PHILIPS

Strand Lighting

NEO Lighting Control Console

Software Version 3.2 or Later

User's Manual

Strand Lighting Offices

Philips Strand Lighting - Dallas
10911 Petal Street
Dallas, TX 75238
Tel: 214-647-7880
Fax: 214-647-8031

Philips Strand Lighting - Auckland
19-21 Kawana Street
Northcote, Auckland 0627
New Zealand
Tel: +64 9 481 0100
Fax: +64 9 481 0101

Philips Strand Lighting - Asia Limited
Unit C, 14/F, Roxy Industrial Centre
No. 41-49 Kwai Cheong Road
Kwai Chung, N.T., Hong Kong
Tel: +852 2796 9786
Fax: +852 2798 6545

Philips Strand Lighting - Europe
Rondweg zuid 85
Winterswijk 7102 JD
The Netherlands
Tel: +31 (0) 543-542516

Website:
www.strandlighting.com
www.neocontrol.net

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Document Number: **85-6403 Rev. D**
Version as of: **07 January 2015**

NEO Lighting Control Console User’s Manual
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IMPORTANT INFORMATION

Warnings and Notices

When using electrical equipment, basic safety precautions should always be followed including the following:

a. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**.
b. Do not use outdoors.
c. Do not use near gas or electric heaters.
d. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
e. Do not use this equipment for other than intended use.
f. Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.

WARNING: You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING: Do not open the console. There are no user serviceable parts inside. This equipment is designed to operate from the mains electrical supply and contains voltages, which, if touched, may cause death or injury. It should only be operated in accordance with the instructions provided and for the purpose of a lighting control system.

WARNING: Avoid spilling liquid on the equipment If this should happen, switch the equipment off immediately at the mains. To reduce the risk of fire or electric shock, do not expose the equipment to rain or moisture. For indoor use only.

WARNING: Refer to National Electrical Code® and local codes for proper use specifications.

WARNING: This equipment is intended for use in accordance with the National Electric Code® and local regulations. It is also intended for installation in indoor applications only. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

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INTRODUCTION

1. Preface

The introduction of the NEO lighting control console marks a new chapter in the evolution of control. This console allows the ability to seize light; to grab, move, change position, color and motivate the lighting design simply and effectively. The NEO lighting control console is the closest that a designer can get to actually touching the light; encompassing the dreams and aspirations of both professionals and amateurs alike.

The NEO lighting control console starts with the inclusion of many timesaving features, allowing the user to program faster and more accurately. NEO is a native graphical interface console with Command Line support. NEO allows the user to choose between traditional Command Line style operation and touchscreen style operation using the Graphical User Interface.

With advanced features for all lighting situations, from museum to stage shows, NEO does it all. Control up to 100 DMX Universes with 25,000 control channels. Authorization can be purchased in DMX Universe blocks for a truly scalable system.

This manual will take you through all of the features of the software and show you how to use it to its fullest potential.

2. About This Guide

Congratulations on your purchase of a Strand Lighting NEO Lighting Control Console. This manual provides important information regarding safety, installation, and operation for all console hardware components. Familiarizing yourself with this information will help you get the most out of your lighting system.

This manual describes the installation and operation procedures for the following models:

- 91001, NEO Lighting Control Console
- Avoid spilling liquid on the equipment. If this should happen, switch the equipment off immediately. To reduce the risk of fire or electric shock, do not expose the equipment to rain or moisture.
- For indoor use only.
- This equipment is designed and manufactured to comply with international safety standards IEC950, UL1950, CS950 and is intended for use as part of a lighting control system. It must not be used for other purposes where there is a risk of safety to persons. The equipment contains power voltages, socket outlets will be installed near the equipment and be easily accessible.
- Working Voltage/Current: 90 - 240VAC
- Frequency: 50/60 Hz
- Maximum Ambient Temperature: 50° C (122° F)
- Do not restrict ventilation

WARNING! It is important to read ALL included safety and installation instructions to avoid damage to the product and potential injury to yourself or others.

NEO NOTES & TIPS: Important notes and tips will are shown in like this with the NEO logo on the left. The notes often contain important information about the current topic.

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For a complete list of support and field service contacts, go to www.strandlighting.com , select the Support tab and then the "Support/Field Service Contacts" link.

2. Additional Resources

Additional Documentation - DMX512

For more information on installing DMX512 control systems, the following publication is available for purchase from the United States Institute for Theatre Technology (USITT), "Recommended Practice for DMX512: A Guide for Users and Installers, 2nd edition" (ISBN: 9780955703522). USITT Contact Information:

USITT
315 South Crouse Avenue, Suite 200
Syracuse, NY 13210-1844 USA
1-800-938-7488 or +1-315-463-6463
www.usitt.org

NEO Software & Documentation

The console's graphical user interface (GUI) is provided by Dream Solution. For detailed instructions on using the NEO operating software, refer to the NEO operating software manual within the software itself.

For the latest software documentation updates, please visit: www.strandlighting.com or www.neocontrol.net.

For a printed or printable version of NEO Console documentation, visit: www.strandlighting.com or www.neocontrol.net.

OVERVIEW

1. Components

Included Items

The NEO Lighting Control Console system includes the following items:

- 1 x Console with built-in Trackball, Keyboard, and Rotary Encoders
- 3 x Power Cables for all countries (EU, UK, and USA)
- 1 x Neoprene Dust Cover
- 1 x Installation & Setup Guide on USB stick
- 2 x Littlite® Gooseneck Lamp

2. Processor

The console processor utilizes Microsoft® Windows7 to run a specially designed NEO lighting control software. The processor will not accept nor run standard Windows-based applications. It is only intended for use with the NEO software application.

3. Accessories and Expansion Devices

Monitor/Touchscreen

The processor supports the use of up to three HD touchscreen monitors. Refer to *Touchscreen Calibration* under "System" on page 225.

Note: Using touchscreens will enhance the usability of the console software and is highly recommended.

Optional Accessories (sold separately)

- Touchscreens
- Android OS / iOS Remote device

4. Software Upgrades

Software upgrades are free of charge and are available at: www.strandlighting.com or www.neocontrol.net.

NEO NOTES & TIPS: Before updating NEO console software, Philips Strand Lighting recommends users make a backup of all current show files.

NEO Console OS Software Installation

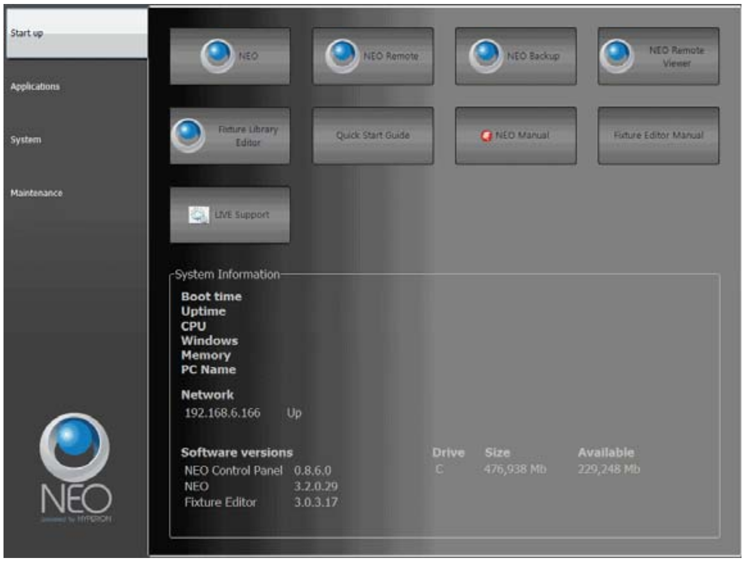
To install or update NEO Console software, follow these simple instructions…

Step 1. Download the latest upgrade file *(file name: Neo_Setup_X_X_XX.exe)* from the Strand Lighting website (www.strandlighting.com).

Step 2. Copy the software file onto a USB key.

Step 3. Plug the USB key into the console.

Step 4. On the console, open the Control Panel *(More > Control Panel)*.


Start up
Applications
System
Maintenance
NEO
NEO Remote
NEO Backup
NEO Remote Viewer
Fixture Library Editor
Quick Start Guide
NEO Manual
Fixture Editor Manual
LIVE Support
NEO
powered by HYPERION

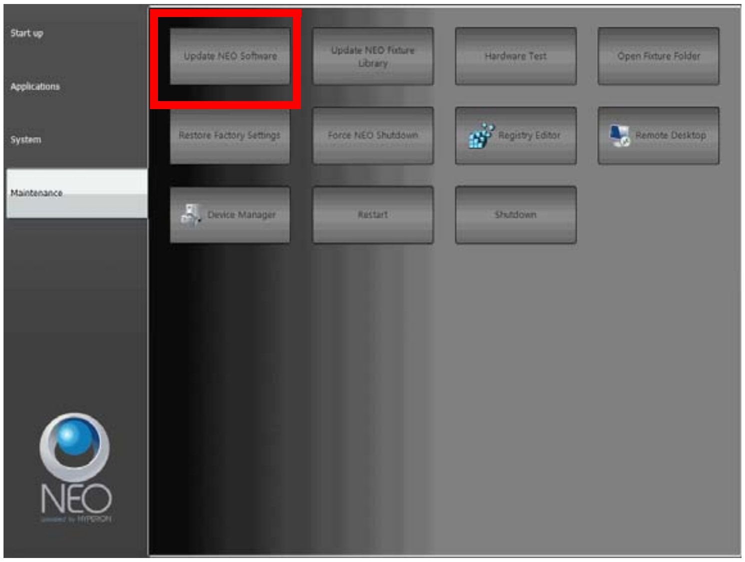
System Information

Boot time
Uptime
CPU
Windows
Memory
PC Name

Network
192.168.6.166 Up

Software versions		**Drive**	**Size**	**Available**
NEO Control Panel	0.8.6.0	C	476,938 Mb	229,248 Mb
NEO	3.2.0.29			
Fixture Editor	3.0.3.17			

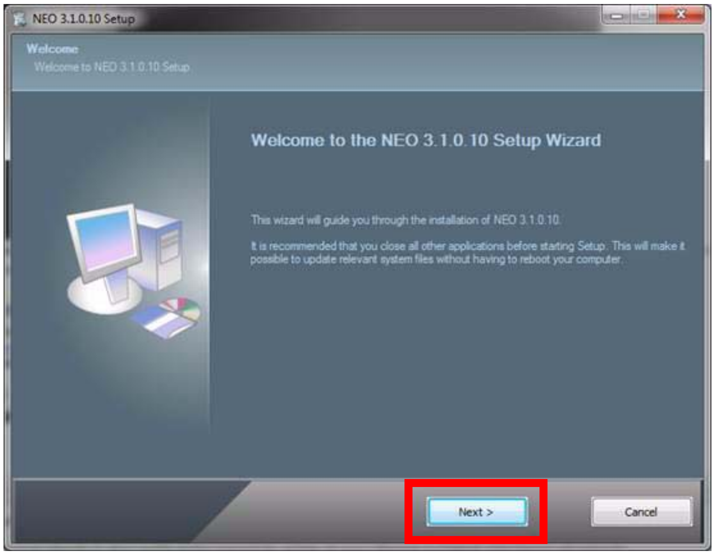
Step 5. Go into the Maintenance environment and select “Update NEO Software”. The updater will look for the latest version of the software both on the hard drive first and then any USB key. Confirm that it is the right version. If not, then copy the correct version onto the hard drive before proceeding.


Start up
Applications
System
Maintenance
Update NEO Software
Update NEO Fixture Library
Hardware Test
Open Fixture Folder
Restore Factory Settings
Force NEO Shutdown
Registry Editor
Remote Desktop
Device Manager
Restart
Shutdown
NEO
powered by HYPERION

Step 6. On the console, the User Account Control dialogue box will appear.

Step 7. Confirm the program name is the correct version of software and click "Yes".

Step 8. The NEO software installation screen will appear. Click "Next" and follow all prompts to install the software.



Welcome to the NEO 3.1.0.10 Setup Wizard

This wizard will guide you through the installation of NEO 3.1.0.10.

It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.

Step 9. The console will need to reboot to complete the installation.

Note: If you have not done so already, be sure to register to receive updates and product information notifications. Click here to go to the NEO Console OS Sign Up Page.

Have questions? Need assistance?

Contact Strand Lighting Customer Service at: 1-800-4STRAND (North America) or 1-214-647-7880 (international).

5. DMX Output Universe Upgrades

The DMX output functionality included with your console is pre-authorized at the level initially purchased. However, the DMX output authorization can be easily upgraded at any time. To purchase a DMX output upgrade for your NEO Lighting Control Console, please contact your Authorized Strand Lighting Dealer.

NEO NOTES & TIPS: You may need to purchase ShowNet nodes or other DMX512 output devices if you exceed 2048 DMX outputs.

6. Features

Standard Features

- 1 to 100 universe output (depending on number of universes purchased or utilizing Philips Advantage DMX)
- 2048 DMX512 output
- Unlimited cues up to (Cue 99999.999)
- Unlimited groups
- Unlimited shortcuts
- Windows® 7 processor
- 120GB solid-state hard drive
- Installed, Internet Browser, Adobe Acrobat Reader
- Supports Pathport®, ShowNet, Art-Net, CKNet, Color Kinetics™, and streaming E1.31 (ACN) Ethernet Protocols
- Free offline editor available at: www.strandlighting.com or www.neocontrol.net

Control:

- Split up/down fade times
- Split up/down delay times
- 26 parts per cue (A thru Z)
- 32-bit fades
- Independent timing by attribute
- Fade times from 1/100 second to 20 days
- Follow time
- Cue loops
- Pre-programmed effects wizard
- Moving light patch (graphical or command line)
- Channel check
- Channel labels
- Tracking / Cue Only / Hybrid Tracking style operation
- Astronomical time clock and time events
- Macros

Playback:

- 10 Submasters on NEO base console (Unlimited Pages)
- 4 moving light encoders with LCD status screens
- Support for 3 HD touchscreen monitors
- 5 playback faders
- A/B faders
- True Last Action Tracking operation
- Unlimited cue list with unlimited simultaneous fades
- Integrated Trackball
- Level wheel (accessible from top and bottom of console)
- Touchscreen monitor support
- Two programmable Grandmaster sliders

Display Functions:

- Live editing
- Blind editing
- Groups List / Details
- Cue List / Details
- FX List / Details
- Palette List / Details
- Cue Playbacks
- FX Playbacks
- Macro Editor
- System Properties

- Shortcuts Window
- Submaster Window
- Playbacks Window
- DMX View
- Live Video Preview
- Touchscreen Keyboard
- Timecode Monitor
- Power Monitor
- Console Debug Window
- Control Panel
- Fixture Library
- Matrix Editor
- Profile Editor
- Color Filter Editor

Connectivity Features

- Supports Pathway®, ShowNet, Art-Net, KiNet 1 and 2 (Color Kinetics), and streaming E1.31 (ACN) Ethernet protocols.
- DMX512A / RDM
- RS232
- MIDI In/Out
- SMPTE In/Out
- Audio Out

External Control:

- Android app control
- Apple app control

SOFTWARE OVERVIEW

1. NEO Software

Benefits of NEO Software:

NEO is a tracking-based application.

NEO adds an easy to use Graphical User Interface to the already powerful command-line syntax that is common to generations of Strand control. Now there is a choice to use traditional command-line syntax or use the mouse and access pull-down menus and dialog boxes.

NEO displays a wealth of information on its graphical screen, allowing the user to work faster and more efficiently.

NEO can be upgraded, at no additional cost, when new software becomes available.

2. Offline Editor

A free off-line editor is available at: www.strandlighting.com or www.neocontrol.net.

3. Control of Connected Devices

Control of connected devices and/or lighting systems is achieved by using the console desk hardware in conjunction with the NEO software application. In some cases, actions can be performed using either the hardware or software, providing you with a variety of choices suitable to your preferences and requirements.

For more information about external hardware controls, refer to "Hardware Interfaces" on page 270.

For more instructions on using the NEO software, please refer to the user manual within the program itself (by either selecting it from the Options menu or Control Panel.

4. External Control

The console can accept several forms of external control, depending on your console's particular configuration.

These include, but are not limited to, Touchscreens and Remote Focus Units.

INSTALLATION AND SETUP

1. Unpack

Site Requirement

The console and its components require a sturdy, flat surface for installation. The surface should be able to support the weight of the console (including monitors, etc.) and should provide suitable ventilation. Also, the site should be clean (i.e. absent of any construction dust or debris) and dry. Before setting up, ensure that the installation site meets these requirements. Refer to product specification sheet on the Philips Strand Lighting web site for console dimensions and power requirements.

Product Care

In the event the console needs to be cleaned, remove all power from unit and use only a very mild soap on a damp cloth. Dry immediately with a soft lint-free cloth after cleaning. Never use harsh chemicals such as window cleaners, paint removers, vinyl conditioners, etc.

It is recommended to gently blow out the sub pots and desk occasionally to prevent buildup of dust and dirt.

Unpack and Assemble Components

To unpack and assemble the console components, do the following:

Step 1. Remove console components from shipping container or case.

Step 2. Place console desk on installation surface.

Step 3. Place monitor(s)* and other external components close enough to console so that cabling will reach.

**Monitors sold separately.*

2. Hardware Setup

Connecting Console Components

Figure 1 outlines the NEO Lighting Control Console’s connections.

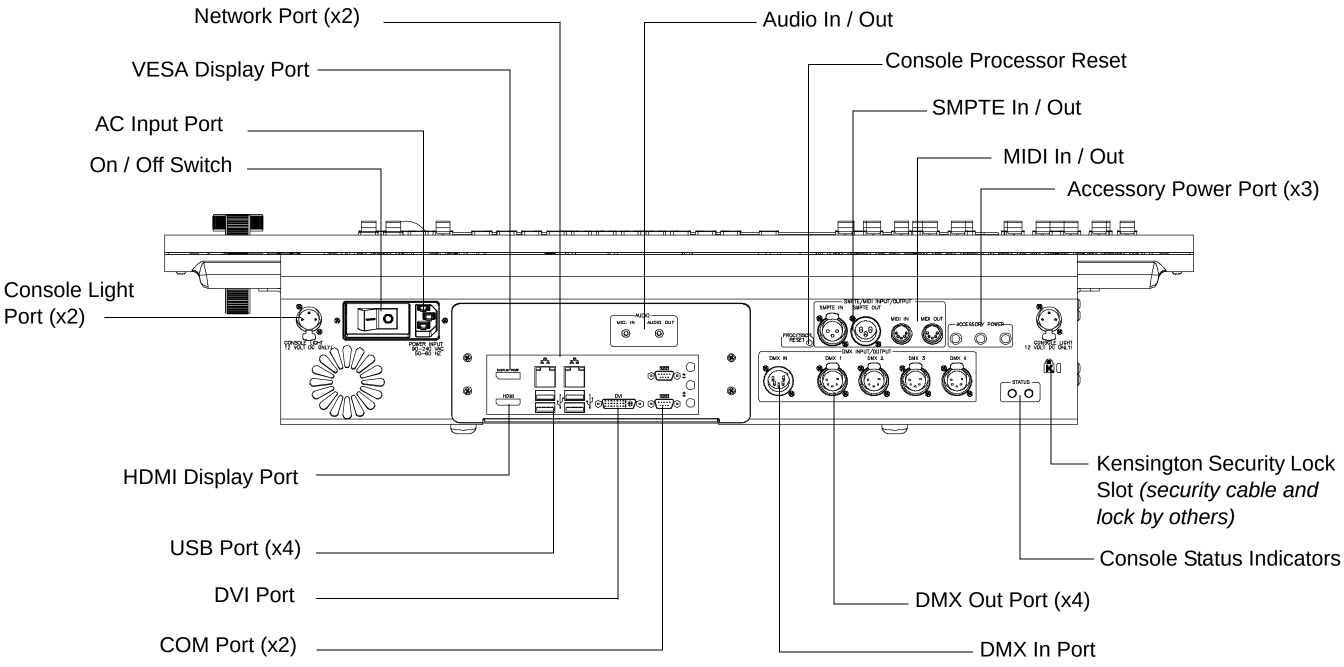

Network Port (x2)
VESA Display Port
AC Input Port
On / Off Switch
Console Light Port (x2)
Audio In / Out
Console Processor Reset
SMPTE In / Out
MIDI In / Out
Accessory Power Port (x3)
HDMI Display Port
USB Port (x4)
DVI Port
COM Port (x2)
Kensington Security Lock Slot (security cable and lock by others)
Console Status Indicators
DMX Out Port (x4)
DMX In Port

Figure 1: Console Rear Panel Connections

To connect console components, do the following:

Step 1. At console rear panel, IEC power cable (included).

Step 2. Connect monitor(s)* or touchscreen(s)*.

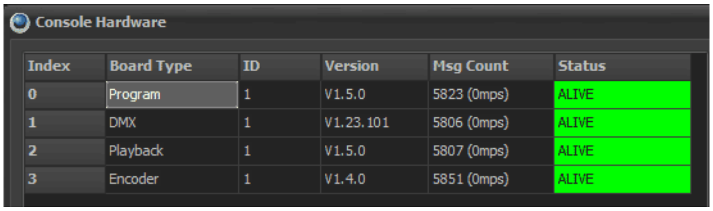
Step 3. Install gooseneck lamps (included).

**Optional accessories sold separately.*

3. DMX512 Output

The console provides four standard XLR 5-pin connectors for connecting to DMX512 devices. Each connector supports one DMX512 universe of 512 DMX channels. Connect DMX512 devices as shown in Figure 1.

When DMX is being used, there are status LEDs on the back of the console to help identify and understand the traffic that is transmitting on this card. The DMX card also has the MIDI/SMPTE components engineering onto it. If you look on the Console Debug Window *(More > Console Debug Window, see* Figure 2*.)*, you will see a listing for the DMX card and it's firmware. The firmware version number is #.##.###. The first two sets of numbers are for the DMX card firmware version. The last set of numbers is for the MIDI/SMPTE card firmware version. *(For example: 1.23.102)* Firmware version #.##.102 is the first version to have the status light feedback. The LEDs will blink in different patterns to indicate receive / transmit (Rx/Tx) signal status.



Console Hardware

Index	Board Type	ID	Version	Msg Count	Status
0	Program	1	V1.5.0	5823 (0mps)	ALIVE
1	DMX	1	V1.23.101	5806 (0mps)	ALIVE
2	Playback	1	V1.5.0	5807 (0mps)	ALIVE
3	Encoder	1	V1.4.0	5851 (0mps)	ALIVE

Figure 2: Console Debug Window

DMX/RDM Status LED (Right LED when facing the back of the console):

- Red On Solid -- DMX board power is ON

Orange On Solid -- transmitting DMX on one or more of 4 DMX OUT ports, not receiving DMX

- Orange 0.25s / Red 0.75s -- Receiving DMX
- Orange 0.125s / Red 0.125s -- RDM is active

4. MIDI/SMPTE

The NEO has the capability to both send and receive MIDI and SMPTE time code.

When MIDI/SMPTE is being used, there are status LEDs on the back of the console to help identify and understand the traffic that is transmitting on this card. The MIDI/SMPTE device is engineered onto the DMX card. If you look on the Console Debug Window *(More > Console Debug Window, see* Figure 2*.)*, you will see a listing for the DMX card and it's firmware. The firmware version number is #.##.###. The first two sets of numbers are for the DMX card firmware version. The last set of numbers is for the MIDI/SMPTE card firmware version. *(For example: 1.23.102)*. MIDI/SMPTE firmware version 102 is the first version to have the status light feedback. The LEDs will blink in different patterns to indicate receive / transmit (Rx/Tx) signal status.

MIDI/SMPTE Status LED (Left LED when facing the back of the console):

OFF - No MIDI or SMPTE traffic

Green - MIDI activity

- Green Pulse 0.5s for every MIDI message sent
- Green Pulse 0.125s for every MIDI message received

Red - SMPTE activity

- Red ON 0.5s / Off 0.5s -- Receiving SMPTE timecodes
- Red ON 0.25s / Off 0.25s -- Transmitting SMPTE timecodes

PHILIPS
Strand Lighting

5. Console Power Up Procedure

Once the console has been installed and all components connected, the console and processor can be powered up.

To power up:

Step 1. At back of console, toggle the power switch to on.

Step 2. After boot up is complete, go into System Properties and set the system to work to your preferences. See Quick Start Guide for guidance (Options > Open NEO Quick Start Guide).

Step 3. While in "System Properties," verify that other important and systemic features are set correctly for you.

- System Settings
- Show Defaults

USING THE MANUAL

Using this manual to its full potential is aided by knowing the format in which the information is provided.

There will be Command Line instructions. These are commands that you enter by typing on the NEO console keys.

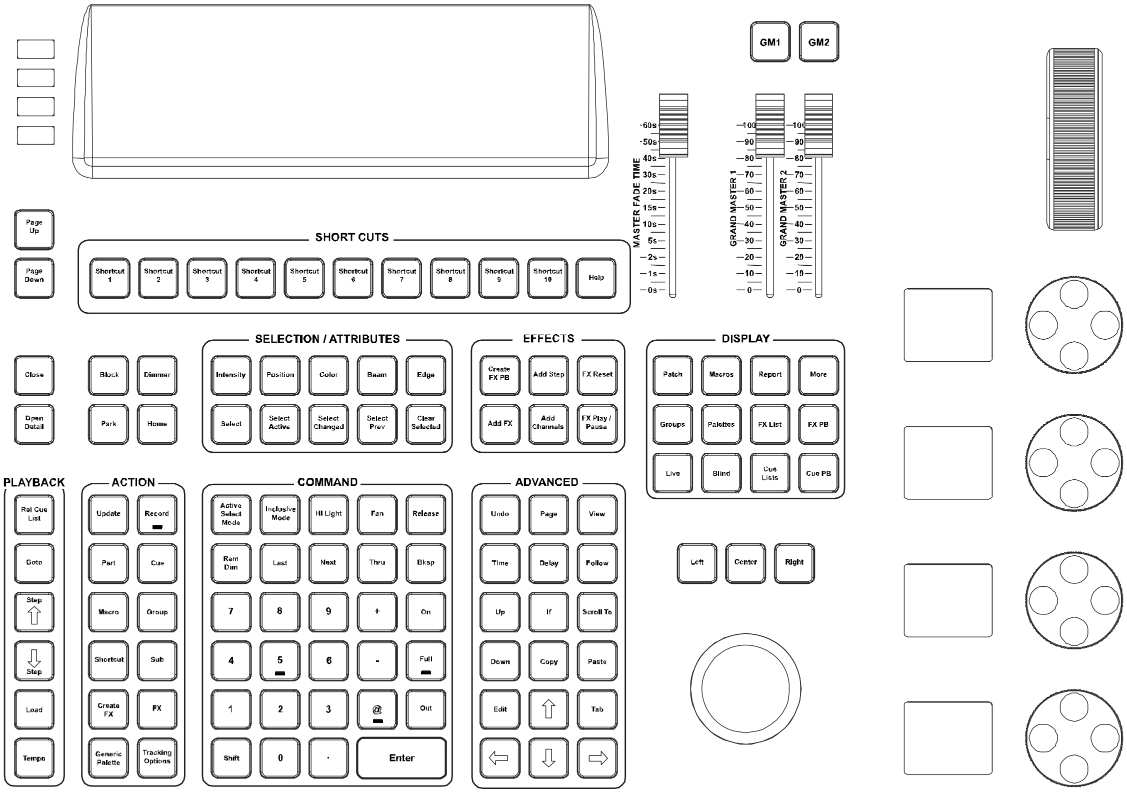

GM1
GM2
MASTER FADE TIME
60s
50s
40s
30s
20s
15s
10s
5s
2s
1s
0s
GRAND MASTER 1
GRAND MASTER 2
100
90
80
70
60
50
40
30
20
10
0
Page Up
Page Down
SHORT CUTS
Shortcut 1
Shortcut 2
Shortcut 3
Shortcut 4
Shortcut 5
Shortcut 6
Shortcut 7
Shortcut 8
Shortcut 9
Shortcut 10
Help
Close
Open Detail
Block
Dimmer
Park
Home
SELECTION / ATTRIBUTES
Intensity
Position
Color
Beam
Edge
Select
Select Active
Select Changed
Select Prev
Clear Selected
EFFECTS
Create FX PB
Add Step
FX Reset
Add FX
Add Channels
FX Play / Pause
DISPLAY
Patch
Macros
Report
More
Groups
Palettes
FX List
FX PB
Live
Blind
Cue Lists
Cue PB
PLAYBACK
Rel Cue List
Goto
Step
Step
Load
Tempo
ACTION
Update
Record
Part
Cue
Macro
Group
Shortcut
Sub
Create FX
FX
Generic Palette
Tracking Options
COMMAND
Active Select Mode
Inclusive Mode
Hi Light
Fan
Release
Rem Dim
Last
Next
Thru
Bksp
7
8
9
+
On
4
5
6
-
Full
1
2
3
@
Out
Shift
0
.
Enter
ADVANCED
Undo
Page
View
Time
Delay
Follow
Up
If
Scroll To
Down
Copy
Paste
Edit
Tab
Left
Center
Right

Figure 3: NEO console keys

All Command Line entries in this document will be displayed in brackets.

[1] [@] [30] [Enter]

For example, if the manual indicates (Fixture List) [@] (Level), then the Fixture List entry would be the operators choice of fixtures and the Level entry would be the operators choice of intensity level.The monitor will offer lots of opportunities for direct entry to the graphical user interface. This can either be accomplished by touching the monitor should you have a touchscreen. If you don't have a touchscreen then the console's trackball can provide an alternative to the touchscreen.

Info in {braces} will indicate text that appears on the Command Line that is different than the text on the keys (or combination of keys) that is pressed.

For example, if you type [Shift] + [Thru] the "Thru" on the Command Line will change to "Thru-on". This will be represented in this manual by [Shift] + [Thru] {Thru-on}.

Info in (parentheses) will indicate a general item but not any specific key.

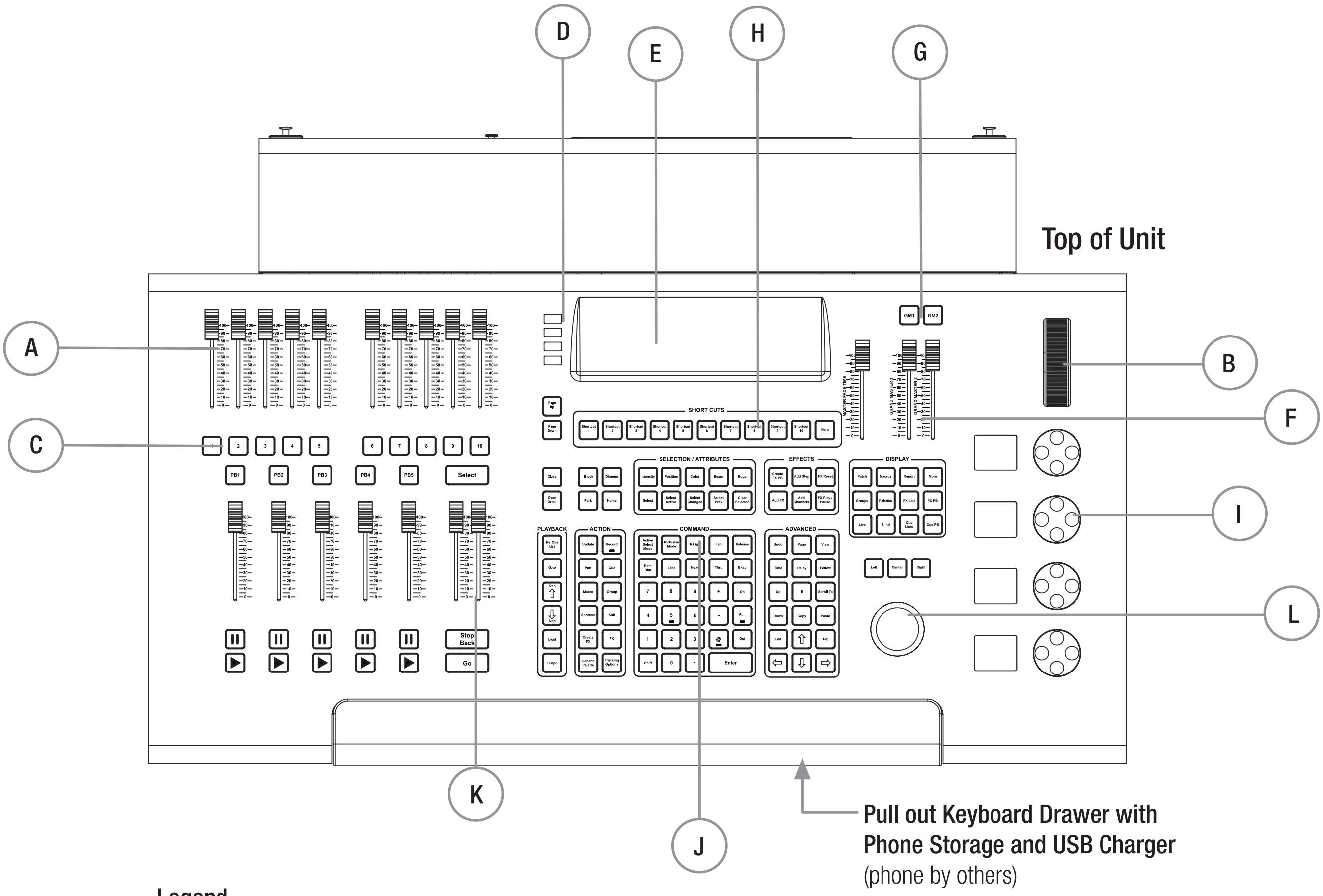
Congratulations on the purchase of your NEO console and let's get started!

CONTROLS

1. Desk Layout

Console Overview

Figure 4 provides an overview of console desk controls. Refer to subsequent pages for more in-depth explanations of individual button and slider functions.


D
E
H
G
Top of Unit
A
B
C
F
I
L
K
J
Pull out Keyboard Drawer with
Phone Storage and USB Charger
(phone by others)

Legend

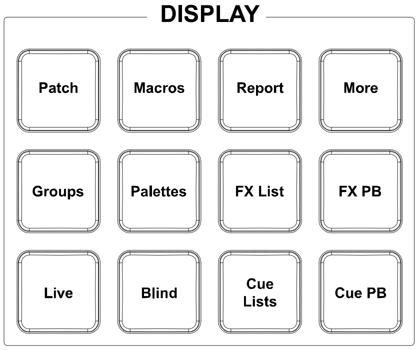
A. Motorized Faders / Submasters
B. Level Wheel
C. 10 Bump Buttons
D. USB Port (showfile storage, USB key sold separately)
E. Tablet Well with USB Power (tablet by others)
F. Grand Masters (2)
G. Black Out Buttons
H. Shortcuts (10 each)
I. Encoders with Encoder Status (4 each)
J. Programming Buttons
K. A/B Playback Controls (with Go and Stop/Back buttons)
L. Track Ball

Figure 4: NEO Control Console Overview

2. Programming Button Layout

The programming section of the desk provides direct access to intensity channels, channel attributes, playback control, console setup and display options.

Display Keys



All secondary windows (all displays with the exception of Live, Blind, Report and More) will be opened by pressing the appropriate display button and will be closed by pressing the "Close" button. A secondary display window will be a separate window that can be minimized, maximized, sized and located in the users preferred location. This can best be taken advantage of with multiple monitors. Each of these displays button's text will flash when the window is open and in focus.

[Live] - Live is the main viewport and will show all active output for fixtures and cues. When in Live mode the display button's text will be red.

[Blind] - Activates Blind Mode. While in Blind, the channel grid has a Grey background. Blind allows for non-Live viewing and editing. When in Blind mode, the display button's text will be red.

[Cue Lists] - Opens the Cue List Details window. All details about cues are available here.

[Cue PB] - Opens Cue playback popup window.

[Groups] - Opens Groups popup window. Allows editing of groups and submasters assignment.

[Palettes] - Opens Palettes window. Allows editing/ adding/ deleting of Palettes for attributable fixtures.

[FX List] - Opens Effects editor window. Allows for adding, editing, and deleting effects.

[FX PB] - Opens effects playback window. Displays any saved effects for previewing.

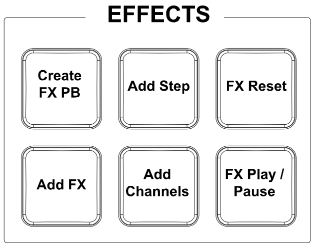
[PATCH] - Switches the Screen display to view the patch screen (single monitor layout) or opens Patch popup window (multiple monitor layout). Allows for editing of fixture assignment and how they are controlled.

[Macros] - Opens macro editor window. Allows for creating/editing/deleting of macros.

[Report] - Opens Selected Fixture Report popup window.

[More] - Brings up MORE menu from lower right, which allows access to additional screens and functionality.

Effects Keys



These are the primary keys used for creating and editing effects.

[Create FX PB] - Opens Effects editor popup window. Allows for adding, editing, and deleting effects.

[Add Step] - Adds a step to the selected existing effect.

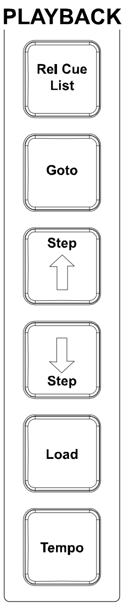
[FX Reset] -. Resets the currently running effect.

[Add FX] - Opens popup window with effects types to aid in the creation of effects. Includes an Effects wizard to guide user through creating custom effects.

[Add Channels] - Adds channels to the selected step in effects creation/ editing.

[FX Play/Pause] - Acts as a GO/Stop button for the selected effect.

Playback Keys



[Rel Cue List] - Releases the current primary cue list and all fixtures will restore to default.

- Advanced Functionality: When outputting multiple cue lists, [Rel Cue List] + (PB#) will release the cue list that is assigned to the selected Playback.

[Goto] - Places desired cue live on stage. Ex: [GOTO] [1] [ENTER].

- Advanced Functionality: [Goto] (PB#) [Cue] (#) [Enter] or [Goto] (PB#) (#) [Enter] will assert a cue from a secondary cue list.

[Step Up *(arrow up)*] - Cuts to the previous cue in the cue list.

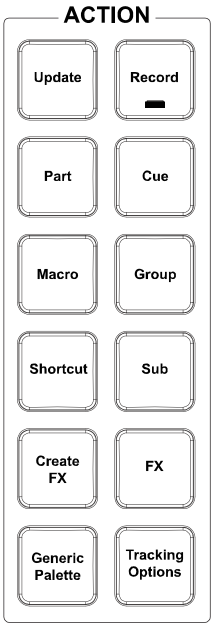
[Step Down *(arrow down)*] - Cuts to the next cue in the cue list.

[Load] - Will preset the loaded cue as the next cue that runs on Go. [LOAD] (#) [ENTER]

[Tempo] - Allows the user to establish a tempo for manually stepped effects.

Action Keys

This tile holds the primary action keys and the primary items that they manipulate.



[Update] - Stores changes to selected item. This could be a Cue, Group or other item. Ex: [UPDATE] [CUE] [1] [ENTER]. When you press the "Cue" key, the Command Line will display what the update option will do. The options are "Live", "Selected", "Active" or "Changed". Just press [Cue] again to toggle between the available options.

- Ex: [Update] [Group] (#) [Enter]. When you press the "Group" key, the Command Line will display what the update option will do. The options are "Changed" or "Selected". Just press [Group] again to toggle between the available options.
- Ex: [Update] [Sub] (#) [Enter]. When you press the "Sub" key, the Command Line will display what the update option will do. The options are "Changed" or "Selected".
- Ex: [Update] [Palette] (#) [Enter]. When you press the "Palette" key, the Command Line will display what the update option will do. The options are "Changed" or "Selected".
- Advanced Features: Leading Fixture List Update. Allows using a leading fixture list to update cues. Ex: [1] [Update] [Cue] [2] [Enter]. This will take fixture 1's level and update it to cue 2.
- Leading Fixture List Update with If. Allows using a leading fixture list to update cues when applying new relative levels to a conditional level. Ex: [Fixture List] [Update] [Cue] (#) [Thru] (#) [@] [+/-] (#) [If] [+/-] (#) [Enter]. Hard example: [6] [Update] [Cue] [1] [Thru] [5] [@] [+] [10] [If] [+] [0] [Enter]. Meaning: For fixture 6 Update cues 1 thru 5, up 10% if it's currently above 0.
- Leading fixture list record/update works for ranges of cues when applying new levels to a conditional level. Ex: (Fixture List) [Update] [Cue] (#) [Thru] (#) [@] (#) [If] (#) [Enter]. Hard Example: [6] [Update] [Cue] [1] [Thru] [5] [@] [70] [If] [60] [Enter]. Basically, for fixture 6, Update Cues 1 thru 5, to 70% when it's at 60%.

