter group, select "Mask" on encoder 1, "NoColor Images" on encoder 2, and "Slot 1" on encoder 3.
6. This will then give you this image on your Zone Composer:

Zones / Layers	Source	Effect 1	Effect 2	Mapping	Reserved
IPCGBEF 413 - Pixelstrips 0%	IPCGBE 413.1.1 100%	IPCGBE 413.1.2 100%	IPCGBE 413.1.3 100%	ICGBE 413.0.4	413.0.5

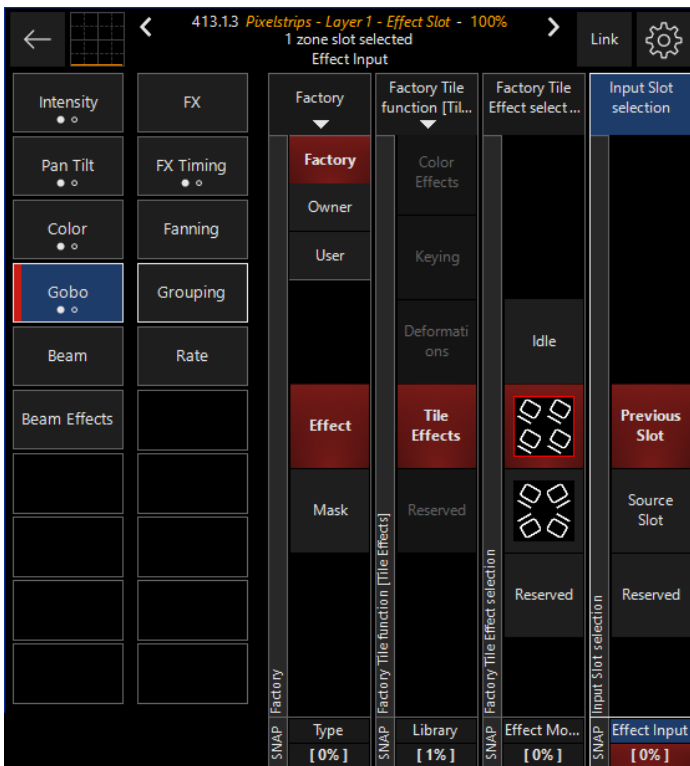
7. But masking can do so much more than this! With zero configuration and a image that contains 100% black and white colors, the default settings work well. But let's select the 3rd image on encoder 3. You'll notice that while the image is selected as the "Zone Media Mask", in the Zone Composer you see no active mask. Let's go to the Beam Effects parameter group.
8. Here we see a variety of controls that we can use to modify the mask. For this example, simple grab the "Mask Key Delta" encoder and bring it up until you see the mask take effect on the Zone Composer:

Zones / Layers	Source	Effect 1	Effect 2	Mapping	Reserved
IPCGBEF 413 - Pixelstrips 0%	IPCGBE 413.1.1 100%	IPCGBE 413.1.2 100%	IPCGBE 413.1.3 100%	ICGBE 413.0.4	413.0.5

This image doesn't mask correctly on first selection is because the dark diamonds are not black, but dark grey. Similarly, if we select "White" as our Mask Key, we'll find out that the light areas in this image aren't 100% white either, making it a great example image to illustrate these controls!

Input Slot Selection

Last, but not least, we are able to select the input slot that the Mask interacts with. It's located in the Gobo parameter group on the encoder labeled "Effect Input":



Via this encoder, you are able to choose between "Previous Slot" (Default) and "Source Slot". When on "Effect 2", it allows you to choose whether your Effect affects the previous Effect slot OR the Source slot, allowing even more visual possibilities for your mask!

Opacity

Overview

In DyLOS each pixel of a Zone canvas can be opaque or have a certain degree of transparency attached to it (alpha channel). This defines how several effects and masks are composed to the final output and how strongly the pixel mapping is overwriting the channel values of a light fixture.

How to Introduce Opacity and Transparency in DyLOS

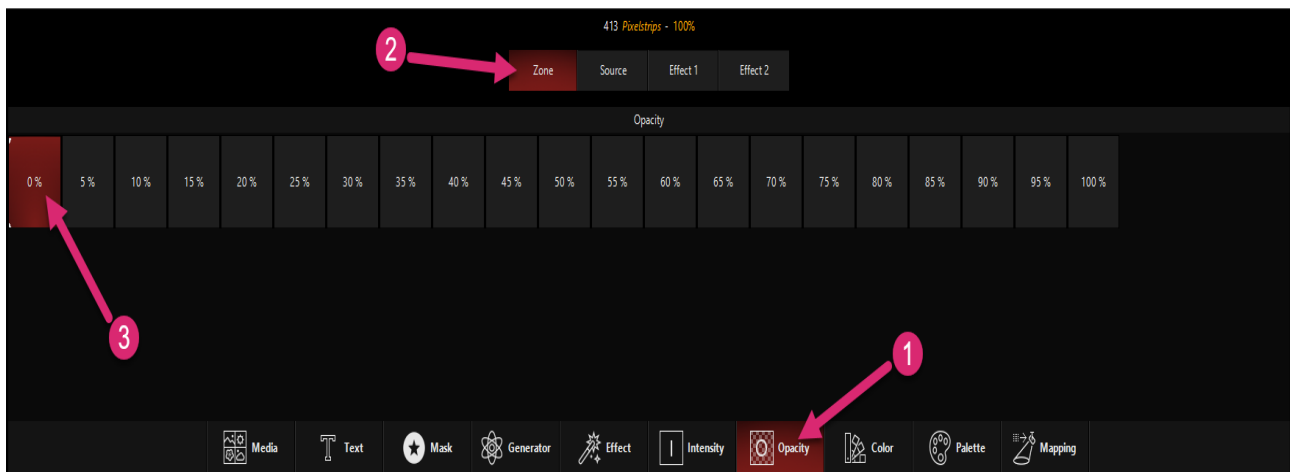
There are several different places that you can introduce transparency via the alpha channel in DyLOS:

Opacity channel (in the Zone, Source, and Effect 1 and 2 slots)

Each slot of the Zone fixture can have it's own independent Opacity value.

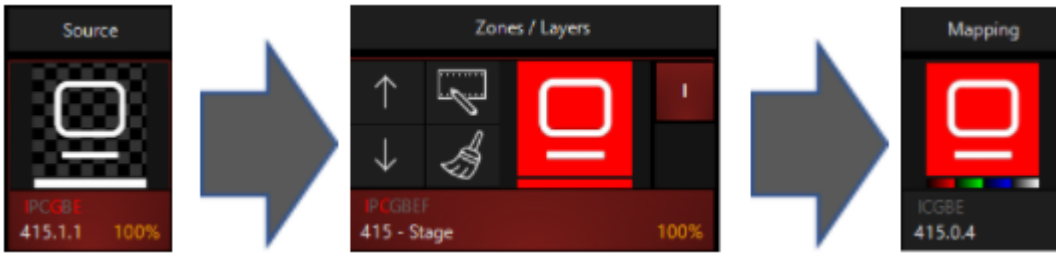
By default, the Zone Opacity is set to 100% (Opaque), and the Source, Effect 1, and Effect 2 slots are set to 0% (Transparent), but can be set anywhere between full transparency and full opacity.

As shown in the example below, the Zone is set to 0% Opacity:



When the Zone is set to 100% Opacity, any transparency in the content will be set to the background color. The default background color is black, but can be set using the Color parameters for the Master Zone fixture.

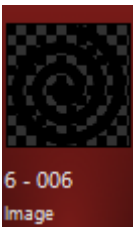
Here is an example where the Zone Opacity is set to 100%, and a red background color is selected. The transparent parts of the content are colored red as a result:



We can also see the "checkered box" pattern that represents transparency on the Source thumbnail.

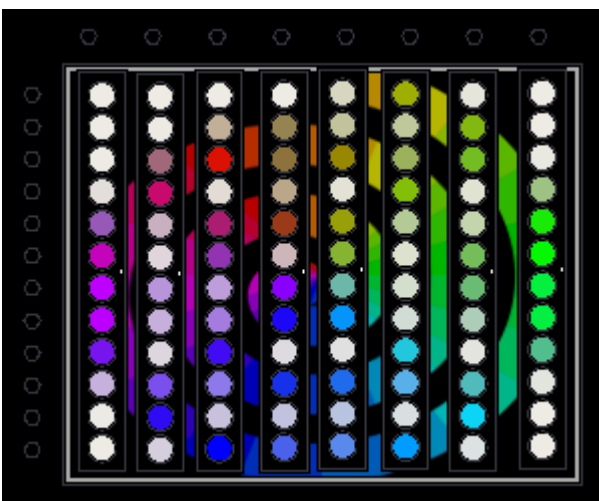
Alpha Channel of the Media File

Any Media file can contain opacity. For example, in the NoColor Images folder of the Factory content, content #6 offers transparency outside of a black-colored image:



This allows us to easily use it as a [Mask](#) over top of any Source. When we set the Opacity of the Zone to 0%, we can see how the area outside of the image is transparent and therefore the color given to the lights by the regular parameters (white in this case) shines through:

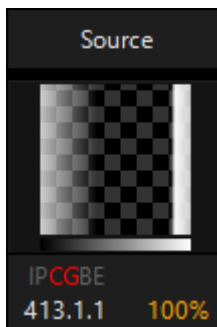
Zones / Layers	Source	Effect 1	Effect 2	Mapping	Reserved
IPCGBEF 413 - Pixelstrips 100%	IPCGBE 413.1.1 100%	IPCGBE 413.1.2 100%	IPCGBE 413.1.3 100%	ICGBE 413.0.4	413.0.5



Generators and Opacity

By default, all generators create monochrome images, in which the transparency is modulated by the generator and the color is defined by the Source slot color channels (Red, Green, Blue) or a [palette](#).

When no palette or a palette with transparency is selected when using a [Generator](#), there will be transparent space within that generator:

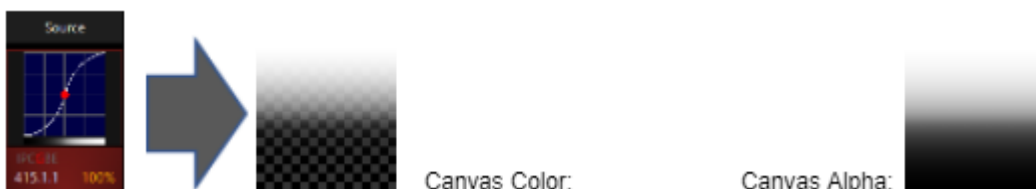


The above image has the default palette selected (no palette), while the image below features a palette with transparency in the middle of that palette:

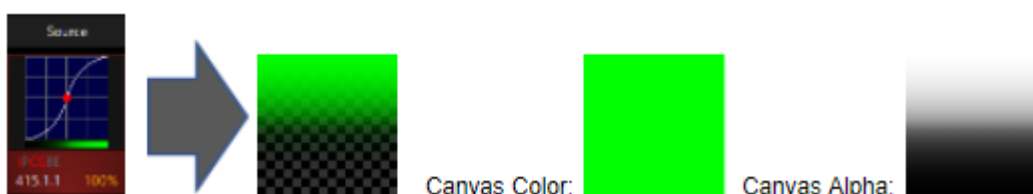


The following examples illustrate this behavior on the Continuous Gradient generator:

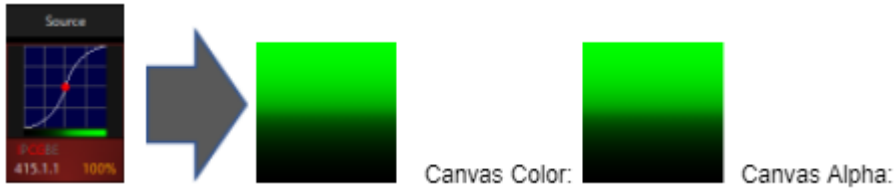
1. Default settings (Source slot Opacity 0%, slot color white):



2. Using a green color (Source slot Opacity 0%):



3. Setting the Source slot Opacity to 100%:



Some Generators also feature the ability to set an Opacity Curve. This allows for a overall opacity curve to be applied over top of the generator palette. For more, see the [Generator page](#).

Alpha Channel in the Palette

[Palettes](#) offer the ability to re-color and set alpha values to existing content. For more, see the [Palettes page](#).

Keying Filters

Keying filters in both the [Effects \("Keying" folder\)](#) and the [Masks](#) allow you to set certain parts of the content to transparent or partially transparent.

Canvas Position and Size

When transformed, the area outside of the canvas becomes transparent. For more, see "[Placing the Canvas in 3D Space](#)".

Framing

Framing is unique in regards to Opacity because any area outside of the framing shutters of the zone becomes transparent. For more, see the parameters section of the [Master Fixture page](#).

Opacity Mapping Channel

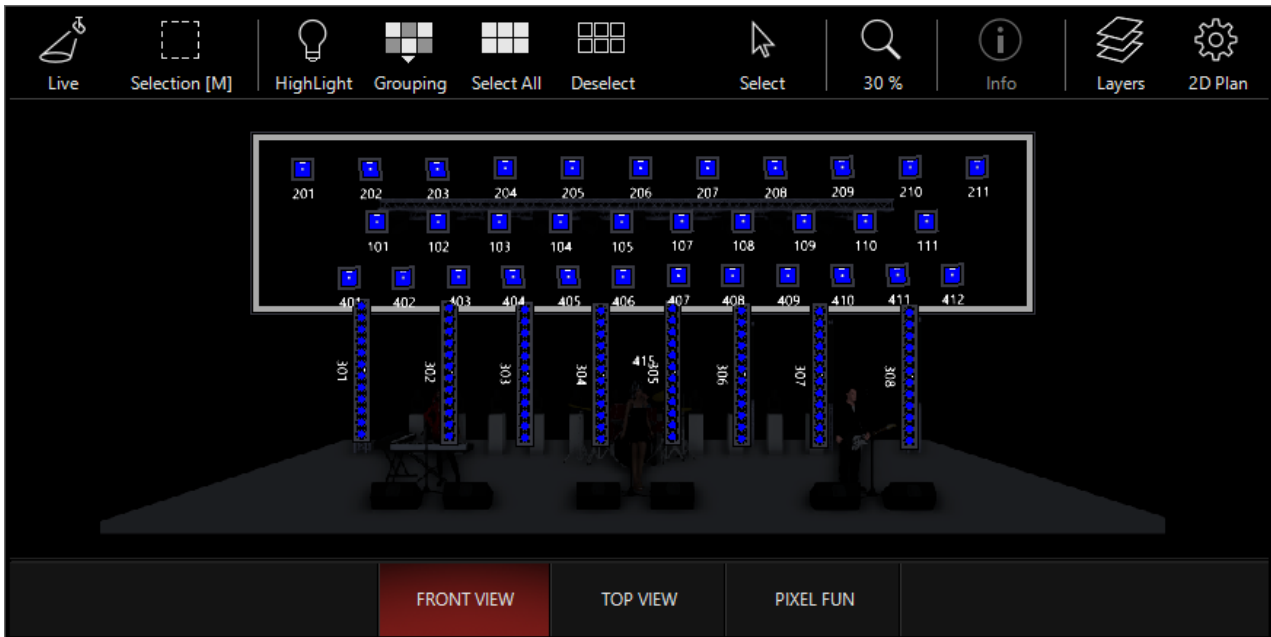
In certain [Mapping](#) modes, the level that the Opacity affects the mapping can be varied. For more, see [Mapping](#).

Opacity Example:

1) Start a cue that sets all light fixtures to blue and the intensity to full.

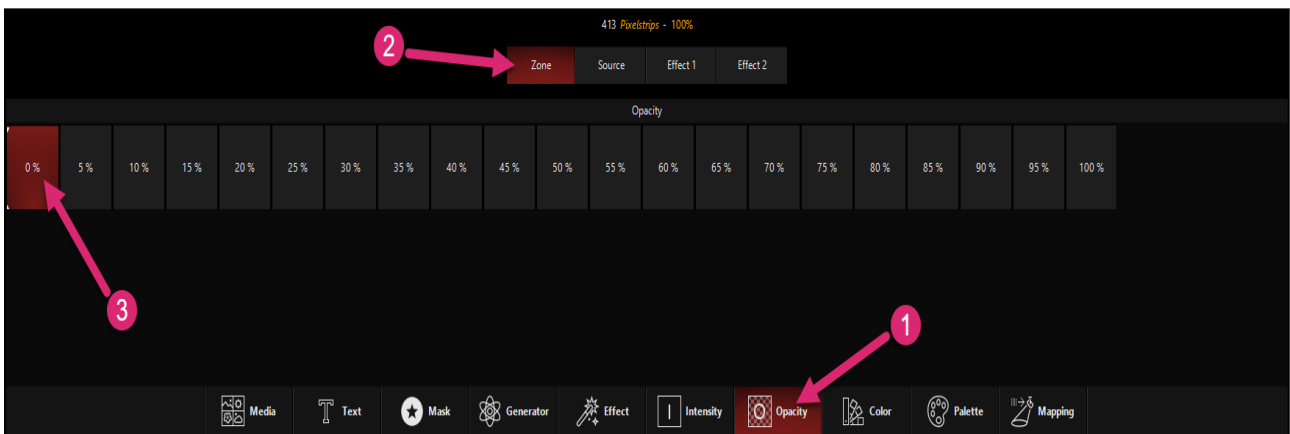
Programming

It is important not to set the fixture colors in the programmer for this test, because the programmer always has precedence over DyLOS. *They must be recorded into a cue, played back, and then cleared from the programmer.*

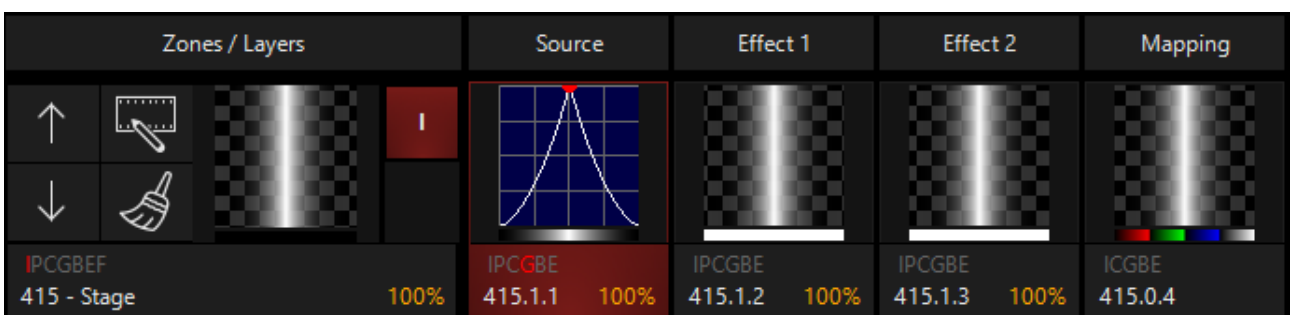


2) Run the DyLOS zone with the 2nd [Generator](#) Gradient that contains transparency (indicated by the checker pattern in the thumbnails).

3) Set the Zone Opacity channel to 0% in the Zone Parameters window, because otherwise all transparent pixels will be set to the background color, which is black by default.



You'll see this result:

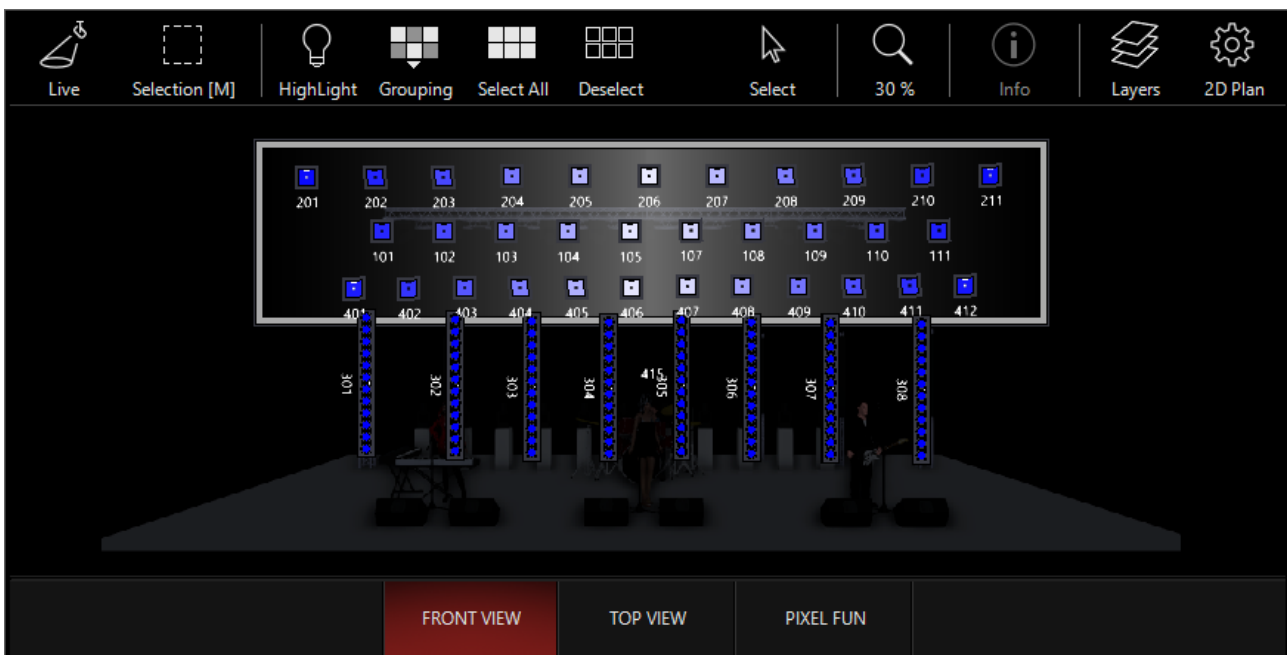


Onyx Zone						
Number	Shape Type	Library	File	Anim FX 1	Intensity	Opacity
415.0.0	-	-	-	-	65535	0

Onyx Source									
Number	Source Type	Library	File	Rot	Playback Mode	Playhead	Playback Speed	Anim FX 1	Adv Mode
415.1.1	4	0	2	24575	-	-	-	-	-

As a result, where the Zone is transparent, the fixtures keep their blue color from the cue.

Where the Zone is opaque, the fixtures take over the white color from the Zone. Imagine how you can use the concept of transparency to overlay partially on top of the look created on stage with regular color parameters!



[The last major concept we need to learn in DyLOS is Masking - click here to learn about Masking!](#)

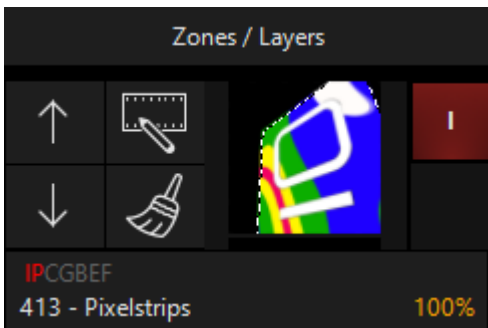
Placing the Canvas in 3D Space

By default, the DyLOS canvas is flat, centered, and full-size to the zone. But, this can be modified and the canvas can be placed in 3D within the zone's virtual space.

By using the parameter controls, we can use the Pan/Tilt parameter group to move the entire canvas of any of the Zone slots with that 3D space by modifying the Rotation, Position, and Size attributes:



When we modify these parameters, we can see the resulting 3D transformation on the thumbnail:



In this case, I applied the transformation on the Master Zone fixture, but these parameters are also available on the Source, Effect 1, and Effect 2 slots. The white dashed line around the canvas indicates the size of the canvas, which is very useful when using transparent or black backgrounds.

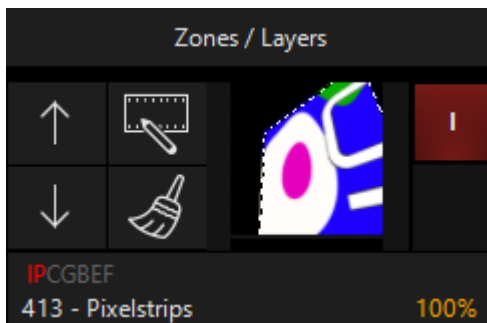
Programming

When you require precision in adjusting, it may be a good idea to turn on "Grid Mode" in the [Thumbnail Modes](#).

These parameters are transforming the entire canvas that the content is placed upon, but the content is full-size on the canvas.

You will also see similar controls on each layer under the Beam parameter group. These controls apply to the content within the canvas, separate of the entire canvas position and orientation.

When we use the parameters in the Beam parameter group, we transform the content placement on the canvas. Here, I have used the Pan Tilt transformation of the whole canvas (from the example above) and then shifted the content on that canvas to the right:



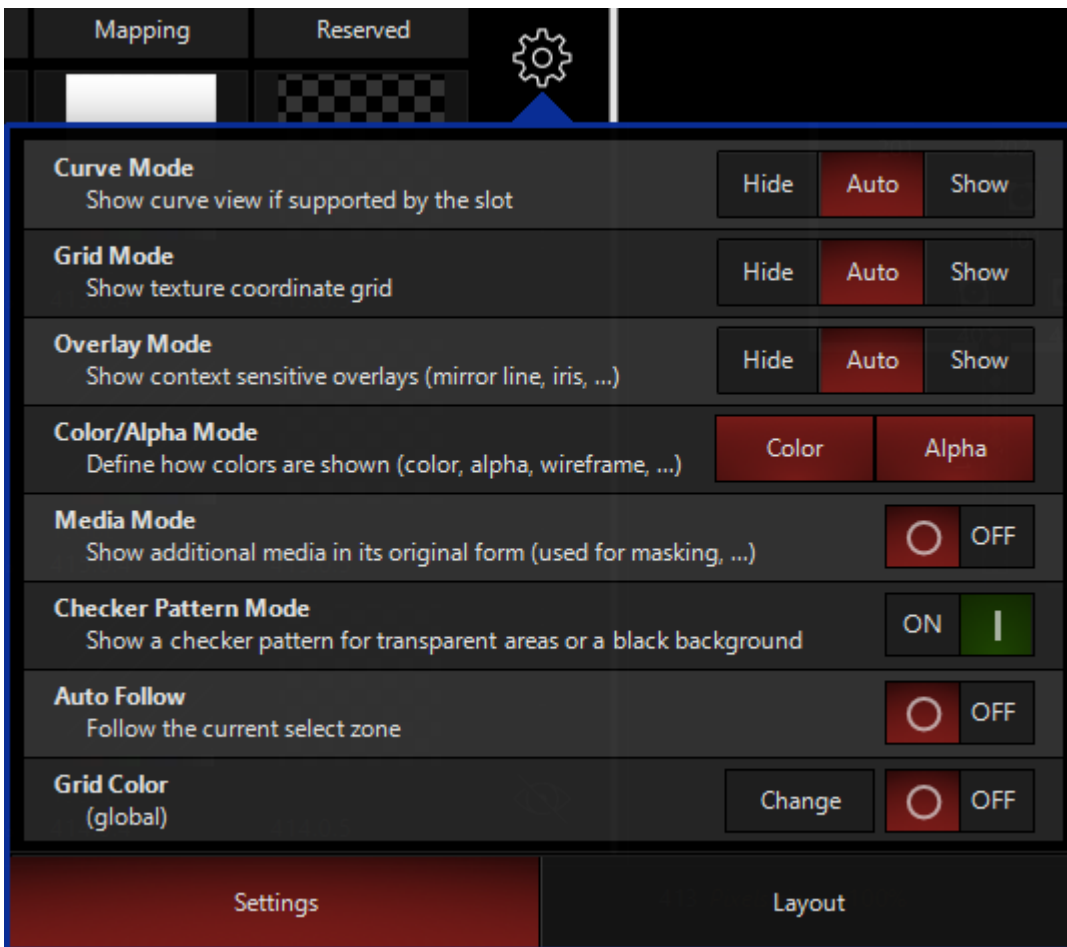
[Now, we're ready to choose and manipulate content and effects!](#)

Thumbnail Modes

The thumbnails in the [Zone Composer](#) and [Zone Output](#) windows can be customized to display different views depending on your programming needs and focus. As you learn about the [Mapping](#) modes and parameter controls, you may find the desire to change the mode of your thumbnails to focus on a particular aspect of your zone while programming.

The thumbnail modes default to "Auto", which generally shows you the different modes on 1 or more of the slots when that attribute is in use, and defaults to the output mode when not in use.

Press on the "gear" icon in the upper-right corner of the Zone Composer window to bring up the options, including the thumbnail modes:



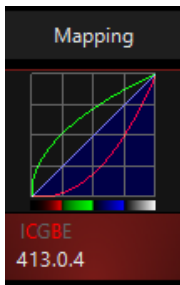
Thumbnail Mode

Explanation

Curve Mode Shows the curve of any generator or gamma adjustment.
 Example of gamma adjustment curves shown by color:

Thumbnail Mode

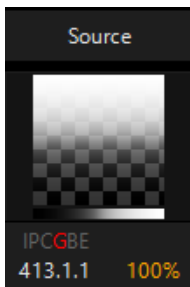
Explanation



Example of curve Auto or On for a Continuous Generator, which shows the curve's attributes:

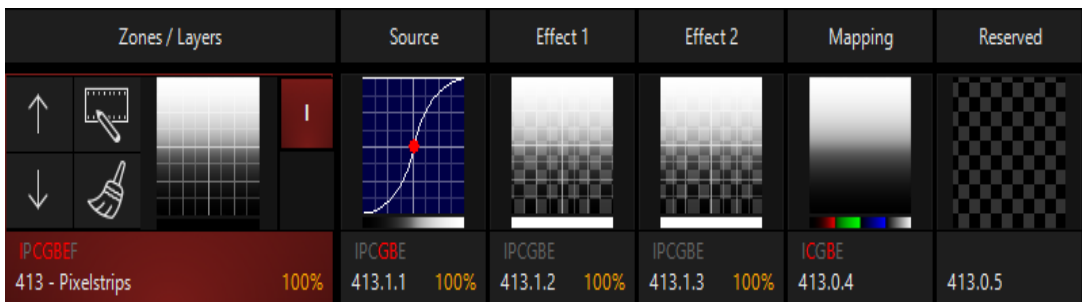


And Off for the same Continuous Generator shows the result:



The texture coordinate grid will show in AUTO when the Zoom controls are activated or if you are using a Gradient generator. Turning Grid mode ON will reveal the grid on all slots of the zones:

Grid Mode

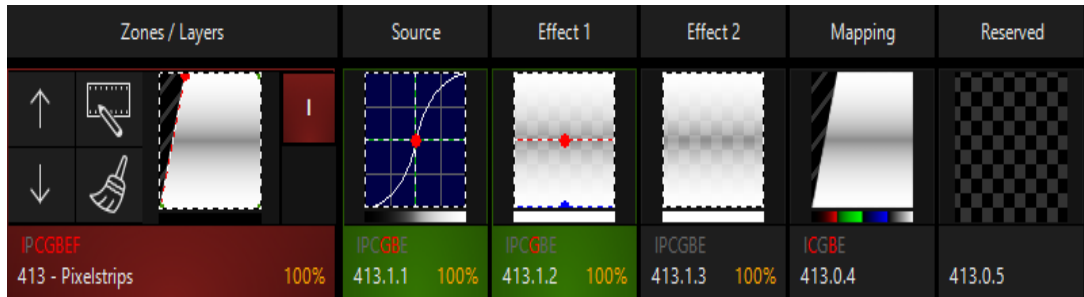


Overlay Mode Overlay mode will show the edges of the content as well as mirror lines in mirrored effects. In Auto mode, these overlay indicators will appear when the edges are

Thumbnail Mode

Explanation

modified via zoom, framing, or a mirror effect is used. When turned to ON, the overlay indicators show on all thumbnails:



Color/Alpha Modes

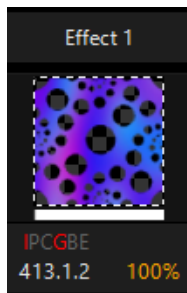
Toggles hiding color/alpha information for all zone slots.

Media mode applies to content being used as a mask. When turned ON, you will see the original media:



Media Mode

When turned OFF, which is the default, you see how the media is masking the other slots.



Checker Pattern Mode

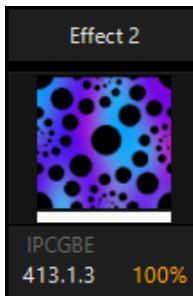
Allows you to set the checker pattern for areas that are transparent:

**Thumbnail
Mode**

Explanation



By default it is ON, as above. When turned off, any transparent (opaque) areas appear black:

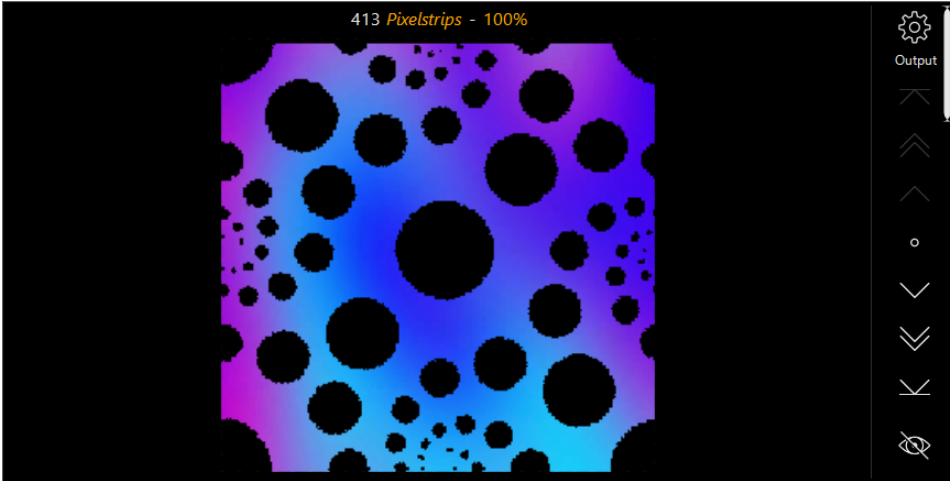


Auto Follow

When toggled ON, the view of the Zone Composer window will scroll automatically when a zone outside of view is selected.

Zone Output

The Zone Output Window is a visual representation of the output of a particular zone:



The thumbnail can be adjusted to view or hide various states (see "[Thumbnail Modes](#)"), and the navigation arrows on the right allow you to switch between different zones.

Content

Please see the topic list below to get started.

- [DyLOS Owner Lock and Security](#)
- [Effect](#)
- [Generator](#)
- [Importing and Exporting Content Packages](#)
- [Input Source](#)
- [Library](#)
- [Manual Content](#)
- [Media](#)
- [Shape](#)
- [Text](#)

DyLOS Owner Lock and Security

In DyLOS, the Owner category of content is locked by a six-digit PIN and useable on any systems licensed LIVE (See [ONYX Licensing](#) for more details on LIVE and FREE mode).

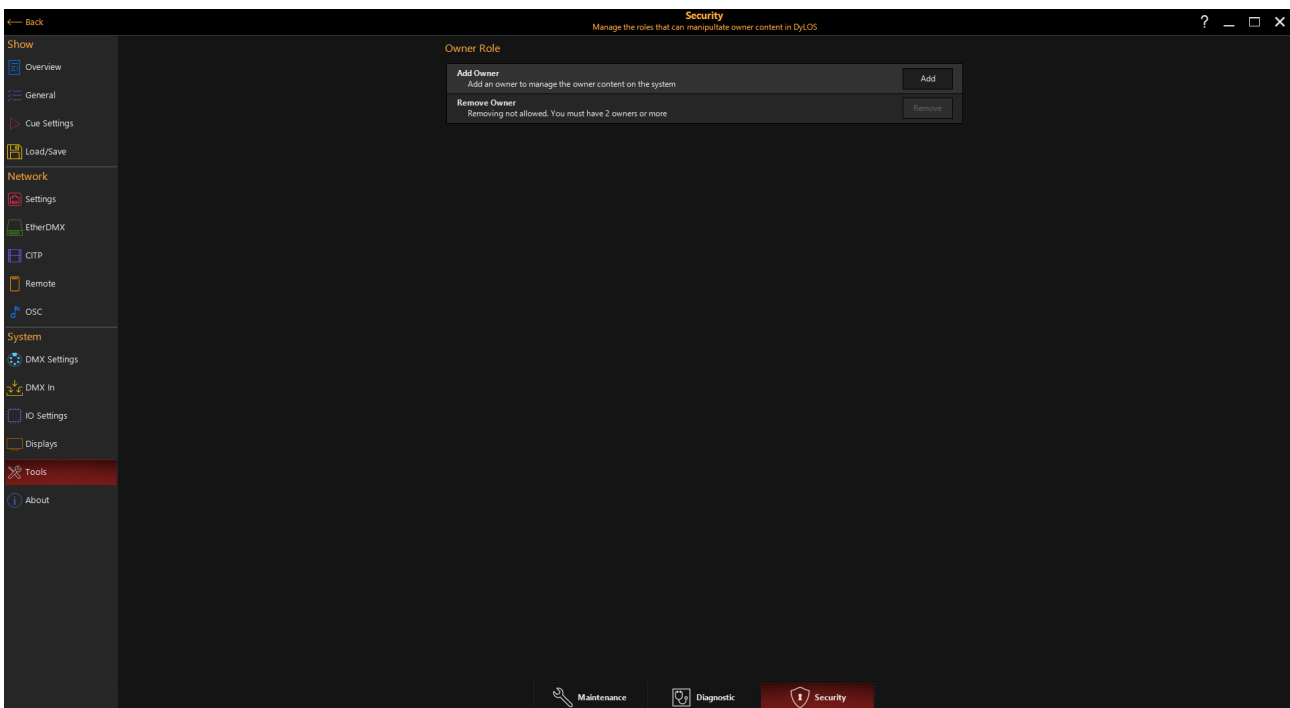
DyLOS Owner Setup

Before you import any Owner content into DyLOS, you need to first setup an owner role. Multiple owner roles can be created, and below we will show you how to delete owners when needed.

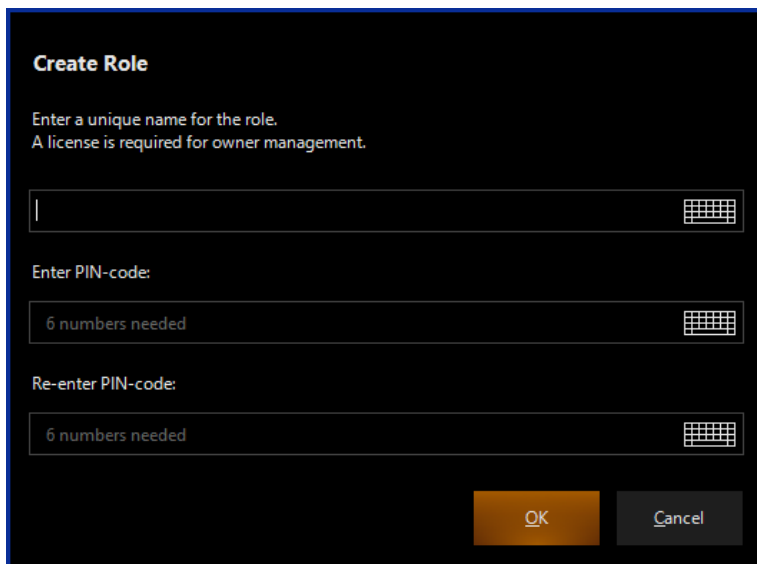
Press ONYX in the upper left corner of the main display, then Menu:



Now, navigate to Tools on the left sidebar, and Security on the bottom navigation:



Now, press Add Owner. You'll now be able to add a owner name, and create and confirm a 6-digit PIN-code:



Create Role

Enter a unique name for the role.
A license is required for owner management.

Enter PIN-code:
6 numbers needed

Re-enter PIN-code:
6 numbers needed

OK Cancel

Press OK, and your Owner role is created. You may now use the Owner section of DyLOS. Importing, deleting and managing content works identically to User content with the exception of entering your PIN-code to activate your access once per show load.

DyLOS Owner Removal

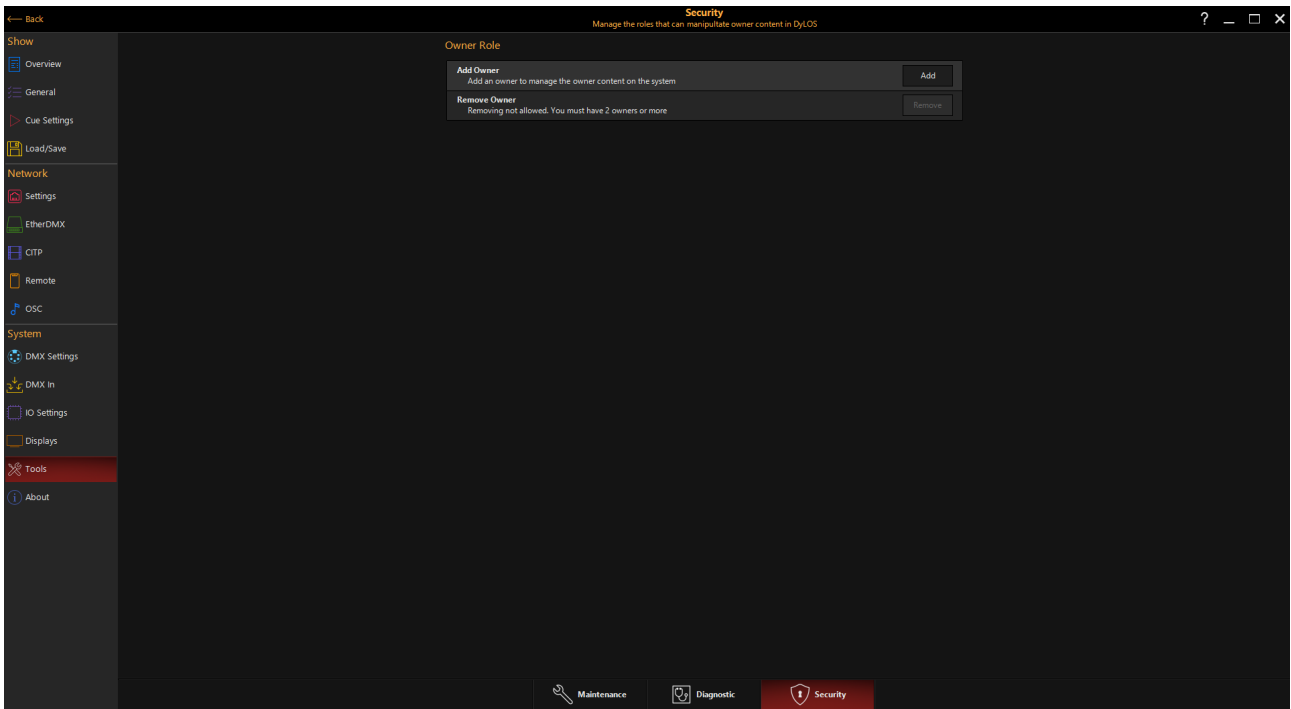
Multiple owners may be created, and when you create a 2nd owner, the option of Remove Owner will unlock.

Just like creating owners, you MUST be licensed in LIVE mode to remove owners.

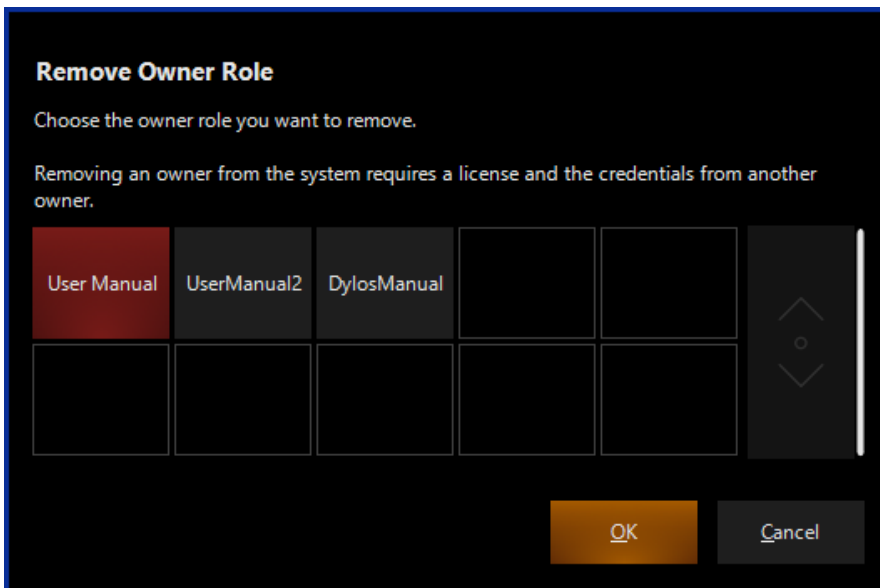
Press ONYX in the upper left corner of the main display, then Menu:



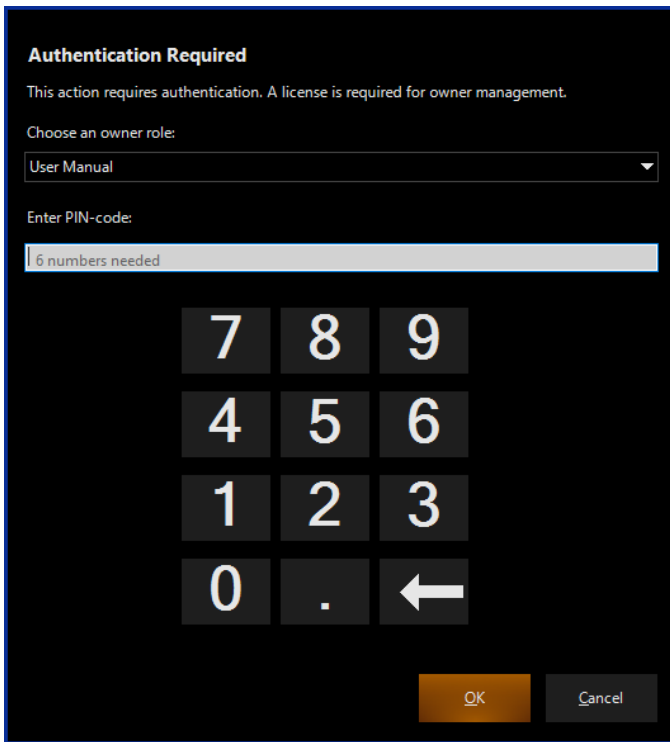
Now, navigate to Tools on the left sidebar, and Security on the bottom navigation:



Press Remove Owner, and select the owner you wish to remove from the pop-up:



Press OK, and you'll be prompted to choose an owner and enter your PIN-code:



The owner is now removed.




Effect

Within the Factory Content library are a variety of customizable effects. See below for a description of each Effect and the controls it features, found in the Beam Effects parameter group.


See [Effects 1 and 2](#) for more information on how Effects fit into the DyLOS workflow.

Effects Types and Controls:



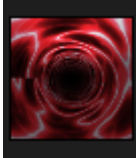
Color Effects


Thumbnail	Name	Explanation
	2-Color Gradient	<ul style="list-style-type: none"> This effect gives you (2) color swatches to define RGB colors for your gradient. That gradient is then mapped to the affected content by first converting that content to grayscale, then applying the colors. Opacity Controls for the Black and White sides of the gradient allow you to set variable transparency for the 2 sides of the gradient.
	3-Color Gradient	<ul style="list-style-type: none"> This effect gives you (3) color swatches to define RGB colors for your gradient. That gradient is then mapped to the affected content by first converting that content to grayscale, then applying the colors. Opacity Controls for the Black, White, and Gray portions of the gradient allow you to set variable transparency. "Position Gray" allows you to move the gray point between black and white.
	Background Color	Using the Color parameters to define a background color which is then applied to any transparent areas of the effect slot.

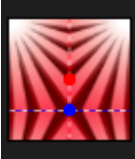
Keying

Thumbnail	Name	Explanation
	Color Key	<ul style="list-style-type: none"> Using the Color parameters, this effect filters out the selected color. Delta control sets the width of the color sensitivity. A higher Delta filters out more color. Steepness determines the rate out cutoff for the delta. A higher Steepness tends to give a more precise, but also sharper cutoff to the filtered color range.



Deformations

Thumbnail	Name	Explanation
	Lines	<ul style="list-style-type: none"> Creates a set of circular reflections from the center of the canvas. Number of repeats on the X and Y planes are customizable. The X plane is around the rings, and the Y plane is the number of rings. Adjustable radius size for the overall effect. Rotation: Indexing or Animated spin of the content. Animation: Indexing or Animated zooming/tunnel effect. Orientation: Indexing or Animated spin of the effect.
	Mirrored Lines	<ul style="list-style-type: none"> Creates a set of circular reflections from the center of the canvas which are also mirrored. Number of repeats on the X and Y planes are customizable. The X plane is around the rings, and the Y plane is the number of rings. Adjustable radius size for the overall effect. Rotation: Indexing or Animated spin of the content. Animation: Indexing or Animated zooming/tunnel effect. Orientation: Indexing or Animated spin of the effect.
	Tunnel	<ul style="list-style-type: none"> Creates a 3-D tunnel out of the content affected. Number of repeats on the X and Y planes are customizable. The X plane is around the rings, and the Y plane is the amount of repeats "deep". Rotation: Indexing or Animated spin of the content. Animation: Indexing or Animated travel within the never-ending tunnel.

Thumbnail	Name	Explanation
	Mirrored Tunnel	<ul style="list-style-type: none"> • Creates a 3-D tunnel out of the content affected, with mirroring of the content on the Y plane. • Number of repeats on the X and Y planes are customizable. The X plane is around the rings, and the Y plane is the amount of repeats "deep". • Rotation: Indexing or Animated spin of the content. • Animation: Indexing or Animated travel within the never-ending tunnel.

	Mirror	<ul style="list-style-type: none"> • Creates a Mirror effect across the mirror lines. There are (2) mirror lines available. • X and Y sliders for each mirror line determine it's position. • Rotation Angle for both mirror lines is indexing or animated.
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Tile Effects

Thumbnail	Name	Explanation
	Tiles	<ul style="list-style-type: none"> • Creates a repeated pattern of the content affected. • X and Y repetition allows you to set the number of repeats per axis. • Horizontal and Vertical index and animation allows you to set adjust the exact placement of the tiles. • Rotation angle is Indexing or Animated.
	Mirrored Tiles	<ul style="list-style-type: none"> • Creates a repeated pattern of the content affected, with a mirror across the X and Y axis. • X and Y repetition allows you to set the number of repeats per axis. • Horizontal and Vertical index and animation allows you to set adjust the exact placement of the tiles. • Rotation angle is Indexing or Animated.

Generator

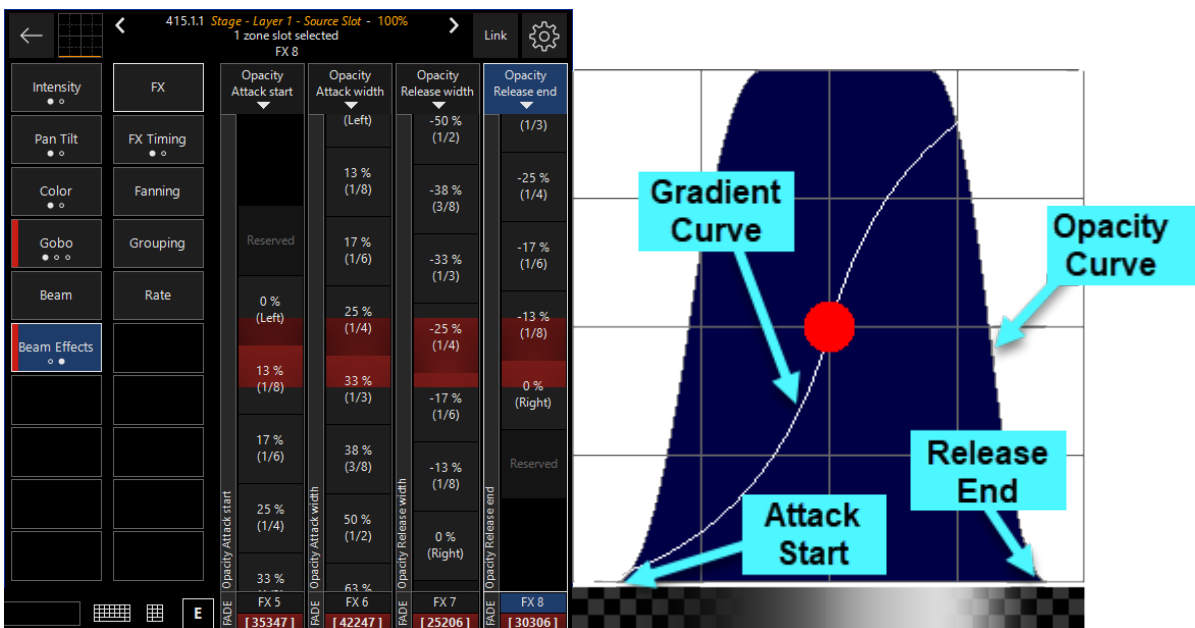
The Generator source allows you to dynamically create visual content which is generated live by ONYX.

Generator effects can be found in the Library, the Library pop-up in the Zone Composer, as well as via the encoders.

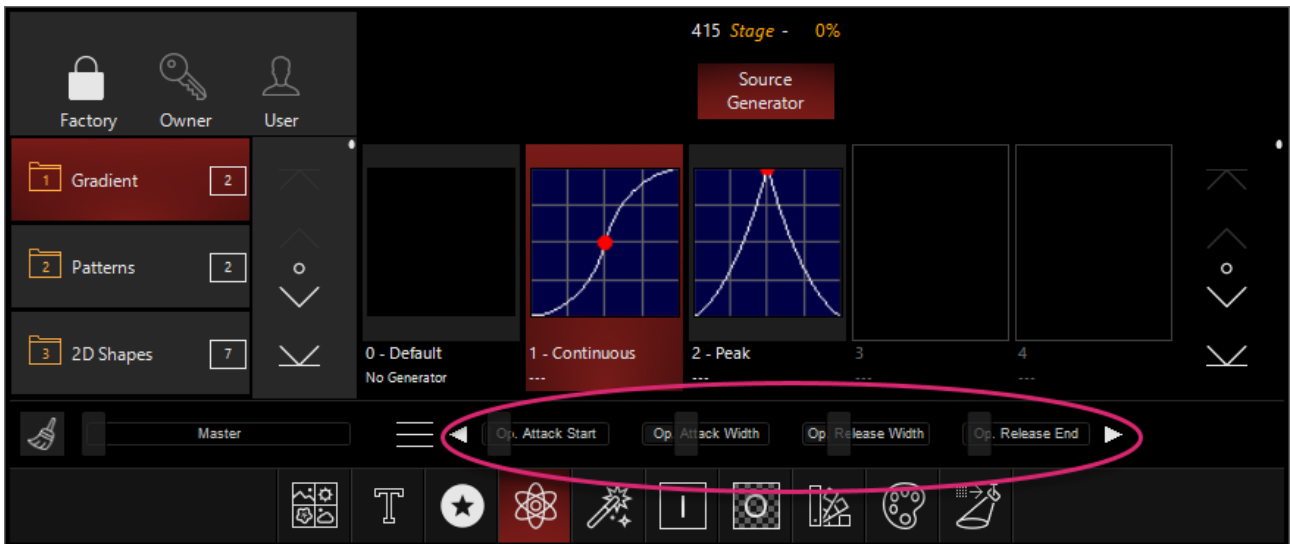
At this time, Generators are only available within the Factory content.

Opacity Curves

Some generators support an Opacity Curve (Beam Effects FX encoders 5-8), which allows to generate **additional** transparency information on top of the generators color output. The opacity curve is shown as a grey line in the [thumbnail](#), whereas the color curve is shown as a white line.



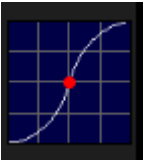
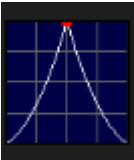
These controls are also available on the Generator tab of the [Zone Parameters](#):



Types and Controls for Generators

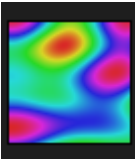

Generators each feature unique parameters for adjusting their output. See below for each generator's specific features, found in the Beam Effects parameter group:

Gradient



Thumbnail	Name	Explanation
	Continuous	<p>The continuous generator features a soft gradient with a customizable center point and curvature.</p> <ul style="list-style-type: none"> • Curve Point X: The horizontal location of the curve point on the graph. • Curve Point Y: The vertical location of the curve point on the graph. • Curve Curvature: Sets the softness of the gradient. Lower values create a more linear curve. • Curve Steepness: Sets the steepness of the curvature. 45 degrees (the center) flattens the curve, moving to 0 or 90 degrees • Opacity Curve: See the section above for more info.
	Peak	<p>The peak generator features a centered gradient with a customizable center point and curvature.</p> <ul style="list-style-type: none"> • Curve Point X: The horizontal location of the curve point on the graph. • Curve Peak Width: Sets the overall width of the curve.

Thumbnail	Name	Explanation
		<ul style="list-style-type: none">• Curve Curvature: Sets the softness of the gradient. Lower values create a more linear curve.• Curve Steepness: Sets the steepness of the curvature. Lower values create a convex curve, higher values create a concave curve.• Opacity Curve: See the section above for more info.

Patterns

Thumbnail	Name	Explanation
	Plasma	<p>The plasma generator creates a moving plasma.</p> <ul style="list-style-type: none">• Number of Colors: Sets the amount of color variation across the generator. Choosing a low number limits the number of colors, which can work really well with a custom palette.
	Voronoi	<p>Voronoi creates an stained-glass pattern that moves and morphs.</p> <ul style="list-style-type: none">• Border Size: Sets the thickness of the border, which is opaque.• Number of Colors: Sets the amount of color variation across the generator. Choosing a low number limits the number of colors, which can work really well with a custom palette.

2D Shapes

Thumbnail	Name	Explanation
	Bouncing Balls	<p>Bouncing Balls creates a single or series of balls that bounce from the borders of the canvas with an opaque background.</p> <ul style="list-style-type: none">• Ball Radius: Set the size of the balls.• Number of Balls: Sets the quantity of balls.• Glow: Sets a glowing radius which softens the edge of the balls and adds a bit of a highlight.
	Bouncing 2D Shapes	<p>Bouncing 2D Shapes creates geometric shapes which bounce off the walls of the canvas.</p> <ul style="list-style-type: none">• Shape Corners: Number of corners and therefore sets the type of shape.

Thumbnail

Name

Explanation

- Number of Shapes: Sets the number of objects.
- Glow: Sets a glowing radius which softens the edge of the balls and adds a bit of a highlight.

Floweroid creates a flower-type shape.



Floweroid

- Inner Radius: Sets the radius where the petals come together.
- Outer Radius: Set the radius of where the petals extend to.
- Number of Petals: Sets the number of petals.
- Glow: Sets a glowing radius which softens the edge of the balls and adds a bit of a highlight.
- Opacity Curve: See the section above for more info.



Metaballs

Creates bouncing balls made of a clingy lava goo. Looks surprisingly like meatballs with the correct settings.

- Viscosity: Thickness of the "goo". Higher values are thicker and more spread out.
- Number of balls: Quantity of the Metaballs.

Sets a series of tunneling squares that cycle.



Matrix Squares

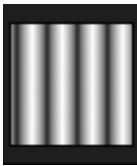
- Aspect Ratio: Defaulting to "Square", lowering this control creates tall rectangles, raising it creates wider rectangles.
- Repetition: Control for the total number of repeated patterns in the canvas.
- Number Of Colors: Sets the amount of color variation across the generator. Choosing a low number limits the number of colors, which can work really well with a custom [palette](#).
- Exponential Curve: Sets the curve type as to how the color palette or grayscale is distributed along the shape.
- Opacity Curve: See the section above for more info.

Sets a series of tunneling ellipses that cycle.


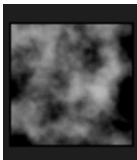


Matrix Ellipses

- Aspect Ratio: Defaulting to "Circle", lowering this control creates tall ellipses, raising it creates wider ellipses.
- Repetition: Control for the total number of repeated patterns in the canvas.
- Number Of Colors: Sets the amount of color variation across the generator. Choosing a low number limits the number of colors, which can work really well with a custom [palette](#).
- Peak Curve: Sets the curve type as to how the color palette or gray scale is distributed along the shape.
- Opacity Curve: See the section above for more info.

Thumbnail	Name	Explanation
	Matrix Lines	<p>Sets a series of tunneling squares that cycle.</p> <ul style="list-style-type: none"> • Fill Ratio: Sets the percent of area that the generator fills with in the canvas. • Repetition: Sets the number of times the lines pattern repeats within the same frame. • Number Of Colors: Sets the amount of color variation across the generator. Choosing a low number limits the number of colors, which can work really well with a custom palette. • Exponential Curve: Sets the curve type as to how the color palette or grayscale is distributed along the shape. • Opacity Curve: See the section above for more info.

Nature

Thumbnail	Name	Explanation
	Fire	<p>Creates a flame-like effect.</p> <ul style="list-style-type: none"> • Power: Sets the intensity of the fire, from low to high. • Number Of Colors: Sets the amount of color variation across the generator. Choosing a low number limits the number of colors, which can work really well with a custom palette.
	Steam	<p>Creates a cloud-field that moves across the canvas.</p> <ul style="list-style-type: none"> • Number Of Colors: Sets the amount of color variation across the generator. Choosing a low number limits the number of colors, which can work really well with a custom palette. • Density: Sets the thickness of the fog clouds. Zero is steamless, full is a thick fog.

Importing and Exporting Library Content Packages

Because of the sheer size of media, the ONYX installer does not come pre-loaded with any library content.

However, downloading and importing the Factory content is quite simple, and any Owner or User content can also be imported and exported for use on other consoles.

Warning - Importing content from an exported file will restore the content to the exact slots it came from.

It will overwrite any content currently in a slot, but content in slots unused by the imported file will be untouched.

Downloading and Importing the Factory Content

ONYX and the DyLOS pixel composer has a generous factory content library that you can import into ONYX. It features almost 1000 pieces of royalty-free content you may use in your shows!

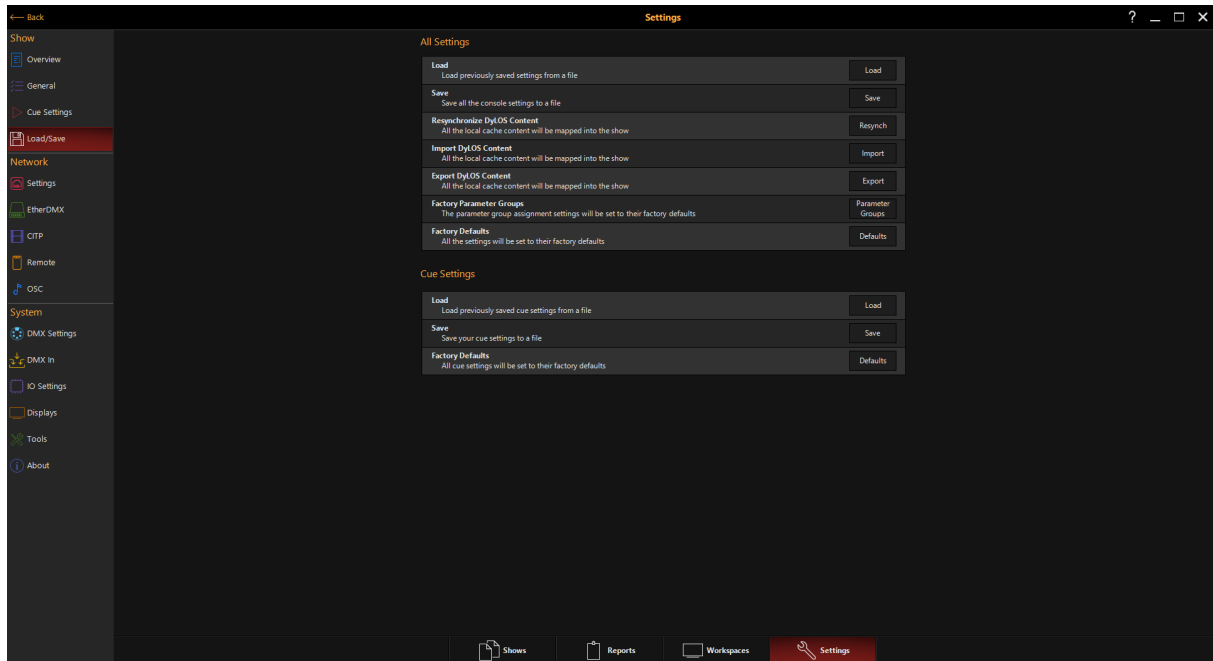
Once imported, this factory library will be accessible to any show loaded on the particular console or PC.

Importing the Factory Content

1. [Get the latest Factory Content package from the Downloads Page](#)
2. Press ONYX in the upper left-hand corner and then Menu to enter the main menu.



3. Navigate to Load/Save on the right sidebar and Settings from the bottom navigation:



4. Press Import DyLOS Content, and select the content package that you downloaded from the file explorer that appears.
5. The Factory Content will be imported. Enjoy creating great experiences with it!

Importing and Exporting Owner/User Content Packages

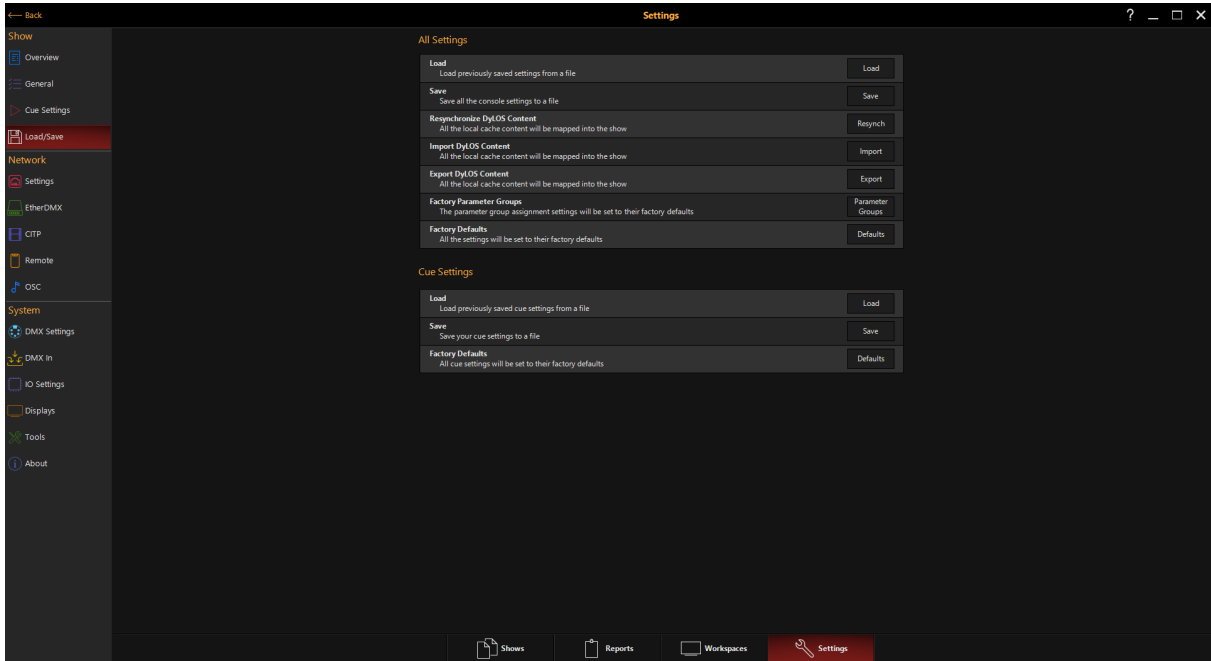
To import custom media, please see: [Importing Custom User/Owner Media Into DyLOS](#)

Importing

1. Press ONYX in the upper left-hand corner and then Menu to enter the main menu.



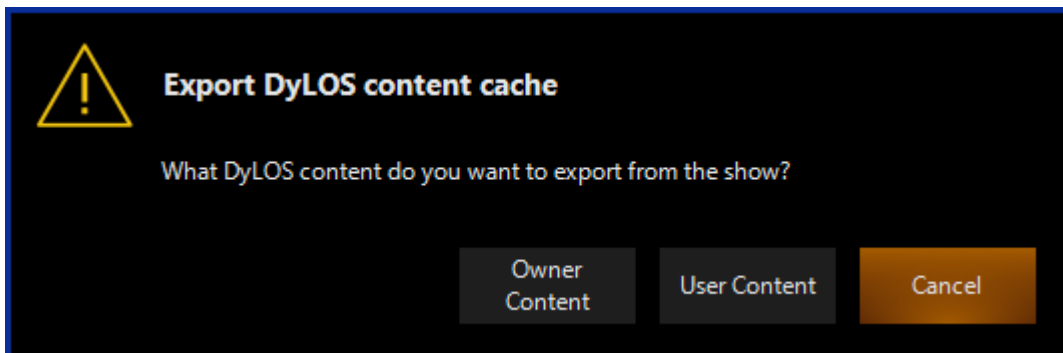
2. Navigate to Load/Save on the right sidebar and Settings from the bottom navigation:



3. **To Import**, Press Import DyLOS Content and select the content package from the file explorer that appears.
 - If you are importing Owner content (content exported from an Owner library), you must enter your PIN code to continue.
 - This PIN code must match the PIN code used to export the content.

Exporting

1. **To Export**, Press Export DyLOS Content.
 - Then, you will choose from the popup whether to export Owner Content or User Content:



- If you are exporting Owner Content, you must enter your PIN code before it continues.
 - Owner content can only be exported with a valid key attached. If your system is not in LIVE mode with an active key, the process will fail with an error.

After importing User content, it is always a good idea to do a "Save with Content" from the [Quick Menu](#) once you have imported it. Factory content is saved at the system level and is not saved to individual show files.

Input Source

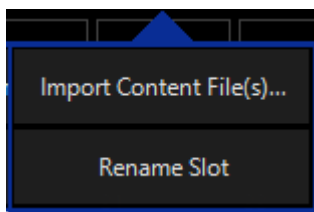
Inside DyLOS, media is video or image file content that is able to be played on your [Zones](#).

Media is added, renamed and organized via the [Library](#) window.

Adding Media

From within the [Library](#) or the [Zone Composer](#) window:

To add media, simply hold EDIT and press any empty media slot, then choose Import Media File(s)... from the pop-up:



A file explorer will appear, and you can select your content. Single or multiple pieces of media may be selected at once. If multiple pieces of media are selected, they will be added in alphabetical order to the next available slots, starting with the slot which you pressed.

You may also "drag and drop" media into empty slots if you are on a PC.

When the media is added, you will see it load into the interface as it is automatically optimized to run smoothly in ONYX. If you have added a lot of media at once, this may take a few minutes. *This will vary based on your system's specifications.*

Organizing and Renaming Media

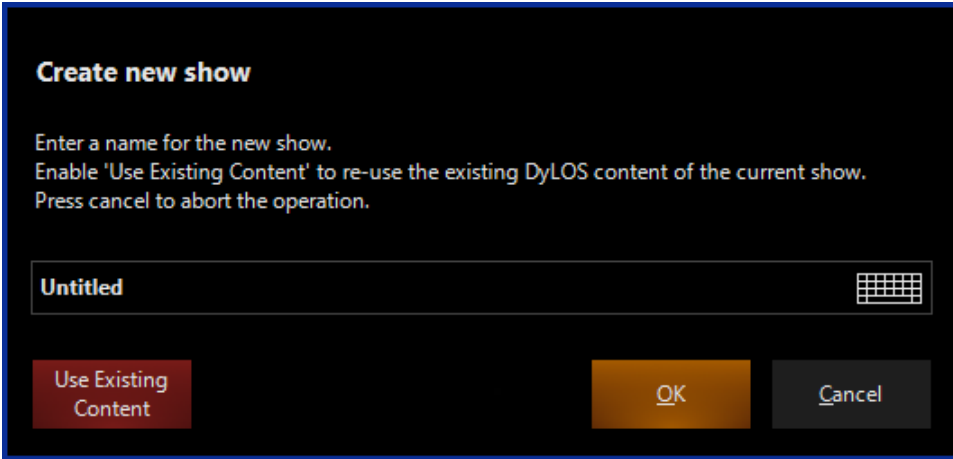
Media may be organized into folders, as well as moved, copied, deleted, and renamed in the same manner as all other content in DyLOS. [See the Library page for instructions.](#)

Media Requirements

DyLOS uses the FFMPEG library to import media. This list online shows all supported file types: http://ffmpeg.org/general.html#Supported-File-Formats_002c-Codects-or-Features

Using Existing Media

When creating a new show, you will have the option to make use of all the media from the current active show. When selected by pressing the button so that it is red, all media will be imported into your new show:

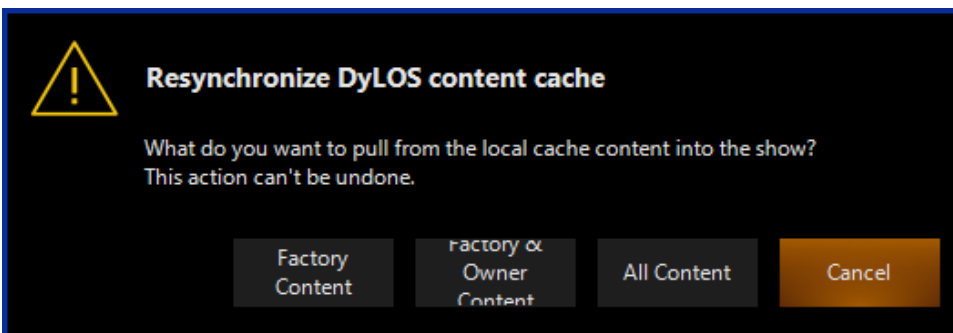


Resynchronizing Media

When you open a show file that was created in a previous version of ONYX, you may desire to import the Factory and Owner media so that you can use the most up-to-date media, generators and effects that are packaged with DyLOS.

To do this, simply enter the Quick Menu by pressing the ONYXkey in the upper left corner to enter the menu, then Menu to enter the main menu. On the left sidebar, press Load/Save and navigate to Settings from the bottom navigation.

Now you will see the option to "Resynchronize DyLOS Media". Press Resynch and you will be give the options to pull in the Factory Media, Factory & Owner Media, All Media, or you can cancel the command:



The process will bring up a progress bar, and when it is complete you will be able to see the media in DyLOS.

Library

The content library is where you are able to import and manage your content:

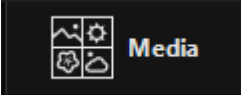
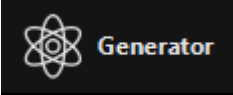

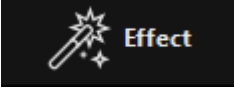



Types of Content:

Media, Generator, Text, Effect, Shape

DyLOS interacts with a variety of other sources which are available via the icons at the bottom of the Library Window - not just video or still media!

There is a brief description of each type of content below, with links to the full pages available via the navigation in this manual.

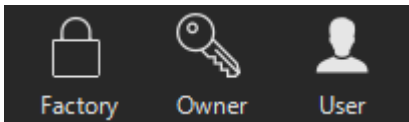
Item	Color	Explanation
	Media	Video and still image content.
	Generator	Input source which is generated by ONYX live as it is played.
	Text	Generated text which can be customized for playback.
	Effect	Filters to use in the Effects 1 and 2 slots on top of the Source.

Item	Color	Explanation
		Shape Shape of the zone.

Adding Content

Media and Text can be added in the User and Owner categories - visit the page for each type of content linked above to learn how to add content to the particular library category.

Categories of Content: Factory, Owner, User



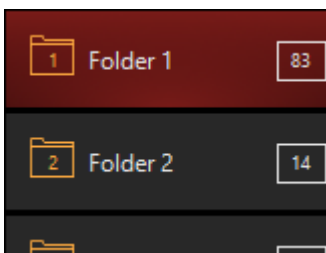
Content is kept in 3 categories:

- The **Factory** content is non-editable and features media included with ONYX by the Obsidian Control Systems team. [It's so large that we cannot bundle it with the installer, but you can download and import it here.](#)
- **Owner** content that you have imported that is pin-lockable and is saved on the console that you are working on. See more information on Owner content on [DyLOS Owner Lock and Security](#).
- **User** content is content that you have imported. It is completely editable and able to be organized as needed. The content in the user category is saved with your show file when you "Save with Content" via the save shortcut or the [Quick Menu](#).

All types of content can be imported, Owner and User content can be exported. See [Importing and Exporting Content](#) for more.

Folders

Content can be placed into folders for organized access within the [Zone Composer](#) window and [Channel Visualization](#). The folders are located on the left of the Library window:



Programming

Folders are simply a way to stay organized and to access greater than 255 pieces of content. There are 256 folders, which each can contain 256 pieces of content at maximum. That's a lot of content!

Moving, Copying, and Deleting Content

If you need to re-arrange your User or Owner content, never fear! Moving, Copying, and Deleting media uses the same commands you use for Presets, Groups, and Cues.

To move media from one location to the another, press Move, then press the desired content and then press its new location.

Similarly, to copy content, press Copy, then press the desired content and then press the location for the copy.

Deleting content works very similarly. Press Delete, then press the content you wish to delete, and then press Enter.

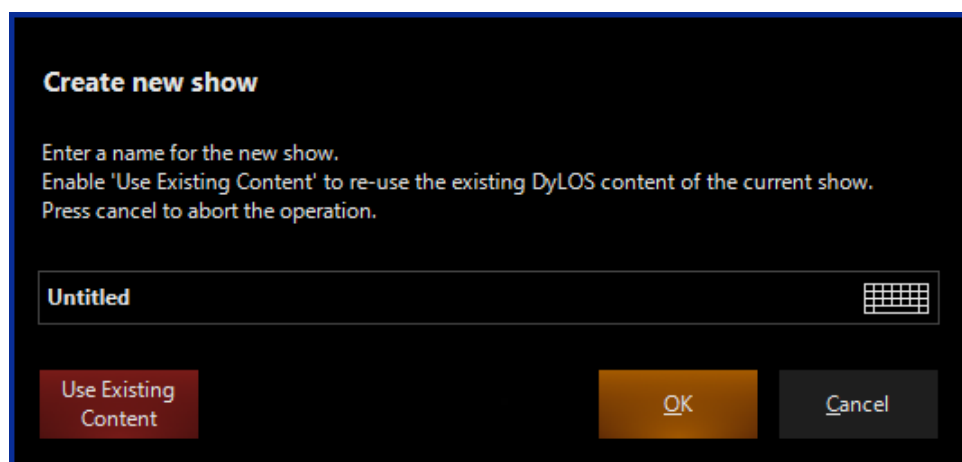
Remember - Moving, copying, and deleting is only for content that you own - you cannot modify the Factory content!

Renaming Content:

Content can be renamed by holding EDIT and pressing any occupied content slot, then choose Rename Slot from the pop-up.

Using Existing Content

When creating a new show, you will have the option to make use of all the content from the current active show. Pressing Use Existing Content will import ALL content from the existing show into your new show:



Resynchronizing Content

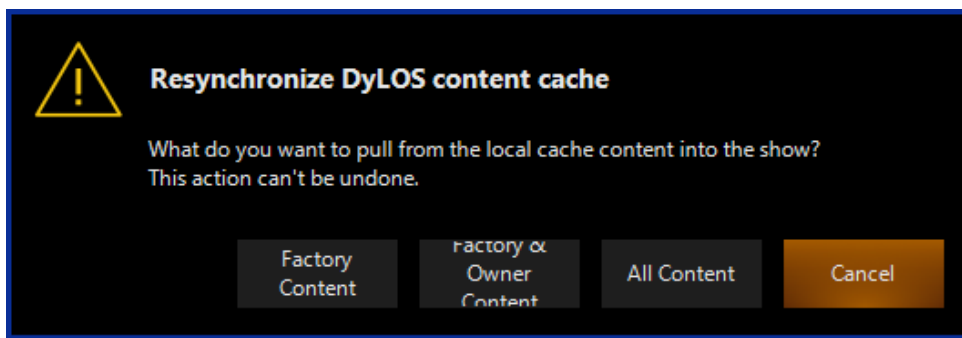
When you open a show file that was created in a previous version of ONYX, you may desire to resynchronize the content so that you can use the most up-to-date content that is packaged with DyLOS and in your Owner and User categories.

New show files will already contain the Factory content, but not the Owner or User content from previous show files.

To do this, simply enter the Quick Menu by pressing the ONYXkey in the upper left corner to enter the menu, then Menu to enter the main menu. On the left sidebar, press Load/Save and navigate to Settings from the bottom navigation:



Now you will see the option to "Resynchronize DyLOS Content". Press Resynch and you will be given the options to pull in the Factory Content, Factory & Owner Content, All Content, or you can cancel the command:



The process will bring up a progress bar, and when it is complete you will be able to see the media in DyLOS.

Media

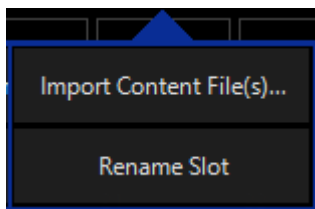
Inside DyLOS, media is video or image file content that is able to be played on your [Zones](#).

Media is added, renamed and organized via the [Library](#) window.

Adding Media

From within the [Library](#) or the [Zone Composer](#) window:

To add media, simply hold EDIT and press any empty media slot, then choose Import Media File(s)... from the pop-up:



A file explorer will appear, and you can select your content. Single or multiple pieces of media may be selected at once. If multiple pieces of media are selected, they will be added in alphabetical order to the next available slots, starting with the slot which you pressed.

You may also "drag and drop" media into empty slots if you are on a PC.

When the media is added, you will see it load into the interface as it is automatically optimized to run smoothly in ONYX. If you have added a lot of media at once, this may take a few minutes. *This will vary based on your system's specifications.*

Organizing and Renaming Media

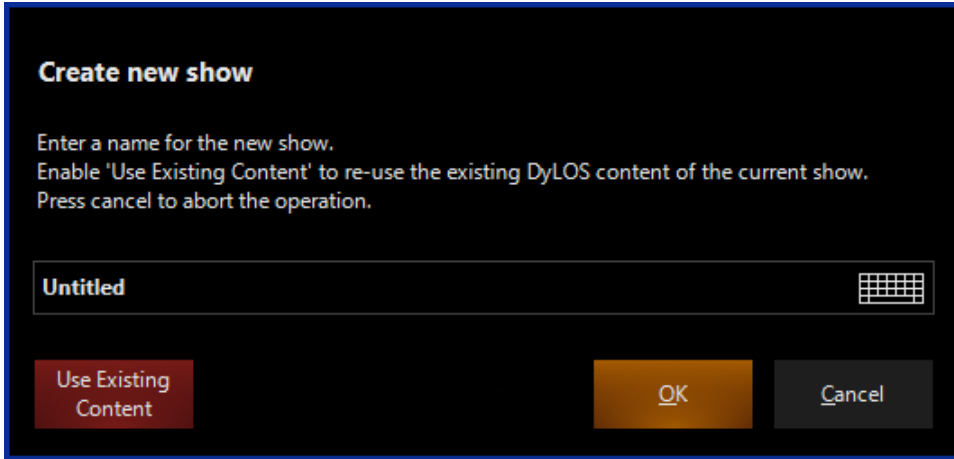
Media may be organized into folders, as well as moved, copied, deleted, and renamed in the same manner as all other content in DyLOS. [See the Library page for instructions.](#)

Media Requirements

DyLOS uses the FFMPEG library to import media. This list online shows all supported file types: http://ffmpeg.org/general.html#Supported-File-Formats_002c-Codecs-or-Features

Using Existing Media

When creating a new show, you will have the option to make use of all the media from the current active show. When selected by pressing the button so that it is red, all media will be imported into your new show:

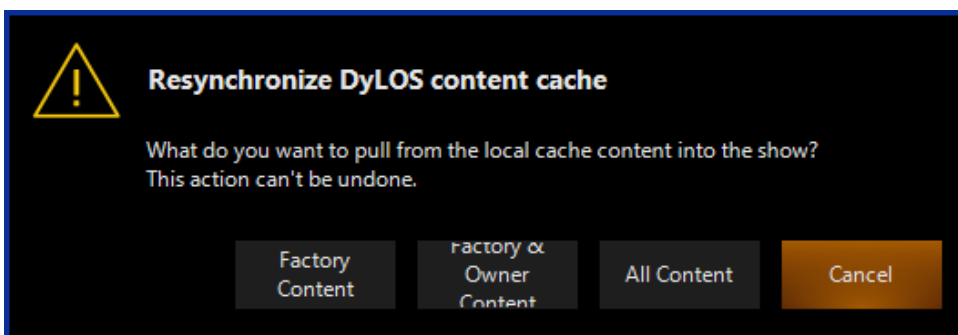


Resynchronizing Media

When you open a show file that was created in a previous version of ONYX, you may desire to import the Factory and Owner media so that you can use the most up-to-date media, generators and effects that are packaged with DyLOS.

To do this, simply enter the Quick Menu by pressing the ONYXkey in the upper left corner to enter the menu, then Menu to enter the main menu. On the left sidebar, press Load/Save and navigate to Settings from the bottom navigation.

Now you will see the option to "Resynchronize DyLOS Media." Press Resynch, and you will be given the options to pull in the Factory Media, Factory & Owner Media, or All Media, or you can cancel the command:



The process will bring up a progress bar, and when it is complete, you will be able to see the media in DyLOS.

Media Warnings

If your media is corrupt, missing, or a wrong file type, you will receive warnings on the Library folder navigation, the content slot itself, and the top navigation bar as shown:



Media that shows a warning may not play, or may not play smoothly. It is essential to resolve these errors before attempting to use the content in a show! Delete and replace the media that has been flagged with the warning and you'll be good to go!

Organizing and Renaming Media

Media may be organized into folders, as well as moved, copied, deleted, and renamed in the same manner as all other content in DyLOS. [See the Library page for instructions.](#)

Media Requirements

DyLOS uses the FFMPEG library to import media. This online list shows all supported file types: http://ffmpeg.org/general.html#Supported-File-Formats_002c-Codecs-or-Features

Shape

Shapes allow you to modify the shape of the Zone.

At this time, there is only the default, rectangle shape:



Text

In DyLOS, we are able to use text input to display messages across our Zones.



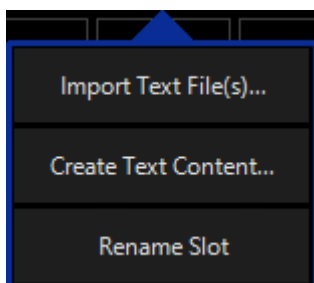
Text content is added, renamed and organized via the [Library](#) window.

Adding Text

From within the [Library](#) or the [Zone Composer](#) window:

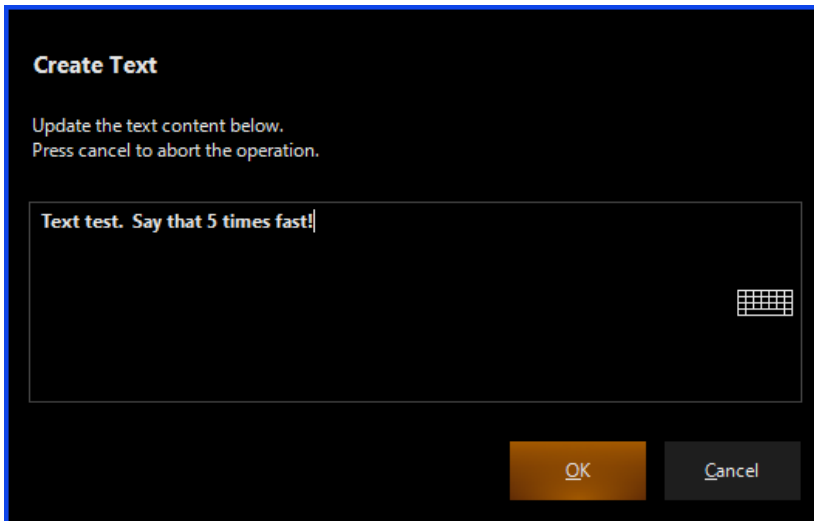
Navigate to Text on the bottom navigation.

To add text, simply hold EDIT and press any empty Text slot, then choose Import Text File(s)... or Create Text Content...from the pop-up:



If you chose Import Text File(s)... , a file explorer will appear, and you can select your text content from a ".txt" file. Single or multiple text files may be selected at once. If multiple pieces of media are selected, they will be added in alphabetical order to the next available slots, starting with the slot which you pressed.

If you choose Create Text Content..., you will then be presented with a box to enter your text:



Press OK and the text content is saved. Once text is created, you can modify it by right-clicking / holding EDIT and pressing Edit Text Content....

If you are importing text as an Owner, you will have to enter your PIN-code before the text is imported.

You may also "drag and drop" text into empty slots if you are on a PC.

When the text is added, you will see it load into the interface as it is automatically optimized to run smoothly in ONYX. If you have added a lot of content at once, this may take a few minutes. *This will vary based on your system's specifications.*

Organizing and Renaming Text Content

Media may be organized into folders, as well as moved, copied, deleted, and renamed in the same manner as all other content in DyLOS. [See the Library page for instructions.](#)

Text Requirements

Text must be in a ".txt" type file.

Programming with Text

Learn how to program with text content on the [Zone Composer](#) page.

Mapping

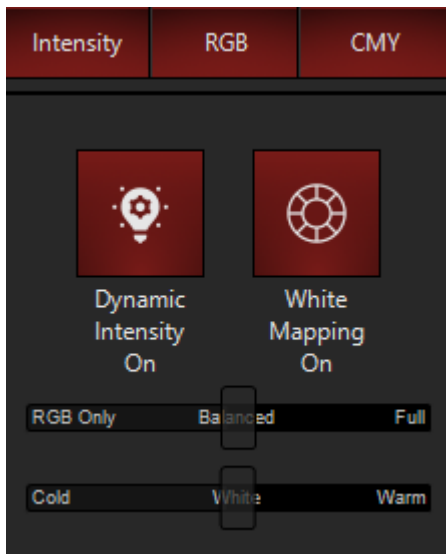
Please see the topic list below to get started.

- [Color Mapping](#)
- [Mapping](#)
- [Mapping Adjustments](#)
- [Preset Mapping](#)

Color Mapping

In DyLOS, Color Mapping is the default form of [pixel mapping](#). In Color mapping, the colors in the content are matched to the color and/or intensity channels of the fixtures in the Zone.

In the mapping tab we have different options as to how we can apply the colors in our content to the lights in our zone. The bottom row toggles the color and intensity mapping types, which may be used in any combination:



RGB

When RGB is toggled on, fixtures with RGB channels will map those channels to the color of the zone canvas.

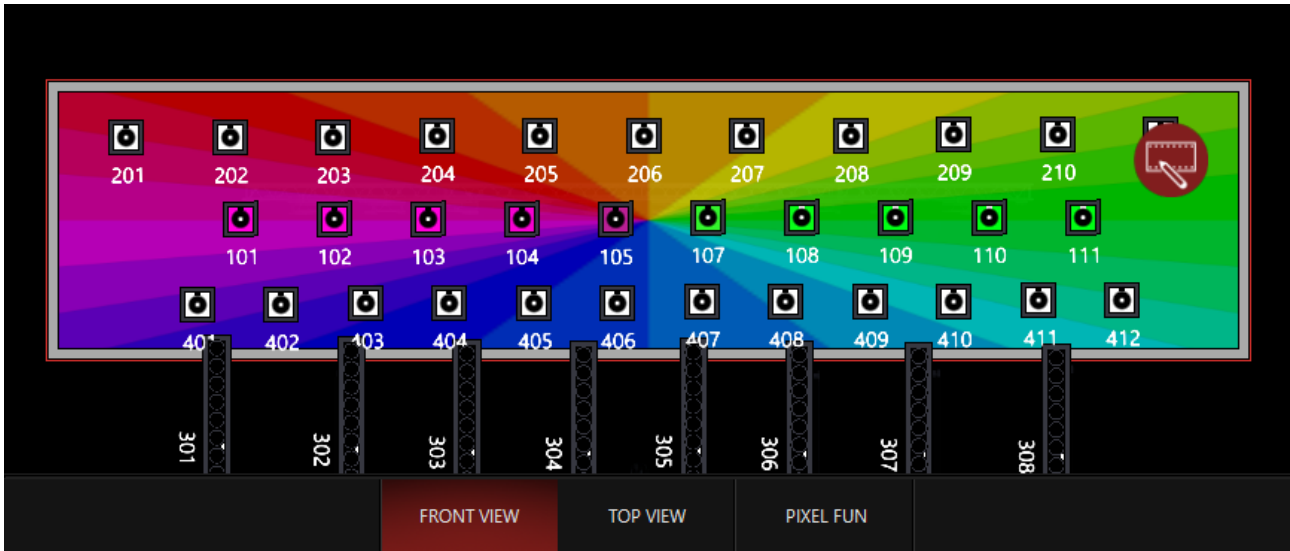


Programming

In the image above, fixtures 201-211 and 401-412 are RGB fixtures, and therefore react to the RGB mapping. Fixtures 101-111 are CMY fixtures and therefore do NOT map any color from this setting.

CMY

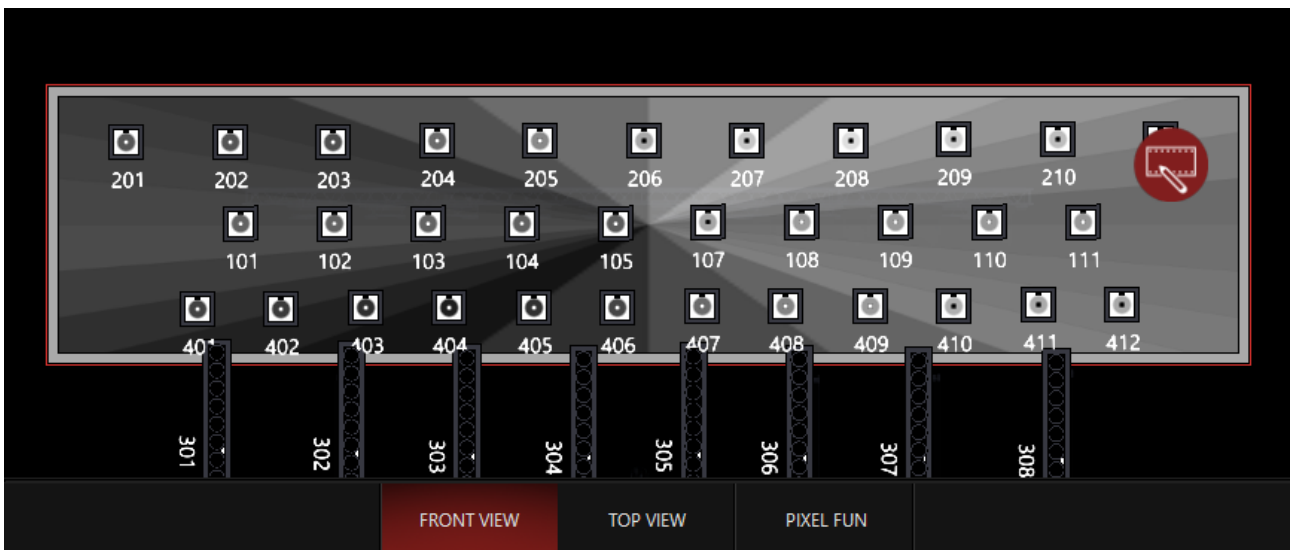
When toggled on, fixtures with CMY channels will be mapped to the color of the zone canvas using HSB (Hue, Saturation, and Brightness) to determine the colors.



Here only the CMY fixtures in the Zone (101-111) map color information from the content.

Intensity

When toggled on by itself, any fixture with intensity responds to the brightness of the content on the DyLOS zone. When RGB and/or CMY are toggled as well, those fixtures will no longer respond to the intensity mapping, as the color mapping takes over.

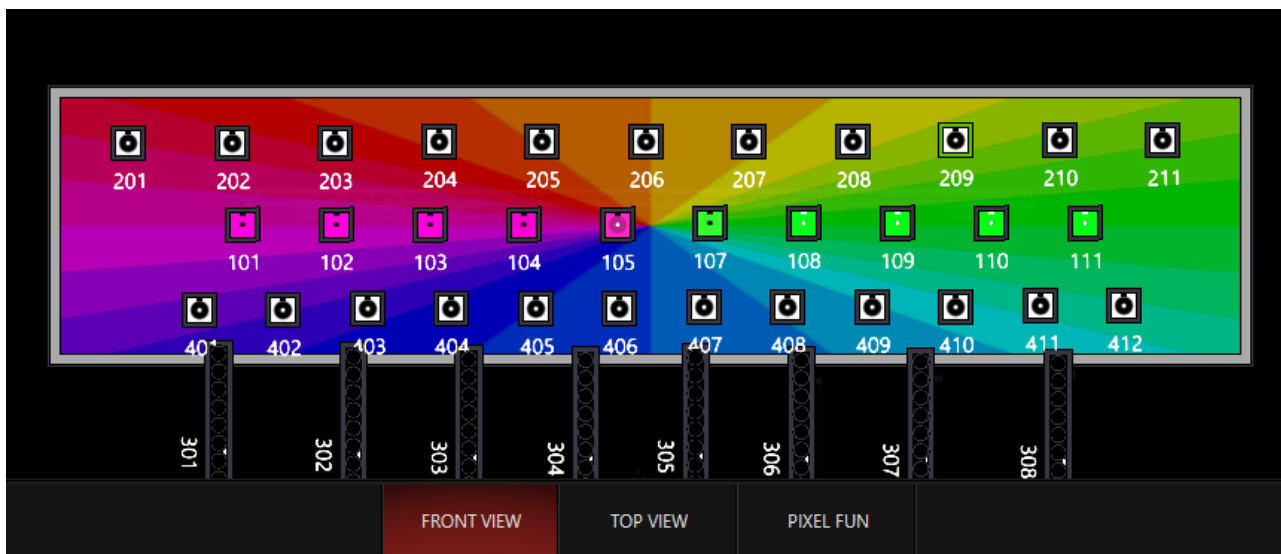


This is an example of only Intensity toggled. All the CMY and RGB fixtures are responding via their intensity.

Dynamic Intensity

When Dynamic Intensity is On, RGB fixtures with Intensity will have that intensity set to full.

For fixtures with CMY, the hue/saturation is mapped on the CMY channels and the brightness to the intensity channel:

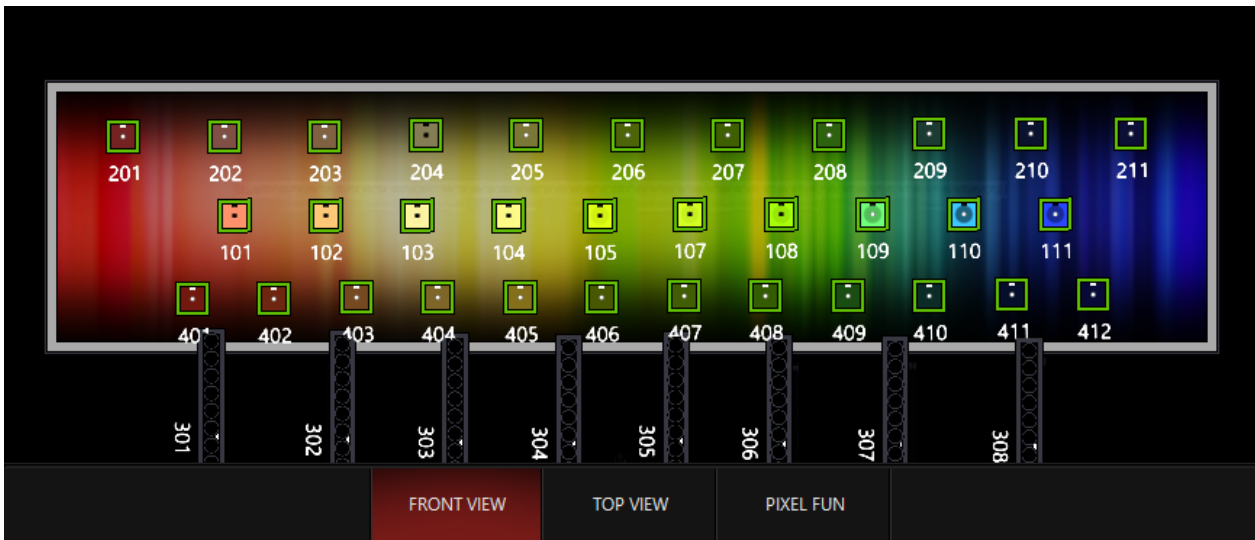


When Dynamic Intensity is Off, you will control the intensity of the fixtures separately. DyLOS will use the CMY mixing system to create dark greys and blacks, so it is recommended that you use Dynamic Intensity with CMY fixtures!

White Mapping

When White Mapping is enabled, the sliders below unlock and additional emitters in LED fixtures (like amber, UV, lime, white...) will be used. The fader defaults to a center of "Balanced" where additional emitters are scale to 50%, and goes all the way up to "Full", where additional emitters are used up to full. If the fader is set to "RGB Only", then additional emitters are set to zero.

As an example, I have brought this image which features light colors and white into my zone:



On "RGB ONLY" the "Live Output" window shows these values:

FUZE WASH Z350 15 Ch												
ID	Pan	Tilt	Red	Green	Blue	White	Shutter	Int	Zoom	Curve	PT Speed	Ctrl
201	50%	50%	53%	9%	9%	0%	18%	100%	50%	0%	0%	0%
202	50%	50%	57%	28%	21%	0%	18%	100%	50%	0%	0%	0%
203	50%	50%	57%	39%	21%	0%	18%	100%	50%	0%	0%	0%
204	50%	50%	55%	50%	26%	0%	18%	100%	50%	0%	0%	0%
205	50%	50%	54%	53%	16%	0%	18%	100%	50%	0%	0%	0%
206	50%	50%	35%	47%	2%	0%	18%	100%	50%	0%	0%	0%
207	50%	50%	29%	44%	1%	0%	18%	100%	50%	0%	0%	0%
208	50%	50%	18%	42%	4%	0%	18%	100%	50%	0%	0%	0%
209	50%	50%	7%	24%	19%	0%	18%	100%	50%	0%	0%	0%
210	50%	50%	4%	8%	23%	0%	18%	100%	50%	0%	0%	0%
211	50%	50%	4%	5%	29%	0%	18%	100%	50%	0%	0%	0%

On "Balanced" the "Live Output" window shows these values:

FUZE WASH Z350 15 Ch												
ID	Pan	Tilt	Red	Green	Blue	White	Shutter	Int	Zoom	Curve	PT Speed	Ctrl
201	50%	50%	49%	9%	9%	5%	18%	100%	50%	0%	0%	0%
202	50%	50%	47%	23%	17%	11%	18%	100%	50%	0%	0%	0%
203	50%	50%	47%	32%	17%	11%	18%	100%	50%	0%	0%	0%
204	50%	50%	42%	38%	20%	13%	18%	100%	50%	0%	0%	0%
205	50%	50%	46%	45%	14%	8%	18%	100%	50%	0%	0%	0%
206	50%	50%	34%	45%	2%	1%	18%	100%	50%	0%	0%	0%
207	50%	50%	28%	44%	1%	0%	18%	100%	50%	0%	0%	0%
208	50%	50%	17%	40%	4%	2%	18%	100%	50%	0%	0%	0%
209	50%	50%	6%	20%	16%	4%	18%	100%	50%	0%	0%	0%
210	50%	50%	3%	7%	21%	2%	18%	100%	50%	0%	0%	0%
211	50%	50%	4%	5%	27%	2%	18%	100%	50%	0%	0%	0%

On "Full" the "Live Output" window shows these values:

FUZE WASH Z350 15 Ch												
ID	Pan	Tilt	Red	Green	Blue	White	Shutter	Int	Zoom	Curve	PT Speed	Ctrl
201	50%	50%	53%	9%	9%	9%	18%	100%	50%	0%	0%	0%
202	50%	50%	58%	28%	21%	21%	18%	100%	50%	0%	0%	0%
203	50%	50%	58%	39%	21%	21%	18%	100%	50%	0%	0%	0%
204	50%	50%	55%	50%	26%	26%	18%	100%	50%	0%	0%	0%
205	50%	50%	54%	53%	16%	16%	18%	100%	50%	0%	0%	0%
206	50%	50%	35%	47%	2%	2%	18%	100%	50%	0%	0%	0%
207	50%	50%	29%	44%	1%	1%	18%	100%	50%	0%	0%	0%
208	50%	50%	18%	42%	4%	4%	18%	100%	50%	0%	0%	0%
209	50%	50%	7%	24%	20%	7%	18%	100%	50%	0%	0%	0%
210	50%	50%	4%	8%	23%	4%	18%	100%	50%	0%	0%	0%
211	50%	50%	4%	5%	29%	4%	18%	100%	50%	0%	0%	0%

Looking closely at the color columns, we can see how "RGB Only" gives you slightly higher RGB values, "Balanced" gives you both RGB and White/other emitters, and "Balanced" gives us a more even balance between RGB and White/other emitters.

These settings are best adjusting with your real lights in a show situation to balance the exact fixtures and their specific color response.

Color Temperature

On unsaturated colors, you can also control the color temperature of white, moving the fader between "Cold", "White", and "Warm". *Every fixture is unique and offers a native color temperature that is not known to DyLOS, so these controls exist to tweak your mapping to your fixtures and the descriptors of color temperature may be an exact match to what you see on every fixture type that you work with.*

Using the same image as the last example, I've set the mapping to "Cool", "White", and "Warm" and attached the "Live Output" screenshots below:

Cool

FUZE WASH Z350 15 Ch												
ID	Pan	Tilt	Red	Green	Blue	White	Shutter	Int	Zoom	Curve	PT Speed	Ctrl
201	50%	50%	44%	9%	12%	4%	18%	100%	50%	0%	0%	0%
202	50%	50%	36%	23%	33%	8%	18%	100%	50%	0%	0%	0%
203	50%	50%	36%	33%	33%	8%	18%	100%	50%	0%	0%	0%
204	50%	50%	29%	39%	45%	10%	18%	100%	50%	0%	0%	0%
205	50%	50%	38%	45%	24%	6%	18%	100%	50%	0%	0%	0%
206	50%	50%	33%	46%	2%	1%	18%	100%	50%	0%	0%	0%
207	50%	50%	28%	44%	1%	0%	18%	100%	50%	0%	0%	0%
208	50%	50%	16%	40%	4%	2%	18%	100%	50%	0%	0%	0%
209	50%	50%	5%	20%	29%	3%	18%	100%	50%	0%	0%	0%
210	50%	50%	3%	7%	28%	1%	18%	100%	50%	0%	0%	0%
211	50%	50%	4%	5%	35%	2%	18%	100%	50%	0%	0%	0%

White

FUZE WASH Z350 15 Ch												
ID	Pan	Tilt	Red	Green	Blue	White	Shutter	Int	Zoom	Curve	PT Speed	Ctrl
201	50%	50%	49%	9%	9%	5%	18%	100%	50%	0%	0%	0%
202	50%	50%	47%	23%	17%	11%	18%	100%	50%	0%	0%	0%
203	50%	50%	47%	32%	17%	11%	18%	100%	50%	0%	0%	0%
204	50%	50%	42%	38%	20%	13%	18%	100%	50%	0%	0%	0%
205	50%	50%	46%	45%	14%	8%	18%	100%	50%	0%	0%	0%
206	50%	50%	34%	45%	2%	1%	18%	100%	50%	0%	0%	0%
207	50%	50%	28%	44%	1%	0%	18%	100%	50%	0%	0%	0%
208	50%	50%	17%	40%	4%	2%	18%	100%	50%	0%	0%	0%
209	50%	50%	6%	20%	16%	4%	18%	100%	50%	0%	0%	0%
210	50%	50%	3%	7%	21%	2%	18%	100%	50%	0%	0%	0%
211	50%	50%	4%	5%	27%	2%	18%	100%	50%	0%	0%	0%

Warm

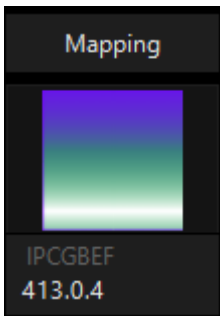
FUZE WASH Z350 15 Ch												
ID	Pan	Tilt	Red	Green	Blue	White	Shutter	Int	Zoom	Curve	PT Speed	Ctrl
201	50%	50%	54%	9%	8%	4%	18%	100%	50%	0%	0%	0%
202	50%	50%	59%	23%	13%	9%	18%	100%	50%	0%	0%	0%
203	50%	50%	59%	32%	13%	9%	18%	100%	50%	0%	0%	0%
204	50%	50%	56%	38%	13%	11%	18%	100%	50%	0%	0%	0%
205	50%	50%	55%	45%	11%	7%	18%	100%	50%	0%	0%	0%
206	50%	50%	35%	45%	2%	1%	18%	100%	50%	0%	0%	0%
207	50%	50%	29%	44%	1%	0%	18%	100%	50%	0%	0%	0%
208	50%	50%	18%	40%	4%	2%	18%	100%	50%	0%	0%	0%
209	50%	50%	7%	20%	13%	3%	18%	100%	50%	0%	0%	0%
210	50%	50%	4%	7%	19%	1%	18%	100%	50%	0%	0%	0%
211	50%	50%	4%	5%	25%	2%	18%	100%	50%	0%	0%	0%

Take note of how the Red, Blue, and White channels vary based on the target color temperature. As you can see, this is just another tool in the DyLOS toolbox to help you get the best results in your mapping.

Mapping

Mapping (Pixel Mapping) portion of the Zone fixture allows you to adjust how the DyLOS effects are mapped.

The fixture number of the Master fixture is X.0.4, with X being the fixture ID number which is editable in the patch.



In the following pages, you will learn how to use the different Mapping Types - [Color Mapping](#) and [Preset Mapping](#), and how to make [Mapping Adjustments](#) to get the best end result possible.

Mapping Parameters:

Mapping part fixtures feature these parameters (Click to expand)

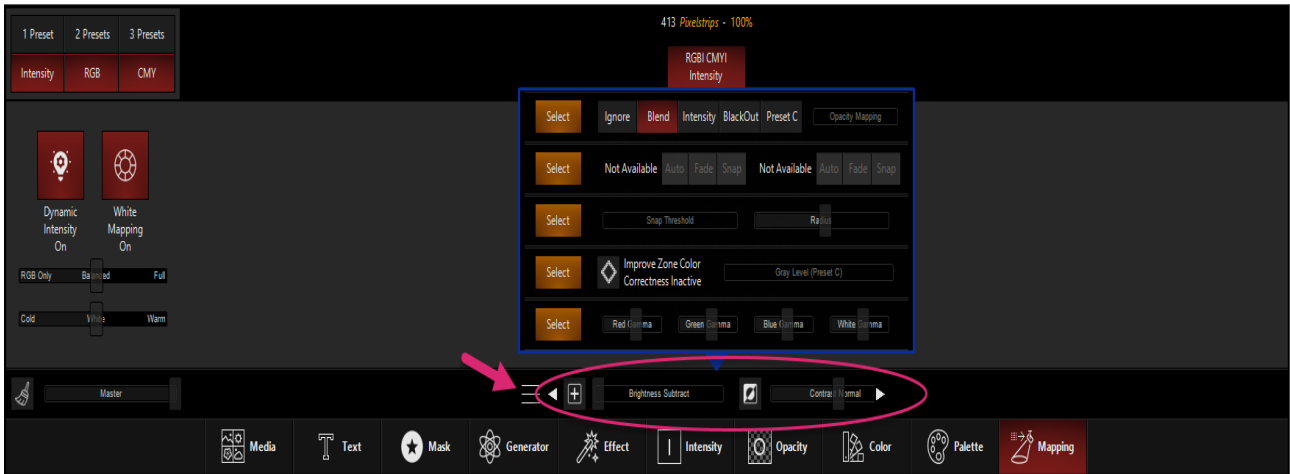
Parameter Group	Parameter Name	Explanation
Intensity	Mapping Mode	Determines how to translate the color and alpha values from the zone to regular parameters of your lights.
Intensity	Mapping Filter	Determines which color/alpha channel(s) the mapping is using to determine the final output.
Intensity	Opacity Mapping	Enables and sets the mode of the opacity mapping. See Mapping Adjustments for more.
Intensity	Brightness subtract	Master control of brightness for the final output. Despite the name, it can subtract or add brightness, bringing it to full turns the output fully white. See Mapping Adjustments for more.
Intensity	Contrast inverse	Master control of contrast for the final output. Can be set to inverse or normal contrast control. See Mapping Adjustments for more.
Color	Gamma Red level	When in color mapping, this modifies the gamma curve for the red channel. See Mapping Adjustments for more.

Parameter Group	Parameter Name	Explanation
Color	Gamma Green level	When in color mapping, this modifies the gamma curve for the green channel. See Mapping Adjustments for more.
Color	Gamma Blue level	When in color mapping, this modifies the gamma curve for the blue channel. See Mapping Adjustments for more.
Color	Gamma White level	In all mapping, this modifies the gamma curve for the white channel. See Mapping Adjustments for more.
Color	White Mapping	In all mapping, this modifies the color temperature for the white channel. See Mapping Adjustments for more.
Gobo	Preset Group (Black)	When in preset mapping, this selects the preset group for the black preset.
Gobo	Preset (Black)	When in preset mapping, this selects the preset for the black preset.
Gobo	Preset Group (White)	When in preset mapping, this selects the preset group for the white preset.
Gobo	Preset (White)	When in preset mapping, this selects the preset for the white preset.
Gobo	Preset Group (Gray)	When in 3 preset mapping, this selects the preset group for the gray preset.
Gobo	Preset (Gray)	When in 3 preset mapping, this selects the preset for the gray preset.
Gobo	Gray Level	When in 3 preset mapping, this selects the gray level that the preset will be mapped to.
		When "Improve Zone Color Correctness" is active, this disables frame blending for more exact mapping.
Beam	Radius	When "Improve Zone Color Correctness" is inactive, this allows you to set a radius for the Frame Blending between the size of "1 Pixel" in the content to "Whole Canvas". See Mapping Adjustments for more.
Beam Effects	Snap Threshold	When parameters Snap between presets, this sets the point in which the parameters snap.
Beam Effects	Snap Mode	When in preset mapping, this sets the transition between presets. When in "Auto" parameters refer to their channel defaults. When in "Fade" or "Snap", all channels either fade or snap when changing presets in the mapping.

Mapping Adjustments

When mapping in DyLOS, there are parameter adjustments that you can make, no matter which type of mapping you are using. These adjustments allow you to best make the content mapping fit the response of different lighting fixtures.

These adjustments can be found both at the bottom of the Zone Parameters, with the full set of parameters available by the "3-line" menu button:



These are also via the parameters when the [Mapping](#) fixture is selected (see the linked [Mapping](#) page for the full parameters list).

Because these parameters are applied on the Mapping part fixture, they remain independent of content and Effects adjustments.

Think of these like the settings on your TV - you'll adjust them to make your picture look great on the fixtures you have, and you may occasionally tweak them, but you probably don't change them every time you change to a new channel or show.

Before beginning, make sure you first read the [Opacity page](#) to get a firm understanding of Opacity and how to control it via DyLOS. It is an integral part of mapping.

The Mapping adjustments are as follows:

Input Filters

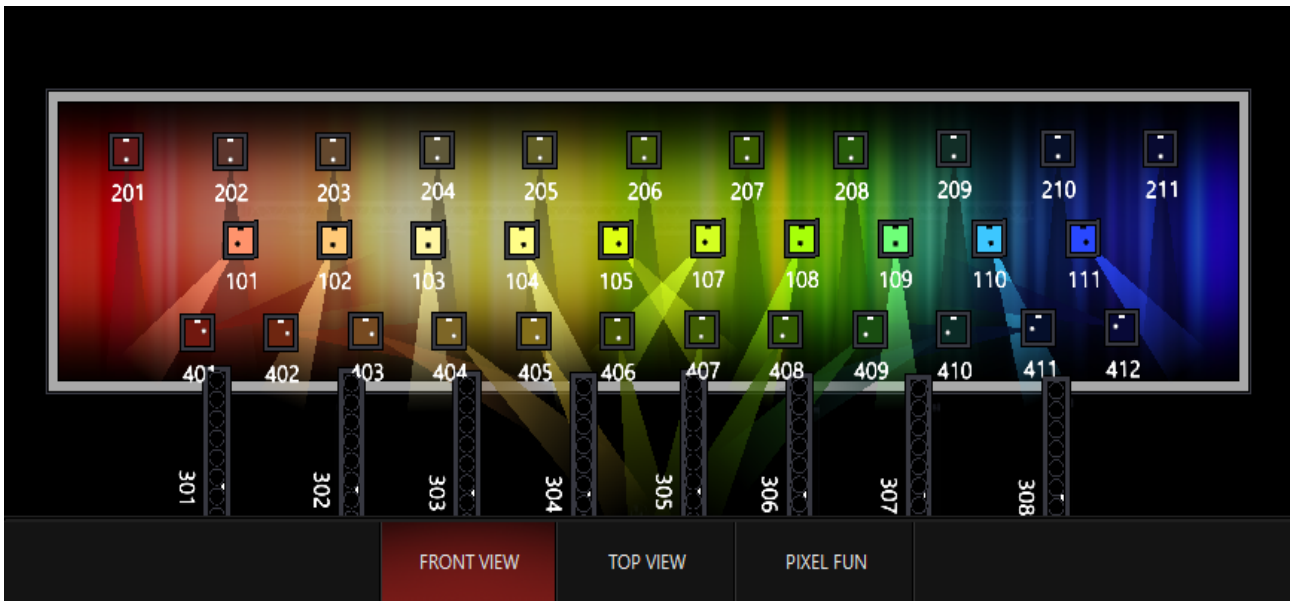
The input filters allow you to adjust the colors and brightness of the canvas output.

Brightness

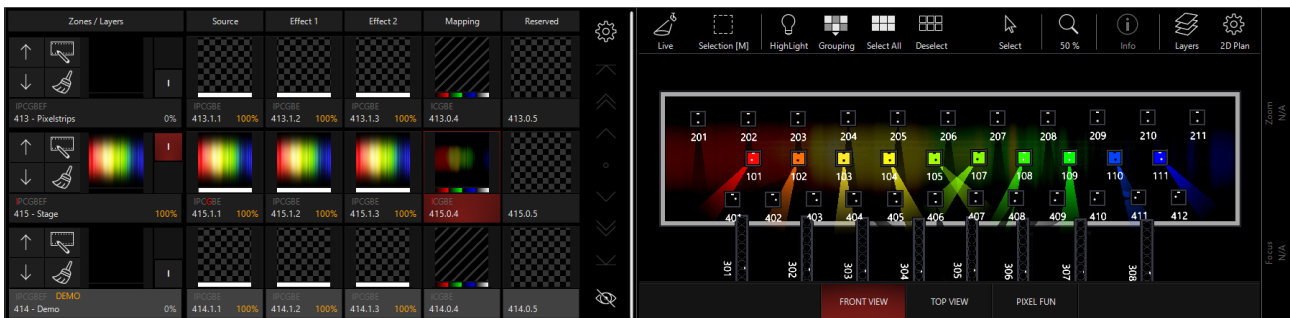
Master control of brightness for the final output. Despite the name, it can subtract or add brightness, bringing it to full turns the output fully white.

Programming

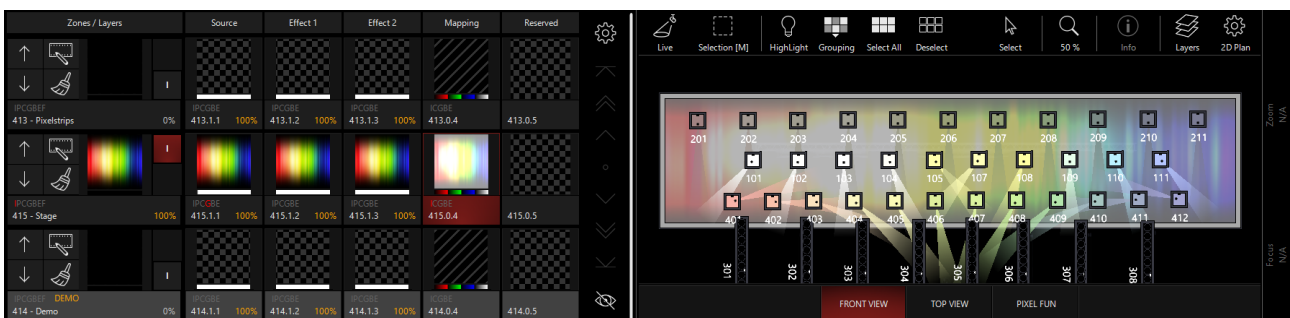
In the examples following, I'll use this image to illustrate because it has many colors, pastels, and black color values:



When we bring up the Brightness Subtract, we see the following result:



Then, we can switch to the Brightness Add mode by pressing the icon near the bottom of the [Zone Parameters](#) or using the Encoders/Channel Visualization:

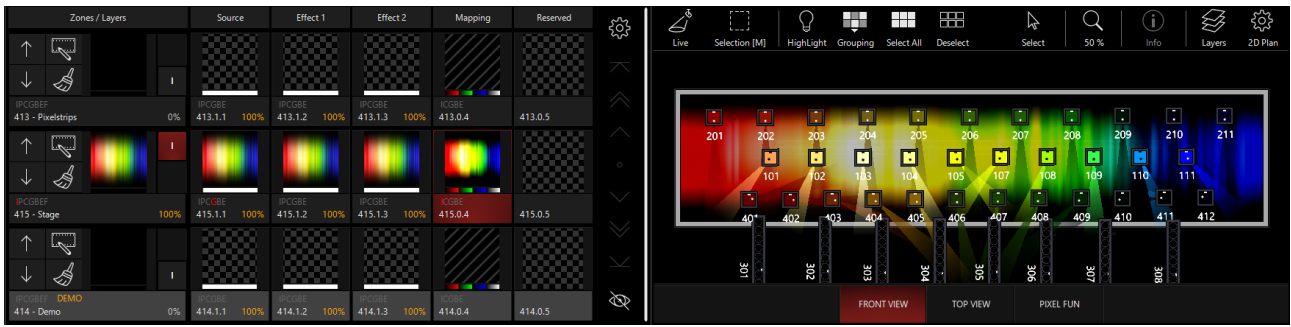


Contrast

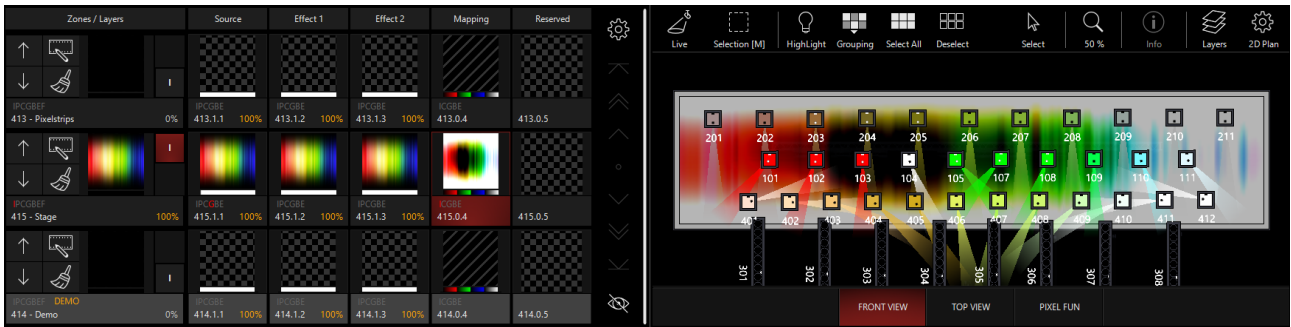
Master control of contrast for the final output. Can be set to inverse or normal contrast control.