[Record] - Stores lighting state as a selected item. This could be a Cue, Group or other item. Ex: [Record] [Cue] (#) [Enter], [Record] [Group] (#) [Enter], [Record] [Sub] (#) [Enter], [Record] [FX] (#) [Enter], [Record] [Generic Palette] (#) [Enter]. When you press the "Cue" key, the Command Line will display what record mode option will be used. The options are Live, Selected, Active, Changed. Just press [Cue] again to toggle between the available options.

[Part] - A portion of a single cue that can be assigned a unique time value. Ex: With channels selected and changed [PART] [B] [ENTER] will assign selected channels to the desired part (Part B in this example). Continue part assignment until completed. Then Record or Update to store or edit the cue. Parts B thru Z are available.

Note: Even though the primary command tile does not have a QWERTY keyboard, it can be used for part lettering entry. Ex: Select a fixture. Type: [PART][1][ENTER]. The selected fixture(s) will be assigned to Part B. 2 will be converted to Part C and so on for the first 9 letters.

[Cue] - A recorded state that can be played back in time.

[Macro] - Triggering device for stored keystroke entry.

[Group] - A collection of channels/fixtures and their data. Groups can be just a collection of channel/fixtures at an intensity level, the can hold attribute information or both. When the hold attribute information, they are called Preset Focus Groups. Groups are very flexible and all groups (when stored in a cue) will reference back to the group data. This allows the user to change the data in the group without changing the cue itself. Specifies group selection. Ex: [GROUP] [1] [ON] or [RECORD] [GROUP] [1] [ENTER].

- Advanced Functionality: When recording groups using Command Line pressing Group again will change the record mode. Recording a Group remembers the fixture selection order. This becomes important when you use groups to build effects. The effect will be applied in the order in which the fixtures were selected when recording the group.
- Ex: [Record] [Group] (#) [Enter] will display {Record Group (Selected)} on the Command Line and will record only selected fixtures. Pressing [Record] [Group] [Group] (#) [Enter] will display {Record Group (Changed)} on the Command Line and will record only fixtures with changed values.
- [Record] [Group] works without specifying a group number or group name. The next group number after the last group will be automatically selected.

[Shortcut] - A shortcut is a quick route to a particular setting or feature that is used frequently. A Shortcut can be triggered from the Shortcut buttons on the console, from the Shortcut page, a Cue, a Group or at startup.

[Sub] - A fader that controls a group. Look in the Groups display and you'll find a Submaster column where you can assign a submaster to a group. In addition, when recording groups there is a box where a submaster can be assigned. Quick recording is available by typing [RECORD] [SUB] (#) [ENTER]. This will record a group of the same number and apply the submaster as a fader to that group. In addition, while holding down RECORD, press SUB and the Record Group dialogue box will appear. While this dialogue box is open, notice that all available sub's bump buttons are flashing. Pressing one will assign that sub to the Submaster number box for recording.

- Advanced Functionality: You can use the dialogue box solution to help the record sub process. With the desired fixtures selected and at the desired levels, type [Record] + [Sub]. The Record Group dialogue box will appear. All available subs and shortcuts will be flashing. Just press the desired sub button and that sub's number will populate the Submaster Number box for you. Once all other settings are correct, pressing [Enter] will complete the record group action.

[Create FX] - Will take a currently running effect from the Effect Library and create a new show based effect.

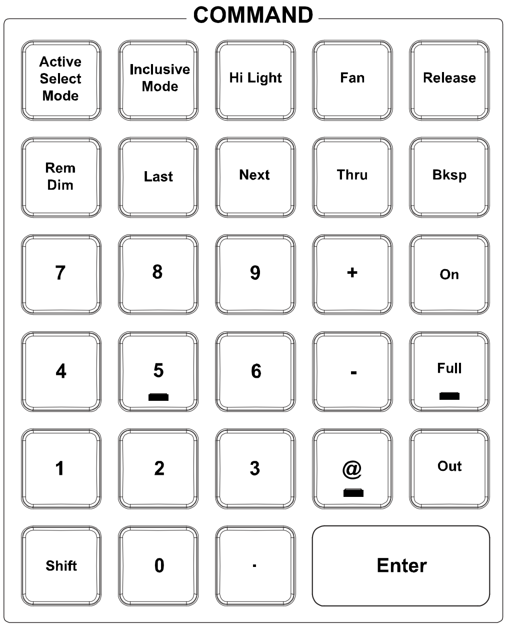
[FX] - Places FX on the command line for command line operation. Allows the ability to assign effects to cues and run effects manually.

- Advanced Functionality: When applying Command Line record, the FX button can be pressed again to change the recording mode to just record changed values.
- Ex: [Record] [FX] (#) [Enter] will record the Live values to the next available FX's step number.
- [Record] [FX] [FX] (#) [Enter] will record only the Selected fixtures to the next available FX's step number.

[Generic Palette] - Places PALETTE on the command line for command line operation. Allows the ability to create Generic Palettes. A generic palette is stored information that doesn't care what fixture or type of fixture it is applied to. So you can build a Palette called Red and it can be applied to any fixture type patched and it will turn the light red. (Assuming the fixture type can do it.)

[Tracking Options] - Toggles through the tracking options for recording and updating purposes. Ex: [Record] [Cue] (#) [Tracking Options] [Tracking Options] [Enter]. The Command Line will display Track after the first press of Tracking Options and Cue Only after the second press.

Command Keys



The command tile holds the 10 key, auto-completing level keys, channel/fixture manipulation keys as well as mode keys.

When the mode keys are active (Active Select Mode, Inclusive Mode and Hi Light) the button's text will be red. When these modes are not active (normal) the button's text will be white.

[Active Select Mode] - Sets the selected fixture at the ON level and allows NEXT/LAST to run through all fixtures to perform a rig check.

[Inclusive Mode] - Will add any fixtures selected to the existing selection set.

[Hi Light] - Will send selected fixtures to the "Hi Light" value. The goal of Hi Light is to allow the user to identify the highlighted fixtures on stage when many fixtures are in use. This usually will set the fixture to full intensity, clear all color parameters and all beam parameters. However, each fixture type's hi light values can be adjusted within the fixture library editor.

[Fan] - Launches the Fan tool. This is used for dynamic level changes.

[Release] - First press - will release all selected fixtures. Second press will release all fixtures.

[Rem Dim] - Switches all channels, except those which are selected, off.

[Last] / [Next] - Advances to next or reverses to previous channel. Also acts as a tab key for navigating dialog boxes.

- Advanced Functionality: [1] [+] [Next] will place 1 + 2 on the Command Line. [10] [+] [Last] will place 10 + 9 on the Command Line. Next/Last can be used multiple times as needed. Ex: [1] [+] [Next] [Next] will place 1 + 3 on the Command Line. Plus/Minus can be used multiple times during one command. Ex: [1] [+] [Next] [+] [Next] will place 1 + 2 + 3 on the Command Line.

[Thru] - Used when entering a range of numbers.

- Advanced Functionality: [1] [Shift] + [Thru] {Thru-on} [10] [Enter] will select all "on fixtures "thru" the range of 1 to 10. The indicator for this is when you press [Shift] + [Thru] the "Thru" on the Command Line will be replaced with "Thru-on". (Fixture List) [Thru] [Enter]. This will select all fixtures up to a change in fixture type or an unpatched fixture. Ex: If 100 fixtures are patched and you type [51] [Thru] [Enter], 51 thru 100 will be selected as long as fixtures 51 thru 100 are the same fixture type. If 51 thru 60 are VL1100s, then the above syntax will select 51 thru 60. (Fixture List) [Shift] + [Thru] {Thru-on} [Enter] will select all fixtures up to a change in fixture type or an unpatched fixture but only active fixture throughout the identified range.

[Bksp] - Backspace functions as a typical PC backspace key would function. It removes the last command/keystroke entered on the Command Line.

[0 - 9, .] - 10-Key Numerical Entry. Numerical entry is not only about selecting fixtures and item numbers, but can assist in advanced features. See Record or Update for more about advanced features. See "Working with Command Line Operation" on page 38.

[+] / [-] keys. Allows for adding and subtracting fixtures from the Command Line fixture list. Ex: [1] [+] [3] [+] [5] [Thru] [10] [-] [7] [Enter]. This will select 1, 3, 5, 6, 8, 9, and 10.

- Advanced Functionality: Relative Values: Allows for using [+] and/or [-] in the Command Line for relative changes. Ex: [1] [@] [+] [10] [Enter] This will add 10% to the selected fixtures.

[On] - Takes intensity value to designated ON level for all selected channels. This level can be changed in: System Properties > System Settings.

[Full] - Takes intensity value to 100% for all selected channels.

[Out] - Takes intensity value to zero for all selected channels.

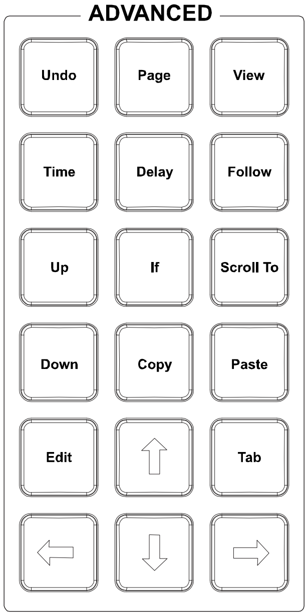
[@] - Used to enter specific intensity value for all selected channels.

[Shift] - Used in conjunction with command/action keys for advanced functionality.

- Advanced Functionality: [Shift] + [@] = @ DMX. Allows assigning a DMX value to the selected fixtures.

[Enter] - Completes an action or selection when entered from the Command Line.

Advanced Keys



These are advanced action keys that are often used in conjunction with Action keys in for command line operation. In addition there are a few direct action keys (Undo, Up, Down) as well as the inverted "T" arrow keys.

[Undo] - Allows undoing of the last level change [UNDO] [ENTER], the last record [UNDO] [RECORD] [ENTER], update, goto or delete action. Two presses releases selected devices or undoes selected commands. See Undo command at the top of the main monitor for more advanced Undo history options.

- Bonus: If fixtures have been released in error, [Undo] [Release] will restore released fixtures in order. So the first [Undo] [Release] will restore the first fixture set and the second [Undo] [Release] will restore the second fixture set.

[Page] - Will "page" the channel display down to show additional fixtures. (Shift + Page will "page" up.)

[View] - Allows the user to use VIEW on the command line. User can identify a range of fixtures to view. Example: [VIEW][1][THRU][200][ENTER]. [VIEW](ALL) shall restore to default. Note, [Shift] + [View] will open the View pulldown.

[Time] - Allows you to set the times for cues and other elements. Example: [CUE] [1] [TIME] [5] [ENTER]. When setting Time in a Cue, pressing Time multiple times will allow for changing other time parameters.

- 1st press: Cue Time
- 2nd press: Down Time. This is represented by a slash "/".
- [Cue] (#) [Time] (#) [Time] {/} (#) [Enter]
- Advanced Functionality: (Fixture List) [Time] (#) [Enter] will provide timing for each fixture in the fixture list.

[Delay] - Any delay value will hold the cue for the delayed amount of time prior to activating the cue. Example: [CUE] [1] [DELAY] [2] [ENTER]

[Follow] - Assigns a cue a follow command. A follow command on any cue will allow the next cue to run automatically after the follow time has expired. Example: [CUE][1][FOLLOW][5][ENTER]

- After cue 1 is triggered with a GO, 5 seconds later, the next cue will be automatically triggered.
- Historically, LightFactory has defined Follow cues differently. If you want the follow command to automatically trigger the cue WITH the follow command rather than the cue AFTER the follow command, go to System Properties > Show Defaults (Intermediate Options) and uncheck the option "Follow to run next cue".

[Up] - Takes selected channel up a predetermined amount (e.g. 10%). Also works in other instances, such as time windows, data fields, etc. Change this setting in System Properties > System Settings. [SHIFT] + [UP/DOWN] applies up / down operation to active fixtures only. This is the same as using the [Shift] + [Thru] for the "Thru On" functionality.

[If] - Allows the use of IF on the command line for advanced IF/THEN statements. More will be published about this command as the software develops and matures.

[Scroll To] - Allows display to "scroll to" a specified fixture.

[Down] - Takes selected channel down a predetermined amount (e.g. 10%). Also works in other instances, such as time windows, data fields, etc. Change this setting in System Properties > System Settings. [SHIFT] + [UP/DOWN] applies up / down operation to active fixtures only. This is the same as using the [Shift] + [Thru] for the "Thru On" functionality.

[Copy] - Allows data to be copied* from selected channels. Example: [1] [@] [COPY]{COPY FROM} [2] [ENTER].

Note: *Also works as a traditional Windows copy when data is selected.

[Paste] - Will apply the copied data as a traditional Windows paste action.

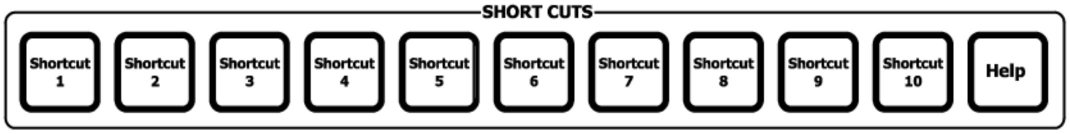
[Edit] - Allows data to be editable.

Note: [Shift] + [Edit] = Delete on the Command Line. EX: [Cue] [1] [Shift] + [Edit] {Delete} [Enter] will delete Cue 1.

[Tab] - Advances to the next edit cell with dialogue boxes.

[Arrow Keys] - Moves the cursor in the desired direction within dialogue boxes.

Shortcut Keys

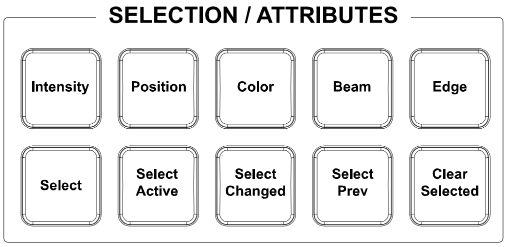


[Shortcut 1] / [Shortcut 10] - Quick access to the first 10 Shortcuts programmed on each Shortcut page.

- Advanced Feature: [Shift] + (Shortcut 1/10) allow quick access to Shortcuts 11 thru 20.

[Help] - Opens up console documentation.

Selection / Attributes Keys



[Intensity] - Assigns any intensity attributes to the encoders. Advanced functionality assigns utility parameters to the intensity encoder assignments.

[Position] - Assigns any position attribute to the encoders. Example: Select a Moving Light. (Fixture List)[ENTER]. By default, the Side Bar Fixture Control GUI and the encoders will be assigned to the Position page.

- Additional Functionality: (Fixture List) [@] [Position] (#) [Enter] will assign the fixtures selected to the position preset focus group number. This will work for users that have used [Record] [Position] (#) [Enter] to record the position group. This functionality works with all attribute families.

[Color] - Assigns any Color attributes to the encoders. Pressing Color again will access multiple pages.

[Beam] - Assigns any Beam attributes to the encoders. Typical attributes for this are Gobos and Prism.

[Edge] - Assigns Beam parameters to encoders. Typical edge parameters are Focus, Iris, Zoom and Shutters. Press again to bank the four encoders to other Edge attribute pages.

[Select] - Will open NEO's Select box. The Select box will access show programmed items like groups. This also will show items labeled in patch from columns like position, purpose and color.

[Select Active] - Will capture all fixtures with intensity.

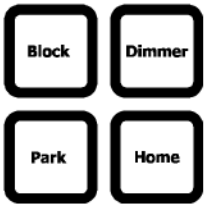
[Select Changed] - Will capture all fixtures with adjusted values.

[Select Prev] - Will capture the previously selected fixtures. Pressing again, it will go back to the previous selection from that. Pressing again and again will go back and forth between the last 2 previous selection sets.

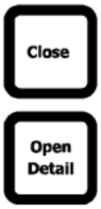
[Clear Selected] - Will uncaptured all selected fixtures.

Additional Keys

These are the additional keys that were not collected in other tiles.



Page Up
Page Down



[Block] - Allows Blocking a Cue. [CUE](#)[BLOCK][ENTER]. Block can be either a *Block* (forces an instruction for every fixture/attribute in the system) or a *Smart Block* (only blocking an instruction for every fixture that has a level). You press [BLOCK] again to change the Block type that is applied in the above syntax.

[Dimmer] - Allows applying a level to a dimmer. [DIMMER](#)[FULL] will assign the selected dimmer to full. Use [NEXT]/[LAST] to do a dimmer check. Flag appears on bottom right of the main screen. [DIMMER][DIMMER] will restore all dimmer levels back to normal control.

- Advanced Functionality: Any level can be assigned to a dimmer's level. Ex: [Dimmer] [1] [@] [5] [Enter]. Dimmer 1 will be at 50%. The Dimmer in combination with the Next/Last keys can be used as a Dimmer Check. Ex: [Dimmer] [1] [Full] [Next] [Next]...Ranges are available with dimmer control. Ex: [Dimmer] [1] [Thru] [5] [Full]. Once a range of dimmers are assigned, they can either be returned individually, (Ex: [Dimmer] [2] [Dimmer]) or they can all be returned to their patch assignment. (Ex: [Dimmer] [Dimmer]).

[Park] - Assigns the current fixture value to a locked level.

Example: With fixtures selected, [Park] [Enter] will park the selected fixtures at the current level.

Note: The option "Don't record parked channels" will determine if parked fixtures are recorded or not. System Properties > Show Defaults (Intermediate Options).

- Advanced Functionality: [Shift] + [Park] will place Unpark on the Command Line and allow you to unpark fixtures. (Fixture List) [Shift] + [Park] {Unpark} [Enter] will unpark the listed fixtures. [Shift] + [Park] {Unpark} [Enter] will unpark the selected fixture or in the even no fixtures are selected, will unpark all fixtures.

[Home] - Applies the Home values (default values) to the selected fixtures. You can use this with Attribute Families keys.

[Page Up] - Advances the submaster page assignment up one page of faders.

[Page Down] - Advances the submaster page assignment down one page of faders.

[Close] - Closes the focused open window.

[Open Detail] - Opens detail window as opening a file folder.

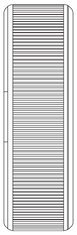
- Advanced Feature: [Shift] + [Open Detail] will collapse the opened file folder.

3. Intelligent Lighting Buttons and Encoders

The encoders and buttons found in these sections of the desk provide special controls for intelligent lighting fixtures.

The rotary four encoders provide navigation of the NEO software and control of channel attributes. The encoders are context sensitive to allow appropriate control of attributes such as one percent, one DMX512 step, one gobo, one second of time, etc.

Level Wheel



The console features a level wheel which provides navigation of the NEO software and control of channel attributes. The wheel is context sensitive to allow appropriate control of attributes such as one percent, one DMX512 step, one gobo, one second of time, etc. By default, it controls the intensity level of the selected channels.

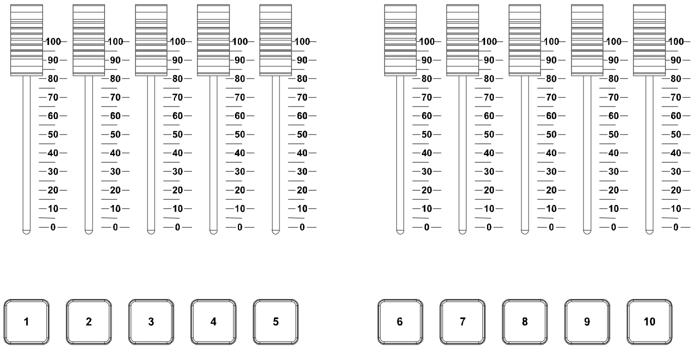
Holding [SHIFT] while engaging the wheel will place the wheel in Fine Mode.

Automated Luminaire Encoders

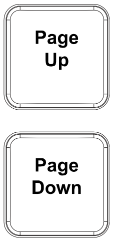
The LCD display left of each wheel will change depending on [SELECTION/ ATTRIBUTES] Button pressed. [Beam] is shown below. Each encoder wheel rotates clockwise and counterclockwise and then pressed to select current value.

Rotating Gobo 1
Rotating Gobo 2
Rotating Gobo 3
Frost

4. SUBMASTER Controls and Button Layout



10 Submaster sliders are programmable to hold groups, effects, etc. Submasters can be programmed as Additive, Subtractive, Pile-on, Exclusive and other modes.



[1] / [10] - Bump button for corresponding Submaster slider

[UP] / [DOWN] - Increments or decrements Submaster pages

5. Playback Controls Layout

The playback section of the desk provides controls for executing active cues and fading between two pre-stored scenes. These faders consist of motorized A/B and 5 additional single playback motorized faders.

Primary Split Playback Faders

The primary split playback faders are motorized and will always activate the primary cue list.

These faders have different configuration options.

1) Disabled - If you chose this option, the sliders will do nothing. If you are just doing a "GO SHOW", this is the safest mode of operation as inadvertent moves on these faders will have no effect.
2) PB Master and Crossfader - In this mode, the left hand fader is the overall intensity master of the cue list assigned to this playback and the right hand fader is, at will, a manual cross fader. The [GO] and [Halt/ Back] buttons function as normal, but at any time you can grab the fade and manually complete it using this handle. If you [Halt] the cue, you can either press [GO] to complete it, or use the handle to manually complete the transition to the next cue. If you are sitting in a cue, moving the handle will initiate the

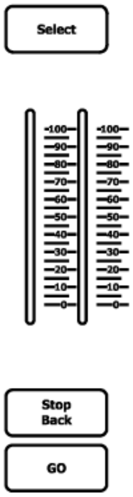
transition to the next cue. All levels going up and down will be affected. All times will be re-scaled to the distance the handle has to travel, with the greatest time in the cue being measured using that distance and all others scaled to that. Wait times will be scaled too. At any point before reaching the end of travel, you can move the handle backward to reverse the transition. Once you reach the end of travel, the next cue in the cue list will be pending. You do not have to physically reload a cue or move the fader back to its starting position. The next cue transition will begin by moving the fade off the end of travel you just reached or by simply pressing [GO]. If you hold down [SHIFT] while manually moving a Crossfader, you can move backwards through a cue list. (i.e., the cue that has just been completed will be the pending cue, rather than the next cue in the cue list). In this case, the pending cue is Cue 1 - the cue just before Cue 2:.

3) PB Master and Disabled - In this mode, the left hand fader is the overall intensity master of the cue list assigned to this playback and the right hand fader is disabled. You may want to use this mode if you are sure that you will never want to manually execute fades and don't want to inadvertently start a transition by touching a fader.
4) Cue List Split Crossfader - The Split Crossfader mode sets up the left-hand fader to, at will, manually control the levels moving up in the next cue while the right-hand fader manually controls the levels going down in the next cue. Moving these faders in tandem executes a standard crossfade. Both handles need to reach their end-travel destination before the cue completes. Once the cue completes, the pending cue changes and the handles are ready to execute the next manual fade. You do not need to exercise the full travel of the handles to re-load the next cue.

NEO NOTES & TIPS: PB faders can be configured in System Properties>System Settings.

Master Playback

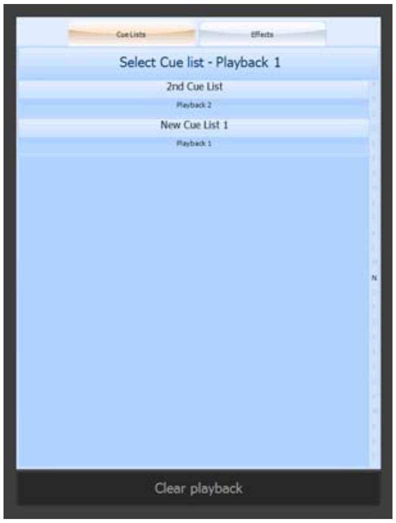
Use the SELECT button above the Master Playbacks to select and assign the primary cue list here. When the "Select" button is pressed, the "Select Cue List" dialogue box is opened and any available cue list can be selected for operation on the Master Playback.



Playback Faders

[PB1] / [PB5]/ [SELECT] - Selects cue list to display and default record location. Solid white LED indicates there is a cue list on this playback. Flashing white LED means this cue list is selected.

In order to assign a secondary cue list to a playback, press the SELECT button above the appropriate playback. Then select the appropriate cue list from the dialogue box on screen.

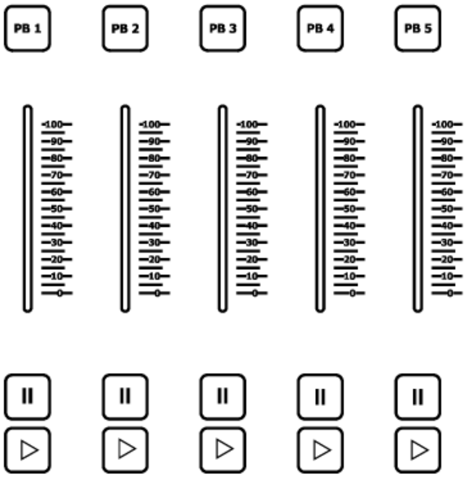


Select Cue list - Playback 1

2nd Cue List
Playback 2

New Cue List 1
Playback 1

Playback Faders - Controls Fade times (in/out), cross faders, intensity masters, or the playback faders can be setup to control different things as determined by the NEO OS software.



- Advanced Functionality: During recording when using multiple cue lists, [Record] (PB#) will place the cue list name on the command line and allow you to record to the cue list that is on the selected playback. During editing when using multiple cue lists, [Update] (PB#) will place the cue list name and the cue number on the command line and allow you to update the sitting cue to the cue list that is on the selected playback.

[II] -Halts active cue (if running) or steps back to previous cue (if stopped).

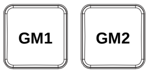
[▷] - Activates next cue (following the active Cue) on the Cue List. The Play/Arrow button will be solid when a cue list is active and no cues are running. The same button will flash when cues are running.

[STOP/BACK] - Same function as the [II] keys. Halts active cue on A/B slider (if running) or steps back to previous cue (if stopped).

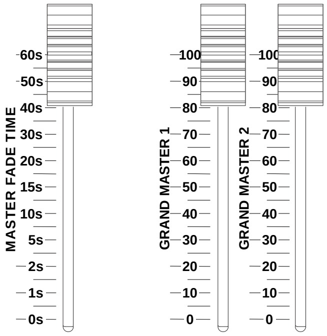
[GO] - Same function as [▷] Activates next cue on A/B slider (following the active Cue) on the Cue List. Green LED will be solid when a cue list is active and no cues are running. The Green LED will flash when cues are running.

6. Grand Masters and Master Fade Time Fader

The NEO console features two programmable Grand Masters and a Master Fade Time Slider.



[GM1]/ [GM2] - bump buttons for corresponding Grand Master slider.



1) Disabled
2) DBO Momentary - Dead Black Out as long as the button is pressed.
3) DBO Latch- Dead Black Out toggle.
4) Stop Attributes - stops all attributes from moving.
5) Full Momentary - all outputs are set to 0 as long as the button is pressed.
6) Full Latch - all outputs are set to 0 as a toggle.

Grand Master 1 / Grand Master 2 - Programmable Grand Masters. These are special groups and can be edited in the Groups display.

Command Line - [Record] [GM1] or [GM2] [Enter] will allow recording of selected/changed fixtures to the Grand Master groups. When you type [Record] [GM1/2] it will default to "Selected", but if you press GM1/2 again, it will toggle through the options of "Selected" or "Changed".

Note: If a GM has been recorded with a custom set, going into the Groups display, in the Channel List cell for the GM1/2 groups, just replace with "All" to restore to the default.

Master Fade Time Slider - controls the rate for channel and shortcut recall. Does not affect timed cues and effects.

Note: There is a system setting to allow wheel changes to ignore master fade time. System Properties > System Settings (Intermediate Options)

Command Line functionality: [Time] (#) [Enter] will change the Master Fade Time.

7. Trackball/Mouse Controls

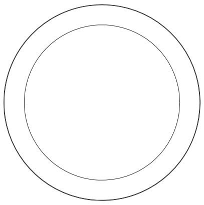
The NEO console features a trackball/mouse.

Left
Center
Right

[LEFT] - mimics the left mouse button.

[CENTER] - toggles between mouse mode (white LED) and pan/tilt mode (red LED)

[RIGHT] - mimics the right mouse button.



8. Working with Command Line Operation

The term Channel is historically used for conventional dimmers only. While the term Fixture is historically used for attributed units like LEDs or automated luminaires. With the NEO console, the use of the terms Channels or Fixtures are interchangeable. Any reference in this documentation to channel or fixture or Fixtures is referring to the control number for each unit.

Fixture Selection

Fixture Selection can be directly from Fixture Control, Items or Modifiers. Fixture control applies to the current selection set. This can be one or more fixtures each of which can include both intensities and attributes. Fixture control can be set or modified using console keys via Command Line for Full, On, Out, Up, Down or any level using the @ key, the level wheel, the Fixture Control graphical interface, the external keyboard, or encoders for the attributes.

- Fixture Control would be direct action from the Command Line with Fixture List.
- [1] [Enter] - will select fixture 1 and make it the current selection set.
- Clicking the Fixture icon directly on the Classic View with either mouse or via touchscreen.
- [1] [Full/On/Off] - will select fixture 1 and go to Full, the On level or Off.
- [1] [@] [Level] [Enter] - will select fixture 1 and output to desired level.
- [1] [Up/Down] - will move 1's level up/down based on the Up/Down level in System Properties>System Settings.
- [2] [..] [5] [..] [2] will select every 5th fixture (interleave) starting at fixture 2 and clustered by 2 fixtures.
- [1] [Update] [Cue] [#] [Enter] will update only fixture 1's level to the identified cue.
- (Fixture List) [Thru] [Enter] will select all fixtures up to a change in fixture type or an unpatched fixture.
- (Fixture List) [Shift] + [Thru] [Enter] will select all active channels up to a change in fixture type or an unpatched fixture.

Starting any command with an Item (Cue, Group, Submaster, Palette, FX Step) or calling up a fixture list from an Item will apply the stored levels to Fixture control live.

- [Cue] [1] [@] [Full] will apply the cue's values at the specified level to Fixture control.
- [1] [@] [Cue] [2] [Enter] will apply fixture 1's value from cue 2 to Fixture control.
- [Group] [4] [@] [50] [Enter] will apply group 4 to 50% of the stored value to Fixture control.
- [Group] (Label) [@] (Level) [Enter] will apply the named group at the assigned level. Ex: If you have a group labeled FOH, then [Group] [FOH] [Full] will place that group's fixtures as their stored levels.
- (Label) [@] (Level) will apply the named group at the assigned level. This example eliminates the need for the Group button to be used prior to the label info.
- [Sub] [1] [Full] will apply submaster 1 to full. This is the same as taking submaster 1's fader and pushing it to full.
- [3] [@] [Group] [11] [Enter] will apply fixture 3's value from group 11 to Fixture control.
- [1] [@] [Position] [2] [Enter] will apply fixture 1's values from position preset focus group 2 to Fixture control.
- (Fixture List) [@] [Sub] (#) [Enter] will load the submaster state into fixture control.
- [Group] [1] [-] [3] [@] [50] [Enter] will put group 1 at 50% of its recorded value minus fixture 3.

Modifiers (+, -, Thru, Next, Last) will add or subtract to existing Command Line entry.

- [1] [+] [3] [Enter] will select fixtures 1 and 3.
- [1] [+] [Next] will place 1 + 2 on the Command Line. [Enter] will select 1 and 2. The use of [Next], [Last], [+], and [-] is not limited.
- [1] [Thru] [5] [Full] will select fixtures 1 thru 5 and set their output to 100%.
- Clicking and dragging the Fixture icon range directly on the Classic View with either mouse or via touchscreen.
- [1] [Thru] [Enter] will select from fixture 1 up to a change in fixture type or an unpatched channel.
- [1] [Shift] + [Thru] {Thru-on} [Enter] will select from fixture 1 up to a change in fixture type or an unpatched channel for active fixtures only.
- [1] [Thru] [10] [-] [5] [@] [5] [Enter] will select fixtures 1 thru 4 and 6 thru 10 and set the output to 50%.
- [1] [+] [3] [+] [5] [Thru] [13] [-] [6] [Thru] [10] [Enter] will select 1, 3, 4, 5, 11, 12, and 13.
- [1] [Thru] [10] [@] [10] [Thru] [100] [Enter] will range the output value of 10% to 100% across fixtures 1 thru 10 in a linear application. Example: 1 at 10%, 2 at 20%, 3 @ 30% and so on until 10 is at 100%.

- [1] [Thru] [10] [@] [10] [Thru] [Full] or [On]. Range commands can work with auto completing keys like Full or On.
- [199] [+] [Last] will place 199 + 198 on the Command Line. [Enter] will select 198 + 199. The use of [Next], [Last], [+], and [-] is not limited.

Extending the Current Fixture Selection

[+] (Fixture List) [Enter] or [-] (Fixture List) [Enter] will modify the current selection set. This can include the use of [Thru] within the fixture list.

Using Next/Last

While Next/Last can be used to minimize 10 key entry (Ex: [199] [+] [Next]), it can also be used to cycle through the current selection set. Ex: [1] [Thru] [5] [Full]. This puts 1 thru 5 at full. [Next] will select fixture 1. Continuing to press [Next] will move the selection set to 2 then 3 then 4 then 5 then back to 1. When you want to go back to the entire selection set, press [Select Prev] and you have 1 thru 5 again. This is very useful when focusing a collection of automated luminaires and when finished focusing, you need to go back to all of them to change color, beam or edge parameters.

Releasing the Current Selection

The current selection can be released or cleared so that no fixtures are selected or captured. Fixture Control will then have no effect.

- [Release] has 2 stages. The first press of Release will let go of the current selection set and send their levels back to any active control item (like a Cue, Sub or FX.) Fixture control has priority of the other elements but when fixture control is no longer in play, the levels will return to the other control items. The second press of Release will let go of all remaining adjusted fixtures and then their levels back to any active control item. Ex: [1] [Full]. [2] [Full]. The first press of Release will let go of fixture 2 as that is the current selection set. The second press of Release will let go of fixture 1.

Setting Levels with the Command Line

Fixture levels can be set directly from the Command Line by using the 10 key to select fixtures and specify levels.

- (Fixture List) [@] (Level) [Enter] selects the listed fixtures and sets their intensity level to the specified percentage.
- [@] (Level) [Enter] will apply the intensity level entered to the selected fixtures.
- [@] (Level) [Thru] (Level) [Enter] will apply a range of levels to the selected fixtures.
- [Shift] [@] {@ DMX} (DMX Value) [Enter] will apply a DMX value to the selected fixtures.

Recording Items with the Command Line

Storing fixture level information into an item is referred to a Recording. Recording is used to create a new item. The item can be a Cue, Group, Sub, Palette or Effect. In most cases, the proper procedure is to output the fixtures at the desired level and then store the data into the appropriate item. All examples below will assume that the fixtures have been adjusted and will outline the recording actions.

- [Record] [Cue] (#) [Enter] will record the state using the "Default Record Mode" setting into the desired cue. Note: When the Cue button is pressed, the Command Line listed will demonstrate when default record mode the record command will use. The options are Live, Selected, Active, Changed.
- [Record] [Cue] [Cue] {Live/Selected/Active/Changed} - when pressing the cue button after record, you can change the record mode that this action will use. Continuing to press [Cue] will cycle through all record mode options.
- [Record] [Cue] [Enter] will record the state using the "Default Record Mode" setting and create a new whole cue number at the end of the cue list.
- [Record] [Enter] will record the state using the "Default Record Mode" setting and create a new whole cue number at the end of the cue list.

- [Record] [Record] will record the state using the "Default Record Mode" setting and create a new whole cue number at the end of the cue list.
- [Record] [Group] (#) [Enter] will record to the numbered group based on the Group Record setting. The options are Selected/Changed. This setting is in System Properties > Show Defaults (Intermediate Options) "Group record changed (off = selected)".
- [Record] [Group] (Label) [Enter] will record a new group at the end of the existing group list with the label info provided based upon the Group Record setting.
- [Record] [Sub] {Selected} (#) [Enter] will record a new group of selected fixtures with the desired submaster number and assign the desired submaster for fader control. If you press "Sub" multiple times during this command line operation, NEO will cycle through recording options for subs. Options are "Selected" and "Changed".
- [Record] [Generic Palette] (Label) [Enter] will record a new generic palette at the end of the existing palette list with the label info provided.
- [Record] [FX] (#) [Enter] will record a new step to the desired effect number.

Setting Time with Command Line

- [Cue] (#) [Time] (#) [Enter] will apply the adjusted time to the cue the next time it runs.
- [Cue] (#) [Time] (#) [Time] {/} (#) [Enter] will change the up time (1st press of Time) and the down time (2nd press of Time) to the cue the next time it runs. The separation between up and down time will be identified with a slash "/".
- (Fixture List) [Time] (#) [Enter] will apply the adjusted time to the selected fixtures. Once this is accomplished. [Update] [Enter] to edit the cue to include the Complex timing.

Deleting a Cue with Command Line

- [Cue] (#) [Shift] + [Edit] {Delete} [Enter] will delete the identified cue.
- [Shift] + [Edit] {Delete} [Cue] (#) [Enter] will also delete the identified cue.

Editing the Command Line

At any time before a command on the Command Line is completed, you can move back through the Command Line to correct it.

- [Bksp] removes the last entered key when a command is entered.
- [Arrow Left]/[Arrow Right] will move the cursor with the entered commands. The blue highlighted text will be replaced when a new command is entered.
- [Shift] + [Bksp] removes the complete command line entry. If nothing has been entered, then it has no effect.

Setting Up the Fixture Grid

The layout of the Fixture Grid is determined by settings in the View pulldown. All options will be discussed in the section on the View pulldown. The default option is Classic.

- View > Show Palette Information - On this displays Palette/Preset Focus Group references. Off it shows raw data.
- View > Enter the column count - allows the user to determine the number of fixture columns displayed.
- View > Show 3rd line of text - is a View pulldown option that allows a third line of text underneath the fixture's level. This will display information the user entered in the Patch screen in the Position, Unit #, Purpose and Color Description columns. See "Patch" on page 162 for detailed information.
- Select Active > View fixtures used in this show - under the Select Active pulldown this option will display only fixtures that are programmed into cues, subs and effects.

Fixture Status Identification

The fixture number in the Classic screen uses color to indicate fixture type.

- Grey Fixture Block - indicates a fixture with a dimmer.

- Blue Fixture Block - indicates a attributed fixture. This typically would be an LED or moving light.
- Red Border Around Block - indicates the fixture is captured. Levels can be adjusted without reentering the selected fixtures. [Release] to remove this.
- The fixture's level in the Classic screen uses colors to indicate status.
- Blank - the fixture is off.
- White on Red - level has been adjusted. [Release] to remove this.
- Cyan on Black - indicates an intensity going up from a cue.
- Green on Black - indicates an intensity going down from a cue.
- Magenta on Black - indicates an intensity or attribute that is tracking its value from the previous cue.
- Blue on Black - indicates an attribute that is has changed from a cue.
- Dark Green on Black - color of the text for a Preset Focus Group.
- Orange on Black - indicates any value that has Auto Marked.
- White on Grey in White Box - indicates a Parked fixture.
- Yellow on Black - indicates a level coming from a Submaster.
- Yellow Box - indicates an inhibited value.

Complex Timing

Complex timing allows timing at the fixture level for each cue. This gives the ability for each fixture to have its own intensity time for every cue.

- (Fixture List) [Time] (#) [Enter]. This applies the entered time to the fixture list. Once done, the timing info will appear in the Classic View under the fixture's intensity. When updated, the "Complex" time flag will appear on the Side Bar's cue marker.

Note: "Show 3rd line of text" must be turned on to view this data. (View pulldown > check "Show 3rd line of text").

Using Recorded Items in the Fixture Lists

- [1] [@] [Cue] [5] [Enter] will apply cue 5's stored values to fixture 1.
- [2] [@] [Group] [3] [Enter] will apply group 3's values to fixture 2.
- [3] [@] [Sub]

Attribute Groups

[Record] (Attribute Family) (# Label) [Enter] will record an attribute family group with both a number and label. Ex: [Record] [Position] (2 DC) [Enter]. This will record group #2 with just position info that has a label of "DC". Just use a space between the number and the label for this to work.

Attribute Filters

Referenced Groups

Using the Level Wheel

The level wheel is automatically assigned to selected fixtures' intensity. In addition, when using the Side Bar's Fixture Control graphical user interface, should a number box be selected and the numbers are highlighted, the level wheel will change the highlighted numbers value.

Setting DMX Levels

[Shift] + [@] {@ DMX} will allow you to input a DMX value instead of a percentage value.

Copying Fixture Levels

- (Fixture List) [@] [Copy] {Copy From} (Fixture) [Enter] will copy from the second fixture entered to the first fixture list.
- (Fixture List) [@] [Copy] {Copy From} (Fixture) (Attribute Family) [Enter] will copy from the second fixture enter to the first fixture list and filter to the listed attribute family. Ex: [1] [Thru] [5] [@] [Copy] {Copy From} [6] [Position] [Enter]. This will copy position data from fixture 6 to fixtures 1 thru 5.
- (Fixture List) [@] [Copy] {Copy From} (Fixture) (Attribute Family) (Attribute Family) [Enter] will copy from the second fixture enter to the first fixture list and filter to the listed attribute family. Ex: [1] [Thru] [5] [@] [Copy] {Copy From} [6] [Color] [Beam] [Enter]. This will copy color and beam data from fixture 6 to fixtures 1 thru 5.

Undoing Level Changes

- [Undo] [Enter] will undo the last level change.
- [Undo] (Attribute Family) [Enter] will under the last change to the selected attribute family. Ex: [Undo] [Position] [Enter] will undo the last position change.
- [Undo] [Release] will undo the first stage of release. Duplicating this command will undo the second stage of release.

Holding Channels on the Fixture Control

When "Release Channels on Cue Go" is not checked, all adjusted fixtures will remain in their adjusted state and not go to any activated cue state. When checked, all adjusted fixtures will go to the activated cue's state. This is in System Properties > Show Defaults (Intermediate Options).

Restoring Playback Levels

- [Release] will restore the adjusted selected fixtures to playback levels.
- Pressing [Release] a second time will restore all adjusted fixtures back to playback levels.

Parking Fixtures

- With fixtures selected, [Park] [Enter] will park the selected fixtures at their current value.
- When a fixture is parked, it will display a grey box with a white border and white text.
- With fixtures selected, [Shift] + [Park] {Unpark} [Enter] will unpark the selected fixtures at their current value.
- (Fixture List) [Park] [Enter] will park the listed fixtures at their current level.
- (Fixture List) [@] (Level) [Park] [Enter] will set the listed fixtures at the desired level and park them.
- (Fixture List) [Shift] + [Park] {Unpark} [Enter] will unpark the listed fixtures.
- [Shift] + [Park] {Unpark} Enter will unpark the selected fixtures. Should no fixtures be selected, this command will unpark all parked fixtures.

Fixture Check

A Fixture Check can be accomplished by pressing [Active Select Mode]. This will place the NEO in Active Select Mode and the button's text will turn red. Once accomplished, press (Fixture) [Enter]. The selected fixture will go to the On level and then [Next]/[Last] will advance the fixture selection set to the next or last patched fixture.

Changing Levels in Blind Display

Changing levels in Blind will be identical to changing levels in Live.

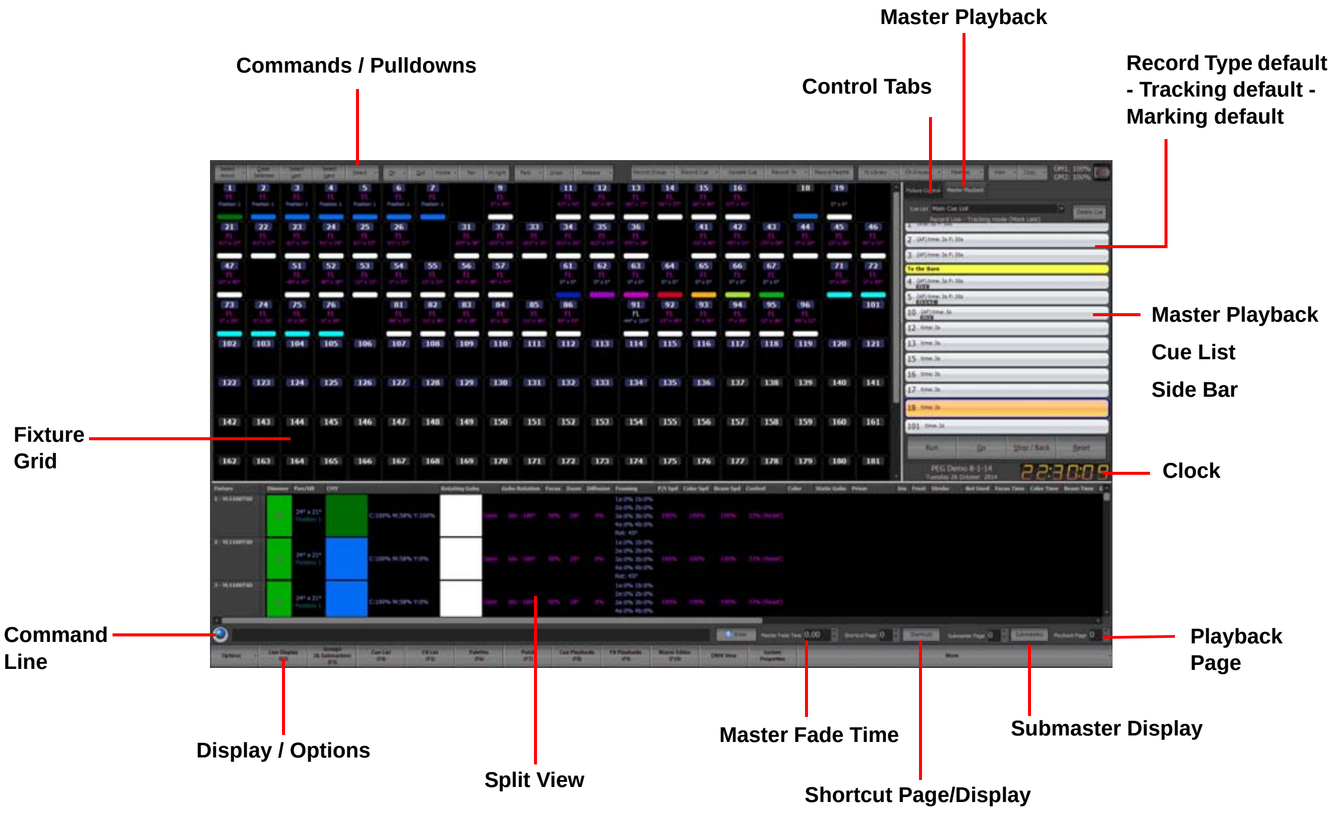
Fading an Intensity Value in Time

- (Fixture List) [@] (Level) [Time] (Value) [Enter] will send the listed fixtures to the assigned level in the desired time.
- [Time] (Value) [Enter] will set the Master Fade Time to the desired time value. Then assigning a level will apply in the Master Fade Time. Ex: [Time] [5] [Enter]. [1] [@] [80] [Enter] will set 1 to 80% over 5 seconds.

Fading an Attribute Value In Time

With fixtures selected, press and hold the encoder. When it is released, the encoder's assigned attribute will appear on the Command Line and a value can be applied followed by the Time that you want it to use. Ex: With fixture 1 patched as an automated luminaire and selected, (press + hold encoder 1, then release for Pan @) [90] [Time] [5] [Enter]. This will rotate fixture 1's pan to 90° in 5 seconds.

SOFTWARE CONFIGURATION


Master Playback
Commands / Pulldowns
Control Tabs
Record Type default
- Tracking default -
Marking default
Master Playback
Cue List
Side Bar
Fixture
Grid
Clock
Command
Line
Playback
Page
Display / Options
Split View
Master Fade Time
Submaster Display
Shortcut Page/Display

This is the Live Display and will always show the status of the fixtures as they are outputting Live.

This section will break down this screen and all of its components.

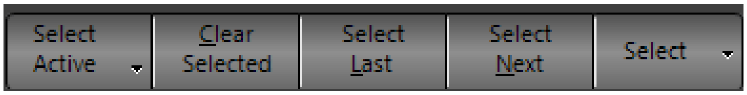
1. Command Pulldowns

The Command Pulldowns are single action buttons that also have a down arrow on the right hand side that reveal advanced actions within the same action family.

Select
Active

NEO NOTES & TIPS: When discussing the advanced options, if the item/action shown with an icon, it has a NEO console key for that feature.

Command Pulldown - Selection


Select Active
Clear Selected
Select Last
Select Next
Select

Select Active - captures all fixtures with an intensity level above 0.

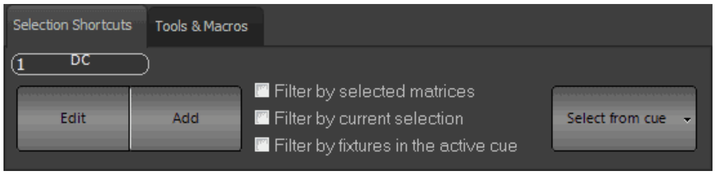
Clear Selected - uncaptures all captured fixtures.

Select Last - selects the previous numerical fixture.

Select Next - selects the next numerical fixture.

NEO NOTES & TIPS: For advanced functionality, if a group of fixtures is selected, NEXT / LAST will allow the user to cycle through that group of fixtures only. For example, if 11 thru 15 are selected. Pressing NEXT will select 11. Pressing NEXT again will select 12. Continuing to press NEXT will cycle thru all fixtures in the group and then cycle around and start over again. This same functionality works for LAST.

Select - opens advanced selection dialogue box. Allows quick selection of show built groups. From the Select Pulldown menu, you can…


Selection Shortcuts
Tools & Macros
1
DC
Edit
Add
☐ Filter by selected matrices
☐ Filter by current selection
☐ Filter by fixtures in the active cue
Select from cue

- **Edit** - opens the Group display window for group editing.
- **Add** - allows the creation of a Group.

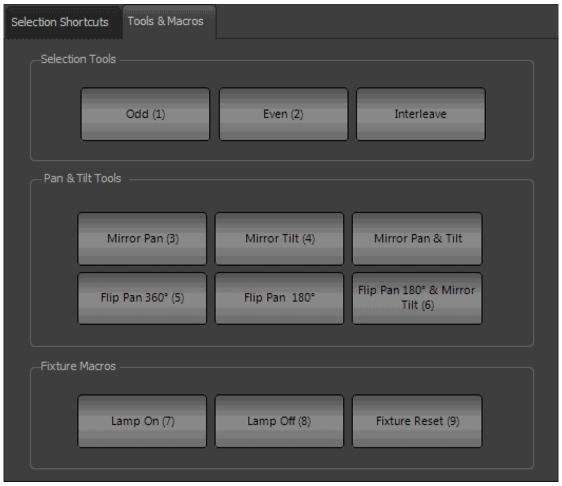
Use the option "**Filter by selected matrices**" to sub-select channels by the currently selected matrices in the Magic Sheet view.

Use the option "**Filter by current selection**" to sub-select only from what is currently selected. If nothing is currently selected then the selection range will cover all channels.

Use the option "**Filter by fixtures in the active cue**" to limit the selection to only channels used in the currently running cue. If a channel is not in the current cue it will remain unselected when using selection shortcuts.

The **Select from cue** button allows you to use a pulldown to select fixtures from a cue.

Select Pulldown


Selection Shortcuts
Tools & Macros
Selection Tools
Odd (1)
Even (2)
Interleave
Pan & Tilt Tools
Mirror Pan (3)
Mirror Tilt (4)
Mirror Pan & Tilt
Flip Pan 360° (5)
Flip Pan 180°
Flip Pan 180° & Mirror Tilt (6)
Fixture Macros
Lamp On (7)
Lamp Off (8)
Fixture Reset (9)

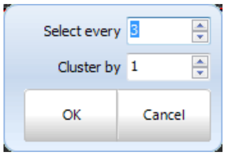
Within the Selection Pulldown, there is a Tools & Macros tab. Once the Select pulldown is open, the 10 key can be used to call up the appropriate tool. There are 3 sections:

Selection Tools

[1] Odd - filter to the odd fixtures from the selected fixtures.

[2] Even - filter to the even fixtures from the selected fixtures.

[-] Interleave - filter to a mathematical subset of the selected fixtures Ex: select every 5th fixture by blocks of 2.


Select every 3

Cluster by 1

Pan and Tilt Tools

[3] Mirror Pan - will send Pan to its current degree location on the opposite side of 0°.

[4] Mirror Tilt - will send Tilt to its current degree location in the opposite hemisphere.

[-] Mirror Pan and Tilt - will accomplish both previous commands together.

[5] Flip Pan 360° - will add/subtract 360° from its current Pan position assuming the fixture has the range.

[-] Flip Pan 180° - will add/subtract 180° from its current Pan position assuming the fixture has the range.

[6] Flip Pan 180° and Mirror Tilt - will accomplish both Flip Pan 180° and Mirror Tilt together.

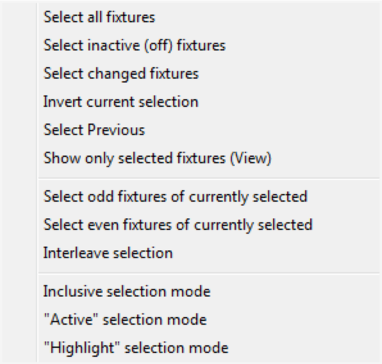
Fixture Macros

[7] Lamp On - will send the fixture lamp on command, wait several seconds and then complete.

[8] Lamp Off - will send the fixture lamp off command, wait several seconds and then complete.

[9] Lamp Reset - will send the fixture lamp reset command, wait several seconds and then complete.

Select Active Options


Select all fixtures
Select inactive (off) fixtures
Select changed fixtures
Invert current selection
Select Previous
Show only selected fixtures (View)
Select odd fixtures of currently selected
Select even fixtures of currently selected
Interleave selection
Inclusive selection mode
"Active" selection mode
"Highlight" selection mode

Select all fixtures - selects all patched fixtures.

Select inactive (off) fixtures - selects all non-active fixtures. (with a level of 0).

Select Changed

Select changed fixtures - selects all fixtures that have had a value changed (in red).

Invert current selection - will deselect all selected fixtures and select all deselected fixtures.

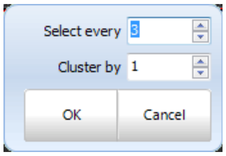
Select Prev

Select Previous - select the previously selected set of fixtures.

Show only selected fixtures (View) - changes the current view to only display selected fixtures. [UNDO] [ENTER] restores to the previous view.

Select odd fixtures of currently selected - takes current selection set and filters to only the odd fixtures.

Select even fixtures of currently selected - takes current selection set and filters to only the even fixtures.



Select every 3

Cluster by 1

Interleave selection - from existing selection set, allows user to select every "number" and choose the size of the cluster Interleave selection is also available from the Command Line. See " "Working with Command Line Operation" on page 38.

Inclusive Mode

Inclusive Selection Mode - when mode is selected (button text is red) all selected fixtures will add to currently selected fixtures. The Inclusive Mode button is a toggle. When off (button text is white), all selected fixtures will replace any currently selected fixtures.

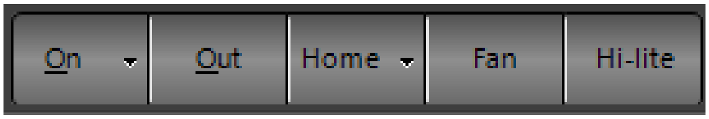
Active Select Mode

Active Select Mode - when mode is selected (button text is red) sets selected fixture value to Full and allows [NEXT] / [LAST] buttons to advance while maintaining selected fixture at full level. This is the best way to do a rig check or find a lamp. When off (button text is white, selected fixture's intensity goes back to normal.

"Hi Light" Selection Mode - when mode is selected (button text is red) sets selected fixture to its "hi light" mode. The specifics of the hi light mode is determined by the settings in the fixture within the fixture library editor.

The goal of Hi Light is to find a fixture in a complex cue where visual clarity is compromised by a large quantity of fixtures being on onstage.

Command Pulldown - Level


On
Out
Home
Fan
Hi-lite

On - applies the ON value to the selected fixtures.

Out - applies the Out value to the selected fixtures. It turns those fixtures off.

Home - applies the Home values (default values) to the selected fixtures.

Fan - opens the Fan dialogue box to apply a "fan" any attribute on the selected fixtures.

Fan

The "fan" function is a powerful way to create organized looks on stage without having to modify a number of fixtures one at a time. There are a number of different looks that can be created depending on the attribute you want to control.

PHILIPS
Strand Lighting

In Figure 5, we see all of the fixtures fanned out across the stage and **Figure 6 on page 49** shows the same fixtures are crossed over each other in a two by two formation.

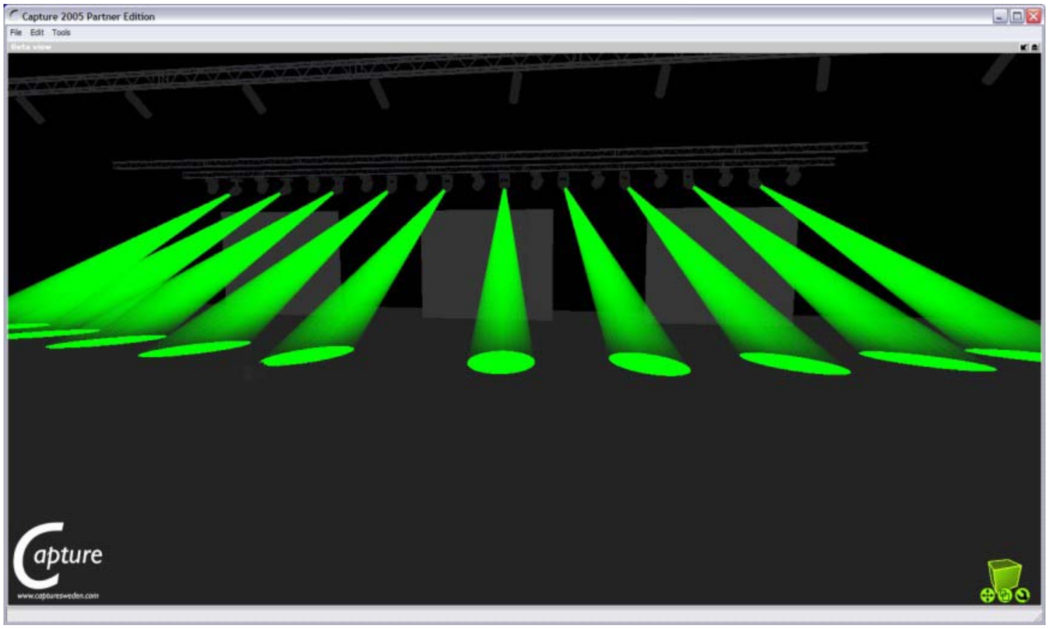

Capture 2005 Partner Edition
File Edit Tools
capture
www.capturesweden.com

Figure 5: Fan

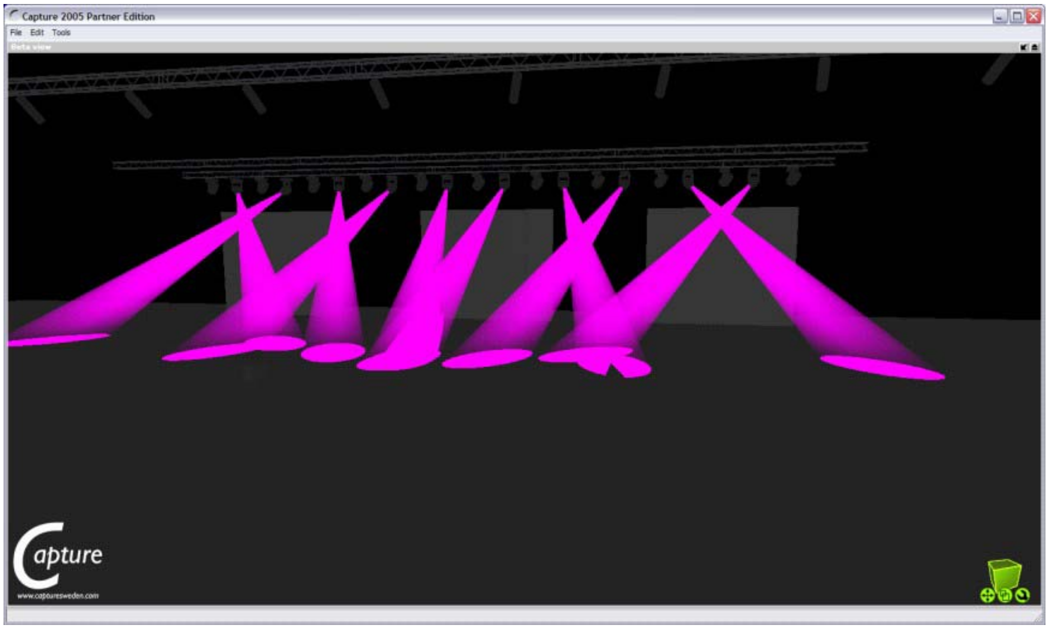
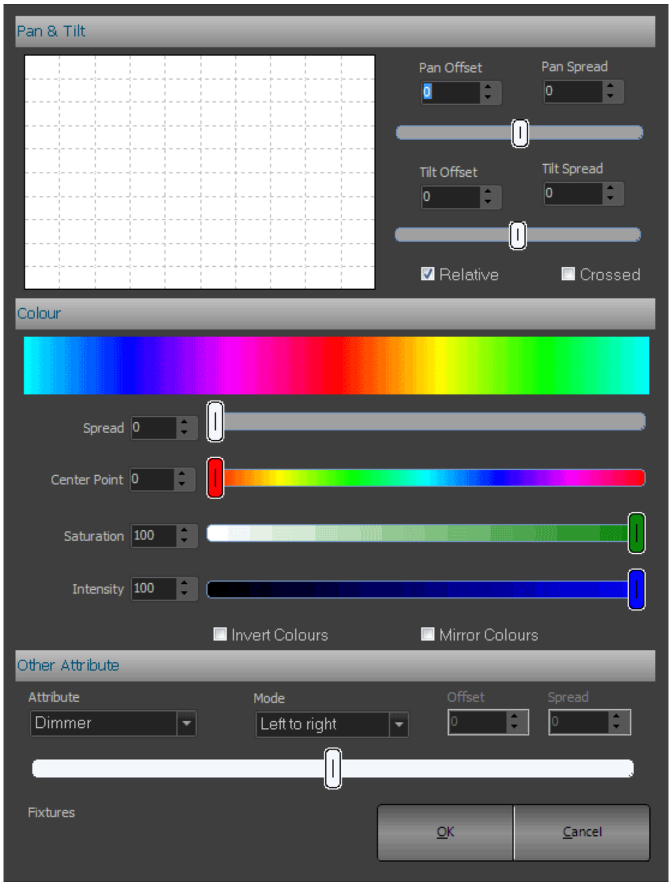

Capture 2005 Partner Edition
File Edit Tools
capture
www.capturesweden.com

Figure 6: Fan (Crossed)

To use the "Fan" select the fixtures you want to modify and click on the button at the top of the screen.



Pan Offset: 0
Pan Spread: 0
Tilt Offset: 0
Tilt Spread: 0
☑ Relative
☐ Crossed
Spread: 0
Center Point: 0
Saturation: 100
Intensity: 100
☐ Invert Colours
☐ Mirror Colours
Attribute: Dimmer
Mode: Left to right
Offset: 0
Spread: 0

Figure 7: Fan Options

Pan & Tilt

Use the pan and tilt offset to position the moving lights into the center of the stage. Adjust the Spread option until the desired look is achieved. Use the check box at the bottom of this selection to switch between a fanned or crossed look on stage.

You can fan the fixtures in both pan and tilt by adjusting the appropriate spread. The spread function also allows you to set a negative spread that will change the look of the fan operation.

Use the **"Relative"** check box to fan pan and tilt relative to the current location of the fixtures.

Color

The color selection can be used to spread out the color of several fixtures across the spectrum. By default fully saturated colors are used for this fan operation. To use different saturation and intensity levels adjust the controls at the bottom of this section.

Use the spread control to "fan" out the color of each fixture selected. You will see that each fixture is represented as triangle that points at the color being set. As you move the spread control the triangles will move out from the center. The center point can be moved using the control just below the spread.

The **"Invert Colors"** option will invert the color range used.

The **"Mirror Colors"** option will start the color range in the center and move out either side.

Other Attributes

NEO will also allow you to apply a fan to any of the generic attributes the system knows about. Select the attribute from the drop down combo box and then use the spread control to fan the values.

The mode selection will adjust in what order the fan is applied to the attribute.

Left to Right will leave the fist fixture unchanged and fan all of the other fixtures out from the first value.

Right to Left will leave the last fixture unchanged and fan all of the other fixtures in from the last value.

Middle out will cause the middle fixture to remain unchanged and fixture either side of it to fan appropriately.

Crossed is a mixture of middle out and outside in. Each alternative fixture will be either middle out or outside in.

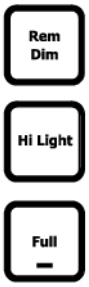
Outside in will cause both the first and last fixtures to remain unchanged while the fixtures in between are proportionally adjusted towards a center value.

Hi Light - applies the Hi Light values to the selected fixtures. The purpose of Hi Light is to clear out the beam of a fixture so that it can be identified on a visually contaminated stage.

The value that each fixture is set to when hi-light is active can be defined in the fixture library. For most attributes this is the same as the home value.

Highlight is a toggle option in NEO so that once you have identified the fixtures pressing the button again will return you to the previous stage look.

ON Options



Rem Dim (Solo) - this turns off all non-selected fixtures.

"Hi Light" Selection Mode - when mode is selected (button text is red) sets selected fixture to its "hi light" mode. The specifics of the hi light mode is determined by the settings in the fixture within the fixture library editor.

Full - takes selected fixture to 100%.

Lamp On - runs the lamp strike function to the selected fixture.

Lamp Off - runs the lamp douse function to the selected fixture.

Fixture Reset - runs the lamp reset function to the selected fixture.

The Lamp On/Off/Reset is an automated version of selecting the fixtures, taking the control channel to Lamp On/ Lamp Off/Fixture Reset, holding for 3 to 5 seconds and then placing the control channel back to idle.

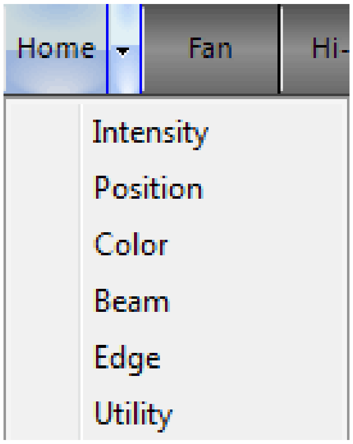
Home Options

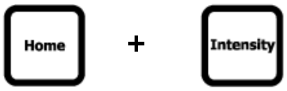
HOME sends the selected fixture to it's default position. When used on selected fixtures, it will send the entire fixture to it's default position. However, each attribute family can be homed individually using the syntax listed below.

(Fixture List) + [HOME] will allow home to work only on the leading fixture list.

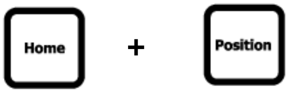
Select the fixtures, then press [HOME] + the appropriate Attribute Family key.

.

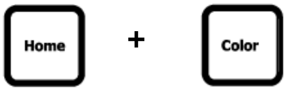




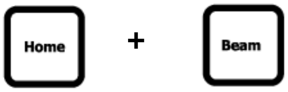
Intensity - sets selected fixtures to the default intensity value.



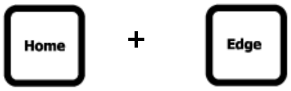
Position - sets selected fixtures to the default position value.



Color - sets selected fixtures to the default color value.



Beam - sets selected fixtures to the default beam value.

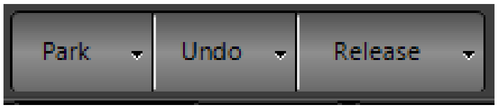


Edge - sets selected fixtures to the default edge value.

Utility - sets selected fixtures to the default utility value.

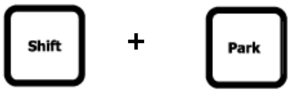
NEO NOTES & TIPS: All fixture default values are set in the Fixture Library Editor per fixture type.

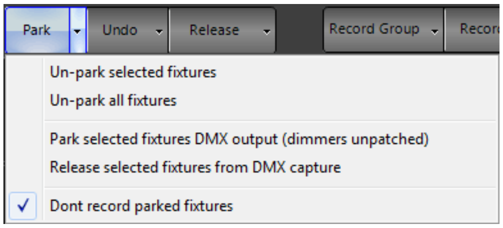
Command Pulldown - Release


Park
Undo
Release

Park - assign the current fixture value to a locked level. This "park"ed level will keep the fixture at its current level, will not change it as cues are activated and it will not be recorded at this value.

Park Options




Park
Undo
Release
Record Group
Recor
Un-park selected fixtures
Un-park all fixtures
Park selected fixtures DMX output (dimmers unpatched)
Release selected fixtures from DMX capture
✓ Dont record parked fixtures

Un-park selected fixtures - will unpark all selected fixtures.

Un-park all fixtures - will unpark all fixtures.

Park allows the user to assign a level to a fixture that will not be controlled by a cue. It places that fixture in stasis until it is unparked. By default, all Parked fixtures shall not be recorded.

NEO NOTES & TIPS: This default is in System Properties>Show Defaults>Intermediate Options.

Command Line Options

[PARK][ENTER] - will park all selected fixtures.

(Fixture List)[PARK][ENTER] - Parks at current level.

(Fixture List)[@](Level)[PARK][ENTER]

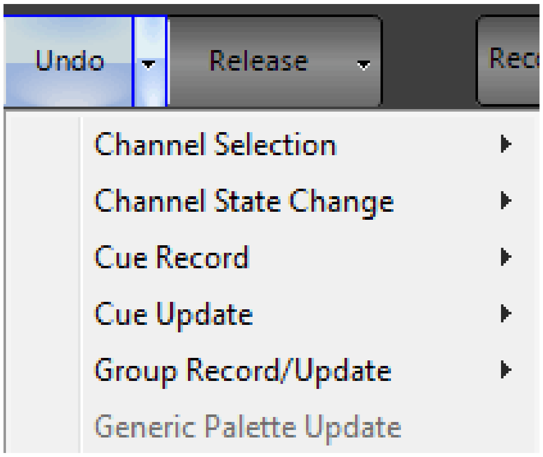
(Fixture List)[PARK][DIMMER][ENTER] - parks dimmer at current level.

(Fixture List)[PARK][DIMMER][@](Level)[ENTER]

[DIMMER][DIMMER] restores all parked dimmers.

Add [SHIFT] to any [PARK] command above and that will Unpark based on the command entered.

Undo Options



Undo - will return a fixture level to its previous value. This can work for intensity and attribute families.

Undo > Channel Selection - opens up a pullout that shows channel selection history. The user can undo the channel selection set in order. If the undo item selected is not at the top of the list, it will undo every item up to and including that item.

Undo > State Change - opens up a pullout that shows channel state change history. The user can undo the channel state change in order. If the undo item selected is not at the top of the list, it will undo every item up to and including that item.

Undo per attribute family is available as well. For example: [UNDO] + [POSITION] will under the last position change.

Undo > Cue Record - opens up a pullout that shows cue record history. The user can undo the cues recorded in order. If the undo item selected is not at the top of the list, it will undo every item up to and including that item.

Undo > Cue Update - opens up a pullout that shows cue update history. The user can undo the cues update in order. If the undo item selected is not at the top of the list, it will undo every item up to and including that item.

Undo > Group Record/Update - opens up a pullout that shows group record/update history. The user can undo the group record/update in order. If the undo item selected is not at the top of the list, it will undo every item up to and including that item.

Undo > Generic Palette Update - opens up a pullout that shows generic palette update history. The user can undo the generic palette update in order. If the undo item selected is not at the top of the list, it will undo every item up to and including that item.

Release Option

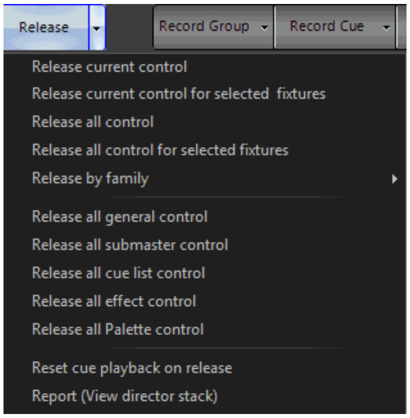
Release

Release - 1st press of RELEASE will restore all selected fixtures to their default state or another control items like a cue. The 2nd press of RELEASE will restore all remaining fixtures to their default state or their state as determined by another control item like a cue.

Release + Attribute Families

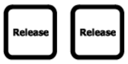
Release + Position or Color or Beam or Edge

NEO NOTES & TIPS: Pressing [RELEASE] and any attribute family button will release that attribute families attributes on the selected fixtures.

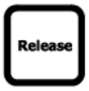

Release
Record Group
Record Cue
Release current control
Release current control for selected fixtures
Release all control
Release all control for selected fixtures
Release by family
Release all general control
Release all submaster control
Release all cue list control
Release all effect control
Release all Palette control
Reset cue playback on release
Report (View director stack)

Release current control - releases control of current fixtures.

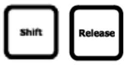
Release current control for selected fixtures - releases control for selected fixtures only.


Release
Release

Release all control - releases all control. This is equivalent to the second stage of the Release key. Example: [RELEASE][RELEASE].

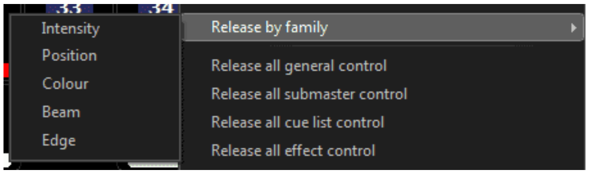


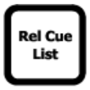
Release all control for selected fixtures - release all control for selected fixtures. This is equivalent to the first stage of the Release key. Example: [RELEASE].


Shift
Release

Release all general control - releases all selected channel control. Changes due to groups, cues and effects are not touched.

Release by family - releases all selected fixture control by attribute family.


Intensity
Position
Colour
Beam
Edge
Release by family
Release all general control
Release all submaster control
Release all cue list control
Release all effect control


Rel Cue List

Release submaster control - releases all control coming from submasters.

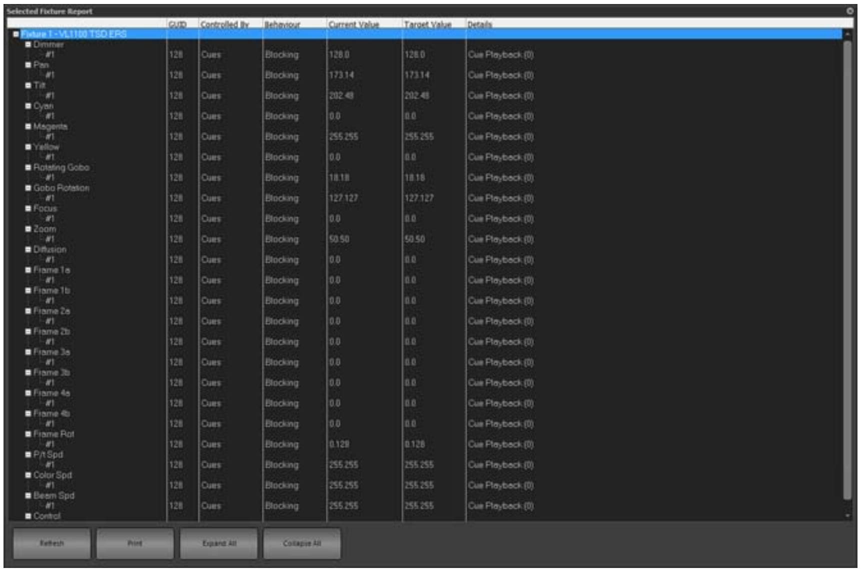
Release all cue list control - releases all channels that are outputting from a cue.

Release all effect control - releases all running effects.

Release all Palette control - releases all fixture palettes that are outputting.

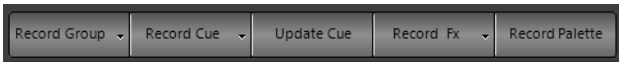
Reset cue playback on release - (this is a mode and can be toggled on or off), will reset the cue playback when fixtures are released.

Report (View director stack) - is a diagnostic tool to show diagnostic level detail about fixture status.


Selected Fixture Report
Refresh
Print
Expand All
Collapse All

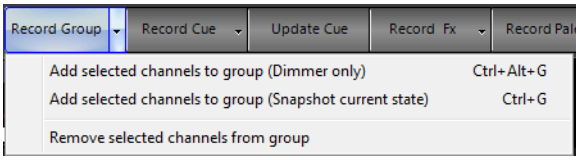
	GUID	Controlled By	Behaviour	Current Value	Target Value	Details
Fixture 1 - VL1100 TSD ERS						
Dimmer						
#1	128	Cues	Blocking	128.0	128.0	Cue Playback (0)
Pan						
#1	128	Cues	Blocking	173.14	173.14	Cue Playback (0)
Tilt						
#1	128	Cues	Blocking	202.48	202.48	Cue Playback (0)
Cyan						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Magenta						
#1	128	Cues	Blocking	255.255	255.255	Cue Playback (0)
Yellow						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Rotating Gobo						
#1	128	Cues	Blocking	18.18	18.18	Cue Playback (0)
Gobo Rotation						
#1	128	Cues	Blocking	127.127	127.127	Cue Playback (0)
Focus						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Zoom						
#1	128	Cues	Blocking	50.50	50.50	Cue Playback (0)
Diffusion						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame 1a						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame 1b						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame 2a						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame 2b						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame 3a						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame 3b						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame 4a						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame 4b						
#1	128	Cues	Blocking	0.0	0.0	Cue Playback (0)
Frame Rot						
#1	128	Cues	Blocking	0.128	0.128	Cue Playback (0)
P/t Spd						
#1	128	Cues	Blocking	255.255	255.255	Cue Playback (0)
Color Spd						
#1	128	Cues	Blocking	255.255	255.255	Cue Playback (0)
Beam Spd						
#1	128	Cues	Blocking	255.255	255.255	Cue Playback (0)
Control						

Command Pulldown - Record

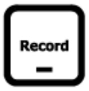

Record Group
Record Cue
Update Cue
Record Fx
Record Palette

Record Group - activates the Record / Update Group dialogue box in order to facilitate storing / editing a group.

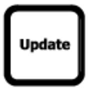
RECORD GROUP OPTIONS

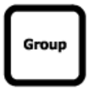

Record Group
Record Cue
Update Cue
Record Fx
Record Pal
Add selected channels to group (Dimmer only) Ctrl+Alt+G
Add selected channels to group (Snapshot current state) Ctrl+G
Remove selected channels from group

Add selected channels to group (Dimmer only) - brings up the Record/Update Group dialogue box to add selected fixtures' intensity to the designated group.



or

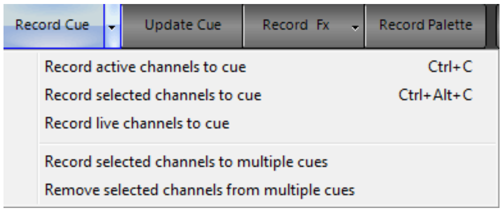




Add selected channels to group (Snapshot current state) - bring up the Record/Update Group dialogue box to add selected fixtures to the designated group.

Record Cue - activates the Record Cue dialogue box in order to facilitate storing a cue.

RECORD CUE OPTIONS

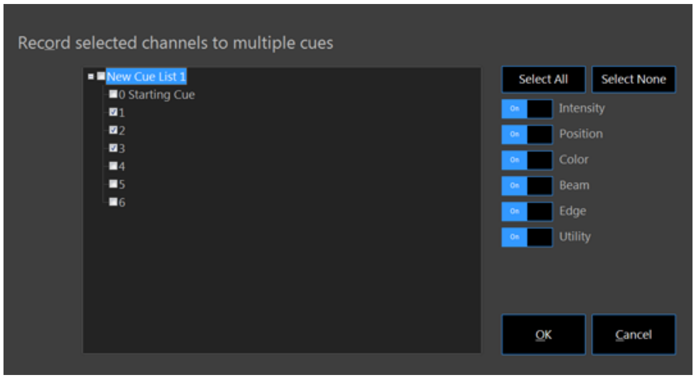

Record Cue
Update Cue
Record Fx
Record Palette
Record active channels to cue Ctrl+C
Record selected channels to cue Ctrl+Alt+C
Record live channels to cue
Record selected channels to multiple cues
Remove selected channels from multiple cues

Record active channels to cue - sets the Record Mode filter to Active and brings up the Record Cue dialogue box.