Normal Contrast Adjustment:

Programming



Inverse Contrast Adjustment:



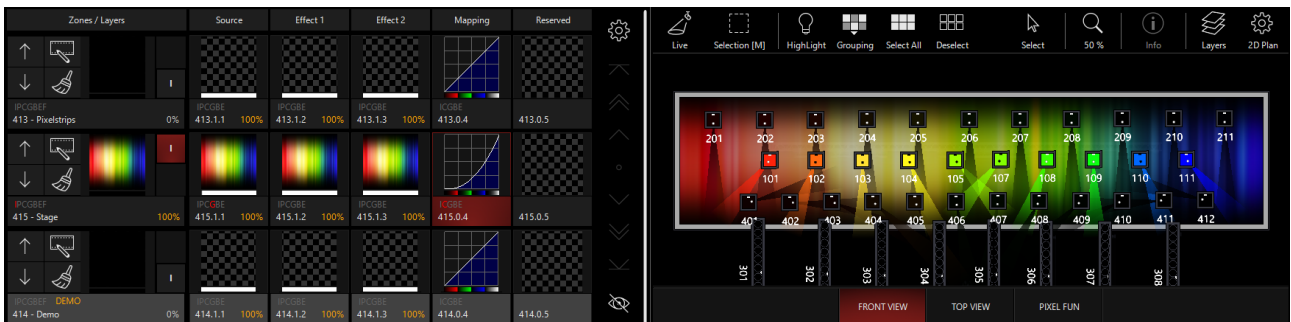
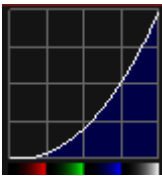
Color

The Color parameters allow you to set adjustable Gamma for each color channel (red, green, blue, and white).

Gamma works by adjusting the color's response curve and can fix the problem of certain LED fixtures interpreting the colors too dark or too light.

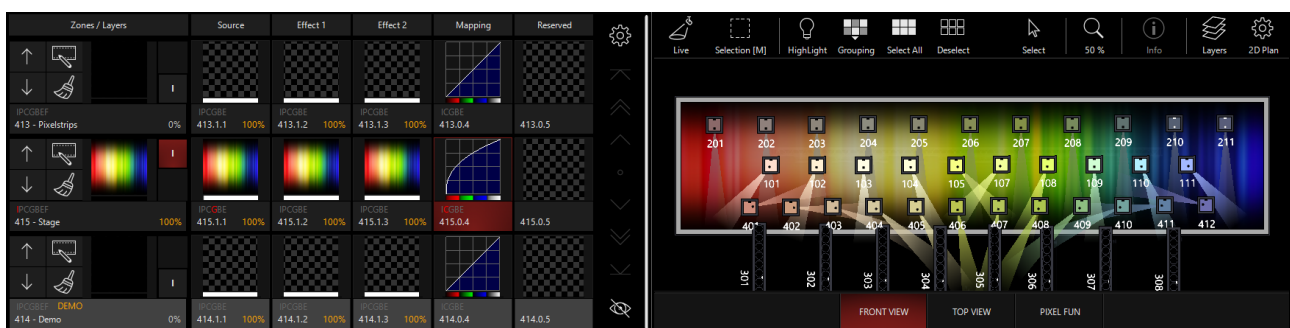
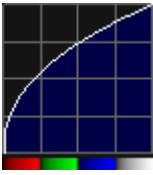
If you adjust your [Thumbnail mode](#) to turn "Curve Mode" to "Show", you can see the gamma response on a graph.

In this example, we turn up the White gamma, which adjusts all 3 RGB Gamma Curves:

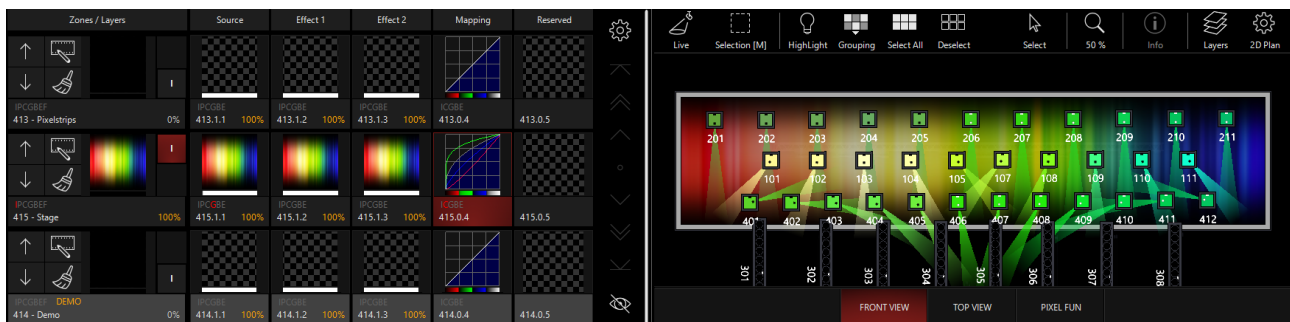
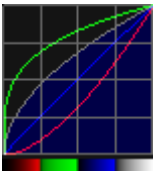


Programming

And then turn it down:



Then, the individual colors can be adjusted based off the location of the white curve:

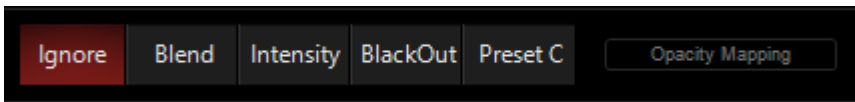


Lower gamma values tend to make darker areas of the image look brighter. Higher gamma values takes the edge off the brightest parts of the image, but can make darker details get lost into black. Ultimately, the control is there to help make the DyLOS pixel mapping translate best to many types of fixtures.

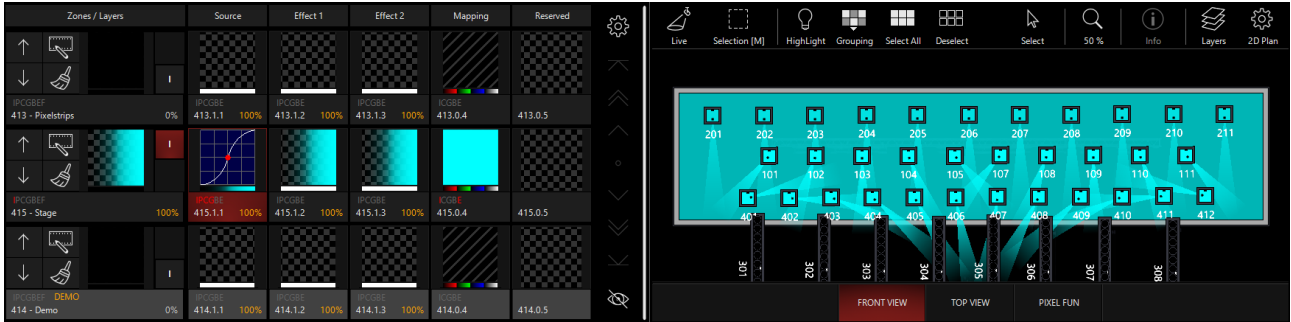
Opacity Mapping

Opacity mapping gives you the ability to use the alpha channel of content that supports it to map it separately from the regular colors. **This can take a minute to sink in, as it's a little abstract. But - once it sinks in, you'll see the power in Opacity mapping!**

Each mode can be selected, and then there is a "Opacity Mapping" fader and encoder that allow you to set the strength of the Opacity as it affects the color being mapped.



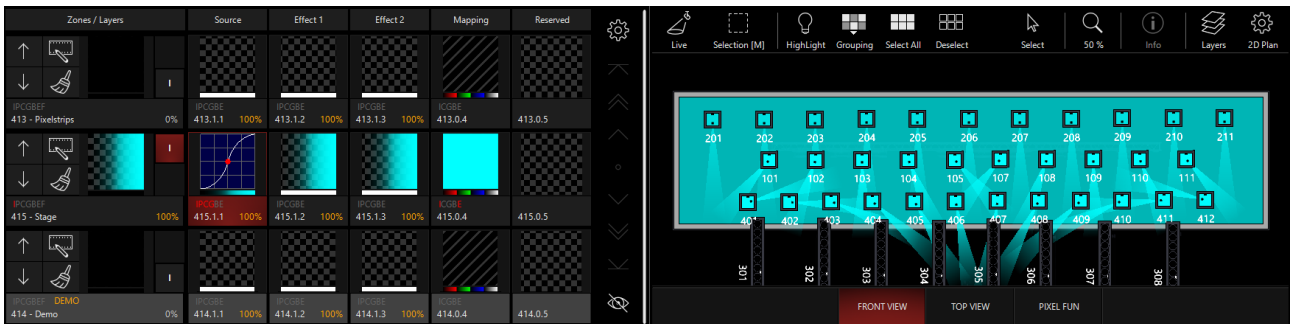
For the examples below, I've set up a Generator with the Source color set to Cyan and Zone Opacity set to 0%:



The opacity modes are as follows:

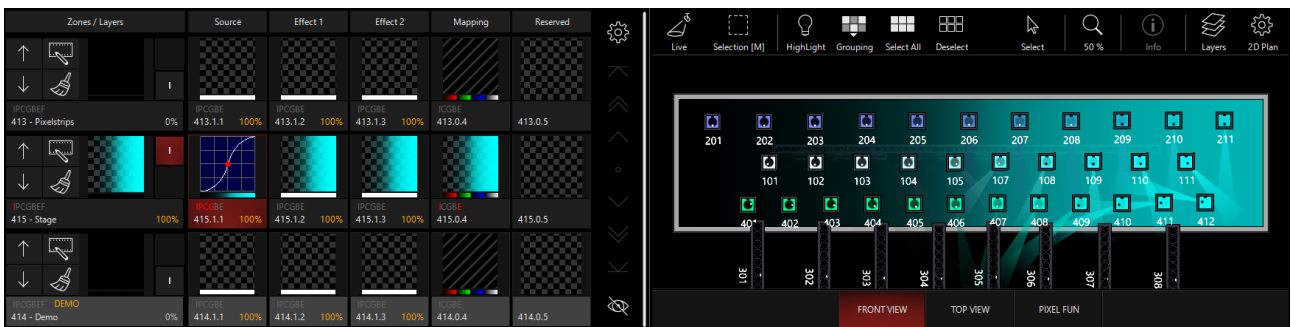
Ignore

Opacity information is discarded and does not affect the pixel mapping.



Blend

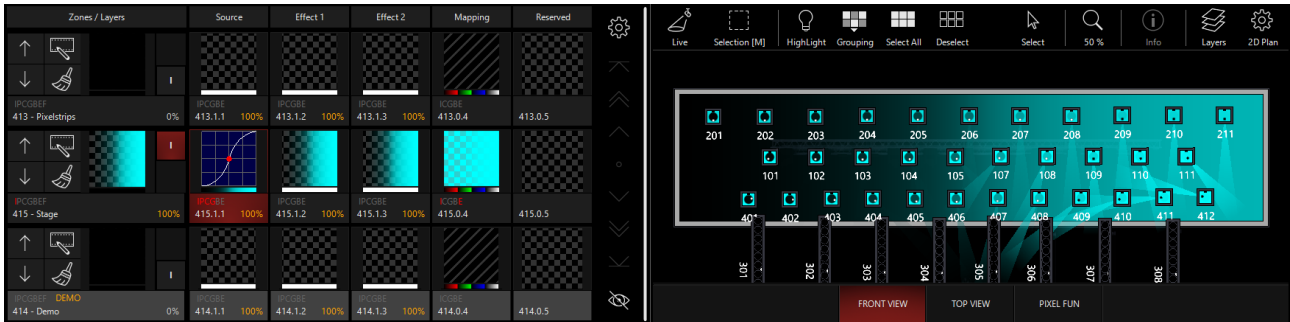
Opacity is used as it appears after the Effects 1 and 2 slots.



Intensity

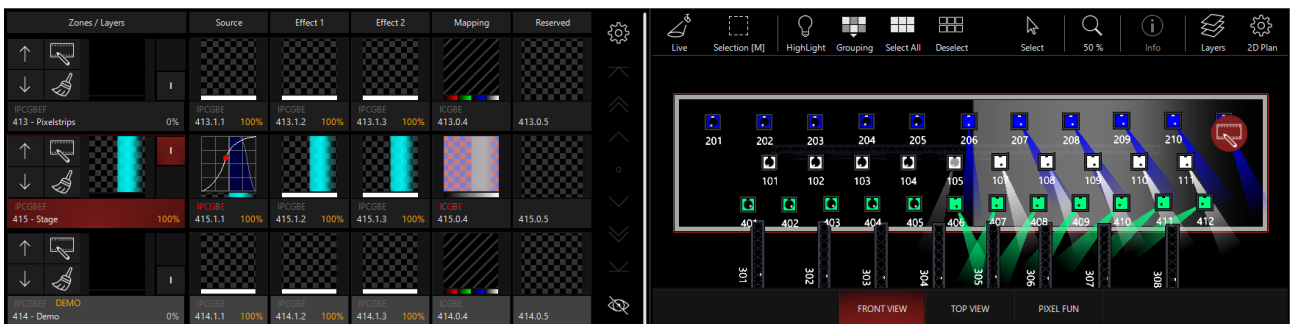
The opacity controls the intensity of the lights. If you have color mapping modes on (RGB and/or CMY), then the lights will respond to the color as normal, but intensity will follow the opacity.

This can be particularly powerful when used with the [Preset mapping modes](#).



Blackout

This is the reverse of the intensity control - lights that have intensity from another cue will be blacked out at full opacity. In this example, I've activated Cue 5 from "MAIN SHOW" in the demo showfile to give the lights intensity, position, and color:



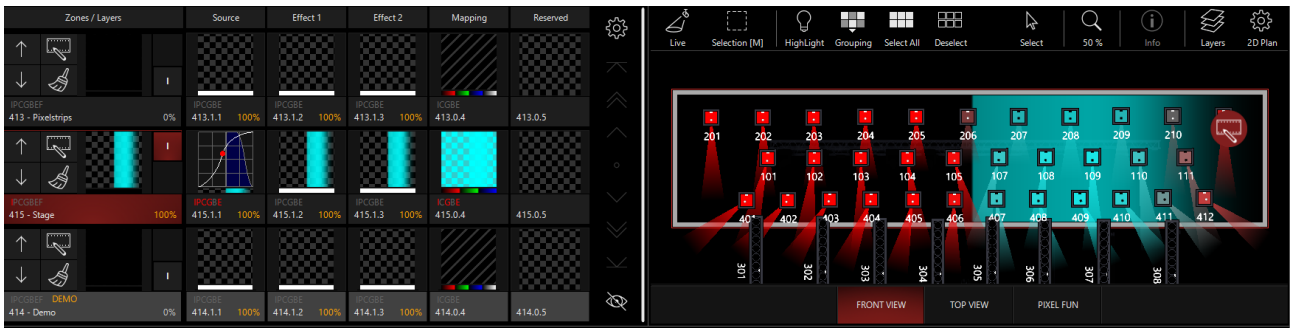
In this mode, the Mapping Thumbnail shows red/blue boxes to indicate the effect of the blackout Opacity mapping upon the overall canvas.

Preset C

Activates a chosen preset to a variable degree based on the percentage of opacity. It's similar to the 3 Preset mapping, but instead of mapping the 3rd preset to "Gray", this mode maps the Preset C to Opacity and can be used in conjunction with the [Color Mapping](#) modes.

See [Preset Mapping](#) for more information on how to select presets in mapping.

In this example, I've selected the "Red" preset as Preset C for the Opacity:



Mapping Radius

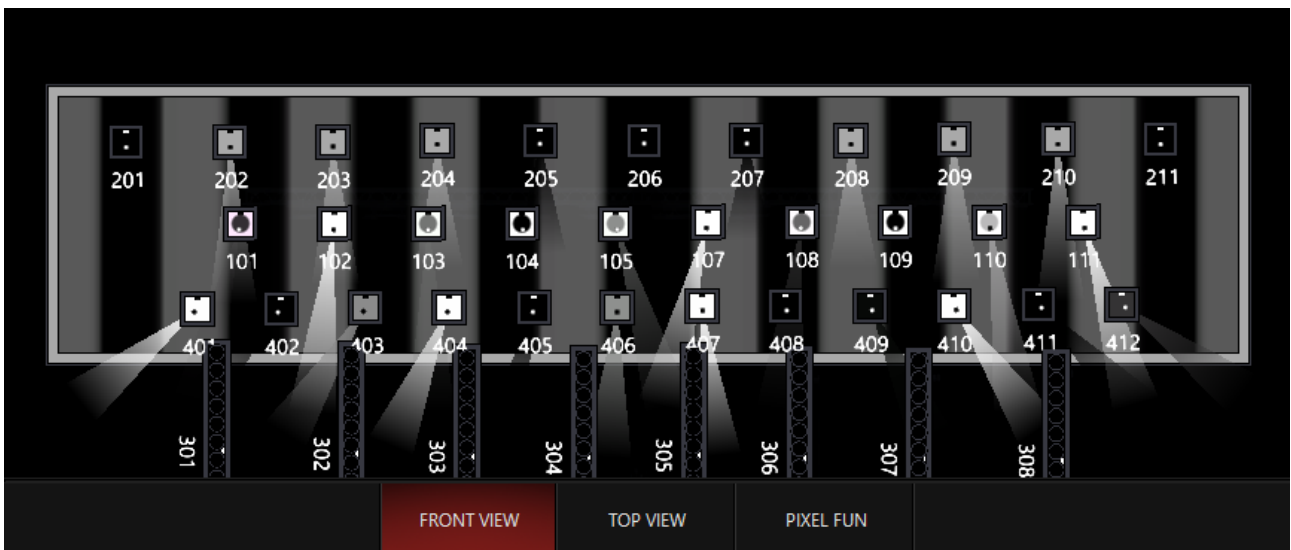
In the Beam parameter group, we see the "Mapping Radius" encoder in the Channel Visualization for the Mapping part fixture. When "Improve Zone Color Correctness" is Inactive, this control allows you to set the size of each pixel on Zone.

The control has 3 presets, though the control is variable across the entire range. In the below examples,

1 Pixel

Each pixel changes the output of the light as it crosses the 2d Plan symbol. This can cause some flickering or abrupt changes, but also clears up softened transitions between hard edges in content.

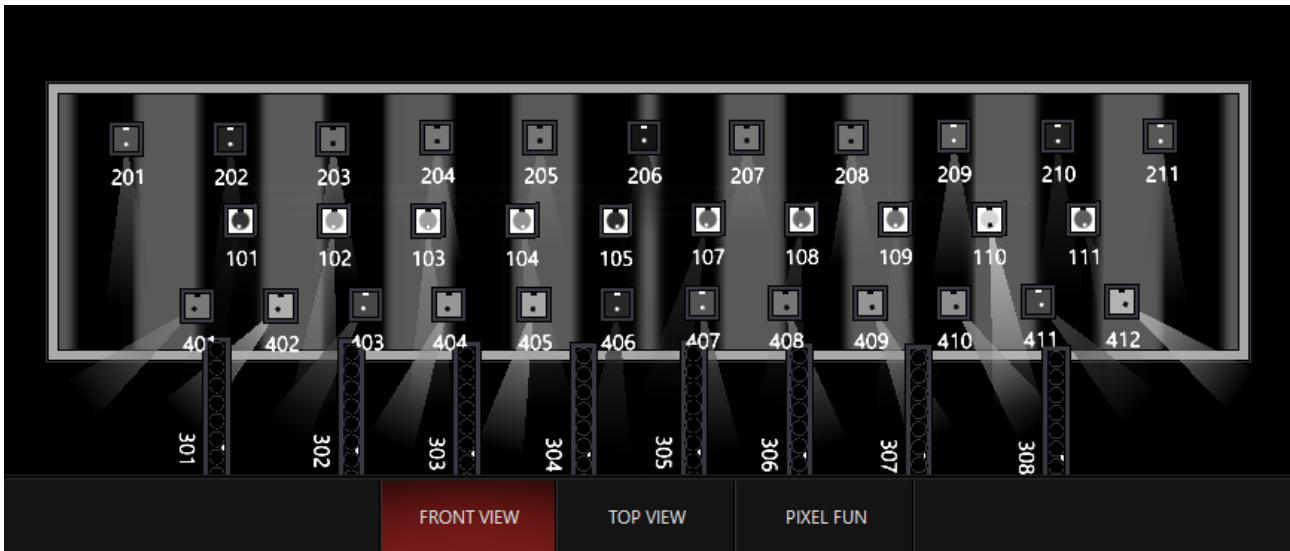
With this piece of hard-edged content, each light responds to changes in the content very abruptly:



Fixture size

The size of the fixture on the 2d plan determines the output. When multiple pixels are on a fixture symbol, the values are averaged.

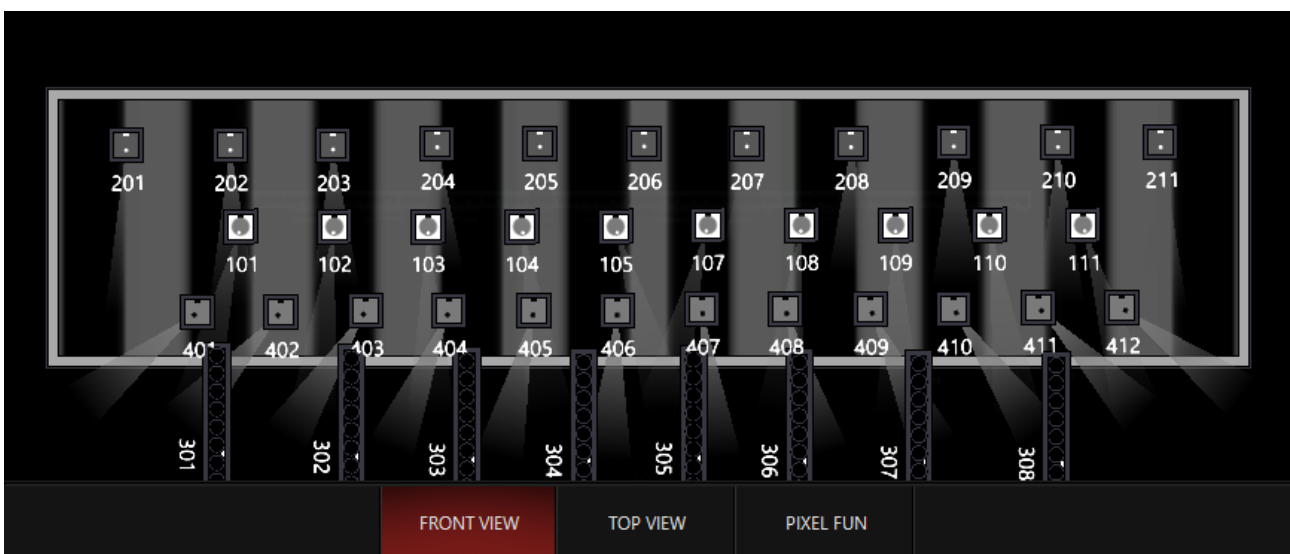
With this same piece of content, values are now "softened". They don't go fully to zero or full anymore as the content plays across them:



Whole Canvas

The entire DyLOS canvas is averaged and all fixtures within the zone are mapped to the same value.

This time, the values for this piece of content are averaged, and every fixture within the Zone gets the same value.



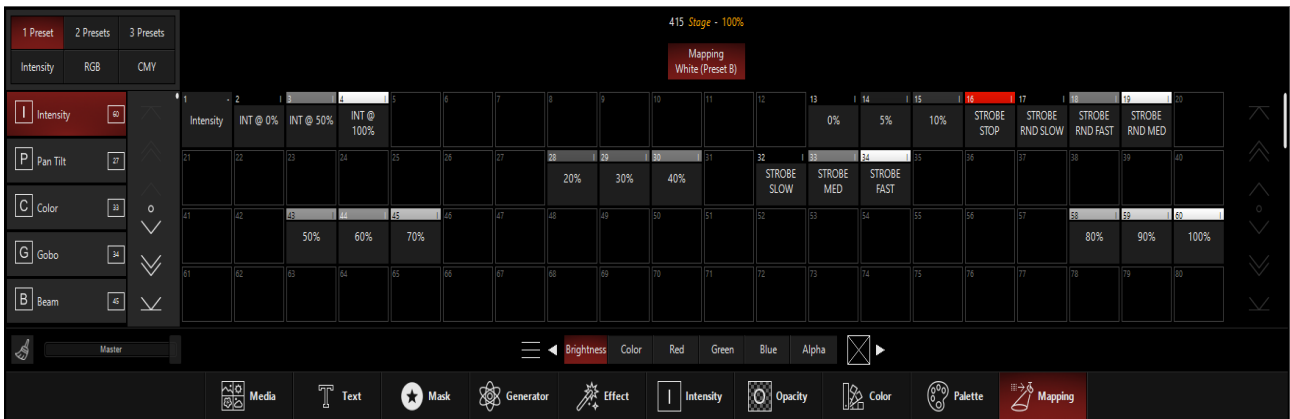
Programming

While you may not find yourself using the control set to fully "Whole Canvas", it is variable across the entire spectrum so that you can soften the changes as you move the control in this direction!

Preset Mapping

Preset mapping modes convert the content to grayscale to determine the mapping to each fixture.

Each mode contains a different number of presets, but essentially works the same way. You select the preset(s) that you wish to map to each portion of the content and [additional settings are available to customize the mapping](#):

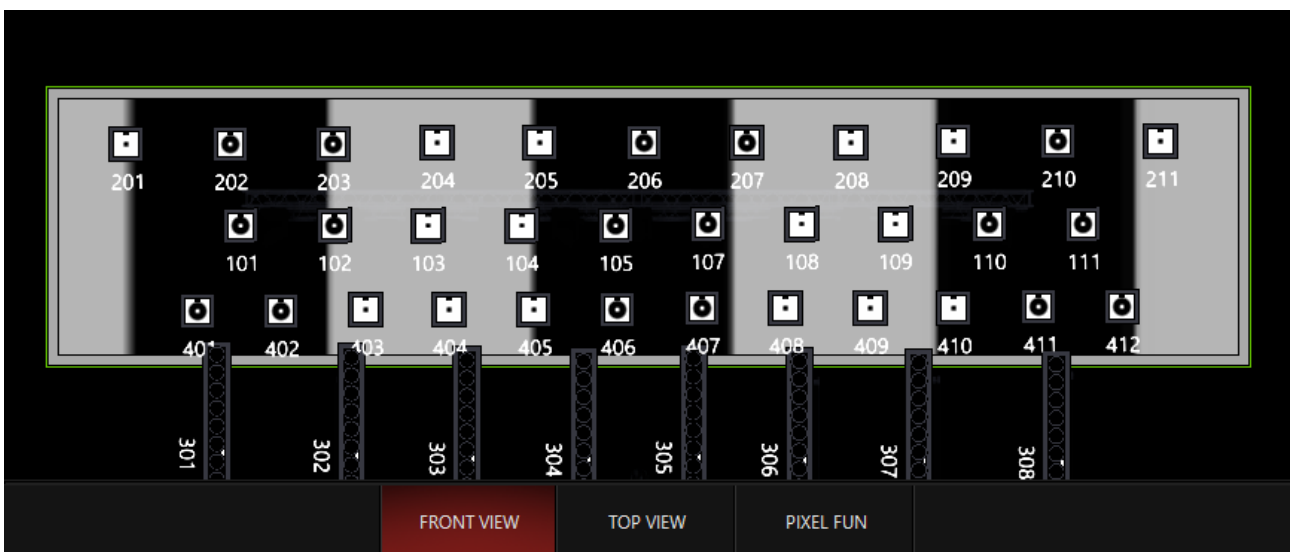


1 Preset

The 1 Preset mode uses the grayscale value to modulate between the fixture's base (where it is placed before DyLOS contributes) and the preset selected. When the content is full white, the preset is fully engaged.

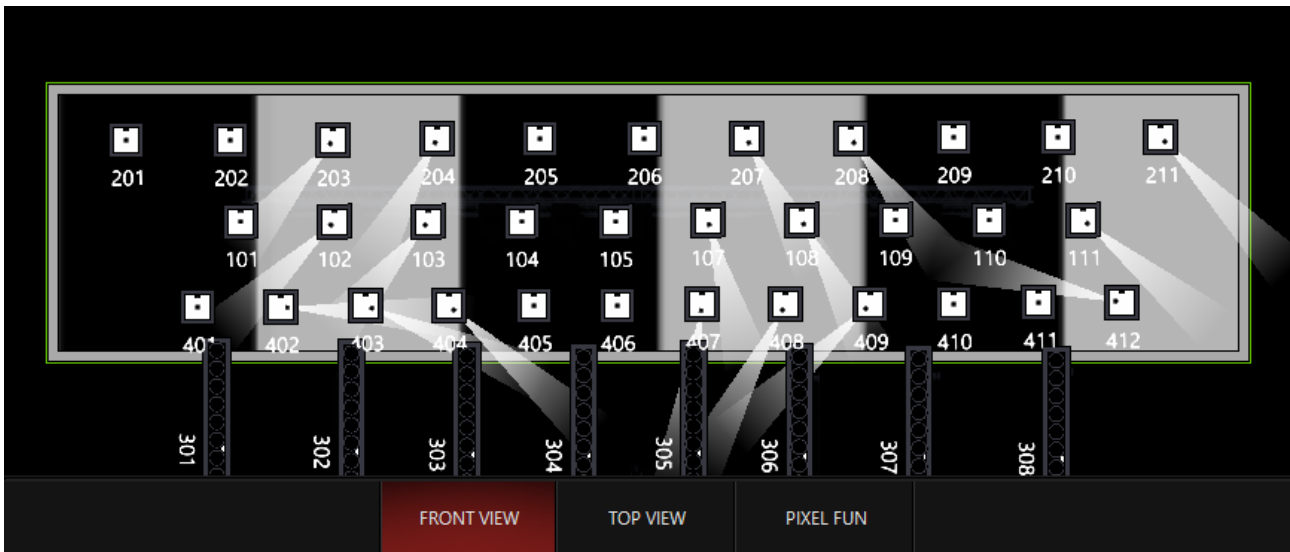
It's a great option when you don't want to completely override the regular parameters for the preset selected.

For this example, I've called up content number 35 from the MonoChrome folder of the Factory Content and set it in 1 Preset Mode with a "Full Intensity" preset selected:

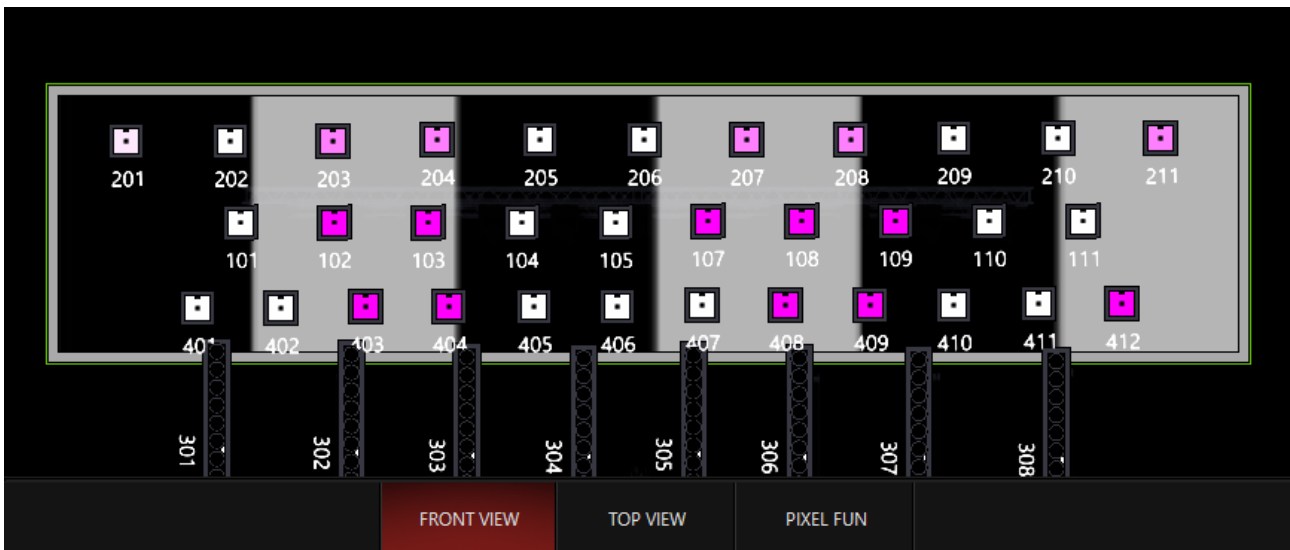


Programming

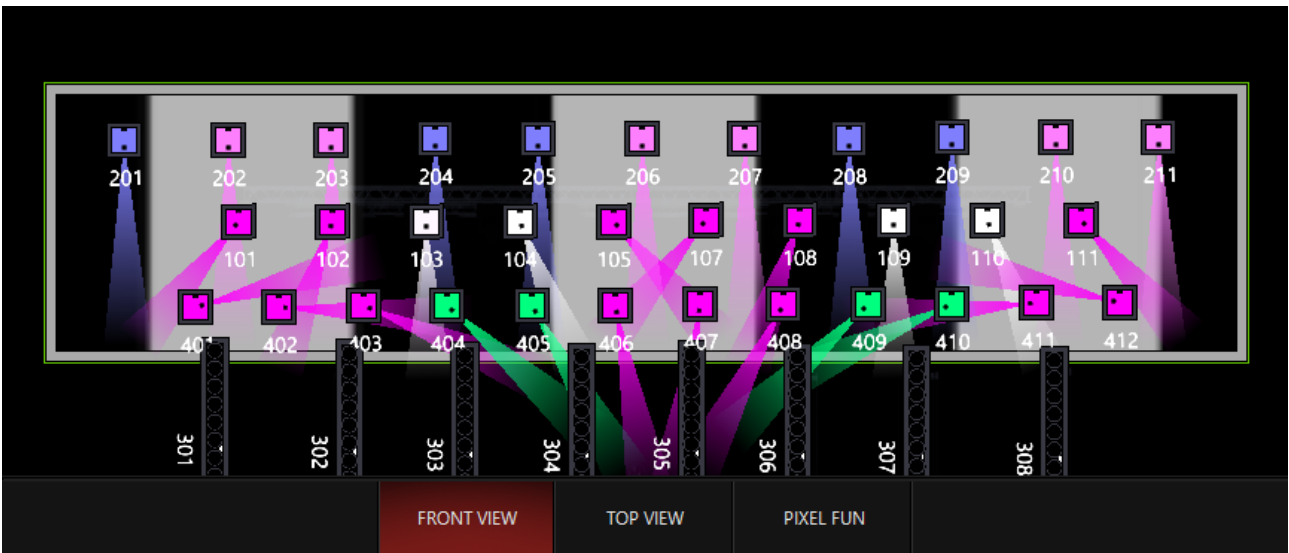
Pan Tilt: I placed the mapping in the "Lead Singer" preset and now the white areas of the content direct the lights to that position:



Color: I chose the "Magenta Mix" preset and applied it:



And then I played back a cue to show how the dark areas are transparent and allow the regular cues to show through:



Any preset type is available via this mapping type, allowing for many possibilities!

2 Presets

The 2 Presets mode uses the grayscale value to modulate between (2) presets. They are therefore assigned to the Black and White values of the content, and any Gray will be a mix of the 2 presets, the exact mix determined by the level of dark/lightness of the gray.

One popular way to use the 2 preset mode is to create a chase across the rig in the client's colors. The (1) arrow points out how to switch between the Black (Preset A) and White (Preset B) presets:

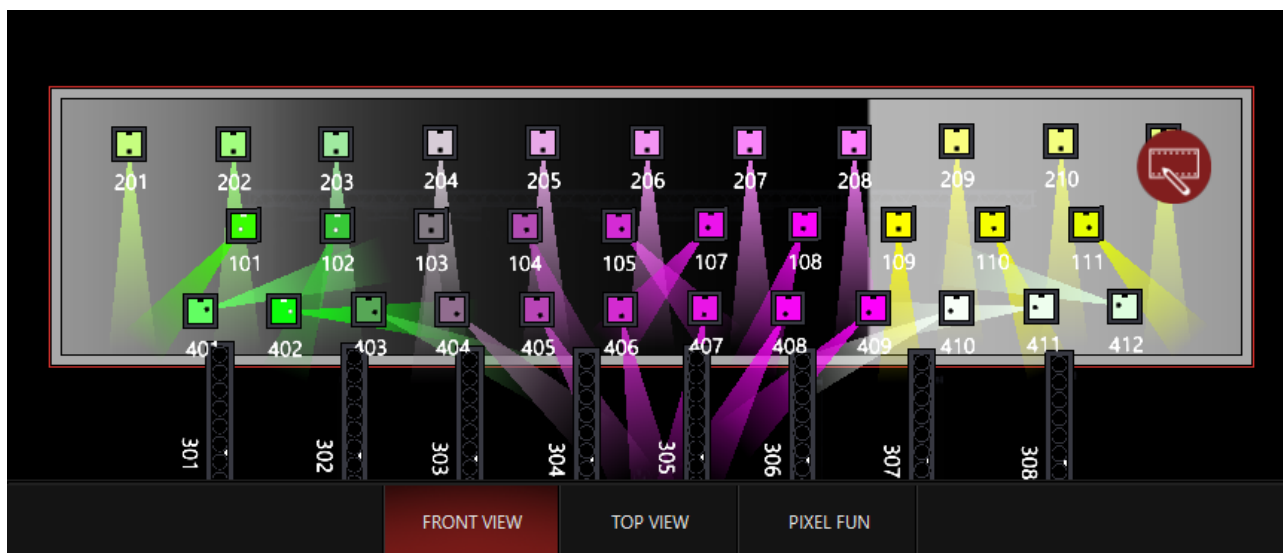


3 Presets

The 3 preset mode adds a "Gray" preset as a 3rd step between the Black and White presets.

There is also a "Gray Level" control which allows you to place the gray at any point between the Black and White presets for complete customization.

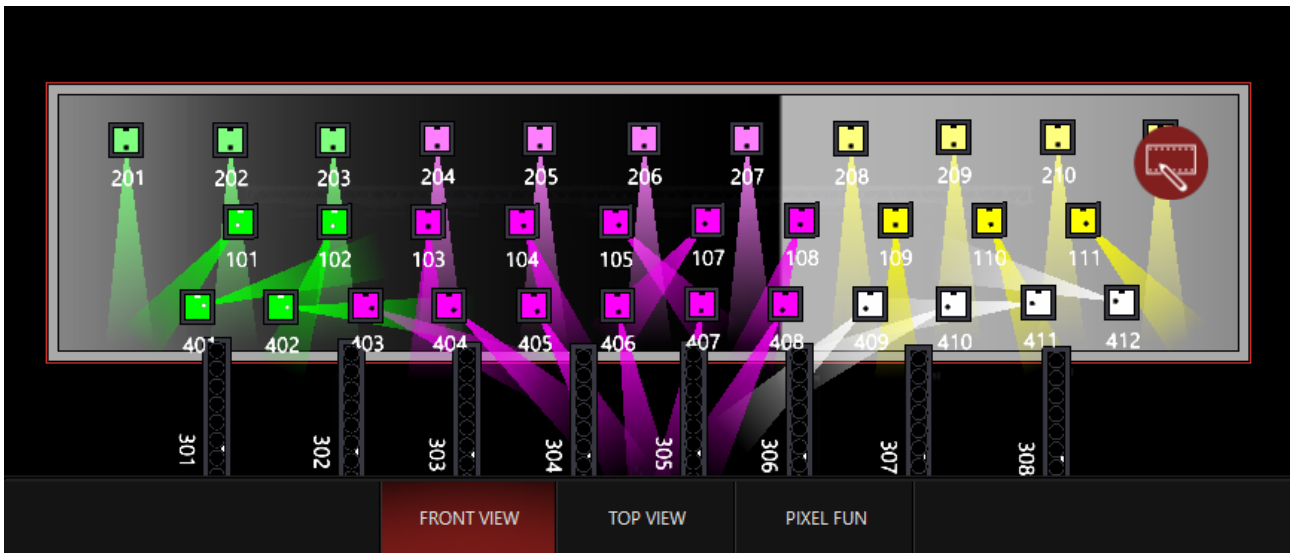
In this example, I've used one of the [Generators](#) to create content with black, white, and gray. You can see how I've mapped Black to Magenta, White to Yellow, and Gray to Green:



Snap Mode

When in preset mapping, this sets the transition between presets. When in "Auto" parameters refer to their channel defaults. When in "Fade" or "Snap", all channels either fade or snap when changing presets in the mapping. The "Snap Threshold" control determines the transition point for the snapping.

In the 3 Preset Example above, Snap Mode is left in auto and we see transitions between the colors. It's nice and smooth on color-mixing fixtures, but it could easily create unwanted colors in the transitions. If we set Snap Mode to "Snap", then these colors will snap between the different presets, leaving no awkward transition colors:



DyLOS Examples

The DyLOS pixel composer is a very powerful tool included with ONYX which can be used in many different ways.

Below are just a few examples on how we can use DyLOS to create an interesting show! *Press any of the titles to expand the example.*

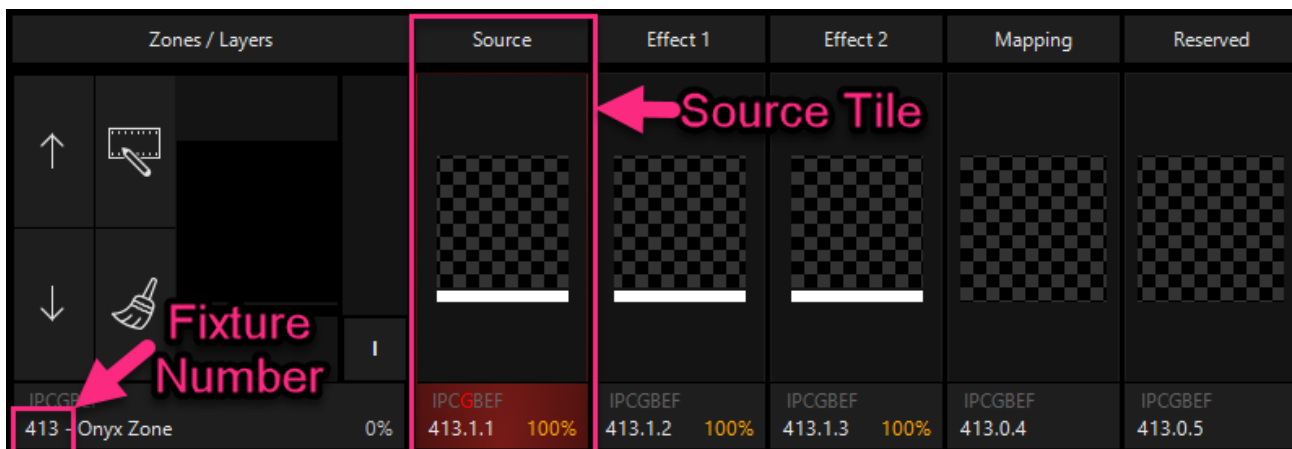
Like other examples, these use the ONYX Training showfile which is found in the "Samples" subfolder of the ONYX showfile folder. [\(Which can also be used with the Capture 3D Training File for free - more info here!\)](#)

I'll be creating these examples in view #4 of the default "Compose" Workspace, which is called "DyLOS". Press the titles below to expand each example and be sure to use the examples alongside the examples within the pages for each different DyLOS concept.

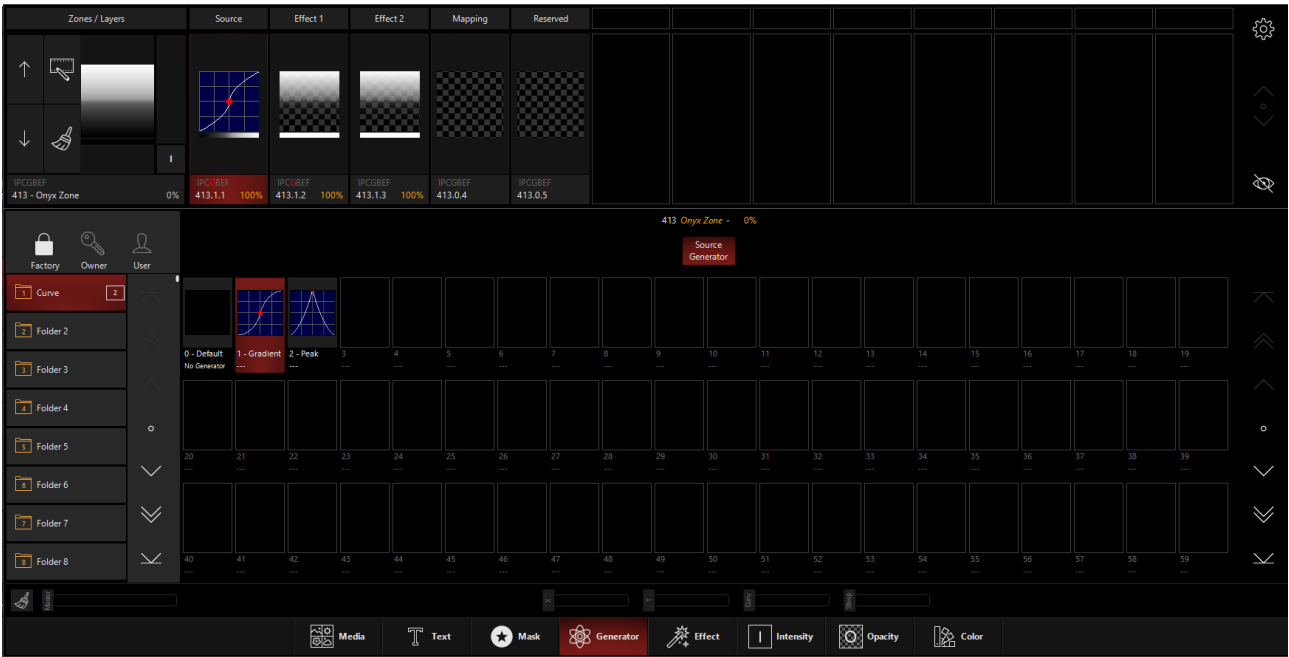
Example 1 - Generator Effect

If you have any lights selected or activated, please press CLEAR twice to fully clear your programmer.

Now, select the Source by pressing the Source tile, or type the Fixture Number for the Zone:



In the bottom half of our view, we can see the Zone Parameters window. Let's select Generator from the bottom navigation and then select the first option - Gradient:

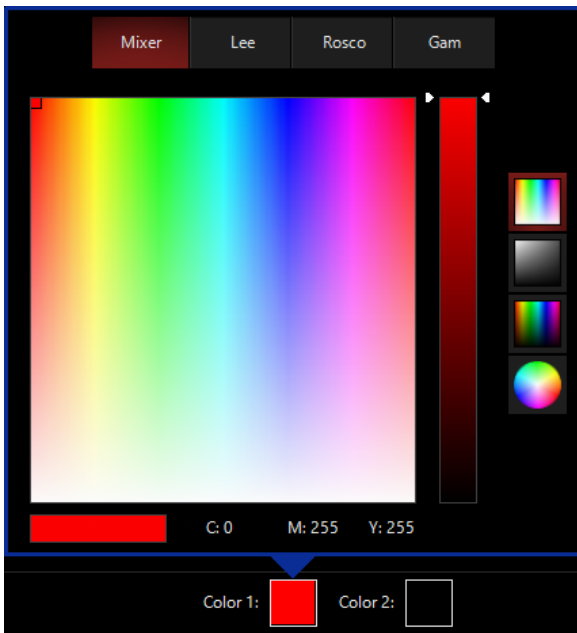


Now, let's go to the Effect on the bottom navigation and select 1-2-Col Gradient:



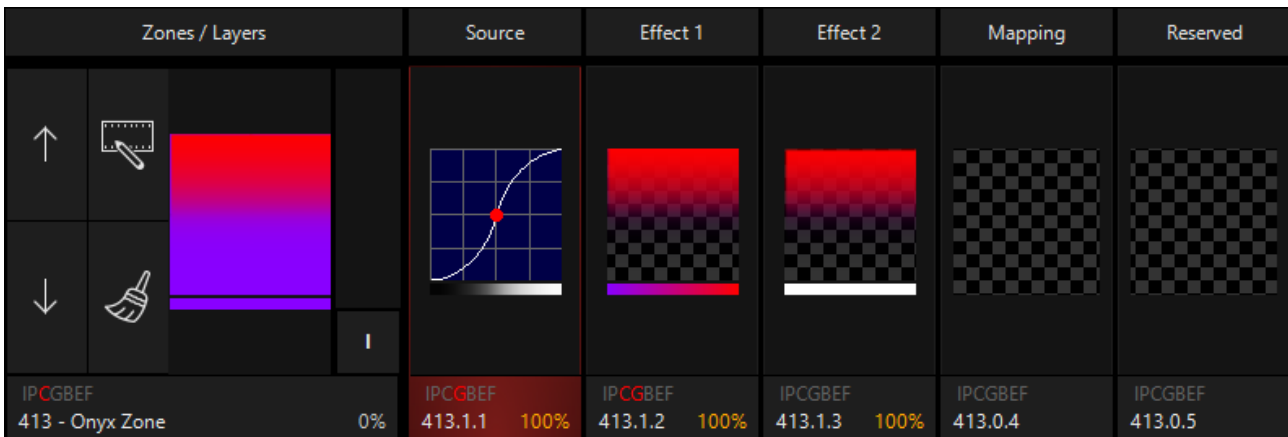
At the bottom of this sub-window, we can see our color options - right now they are set to black and white.

Press the box next to Color 1, and a color picker will pop-up:



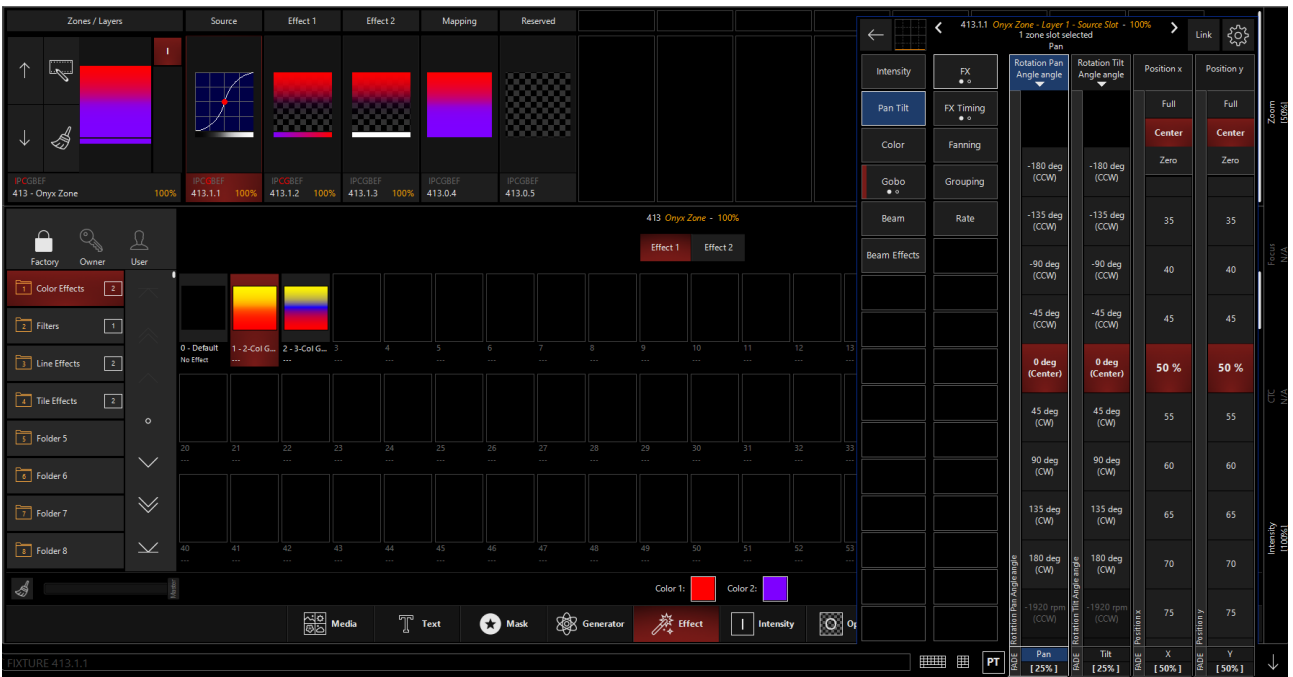
Choose a nice red, and then repeat with the Color 2 box. Note, when the color picker is at black, you'll need to use the intensity fader on the right side of the color picker to "lighten up the mood". Choose a nice violet for the 2nd color.

Now, you're Zone Composer should look like this:



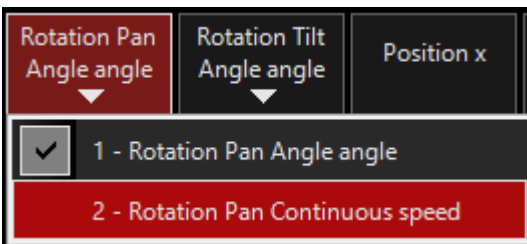
Note that we're still not live to our fixtures yet - we'll activate that once we have a nice effect built!

Let's use our encoder wheels now. I'm going to pop up the encoder wheels using the "Up Arrow" near the bottom right corner of the window, and then press Pan Tilt to work with these parameters:

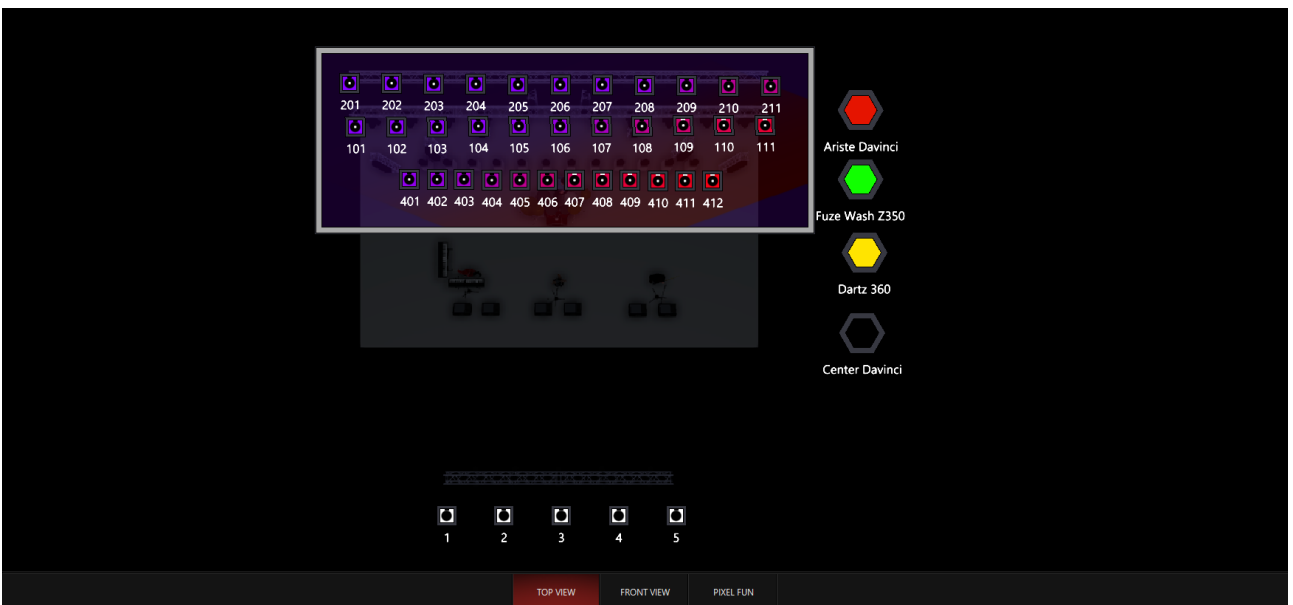


By default Rotation Pan is selected. Experiment with running that encoder wheel up and down, and see how it affects our content.

Now, press the header of the Rotation Pan encoder and change the function to Rotation Pan Continuous Speed:



Great! Now's it rotating on it's own. Let's bring up that Intensity Fader on the Master Fixture, and head over to our 2D Plan:

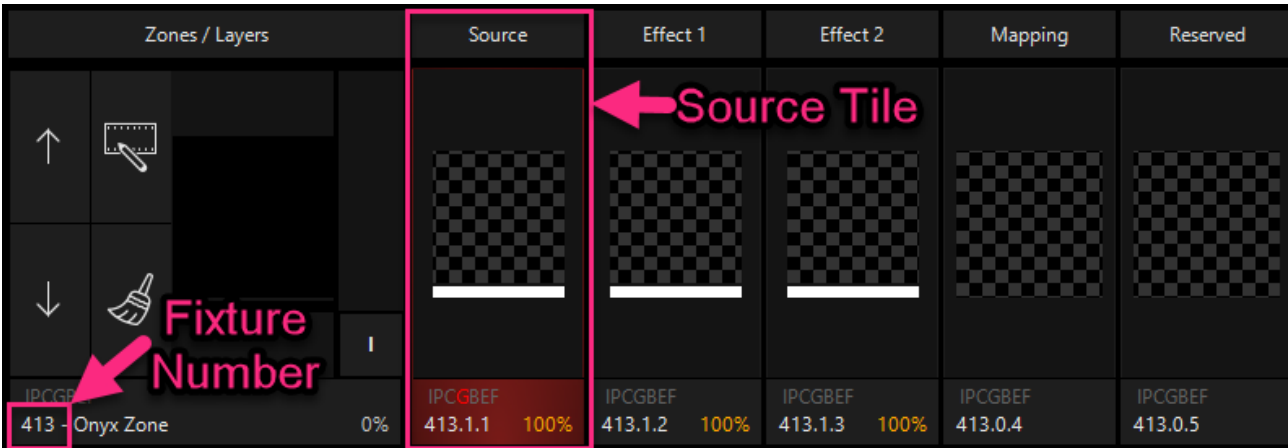


Watch it rotate these colors across your whole lighting rig! You can now Record this DyLOS effect to Presets and Cues - just like any other attribute of your lights! Enjoy!

Example 2 - Video with 2 Slots

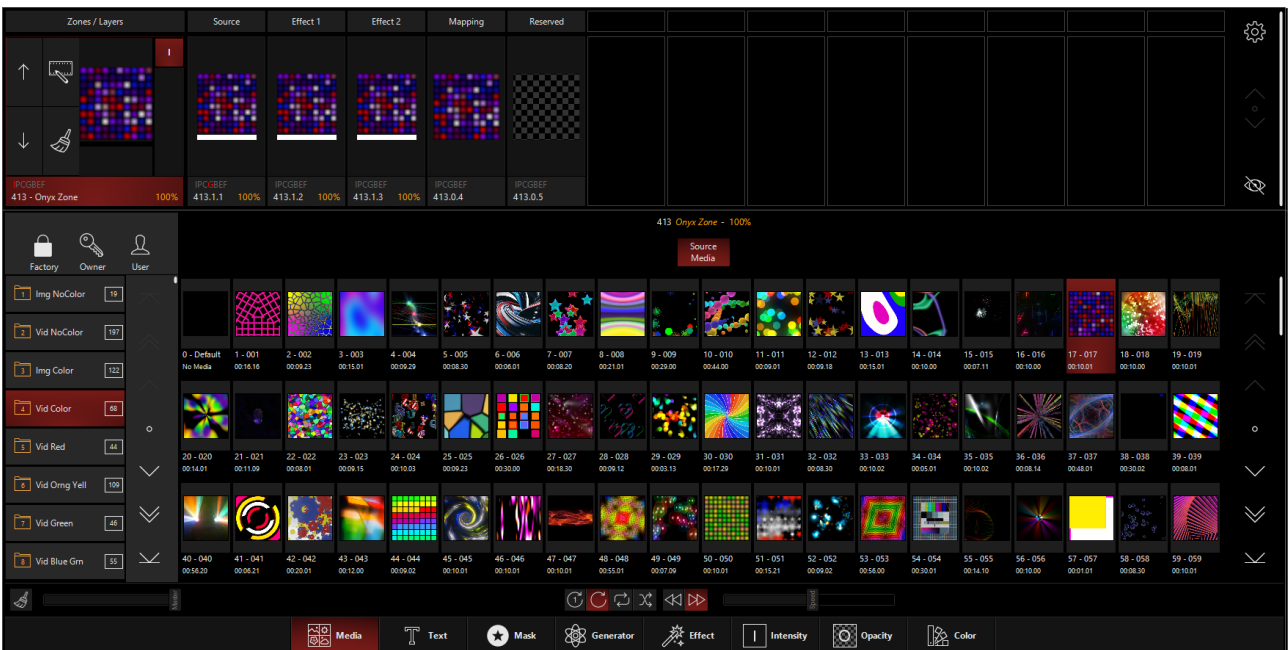
If you have any lights selected or activated, please press CLEAR twice to fully clear your programmer.

Now, select the Source by pressing the Source tile, or type the Fixture Number for the Zone:



In the bottom half of our view, we can see the Zone Parameters window.

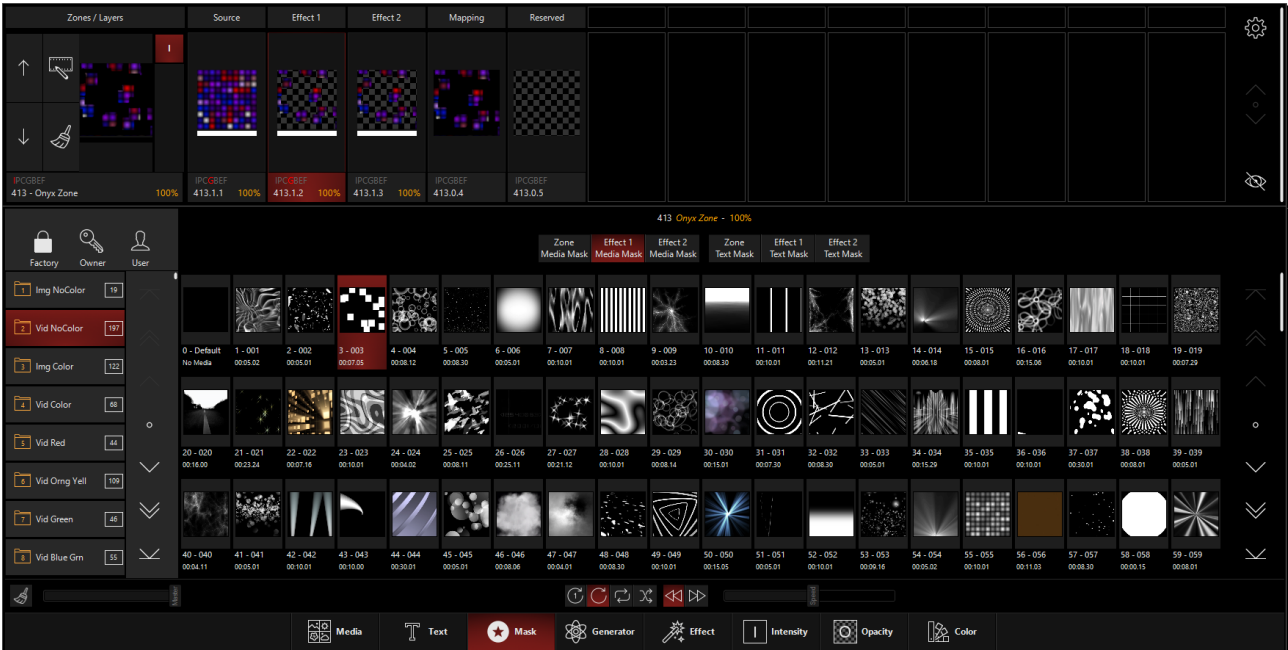
Let's select Media from the bottom navigation (it should already be selected), and under Factory we will choose folder 4 - Vid Color. Let's activate the content number 17 - 017:



This time, we'll bring up the intensity of the Zone fixture - we can do this via the intensity indicator on the Zone fixture, or by typing (Fixture Number) At FULL.

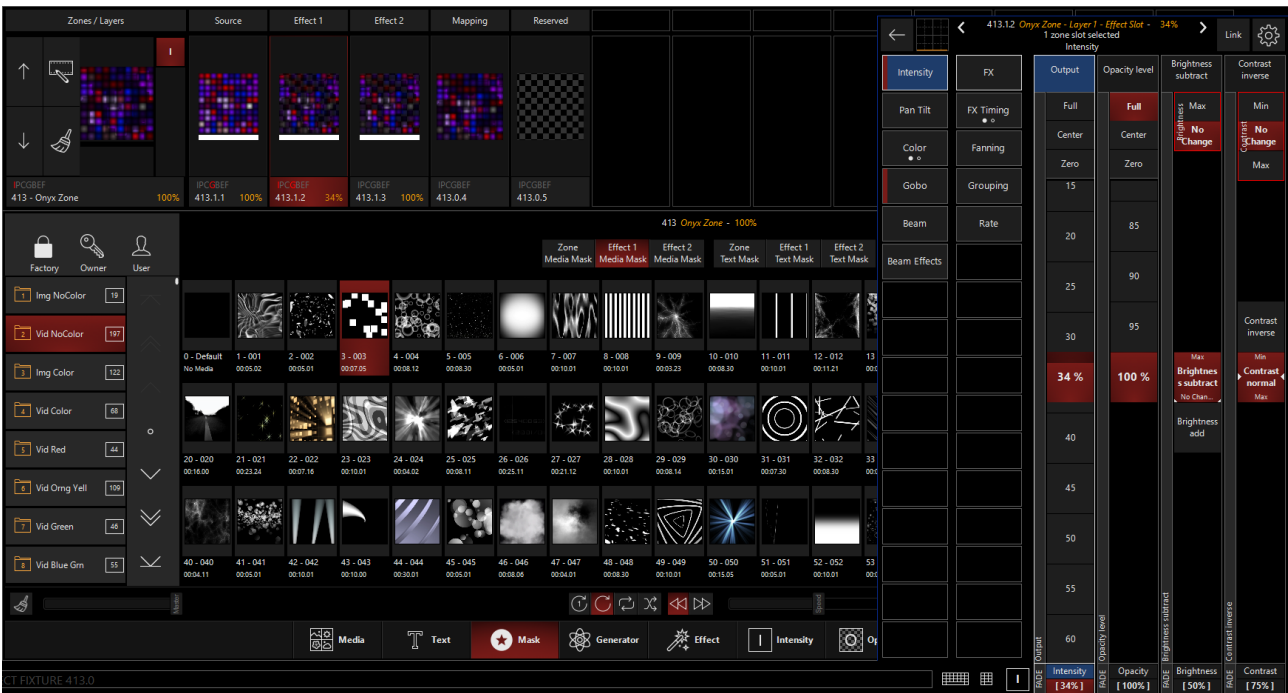
Programming

Now, let's select Mask from the bottom of the Zone Parameters window (the bottom half of the DyLOS view in the default Compose workspace) and then press Effect 1 Media Mask from the top of the Zone Parameters Window. We'll choose the Factory mask from folder 2 - Vid NoColor and press media content number 3:



Watch how the monochromatic "mask" is applied to the initial clip for a really cool output that has some great negative space!

Select Effect 1 from the Zone Composer at the top and the bring the intensity of only the "Effect 1" slot up and down:



Watch the mapping tab as well as the output on the master fixture as you do this. If you have lights attached or the Capture Visualizer demo file open, you'll see the changes live on your fixtures!

Programming

RECORD this to a preset or cue, and have fun learning how to use DyLOS!

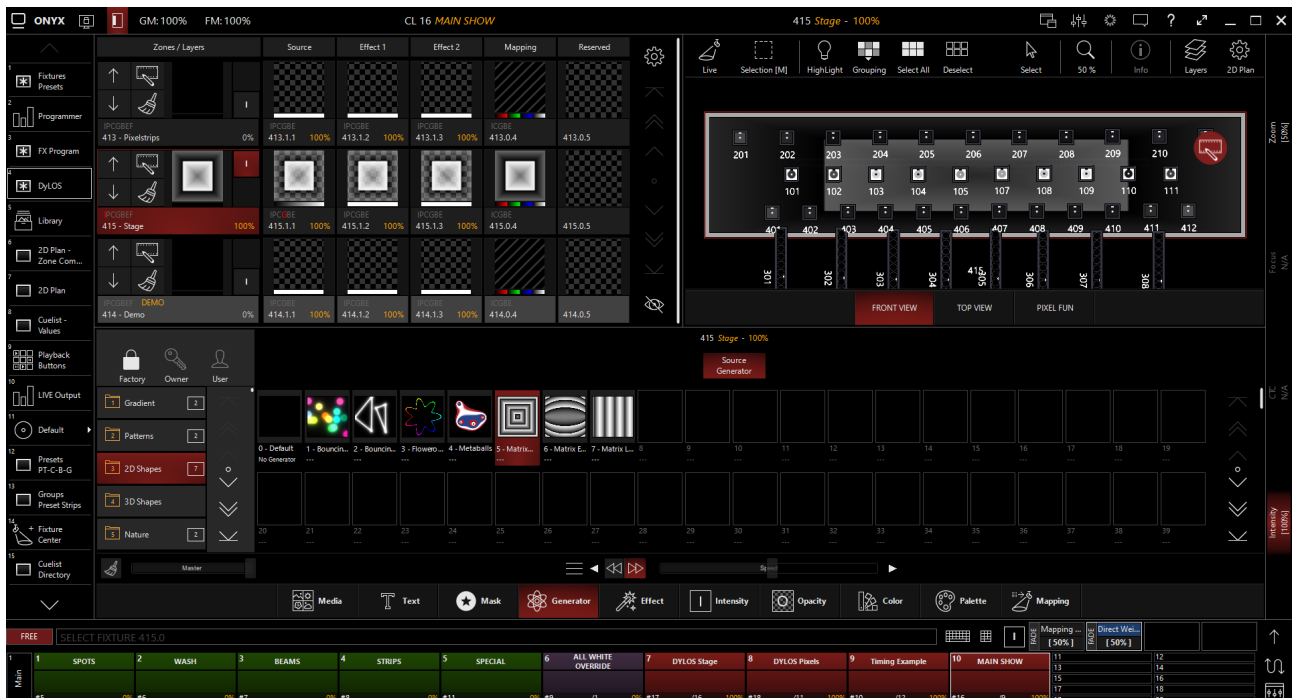
As you work with the different steps in these examples, consider saving different parts of the tutorial onto different cues.

For example, the Intensity of the Effect 1 could be saved to an Override type fader for a neat result, and highly flexible live control over this slot in DyLOS...

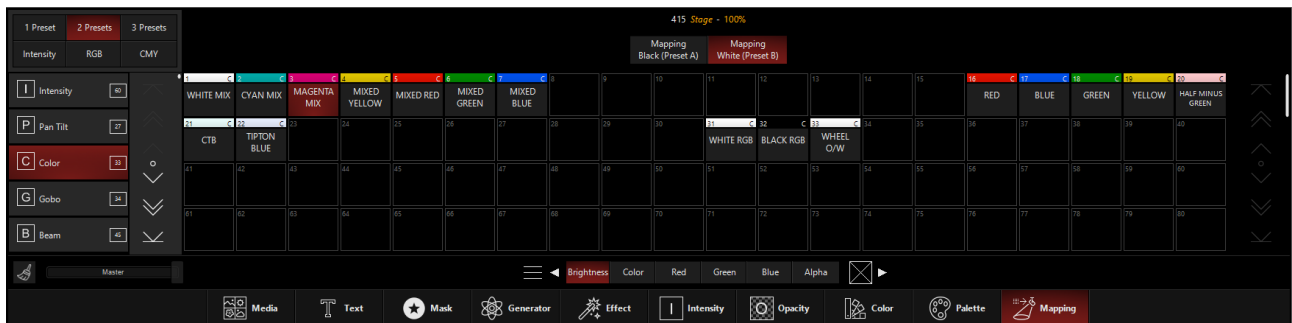
Example 3: 2-Color Chase

The 2-Color chase based your choice of preset colors has long been elusive in ONYX - no more!

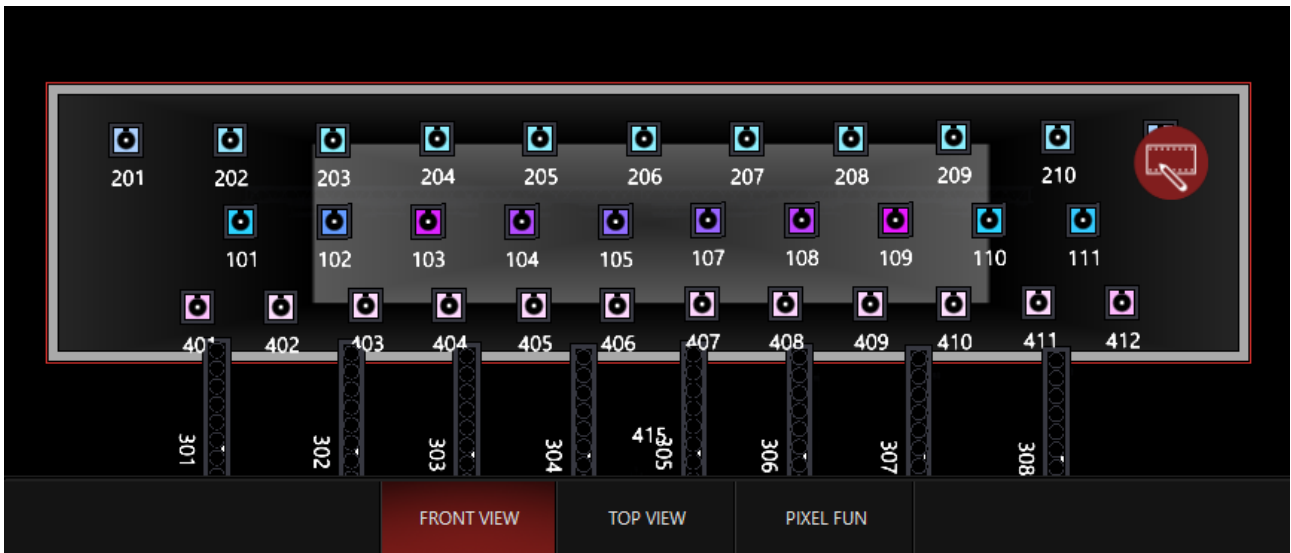
To begin, I chose a Generator from the 2D Shapes folder and applied it as the Source on one of my Zones:



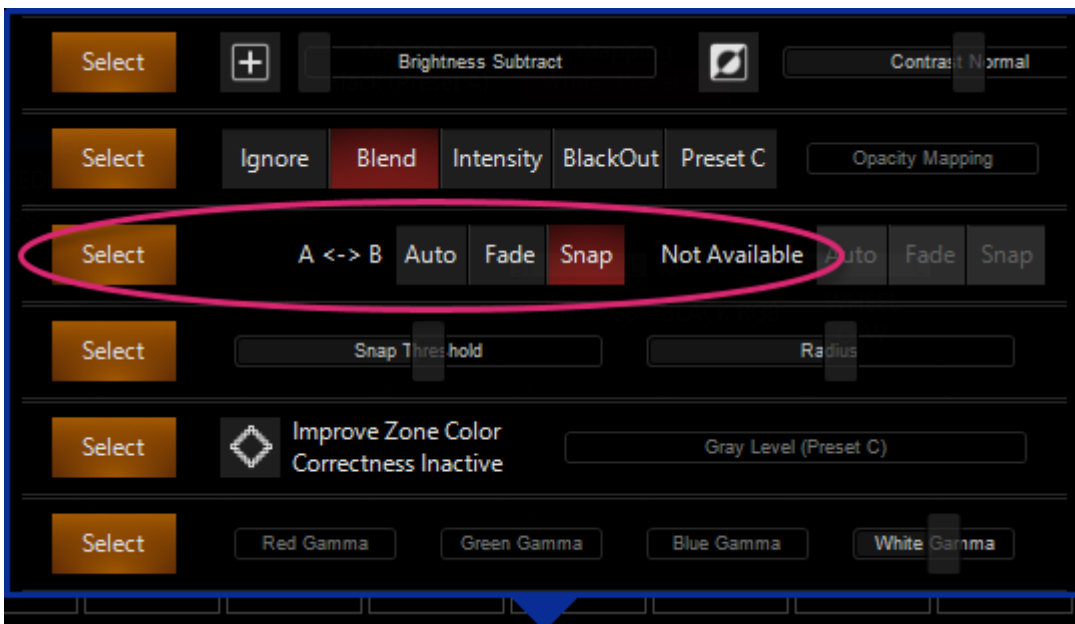
Next, I went to the "Mapping" tab and chose the [2 Preset Mapping](#) and selected (2) presets from the [Zone Parameters](#):



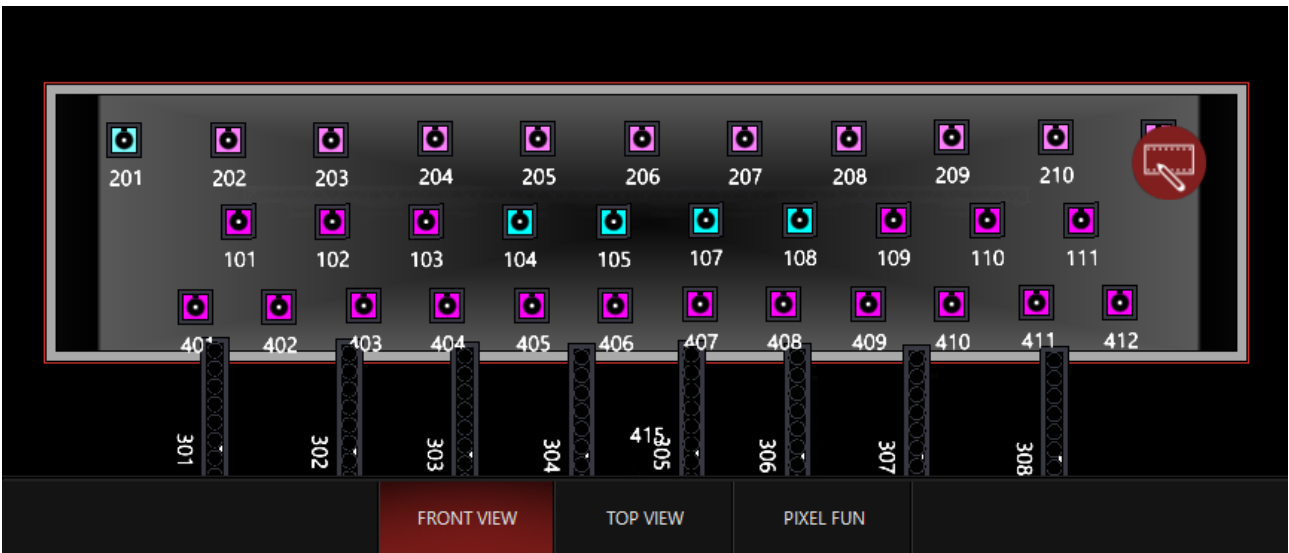
Which then gives me this result, with the colors fading between the 2 presets in accordance with the content:



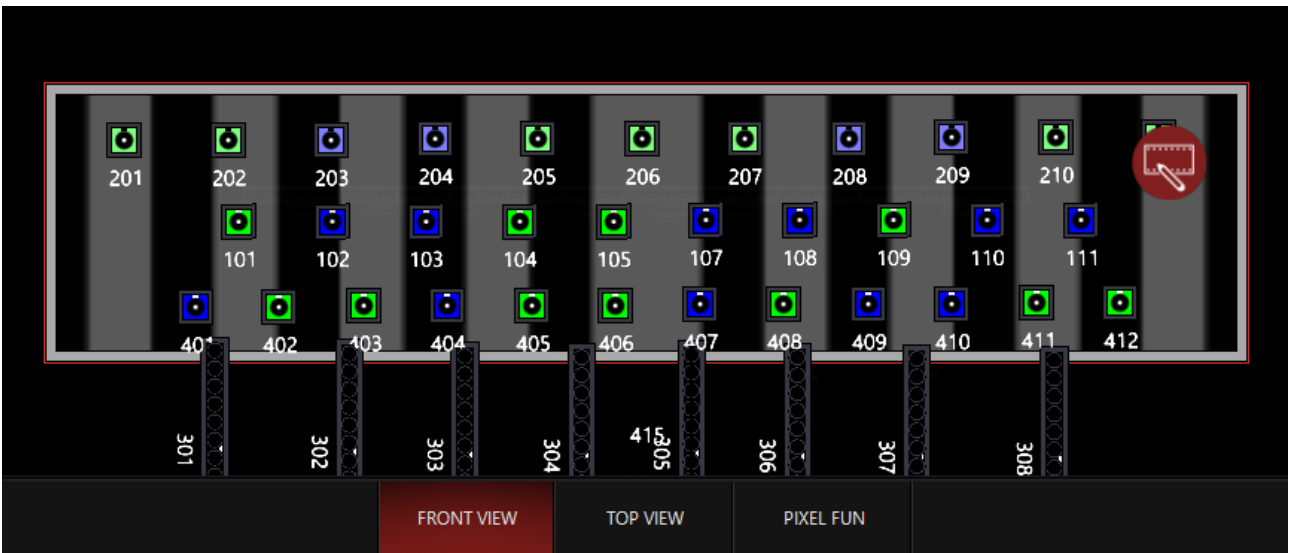
Next, I use the menu at the bottom of the Zone Parameters to toggle the "Snap Mode" to Snap:



Which then gives me hard changes between my (2) color palettes selected.



I can RECORD this into a cue, and/or change presets, content, or any of the DyLOS parameters on the fly in the programmer to change the look I receive with just a few presses:



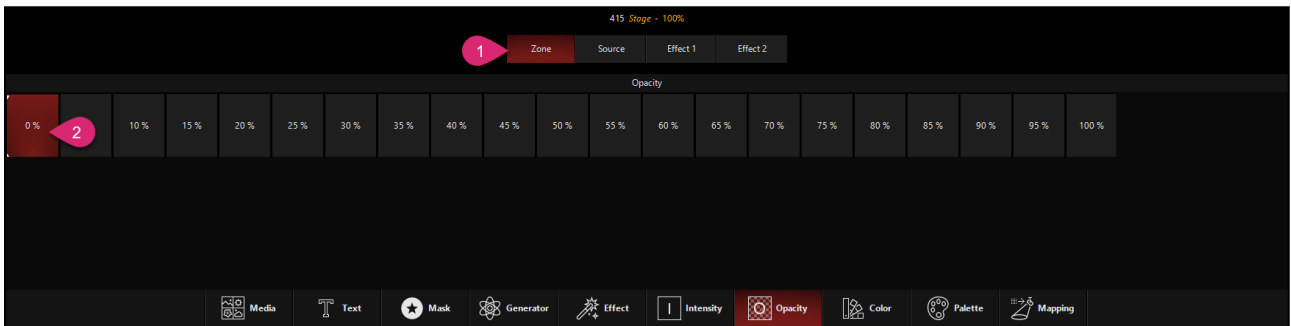
Example 4 - Generator Controlling Position and Intensity in a Single Zone

Using the Opacity Mapping, we can create a DyLOS cue that has only (1) Zone but controls (2) different parameters at the same time.

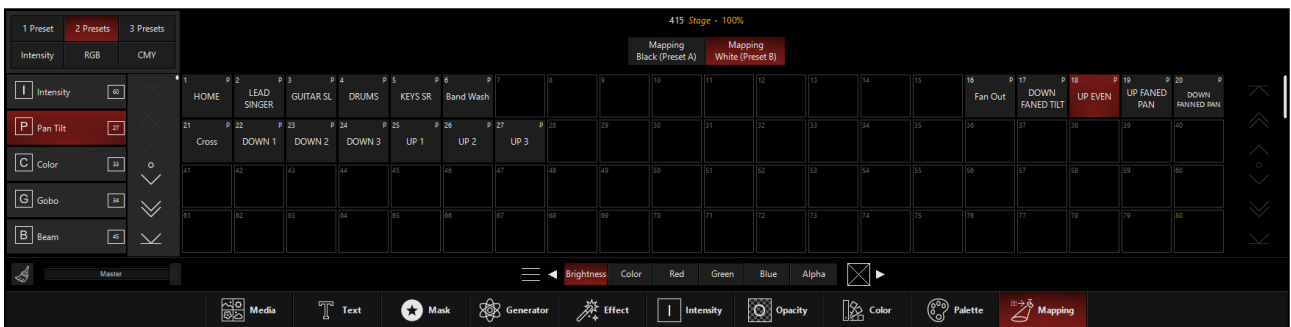
1. We'll use the "Stage" Zone in the demo showfile and create a Generator Source with the "Matrix Lines" Generator on the default settings:



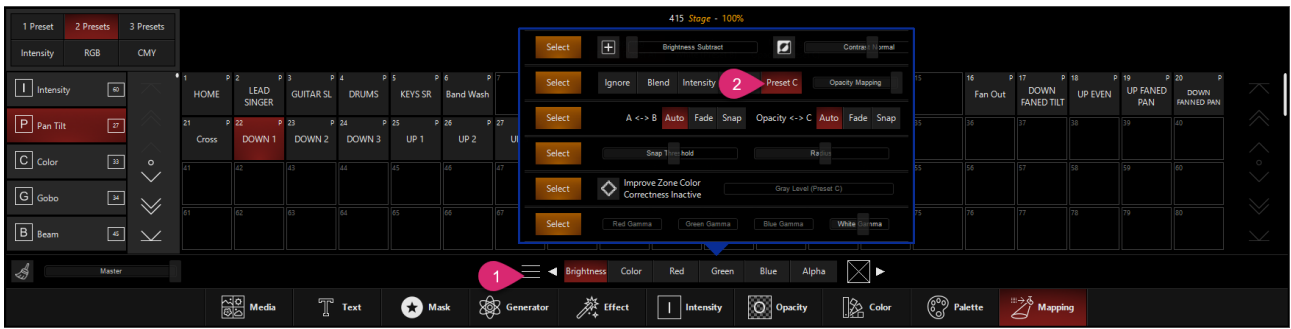
2. Now, set the Source Opacity to 0%:



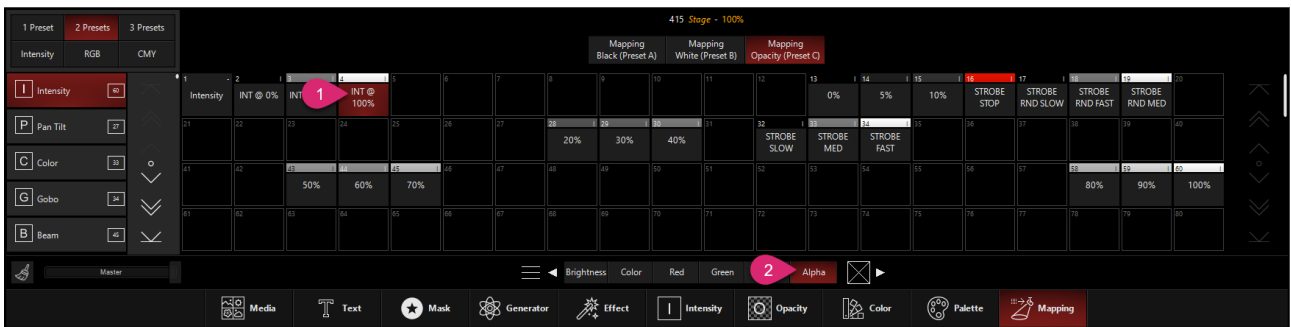
3. We'll now go Mapping tab to the select 2 Preset Mapping mode. For this example, I have Preset A set to "DOWN 1" and Preset B set to "UP EVEN". All of the other settings are at their defaults:



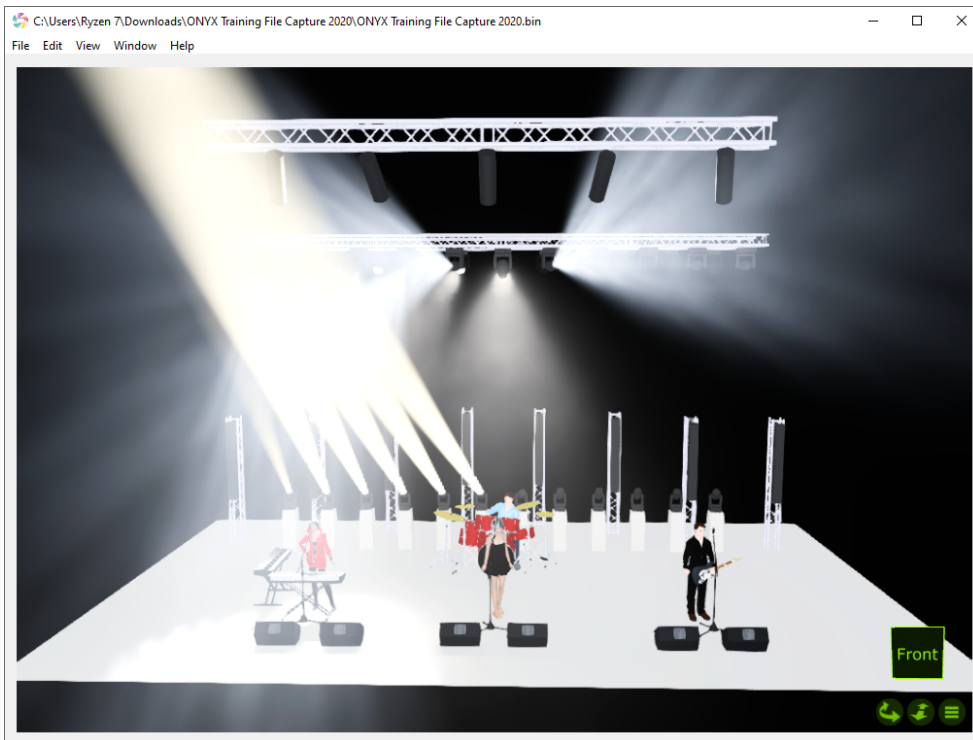
4. Now, we'll set the Opacity Mapping mode to "Preset C":



5. Then choose the Intensity preset "INT @ 100%" and "Alpha" from the Mapping key at the bottom. Changing the key to Alpha is very important because the Preset Mapping and Opacity mapping sections need to be using a different key for this example to work well. If they use the same key, you lose the 2 preset mode.



Now you'll get this result:



While a still image isn't as good as video, you can probably see that here we have a "waterfall" type effect where the lights come on, transition from Preset A to Preset B, then turn off while they return to Preset A.

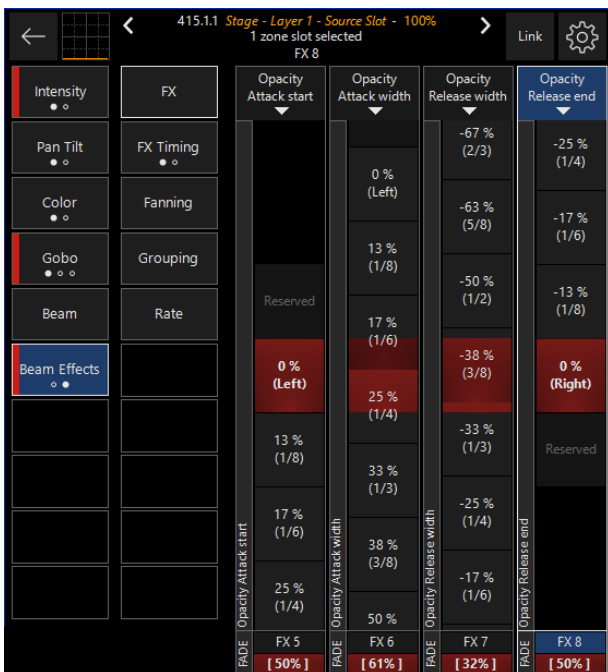
Programming

But we can tweak the Opacity map at little further by using the Opacity Curve. For example, at the settings I currently have, the lights don't fade in and out as smoothly as I'd like.

For the Opacity Curve, we select the Source sub-fixture and then go to the Beam Effects parameter group, and go to the 2nd page of Beam Effects parameters (FX5-8):



I then use these settings to smooth the intensity transition:



The best thing about this approach is that it can work with many of the generators and also a lot of the factory content with black backgrounds - these backgrounds turn transparent when the Zone Opacity is set to 0%!

DyLOS Quickstart

This page is designed to give you a basic overview of [DyLOS](#) and get you running content across your lights quickly. There are 5 basic steps to working in DyLOS:

1. [Setting Up Your Views](#)
2. [Loading Content into the Library](#)
3. [Selecting Content on a Zone Fixture](#)
4. [Using Effects in DyLOS](#)
5. [Recording Your DyLOS Parameters to a Playback](#)

The additional pages in this section will give you a deeper view and reference into all of the features that DyLOS offers.

1. Setting Up Your Views

The first step in working with DyLOS is to set up some views. DyLOS primarily makes use of 4 windows within ONYX:

- [Library](#) - This window is where you load and manage your content, as well as view all content that is available to use.
- [2D Plan](#) - Using the layout in your 2D Plan, you create [Zones](#) which are the canvases that your content plays on.
- [Zone Composer](#) - This window allows you to apply content to your zones in a graphical manner, viewing each step as well as the final output, even when the Zone is not outputting.
- [Zone Parameters](#) - This is a combination of the [Library](#) and [Zone Composer](#) window, and is very helpful when mapping content in DyLOS.

If you're started a new show, these views are already located on the right sidebar of ONYX.

If you are using an older showfile and/or customized views, you can add these windows into your own custom views as needed - [learn how to manage views here](#).

2. Loading Content into the Library

Navigate to the Library window:

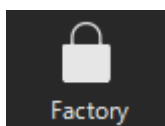


In the upper left corner, you can see a navigation bar with 3 icons at the top to navigate in between the different categories - Factory, Owner, and User. Within each category of content, there are folders on the left which you can use to organize your content in any way you choose.

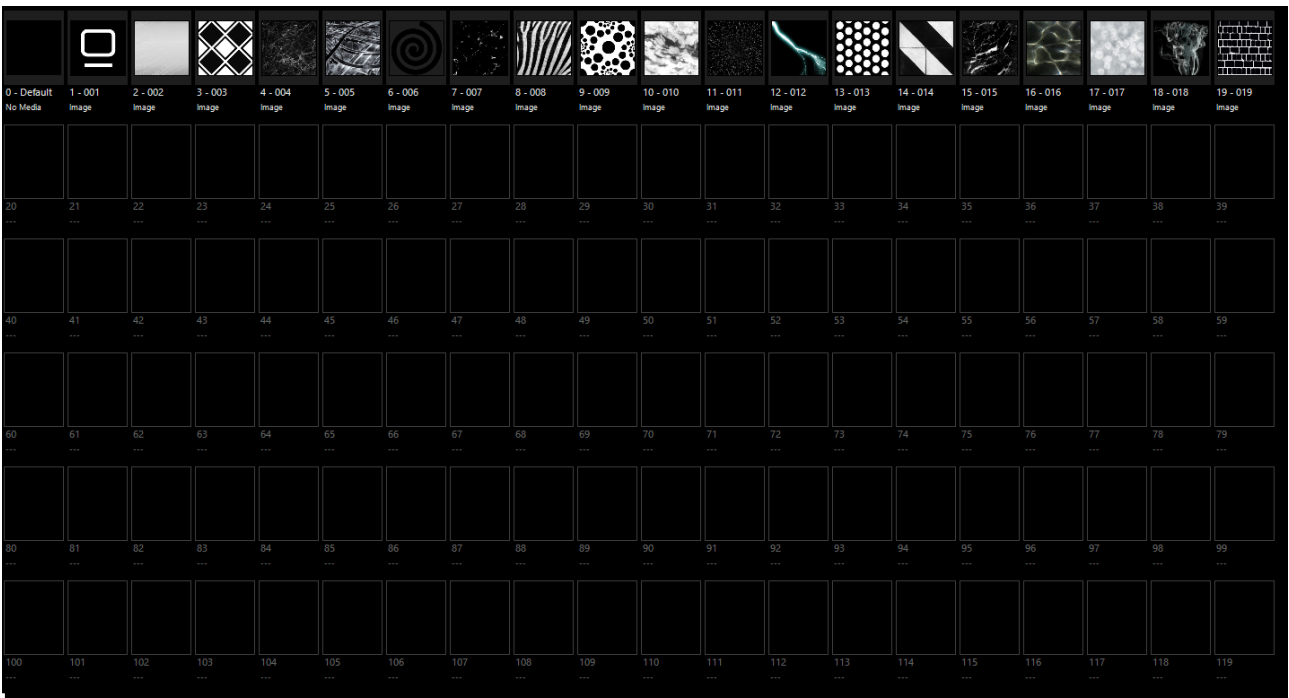
At the bottom of the window, we can see that we are in the Media type of content by default when we enter the Library. As you can see, there are also other types of content, but we will stick with media for this Quickstart tutorial.

On the right, you can see your content.

Navigate to the Factory Media content by pressing the icon in the top left of the window:



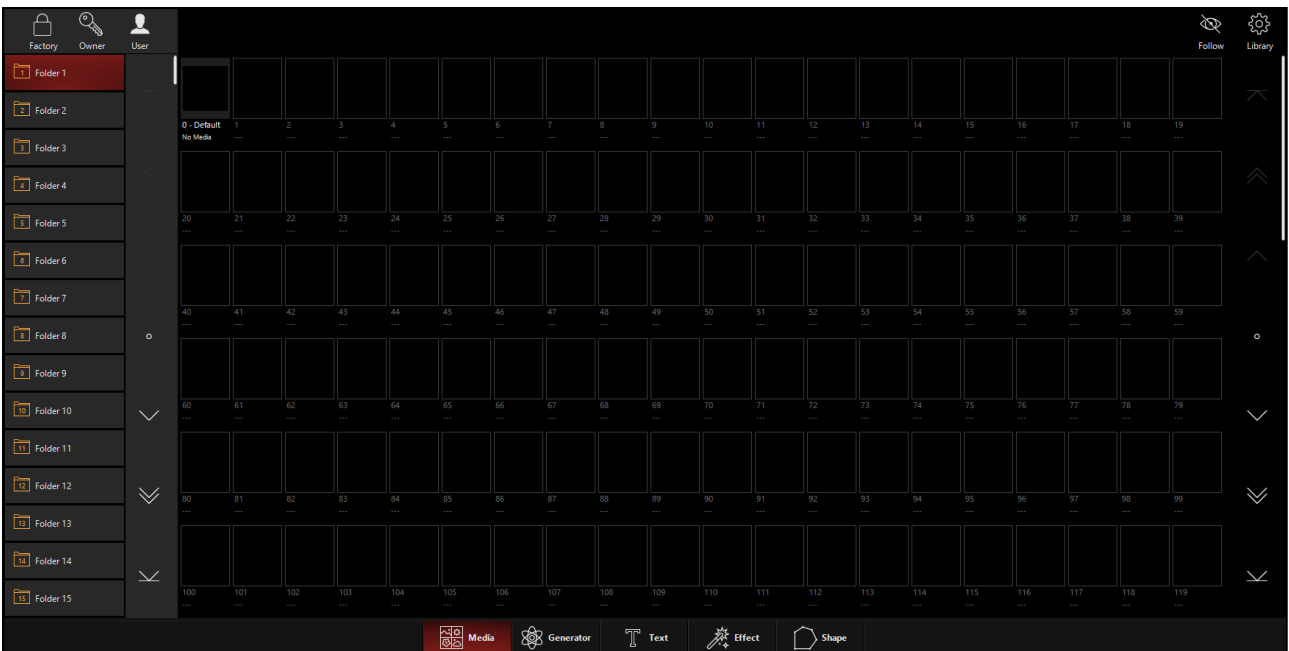
Here, in Folder 1 you can see the first set of media content that is included with ONYX. These are Monochromatic Static Image Files:



If you are using a show file that was created before ONYX version 4.4, then you may need to resynchronize the factory media to get it to appear in your show file. See [Resynchronizing Media](#).

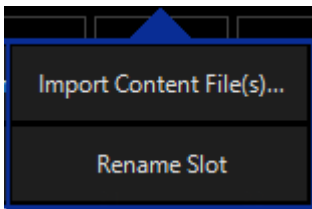
If this is your first time using the DyLOS factory media, then you do need to download and install it. See [Importing and Exporting Content](#) for full instructions and the download link.

Now, press the User Media. On a new show, you will see open Media slots 0-255 for each folder.



Adding "User" Media Content

To add media, simply hold EDIT and press any empty media slot, then choose Import Content File(s)... from the popup:



A file browser will appear, and you can select your content. *Single or multiple pieces of content may be selected at once.* If multiple pieces of content are selected, they will be added in alphabetical order to the next available spaces.

You may also "drag and drop" content into empty spaces if you are on a PC. Right-clicking an empty space on a PC will also open this pop-up.

When the media content is imported, you will see it load into the interface as it is automatically optimized to run smoothly in ONYX. *If you have added a lot of media at once, this may take a few minutes. This will vary based on your system's hardware specifications and the size of the media added.*

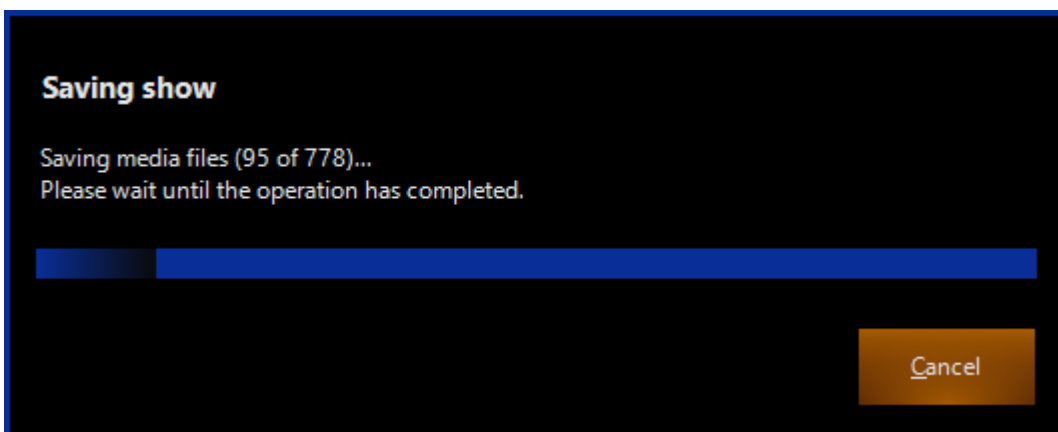
Now, your content is ready to use in a [Zone fixture](#).

Saving With User Content

When you add or delete media or other content in your show, it's a great idea to save a full backup with content. Use the [Quick Menu](#), found by pressing ONYX in the upper left hand corner and choosing Save With Content:



Now is a great time to do this, so that you do not forget to do it later! If you have added a lot of content since your last "Save with Content", this may take awhile, but there is a handy progress readout as you save:



Note, this only applies to "User" and "Owner" content. Factory content is automatically saved within the console's memory, and is not part of the showfile.

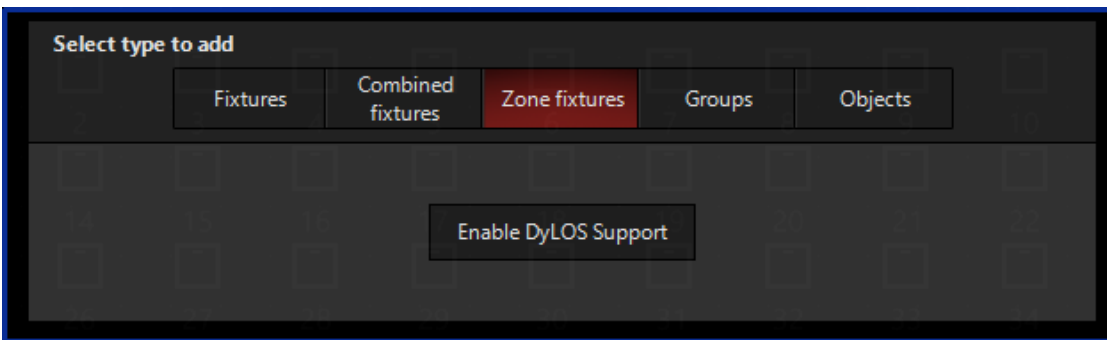
3. Creating a Zone Fixture

A Zone fixture is a virtual canvas that allows you to play content on top of the lights within it. Let's add a Zone Fixture so that we can begin working with content!

Navigate to the [2D Plan view](#) and enter "Edit Mode" by pressing the Live icon near the left-top corner:

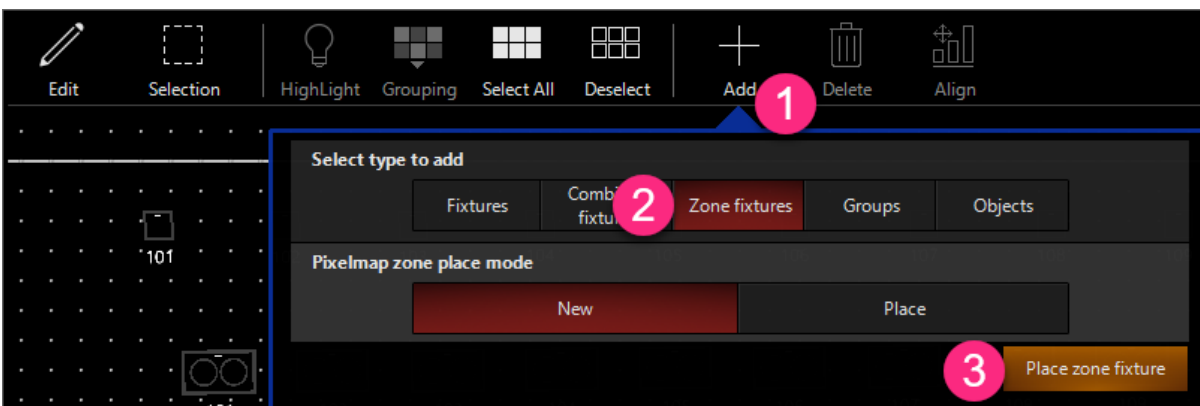


Assuming you have already placed fixtures in your 2D Plan, press Add and choose the Zone Fixtures type. If this is your first time using DyLOS in this showfile, you will need to enable DyLOS in this tab by pressing the button:



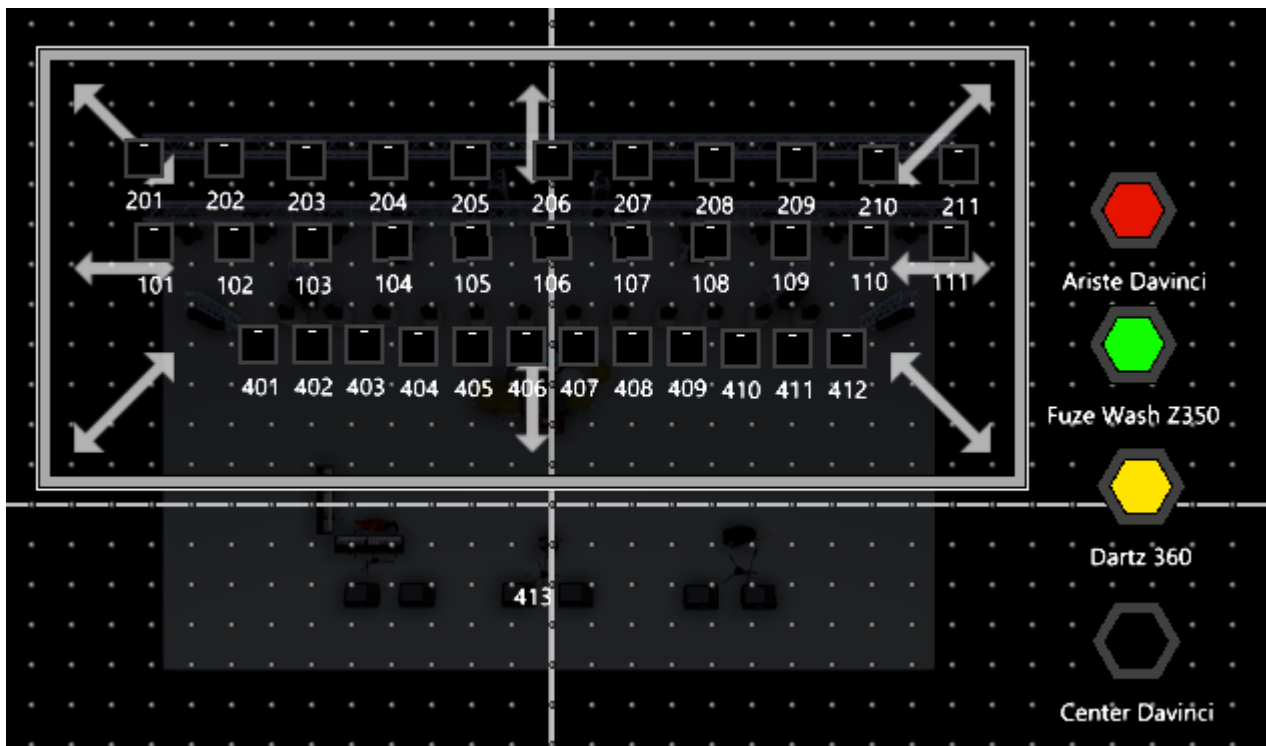
Once you have enabled DyLOS support, press Add and choose the Zone Fixtures type.

By default New is selected, and this is what we will use since we have not created any Zone Fixtures yet. Press Place Zone Fixture and you will be able to draw a rectangle as your Zone fixture:



When your Zone fixture is ready, you may use the arrows that appear in Edit mode to re-size your Zone as desired. Your Zone fixture can be re-sized at any point in the future in Edit mode. When re-

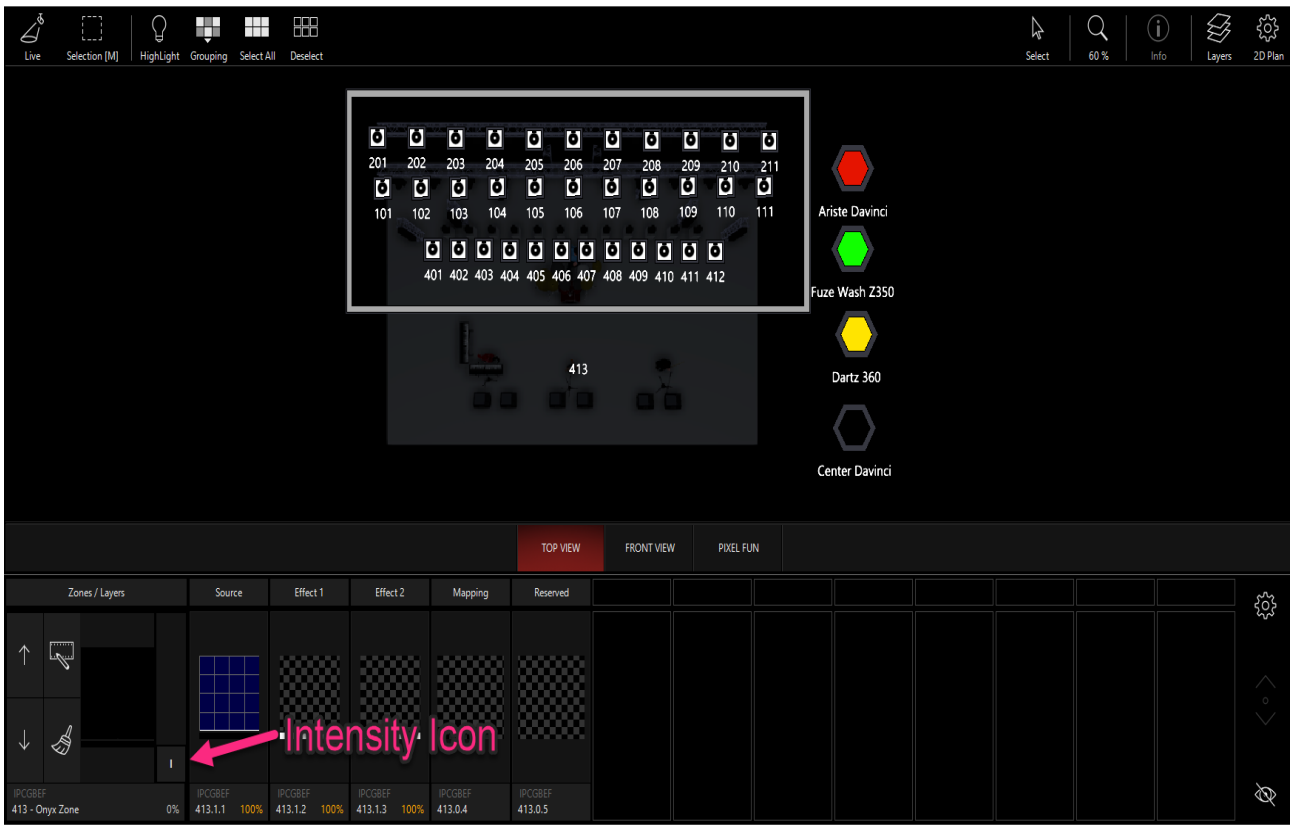
sizing, the changes are live as you make them, so you can see the affects of your Zone scaling live as you move it.



Press Edit to exit edit mode so that you can begin mapping content to your new zone!

4. Selecting Content on a Zone Fixture

Now we're ready to play our content across our lights. For this example, I'm using the view "2D Plan - Zone Composer" from the "Compose" workspace, which has the [2D Plan](#) and [Zone Composer](#) windows within the same view.



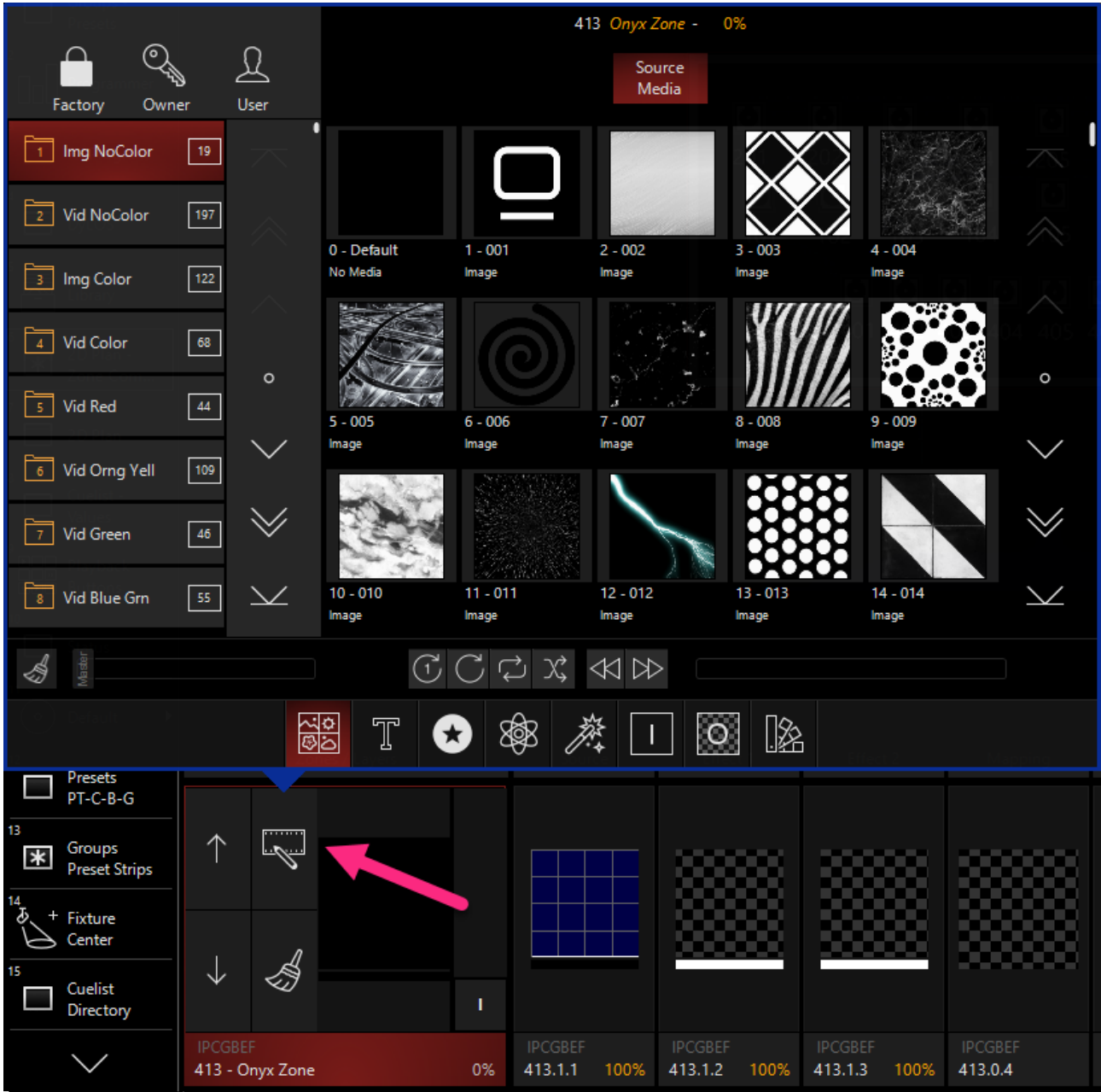
Here we can see our first zone in the Zone Composer. On the left, we have the master control of the Zone's intensity. Moving to the right, we have our Source, Effect 1 and Effect 2, Mapping, and Reserved. Each of these slots are selectable graphically by pressing them, and also via the [Command Line](#) like any other fixture.

First, select the master fixture for the ONYX Zone that you have created by pressing on ONYX Zone. On the right side of the Zone, you'll see the intensity control (the "I" square icon) - let's bring that to full.

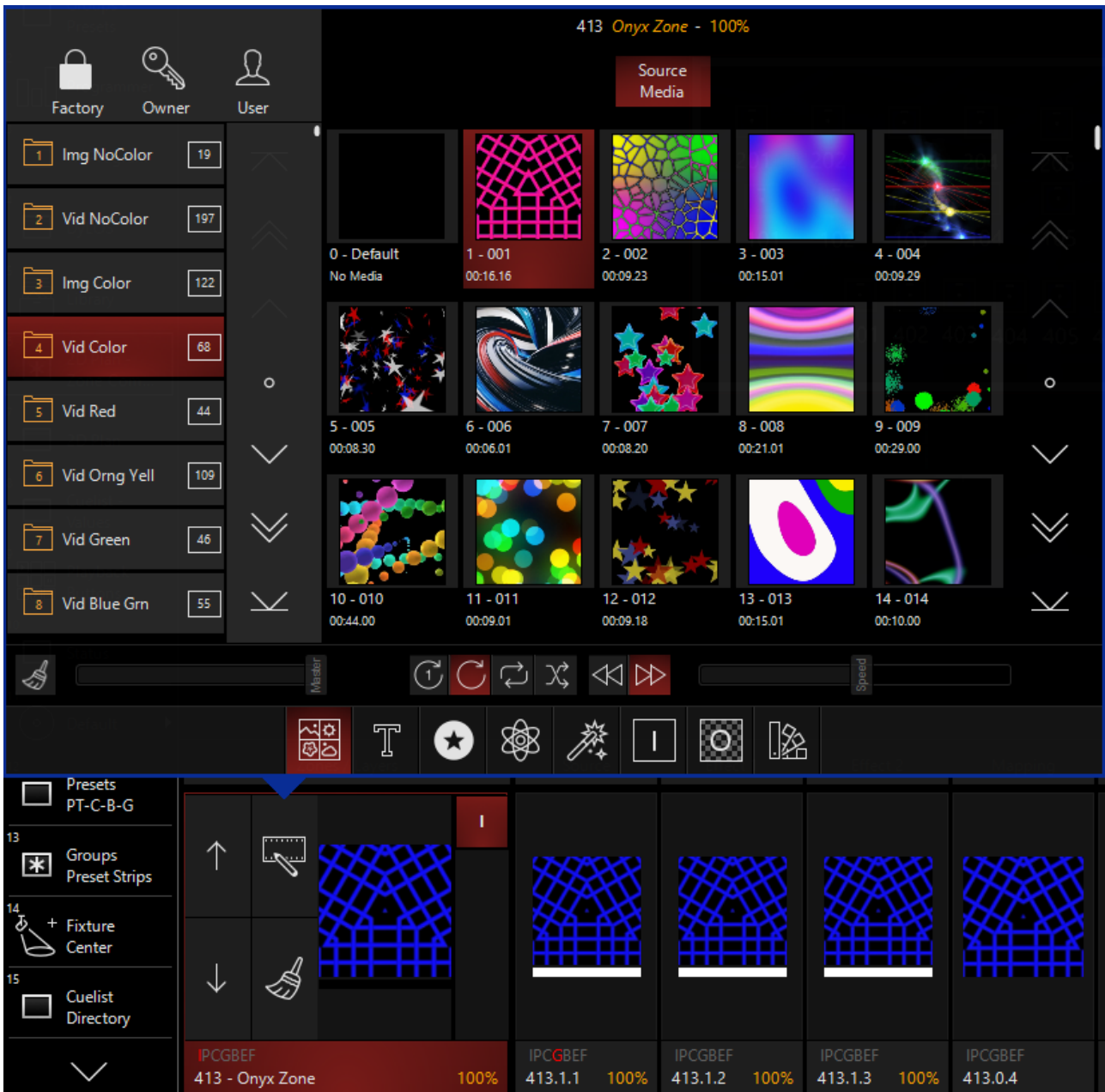
Select user content by pressing the "Pencil" icon on the master fixture for the Zone you are working in:



Along the bottom, the 3rd icon from the left is where you will see a very familiar sight - the media section of the [Library](#), via the [Zone Parameters](#) window.



Here you can navigate to the 4th folder of the Factory content "Video - Color", and select the first piece of media content:



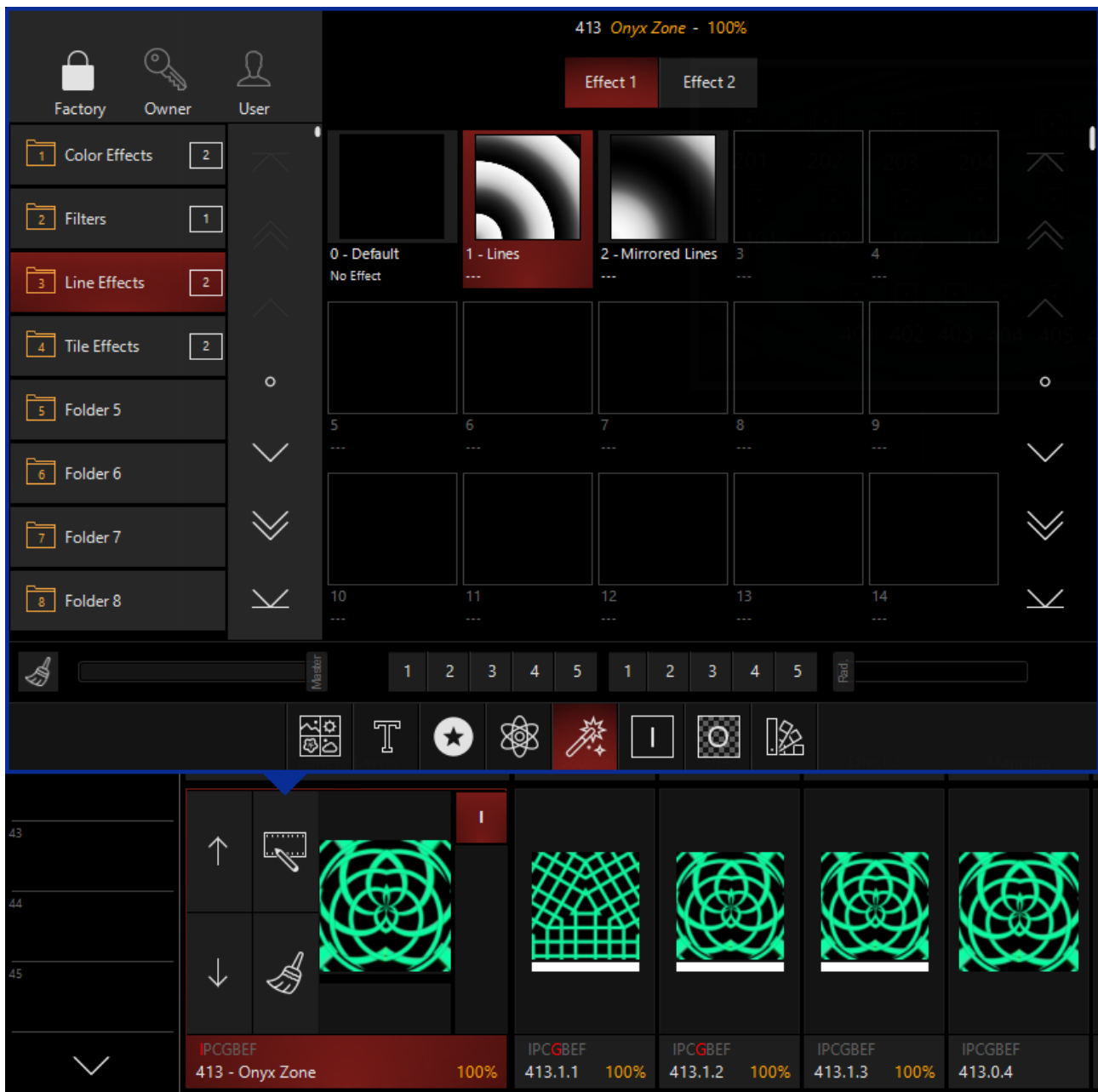
Once the media is selected, it will play and you will see the output in the Mapping section, as well as on your 2D Plan, and of course - on your lights!

5. Using Effects in DyLOS

The Effects 1 and 2 are slots which you can blend with the source to make your final mapping. While the capabilities are vast, we'll just go over a basic tutorial for this quick start. The full details are in the other pages of this section.

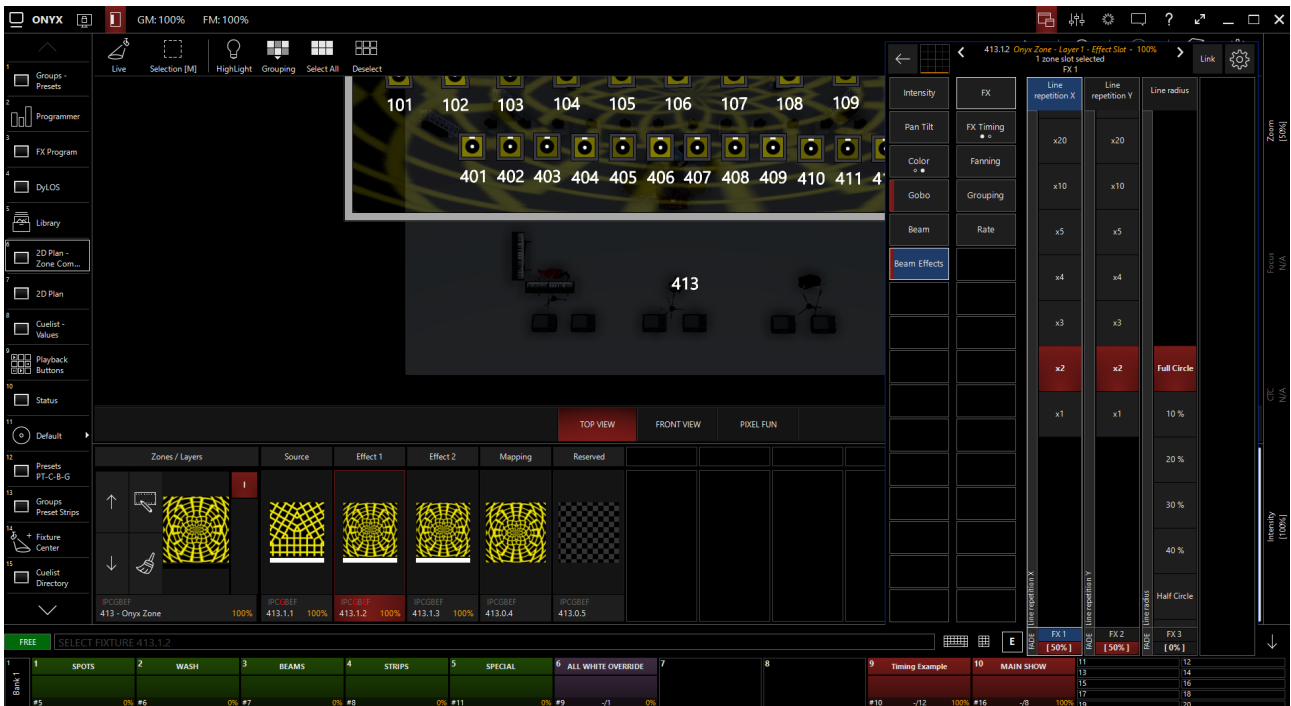
When no effect is selected, you will simply see the content that is showing through from the previous media slot. You can use the "Pencil" icon again to select content for the Effect 1 Mask slot:

For this example we'll use the first effect from the Line Effects, which is called Line:



There are a variety of parameters to control how the line effect applies, and you can learn a lot about them by experimenting. We will cover them all later in this section of the manual.

For now, pull up your Channel Visualization display and press the Beam Effects parameter group. Set the Line Repetition X and Line Repetition Y both to x2 on the encoders:

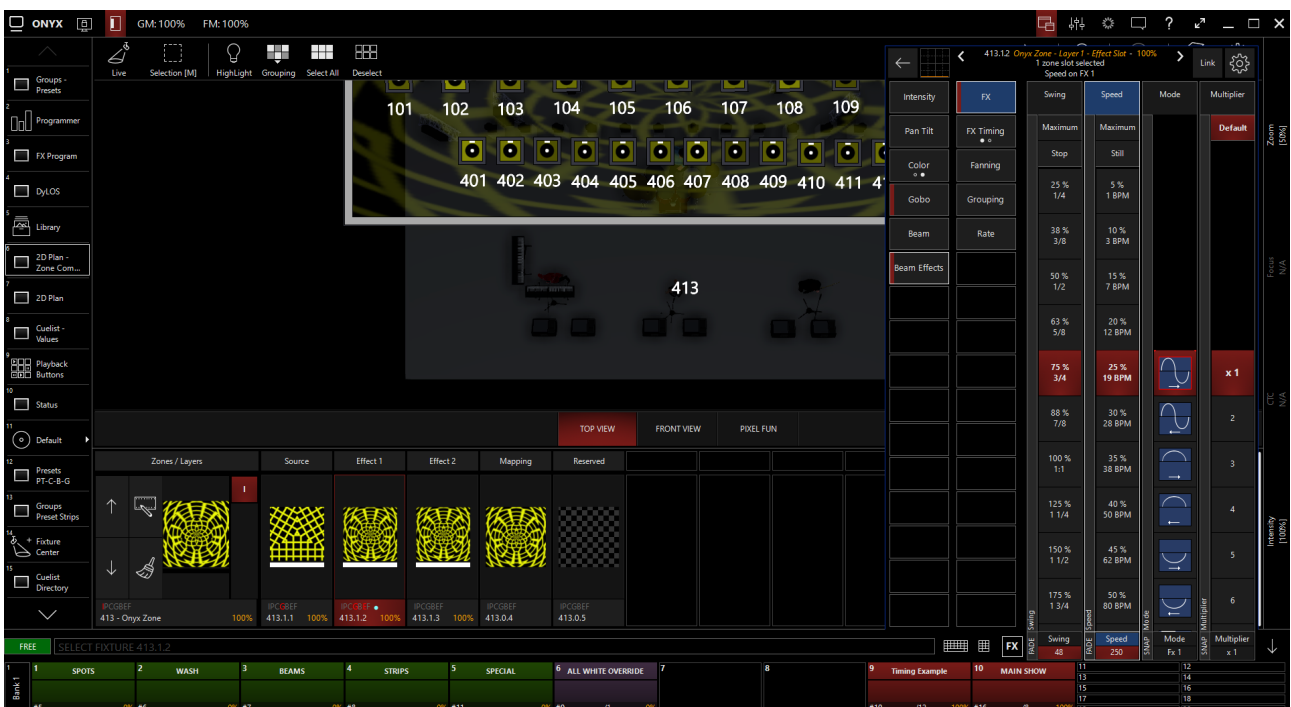


You can now see how the simple source is transformed into a group of concentric rings.

Now is a great time to remember that all of the parameters inside of DyLOS work identically to those within any other fixture in ONYX. To give an example of this, let's create an effect on the Line Repetition Y" parameter:

Press on the encoder for Line Repetition Y and see that it has the white selection line around it:

Now, press the FX parameter group. Just like any other attribute, we can apply an effect to this using Swing, Speed, and Mode. Here is one example:



This is a simple form of an effect over the media. **Note how there are parameter groups for Pan Tilt, Color, Gobo, Beam, and Beam Effects for this sub-fixture.** All of these parameter groups contain powerful parameters for modifying your Source and Media.

Recording Your DyLOS Parameters to a Playback

Inside of DyLOS, all of the content parameters record and function just like any other parameter of any other fixture inside of ONYX. To record them to a cuelist, simply press Record and then press your cuelist or press Enter to store a new cue on the selected cuelist. After you select the cuelist type (for new cuelists), you can Clear and play back your media.

In this example, I have chosen a regular "Red" cuelist.

It is very simple to clear only portions of your Zone using the "broom" icon:



Once you make a look you like and Record it, it's simple to partially clear. Just press the broom icon, and then you'll see this pop-up:

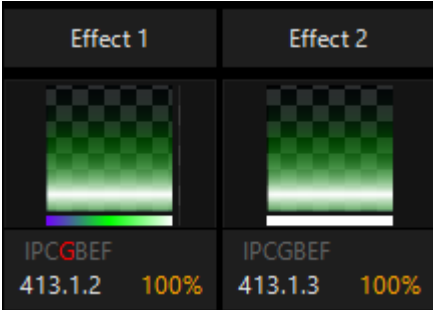


Choose the option you desire to instantly clear out items. *Only slots that you have loaded into the programmer will show as clear-able in this pop-up.*

We hope you enjoy working with DyLOS! [Please check out the rest of the DyLOS section, as this quickstart has only scratched the surface!](#)

Effects 1 and 2

There are 2 levels of effects that can be applied on top of the Source in your Zone: Effect 1 and Effect 2.

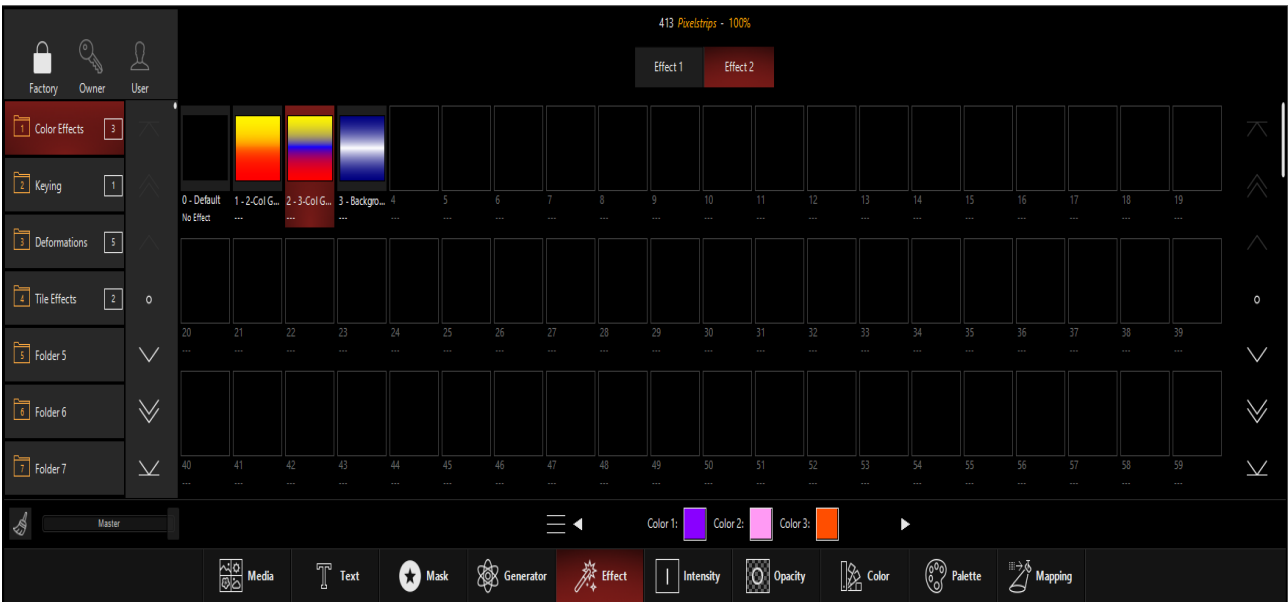


The fixture numbers of the effects fixtures are X.1.2 and X.1.3, with X being the fixture ID number of your zone.

Effects can contain [Masks](#) which may consist of [Media](#) or [Text](#), or they may contain [Effects](#) which interact with other slots in the same zone.

[Use of Masks is covered on the Masking page](#), and [Effects are covered here](#).

These Effects are primarily chosen and modified within the [Zone Parameters](#) window:



Pressing on an Effect or Mask on an Effect slot will activate it. Selection is also available from the Gobo parameter group (see below for all parameters).

Unique to the Effects are the selectors between Effect 1 and Effect 2 at the top of the Zone Parameters window. When an effect is selected (as shown above), there is a small section below the library with controls that apply to the specific effect. You can navigate through these controls just like the other controls in the [Zone Parameters](#) window.

Effects Parameters:

Effect part fixtures feature these parameters (Click to expand)

Parameter Group	Parameter Name	Explanation
Intensity	Intensity	Output level of the Effect to the Source.
Intensity	Opacity	Level of transparency of the Effect.
Intensity	Brightness	Affect of the Effect's brightness on the Zone.
Intensity	Contrast	Affect of the content's contrast on the Zone.
Intensity	Animation Level	Speed of content played on the Source slot.
Pan Tilt	Rotation Pan	Allows you to rotate the Effect canvas along the 2D axis. This can be rotated as an "index", or with Continuous movement. Combining the Pan and Tilt Rotation together will create "3D" style rotations.
Pan Tilt	Rotation Tilt	Allows you to rotate the Effect canvas along the 3D axis. This can be rotated as an "index", or with Continuous movement. Combining the Pan and Tilt Rotation together will create "3D" style rotations.
Pan Tilt	Rotation function	<p>Sets the behavior of the Pan Tilt Rotation:</p> <ul style="list-style-type: none"> • Angle - Still, non-moving positioning of the content. • Continuous - RPM-driven speed of Rotation for all Pan Tilt Rotations. • Combined - Pan Tilt Rotations can be individually set to Angle or Continuous via the encoders.
Pan Tilt	Distance Level	Position in depth of the Effect upon the Mapping.
Pan Tilt	Position X	Placement of the content on the Zone, left and right.
Pan Tilt	Position Y	Placement of the content on the Zone, up and down.
Pan Tilt	Size width	Size on the X-axis.
Pan Tilt	Size height	Size on the Y-axis.
Color	Red	Variable-percentage red color filter over the content.
Color	Green	Variable-percentage green color filter over the content.
Color	Blue	Variable-percentage blue color filter over the content.
Color	Saturation	Effect of Saturation increase, or even inversion over the Source content.
Color	Color Function	Applies the color in an Absolute or Relative. Absolute is purely additive, while Relative allows you to add or subtract colors from the Effect.

Parameter Group	Parameter Name	Explanation
Gobo	Source Type	Type of content for Source.
Gobo	Library	Folder in Library to select content from.
Gobo	Effect Slot	Mask Slot Selection - this is the content slot selected.
Gobo	Effect Input	Chooses which slot the Effect applies to.
Gobo	Playback Mode	Sets the method for playback - i.e. Loop, Bounce, Pause, etc. Each playback method also have an "ignore master" variation which ignores the speed master in the Master Fixture for the playback speed of the mask.
Gobo	Playback Speed	Speed control for the content.
Gobo	Rotation	Continuous or still (indexed) rotation of the Source.
Gobo	Anim. FX 1	Effects parameters which change or deactivate based on effects selection.
Gobo	Anim. FX 2	Effects parameters which change or deactivate based on effects selection.
Beam	Zoom Level	Zoom of the content.
Beam	Zoom Center X	X-axis positioning
Beam	Zoom Center Y	Y-axis positioning
Beam	Placement Mode	Determines whether the effect affects the Canvas or Mask.
Beam Effects	FX1, FX2, FX3, FX4	Additional controls which differ for each type of content.

Master Fixture (Zone Fixture)

The Master Fixture is the first part of your DyLOS Zone, and allows you to set the intensity of the entire zone as well as other whole-zone parameters.

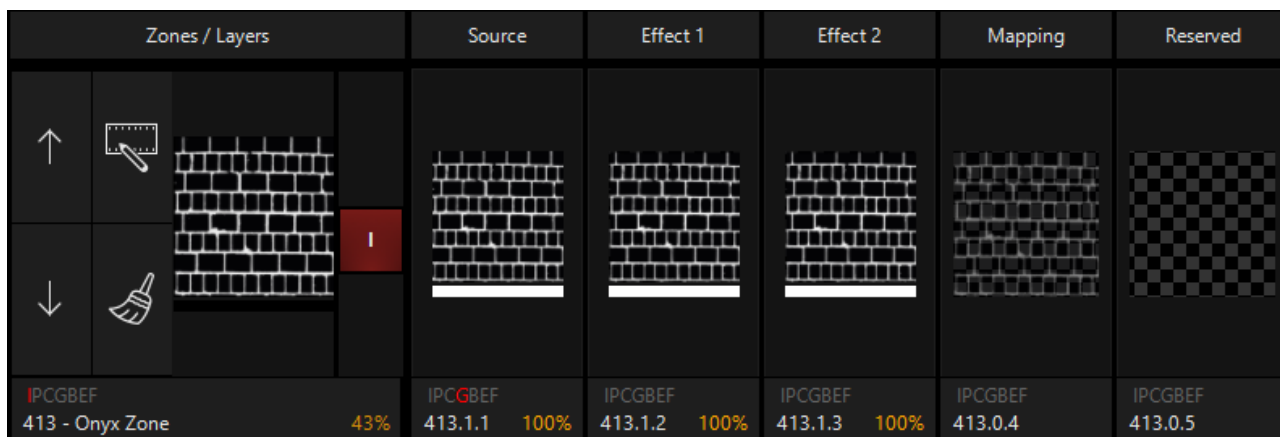
The Master Fixture Intensity allows you to fade in and out the entire Zone, allowing crossfades from regular parameters to visuals from DyLOS.

By default, DyLOS parameters work in a LTP fashion, at a priority level that is above regular parameters, but below the programmer and regular parameters recorded on [Overrides](#). These priorities can be modified via the "Weighting" controls on the master fixture.

Take notice of this wording - if you have both regular parameters and DyLOS parameters in the programmer, the regular parameters will get the output. If you first RECORD the regular parameters to a cue and play it back, you may then work with DyLOS parameters in the programmer and see the output.

For example, we can use the demo show file in ONYX and create a Zone Fixture over the 2D Plan page called "Pixel Fun". We can then select the Colour Chorus bars and bring their intensity to full and apply the preset color "Blue". RECORD this to a regular cuelist, press CLEAR and play it back.

When we go to our Zone Composer we can bring up the intensity of the zone and select a Source Media and watch as the regular color is faded out and the DyLOS content is faded in:



The fixture number of the Master fixture is X.0.0, with X being the fixture ID number which is editable in the patch. Typing just the "X" will select all the slots of the fixture including the master fixture.

The Master fixture is not simply an intensity control! It has a whole buffet of parameters that give you master control over the entire zone:

Master Fixtures feature these parameters (Click to expand)

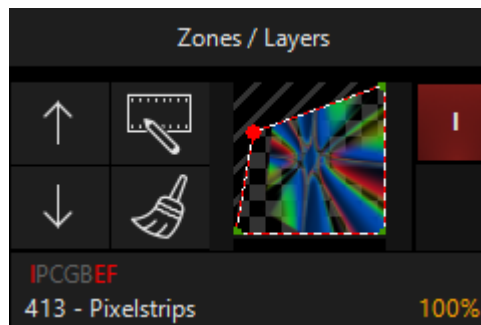
Parameter Group	Parameter Name	Explanation
Intensity	Intensity	Output level of the Zone to stage.
Intensity	Opacity	Level of transparency of the Mask (under Gobo) to the Mapping.
Intensity	Animation Level	Speed of content played on the master slot.
Intensity	Weight Mode	Currently set to Use DyLOS Opacity - for future development.
		A variable weight for how the given zone will relate to regular LTP parameters, or "Direct Weight" within the lights.
Intensity	Mapping Weight	By default the Mapping Weight is set to 100%, so the weight is equal to the regular parameters being played at the same time. Lowering the Mapping Weight decreases the amount of the DyLOS parameters that show through.
		A variable weight for how the given zone will relate to regular LTP parameters, or "Direct Weight" within the lights.
Intensity	Direct Weight	By default the Direct Weight is set to 100%, so the weight is equal to the regular parameters being played at the same time. Lowering the Direct Weight decreases the amount of the regular parameters that show through.
Pan Tilt	Rotation Pan	Allows you to rotate the canvas along the 2D axis. This can be rotated as an "index", or with Continuous movement. Combining the Pan and Tilt Rotation together will create "3D" style rotations.
Pan Tilt	Rotation Tilt	Allows you to rotate the canvas along the 3D axis. This can be rotated as an "index", or with Continuous movement. Combining the Pan and Tilt Rotation together will create "3D" style rotations.
Pan Tilt	Spin	Rotation of the canvas on the Zone, after Pan and Tilt Rotation are applied.
		Sets the behavior of the Pan Tilt Rotation:
Pan Tilt	Rotation function	<ul style="list-style-type: none"> • Angle - Still, non-moving positioning of the content. • Continuous - RPM-driven speed of Rotation for all Pan Tilt Rotations. • Combined - Pan Tilt Rotations can be individually set to Angle or Continuous via the encoders.
Pan Tilt	Position X	Placement of the content on the Zone, left and right.
Pan Tilt	Position Y	Placement of the content on the Zone, up and down.
Pan Tilt	Position Z	Placement of the content on the mapping, forward and backward.

Parameter Group	Parameter Name	Explanation
Color	Red	Variable-percentage red color filter over the content.
Color	Green	Variable-percentage green color filter over the content.
Color	Blue	Variable-percentage blue color filter over the content.
Gobo	Shape	Mask over the master slot. Able to be assigned to Shapes and Masks.
Gobo	Library	Folder in Library to select content from.
Gobo	File	Mask Slot Selection - this is the content slot selected.
Gobo	Anim1	Mask Playback Speed or Index Position of still frame.
Beam	Zoom Level	Zoom of the content on the zone's canvas.
Beam	Width	X-axis positioning of the content on the zone's canvas.
Beam	Height	Y-axis positioning of the content on the zone's canvas.
Beam FX	FX1, FX2, FX3, FX4	When the "Type" parameter under the "Gobo" parameter group is set to "Mask", FX1-FX4 control the Mask Key, Mask Key Level, and Mask Key Delta. See "Masking" for more information on how to use Masking in DyLOS.

The framing system of the entire DyLOS canvas works similarly to many moving head lights. There are framing shutters that originate at the 4 sides of the zone. Each framing shutter has 2 points which can be fully adjusted from completely open to completely shut, allowing for very complex framing adjustments of the zone canvas.

Framing is unique in regards to Opacity because any area outside of the framing shutters of the zone becomes transparent. This is independent of the opacity control of the zone, this only applies within the framing shutters:

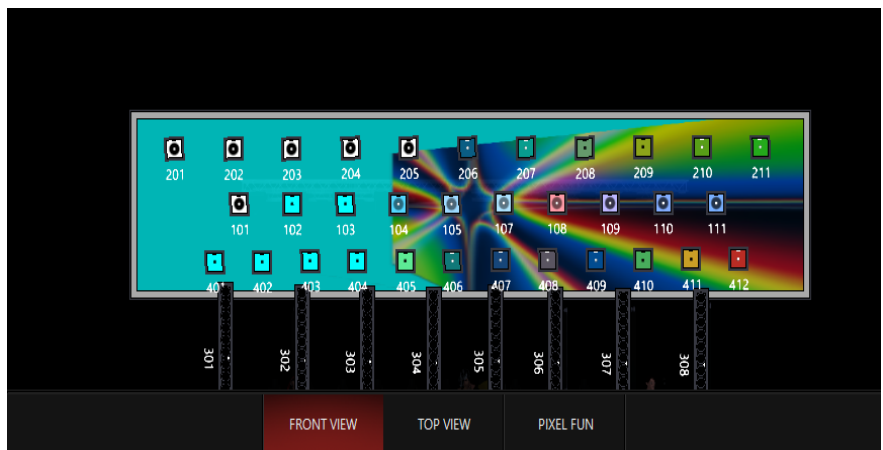
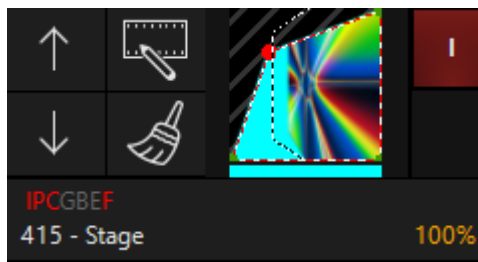
Framing
 Upper Left X,
 Upper Left Y,
 Upper Right X,
 Upper Right Y,
 Lower Left X,
 Lower Left Y,
 Lower Right X,
 Lower Right Y



In the example above, you can see how there is transparency within the zone indicated by the "boxes" and transparency outside of the framing shutters indicated by the "diagonal lines".

Parameter Group	Parameter Name	Explanation
-----------------	----------------	-------------

The framing transparency is represented by a different shading because it is a framing of the entire canvas - when using a Zone at 0% opacity, the Color parameters will fill in the background of any "boxes" transparency within the canvas, but framing adjustments crop the entire canvas, leaving transparency through to the regular parameters:



As you can see in this 2D Plan preview, the transparency in the lower left side is turned to the background color, but the upper left is transparent to the regular parameters because it is transparent via Framing.

Framing	Framing Angle	Rotates the entire framing system. Available as indexing or constant rotation.
---------	---------------	--

Static Palettes

Palettes offer the ability to color or re-color content in DyLOS to match any color scheme you wish. When a palette is applied, the colors in the palette are applied to the content based on the brightness of each pixel - the content is essentially converted to grayscale and then mapped to color based on the palette's range of colors and opacities.

Palettes can be created in the [Owner and User content libraries](#).

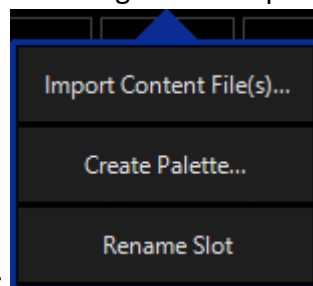
For information regarding [Dynamic Palettes](#).

Creating Your First Palette

1. Navigate to the DyLOS view, button 4 on the default sidebar of the "Compose" workspace.
2. Select a Zone master fixture, and in the Zone Parameters (the bottom half of the view), press Palette, then User in the upper left hand portion of the window:



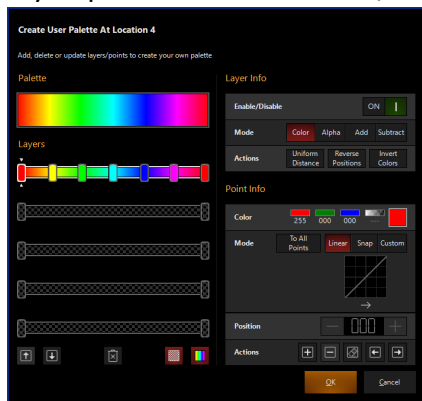
3. If you're starting from scratch, all of the palettes will be blank. Right-click or press EDIT and



press an empty palette slot, and this popup will appear:

4. Here we have a couple of options.
 1. If you press Import Content File(s)... you will get a file explorer window from which you can choose an image file in a variety of formats. ONYX will then extract the colors from that image file and create a palette based on them.

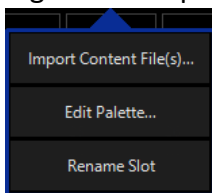
2. If you press Create Palette... , the Palette creation window will appear:



3. Use the adjustments in the Palette creation window to create the palette. *For more info on the Palette creation window, see the section titled "Using the Palette Creation Window" below.* When you're done, press OK to save the palette, and you're done!

Editing Palettes

1. Follow steps 1, and 2 above.
2. Right-click or press EDIT and press an occupied palette slot, and this popup will appear:



3. Press Edit Palette.... and the Palette creation window will appear.
4. Use the adjustments to edit the palette. When you're done, press OK to save the palette, and you're done!

Applying Palettes

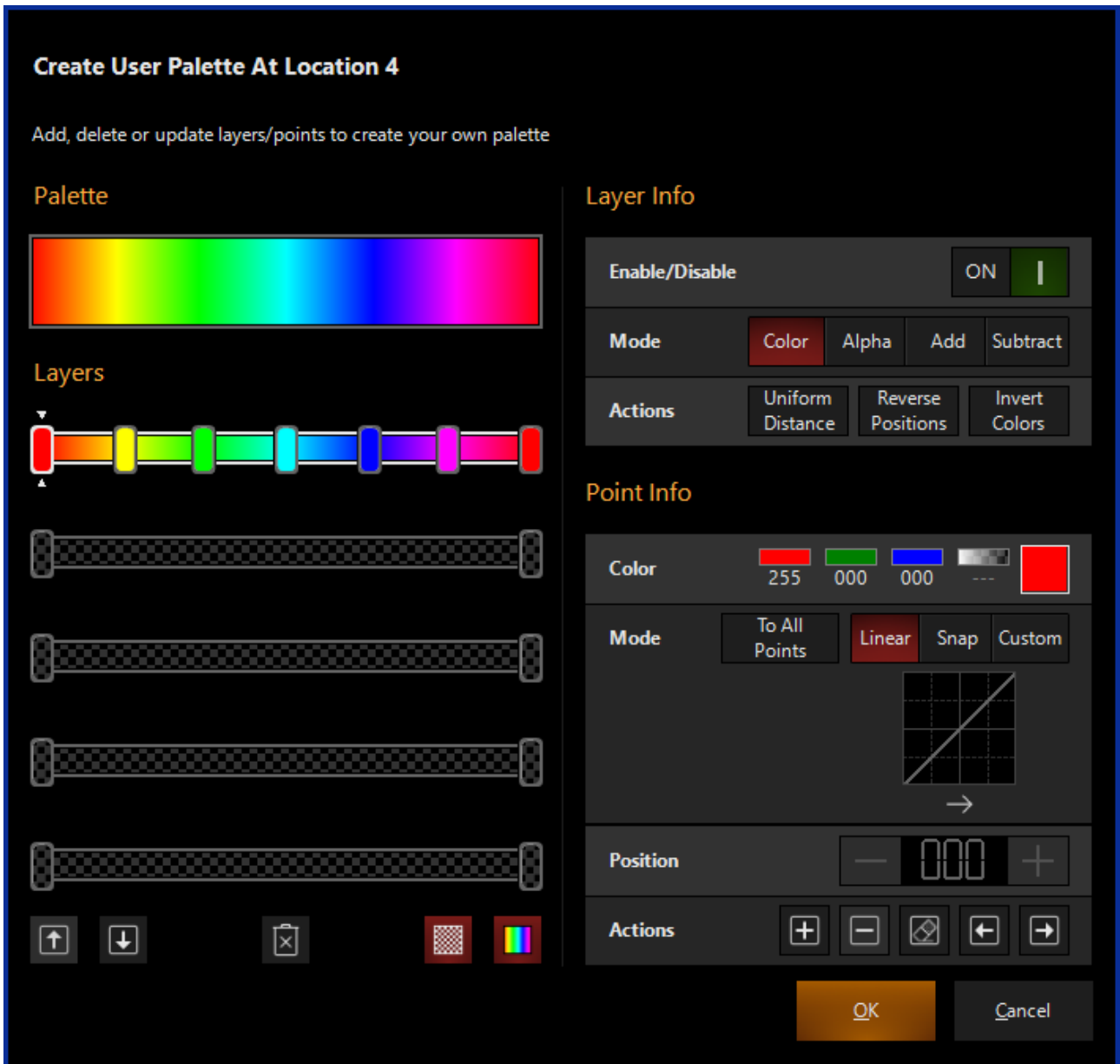
Palettes may be applied as a parameter on the [Source](#) slot of any zone.

When a source is selected, color palettes are available via the Palettes tab of the Zone Parameters window. Pressing on a palette applies it to the selected zone, which is displayed at the top of the Zone Parameters window.

Palettes can also be selected via the encoders/Channel Visualization in the Color parameter group.

Using the Palette Creation Window

The Palette creation window features all the tools to create or edit your palettes:



It has (4) main sections that each allow you to adjust different portions of the palette.





Palette

This section shows you a wide preview of the resulting palette.

Layers

The layers section features (5) customizable layers that feature color and alpha values. Layers are laid out vertically, with the bottom layer being the highest priority.

You can select any point in the layer by pressing on that point, and use the following buttons at the bottom of the layers section:

Button	Explanation
	Move the selected layer up and down.
	Clear the selected layer (to white)
	Hide alpha information. Note that this hides this information from view, but does not remove them from the palette.
	Hide color information. Note that this hides this information from view, but does not remove them from the palette.

Layer Info

The layer info section allows you to work with the settings over the selected layer:

Control	Explanation
Enable/Disable	Turns the layer On/Off
Mode	<p>Sets the blending type for the layer:</p> <ul style="list-style-type: none"> • Blend: Combines the layers together. • Alpha: Use only alpha information to blend. • Add: Color and alpha information is added in vertical order, with the bottom layer added last. • Subtract: Color and alpha information is subtracted in vertical order, with the bottom layer added last.
Actions	<p>Actions re-position the points within the layer:</p> <ul style="list-style-type: none"> • Uniform distance: Distributes the points evenly across the layer. • Reverse positions: Flips the layer points horizontally. • Invert Colors: Inverts the RGB colors for the points on the selected layer.

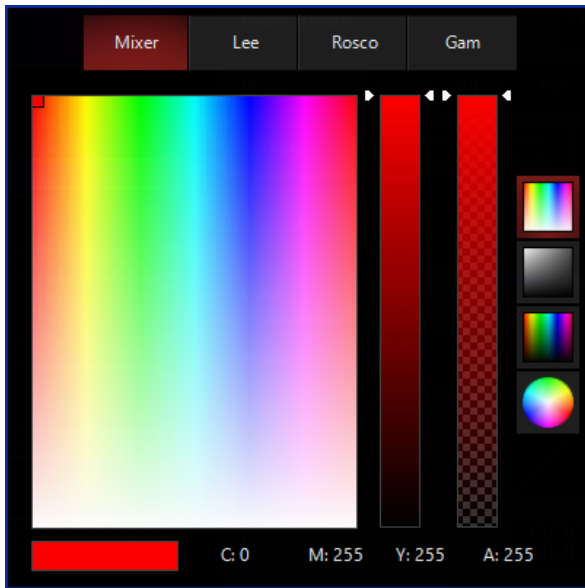
Point Info

The Point Info section modifies the currently selected point:

Control	Explanation
Color	Press the color swatch on the right to launch a color picker with RGB and Alpha values:

Control

Explanation



Sets the blending mode between adjacent points.

- Linear: Smooth, even blend between points.
- Snap: Hard-edged break between points.
- Custom: You can define a custom curve. Pressing on the curve launches the custom curve editor:






Mode








The custom curve editor features (4) sections:

Control

Explanation

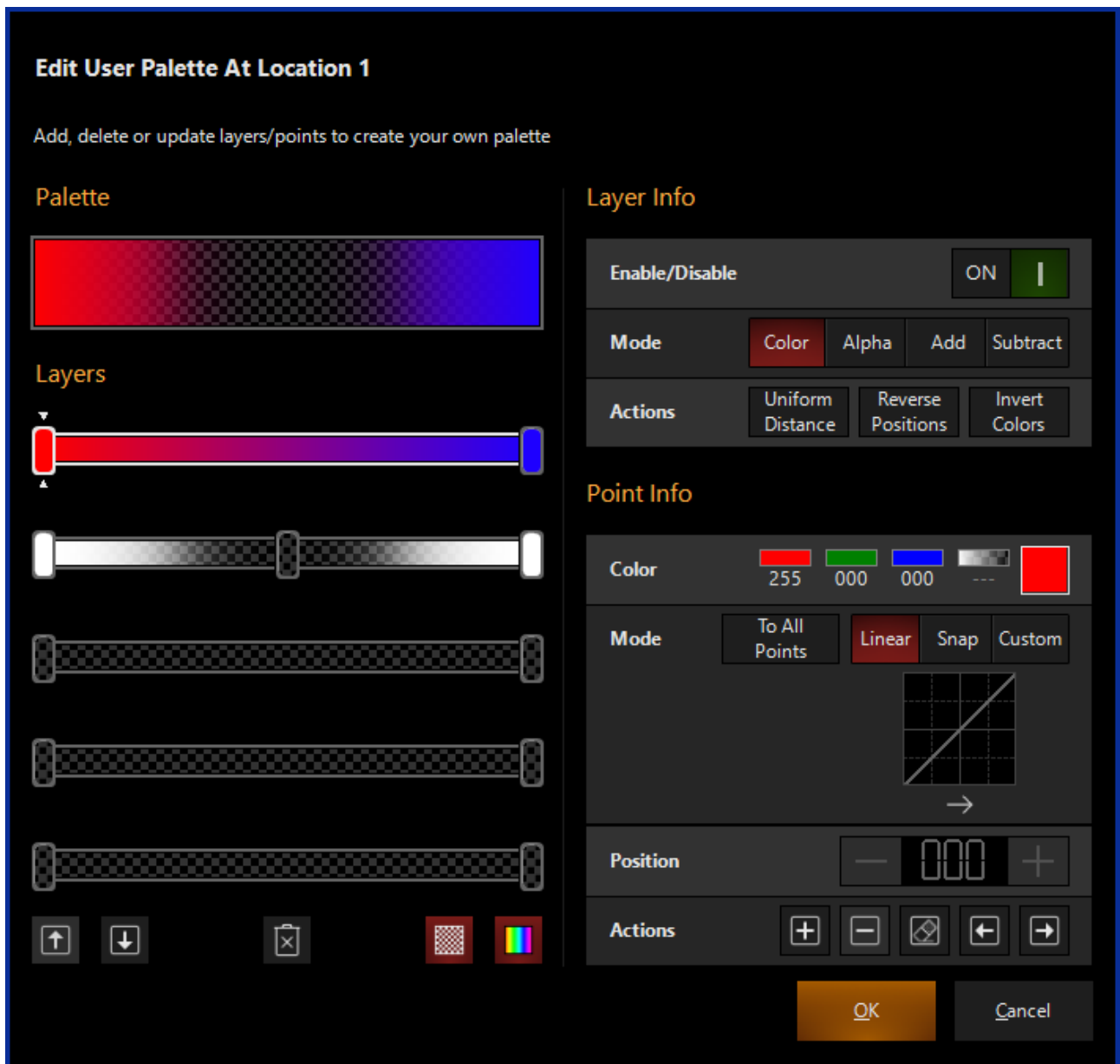
- Single/Multi - Defaults to a single curve for all channels, "Multi" allows you to set individual curves for Alpha and R, G, and B.
- Curve Image - More than just a pretty face, pressing on the curve image allows you to manipulate the points and steepness of the curve graphically.
- Buttons:
 -  Add a new point to the curve.
 -  Remove the selected point from the curve.
 -  Toggle between line and curve.
 -  Select the previous point.
 -  Select the next point.
- Horizontal and Vertical Position: Manually adjust the point position on the X and Y axis from zero to 100.

Position Placement on the layer by percentage, left to right.

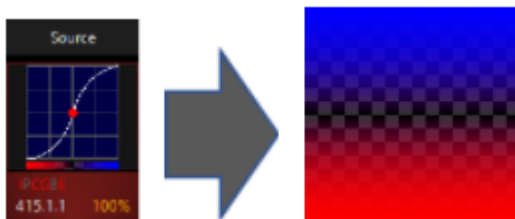
-  Add a point.
-  Remove selected point.
- Actions
 -  Erase color value from selected point (turn to white)
 -  Navigate to point on the left.
 -  Navigate to point on the right.

Alpha Channel in the Palette

Palettes don't have to be just colors - Alpha/[Opacity](#) information can also be part of palettes:



The settings above give this result when applied to this Gradient Generator:



Dynamic Palettes

Palettes offer the ability to color or re-color content in DyLOS to match any color scheme you wish. When a dynamic palette is applied, the colors in the selected NDI video input are applied to the content based on the brightness of each pixel - the content is essentially converted to grayscale and then mapped to color based on the palette's range of colors and opacities.

Please note that if using a Dynamic Palette with NDI input, Dylos does not record NDI video streams. Thus, the NDI stream will need to be online and playing during playback.

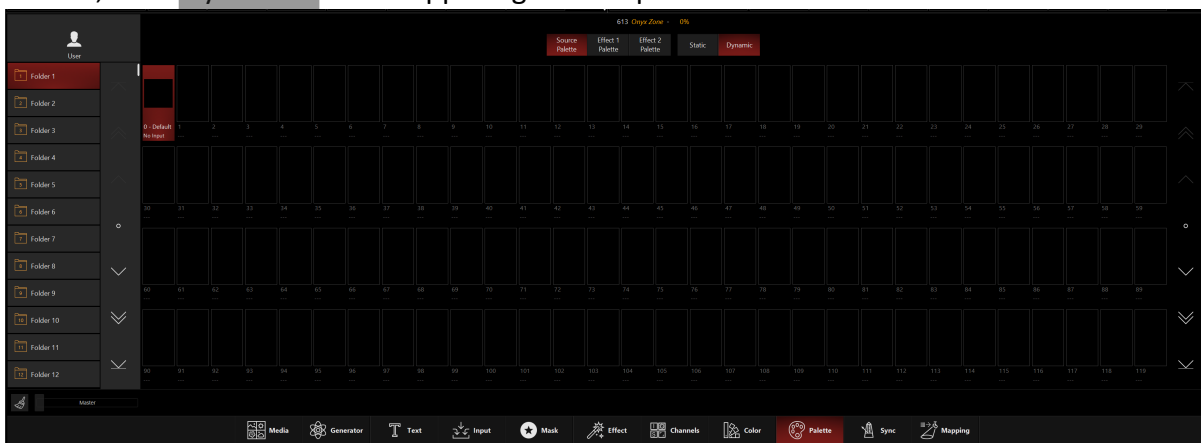
Palettes can be created in the [Owner and User content libraries](#).

For information regarding [Static Palettes](#).

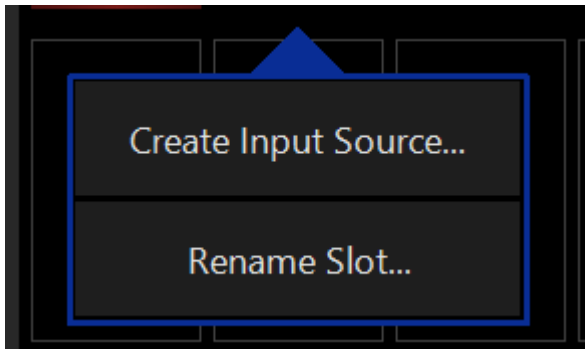
Creating a Dynamic Palette

Before assigning a Dynamic Palette, you must first set up an [NDI input](#).

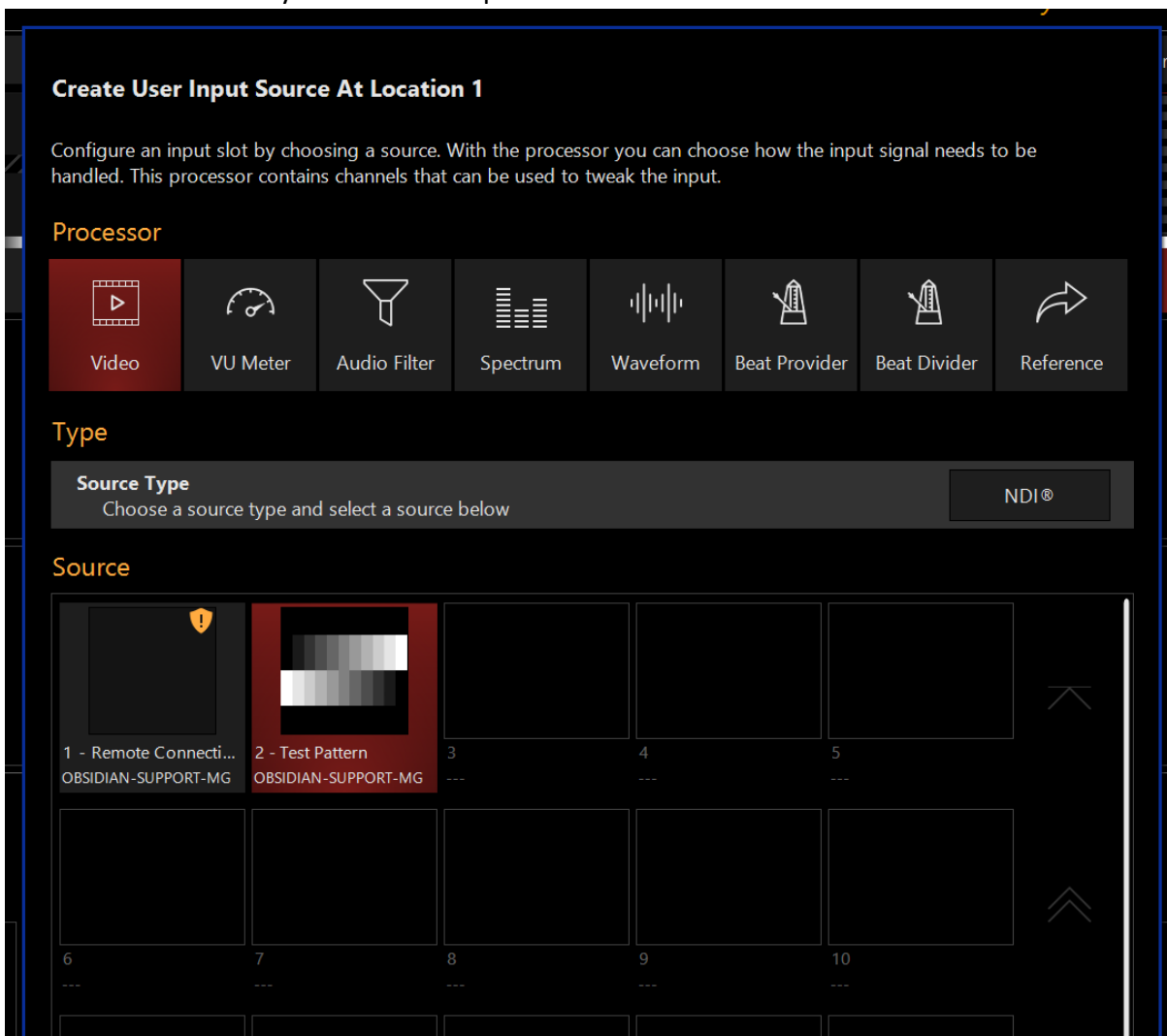
1. Navigate to the DyLOS view, button 4 on the default sidebar of the "Compose" work space.
2. Select a Zone master fixture, and in the Zone Parameters (the bottom half of the view), press Palette, then **Dynamic** in the upper right-hand portion of the window:



3. All palettes will be blank if you're starting from scratch. To create one Right-click or hold EDIT and press an empty palette slot, and this popup will appear:



4. Select Create Input Source...
5. Select Video under Processor and NDI input under the type in the selection window Then select the NDI source you wish to sample color from.

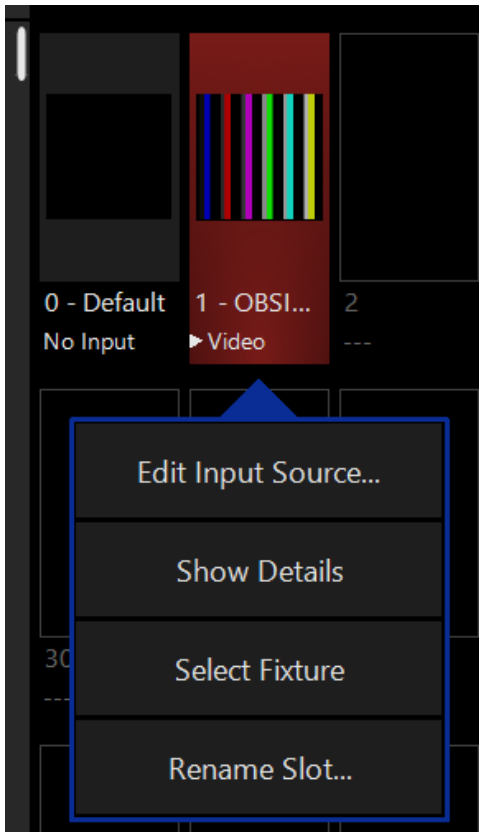


6. Dylol will now dynamically recolor your source content using the color data from the incoming NDI video input. Please note that Dylol does not record NDI content; the NDI stream will need to be online and playing during showtime to use this feature.

Editing a Dynamic Palette

You may want to change the part of the video the sample is being taken from or change other properties of the selected NDI input.

1. To edit a Dynamic Palette, right-click on or hold Edit and select an existing Dynamic Palette.



2. Select Show Details

3. From the menu below, you can change any and all of the properties of the Dynamic Palette.

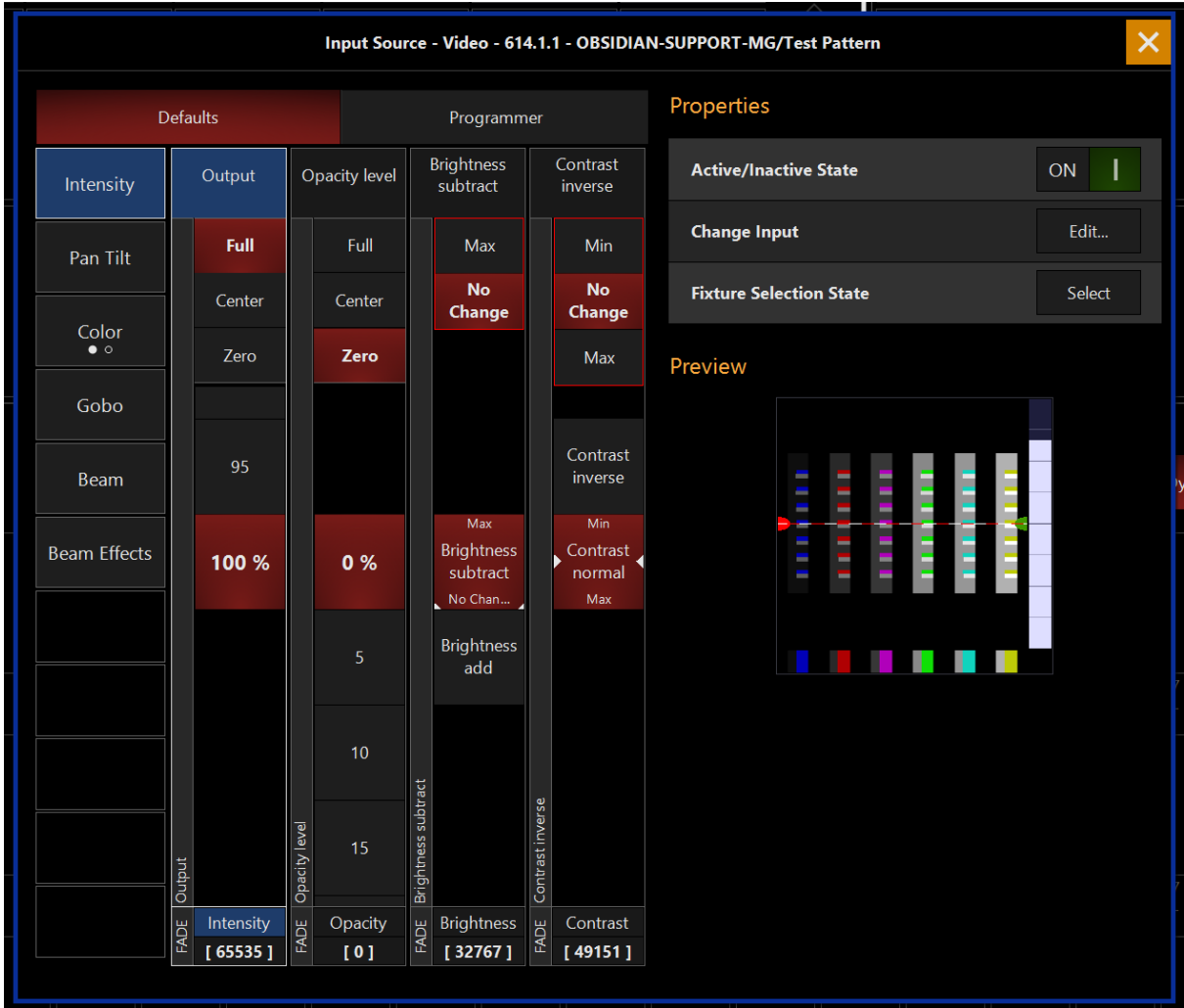
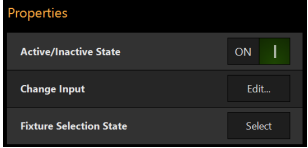


Table of Controls

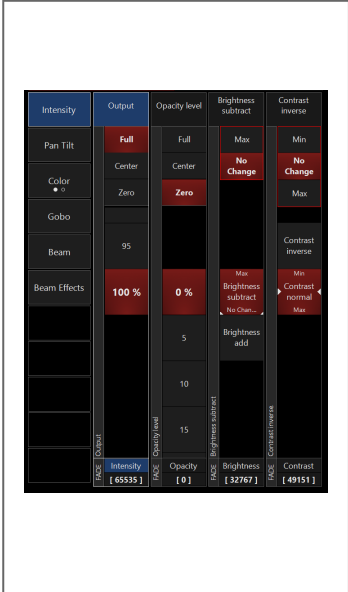
Control	Description
	<p>Properties</p> <p>Active/Inactive State: Toggles the state of the Dynamic Palette between Active and Inactive.</p> <p>Change Input: Used to select a different source input for this Dynamic Palette.</p> <p>Fixture Selection State: Select the Dynamic Palette as a fixture for making changes using the Channel visualizer (CV)</p>



This Selects if the changes should be made to the default properties of the Dynamic Palette or put into the programmer like if editing a fixture.

Defaults: Used for changing the default state of the Dynamic preset

Programmer: Used for temporary changes recorded into a cue.



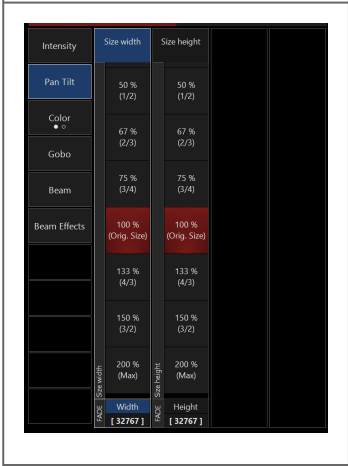
Intensity

Output: Sets the Output level of the Dynamic Palette

Opacity Level: Sets the Opacity level of the Dynamic Palette

Brightness Subtract: Sets the Brightness level of the Dynamic Palette

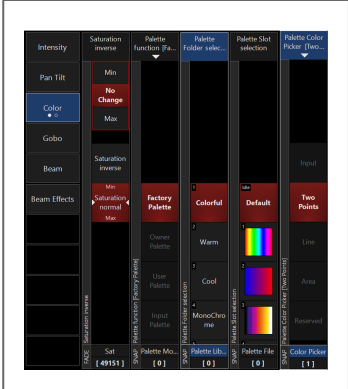
Contrast inverse: Sets the Contrast level of the Dynamic Palette



Pan Tilt

Size Width: Sets the width of the video stream in the canvas

Size Height: Sets the height of the video stream in the canvas

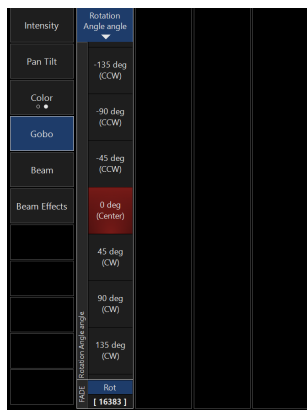


Color

Saturation Inverse: Sets saturation level of content, allows for inverting saturation.

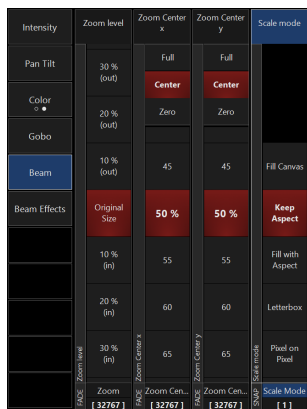
- Static Palette Selection (Used to apply a Static Palette on top of a Dynamic Palette.)
 - **Palette Function:** Sets the Static Palette Source
 - **Palette Folder:** Select the folder of the static palette
 - **Palette Slot:** Select the slot of the static palette

Palette Color Picker: Sets the shape used to sample video to create a Dynamic Palette.



Gobo

Rotation Angle: Sets rotation of video inside of the canvas. It can be set to static or continuous rotation.



Beam

Zoom Level: Sets the zoom level of the video inside of the canvas.

Zoom Center x: Sets the position of the video inside the canvas on the x-axis.

Zoom Center y: Sets the position of the video inside the canvas on the y-axis.

Scale mode: Sets the shape of the canvas.

Intensity	Palette Left x	Palette Left y	Palette Right x	Palette Right y
Pan Tilt		-25 % (1/4)	75 % (3/4)	-25 % (1/4)
Color		-17 % (1/6)	83 % (5/6)	-17 % (1/6)
Gobo		-13 % (1/8)	88 % (7/8)	-13 % (1/8)
Beam				
Beam Effects	100 % (Left)	0 % (Center)	100 % (Right)	0 % (Center)
	-88 % (7/8)	13 % (1/8)		13 % (1/8)
	-83 % (5/6)	17 % (1/6)		17 % (1/6)
	-75 % (3/4)	25 % (1/4)		25 % (1/4)
	FX 1 [0]	FX 2 [32767]	FX 3 [65535]	FX 4 [32767]

Beam Effects

Palette Left x: Sets the left palette sample zone point on the x-axis.

Palette Left y: Sets the left palette sample zone point on the y-axis.

Palette Right x: Sets the right palette sample zone point on the x-axis.

Palette Right y: Sets the right palette sample zone point on the y-axis.

DyLOS Setup

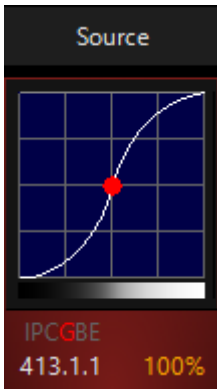
DyLOS can seem like a lot at first, but our goal in this manual is to make it as simple as possible to get started. While DyLOS can do some very complex animations, it uses the same workflow you're already used to while programming in ONYX, simply building a new visual layer to give more options for a great show.

In the pages that follow, see this section of the manual as a reference and guide to use DyLOS. [Follow the examples](#) in the last section to master the basics, and then begin using DyLOS in your show to truly unlock its potential!

[But first, let's begin with Zone Setup.](#)

Source

The Source is the base of the media playback in a DyLOS zone fixture.



Without a Source, your Zone's output is black (0% [Opacity](#)) with zero color intensity. A source gives the zone color and alpha (Opacity) information to work with.

Source types are [Media](#), [Generator](#), and [Text](#). Learn more about these sources and their options on the [Library page](#).

The fixture number of the Source fixture is X.1.1, with X being the fixture ID number.

Source Parameters:

Source part fixtures feature these parameters (Click to expand)

Parameter Group	Parameter Name	Explanation
Intensity	Intensity	Output level of the Source to the Mapping.
Intensity	Opacity	Level of transparency of the Source.
Intensity	Brightness	Affect of the content's brightness on the Zone.
Intensity	Contrast	Affect of the content's contrast on the Zone.
Intensity	Animation Level	Speed of content played on the Source slot.
Pan Tilt	Rotation Pan	Allows you to rotate the Source canvas along the 2D axis. This can be rotated as an "index", or with Continuous movement. Combining the Pan and Tilt Rotation together will create "3D" style rotations.
Pan Tilt	Rotation Tilt	Allows you to rotate the Source canvas along the 3D axis. This can be rotated as an "index", or with Continuous movement.

Parameter Group	Parameter Name	Explanation
		Combining the Pan and Tilt Rotation together will create "3D" style rotations.
		Sets the behavior of the Pan Tilt Rotation:
Pan Tilt	Rotation function	<ul style="list-style-type: none"> • Angle - Still, non-moving positioning of the content. • Continuous - RPM-driven speed of Rotation for all Pan Tilt Rotations. • Combined - Pan Tilt Rotations can be individually set to Angle or Continuous via the encoders.
Pan Tilt	Distance Level	Position in depth of the Source upon the Mapping.
Pan Tilt	Position X	Placement of the canvas on the Zone, left and right.
Pan Tilt	Position Y	Placement of the canvas on the Zone, up and down.
Pan Tilt	Size width	Size of the canvas on the X-axis.
Pan Tilt	Size height	Size of the canvas on the Y-axis.
Color	Red	Variable-percentage red color filter over the content.
Color	Green	Variable-percentage green color filter over the content.
Color	Blue	Variable-percentage blue color filter over the content.
Color	Saturation	Effect of Saturation increase, or even inversion over the Source content.
Color	Palette Mode	Choose the Library mode (Factory, Owner, User) to select the palette from.
Color	Palette Folder Selection	Choose the folder to select the palette from.
Color	Palette Slot Selection	Choose the palette slot to select.
Gobo	Source Type	Type of content for Source.
Gobo	Library	Folder in Library to select content from.
Gobo	File	Mask Slot Selection - this is the media slot selected.
Gobo	Rotation	Continuous or still (indexed) rotation of the Source.
Gobo	Playback Mode	Sets the method for playback - i.e. Loop, Bouce, Pause, etc.
Gobo	Playhead	Start position for the content.
Gobo	Playhead Speed	Speed control for the content.
		Customize the mapping fluidity via:
Gobo	Adv Mode	<ul style="list-style-type: none"> • Frame Blending: When active, transitions between pixels in the content are smoothed. This is active by default. • Improve Zone Color Correctness: When active, frame blending is turned off. This can help remove artifacts in very detailed or sharp pieces of content. While more ac-

Parameter Group	Parameter Name	Explanation
		curate, this can make changes in individual lights very abrupt!
Beam	Zoom Level	Zoom of the Source
Beam	Width	X-axis positioning of the content on the canvas.
Beam	Height	Y-axis positioning of the content on the canvas.
Beam Effects	FX1, FX2, FX3, FX4	Additional controls which allow you to customize the playback of the different content types. The exact controls vary by content type.

What is DyLOS?

DyLOS is the dynamic light operating system behind the pixel and media control features of ONYX. It is a fully integrated part of the ONYX software beginning in software version 4.4.

How Does DyLOS Work?

Zones

In the ONYX 2D plan view you can add [Zones](#) and position them over a specific area. These Zones are individual media servers on their own, playing back a variety of content types including video files and generated content.

Each Zone allows multiple slots to run content or integrated shape animations. These are called [Sources](#) and [Effects](#).

Parameters like contrast, opacity, XYZ position, and coloring similar to many media servers are automatically available to you once a Zone is created, and these parameters can be applied to each slot individually.

You can select the content, manipulate it just like any other fixture parameter, then store it in cues and presets. **This is incredibly powerful, as the parameters you program within DyLOS work exactly the same way as any other parameter in ONYX. They can be selected, modified and stored like any other fixture in ONYX.**

For instant visual feedback the system is graphically enhanced with live animations and video thumbnails.

Content created by the user utilizing the DyLOS tools plays back in the [Zone Composer](#) or [Zone Output](#) windows. The fixtures read the relevant data from the content feed and transpose it out via DMX or Ethernet protocols.

In FREE mode on the PC, DyLOS is enabled with (2) Zones. In LIVE mode, (5) Zones are unlocked. See more info about licensing modes at [ONYX PC Modes](#).

Mapping

Mapping applies the colors, intensity, and opacity of the content to the output of your lights. Mapping can apply the content as RGB colors, but it doesn't stop there! With mapping, DyLOS can apply any parameter or preset used in ONYX to the lights within the zone, with fine adjustments to ensure your mapping outputs the desired result.

[Library](#)

All visual content used in DyLOS is stored in the [Library](#). Formats include still images, video, visual generators, text, effect filters, color palettes, and shapes.

First Steps

These are the very basics of using DyLOS. Next, read and follow the [DyLOS Quickstart](#) and the pages following which dive much deeper into how to use DyLOS.

Zone Composer

Once a Zone is created, we can work with the [master and part fixtures of the multi-part](#) zone (the slots of the zone). While it is possible to select and modify the parameters of these fixtures with just the command line and the encoder wheels, the Zone Composer window gives us a logical interface to select, modify and visualize our media.

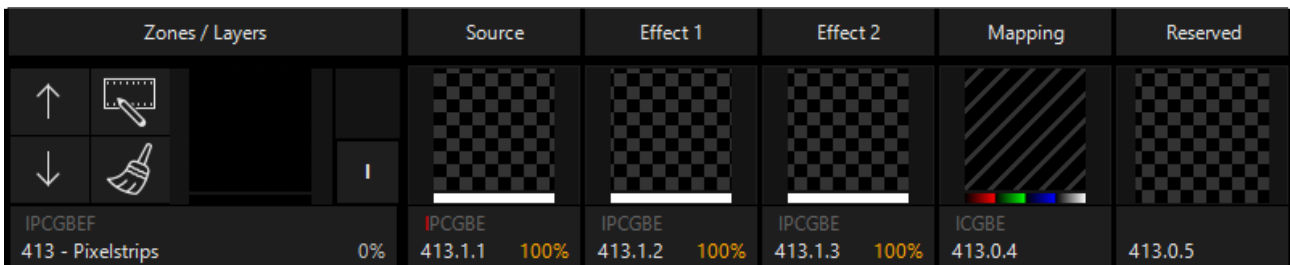
Within the Zone Composer we will see all of our Zones arranged vertically, with the slots of each zone positioned horizontally. Zones have preview monitors for each slot. These preview give real-time display as to what each slot and Zone is doing. In the event that the hardware you are using to run ONYX is overloaded, these displays may suffer to preserve smooth output to your fixtures.

Fixture selection and manipulation works exactly the same in the Zone Composer as in all other sections of ONYX. Your favorite commands such as [Load](#) and [Clear](#) can be utilized just as if you were working with any physical fixtures in your lighting rig!

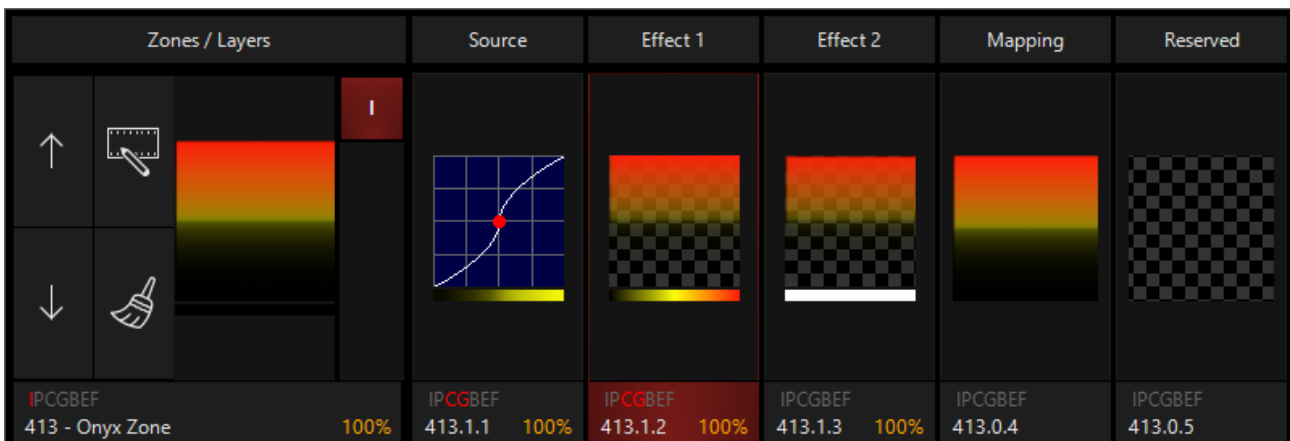
The Zone Composer Layout

The Zone Composer works with these basic "Part" fixtures, or slots that are within the [Master Fixture](#).

Within the Zone fixture we also have the slots of Source, Effect 1, Effect 2, and Mapping. Each of these slots are selectable via the Zone Composer and also the Command Line via the fixture number displayed under each section:



These slots work together, combining from left to right to create the mapping which is shown in the last section to the right.



In addition, we have (4) buttons on the left of the Zone Composer for manipulating our Zone:



The up/down arrows re-order Zones for priority. This sets the priority for output when multiple Zones overlap onto the same fixture.



The Zone Parameter icon activates the [Zone Parameter pop-up](#).

Clearing and Loading from the Zone Composer

Clearing



The "broom" icon allows you to clear some or all of your Zone slots. When pressed, you'll see this menu, which allows you to choose what to clear, load, or apply the default to:



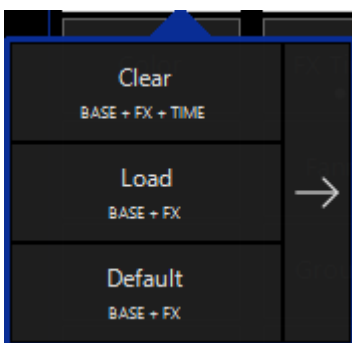
It looks a little complicated, but it's actually quite simple. Pressing Clear, Load, or Default with the default settings will affect the entire Zone and all its parameters. You can use the "Slot Filter" buttons at the top to adjust which slots of the Zone are affected. The bottom section allows you to toggle between Base, FX, Swing Only, and Time for each command.

Learn more about [Load](#), [Clear](#), and [Default](#) by pressing the links in this sentence.

You may also clear any portion of the Zone composer by holding Clear and pressing any section of the Zone Composer.

Note: If the slot that you are attempting to clear is being played back from a cuelist, it's not in the programmer and won't be cleared with the Clear function. However, pressing Default will return that zone slot to its default values will black it out under the default default preset. Try saying that 5 times fast!

You can also right-click on any slot in the zone to engage the Clear and Load popup, as described on the [Clear](#) and [Load](#) pages:



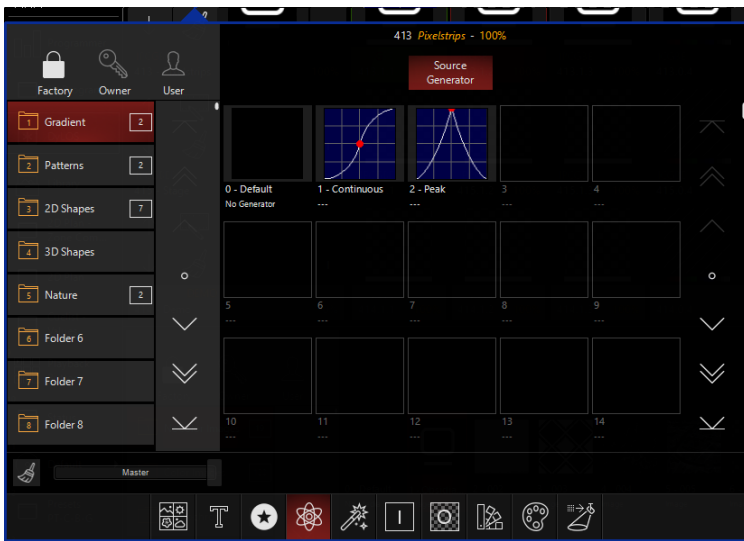
Read more about each section of the Zone Composer by visiting the pages linked below this one via the manual's navigation.

Zone Parameters

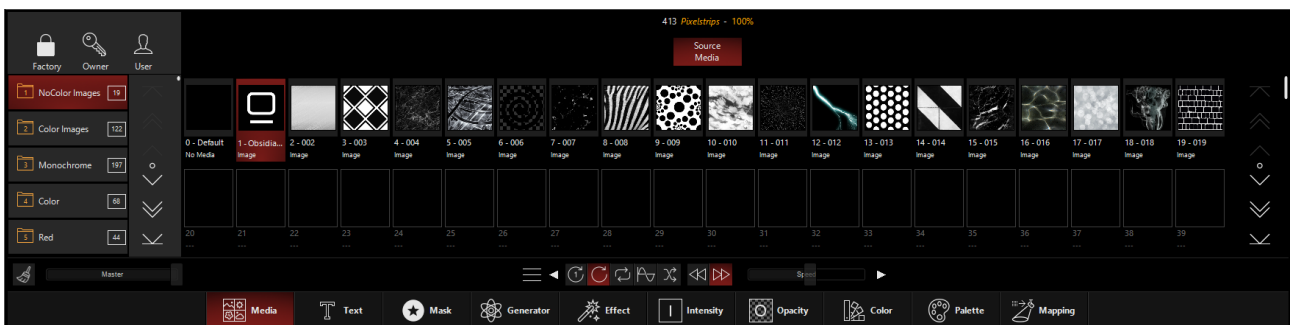
The Zone Parameters window is a graphical way to work with the DyLOS pixel composer without having to use the encoder wheels. This allows you to quickly see all of your content and choose the best content for the moment in your show.

While many of the DyLOS parameters are available in the Zone Parameters window, not 100% of them are, so please keep this in mind as you view the parameter options outlined in this manual.

This window is available as a pop-up from the [Zone Composer](#) itself, or as a stand-alone window that can be assigned to views:



In the default "Compose" workspace, it is the bottom half of the "DyLOS" view:



Using the Zone Parameters Window

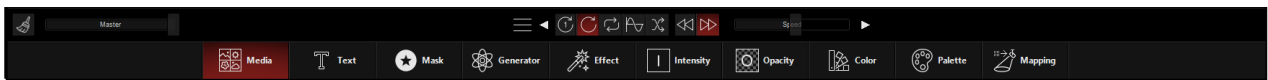
The Zone Parameters window works when any piece of a Zone fixture is selected, to give you control over that selected slot.

When you select multiple slots of the Zone, the last selected slot, which is in red, will be active in the Zone Parameters window:



The Zone Parameters window is just like the [Library](#), but instead of managing the content in your show, you're now applying it to your [Zones](#) (and therefore your fixtures!).

At the bottom of the Zone Parameters window, we see something different:



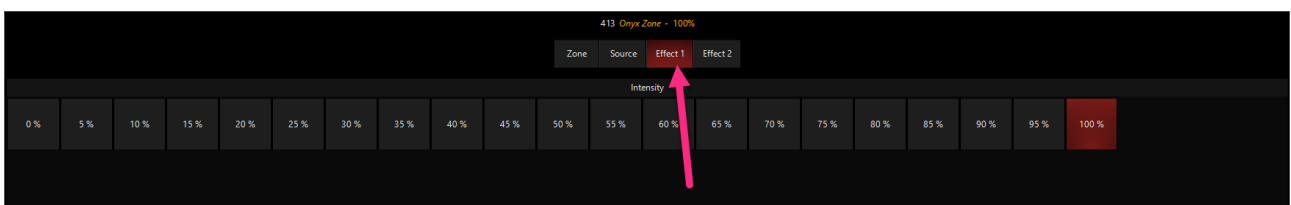
The top half of this section offers controls to manipulate the content that you have selected. These change depending on the type of content selected - these options are at the bottom of the window and consist of Media, Text, Mask, Generator, and Effect.

Pressing the menu icon (represented by 3 short horizontal lines) allows you to see all of the available options and press the amber Select button to feature that set of parameters on the mid-section.

You may also use the arrows to either side of the center options to page through the different options in order.

The last (5) options on the bottom navigation are Intensity, Opacity, Color, Palette, and Mapping.

These allow you to modify the stated parameters the entire Zone. When multiple Zones are selected, this is the most recent zone and is also reflected at the top of the window:



Programming

It's important to pay attention to the selectors at the top of each window of the Zone Parameters. Each window pane applies to different parts of the Zone, with some only applying to the Zone, Source, or an Effect Layer. Be sure you are aware of what slot you are currently modifying!

Zone Setup

DyLOS composes content onto pixels within your lighting rig using Zone Fixtures.

Zone fixtures are set areas within the 2D Plan window that contain fixtures. The fixtures inside of the Zone fixture will react to the mapped parameters from DyLOS to the degree which they are capable. *And for those parameters that a particular fixture is not capable of, [Mapping](#) can be customized to make it react...*

Creating a Zone Fixture

Zone Fixtures are created from the [2D Plan](#) window.

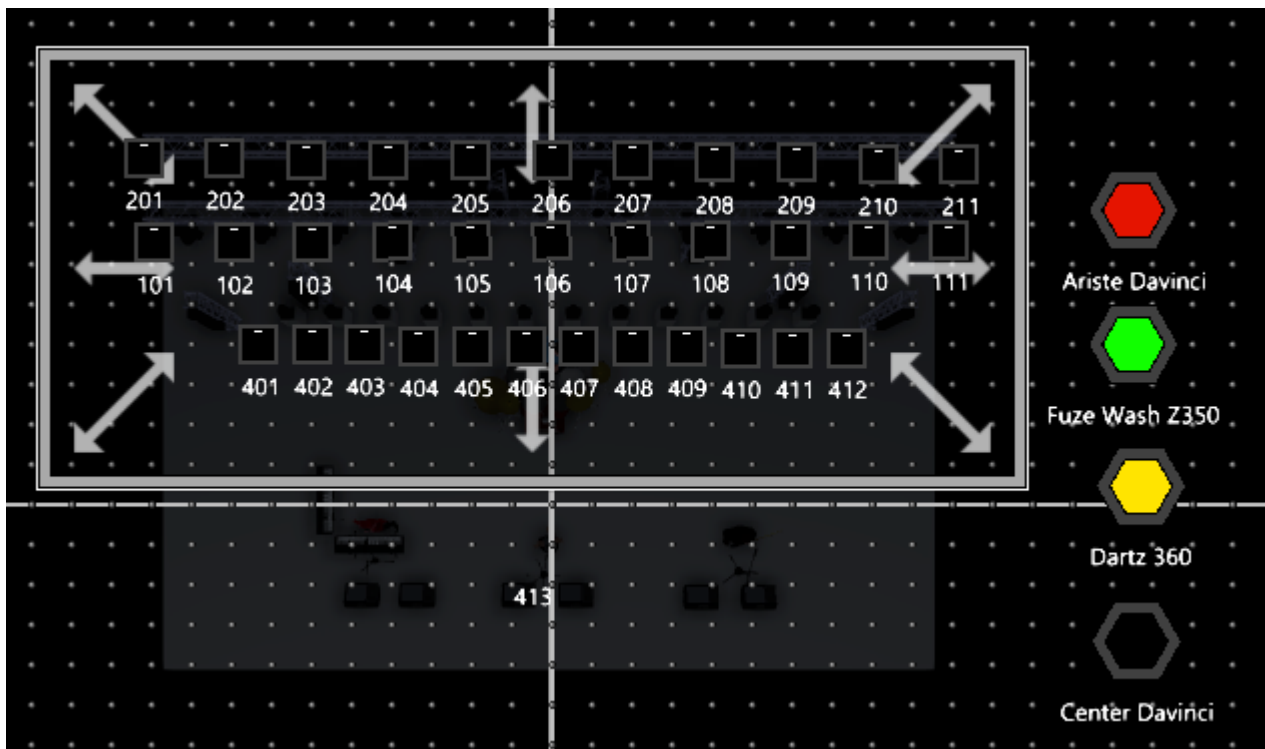
While you can create a Zone first and then add fixtures to it, most users find it simpler to lay out their fixtures first, then create a Zone Fixture on top of them. That way, you can size it perfectly the first time!

Navigate to the 2D Plan view and enter "Edit Mode" by pressing the Live icon:



Go to Add and choose the Zone Fixtures type from the top of the popup. By default New is selected and this is what we will use since we have not created any Zone Fixtures yet.

Press Place Zone Fixture and you will be able to draw a rectangle as your Zone Fixture by pressing and dragging or using a mouse/trackball:



In this example, I am using the Demo show file and adding a Zone to illustrate the point. Use your own showfile or utilize the demo show file (which has Zone fixtures already created) to follow along!

When your Zone Fixture is ready, you may use the arrows that appear in Edit Mode to re-size your Zone as desired. Your Zone Fixture can be re-sized at any point in the future in Edit Mode. Changes made when re-sizing are visible live via the DMX output to your lights as you make them.

Placing an Existing Zone Fixture

If you have an existing Zone Fixture and simply need to place it, the process is very similar.

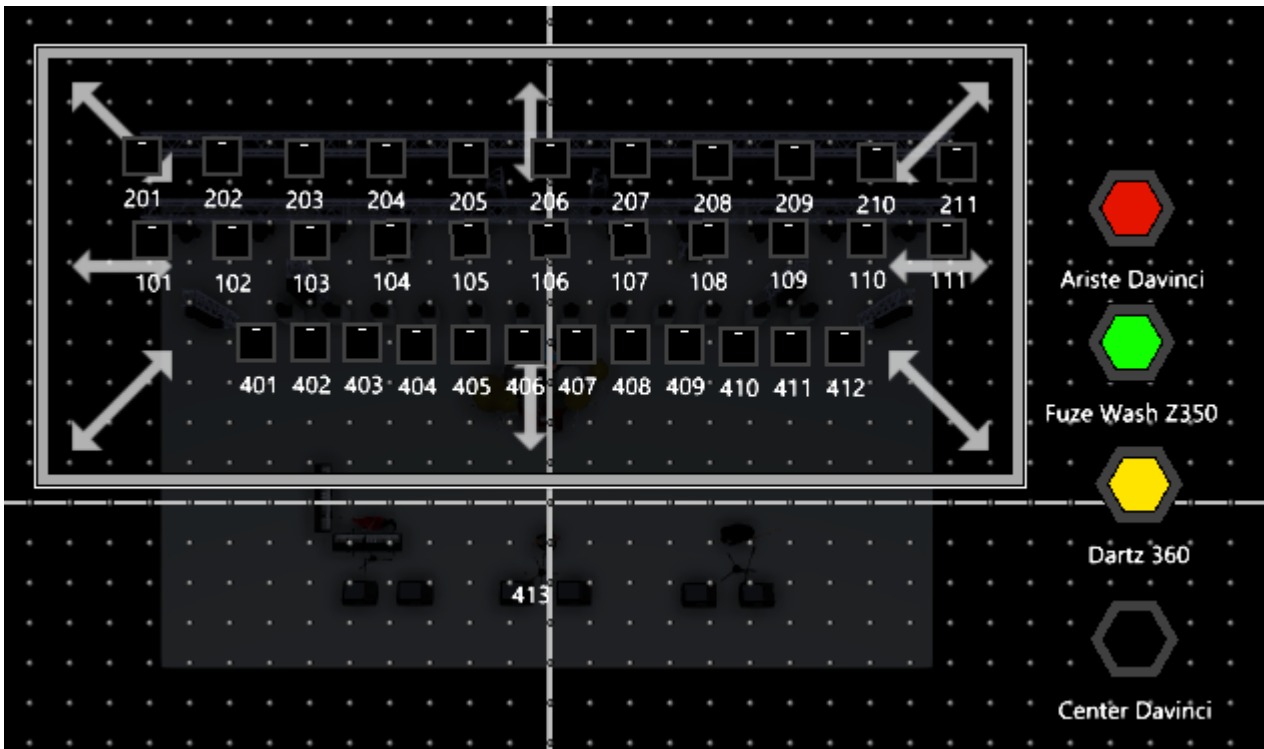
Note: to place a previously created Zone Fixture, it must be deleted from it's previous 2D Plan. A single Zone Fixture cannot be placed in multiple places.

Make sure you are in "Edit Mode" by pressing the Live icon at the top of the 2D Plan View. This will toggle the icon to Edit to indicated that you are in Edit Mode.

Go to Add and choose the Zone Fixtures type from the top of the popup. Then, choose Place, and you will be able to place your Zone on the 2D Plan view by pressing and dragging.

Resizing and Moving a Zone

When a Zone is selected within the 2D Plan in Edit Mode, you may re-size the Zone in any direction using the provided arrows. Press and drag to extend the Zone in any direction. You can also can move a Zone by pressing in the center of the zone and dragging.



Now that we've gotten our Zone setup, let's dive in and learn about the [Basic Zone Principles](#).

Input Processors

Input Processors

[Video Input Processor](#)

[VU Input Processor](#)

[Audio Filter Input Processor](#)

[Spectrum Input Processor](#)

[Waveform Input Processor](#)

[Beat Provider Input Processor](#)

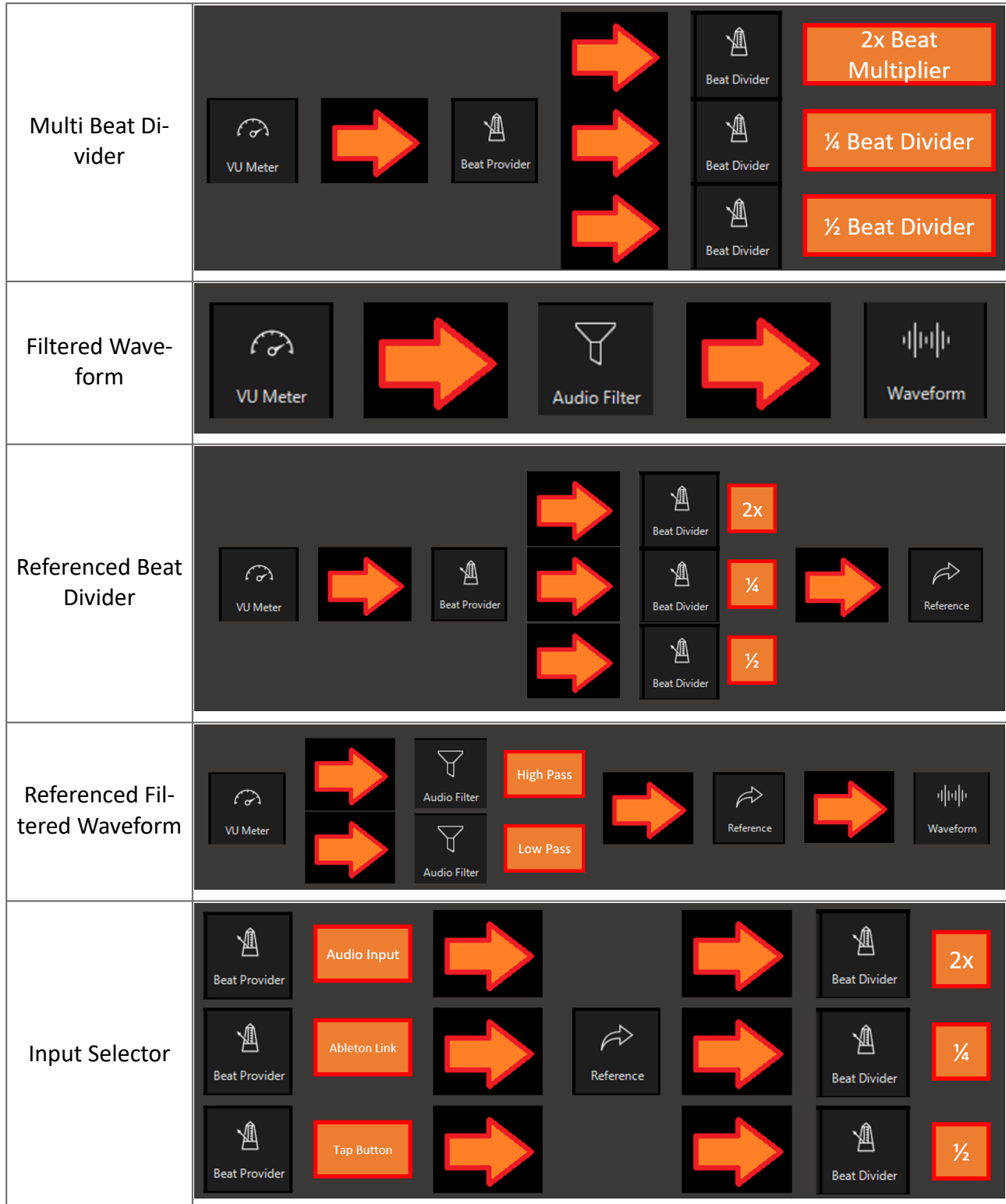
[Beat Divider Input Processor](#)

[Reference Input Processor](#)

Connecting Multiple Input Processors

Input processors can be created and used on their own. However, they become extremely powerful when chained together.

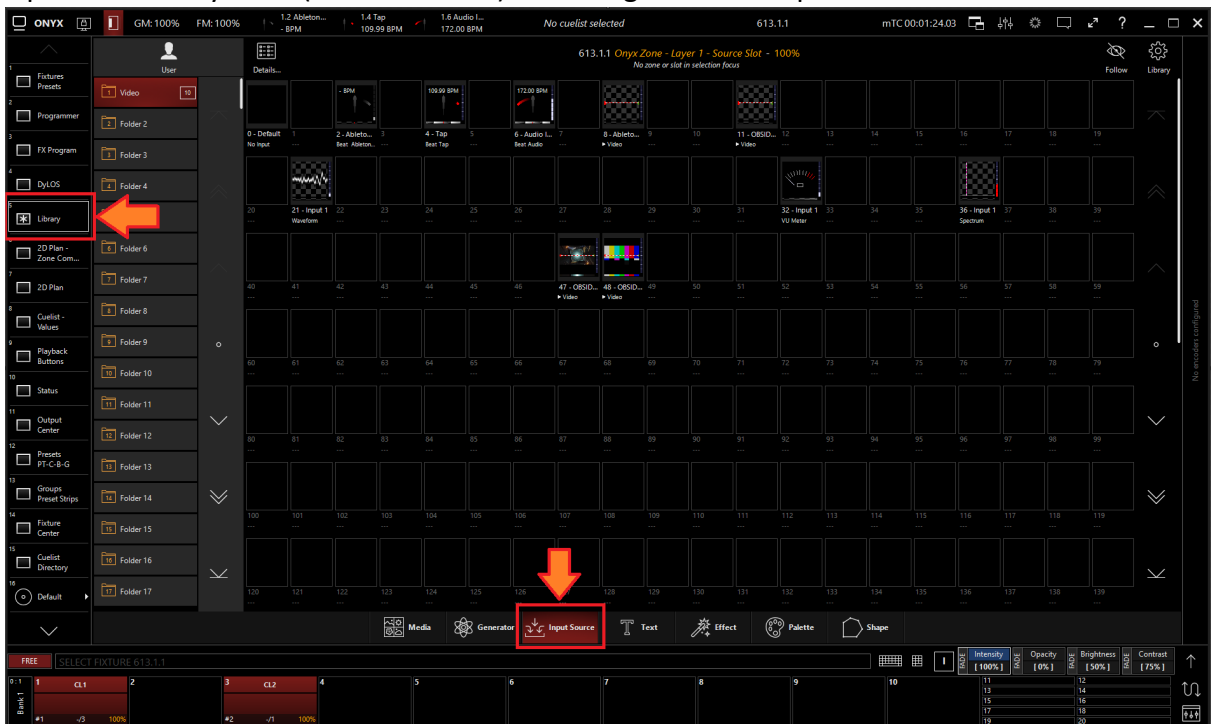
Example Processor Chains:



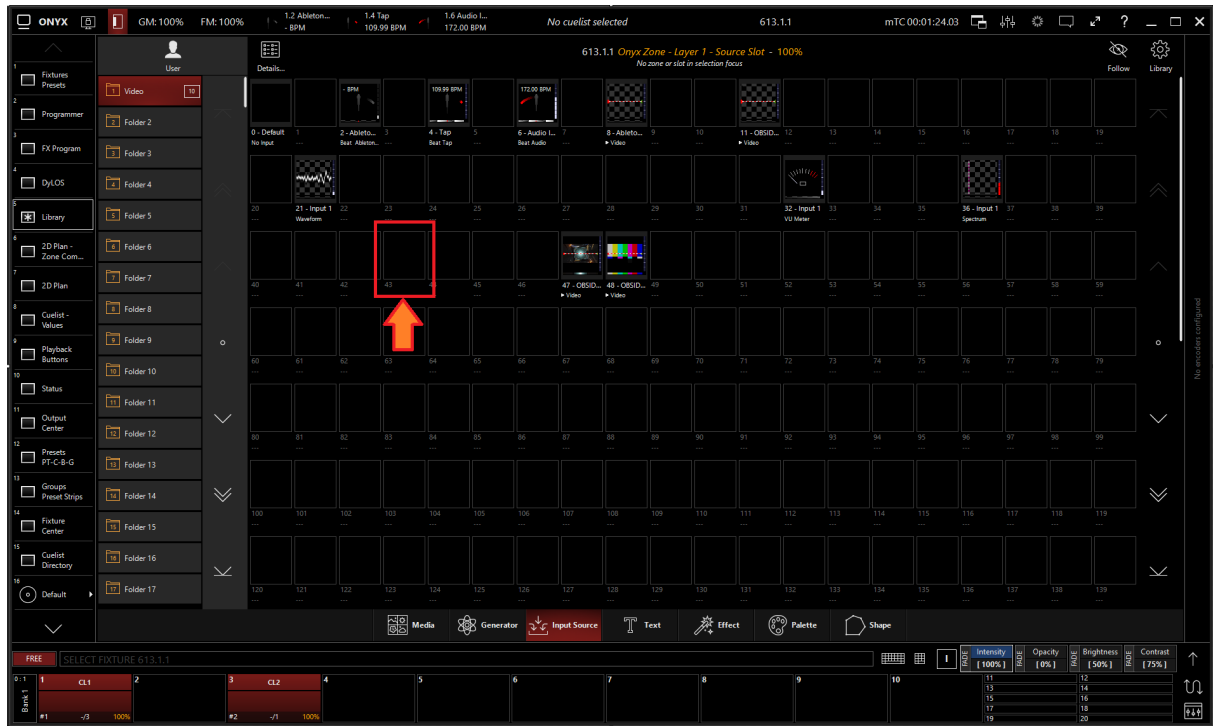
Creating an Input Processor Chain

(example of creating a Referenced Filtered Waveform)

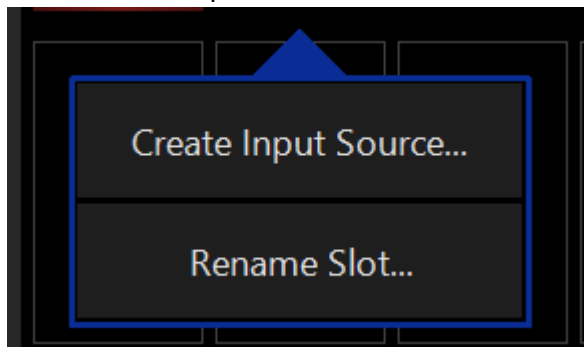
1. Open the Library View (Default view 5) and navigate to the Input Source tab.



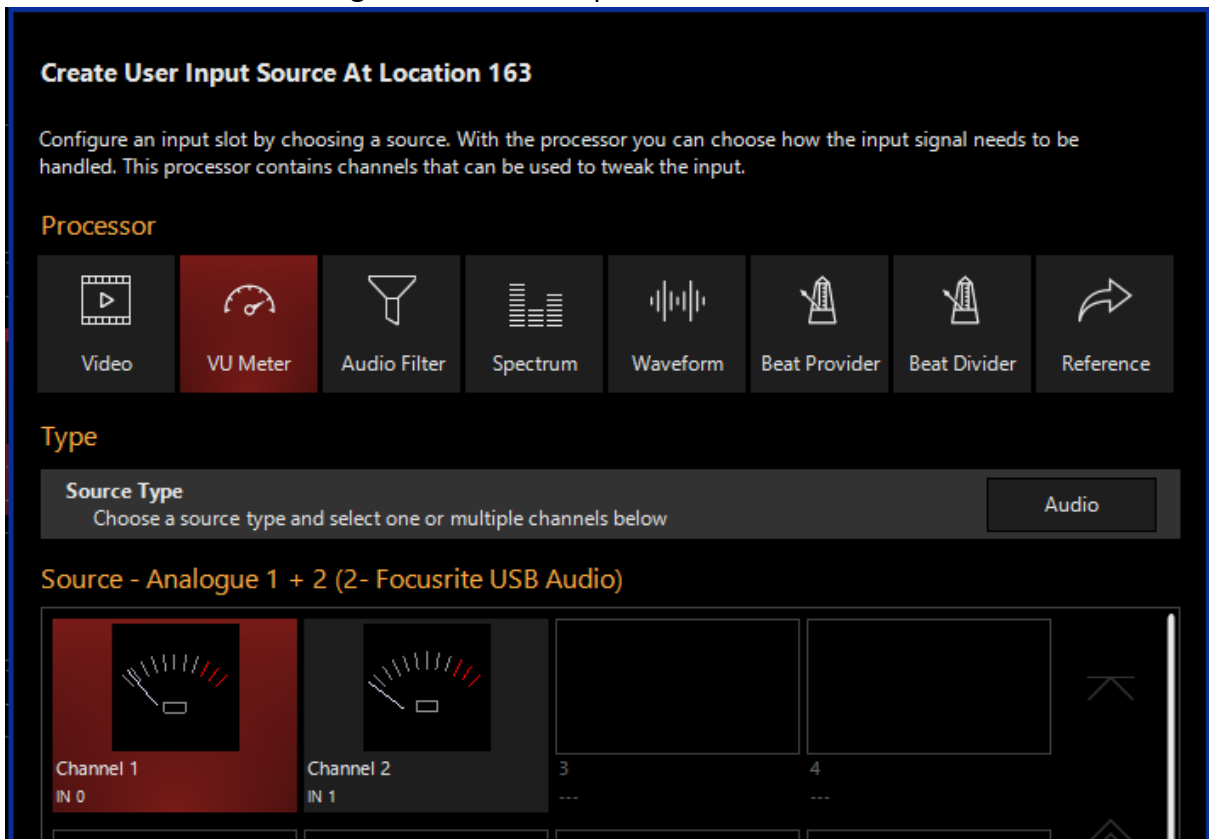
2. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



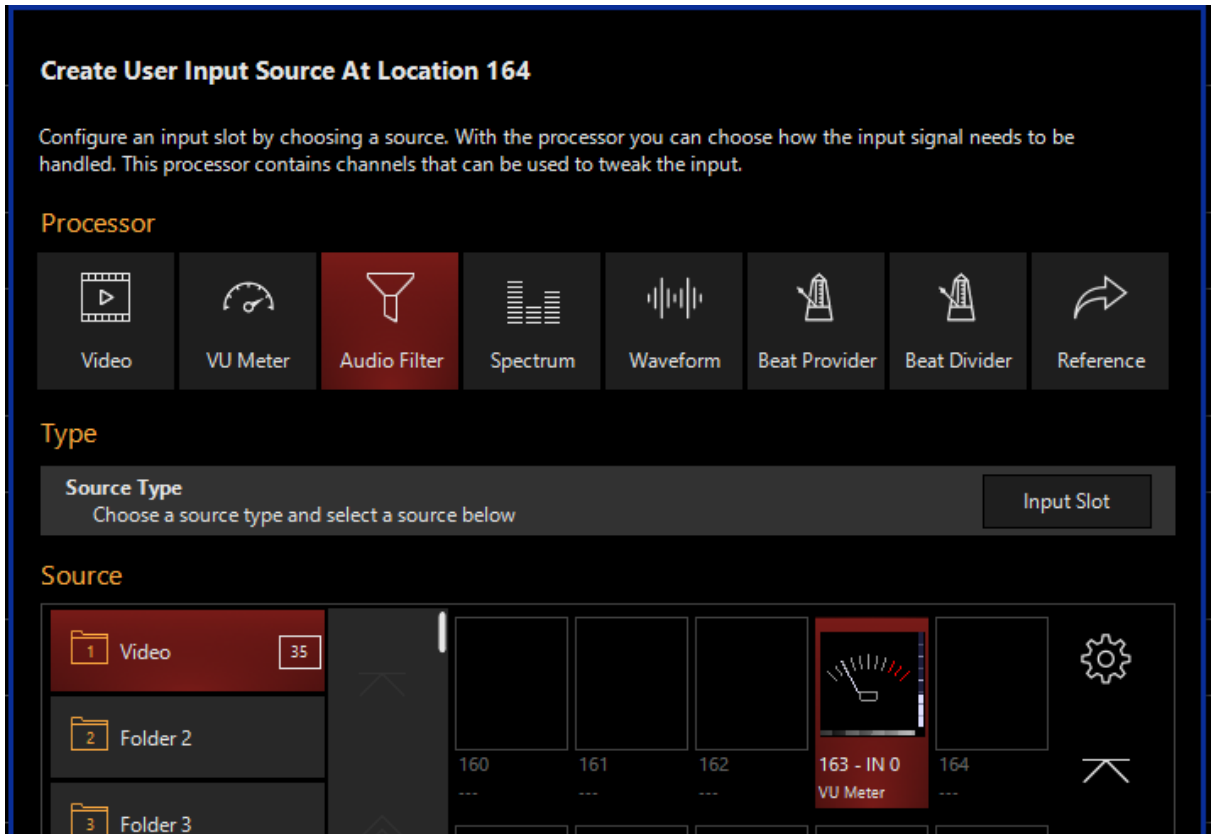
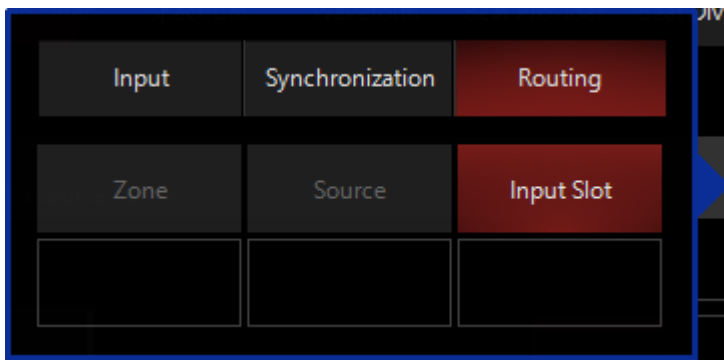
3. Select Create Input Source...



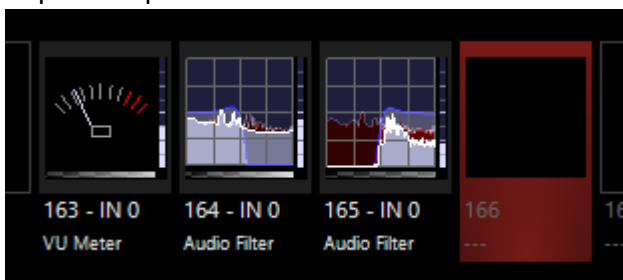
4. Select a VU Meter and assign it to an audio input



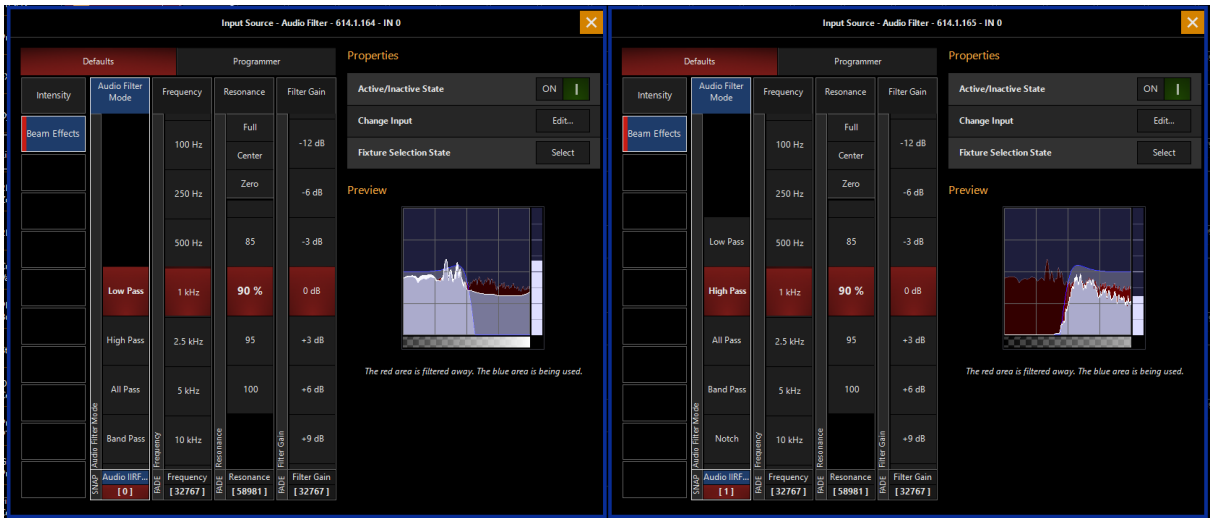
5. Repeat Steps 1 thru 3
6. Select an Audio Filter Processor and use the source type "INPUT SLOT" to assign it to the VU Meter created in step 4.



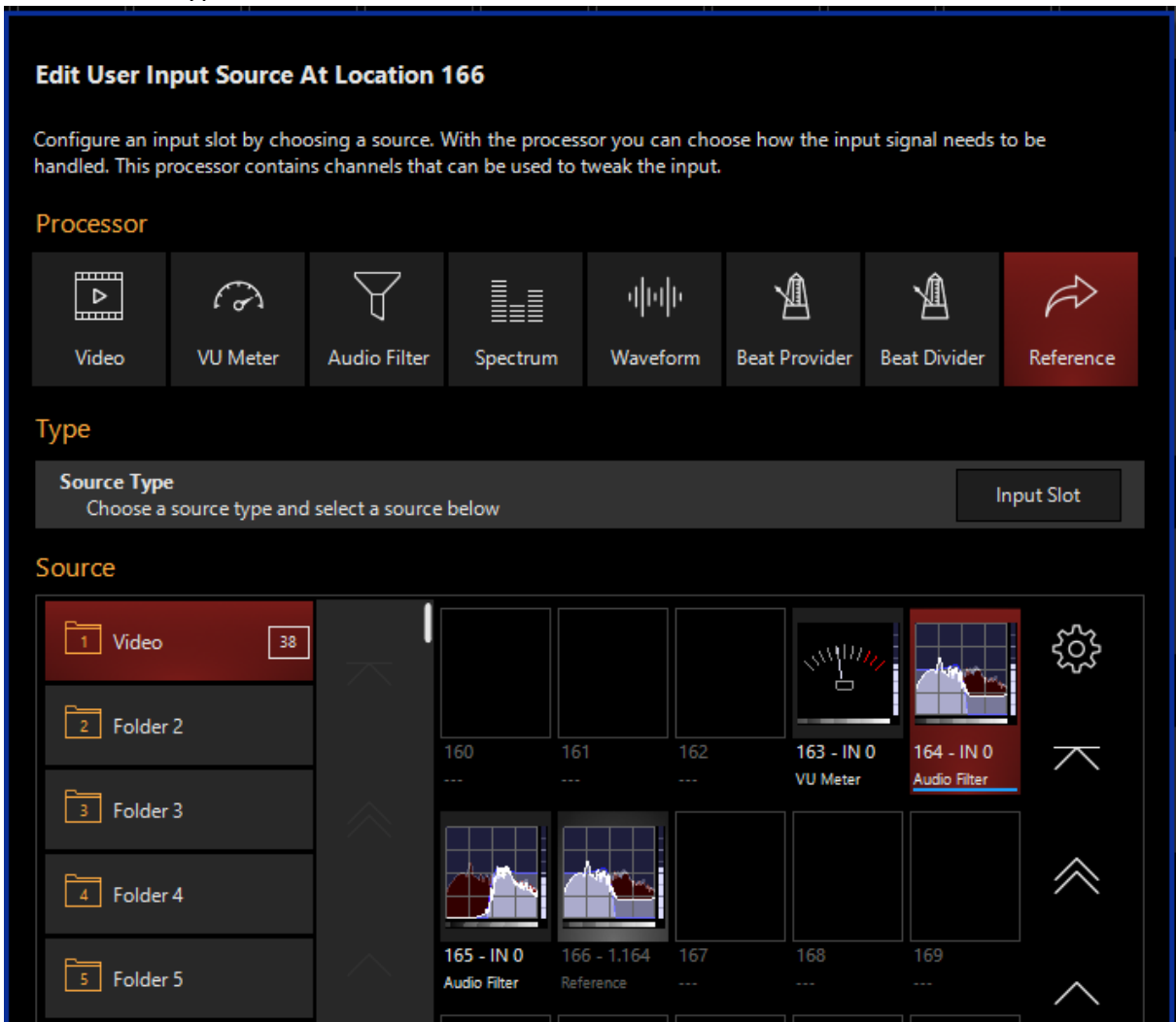
7. Repeat Step 6 to create a second Audio Filter



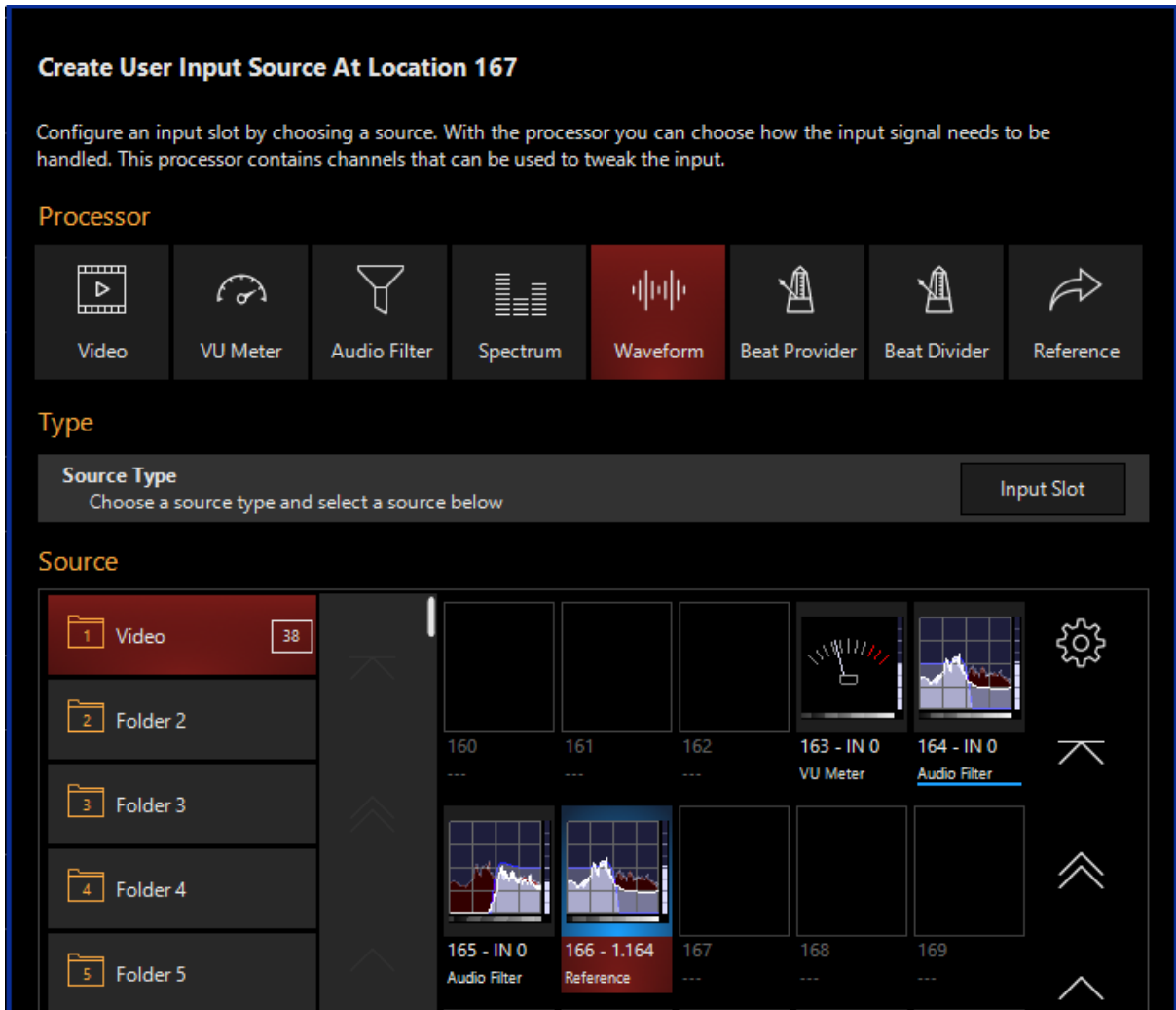
8. Edit the Audio Filters; assign one as a Low Pass and the other as a High Pass



9. Create a Reference Input Processor and assign it to one of the Audio Filters using the "INPUT SLOT" source type



10. Create a Waveform Input Processor and assign it to the Reference Input Processor



- 11. Use the Reference Input Processor to switch the Waveform Input Processor Source on the fly.
 - Cue Setting/Detail Menu

Input Source - Reference - 614.1.166 - 1.164

Defaults		Programmer	
Gobo	Type	Folder	Slot
			161
			162
	Input Source	1 Video	
	Reserved	2 Folder 2	
		3 Folder 3	
		4 Folder 4	
	Input Type	Input Fold...	Input Slot
	[0]	[0]	[164]

Properties

Active/Inactive State: ON OFF

Show In Toolbar: ON OFF

Change Input:

Fixture Selection State:

Beats Per Minute: - BPM

Preview

The red area is filtered away. The blue area is being used.

Parameters
 CueLists

- Function Keys

Shared Functions Button Assignments

The functions are shared between all workspaces. This allows you to use the same functions independent of the workspace.

Categories	Input Sources	Reference Slots
Actions	BEAT	Empty Slot
Playback Control	Reference Slot	1.110 - 1.14
Parameter Groups	Reset BPM	1.116 - 1.115
Channel Resolutions		1.166 - 1.164
Channel Visualization		1.78 - 1.76
Live Time		
Timecode		
Input Sources		
DMX In		
Workspace		
General		
		Input Sources
		1.78 - 1.76
		1.79 - IN 0
		1.74 - IN 0
		1.163 - IN 0
		1.164 - IN 0
		1.165 - IN 0
		1.166 - 1.164
		1.167 - IN 0

FREE | RECORD MEDIA Input source 1 - 167

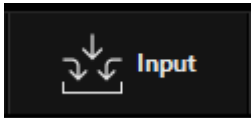
9:1	1	CL 1	2	3	CL 2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Bank 1	#1	-J3	100%	#2	-J1	100%																

Using an Input Processor with Dylos

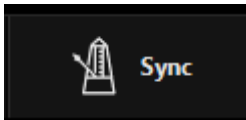
Input Processors have many different uses. However, they become very powerful when used with Dylos. Input Processors can be used as a Media Input, [Color Palette](#), or Sync source inside of Dylos.

4.10 introduces 2 new tabs to the Dylos Zone Parameter window, Input and Sync.

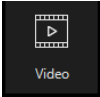

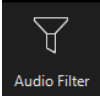
- Input

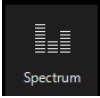
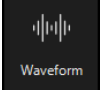
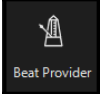

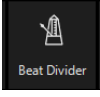

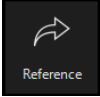


- Sync



Input Contains Media created from Input sources.

Input Processor	Media Input	Sync
	<p>Video Processor</p> <p>Displays video media from an external source.</p>	<p>Input processor is not applicable to Sync</p>
	<p>VU Meter</p> <p>When using a VU meter as a Media input, it will display a white opacity equal to the max audio input level.</p>	<p>Input processor is not applicable to Sync</p>
	<p>Audio Filter</p> <p>When the Audio Filter is used as a Media input, it will display a white opacity equal to the max audio level of the filtered frequency.</p>	<p>Input processor is not applicable to Sync</p>

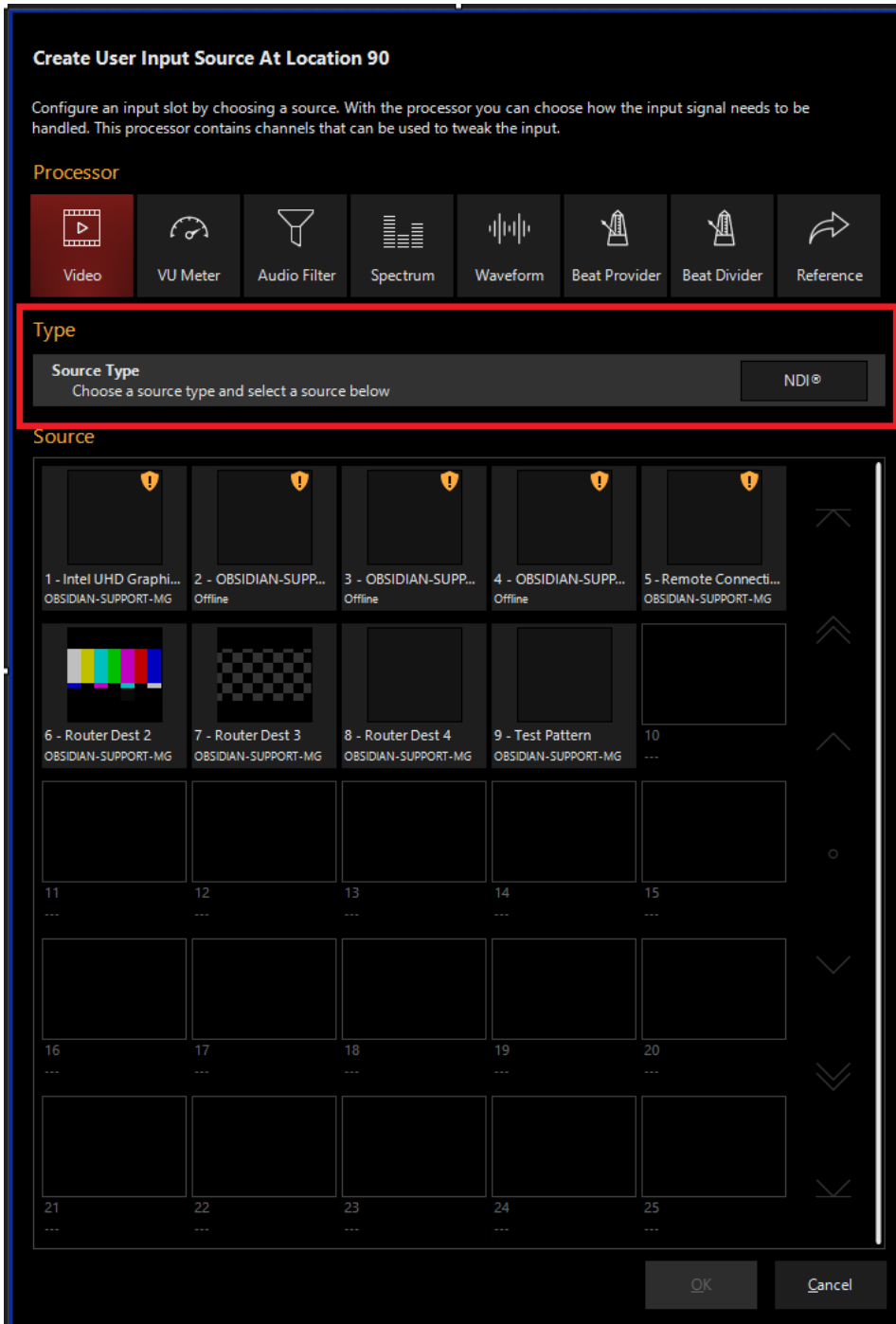
	<p>Spectrum</p> <p>The Spectrum Input processor creates a visual spectrum chart of the audio source and displays it as video content.</p>	<p>Input processor is not applicable to Sync</p>
	<p>Waveform</p> <p>The waveform input processor will create a visual waveform from the audio source and display it as video content.</p>	<p>Input processor is not applicable to Sync</p>
	<p>Beat Provider</p> <p>Samples selected audio source and provides a beat based on the detected BPM, this beat is turned into a white flash to be used as Media content. media can be set to Phase, Flash, Alternate, or Pulse from the Input processor parameter menu.</p>	<p>When assigned to a Dylos zone using the Sync tab, the Input Processor will set the playback speed of the media content or control the video playhead direction, this can be selected using the Sync setting bar.</p> 
	<p>Beat Divider</p> <p>Multiplies or Divides the beat BPM of the selected input source thus dividing the number of times the white media is flashed. The Beat Divider also contains Phase, Flash, Alternate, or Pulse selection. Beat Dividers must be attached to a source with BPM data (Beat Provider, Ableton link, or Tap)</p>	<p>When assigned to a Dylos zone using the Sync tab, the Input Processor will set the playback speed of the media content. or control the video playhead direction, this can be selected using the Sync setting bar.</p> 
	<p>Reference</p> <p>Creates a dynamic referenced copy of the selected input source. The referenced copy will be affected by the source input slot. The referenced input slot can be switched to a different input by cue list data or function keys.</p> <p>A blue outline in the library indicates referenced Processors.</p>	<p>Reference input processor work the same when used within the sync tab. The will allow the assigned reference input processor to reference a selected input processor and can be switched using cue list data or function keys.</p>

Allowed Source Types

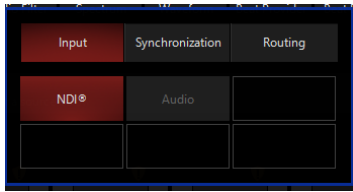
- Input Slot

Input Source Types

Input Source Types indicate the type of external source input for the input processor.