Record selected channels to cue - sets the Record Mode filter to Selected and brings up the Record Cue dialogue box.

Record live channels to cue - sets the Record Mode filter to Live and brings up the Record Cue dialogue box.

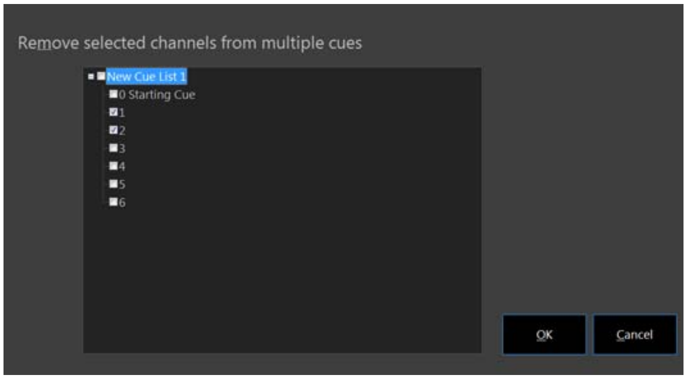
Record selected channels to multiple cues - brings up a dialogue box to allow the user to check off cues where selected fixtures will be stored.


Record selected channels to multiple cues
Select All
Select None
On
Intensity
On
Position
On
Color
On
Beam
On
Edge
On
Utility
OK
Cancel

☐ New Cue List 1
  ☐ 0 Starting Cue
  ☑ 1
  ☑ 2
  ☑ 3
  ☐ 4
  ☐ 5
  ☐ 6

Attribute family filtering is available.

Remove selected channels from multiple cues - brings up a dialogue box to allow the user to identify cues where fixture instructions will be removed.



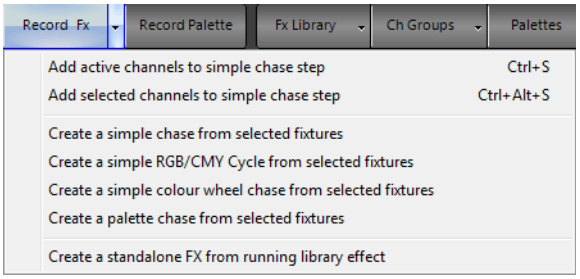
Remove selected channels from multiple cues

☐ New Cue List 1
  ☐ 0 Starting Cue
  ☑ 1
  ☑ 2
  ☐ 3
  ☐ 4
  ☐ 5
  ☐ 6

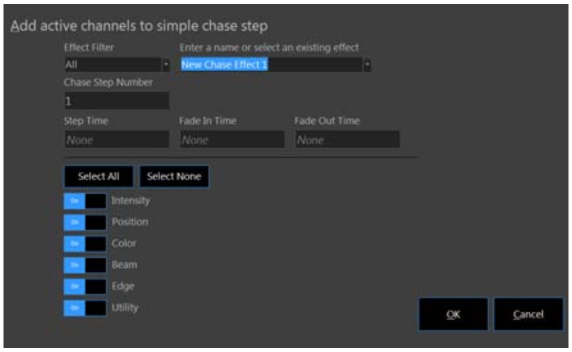
Update Cue - activates the Update Cue dialogue box in order to facilitate editing an existing cue.

Record FX - activates the Record FX dialogue box in order to facilitate creating a show effect.

RECORD FX OPTIONS


Record Fx
Record Palette
Fx Library
Ch Groups
Palettes
Add active channels to simple chase step Ctrl+S
Add selected channels to simple chase step Ctrl+Alt+S
Create a simple chase from selected fixtures
Create a simple RGB/CMY Cycle from selected fixtures
Create a simple colour wheel chase from selected fixtures
Create a palette chase from selected fixtures
Create a standalone FX from running library effect

Add active channels to simple chase step - adds "active" fixtures to a newly created or existing chase effect assigning each fixture to its own step in numerical order. This will activate a recording dialogue box to complete the fx recording process.



Add active channels to simple chase step

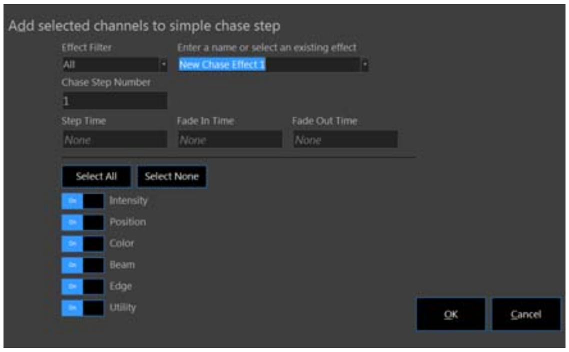
Effect Filter: All
Enter a name or select an existing effect: New Chase Effect 1
Chase Step Number: 1
Step Time: None
Fade In Time: None
Fade Out Time: None

Select All
Select None
Intensity
Position
Color
Beam
Edge
Utility
OK
Cancel

Enter appropriate info in the presented dialogue box.

NEO NOTES & TIPS: The effect will be recorded/edited but must be triggered manually though the FX List display.

Add selected channels to simple chase step - adds "selected" fixtures to a newly created or existing chase effect assigning each fixture to its own step in numerical order. This will activate a recording dialogue box to complete the fx recording process.



Add selected channels to simple chase step

Effect Filter: All

Enter a name or select an existing effect: New Chase Effect 1

Chase Step Number: 1

Step Time: None

Fade In Time: None

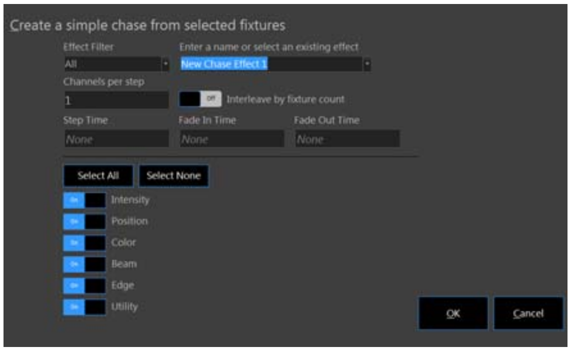
Fade Out Time: None

Select All
Select None
On Intensity
On Position
On Color
On Beam
On Edge
On Utility
OK
Cancel

Enter appropriate info in the presented dialogue box.

NEO NOTES & TIPS: The effect will be recorded/edited but must be triggered manually though the FX List display.

Create a simple chase from selected fixtures - creates a traditional chase effect based on the selected fixtures in the order in which they were selected. Each fixture will be assigned to its own step on a 1 to 1 basis.



Create a simple chase from selected fixtures

Effect Filter: All

Enter a name or select an existing effect: New Chase Effect 1

Channels per step: 1

Interleave by fixture count: Off

Step Time: None

Fade In Time: None

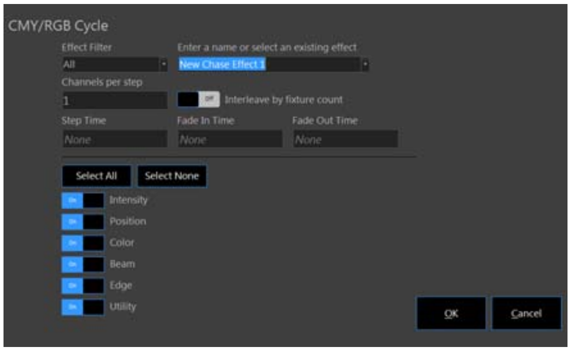
Fade Out Time: None

Select All
Select None
On Intensity
On Position
On Color
On Beam
On Edge
On Utility
OK
Cancel

Enter appropriate info in the presented dialogue box.

NEO NOTES & TIPS: The effect will be recorded/edited but must be triggered manually though the FX List display.

Create a simple RGB/CMY Cycle from selected fixtures - creates a simple step based color chase. All selected fixtures color mixing parameters will be stored into 6 steps. Cyan, Blue, Magenta, Red, Yellow, and Green.



CMY/RGB Cycle

Effect Filter: All

Enter a name or select an existing effect: New Chase Effect 1

Channels per step: 1

Interleave by fixture count: Off

Step Time: None

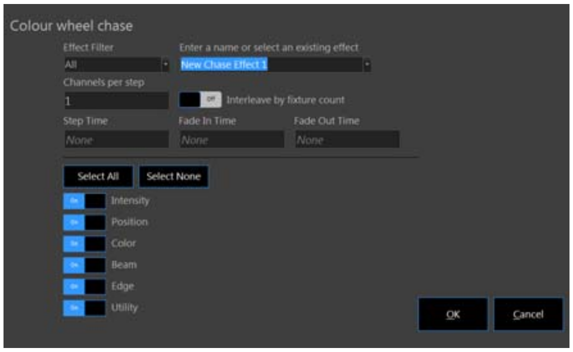
Fade In Time: None

Fade Out Time: None

Select All
Select None
On Intensity
On Position
On Color
On Beam
On Edge
On Utility
OK
Cancel

Enter appropriate info into the presented dialogue box.

Create a simple color wheel chase from selected fixtures - creates a simple step based color chase using the color wheel. All selected fixtures color wheel will be stored into steps. 1 for each wheel position.



Colour wheel chase

Effect Filter: All

Enter a name or select an existing effect: New Chase Effect 1

Channels per step: 1

Interleave by fixture count: Off

Step Time: None

Fade In Time: None

Fade Out Time: None

Intensity: On

Position: On

Color: On

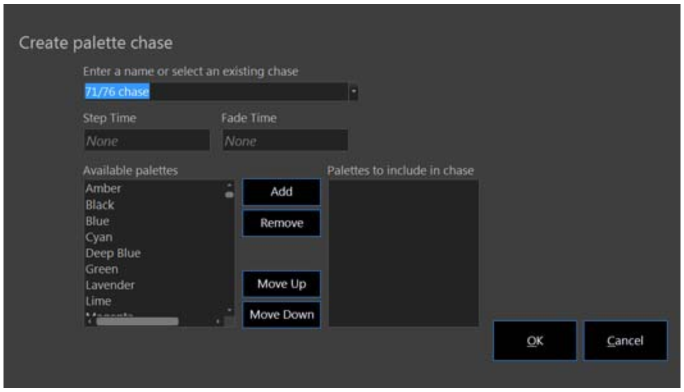
Beam: On

Edge: On

Utility: On

Enter appropriate info in the presented dialogue box.

Create a palette chase from selected fixtures - creates as simple step based chase with the selected fixtures where the contents of each step is selected from a list of palettes.



Create palette chase

Enter a name or select an existing chase: 71/76 chase

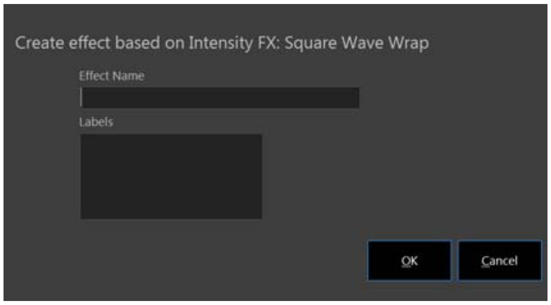
Step Time: None

Fade Time: None

Available palettes:
Amber
Black
Blue
Cyan
Deep Blue
Green
Lavender
Lime

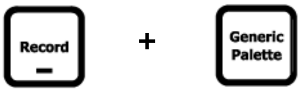
Use the left and right arrows to move palettes in and out of the available palette list.

Create a standalone FX from running library fx - this takes a running library effect and creates a show specific effect based upon that running library effect. This is a great practice in order to keep the library as a stock resource point by not recording over it.



Create effect based on Intensity FX: Square Wave Wrap

Enter appropriate info in the presented dialogue box.



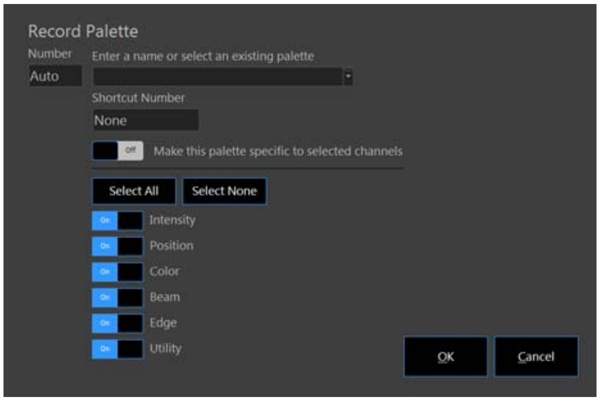
Record Palette - activates the Record Palette dialogue box in order to facilitate creating a Generic Palette.

To add selected channels to a palette:

Step 1. Set up the fixtures into the static state (dimmer, intensity, color, pan and tilt etc)

Step 2. Click on the "Record Palette" at the top of the window or press and hold [RECORD] while pressing [GENERIC PALETTE] button.

Step 3. Enter the palette number, name, and shortcut number you would like to assign to the current state. You can also select what attributes you want to include in the palette using the check boxes provided. "Make this palette specific to selected channels" will essentially turn this into a standard preset focus group.



Record Palette

Number: Auto

Enter a name or select an existing palette

Shortcut Number: None

Off — Make this palette specific to selected channels

On — Intensity

On — Position

On — Color

On — Beam

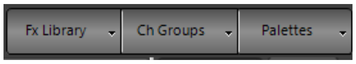
On — Edge

On — Utility

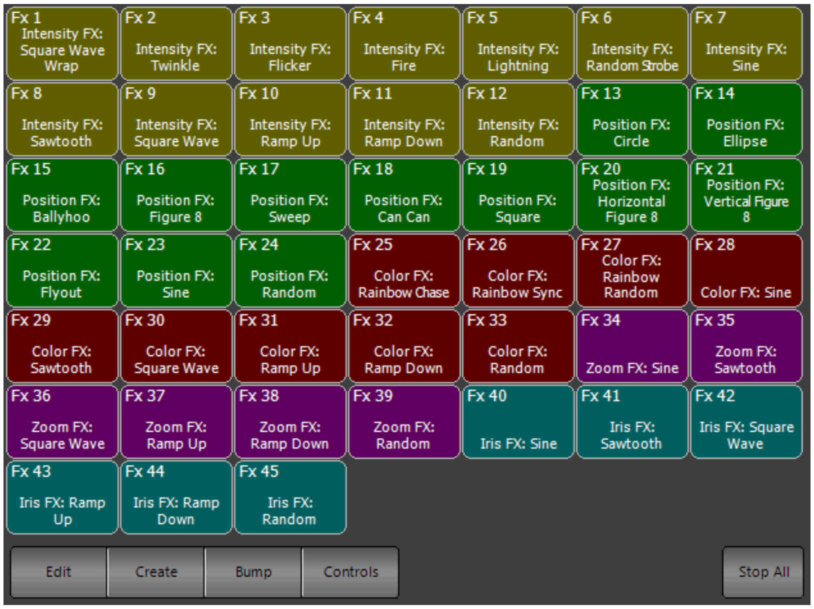
NEO NOTES & TIPS: This operation only allows you to create new entries and cannot be used to add to an existing palette.

Step 4. Enter the shortcut number you would like to assign and click the "OK" button to confirm the requested action. If you have changed your mind, click "Cancel" to return to the channel window.

Command Pulldown - Items



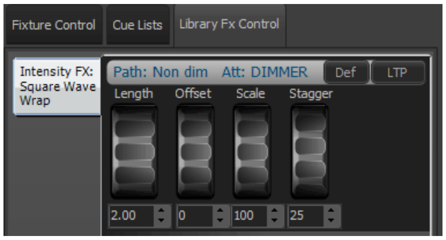
FX Library - opens the FX library. This allows you to apply a pre-built effect to the selected fixtures.



Fx 1 Intensity FX: Square Wave Wrap	Fx 2 Intensity FX: Twinkle	Fx 3 Intensity FX: Flicker	Fx 4 Intensity FX: Fire	Fx 5 Intensity FX: Lightning	Fx 6 Intensity FX: Random Strobe	Fx 7 Intensity FX: Sine
Fx 8 Intensity FX: Sawtooth	Fx 9 Intensity FX: Square Wave	Fx 10 Intensity FX: Ramp Up	Fx 11 Intensity FX: Ramp Down	Fx 12 Intensity FX: Random	Fx 13 Position FX: Circle	Fx 14 Position FX: Ellipse
Fx 15 Position FX: Ballyhoo	Fx 16 Position FX: Figure 8	Fx 17 Position FX: Sweep	Fx 18 Position FX: Can Can	Fx 19 Position FX: Square	Fx 20 Position FX: Horizontal Figure 8	Fx 21 Position FX: Vertical Figure 8
Fx 22 Position FX: Flyout	Fx 23 Position FX: Sine	Fx 24 Position FX: Random	Fx 25 Color FX: Rainbow Chase	Fx 26 Color FX: Rainbow Sync	Fx 27 Color FX: Rainbow Random	Fx 28 Color FX: Sine
Fx 29 Color FX: Sawtooth	Fx 30 Color FX: Square Wave	Fx 31 Color FX: Ramp Up	Fx 32 Color FX: Ramp Down	Fx 33 Color FX: Random	Fx 34 Zoom FX: Sine	Fx 35 Zoom FX: Sawtooth
Fx 36 Zoom FX: Square Wave	Fx 37 Zoom FX: Ramp Up	Fx 38 Zoom FX: Ramp Down	Fx 39 Zoom FX: Random	Fx 40 Iris FX: Sine	Fx 41 Iris FX: Sawtooth	Fx 42 Iris FX: Square Wave
Fx 43 Iris FX: Ramp Up	Fx 44 Iris FX: Ramp Down	Fx 45 Iris FX: Random				

Once the library effect is running, the controls for the running effect is available on the encoders or is available in the *Side Bar > Library FX Controls*.

Should you want to edit and store this for the showfile, create a show fx from the library fx so that it doesn't change the fx library.



Intensity FX: Square Wave Wrap

Path: Non dim Att: DIMMER

Length: 2.00

Offset: 0

Scale: 100

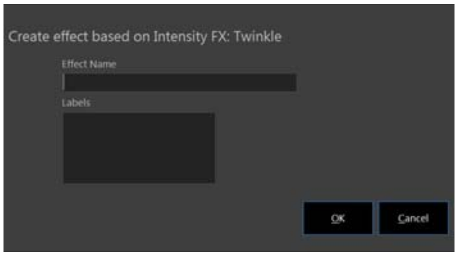
Stagger: 25

Step 1. Select desired fixtures.

Step 2. Select fx from library.

Step 3. Press [CREATE FX] and follow the dialogue to create the show fx.

Step 4. Name the fx and press ENTER. Now the effect is running as a standalone. Modify and store with any cue.


Create effect based on Intensity FX: Twinkle
Effect Name
Labels
OK
Cancel

Edit - opens the Effects Editor.

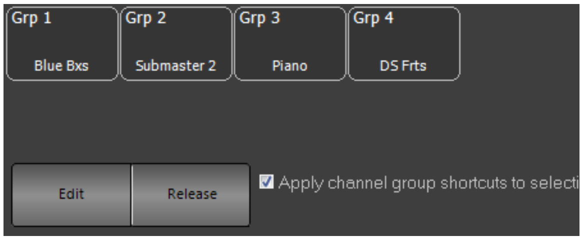
Create - opens up the "Create effect based on…" dialogue box.

Make sure you have a library effect running prior to pressing the *Create* button.

Bump - will bump the FX out as a latched button. Pressing Bump again will restart the FX.

Controls - will bring the FX controls into focus.

Stop All - will stop all running library FX.


Grp 1 Blue Bxs
Grp 2 Submaster 2
Grp 3 Piano
Grp 4 DS Frts
Edit
Release
☑ Apply channel group shortcuts to selecti

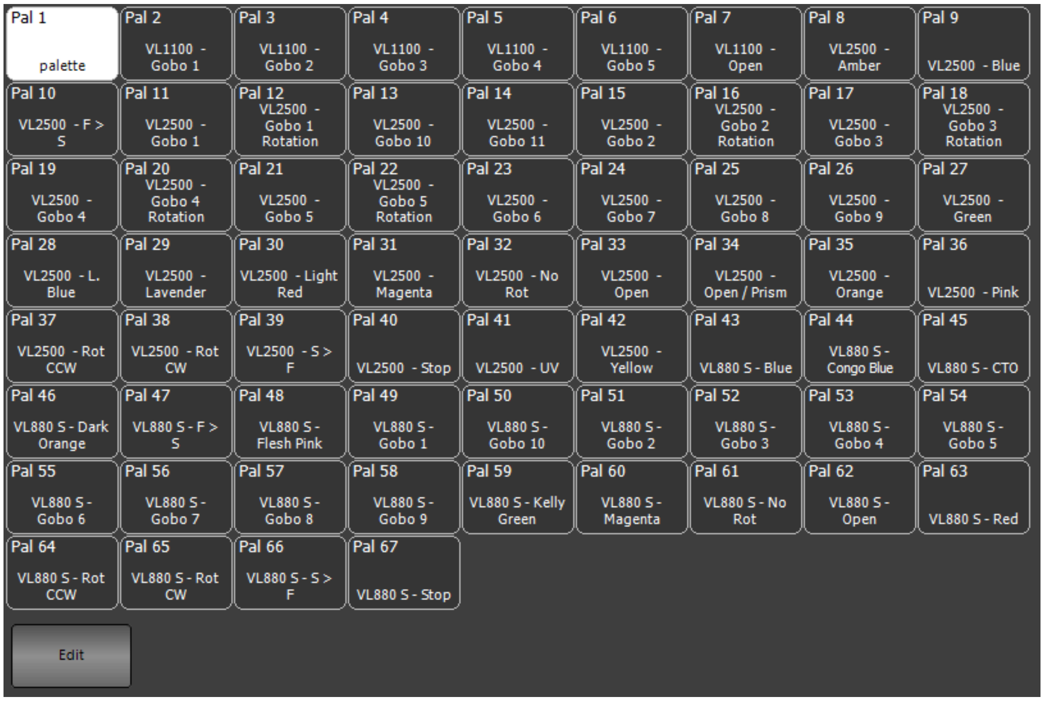
Channel Groups - opens the list of show built groups and preset focus groups.

Press on any group displayed to select that group of fixtures.

Edit - opens the Group Display window for editing groups.

Release - releases selected channels from Build/HTP/LTP behavior.

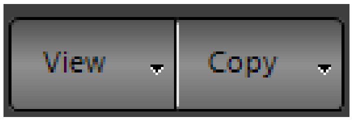
Palettes - opens the list of show built Generic Palettes.


Pal 1 palette
Pal 2 VL1100 - Gobo 1
Pal 3 VL1100 - Gobo 2
Pal 4 VL1100 - Gobo 3
Pal 5 VL1100 - Gobo 4
Pal 6 VL1100 - Gobo 5
Pal 7 VL1100 - Open
Pal 8 VL2500 - Amber
Pal 9 VL2500 - Blue
Pal 10 VL2500 - F > S
Pal 11 VL2500 - Gobo 1
Pal 12 VL2500 - Gobo 1 Rotation
Pal 13 VL2500 - Gobo 10
Pal 14 VL2500 - Gobo 11
Pal 15 VL2500 - Gobo 2
Pal 16 VL2500 - Gobo 2 Rotation
Pal 17 VL2500 - Gobo 3
Pal 18 VL2500 - Gobo 3 Rotation
Pal 19 VL2500 - Gobo 4
Pal 20 VL2500 - Gobo 4 Rotation
Pal 21 VL2500 - Gobo 5
Pal 22 VL2500 - Gobo 5 Rotation
Pal 23 VL2500 - Gobo 6
Pal 24 VL2500 - Gobo 7
Pal 25 VL2500 - Gobo 8
Pal 26 VL2500 - Gobo 9
Pal 27 VL2500 - Green
Pal 28 VL2500 - L. Blue
Pal 29 VL2500 - Lavender
Pal 30 VL2500 - Light Red
Pal 31 VL2500 - Magenta
Pal 32 VL2500 - No Rot
Pal 33 VL2500 - Open
Pal 34 VL2500 - Open / Prism
Pal 35 VL2500 - Orange
Pal 36 VL2500 - Pink
Pal 37 VL2500 - Rot CCW
Pal 38 VL2500 - Rot CW
Pal 39 VL2500 - S > F
Pal 40 VL2500 - Stop
Pal 41 VL2500 - UV
Pal 42 VL2500 - Yellow
Pal 43 VL880 S - Blue
Pal 44 VL880 S - Congo Blue
Pal 45 VL880 S - CTO
Pal 46 VL880 S - Dark Orange
Pal 47 VL880 S - F > S
Pal 48 VL880 S - Flesh Pink
Pal 49 VL880 S - Gobo 1
Pal 50 VL880 S - Gobo 10
Pal 51 VL880 S - Gobo 2
Pal 52 VL880 S - Gobo 3
Pal 53 VL880 S - Gobo 4
Pal 54 VL880 S - Gobo 5
Pal 55 VL880 S - Gobo 6
Pal 56 VL880 S - Gobo 7
Pal 57 VL880 S - Gobo 8
Pal 58 VL880 S - Gobo 9
Pal 59 VL880 S - Kelly Green
Pal 60 VL880 S - Magenta
Pal 61 VL880 S - No Rot
Pal 62 VL880 S - Open
Pal 63 VL880 S - Red
Pal 64 VL880 S - Rot CCW
Pal 65 VL880 S - Rot CW
Pal 66 VL880 S - S > F
Pal 67 VL880 S - Stop
Edit

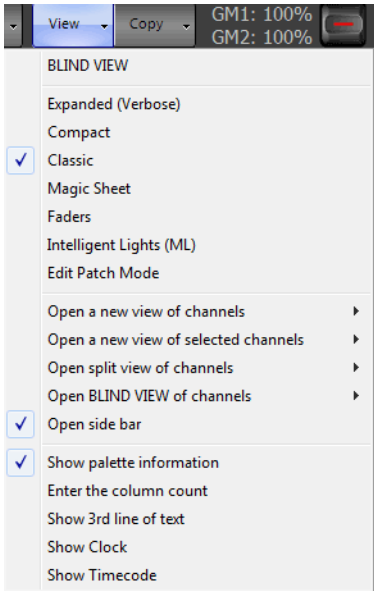
These can be selected from this quick select palette window.

Edit - pressing Edit will open up the Palette display window for palette editing.

Command Pulldown - View



View - change to different viewing style for the main single monitor window. [Shift] + [View] will also open the View pulldown menu.


View
Copy
GM1: 100%
GM2: 100%
BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels ▸
Open a new view of selected channels ▸
Open split view of channels ▸
Open BLIND VIEW of channels ▸
✓ Open side bar
✓ Show palette information
Enter the column count
Show 3rd line of text
Show Clock
Show Timecode

Blind - the non-Live display that allows the user to view and edit data without the data outputting on stage.

Blind allows the user to edit the data without it outputting Live. (new image: blind-view-classic-tracking)

Editing can occur as it normally would in Live using either Command Line operation or the Graphical User Interface. The Select button options are available however features like Hi-Light, Park and Undo are not. In Blind there are special buttons that are available for updating.

If you are in Tracking Mode: the buttons available are "Exit Blind (Abandon)" which allows you to go back to Live and disregard any changes made.

"Exit Blind Track Fwd" - which allows you to go back to Live and the changes will be stored and tracked normally.

"Exit Blind Track Back" - which allows you to go back to Live and the changes will be stored and tracked back.

"Exit Blind Cue Only" - which allows you to go back to Live and the changes will be stored for this "Cue Only".

If you are in Hybrid Mode: the buttons available are "Exit Blind (Abandon)" which allows you to go back to Live and disregard any changes made. There is "Exit Blind (Update)" which allows you to go back to Live and update so that the changes will be stored.

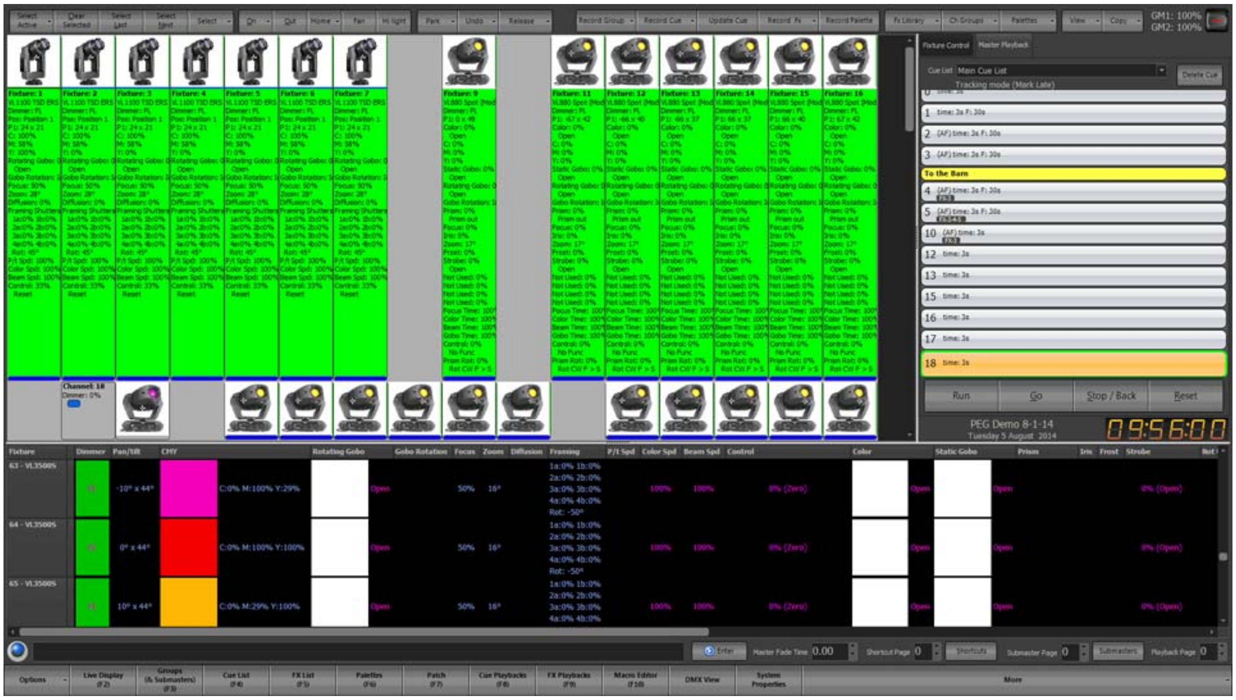
The channel view window has six modes of displaying fixtures and channels. Change the view click on the "View" button and selecting the desired view from the drop down menu.

The different view modes are Expanded, Compact, Classic, Magic Sheet, Faders and ML View. There is no issue using any views to control your lighting rig as you may want to use conventional lights in the grid display and intelligent fixtures in the intelligent view. NEO will switch between the views without effecting the operation of the lights.

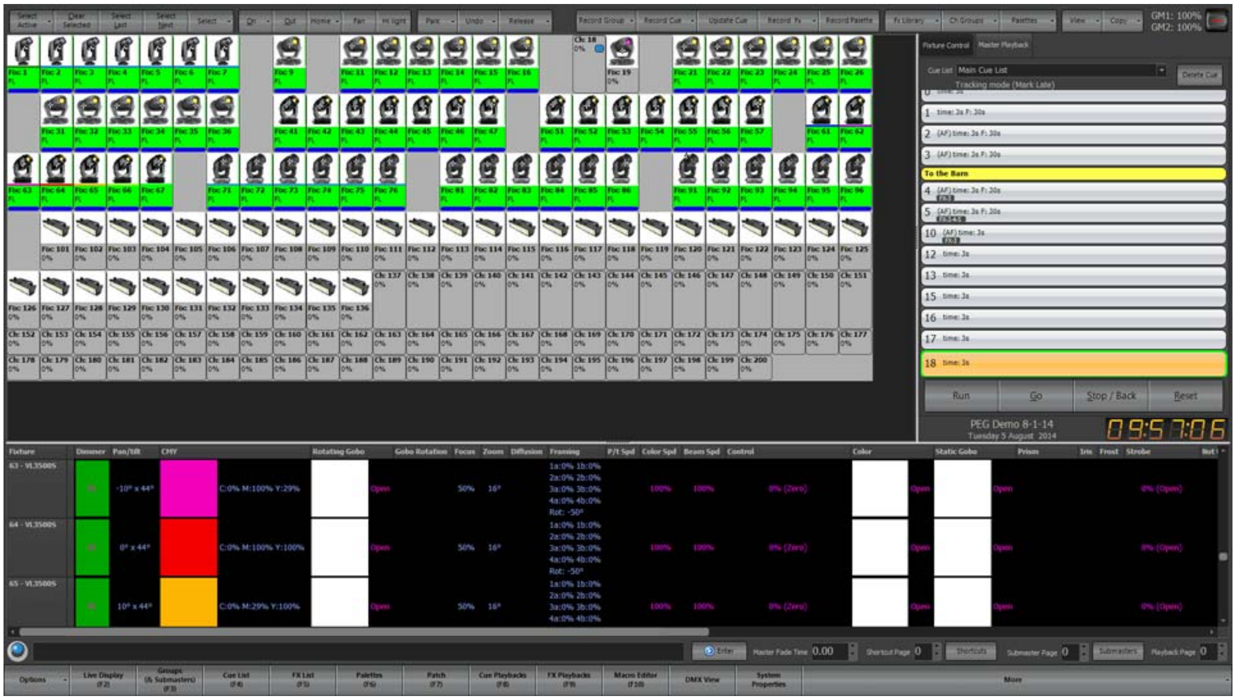
In the Expanded, Compact, and Classic view all of the channels and fixtures are displayed sequentially in an n x n matrix of rows and columns. The software will automatically display the maximum number of channels it can across the columns and provide a scroll bar to view channels that are off the bottom of the window.

You can however set a fixed number of columns in the View menu by selecting "Set fixed column count". If a fixed column count is set then the column widths will automatically resize to fit across the page. Setting this to 0 will return it to a dynamic column count.

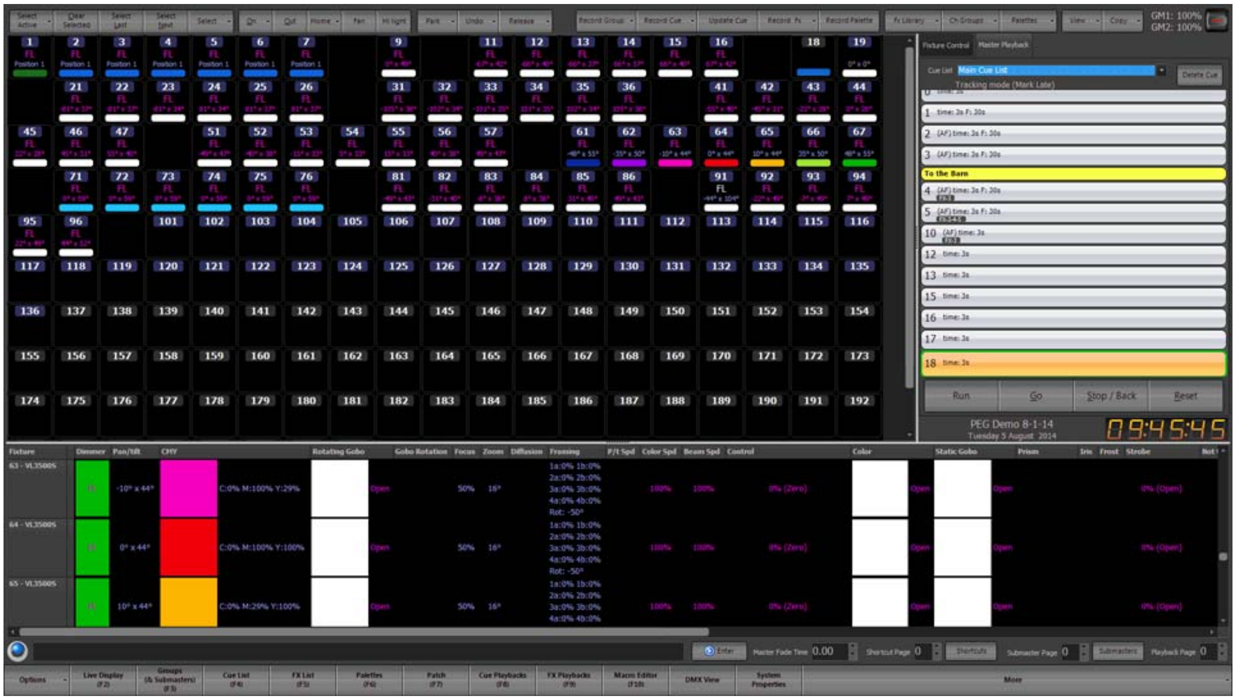
Expanded (Verbose) - The Expanded view will show all of the patched channels in an excel style grid of rows and columns. This mode will show the maximum about of information about the fixtures and their state. Each attribute will be listed below the fixture name and dimmer level to show its current value.


GM1: 100%
GM2: 100%
Fixture Control
Master Playback
Main Cue List
Tracking mode (Mark Late)
Delete Cue
To the Barn
Run
Go
Stop / Back
Reset
PEG Demo 8-1-14
Tuesday 5 August 2014
09:56:00
Fixture
Dimmer
Pan/tilt
CMY
Rotating Gobo
Gobo Rotation
Focus
Zoom
Diffusion
Framing
Color
Static Gobo
Prism
Iris
Frost
Strobe
63 - VL3500S
64 - VL3500S
65 - VL3500S
Enter
Master Fade Time
Shortcut Page
Shortcuts
Submaster Page
Submasters
Playback Page
Options
Live Display
Groups (& Submasters)
Cue List
FX List
Palettes
Patch
Cue Playbacks
FX Playbacks
Macro Editor
DMX View
System Properties
More

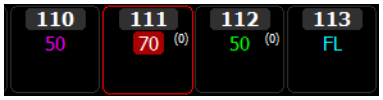
Compact View - Use the compact view to maximize the number of channels visible on screen at once. This view will show the least amount of information per fixture and is limited to the basic channel number and dimmer level. It will also show graphically a moving light position and color.


GM1: 100%
GM2: 100%
Fixture Control
Master Playback
Main Cue List
Tracking mode (Mark Late)
Delete Cue
To the Barn
Run
Go
Stop / Back
Reset
PEG Demo 8-1-14
Tuesday 5 August 2014
09:57:06
Fixture
Dimmer
Pan/tilt
CMY
Rotating Gobo
Gobo Rotation
Focus
Zoom
Diffusion
Framing
Color
Static Gobo
Prism
Iris
Frost
Strobe
63 - VL3500S
64 - VL3500S
65 - VL3500S
Enter
Master Fade Time
Shortcut Page
Shortcuts
Submaster Page
Submasters
Playback Page
Options
Live Display
Groups (& Submasters)
Cue List
FX List
Palettes
Patch
Cue Playbacks
FX Playbacks
Macro Editor
DMX View
System Properties
More

Classic - the most traditional theatrical view. This identifies conventional channels with a grey box around the fixture number. An automated luminaire will have a blue box around the fixture number. The second line displays the intensity using a traditional theatrical color scheme.



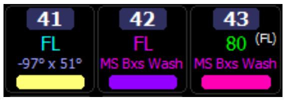
Intensity Levels



- Red - adjusted.
- Light Blue - levels going up.
- Green - levels going down.
- Magenta - levels staying the same. (tracked).
- White - hard instruction.

The red box around 111 indicates that fixture is currently selected. (The level of selected units can be adjusted without reentering the fixture number(s).