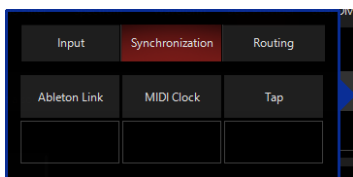
Source Type	Description
-------------	-------------



Input

NDI: NDI inputs can include Video or Audio Information

Audio: External Audio Input

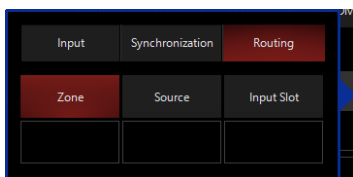


Synchronization

Ableton Link: Ableton Link allows for synchronizing tempo, beat, and phase from Ableton Live and Ableton Link-enabled applications via a network connection.

MIDI Clock: The MIDI-Start message sets the 1 beat. If there is no Start message, the first beat coming in gets the 1 assigned. Users can override the 1 in the same way as in the audio detection mode.

Tap: Detects used input BPM from an assignable tap sync button.



Routing

Zone: Selects a Dylos Zone as the input for a video processor.

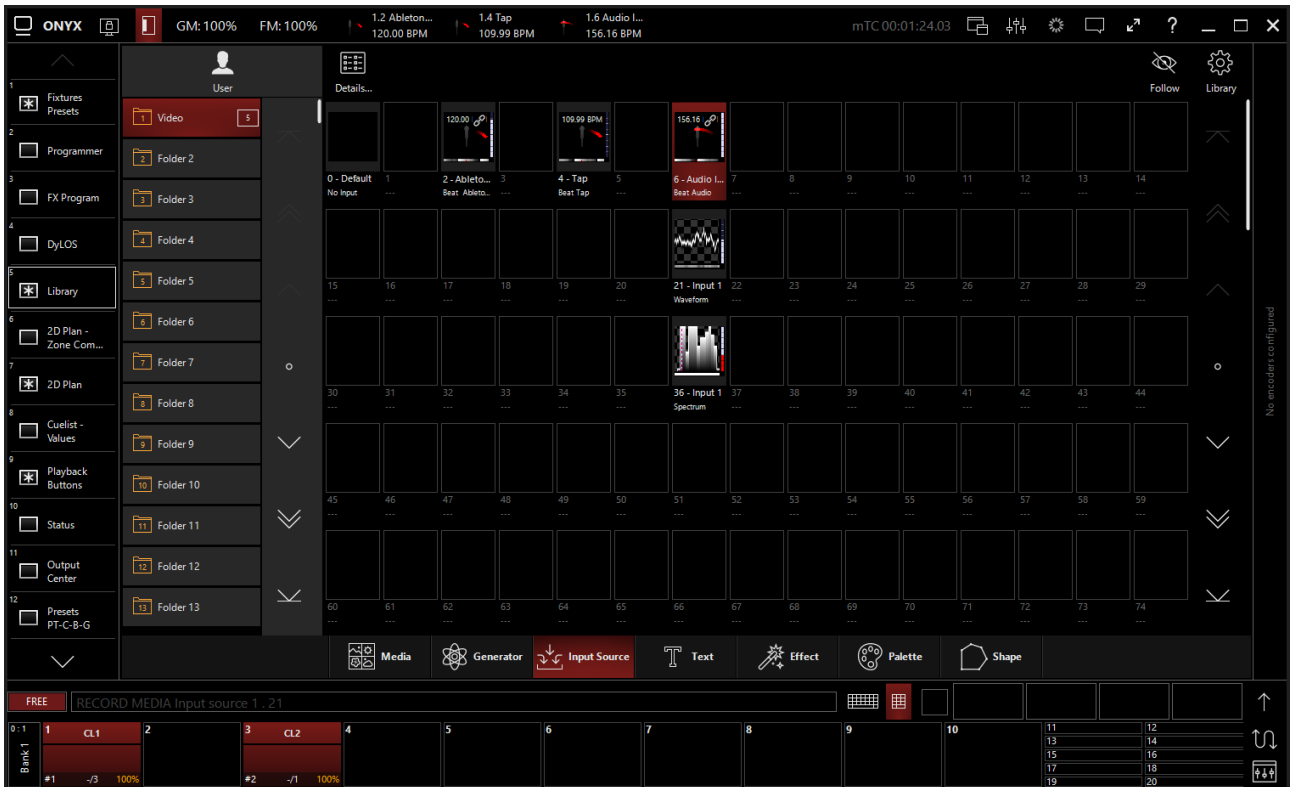
Source: Selects the Source Block of a Dylos Zone as the input of a video processor.

Input Slot: Selects another Input Processor for connecting multiple input processors.

Input Sources

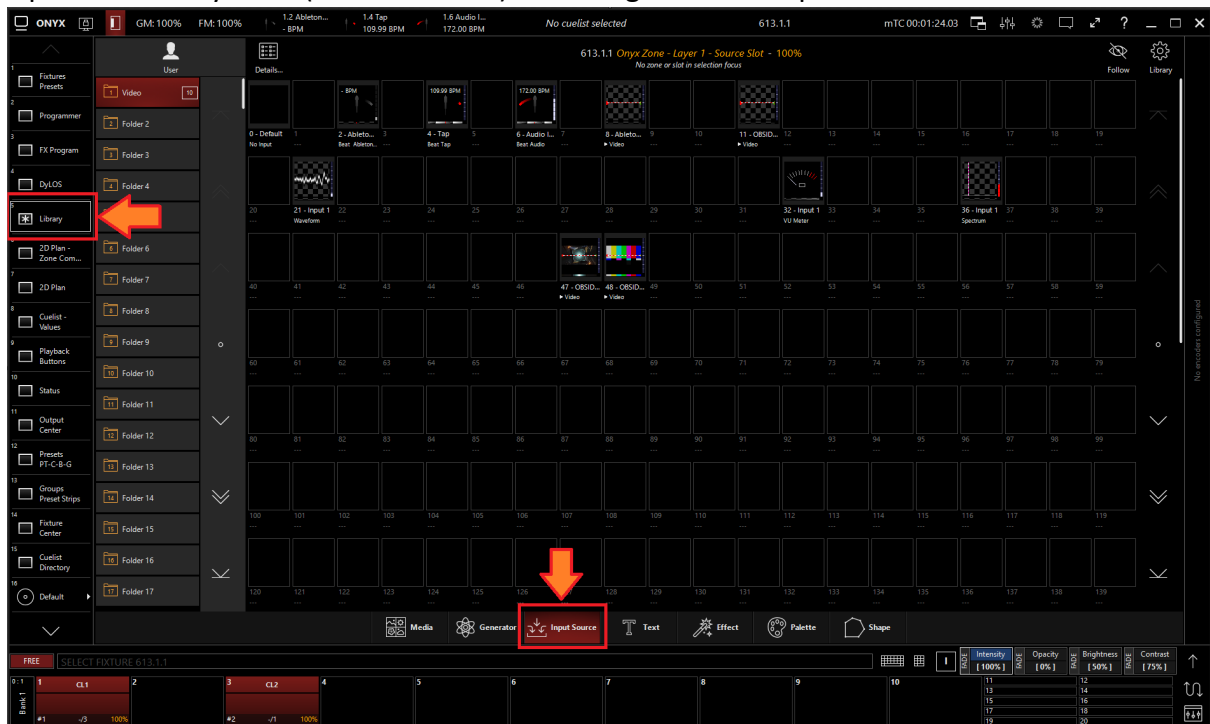
Introduced in Onyx 4.10

Input Sources are inputs into Onyx from external sources such as [Audio](#), [NDI Video](#), [Ableton Link](#), [Midi](#), or [Tap](#).

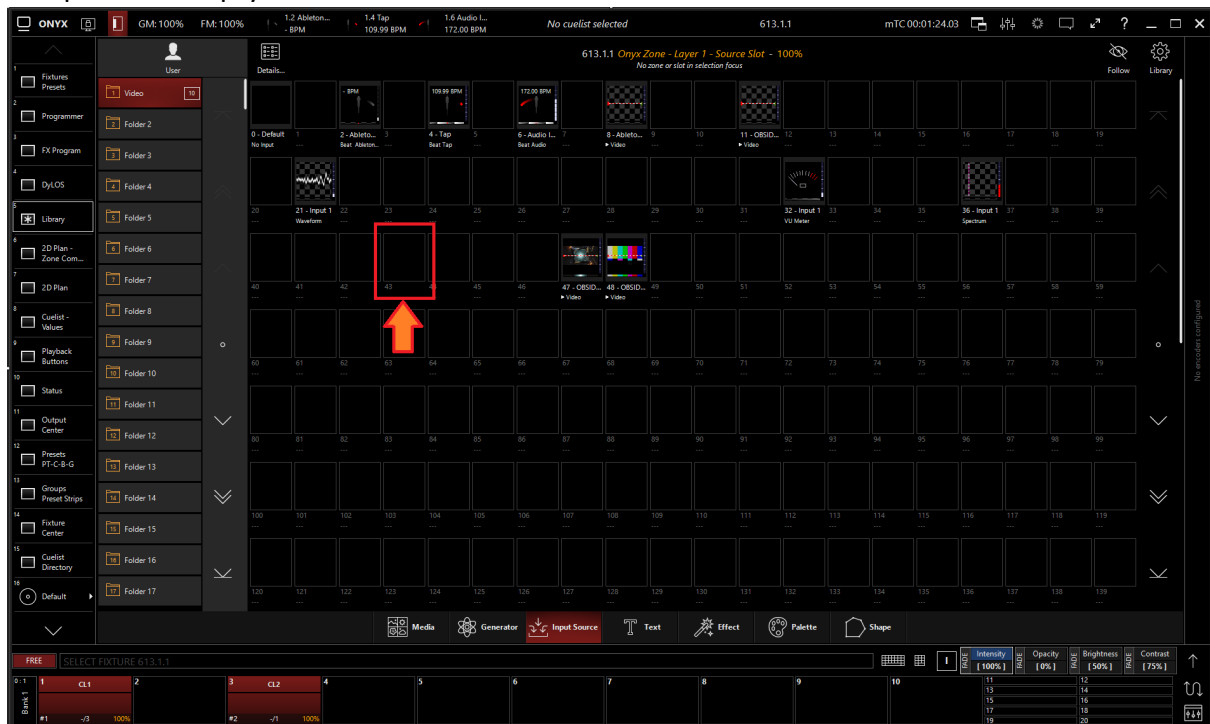


Creating an Input Source

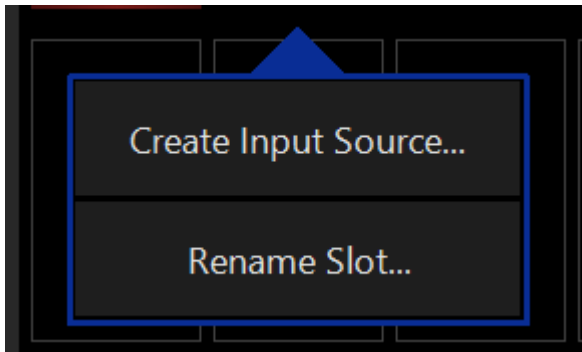
1. Open the Library View (Default view 5) and navigate to the Input Source tab.



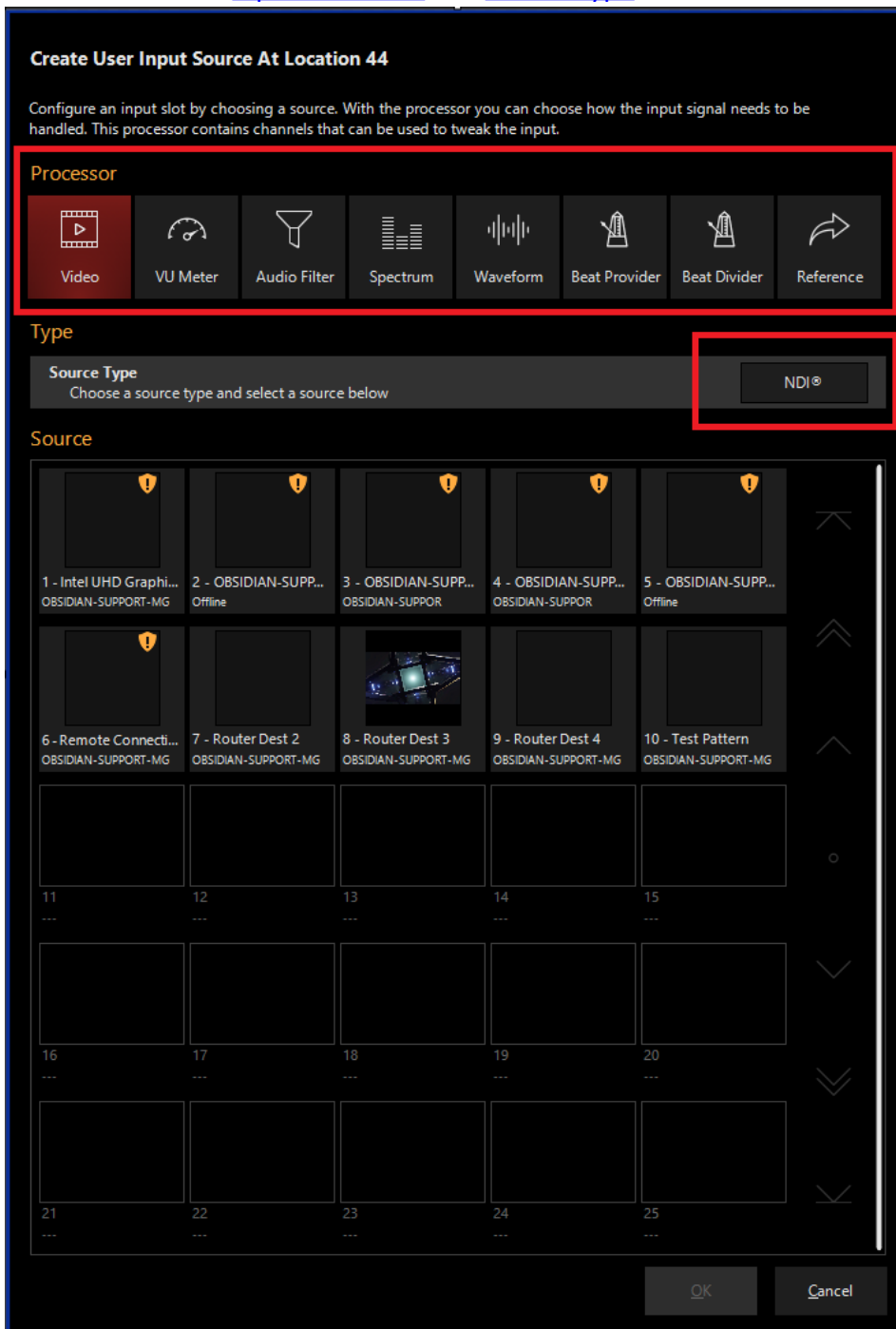
2. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



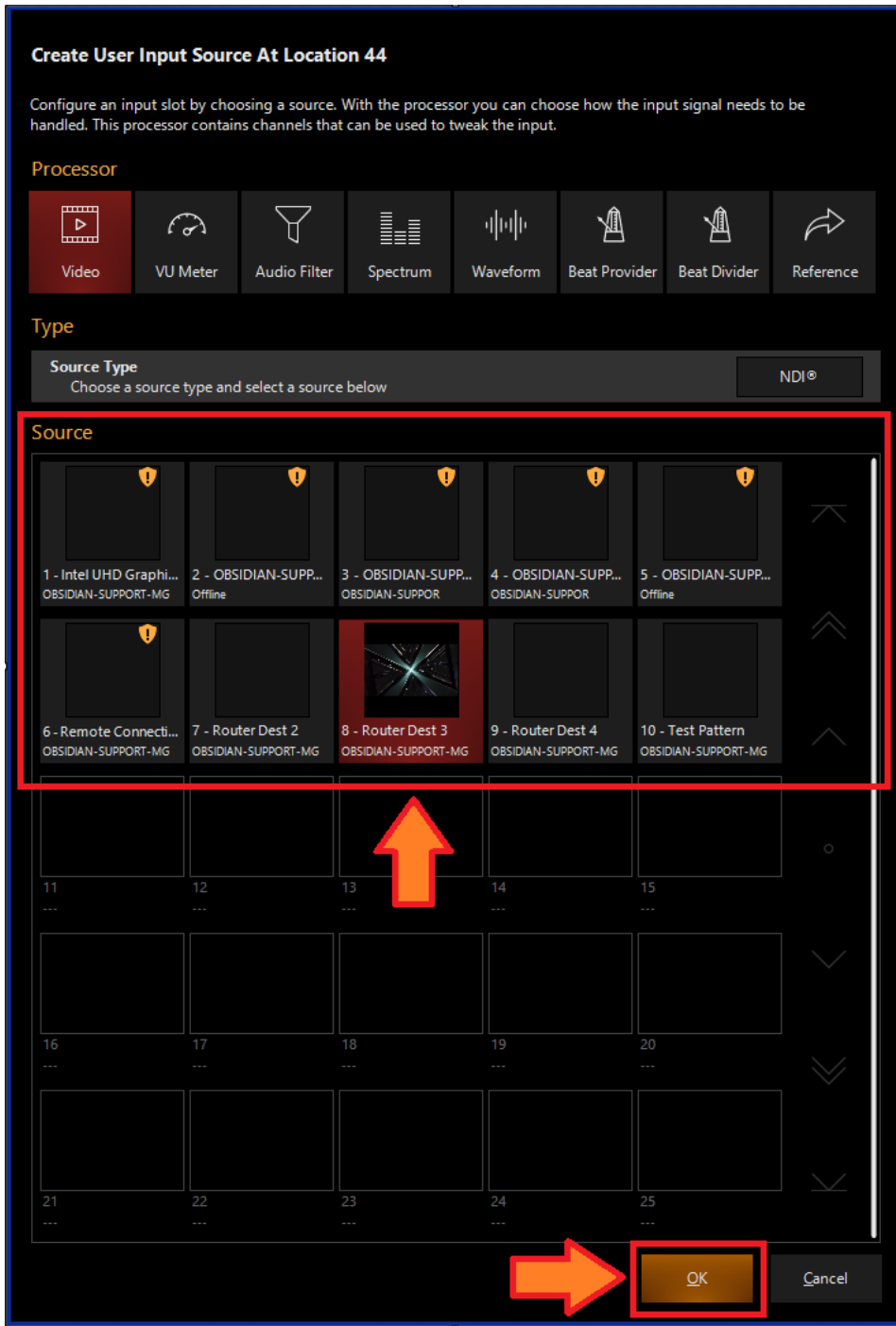
3. Select Create Input Source...



4. Select the desired [Input Processor](#) and [Source Type](#).

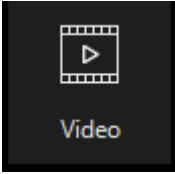

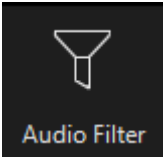
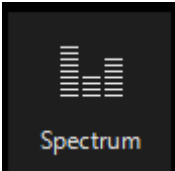


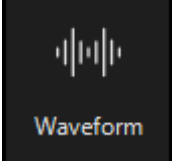
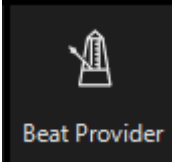
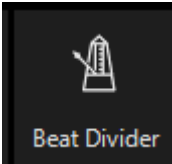
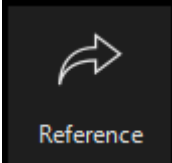
5. Select the Input Source and then press OK



Types of Input Processors

Input Processor	Description
-----------------	-------------

 <p>Video</p>	<p>Video Processor</p> <p>Allowed Source Types</p> <ul style="list-style-type: none"> • NDI Video • Dylos Zone • Source • Input Slot
 <p>VU Meter</p>	<p>VU Meter</p> <p>Creates a VU Meter from an audio source to set level gates</p> <p>Allowed Source Types</p> <ul style="list-style-type: none"> • NDI Audio • Audio Input • Input Slot
 <p>Audio Filter</p>	<p>Audio Filter</p> <p>Filters selected source Input and applies an EQ</p> <p>Allowed Source Types</p> <ul style="list-style-type: none"> • NDI Audio • Audio Input • Input Slot
 <p>Spectrum</p>	<p>Spectrum</p> <p>Creates a visual spectrum from selected audio input source</p> <p>Allowed Source Types</p> <ul style="list-style-type: none"> • NDI Audio • Audio Input • Input Slot

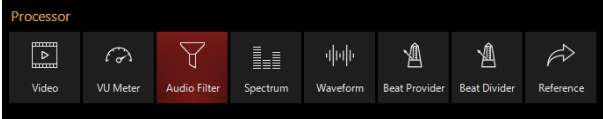
	<p>Waveform</p> <p>Creates a visual waveform from selected audio input source</p> <p>Allowed Source Types</p> <ul style="list-style-type: none"> • NDI Audio • Audio Input • Input Slot
	<p>Beat Provider</p> <p>Samples selected audio source and provides a beat based on the detected BPM</p> <p>Allowed Source Types</p> <ul style="list-style-type: none"> • NDI Audio • Audio Input • Input Slot • Ableton Link • Midi Clock • Tap Sync
	<p>Beat Divider</p> <p>Multiplies or Divides the beat BPM of the selected input source.</p> <p>Allowed Source Types</p> <ul style="list-style-type: none"> • Input Slot
	<p>Reference</p> <p>Creates a dynamic referenced copy of the selected input source. The referenced copy will be affected by the source input slot. The referenced input slot can be switched to a different input by cue list data or function keys.</p> <p>A blue outline in the library indicates referenced Processors.</p>

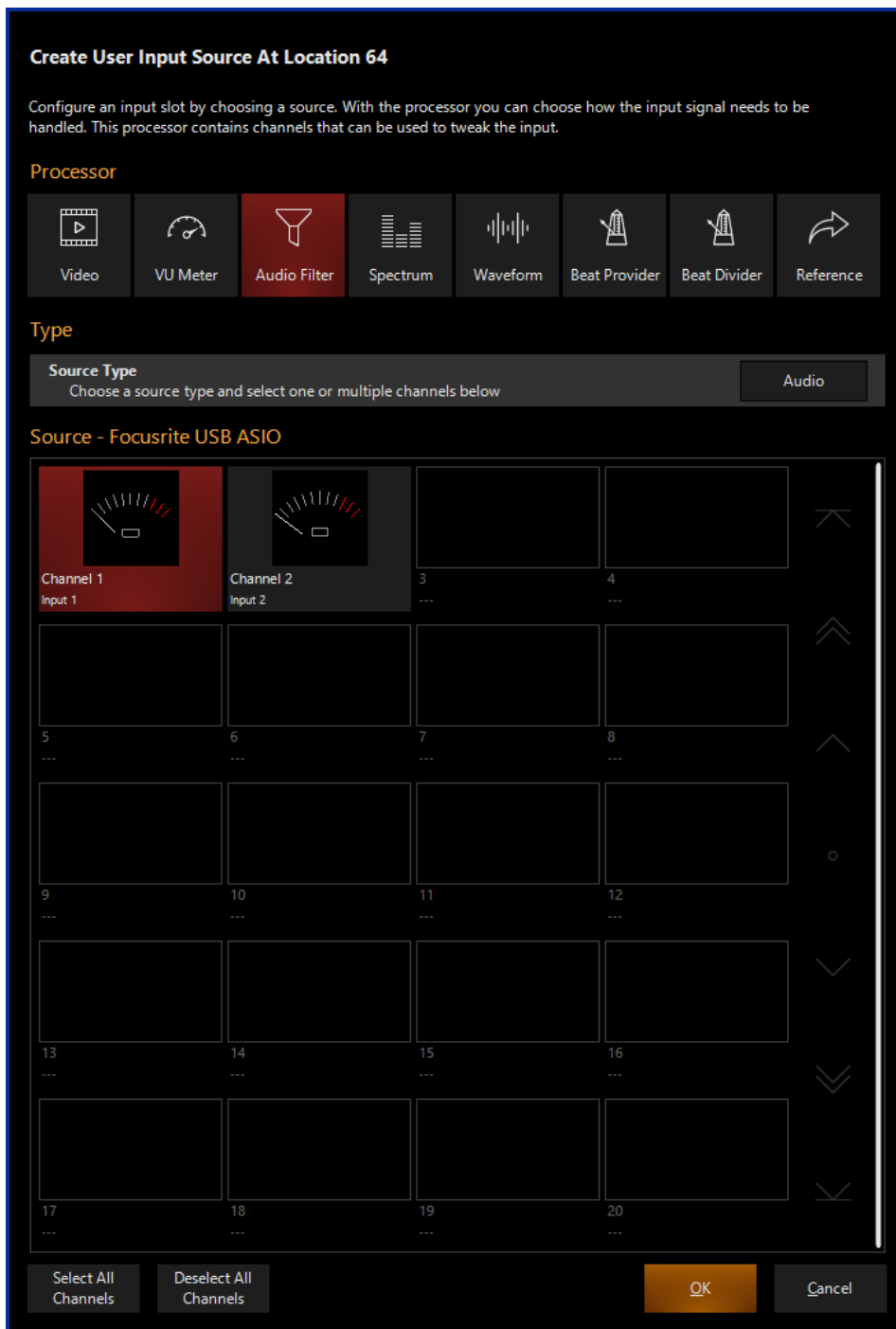
Allowed Source Types

- Input Slot

Audio Filter Input Processor

Audio Filter Input Processor allows for an EQ to be set on an input source from an NDI stream, Audio Input, or Input Slot.

 <p>The screenshot shows a 'Processor' menu with several options: Video, VU Meter, Audio Filter (highlighted in red), Spectrum, Waveform, Beat Provider, Beat Divider, and Reference.</p>	<p>Audio Filter</p> <p>Filters selected source input and applies an EQ</p> <p>Allowed Source Types</p> <ul style="list-style-type: none">• NDI Audio• Audio Input• Input Slot
--	---



Creating an Audio Filter Input Processor

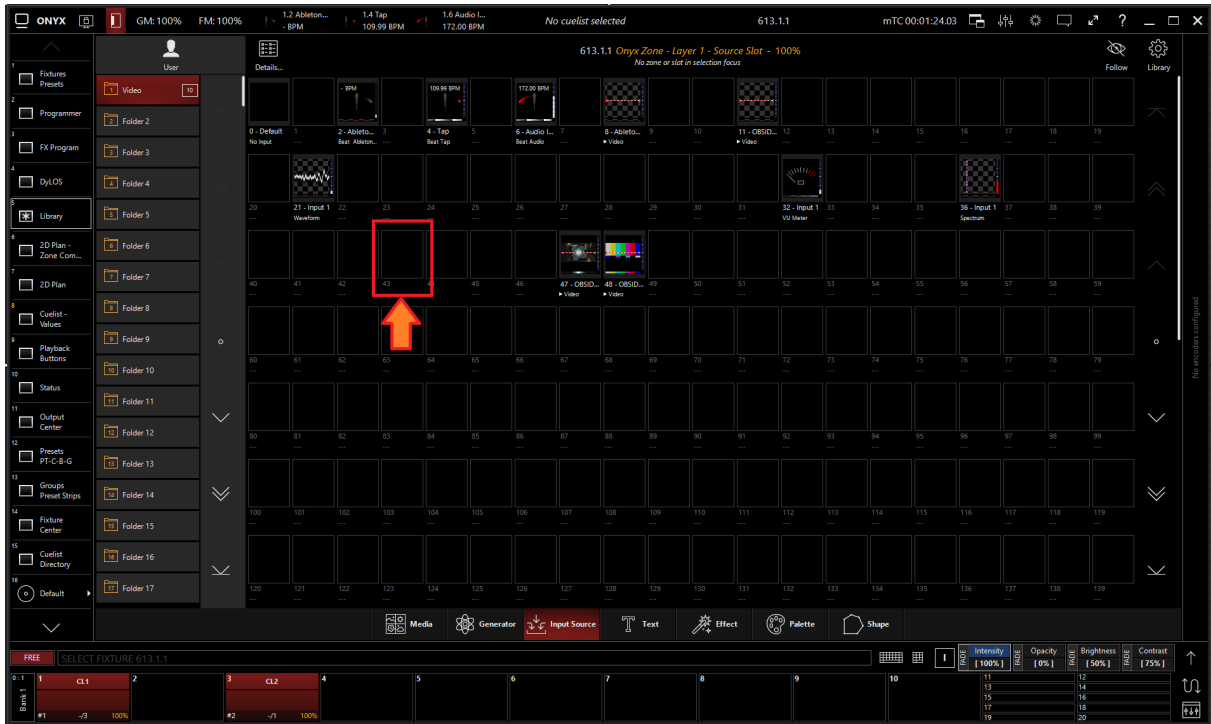
If using an Audio Filter Input Processor with an NDI Source, you must first set up [NDI](#).

If using an Audio Filter Input Processor with an Audio Source, you must first set up an [Audio Interface](#).

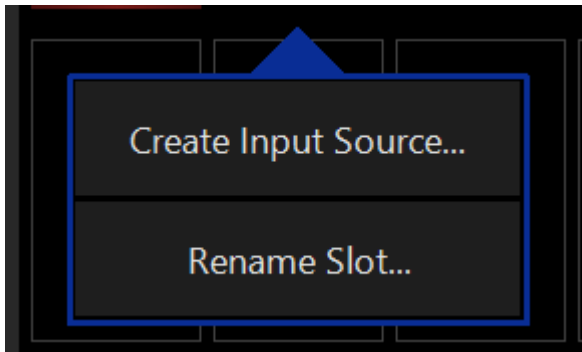
1. Navigate to the **Library** view, button 5, on the default sidebar of the "Compose" workspace.
2. Select the Input Source Tab at the bottom of the window:



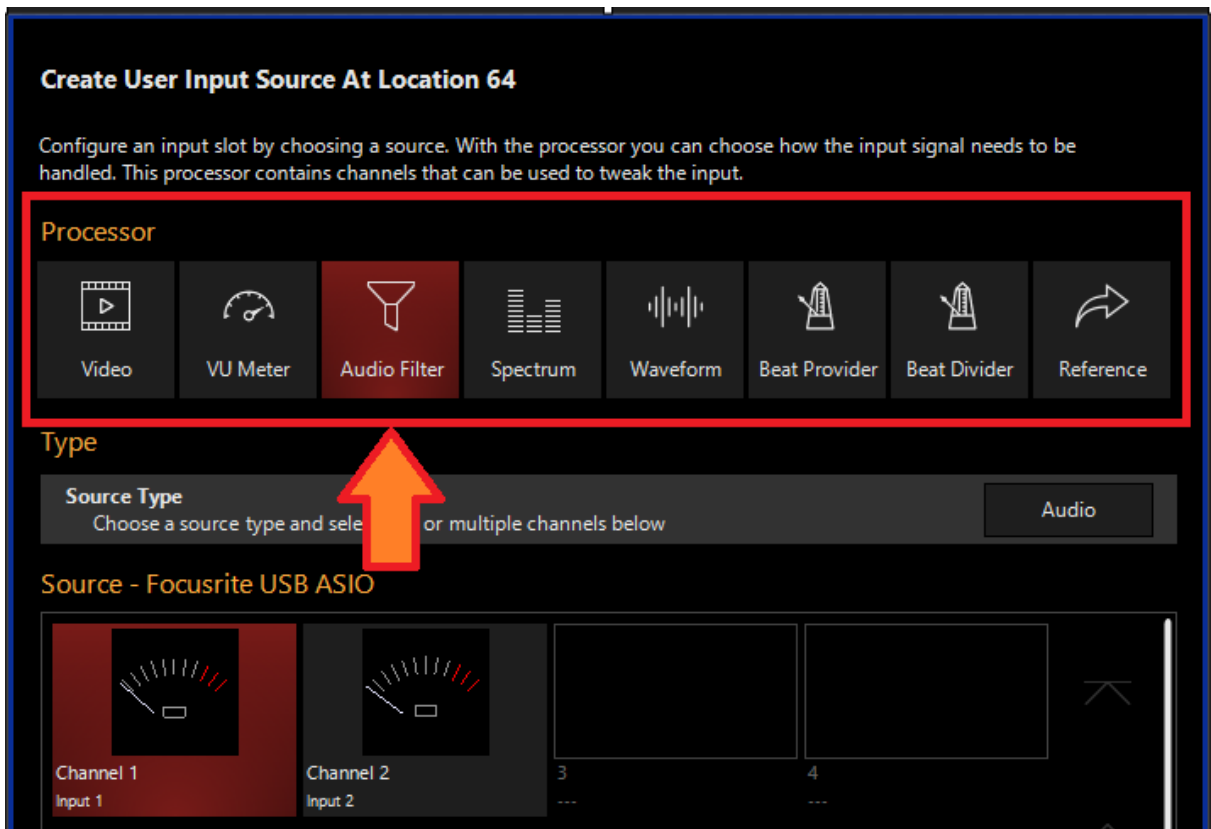
3. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



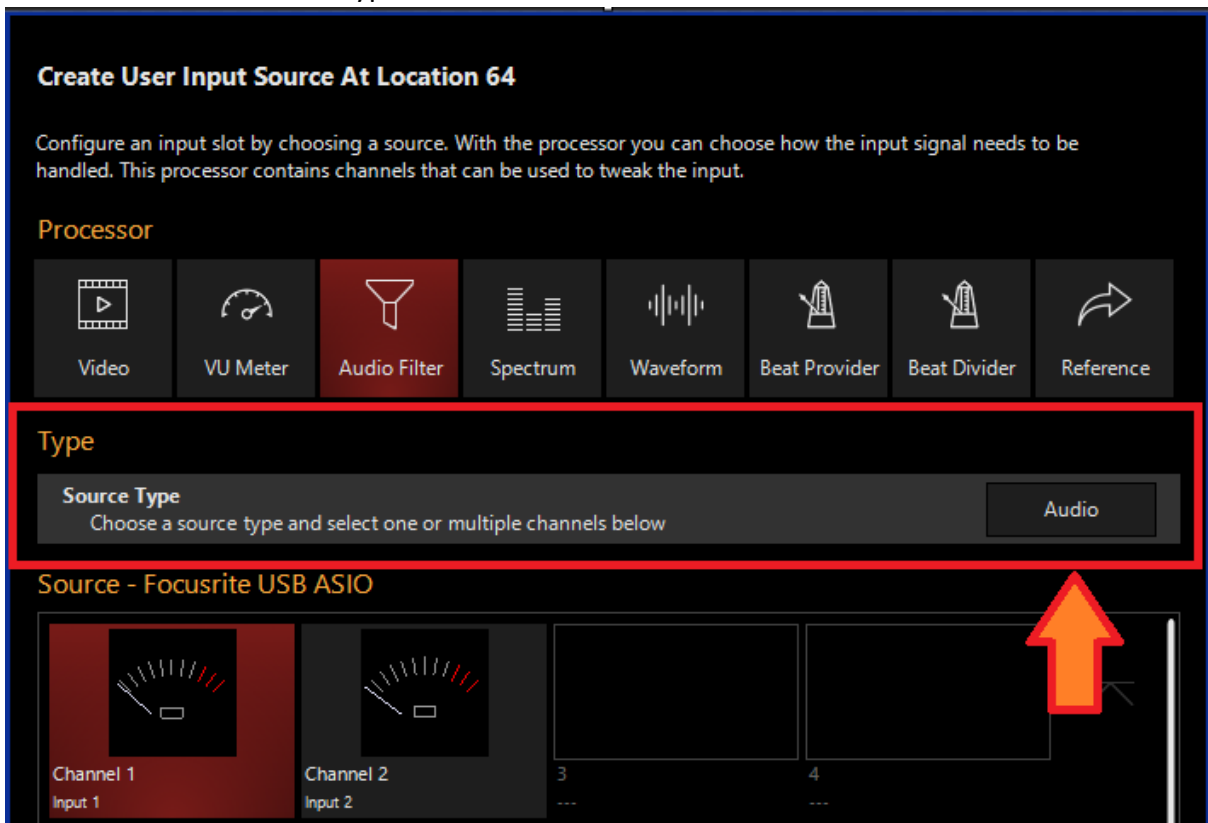
- 4. Select Create Input Source...



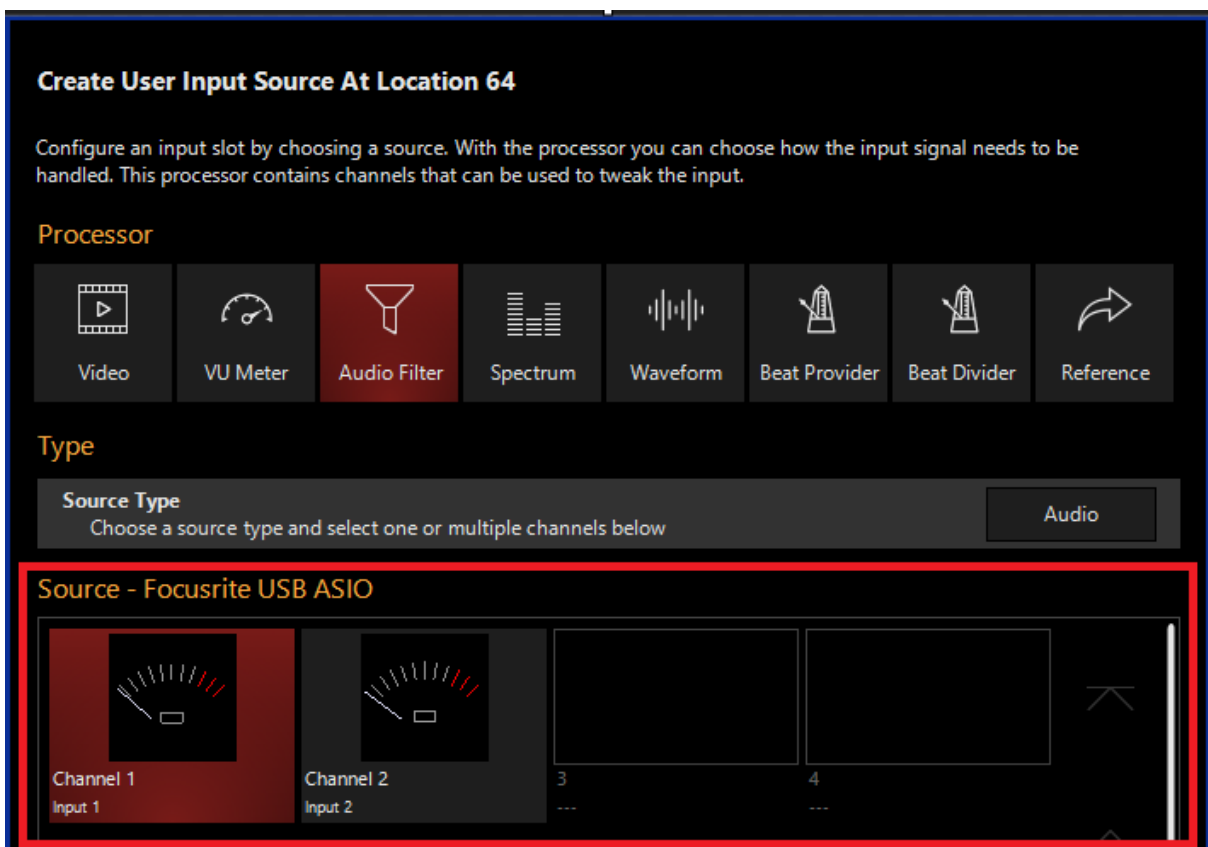
- 5. Select Audio Filter under Processor.



6. Select the desired Source Type

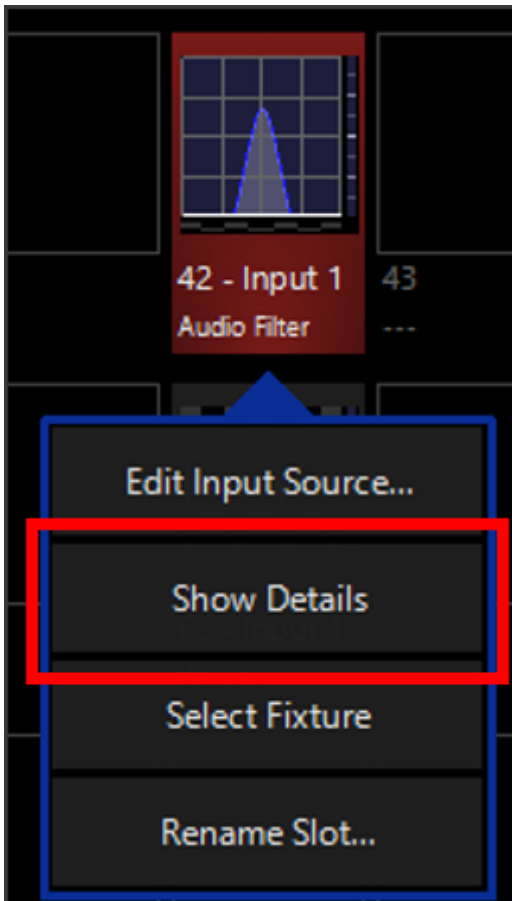


7. Select the Source

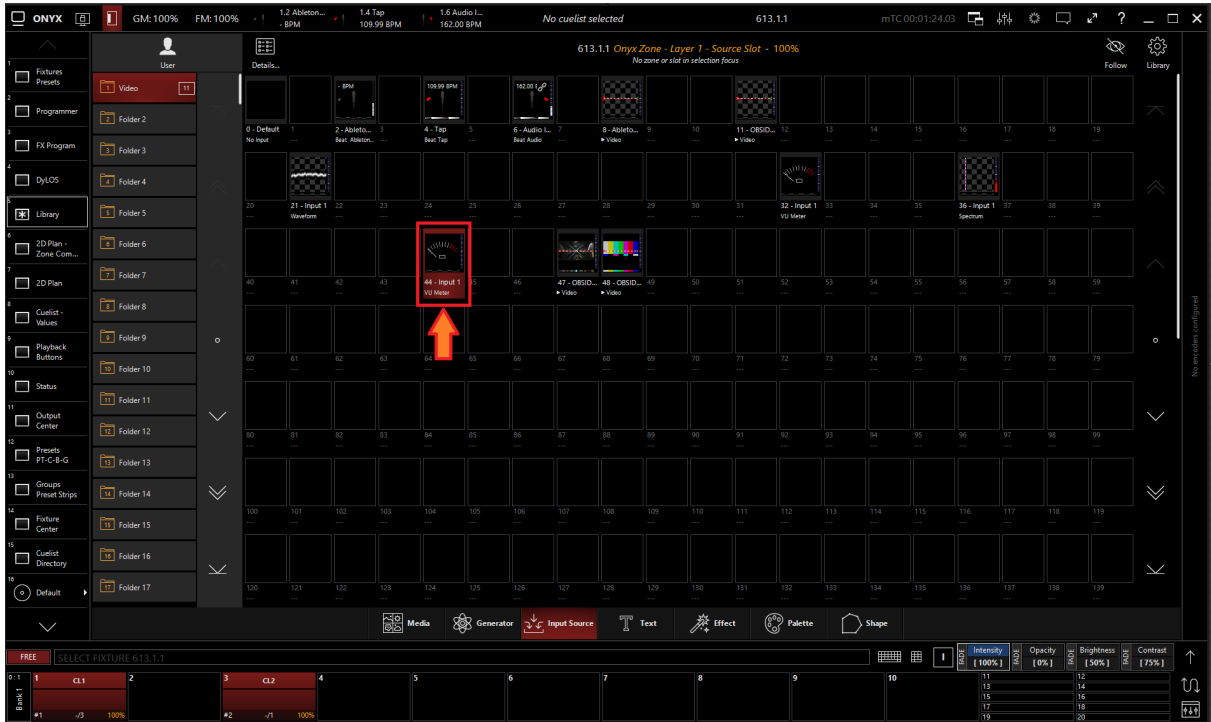


8. Press OK

Editing an Audio Filter Input Processor



1. To edit a Audio Filter Input Processor, right-click on or hold Edit and select an existing Audio Filter Input Processor.





2. Select Show Details

3. From the menu below, you can change the properties of the Audio Filter Input Processor.



Table of Controls

Control	Description
	<p>Preview</p> <ol style="list-style-type: none"> Visualizer: Shows a visual representation of the input processor. <ul style="list-style-type: none"> - Red areas are filtered out - Blue areas are not filtered Audio Input Meter: Shows a meter of the incoming audio signal or the embedded NDI audio stream. Pallet Mapping: Shows the generated pallet for use with a dynamic pallet.
	<p>Properties</p>

Active/Inactive State: Toggles the state of the Audio Filter Input Processor between Active and Inactive.

* The “Inactive” state helps preserve resources on an overloaded system.*

Change Input: Used to select a different source input for this Audio Filter Input Processor.

Fixture Selection State: Select the Audio Filter Input Processor as a fixture for making changes using the Channel visualizer (CV)

This Selects if the changes should be made to the default properties of the Audio Filter Input Processor or put into the programmer like if editing a fixture.



Defaults: Used for changing the default state of this Audio Filter Input Processor

Programmer: Used for temporary changes recorded into a cue.

Intensity

Output: Sets the Output level of the Audio Filter Input Processor

*A value of zero translates to an output of transparent black.



Input Gate: Sets an Audio Input Gate on the incoming audio level of Audio Filter Input Processor

Input Gain: Sets the Gain level of Audio input of the Audio Filter Input Processor

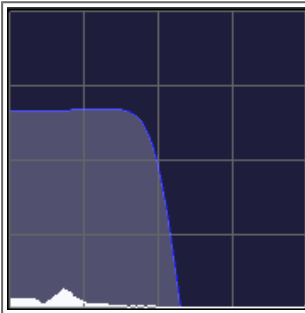
Opacity Level: Sets the Opacity level of the Audio Filter Input Processor for when used as Media Content.

- Full: All transparent areas of the input content are shown in opaque black (e.g. useful if you want to map a color palette on it)
- Zero: Transparent areas stay transparent

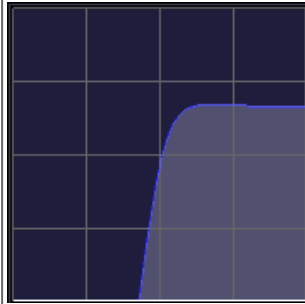


Beam Effects

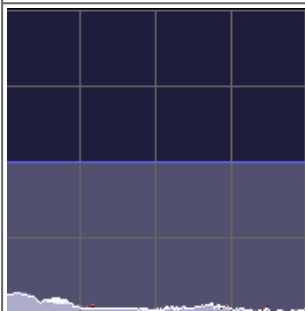
Audio Filter Mode: Sets the Filter shape.



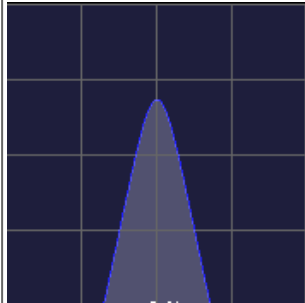
Low Pass - Filters out high frequencies.



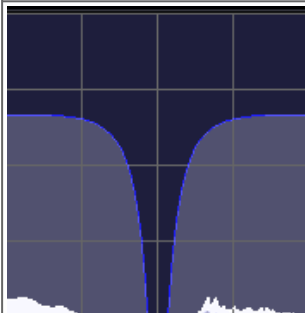
High Pass - Filters out low frequencies



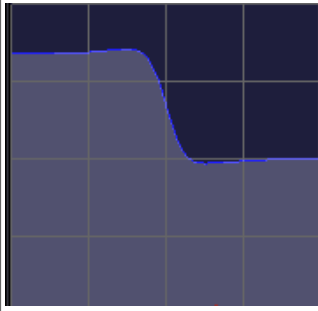
All Pass - Allows all frequencies to pass



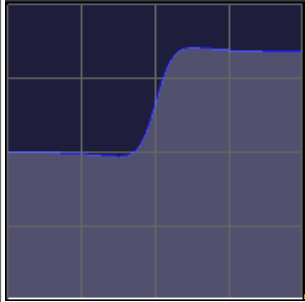
Band Pass - Creates a "band" to filter down to a specific frequency.



Notch Pass - Filters out a specific frequency



Low Shelf - Boosts low frequencies



High Shelf - Boosts high frequencies.

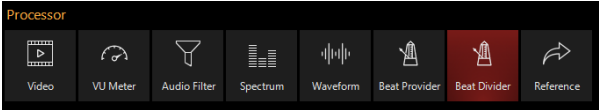
Frequency: Sets the frequency to be filtered.

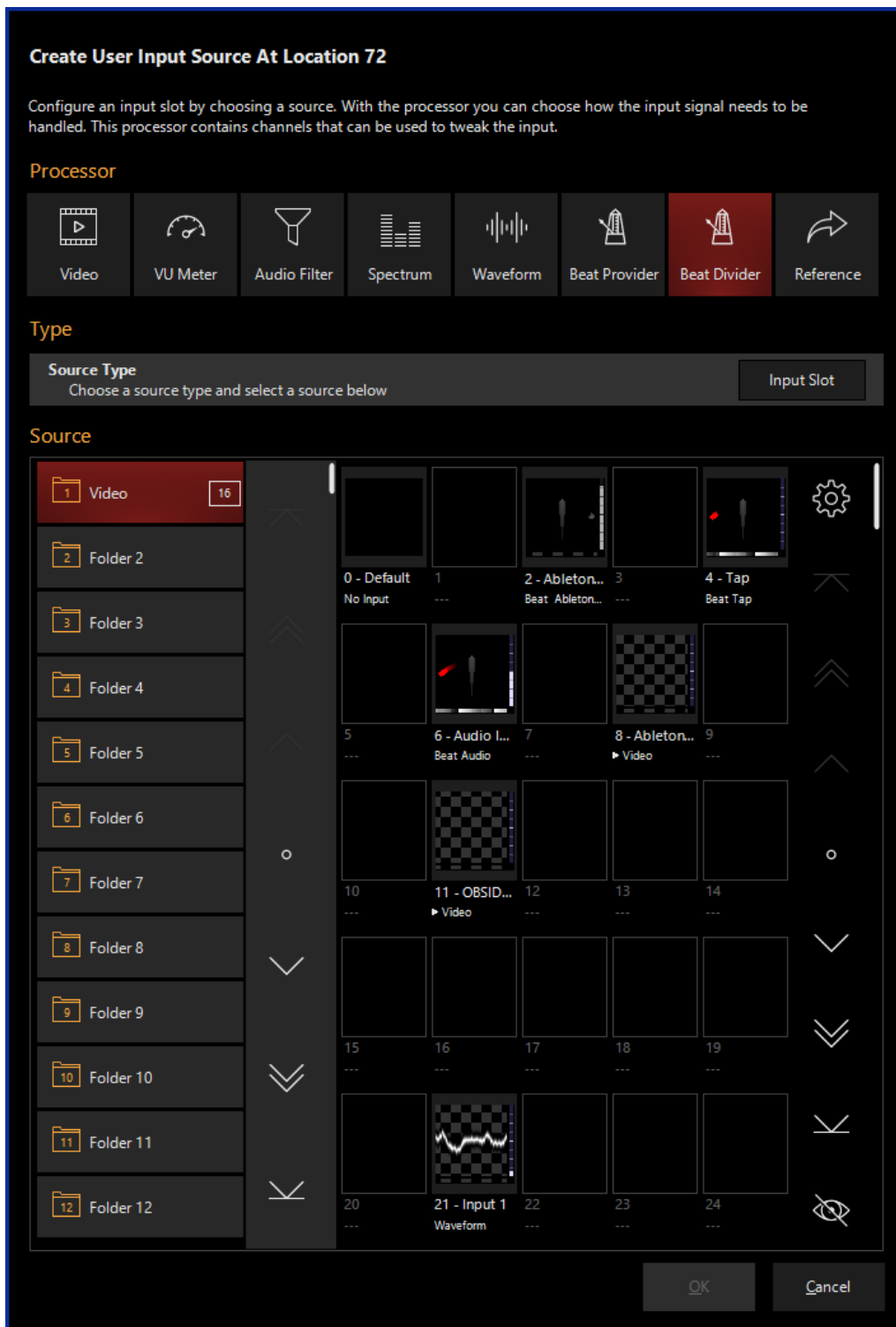
Resonance: Sets the frequency filter width.

Filter Gain: Sets the gain level of the filtered range.

Beat Divider Input Processor

Beat Divider Input Processor detects the BPM from the assigned input slot and then divides or multiplies the BPM. The divided or multiplied BPM can then create a dynamic visual beat to be used as a media source inside of Dylos. The BPM information can be applied to Dylos content by using the Sync tab or assigned to a Chase cue list. Beat Divider Input Processors can only use information from another Input Slot.

 <p>The screenshot shows a horizontal menu titled "Processor" with eight options: Video, VU Meter, Audio Filter, Spectrum, Waveform, Beat Provider, Beat Divider (highlighted in red), and Reference. Each option has a small icon above its text label.</p>	<p>Beat Divider</p> <p>Multiplies or Divides the beat BPM of the selected input source.</p> <p>Allowed Source Types</p> <ul style="list-style-type: none">• Input Slot (with BPM information)
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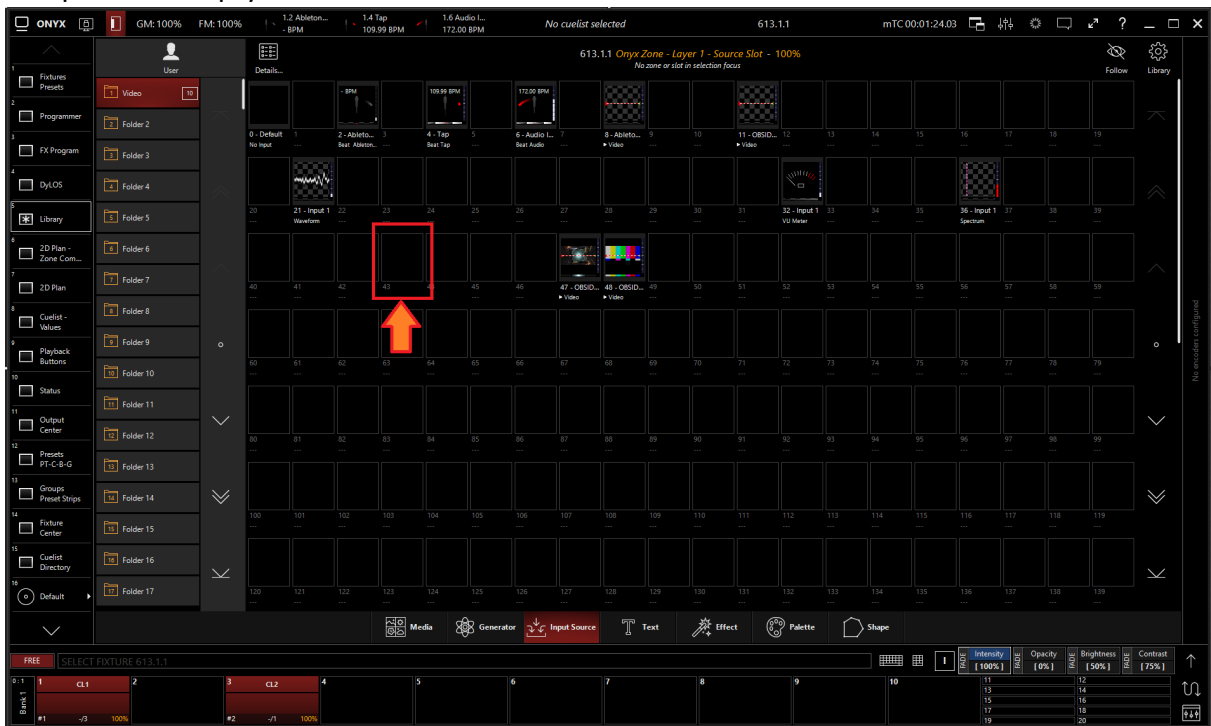
Creating a Beat Divider Input Processor

1. Navigate to the **Library** view, button 5, on the default sidebar of the "Compose" workspace.

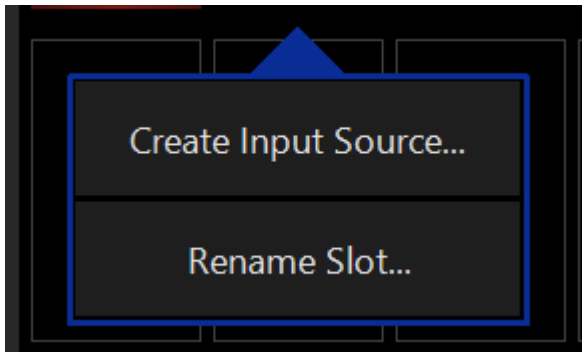
2. Select the Input Source Tab at the bottom of the window:



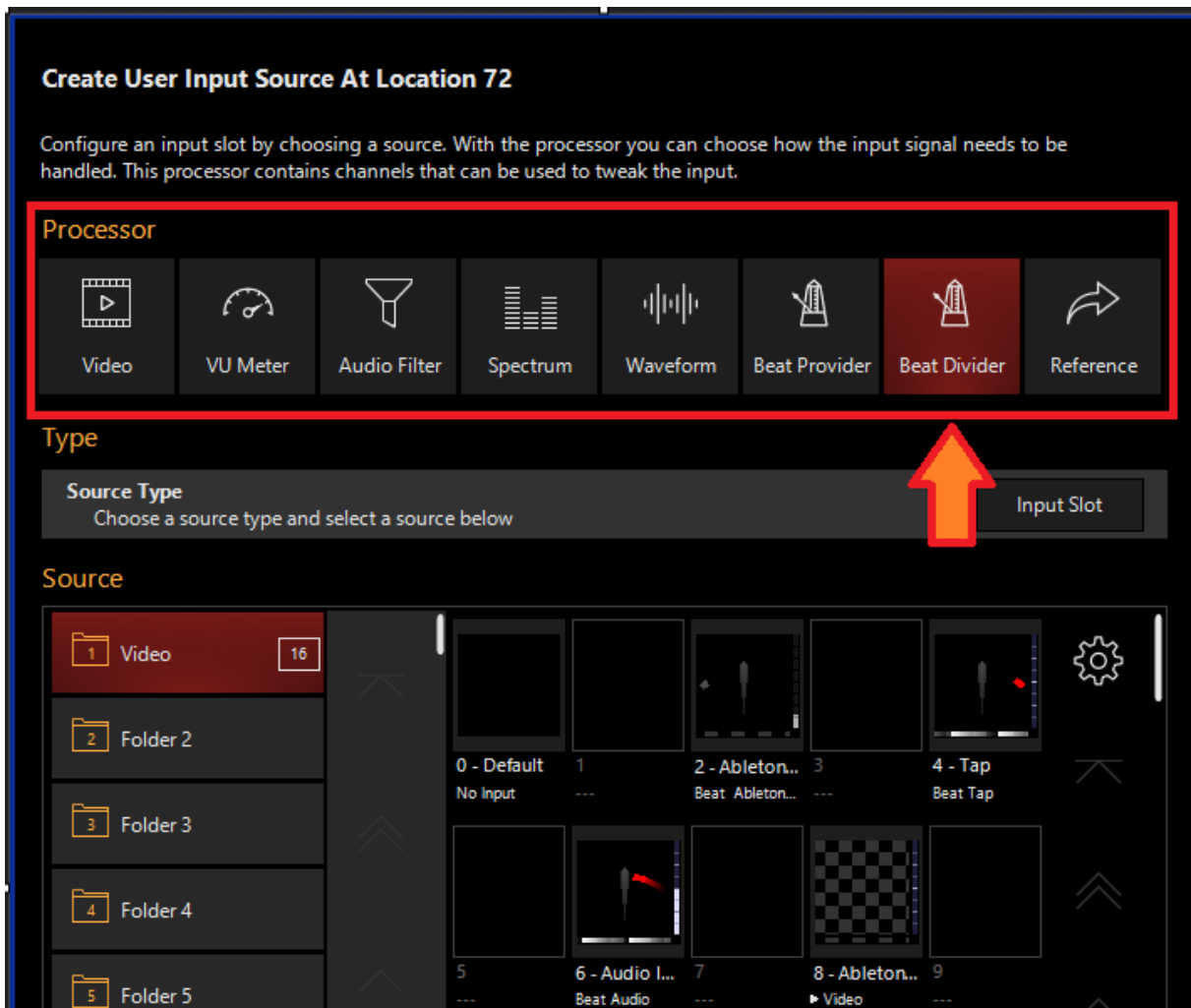
3. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



- 4. Select Create Input Source...



- 5. Select Beat Divider under Processor.



6. Select the desired [Source Type](#)

Create User Input Source At Location 72

Configure an input slot by choosing a source. With the processor you can choose how the input signal needs to be handled. This processor contains channels that can be used to tweak the input.

Processor

Video VU Meter Audio Filter Spectrum Waveform Beat Provider **Beat Divider** Reference

Type

Source Type
Choose a source type and select a source below Input Slot

Source

1 Video 16

2 Folder 2

3 Folder 3

4 Folder 4

5 Folder 5

0 - Default No Input

1 ---

2 - Ableton... Beat Ableton...

3 ---

4 - Tap Beat Tap

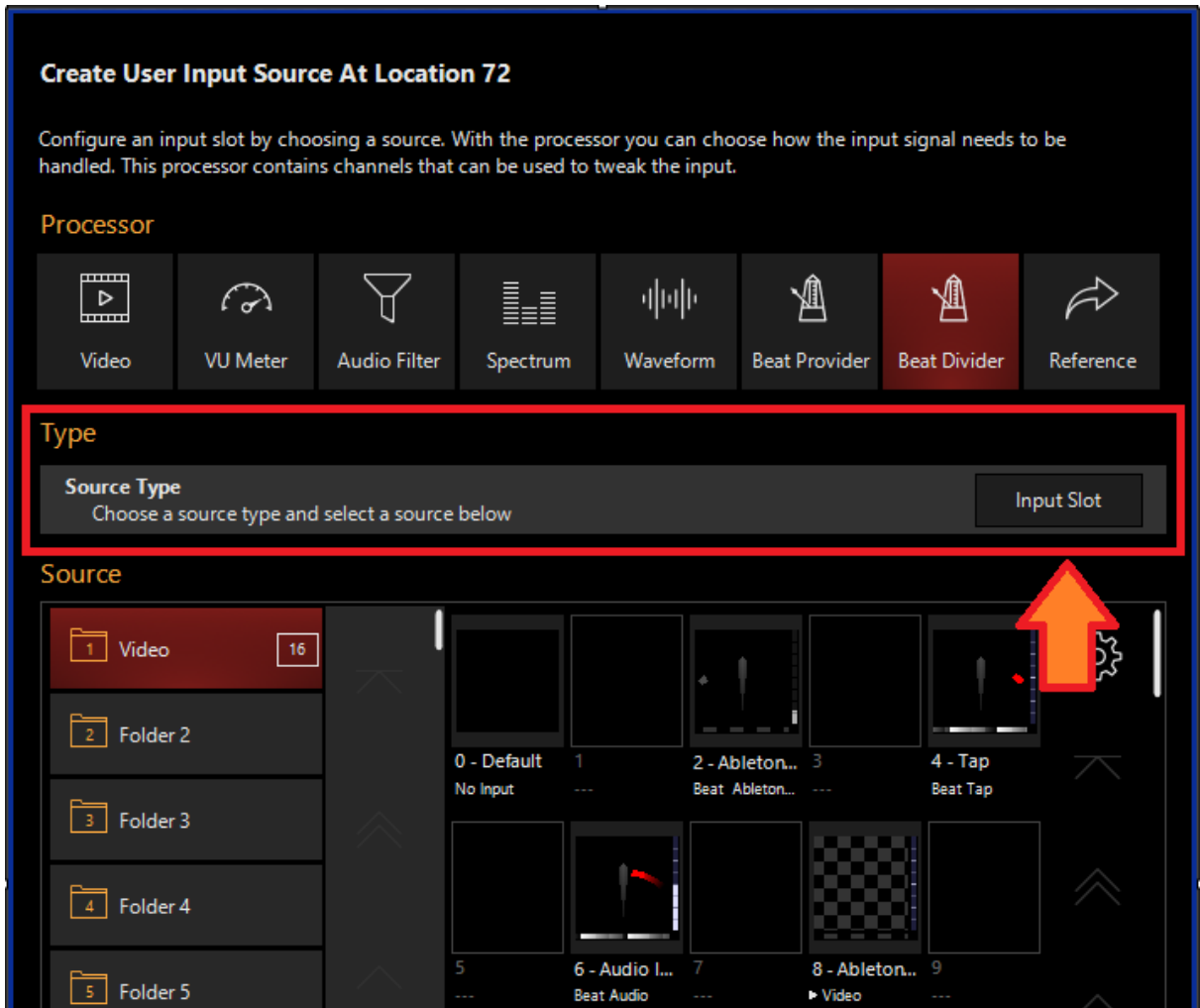
5 ---

6 - Audio I... Beat Audio

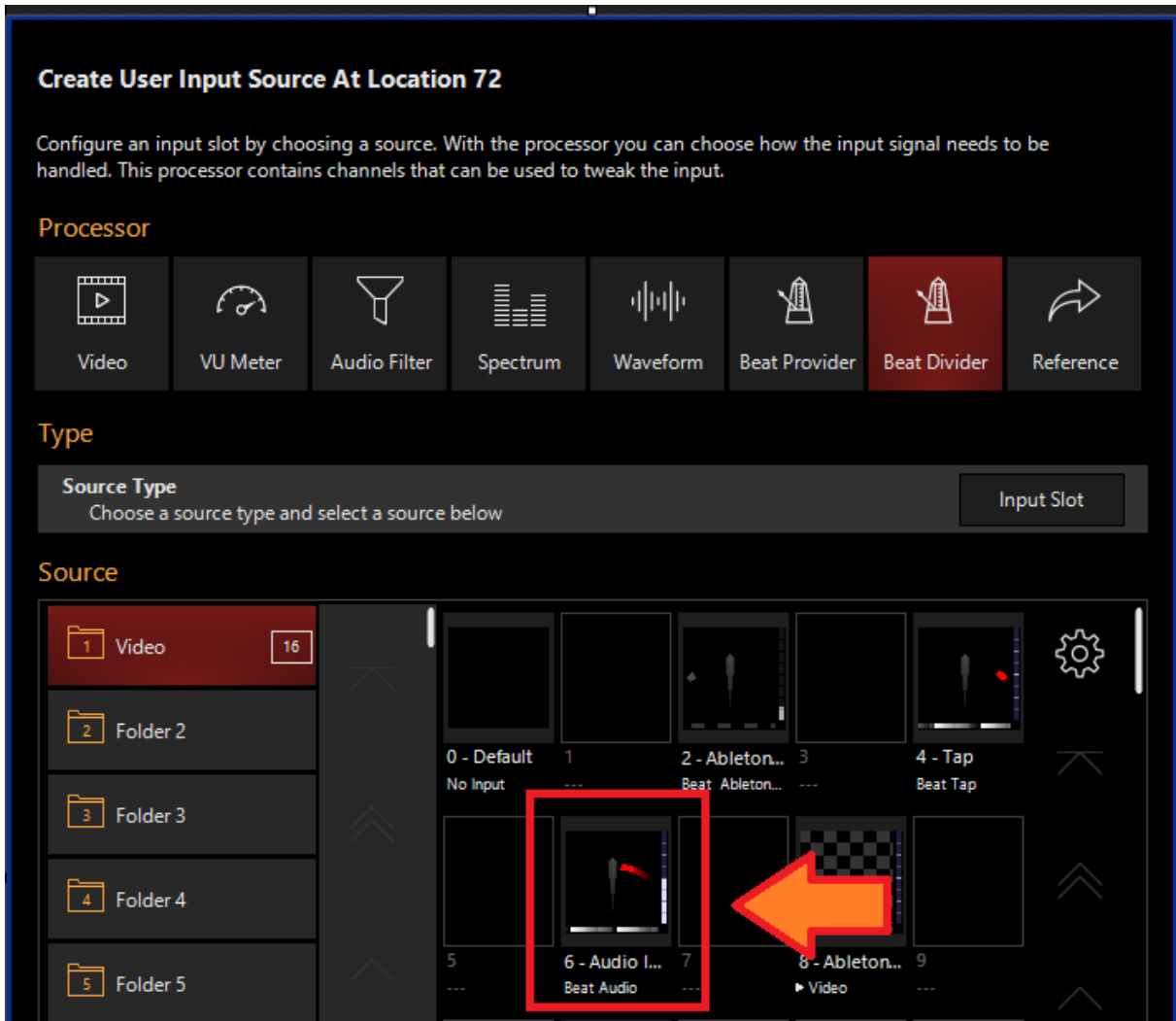
7 ---

8 - Ableton... Video

9 ---



7. Select a source that has BPM information (Beat Provider, Ableton Link, Tap)



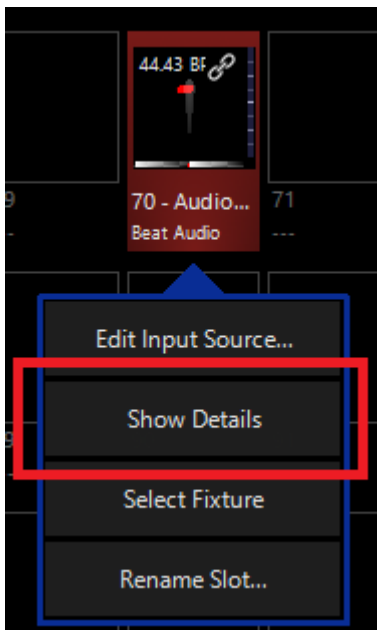
8. Press OK

Editing a Beat Divider Input Processor

1. To edit a Beat Divider Input Processor, right-click on or hold Edit and select an existing Beat Divider Input Processor.



2. Select Show Details



3. From the menu below, you can change the properties of the Beat Divider Input Processor.

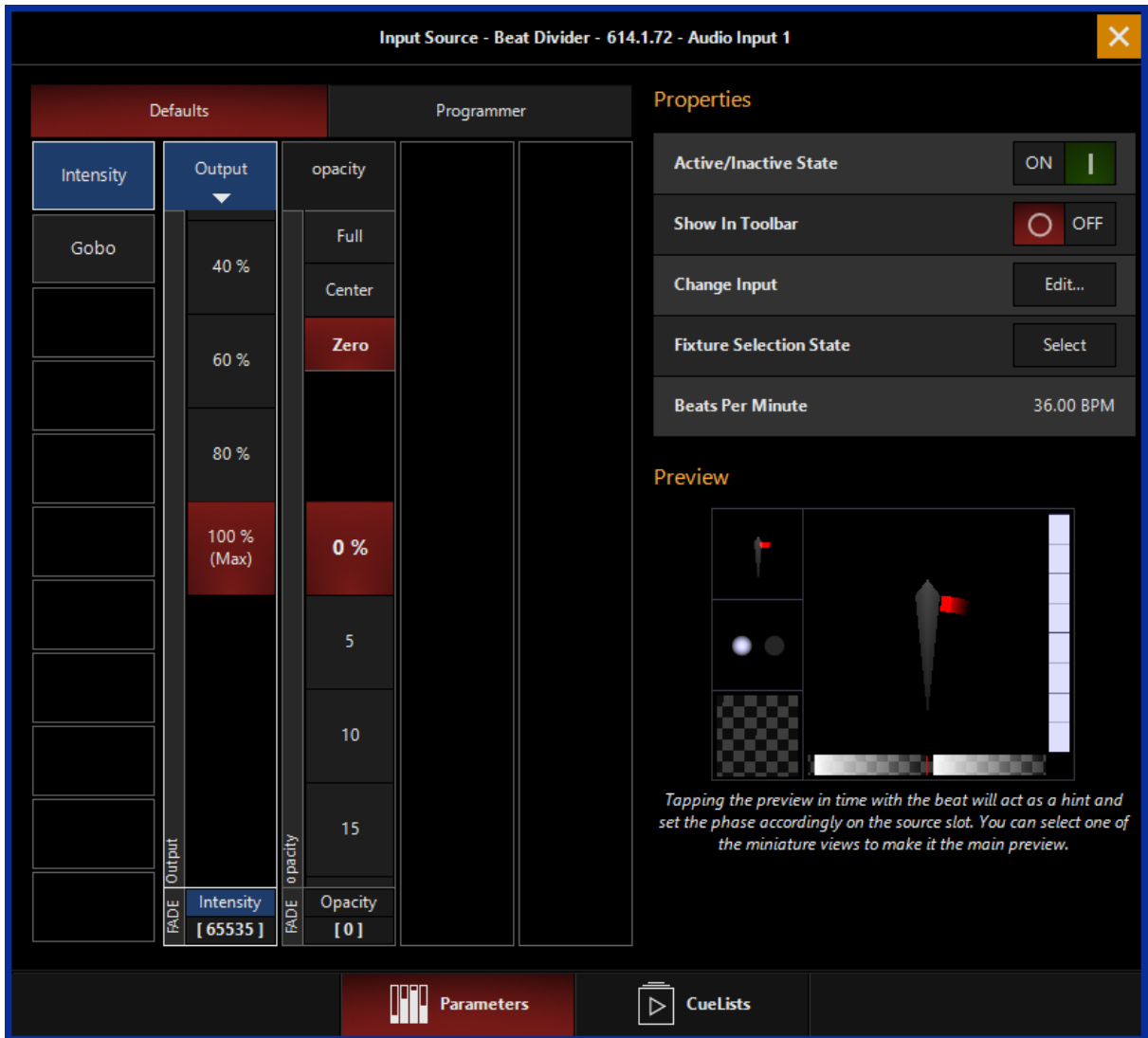
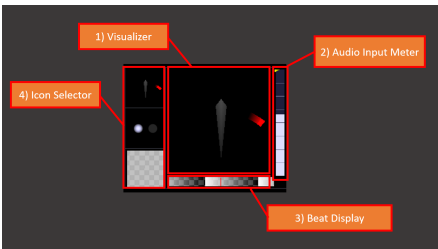
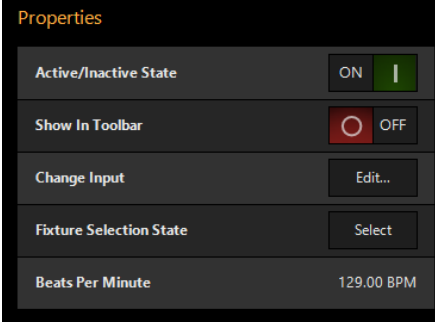



Table of Controls

Control	Description
	<p>Preview</p> <ol style="list-style-type: none"> Visualizer: Shows a visual representation of the input processor. Audio Input Meter: Shows a meter of the incoming audio signal or the embedded NDI audio stream. Beat Display: Shows the generated beat pattern for use as media content.

	<p>4. Icon Selector: Changes the meter style shown on the slot thumbnail.</p> <ul style="list-style-type: none"> - Metronome View - Alternative Beat View - Media View (visual of mappable media content)
	<p>Properties</p> <p>Active/Inactive State: Toggles the state of the Input between Active and Inactive.</p> <p>* The “Inactive” state helps preserve resources on an overloaded system.*</p> <p>Change Input: Used to select a different source input for this Input.</p> <p>Fixture Selection State: Select the Input as a fixture for making changes using the Channel visualizer (CV)</p> <p>Beats Per Minute: Shows the currently detected or operating BPM.</p>
	<p>This selects if the changes should be made to the default properties of the Input or put into the programmer, like if editing a fixture.</p> <p>Defaults: Used for changing the default state of the Input</p> <p>Programmer: Used for temporary changes recorded into a cue.</p>

Intensity	Output	opacity
Gobo	40 %	Full
	60 %	Center
	80 %	Zero
	100 % (Max)	0 %
		5
		10
		15
	Intensity [65535]	Opacity [0]

Intensity

Output: Sets the Output level of the Beat Divider Input Processor

*A value of zero translates to an output of transparent black.

Opacity Level: Sets the Opacity level of the Beat Divider Input Processor when used as Media Content.

- Full: All transparent areas of the input content are shown in opaque black (e.g. useful if you want to map a color palette on it)
- Zero: Transparent areas stay transparent

Intensity	Div Display	Quantum Mode	Beat Multiplier	Beat Divisor
Gobo				Off
			Off	1
	Phase	Beat	1	2
	Flash	Bar	2	3
	Alternate	Reserved	3	4
	Pulse		4	5
	Beat Displ... [0]	Quantum ... [0]	Beat Multi... [1]	Beat Divisor [2]

Gobo

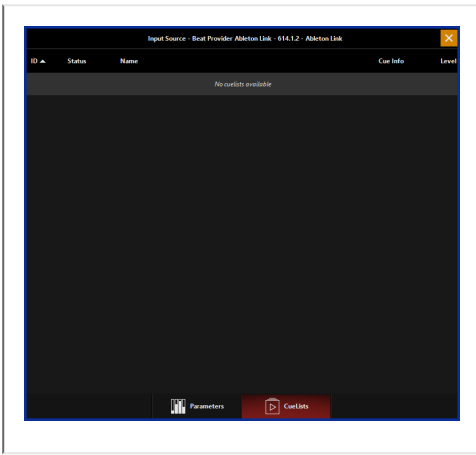
Beat Display: Sets the Beat mode between Phase, Flash, Alternate, and Pulse

- Phase: Beats trigger a fading flash
- Flash: Beats trigger a flash every beat
- Alternate: Beats trigger a flash every other beat
- Pulse: Beats trigger a pulsing fading flash up and down

Quantum Mode: Times the trigger to the BPM or the Bar rate.

Beat Multiplier: Multiplies the BPM by the selected integer.

Beat Divisor: Divides the BPM by the selected integer.

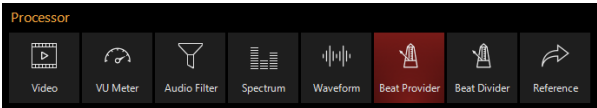


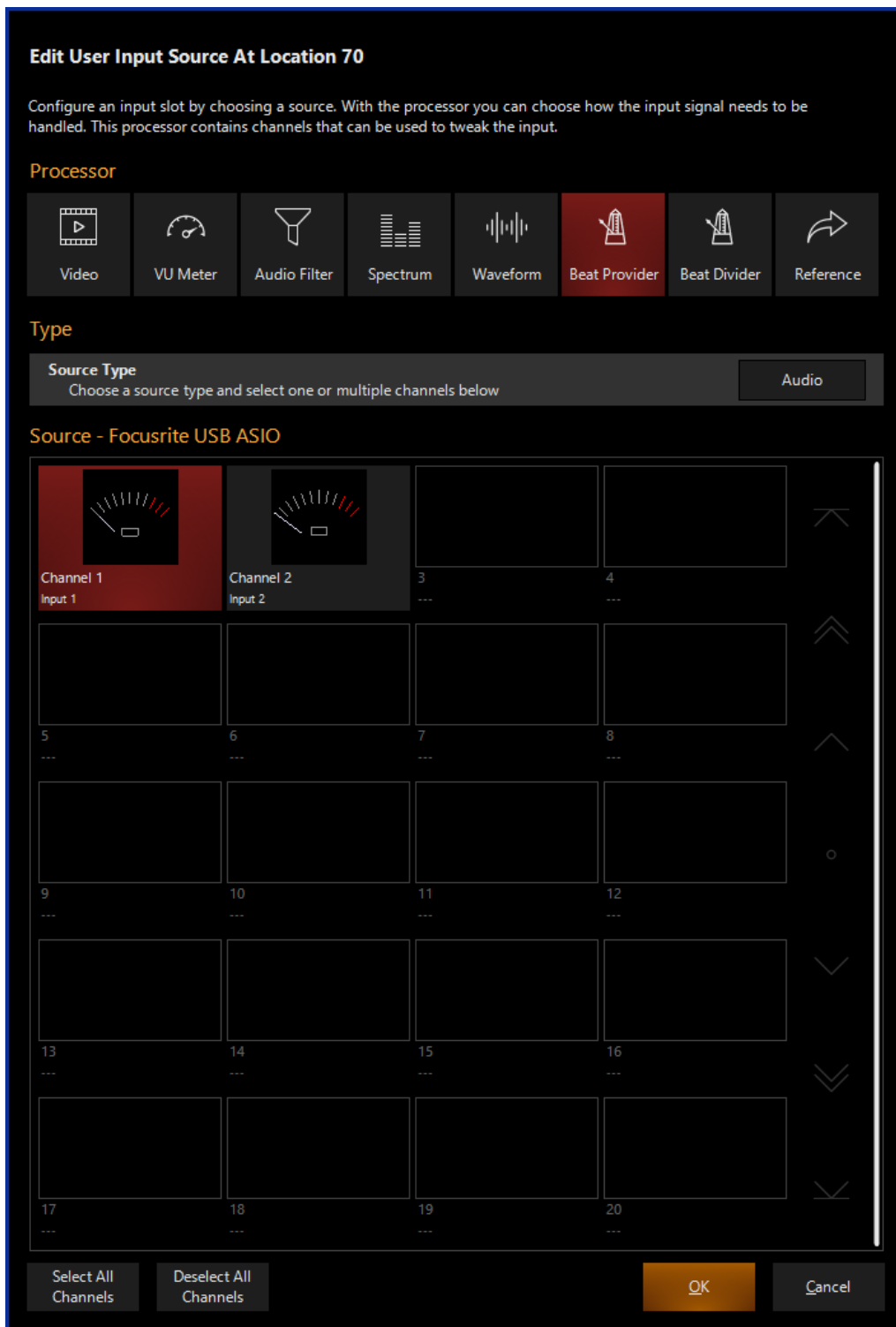
CueLists

Shows the CueLists currently using the BPM as timing information.

Beat Provider Input Processor

Beat Provider Input Processor detects the BPM from the assigned input source and creates a dynamic visual beat of the inputted audio source to be used as a media source inside of Dylos. The BPM information can be applied to Dylos content by using the Sync tab or assigned to a Chase cue list. Beat Provider Input Processors can use audio from an NDI audio stream, Audio Input, or another Input Slot.

 <p>The screenshot shows a horizontal menu titled "Processor" with eight icons and labels: Video, VU Meter, Audio Filter, Spectrum, Waveform, Beat Provider (highlighted in red), Beat Divider, and Reference.</p>	<p>Beat Provider</p> <p>Samples selected audio source and provides a beat based on the detected BPM.</p> <p>Allowed Source Types</p> <ul style="list-style-type: none">• NDI Audio• Audio Input• Input Slot• Ableton Link• Midi Clock• Tap Sync
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Creating a Beat Provider Input Processor

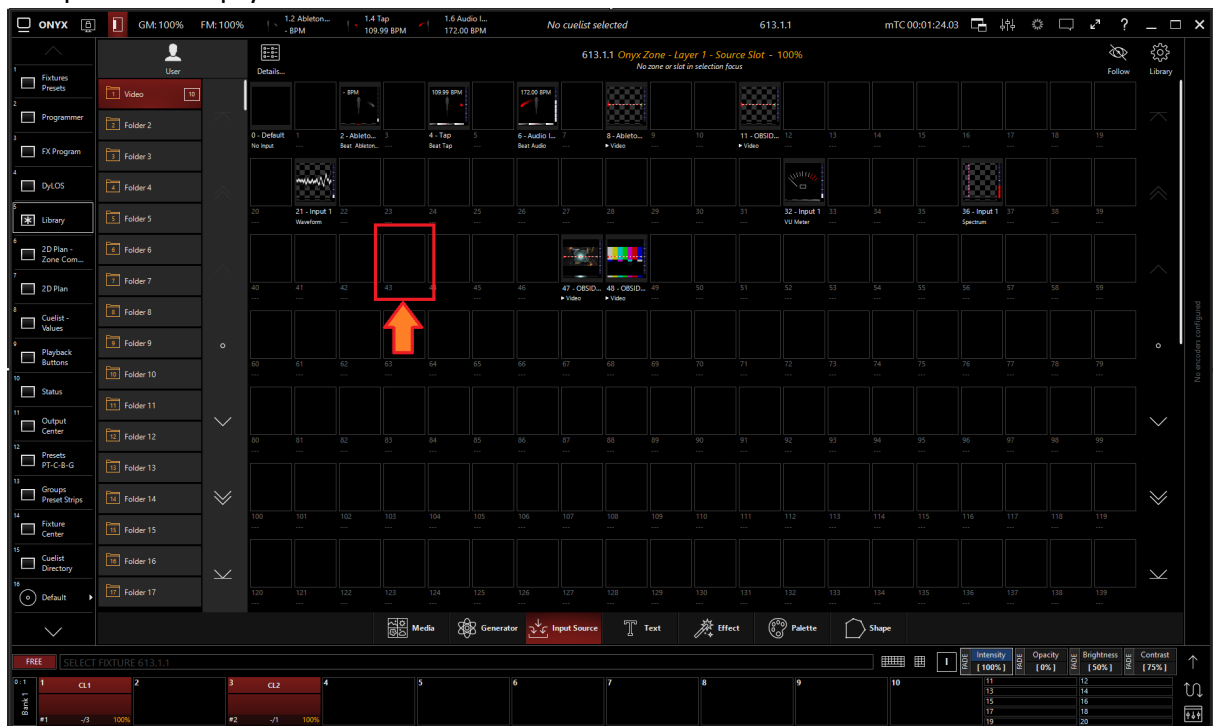
If using a Beat Provider Input Processor with an NDI Source, you must first set up [NDI](#).

If using a Beat Provider Input Processor with an Audio Source, you must first set up an [Audio Inter-](#)
[face](#).

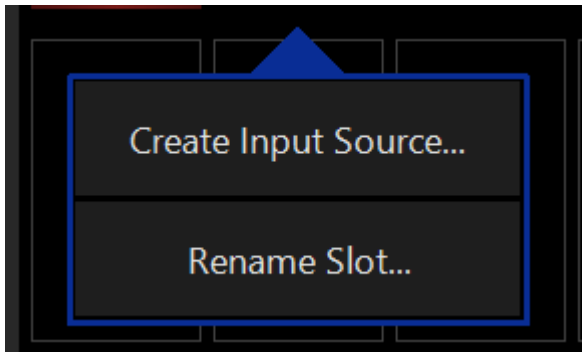
1. Navigate to the **Library** view, button 5, on the default sidebar of the "Compose" workspace.
2. Select the Input Source Tab at the bottom of the window:



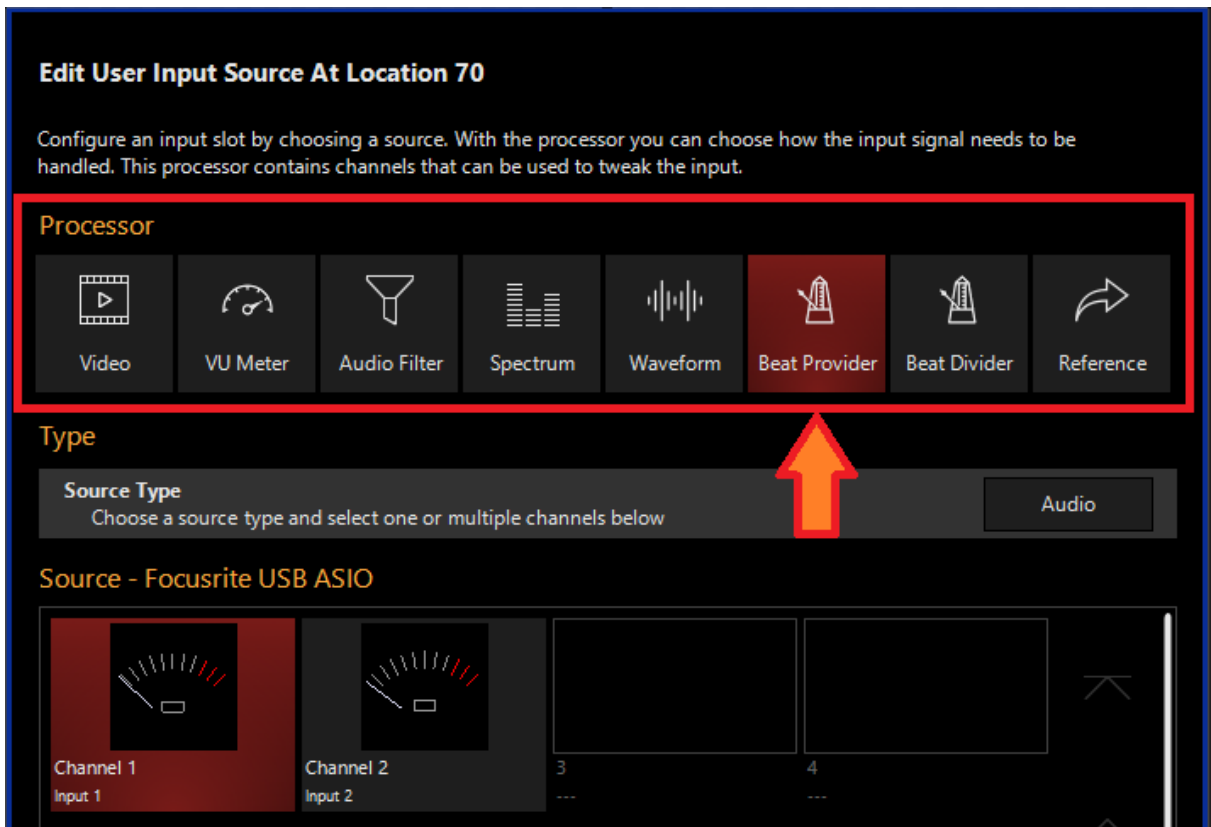
3. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



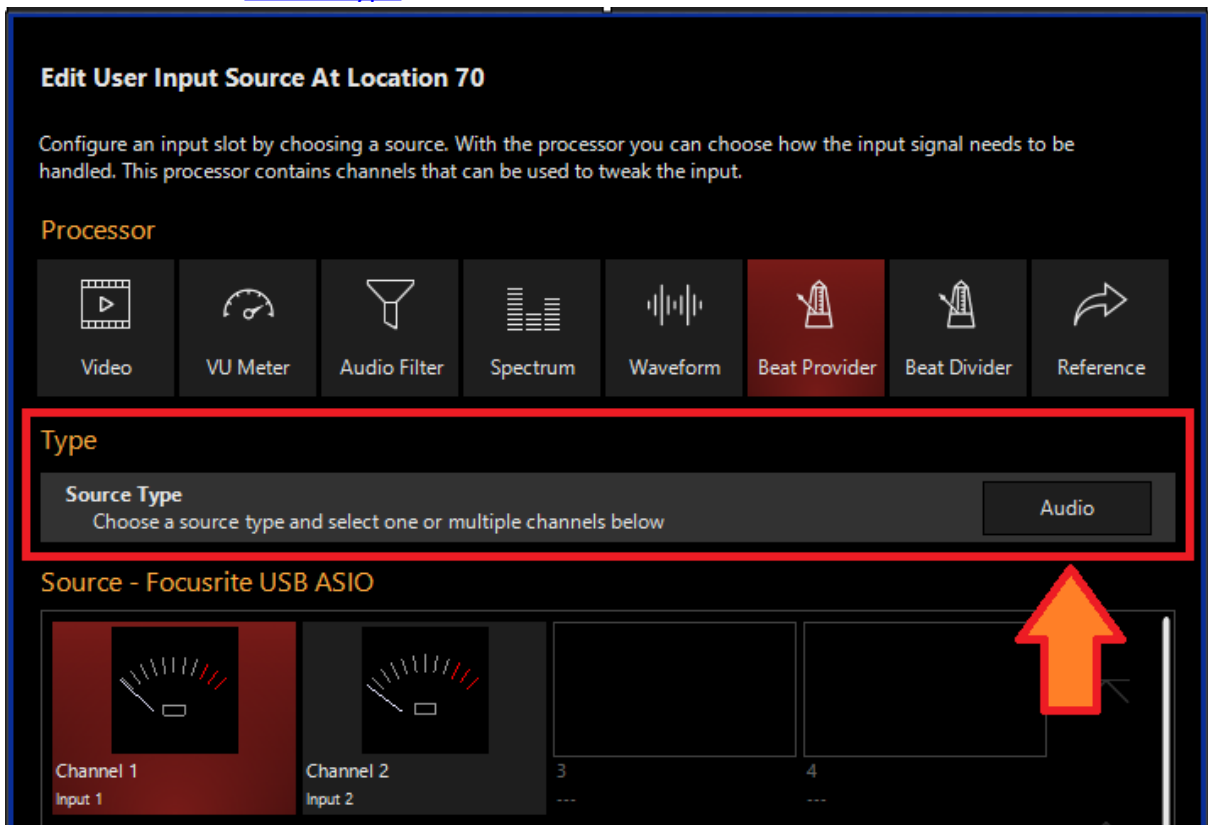
4. Select Create Input Source...



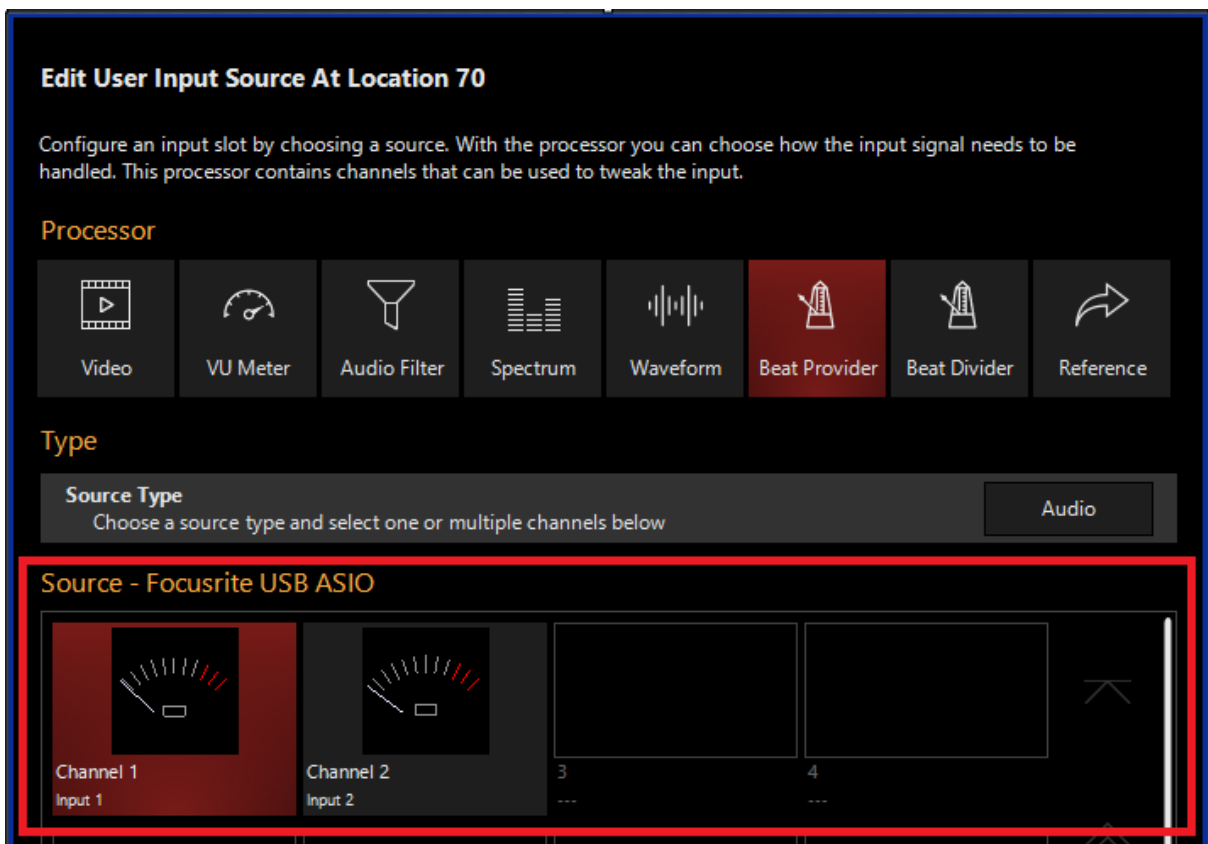
5. Select Beat Provider under Processor.



6. Select the desired [Source Type](#)



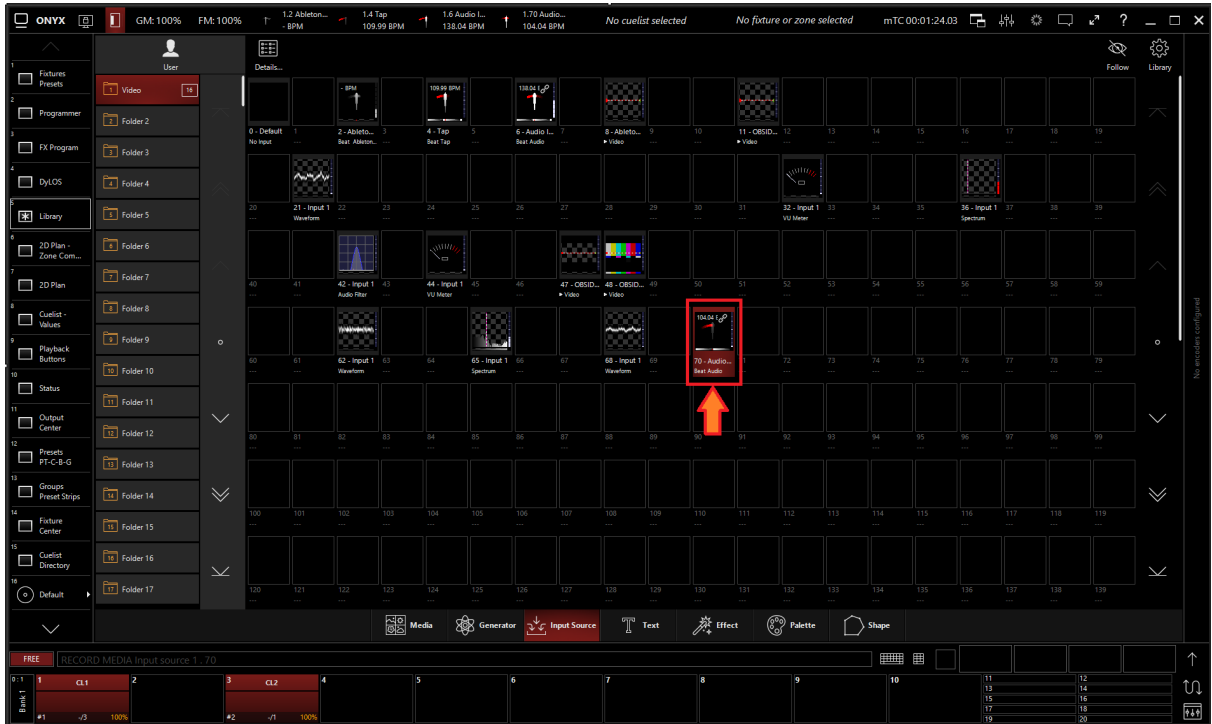
7. Select the Source



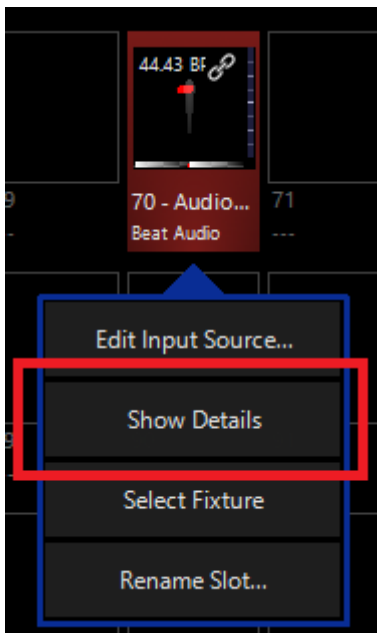
8. Press OK

Editing a Beat Provider Input Processor

1. To edit a Beat Provider Input Processor, right-click on or hold Edit and select an existing Beat Provider Input Processor.



2. Select Show Details



3. From the menu below, you can change the properties of the Beat Provider Input Processor.

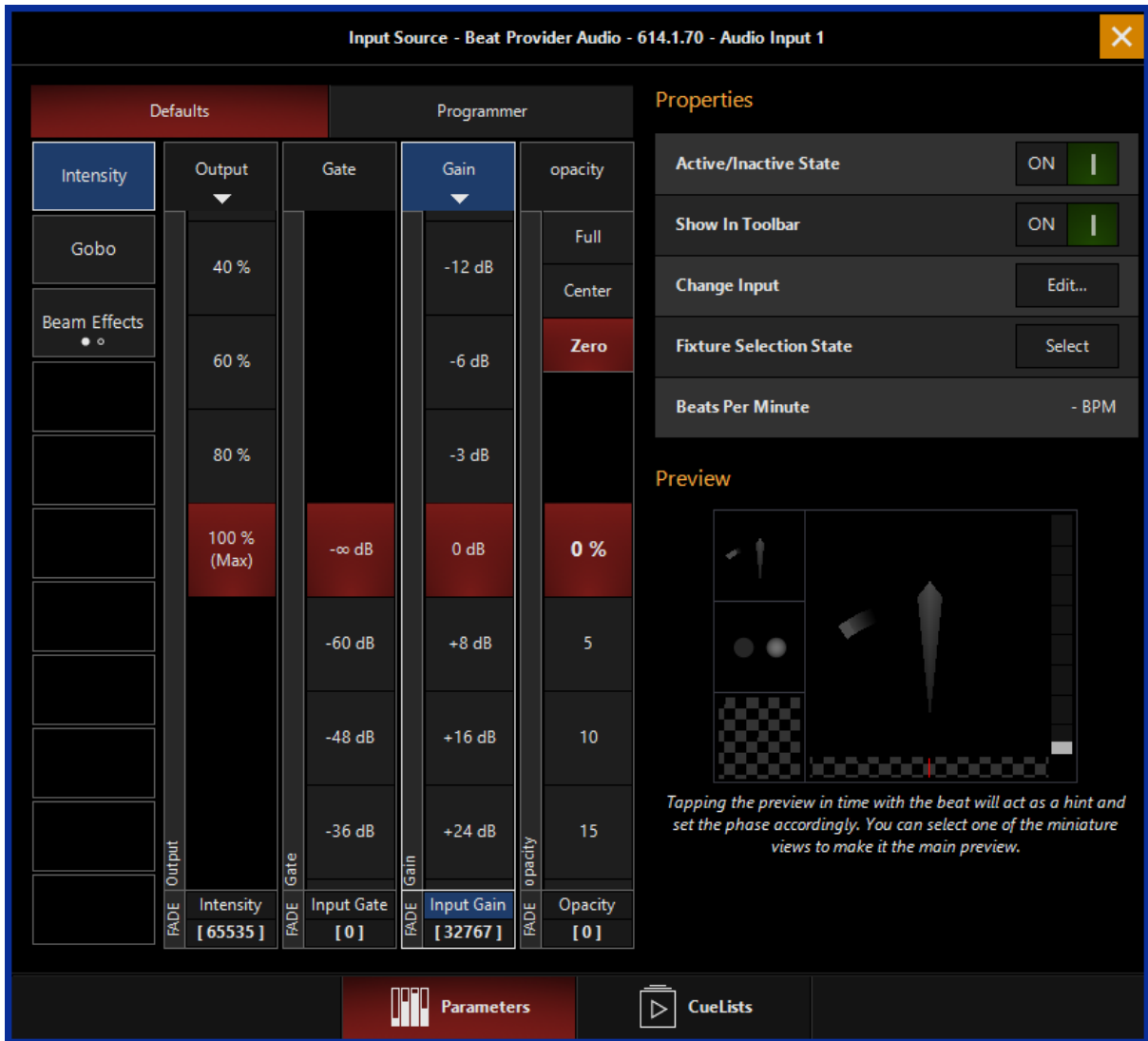
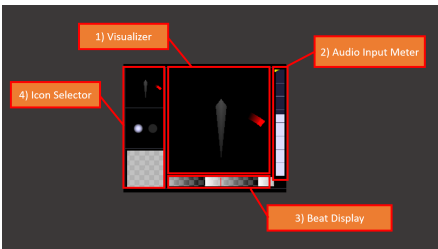


Table of Controls

Control	Description
	<p>Preview</p> <ol style="list-style-type: none"> 1. Visualizer: Shows a visual representation of the input processor. 2. Audio Input Meter: Shows a meter of the incoming audio signal or the embedded NDI audio stream. 3. Beat Display: Shows the generated beat pattern for use as media content.

4. **Icon Selector:** Changes the meter style shown on the slot thumbnail.
 - Metronome View
 - Alternative Beat View
 - Media View (visual of mappable media content)

Properties

Active/Inactive State: Toggles the state of the Input between Active and Inactive.

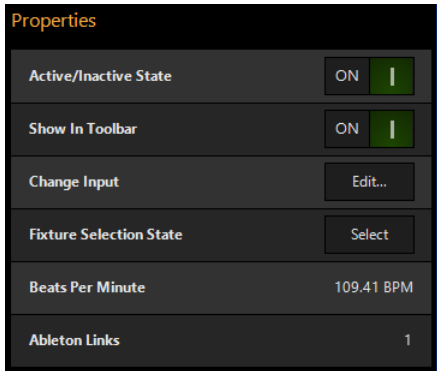
* The “Inactive” state helps preserve resources on an overloaded system.*

Change Input: Used to select a different source input for this Input.

Fixture Selection State: Select the Input as a fixture for making changes using the Channel visualizer (CV)

Beats Per Minute: Shows the current detected or operating BPM

Ableton Links: Shows the number of active Ableton Links



This selects if the changes should be made to the default properties of the Input or put into the programmer, like if editing a fixture.

Defaults: Used for changing the default state of the Input

Programmer: Used for temporary changes recorded into a cue.



Intensity	Output	Gate	Gain	opacity
Gobo	40 %		-12 dB	Full
Beam Effects	60 %		-6 dB	Center
	80 %		-3 dB	Zero
	100 % (Max)	-∞ dB	0 dB	0 %
		-60 dB	+8 dB	5
		-48 dB	+16 dB	10
		-36 dB	+24 dB	15
	Intensity [65535]	Input Gate [0]	Input Gain [32767]	Opacity [0]

Intensity

Output: Sets the Output level of the Beat Provider Input Processor

*A value of zero translates to an output of transparent black.

Input Gate: Sets an Audio Input Gate on the incoming audio level of Beat Provider Input Processor

Input Gain: Sets the Gain level of Audio input of the Beat Provider Input Processor

Opacity Level: Sets the Opacity level of the Beat Provider Input Processor when used as Media Content.

- Full: All transparent areas of the input content are shown in opaque black (e.g. useful if you want to map a color palette on it)
- Zero: Transparent areas stay transparent

Intensity	Beat Display	Quantum
Gobo		1
Beam Effects		2
		3
	Phase	4
	Flash	5
	Alternate	6
	Pulse	7
	Beat Displ... [0]	Quantum [4]

Gobo

Beat Display: Sets the Beat mode between Phase, Flash, Alternate, and Pulse

- Phase: Beats trigger a fading flash
- Flash: Beats trigger a flash every beat
- Alternate: Beats trigger a flash every other beat
- Pulse: Beats trigger a pulsing fading flash up and down

Quantum: **Ask Christian**

Intensity	Startup BPM	Idle	Beat Control	Beat Fade Time	Beat Latency
Gobo	80				-99ms
Beam Effects	90				-66ms
	100				-33ms
	110	Idle	Track	Snap	0ms
	120		Lock	1s	+33ms
	130		Reserved	2s	+66ms
	140			3s	+99ms
	FADE Startup BPM	FADE Idle	SNAP Beat Control	FADE Beat Fade Time	FADE Beat Latency
	BPM Target [44594]	BPM Range [255]	Beat Ctrl [0]	Beat Fade [0]	Beat Latency [127]

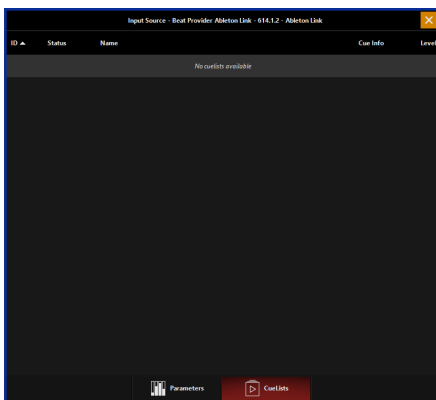
Beam Effects

Startup BPM: Starting BPM when beat control is set to "LOCK"

Beat Control: Sets if the input should Track the BPM or Lock onto the BPM set using Startup BPM

Beat Fade Time: **Ask Christian**

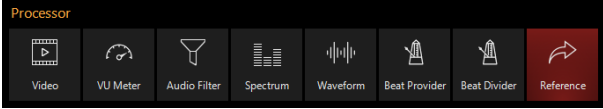
Beat Latency: Sets a positive or negative latency to the beat timing



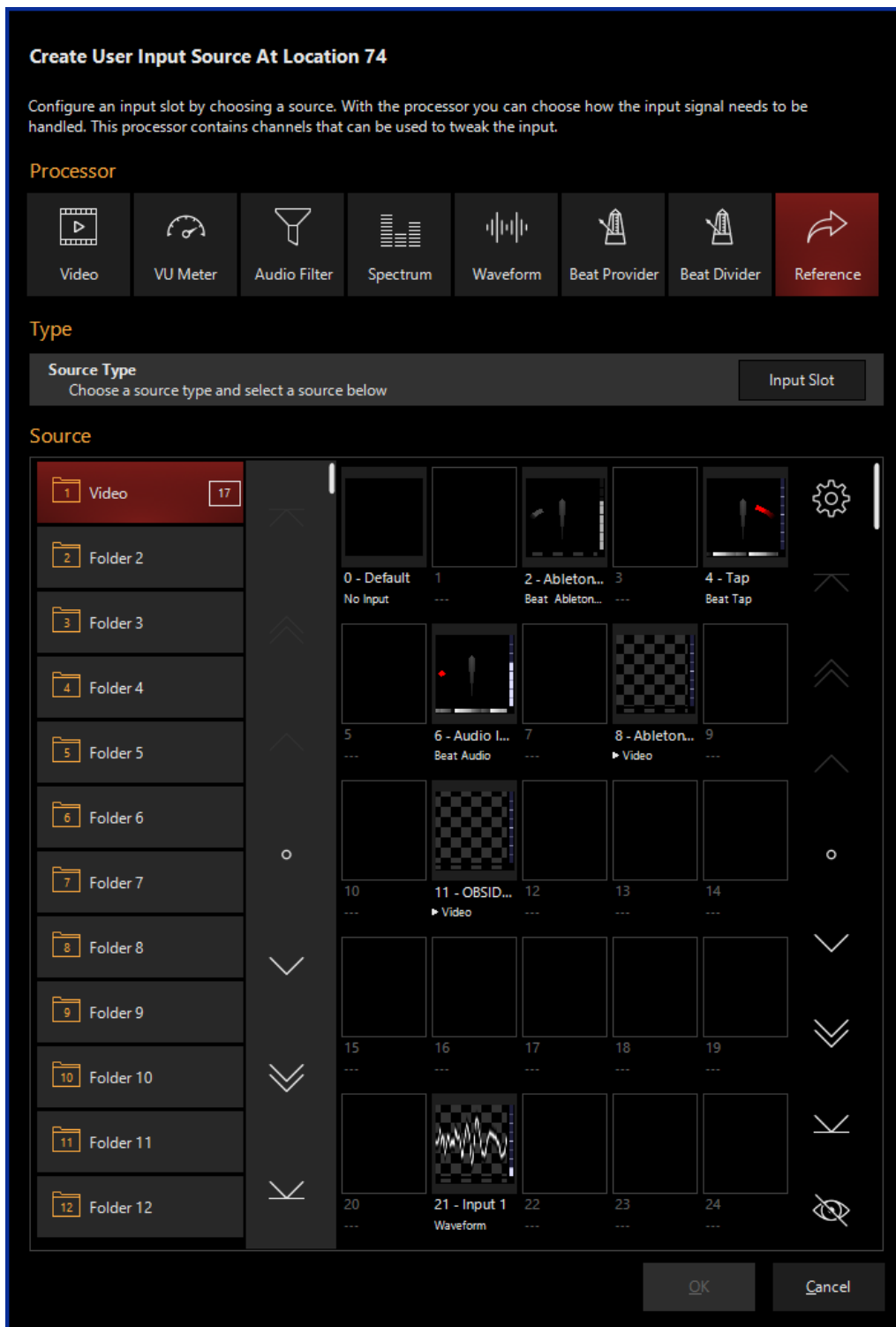
CueLists

Shows the CueLists currently using the BPM as timing information.

Reference Input Processor

 <p>The screenshot shows a horizontal menu titled "Processor" with eight icons: Video, VU Meter, Audio Filter, Spectrum, Waveform, Beat Provider, Beat Divider, and Reference. The Reference icon, which depicts a circular arrow, is highlighted with a blue border.</p>	<p>Reference</p> <p>Creates a dynamic referenced copy of the selected input source. The referenced copy will be affected by the source input slot. The referenced input slot can be switched by cue list data or function keys.</p> <p>A blue outline in the library indicates referenced Processors.</p> <p>Allowed Source Types</p> <ul style="list-style-type: none">• Input Slot
--	--

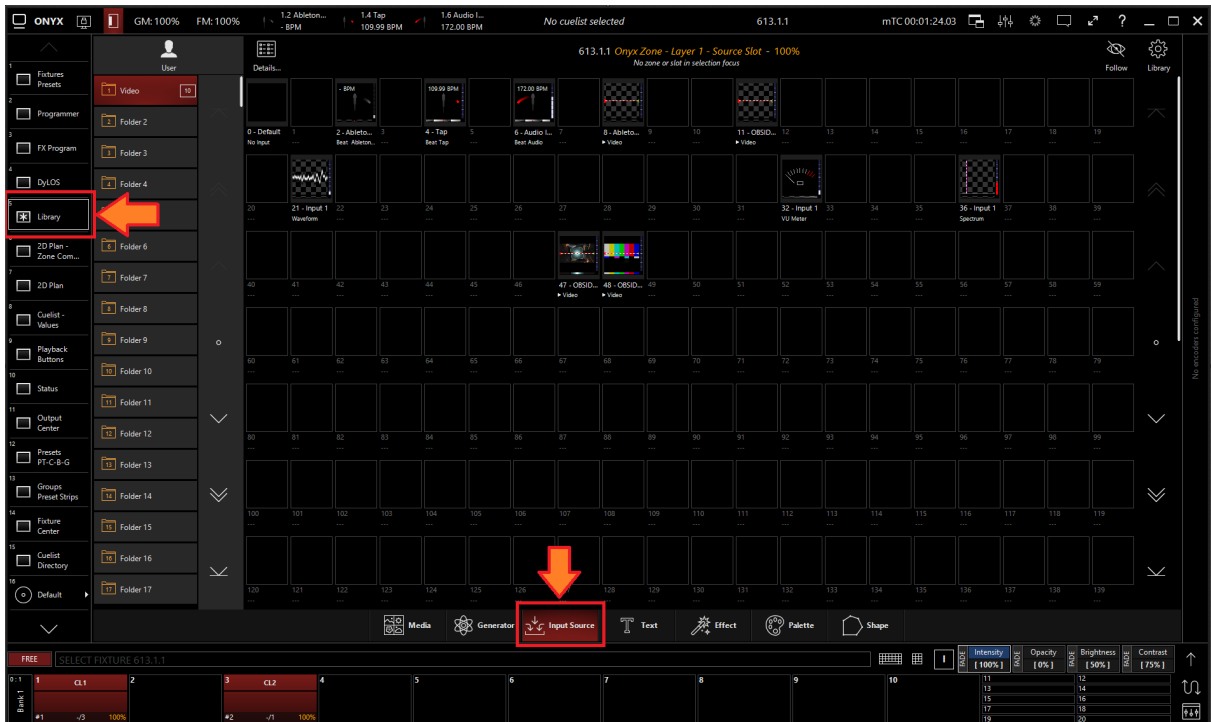
Reference Input Processors can be used to link multiple input processors together. [Connecting Multiple Input Processors](#)



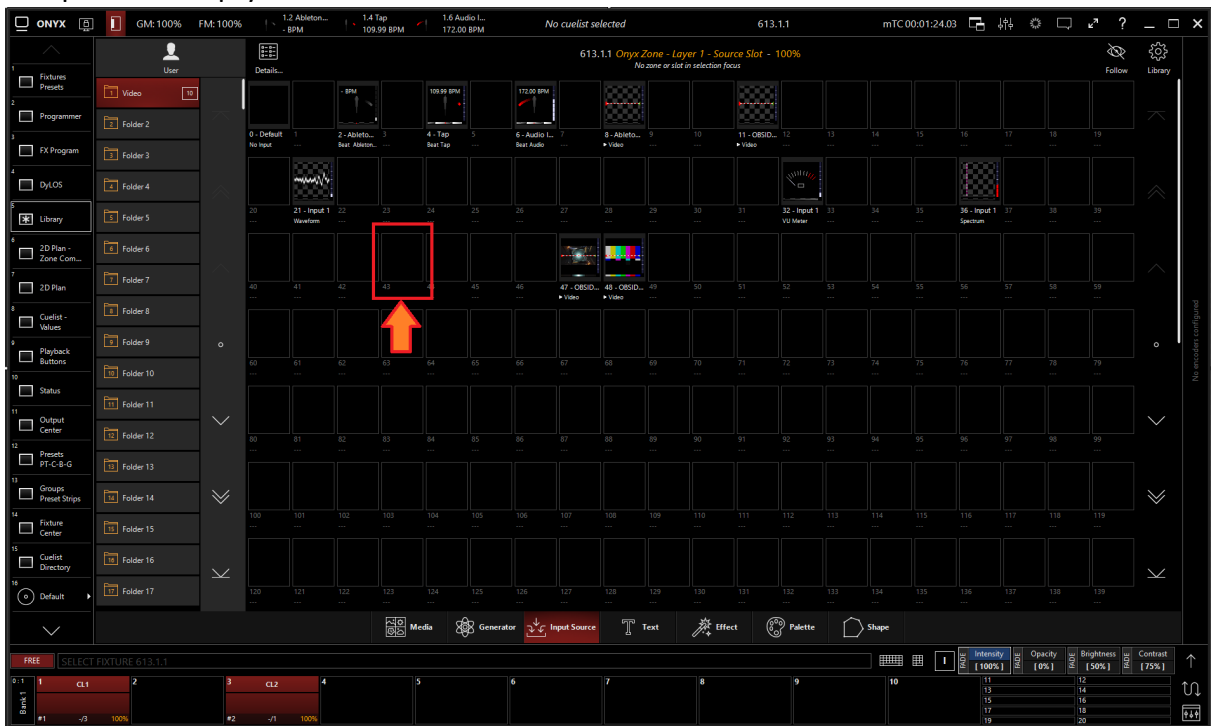
Creating a Reference Input Processor

1. Navigate to the **Library** view, button 5, on the default sidebar of the "Compose" workspace.

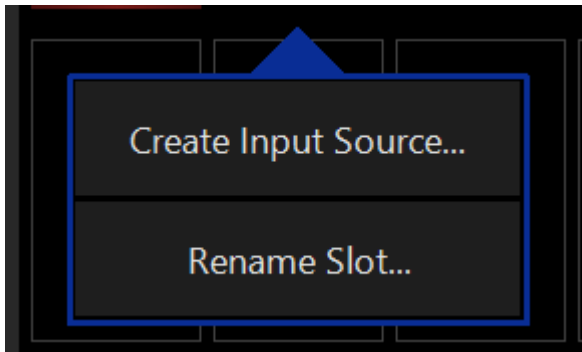
2. Select the Input Source Tab at the bottom of the window:



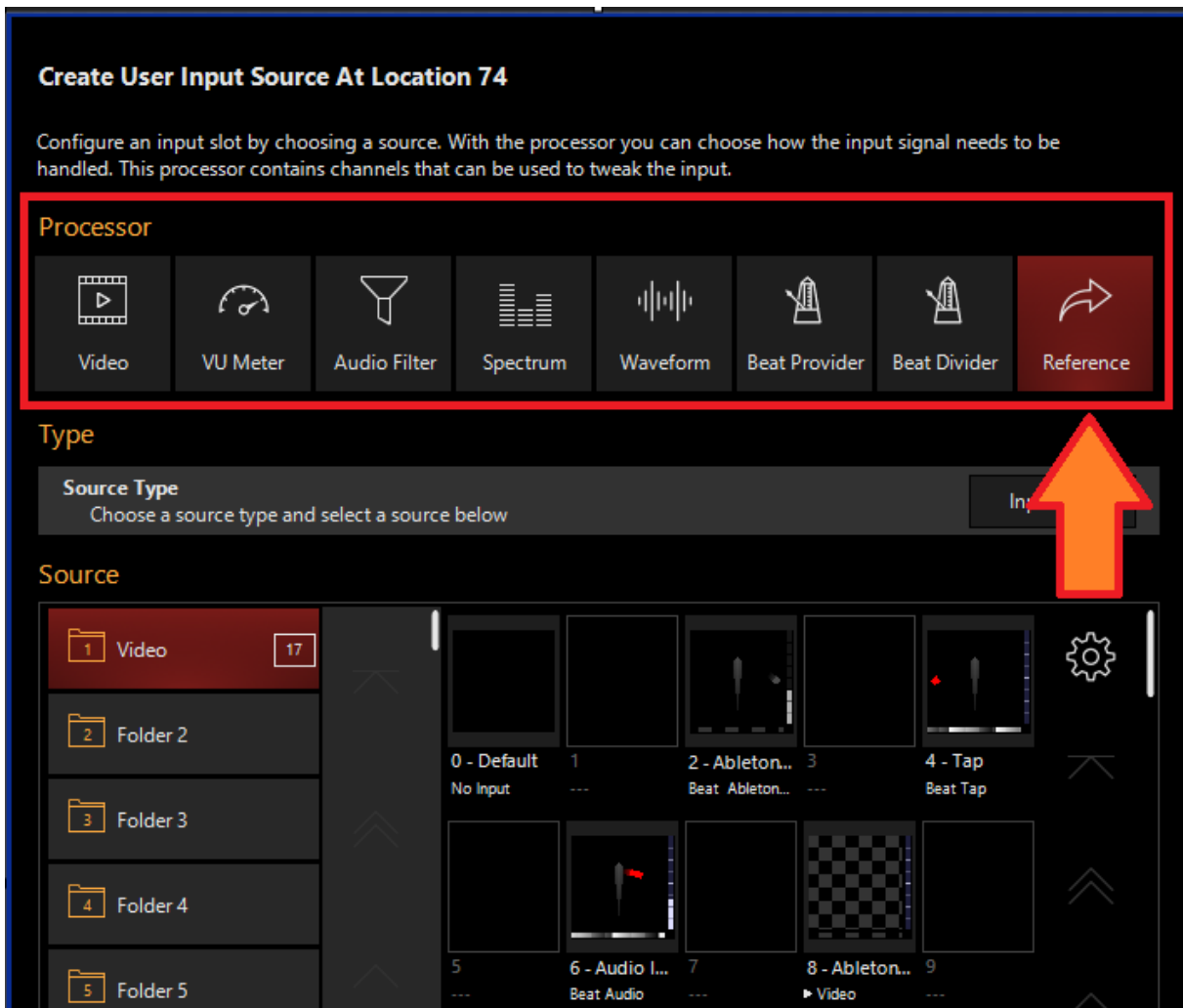
3. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



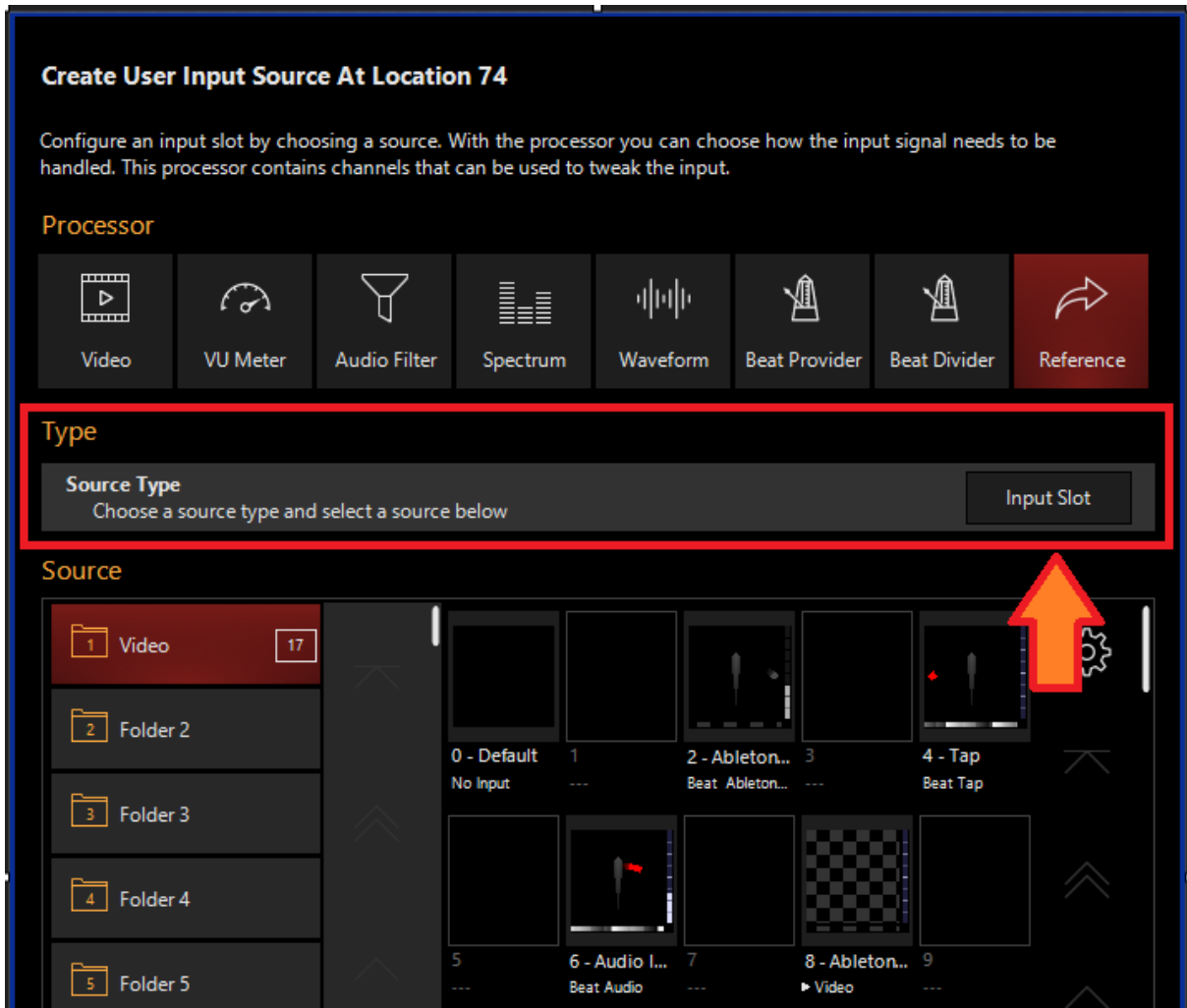
- 4. Select Create Input Source...



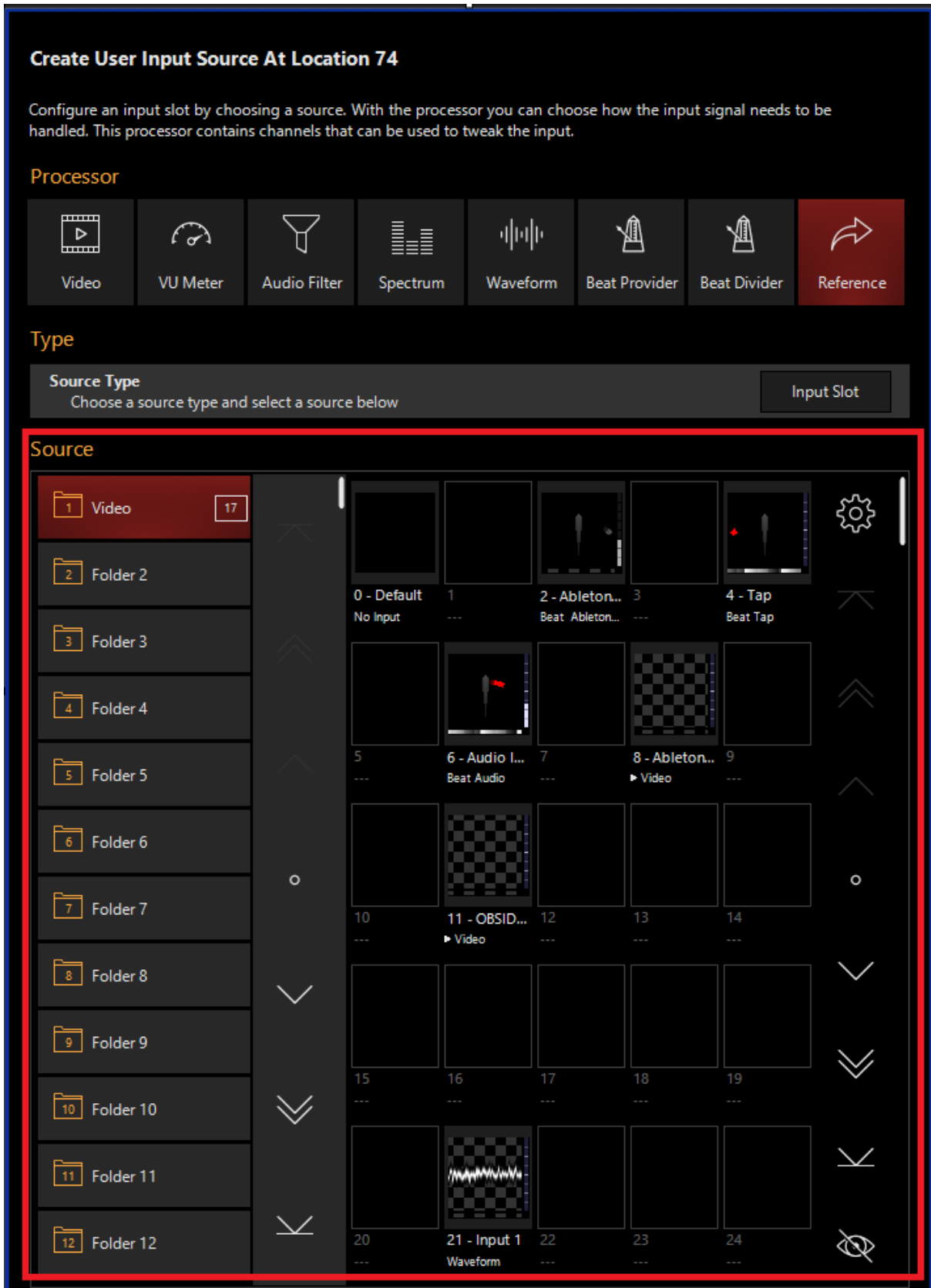
- 5. Select Reference under Processor.



6. Select the desired [Source Type](#)



7. Select a source.



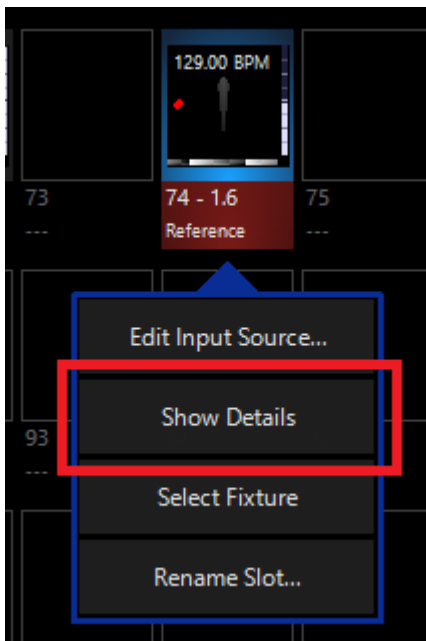
8. Press OK

Editing a Reference Input Processor

1. To edit a Reference Input Processor, right-click on or hold Edit and select an existing Reference Input Processor.



2. Select Show Details



3. From the menu below, you can change the properties of the Reference Input Processor.

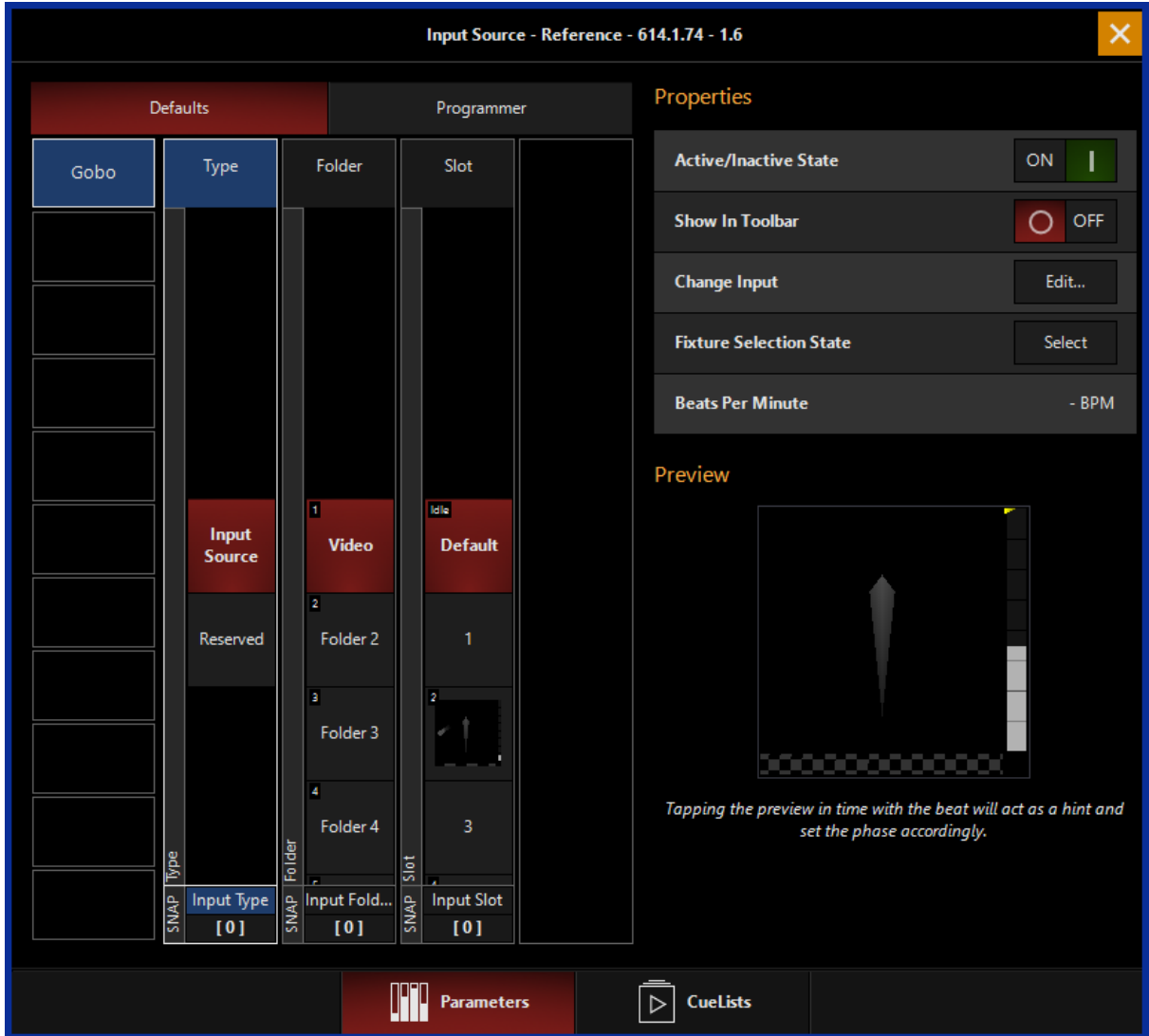
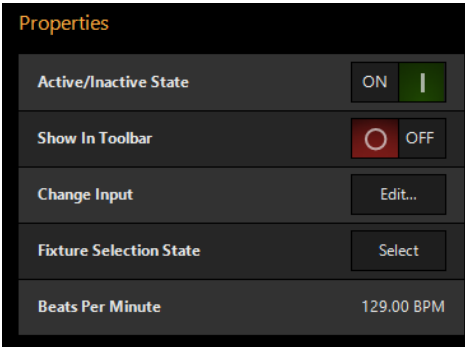


Table of Controls

Control	Description
	<p>Properties</p> <p>Active/Inactive State: Toggles the state of the Input between Active and Inactive.</p> <p>Change Input: Used to select a different source input for this Input.</p> <p>Fixture Selection State: Select the Input as a fixture for making changes using the Channel visualizer (CV)</p>

Beats Per Minute: Shows the current detected or operating BPM

This Selects if the changes should be made to the default properties of the Input or put into the programmer like if editing a fixture.



Defaults: Used for changing the default state of the Input

Programmer: Used for temporary changes recorded into a cue.

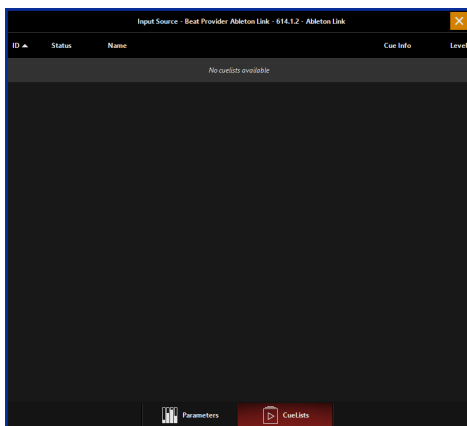
Gobo	Type	Folder	Slot
	Input Source	1 Video	Idle Default
	Reserved	2 Folder 2	1
		3 Folder 3	2
		4 Folder 4	3
	Input Type	Input Fold...	Input Slot
	[0]	[0]	[0]

Gobo

Type: Sets source type

Folder: Selects the folder the reference source is located in.

Slot: Selects the slot the reference source is located in.

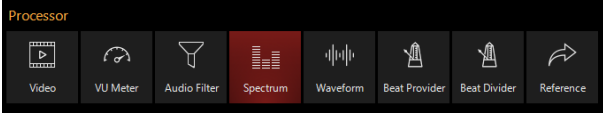


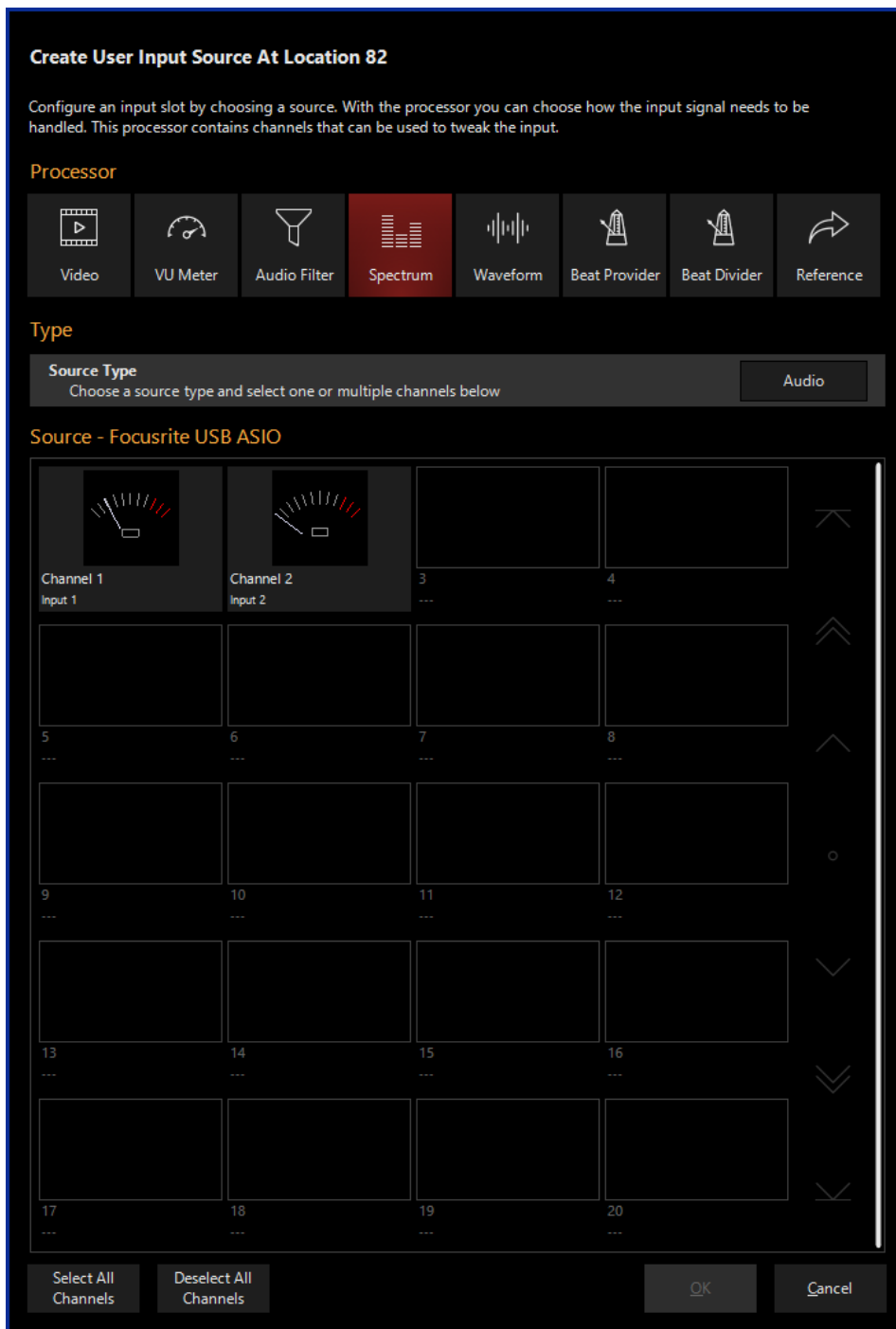
CueLists

Shows the CueLists currently using the BPM as timing information.

Spectrum Input Processor

Spectrum Input Processor creates a dynamic bar graph of the inputted audio source to be used as a media source inside of Dylos. Spectrum Input Processors can use audio from an NDI audio stream, Audio Input, or another Input Slot.

 <p>The image shows a horizontal menu titled "Processor" with eight options: Video, VU Meter, Audio Filter, Spectrum, Waveform, Beat Provider, Beat Divider, and Reference. The "Spectrum" option is highlighted with a red background.</p>	<p>Spectrum</p> <p>Creates a visual spectrum from selected audio input source</p> <p>Allowed Source Types</p> <ul style="list-style-type: none">• NDI Audio• Audio Input• Input Slot
--	--



Creating a Spectrum Input Processor

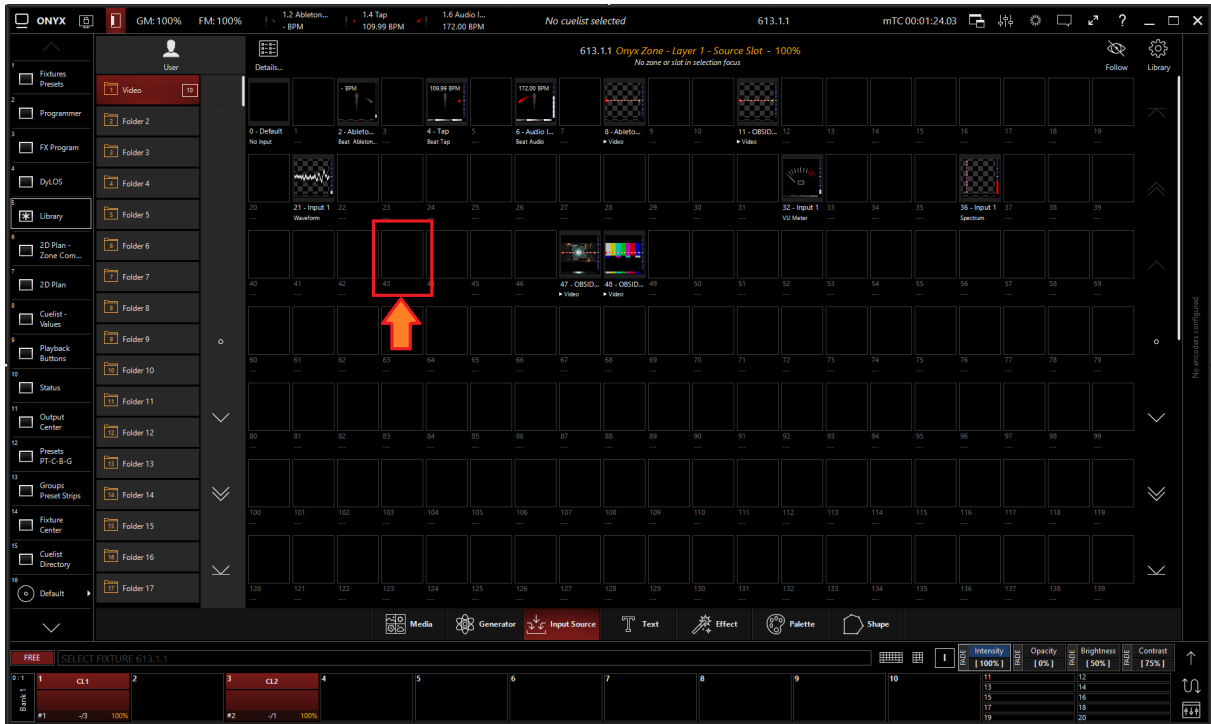
If using a Spectrum Input Processor with an NDI Source, you must first set up [NDI](#).

If using a Spectrum Input Processor with an Audio Source, you must first set up an [Audio Interface](#).

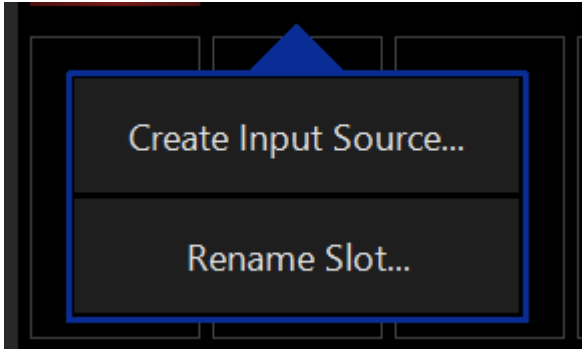
1. Navigate to the **Library** view, button 5, on the default sidebar of the "Compose" workspace.
2. Select the Input Source Tab at the bottom of the window:



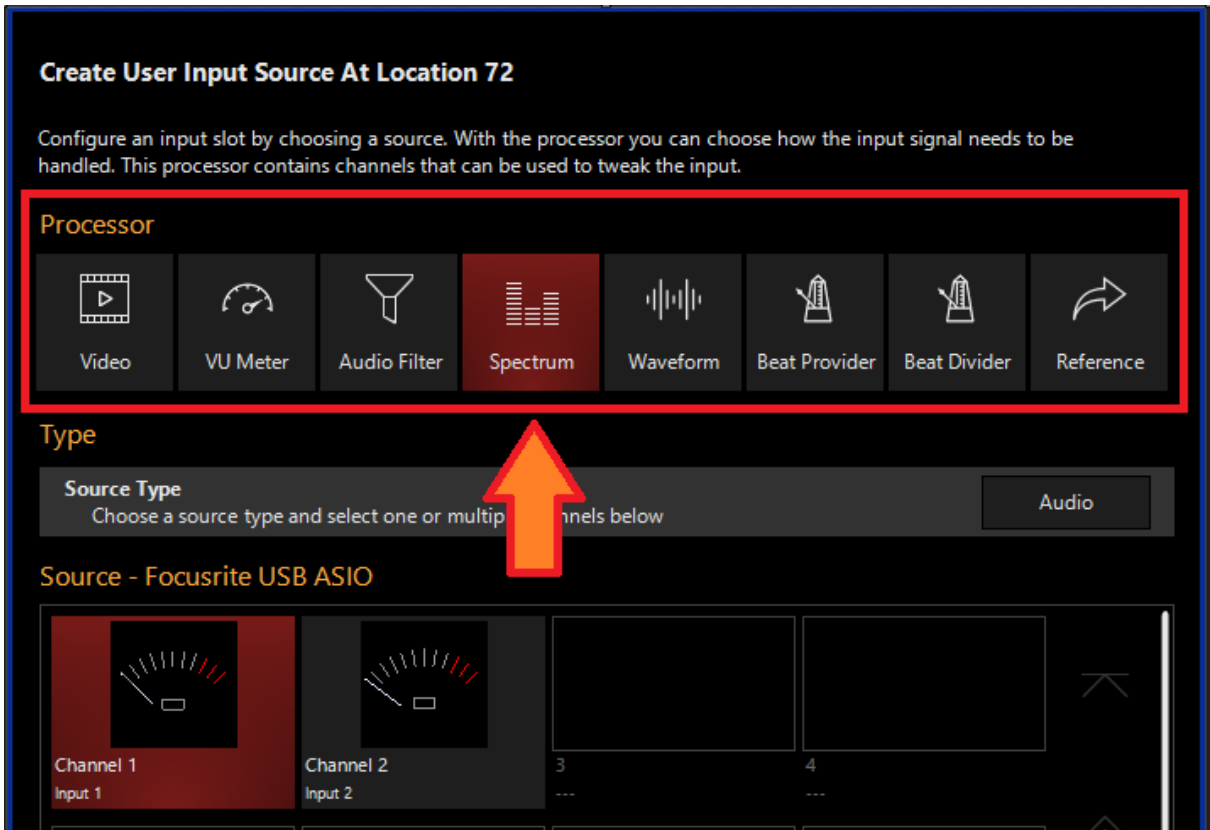
3. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



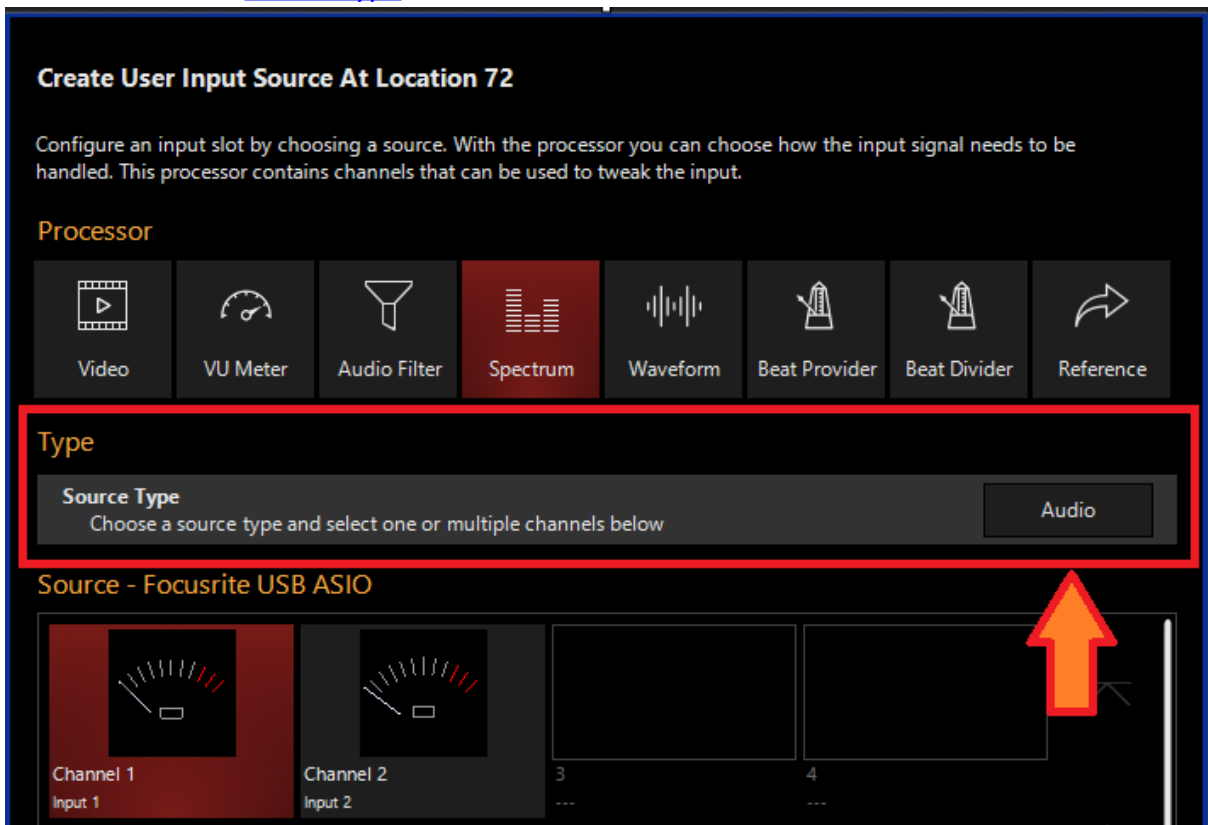
- 4. Select Create Input Source...



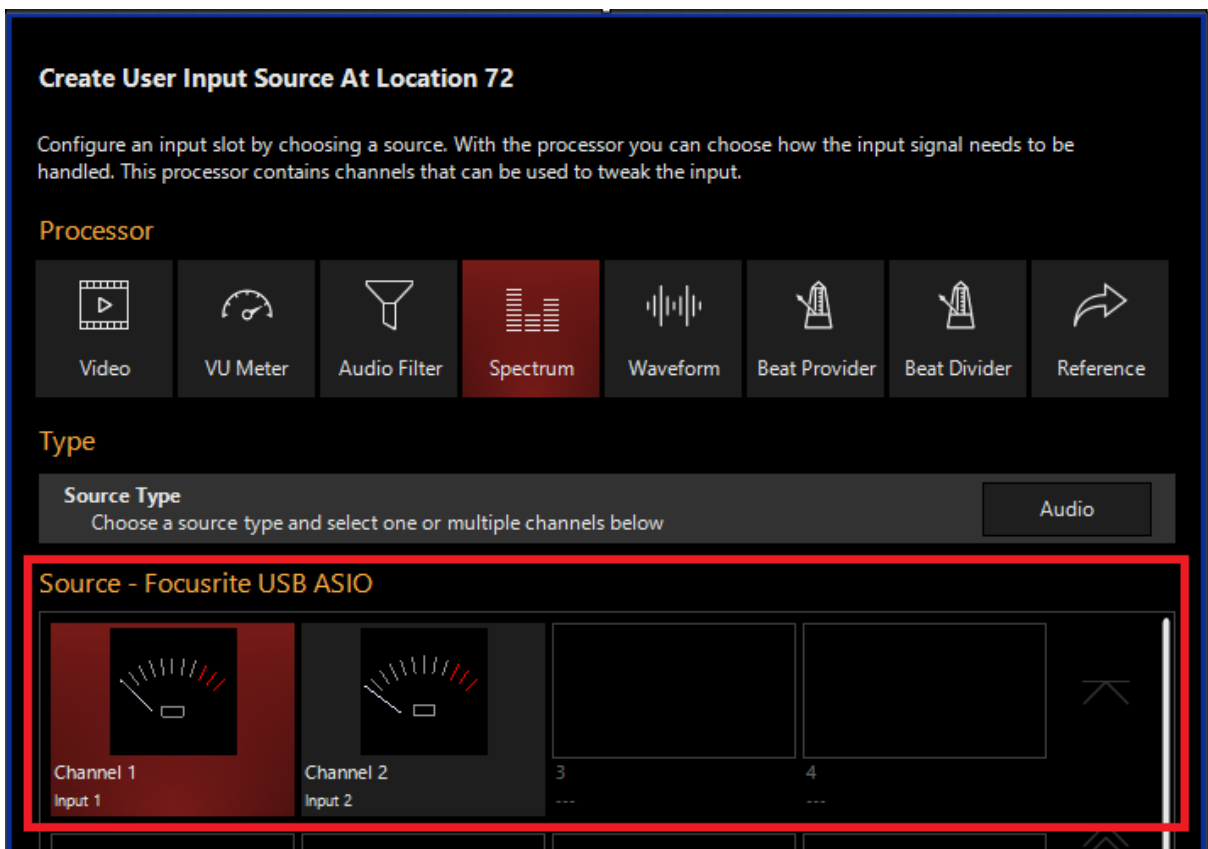
- 5. Select Spectrum under Processor.



6. Select the desired [Source Type](#)



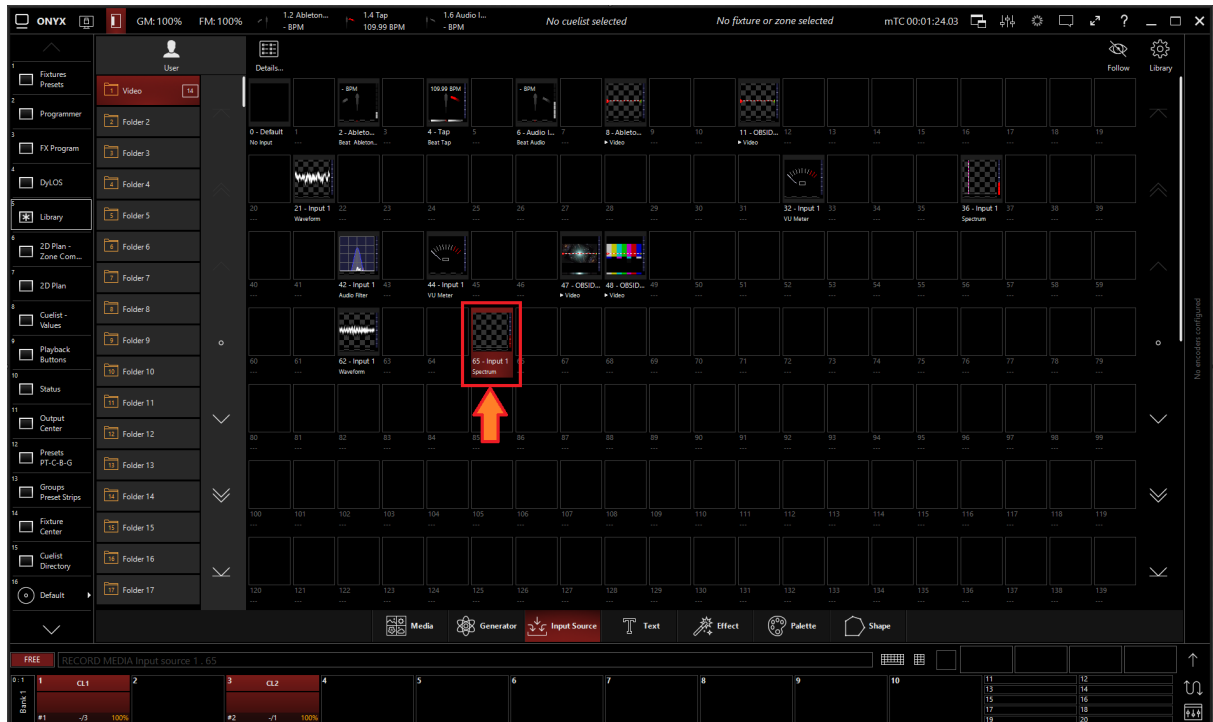
7. Select the Source



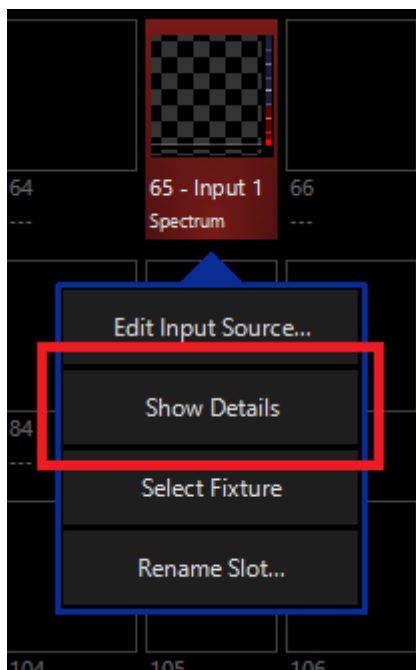
8. Press OK

Editing a Spectrum Input Processor

1. To edit a Spectrum Input Processor, right-click on or hold Edit and select an existing Spectrum Input Processor.



2. Select Show Details

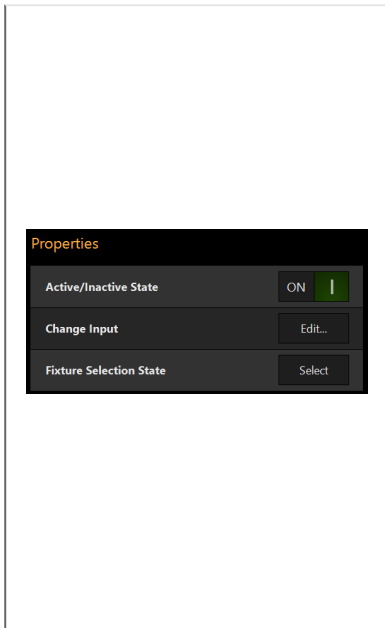


3. From the menu below, you can change the properties of the Spectrum Input Processor.



Table of Controls

Control	Description
	<p>Preview</p> <ol style="list-style-type: none"> Visualizer: Shows a visual representation of the input processor. <ul style="list-style-type: none"> - Red areas are filtered out - Blue areas are not filtered Audio Input Meter: Shows a meter of the incoming audio signal or the embedded NDI audio stream. Pallet Mapping: Shows the generated pallet for use with a dynamic pallet. Overlay: Shows the pallet mapping sample point



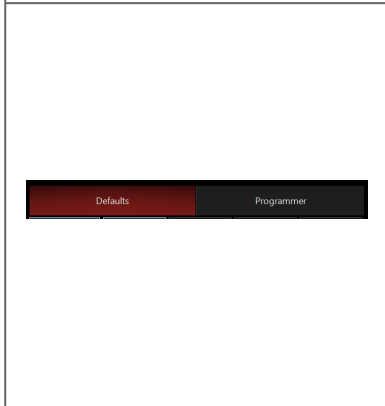
Properties

Active/Inactive State: Toggles the state of the Spectrum Input Processor between Active and Inactive.

* The “Inactive” state helps preserve resources on an overloaded system.*

Change Input: Used to select a different source input for this Spectrum Input Processor.

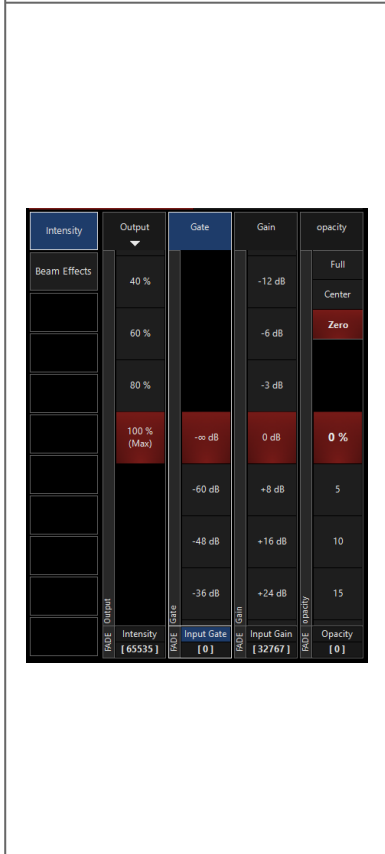
Fixture Selection State: Select the Spectrum Input Processor as a fixture for making changes using the Channel visualizer (CV)



This Selects if the changes should be made to the default properties of the Spectrum Input Processor or put into the programmer like if editing a fixture.

Defaults: Used for changing the default state of this Spectrum Input Processor

Programmer: Used for temporary changes recorded into a cue.



Intensity

Output: Sets the Output level of the Spectrum Input Processor

*A value of zero translates to an output of transparent black.

Input Gate: Sets an Audio Input Gate on the incoming audio level of Spectrum Input Processor

Input Gain: Sets the Gain level of Audio input of the Spectrum Input Processor

Opacity Level: Sets the Opacity level of the Spectrum Input Processor when used as Media Content.

- Full: All transparent areas of the input content are shown in opaque black (e.g. useful if you want to map a color palette on it)

- Zero: Transparent areas stay transparent

Intensity	Gradient Orientation	Bin Count	Palette Frequency
Beam Effects		32	
		64	
		128	
	Vert	256	Full Spectrum
	Horiz		20 Hz
	Reserved		50 Hz
			100 Hz
	Spectrum	Bin Count	Frequency
	[0]	[255]	[0]

Beam Effects

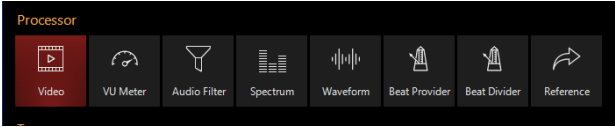
Gradient Orientation: Changes the Gradient over the spectrum from Vertical to Horizontal

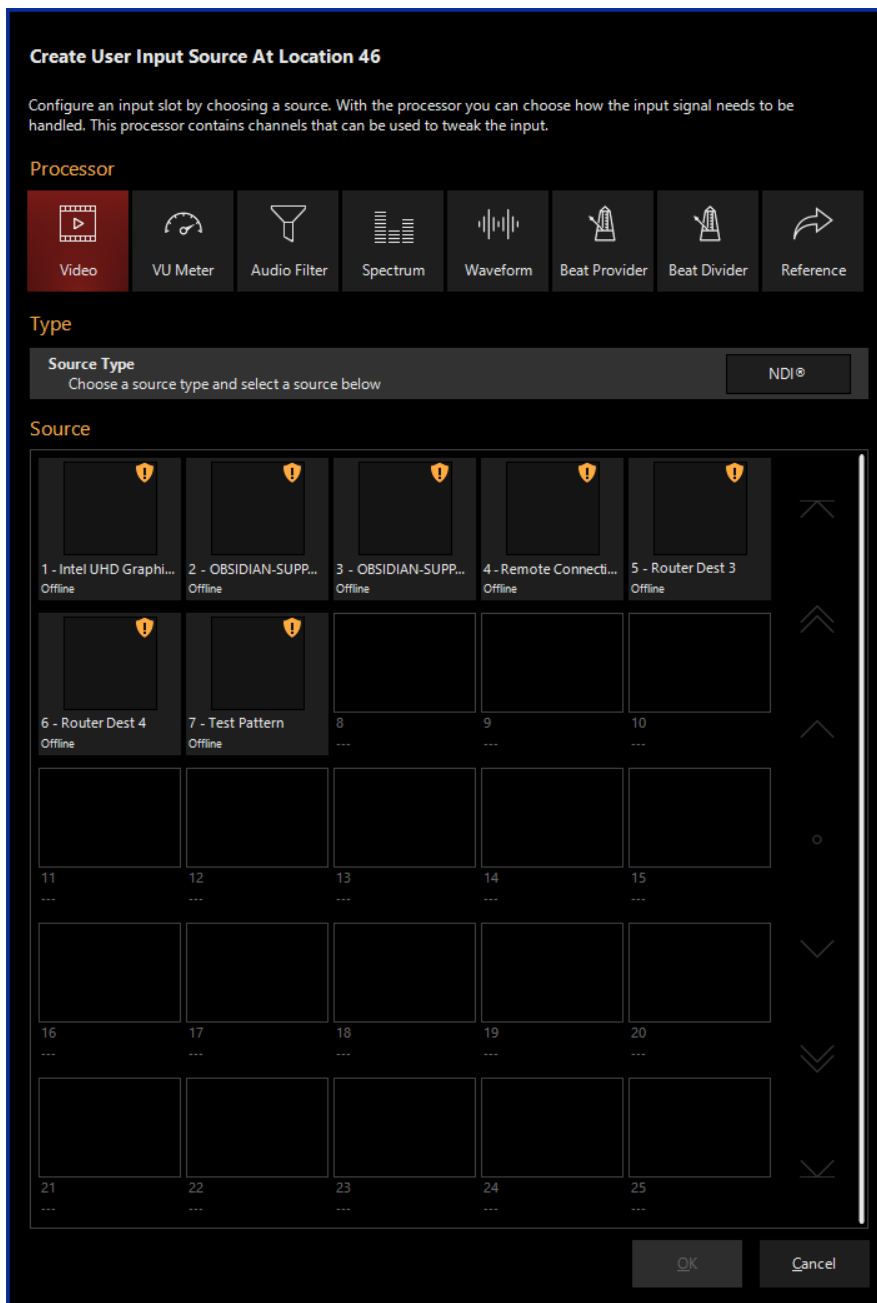
Bin Count: Changes the number of vertical zones to be shown

Palette Frequency: Sets the frequency to sample and display when used with [Dynamic Palette](#).

Video Input Processor

Video Input processors assign a video input source from an NDI stream, Dylos Zone, or Source to an Input Slot.

Input Source	Description
 <p>The screenshot shows a 'Processor' menu with the following options: Video (highlighted in red), VU Meter, Audio Filter, Spectrum, Waveform, Beat Provider, Beat Divider, and Reference.</p>	<p>Video Processor</p> <p>Allowed Source Types</p> <ul style="list-style-type: none"> • NDI Video • Dylos Zone • Source • Input Slot



Creating a Video Input Processor

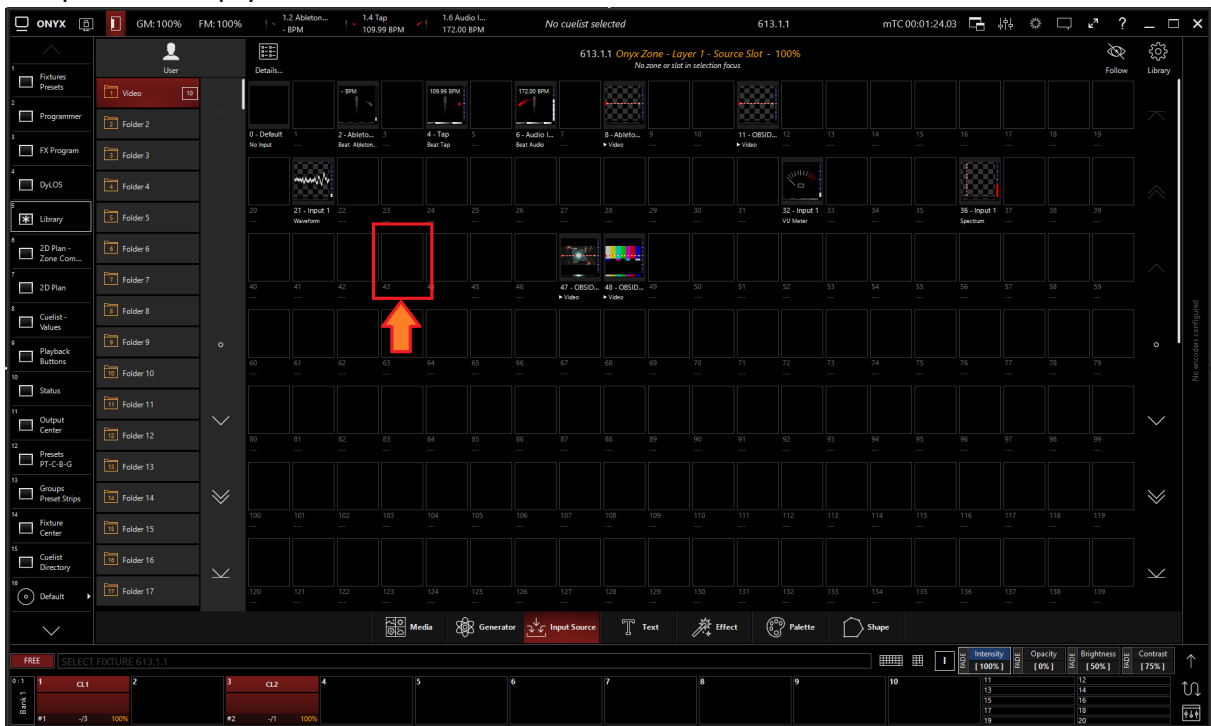
If using a Video Input Processor with an NDI Source, you will first need to set up [NDI](#).

1. Navigate to the **Library** view, button 5, on the default sidebar of the "Compose" workspace.

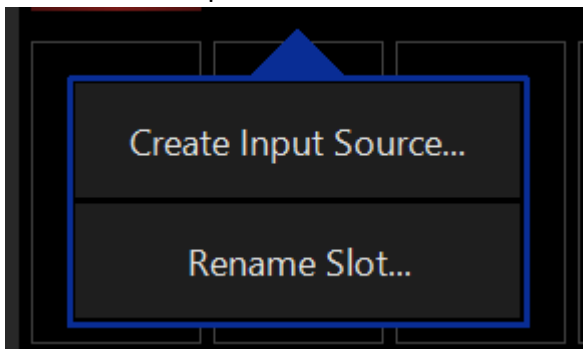
2. Select the Input Tab at the bottom of the window:



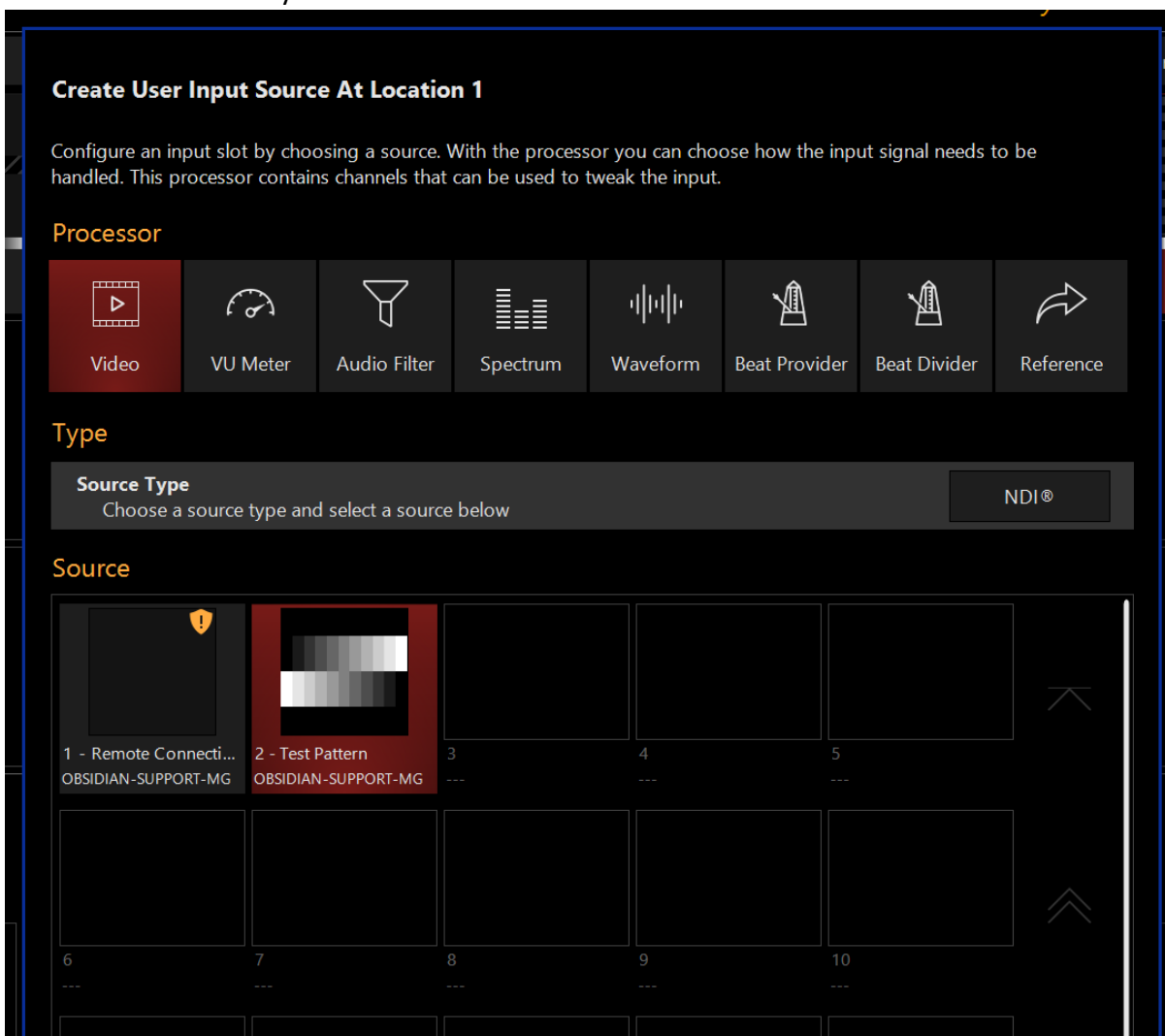
3. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



4. Select Create Input Source...



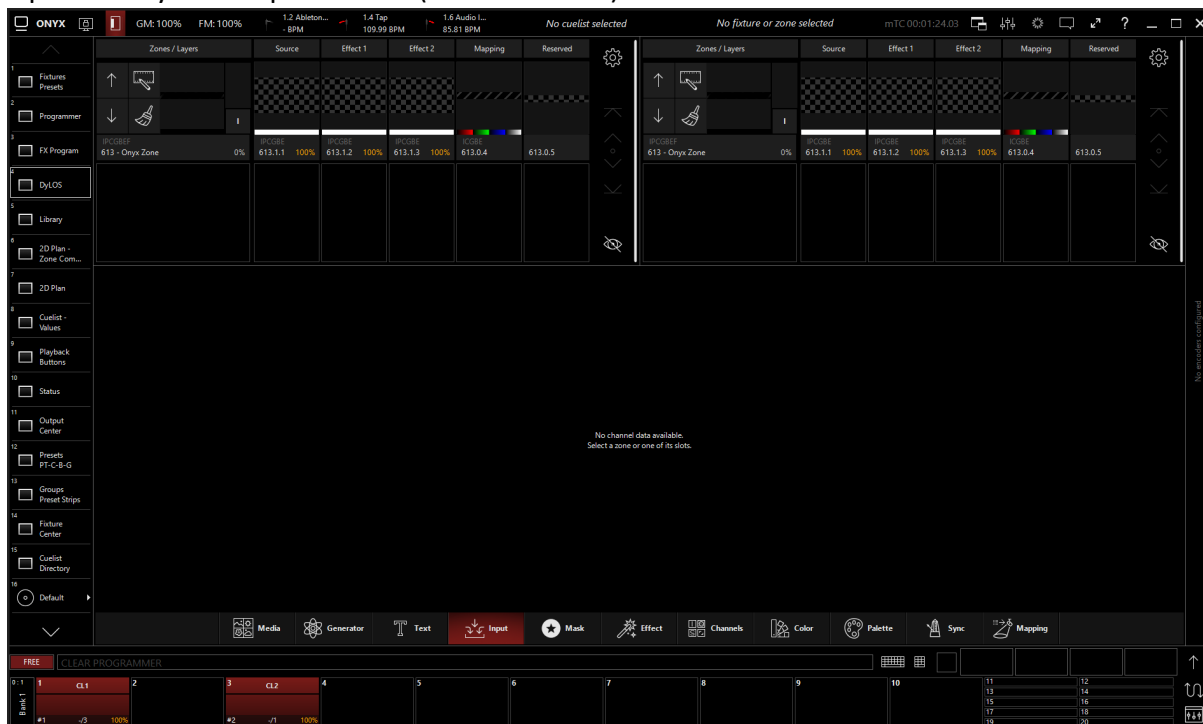
5. Select Video under Processor and NDI input under the type in the selection window. Then, select the NDI source you wish to use.



Using a Video Input Processor with Dylos

Once a Video Input Processor has been created in an Input Slot it can be used as a media source in Dylos.

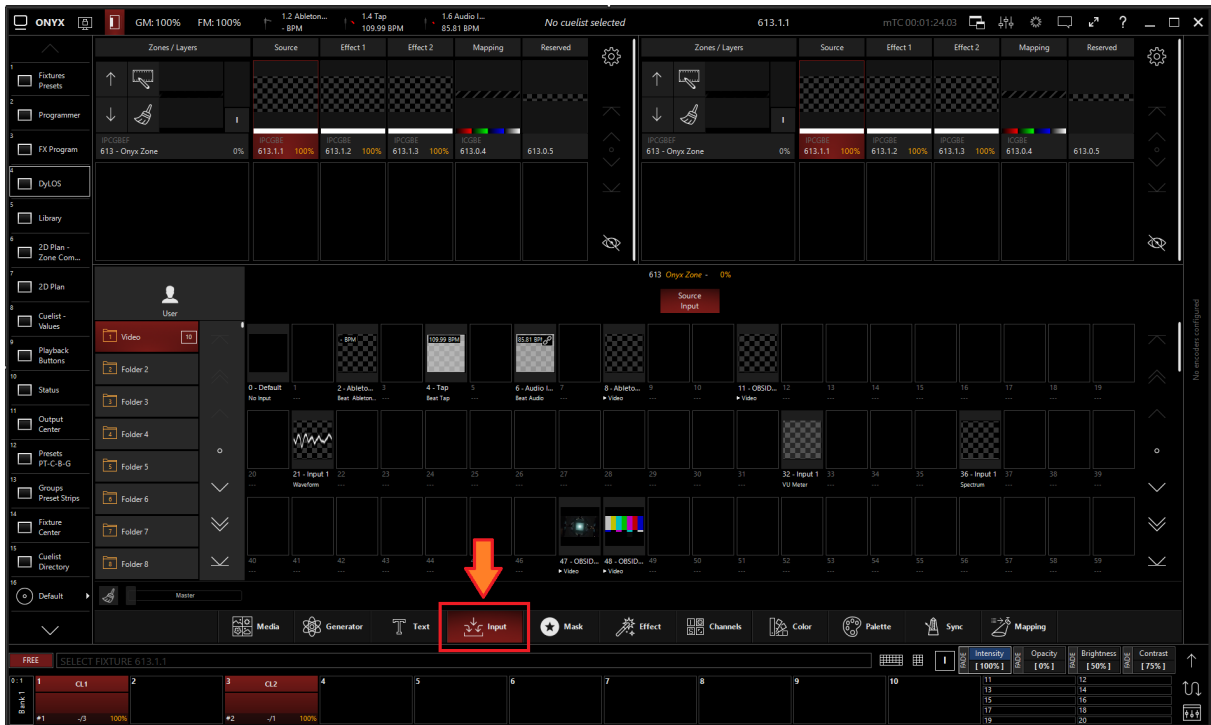
1. Open the Dylos composer view (default view 4).



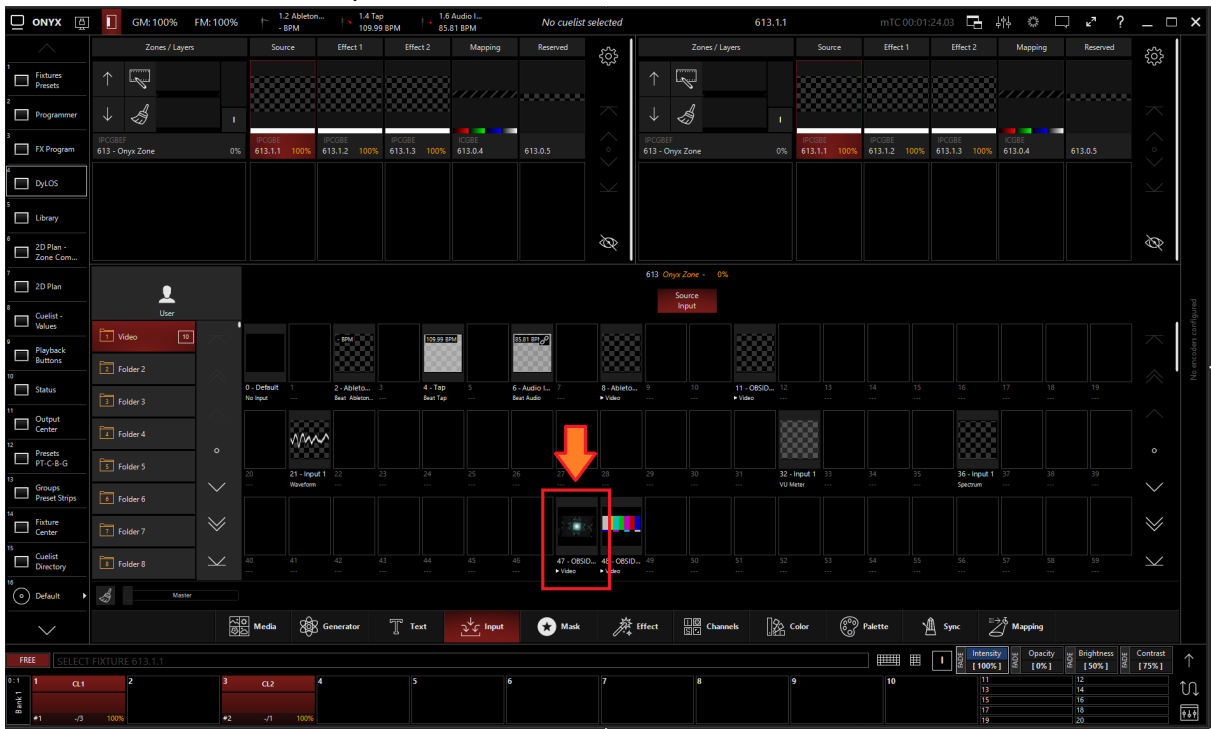
2. Select the source block of a Dylos Zone.



3. Open the Inputs Tab

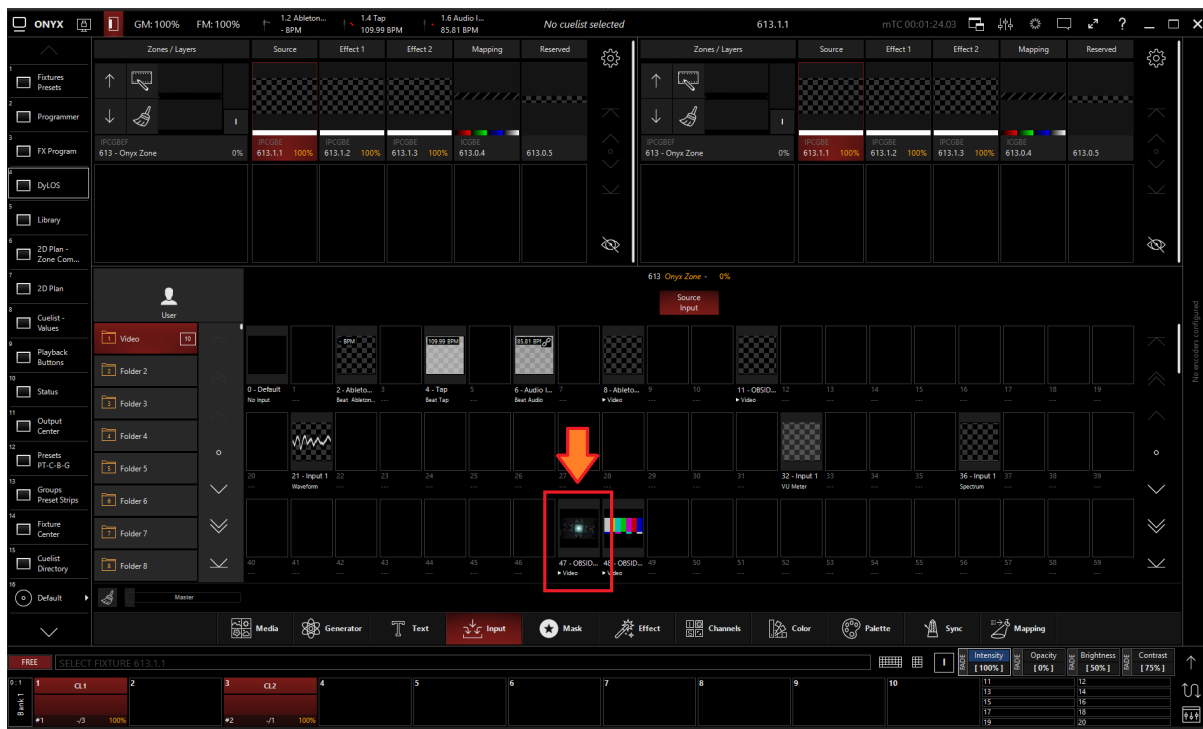


4. Select the desired Video Input Processor.

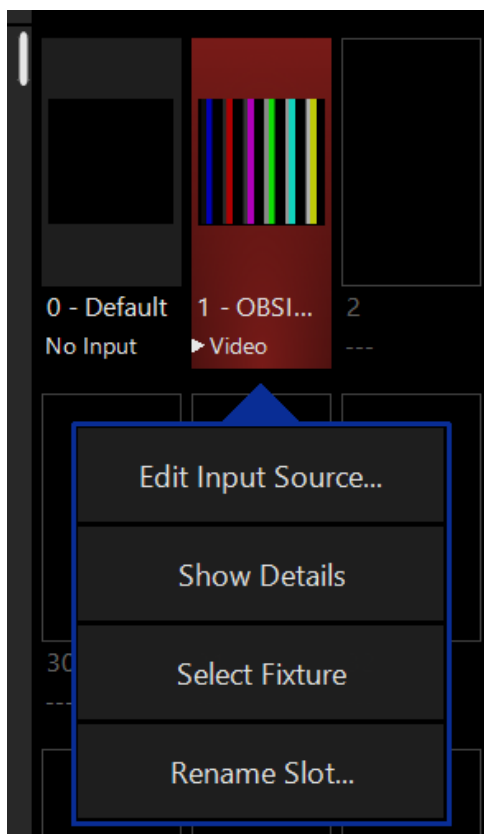


Editing a Video Input Processor

1. To edit a Video Input Processor, right-click on or hold Edit and select an existing Video Input Processor.



2. Select Show Details



3. From the menu below, you can change the properties of the Video Input Processor.

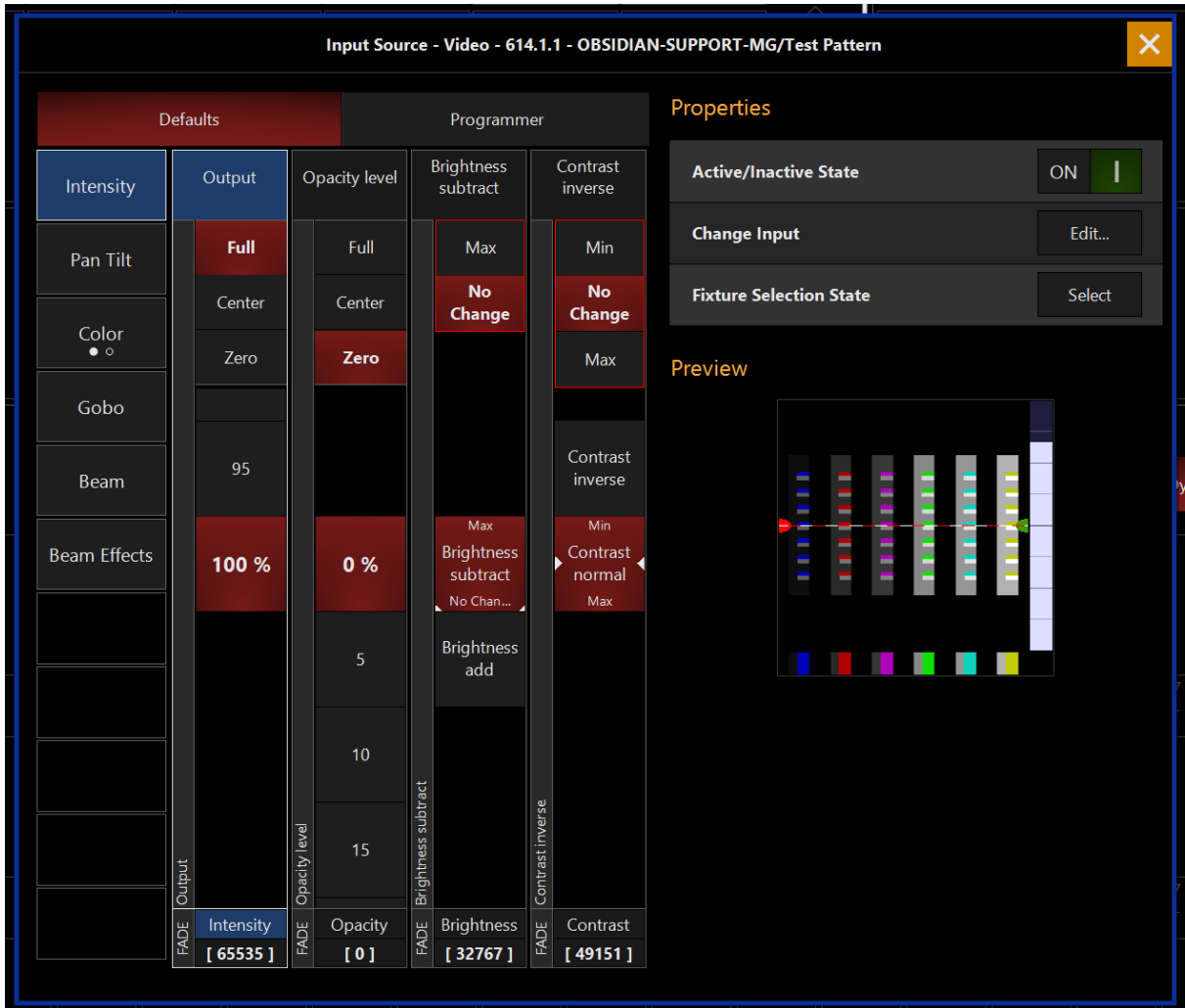
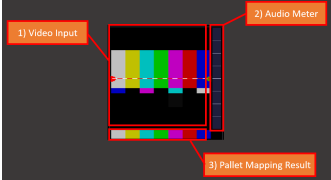
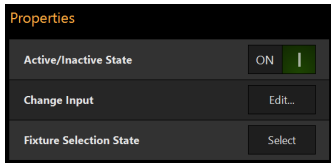


Table of Controls

Control	Description
	<p>Preview</p> <ol style="list-style-type: none"> 1. Visualizer: Shows a visual representation of the input processor. 2. Input Meter: Shows the audio level of the embedded NDI audio stream. 3. Pallet Mapping Result: Shows the sample area's result to generate a color pallet for use with a dynamic pallet.

Properties



Active/Inactive State: Toggles the state of the Video Input Processor between Active and Inactive.

* The "Inactive" state helps preserve resources on an overloaded system.*

Change Input: Used to select a different source input for this Video Input Processor.

Fixture Selection State: Select the Video Input Processor as a fixture for making changes using the Channel visualizer (CV)



This Selects if the changes should be made to the default properties of the Video Input Processor or put into the programmer like if editing a fixture.

Defaults: Used for changing the default state of this Video Input Processor

Programmer: Used for temporary changes recorded into a cue.

Intensity

Intensity	Output	Opacity level	Brightness subtract	Contrast inverse
Pan Tilt	Full	Full	Max	Min
Color	Center	Center	No Change	No Change
Gobo	Zero	Zero		Max
Beam	95			Contrast inverse
Beam Effects	100 %	0 %	Max Brightness subtract No Chan...	Min Contrast normal Max
		5	Brightness add	
		10		
		15		

Output: Sets the Output level of the Video Input Processor

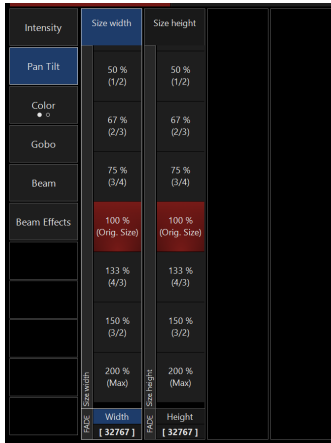
*A value of zero translates to an output of transparent black.

Opacity Level: Sets the Opacity level of the Video Input Processor

- Full: All transparent areas of the input content are shown in opaque black (e.g. useful if you want to map a color palette on it)
- Zero: Transparent areas stay transparent

Brightness Subtract: Sets the Brightness level of the Video Input Processor

Contrast inverse: Sets the Contrast level of the Video Input Processor



Pan Tilt

Size Width: Sets the width of the video stream in the canvas

Size Height: Sets the height of the video stream in the canvas

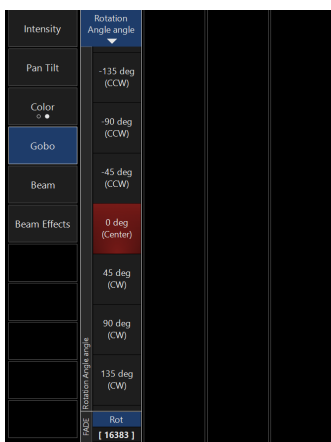


Color

Saturation Inverse: Sets saturation level of content, allows for inverting saturation.

- Static Palette Selection (Used to apply a Static Palette on top of a Video Input Processor.)
 - **Palette Function:** Sets the Static Palette Source
 - **Palette Folder:** Select the folder of the static palette
 - **Palette Slot:** Select the slot of the static palette

Palette Color Picker: Sets the shape used to sample video to create a Video Input Processor.



Gobo

Rotation Angle: Sets rotation of video inside of the canvas. It can be set to static or continuous rotation.

Intensity	Zoom level	Zoom Center x	Zoom Center y	Scale mode	
Pan Tilt	30 % (out)	Full	Full	Fill Canvas	
Color	20 % (out)	Center	Center		
Gobo	10 % (out)	45	45		
Beam	Original Size	50 %	50 %		Keep Aspect
Beam Effects	10 % (in)	55	55		Fill with Aspect
	20 % (in)	60	60		Letterbox
	30 % (in)	65	65		Pixel on Pixel
	Zoom	Zoom Cen.	Zoom Cen.		Scale Mode
	[32767]	[32767]	[32767]		[1]

Beam

Zoom Level: Sets the zoom level of the video inside of the canvas.

Zoom Center x: Sets the position of the video inside the canvas on the x-axis.

Zoom Center y: Sets the position of the video inside the canvas on the y-axis.

Scale mode: Sets the shape of the canvas.

Intensity	Palette Left x	Palette Left y	Palette Right x	Palette Right y
Pan Tilt		-25 % (1/4)	75 % (3/4)	-25 % (1/4)
Color		-17 % (1/6)	83 % (5/6)	-17 % (1/6)
Gobo		-13 % (1/8)	88 % (7/8)	-13 % (1/8)
Beam		0 % (Center)	100 % (Right)	0 % (Center)
Beam Effects	-100 % (Left)			
	-88 % (7/8)	13 % (1/8)		13 % (1/8)
	-83 % (5/6)	17 % (1/6)		17 % (1/6)
	-75 % (3/4)	25 % (1/4)		25 % (1/4)
	FX 1	FX 2	FX 3	FX 4
	[0]	[32767]	[65535]	[32767]

Beam Effects

Palette Left x: Sets the left palette sample zone point on the x-axis.

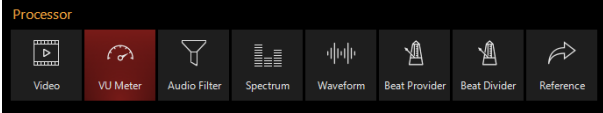
Palette Left y: Sets the left palette sample zone point on the y-axis.

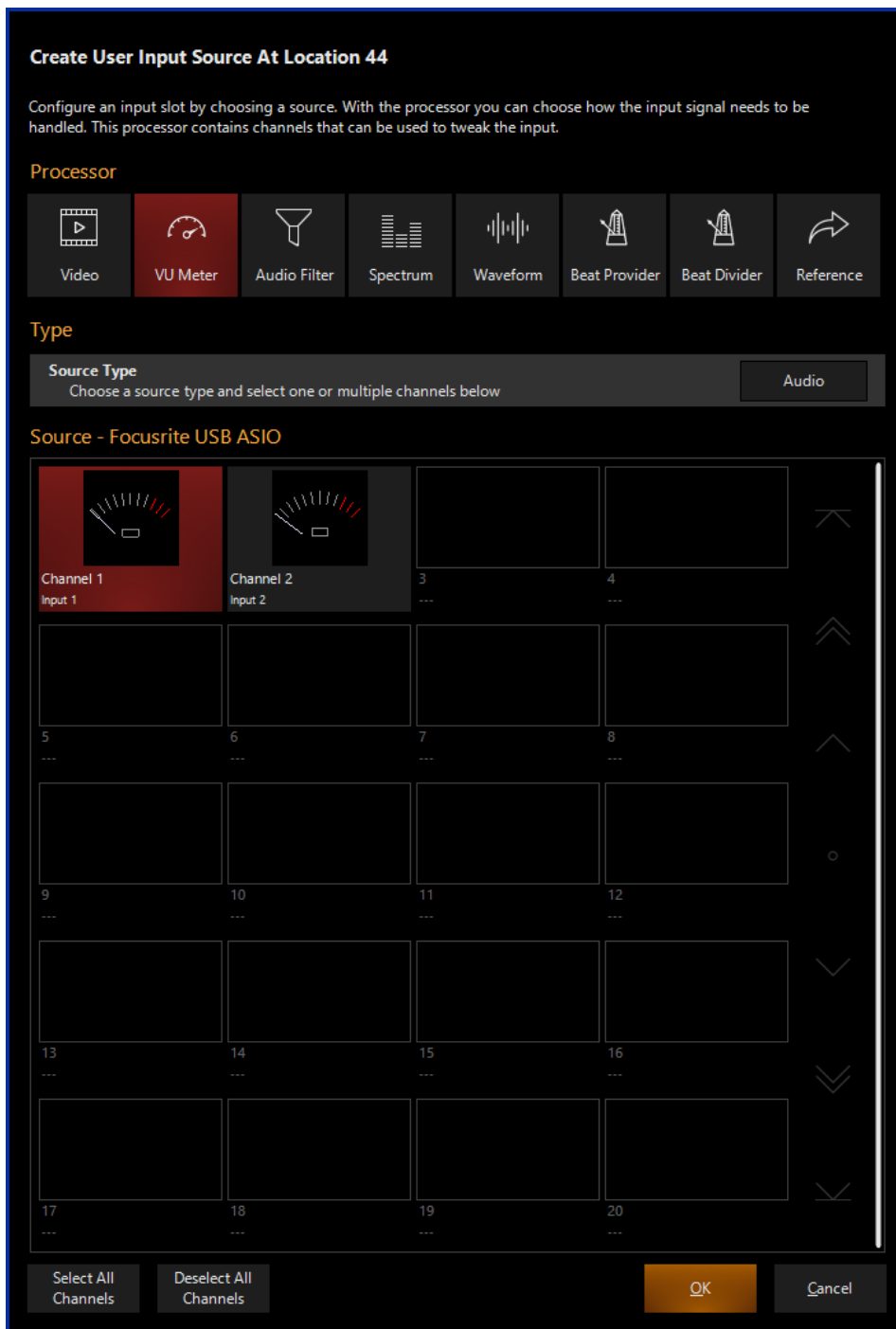
Palette Right x: Sets the right palette sample zone point on the x-axis.

Palette Right y: Sets the right palette sample zone point on the y-axis.

VU Input Processor

VU Input processors create a Volume Unit (VU) Meter input source from an NDI stream, Audio Input, or Input Slot. This can be used to apply and set input gates and input gain.

 <p>The image shows a software interface titled "Processor" with a dark background. It contains eight buttons with icons and labels: "Video" (play icon), "VU Meter" (gauge icon, highlighted in red), "Audio Filter" (funnel icon), "Spectrum" (bar chart icon), "Waveform" (waveform icon), "Beat Provider" (hand icon), "Beat Divider" (hand icon), and "Reference" (arrow icon).</p>	<p>VU Meter</p> <p>Creates a VU Meter from an audio source to set level gates</p> <p>Allowed Source Types</p> <ul style="list-style-type: none">• NDI Audio• Audio Input• Input Slot
---	--



Creating a VU Input Processor

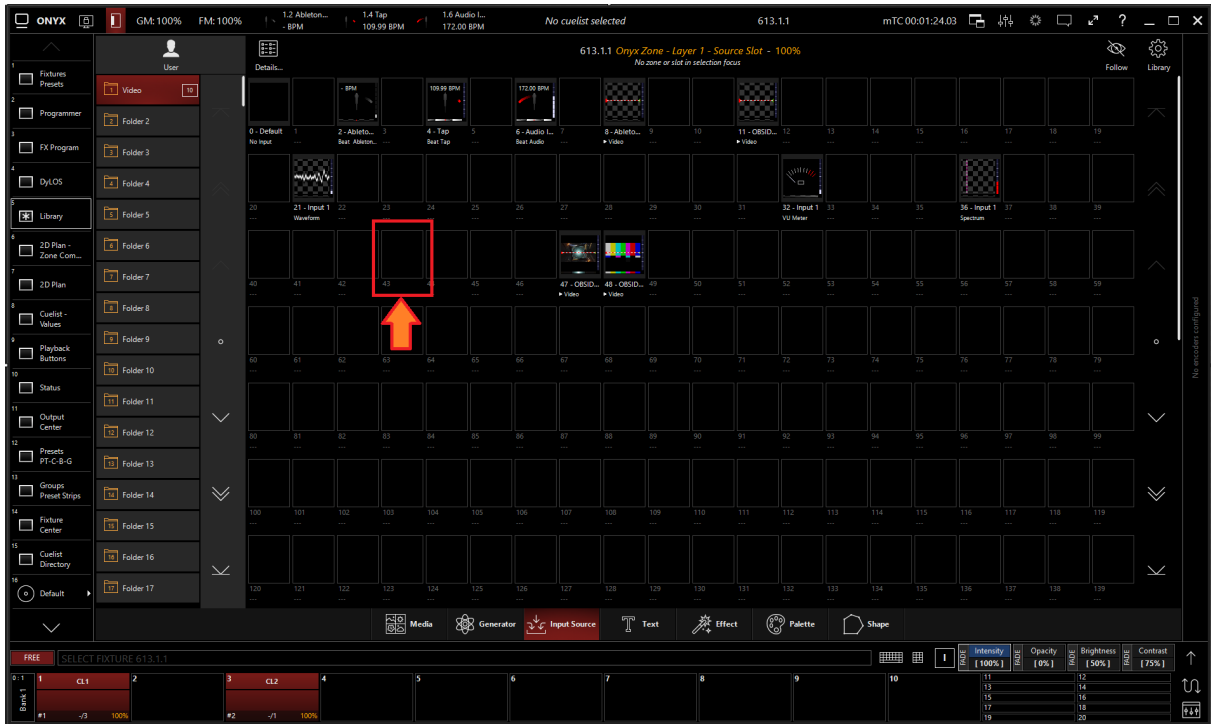
If using a VU Input Processor with an NDI Source, you must first set up [NDI](#).

If using a VU Input Processor with an Audio Source, you must first set up an [Audio Interface](#).

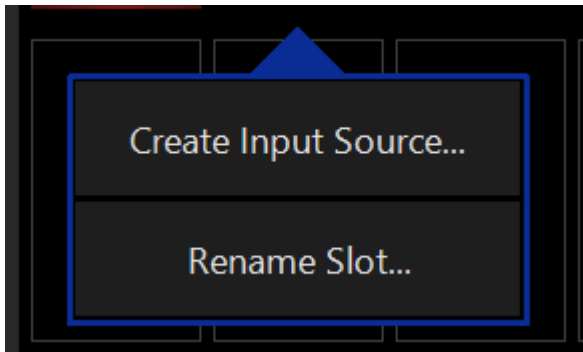
1. Navigate to the **Library** view, button 5, on the default sidebar of the "Compose" workspace.
2. Select the Input Source Tab at the bottom of the window:



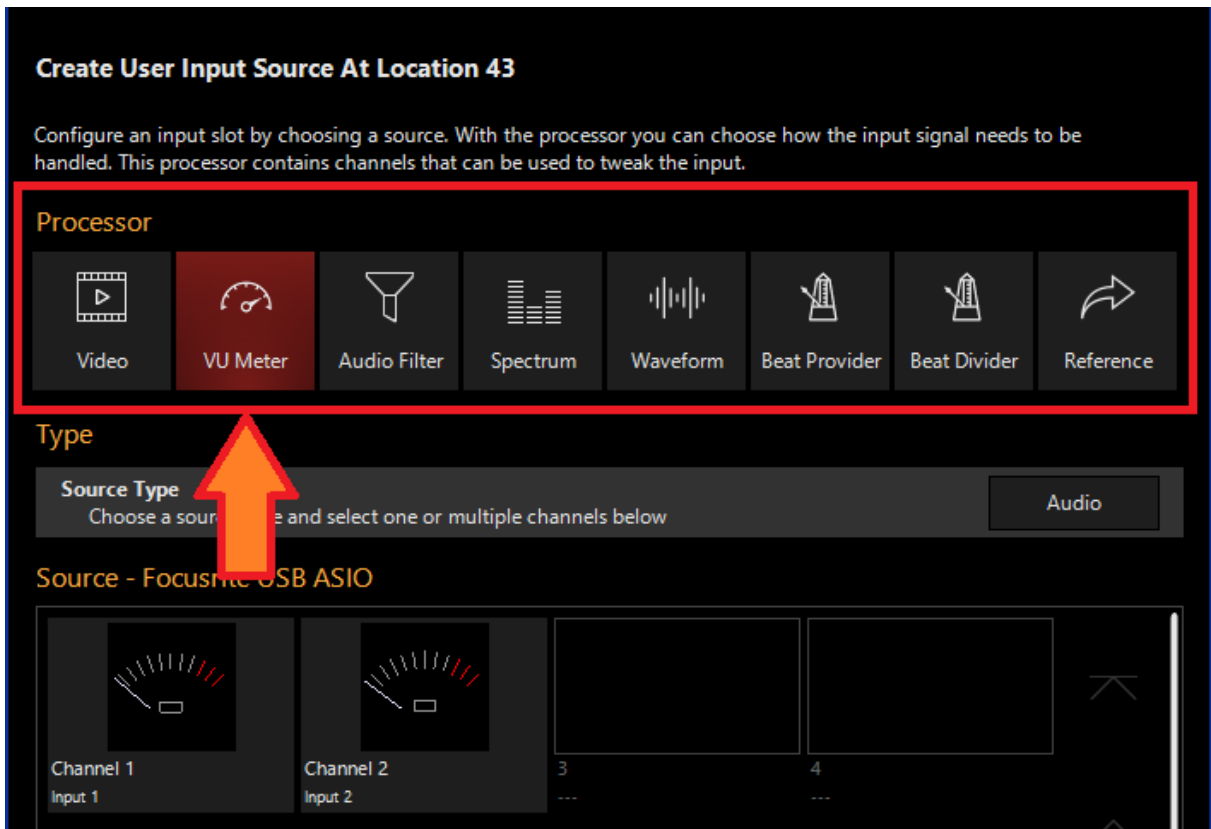
3. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



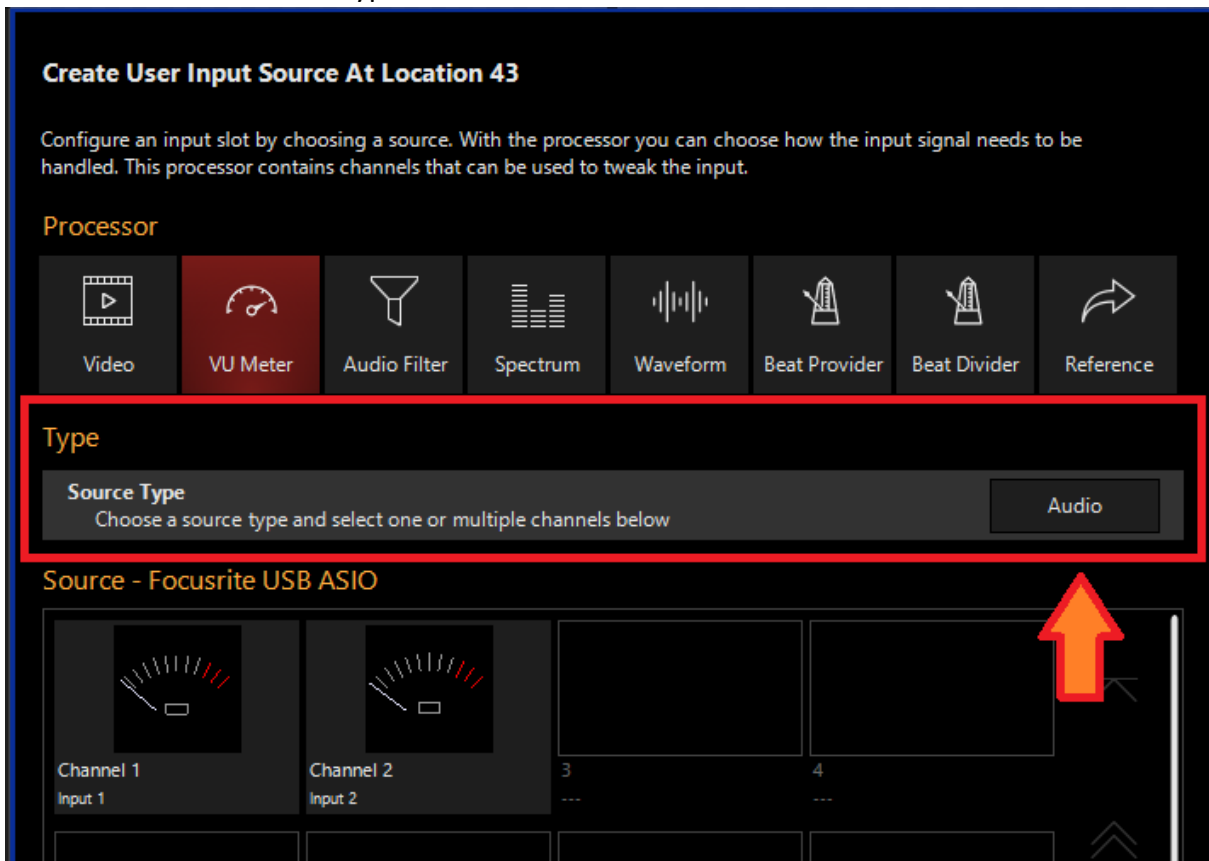
4. Select Create Input Source...



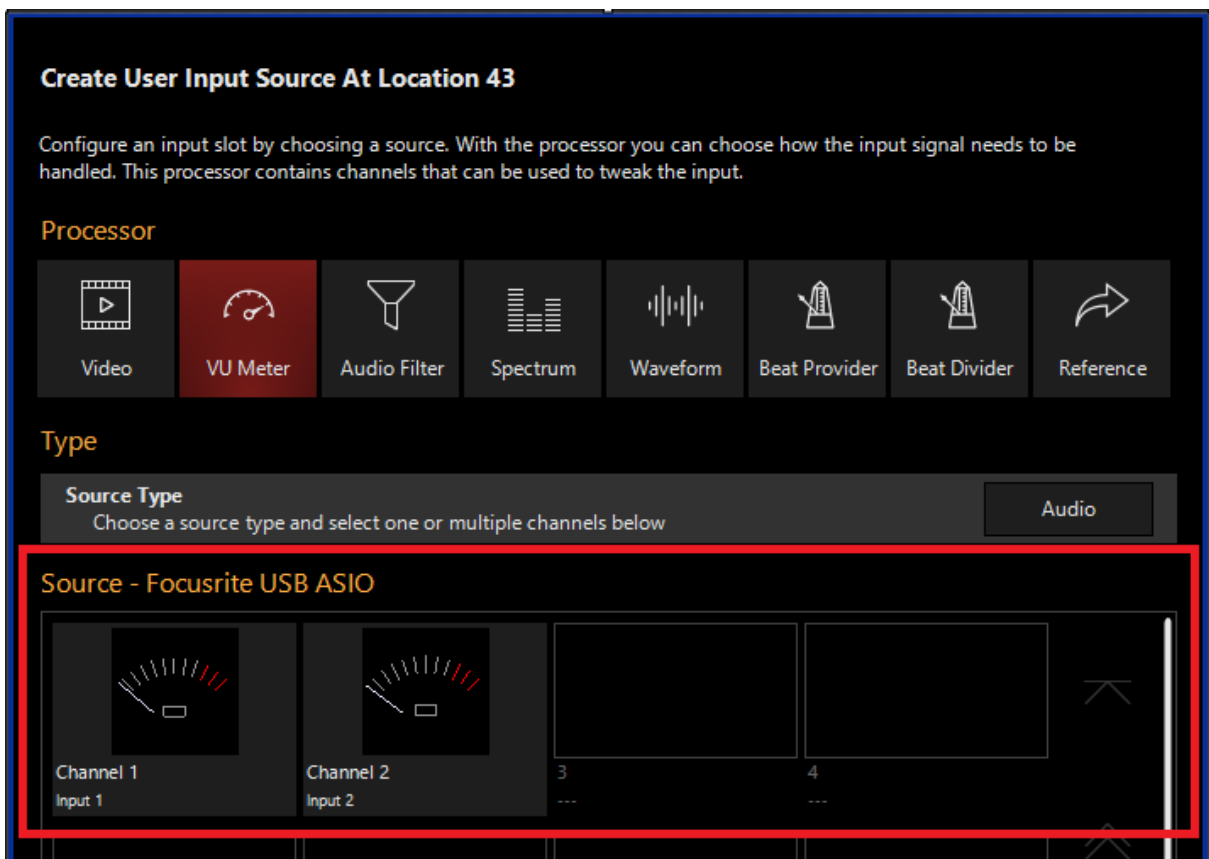
5. Select VU Meter under Processor.



6. Select the desired Source Type



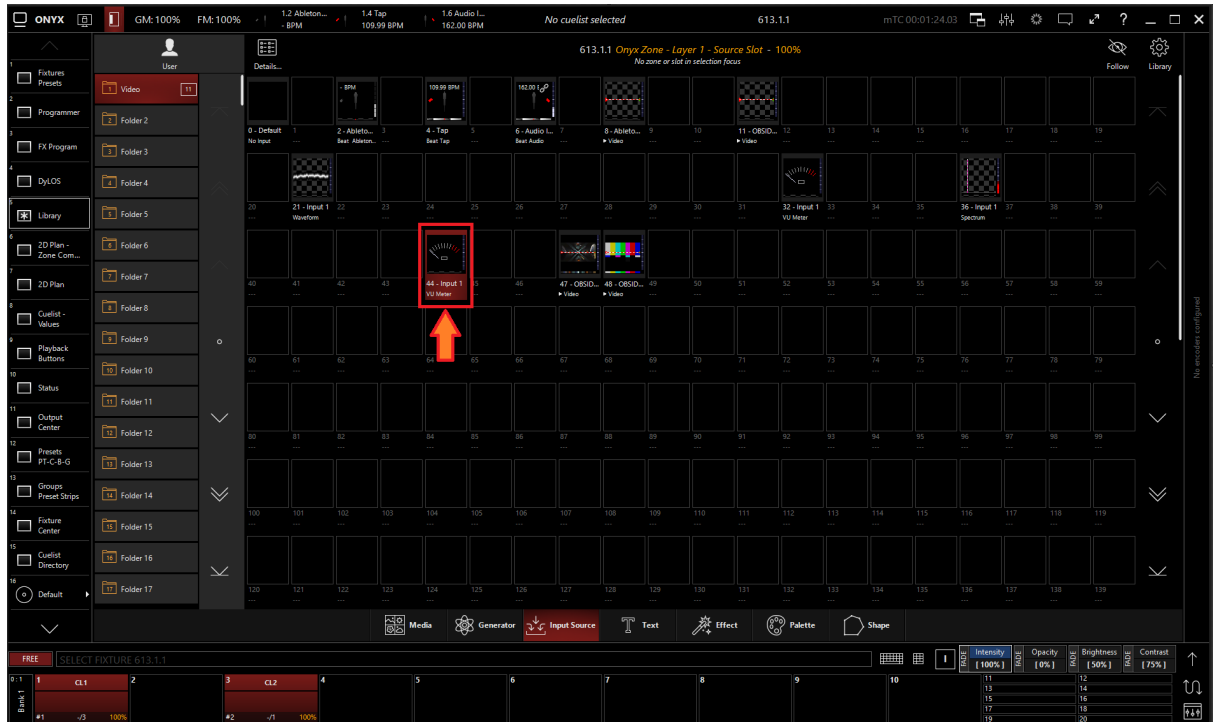
7. Select the Source



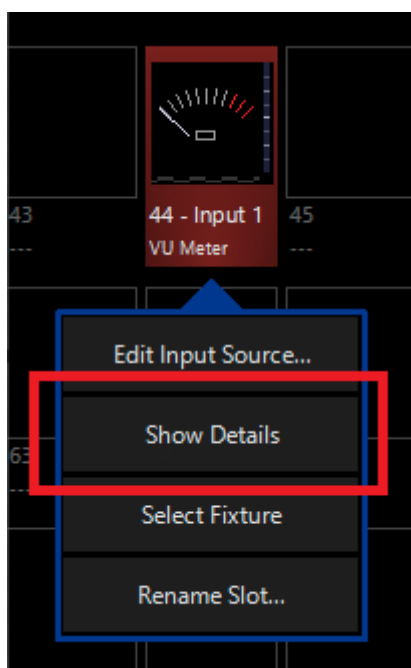
8. Press OK

Editing a VU Input Processor

1. To edit a VU Input Processor, right-click on or hold Edit and select an existing VU Input Processor.



2. Select Show Details

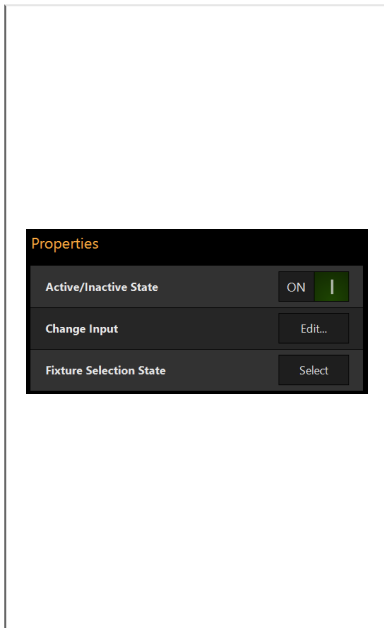


3. From the menu below, you can change the properties of the VU Input Processor.



Table of Controls

Control	Description
	<p>Preview</p> <ol style="list-style-type: none"> Visualizer: Shows a visual representation of the input processor. Input Meter: Shows a VU of the incoming audio signal or the embedded NDI audio stream. Pallet Mapping: Shows the generated pallet for use with a dynamic pallet.



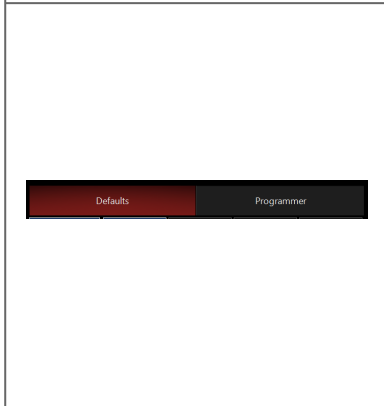
Properties

Active/Inactive State: Toggles the state of the VU Input Processor between Active and Inactive.

* The “Inactive” state helps preserve resources on an overloaded system.*

Change Input: Used to select a different source input for this VU Input Processor.

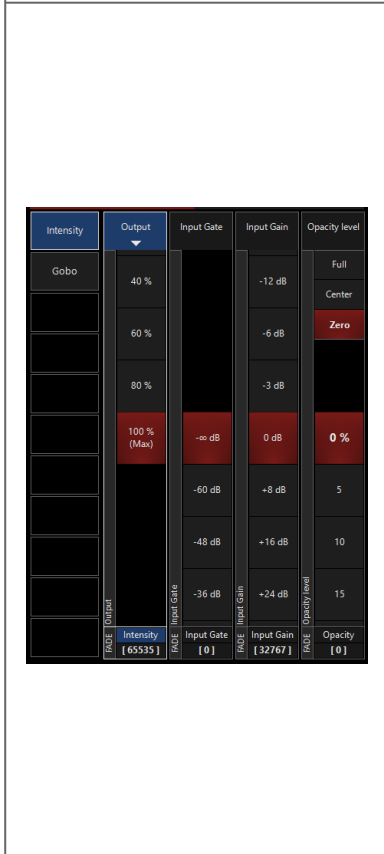
Fixture Selection State: Select the VU Input Processor as a fixture for making changes using the Channel visualizer (CV)



This Selects if the changes should be made to the default properties of the VU Input Processor or put into the programmer like if editing a fixture.

Defaults: Used for changing the default state of this VU Input Processor

Programmer: Used for temporary changes recorded into a cue.



Intensity

Output: Sets the Output level of the VU Input Processor

*A value of zero translates to an output of transparent black.

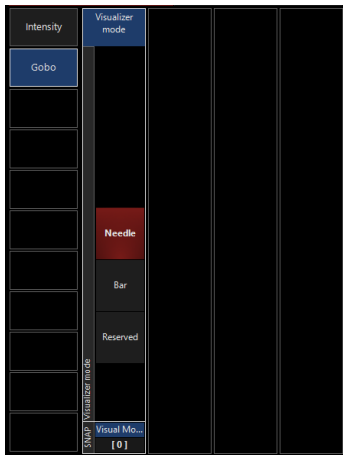
Input Gate: Sets an Audio Input Gate on the incoming audio level of VU Input Processor

Input Gain: Sets the Gain level of Audio input of the VU Input Processor

Opacity Level: Sets the Opacity level of the VU Input Processor for when used as Media Content.

- Full: All transparent areas of the input content are shown in opaque black (e.g. useful if you want to map a color palette on it)

- Zero: Transparent areas stay transparent

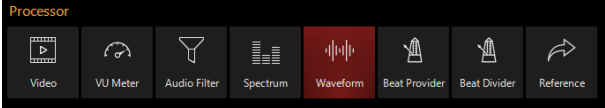


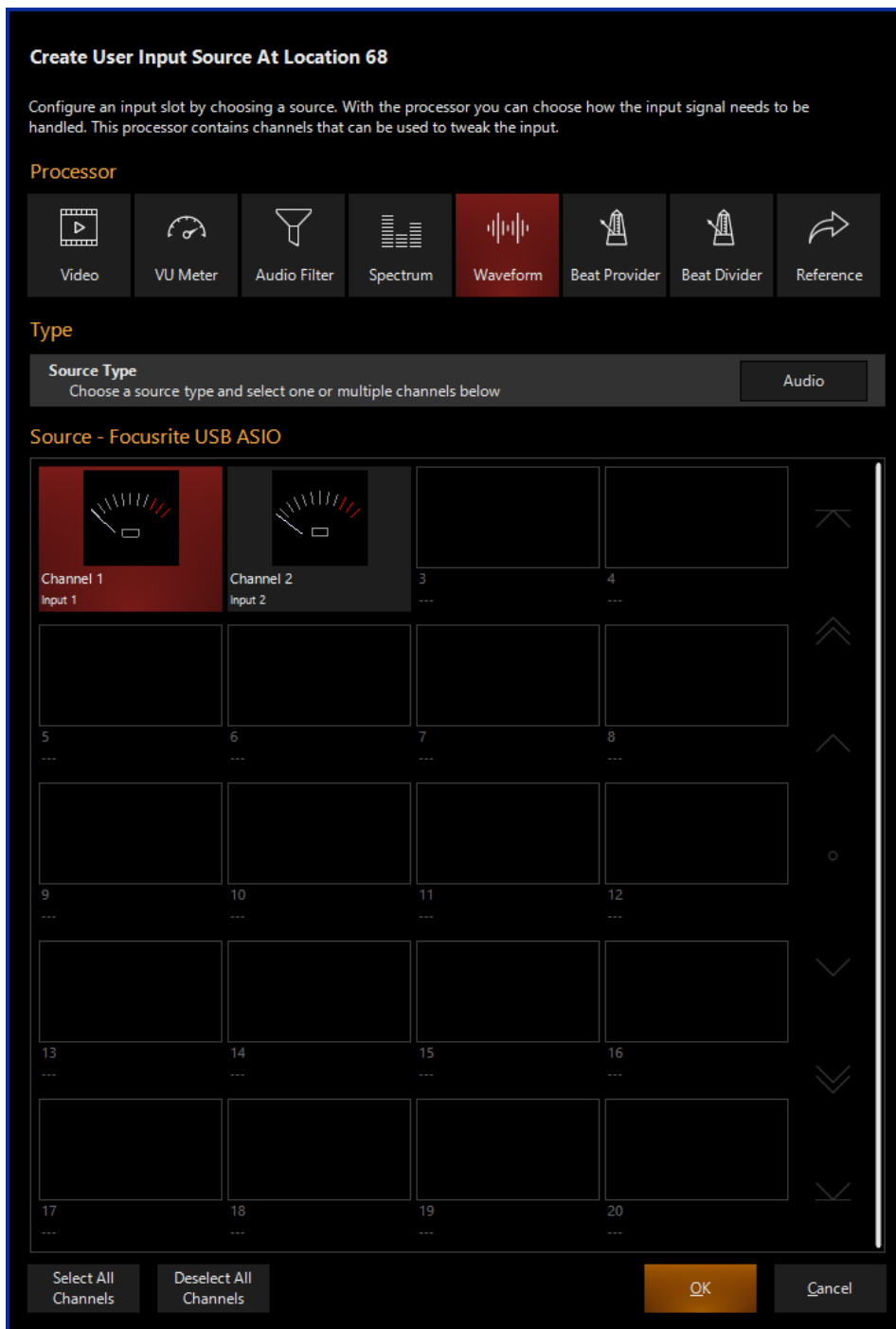
Gobo

Visualizer Mode: Sets VU visulizer mode between Needle and Bar.

Waveform Input Processor

Waveform Input Processor creates a dynamic visual waveform of the inputted audio source to be used as a media source inside of Dylos. Waveform Input Processors can use audio from an NDI audio stream, Audio Input, or another Input Slot.

 <p>The image shows a horizontal menu titled "Processor" with eight icons and labels: Video, VU Meter, Audio Filter, Spectrum, Waveform (highlighted in red), Beat Provider, Beat Divider, and Reference.</p>	<p>Waveform</p> <p>Creates a visual Waveform from selected audio input source</p> <p>Allowed Source Types</p> <ul style="list-style-type: none">• NDI Audio• Audio Input• Input Slot
--	--

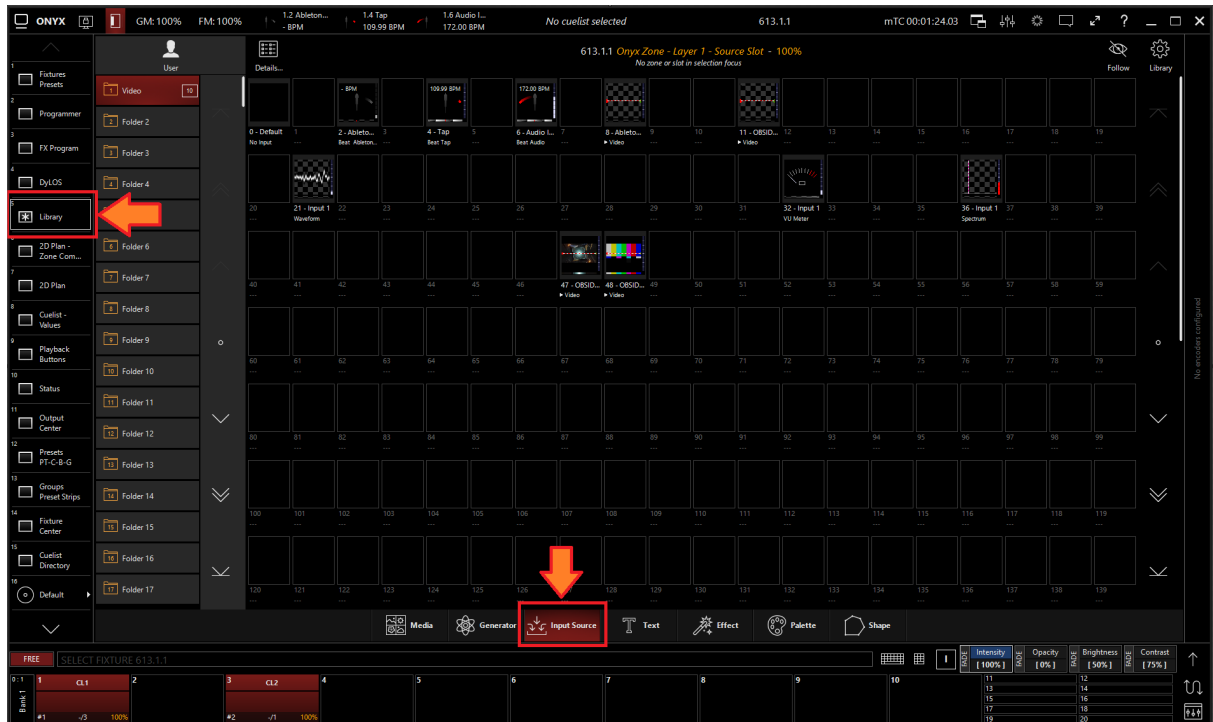


Creating a Waveform Input Processor

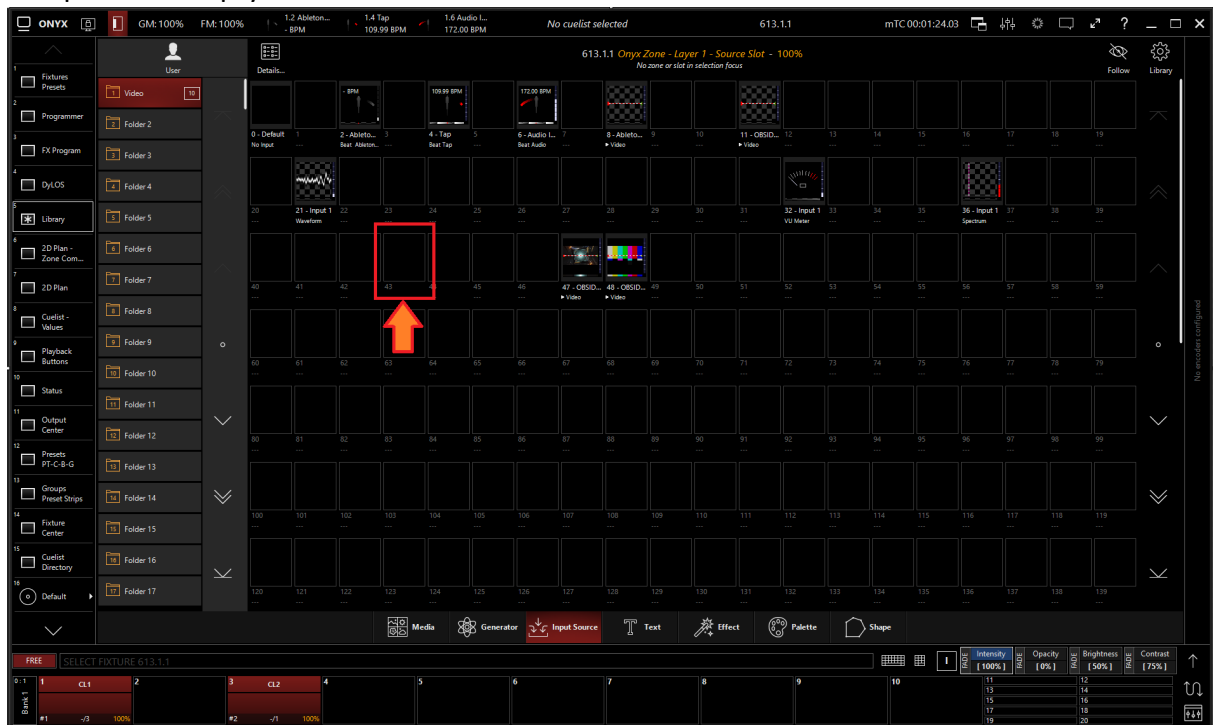
If using a Waveform Input Processor with an NDI Source, you must first set up [NDI](#).

If using a Waveform Input Processor with an Audio Source, you must first set up an [Audio Interface](#).

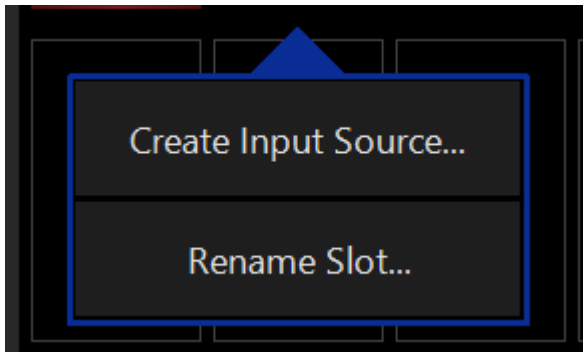
1. Navigate to the **Library** view, button 5, on the default sidebar of the "Compose" workspace.
2. Select the Input Source Tab at the bottom of the window:



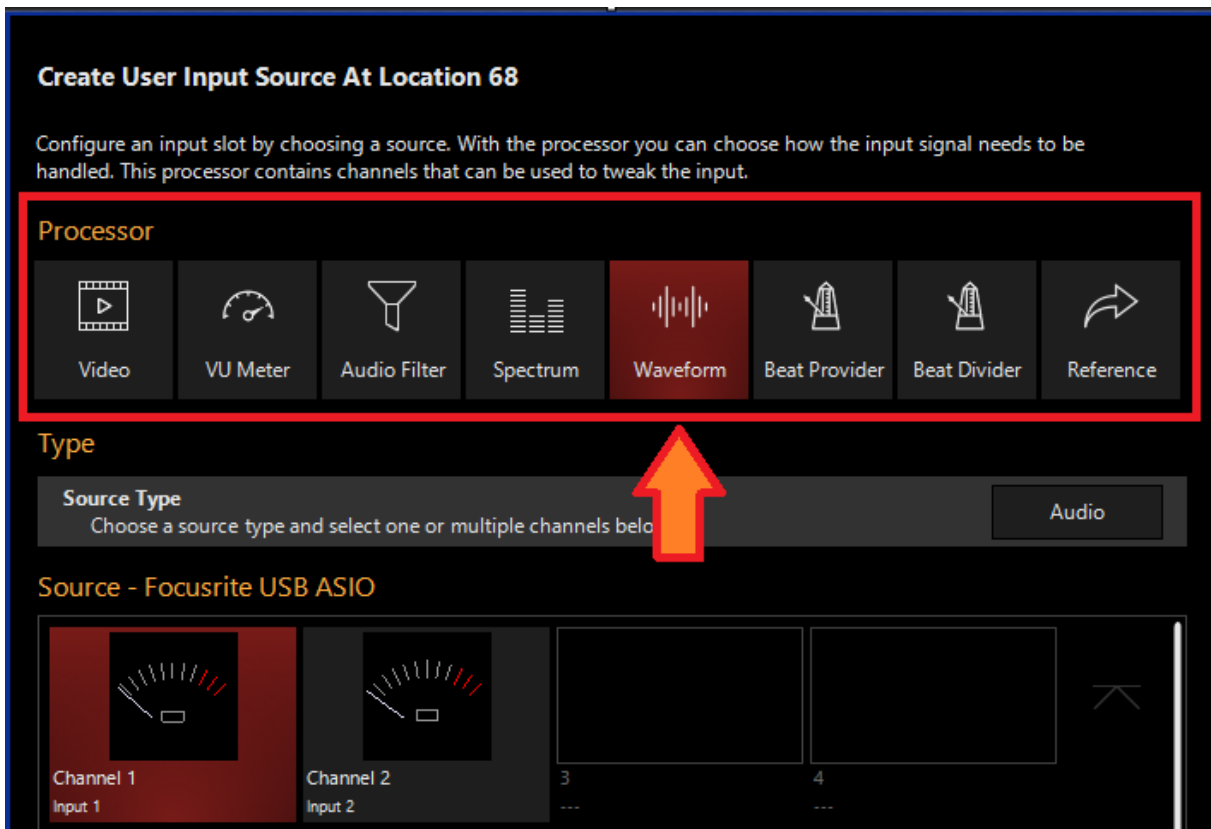
3. All slots will be blank if you're starting from scratch. To create one, Right-click or hold EDIT and press an empty slot.



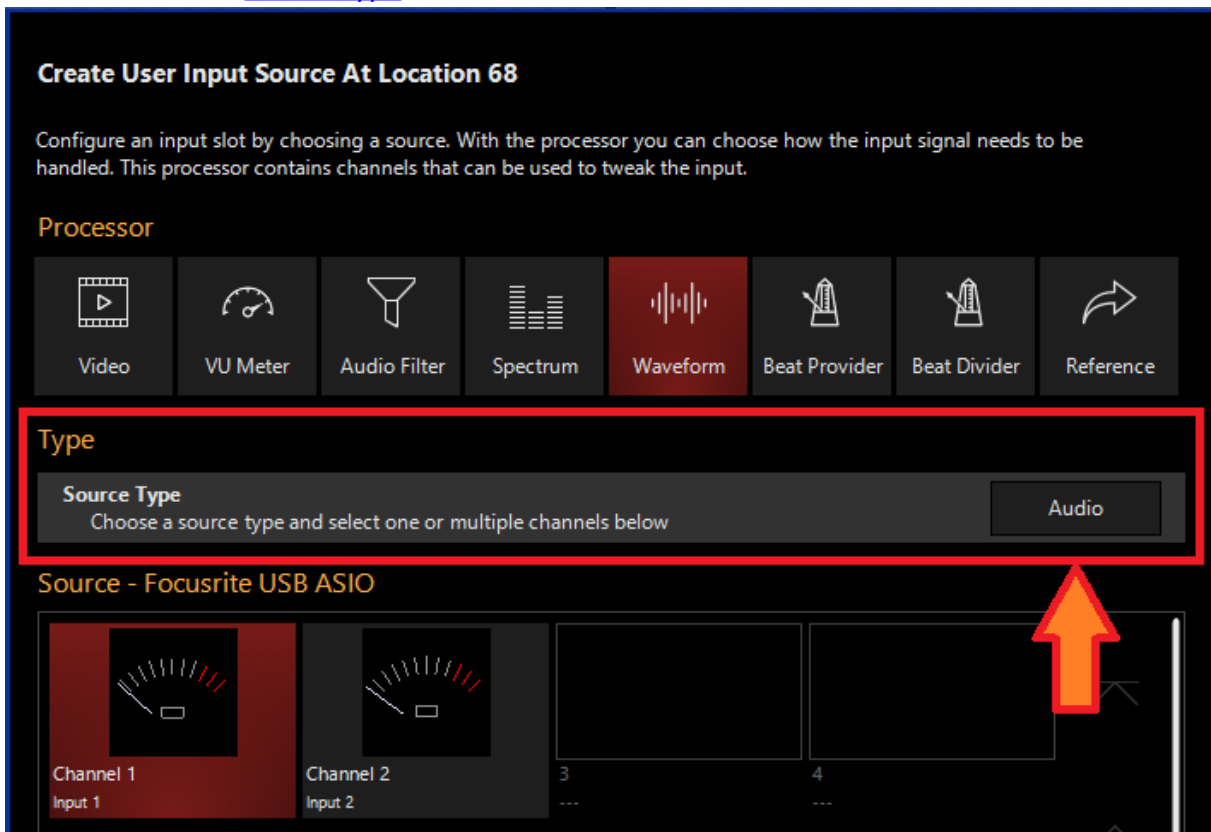
- 4. Select Create Input Source...