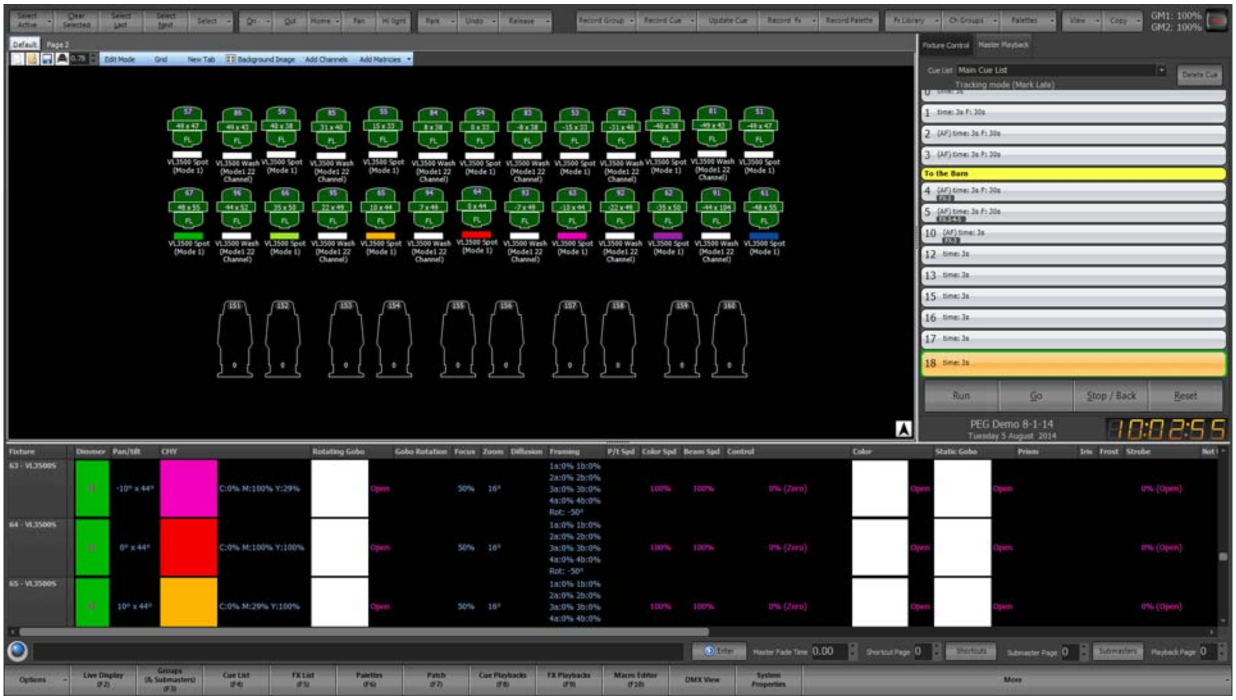
Attribute Levels



- Red - adjusted.
- Blue - changed value.
- Magenta - levels staying the same (tracked).
- White - hard instruction.
- Grey - no data (default).

The (bracketed) info shows the previous level of the fixture.

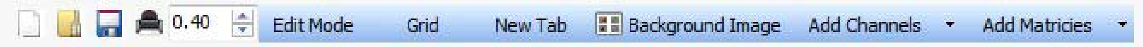
Magic Sheet - The Magic Sheet view is a free form that by default has nothing on it. Before using the Magic Sheet view you must place fixtures in the desired location. Once you have placed fixtures on the form you can then control them by selecting them in the same way as the grid view.



When placed on the layout window each fixture is represented by a symbol of the fixture, its channel number, name and the current dimmer level. If the fixture is an intelligent fixture the position and color is also shown. The symbol showed is defined by the "Fixture Type" in the dimmer patching window. If no type is specified the fixture is assumed to a conventional profile.

NEO NOTES & TIPS: The Magic Sheet view also supports a number of multi touch gestures to help when working with large sets of fixtures. You can use the two finger pinch to zoom and two fingers on the screen to pan around the layout. If fixtures are currently selected then sliding two fingers up or down the screen will increase or decrease the dimmer level.

Just above the layout panel (black area of the window) is tool bar that is used to edit the layout and insert fixtures onto the view.



New - Click on the "New" tool button to start a blank layout. This will clear all of the fixtures from the Magic Sheet view (fixtures will remain patched in the system) provide a blank page to work with. A dialog box will prompt to confirm the "New" operation as this cannot be undone.

Open - Click on the "Open" button to load a saved layout and replace the layout currently shown.

Save - The current layout is always stored along with your show however if you want to have several layouts you can save it to a file on the hard driver separate to the show. Click on a save button and a standard windows save dialog box will appear.

Print - Use the print option to print a hard copy of the layout on a system printer.

Zoom - Use the zoom option to modify the size of the view on screen. If the zoom is to too large to fit all of the fixtures on screen then the scroll bars can be used to move around the layout.

Edit Mode - Toggle the edit mode button to change the position of the fixtures in the layout view. With the edit mode off the fixture cannot be moved around.

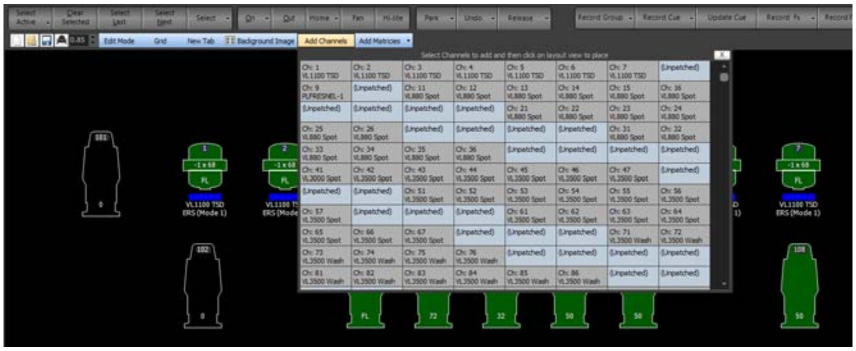
Grid - To help line up fixtures in the Magic Sheet view a grid can be turned on. The fixtures will snap to the dots in the grid when repositioning them.

New Tab - To help manage a large number of fixtures in the Magic Sheet view you can create tabs that will allow you to quickly switch between views. Clicking on the "New Tab" button will prompt you for the name of the tab. Tab names can be edited at any time by double clicking on the tab. To remove a tab from the system click on the small "X" on the right of the tab. When only one tab exists the tabs will not be visible.

Background image - Clicking on the "Background Image" button will open a standard windows file dialog that can be used to select any bitmap or jpeg image. The loaded image will be shown as the background to the layout. This image will be stored with your show or with any saved layout.

Add Channels - To add channels to the layout click on the "Add Channels" button. A window will drop down below the buttons with a grid showing all of the channels in the system. Click on the channels you want to add (as you click the channels will become highlighted) and then click in the layout screen to play the fixtures.

You can hold down the shift or control key to select multiple fixtures in any order.



Select Channels to add and then click on layout view to place

Ch: 1 VL1100 TSD	Ch: 2 VL1100 TSD	Ch: 3 VL1100 TSD	Ch: 4 VL1100 TSD	Ch: 5 VL1100 TSD	Ch: 6 VL1100 TSD	Ch: 7 VL1100 TSD	(Unpatched)
Ch: 9 PLFRESNEL-1	(Unpatched)	Ch: 11 VL880 Spot	Ch: 12 VL880 Spot	Ch: 13 VL880 Spot	Ch: 14 VL880 Spot	Ch: 15 VL880 Spot	Ch: 16 VL880 Spot
(Unpatched)	(Unpatched)	(Unpatched)	(Unpatched)	Ch: 21 VL880 Spot	Ch: 22 VL880 Spot	Ch: 23 VL880 Spot	Ch: 24 VL880 Spot
Ch: 25 VL880 Spot	Ch: 26 VL880 Spot	(Unpatched)	(Unpatched)	(Unpatched)	(Unpatched)	Ch: 31 VL880 Spot	Ch: 32 VL880 Spot
Ch: 33 VL880 Spot	Ch: 34 VL880 Spot	Ch: 35 VL880 Spot	Ch: 36 VL880 Spot	(Unpatched)	(Unpatched)	(Unpatched)	(Unpatched)
Ch: 41 VL3000 Spot	Ch: 42 VL3500 Spot	Ch: 43 VL3500 Spot	Ch: 44 VL3500 Spot	Ch: 45 VL3500 Spot	Ch: 46 VL3500 Spot	Ch: 47 VL3500 Spot	(Unpatched)
(Unpatched)	(Unpatched)	Ch: 51 VL3500 Spot	Ch: 52 VL3500 Spot	Ch: 53 VL3500 Spot	Ch: 54 VL3500 Spot	Ch: 55 VL3500 Spot	Ch: 56 VL3500 Spot
Ch: 57 VL3500 Spot	(Unpatched)	(Unpatched)	(Unpatched)	Ch: 61 VL3500 Spot	Ch: 62 VL3500 Spot	Ch: 63 VL3500 Spot	Ch: 64 VL3500 Spot
Ch: 65 VL3500 Spot	Ch: 66 VL3500 Spot	Ch: 67 VL3500 Spot	(Unpatched)	(Unpatched)	(Unpatched)	Ch: 71 VL3500 Wash	Ch: 72 VL3500 Wash
Ch: 73 VL3500 Wash	Ch: 74 VL3500 Wash	Ch: 75 VL3500 Wash	Ch: 76 VL3500 Wash	(Unpatched)	(Unpatched)	(Unpatched)	(Unpatched)
Ch: 81 VL3500 Wash	Ch: 82 VL3500 Wash	Ch: 83 VL3500 Wash	Ch: 84 VL3500 Wash	Ch: 85 VL3500 Wash	Ch: 86 VL3500 Wash	(Unpatched)	(Unpatched)

Add Matrices - As well as channel you can also add any configured matrices to the Magic Sheet view. This will allow you to modify the entire matrix as a single fixture.

On the left of the window is the list of available fixtures and matrices that can be placed in the layout window.

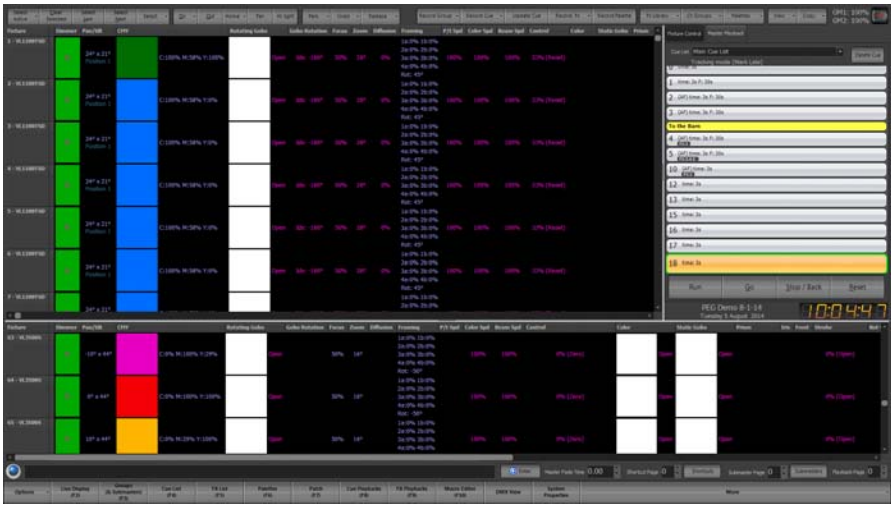
Delete - Use the delete button (only visible in edit mode) to remove the selected fixtures from the layout.

Rotate Fixtures - When the Magic Sheet view is in edit mode you can rotate fixtures using the spin edit control to the left of the delete button. The rotation angle set will apply to all of the selected fixtures. You can also rotate fixtures by holding down the ALT key on your keyboard and click and dragging around the fixture with your mouse.

Moving fixtures around in the layout - By default the Magic Sheet view is in control mode meaning it is expecting the user wants to control and modify the fixtures output. When you click on a fixture it will highlight it exactly as it does in the grid display. To move fixtures around and change the position you must turn on the option "Edit Mode". When this option is turned on you cannot select fixtures for control as your mouse is now used to move the fixture where you want.

Click and while holding the mouse button down move the fixture to the desired location. Release the mouse button once you have placed the fixture where you want it.

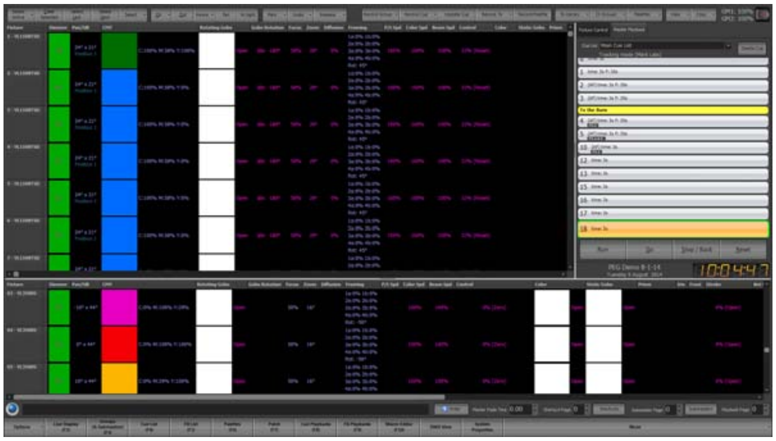
Fader View - The fader view is a simple view designed for small installations where only a few fixtures are being controlled. Each fixture is shown as a fader.



To change the intensity levels for any channel simply drag the bar up and down the control. If the fixture supports pan and tilt control you can click anywhere in the fixture image to set its position. Likewise you can also select the color from the palette shown below the image.

Click on the **"Open Control Window"** to open the standard fixture control window for all other attributes.

At the bottom of this view is a page up and page down control to set the page of faders that are shown. In the view menu is an option to set the number of faders shown on each page.



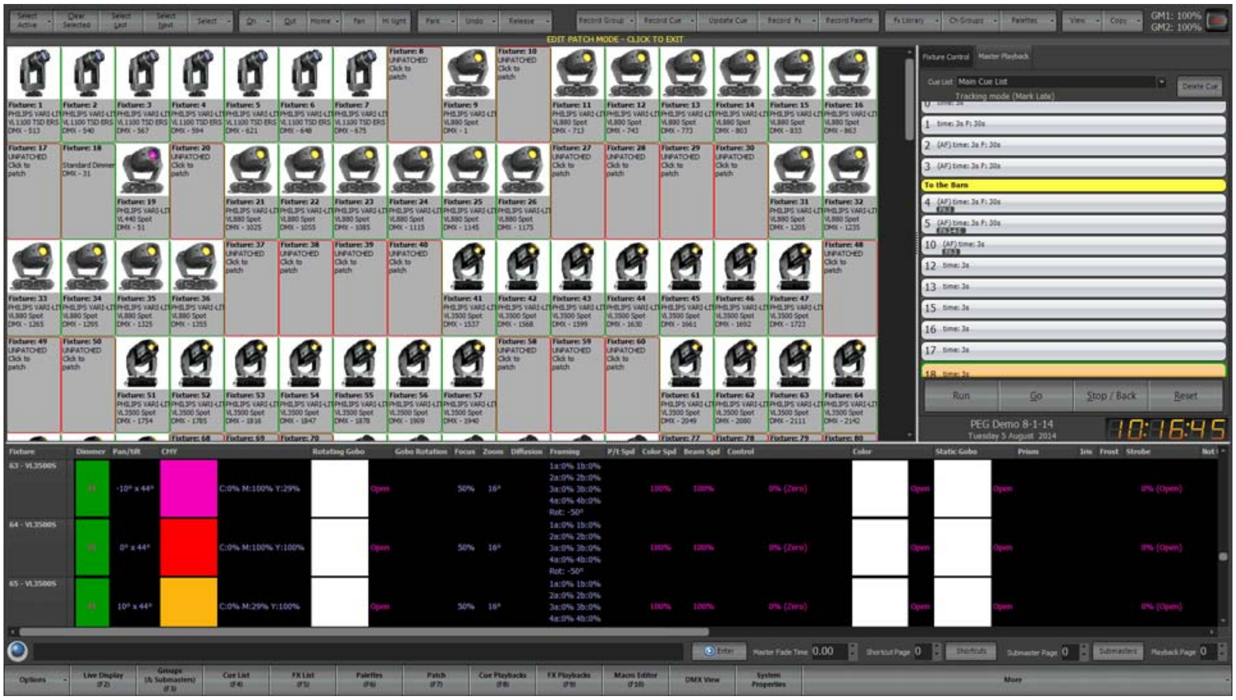
Intelligent View (ML) - The Intelligent view (sometimes called the ML View) is specifically designed to work with intelligent fixtures (moving lights) and groups fixtures by their type. Each fixture is listed vertically with the attributes shown horizontally. Each fixture type is separated by a header that displays the fixture name. Double click on the header to collapse the grid below it. This helps you manage what you are viewing by hiding fixtures you do not require.

Any of the attributes shown in this view can be directly edited by double clicking on the cell. An appropriate popup control will appear.

If a palette is in control of the attribute its will be shown in red under the attribute value.

To set the default row height for this view use the view menu option "Set default row height".

Edit Patch Mode - In addition to the six view modes you can also switch the channel view into patch mode. Patch mode can be used to edit the fixture patching directly in the channel display window. If no channels are patched in the system then the patch mode will display automatically.


EDIT PATCH MODE - CLICK TO EXIT
Fixture Control
Master Playback
Main Cue List
Tracking mode (Mark Late)
Delete Cue
To the Barn
Run
Go
Stop / Back
Reset
PEG Demo 8-1-14
Tuesday 5 August 2014
10:16:45
GM1: 100%
GM2: 100%
Options
Live Display (F2)
Groups (& Submasters) (F3)
Cue List (F4)
FX List (F5)
Palettes (F6)
Patch (F7)
Cue Playbacks (F8)
FX Playbacks (F9)
Macro Editor (F10)
DMX View
System Properties
More

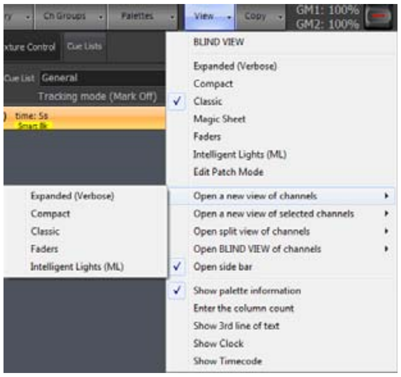
In the patch mode channels that are patched are shown with a green border and the unpatched channels have a red border.

To change the patch click with the left mouse button on any channel either patched or unpatched. Use the resulting dialog to set the fixture you want to patch into the system.

At the bottom of the patch dialog is a spin edit option titled "Quantity for sequential patch". Use this to patch multiple fixtures of the same type at once.

When you have finished patching the fixtures click on the bar separating the grid from the buttons. This will return you to the previous view you have been using.

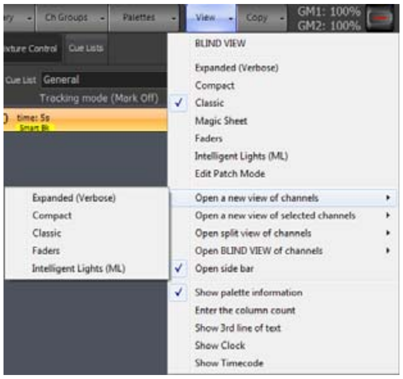
Open a new view of channels - opens a separate window of a fixture display. Choose from the following list of options…


Ch Groups
Palettes
View
Copy
GM1: 100%
GM2: 100%
xture Control
Cue Lists
Cue List
General
Tracking mode (Mark Off)
time: 5s
Smart Bk
BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
✓ Open side bar
✓ Show palette information
Enter the column count
Show 3rd line of text
Show Clock
Show Timecode
Expanded (Verbose)
Compact
Classic
Faders
Intelligent Lights (ML)

- Expanded
- Compact
- Classic
- Faders

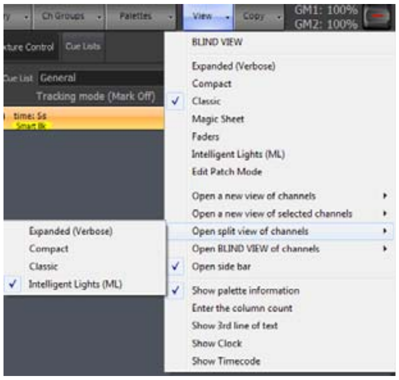
- Intelligent Lights

Open a new view of selected channels - opens a separate window of a fixture display filtering to only display selected fixtures. Choose from the following list of options…


Ch Groups
Palettes
View
Copy
GM1: 100%
GM2: 100%
xture Control
Cue Lists
Cue List
General
Tracking mode (Mark Off)
time: 5s
BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
✓ Open side bar
✓ Show palette information
Enter the column count
Show 3rd line of text
Show Clock
Show Timecode
Expanded (Verbose)
Compact
Classic
Faders
Intelligent Lights (ML)

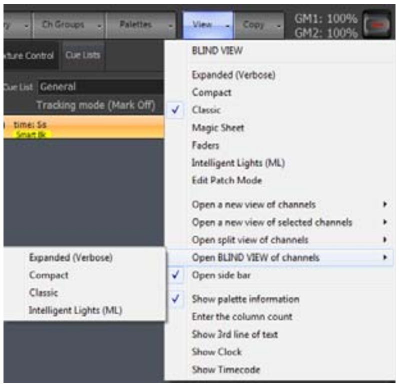
- Expanded
- Compact
- Classic
- Faders
- Intelligent Lights

Open a split view of channels - opens a fixture window at the bottom of the main monitors view. Choose from the following list of options…


Ch Groups
Palettes
View
Copy
GM1: 100%
GM2: 100%
xture Control
Cue Lists
Cue List
General
Tracking mode (Mark Off)
time: 5s
BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
✓ Open side bar
✓ Show palette information
Enter the column count
Show 3rd line of text
Show Clock
Show Timecode
Expanded (Verbose)
Compact
Classic
✓ Intelligent Lights (ML)

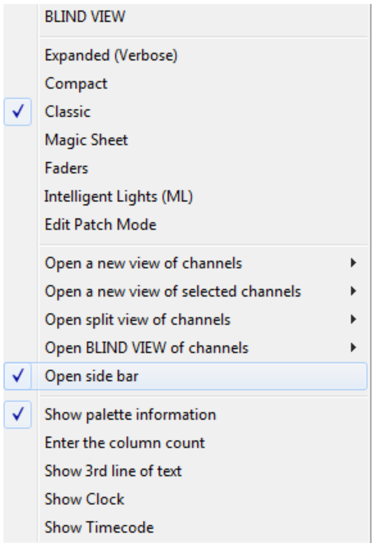
- Expanded
- Compact
- Classic
- Intelligent Lights

Open a blind view of channels - opens a separate window of a fixture display in the Blind view. Choose from the following list of options…


Ch Groups
Palettes
View
Copy
GM1: 100%
GM2: 100%
ture Control
Cue Lists
Cue List
General
Tracking mode (Mark Off)
BLIND VIEW
Expanded (Verbose)
Compact
Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
Open side bar
Show palette information
Enter the column count
Show 3rd line of text
Show Clock
Show Timecode
Expanded (Verbose)
Compact
Classic
Intelligent Lights (ML)

- Expanded
- Compact
- Classic
- Intelligent Lights

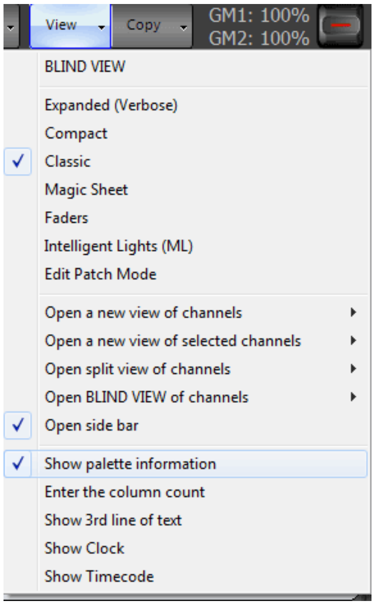
Open Side Bar - the side bar is the right side section of the main monitor's screen. This displays…


BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
✓ Open side bar
✓ Show palette information
Enter the column count
Show 3rd line of text
Show Clock
Show Timecode

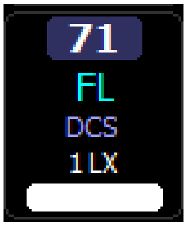
- Cue List Summary
- Fixture Control
- FX Library Controls

A check mark on the left of the option indicates whether the side bar is open or closed (no check mark).

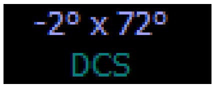
Show Palette Information - when on, will show Palette and Preset Focus Group labels in the fixture windows.


View
Copy
GM1: 100%
GM2: 100%
BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
✓ Open side bar
✓ Show palette information
Enter the column count
Show 3rd line of text
Show Clock
Show Timecode

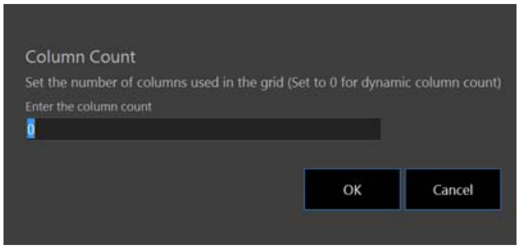
The fixture block shows pan and tilt info referencing a preset focus group labeled "DCS" from the Classic view.


71
FL
DCS
1 LX

This shows the preset focus group label in the ML view where you see both raw data and the referenced groups label.



Enter Column Count - allows the user to set the fixture column count width on the fixture view.

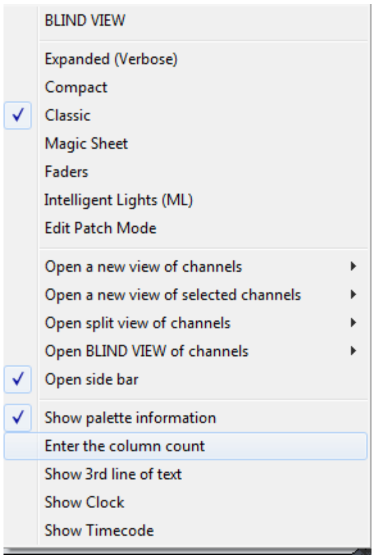


Column Count

Set the number of columns used in the grid (Set to 0 for dynamic column count)

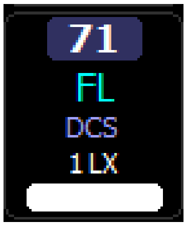
Enter the column count

0

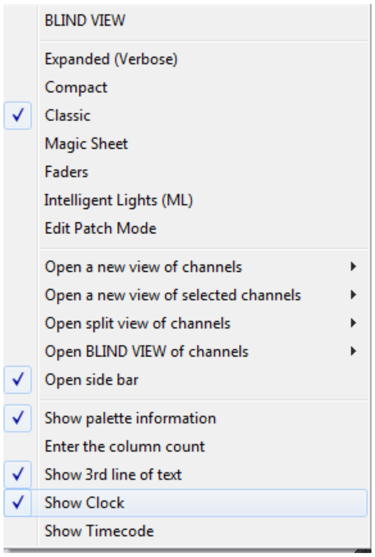

BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
✓ Open side bar
✓ Show palette information
Enter the column count
Show 3rd line of text
Show Clock
Show Timecode

Show 3rd line of text - adds a 3rd line of text to the fixture block on the Classic view.

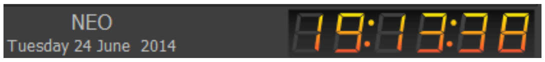
The fixture block shows info from the Position column in the Patch screen.


71
FL
DCS
1 LX

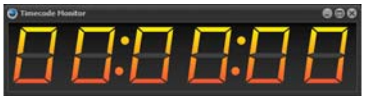
Info from the Position or Purpose column will appear here.


BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
✓ Open side bar
✓ Show palette information
Enter the column count
✓ Show 3rd line of text
✓ Show Clock
Show Timecode

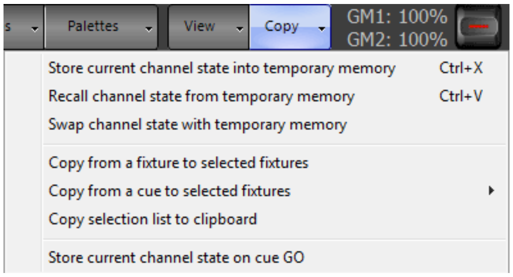
Show Clock - will turn on / off the clock / showfile name / date display.


NEO
Tuesday 24 June 2014
19:13:38

Show Timecode - will turn on / off the timecode clock.


Timecode Monitor
00:00:00

Copy - allows Store, Recall, Swap and Copy functionality for fixture data.


Palettes
View
Copy
GM1: 100%
GM2: 100%
Store current channel state into temporary memory Ctrl+X
Recall channel state from temporary memory Ctrl+V
Swap channel state with temporary memory
Copy from a fixture to selected fixtures
Copy from a cue to selected fixtures
Copy selection list to clipboard
Store current channel state on cue GO

The copy button on the right hand side of the channel display window will drop down a menu with a number of options for storing and recalling the channel state. You can use this to store and recall the channel state from a temporary memory, copy from another fixture or copy the channel state form a cue.

Store current channel state into temporary memory - If you are half way through creating a look on stage and need to run a cue or bring up some other lighting state then this option can be used to make a temporary back up of the look you currently have. The state of every channel will be stored away in a separate memory to be recalled at any time in the future.

Recall channel state from temporary memory - Use the recall option to return the live channel state to the one stored in memory with the previous function. If no channel state is stored then the current state will remain unchanged.

Swap channel state with temporary memory - Use the swap function to perform both a recall and a store in a single operation. The current state of the channels will be stored in the temporary memory and then the state that was stored will be loaded into the live state.

Copy from fixture to selected fixtures - Selecting this option will change your mouse cursor to a hand pointer to indicate that you need to select a "copy from" fixture. The attribute and dimmer state of the next fixture you select will be copied to the currently selected fixtures.

If the selected fixtures are of the same type as the "copy from" fixture then an exact copy can be performed. If not then the software will apply the generic attributes of the selected fixtures.

Copy from cue to selected fixtures - This is a convenient option to load the state of the selected fixtures form the information stored in a cue. Selecting a cue from the sub menus found off this menu option will set the selected fixtures to the same settings as they appear in the cue. If a selected fixture does not exist in the cue then its values will remain unchanged.

Copy selection list to clipboard - Selecting this option will copy a comma separated list of channels to the windows clipboard representing the current selected fixtures.

Store current channel state on cue GO - If this option is enabled then the "Store current channel state into temporary memory" operation will occur before the next cue is run.

Thumb Wheel

For systems that do not have a scroll wheel on the mouse or cursor (such as tablet or pen based systems) you can use the on screen wheel provided. Click on this control and hold down the mouse button down. As you move your mouse or cursor up and down the intensity of the channels will change in the same way as the scroll wheel.

Control Tabs

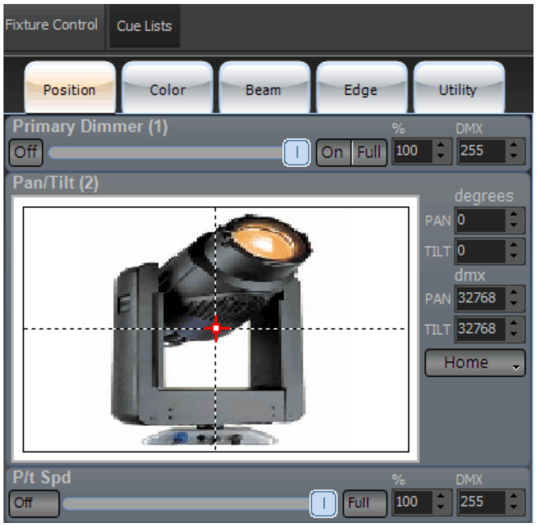
The Control Tabs display onscreen control for the tabbed item. These onscreen controls link to the hardware as well as Command Line operation.

Fixture Control

Fixture Control appears when any patched attributed fixture is selected. Attributes are collected into Attribute Families. While the fixture library can be infinitely flexible, standard Attribute Families have been created to best interface with the hardware.

These are Position (movement), Color (all colors), Beam (gobos, prism and all inside beam attributes), Edge (focus, zoom, iris, shutters and all outside beam attributes).

Position Tab



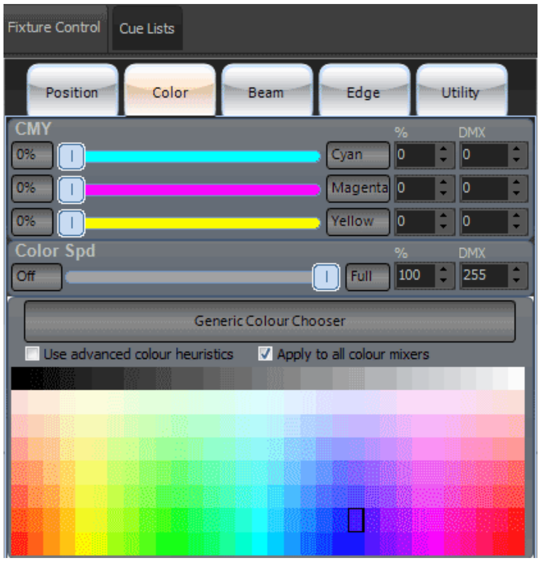
Primary Dimmer (1): % 100, DMX 255

Pan/Tilt (2): degrees PAN 0, TILT 0; dmx PAN 32768, TILT 32768

P/t Spd: % 100, DMX 255

The example fixture here is a VARI*LITE VL1100TSD Automated Luminaire. The Position page shows the Intensity (Primary Dimmer), Pan/Tilt and Pan/Tilt Speed. These have shortcut buttons for On/Full/Off and edit boxes for percentages/degrees and DMX values. The console itself has buttons for all of the Attribute Families.

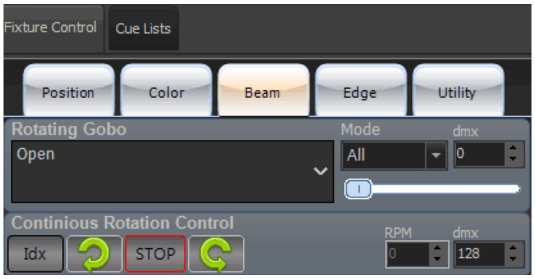
Color Tab


Fixture Control
Cue Lists
Position
Color
Beam
Edge
Utility
CMY
%
DMX
0%
Cyan
0
0
0%
Magenta
0
0
0%
Yellow
0
0
Color Spd
%
DMX
Off
Full
100
255
Generic Colour Chooser
☐ Use advanced colour heuristics
☑ Apply to all colour mixers

Slider bars appear for Color Mixing control. Again with Off (0%) and Full (the color label button), percentage value box and DMX box. Color speed and a Color Picker is available.

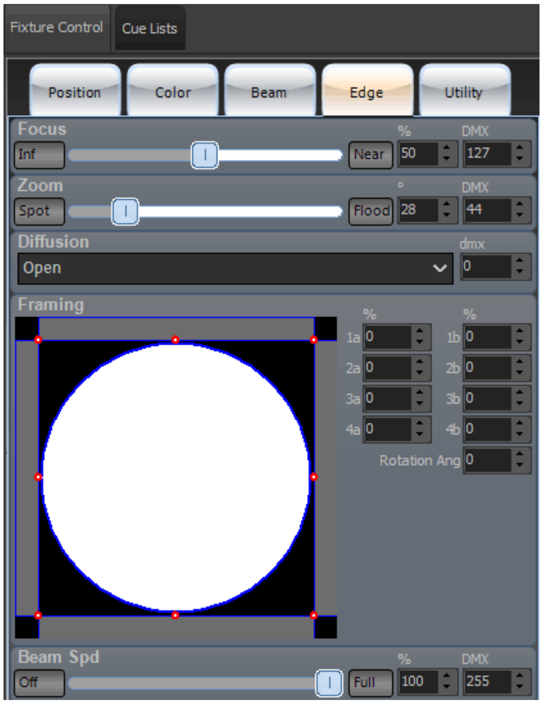
"Use Advanced Color Heuristics". When checked, NEO will attempt to map the spectrum selected color across all color controls. When unchecked, the spectrum selected color will apply only to the 3 main colors. In this case, CMY.

Beam Tab


Fixture Control
Cue Lists
Position
Color
Beam
Edge
Utility
Rotating Gobo
Open
Mode
All
dmx
0
Continious Rotation Control
Idx
STOP
RPM
0
dmx
128

This is for all attributes that effect the "inside" of the beam of light. Gobos, Prism and such. The VL1100 has a Rotating Gobo, the pulldown will display all available stock gobos. Mode - if the gobo selection is in All, Index, Rotating or other gobo movement mode. The DMX box is for the raw DMX value of the gobo attribute. Continuous Rotation Control allows going from Index Mode to Rotation Mode by selecting CW/Stop/CCW rotation. Once selected, the interface will adjust to show the appropriate controls. This includes RPM speed and raw DMX values. Both are adjustable by the presented interface.

Edge Tab


Fixture Control
Cue Lists
Position
Color
Beam
Edge
Utility
Inf
Near
Spot
Flood
Off
Full

Focus % 50 DMX 127

Zoom ° 28 DMX 44

Diffusion Open dmx 0

Framing
1a 0 1b 0
2a 0 2b 0
3a 0 3b 0
4a 0 4b 0
Rotation Ang 0

Beam Spd % 100 DMX 255

This is for all attributes that effect the "outside" of the beam of light. Focus, Zoom, Iris, Shutters and such. The VL1100 has Focus, Zoom, Diffusion and Framing Shutters. All appear here with Minimum / Maximum buttons, slider bar, percentage edit box and DMX edit box. Diffusion has a pulldown box much like a Gobo attribute because it has two options (Open and Frost). Framing Shutters give you graphical control and percentage edit boxes.

The console hardware assigns all attributes to the 4 encoders. Pressing [EDGE] will page to the next set of encoder assignments.

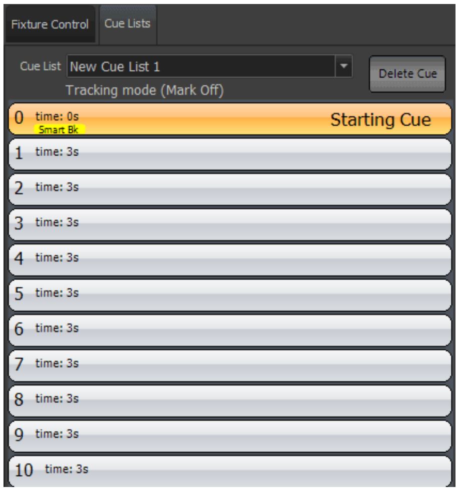
Side Bar Cue List

This is a simple cue list summary that is a quick list of the cues, description and basic functionality.

It can be turned on/off from VIEW>Open Side Bar.

Delete Cue - the Delete Cue button will delete the selected cue. A popup window will confirm before executing.

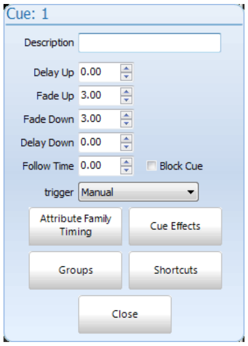
The Cue List pulldown allows the selection of the desired cue list. You can scroll, select and double click to GO with simple touchscreen functionality.


Fixture Control
Cue Lists
Delete Cue

Cue List New Cue List 1

Tracking mode (Mark Off)

0 time: 0s Smart Bk Starting Cue
1 time: 3s
2 time: 3s
3 time: 3s
4 time: 3s
5 time: 3s
6 time: 3s
7 time: 3s
8 time: 3s
9 time: 3s
10 time: 3s


Attribute Family Timing
Cue Effects
Groups
Shortcuts
Close

Cue: 1

Description

Delay Up 0.00
Fade Up 3.00
Fade Down 3.00
Delay Down 0.00
Follow Time 0.00 ☐ Block Cue
trigger Manual

Clicking on the cue number itself will reveal the cue pop up window for additional functionality through the graphical interface.

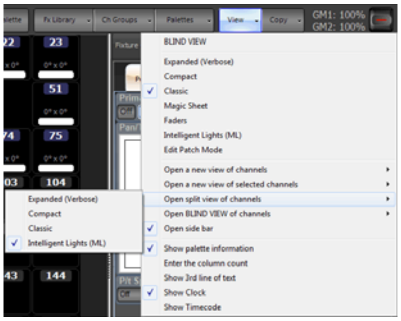
NEO NOTES & TIPS: The full cue list detail window can be displayed by selecting Cue Lists or F4 or the NEO display button [CUE LISTS].

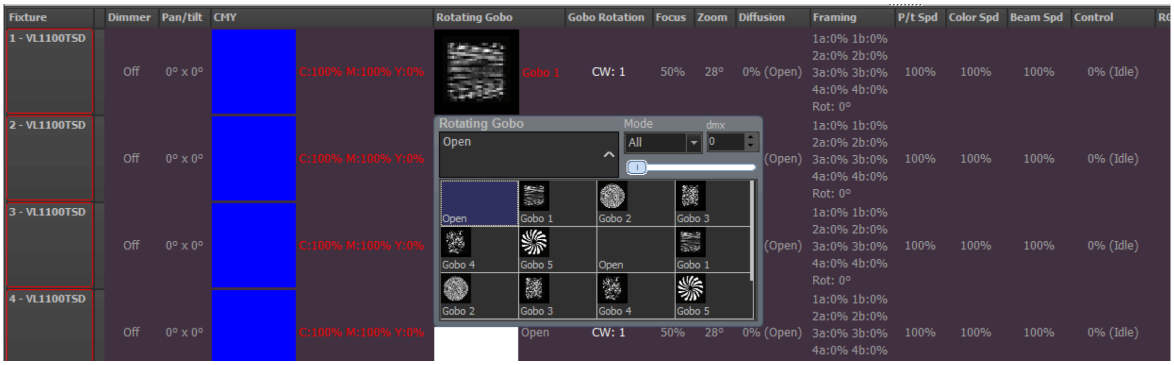
Clock

The clock is a display option under View. This will also display the showfile name and date.