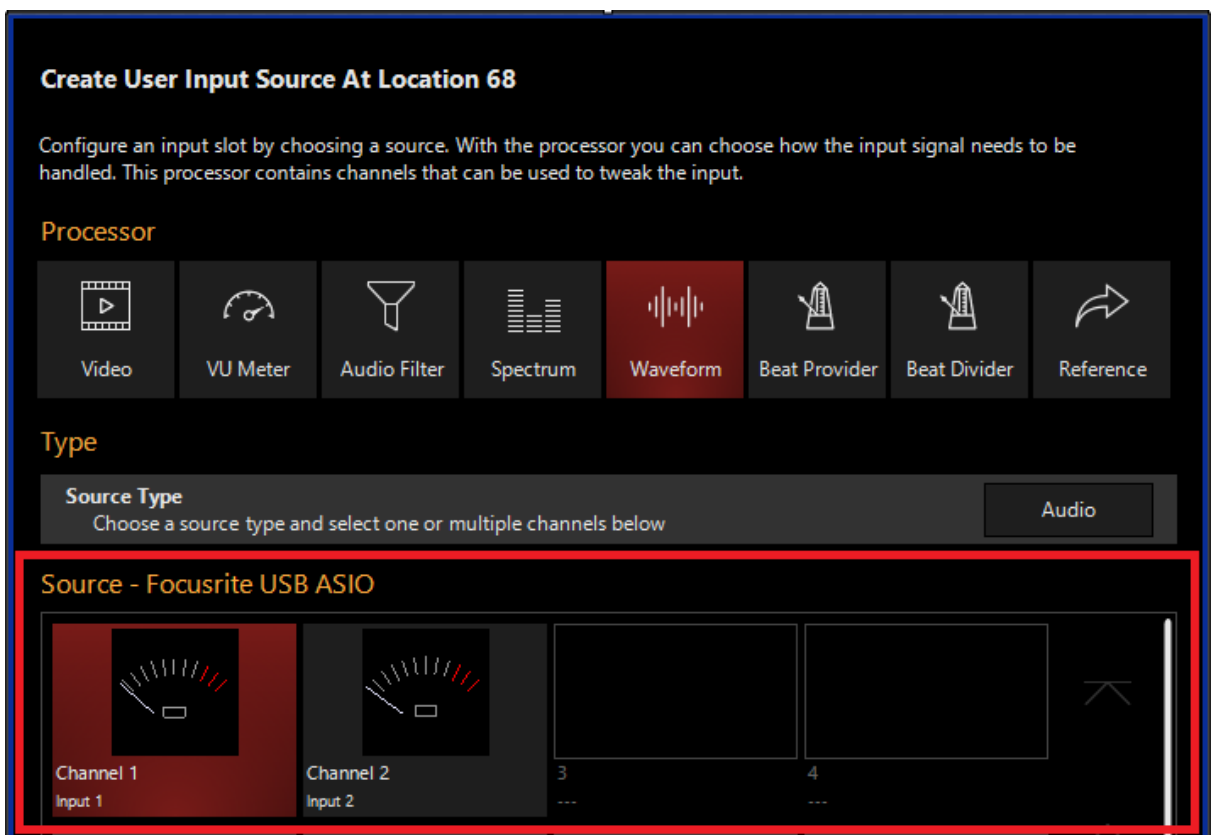
- 5. Select Waveform under Processor.



- 6. Select the desired [Source Type](#)



- 7. Select the Source



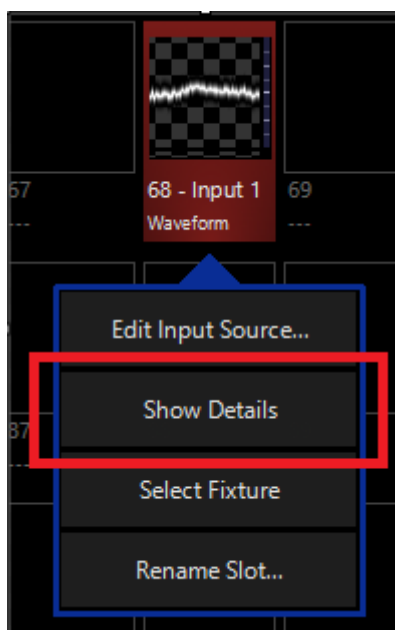
- 8. Press OK

Editing a Waveform Input Processor

1. To edit a Waveform Input Processor, right-click on or hold Edit and select an existing Waveform Input Processor.



2. Select Show Details



3. From the menu below, you can change the properties of the Waveform Input Processor.

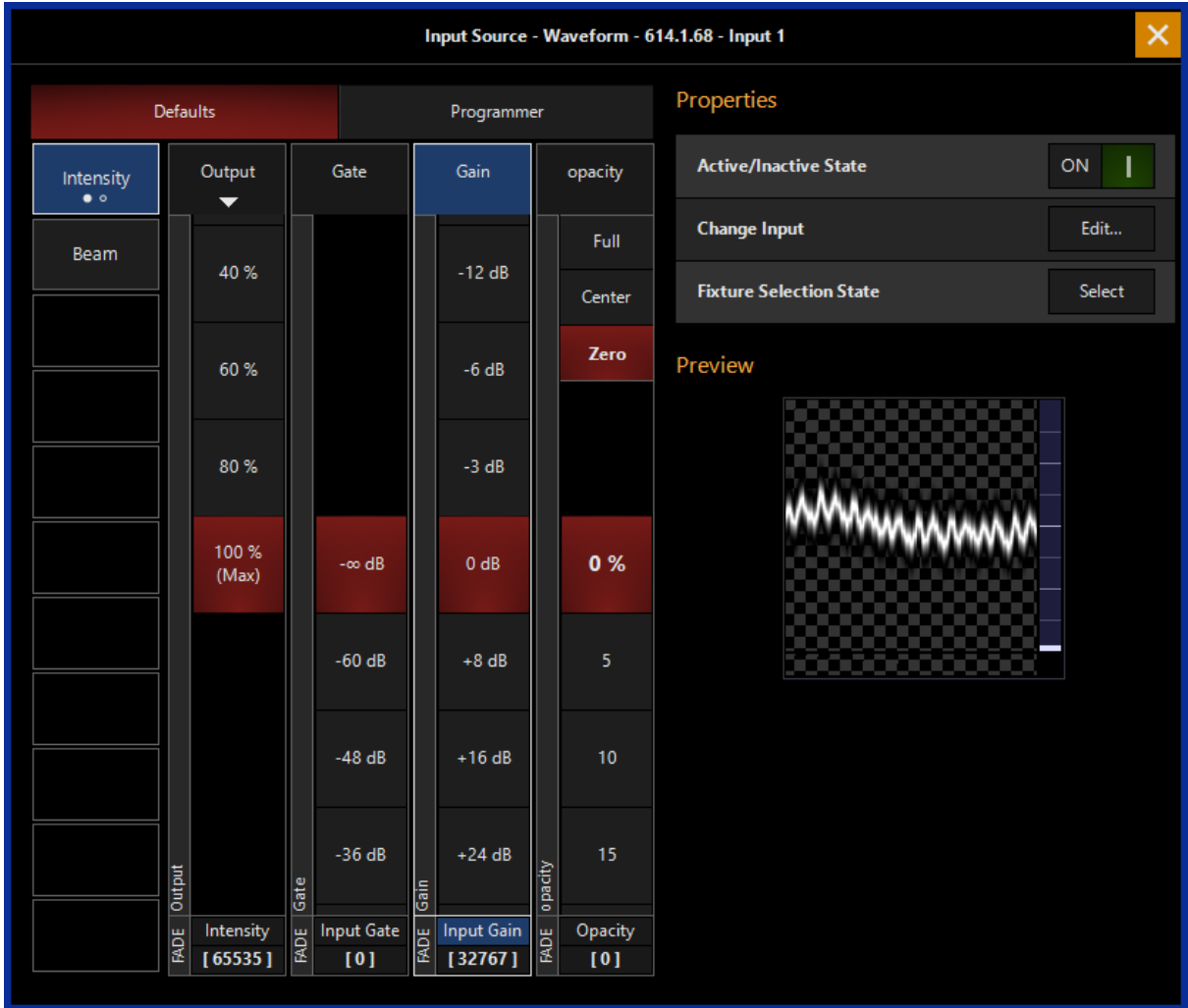
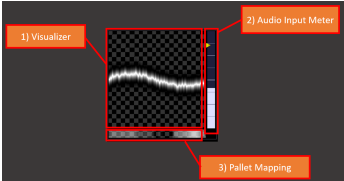
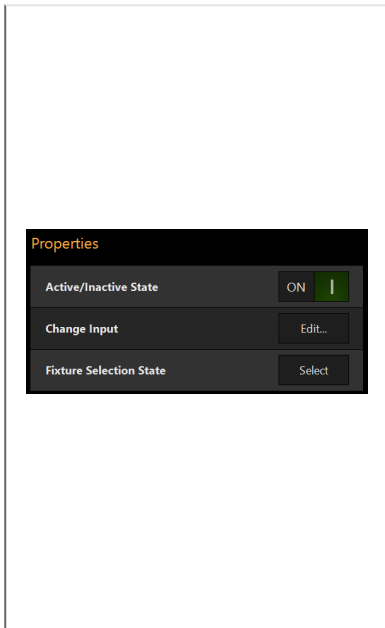


Table of Controls

Control	Description
	<p>Preview</p> <ol style="list-style-type: none"> Visualizer: Shows a visual representation of the input processor. Audio Input Meter: Shows a meter of the incoming audio signal or the embedded NDI audio stream. Pallet Mapping: Shows the generated pallet for use with a dynamic pallet.



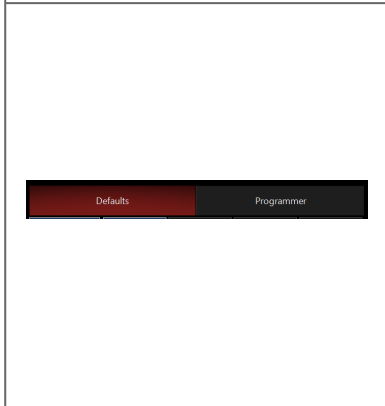
Properties

Active/Inactive State: Toggles the state of the Waveform Input Processor between Active and Inactive.

* The “Inactive” state helps preserve resources on an overloaded system.*

Change Input: Used to select a different source input for this Waveform Input Processor.

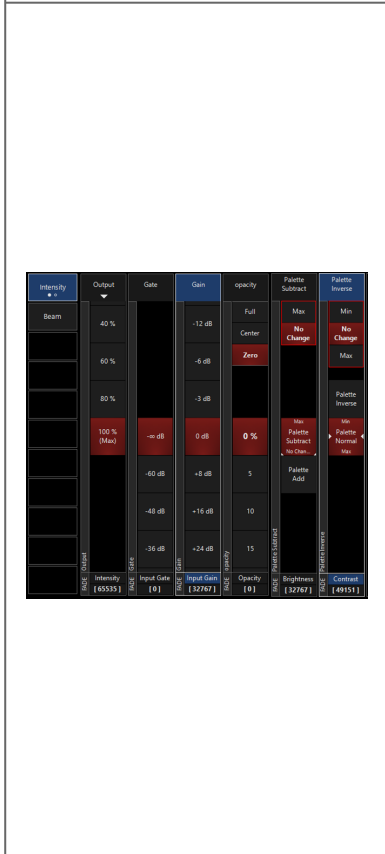
Fixture Selection State: Select the Waveform Input Processor as a fixture for making changes using the Channel visualizer (CV)



This Selects if the changes should be made to the default properties of the Waveform Input Processor or put into the programmer like if editing a fixture.

Defaults: Used for changing the default state of this Waveform Input Processor.

Programmer: Used for temporary changes recorded into a cue.



Intensity

Output: Sets the Output level of the Waveform Input Processor

*A value of zero translates to an output of transparent black.

Input Gate: Sets an Audio Input Gate on the incoming audio level of Waveform Input Processor

Input Gain: Sets the Gain level of Audio input of the Waveform Input Processor

Opacity Level: Sets the Opacity level of the Waveform Input Processor when used as Media Content.

- Full: All transparent areas of the input content are shown in opaque black (e.g. useful if you want to map a color palette on it)

- Zero: Transparent areas stay transparent

Palette Subtract: Sets the Palette brightness between Subtractive or Additive.

Palette Inverse: Sets the palette contrast level or inverts it.

Intensity	Wave Rescaling	Wave Zoom	Waveform Width	Palette Zoom
Beam	Full	Full	Full	32ms
	Center	Center	Center	
	Zero	Zero	Zero	100ms
	45			500ms
	50 %	0 %	0 %	1s
	55	5	5	2s
	60	10	10	3s
	65	15	15	4s
Wave Rescaling	Wave Zoom	Waveform Width	Palette Zoom	
Wave Res... [127]	Wave Zoo... [0]	Wave Thic... [0]	Palette Zo... [31]	

Beam

Wave Rescaling: Sets the scale of the waveform

Wave Zoom: Sets the zoom level of the wave within the canvas

Waveform Width: Sets the vertical width of the wave within the canvas.

Palette Zoom: Sets the zoom level of the sample point for the palette.

Ableton Link

Introduced in Onyx version 4.10

Ableton Link allows for synchronizing tempo, beat, and phase from Ableton Live and Ableton Link-enabled applications via a network connection.

Information from Ableton Link can be applied to Chase cuelists or Dylos input channels.

Create User Input Source At Location 68

Configure an input slot by choosing a source. With the processor you can choose how the input signal needs to be handled. This processor contains channels that can be used to tweak the input.


Processor

Video VU Meter Audio Filter Spectrum Waveform **Beat Provider** Beat Divider Reference

Type

Source Type Choose a source type and select a source below Ableton Link

Information



Ableton Link is a new technology that synchronizes tempo, beat and phase of Ableton Live and Link-enabled applications over a wireless or wired network.

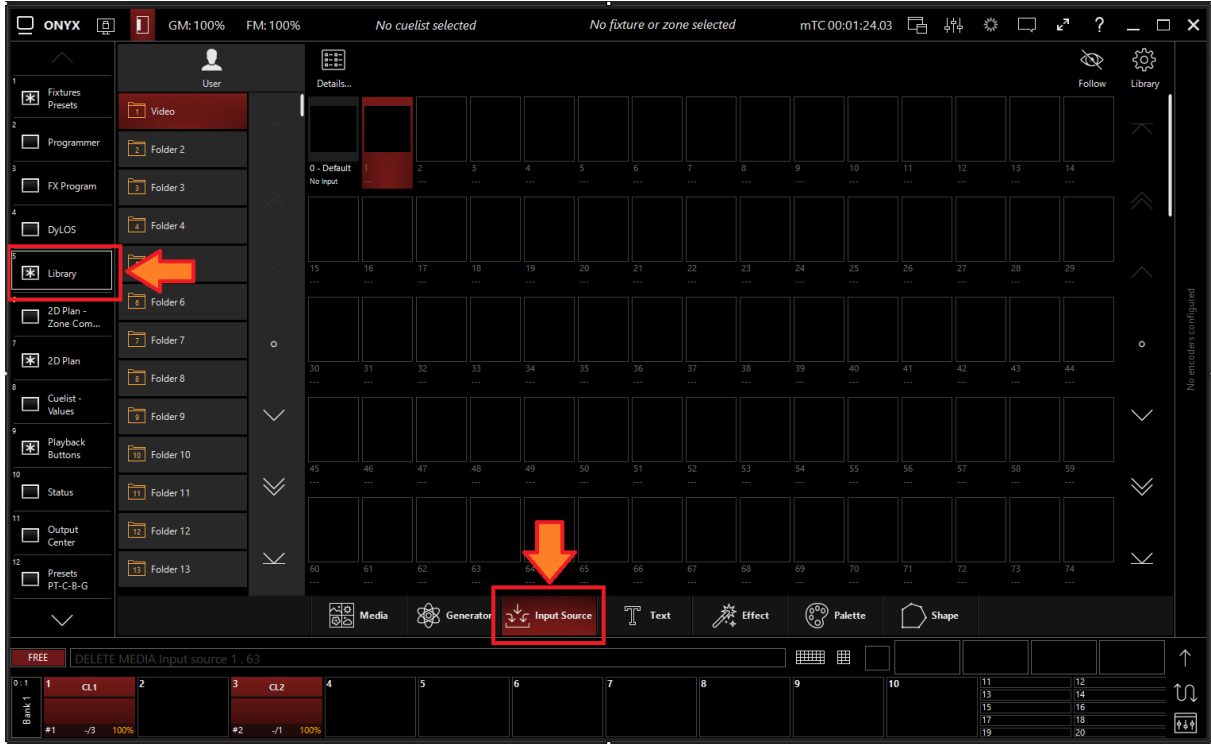
You can link the beat and phase to any of your Chase cuelists or DyLOS input channels. In the 'Beats' view you can control all your beat capable input slots.

Output Active You can change the tempo, beat and phase in the link session when this is active

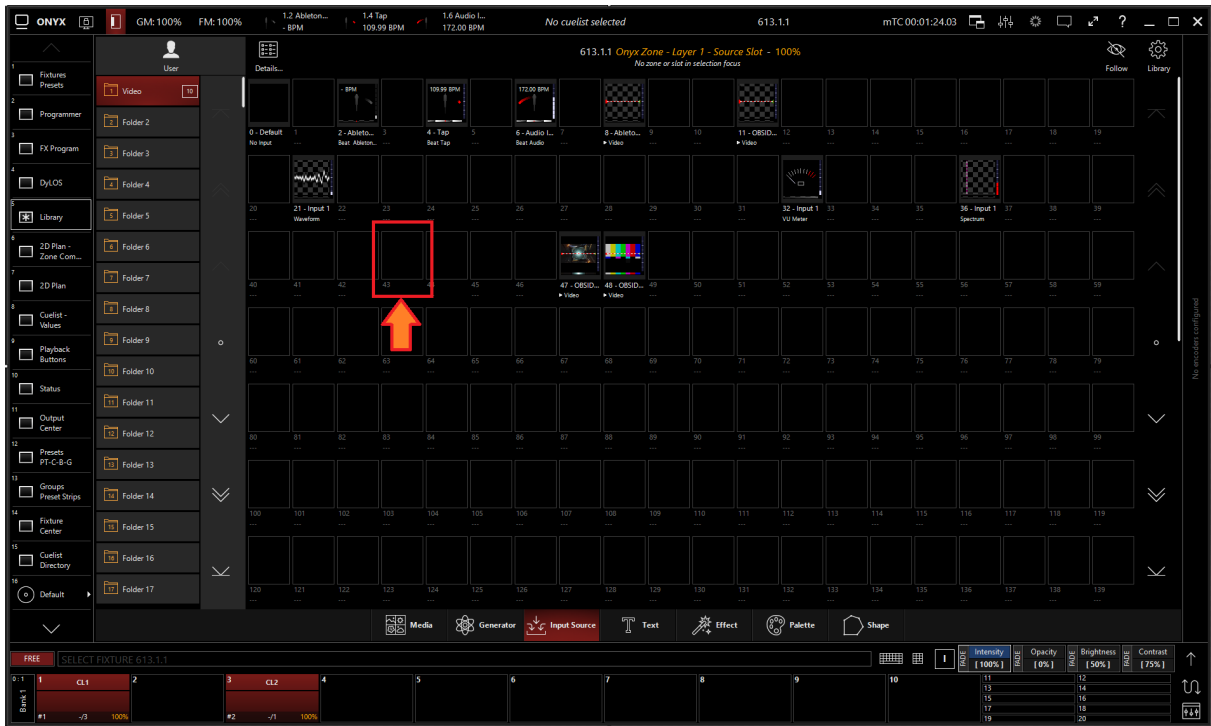
OK Cancel

Setting up Ableton Link

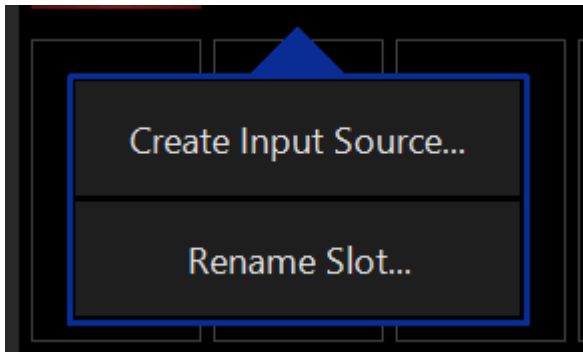
1. Navigate to the Library (default view 5), and select Input Source



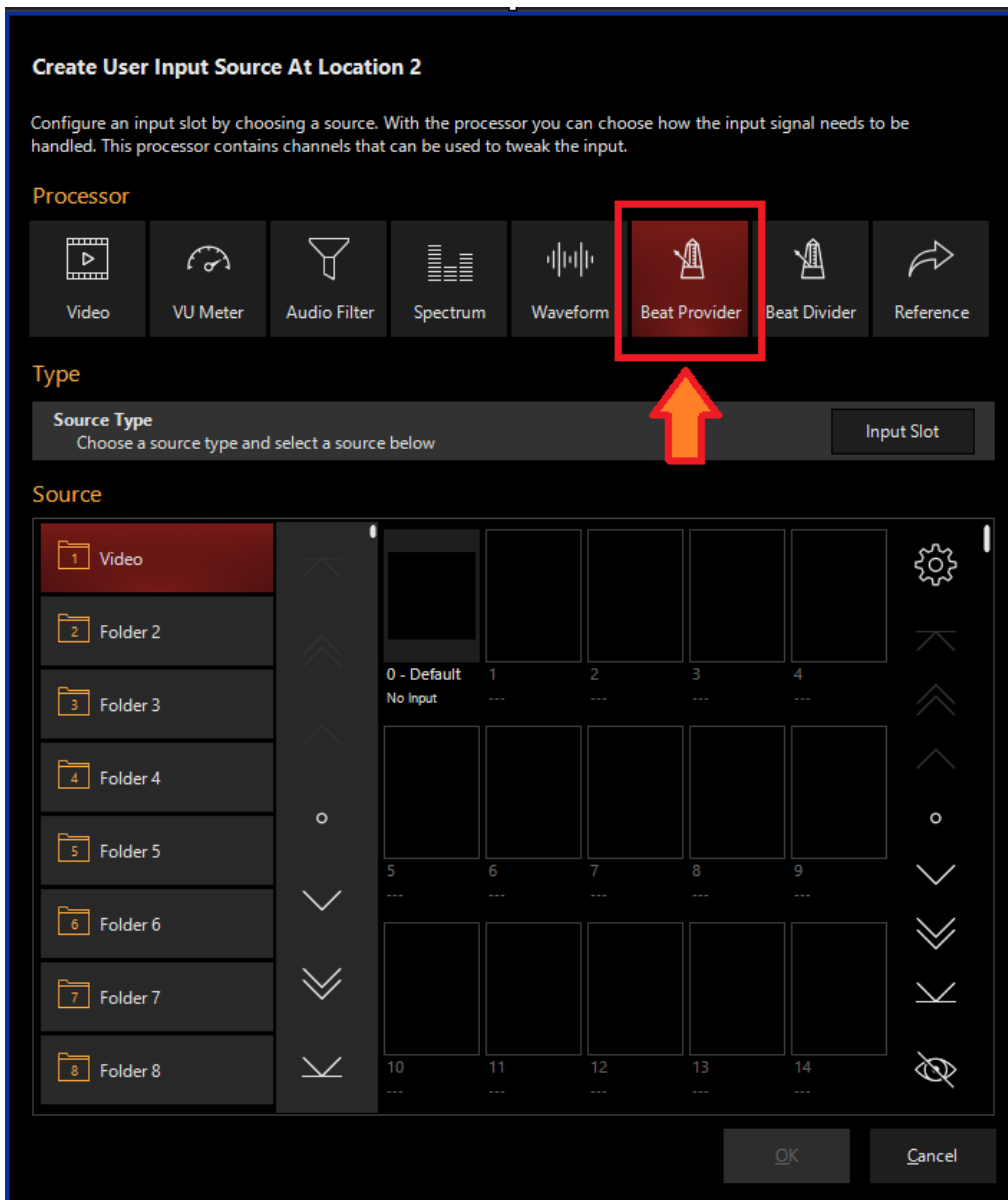
2. All Input Sources will be blank if you're starting from scratch. To create one, Right-click or press and hold EDIT , then press an empty slot.



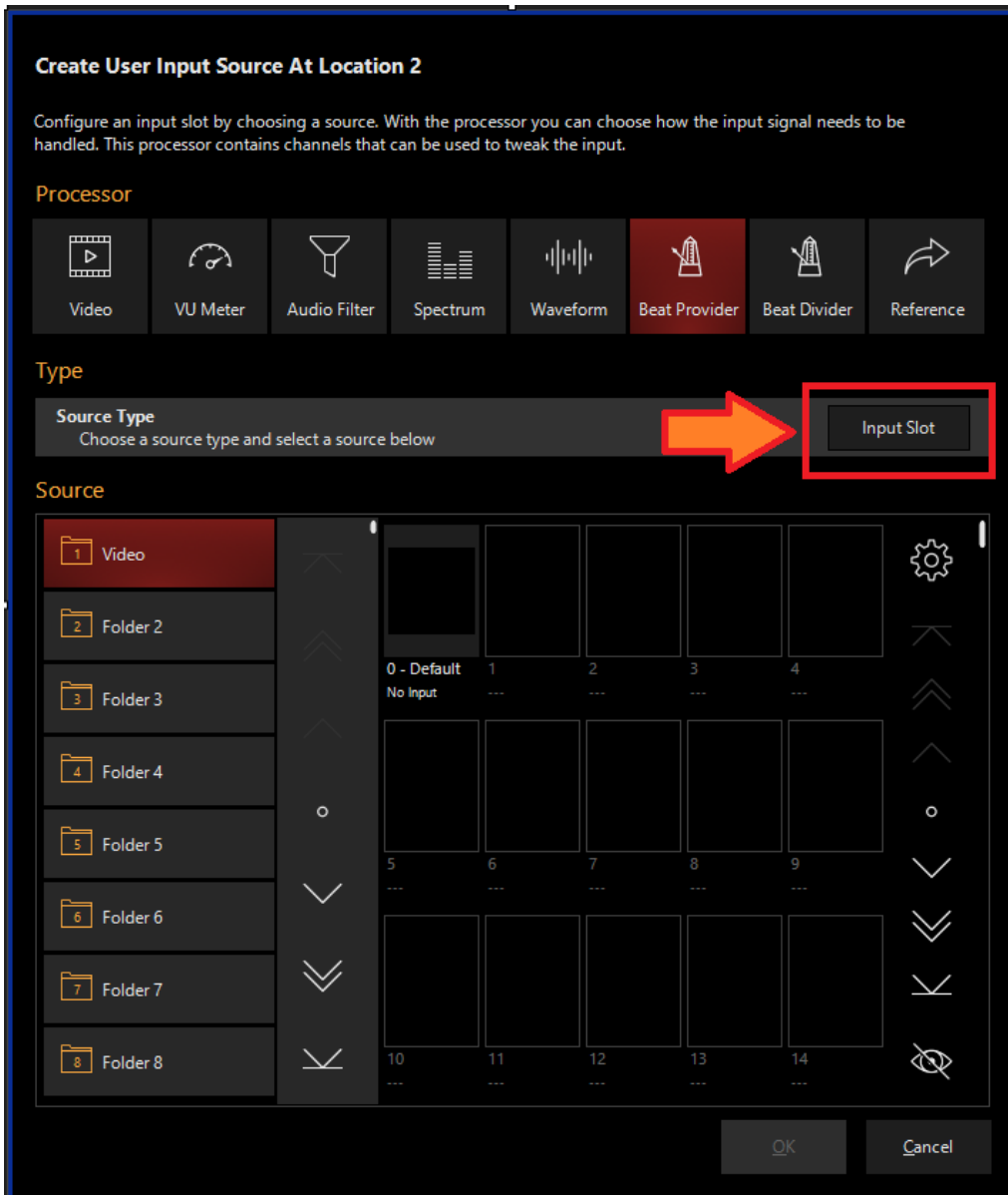
3. Select Create Input Source...



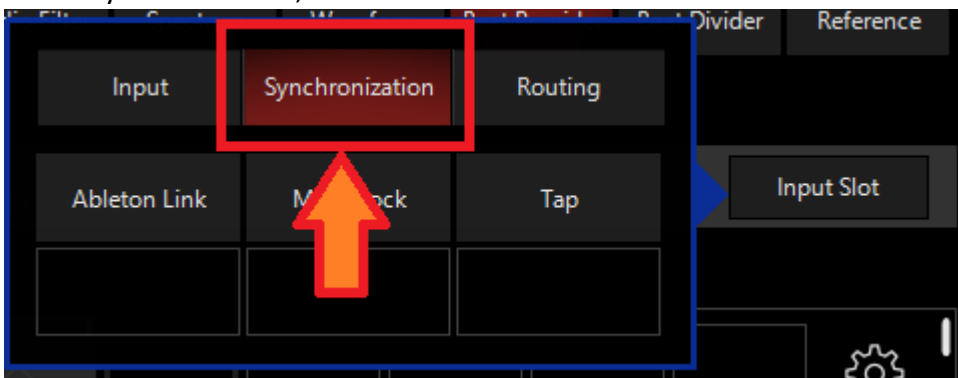
4. Select Beat Provider from the Processor section

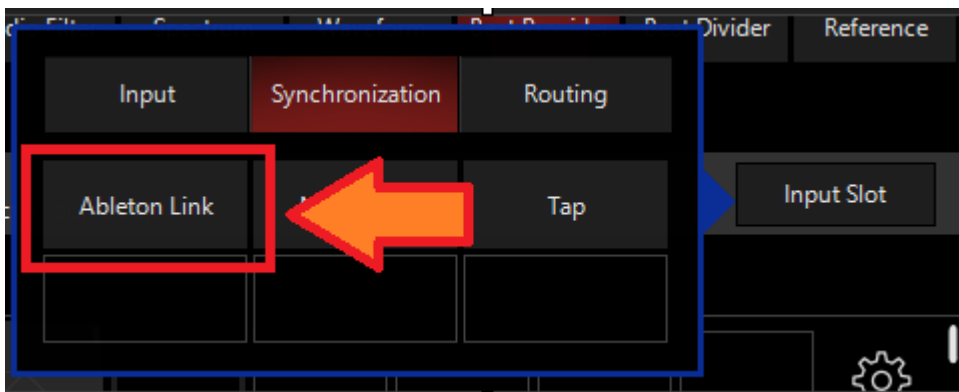


5. Select the Source Type

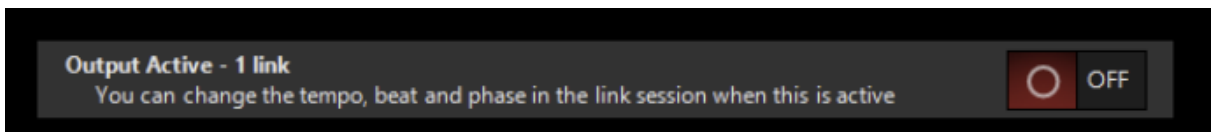


6. Select Synchronization, then Ableton Link

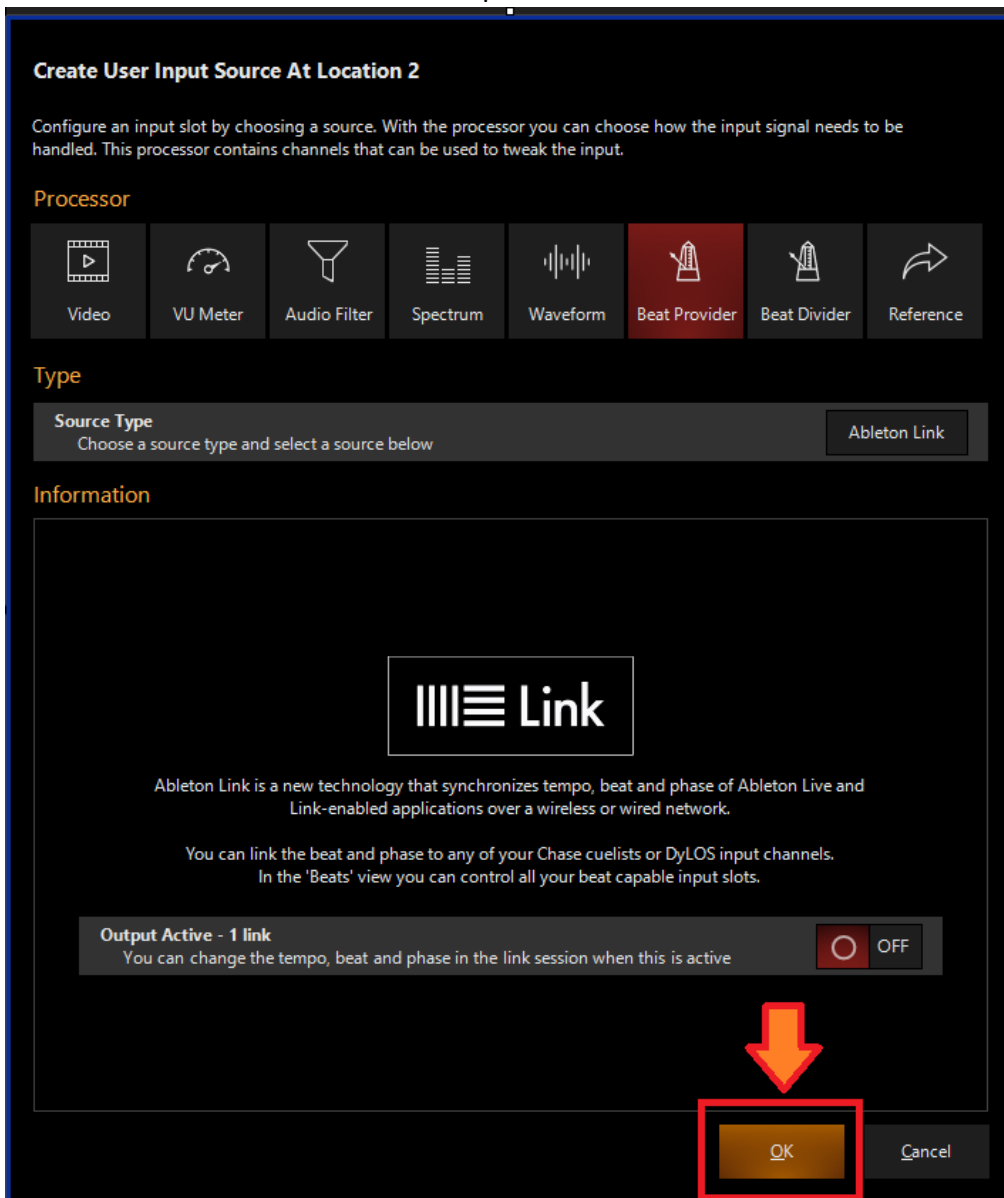




- 7. (Optional) Enable "Output Active" - When enabled, changes made to Tempo (BPM) will be sent to all device devices in Link Session.

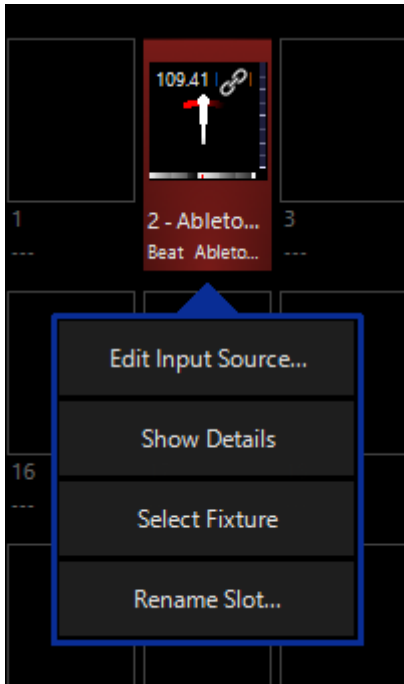


- 8. Press OK to create an Ableton Link Input



Ableton Link Options

1. To edit a Ableton Link Input, right-click on or hold Edit and select the Ableton Link Input.



2. Select Show Details

3. From the menu below, you can change of the properties of the Ableton Link.

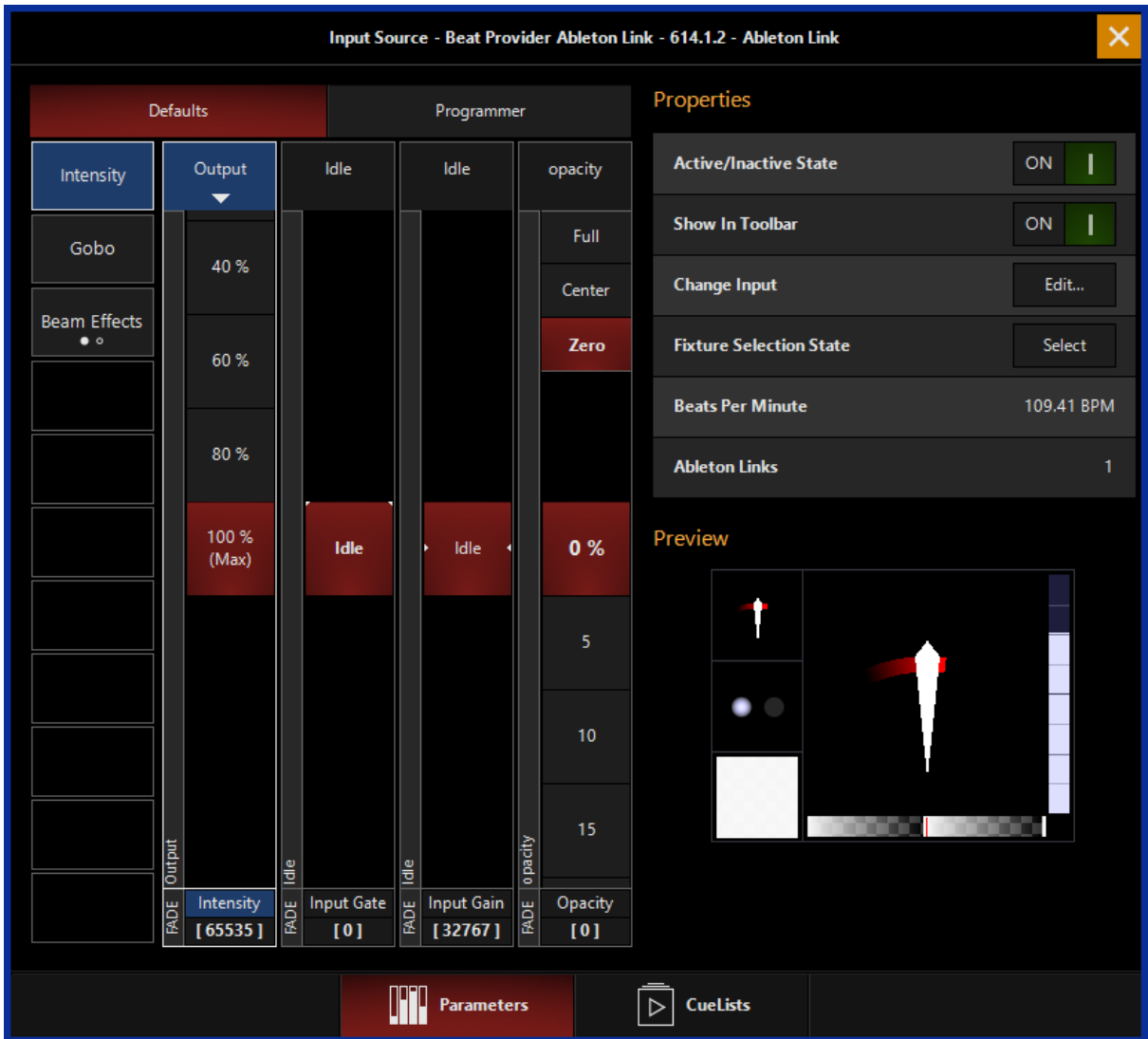
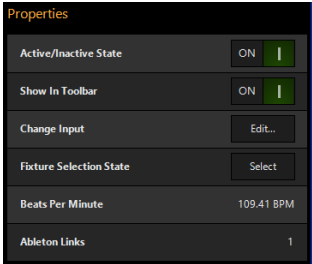


Table of Controls

Control	Description
	<p>Properties</p> <p>Active/Inactive State: Toggles the state of the Input between Active and Inactive.</p> <p>Change Input: Used to select a different source input for this Input.</p> <p>Fixture Selection State: Select the Input as a fixture for making changes using the Channel visualizer (CV)</p> <p>Beats Per Minute: Shows the current detected or operating BPM</p>

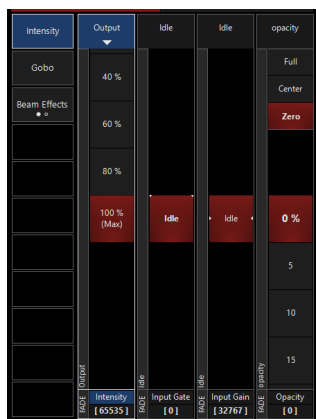
Ableton Links: Shows the number of active Ableton Links

This Selects if the changes should be made to the default properties of the Input or put into the programmer like if editing a fixture.



Defaults: Used for changing the default state of the Input

Programmer: Used for temporary changes recorded into a cue.

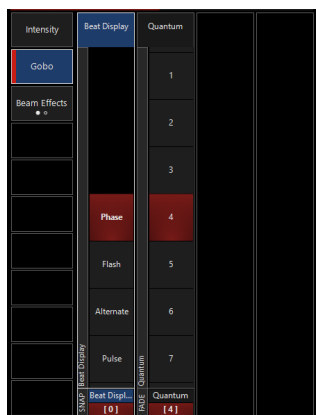


Intensity

Output: Sets the Output level of the Input

Opacity Level: Sets the Opacity level of the Input

Gobo



Beat Display: Sets the Beat mode between Phase, Flash, Alternate, and Pulse

- Phase: Beats trigger a fading flash
- Flash: Beats trigger a flash every beat
- Alternate: Beats trigger a flash every other beat
- Pulse: Beats trigger a pulsing fading flash up and down

Quantum: The Quantum as the number of beats in one bar of the music/ the number of beats before a loop starts again. A quantum of 4 means the beats are numbered as 1,2,3,4,1,2,3,4,...

Intensity	Startup BPM	Idle	Beat Control	Beat Fade Time	Beat Latency
80					-59ms
90					-66ms
100					-33ms
110		Idle	Track	Snap	0ms
120			Lock	1s	+33ms
130			Reserved	2s	+66ms
140				3s	+99ms

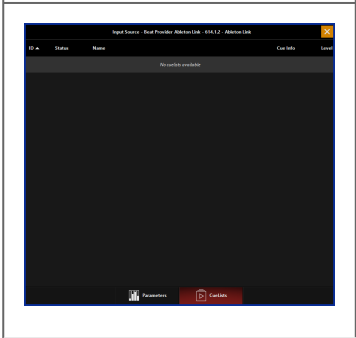
Beam Effects

Startup BPM: Starting BPM when beat control is set to "LOCK"

Beat Control: Sets if the input should Track the BPM or Lock onto the BPM set using Startup BPM

Beat Fade Time: Sets the Fade Time for each beat.

Beat Latency: Sets a positive or negative latency to the beat timing



CueLists

Shows the CueLists currently using the BPM as timing information.

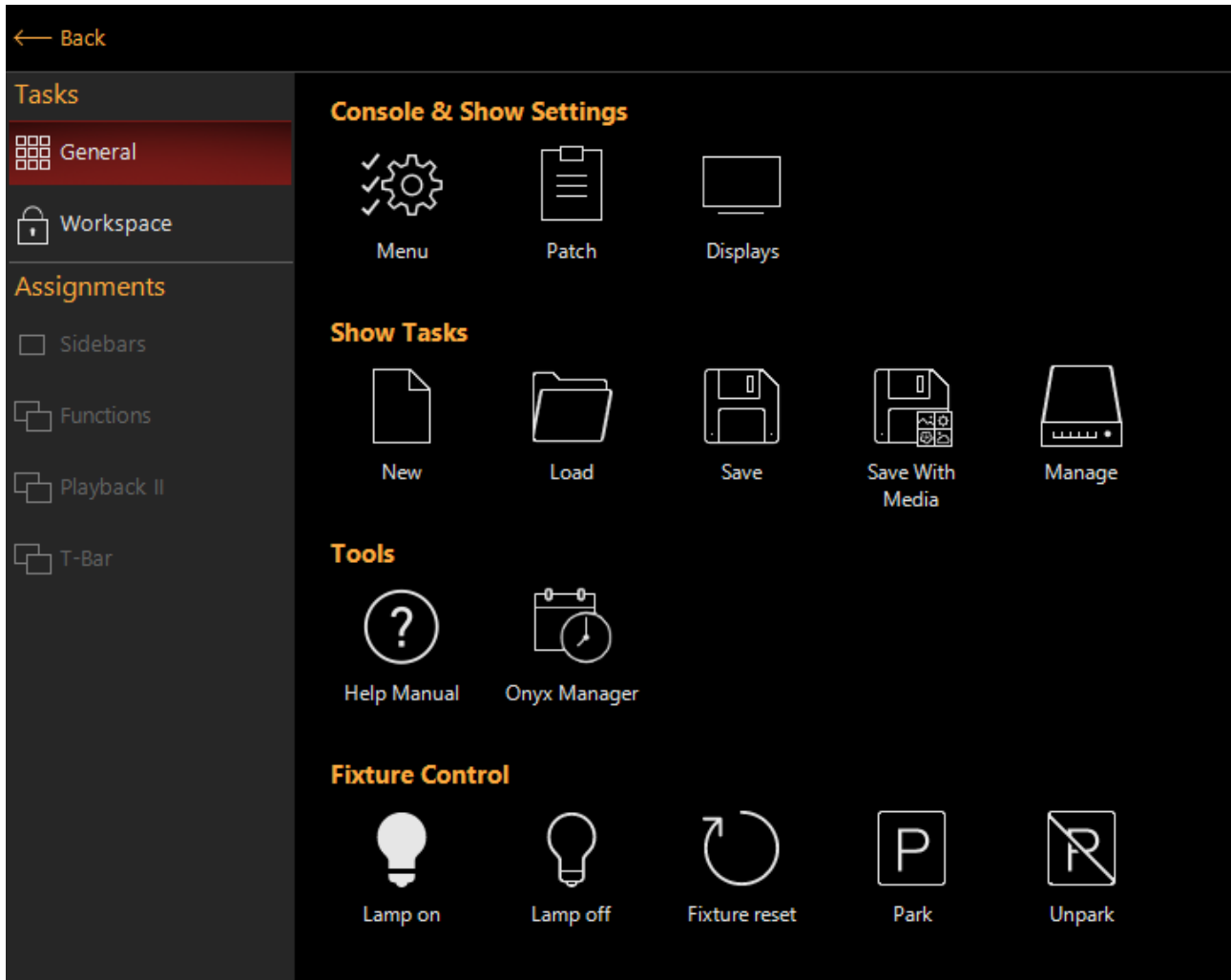
Patch

Please see the topic list below to get started.

- [Accessing the Patch](#)
- [Auto Patch](#)
- [Patching Fixtures Using the Tasks Toolbar](#)
- [Assigning DMX Addresses](#)
- [Adding DMX Addresses to a Previously Patched Fixture](#)
- [Patching Conventional Dimmers](#)
- [Color Coding Fixtures](#)
- [Fixture Numbering](#)
- [Labelling Fixtures](#)
- [Patching Multi-Part Fixtures](#)
- [Patching Multiple Addresses to a Single Fixture](#)
- [Cloning Fixtures](#)
- [Fixture Swap](#)
- [Patch Import](#)
- [Patch Import Options and Customizations](#)
- [Patch Exchange](#)
- [Pan Tilt Invert and Swap](#)
- [Advanced Exclude and Rotate Options](#)
- [Patch Highlight Tool](#)
- [Patching Fixtures Using the Commandline](#)
- [RDM](#)
- [Fixture Library Editor](#)

Accessing the Patch

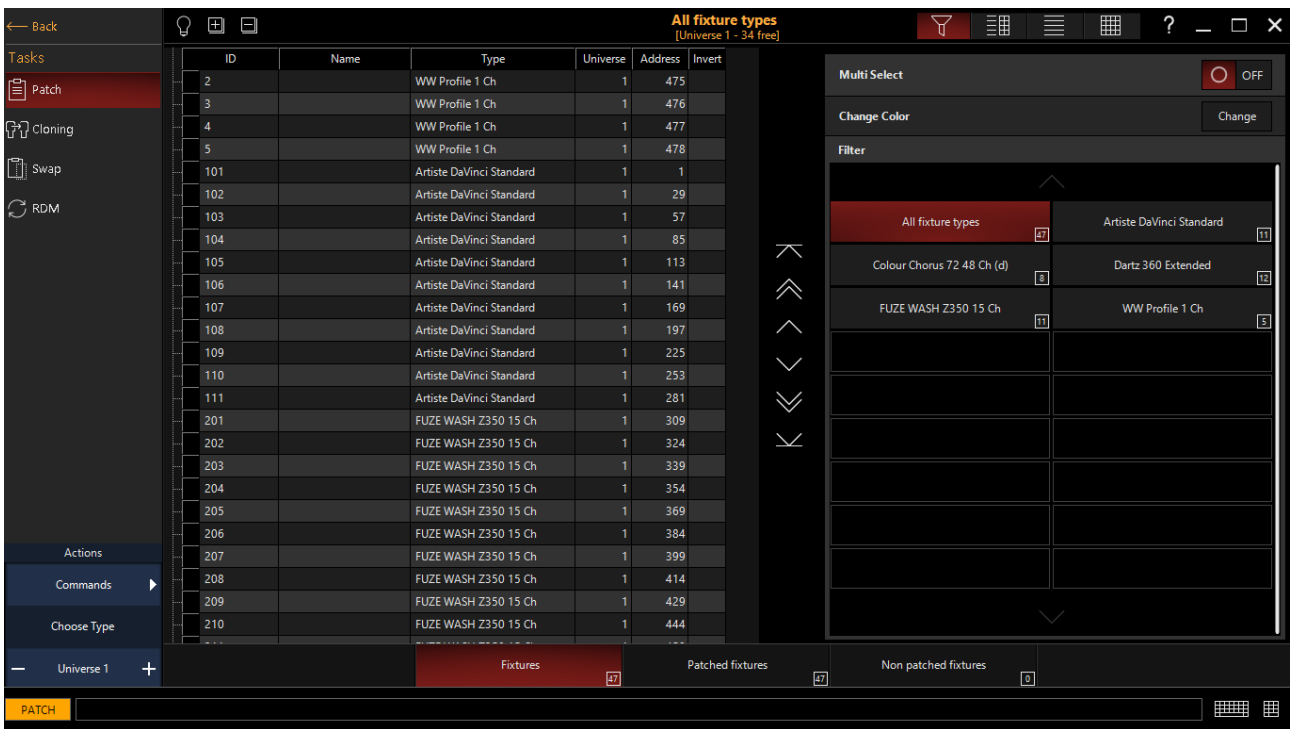
To get your fixtures set in ONYX, we need to patch them first. Press ONYX in the upper left hand corner, then press Patch.



Other ways of accessing the patch are...

- Access the Console Menu by pressing Menu. Under the Show tab, on the Overview page, there is also a button marked Edit Patch...
- The Patch can be assigned to a Function Key for quick access. See [Sidebar and Function Keys](#) for more information.
- The Patch windows can also be built into a dedicated screenview which allows you to view the patch without needing to open the full patch. See [Displays, Screenviews, and Windows](#) for more information.

This will display the main patch screen:



Sorting the Patch

By default, the patch is sorted by the fixture ID number in ascending order.

However, by clicking on any column header (such as “Type”) the order of the fixtures will be resorted by that category. Similarly you can reverse the sort order by touching the same column header again.

Button



Explanation

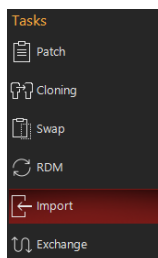
The Patch Highlight Tool, see the [Patch Highlight Tool](#) section.



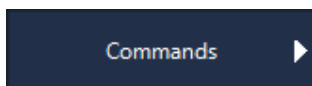
Expand & Collapse all nodes for use with multipart fixtures.



Expands the [Advanced Exclude and Rotate](#) options.

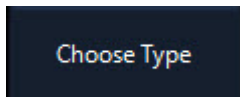


The Patch navigation tabs.



The Commands Button enables users to access common patch commands quickly and easily.

Patch



The Choose Type Button will bring up the fixture library window, here you choose the fixture type you wish to add to patch.



The Universe Counter allows you to use the - + buttons to navigate through the universe tabs that appear in the universe or combo view.



Arranges the patch window into the Combo Layout.



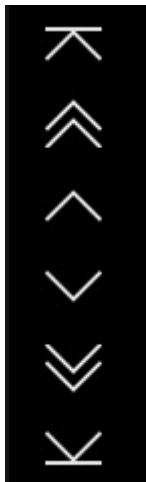
Arranges the patch window into the List & Channel Layout.



Arranges the patch window into the List Layout.



Arranges the patch window into the Universe Layout.



Paging controls allowing to jump to top, page up, scroll one line up, scroll one line down, page down and jump to bottom.



Access to the keyboard & keypad popups.

In the Combo Layout, we also have a few options for Fixture sorting:

Button	Explanation
	You may view Patch data by fixture type which is useful with large amounts of fixtures.
	Shows only fixtures within the universe selected in the blue-shaded lower-left "Actions" area.
	Allows you to select more than 1 fixture type for filtering.

Button

Explanation

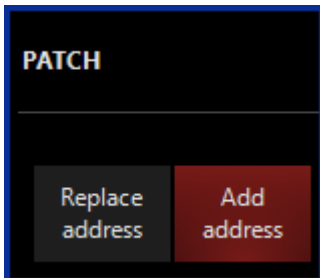
Allows you to customize the color label for the fixture type in the patch.



Pressing Change brings up a color picker from which you can choose a color, which then extends to various windows within ONYX to color-code by fixture type.

Adding DMX Addresses to a Previously Patched Fixture

If you have a channel that is already patched and wish to add additional DMX addresses to it, select the channel using the keypad. You will be presented with the Patch options window again, but this time, select Add new address.



You can now enter the DMX addresses and they will be added to any previously patched DMX addresses in that fixture/channel. This generally isn't helpful with moving lights, but can be helpful in certain situations with conventional lights.

If you're looking to "copy" all of the information from a previously used fixture to a new fixture, see [Cloning Fixtures](#).

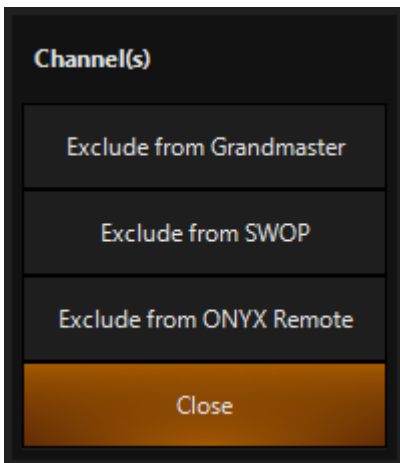
Advanced Exclude and Rotate Options



Pressing the above icon from the Patch screen top bar reveals the Advanced Exclude and Rotate Options:

Exclude Grandmaster	Exclude SWOP	Exclude ONYX Remote	Rotated <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

By pressing in any cell or pressing and dragging to select multiple cells in the same column, you may bring up the pop-up to enable or disable these options:



The options are as follows:

Button	Explanation
Exclude from Grandmaster	Excludes the fixture from the Grandmaster fader and Blackout button. This is ideal for house light fixtures that you must keep on during a show, backstage lighting, and similar scenarios.
Exclude from SWOP	Excludes the light from the "solo mode", or SWOP, available on Submasters .
Exclude from ONYX Remote	Hides the given fixture from selection using the ONYX Remote .
Rotate	<p>Though it does not appear in the popup, rotate allows you to enable/disable rotation of multi-part fixtures at the DMX address level. This can be helpful to sync up the cells of a multi-part fixture in the 2d plan vs. real life if it is not matched.</p> <p>The rotate cell will feature a check mark when it is active.</p>

Assigning DMX Addresses

Assigning the DMX address(es) to an existing fixture or a range of fixtures can be very rapidly accomplished.

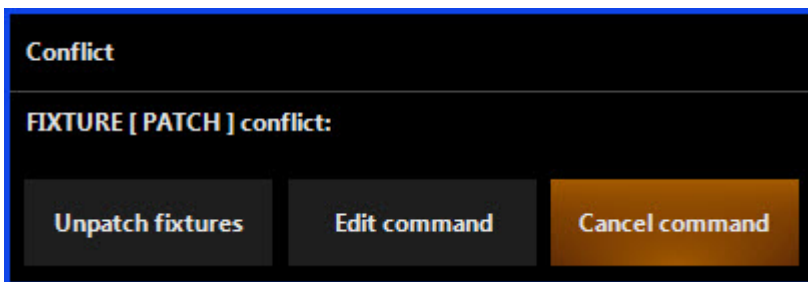
There are 2 ways to initiate this change.

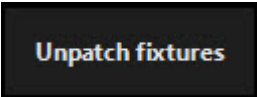
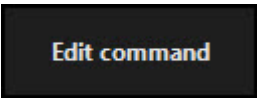
The first is to simply press and drag on the fixtures in their "Address" column on the main patch window. Then, when the command line populates as you complete your selection, you may type the first desired address on the keypad.

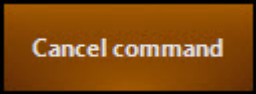
It can also be done via the keypad using this syntax:

Fixture number(s) @ DMX Address(es)

Note that it is not possible to patch the same DMX address to more than one fixture. That is to say that DMX 1 of universe 1 can only belong to one fixture in the patch. If the console detects a patching conflict, the following window will pop-up:



Button	Description	Explanation
	Unpatch Fixtures	When this option is selected, any fixtures that are currently patched to the DMX range specified in the command line will be unpatched and the fixtures in the command line will be patched as specified.
	Edit Command	Does not execute the command, but leaves it on the command line so that changes can be made. To edit the current command, use the backspace arrow on the keypad to step back through the command line and make the necessary corrections.

Button	Description	Explanation
 A rectangular button with a dark brown background and a thin black border. The text "Cancel command" is centered on the button in a light-colored, sans-serif font.	Cancel Command	Does not execute the command and clears the command line.

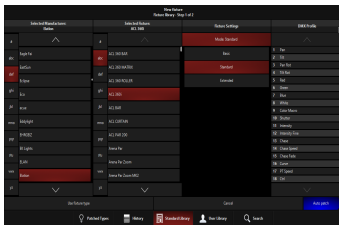
Auto Patch

The Auto Patch window is accessed by pressing Commands & New fixture... in the lower left hand corner.

The first tab you see in the Auto Patch popup is the Fixture Library. The library is arranged with manufacturers in the left most column, the fixture type in the second column, the mode in the third column and the DMX protocol readout in the last column.

Navigate to the required manufacturer, fixture and mode by pressing on the available options. You can use the groups of letters to the left of each column to jump through the listings quickly.

Once you have found your fixture and selected the correct mode for your needs, press the blue Auto Patch button in the bottom right hand corner of the window.

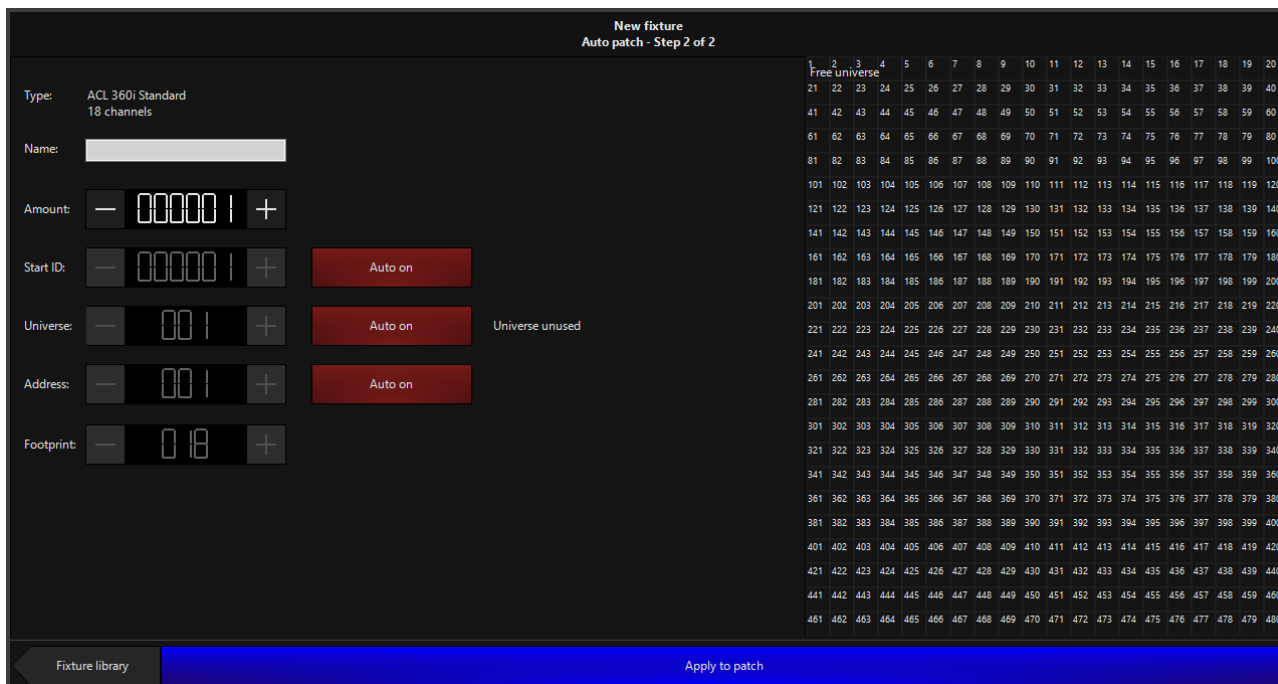


Once in the Auto Patch window, simply set the Amount counter to be the total number of the selected fixture you wish to patch. The Start ID can remain at its default, or be changed to your preference by pressing the Auto On button and using the +/- buttons.

The start ID is the unique "fixture number" assigned to each fixture that you will use to call them up on the keypad. You can also press the number and use the number pad on your computer or console. Double-pressing will popup the on-screen number pad.

The Universe and Address can be changed in the same manner. If you leave them to "auto", the console will choose the first available address.

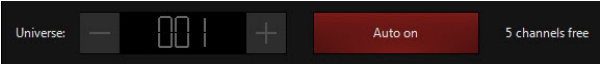
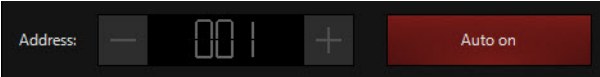

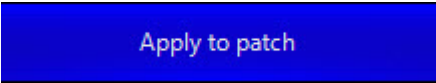
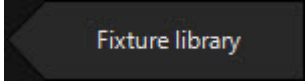
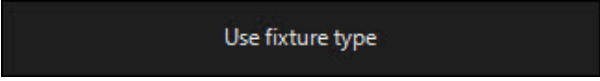
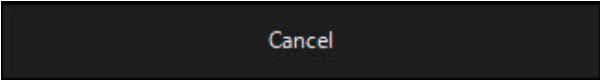
Press Apply to Patch to add the new fixtures to the patch.








The left side of the window is where new fixtures can be configured before they are added. On the right side is the Universe View. This view is populated as fixtures are added and can be used to identify any available DMX channels in the specified universe.

For reference, here are all of the functions of the Auto Patch window:

Icon	Name	Explanation
	Type	This reads as the fixture type you selected from the library, its mode and the channel allocation it will take up.
	Name	The name field allows you to add a name to the fixture(s). This is a useful feature, as the Console will automatically number the fixtures within the name. For example, adding 8 fixtures and setting the name to "Back Truss" will result in fixture 1 being called "Back Truss 1", fixture 2 being called "Back Truss 2" and so on.
	Amount	Use the + and - buttons to set the amount. You may also assign an amount directly by touching the number and entering the desired amount using the keypad, or by double tapping the number to bring up an on screen keypad.
	Start ID	This is the fixture ID that will be used for the first fixture added. If Auto is "On" (red), the console will choose the first available start ID. To enter your

Icon	Name	Explanation
	Universe	<p>own start ID, press the Auto soft button to disable it (it will turn gray and read "Auto off"), then use the + or - soft buttons to adjust the ID of the first fixture. You may also assign an ID directly by touching the number and entering the desired ID using the keypad, or by double tapping the number to bring up an on screen keypad.</p> <p>Here you can choose what universe to patch the fixtures into. If Auto is "On" (red), the console will patch the fixtures into the first universe with an appropriate number of available channels. The console will also display the amount of channels free on the selected universe.</p>
	Address	<p>Here you can choose the DMX address for the first fixture. If Auto is "On" (red), the console will patch the fixtures into the first available DMX address.</p>
	Footprint	<p>Here you can place an offset between the patched fixtures. As you enter a footprint that is higher than the fixture's amount of channels, you will see to the right how large of a gap will be left between fixtures.</p>
	Apply to patch	<p>By pressing the Apply to patch button, the console will execute the command and automatically patch the fixtures according to the data entered in the Auto Patch window.</p>
	Fixture Library	<p>At any time, the New Fixture command can be canceled by pressing the Fixture Library button, then the cancel button.</p>
	Use Fixture Type	<p>Once you have selected the fixture from the Library, you may use this button if you want to bypass auto-patch and patch via the command line.</p>
	Cancel	<p>The Cancel button will cancel the operation and return you to the main patch window.</p>

Icon	Name	Explanation
 Patched Types	Patched Types	This button will show you the fixture types already patched in the show in alphabetical order, this makes patching more of the same fixture type quicker. If there are no fixtures patched into the show, this list appears blank.
 History	History	This button is similar to the "Patched Types" button but it shows the history of fixtures patched on the console since the last software install.
 Standard Library	Standard Library	Here you access the Library that is installed on the console.
 User Library	User Library	This tab shows you the fixtures you have made using the fixture editor on the console.
 Search	Search	Here you can search the whole console for a specific fixture. This feature is useful if you can remember the name of a fixture, but not the manufacturer.

Cloning Fixtures

Sometimes it is necessary to add fixtures to a show after programming is completed. ONYX allows you to clone and duplicate fixtures in the patch easily using natural language, resulting in the new fixtures being added into all cues, presets and groups.

Cloning also allows you to duplicate programming to a different fixture type. It will try to emulate the original fixture as close as possible during the command.

Cloning example

To clone one entire fixture unto a new fixture, you must first enter the Patch screen by pressing Menu and selecting [Edit Patch...]

For example, we have a Artiste DaVinci Profile with the unit number 101 that we would like to clone to a new Artiste DaVinci with the unit number 501...

We would press Copy 101 @ 501 Enter

Then, press Cloning on the left sidebar. This window allows you to batch clone multiple fixtures with one "Execute" Command. Press the Execute Commands Button under "Tasks" to execute cloning for all the fixtures you added to the Clone window.:



When the console finishes calculating, we will have 2 essentially identical fixtures in your show. We can now update the preset focuses in the new instrument to reflect its position.

While it has copied the existing data from fixture 101, the fixture will operate independently as you continue programming.

Patch

The Change Options section under the "Tasks" in the bottom left corner of the screen has the following options.

Change Options (CPG)

Cues	All cues will be copied from the source fixture to the new fixture. Note that when selecting Cues, Presets will be automatically selected, as the cues may rely on presets for their data.
Presets	All preset data will be copied from the source fixture to the new fixture. It is possible to copy only preset data. For instance, you might only want the preset focuses and various color and beam presets copied to the new fixture, but not the group and cue data.
Groups	The new fixture will be added to all groups currently containing the source fixture.

Command Line examples

`COPY 1 @ 301`

Copies all cue values, preset values and group memberships from fixture 1 to fixture 301

`COPY 1 @ 301 + 305`

Copies all cue values, preset values and group memberships from fixture 1 to fixture 301 and 305

`COPY 1 THRU 10 @ 310 THRU 301`

Copies all cue values, preset values and group memberships from fixture 1 > 10 to fixture 310 > 301

`COPY 1 + 8 @ 301 + 305`

Copies all cue values, preset values and group memberships from fixture 1 to 301 and fixture 8 to 305

How to Be Ready to Clone:

Cloning clones linear values only.

Any parameter that has steps in it, ie - Gobo, Shutter etc **MUST** be programmed into presets. Once you have completed the Clone commands in patch, simply updating the presets with new information will update the rest of the showfile.

It is highly advised that [presets](#) are used in a showfile that will require cloning later. This process must be used from the outset for cloning to work desirably. **In fact, you really should always use presets when programming - not only will it save you time, it makes your life less stressful!**

Patch

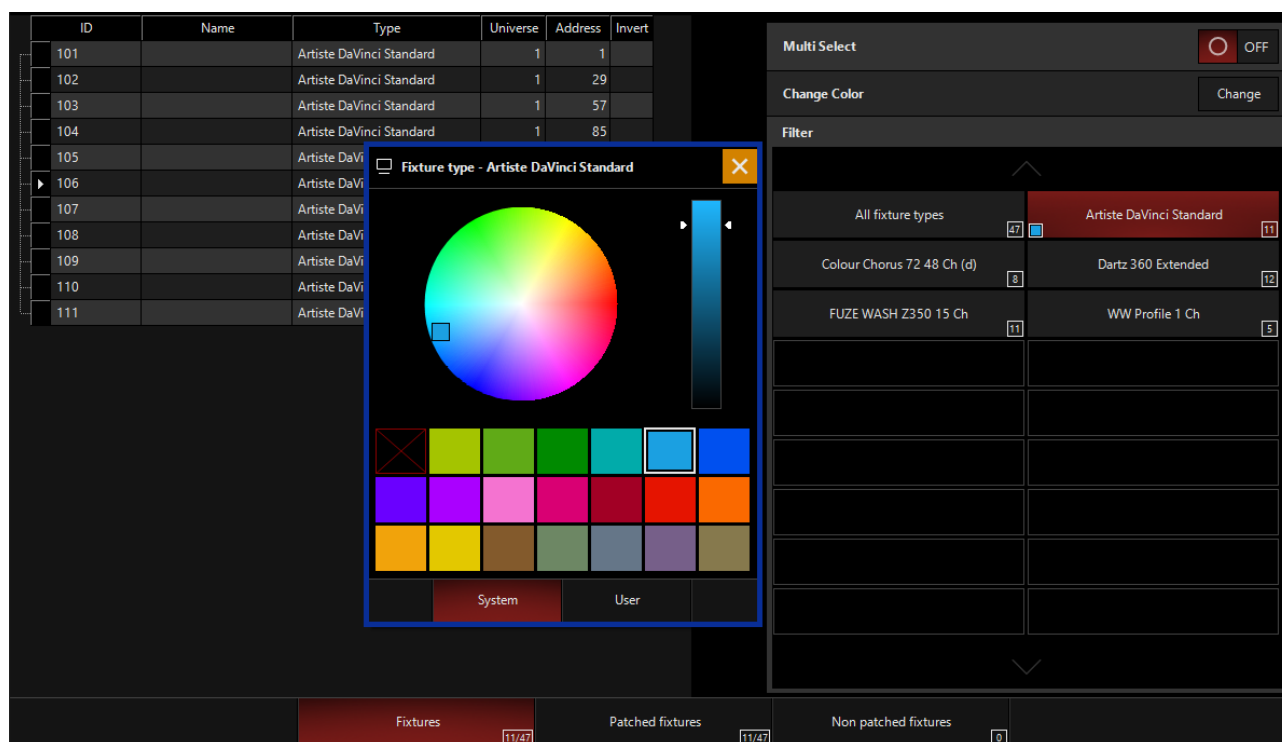
A cloned fixture is not tied to the source fixture. While it initially copies all information from its' source fixture, it is totally independent as you program after cloning!

Color Coding Fixtures

Fixtures can be color coded in the patch. This color tag will appear on the fixture type header in the patch and also in the fixture window as an outline once you have exited the patch.

To Color Code Fixtures:

1. Open the Patch
2. Press the Fixture Type Explorer in the top right hand corner of the window. (This is selected by default in new shows)
3. Select the Fixture Type you wish to apply a color to.
4. Press the Change button in the Change Color section.
5. Use the on-screen color picker and color presets to select a color.
6. Close the window using the X button once complete.



You can keep the color picker window open and touch other fixture types to apply color to those quickly too.

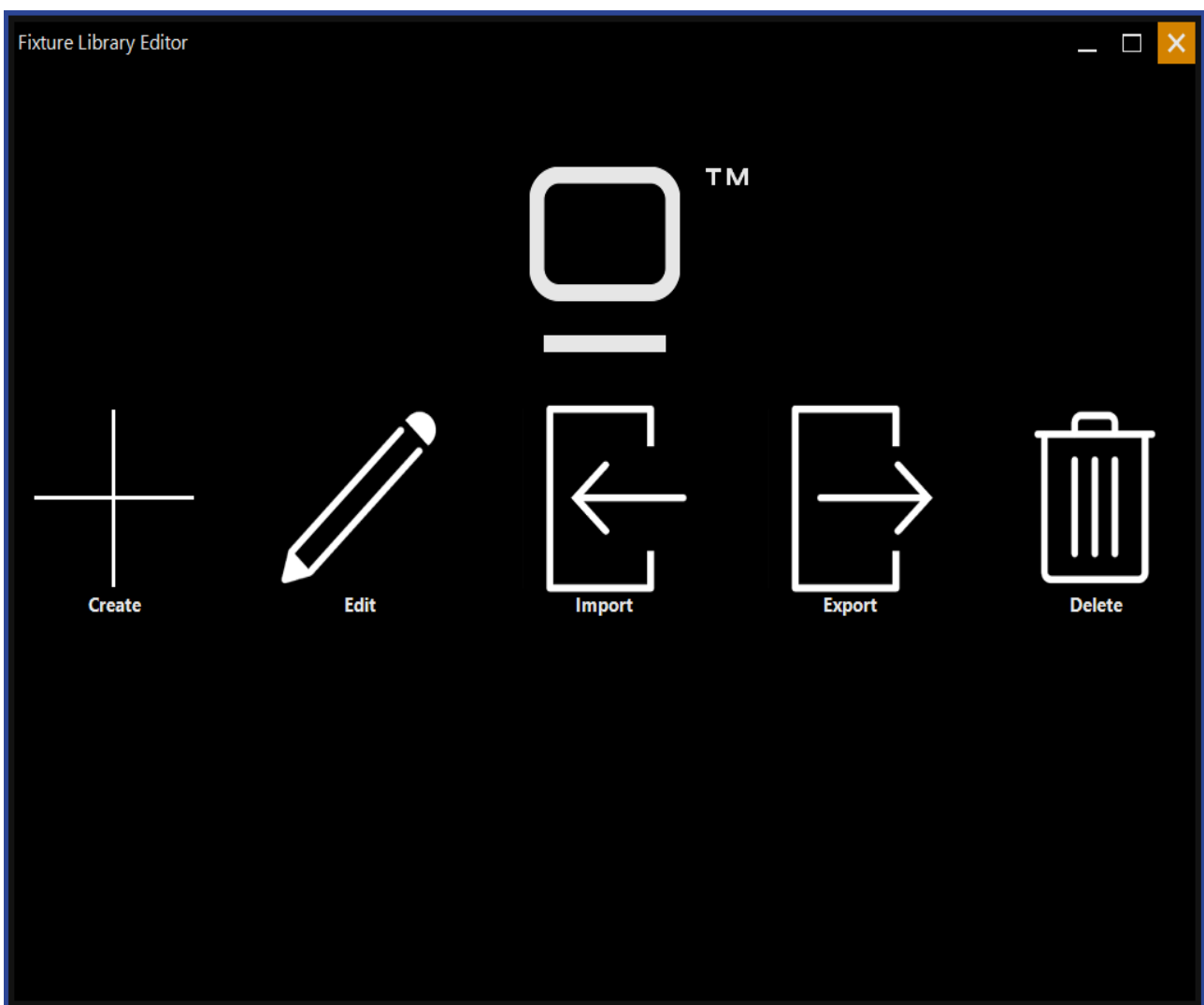
Fixture Library Editor

The Fixture Library Editor is installed as part of ONYX for offline use or can be accessed on the console via the menu.

While it is best to have Obsidian Control create fixtures for you (and thus make them available to everyone), you can also create and modify your own fixtures if you have the need. [Request and check for existing fixture profiles here.](#)

Accessing the Fixture Library Editor on the console

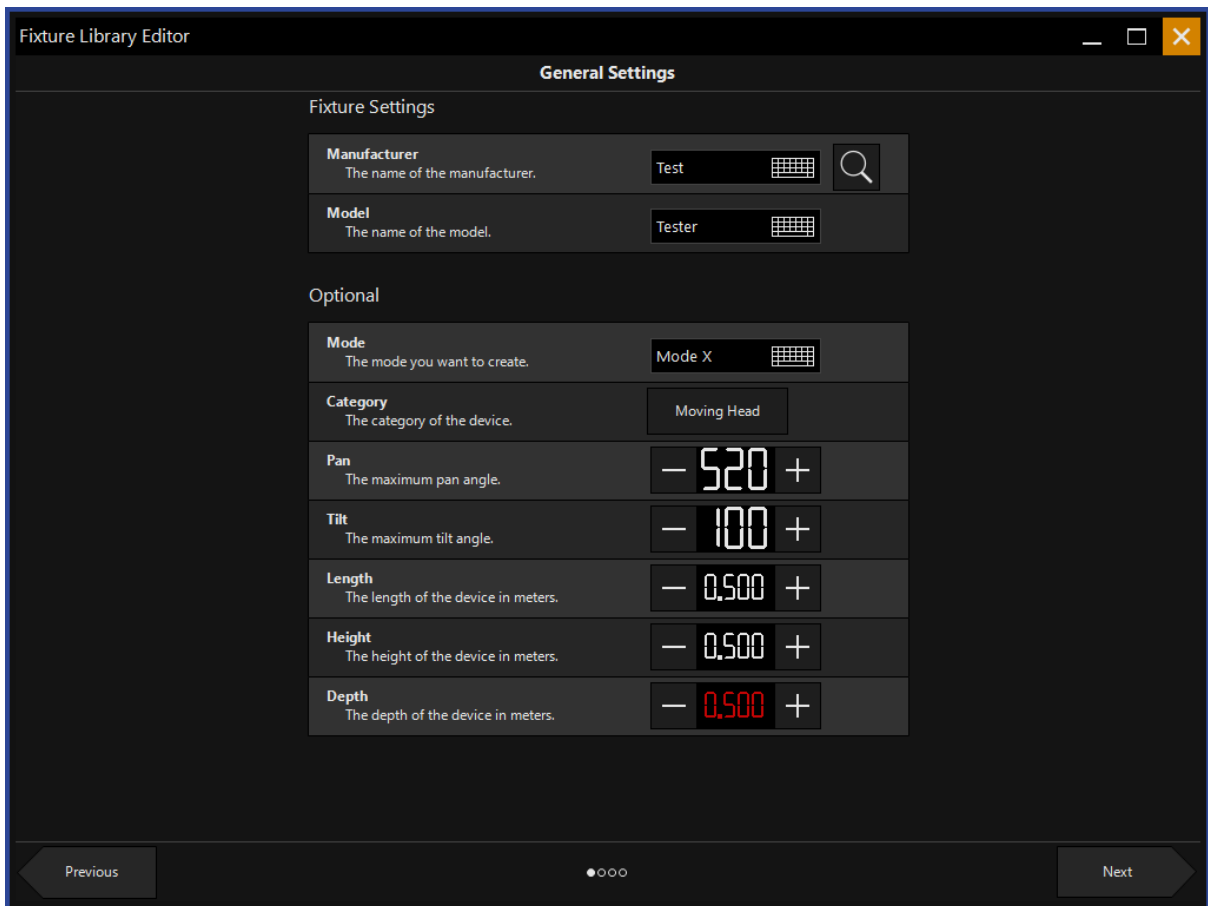
1. Access the Menu by pressing the Menu hard key, or by pressing ONYX in the upper left hand corner and then press Menu.
2. Navigate to Overview, under "Show".
3. Launch the Fixture Library Editor from the options.



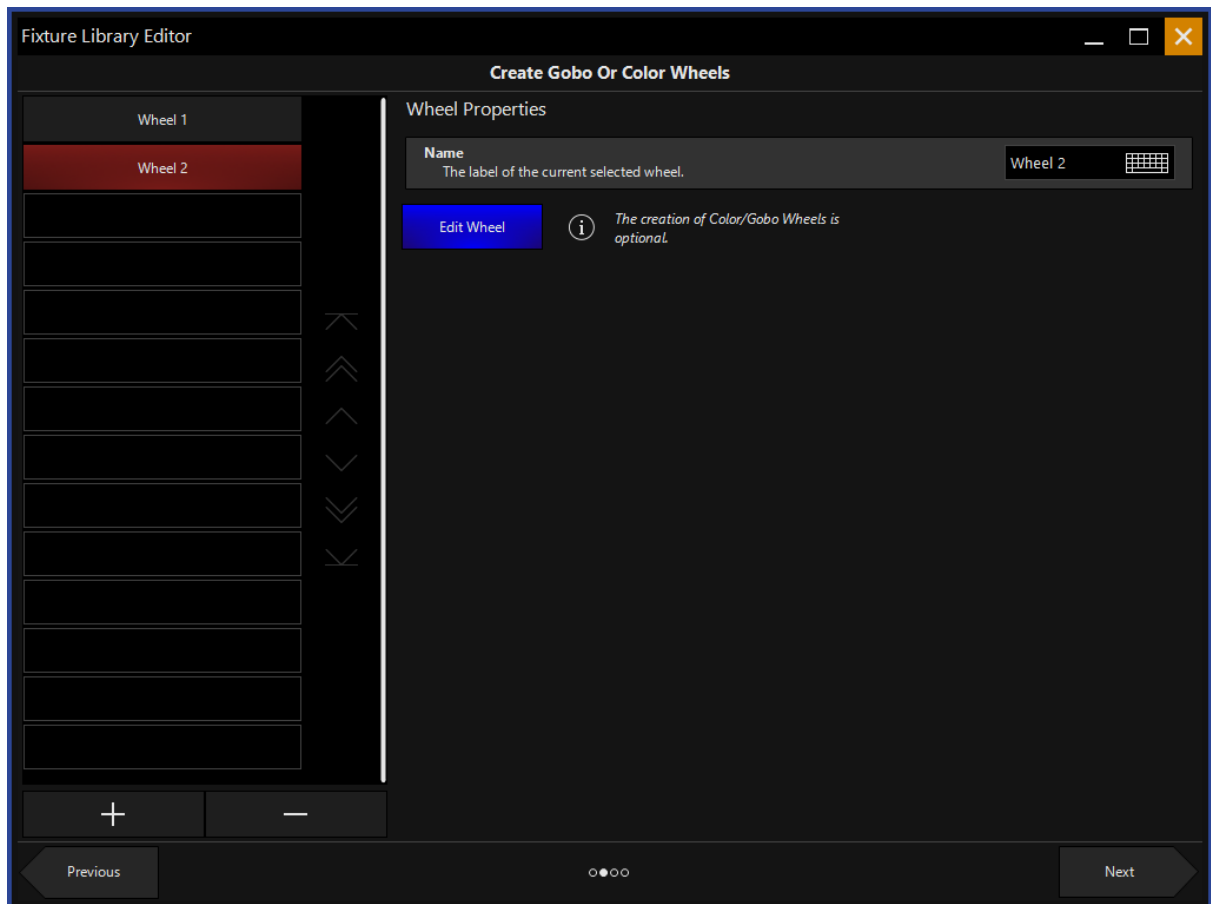
Creating a new Fixture

1. Select the Create option from the startup screen.

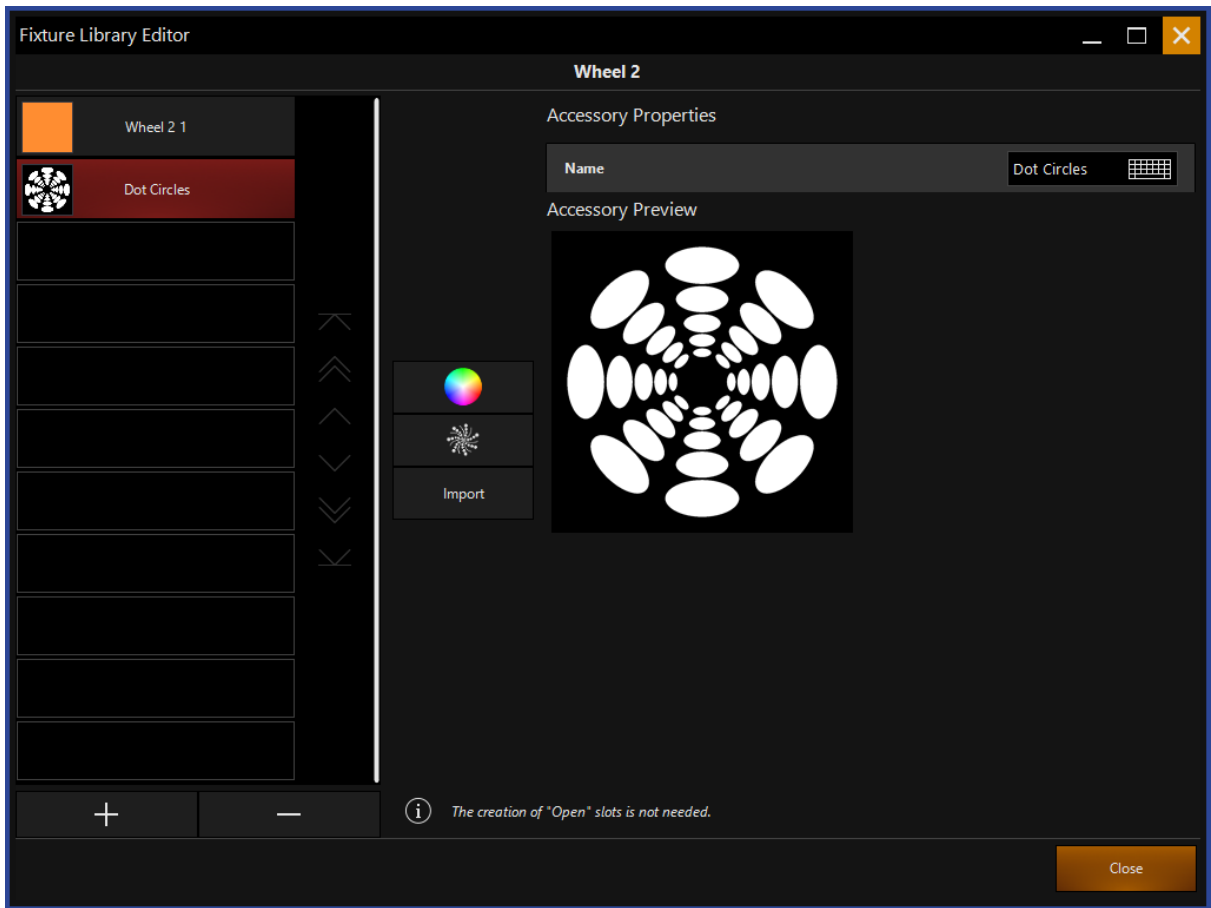
2. On the first page of the builder are some options to fill in - name, manufacturer, model, mode, category, maximum pan/tilt angles, and dimensions. Once these have been filled in, press Next in the bottom right of the screen.



3. The next page allows users to create the color/gobo wheels used in the fixture. Use the + & - in the bottom left corner of the screen to add the desired amount of wheels. Select the first wheel by clicking on it and press the blue Edit Wheel.

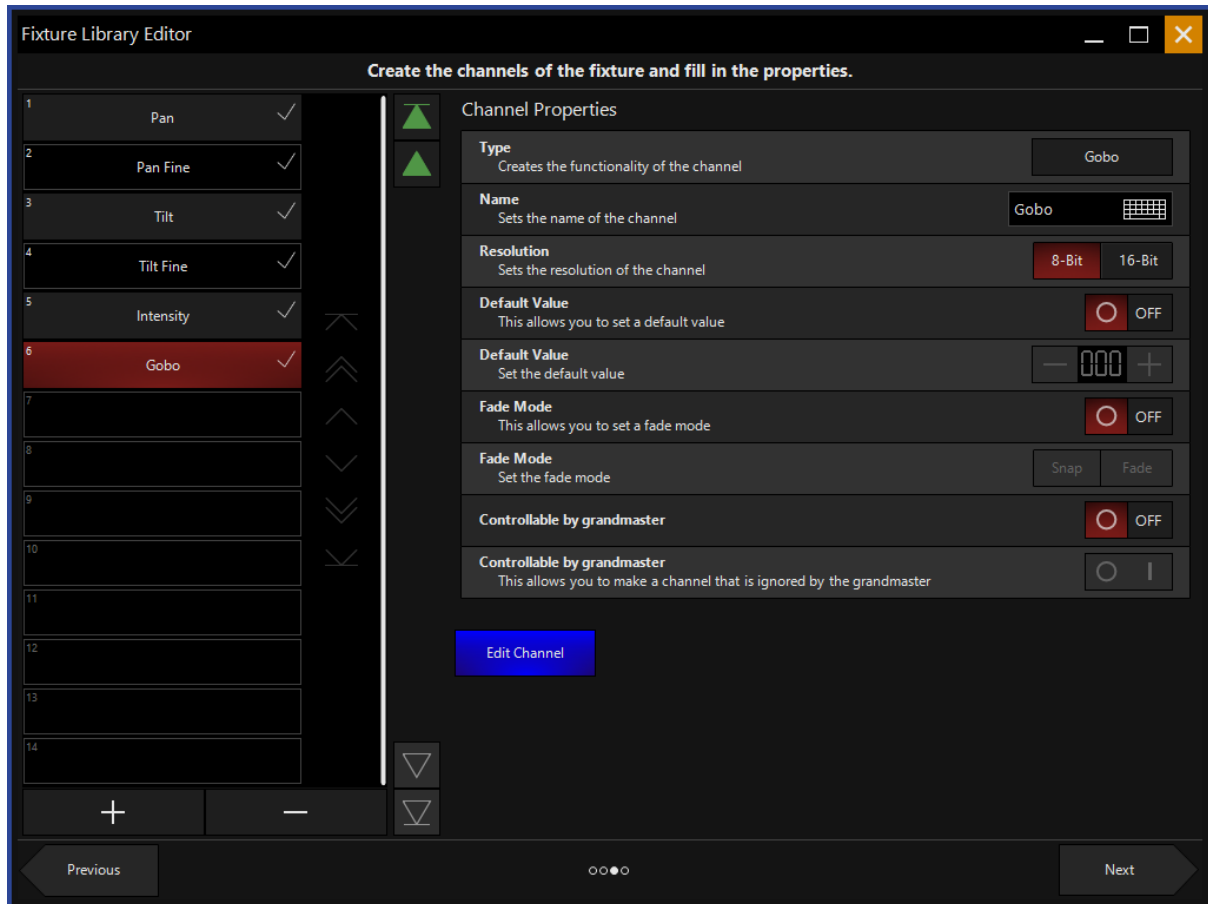


- Once in the "Edit Wheel" window, again use the + & - buttons in the bottom left corner of the screen to add slots to the wheel. In this case, it is a color wheel. **Note that it is not needed to add an "Open" slot.** In this window, you may rename the slots, choose a color from the color picker for each slot icon, choose a color or gobo image from a predefined library or import your own images for the slot.

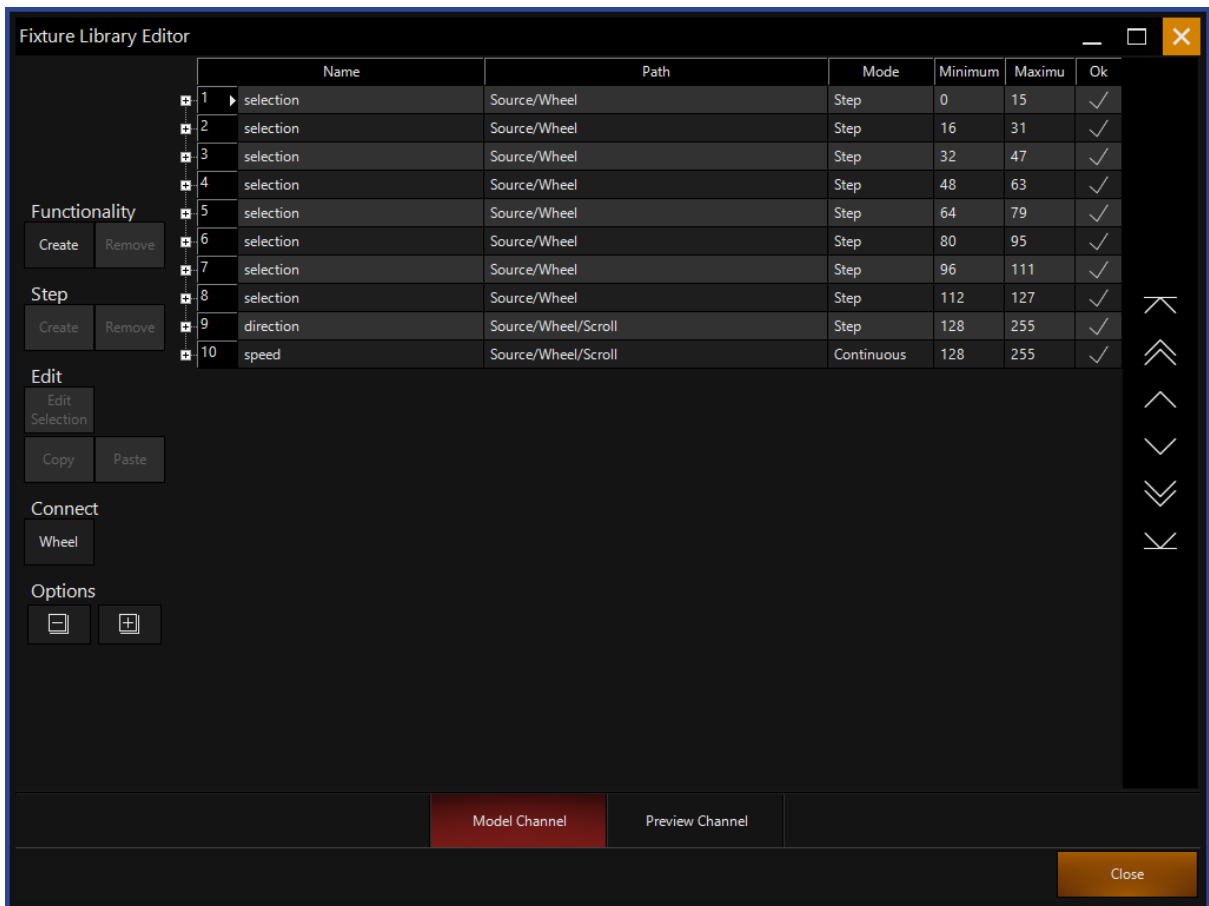


5. Once you have completed the first wheel, press Close which will return you to the "Create Color/Gobo Wheels" Window. Repeat the process until all of the wheels are made.

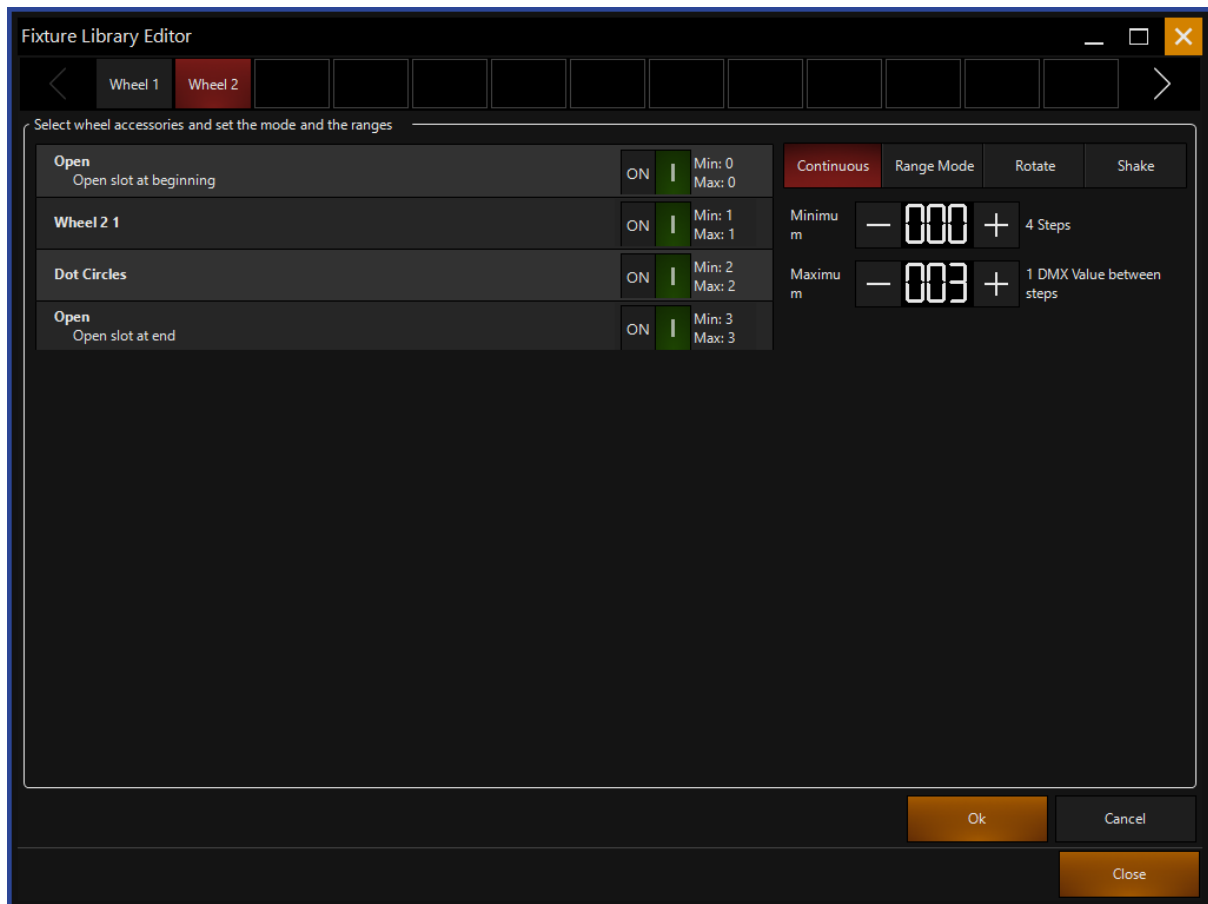
- Once all wheels are completed, press Next.



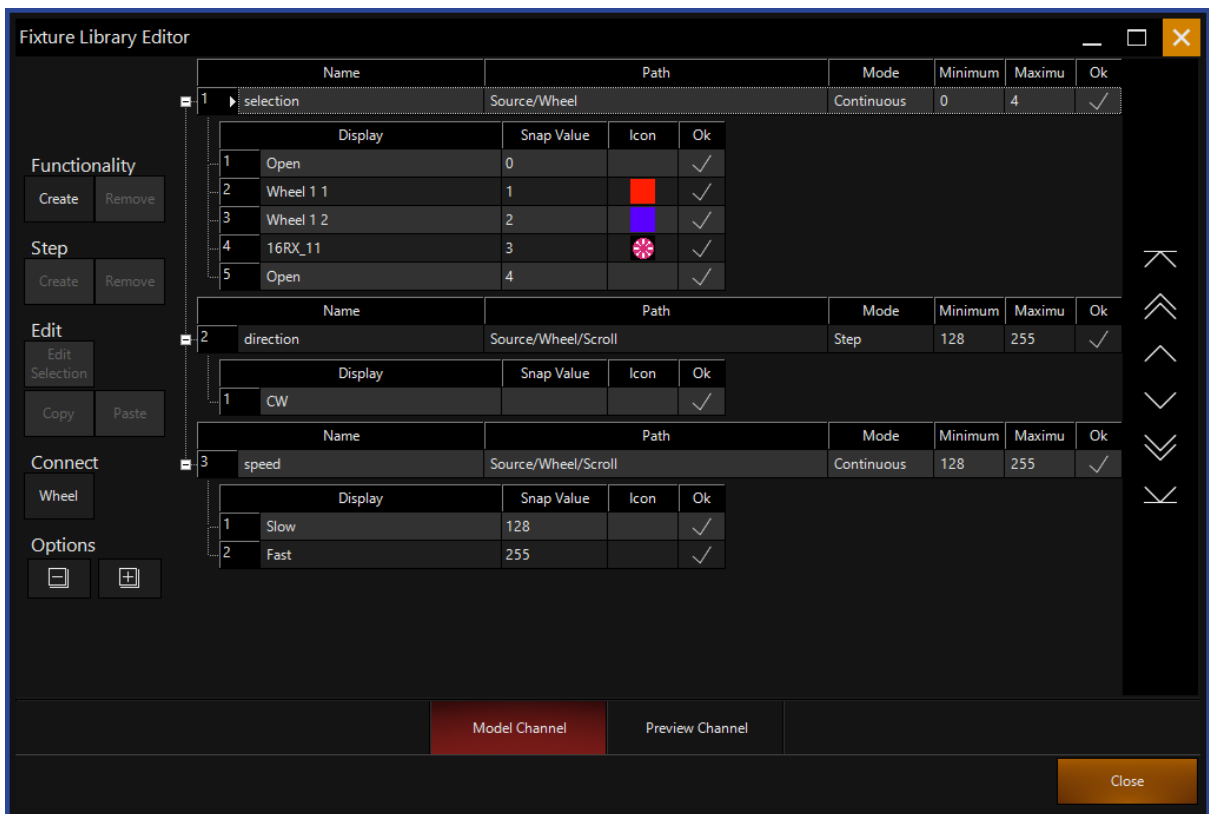
- In the next window, we create the channels of the fixture, assign them properties and link them to wheels we made earlier if necessary. Press the + & - buttons on the bottom left to add channels. Click a channel to select it, fill in the properties on the right hand side. It is important to name parameters in this section too, especially when the fixture has multiples of the same parameter. For example, Gobo 1, Gobo 2. **For unknown channels, use the Reserved channel type.**
- It is important to set the "Default" value, this is also known as the "Home" value and will be the value the channel is at when there are no playbacks active, or any data in the programmer.
- For channels with slots, like the color, gobo wheel or shutter, press the blue Edit Channel, this will present you with the following window to configure the slots within the parameter.



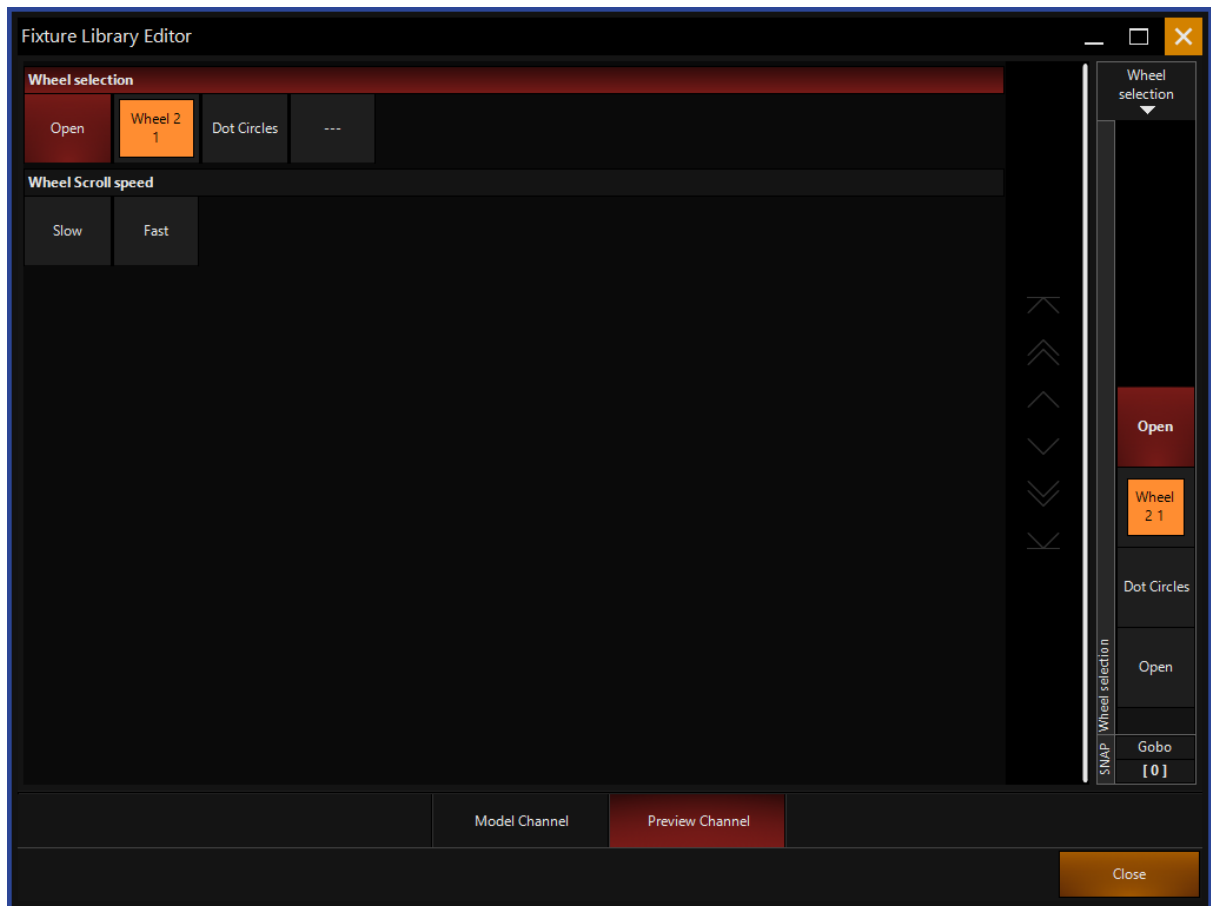
10. In the "Edit Channel" window, each slot is assigned a minimum and maximum value. For example, Open is 0-15, Gobo 1 is 16-31, Gobo 2 is 32-47 etc. At the end of the channel, functionality such as continuous spin & scroll can be added if necessary. Scroll/Rotate ranges are built of 2 different functions. A step to define the direction, (CW/CCW/Stop) and Continuous range to define the speed (Slow/Fast). Both should have the exact same DMX value range.
11. Also, this window is where we link the color and gobo wheels we made earlier, to the channel. First, remove all of the default lines, leaving only the Scroll Functions. Then, press the Wheel button under the "Connect" option on the left hand side of the screen.



12. Click on the first wheel at the top of the screen, then turn each slot to "On". Set the minimum and maximum values to match the values required by the fixtures DMX protocol. In the top right hand corner of this window, for wheel slots, it is necessary to select Range Mode. The Continuous, Rotate and Shake modes are for other functionality. Once you have completed this process for all wheels, press OK.
13. The color slots will be added to the first "Selection" functionality. Delete the un-needed functionality by clicking on them and pressing Remove. In this case, we are left with three. The color/gobo slot selection, the scroll clockwise and the scroll counter clockwise.



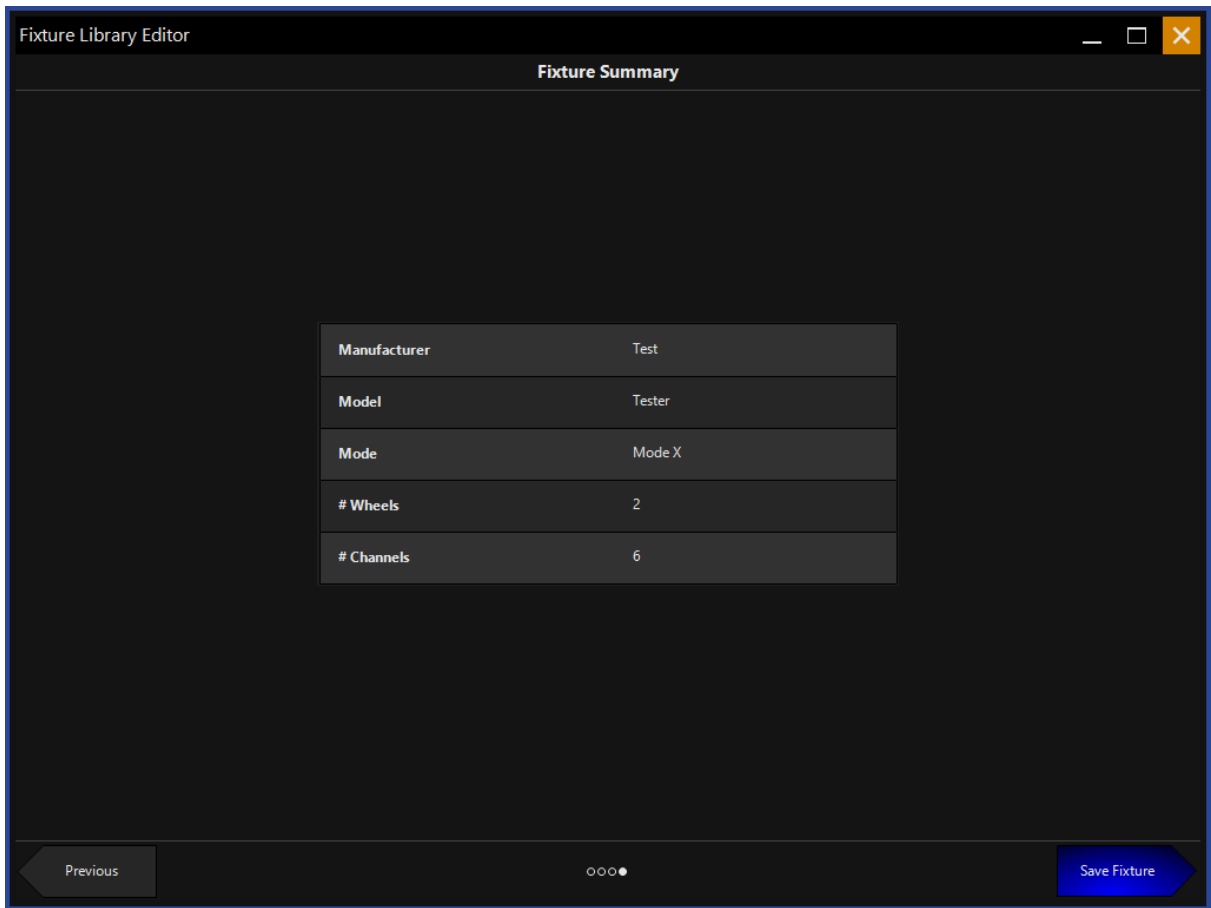
14. Enter minimum and maximum values for the scroll functionality in the same manner as the color slots earlier. Press Preview Channel to see how the channel will look on the console.



15. Press Close once the channel is built.

Before saving the fixture, it may be necessary to re-order some of the channels. For example, the 16bit channels are added to the end of the channel list by default and this may not match the DMX protocol of the fixture. Use the green arrows to the right of the channel list to move channels up and down.

16. Complete the building of the other channels using the same process.
17. Press Next, one last time and you'll be given a "Fixture Summary". Confirm on this screen that all of your details are correct.



18. Press Save Fixture and the fixture will be added to the "User Library". Fixtures built on ONYX can be exported for use in ONYX by using the "Export" option at the Fixture Builder start screen.

Fixture Numbering

If you do not specify fixture ID's when you add fixtures to the patch, the fixtures will automatically be assigned fixture ID's beginning with the next highest available fixture ID.

You can easily change the fixture ID's of existing fixtures with the following syntax:

Move [Current Fixture ID or Range of ID's] @ [New Starting Fixture ID] Enter

Example - Fixture Numbering

Say you added 24 Artiste DaVinci's to the patch without specifying a fixture ID. If fixtures 1 through 24 and 31 through 44 were already patched, the Artiste DaVinci's would be assigned fixture ID's of 45 through 68.

Perhaps you would like to change the fixture ID's of those Artiste DaVinci's to 101 through 124 to make them easier to remember. You would do this by typing the following into the keypad:

Move 45 Thru 68 @ 101 Enter

The Artiste DaVinci's now have fixture ID's 101 through 124.

Fixture Swap

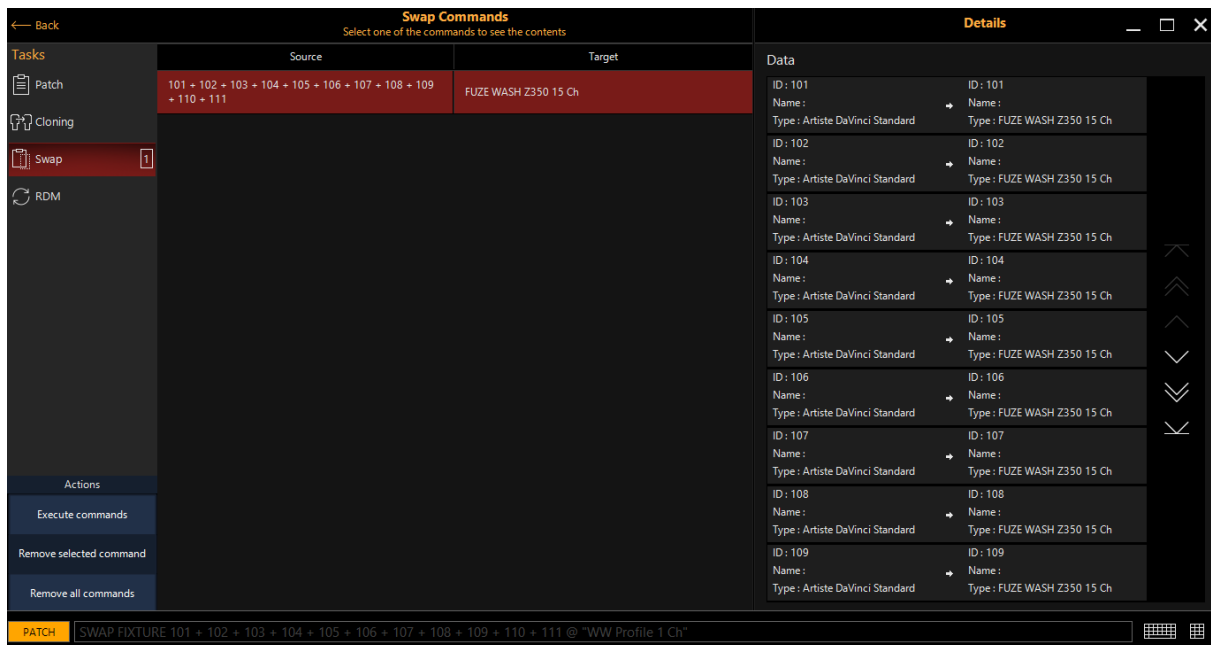
Where clone is useful to copy data from existing fixtures to new ones, the swap function will swap the fixture entirely in the showfile, thus keeping it less cluttered.

Please note that swapping of multipart fixtures is not supported. Such fixtures have to be manually cloned where the user must define the source and target parts carefully. Once successfully cloned the source fixture can then be deleted from the patch.

Swapping works almost identically to cloning:

Fixture Swap Example

1. Select the Fixture types you wish to swap by selecting their cells in the Patch. *Note that it is the "Type" cell of each fixture that needs selecting.*
2. The Fixture Library popup will appear, and the command line will read SWAP FIXTURE [Fixture Numbers] @
3. Select the new Fixture Type by browsing the manufacturers & models in the library.
4. Press Choose Type...
5. Repeat these steps for multiple fixture types as needed.
6. Now, navigate to the Swap screen from the left sidebar:



7. Verify that the Swap commands listed are what you desire.
8. Under "Actions", in the bottom left corner, press Execute Commands.
9. ONYX will swap the fixtures to the new type.

Labeling Fixtures

The ONYX Patch window has a Fixture screen that by default, shows the fixture type. This can be altered however, to show a custom name assigned by the user.

To assign a label, press in the "Name" field of the desired fixture or click and drag to select a range of fixtures. Once selected, use the console's keyboard to enter the text. When complete, the text will be reflected not only in the patch display but also the Fixture screen:

To clear a name from a fixture, press in the Name field and then press Enter.

Patch Display

ID	Name	Type	Universe	Address	Invert
101	Spot 1	Artiste DaVinci Standard	1	1	
102	Spot 2	Artiste DaVinci Standard	1	29	
103	Spot 3	Artiste DaVinci Standard	1	57	
104	Spot 4	Artiste DaVinci Standard	1	85	
▶ 105	Spot 5	Artiste DaVinci Standard	1	113	
106		Artiste DaVinci Standard	1	141	

Fixture Screen:

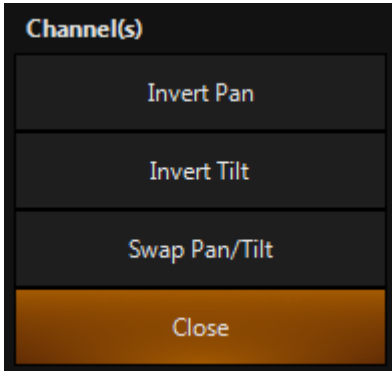
101 Spot 1 0%	102 Spot 2 0%	103 Spot 3 0%	104 Spot 4 0%	105 Spot 5 0%	106 Artiste DaVinci 0%	107 Artiste DaVinci 0%	108 Artiste DaVinci 0%	109 Artiste DaVinci 0%	110 Artiste DaVinci 0%
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Note: When setting the Name attribute for a range of fixtures, the console will automatically enumerate the names. For instance, "FOH Artiste DaVinci" when applied to three fixtures, will become "FOH Artiste DaVinci 1" "FOH Artiste DaVinci 2" and "FOH Artiste DaVinci 3." The console will take into account selection order when generating these numbers. This can be very useful when separating groups of fixtures by name.

Pan/Tilt Invert and Swap

A fixture or a group of fixtures may require the pan and/or tilt to be swapped or inverted. This can be accomplished in the patch by touching or clicking in the “Invert” field of the desired fixtures. A range of fixtures can be selected by clicking and dragging through the “Invert” column.

When the “Invert” field is selected for the desired fixture(s), the following pop-up window will appear:



By default, when patching, all inversions and swaps are set to “off” (Which shows as a blank cell). To invert or swap the pan/tilt on a given fixture, press the corresponding cell(s). Press the Close soft button to execute the command.

Fixtures that have the pan or tilt swapped or inverted are designated with a “P” for pan inverted, a “T” for tilt inverted or an “S” for pan and tilt swapped or any combination of the three as illustrated below:

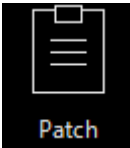
ID	Name	Type	Universe	Address	Invert
101		Artiste DaVinci Standard	1	1	P
102		Artiste DaVinci Standard	1	29	T
103		Artiste DaVinci Standard	1	57	PT
104		Artiste DaVinci Standard	1	85	S
105		Artiste DaVinci Standard	1	113	PTS
106		Artiste DaVinci Standard	1	141	
107		Artiste DaVinci Standard	1	169	

Channel(s)	
Invert Pan	
Invert Tilt	
Swap Pan/Tilt	
Close	

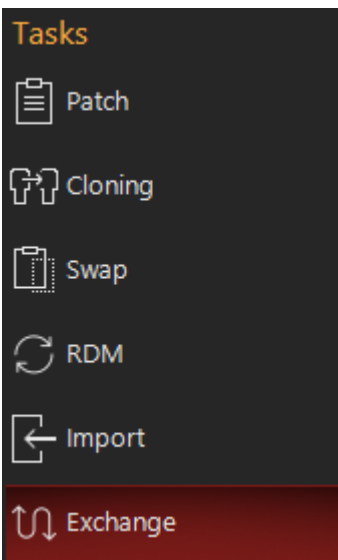
Patch Exchange

ONYX showfiles that are loaded from software versions previous to 4.6 will contain fixtures from the previous fixture library. For best future compatibility for use with [Patch Import](#) and other features, fixtures should be exchanged for types in the current fixture library.

Patch Exchange is available from the Patch screen, which you can navigate to from the main view by pressing ONYX in the upper left-hand corner, and then pressing the Patch icon:



Withing the "Tasks" section on the left sidebar, we see the Exchange option:



The Exchange option will only appear if there are fixtures in your show from the previous fixture library. If the option does not appear, then your fixtures are already in the current library and no additional action is needed.

Within the exchange window, you will see the fixture types listed that need to be exchanged:

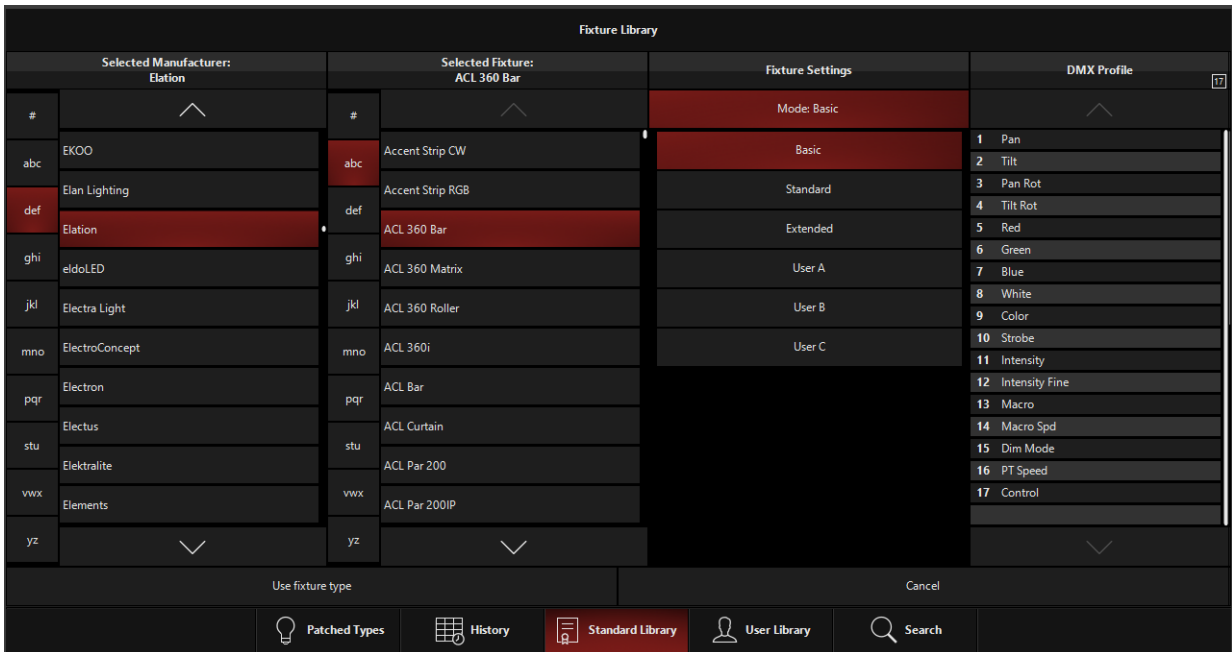
Manufacturer	Fixture type	# Channels	New fixture type
Elation	FUZE WASH Z350 15 Ch	15	
Elation	Dartz 360 Extended	25	Dartz 360 Extended
Elation	WW Profile 1 Ch	1	WW Profile 1
Elation	Artiste DaVinci Standard	28	Artiste DaVinci Standard
Elation	Colour Chorus 72 48 Ch (d)	48	

The last column, "New fixture type" shows the type matched by ONYX in the current fixture library.

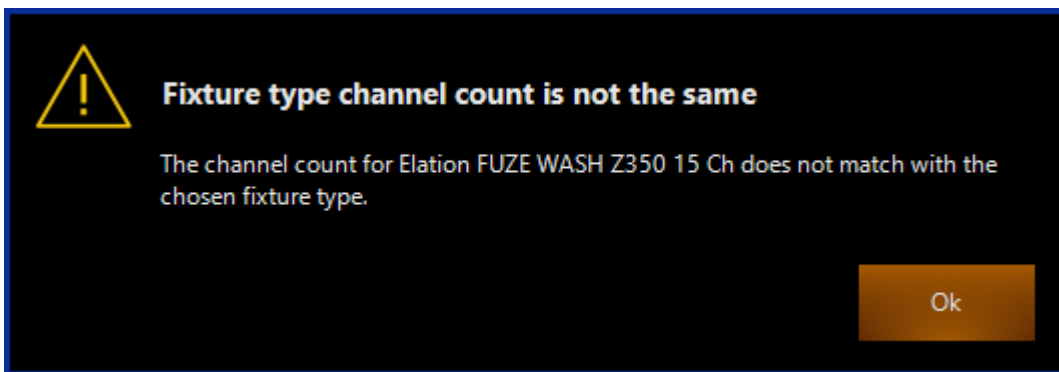
Patch

If there is no type listed, or you wish to change the type, you may do so by pressing within the cell in this column for the fixture you wish to modify.

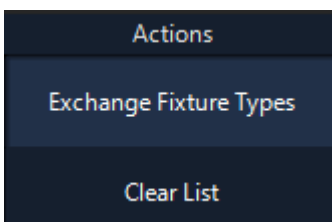
The Fixture Library window will appear, and you can choose the fixture type you wish to use:



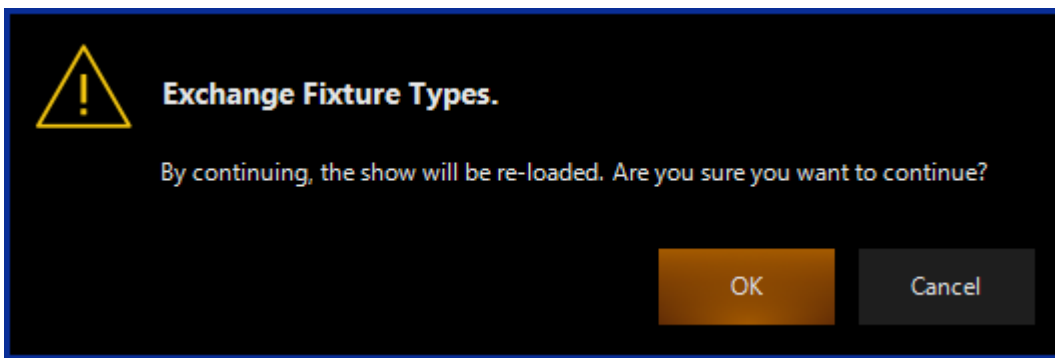
To choose the fixture type, press Use fixture type. For Exchange, the fixture type chosen **must** have the same channel count as the original fixture. If it does not, you will see this error and may re-try choosing the correct type:



We can now use the Actions section to press Exchange Fixture Types.



You will then be presented with this warning:



When you press OK, the Exchange will occur and the show will reload. Only the fixture types which have a "New fixture type" selected will be exchanged, any non-matched fixtures will remain as-is with the old library type.

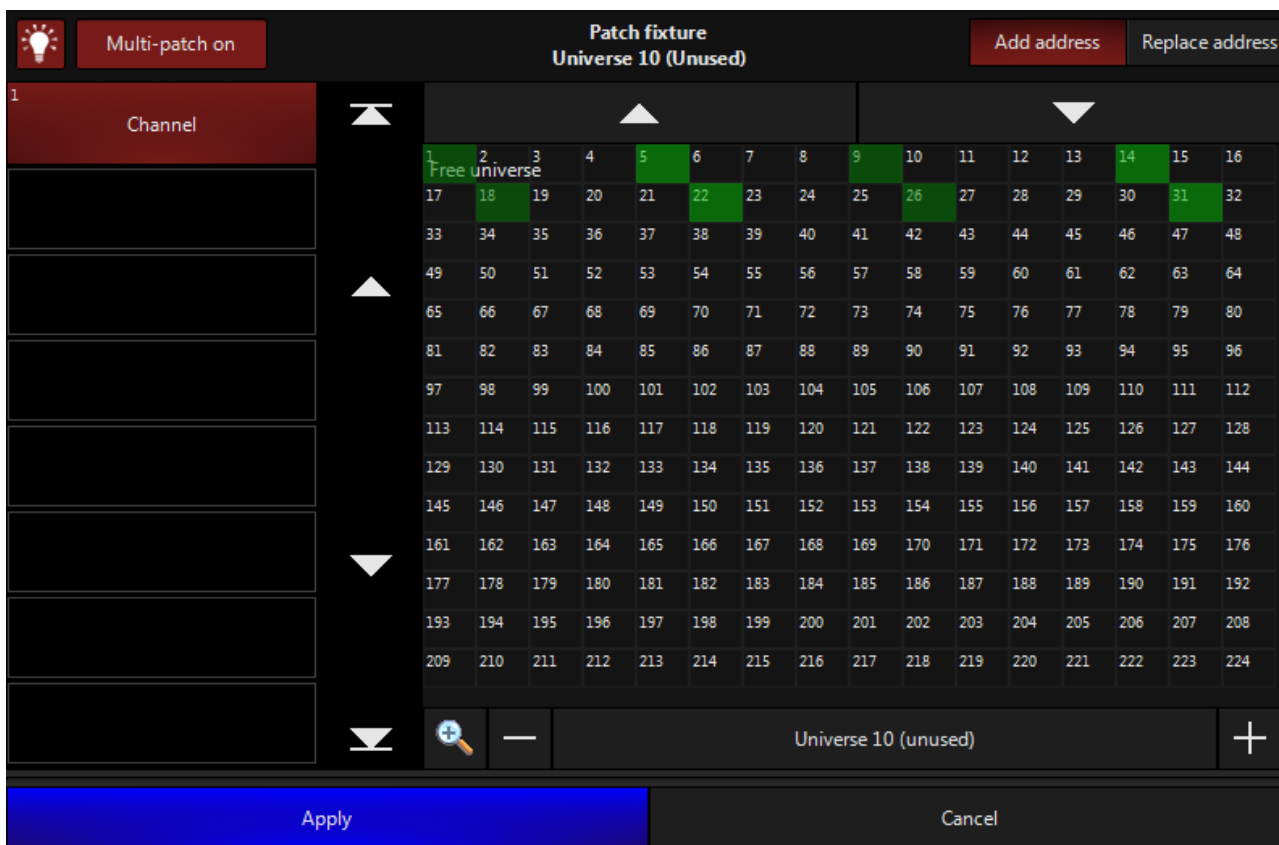
Clear List will reset any "New fixture type" customizations which you have made and reset any automatically-suggested types.

Patch HighLight Tool

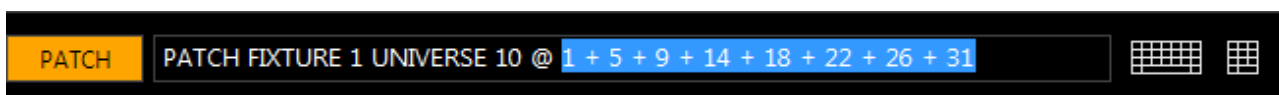
The patch features a HighLight Tool which enables the user to temporarily bump certain DMX channels to full, without actually patching any fixtures to them.

This is useful for identifying fixtures on unknown DMX addresses. For example, the venue house lights. You know the houselights are somewhere on Universe 10, but you don't know which channels control which lights. Simply add a channel to the patch. Then choose the Patch Fixture... command.

Select the Channel fixture, enable Patch Highlight by clicking the lightbulb icon in the top left corner. If you wish to highlight multiple channels, or you wish to patch the single channel to multiple DMX channels, enable the Multi-patch button too. Click on DMX channels in the window to turn them green (highlighted), click them again to un-highlight them:



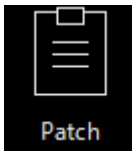
The command line will show a patch command for whatever is selected (green) at the time:



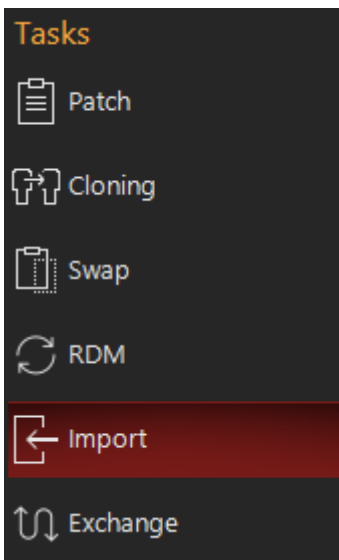
Patch Import

If you are working from a previous showfile or compatible visualizer, you can import your existing patch into ONYX via the Patch Import.

Patch importing is available from the Patch screen, which you can navigate to from the main view by pressing ONYX in the upper left-hand corner, and then pressing the Patch icon:



Withing the "Tasks" section on the left sidebar, we see the import option:



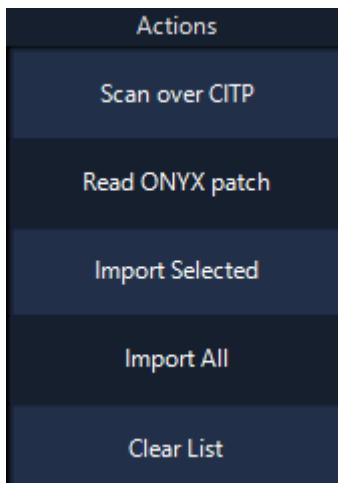
We can import patches either from previous ONYX patch exports, or via CITP from compatible visualizers and other tools. Patches from ONYX shows previous to software version 4.6 may not import due to a mis-match in the fixture library. First, use [Patch Exchange](#) on the source showfile to swap the fixtures to the current fixture library, then follow the guide below to import.

ONYX Patch File Export/Import

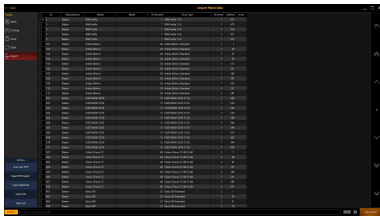
Any ONYX show may export it's patch via the [Main Menu and Show Settings Menu, under "Patch Tasks"](#).

The resulting XML file may be imported via these steps:

1. From the "Import" page of the Patch window, press Read ONYX Patch from the "Actions" section in the lower-left corner and select the file from the file explorer.



2. You'll then be able to view the patch in the import window. Via the "Actions" section seen above, we have the option to Import Selected or Import All.



Import Selected will only select those fixtures which have at least 1 cell of the import sheet selected.

Import All will import the entire sheet.

Once an import is initiated, ONYX will follow the normal patch process of checking for conflicts, then patching. By default, ONYX will patch the fixtures as the type, at the universe and address read from the patch sheet.

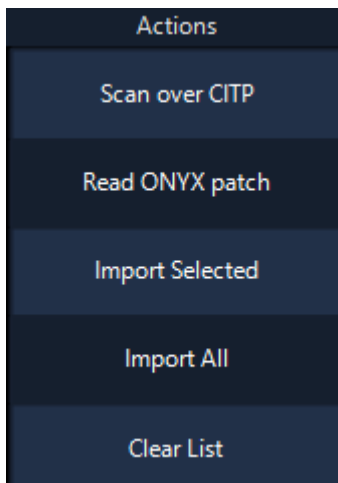
If you are importing a lot of fixtures, this may take a few minutes.

CITP Import/Export

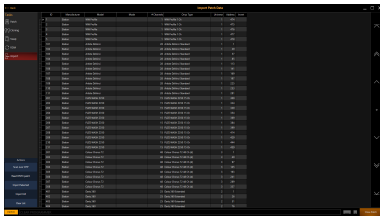
Visualizer and other tools that offer [CITP](#) integration can also sync patches and 2d Plan to ONYX and vice-versa.

1. Ensure that the visualizer and ONYX are connected via Network and that CITP is enabled. [If you are unfamiliar with this process, see the CITP page for instructions.](#)
2. From the "Import" page of the Patch window, press Scan over CITP from the "Actions" section in the lower-left corner. You will then see a loading spiral on the Scan over CITP button while ONYX searches for a CITP patch.

Patch



2. You'll then be able to view the patch in the import window. Via the "Actions" section seen above, we have the option to Import Selected or Import All.



Import Selected will only select those fixtures which have at least 1 cell of the import sheet selected.

Import All will import the entire sheet.

Once an import is initiated, ONYX will follow the normal patch process of checking for conflicts, then patching.

If you are importing a lot of fixtures, this may take a few minutes.

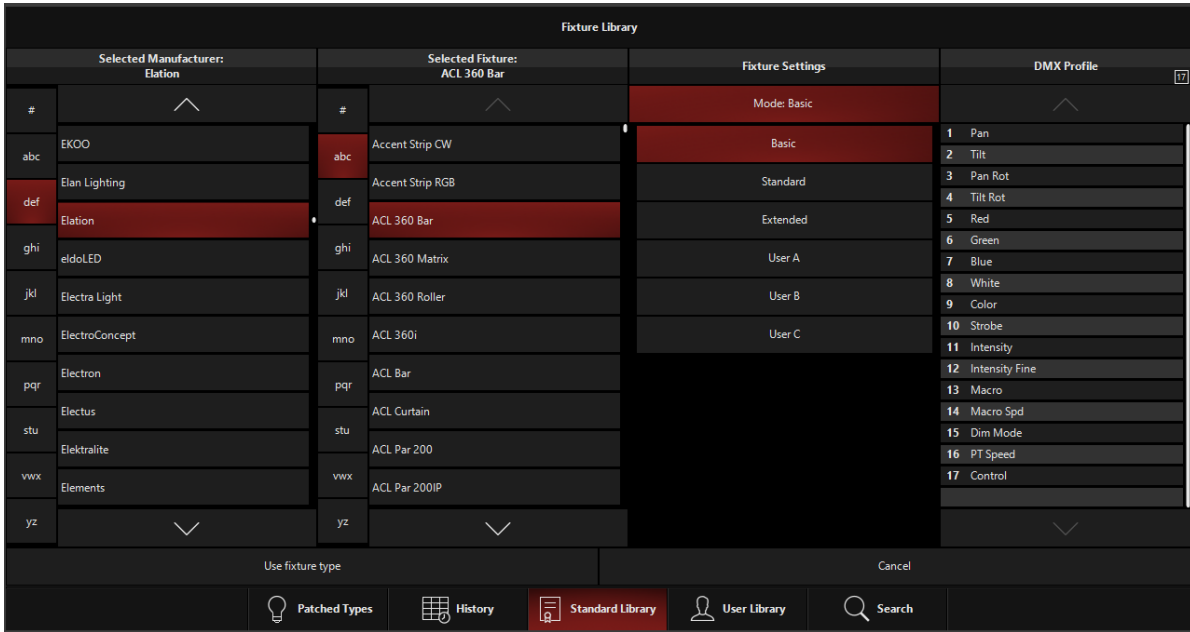
By default, ONYX will patch the fixtures as the type, at the universe and address read from the patch sheet. If the visualizer or tool that is connected does not have a perfect fixture match, ONYX will select the best fit, however you may change this ([see Patch Import Options and Customizations](#)).

ONYX will also create two different [2D Plan](#) pages with a Front View and Top View, based off the information provided by the visualizer.

Patch Import Options and Customizations

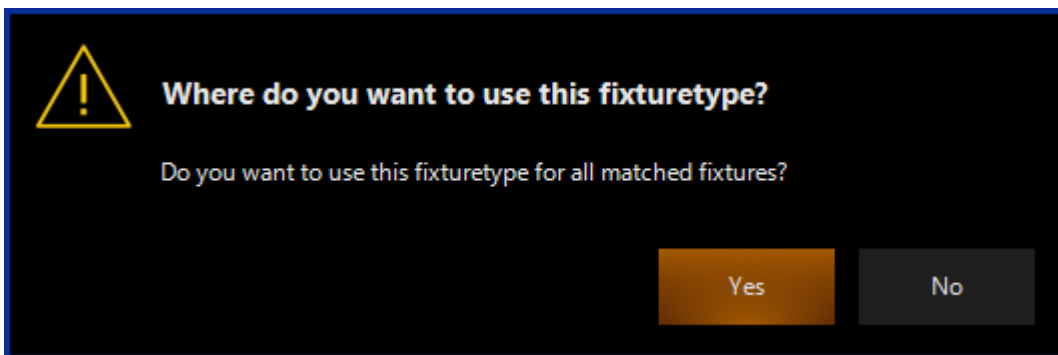
Changing the Fixture Type to Import

Before importing, you may also press with the fixture type field to change the fixture type and/or mode before importing. After pressing one field or pressing and dragging to select multiple fixtures, the Fixture Library pop-up now appears:



You may now navigate to the fixture type and mode that you desire the fixtures to be patched in. To choose the fixture type, press Use fixture type.

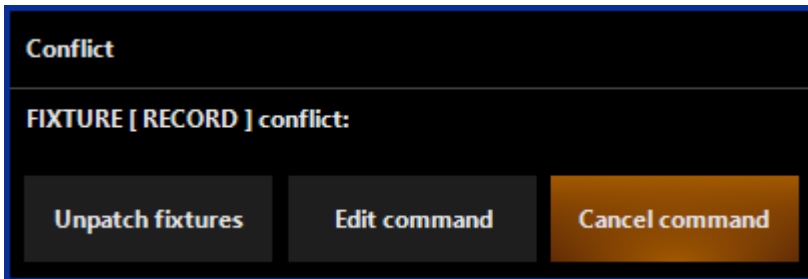
Lastly, this pop-up will appear to choose whether only the selected fixtures will adopt the new type, or if all fixtures of the source type will change to the chosen type:



Once chosen, you may now proceed with importing your patch. If the fixture type you chose uses more channels than the previous fixture type, you will get conflicts as the patch imports.

Resolving Conflicts in the Patch Import

If a fixture that is being imported conflicts with a current patch, the patch conflict window will appear:



Pressing Unpatch fixtures will import the fixture, but not patch it at a DMX address, so you can set the address after import.

Pressing Edit command will allow you to activate the command line for editing, at which point you can specify an address.

Pressing Cancel command will clear the command and no action will be taken.

Unassigned Channels Detected

If channels being imported are not part of the default or your customized parameter group assignments, you may see this window. Read more at ["Unassigned Channels Detected"](#)

Patching Conventional and Generic Fixtures

Patching Conventional Dimmers

ONYX is as adept at patching conventional dimmers and fixtures as it is at moving lights. Where a conventional console will traditionally use the concepts of channels and dimmers, the console retains the concept of fixture ID for channel, and allows for the creation of a fixture type called "channels" which can be assigned to the desired ID(s).

Adding control for conventional dimmers is very similar to adding control for a moving light. The dimmer Channel fixture can be found in the Generic manufacturer list in the Fixture Library.

Example - Patching Conventional Dimmers

While in Patch, press Choose type...

Press Fixture Library and then go to the "Generic" manufacturer.

From the top of the list, select Channel and then press Use fixture type.

Enter the range of channel numbers, DMX start address and universe then press Enter. For this example, enter 101 Thru 124 @ 401 / 2 Enter.

This will assign dimmers 101 through 124 to DMX 401 through 424 of universe 2.

Patching "Generic" Fixtures

Often, users will encounter various fixtures that may not be in the fixture library, but operate with "generic" modes - I.E. a 3-channel RGB fixture, a 2-channel fogger or hazer or any other number of options.

These fixtures are categorized under the "Generic" manufacturer.

When you end up on show with a simple fixture that isn't inside of the [ONYX Fixture Library](#), note down the channels and check for a generic profile first - it's likely you'll find exactly what you need, already inside ONYX.

Patching Fixtures Using the Command line

The ONYX provides a patch command line that allows many different combinations. For a list of all possible patch command line combinations, see the [Command Line Reference](#).

The full command line syntax for adding fixtures to the patch is as follows:

Record [Number of Fixtures] Choose type... [Fixture ID] @ DMX Address . DMX Footprint / Universe
Text Label Enter

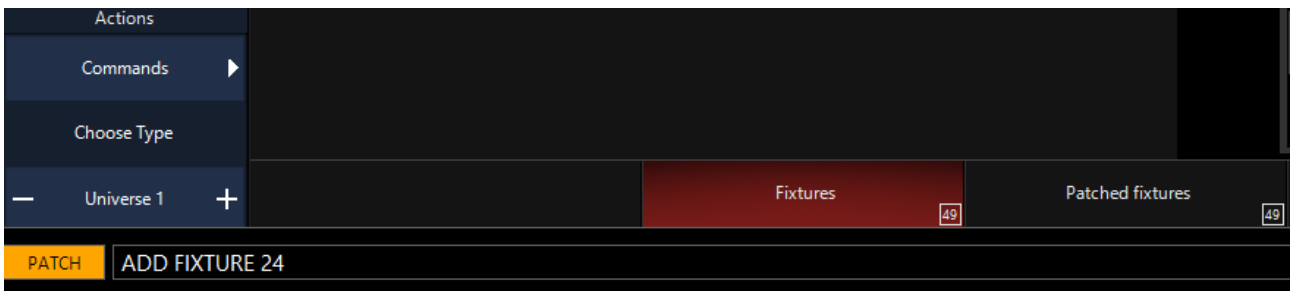
The [Choose type...] marker indicates that a fixture type must be selected using the Fixture Library.

Example - Adding Fixtures to the Patch Using the Command line

To add 24 Artiste DaVinci's and have the console automatically assign fixture ID numbers:

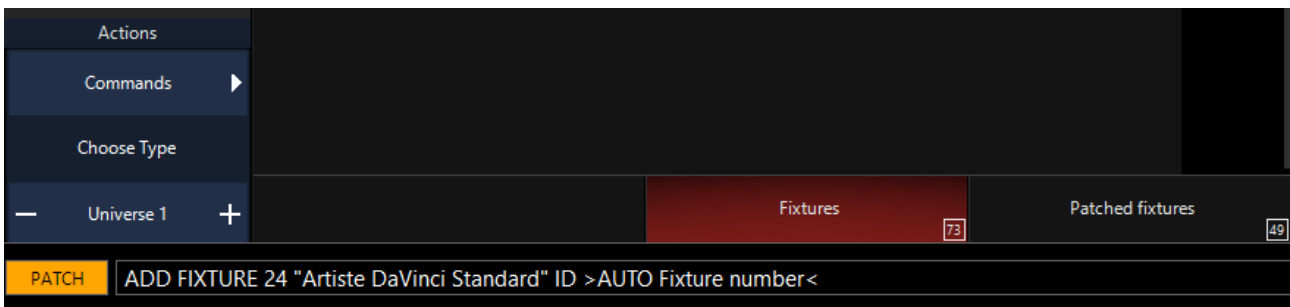
Access the patch screen and, using the keypad, press:

Record 24



Press or click on the Choose type... button at the lower center part of the patch screen. This will bring up the fixture library. Navigate to and select Elation / Artiste DaVinci using the Manufacturer and Fixture lists as described in the previous section.

Then press, Use Fixture Type.



Now Press 1 on the keypad.

The command line will read as follows:

Patch

Actions	206		FUZE WASH Z350 15 Ch	1	384		
Commands	▶	207		FUZE WASH Z350 15 Ch	1	399	
Choose Type		208		FUZE WASH Z350 15 Ch	1	414	
Universe 1	+	209		FUZE WASH Z350 15 Ch	1	429	

Fixtures 71 Patched fixtures 47

PATCH ADD FIXTURE 24 "Artiste DaVinci Standard" ID 01

And then press Enter to add the fixtures.

To add Artiste DaVinci's 1 through 24 at DMX address 256 in universe 5:

Choose type... Use Fixture Type 1 Thru 24 @ 256 / 5 Enter

The command line will read as follows:

Actions	Commands	Choose Type	Universe 1	Fixtures	Patched fixtures
	▶		+	71	47

PATCH ADD FIXTURE "Artiste DaVinci Standard" ID 1 THROUGH 24 @ 256 UNIVERSE 5

For more examples, see the [Command line Reference](#).

Patching a Range of Fixtures

Patching a range of fixtures can be done in exactly the same way as patching an individual fixture except that the range of fixtures must be identified. The following syntax are supported:

1 Thru 24 @ Enter - this will patch the fixtures at the first available addresses in the default universe. The default universe is set by the universe selector in the bottom left of the patch screen.

1 Thru 24 @ 101 Enter - this will patch the fixtures to the default universe beginning with address 101.

1 Thru 24 @ 101 / 3 Enter - this will patch the fixtures to universe 3 beginning with address 101.

Note that you can also use the "And" + or "Except" - buttons to create non-sequential ranges of fixtures such as:

1 Thru 5 + 11 Thru 15

or:

1 Thru 24 - 5

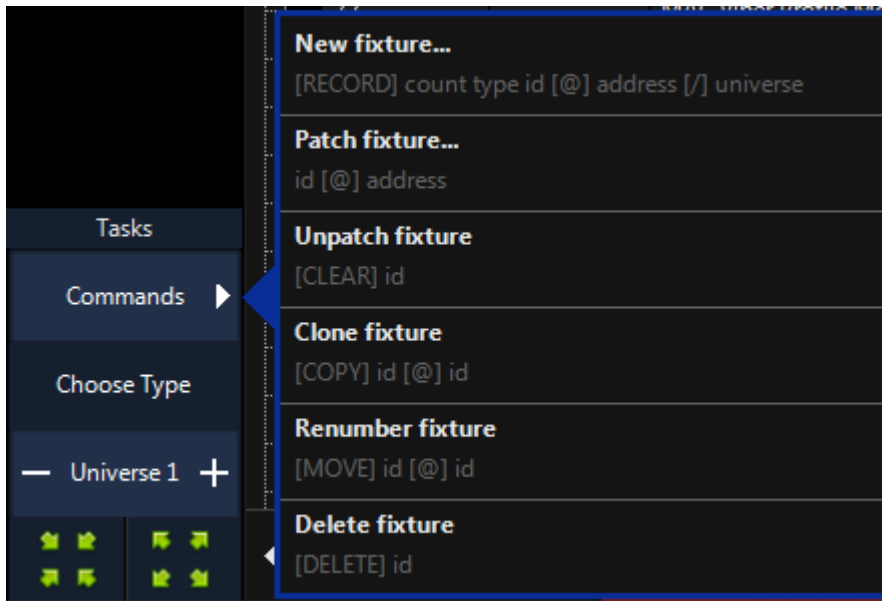
Patch

ONYX will automatically “overflow” into the next universe should the range of fixtures selected exceed the number of DMX addresses available in the specified universe.

Patching Fixtures using the Tasks toolbar

While using the [Auto Patch](#) function is the easiest way to patch fixtures, you may also use the Tasks toolbar and command line to complete your patch.

The Tasks menu provides several of the most common patching tasks in a convenient menu format. It can be found near the bottom and to the far left side of the patch screen.



By far, the easiest way to patch is to press Commands and Auto Patch, then follow the instructions on the [Auto Patch page](#).

However, you may also press Choose Type, select the fixture you desire and then press Use Fixture Type to bring a fixture manually into the command line.

Learn more on [Patching Fixtures Using the Command Line](#).

Patching Multi-Part Fixtures with Split Addresses

Certain moving lights do not use an internal dimming system and instead rely on an external dimmer for intensity control. Fixtures such as this, which can use two different DMX universes or different incongruous sections of the same DMX universe are called “multi-part” fixtures.

Patching such a fixture where the intensity control may be in a different universe can present a challenge, but is actually quite simple when using ONYX.

The command line syntax for patching a multi-part fixture is as follows:

Fixture ID @ Fixture DMX Channel Enter

Fixture ID .1 @ Dimmer DMX Channel Enter

By adding .1 to the fixture ID you are telling the console to patch the dimmer attribute only. Note that this only works for multi-part fixtures like the Vari*Lite VL5.

Example - Patching Multi-Part Fixtures

To examine multi-part fixture patching in ONYX, add 4 Vari*lite VL5s in default mode to your show and set the fixture IDs to 601 through 604.




Each of the multi-part fixtures now has not only the main fixture ID number, but also a “part” that contains the associated dimmer information. As the fixture has been broken into two different parts, it is now possible to address each part separately. For example, to patch the fixtures to DMX universe 8, starting address 1, press:

601 Thru 604 @ 1 / 8 Enter

The fixtures will then be addressed sequentially beginning with address 1 and ending with address 78 in universe 8. However, if the dimmers controlling the intensity channels of the fixtures are in a rack that is serviced by DMX universe 10, we will not be able to properly control the intensity attributes. To properly address the dimmer channels, press:

601.1 Thru 604.1 @ 1 / 10 Enter

When completed, your patch should resemble the one here:



ID	Name	Type	Universe	Address	Invert
601		VL5 4	8	1	
601.1		VL5 4 (Dimmer)	10	1	
ID	Name	Type	Universe	Address	Invert
602		VL5 4	8	14	
602.1		VL5 4 (Dimmer)	10	2	
ID	Name	Type	Universe	Address	Invert
603		VL5 4	8	27	
603.1		VL5 4 (Dimmer)	10	3	
ID	Name	Type	Universe	Address	Invert
604		VL5 4	8	40	
604.1		VL5 4 (Dimmer)	10	4	

Patching Multiple Addresses to a Single Fixture

While of limited use to moving lights, the ability to patch multiple DMX addresses to a single fixture is quite useful when that fixture type is a dimmer channel. This can be equated to patching multiple dimmers to a single channel on a conventional console.

As most dimmer racks (by default) will assign a unique DMX address to every dimmer, by selecting which DMX addresses are controlled by which fixture ID's, we can determine which channels control which dimmers. The same syntax described above regarding universe specification can be used.

Example: Multiple Addresses to one Fixture

If you have dimmers 1 through 6 in DMX universe 5 and assigned to DMX 1-6 and wish to control them with channel (fixture ID) 301, you would use the following syntax:

```
301 @ 1 Thru 6 / 5 Enter
```

When you have completed this, your patch screen will show the patched dimmers as follows:

```
DMX Addresses 1 thru 6 patched to channel 301
```

The Console has now patched control of DMX universe 5, addresses 1 through 6 to fixture ID (channel) 301. As with assigning DMX addresses to a range of fixtures, you can assign a range of addresses to a single fixture ID by using the "And" + and "Except" - buttons as in:

```
301 @ 1 Thru 6 - 4 Enter
```

This would patch DMX addresses 1, 2, 3, 5 and 6 to fixture 301.

To unpatch all of the addresses, you would use the following syntax:

```
CLEAR 301 ENTER
```

To unpatch a single address, you would use the following syntax:

```
CLEAR @ 4 ENTER
```

This will unpatch only address 4 of a fixture in the current Universe

Press CONFIRM to execute the command.

RDM

ONYX supports full RDM Integration with compatible fixtures on ONYX consoles and NX-DMX (and M-DMX) USB interfaces.

RDM scans can be run on a calendar schedule to coincide with regular fixture maintenance checks or manually from the console patch. Currently ONYX can perform the following tasks with RDM:

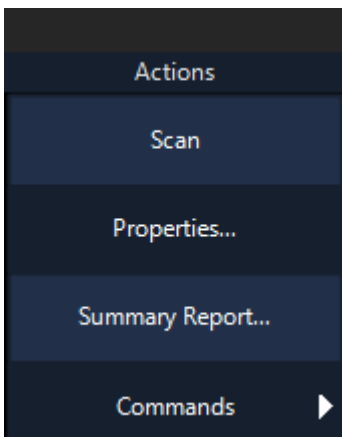
- Identify/Highlight Connected fixtures
- Re-address connected fixtures
- Change the operating mode of connected fixtures
- Read data regarding the devices sensors, lamp and power.

RDM Management

ONYX has a dedicated RDM tab in the patch to facilitate RDM data retrieval and commands at any time.

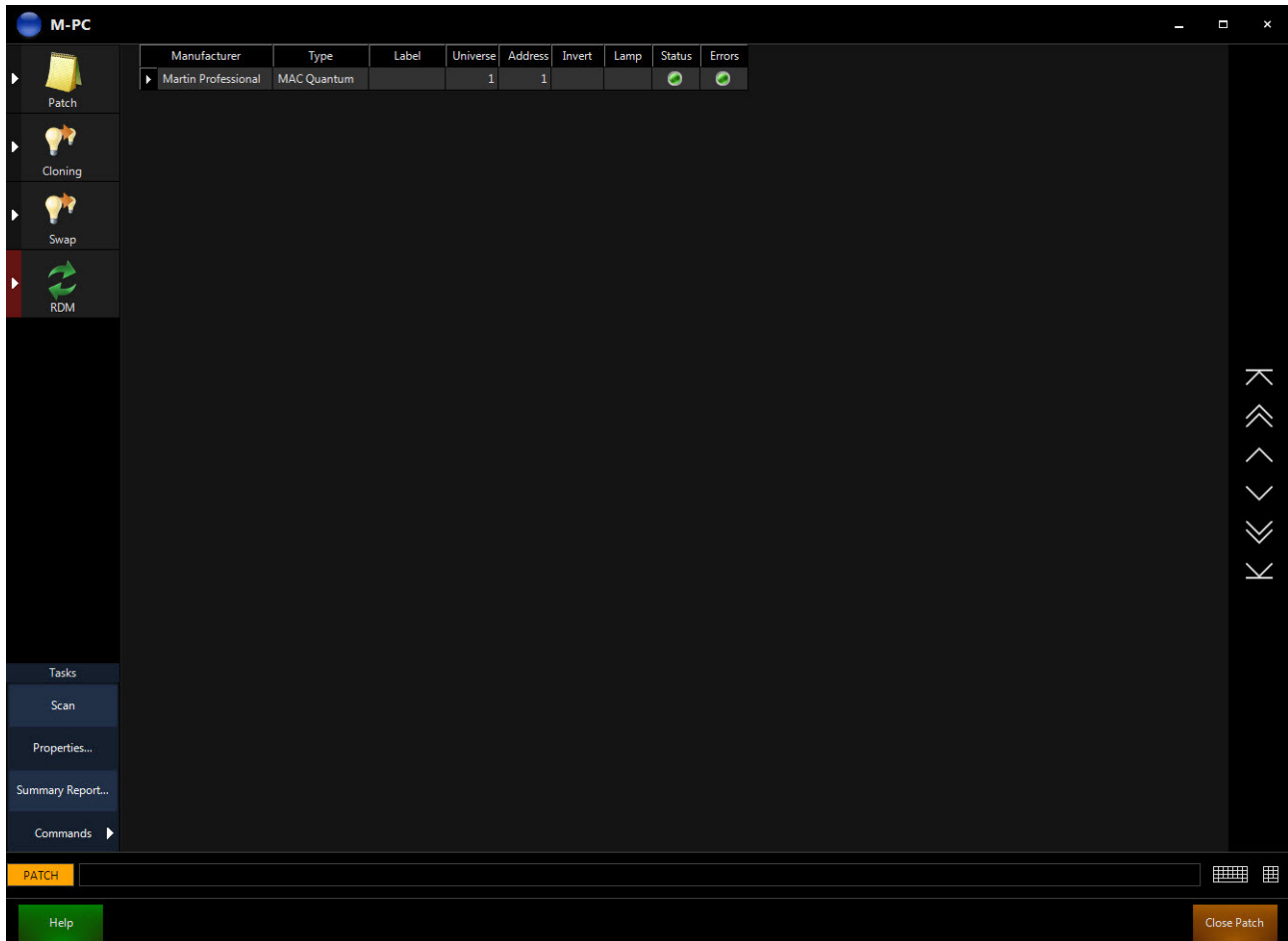
To view information for attached fixtures:

1. Access the Patch by pressing ONYX in the upper left hand corner and pressing Patch.
2. In Patch, navigate to the RDM tab on the left navigation.
3. In the Actions section, at the bottom left of the screen hit Scan



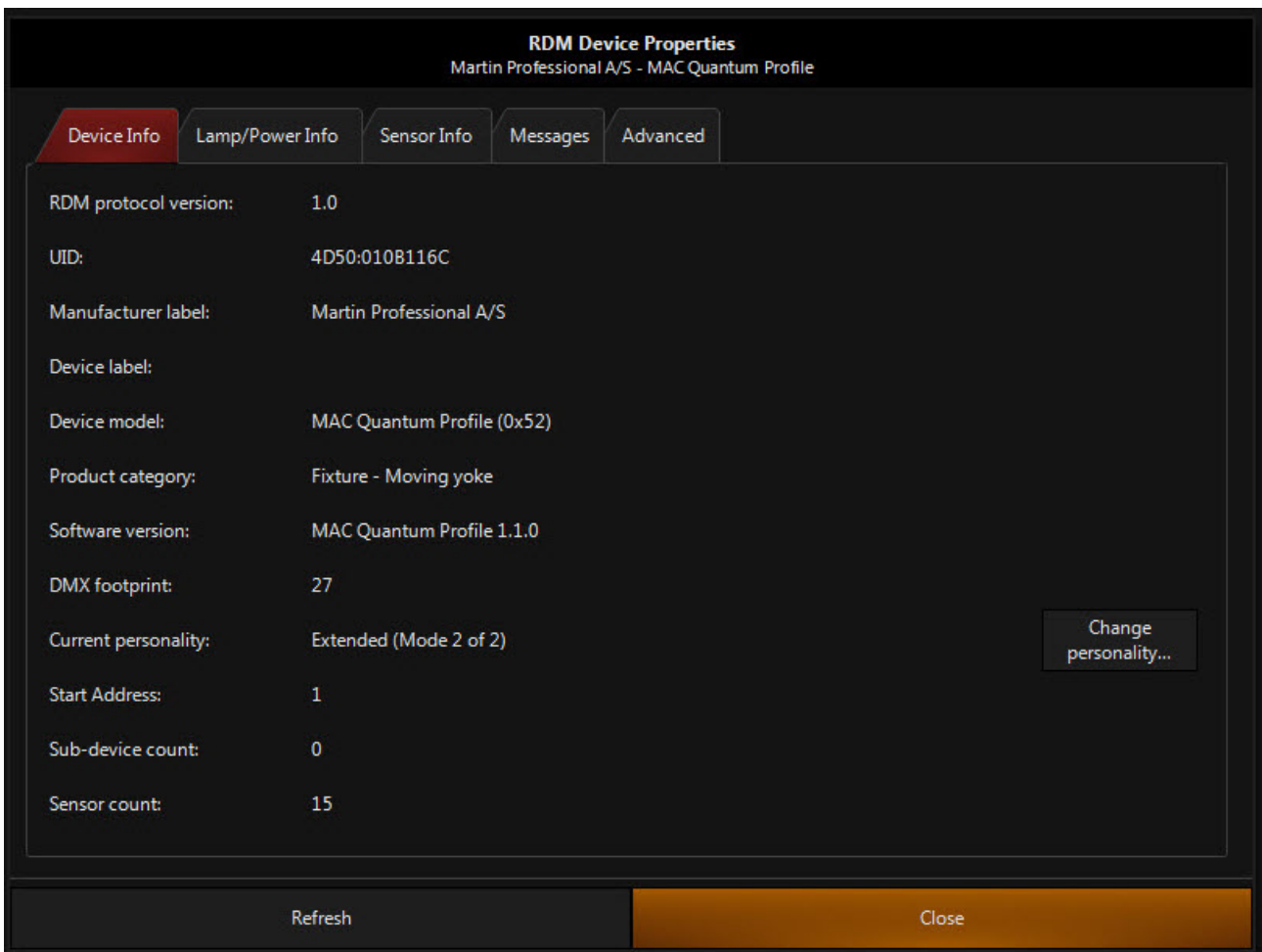
Patch

The DMX outputs will be scanned to find any connected fixtures supporting RDM. The screen will be populated with any fixtures the console found.



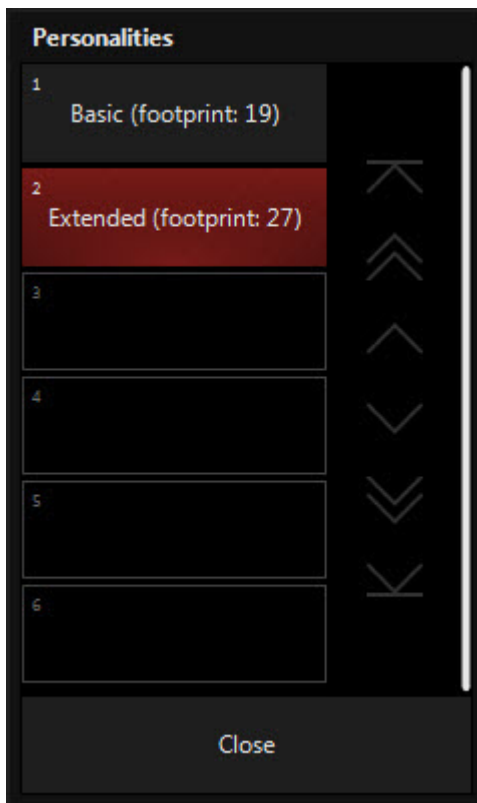
To View and change properties of a fixture found on the RDM scan:

1. Select the fixture by touching in the manufacturer row to turn it red
2. Press Properties in the Actions section and the following screen will appear showing all available data for the selected fixture(s).



To remotely change the Fixture Personality:

1. Press the Change Personality button
2. The following popup will appear, choose an option a new personality from the list and press "close".

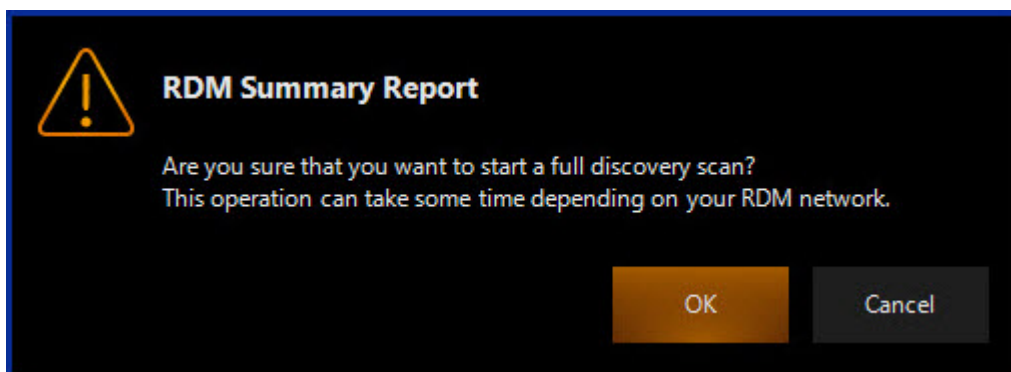


RDM Summary Report

From the RDM Tab, you can generate a full summary report of all connected fixtures capable of transmitting data back to the console. Summary report should not be performed during a show as it interrupts DMX output temporarily.

To generate a summary report:

1. Hit the Summary Report... Button in the Actions section.
2. A pop-up will appear asking you to confirm the command. Hit OK.



Once the scan has completed, the following window will appear. It shows all the connected RDM fixtures and their associated data. The links on the left hand side can be used to quickly skip to a particular fixture.

RDM Summary Report

Quick Fixture Links :

| MAC Quantum Profile

Fixture Information	
RDM UID	4D50:010B116C
Product Category	Fixture - Moving yoke
Manufacturer	Martin Professional A/S
Model	MAC Quantum Profile
Label	
Universe	1
DMXAddress	1
Invert	
Personalities	Basic 19 Channels
	Extended 27 Channels
Firmware	MAC Quantum Profile 1.1.0
RDM Version	1.0

➔ Lamp Information

➔ Sensor Information

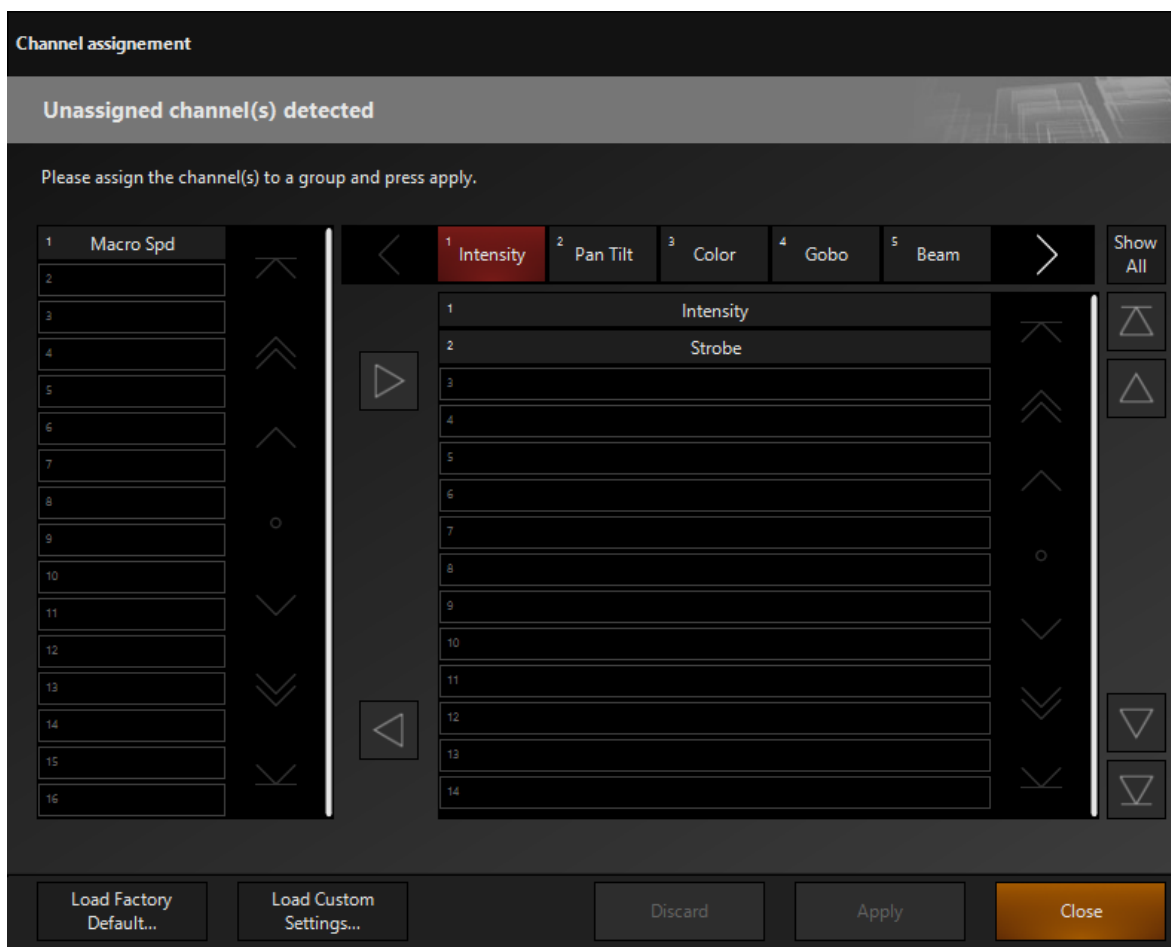
Top

Save... Close

Data can be saved to a file for exporting onto an external USB Storage device. Simply press the Save... button and choose a file location to save the data to.

Unassigned Channels Detected

When patching you may encounter the "Unassigned Channels Detected" popup:



This window simply appears when there are channels being patched or imported that are not part of the standard parameter groups in ONYX. Because ONYX does not have a default parameter group for these non-standard parameters, you get to decide where you wish to interact with these parameters within the existing parameter groups.

Simply select any parameter in the left column, navigate to the parameter group you wish to place it within from the top of the left section (Intensity, Pan Tilt, Color, Gobo, Beam, Beam FX, or Framing), and use the right-arrow in the middle to assign the parameter to that group.

Parameter assignments can be changed later in the Main Menu - [via "Show Settings"](#), "General", and the "Parameter Groups" tab.

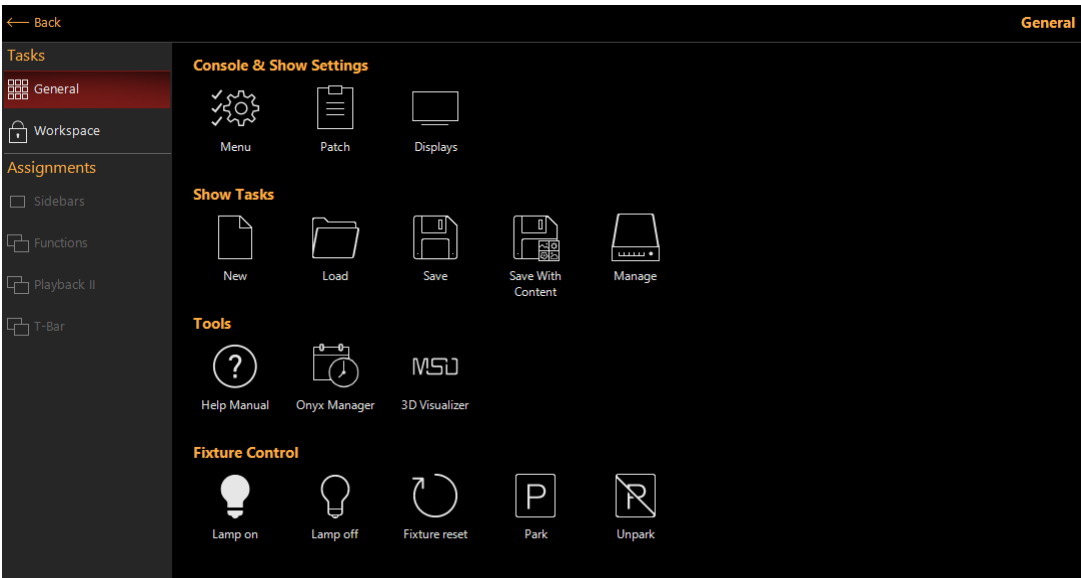
Menus

Please see the topic list below to get started.


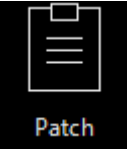
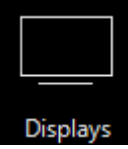
- [Quick Menu](#)
- [Main Menu](#)
- [Show Settings](#)
- [Network Settings](#)
- [System Settings](#)
- [DMX Input](#)
- [Audio Settings](#)
- [NDI Settings](#)

Quick Menu






The Quick Menu offers a variety of simple commands and access to the [Main Menu](#) within ONYX. Access the quick menu by pressing ONYX in the upper left hand corner, and you will see a variety of settings. *Look below the image for full descriptions of each option.*



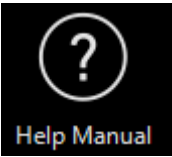

Console and Show Settings:

Item	Label	Function
 Menu	Menu	Enter the Main Menu .
 Patch	Patch	Enter the Patch window.
 Displays	Displays	Open the Display Settings .






Show Tasks

Item	Label	Function
	New	Begin a new show. Your open show will be saved to the file "BeforeLastCreate.ONYXShow" in the show file directory, then the show data will be cleared and a new show will be created.
	Load	Load an existing show. Your open show will be saved to the file "BeforeLastLoad.ONYXShow", and then show which you choose will be loaded.
	Save	Saves a backup for the current show, without any DyLOS library content . This is the default type of save.
	Save With Content	Saves a complete show backup, including all DyLOS library content.
	Manage	Shortcut to the Load/Save Settings in the Main Menu.

Tools:

Item	Label	Function
	Help Manual	Press this to find this helpful and witty manual from inside of ONYX.
	ONYX Manager	Launches the ONYX manager software for a variety of remote-control and management commands.

Fixture Control

Item	Label	Function
	Lamp On	Turn on the Lamps of discharge-lamp moving lights. See Fixture Control for more information
	Lamp Off	Turn the lamps off in discharge-lamp moving lights. See Fixture Control for more information
	Fixture Re-set	Apply a reset command to fixtures that support it. See Fixture Control for more information
	Park	Park allows you to takeover and "freeze" a fixture in one state. See Fixture Control for more information
	UnPark	Turns off park and allows the fixture to be controlled normally. See Fixture Control for more information

Main Menu

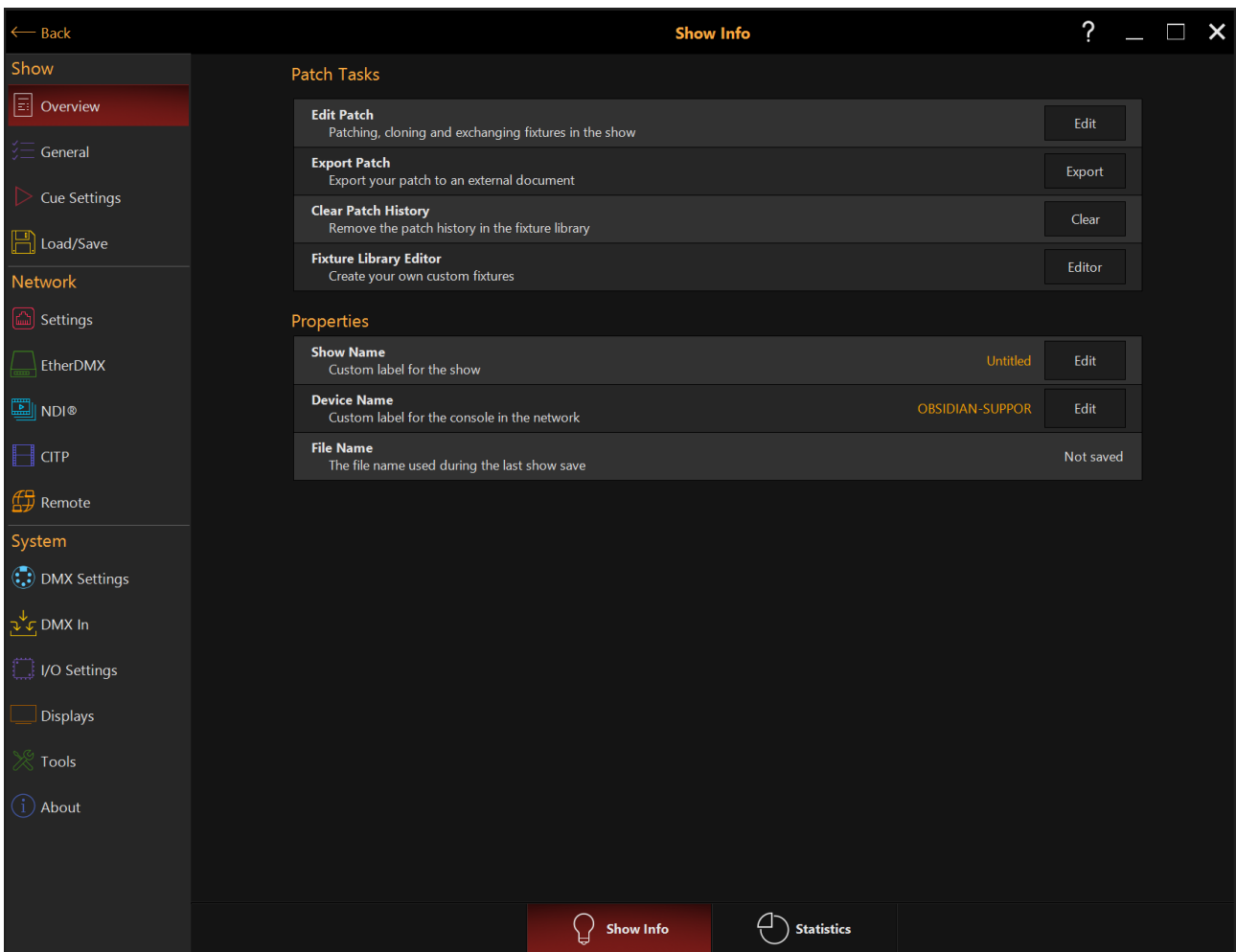
When you want to make changes to your show defaults, DMX settings, or a variety of other options, it's time to use the Main Menu.

In ONYX, the main menu is accessed by clicking ONYX in the upper left hand corner, then pressing Menu.



Inside of the main menu, we see a left sidebar for navigation through the various settings, and we can edit and change settings on the right.

At the bottom of the right column, we also can navigate through various tabs within each preferences page:



Menus

The main menu is made up of 3 main sections: [Show](#), [Network](#), and [System](#). Read the pages that follow to go in-depth on the menu options for each section and sub-heading.

Show Settings

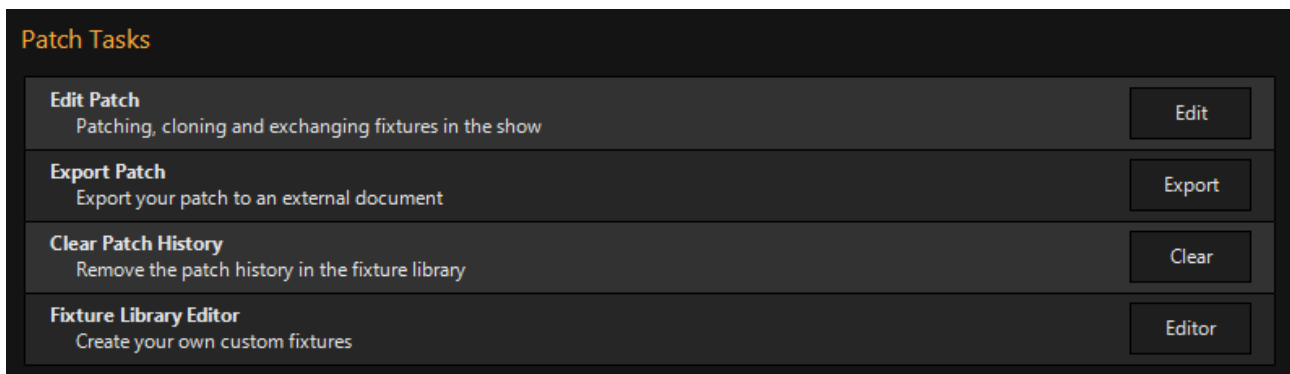
Show settings allow you to change global preference settings and load/save both settings and [Workspaces](#).

Click on the categories below to expand/contract each section to reference as needed.

Overview

Show Info

Patch Tasks



Menu Item

Function

Edit Patch An alternative way to open the [Patch](#) window.

Exports the patch to a XML file for viewing or [Patch Import](#).

Export Patch

You may also open the "[ShowFileName].Fixture.ONYX.xml" file in a variety of programs (example: Microsoft Edge), you'll see a nice, printable chart of your patch sheet.

Clear Patch History This clears the history of fixtures that you have previously patched in the patch window.

Fixture Library Editor Launches the [Fixture Library Editor](#), where you can create and modify fixtures.

Show Info

Properties

Properties		
Show Name Custom label for the show	Onyx Training	Edit
Device Name Custom label for the console in the network	DESKTOP-1IS2J43	Edit
File Name The file name used during the last show save	Onyx Training	

Menu Item

Function

Show Name Allows you to name your show. This is the name you will see when you launch ONYX, and have the option to "Load Show".

Device Name When using [X-Net](#), this is the device name that you will see in the menu.

File Name Shows the last used file name for the active show.

Statistics

The statistics section shows you a variety of information about your show. See below for examples:

General

General	
Showfile	18 MB
FixtureType Amount of fixturetypes	5
Fixture group Amount of fixture groups	77
Logic channel Amount of logic channels	1258
Cuelist Amount of cuelists	16
Cue Amount of cues	37 (8 kB)

Operating System

Operating System	
Free RAM	11858520 kB

Fixture

Fixture (143)	
Artiste DaVinci Standard Amount of fixtures	11
Colour Chorus 72 48 Ch (d) Amount of fixtures	104
Dartz 360 Extended Amount of fixtures	12
FUZE WASH Z350 15 Ch Amount of fixtures	11
WW Profile 1 Ch Amount of fixtures	5

DMX Universe

DMX Universe (1162)	
Universe 1 - 27 Fixtures Amount of used channels	478 (free: 34)
Universe 2 - 12 Fixtures Amount of used channels	300 (free: 212)
Universe 3 - 8 Fixtures Amount of used channels	384 (free: 128)

Preset

Preset (126)

Intensity Amount of presets	23
Pan Tilt Amount of presets	18
Color Amount of presets	17
Gobo Amount of presets	32
Beam Amount of presets	34
Special Amount of presets	2

General

Preferences

The preferences section allows you to change a variety of user settings for the current show file.

Commandline

Single Digit Shortcut Shortcut to use a single digit for 10,20,30 % etc...	<input type="checkbox"/> OFF
Intensity Level Shortcut Level of increase or decrease in % (Hold @ and use +/- key)	- 010 +
Full Value Set the value in % that is placed in the programmer when you use the full key	- 100 +

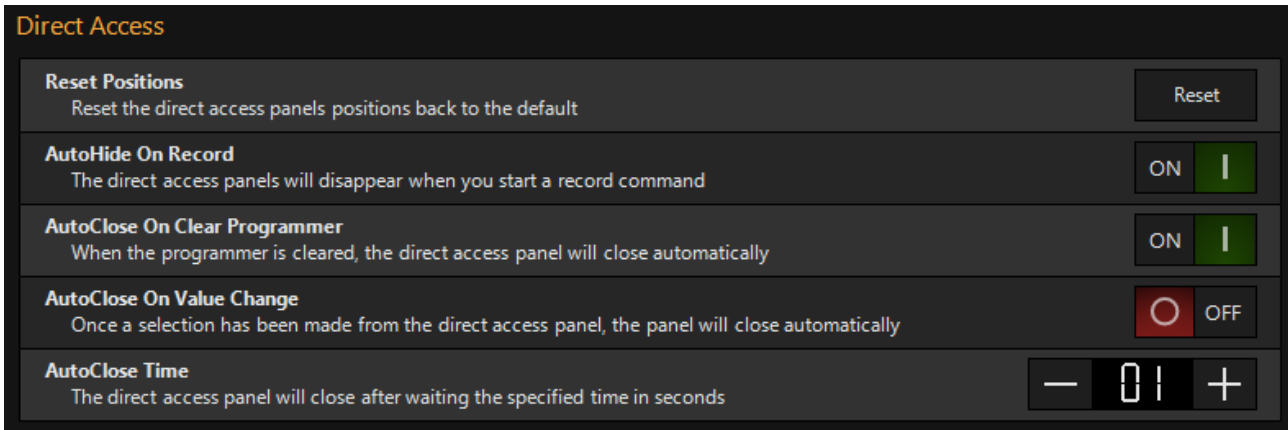
Menu Item	Function
Single Digit Shortcut	Turning this on allows you to use numbers 1-9 to set the "10's" value for intensity. For example, pressing 101 @ 3 ENTER would bring fixture 101 to 30%.
Intensity Level Shortcut	Allows you to set the change in intensity level brought on by pressing @ and +/- for the selected fixtures.
Full Value	Allows you to change what percentage the @ Full command brings the intensity level to for the selected fixtures.

Peripheral Behaviour

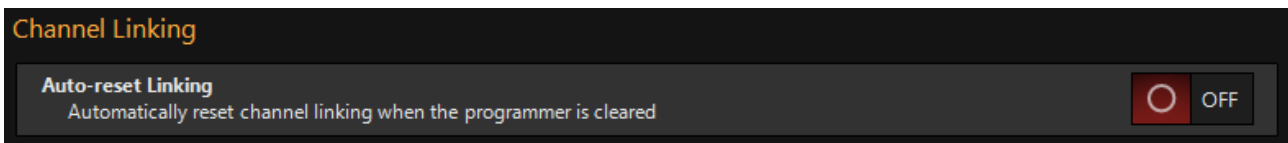
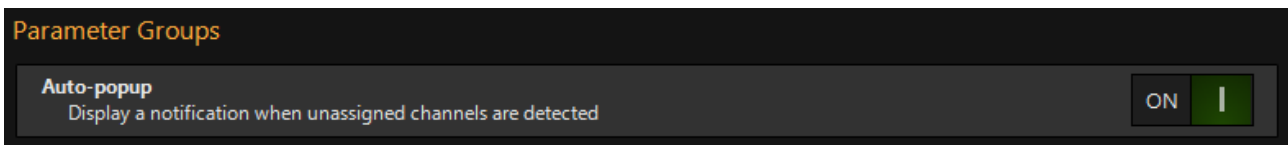
NX-K Encoders Set the behaviour of the encoders	Screen Parameter
---	------------------

Menus

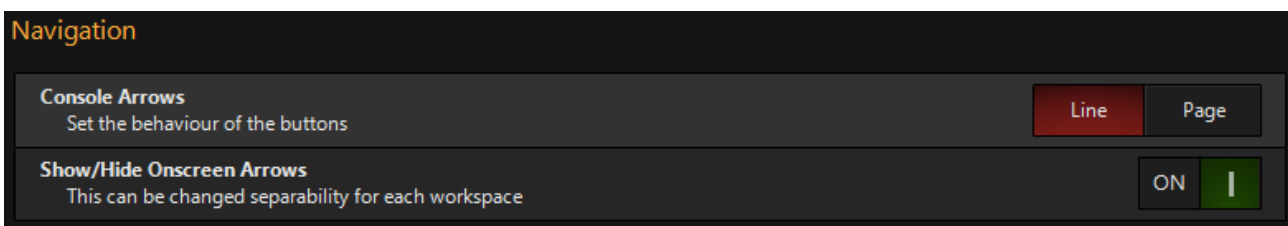
The "Peripheral Behaviour" items modify the behaviour of the assignable encoders on supported devices. For more information please see [NX-K Encoder Selection](#)



These menu items modify the behavior of the [Direct Access](#) panels.



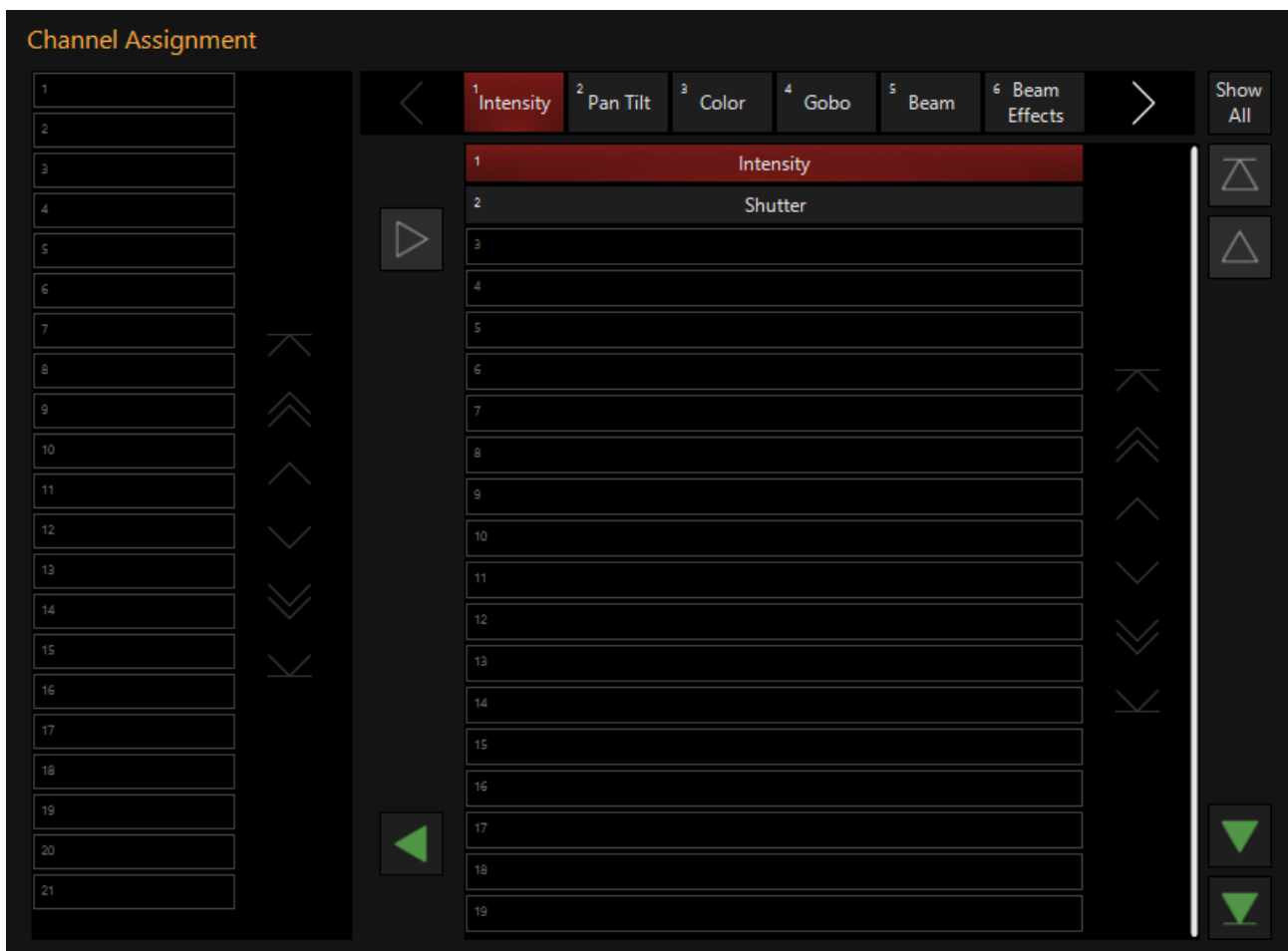
Use this option if you want [FX Link](#) to automatically reset each time you clear the programmer.



With these controls, you are able to customize how the console keyboard navigates through windows.

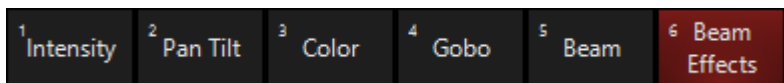
Show/Hide Onscreen Arrows is a helpful option when working on smaller screens.

Parameter Groups

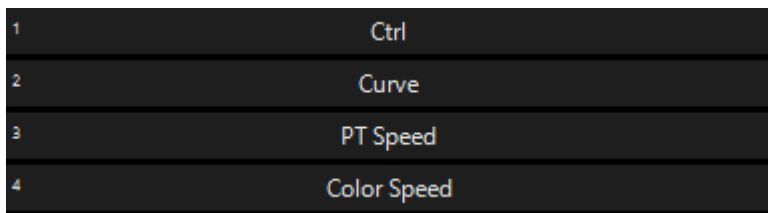


The Parameter Groups editor window allows you move parameters between the different parameter groups to suit your personal preference.

First, select the parameter group you wish to move a parameter from on the top selection bar:



Then, select the parameter you wish to move from the list below:



If you do not see the parameter that you wish to select, it is not active in your show. Press Show All to the left of the parameter group selectors in this window to see all parameters.

Next, press the green left arrow to move that parameter out of the current parameter group.

Menus



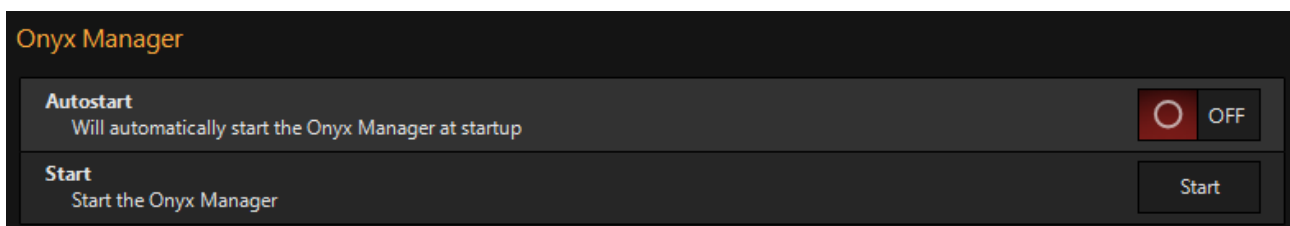
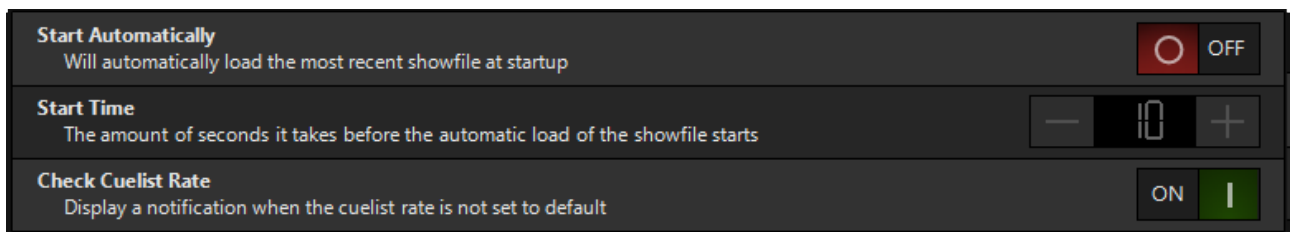
Once you've moved the parameter, you may now select a different parameter group at the top, and move the parameter into that parameter group using the green right arrow.

Using the arrows on the right side, you may also move the selected parameter up and down in the active parameter group.

When you are finished, be sure to press Apply to save your changes.

Startup

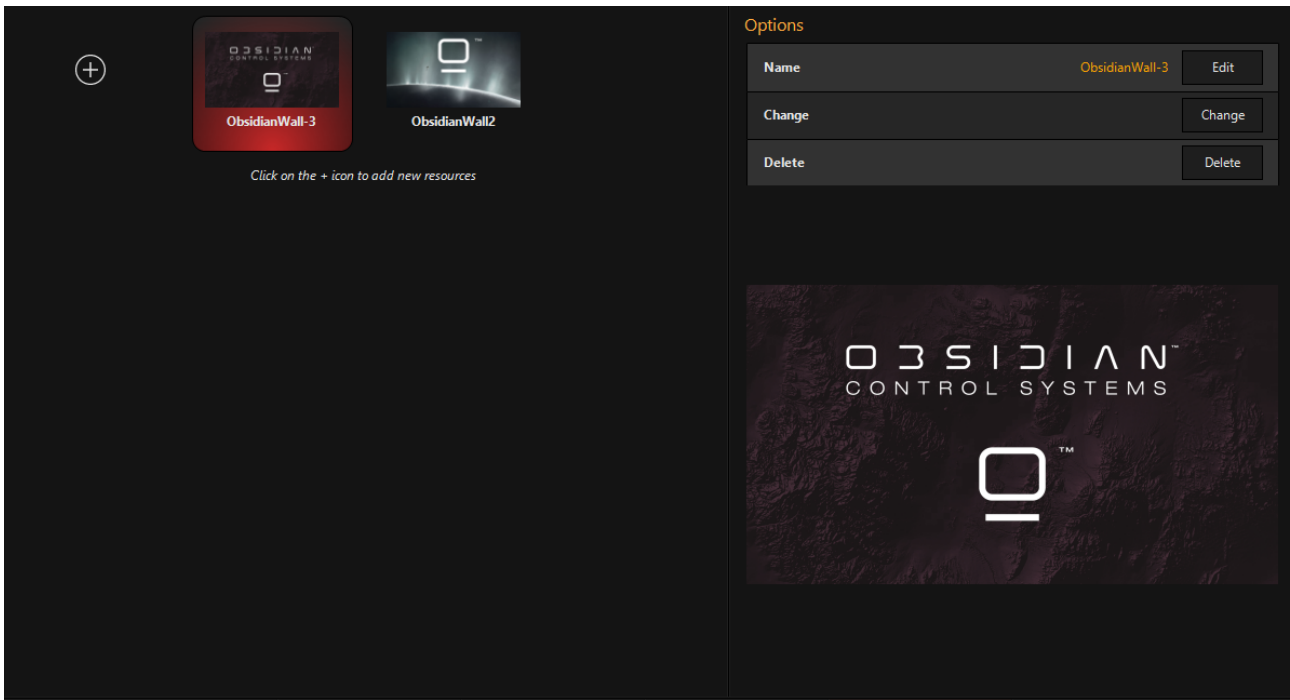
The Startup preferences allow you to set what happens when you start ONYX and when a show file loads:



Resources

The resources section allows you to see the current image files that are attached to your show.

Menus



In the left Options column, you can rename, change, and delete each of these images as needed.

Cue Settings

Playback

The various Playback settings allow you to customize your live show experience:

Snap + Rel / Release All 'Dimmers first'

Enable/Disable
If disabled, pressing Snap + Rel will have no effect ON

Intensity Release Time
The amount of seconds it takes for the fixtures to fade out before releasing — 0.10 +

Release Time
The amount of seconds it takes for the fixtures to release after fading out — 0.10 +

Rel + Snap / Release All

Enable/Disable
If disabled, pressing Rel + Snap will have no effect ON

Timing Mode
Global or specific time in the cuelist options Global release time Cuelist time

Global Release Time
The amount of seconds that is used to release all valid active cuelists — 0.10 +

Inactive Playback Bank/Page behavior

Release Playback Faders On Inactive Banks OFF

Release Playback Buttons On Inactive Pages OFF

Reset Playback Fader Levels To Default On Inactive Banks OFF

Reset Submaster Fader Levels To Default On Inactive Banks OFF

These settings allow you to reset and release faders and buttons when you change banks. By default, these are all off.

Playback Faders

Startup Level
All faders which do not have individual default fader levels will be set to this value Zero Full

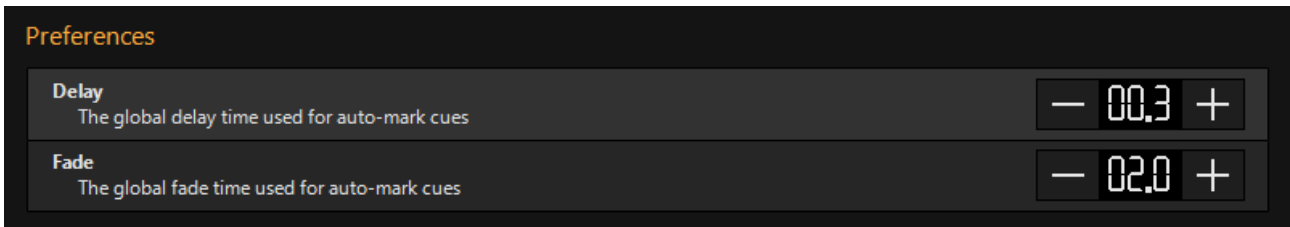
Grandmaster

Grandmaster Button
Set the action for the button beneath the grandmaster fader Off Flash Blackout

Grandmaster Fader
Enable or disable the grandmaster fader ON

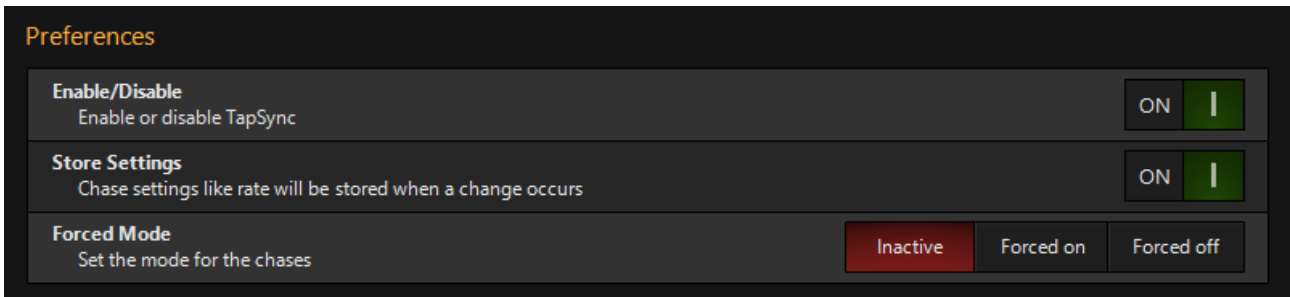
Mark Cue

Mark, also known as Move in Black, allows you have parameters automatically change for upcoming cues on fixtures which have their intensity at zero. [Learn more about Mark here.](#)



TapSync

TapSync allows you to use the playback's "Go" button or the global Beat button to control the BPM of your chases. [Learn more about the Beat button here.](#)



Forced mode allows you to globally turn TapSync On or Off for all chases that are set to "Show Default" in their [Chase Cuelist Options](#).

Cue Fade Times

In the [Record Options popup](#), there are 9 presets for cue fade in times. You can modify those presets here:



Menus

When you are finished, be sure to press **Apply** to save your changes.

Load/Save

Shows

Tasks

New Show Create a new empty show	New
Load Show Load a new showfile	Load
Save Show Save the active show	Save

Preferences

Append Timestamp On Save The current time and software build will be added to the showfile name	ON <input checked="" type="checkbox"/>
Backup Current Show First The showfile will be saved with the name "BeforeLastLoad" in the backup folder	ON <input checked="" type="checkbox"/>

Reports

Tasks

Cuelist Report Document that contains all the cuelists in the show	Export
Preset Report Document that contains all presets in the show	Export
Fixture Group Report Document that contains details about all the fixture groups	Export
Patch Report Document that contains the fixture patch of the show	Export

Workspaces

Tasks

Replace Workspaces and Layouts Replace previously saved workspaces and layouts from a file	Replace
Merge Workspaces and Layouts Merge previously saved workspaces and layouts with the current	Merge
Save Workspaces and Layouts Save your workspaces and layouts as a backup or import them into another show	Save
Factory Workspaces and Layouts All the workspaces and layouts will be set to their factory defaults	Defaults
Remove All Workspaces and Layouts Clears all workspaces and layouts from the show	Remove

Settings

All Settings

Load Load previously saved settings from a file	Load
Save Save all the console settings to a file	Save
Resynchronize DyLOS Content All the local cache content will be mapped into the show	Resynch
Import DyLOS Content All the local cache content will be mapped into the show	Import
Export DyLOS Content All the local cache content will be mapped into the show	Export
Factory Parameter Groups The parameter group assignment settings will be set to their factory defaults	Parameter Groups
Factory Defaults All the settings will be set to their factory defaults	Defaults

Cue Settings

Load Load previously saved cue settings from a file	Load
Save Save your cue settings to a file	Save
Factory Defaults All cue settings will be set to their factory defaults	Defaults

Network Settings

Network Settings allow you manage all of the network functions of ONYX through one central location.

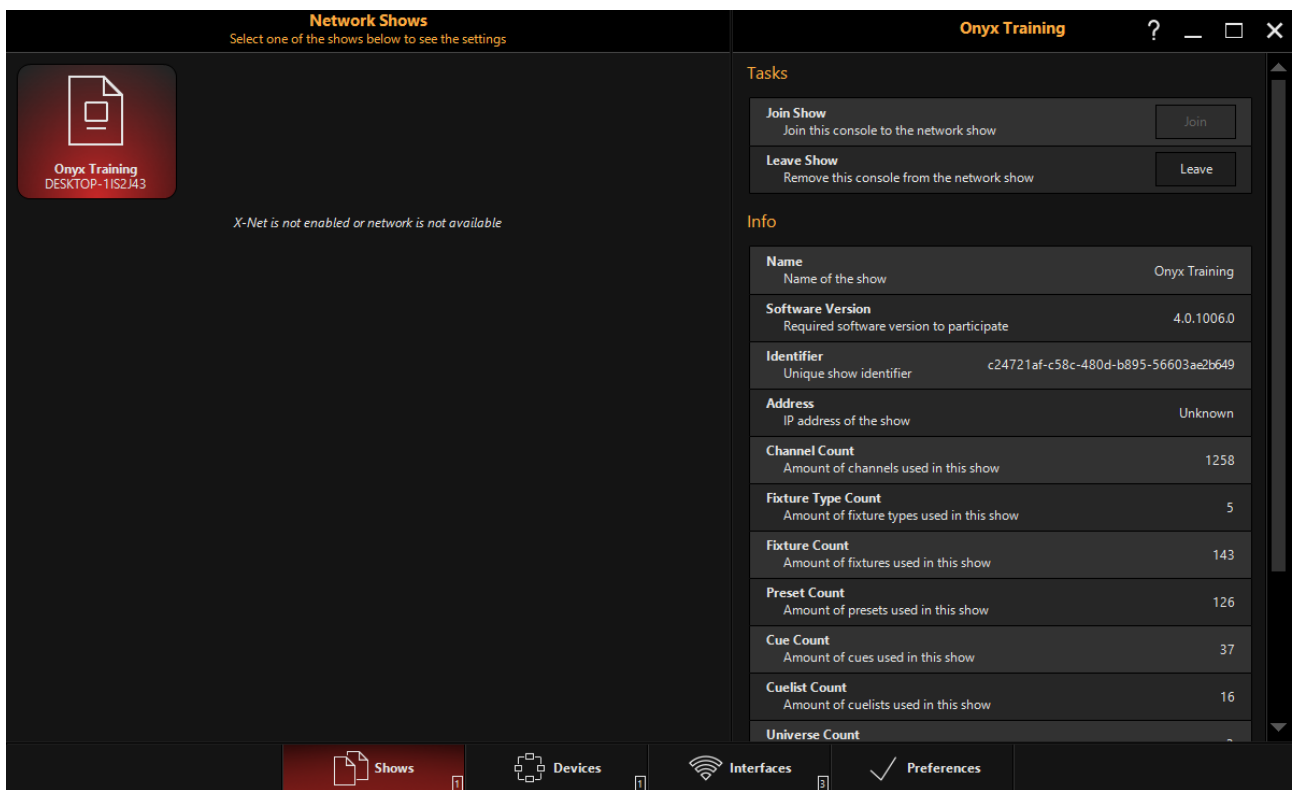
Click on the categories below to expand or contract each section to reference as needed.

Settings

Shows

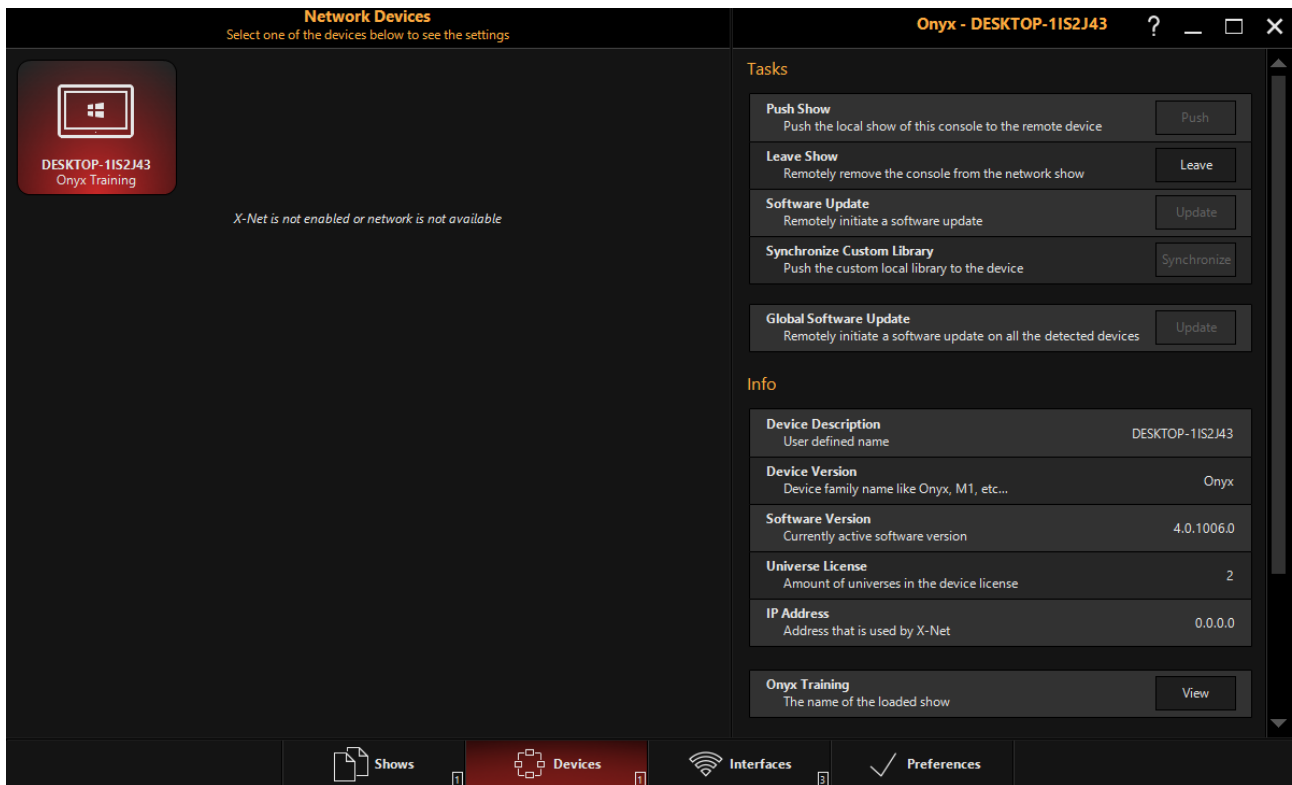
In the Shows settings, you can see any active X-Net network shows, and the right column shows a number of statistics and tasks.

You may also Join and Leave shows here. [Learn more about using X-Net here.](#)



Devices

The Devices settings allows you to see other network consoles and PC's running ONYX.



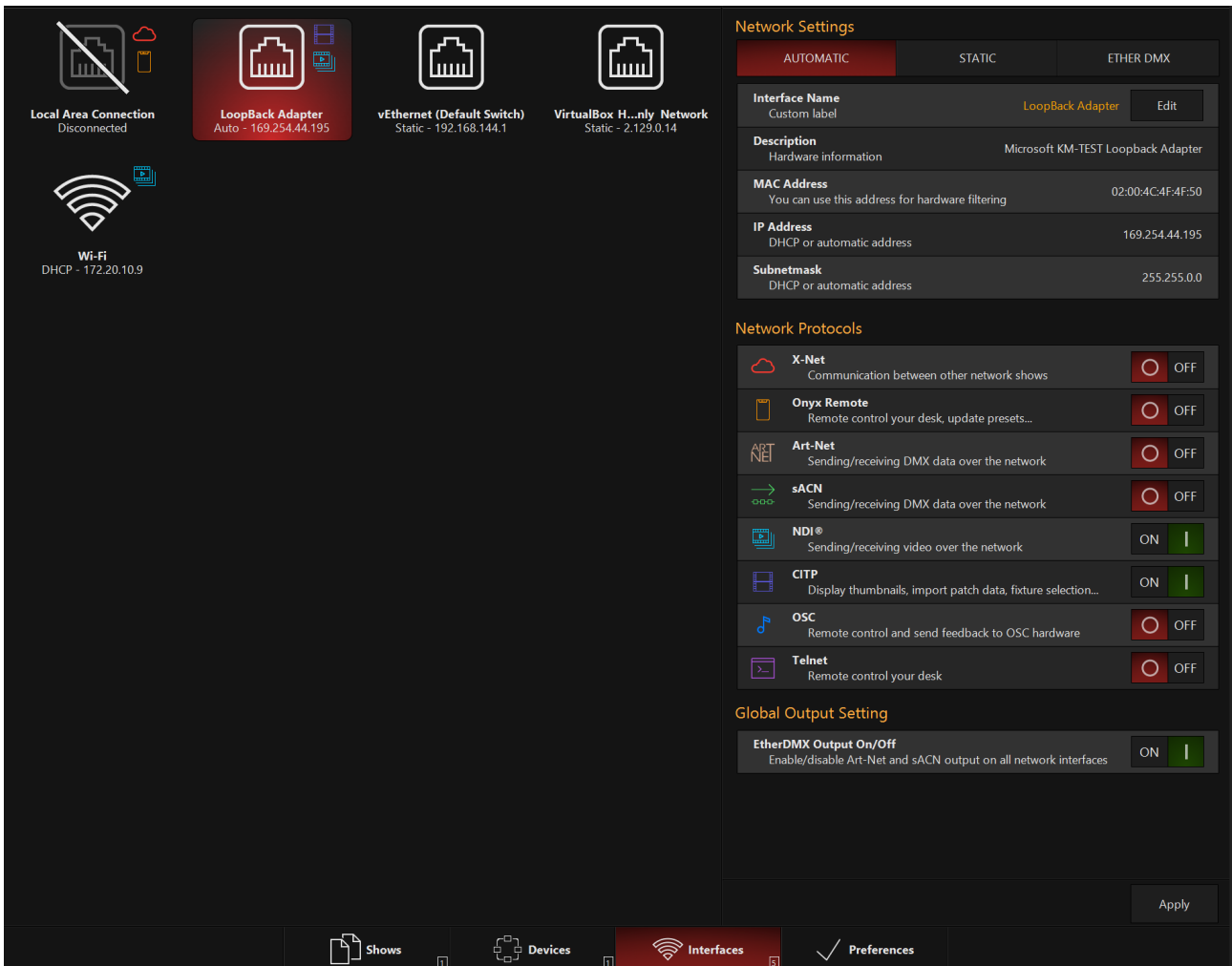
In the main left column, we can see any devices on the network, and what show they are running.

Once a device is selected, we can Push our show file, Leave the network show, Update a network device, Synchronize the custom fixture library and Update the software on all detected devices via the right column.

The right column also contains some useful statistics about the selected device.

Interfaces

Much like the other network tabs, Interfaces allows you to see the various network interfaces on the current device and configure them.

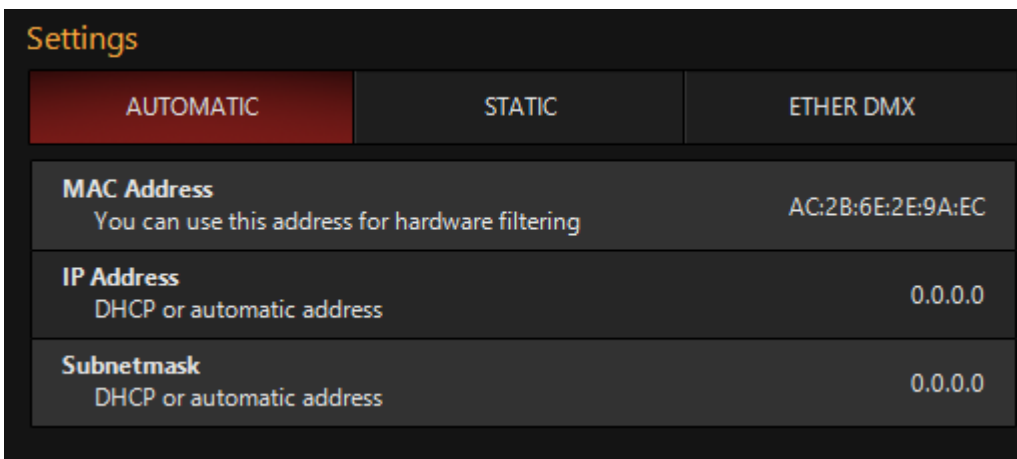


In the left column, we select the network interface we wish to configure.

The right column then has 2 main sections:

Settings

Settings allow you to change the IP address and Subnet Mask for the selected network interface.



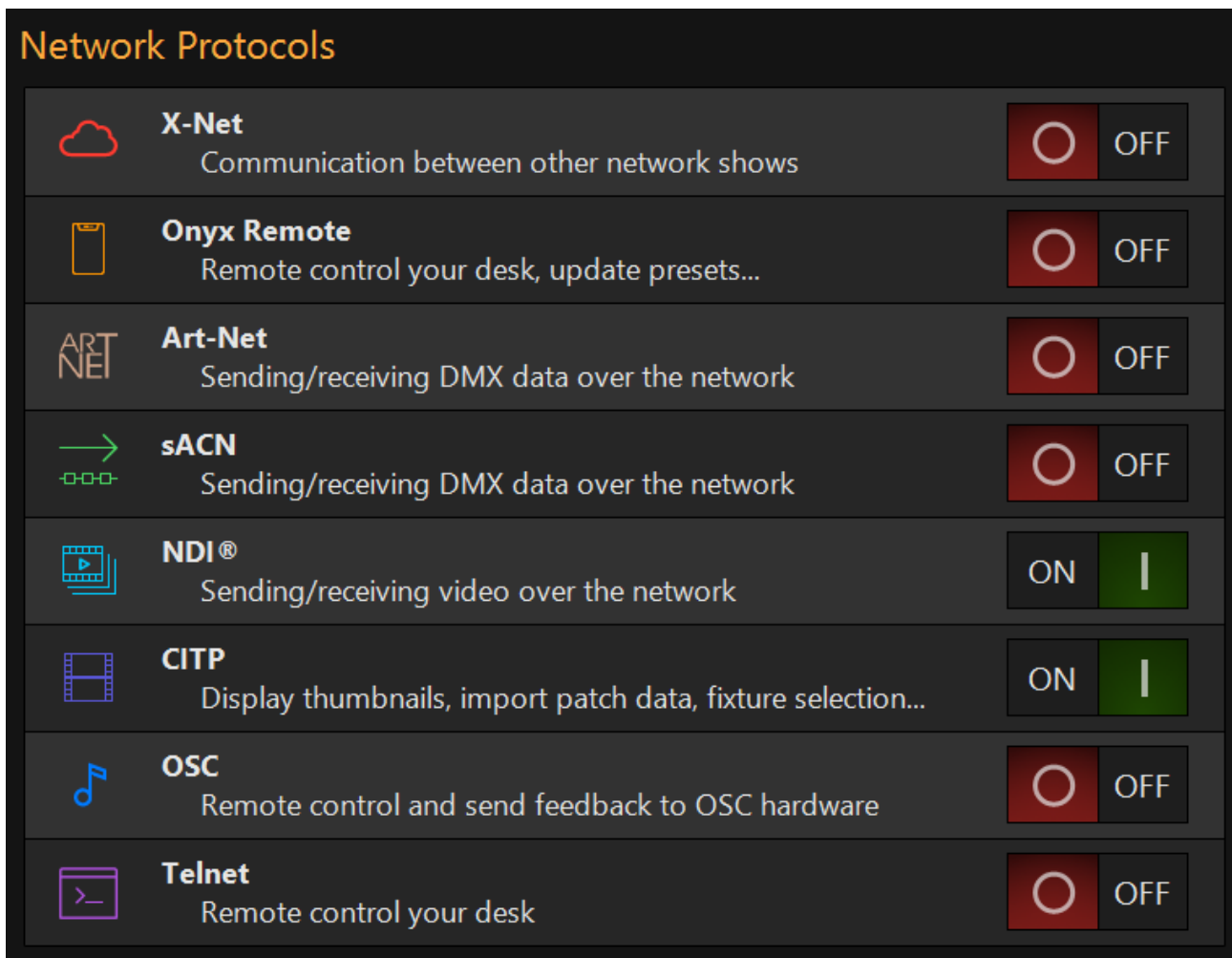
This section has 3 options at the top:

Menus


Menu Item	Function
Automatic	Allows the computer to have it's IP address set via DHCP from the router in your network system.
Static	Allows you to fully customize the IP address and Subnet Mask.
Ether DMX	Sets the IP range in the 2.X.X.X range, which is recommended for running DMX over Ethernet.








Options

The options section allows you to set which network protocols you wish to allow on the selected network interface.



Be sure to press **Apply** in the lower right hand corner when you have completed making changes.

Protocols	Description
 X-Net	X-Net is a proprietary protocol used to connect and sync multiple Onyx consoles or PCs together.

	<p>The ONYX Remote allows you to control your ONYX system remotely. Learn how to configure the ONYX Remote app here.</p>
<p>Remote</p>	
	<p>Art-Net is used to send DMX over the network to an Ether-DMX node capable of decoding Art-Net.</p> <p>Learn how to set these up here on the EtherDMX Settings page.</p>
<p>Art-Net</p>	
	<p>sACN is used to send DMX over the network to an Ether-DMX node capable of decoding sACN.</p> <p>Learn how to set these up here on the EtherDMX Settings page.</p>
<p>sACN</p>	
	<p>NDI accepts network video into the console for use in Dylos. NDI Configuration</p>
<p>NDI</p>	
	<p>The CITP Protocol allows integration between ONYX and a compatible Media Server.</p> <p>You can setup CITP here, and also manage when and how you want the CITP information to be updated via the settings.</p>
<p>CITP</p>	<p>Learn how to configure CITP in ONYX here.</p>
	<p>OSC allows you to remotely control ONYX via applications and hardware, such as TouchOSC. Learn how to configure OSC here.</p>
<p>OSC</p>	
	<p>Telnet allows for sending Telnet commands into Onyx to trigger playbacks. List of Telnet Commands</p>
<p>Telnet</p>	

Preferences

The last tab under Network Settings allows you to set various network preferences:

Security

Allow Join Show
Allow others to join on your show ON

Allow Remote Control
Allow others to take remote control over your console with X-Net (like push/leave show) OFF

Synchronization

Bank Selection
Synchronize the banks over the network ON

Cuelist Selection
Synchronize the selected cuelist over the network ON

Main Cuelist Selection
Synchronize the MAIN cuelist selection over the network ON

Information

X-Net Notifications
Show notifications when something changes within the X-Net network ON

System Settings

The System Settings menu items allow you to see a variety of information about your system and make a variety of changes on a system level. ***These settings are only applicable to the current ONYX console or PC that you are working on.***

Click on the categories below to expand/contract each section to reference as needed.

DMX Settings

Local DMX Menu

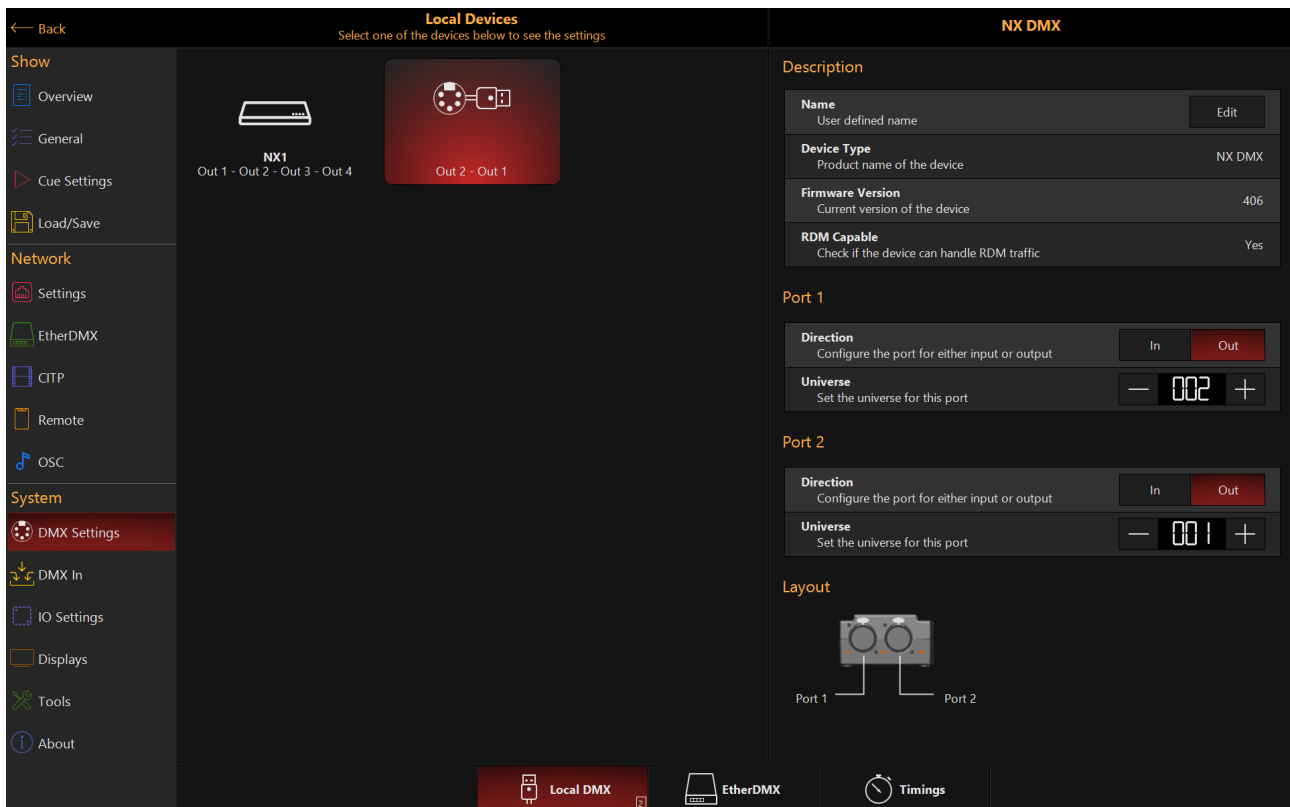
The Local DMX Menu is new to 4.8 and replaces the previous USB2DMX Menu for assigning universes to local attached DMX ports.

This includes the following devices:

- NX4 (4 Local Outputs)
- NX2/NX-Wing (4 Local Outputs)
- NX1 (4 Local Outputs)
- NX-P (4 Local Outputs)
- NX-Touch (1 Local Output)
- NX-DMX (2 Local Outputs)
- For a complete list of supported local DMX devices included legacy devices please see our [license matrix](#)

From this menu you can:

- Name Devices
- Assign the DMX port as an Input or Output
- Assign the DMX Universe

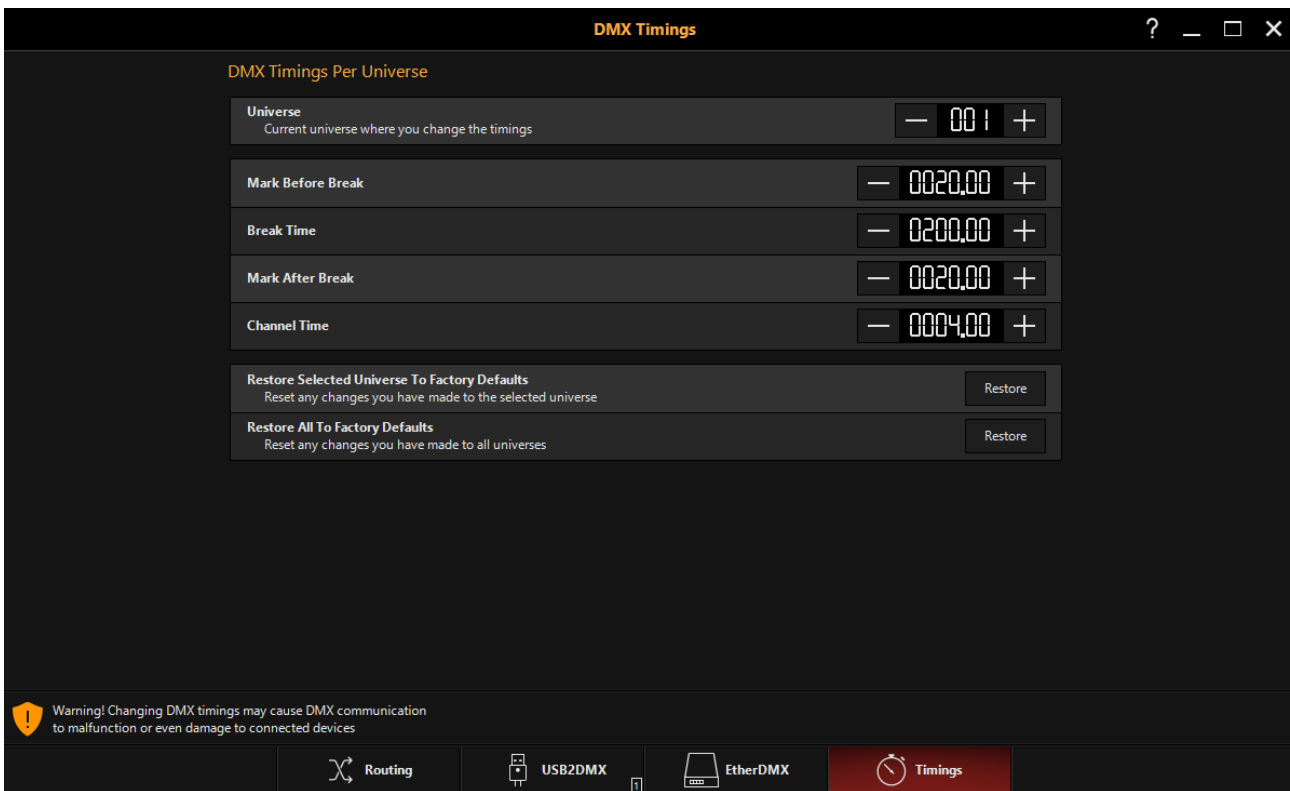


EtherDMX

The EtherDMX settings shows the detected Art-Net devices. [Learn how to configure Art-Net Devices here.](#)

Timings

Using the Timings settings you can modify the DMX timings that ONYX transmits, per universe.



Warning! Changing DMX timings may cause DMX communication to malfunction or even damage connected devices. Do not modify these settings unless you absolutely understand what you are doing!

DMX In

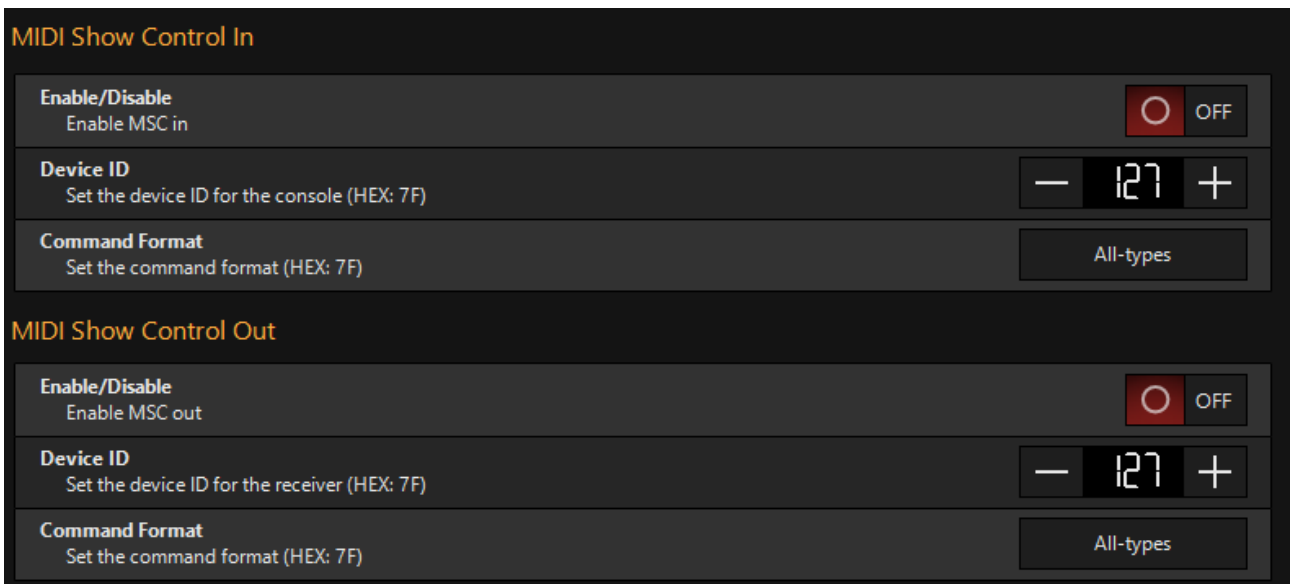
The DMX In settings allow you to configure the DMX input from a variety of sources.

[Click here to learn how to setup DMX Input. The Full documentation of this menu category is on the DMX Input instruction page here.](#)

IO Settings

MIDI Settings

The first part of the MIDI Settings allows you to enable, disable and set the format and device ID for MIDI Show Control (MSC):



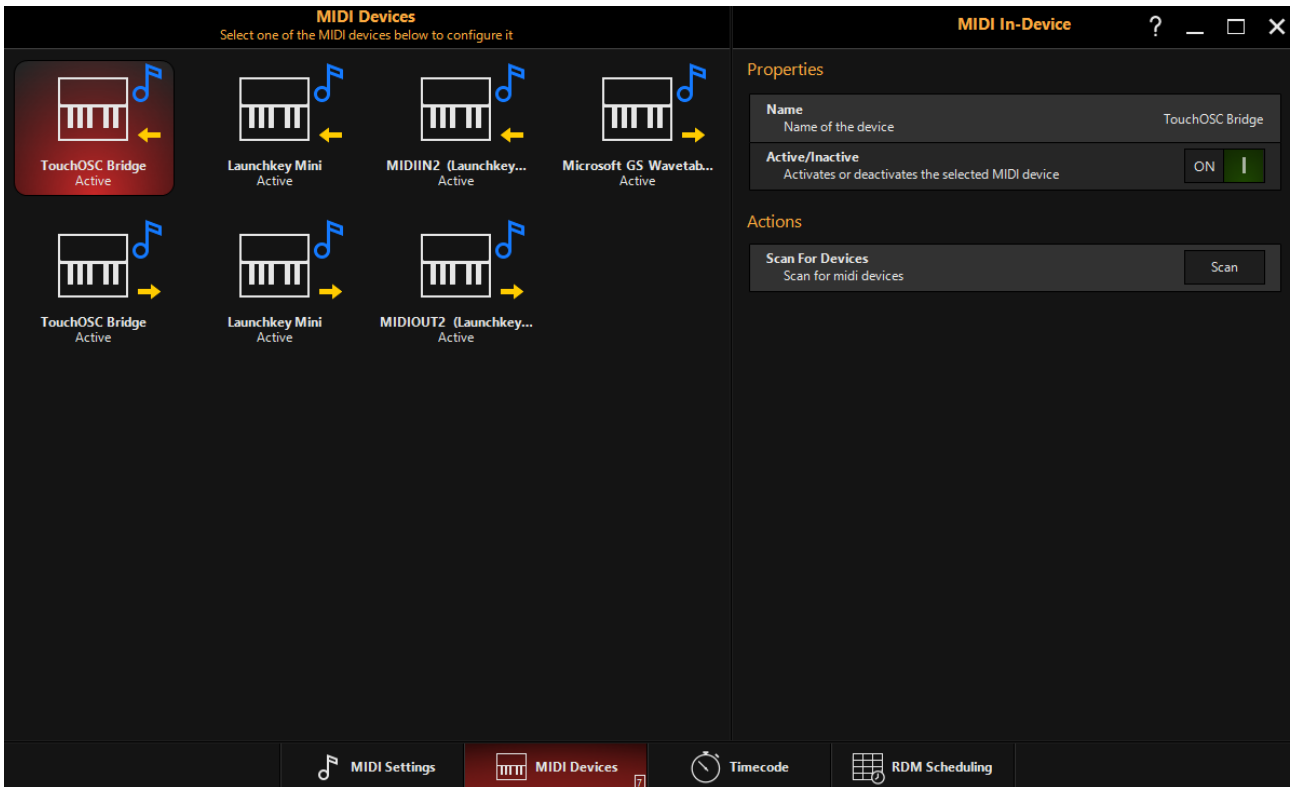
Below that, we can scan for MIDI devices:



Be sure to press Apply in the lower right hand corner when you have completed making changes.

MIDI Devices

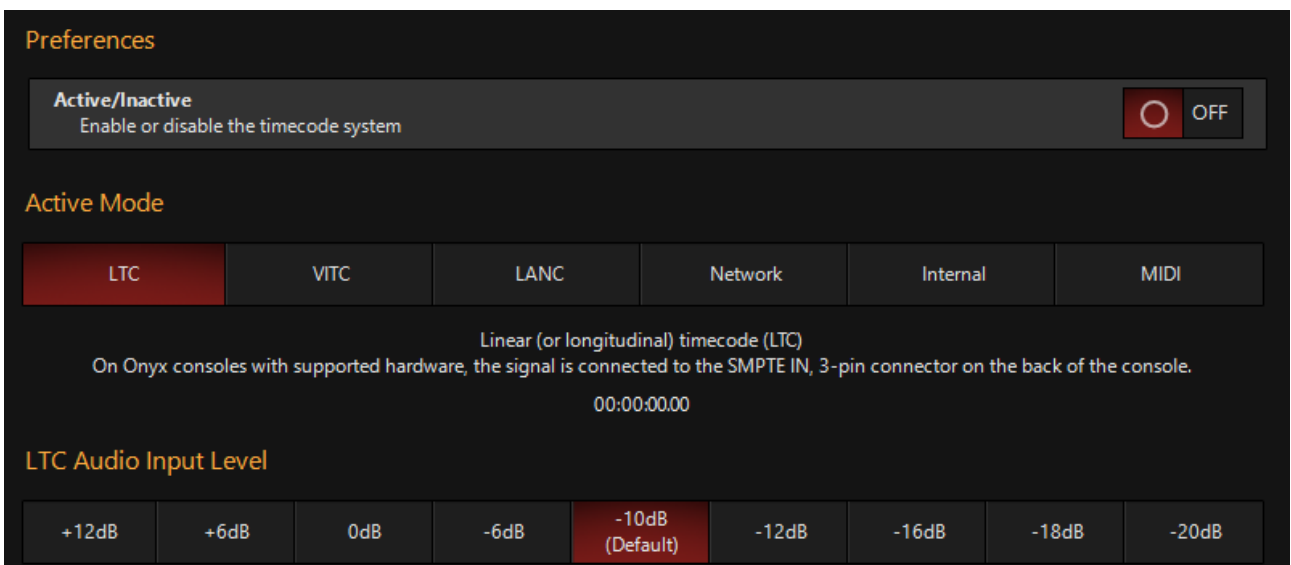
Once your MIDI devices have been detected (either at startup, or via Scan, we can now manage them via the MIDI devices tab:



On this tab, you may view each connected device, and enable/disable them. You may also Scan via this tab to find new MIDI devices.

Timecode

Via the Timecode Settings, we can enable/disable the timecode, and set the type of timecode that is active. The bottom section allows you to change the audio level for LTC input if needed- this setting does not apply to other types of timecode.

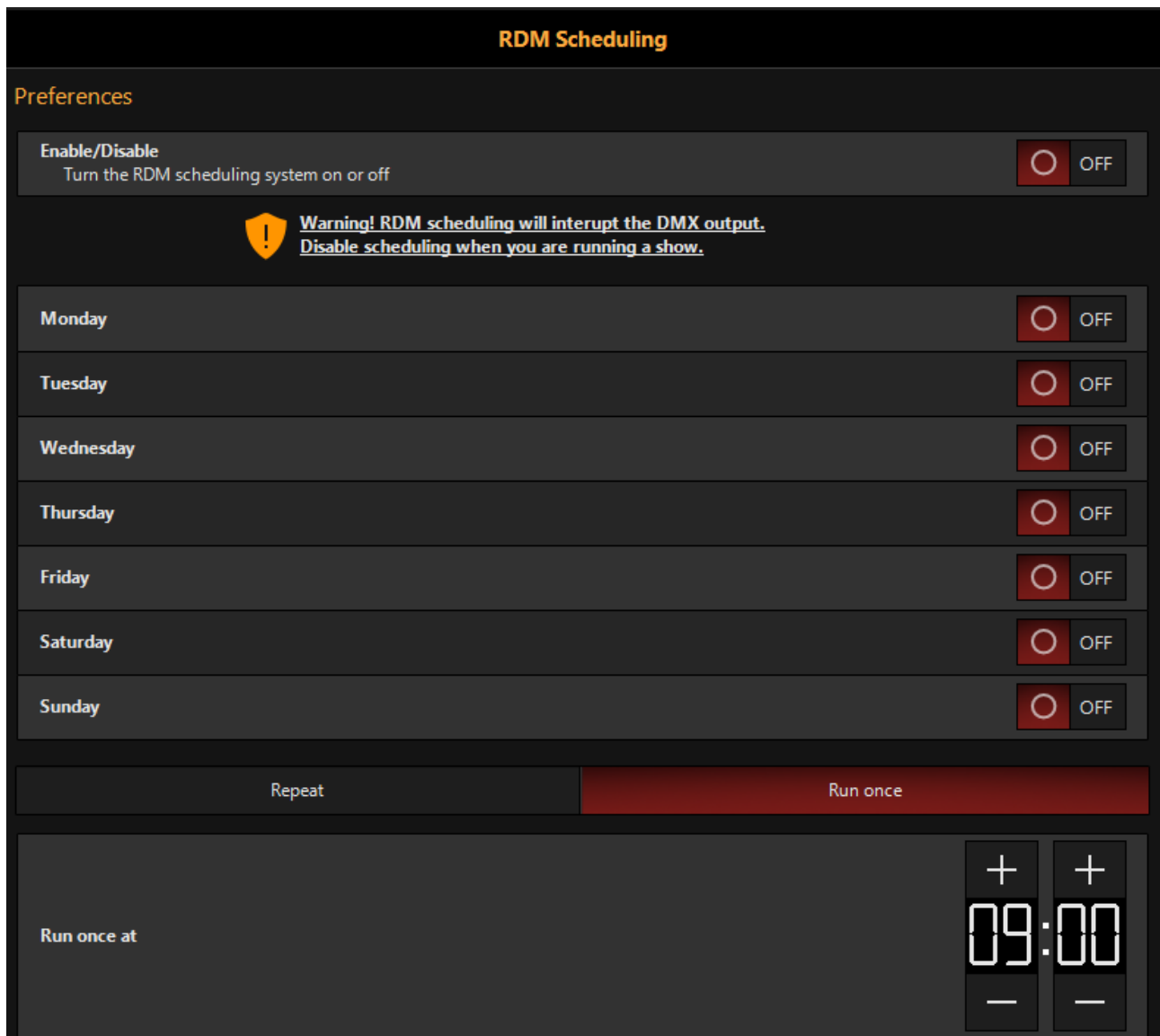


RDM Scheduling

In ONYX, you can schedule RDM scans to "check up" on your rig periodically.