Split View

This displays a second view of patch fixtures. The sample screen above shows ML Attributes as the selected view for the second view. This gives the user a main window to see a more traditional view of intensities and a ML attribute window that displays all attributes. The ML Attribute window also gives the user the ability to program attributes directly from that window so it's functional too.


Fx Library
Ch Groups
Palettes
View
Copy
GM1: 100%
GM2: 100%
22
23
51
74
75
03
104
43
144
Fixture
BLIND VIEW
Expanded (Verbose)
Compact
✓ Classic
Magic Sheet
Faders
Intelligent Lights (ML)
Edit Patch Mode
Open a new view of channels
Open a new view of selected channels
Open split view of channels
Open BLIND VIEW of channels
✓ Open side bar
✓ Show palette information
Enter the column count
Show 3rd line of text
✓ Show Clock
Show Timecode
Expanded (Verbose)
Compact
Classic
✓ Intelligent Lights (ML)

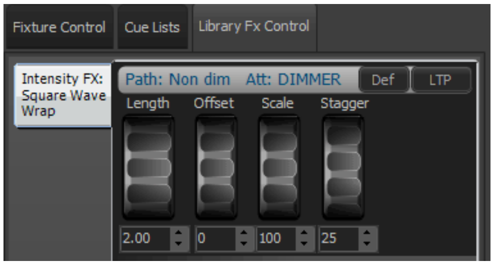


Fixture	Dimmer	Pan/tilt	CMY	Rotating Gobo	Gobo Rotation	Focus	Zoom	Diffusion	Framing	P/t Spd	Color Spd	Beam Spd	Control
1 - VL1100TSD	Off	0° x 0°	C:100% M:100% Y:0%	Gobo 1	CW: 1	50%	28°	0% (Open)	1a:0% 1b:0% 2a:0% 2b:0% 3a:0% 3b:0% 4a:0% 4b:0% Rot: 0°	100%	100%	100%	0% (Idle)
2 - VL1100TSD	Off	0° x 0°	C:100% M:100% Y:0%					(Open)	1a:0% 1b:0% 2a:0% 2b:0% 3a:0% 3b:0% 4a:0% 4b:0% Rot: 0°	100%	100%	100%	0% (Idle)
3 - VL1100TSD	Off	0° x 0°	C:100% M:100% Y:0%					(Open)	1a:0% 1b:0% 2a:0% 2b:0% 3a:0% 3b:0% 4a:0% 4b:0% Rot: 0°	100%	100%	100%	0% (Idle)
4 - VL1100TSD	Off	0° x 0°	C:100% M:100% Y:0%	Open	CW: 1	50%	28°	0% (Open)	1a:0% 1b:0% 2a:0% 2b:0% 3a:0% 3b:0% 4a:0% 4b:0%	100%	100%	100%	0% (Idle)

Rotating Gobo
Open
Mode
All
dmx
0
Open
Gobo 1
Gobo 2
Gobo 3
Gobo 4
Gobo 5
Open
Gobo 1
Gobo 2
Gobo 3
Gobo 4
Gobo 5

Library FX Control

When fixtures are selected and a library fx is applied, Library FX Control parameters are available in the Side Bar for adjusting the effect.


Fixture Control
Cue Lists
Library Fx Control
Def
LTP

Intensity FX: Square Wave Wrap

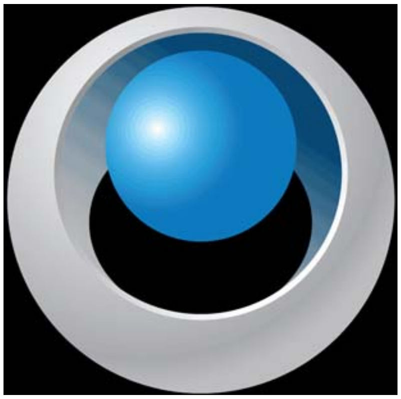
Path: Non dim Att: DIMMER

Length	Offset	Scale	Stagger
2.00	0	100	25

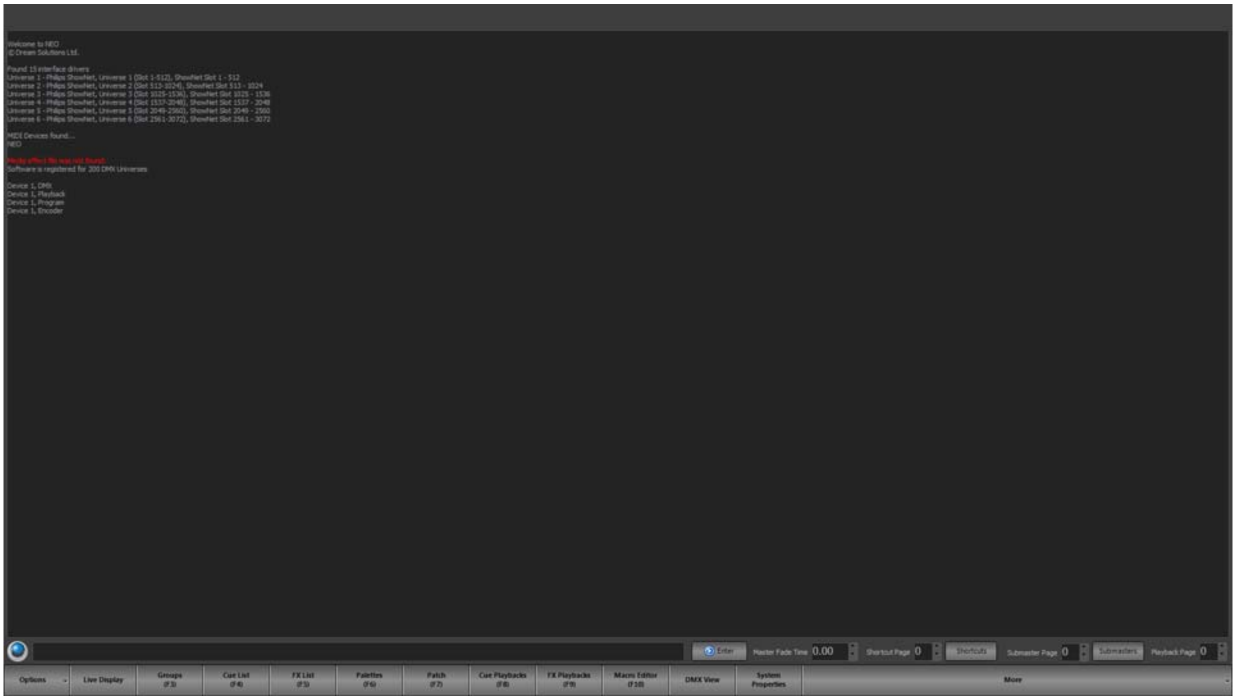
The FX attributes will also be automatically assigned to the encoders for quick access from the NEO console.

2. NEO Console Configuration Status

Press the NEO icon and the Fixture Grid will be replaced with the Configuration Status screen.



This displays the connectivity of the console configuration.



```
Welcome to NEO
(C) Dream Solutions Ltd.

Found 15 interface drivers
Universe 1 - Philips ShowNet, Universe 1 (Slot 1-512), ShowNet Slot 1 - 512
Universe 2 - Philips ShowNet, Universe 2 (Slot 513-1024), ShowNet Slot 513 - 1024
Universe 3 - Philips ShowNet, Universe 3 (Slot 1025-1536), ShowNet Slot 1025 - 1536
Universe 4 - Philips ShowNet, Universe 4 (Slot 1537-2048), ShowNet Slot 1537 - 2048
Universe 5 - Philips ShowNet, Universe 5 (Slot 2049-2560), ShowNet Slot 2049 - 2560
Universe 6 - Philips ShowNet, Universe 6 (Slot 2561-3072), ShowNet Slot 2561 - 3072

MIDI Devices found...
NEO

[illegible]
Software is registered for 200 DMX Universes

Device 1, DMX
Device 1, Playback
Device 1, Program
Device 1, Encoder
```

Master Fade Time 0.00

Shortcut Page 0

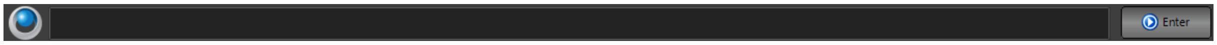
Submaster Page 0

Playback Page 0

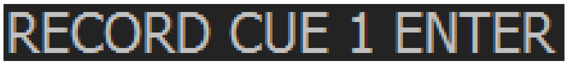
Enter
Shortcuts
Submasters
Options
Live Display
Groups (F3)
Cue List (F4)
FX List (F5)
Palettes (F6)
Patch (F7)
Cue Playbacks (F8)
FX Playbacks (F9)
Macro Editor (F10)
DMX View
System Properties
More

Press the NEO icon again to restore to the Live display.

Command Line



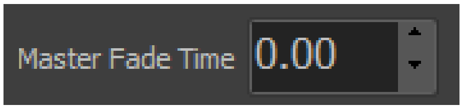
The Command Line is the main point of entry for all NEO key press entry. Command Line entry has been around for decades and remains the main focus for programmers as the fastest way to achieve the desired results onstage. When a NEO key is pressed, it will populate on the Command Line.



RECORD CUE 1 ENTER

On NEO, there is a fresh approach to Command Line. You are not limited to pre-built commands. You can also just start typing. R E C O R D for record. Any command. You can even type group names for selection. If you have a group named "Front Light", you could type FRONT LIGHT @ 100 ENTER to turn that group on. It's very fluid and functional.

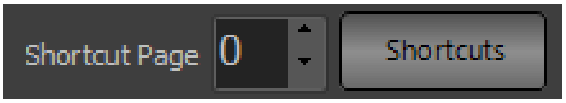
Master Fade Time



The master fade can be set for all channels by entering a value into a fade edit box to the left of the shortcut controls. Once you have set the desired fade all changes made to the fixture will apply over this time.

The default fade time specifies the time a channel will take to get from its current value to the new value. Internally this value will be overridden by the show and effects controls so it is not necessary to have the default fade at zero when running shows.

3. Shortcuts

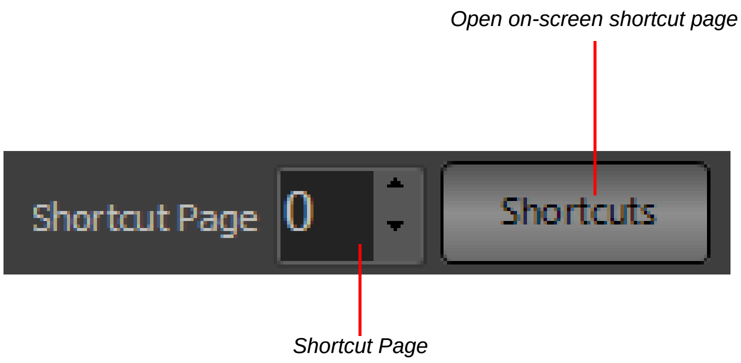


Shortcuts are designed to provide quick access to a number of functions within the software. Some of the assignments that can be made to shortcuts include:

- Channel selection
- Channel Group Selection
- Cue Go / Back / Pause / Reset
- Execute Fixture Properties
- Effects Run / Pause / Reset
- Execute level groups
- And many more…

As with submasters, shortcuts can be accessed through an on-screen display or by the NEO console hardware. On-screen shortcuts also have the added feature of being designed for use with a touch screen display.

NEO provides 100,000 user-assignable shortcuts that are accessed through 100 pages. Access to the on-screen shortcuts is obtained by clicking on the button to the right of the shortcut page selection.



On-Screen Shortcuts

The shortcut window is a grid of 100 buttons each tagged with a number, description, and color.

If a shortcut is not assigned the button will appear greyed out and cannot be selected. When a shortcut is assigned a default description is created and appears below the shortcut number.

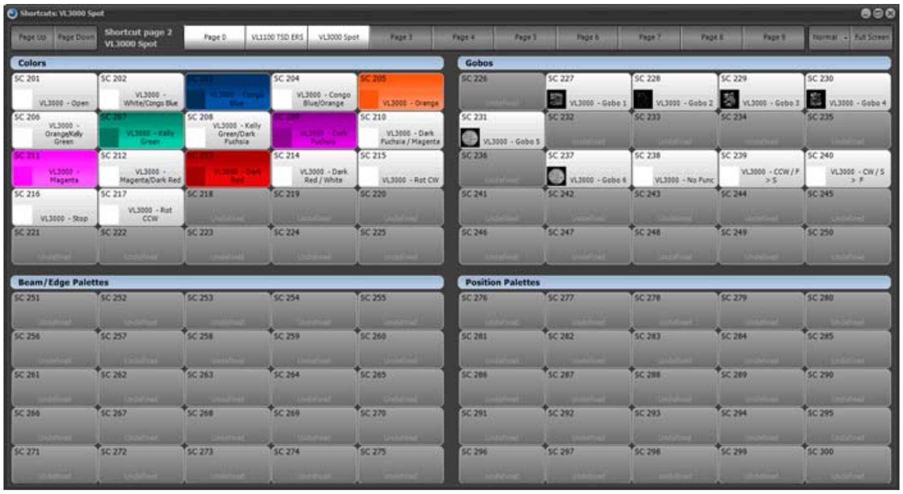
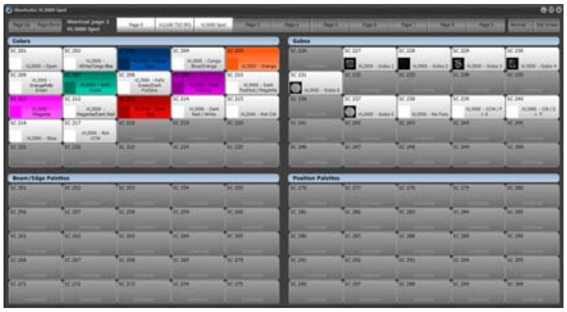
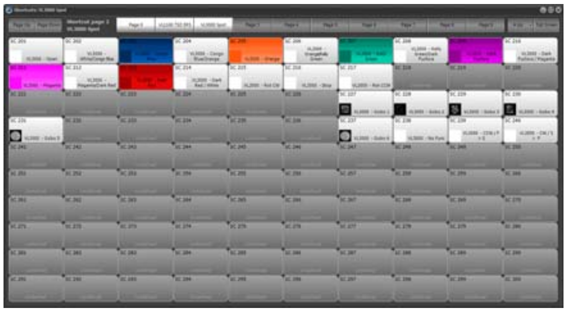

Shortcuts: VL3000 Spot
Page Up
Page Down
Shortcut page 2
VL3000 Spot
Page 0
VL1100 TSD ERS
VL3000 Spot
Normal
Full Screen
Colors
Gobos
Beam/Edge Palettes
Position Palettes
SC 201
VL3000 - Open
SC 202
VL3000 - White/Congo Blue
SC 203
VL3000 - Congo Blue
SC 204
VL3000 - Congo Blue/Orange
SC 205
VL3000 - Orange
SC 226
SC 227
VL3000 - Gobo 1
SC 228
VL3000 - Gobo 2
SC 229
VL3000 - Gobo 3
SC 230
VL3000 - Gobo 4
SC 251
SC 276
SC 300

Figure 8: On-Screen Shortcuts

There are two (2) view modes that can change the display of the on screen shortcuts. You can switch between the modes by clicking on the button to the left of the "Full Screen" button. The label of this button will toggle between "Normal" and "4 UP" depending on the mode you are in. In "Normal" mode the shortcuts will appear as a 10 x 10 grid with the shortcuts numbered with 1 in the top left corner and 100 in the bottom right corner. In "4 Up" mode the shortcuts will be arranged in to 4 groups. Each of the groups will have a user definable heading that will default to Color Palettes, Beamshape Palettes, Positions and Groups.

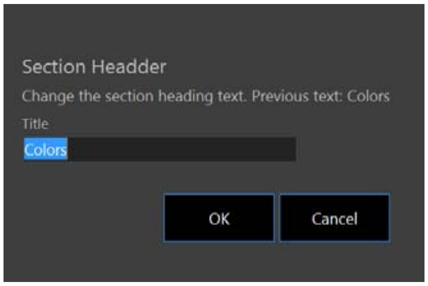


4 Up Mode



Normal Mode

To change the label for each of the groups in "4 Up" mode click anywhere in the heading.



Section Headder

Change the section heading text. Previous text: Colors

Title: Colors

Figure 9: Shortcut Grouping Title Edit

Enter the new name of the group into the box provided and click "OK" to save the change. The new label will be used for all pages of shortcuts.

Options

To change the global display options for the shortcut window click on the drop down menu on the right of the mode button.

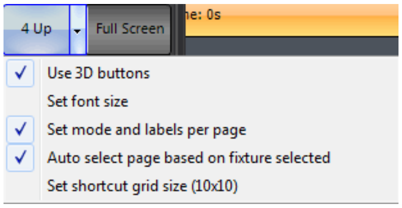

4 Up
Full Screen
ne: 0s
✓ Use 3D buttons
Set font size
✓ Set mode and labels per page
✓ Auto select page based on fixture selected
Set shortcut grid size (10x10)

Figure 10: Shortcut window display options

Use 3D buttons - (Default on) Use this option to change how each button is displayed. When this option is on the buttons will have a 3D style gradient.

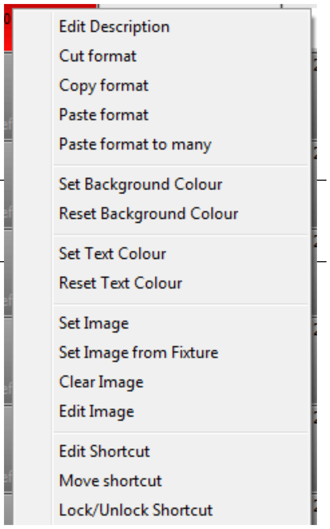
Set font size - Use this option to change the overall size of the text in each of the shortcuts.

Set mode and labels per page - When this option is turned on the 4Up and normal mode can be set for each page. The labels will also be remembered for each page separate to each other.

Auto Select page based on fixtures selected - With this option turned on the shortcut page will change if a palette page is setup for the fixture. This works on the name of the shortcut page. If a single fixture type is selected then NEO will search through the page labels to try and locate one that matches the fixture name. If a page name match is found then the page will automatically switch. This is a convenient way for the window to always show the shortcuts related to the fixture you have selected.

Set shortcut grid size (Columns x Rows) - Select this option to set the number of rows and columns you want to appear in the shortcut grid. This can be a useful option to set the on-screen shortcuts to match any physical hardware you are using.

Right click options


Edit Description
Cut format
Copy format
Paste format
Paste format to many
Set Background Colour
Reset Background Colour
Set Text Colour
Reset Text Colour
Set Image
Set Image from Fixture
Clear Image
Edit Image
Edit Shortcut
Move shortcut
Lock/Unlock Shortcut

Right clicking on any of the active shortcuts will produce a pop-up menu that will allow you to edit the description and change the button and text color, add an image or jump directly to the appropriate edit window of the shortcut.

You can also use the popup menu to copy and paste the formatting (color, text color etc) of the shortcut to other shortcuts.

NEO NOTES & TIPS: Changes made to the description or color will remain until the shortcut is reassigned.

Edit Description - Select this option to change the label displayed on the shortcut button.

Cut/Copy/Past Format - These options allow you to copy and past the background and text colors to other shortcuts. The "past to many" option is a convenient way to set the colors of multiple shortcuts at the same time.

Background and Text Color - For every shortcut you can change the background color and the text color. To reset either of these to the default use the "Reset background color" and "Reset text color" options.

Images - Each shortcut can have an image assigned that will be displayed to the left of the label. The "Set image" option will allow you to select an image from your system by bringing up a familiar image selection dialog. Use the "Set image from fixture" option to select any of the images stored with the NEO fixture library.

Edit Image - The edit image option will open a paint window that will allow you to modify or paint any image you want.

Edit Shortcut - Select this option to open the editor window associated with this shortcut.

Move Shortcut - Upon selecting the move shortcut option your mouse pointer will change to a small hand. Click on any unassigned shortcut to move the original to this cell.

Lock/unlock shortcut - A locked shortcut will remain on screen regardless of the page change. This is useful for keeping some operations on screen all of the time.

Add Quick Command (macro) - If you right click on a shortcut that is not assigned you will get a single menu item "Add Quick Command". This is a special function that will allow you to assign a single command function to the shortcut key. You can think of this as a one line macro that is assigned directly to the shortcut key.

After selecting this option a dialog will appear asking you to enter the command you want to assign. The command can be any valid command line text (You may want to test your command in the command line window before entering it here). Once entered click on the "OK" button to assign the new command. The command entered will become the description for the shortcut.

NEO NOTES & TIPS: Clicking on the shortcut will cause the command to be immediately executed in the command line window.

The full screen button to the right of the text size edit box allows you to toggle the window into a borderless full screen mode. This can be useful when using the shortcuts page with a touch screen monitor. The window can be returned to its original size by clicking on the same button.

4. Submasters and Submaster Pages

Submaster Page
0
Submasters

Submaster Options

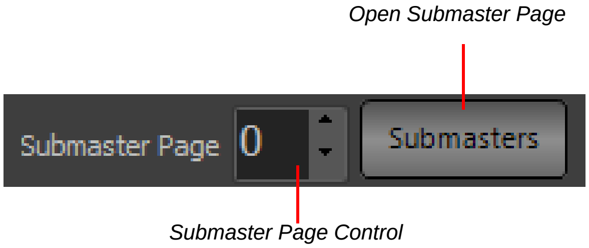
Submasters can be assigned to perform a number of functions. Traditionally a submaster is a physical slide control that allows the user to input a value between 0 and 255.

The following functions can be assigned to NEO submasters:

- Channel groups (Scenes & Submasters)
- Cue "go" execution
- Cue intensity override
- Effect Playbacks intensity override
- Chase step rate control
- Chase fade time control

NEO provides up to 100,000 submasters that are accessed through pages. The "System Properties" will allow you to specify how many pages the system creates and how many submasters (up to 100) per page.

Obviously, computers do not typically come with a number of physical faders so NEO provides access to submasters through either an on-screen interface or through add-on hardware.



On-Screen Submasters

The on-screen submasters can be viewed as either a slider control or a grid similar to the channel display. The slider view will provide access to up to 30 submasters per page. Each of the submasters per page is represented by a single slide control and spin edit box. The grid view will display as many submasters per page as set in the system properties. Each submaster is represented as a square in the grid that can be selected and modified using the scroll wheel on your mouse.

NEO NOTES & TIPS: NEO can support up to 100,000 submasters by connecting external hardware to the system. Not all submasters can be viewed on screen when in fader mode. If you configure more than 30 submasters per page then only the first 30 will be visible in this mode.

To switch between the fader view and the grid view click on the button to the right of this window. Clicking on this will toggle between each of the views.

At the top of this window is a series of buttons to change the submaster page. Changing the page in this window will not change the page number on the main window as it is possible to have the on-screen submasters set to a different page to any external hardware you might be using.

Fader Mode

Setting a submaster can be done by using your mouse to click-and-drag the slide control, or by typing a value in the edit box below the slider. If you move the slide control, the value in the edit box will change to reflect the new position and changes to the edit box will be reflected in the slide position.

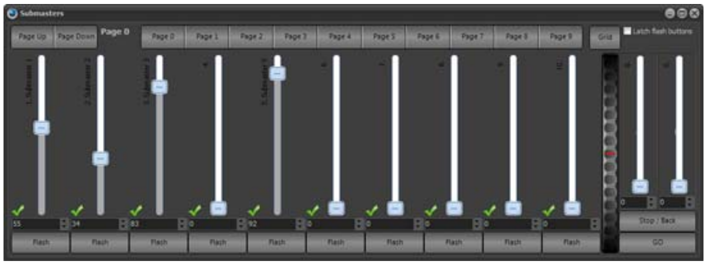


Figure 11: Submaster Window - Fader Mode

The "Flash" button at the bottom of each submaster can be used to temporarily set the submaster to full. Once this button is release the submaster will return to its previous state.

Selecting the "Latch flash buttons" option at the top of the window will change the behavior of the flash button so that you do not need to hold the mouse button down. With the toggle option on, clicking and releasing the flash button will take its position to full. To return to the previous state click the flash button again.

NEO NOTES & TIPS: If hardware submasters are being used, you will also see the slide position and edit box value change to reflect the hardware.

Right clicking on a submaster will bring up additional options to help identity each fader.

Change Description - Use this option to label the submaster. The label will appear along the top of the fader.

Set Description Color - The color of the description can be changed by selecting it form this option.

Reset Description Color - Select this option to return the color of the description back to its original color.

Lock/Unlock Submaster to all pages - A locked submaster will remain on screen regardless of the page change. This is useful for keeping some operations on screen all of the time.

When a submaster is locked to all pages a small yellow padlock will appear in the top right corner of the slider control.

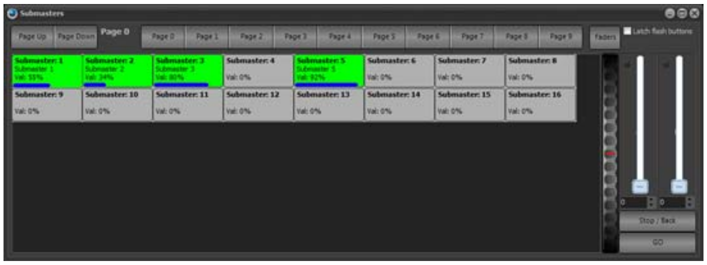
Submaster Wheel

On the right hand side of this window is a large wheel that can be used to move all of the submasters on this page at once. Click on the wheel and while holding the mouse button down move the mouse up or down to raise or lower the levels. You will see all of the submasters on that page raise and lower with your mouse movements.

You can select what submasters the wheel will operate on by clicking to the left of the slider for each of the submasters. The master wheel will operate on all submasters that have the small green tick in the bottom left corner.

Grid Mode

Setting submasters in the grid mode is similar to setting channels in the channel display. Each submaster is represented by a cell in a two dimensional grid.



Submaster: 1 Submaster 1 Val: 55%	Submaster: 2 Submaster 2 Val: 34%	Submaster: 3 Submaster 3 Val: 80%	Submaster: 4 Val: 0%	Submaster: 5 Submaster 5 Val: 92%	Submaster: 6 Val: 0%	Submaster: 7 Val: 0%	Submaster: 8 Val: 0%
Submaster: 9 Val: 0%	Submaster: 10 Val: 0%	Submaster: 11 Val: 0%	Submaster: 12 Val: 0%	Submaster: 13 Val: 0%	Submaster: 14 Val: 0%	Submaster: 15 Val: 0%	Submaster: 16 Val: 0%

Figure 12: Submaster Window - Grid Mode

Submasters can be selected by simply clicking on the desired grid cell. By holding the left mouse button down you can drag an area of the grid to select multiple submasters. Once selected use the mouse wheel or the spin wheel on the right to change the value.

Right click on any of the cells in the grid for additional options.

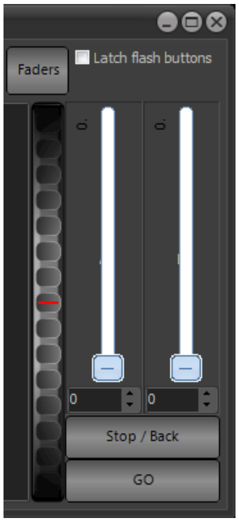
Clear selection - Select this option to unselect all submasters.

Select active submasters (all pages) - All of the submasters currently above zero will be selected.

Clear selection when changing pages - Check this menu item so that all of the submasters are automatically unselected when the page is changed.

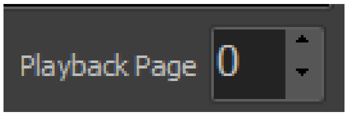
Inclusive selection mode - This is toggle option that will have a small check mark next to it when turned on. If the "inclusive selection" option is active then each selection made will be added to the previous selection. All submasters currently selected will remain selected unless they are in the new selection area. Any selection will toggle the selection state of a channel.

On the right hand side of the submaster page are the split playback faders for the primary cue list. This includes a Stop/Back and GO buttons.



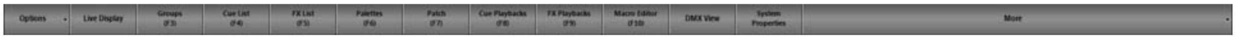
Playback Page

This identifies the playback page assignment for NEO’s 5 multi-function faders to the left of the primary cue list playback faders.

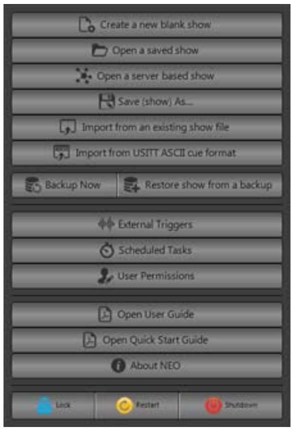

Playback Page
0

5. Display Options

The display options will access the various console displays that are available to view either over the top of the main view screen / monitor or easily on another monitor.


Options
Live Display
Groups (F3)
Cue List (F4)
FX List (F5)
Palettes (F6)
Patch (F7)
Cue Playbacks (F8)
FX Playbacks (F9)
Macro Editor (F10)
DMX View
System Properties
More

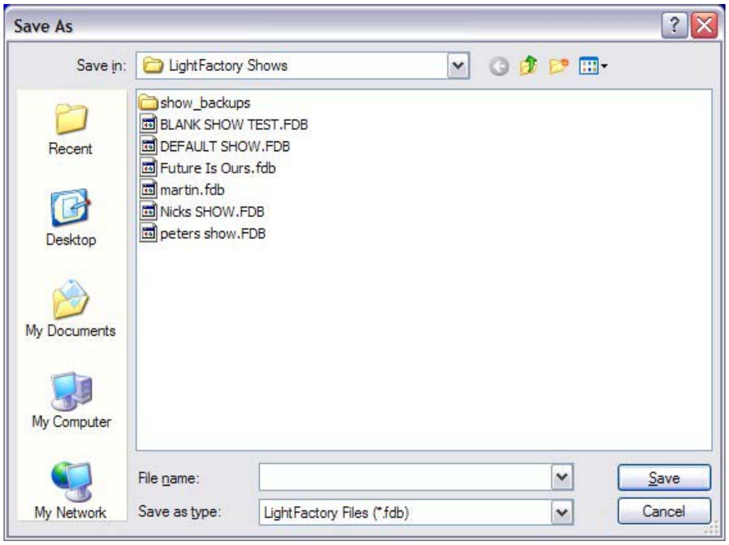
Options


Create a new blank show
Open a saved show
Open a server based show
Save (show) As...
Import from an existing show file
Import from USITT ASCII cue format
Backup Now
Restore show from a backup
External Triggers
Scheduled Tasks
User Permissions
Open User Guide
Open Quick Start Guide
About NEO
Lock
Restart
Shutdown

Showfile based options, system properties and advanced items like external trigger, scheduled tasks and user permissions are here.

Create a New Blank Show - Creates a new blank show file on the hard drive and loads this as the current show.

NEO NOTES & TIPS: There is a setting in *System Properties > System Settings > Intermediate Options:* Start new shows with nothing patched. This setting determines if creating a blank show starts with nothing patched or with a default patch.


Save As
Save in:
LightFactory Shows
Recent
Desktop
My Documents
My Computer
My Network
show_backups
BLANK SHOW TEST.FDB
DEFAULT SHOW.FDB
Future Is Ours.fdb
martin.fdb
Nicks SHOW.FDB
peters show.FDB
File name:
Save as type:
LightFactory Files (*.fdb)
Save
Cancel

When selecting this option a standard Windows save dialog will prompt you for the file name to save the new show under. The new show file will be given an extension of ".FDB".

Enter the name for your show file in the "File Name" field and click save to proceed with creating the show.

Open a Saved Show

When you start-up NEO, the "current show" will be loaded automatically. Any programming or changes made will be applied and saved to this "Current Show". Opening a saved show will make the selected show file the "Current Show".

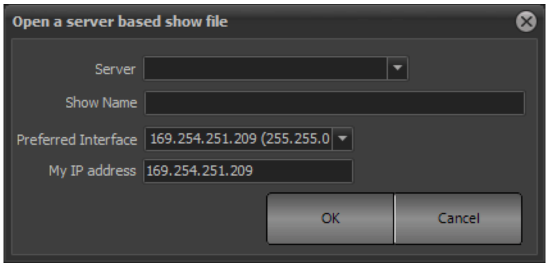
A standard windows "open file" dialog will appear when this option is selected.

NEO NOTES & TIPS: NEO always has the "current show" loaded. All changes made to the system such as creating a new cue or effect is automatically saved to the current show.

Open a Server Based Show File

NEO can connect to a remote show file to allow multiple users to manipulate the same show. Opening a remote show file is very similar to opening a local show file with the additional requirement of the remote server name.

After selecting this option the dialog below will appear:



Open a server based show file

Server

Show Name

Preferred Interface: 169.254.251.209 (255.255.0

My IP address: 169.254.251.209

Connecting to a remote show is similar to the opening a regular show file. You must enter the name of the remote system in the "server name" field. This can be either the machine name or the IP address.

In the show name field enter the full path on the remote system to the file. Unfortunately Firebird does not provide an ability to browse for the file name so you must enter the full patch manually.

The "preferred interface" option can be used to set the network interface that should be used for communication between NEO systems. This is highly recommended that you not use the same network interface as your DMX output (assuming Ethernet based DMX) as this may affect the DMX performance.

NEO NOTES & TIPS: If you are using NEO on the same host computer as the firebird system you must still connect in the same way. If you open the show file using the regular "Open saved show" then the server will not be able to open the file and all remote users will be locked out.

Once you have entered all of the settings click on the "OK" button to connect to the show. If successful you should see the show file open normally.

Save (Show) as...

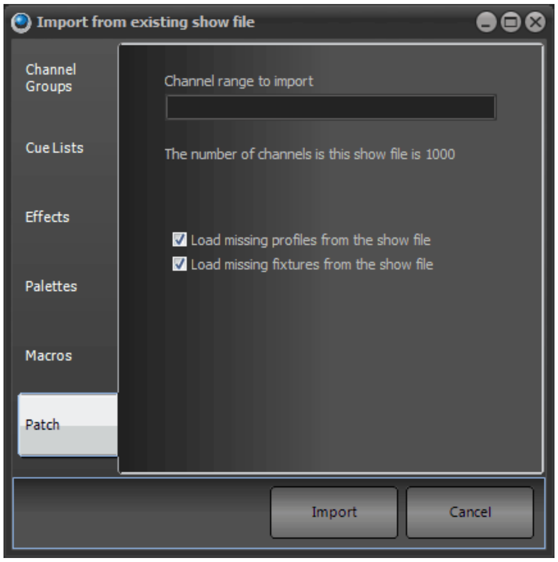
Saving a NEO show will make a new show file that contains all the same data as the current show. There should be no change to the data you are actively working on in the system.

When selecting this option a standard Windows save dialog will prompt you for the file name to save the new show under. The new show file will be given an extension of ".FDB".

NEO NOTES & TIPS: If you select an existing show, all information will be overwritten by the "current show". A warning dialog will inform you if you are about to overwrite an existing show.

Import from an existing show file - Use this option to load elements from another show file and merge them into the current show. When selecting this option a standard Windows open dialog will prompt you for the file name of the show file you want to import from.

Once opened NEO will read all of the information about the show and allow you to select what elements you want to import. You can select to import Channel Groups, Cue Lists, Effects, Palettes, Macros and Patch information.



Channel range to import

The number of channels is this show file is 1000

☑ Load missing profiles from the show file
☑ Load missing fixtures from the show file

To select the elements of the show you want to import use the check box on the right of each line. There are 6 tabs on the left that separate out the different parts of a NEO show.

If a name conflict is detected when importing any part of the show the imported element will be renamed as "Copy of previous name".

Once you have selected the elements you want to import click on the "Import" button to proceed.

Import from USITT ASCII Cue Format - imports an ASCII file and places it into current memory.

Show Backups - allows current backup or restore from backup.

System Properties - a series of options allowing you to configure hardware, database, default settings, and change your licensing information.

More information on System Properties will be outlined in the "Display Options" on page 83.

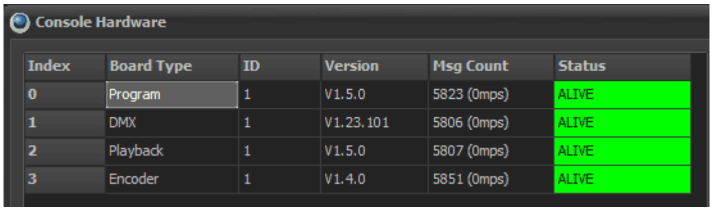
6. External Triggers

NEO provides the ability to connect external triggering devices to control the running of shows. This feature allows you to set up shows that run without user interaction.

External triggering is designed to trigger the "Cue Go" function in shows, however NEO can also use the MIDI and Timecode triggers to execute any shortcut.

Configuration of the external triggers can be found in the file menu.

When MIDI/SMPTE is being used, there are status LEDs on the back of the console to help identify and understand the traffic that is transmitting on this card. The MIDI/SMPTE device is engineered onto the DMX card. If you look on the Console Debug Window *(More > Console Debug Window)*, you will see a listing for the DMX card and it's firmware. The firmware version number is #.##.###. The first two sets of numbers are for the DMX card firmware version. The last set of numbers is for the MIDI/SMPTE card firmware version. *(For example: 1.23.102)*. MIDI/SMPTE firmware version 102 is the first version to have the status light feedback. The LEDs will blink in different patterns to indicate receive / transmit (Rx/Tx) signal status. Status light indicator information is found in "DMX512 Output" on page 24 and "MIDI/SMPTE" on page 24.



Index	Board Type	ID	Version	Msg Count	Status
0	Program	1	V1.5.0	5823 (0mps)	ALIVE
1	DMX	1	V1.23.101	5806 (0mps)	ALIVE
2	Playback	1	V1.5.0	5807 (0mps)	ALIVE
3	Encoder	1	V1.4.0	5851 (0mps)	ALIVE

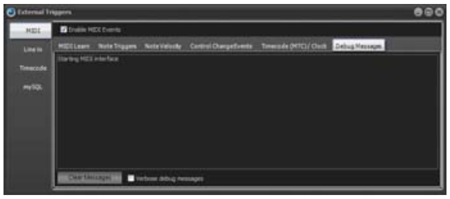
Console Debug Window

MIDI Control

MIDI is a flexible musical instrument-to-PC protocol that provides a number of different messages in the form of notes.

To enable the MIDI functions you must turn on the "Enable MIDI Events" option.

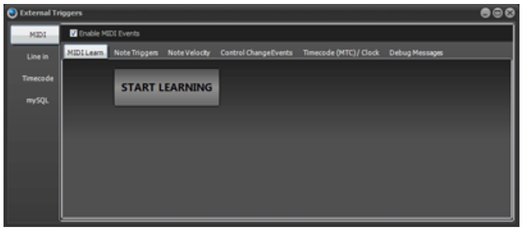
The "Debug Messages" tab can be used to help identify any problems with receiving MIDI messages. To display more information about incoming MIDI data turn on the "Verbose debug messages" option at the bottom of the window.


External Triggers
MIDI
Line in
Timecode
mySQL
☑ Enable MIDI Events
MIDI Learn
Note Triggers
Note Velocity
Control ChangeEvents
Timecode (MTC) / Clock
Debug Messages
Clear Messages
☐ Verbose debug messages

Starting MIDI interface

MIDI Learn

To make it easier to setup MIDI triggers NEO can learn events as you go.


External Triggers
MIDI
Line in
Timecode
mySQL
☑ Enable MIDI Events
MIDI Learn
Note Triggers
Note Velocity
Control ChangeEvents
Timecode (MTC) / Clock
Debug Messages
START LEARNING

Click on the "START LEARNING" button begin listening for MIDI events. As soon as a MIDI event occurs in the software the "Found MIDI event" options will be shown.

Use the ACTION options to determine what the MIDI event will do. To the right of the action options will appear any additional parameters requires. For example to fire a shortcut you must set what shortcut number you want to fire.

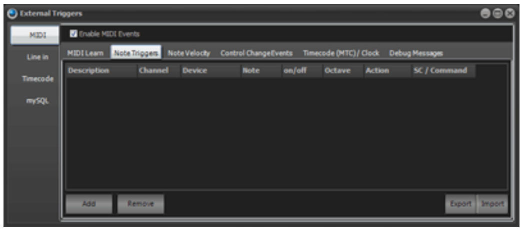
Once you have set what you want the event to do click on the Save button.

Click on the Cancel button to return to the "Start Learning" state.

Use the "Save & Start" button to save the event action and return to the learn state.

Note Triggers

The "Note Triggers" tab provides the ability to add any number of note triggers to the system. Click on the "Add" button to create a new line in the list of triggers. To remove a trigger click on the row you wish to remove and click on the "Remove" button.


External Triggers
MIDI
Line in
Timecode
mySQL
☑ Enable MIDI Events
MIDI Learn
Note Triggers
Note Velocity
Control ChangeEvents
Timecode (MTC) / Clock
Debug Messages
Description
Channel
Device
Note
on/off
Octave
Action
SC / Command
Add
Remove
Export
Import

Each trigger requires the following settings;

Description - This provides a way to identify the trigger by entering a description for your reference.

Channel - Identify the MIDI Channel to listen on (1-16)

Device - Device number to listen to (default 0)

Note - This is an instrument note that will trigger the event.

On/Off - Determine if the system will trigger by a note on or note off event.

Octave - An interval between two notes that are seven steps apart on a musical scale.

Action - Each trigger can either execute the "cue go" operation, execute a system shortcut or run a command. Use the drop-down combo to select one of these options.

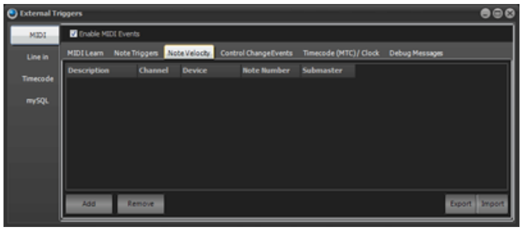
Shortcut/Command - If the action is set to "shortcut", this field is used to specify what shortcut number you want this trigger to execute. If set to command enter the command syntax into this field.

Import / Export - To help manage a large number of MIDI note triggers you can import this information from a coma separated text file (csv). Click on each of these buttons to open a standard windows file dialog to select the file you want to import or export.

When choosing the import option a dialog will pop up asking you if you want to remove existing entries before importing the new data.

Note Velocity

The "Note Velocity" events can be used to directly control submasters within NEO. Click on the "Add" button to create a new line in the list of velocity triggers. To remove a trigger click on the row you wish to remove and click on the "Remove" button.


External Triggers
MIDI
Line in
Timecode
mySQL
MIDI Learn
Note Triggers
Note Velocity
Control Change Events
Timecode (MTC) / Clock
Debug Messages
Description
Channel
Device
Note Number
Submaster
Add
Remove
Export
Import

☑ Enable MIDI Events

Description - This provides a way to identify the trigger by entering a description for your reference.

Channel - Identify the MIDI Channel to listen on (1-16)

Device - Device to listen to.

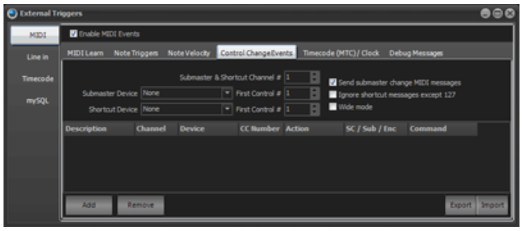
Note - This is an instrument note that the software will listen for and translate the velocity into a submaster value.

Submaster - Set the submaster number that will be applied when the note is received.

Import / Export - To help manage a large number of MIDI note triggers you can import this information from a coma separated text file (csv). Click on each of these buttons to open a standard windows file dialog to select the file you want to import or export. When choosing the import option a dialog will pop up asking you if you want to remove existing entries before importing the new data.

Control Change Events

The "Control Change Events" tab allows you to setup NEO to respond to control change events.


External Triggers
MIDI
Line in
Timecode
mySQL
MIDI Learn
Note Triggers
Note Velocity
Control Change Events
Timecode (MTC) / Clock
Debug Messages
Description
Channel
Device
CC Number
Action
SC / Sub / Enc
Command
Add
Remove
Export
Import

☑ Enable MIDI Events

Submaster & Shortcut Channel # 1

Submaster Device None

First Control # 1

Shortcut Device None

First Control # 1

☑ Send submaster change MIDI messages

☐ Ignore shortcut messages except 127

☐ Wide mode

Submaster & Shortcut Channel # - Set this option to determine the channel number that will be listened to for control change events.

Submaster Device - MIDI devices can also be used to control NEO submasters in the same way as the DMX input option. Low cost MIDI fader devices can be connected to provide this functionality. To activate this function select the device from the combo box provided.

NEO will listen for "Control Change" messages and apply the received "Value 2" to the submaster defined by the "Value 1". To set the first control change identifying number use the "First Control #" option to the right of the device selection box.

When submaster's are changed in NEO the software will also send MIDI messages to the selected device to activate motorized faders (if supported).

Shortcut Device - The same function as above can also be applied to shortcuts. Select the device to listen to for control change messages and set the start message number to correspond to shortcut 1 in NEO.

Send submaster change MIDI messages - If your device supports motorized faders then NEO can send MIDI control messages back to the device to change the physical slider. This is useful when changing the submaster page in NEO or if you make an on-screen change to a submaster. The physical sliders will move with the change you make. If the device you are using does not support motorized faders then it is recommended to turn this option off.

Ignore shortcut up messages (127) - Some external MIDI devices send 2 messages for a button press. One message for down and one for up. This can trigger the shortcut twice and is undesirable. If you experience this problem turn this option on to ignore all message except 127.

Wide Mode - Wide mode will automatically map the maximum number of incoming MIDI control change messages to submasters.

Control Change mapping - Below the primary options is a grid that can be used to map control change message directly to shortcuts, submasters or encoders. Use the Add button to create a new event listener and set the channel, device and control change number to listen for.

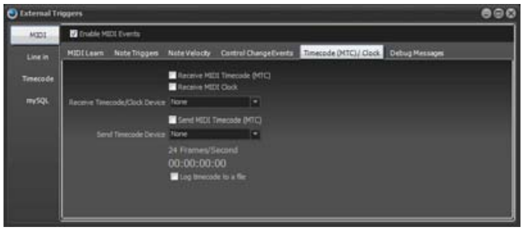
Use the action field to set what will happen when the CC message is received. The options for this field are Shortcut, Submaster, Command or Encoder.

As with the MIDI note message the Import and Export options can be used to save and load the setting to and from a CSV file.

Timecode (MTC) / Clock

The "Timecode (MTC) / Clock" tab allows you to setup NEO to listen to incoming MIDI timecode data and MIDI clock signals. The MIDI timecode read by NEO can be used to trigger timecode events.

The MIDI clock signal can be used to setup the tap tempo function in the software and synchronize your show to a common tempo.



☑ Enable MIDI Events

☐ Receive MIDI Timecode (MTC)

☐ Receive MIDI Clock

Receive Timecode/Clock Device: None

☐ Send MIDI Timecode (MTC)

Send Timecode Device: None

24 Frames/Second

00:00:00:00

☐ Log timecode to a file

Timecode Device - Select the device that timecode data will be read from or sent to. A separate device can be selected for input and output.

Receive MIDI Timecode (MTC) - Enable this check box to begin receiving MIDI timecode form the selected device. When turned on the Send option below it will automatically be turned off.

Receive MIDI Clock - Enable this check box to begin processing of MIDI clock data. The incoming clock messages will be used to set the timing of the tap tempo within NEO. If the timing of the incoming clock changes the tap tempo will automatically be updated.

MIDI Clock Divisor - The value of the MIDI clock divisor is used to slow down the internal tempo relative to the incoming clock signals. The incoming beats per minute will be divided by this number when calculating the actual Tap Tempo. For example if the incoming clock is running at 120 beats per second and the divisor is set to 2 then the Tap Tempo will register 60 beats per minute.

Send MIDI Timecode (MTC) - If this option is turned on then the receive option will be turned off. When using any of the other four timecode options (found in the timecode tab) the timecode will be sent to the selected MIDI device to allow other systems to synchronize with NEO.

Sending MTC Type - If you are sending MIDI timecode from NEO you will need to set the frame rate that you want to generate. This is typically defined by the application (film, NTSC/PAL television) but if you are unsure set this to 25 fps.

Changes to the frame type will apply immediately so you can try different setting to see how it effects other equipment that might be reading the timecode NEO is generating.

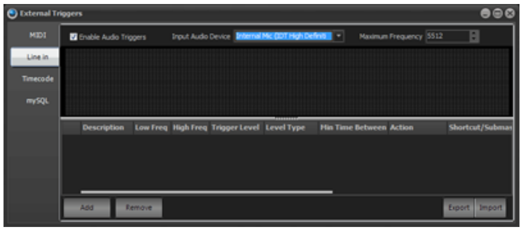
PC Line-In

The Line-in triggers can use any audio source to control NEO. An audio event can trigger a cue GO, fire a shortcut, flash a submaster or run a command.

The "Line In" tab provides the ability to set the audio source and then create multiple events. Each event is determined by the frequency range, trigger level, level type and minimum time between events.

For NEO to listen to the selected audio source you must enable it by clicking on the "Enable Audio Line In Control"

Above the event grid is a graphic display of the incoming audio frequencies. This is known as the audio spectrum that shows the response to frequencies from 0 to the maximum frequency set.



☑ Enable Audio Triggers

Input Audio Device: Internal Mic (IDT High Definiti

Maximum Frequency: 5512

Input Audio Device - Select the audio source device you want to use to trigger the system. This is the system device that will be listed to and shown in the display.

Maximum Frequency - The maximum frequency determines the upper sample limit the software will listen to. The default is just over 5kHz. A higher maximum frequency will require more CPU to sample continuously.

Creating an Event

An event in the audio trigger system is a list of conditions that when met will trigger the event. The event itself will also have settings that determine what will happen.

Frequency Range (Low Freq, High Freq) - The frequency range for the event will limit the area of the spectrum that is listened to. This is best understood by looking at the red lines in the spectrum display. The lower red line is the low frequency and the upper red line is the high frequency. You can also use your mouse to click and drag either red line to adjust the frequency.

Trigger Level - Select the audio level in percentage of the maximum that will trigger the event. This is represented as the yellow line running across the spectrum display. You can also use your mouse to click and drag to move the line and adjust the level.

Level Type - Use the level type to select how the trigger level is used. You can select between "Average Frequency" or "Any Frequency". If the level type is set to average frequency then all of the levels between the frequency range specified are averaged. If the average exceeds the level set then the trigger is fired. If the level type is set to any frequency then the trigger will fire if any level between the frequency range exceeds the level.

Min Time Between - Set the minimum time between trigger events. This options stops the trigger from firing continuously if the level is exceeded for a long period of time.

Action - The action setting specifies what will happen when the trigger happens. This can be set to Global, Shortcut, Submaster Flash or Command. Setting this to Global will run any cue that is primed with "Line in" as its trigger. Shortcut will run the shortcut specified in the Shortcut/Submaster field. Submaster Flash will set the specified submaster to full for the Flash Duration and then return it to its previous level. Command will execute the command line text specified in the Command field.

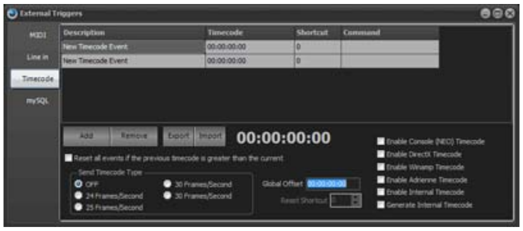
Timecode

The timecode configuration provides the ability to set up shortcuts that are triggered by the timecode values being reached. You can also setup a cue list and provide timecode values to each cue. Cues can then be automatically triggered when the timecode value is reached.

NEO NOTES & TIPS: There is no configuration required for using timecodes to trigger "cue go".

To enable listening to timecodes, check the box marked with the appropriate timecode device you are using.

- **DirectX timecode** - Uses the internal windows timecode functions provided by the DirectX components.
- **Winamp timecode** - Winamp is a popular free media player that is capable of playing video and audio files. NEO can read timecode directly from this software when running on the same PC.
- **Adrienne Timecode** - The Adrienne devices are a collection of internal and USB devices that support a number of timecode formats. For more information visit http://www.adrielec.com
- **Internal Timecode** - LightFactory can also read its own internal timecode produced by the media playback effects.
- **Generate Internal Timecode** - This option will start the internal timecode generator. As soon as this option is checked you will see the timecode clock start counting.



Description	Timecode	Shortcut	Command
New Timecode Event	00:00:00:00	0	
New Timecode Event	00:00:00:00	0	

☐ Reset all events if the previous timecode is greater than the current

Send Timecode Type

● OFF
○ 24 Frames/Second
○ 25 Frames/Second
○ 30 Frames/Second
○ 30 Frames/Second

Global Offset 00:00:00:00

Reset Shortcut

☐ Enable Console (NEO) Timecode
☐ Enable DirectX Timecode
☐ Enable Winamp Timecode
☐ Enable Adrienne Timecode
☐ Enable Internal Timecode
☐ Generate Internal Timecode

If you are using the internal timecode generator you can optionally set a shortcut to reset the clock back to 00:00:00:00.

To add a new timecode trigger, click on the "Add" button and edit the fields provided. To remove any trigger, select the event from the list and click on the "Remove" button.

Description - This provides a way to identify the trigger by entering a description for your reference.

Timecode - Set the time code in the format HH:MM:SS:FF that will trigger the shortcut. The shortcut will only trigger once when the time is reached.

Shortcut - This field is used to specify which shortcut number you want this trigger to execute.

Command - To execute any other system command simply type the command into this field.

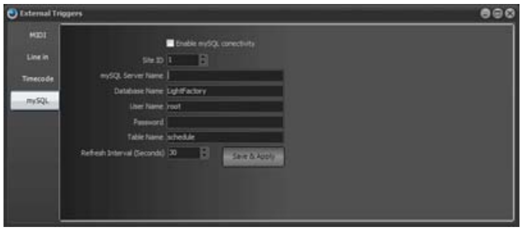
Global Offset - If the timecode being received does not start at zero you can apply a global offset. The offset will be added to the incoming timecode value at every frame. Use negative values to remove time from the incoming values.

Reset all events if the previous timecode is greater than the current - When this option is turned on all events will be flagged as "waiting to fire" if the timecode loops or the previous timecode received is greater than the latest timecode received.

Import / Export - To help manage a large number of timecode events you can import this information from a coma separated text file (csv). Click on each of these buttons to open a standard windows file dialog to select the file you want to import or export. When choosing the import option a dialog will pop up asking you if you want to remove existing entries before importing the new data.

mySQL Interface

The mySQL interface provides the ability run NEO macro scripts from a mySQL server. mySQL is an industry standard database often used by web servers. This option will allow you to trigger NEO from a web site or any external application.



☐ Enable mySQL conectivity

Site ID: 1

mySQL Server Name:

Database Name: LightFactory

User Name: root

Password:

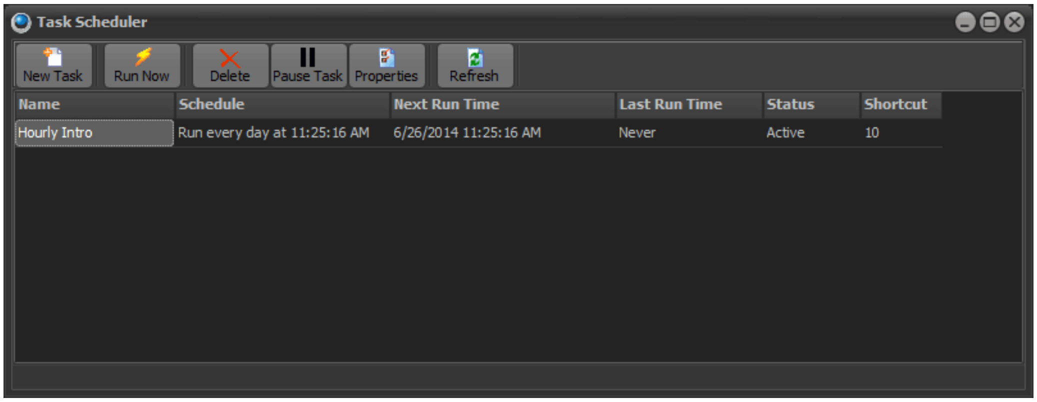
Table Name: schedule

Refresh Interval (Seconds): 30

The mySQL interface is designed for advanced use of the software in specific applications. Please contact NEO support (entertainment.service@philips.com) for more information about this option.

7. Scheduled Tasks

Scheduled tasks allow you to setup recurring lighting events using the real time clock of Windows. Each task can be scheduled to run daily, weekly, monthly, one-time only, every hour, or every X seconds. Each task executes a NEO shortcut.

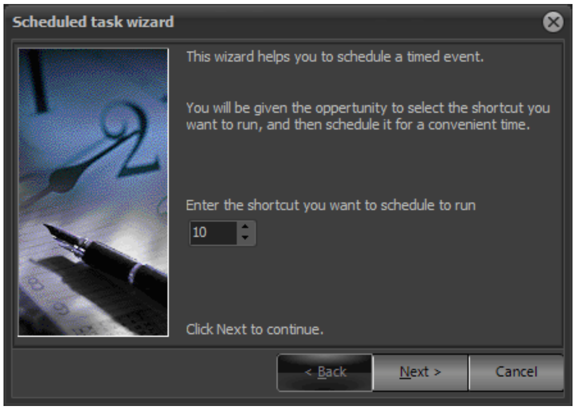


Name	Schedule	Next Run Time	Last Run Time	Status	Shortcut
Hourly Intro	Run every day at 11:25:16 AM	6/26/2014 11:25:16 AM	Never	Active	10

The following tasks are frequently performed when you want to schedule a task to run on your computer.

Create a Scheduled Task

Before a task can be scheduled to run, one or more tasks must be created. To create a new task click on the "New Task" button at the top left of the window.



This wizard helps you to schedule a timed event.

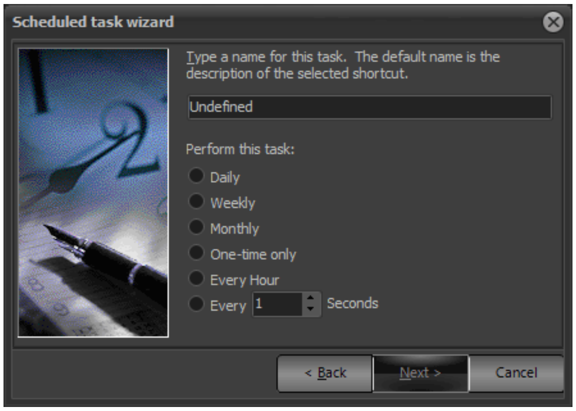
You will be given the oppertunity to select the shortcut you want to run, and then schedule it for a convenient time.

Enter the shortcut you want to schedule to run

10

Click Next to continue.

1) As soon as you click select "New Task" the scheduled task wizard will start. Select the shortcut you want to execute on every occurrence of the task and click "Next" to continue.



Scheduled task wizard

Type a name for this task. The default name is the description of the selected shortcut.

Undefined

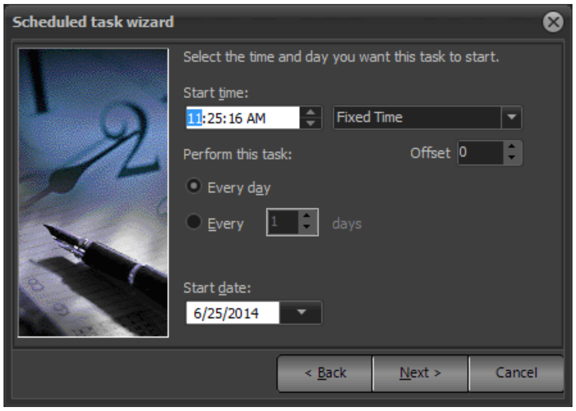
Perform this task:

○ Daily
○ Weekly
○ Monthly
○ One-time only
○ Every Hour
○ Every 1 Seconds

2) In the space provided on the second page enter a meaningful name to describe the task. (e.g. Hourly fountain show 1). Then select how often you want this task to run and click "Next" to continue.

3) The next page is specific to the frequency that you want the task to be performed.

a. Daily



Scheduled task wizard

Select the time and day you want this task to start.

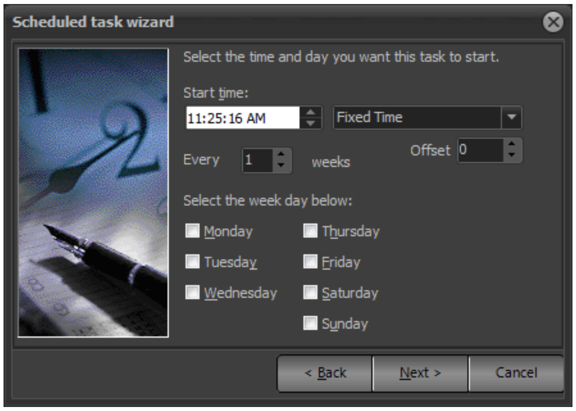
Start time: 11:25:16 AM Fixed Time

Perform this task: Offset 0

● Every day
○ Every 1 days

Start date: 6/25/2014

b. Weekly



Scheduled task wizard

Select the time and day you want this task to start.

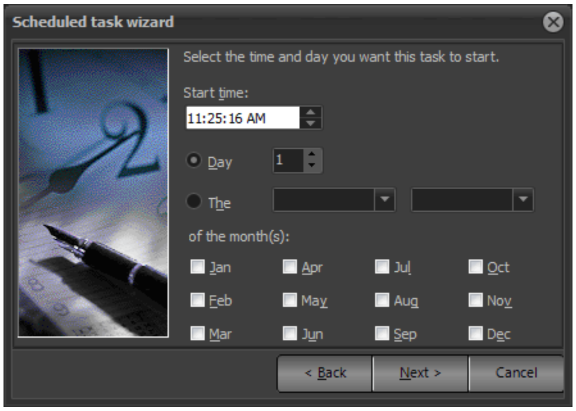
Start time: 11:25:16 AM Fixed Time

Every 1 weeks Offset 0

Select the week day below:

☐ Monday ☐ Thursday
☐ Tuesday ☐ Friday
☐ Wednesday ☐ Saturday
☐ Sunday

c. Monthly


Scheduled task wizard

Select the time and day you want this task to start.

Start time: 11:25:16 AM

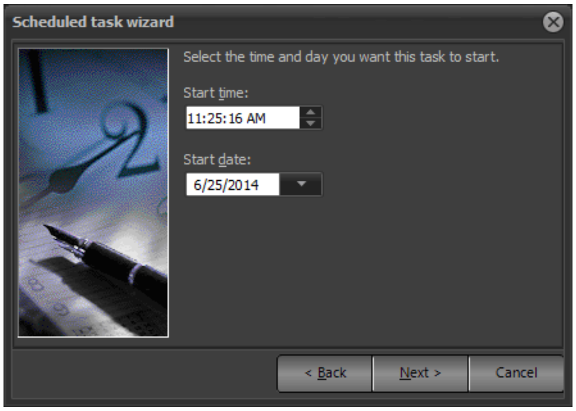
● Day 1

○ The

of the month(s):

☐ Jan ☐ Apr ☐ Jul ☐ Oct
☐ Feb ☐ May ☐ Aug ☐ Nov
☐ Mar ☐ Jun ☐ Sep ☐ Dec

d. One Time Only


Scheduled task wizard

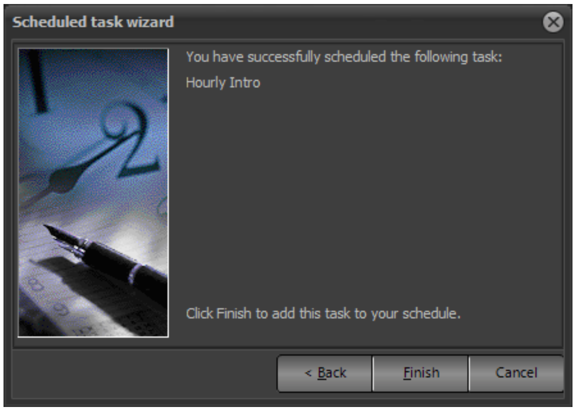
Select the time and day you want this task to start.

Start time: 11:25:16 AM

Start date: 6/25/2014

e. Every Hour or Every X seconds. *No additional information is required for this option.*

4) Once you have selected the schedule options for the task click "Next" to continue to the final page.


Scheduled task wizard

You have successfully scheduled the following task:

Hourly Intro

Click Finish to add this task to your schedule.

5) To complete the setup of the new task click on the "Finished" button. The new task will now appear in the task list and will immediately become active.

Modify a Scheduled Task

Created scheduled tasks can be modified. You can modify the shortcut to run, the schedule, or the specifics of a particular task. To modify a task double click on the desired entry or click once and select properties from the option at the top of the window.

This will start the same wizard you used to create the task. Follow the same procedure to change any of the option or click cancel at any time to return to the task scheduler window.

Remove a Scheduled Task

For scheduled tasks that are no longer needed, you can remove them entirely by selecting the corresponding row and clicking on the delete button at the top of the window.

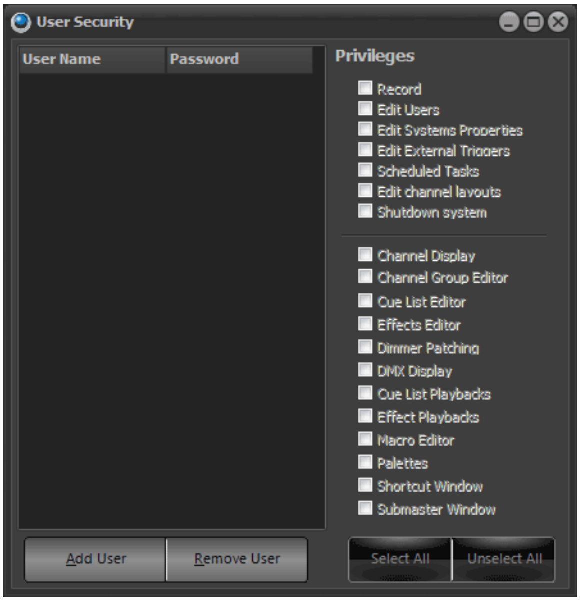
Temporarily Turn Off a Scheduled Task(s)

You can temporarily turn off or pause scheduled tasks from running using the pause button provided. The status field will show paused tasks. To turn a task back on simply slick on the pause button again.

In the special shortcuts (System Properties) you can assign a shortcut to toggle the pause state of all schedule tasks.

8. User Permissions

To control access to various parts of the software you can setup users and passwords from the "Edit User Permissions" window.


User Security
User Name
Password
Privileges
☐ Record
☐ Edit Users
☐ Edit Systems Properties
☐ Edit External Triggers
☐ Scheduled Tasks
☐ Edit channel layouts
☐ Shutdown system
☐ Channel Display
☐ Channel Group Editor
☐ Cue List Editor
☐ Effects Editor
☐ Dimmer Patching
☐ DMX Display
☐ Cue List Playbacks
☐ Effect Playbacks
☐ Macro Editor
☐ Palettes
☐ Shortcut Window
☐ Submaster Window
Add User
Remove User
Select All
Unselect All

Once a user has been added to the software the security feature will become active and require a login each time the software starts. By default no users will exists in the system. An empty user list is the equivalent of turning off the security feature.

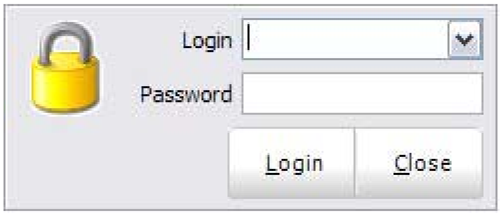
NEO NOTES & TIPS: The software will not allow you to disable the "Edit Users" option if the selected user is the last one with this privilege.

To create a new user click on the "Add User" button in the bottom left of the window. A new line will appear in the grid above with the default name "New User". Once the user has been added you can edit the name, password and define the security privileges.

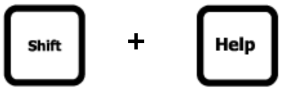
Most of the security features center around allowing or denying access to the various windows within the software. For example, if you would like to prevent a user from opening the "Cue List" window uncheck the option to the right hand panel of the window. The "Record" privilege is a special option that can be used to prevent a user from modifying the show while still providing access to windows like the "Show Runners" and "Channel" view.

By default a new user will have all privileges enabled. Use the "Uncheck All" to remove all access to the user. You can then add access to the user as required.

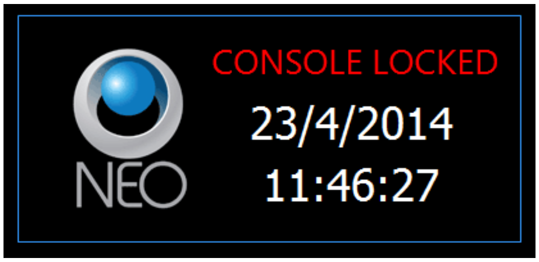
Once you have setup a user in the software the security will become enabled. The next time you start the software you will be asked to login with a username and password.


Login
Password
Login
Close

The user name will default to the last name used to login to the software and will automatically place the cursor into the password field. Enter the password for the user and press the enter key or click "login" to proceed to the main interface.



Lock System - locks the console faceplate. [SHIFT] + [HELP] is the Command Line solution for locking and unlocking the NEO console.



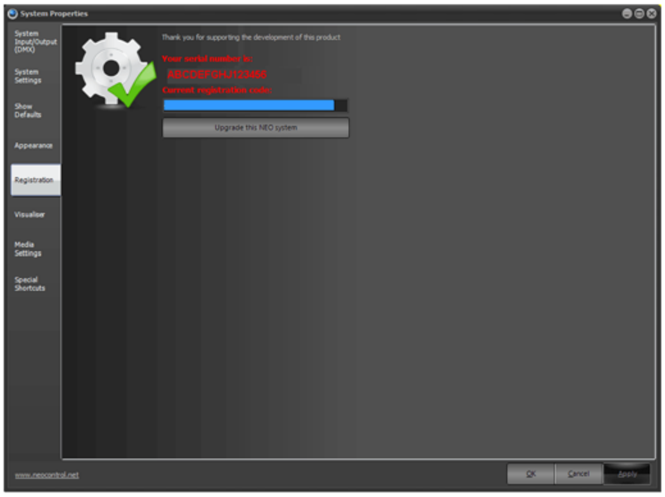
CONSOLE LOCKED
23/4/2014
11:46:27

Open NEO Manual - Opens the NEO console user’s manual *(this document).*

Open NEO Quick Start Guide - Opens the NEO console Quickstart reference guide.

9. NEO Software License Registration

NEO uses a software license to ensure that the product has been legally purchased. Without a valid registration code, the software will still operate normally and no functionality will be restricted, however the software will not produce any DMX output.



Thank you for supporting the development of this product

Your serial number is:
ABCDEFGHJ123456
Current registration code:

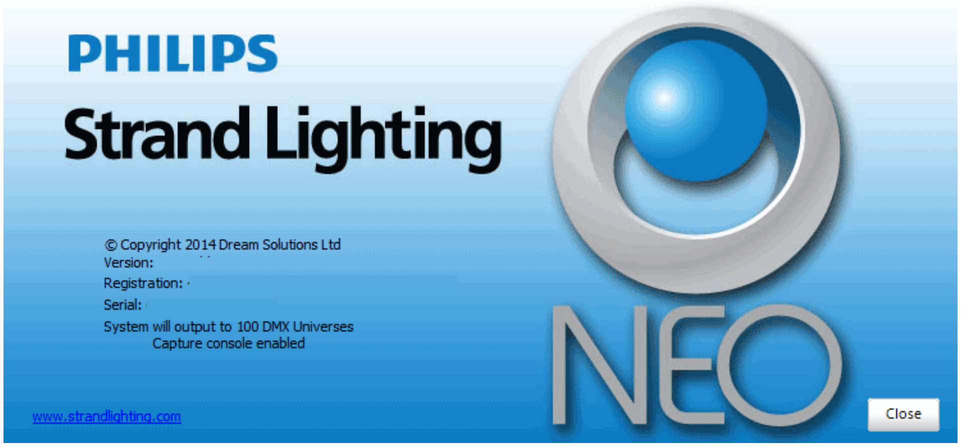
System Properties
System Input/Output (DMX)
System Settings
Show Defaults
Appearance
Registration
Visualiser
Media Settings
Special Shortcuts
Upgrade this NEO system
www.neocontrol.net
OK
Cancel
Apply

To enable the DMX hardware interface, a valid registration must be entered - whether at time of install, or through the "Registration" tab in this window.

To change the registration code enter the details into the edit box provided at the top of this page. Registration of the software is based on the "Serial Number" and the "Registration Code". Both of these number must match for a registration to be valid.

Enter your registration details and click on the "Apply" to confirm that the details entered are correct. A dialog will inform you if incorrect details have been entered.

About NEO - Shows the about screen for copyright message.



© Copyright 2014 Dream Solutions Ltd
Version:
Registration:
Serial:
System will output to 100 DMX Universes
Capture console enabled

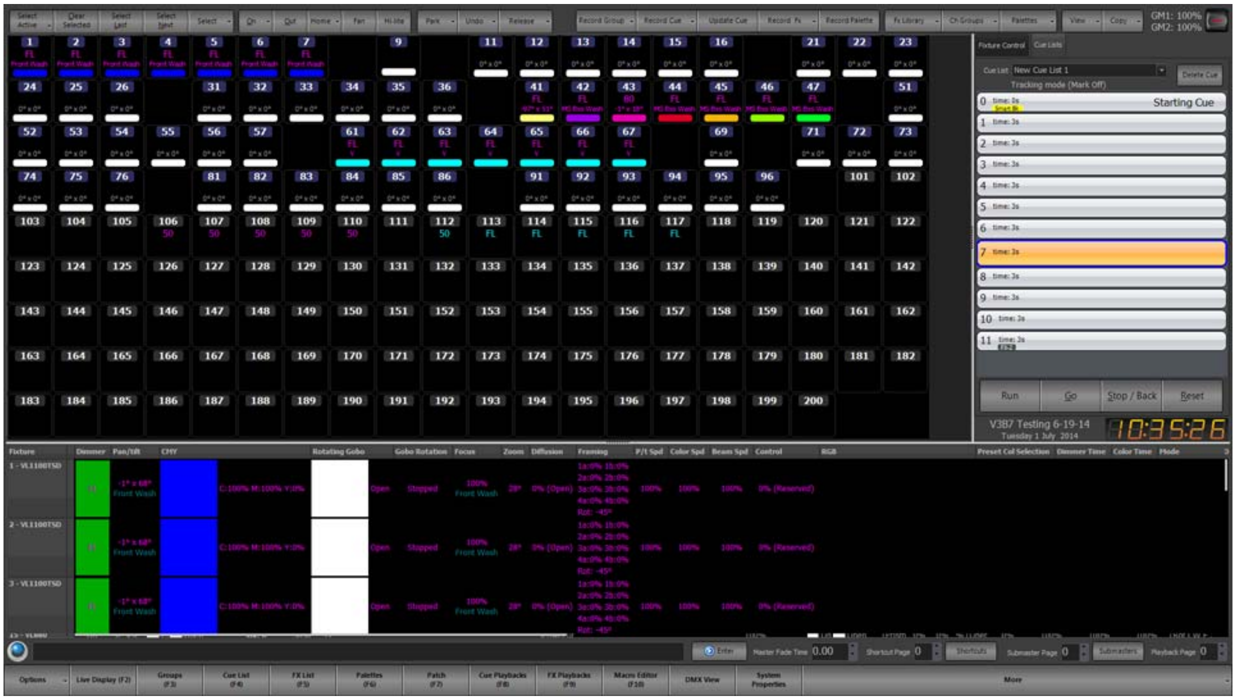
Restart - restarts the NEO console.

Shutdown - will shut down the NEO console. Once complete, DMX is held and the power switch needs to be toggled off to complete the shutdown process.

10. Live Display

Live Display (F2)

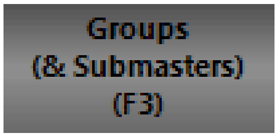
This is the traditional Live display single window for the main monitor screen. Pressing the Live Display button will always open the Live display or bring it forward into focus.



Starting Cue
Run
Go
Stop / Back
Reset
V3B7 Testing 6-19-14
10:35:26
Options
Live Display (F2)
Groups (F3)
Cue List (F4)
FX List (F5)
Palettes (F6)
Patch (F7)
Cue Playbacks (F8)
FX Playbacks (F9)
Macro Editor (F10)
DMX View
System Properties
More

See "Software Configuration" on page 45 for a breakdown of this screen.

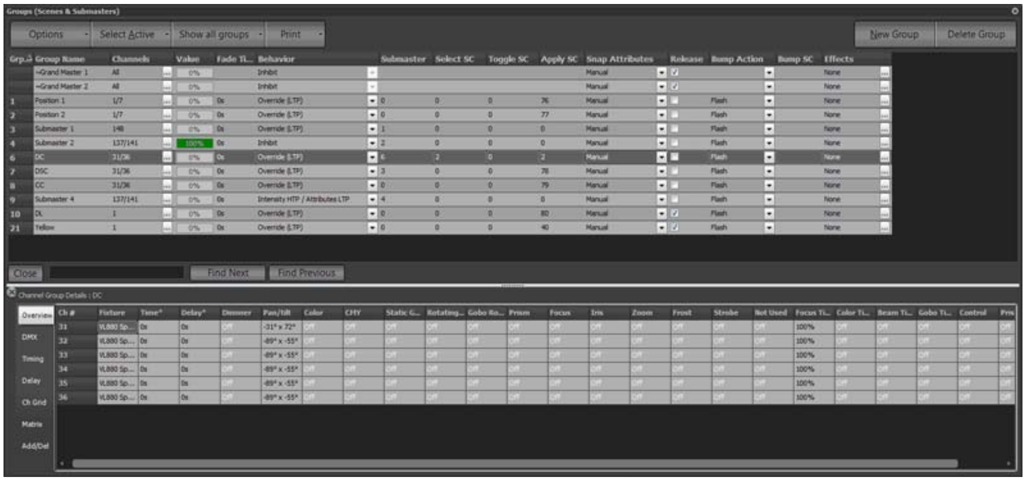
11. Groups Display



Groups
(& Submasters)
(F3)

Channel groups (Scenes & Submasters) are a convenient way to manipulate a number of channels and fixtures with one control. Channel groups can operate on any number of fixture attributes and do not need to operate on the dimmer. You can also add channel groups into cues, thus creating stage looks that can be altered in one location and applied across all cues.

Channel groups can also be used to aid with selecting fixtures in the channel display. By assigning a selection shortcut the channels contained in the group can be selected or de-selected using either the shortcut or the menu option on the channel display window.



Grp.	Group Name	Channels	Value	Fade Ti...	Behavior	Submaster	Select SC	Toggle SC	Apply SC	Snap Attributes	Release	Bump Action	Bump SC	Effects
	~Grand Master 1	All	0%		Inhibit					Manual	☑			None
	~Grand Master 2	All	0%		Inhibit					Manual	☑			None
1	Position 1	1/7	0%	0s	Override (LTP)	0	0	0	76	Manual	☐	Flash		None
2	Position 2	1/7	0%	0s	Override (LTP)	0	0	0	77	Manual	☐	Flash		None
3	Submaster 1	148	0%	0s	Override (LTP)	1	0	0	0	Manual	☐	Flash		None
4	Submaster 2	137/141	100%	0s	Inhibit	2	0	0	0	Manual	☐	Flash		None
6	DC	31/36	0%	0s	Override (LTP)	6	2	0	2	Manual	☐	Flash		None
7	DSC	31/36	0%	0s	Override (LTP)	3	0	0	78	Manual	☐	Flash		None
8	CC	31/36	0%	0s	Override (LTP)	0	0	0	79	Manual	☐	Flash		None
9	Submaster 4	137/141	0%	0s	Intensity HTP / Attributes LTP	4	0	0	0	Manual	☐	Flash		None
10	DL	1	0%	0s	Override (LTP)	0	0	0	80	Manual	☑	Flash		None
21	Yellow	1	0%	0s	Override (LTP)	0	0	0	40	Manual	☑	Flash		None

Channel Group Details : DC

Ch #	Fixture	Time*	Delay*	Dimmer	Pan/tilt	Color	CMY	Static G...	Rotating...	Gobo Ro...	Prism	Focus	Iris	Zoom	Frost	Strobe	Not Used	Focus Ti...	Color Ti...	Beam Ti...	Gobo Ti...	Control	Pris
31	VL880 Sp...	0s	0s	Off	-31° x 72°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
32	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
33	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
34	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
35	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
36	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off

Channel groups are most commonly associated with traditional scenes or submasters, however you do not need submasters to use channel groups. A channel group is a snapshot of a lighting state where the output of each channel in the group is a proportion of the group value.