Remember that RDM scans will interrupt DMX Output, so please schedule these during "non-show" times!

In this menu, you're able to enable/disable this function, set what day and time it will run, and whether it repeats:



Be sure to press Apply in the lower right hand corner when you have completed making changes.

Displays

You can manage the amount and details of each display connected to ONYX using the Displays Settings.

[Learn how to configure the Displays Settings here.](#)

Brightness

[Learn how to set display, wing, and button brightness here.](#)

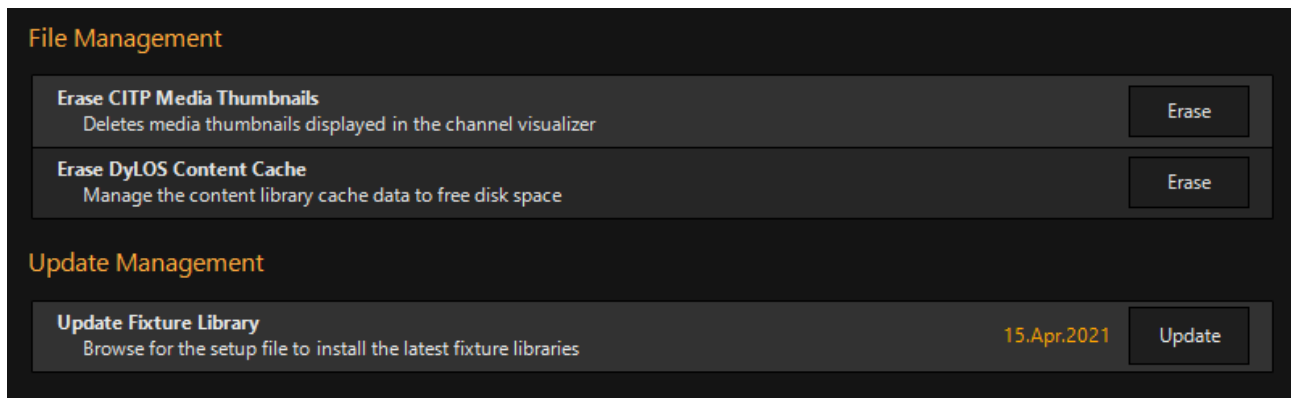
Configuration

In the configuration tab, you can [Calibrate the Small Touch Display\(s\)](#).

Tools

Maintenance

Inside the maintenance settings, you are able to erase your CITP media thumbnails, erase the DyLOS content cache, and manually update your fixture library:



Diagnostic

The diagnostic settings allow you to create logs upon request if you find bugs or errors in ONYX. Under "Tools" you are also able to test your console hardware, and update the firmware of your devices.

Visit the device specific pages in this support manual to learn how to update the firmware on your specific device.

The screenshot shows a software interface with two main sections: "Logging Tasks" and "Tools".

Logging Tasks

- Start Logging**: Generate a logging document when troubleshooting becomes necessary. A "Start" button is located to the right.
- Reboot And Start Logging**: This will reboot the console with logging enabled in order to troubleshoot the startup process. A "Reboot" button is located to the right.

Tools

- Console Tester**: Graphical utility for diagnosing DMX-512, timecode, MIDI, sound trigger input, buttons, LEDs, faders, belts, LCD texts on console and wing(s).
- MIDI Tester**: Graphical utility for diagnosing MIDI on console and wing(s).
- Firmware update**: Graphical utility for updating firmware.
- Firmware for NX Touch, NX Play, M-Touch & M-Play**: Utility for updating the devices. Push the small button in the hole next to USB input while connecting USB cable to enable firmware uploads.
- Firmware for SMPTE & MIDI**: Utility for updating the devices.

Security

The security settings allow you to add and remove owners for owner library content in [DyLOS](#). Your system must be licensed in a LIVE mode in order to work with Owners. Learn how to manage owners on [DyLOS Owner Lock and Security](#).

The screenshot shows a software interface with a section titled "Owner Role".

- Add Owner**: Add an owner to manage the owner content on the system. An "Add" button is located to the right.
- Remove Owner**: Removing not allowed. You must have 2 owners or more. A "Remove" button is located to the right.

About

The About section contains information and resources about your ONYX system.

Information

This section contains information about your device, and the version of your software, OS and fixture library.

Information	
Device Type	ONYX Free Edition
Software Version	4.0.1006.0 (Release)
SHA-1 Build	9d22d624
Operating System	Microsoft Windows 10 (Build 10.0.17134.0)
Fixture Library Version	4.0.1006.0

Support

Support offers links and phone numbers to the various ONYX support resources:

Support	
Website For all support related question and fixture requests	www.obsidiancontrol.com
Email Contact controller support	support@obsidiancontrol.com
User Forum Technical support and discussions about control systems	forum.obsidiancontrol.com
US Support Technical support questions	+1(866) 245-6726
EMEA Support Technical support questions	+31 45 546 85 66
Facebook Join the online community on Facebook	Onyx User Group

Release Notes

The Release Notes allows you to view the changes, fixes and updates from the previous and current versions of ONYX.

Release Notes

Release notes for Onyx

(C) 2018 - Obsidian Control Systems

4.0.1006 (15/08/2018)

=====

First version under Obsidian Control Systems

Launch of Onyx Software Platform, X-Net network protocol

Showfiles and settings renamed to .Onyx...

New "Obsidian" Documents folder

New OS 4.0 required for all embedded consoles

On PCs, M-Series will be fully uninstalled first; your current show file will be saved as BeforeOnyx.maxxyz in your Maxxyz files folder

Licensing

Onyx License enhanced to 128 Universes on PC systems

Universes 1-255 can be patched freely until license count is used up

(the license are no longer based from 1 upwards)

Free Edition remains locked to Universes 1-4

License feedback popup and menu overview indicate remaining Universe count

New Features

Onyx User Interface support for DPI / Zoom Settings in Windows.

Revised Menu navigation and icons for clarity

Enhanced workspace editing

License

Under License, via the bottom tabs, you are able to view the current device's license, and manage your ONYX Key or OneKey. The current license is highlighted in Red in the chart at the top:

License

License Type	Command Line	USB Universe	EtherDMX Universe	DyLOS Zones	OSC Playback	MIDI	Timecode
Free	FREE	-	1	2	Start 5 minute trial		
Nova	NOVA	4 (unlock with ONYX/Martin USB-DMX, Touch/Play, NETRON ArtNet or trial)		2	5 minute trial (unlock with Touch/Play or trial)		
Essential Key	LIVE 8	8		2	Yes		
Premier Key	LIVE 64	64		5	Yes		
Elite Key	LIVE 128	128		5	Yes		

Without an ONYX USB or NETRON device attached the software runs in FREE mode. All patching and programming are possible without restrictions for all 128 universes and 5 DyLOS zones. Unlicensed zones show a random watermark.

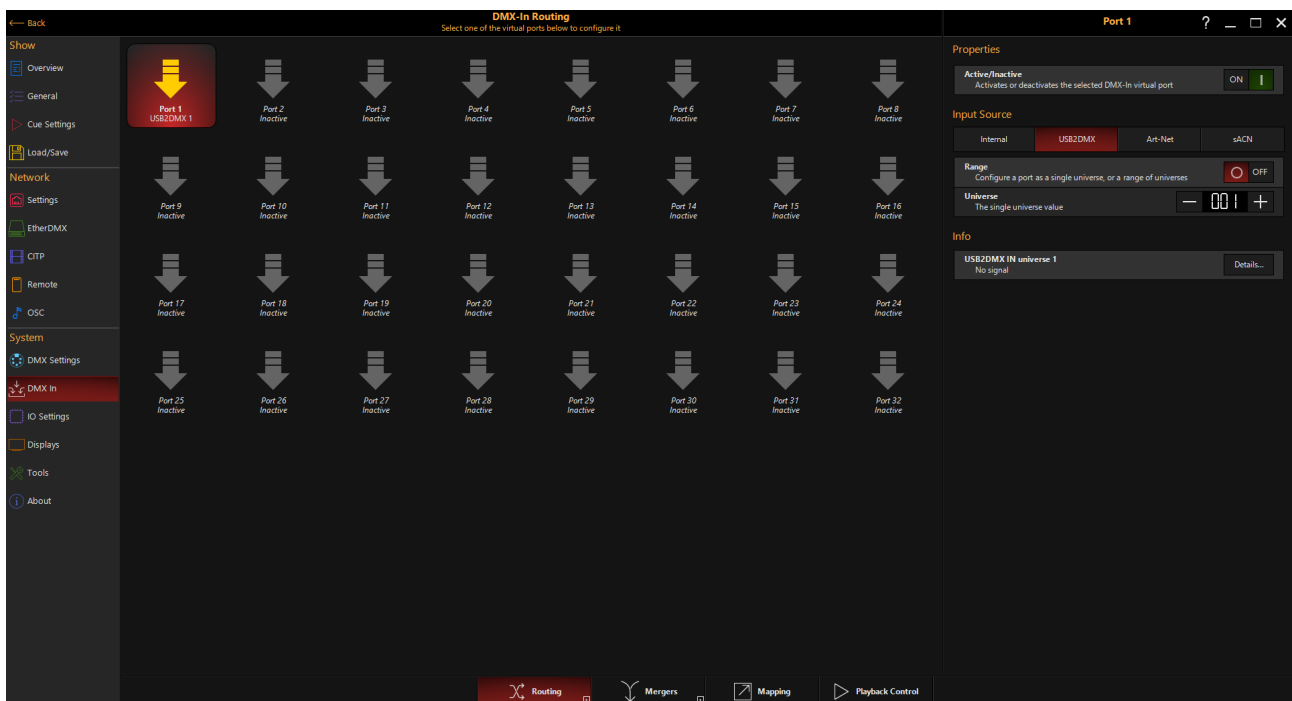
Manage License View the licenses that are currently installed on your ONYX Key or One-Key	Manage
Request License Request add-on license	Request
Apply License Apply add-on license	Apply
Force Restart Restart license service when you experience problems	Restart
Universe Processing Limit	1
Universes used in Show	0
Universe Numbers supported	1

DMX Input

ONYX allows incredibly advanced DMX input capabilities. Using the DMX input capabilities of the ONYX consoles, you can:

- Add Submaster faders using a conventional console
- Merge DMX data from another console
- Assign fixtures or Cuelists to DMX channels and control them with an external DMX device
- Precisely control Cuelists assigned to playback buttons, even sending them to specific cue numbers using only DMX values.

Assign a Virtual Input Port



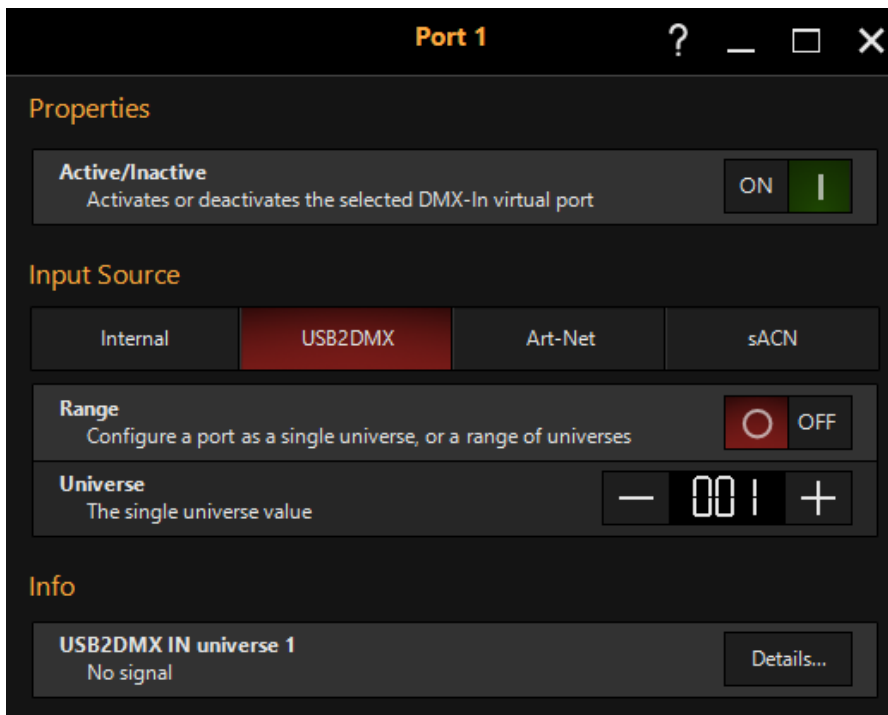
To assign a virtual port, let's first navigate to the Main Menu by pressing ONYX in the upper left hand corner and then press Main Menu. We'll then head down to DMX In under "System".

In Routing from the bottom navigation, you have 32 Virtual Ports available.

You can map a physical DMX Port on the back of a console or on an external USB NX-DMX (or M-DMX) box to a virtual port. You can also map Art-Net or sACN universes for input.

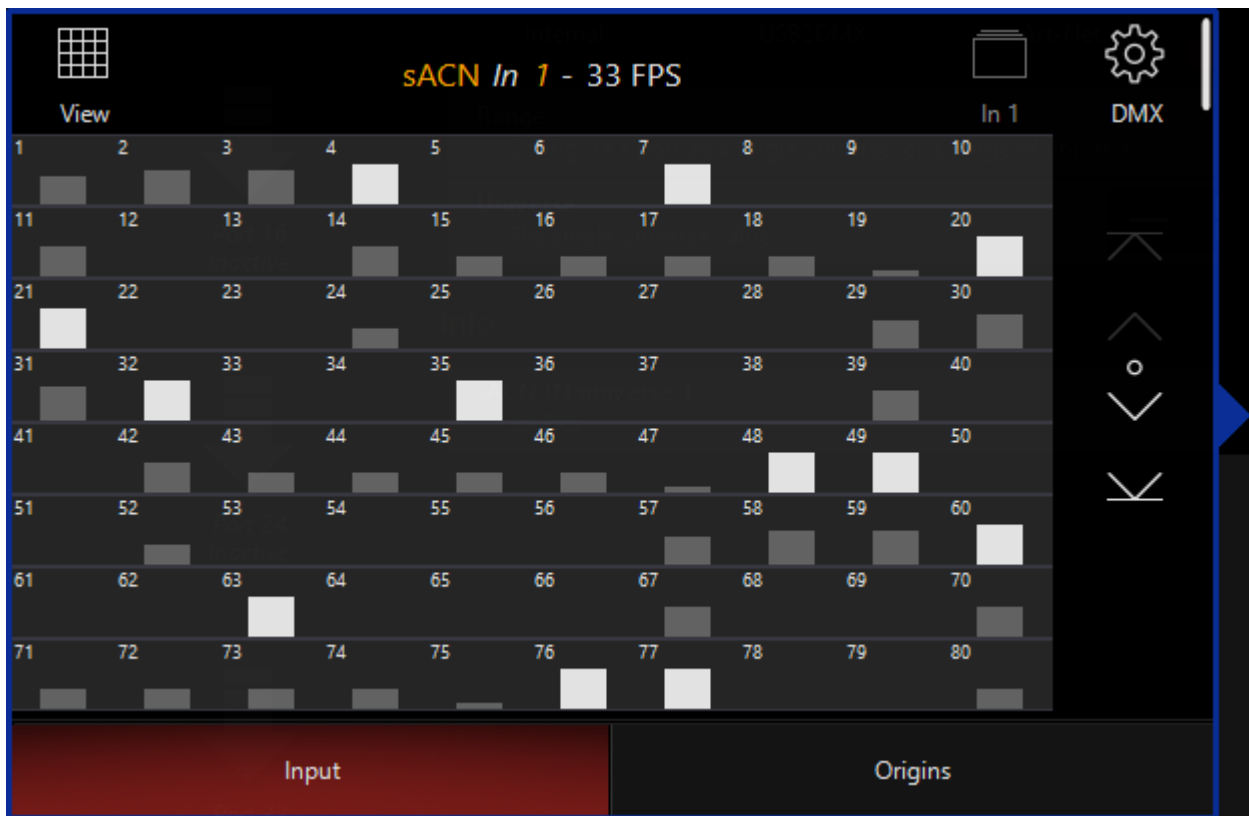
Activate and Configure Your DMX Input Port

On the right pane of this window, we see the settings which are unique for each virtual DMX input port:



Item	Explanation
Active/Inactive	Activates or deactivates the selected DMX-In virtual port.
Input Source	Choose which input source to draw from.
Range	By default this is OFF, and only a single DMX universe is set. Turning this ON enables a range of multiple DMX universes.
Universe	Set the universe, or range of universes for the input port.
Info	This section lists out all the universes set for input in the Universe field(s) and indicates signal presence.

In addition, the Details button allows you to see an input monitor and see the source(s) of the input:

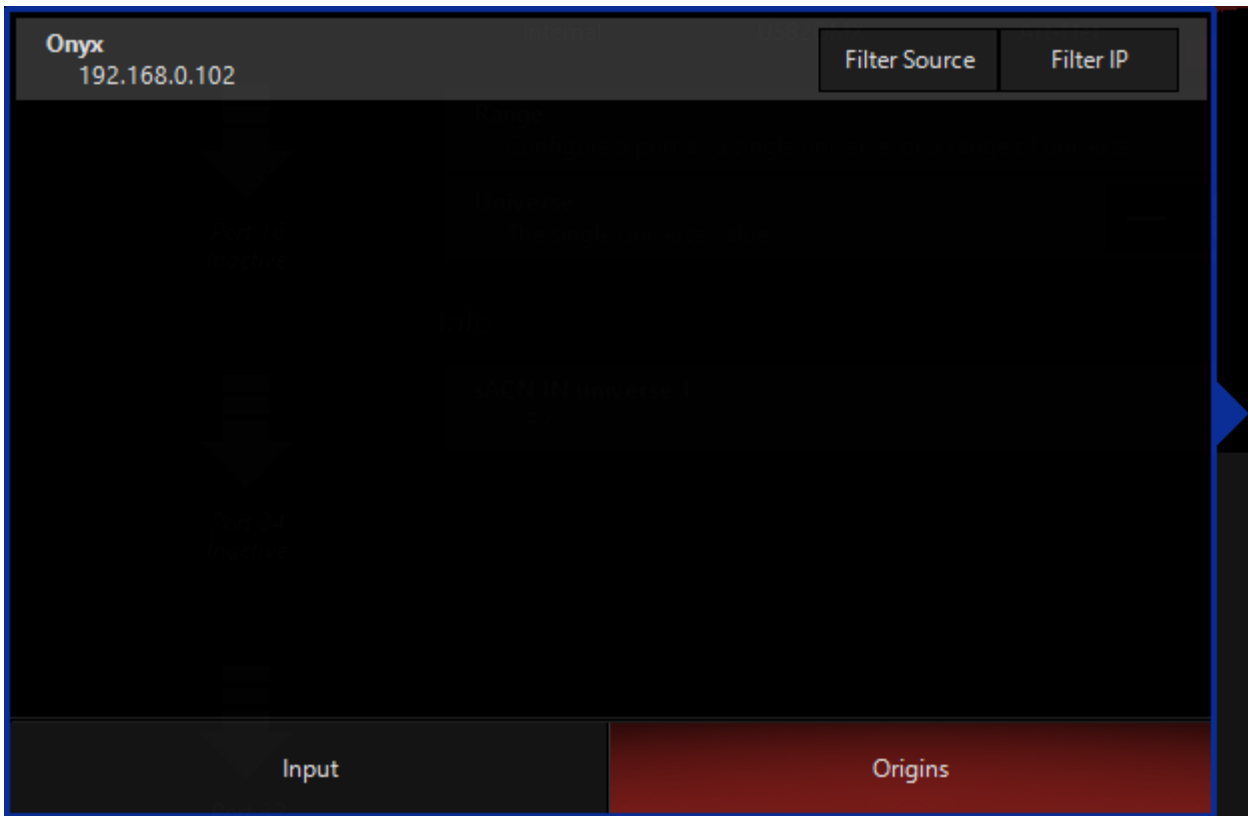


And the Origins tab allows you to see where the input is coming from, in the case of Art-Net or sACN input.

Pressing Filter Source will exclude the selected sACN or Art-Net source from the DMX input.

Pressing Filter IP will exclude the selected IP address from the DMX input.

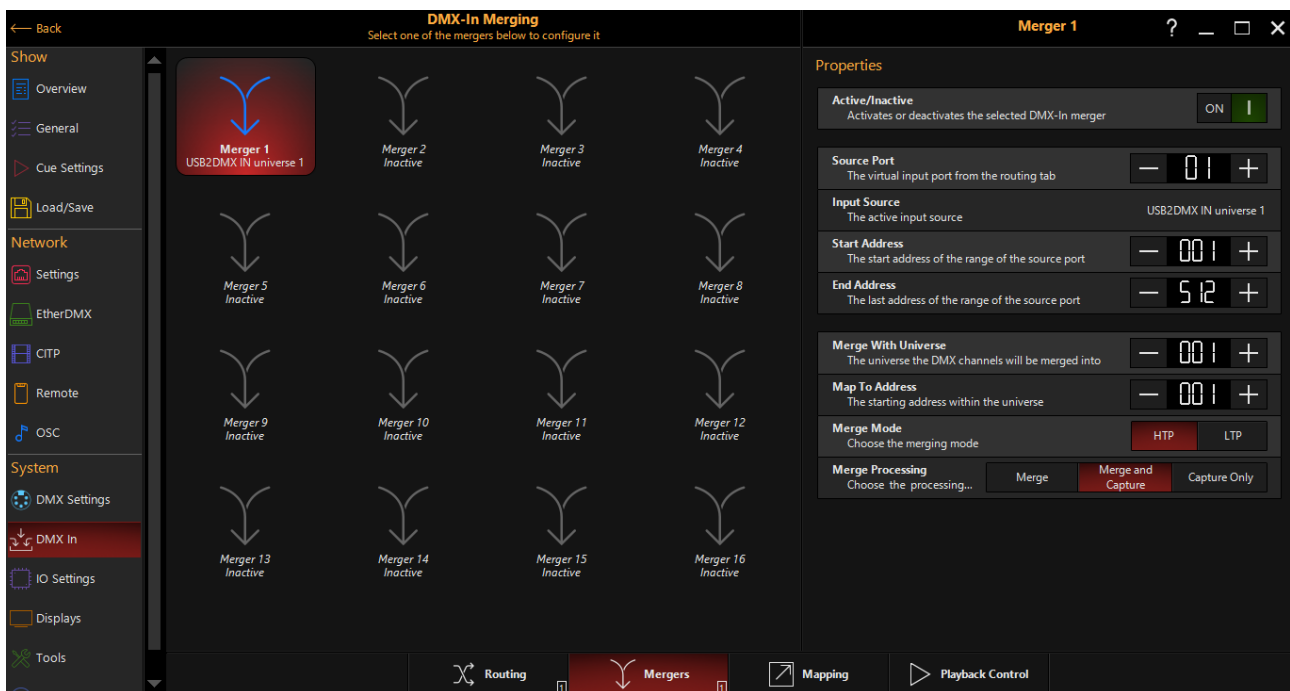
Filters are adjustable via the [EtherDMX settings](#).



Set DMX Input Options

On the bottom navigation bar, we see 3 options - Mergers, Mapping, and Playback control. These are the 3 different ways that we can map a DMX input to ONYX.

Merger



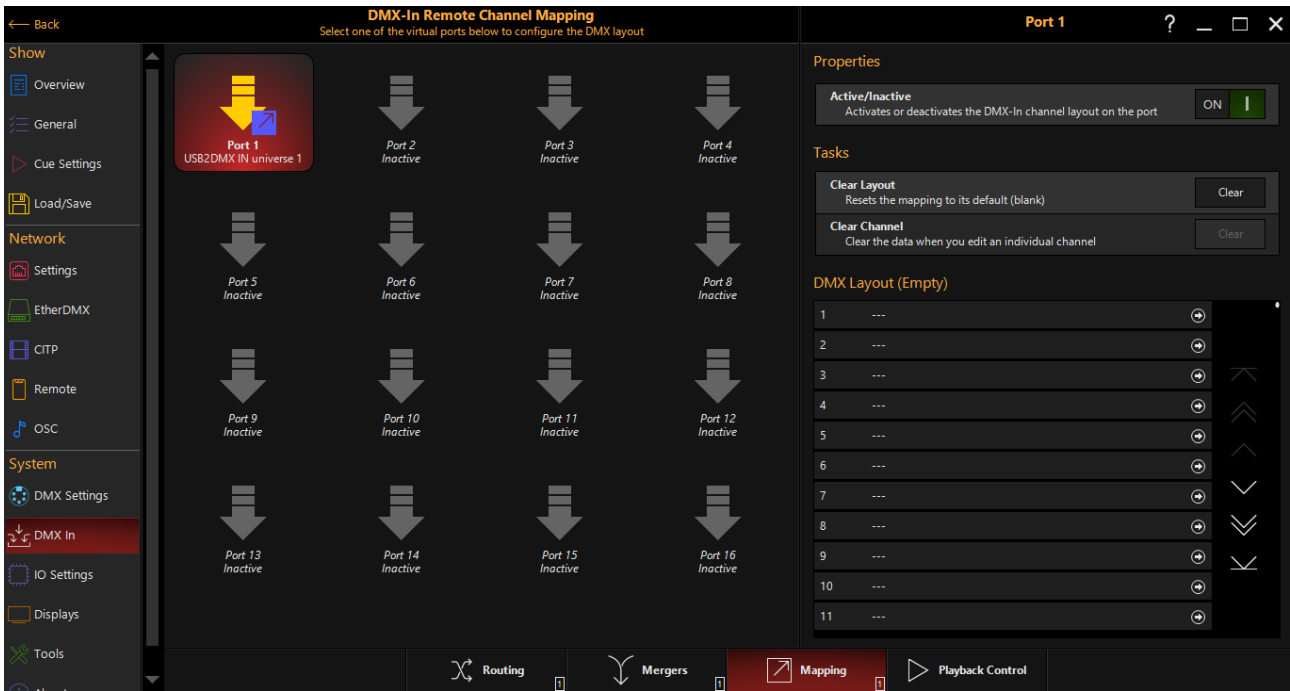
To Merge incoming DMX Data:

1. Activate the port (see above - "Assign a Virtual Playback Port").
2. Select the Source Port on the Mergers screen.
3. Modify the Input channel range.
4. Select the Merge Universe of the console and the start address
5. Select Merge Mode LTP or HTP (calculated per channel)
6. Select the Merge processing type:
 1. Merge: The incoming value and the value on the output are combined
 2. Capture: The incoming value can be captured into the programmer with the [LOAD function](#).
 3. Merge and Capture: The incoming values are both merged to the output and able to be Captured via the [LOAD function](#).

Mapping

Mapping allows you to map DMX channels from another console to control specific cuelists or fixture intensity controls.

For example, you have a 24 Channel DMX Desk outputting DMX to Input Port 1 on the console, you can then map fixtures to the 24 channels so the dimmers of the 24 fixtures are available on the external console for control.



To Map DMX Inputs

1. Navigate to the Mappings tab.
2. Select the DMX port that you have previously configured via the Routing tab.
3. On the right we see "Properties". Here you first need to set the port to ON.
4. Under DMX layout, press the DMX channel number that you wish to map. Then, the window will slide over and you can assign a fixture's intensity to the channel, or a cuelist.

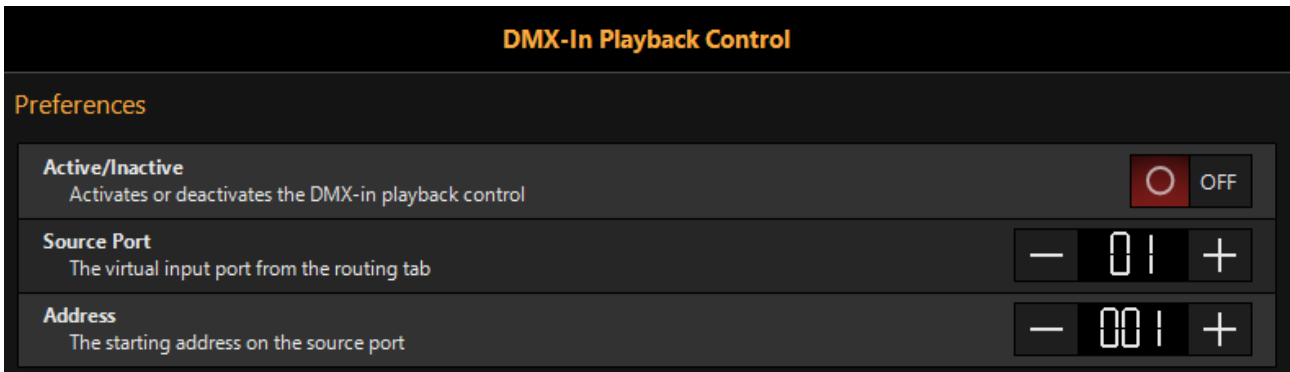
Cuelists will use this mapping to control both level and "Go":

DMX Input Value	Cuelist Function
0>200	Fader level 0>200 (0>100%)
201>230	Safety (Buffer - No Function)
231>255	GO

Multiple Fixtures and or Cuelists may be assigned to the same Virtual Input port for control.

Playback Control

The DMX In Playback Control is used to remotely control the on screen playback buttons.



Select the input port and start address, and the playback control is mapped as such:

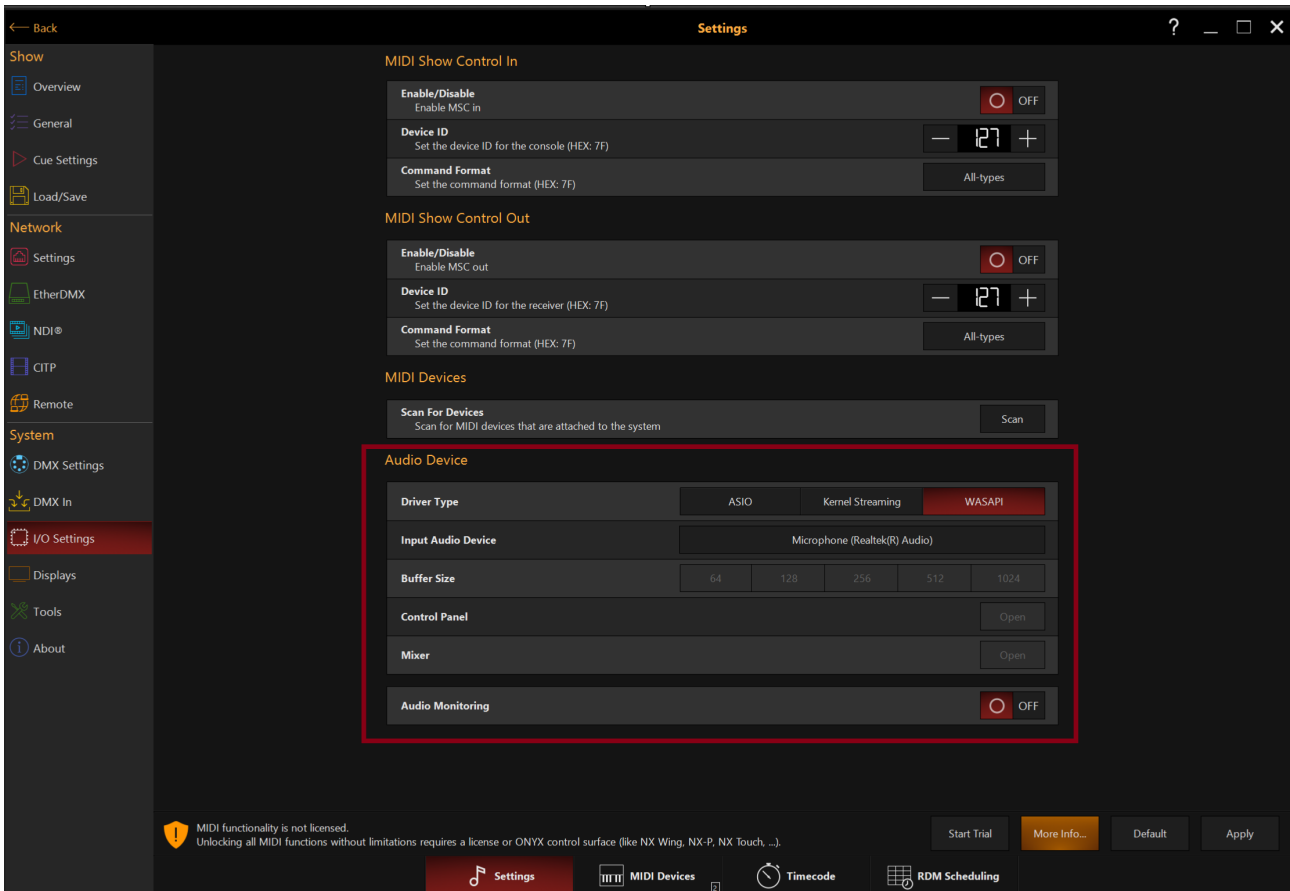
Channel	Value	Function
Playback Page		
1	1	Page 1
	2 - 100	Page 2 - 100
Playback Button		
2	1	Page 1
	2 - 100	Page 2 - 100
Cue Number		
3	1	Cue 1
	2 - 255	Cue 2 - 255
Command		
	0 - 9	Idle
4	10 - 19	Go
	20 - 29	Pause
	30 - 39	Release

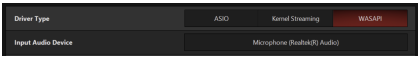
Audio Settings

Introduced in Onyx 4.10

Audio Inputs allow for various types of audio inputs into Onyx for processing.

This menu is where the driver type and input device can be selected.



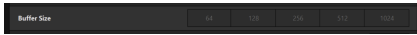
Menu Option	Description
	<p><u>Driver Type and Input Device</u></p> <p><u>Driver Type:</u></p> <p>This defines the protocol used for accessing the audio device. They are ordered from left to right, from the most preferable to the least preferable option. Not all devices support all protocols,</p>

e.g., the built-in audio inputs on the mainboard usually do not support ASIO drivers.

Driver	Pro	Con
ASIO	<ul style="list-style-type: none"> • Lowest latency • No degradation of the signal • Supports unlimited multi-channel inputs 	<ul style="list-style-type: none"> • Not all consumer-grade devices support it • Exclusive device usage (some vendors provide ASIO drivers that do not have that limitation)
Kernel Streaming	<ul style="list-style-type: none"> • Low latency • No degradation of the signal • Supported by all devices, which are accessible on Windows 	<ul style="list-style-type: none"> • Depending on the driver implementation, often only limited access to the channels of the device • Exclusive device usage
WASAPI	<ul style="list-style-type: none"> • Best compatibility with existing audio devices • Not exclusive: the same audio device that is opened in Onyx can be used in other Windows applications on the same computer system at the same time 	<ul style="list-style-type: none"> • Highest latency • Possible audio artifacts due to Windows mixer and internal resampling or default-enabled noise-filtering for inputs • Possible problems with inconsistent Windows settings like sample rate and bit-depth, that cannot be solved without restarting of Windows

Input Device Selection: Shows all available devices for the selected driver type.

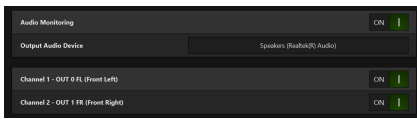
Buffer Size



Used with Kernal Streaming to set the audio stream buffer size.

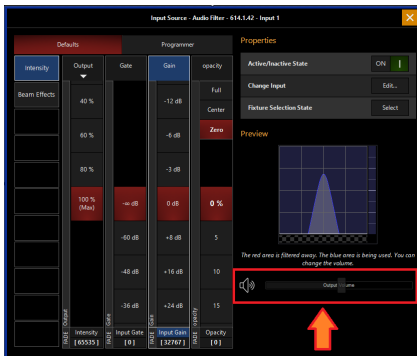
Smaller buffer sizes shorten the latency but increase the risk of dropouts. The smallest buffer size without dropouts is the optimum.

Audio Monitoring



Output Device: - Select the audio device to be used for monitoring.

When using the ASIO driver, the same device must be used for the outputs and inputs.



Channel Selection: Enables or disables audio output on the available output channels.

All available channels of the chosen device are shown here. The monitor output will be sent out on all channels enabled in this list.

When enabled audio monitor levels can be adjusted inside the options menu of an input processor.

Driver Support on Consoles

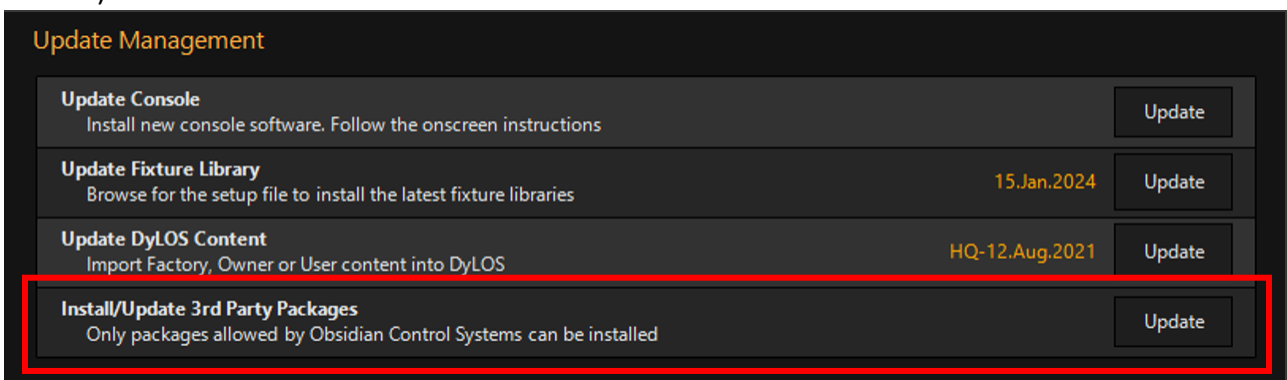
Onyx consoles at this time support the installation of the following 3rd party ASIO drivers:

- Behringer
- Focusrite
- M-Audio
- MOTU
- RME

Setup control access is supported for the following applications:

- Focusrite Thunderbolt ASIO
- Focusrite USB ASIO
- MOTU Pro Audio
- ASIO MADiface USB

Supported 3rd party drivers can be installed in the Onyx menu under (MENU > TOOLS > MAINTENANCE)



Views and Workspaces

Please see the topic list below to get started.

- [Introduction](#)
- [Workspaces](#)
- [Windows](#)
- [Navigating within Windows](#)
- [Views](#)
- [Sidebar and Function Keys](#)
- [Displays](#)
- [Setting Display Brightness](#)
- [Calibrating Parameter Display](#)
- [Quick View](#)

Displays, Workspaces, Views, and Windows

ONYX is designed to have a highly flexible system of views that can span multiple displays, and that scale - so the views you create on your PC will work seamlessly on the full range of consoles, and different sizes of monitors as well.

In this section, we're going to introduce the views and show you how to work with the existing layouts and build your own custom layouts from scratch as well.

How These Relate:

[Displays](#) are the physical monitors connected to ONYX.

[Windows](#) are individual screens that can be viewed by themselves, or in Views with other Windows.

[Views](#) are arrangement of Windows and can be saved and moved around between different sidebar positions and function keys.

[Workspaces](#) are customizable sets of Views, accessible from the icon near the upper left hand corner.

Workspaces

All assignments of items to the sidebars, Function Keys, and Views are stored in a workspace. When you launch a show, you are greeted with the built-in Workspaces titled "Compose", "Playback", "DJ", and "Examples".

You can edit the existing Workspaces, or create your own from scratch. **But we're getting ahead of ourselves here - first, let's figure out how to access them!**

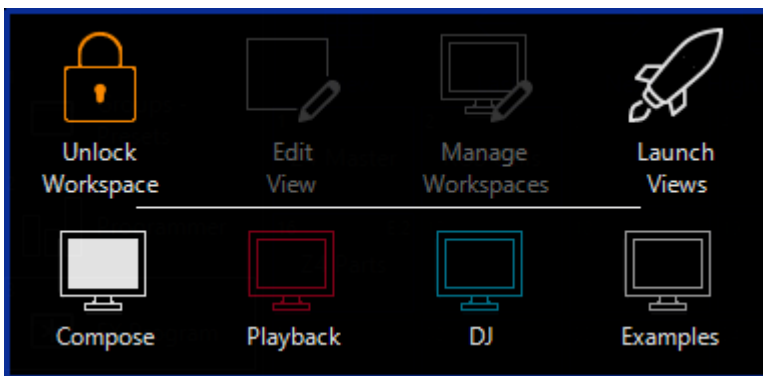
Accessing the Workspaces

When your show loads, you are automatically brought into the last used Workspace from that show file.

To view the Workspaces in the file, or to change Workspaces, first press the Workspace Browser icon at the top left of the screen:



You'll then see the Workspace browser pop down:



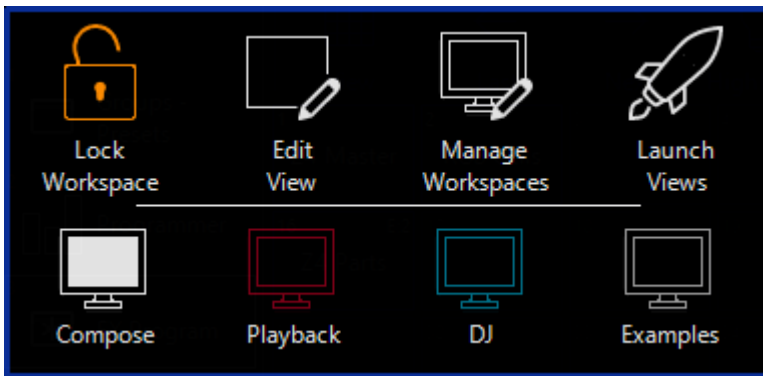
To switch Workspaces, simply click the "monitor" icon with the label of the workspace you wish to enter.

You can change Workspaces whenever you'd like - for different parts of your show (i.e. programming vs. playback), or for different users who are working in the show file.

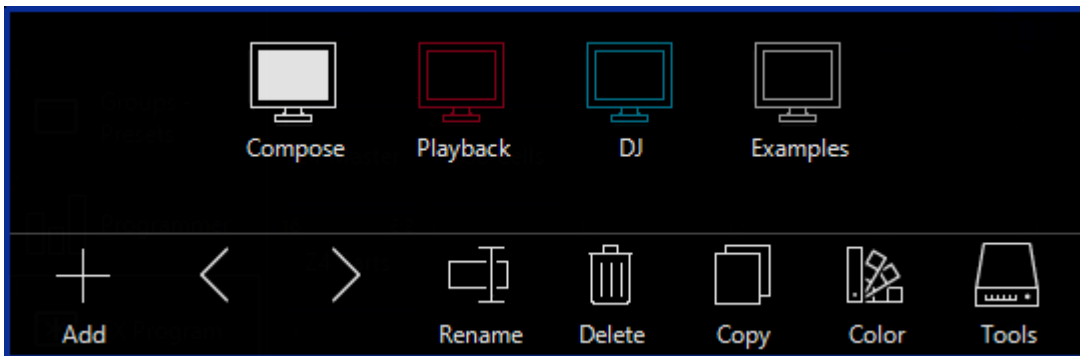
Creating a New Workspace

From the Workspace browser, you'll first need to press Unlock Workspace to allow for editing. The Unlock Workspace icon will then toggle to Lock Workspace.

Views and Workspaces



Then, press Manage Workspaces from the Workspace browser, and you'll see this:



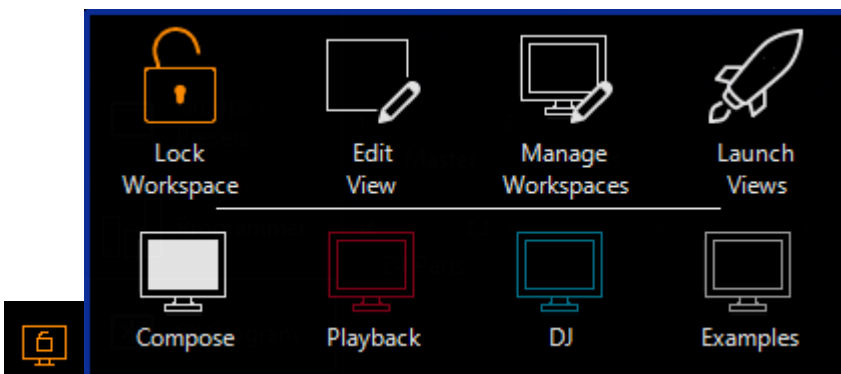
As you can see from the icons at the bottom of this popup, you are able to do a variety of things with your Workspaces.

First, press the Add icon to create a blank Workspace to start from scratch.

You'll be presented with a demo View layout in edit mode, which you can then edit or delete as you please.

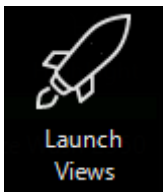
[Learn more about editing Views by clicking here.](#)

When you're done, it's a good idea to re-lock your Workspaces, so that you don't accidentally get into view editing. Do this by clicking the Workspace browser icon in the top left of your screen, and press Lock Workspace.

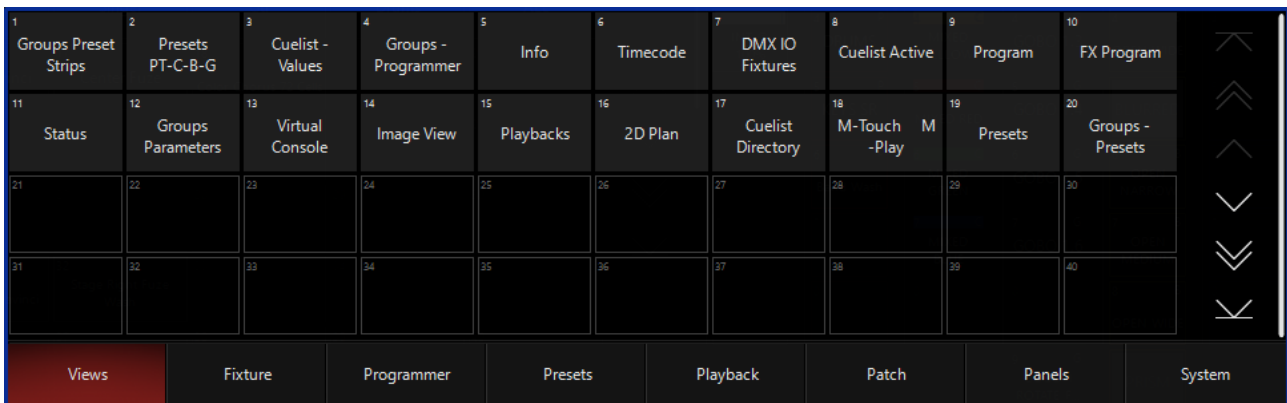


Launch Views

The last button on the right in the Workspace browser is to Launch Views:



When you press Launch Views, you'll then open the Launch Views popup, which will allow you to temporarily open one of your predefined views or a single window in your current Display.



[Learn more about launching Views on the Views page.](#)

Editing Existing Workspace Views

If you like the Views in the current Workspace, but just want to tweak them a little to meet your needs, you can do that as well!

[Learn more on the Views page.](#)

Workspace Management Reference

There are some more in-depth workspace settings available. Navigate to them by pressing the Workspace icon at the top of the screen, Unlock the Workspace, and press "Manage Workspaces" to see this menu:



First, the Add button allows you to create a new, blank Workspace.

The left arrow/right arrow icons give you control over the display order of the Workspaces.

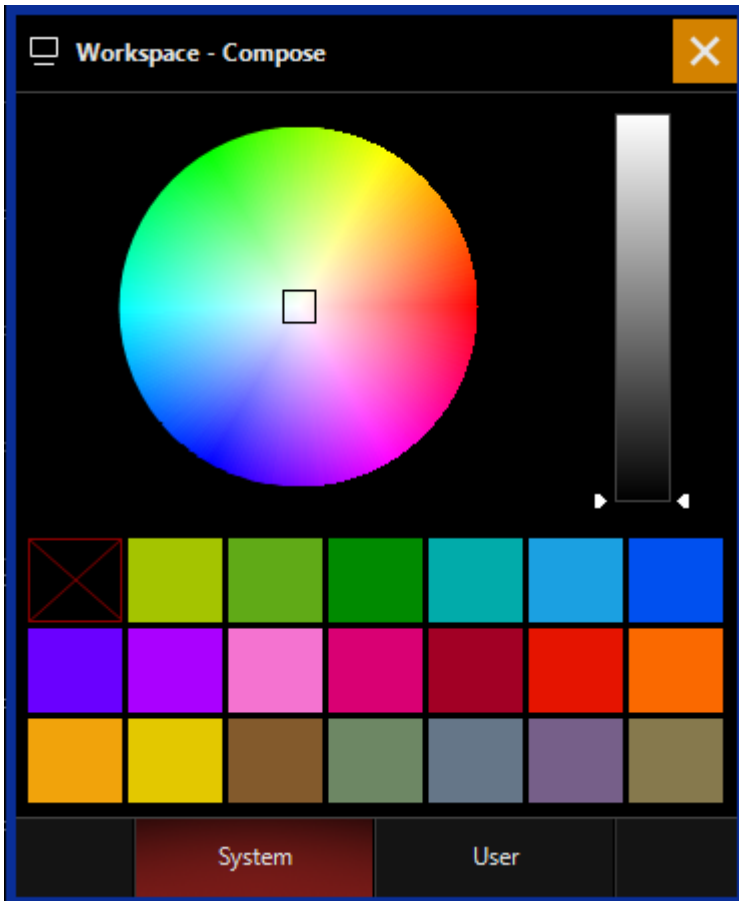
Views and Workspaces

Rename gives you the opportunity to name your Workspace as you wish.

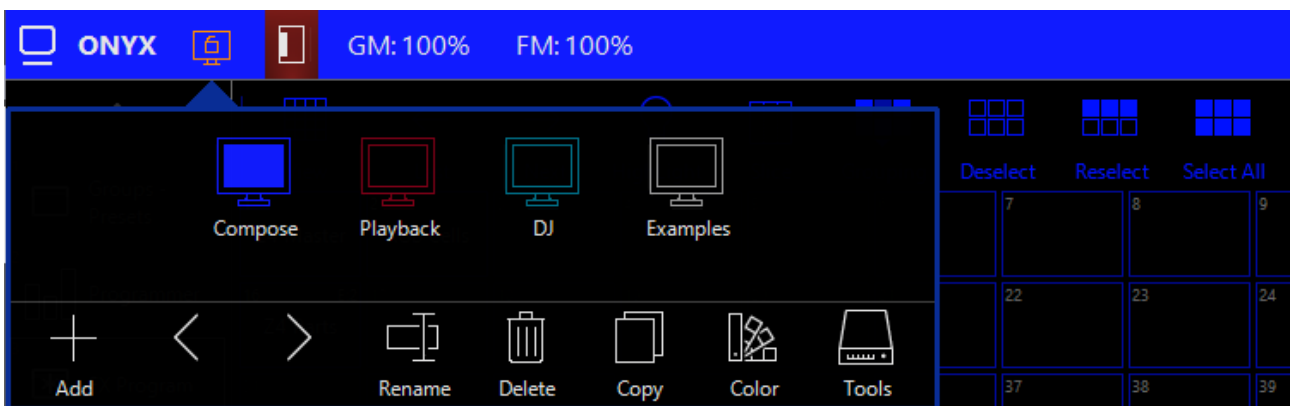
Delete gets rid of your workspace. You'll receive a popup asking you to confirm, because delete truly does delete the Workspace forever!

Copy allows you to make a copy of the selected Workspace, which you can then customize independently.

Color allows you to set a custom color for your workspace. When you press Color, you'll see this color picker:



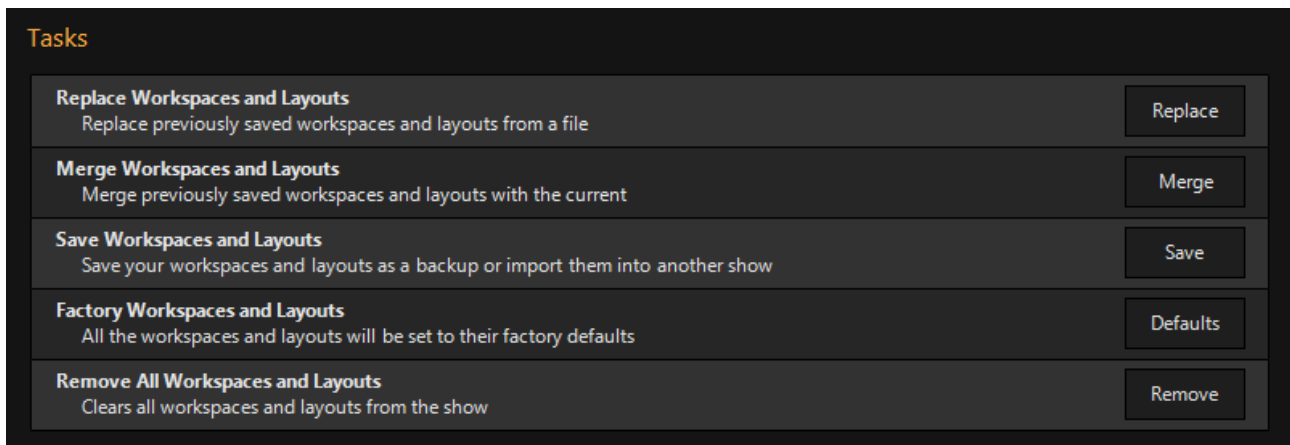
You may then choose a color from the palettes below, or define a custom color by selecting it in the color picker. Once the color is assigned, you'll see it in your Workspace like this:



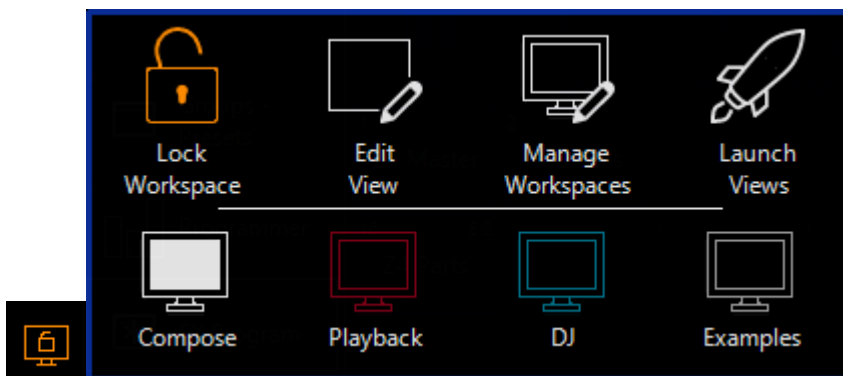
Views and Workspaces

Pressing Tools will take you to the main menu, and the Workspaces and Layouts Tasks window. This window allows you to Replace, Merge, Save, Remove or reset your workspace to the Defaults.

You can see the descriptions of these functions in the menu here:



When you're done, it's a good idea to re-lock your Workspaces, so that you don't accidentally get into view editing. Do this by clicking the Workspace browser icon in the top left of your screen, and press Lock Workspace.

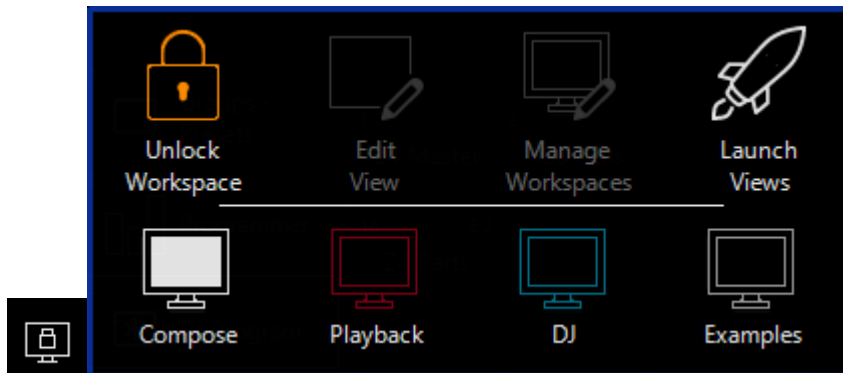


Windows

Windows are the base level display element in ONYX. [As discussed in Views](#), the various Views and Workspaces are all built from Windows.

There are 2 main ways to launch individual windows.

Most simply, we can press the Workspace browser button in the top left of the screen, and then press Launch Views:



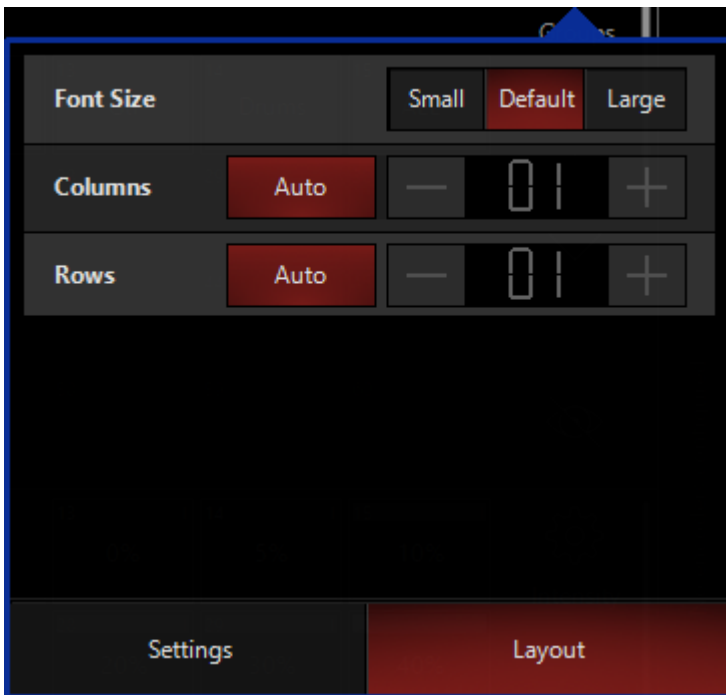
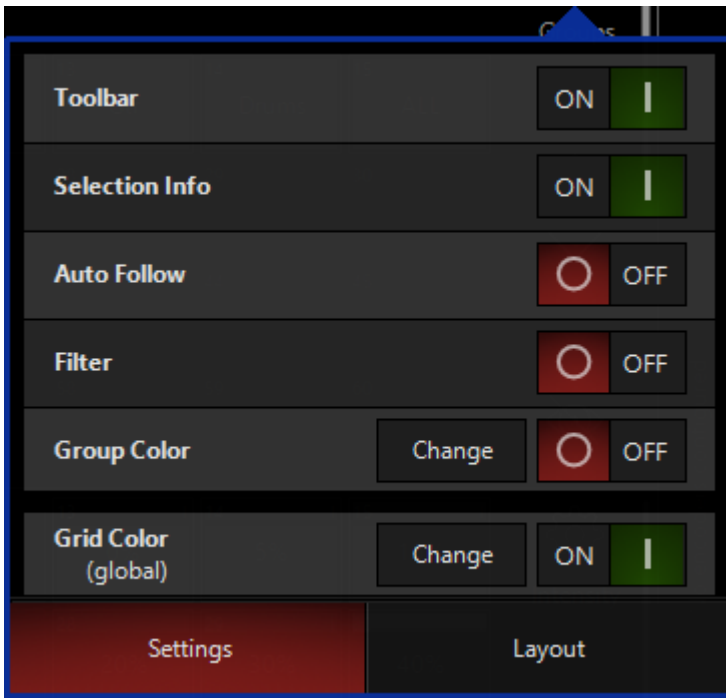
You then are able to pick a view or individual window to launch.

Alternatively, we can assign a window full-size in a View, and launch it with a Sidebar or Function Key. Follow the instructions given to set Views on [Sidebar and Function Keys](#) here.

Setting Window Options



At the upper left corner of many windows is an options "Gear" icon. Pressing this allows you to access the options for that window.



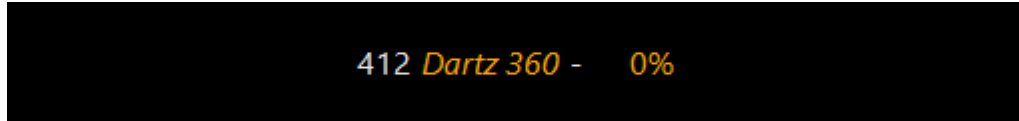
The options for any given window vary, but these are many of the common options. We can see that there are 2 tabs to this window - Settings and Layout.

Settings

Option	Description
Toolbar	Allows you to toggle the top toolbar on or off.
Selection Info	Allows you to toggle the selection info, which shows itself in the toolbar:

Option

Description



Auto Follow	Enables/Disables automatic "scrolling" to the currently selected item.
Filter	Toggles the bottom toolbar which allows you to navigate between different panes.
Color	Allows you to set the color of items in that window. Since this screenshot came from the "Groups" window, it sets the "Group Color".
Grid Color (global)	Sets the grid color for the window. This will change the grid color in every view that the particular window is a part of.

Layout

The layout tab allows you to change the size of the buttons, by changing the amount within the window:

Option

Description

Font Size	Allows you to set the font size.
Columns	Allows you to set a custom number of columns. By default, this is set to "Auto" and will scale to different screen sizes and resolutions automatically. But, you can override that to set an amount you desire specifically!
Rows	Allows you to set a custom number of rows. Works the same as the columns above.

Navigating Within Windows

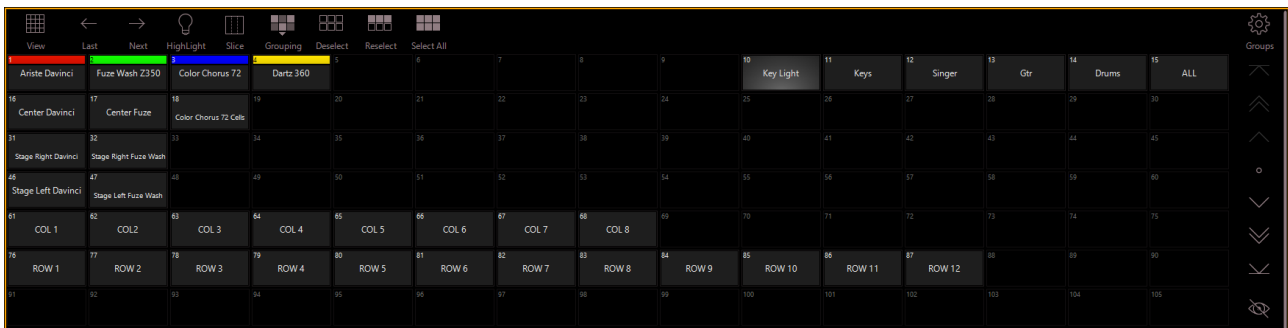
While the ONYX interface is very touch-centric, the windows and commands are also very simple to navigate using the keyboard and keypad.

Using the Arrow Keys and Keyboard Within Windows

When a window is displayed on the screen, you may scroll through the cells in a variety of ways.

Most simply, you can use the Up Arrow and Down Arrow to navigate up or down through the window that is in focus.

The window will blink yellow on its blue border to show you that it is in focus:



On consoles, you may also customize the up/down arrow action to "pages" of scrolling - find that in the [Main Menu / Show / General / Navigation](#).

On the PC, Home, End, PageUp, and PageDown will also navigate to the start, end, and by page of the window.

The left and right arrow keys and Tab (on a PC) will navigate through the tabs at the bottom of the window, if applicable.

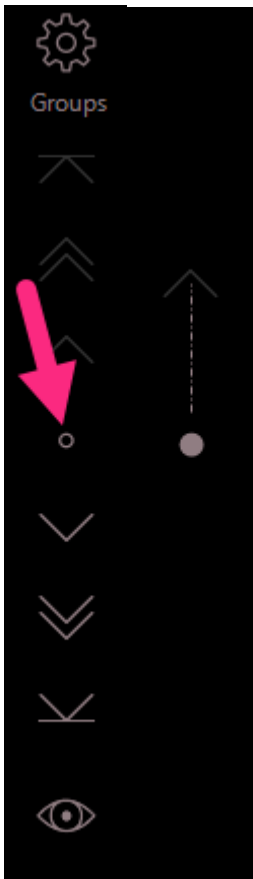
Here are some other controls that you may find useful on both the PC and console hardware:

- Hold right Alt + Ctrl + x (PC keyboard): Open the menu of the focus window
- Hold Mode + Menu (Console key): Open the menu of the focus window
- Hold Down Arrow + Up Arrow (Console key): navigate to the first cell within the focus window
- Hold Up Arrow + Down Arrow (Console key): navigate to the last used cell within the focus window
- Hold Mode + mouse down move (or touch navigation): Scroll within the selected window following the direction of the mouse (or finger)

Views and Workspaces

Inside of any window with scrolling there is also a touch point which allows you to press the center circle and activate a variable scroll. This is especially helpful on large shows!

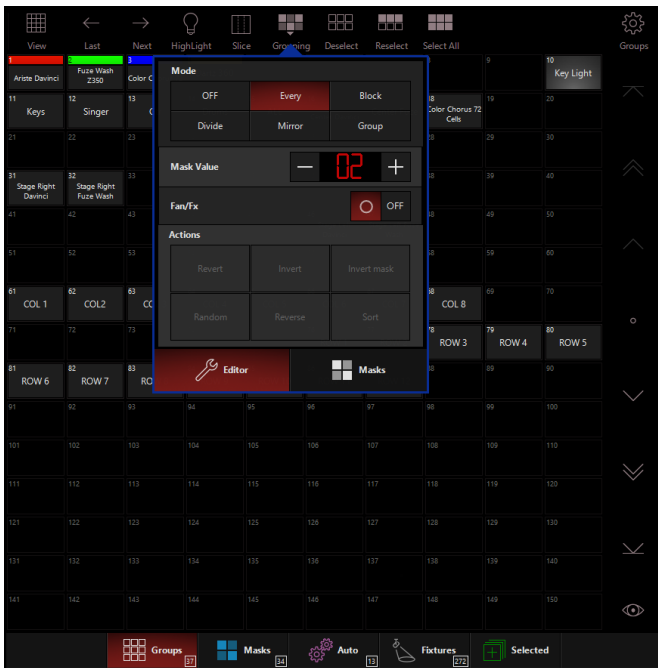
Take, for example, the "Groups" window:



Using Pop-Up and Pop-Out Windows

While the Command Line will by default receive all keyboard and keypad input, you may also use the keyboard to enter data into different windows on screen by activating that window.

For example, I have launched the [Grouping Tools](#) pop-up from the Groups window:



I now have used the right arrow key to select the "Every" filter, and I can type using the keypad to enter a "Mask Value". The focus of the keyboard stays on this pop-up until I close the pop-up.

Pop-up and Pop-out windows in ONYX may be closed by:

- Re-pressing the button which popped it out.
- Using the Clear key on consoles or the Esc (escape) key on PC's.
 - Using Clear to close pop-up windows will NOT affect the Command Line. Once the Clear closes the pop-up, the Command Line will be back in focus and clear will once again affect the Programmer and Command Line

Navigating Between Windows

When a window has the focus of the arrow keys, the border of that active window will flash yellow when navigation keys are pressed.

You can also toggle a Highlight Focus Mode by double-pressing Mode on the console twice or turning on "Navigation Mode" in the [Display menu](#).

Navigation Mode allows you to use the arrow keys to navigate between windows, instead of scrolling. Scrolling is then controlled by the mouse or by pressing and dragging on the touchscreen.

Navigation Mode will display this icon on the top bar of the ONYX window:



And will change the appearance of the focus highlight as such:

Views and Workspaces



The navigation mode in the title bar will be automatically activated when you are running ONYX in tablet mode on a PC.

Views

In ONYX, Views are an arrangement of layouts and windows placed in them. With this you can change the content on one or multiple screens at once.

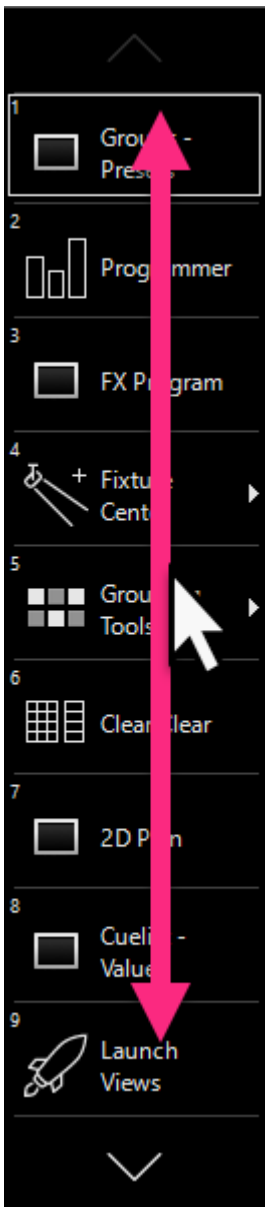
Views are fully scalable to any size screen. This means that the view you create at home on your PC will work in any of the ONYX consoles, as well as any computer running ONYX, no matter what screen size or resolution you are using.

Views also can be stored to work on a single display, multiple displays or all displays - the choice is yours!

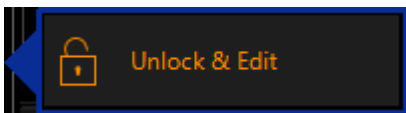
When you save your views, they are also shared across [X-Net](#) to other connected consoles or computers.

Creating a New View

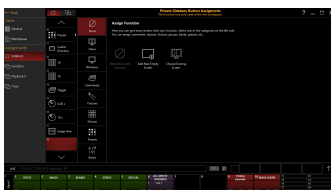
First, swipe up or down on the sidebar to find a blank sidebar button:



Next, we'll enter into "Edit Mode" by holding Edit and pressing on the blank sidebar button. You may also right click on the blank sidebar key. Then, press Unlock and Edit from the popup:

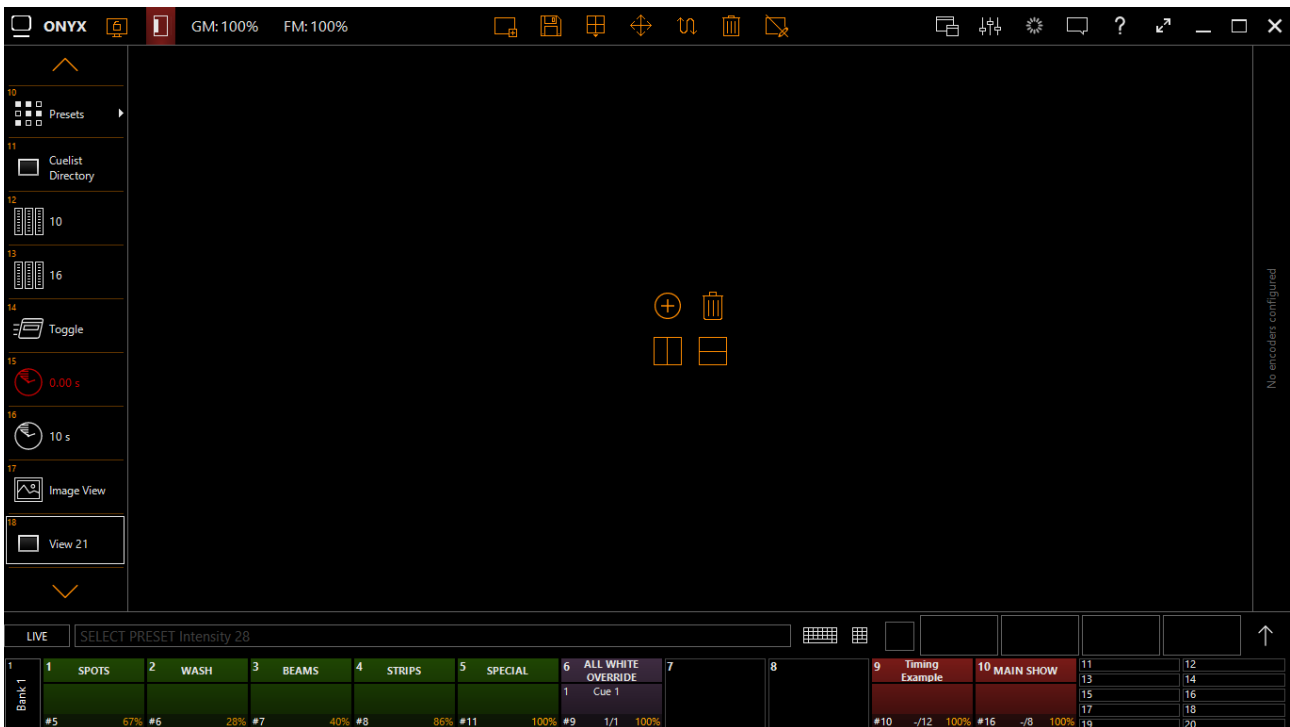
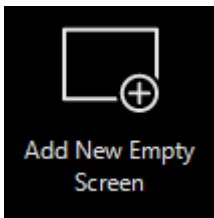


You'll then see the Button Assignments screen:



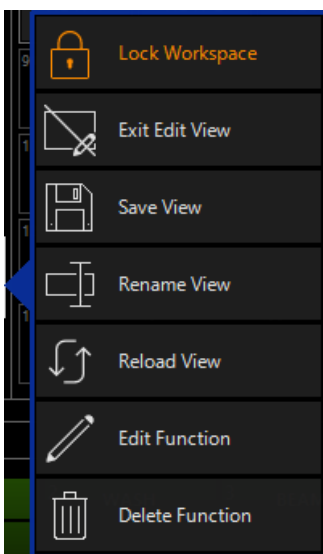
On this screen, you'll want to press Add New Empty Screen to start from scratch, and your screen will then look like this:

Views and Workspaces

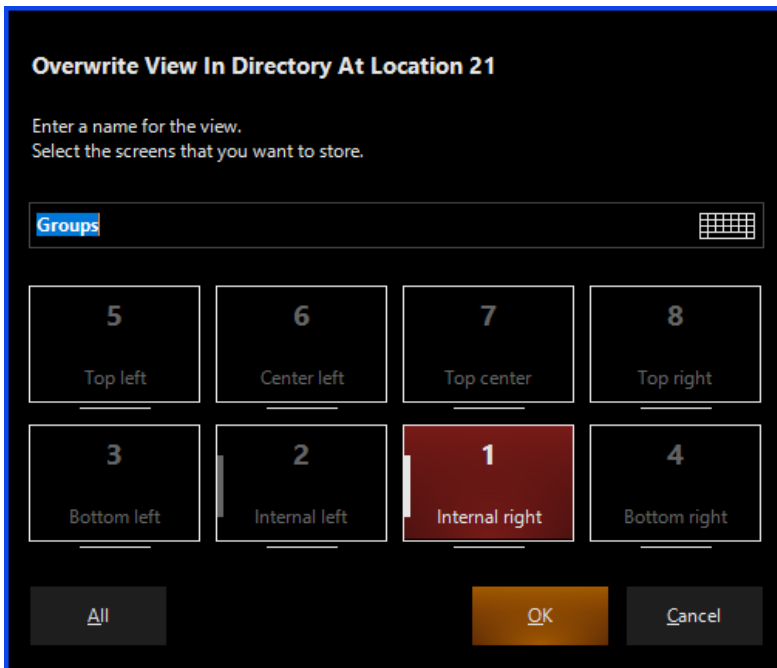


You may now edit these views to your heart's content. See "Editing Views" below for the full details on how to edit views.

Once you've edited the views to your liking, it's time to save your new view. Hold Edit and press the View button or right click and press your view button to save:



Press Save View, and name your view:

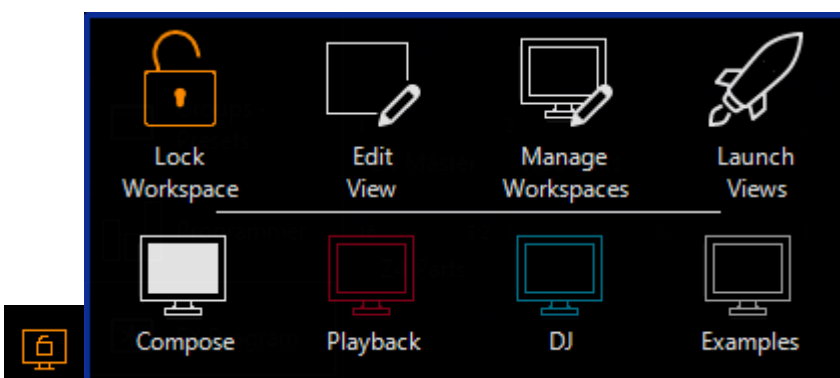


When you are naming your view, you are also able to select which displays you want the view to save with.

There is also a handy All button in the lower left hand corner of the popup to select all the displays. Displays toggle when you press them, so you can select and deselect as you please before pressing OK.

Now, your view is saved in the Views directory, as well as to the sidebar button which you have assigned it to.

When you're done, it's a good idea to re-lock your Workspaces, so that you don't accidentally get into view editing. Do this by clicking the Workspace browser icon in the top left of your screen, and press Lock Workspace.



Editing Views

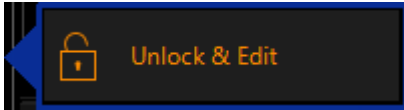
Just like creating a new view, existing views can be edited, and in this segment we're going to go into full detail of the editing tools.

Views and Workspaces

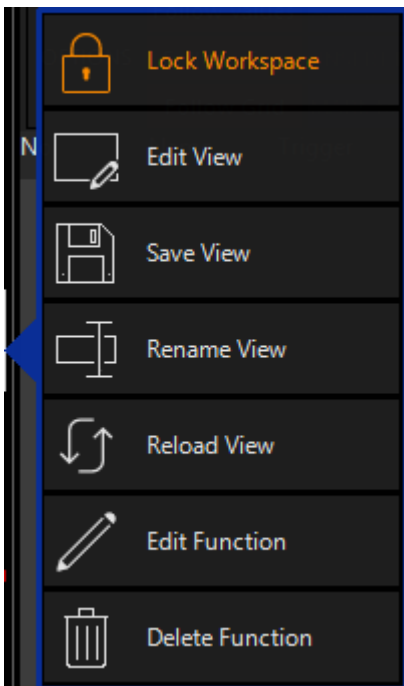
If you have already unlocked your Workspaces, press on the View button to navigate to the view you desire.

If you did not have your Workspaces unlocked, hold Edit and press the view you wish to edit, or right click on the view you wish to edit.

You'll see this popup and select Unlock and Edit.



If you did already have your Workspaces unlocked, then you'll hold Edit or right click on your view and press Edit View:







You'll now see the view editor icons on the toolbar at the top of the screen:




What do these icons do?


Icon Definition

-  New View: Create an empty view
-  Save View: Save your current view layout over the existing selected view.
-  Layouts: Choose one of the stock window layouts to speed up the view creation process.
-  Resize Window: Resize windows in the current view.

Icon Definition

 Swap: Swap 2 windows by pressing them both in the current view.

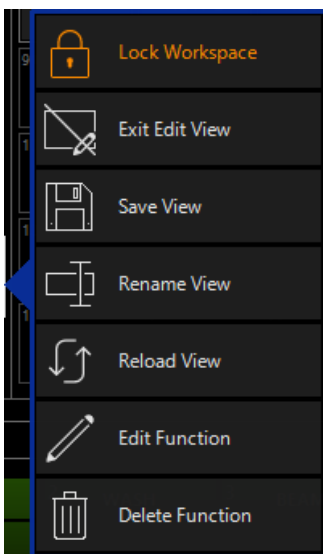
 Delete Window: Delete one or more windows in the current view.

 Exit Edit Mode: Exit the edit mode for the views. Note that this does NOT save your view, please be sure to use the Save View button to save.

Once you've edited the views to your liking, it's time to save your new view.

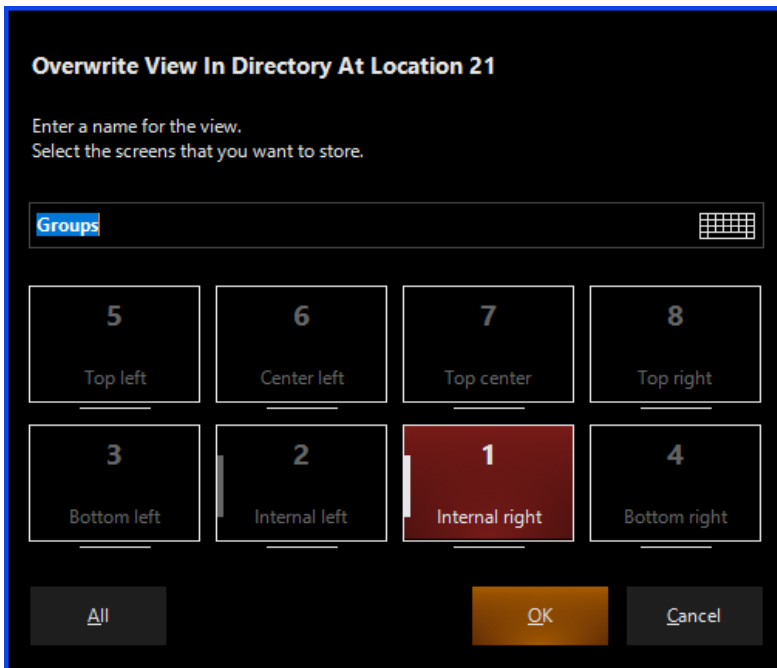
There are 2 ways to do this. If you haven't exited Edit Mode yet, press the Save icon on the toolbar.

If you did exit edit mode, press Edit and press the View button or right click and press your view button to save:



This view popup now shows, and besides saving, also gives you the options to rename, reload the saved view, or [edit/delete the function of the button](#).

Press Save View, and name your view.



When you are naming your view, you are also able to select which displays you want the view to save with. There is also a handy All button in the lower left hand corner of the popup to select all the displays. Displays toggle when you press them, so you can select and deselect as you please before pressing OK.

Now, your view is saved in the Views directory, as well as to the sidebar button which you have assigned it to.

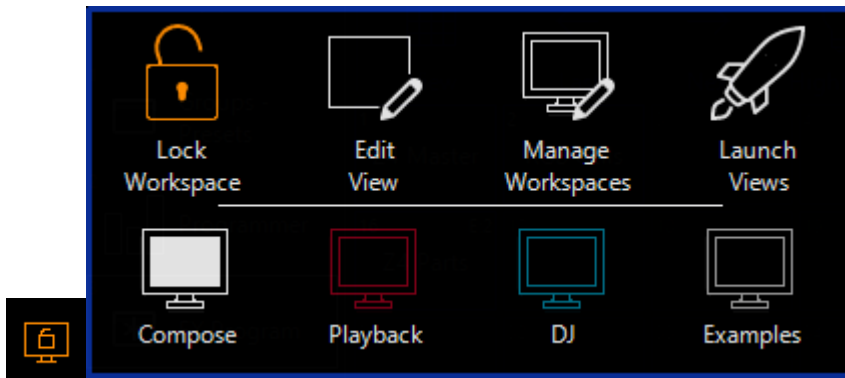
Un-Doing Changes to Unsaved Views

If you begin working on a view, and then decide you liked what you had before, you can revert to your previously saved view by double-pressing the view icon (which is now amber).



Relocking Workspaces

When you're done, it's a good idea to re-lock your Workspaces, so that you don't accidentally get into view editing. Do this by clicking the Workspace browser icon in the top left of your screen, and press Lock Workspace.



Assigning Views to the Sidebar or Function Keys

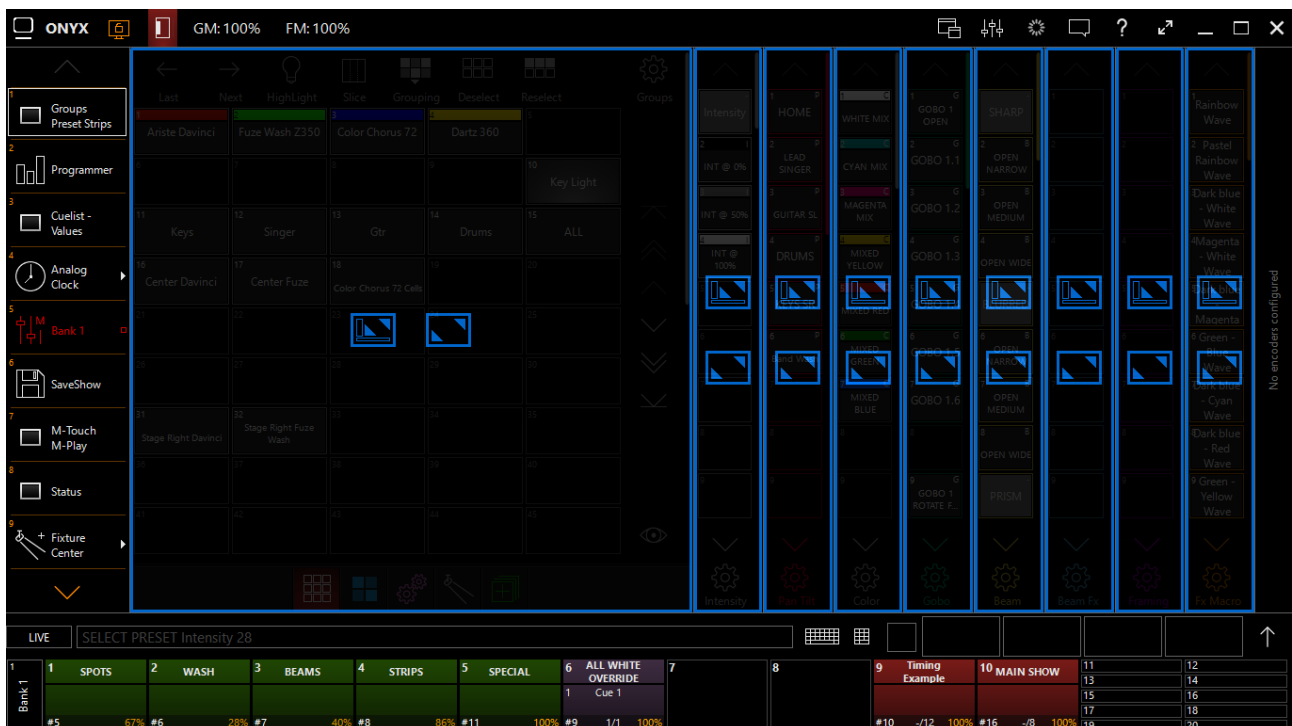
[To assign views to the Sidebar or Function keys, follow the guide found here.](#)

Temporary Maximize

If you need to quickly maximize one of the current windows to full screen, you can easily do this with the Maximize View icon:



Pressing this icon will bring up the following overlay to your current view:



You now have 2 options to maximize - Maximize in the current work area, keeping the Sidebar and Main Playback Indicators, or Full Screen;

Views and Workspaces



When you maximize to the current work area, you'll see something like this:



Full Screen maximize looks like this:



When a Window is maximized, you'll see 2 indicators - first, the maximize icon will have a blue background:



And if you have maximized to the current work area, and still have your sidebar in view, you'll see this on the sidebar button that corresponds to the current view:



To stop maximizing, press the maximize icon in the upper left hand corner, or if you have not gone full screen, double press the current view button on the sidebar.

Hiding the Sidebar

If you desire to hide the sidebar (perhaps on a second display), you may do so by pressing this icon in the top left of your screen:



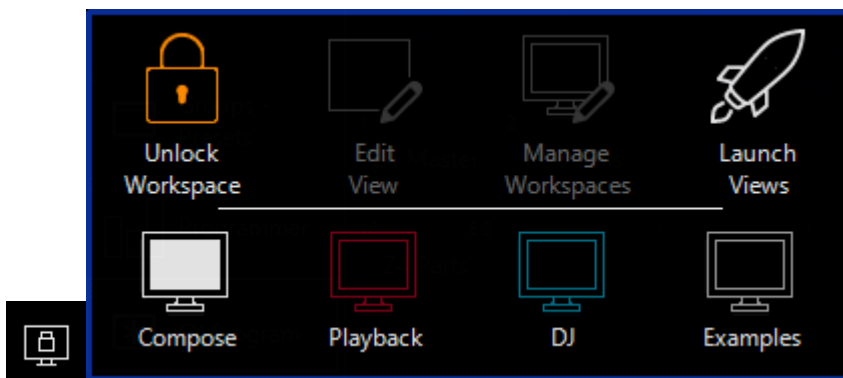
Sidebar and Function Keys

Both the on-screen Sidebar and physical/on-screen Function Keys are customizable for views, and a wide variety of functions.

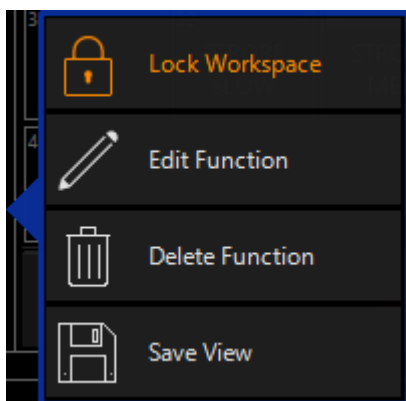
Many views can be set as "popups" as well, which only temporarily appear over the current view.

Assigning Sidebar and Function Keys

To begin, you'll first need to unlock your Workspaces by pressing the Workspaces icon and then pressing Unlock Workspace:



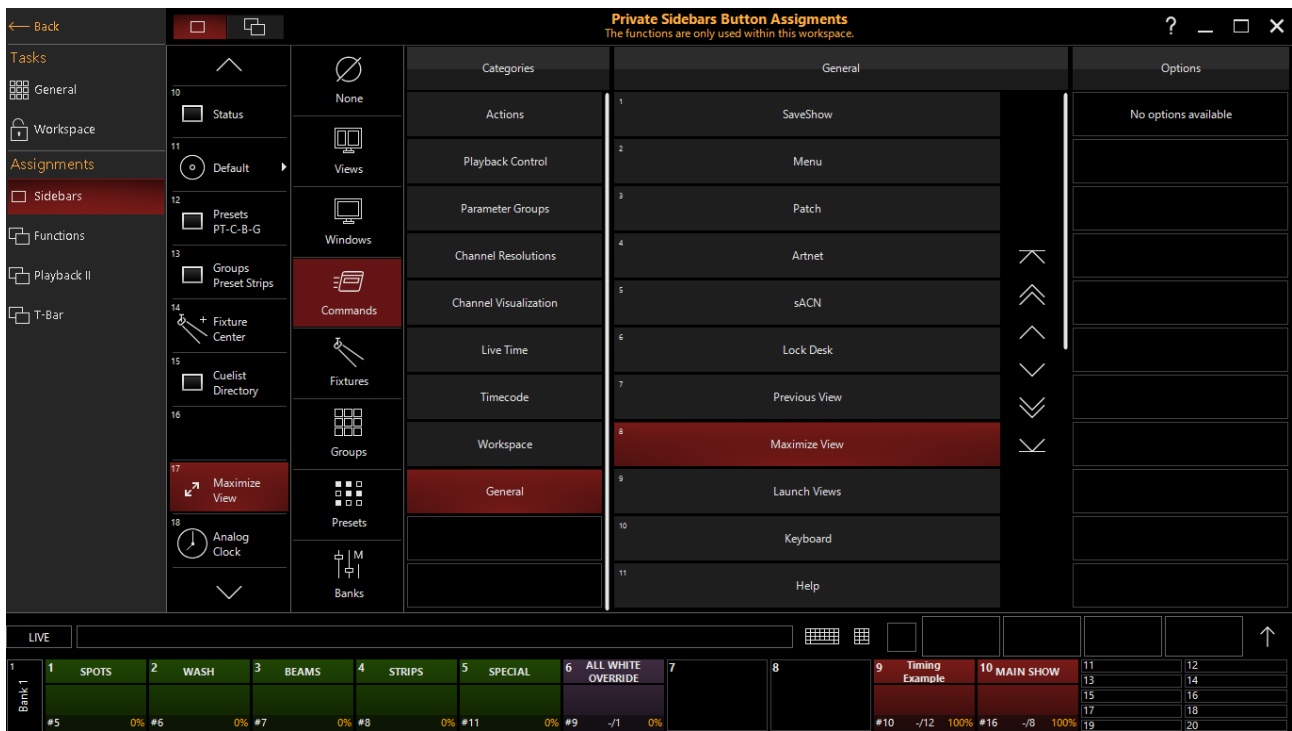
Next, hold EDIT and then press the Sidebar button or Function Key that you wish to add or change a function on. You'll then see this popup:



If you have pressed a button that contains an active screenview, you will see more options here - learn more about those in [Views](#).

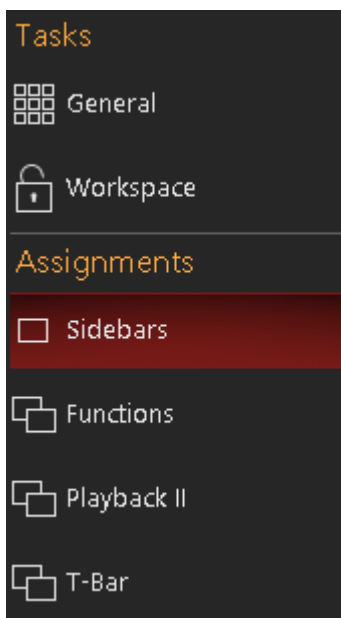
Press Edit Function and you'll enter the Assignment View:

Views and Workspaces

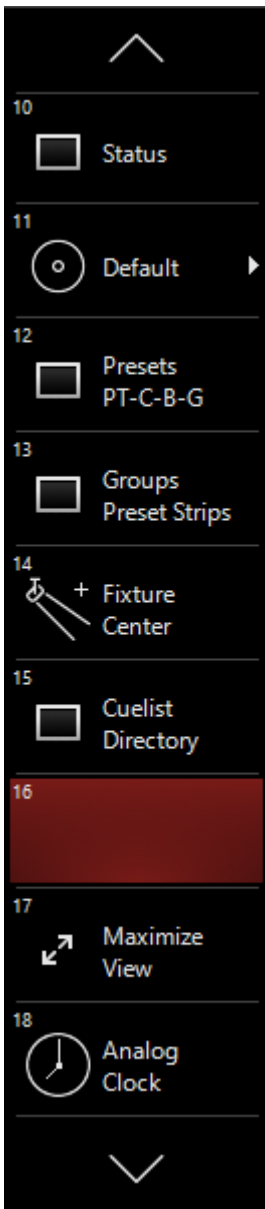


By default, the button that you had selected before pressing Edit Function is highlighted and ready to be assigned.

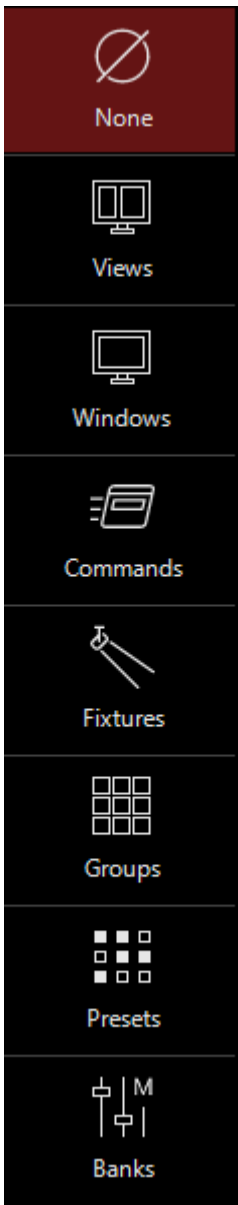
Let's first take a quick tour of this window. On the leftmost column are the Tasks. Under the assignments tab, you are able to change the type of buttons you are viewing to assign from Sidebars, Functions, Playback II or T-Bar.



The next column to the right is the selected Sidebar button or Function Key. You can swipe or scroll up and down to access additional sidebar buttons. These are only the buttons in your current Workspace.

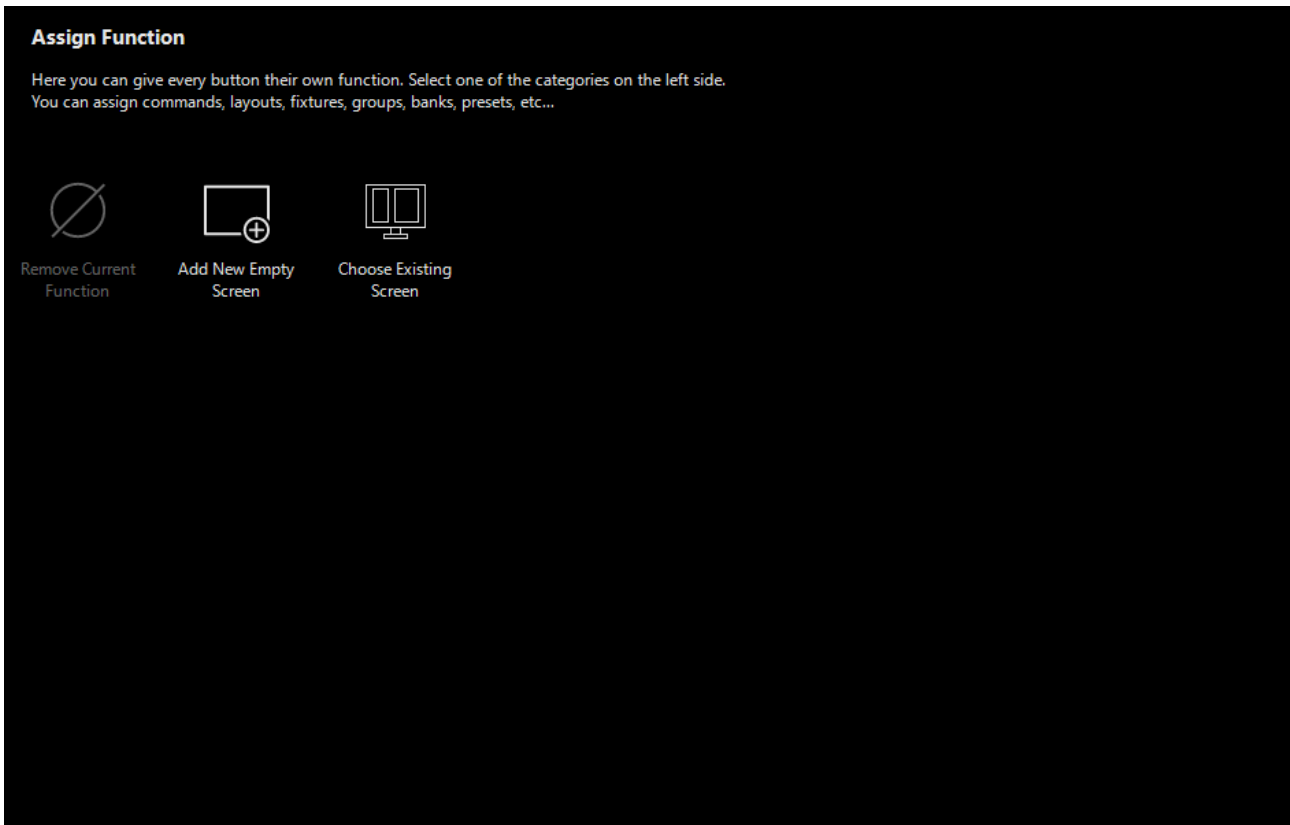


Moving right, the next column has your function groups. This is where you can choose from Empty/Existing Screens, Views, Windows, Commands, Fixtures, Groups, Presets, and Banks.



The Assign Function Window. This is where you will select the View, Window or Function that you wish to assign.

Views and Workspaces



If you are assigning an individual window, you also may choose whether to make that window a popup (if applicable), and/or assign the window to a particular display:

Popup
None
Internal right (Display 1)
Internal left (Display 2)
Bottom left (Display 3)
Bottom right (Display 4)
Top left (Display 5)
Center left (Display 6)
Center right (Display 7)
Top right (Display 8)

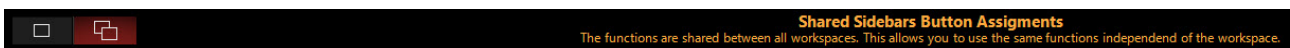
Shared vs. Private Button Assignments

By default, button assignments are **private**, and only apply to the current [Workspace](#). This applies to sidebar buttons, Function Keys, Playback II, and T-Bar assignments.



In the upper right hand corner of this window, there are 2 buttons to toggle the sidebar button assignments between Private and Shared.

When set to Shared, the active set of buttons will be shared with all Workspaces in shared mode:



Making a set of button assignments Shared does not automatically set it for every Workspace. You can have some of your workspaces set to private and some set to shared.

Assigning Your First Sidebar Button:

Beginning in the left sidebar, select the type of button you wish to assign under Assignments.

Then, move right through the columns to select the button number and function type.

Finally, select the exact View, Window or Function you wish to assign and it's applied! You may now move onto other buttons while still in this window, and assign them accordingly.

When you've completed this and want to resume programming, press the amber Back button in the upper left hand corner.



Displays

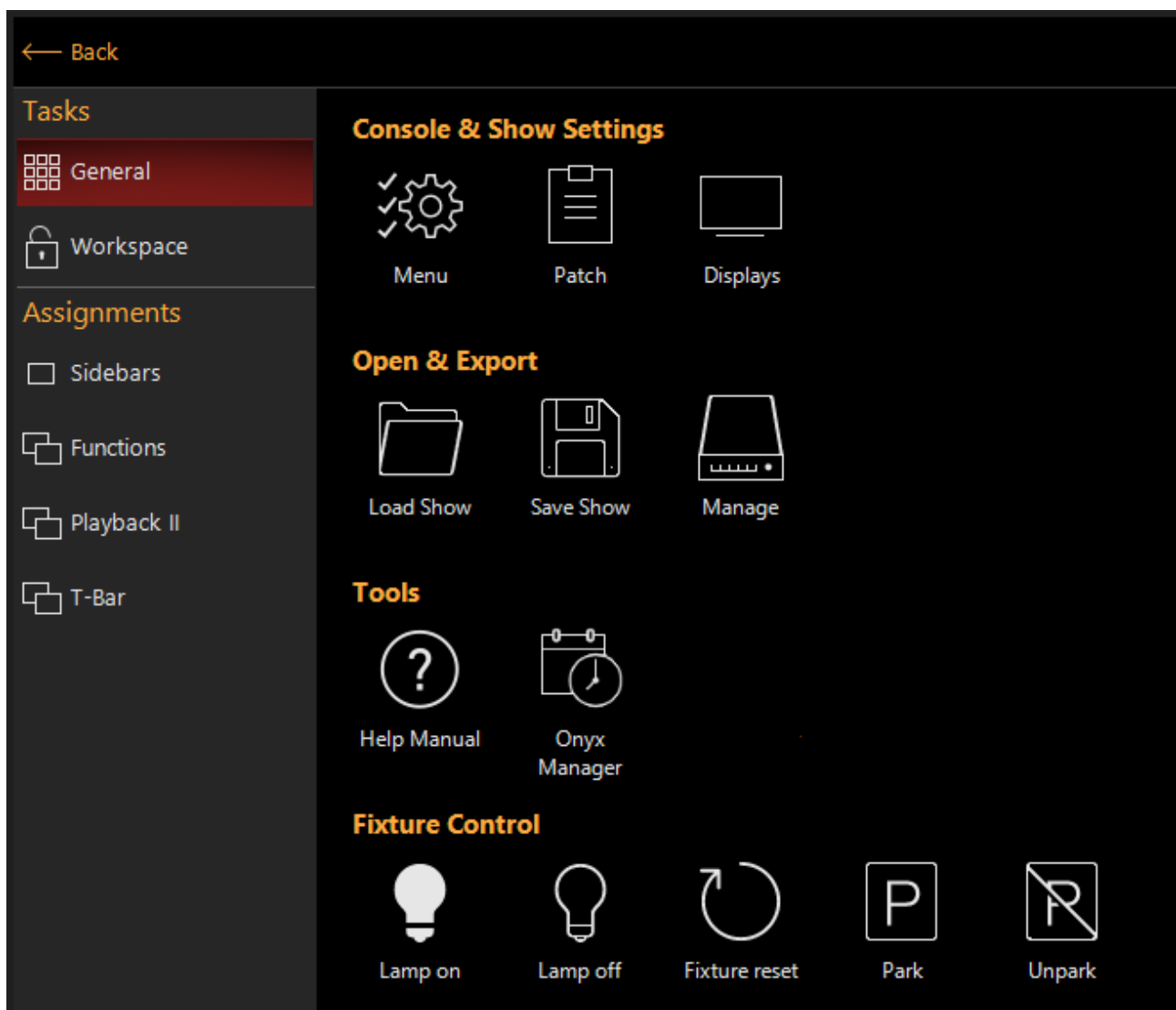
Displays are the different monitors that you may have internally or externally to your console or PC. No matter if you have 1 monitor or 8, ONYX is able to configure each monitor uniquely if desired!

Chances are, if you are just using a single display or the displays built into your console, you won't need to configure anything here.

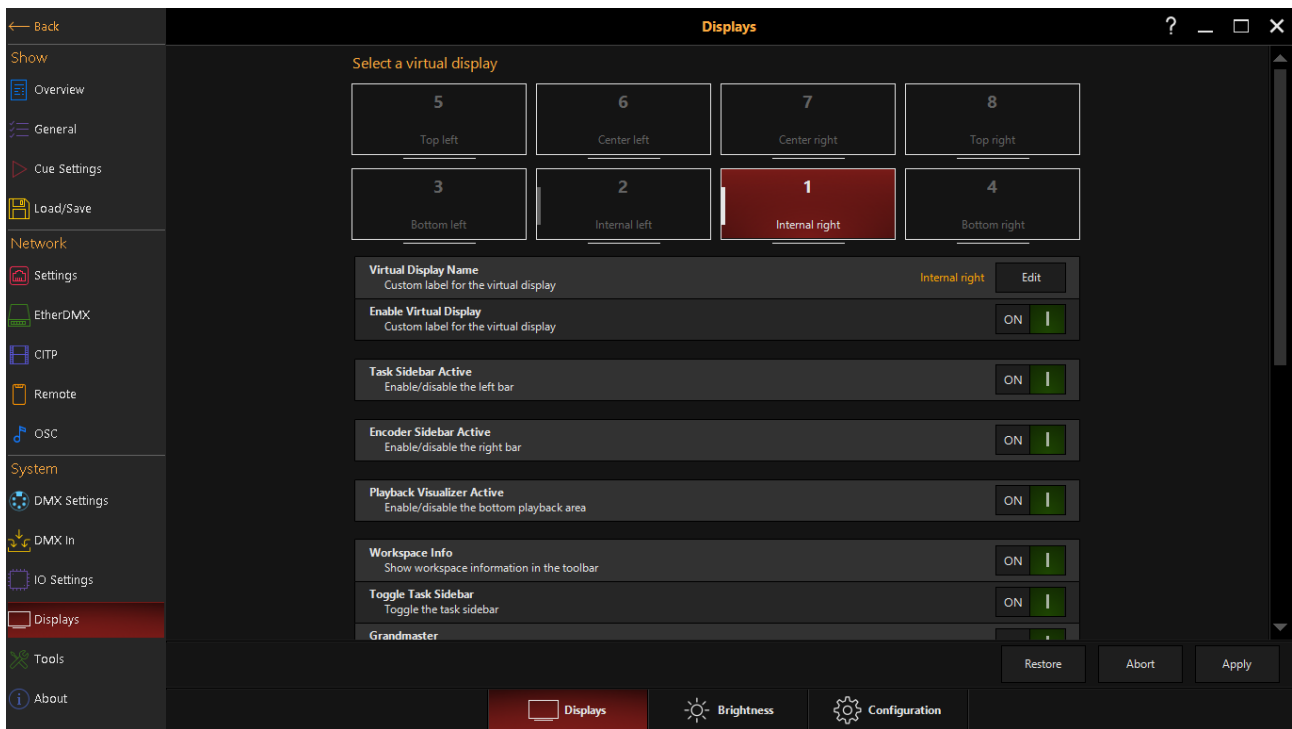
When you add external displays, you'll want to visit the Display settings.

To Access the Display Settings:

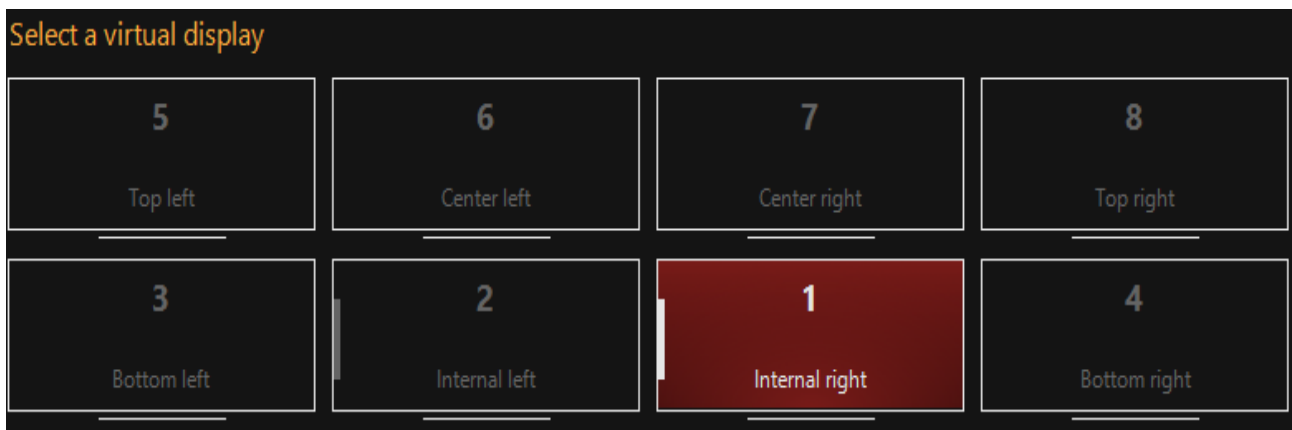
Click ONYX in the upper left corner to enter the [Quick Menu](#):



Then, press Displays from "Console & Show Settings" to enter the Displays Menu:



At the top of the main displays screen, you can click on any of the 8 displays to change their settings below.

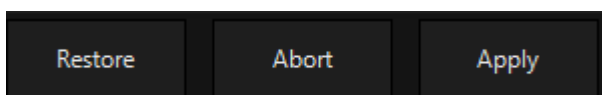


Each of the settings is described below itself. Settings are unique per monitor, so you can set up different monitors with different preferences:

Displays

Virtual Display Name <small>Custom label for the virtual display</small>	Internal right	<input type="button" value="Edit"/>
Enable Virtual Display <small>Custom label for the virtual display</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Task Sidebar Active <small>Enable/disable the left bar</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Encoder Sidebar Active <small>Enable/disable the right bar</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Playback Visualizer Active <small>Enable/disable the bottom playback area</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Workspace Info <small>Show workspace information in the toolbar</small>	<input type="radio"/> OFF	
Toggle Task Sidebar <small>Toggle the task sidebar</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Grandmaster <small>Show grandmaster information in the toolbar</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Flashmaster <small>Show flashmaster information in the toolbar</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Beat View <small>Show beat indicator in the toolbar (only visible if global rate is enabled)</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Cuelist Info <small>Show information of the selected and main cuelist in the toolbar</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Fixture Info <small>Show information of the active selected fixture in the toolbar</small>	<input type="radio"/> OFF	
TimeCode <small>Show timecode indicator in the toolbar (only visible if timecode is enabled)</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Navigation Mode <small>Show navigation mode indicator. Allows you to scroll without selecting and navigating between windows</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Busy Indicator <small>Show busy indicator in the toolbar</small>	<input type="radio"/> OFF	
Chat <small>Show chat indicator in the toolbar</small>	<input type="radio"/> OFF	
Popup <small>Show toggle popup indicator in the toolbar</small>	<input type="radio"/> OFF	
Maximize <small>Show maximize view indicator in the toolbar</small>	<input type="checkbox"/> ON <input checked="" type="checkbox"/>	
Virtual Console <small>Show virtual console toggle in the toolbar</small>	<input type="radio"/> OFF	
Help <small>Show help indicator in the toolbar</small>	<input type="radio"/> OFF	

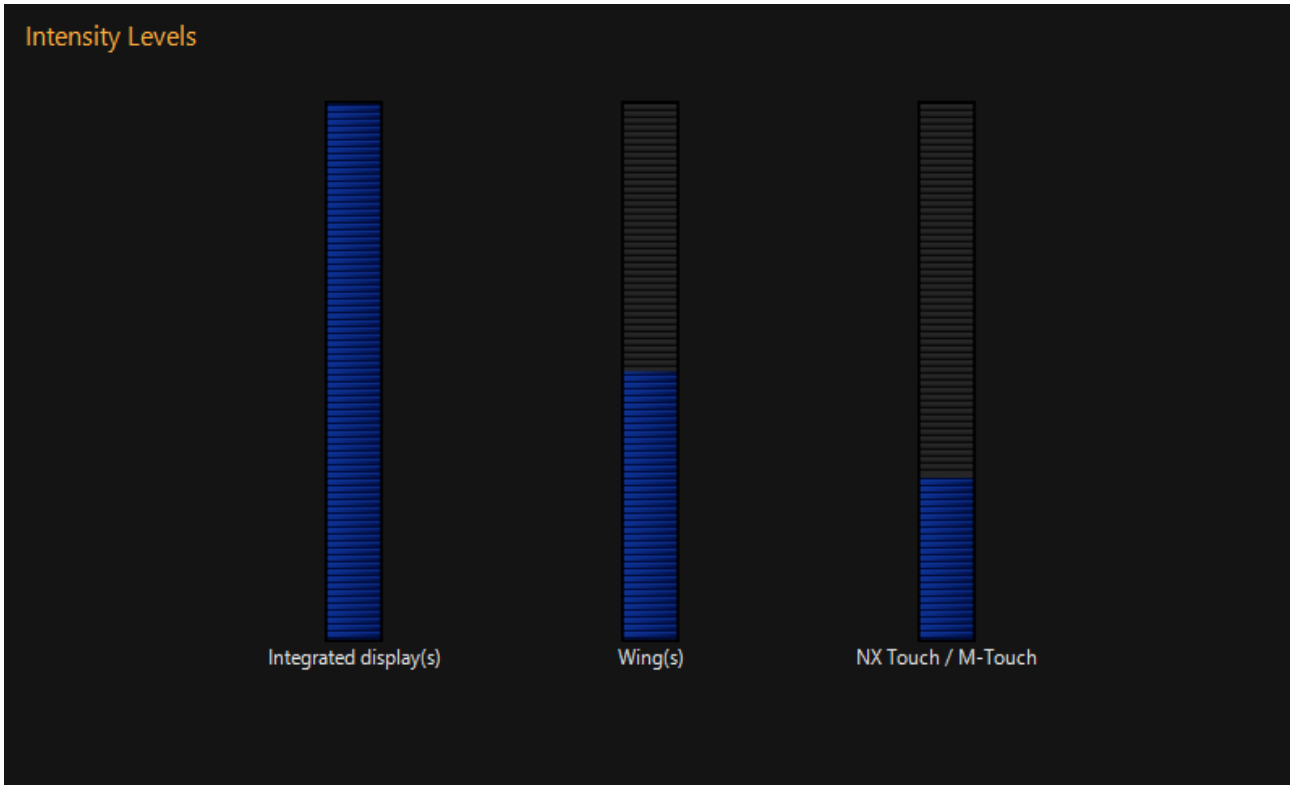
Last, be sure to press Apply in the lower right corner to save your settings. You may also Abort your changes or Restore the default settings:



Setting Display Brightness

To set the brightness of internal displays, wing backlights and more, enter the [Displays menu as described here](#).

Then, at the bottom, press Brightness, and you'll see this window:

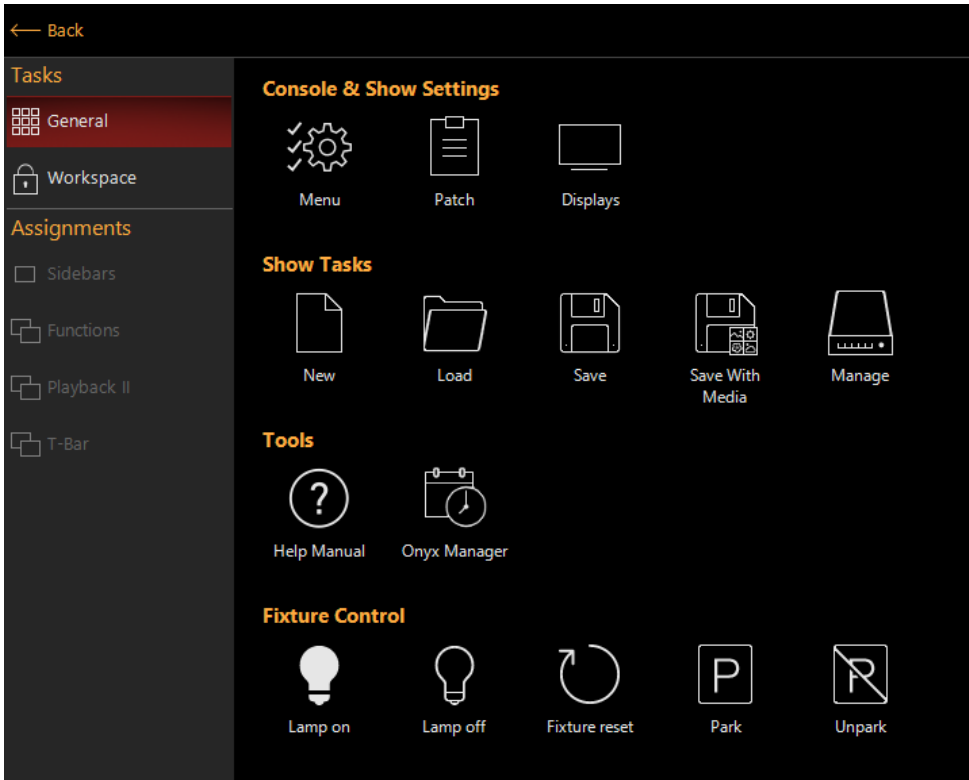


Adjust the brightness as needed - there's no need to press "Apply", your changes are kept automatically.

Calibrating the Small Touch Display

The [NX Wing, NX2, and NX4](#) and some legacy hardware feature a built in touch display on the programming surface.

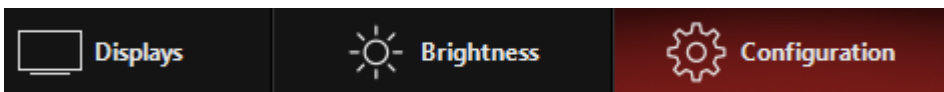
To calibrate this display, press ONYX in the upper left hand corner to enter the Quick Menu:



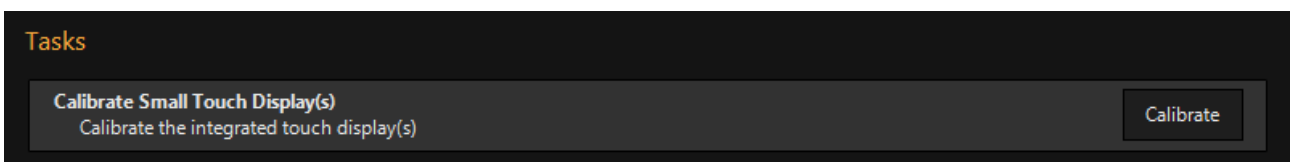
Then press Menu to enter the main menu, and press Displays on the left hand sidebar.



From there, you'll be able to press Configuration from the bottom center menu:



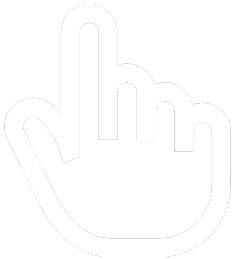
Now, in the center of the screen you can select Calibrate to begin the calibration of the small touch display:



Quick View

New with ONYX 4.8 is the Quick View menu.

The Quick View can be opened and closed with the dedicated "Quick View Button" located to the left of the main encoders on the NX-1 or with an assigned [F-Key](#).



Just as with any other view in ONYX the Quick View is fully customizable.

The screenshot displays the ONYX software interface with the Quick View menu open for fixture 101, 'Artiste DaVinci'. The interface is divided into several sections:

- Left Panel:** A vertical menu with 39 items, including 'Groups - Programmer', 'DMX IO Fixtures', 'FX Program', 'Virtual Console', '2D Plan', 'Presets', and '2D Plan - Zone Composer'. The 'Fixtures Presets' item is highlighted in red.
- Top Bar:** Shows 'GM:100%' and 'FM:100%' on the left, and '101 Artiste DaVinci - 0%' and '1 fixture selected Cyan' in the center. On the right, there are icons for window management and a clock showing '07:23:42 AM'.
- Main View:** A grid of controls for the selected fixture. The 'Color' section is active, showing three vertical sliders:
 - Cyan:** Values range from 30 to 55, with a current value of 36%.
 - Magenta:** Values range from 30 to 55, with a current value of 37%.
 - Yellow:** Values range from 25 to 50, with a current value of 33%.
 A 'Temperature' slider is set to 7600K (Cold).
- Right Panel:** A 'Keypad' section with various control buttons: Menu, Macro, Snap Shot, Bank, Preview, High Light, Fade, Delay, Swap Prog, Link, Last, Next, Edit, Undo, Clear, Copy, Move, Delete, Record, Update, Load, Group, Cue, and Enter.
- Bottom Bar:** Shows 'LIVE 8' and 'SELECT FIXTURE 101'. Below this are four 'FADE' buttons for Cyan (36%), Magenta (37%), Yellow (33%), and CTC (0%).