To create a new blank group in blind, click on "New Group." This will create a group without any channels assigned and all fields set with default values.

To remove a group from the system, click on the row containing the group and click on the button "Delete Group." A dialog box will prompt you to confirm that you wish to remove the group. Click on the "OK" button to remove the group or "Cancel" to return to the previous window.

Group Number

The group number is the numerical ID of the group.

Group Name

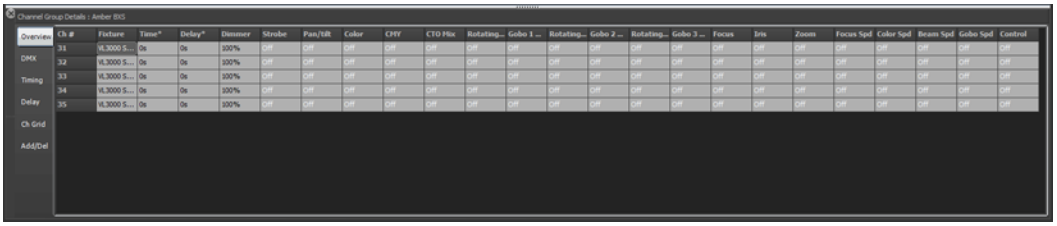
The group name is a description field that provides easy identification of the group. Enter a meaningful description for future reference.

Channels

This is a list of the channels included in the group. This list can be edited by entering the channels using Command Line. You can also enter channels using the same syntax as the command window.

[1][+][3][+][9][ENTER] will add channels 1 and 3 and 9 to the editing group.

The channels included in the group can also be edited by clicking the (**...**) button to the right of the field or by double clicking on the grid cell. This will bring up the "Channel Group Details" window. This window provides greater control over the maximum value the channel will reach when the group is at 100% and provides access to intelligent fixture attributes.



Channel Group Details : Amber BXS

Ch #	Fixture	Time*	Delay*	Dimmer	Strobe	Pan/tilt	Color	CMY	CTO Mix	Rotating...	Gobo 1 ...	Rotating...	Gobo 2 ...	Rotating...	Gobo 3 ...	Focus	Iris	Zoom	Focus Spd	Color Spd	Beam Spd	Gobo Spd	Control
31	VL3000 S...	0s	0s	100%	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
32	VL3000 S...	0s	0s	100%	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
33	VL3000 S...	0s	0s	100%	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
34	VL3000 S...	0s	0s	100%	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
35	VL3000 S...	0s	0s	100%	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off

This window has five tabs down the left hand edge that correspond to the different information you may want to edit.

In channel groups the attributes can have an "Off" value. Cells that are in this state will also be greyed out to make them easily identifiable. To set a value to the "Off" state simply types an O into the cell or any non-valid character. "Off" values will be ignored when the channel group applied.

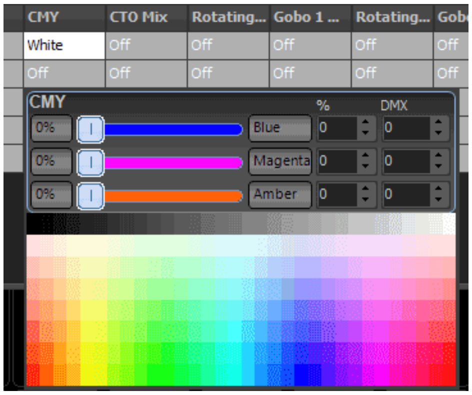
The values set in the overview and DMX tabs will determine the maximum value that the attribute will reach when the group is at 100%. For example if a channels dimmer value is set to 50% in the channel group detail window then when the group is at 100% the channels dimmer will be set to 50%. If the group is set to 25% then the channels value will be set to 12.5% (25% of 50%).

Overview

The overview tab will show the attributes values as real world information. Most values will be shown as percentage information but some values may show other data. A gobo control for example will show an image of the gobo selected and the color controls will show the color that is currently assigned.

This tab also provides optional time and delay for the individual channels. For attribute level timing see the "timing" and "delay" tabs.

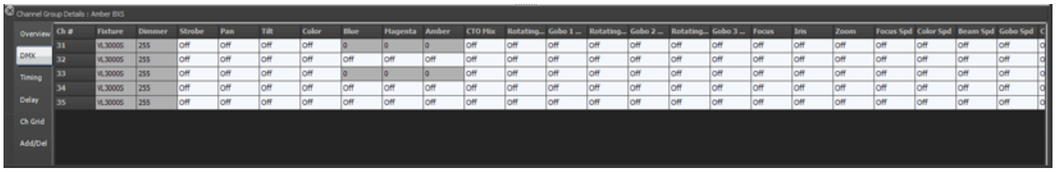
Each of the attribute tabs also provide helper controls that can be accessed by double clicking on the cell. For the color cells the standard NEO color picker will appear. Once you have finished modifying the value with the helper control click anywhere in the previous window to close it.



CMY	CTO Mix	Rotating...	Gobo 1 ...	Rotating...	Gob
White	Off	Off	Off	Off	Off
Off	Off	Off	Off	Off	Off

DMX

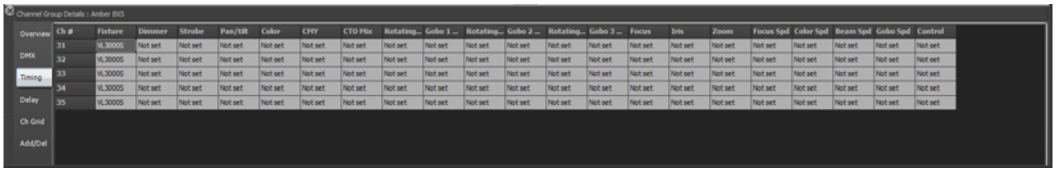
The DMX tab will show all of the same information as the over view tab but all of the values will be shown as DMX values. This provides the maximum resolution when modifying the data in the group. For example in the overview tab the dimmer is shown as a percentage giving 100 possible values but the underlying DMX associated with the dimmer has 255 possible values. When the percentage is changed is converted to a DMX value for storage in NEO.



Ch #	Fixture	Dimmer	Strobe	Pan	Tilt	Color	Blue	Magenta	Amber	CTO Mix	Rotating...	Gobo 1 ...	Rotating...	Gobo 2 ...	Rotating...	Gobo 3 ...	Focus	Iris	Zoom	Focus Spd	Color Spd	Beam Spd	Gobo Spd
31	VL3000S	255	Off	Off	Off	Off	0	0	0	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
32	VL3000S	255	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
33	VL3000S	255	Off	Off	Off	Off	0	0	0	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
34	VL3000S	255	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
35	VL3000S	255	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off

Timing

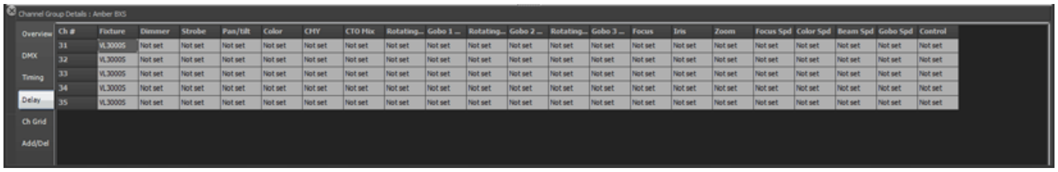
To set an individual fade time for any attribute use the timing tab to enter a time value in seconds. If the value shows "Not set" then no independent fade time exists. Any fade time set here will override the channel fade time and the group fade time when the group value is set or the group applied.



Ch #	Fixture	Dimmer	Strobe	Pan/tilt	Color	CMY	CTO Mix	Rotating...	Gobo 1 ...	Rotating...	Gobo 2 ...	Rotating...	Gobo 3 ...	Focus	Iris	Zoom	Focus Spd	Color Spd	Beam Spd	Gobo Spd	Control
31	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set
32	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set
33	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set
34	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set
35	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set

Delay

To set an individual delay time for any attribute use the delay tab to enter a time value in seconds. If the value shows "Not set" then no independent delay exists. Any delay set here will override the channel delay when the group value is set or the group applied.

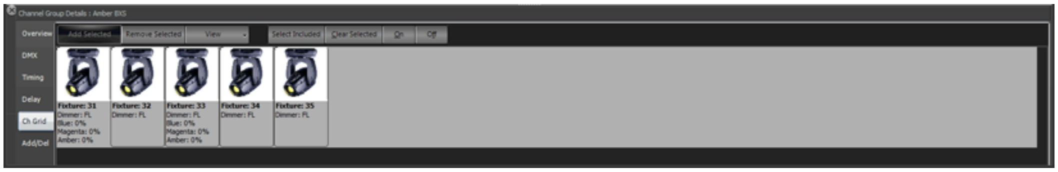


Ch #	Fixture	Dimmer	Strobe	Pan/tilt	Color	CMY	CTO Mix	Rotating...	Gobo 1 ...	Rotating...	Gobo 2 ...	Rotating...	Gobo 3 ...	Focus	Iris	Zoom	Focus Spd	Color Spd	Beam Spd	Gobo Spd	Control
31	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set
32	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set
33	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set
34	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set
35	VL3000S	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set

Channel Grid

The channel grid view displays the channels in the grid as they would appear in the channel display window. You can switch between the various view modes used in the main channel display by clicking on the "View" menu - this includes expanded, compact and Classic views. In the same view menu you can choose to display only the channels currently in the group or all channels in the system. If all channels are shown then the ones not currently included in the group will be display with a light grayed text.

In this view selected channels can be removed by clicking on the "Remove Selected" button and if all system channels are shown you can add selected channels using the "Add Selected" button.



Fixture: 31
Dimmer: FL
Blue: 0%
Magenta: 0%
Amber: 0%

Fixture: 32
Dimmer: FL

Fixture: 33
Dimmer: FL
Blue: 0%
Magenta: 0%
Amber: 0%

Fixture: 34
Dimmer: FL

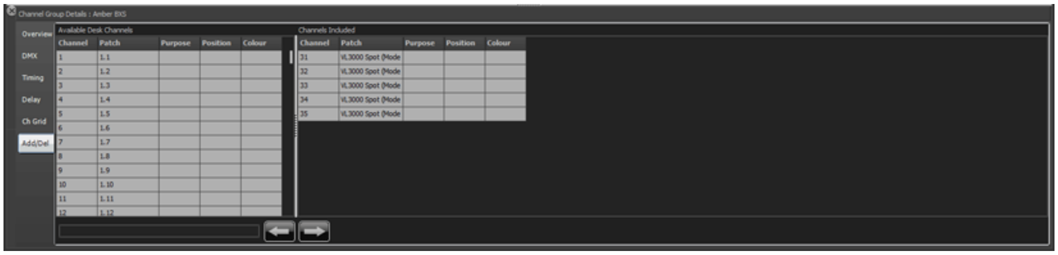
Fixture: 35
Dimmer: FL

Matrix

Use the matrix view to work with the channels in the group as they are laid out in the pre-defined matrix. For more information about using this view see the section "Matrix View" in the Cue list details section.

Add/Delete

The final tab provides convenient options for adding and removing channels from the group.



Available Desk Channels

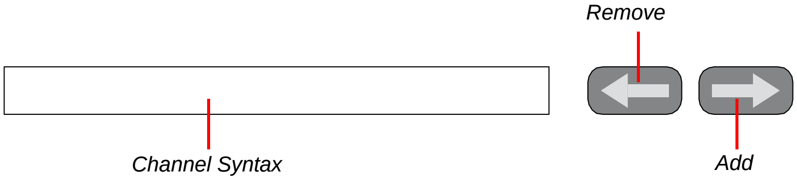
Channel	Patch	Purpose	Position	Colour
1	1.1			
2	1.2			
3	1.3			
4	1.4			
5	1.5			
6	1.6			
7	1.7			
8	1.8			
9	1.9			
10	1.10			
11	1.11			
12	1.12			

Channels Included

Channel	Patch	Purpose	Position	Colour
31	VL3000 Spot (Mode			
32	VL3000 Spot (Mode			
33	VL3000 Spot (Mode			
34	VL3000 Spot (Mode			
35	VL3000 Spot (Mode			

This window is divided into two halves. On the left hand side is a list of all the channels in the system. Additional information such as purpose, positions etc are also provided to help identify channels. The right hand panel is the list of channels that are included in the group.

Along the bottom of this tab are the add and remove buttons.



Select the desired channels in the left hand panel to add to the channel group and click on the add button (right arrow) at the bottom of the page.

To remove select the desired channels from the right hand panel and click on the remove button (left arrow).

You can also use the channel syntax box to enter channels to be added. If text is entered into this edit box it will take precedence over the selected channels when the add button is pressed.

NEO NOTES & TIPS: In any of the tabs you can enter data into multiple cells by highlighting the cells you want to change and then typing the new value. As you type the value will only populate the first cell. Pressing the enter key after you have finished typing will copy the value to all of the highlighted cells.

Value

This is the current output state of the group and is a percentage value between 0 and 100%. By default this cell is drawn as a graphical bar representing the value. Activating the edit control by clicking in the cell or starting to type a value when the cell is current will cause the graphical bar to disappear and a standard edit box will appear. Once you have finished editing the value the cell will return to the graphical bar.

This value can be set directly by entering a number into the field or by selecting the row and using the mouse wheel controls to raise or lower the value. The resulting output of each of the channels will be determined by the "max value" for each of the attributes in the included channels

NEO NOTES & TIPS: If a submaster is assigned, the value will directly reflect its current position and will change in real-time with the control.

Fade Time

The fade time (in seconds) specifies how long the system will take to go from the current value to a new value. Whenever the "Value" field is changed the fade time will affect how long it takes to reach this new value.

The fade time can be modified by clicking in the field and changing the value directly or by clicking on the up/down buttons to the right of the field.

A channel fade time or an attribute fade time will override any value set in this field.

Behavior

A channel group can behave in one of six ways when setting the actual output values. To change the behavior of a group select the desired option from the drop down menu accessed by clicking on the small arrow to the right of the field.

Override (LTP) - Also known as "Latest Takes Precedence". This is the default behavior of channel groups. This behavior will apply the channel levels set in the group to output channels and take over control of that channel. As soon as something else sets the channel value the group value will get overridden. Likewise as soon as the group value changes it will override the existing values set in the channel.

Build - The values set in the channel group will be added to the current output value of the channels.

Exclusive - All other channels will be set to zero and only the channels in this group will be applied.

Highest Takes Precedence (HTP) - When a group value is set with HTP behavior the output on the channel is determined by what has a higher value. If the value set in the group is higher than the value in the channel then the group will control the channel. If the value in the channel is higher than the group value it will remain unchanged.

Independent - Channels in an "Independent" group will override all other requests to modify the channel value. As soon as the group level is above 0, channels within this group will be controlled by the group values.

Inhibit - With an inhibit group the value masters all channels that are in the group. The output value of the channel will be scaled by the value of the inhibit group it belongs to.

Hue LTP - This behavior type will only work with fixtures that have color mixing capabilities. As the submaster is raised from 0 to 100% the output generated will be a position in the HUE color space between 0 and 360 degrees.

Subtract - Similar to the "Build" behavior this option will subtract the value set by the group from the output value of the channel and attributes.

Intensity HTP / Attributes LTP - this behavior type treats intensities Highest Takes Precedence and Attributes are treated Last Takes Precedence.

Submaster

To assign a submaster to a channel group, enter a valid submaster number (1 - 100,000) into this field. Once entered, the submaster will automatically be assigned and become active.

Submasters are split into pages of up to 100 possible submasters. The number of pages and the number of submaster per page can be defined in the system properties. If the system is defined with 100 submasters per page then use the page number as the first digit followed by the submaster you want to assign. To access the submasters the first page (page 0) simply enter the number between 1 and 100. For the second page (page 1) enter submasters 101 through to 200.

NEO NOTES & TIPS: The value of the group will not change until the next time the submaster changes. To learn how to use a submaster once it has been set up, see "Submaster Options" on page 155.

Selection Shortcut

The selection shortcut is a convenient way to select fixtures in the channel display by pressing a shortcut button. In this operation only the channel numbers are used as the selection criteria. Nothing is changed in the group - specifically the group value remains unchanged.

To assign a selection shortcut to a channel group, enter a valid shortcut number into this field. Once entered the shortcut will automatically be assigned and become active. There are 100 shortcuts per page and 100 pages (beginning at 0) of shortcuts. Use the page number as the first digit followed by the submaster you want to assign. To access the submasters the first page (page 0) simply enter the number between 1 and 99 (note that shortcut 0 is reserved). For the second page (page 1) enter submasters 100 through to 199.

Toggle Shortcut

A toggle shortcut can be thought of as a switch in the system that turns a lighting state on or off. When the assigned shortcut is first pressed the channel group will be set to 100% (full) and the channels and attributes will go to their respective values. Pressing the toggle shortcut again will cause the group to turn off (0 value).

Changing the value of the group between pressing the toggle shortcut will not change its behavior. If for example the group is turned on by a toggle shortcut and the value to then changed to 40% clicking the toggle shortcut will cause the group to turn off.

To assign a toggle shortcut to a channel group, enter a valid shortcut number into this field. Once entered the shortcut will automatically be assigned and become active.

Apply Shortcut

Pressing an apply shortcut will apply the groups setting to the channels and fixtures using the fade time set in the group. When using apply shortcuts the ability to set individual attributes and properties to an "Off" state is very important. For example, if you setup a channel group with pan and tilt information set for each fixture and have all other attributes (dimmer, color, etc) set to off then channel groups become a position preset that can be called up at any time. This is a useful feature for both on-the-fly control or when pre-programming shows away from the final venue.

To assign an apply shortcut to a channel group, enter a valid shortcut number into this field. Once entered the shortcut will automatically be assigned and become active.

To learn how to use a shortcut once it has been set up, see "Shortcut Options" on page 161.

Snap Attributes

This pulldown reveals 3 options.

Manual - will rise and fall as a proportion of the group value when applied.

Snap off zero - attributes will snap to full when the group is activated at any level above 0.

Snap at full - attributes will snap to full when the group's activation reaches 100%.

12. Options

Release Check Box

This determines whether the sub maintains control over HTP behavior. For example, if the Release box is checked, then the value controlled by the submaster will function normally and allow the fixtures output to respond HTP. With the Release box unchecked and a submaster is brought to zero, it will hold the programmed intensities at the zero value. This essentially gives the sub a higher priority than a another item's value.

Bump Action Options

1. Disabled - does not function.

2. Flash (default) - sets the submaster's value to the full value that is stored into the corresponding group for the duration in which the button is depressed.

3. Solo - Pressing the bump button leaves the output of the submaster the same. All other (non-bumped) submasters, as well as effects, cues and channel control, are set to zero.

4. Flash + Solo - pressing the bump button sets the sub's value to the full value that is stored into the corresponding group for the duration in which the button is pressed. All other (non-bumped) submasters, as well as effects, cues and channel control, are set to zero.

5. Latch - pressing the button will set the submaster's values to full value that is stored in the corresponding group and lock those values there until the bump button is pressed again to unlatch the command.

6. Latch + Solo - pressing the bump button shall set the sub's values to the full value that is stored into the corresponding group and lock those values there until the bump button is pressed again to unlatch the command. All other (non-bumped) submasters, as well as effects, cues and channel control, are set to zero.

7. Shortcut - disconnects the bump button from slider control. Allows the bump button to trigger a shortcut. The shortcut that it triggers shall be configured in another column in the group details window.

Bump Shortcut

When the Bump Action is set to Shortcut, this is where the Shortcut number is identified.

Effects

Allows the addition of an effect to a submaster. Click on the Effect column's "..." and it will launch the effect's editor where the desired effect(s) can be selected.

Add Selected Groups to a Cue

To create a new cue or add groups to an existing cue:

1) Select the groups you want to add to the cue by clicking on the row to highlight it. Use the shift or control key to select multiple groups.
2) Click on the options button and from the resulting drop down menu select "Add selected groups to cue".
3) The "cue selection" dialog will pop up to select the cue into which you want to add the group. Set the "cue list" and "cue" number that you want to add the channels to.
4) If you want to add a short description to the cue being created, enter this into the field provided.
5) Select "OK" to complete this operation.

NEO NOTES & TIPS: The "cue selection" dialog will default to the last selected cue list and the next available (integer) cue number.

To cancel the operation and return to the channel window click on the "Cancel" button.

Add Active Groups to a Cue

This operation will work exactly as the above option with active groups (groups with a value above zero) added to the cue rather than selected.

Snapshot When Adding Groups

Toggle the "Snapshot when adding groups" option to record the current channel state into all newly added groups.

Select Active Button

This button serves several functions. By clicking on the left hand side of the button will select all of the active channel groups. Once selected you can use the mouse wheel to raise or lower all of the values.

Clicking on the drop down right side of the button will pop up a menu with further options.

Select All / Unselect All

To select all of the groups click on the "Select All" menu option.

To unselect all of the currently selected groups click on the "Unselect All" menu item.

Select Inactive

Click on "Select Inactive" to select all of the groups where the value is currently 0%.

Sorting

You can sort the channel groups grid by any of the columns by simply clicking on the column header. Clicking a second time will reverse the sort order of the selected column.

The column used to sort the channel groups will be indicated by a small triangle to the right of the column name.

Filters

Use the "Show All Groups" button to select the filter mode you want. To make it easier to manage a large number of channel groups you can turn off different groups by what shortcuts and submasters are assigned. The current filter being applied will be shown in the button title.

Print Channel Groups

Click on the "Print" button to print out the channel groups in this show.

A drop down menu can be accessed by clicking on the right of this button. The resulting menu will provide access to a preview window and the printer setting control.

The drop down menu also provides the ability to import and export the channel group list to a standard comma separated (CSV) file format.

13. Working With Groups

The theatrical definition of a Group is a collection of channels/fixtures as a given intensity. This allows the group to not only be used as a fixture selection option but also allows the user to apply the group as a custom set of levels.

Building an Intensity Group

Select the channels/fixtures and apply a level. [1][THRU][5][@][75][ENTER]

Record the Group

Using one of the following methods...

1) GUI: Press the Record Group button on the Command Pulldowns section at the top of the main window. Enter a name. Assign a Submaster number. Allow it to assign a Shortcut number. Determine if are Recording Changed or Selected. Select the Attribute Families to be included. Then ENTER to complete.
2) Press and hold [RECORD]+[GROUP]. This will call up the Record Group dialogue box. (The same as pressing the Record Group button on the Command Pulldown.

3) Command Line: [RECORD][GROUP](#)[ENTER]. When you press [GROUP], it will say either SELECTED or CHANGED on the command line. This lets you know that it will record either selected fixtures or changed values. If you want the other options, just press GROUP again and it will toggle to the other option.

Applying a Group

A group can be applied 2 different ways....

1) Apply the Group as built. If the group has fixtures at less than full, [GROUP](#)[FULL] will apply the fixtures at the stored value. In the example above, 1 thru 5 would be at 75%.
2) Select the Fixtures in the Group. If you want to just use the group to select the fixtures and then apply an absolute value, type [GROUP](#)[ENTER][FULL]. Group # Enter will select the fixtures. Then FULL will set their level at full. You can apply any level after the fixtures are selected.

When an intensity group is applied, the Group label is abbreviated to "G #" from "Group #".

Building an Preset Focus Group

Select the channels/fixtures and apply a level. [1][THRU][5][@][75][ENTER].

Now change the attributes values. For example, change pan and tilt.

Record the Preset Focus Group

Using one of the following methods...

1) GUI: Press the Record Group button on the Command Pulldowns section at the top of the main window. Enter a name. For this example, name it "DC" for Down Center. Assign a Submaster number (less common). Allow it to assign a Shortcut number. Determine if are Recording Changed or Selected. Select the Attribute Families to be included. In this case it would be Position. Then ENTER to complete.
2) Press and hold [RECORD]+[GROUP]. This will call up the Record Group dialogue box. (The same as pressing the Record Group button on the Command Pulldown.
3) Command Line: [RECORD][GROUP](#)[ENTER]. When you press [GROUP], it will say either SELECTED or CHANGED on the command line. This lets you know that it will record either selected fixtures or changed values. If you want the other options, just press GROUP again and it will toggle to the other option.

Applying a Preset Focus Group

A preset focus group can be applied different ways. Usually fixtures are selected first.

1. [@][DC][ENTER]. Since alpha keys are needed, use the keyboard.

2. Open the "Ch Group" Command Pulldown and select DC.

3. Open the Shortcuts Window, select Page 0. Select the "4 UP" display option to divide the 100 buttons into 4 groups of 25. These are Groups, Colors, Beam/Edge and Position.

NEO NOTES & TIPS: If you have fixtures selected and apply a Preset Focus Group, then the group applies to the selected fixtures only. If you select a Preset Focus Group from the Ch Group Command Pulldown without first having fixtures selected, the entire groups content will be applied to the fixtures.

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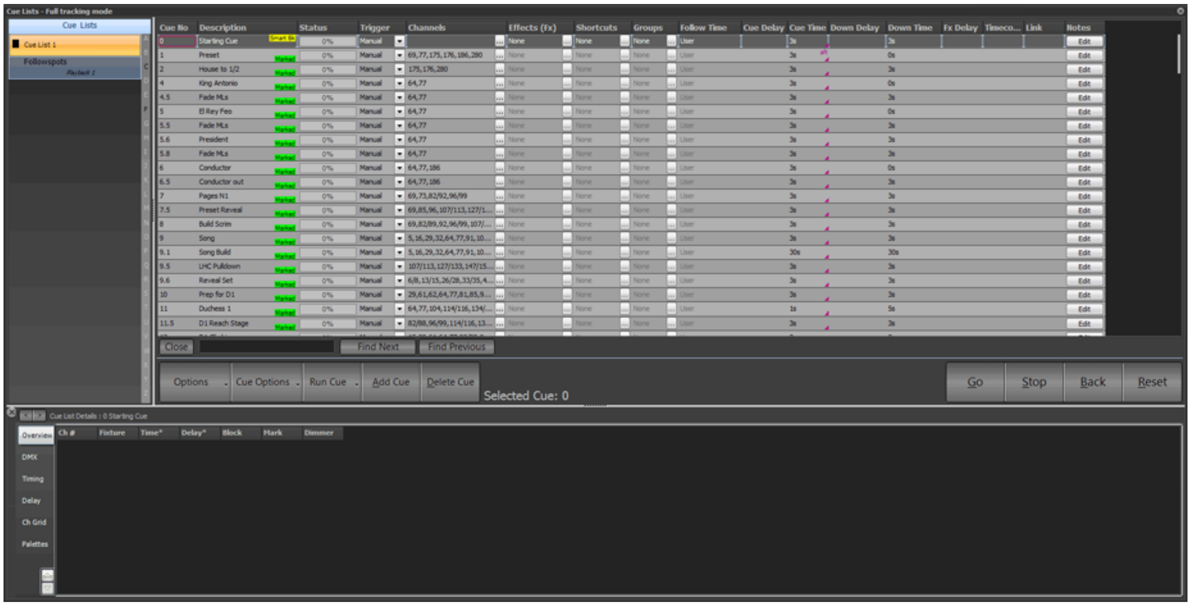
14. Cue List Display / Editor

To access the cue list editor click on the "Cue List Editor" button on the Command Line interface window or press F4 on your keyboard.



Cue No	Description	Status	Trigger	Channels	Effects (Fx)	Shortcuts	Groups	Follow Time	Cue Delay	Cue Time	Down Delay	Down Time	Fx Delay	Timeco...	Link	Notes
0	Starting Cue Smart Bk	0%	Manual		None	None	None	User		3s		3s				Edit
1	Preset Marked	0%	Manual	69,77,175,176,186,280	None	None	None	User		3s		0s				Edit
2	House to 1/2 Marked	0%	Manual	175,176,280	None	None	None	User		3s		3s				Edit
4	King Antonio Marked	0%	Manual	64,77	None	None	None	User		3s		0s				Edit
4.5	Fade MLs Marked	0%	Manual	64,77	None	None	None	User		3s		3s				Edit
5	El Rey Feo Marked	0%	Manual	64,77	None	None	None	User		3s		0s				Edit
5.5	Fade MLs Marked	0%	Manual	64,77	None	None	None	User		3s		3s				Edit
5.6	President Marked	0%	Manual	64,77	None	None	None	User		3s		3s				Edit
5.8	Fade MLs Marked	0%	Manual	64,77	None	None	None	User		3s		3s				Edit
6	Conductor Marked	0%	Manual	64,77,186	None	None	None	User		3s		0s				Edit
6.5	Conductor out Marked	0%	Manual	64,77,186	None	None	None	User		3s		3s				Edit
7	Pages N1 Marked	0%	Manual	69,73,82/92,96/99	None	None	None	User		3s		3s				Edit
7.5	Preset Reveal Marked	0%	Manual	69,85,96,107/113,127/1...	None	None	None	User		3s		3s				Edit
8	Build Scrim Marked	0%	Manual	69,82/89,92,96/99,107/...	None	None	None	User		3s		3s				Edit
9	Song Marked	0%	Manual	5,16,29,32,64,77,91,10...	None	None	None	User		3s		3s				Edit
9.1	Song Build Marked	0%	Manual	5,16,29,32,64,77,91,10...	None	None	None	User		30s		30s				Edit
9.5	LHC Pulldown Marked	0%	Manual	107/113,127/133,147/15...	None	None	None	User		3s		3s				Edit
9.6	Reveal Set Marked	0%	Manual	6/8,13/15,26/28,33/35,4...	None	None	None	User		3s		3s				Edit
10	Prep for D1 Marked	0%	Manual	29,61,62,64,77,81,85,9...	None	None	None	User		3s		3s				Edit
11	Duchess 1 Marked	0%	Manual	64,77,104,114/116,134/...	None	None	None	User		1s		5s				Edit
11.5	D1 Reach Stage Marked	0%	Manual	82/88,96/99,114/116,13...	None	None	None	User		3s		3s				Edit

Selected Cue: 0

Cue List Details : 0 Starting Cue

Ch #	Fixture	Time*	Delay*	Block	Mark	Dimmer

Shows consist traditionally of a list of cues each of which contains a defined lighting state and/or effect sequence. A cue can be considered any point in a live show when a signal is given for a lighting change to take place. When a cue is triggered, the lighting state becomes active and channels attached to the cue will be set to their preset levels.

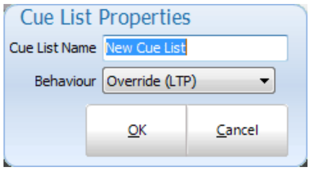
15. Cue Lists

NEO provides the ability to create multiple cue lists to help manage and run complex shows. A "cue list" is a way to collect a number of cues and assign a name or short description.

Examples of how cue lists can be used include;

- Separate different "Acts" within a show.
- Manage a number of shows all running in a single venue.
- Create separate shows for a number of songs likely to play in a concert or venue.

To create a new cue list click on the "Options" drop down menu and select "Create a new Cue List" from the resulting options. A dialog will appear titled "Create New Cue List".

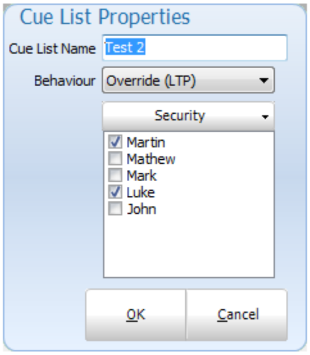


Cue List Name: New Cue List

Behaviour: Override (LTP)

Enter the name of the cue list you want to create and click "OK" to continue.

To change the name, right click on the cue list name and select "Edit Cue List Name". A dialog will appear that is used to not only set the name nut also change the behavior of the cue list during playback.



Cue List Properties

Cue List Name: Test 2

Behaviour: Override (LTP)

Security

☑ Martin
☐ Mathew
☐ Mark
☑ Luke
☐ John

Behavior

Each cue list can be assigned a behavior type that is used when the cue list is played back. By default this is set to Latest Takes Precedence (LTP) however you can change this to Build, Highest Takes Precedence (HTP) or Exclusive. LTP is also called "override" in the channel groups as the output of this behavior will override whatever the channel is currently set to and apply the new value.

The behavior set by this option will result in playback of the cue list following the same rules as the behavior set by channel groups. See "Behavior" on page 213 for further details.

Cue List Security

If you have user security enabled then a security option will be visible. Click on the security button to open the security list. This is a list of users in the system with a check box indicating if that user can modify the cue list. Any user can view and run a cue list but only those allowed can modify it. To prevent a user from viewing or running a cue list use the security options in the main User Security window found in the Options menu of the Command Line interface.

To remove a cue list select the desired cue list from the list (Selected cue lists will be highlighted) then click on the "Options" drop down menu and select "Remove current cue list".

A confirmation box will prompt you to confirm this operation. If you are sure you want to delete the group, click the "OK" button

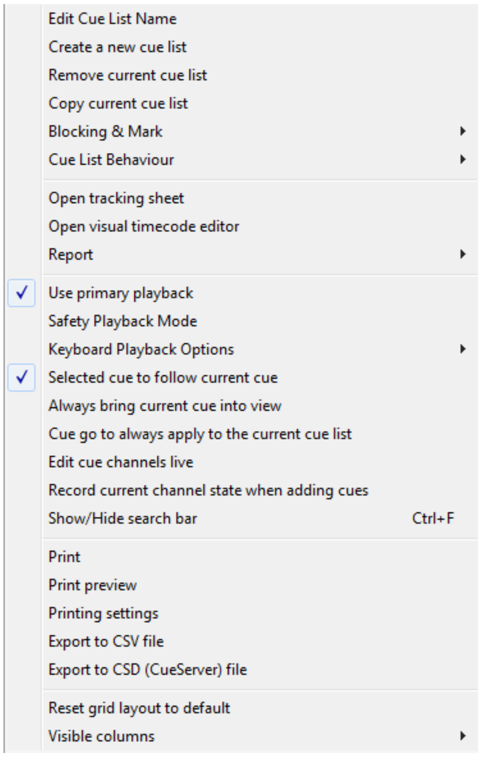
Active vs. Selected Cue Lists

A selected cue list is the cue list you are currently editing. The name of the cue list is highlighted to identify that it is selected. To select a different list simply click on the desired cue list name. The selected cue list is always the one shown in the right hand panel of the window.

The active cue list refers to the play controls in the bottom right of the window. The active cue list is the cue list currently loaded into this master playback and is identified by the green triangle to the left of the name. The currently active cue within the list is also highlighted in the same color if that cue list is showing.

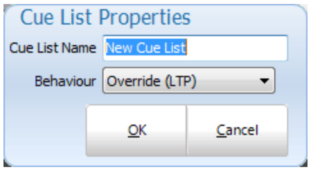
Cue List Options Menu

As well as creating and deleting cue lists the options menu has several other functions to make working with cue lists easier.


Edit Cue List Name
Create a new cue list
Remove current cue list
Copy current cue list
Blocking & Mark
Cue List Behaviour
Open tracking sheet
Open visual timecode editor
Report
✓ Use primary playback
Safety Playback Mode
Keyboard Playback Options
✓ Selected cue to follow current cue
Always bring current cue into view
Cue go to always apply to the current cue list
Edit cue channels live
Record current channel state when adding cues
Show/Hide search bar Ctrl+F
Print
Print preview
Printing settings
Export to CSV file
Export to CSD (CueServer) file
Reset grid layout to default
Visible columns

Edit Cue List Name

This allows the user to change the name and behavior type to the cue list.


Cue List Properties
OK
Cancel

Cue List Name: New Cue List
Behaviour: Override (LTP)

Create a New Cue List

This allows the user to create a new cue list.

Remove Current Cue List

Will delete the selected cue list.

Copy Current Cue List

Use this option to make a duplicate copy of the selected cue list. The new cue list will be named "Copy of" followed by the original cue list name.

Blocking & Mark

Selecting the "Blocking & Mark" option in the menu will open up the submenu for globally setting the flags inside the cue list.

Set "Block" on all cues - This option will check all blocking flags in the selected cue list.

Un-Set "Block" on all cues - This option will un-check all blocking flags in the selected cue list.

Set "Mark" on all cues - This option will check all mark flags in the selected cue list.

Un-Set "Mark" on all cues - This option will un-check all mark flags in the selected cue list.

Note: Must not be the active cue list.

Cue List Behavior

The cue list behavior sets defines how the cue list interacts with other parts of the software at the time of playback. By default this is set to **Latest Takes Precedence (LTP)** however you can change this to **Build and Highest Takes Precedence (HTP)**. LTP is also called "override" in the channel groups as the output of this behavior will override whatever the channel is currently set to and apply the new value.

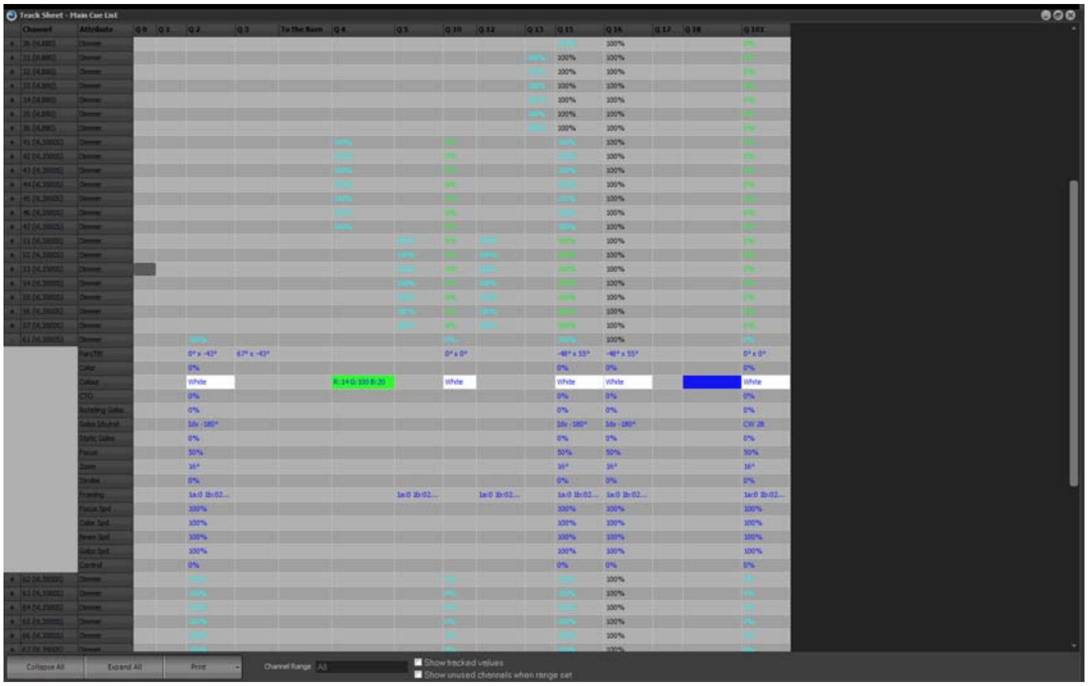
The behavior set by this option will result in playback of the cue list following the same rules as the behavior set by channel groups. See “Behavior” on page 101.

Build will add the output from the cue list to whatever the output currently is set in the channels. HTP will only apply the channel output from the cue list if that output is higher than what the channel is already outputting.

To set the behavior for the cue list select it from the sub menu from this option. The behavior will apply to all cues in the cue list and across all playbacks that are using this cue list.

Open Tracking Sheet

The tracking sheet is a convenient way to view how channels are changing between cues.



The view consists of a channels vs. cue grid. The channels used in the entire cue list are listed in each row while the cues travel across the columns of the grid as above.

If you have intelligent fixtures recorded into cue you will see a small "+" sign at the start of the row. This indicates that there is more information about the channel available. When you click on the "+" symbol the rows will expand to show all of the attributes for that fixture and what values are set for each cue. After clicking on this the "+" will become a "-" and can be used to collapse the view back down to the dimmer only.

The "**Collapse All**" and "**Expand All**" buttons at the bottom of the window can be used to open and close all if the intelligent fixtures listed.

The "**Channel Range**" edit box can be used to enter a range of channels that will filter the view. You can use the standard channel select syntax to filter the channels shown.

For example, 1/20-7 this will show only channels 1 thought to 20 except 7.

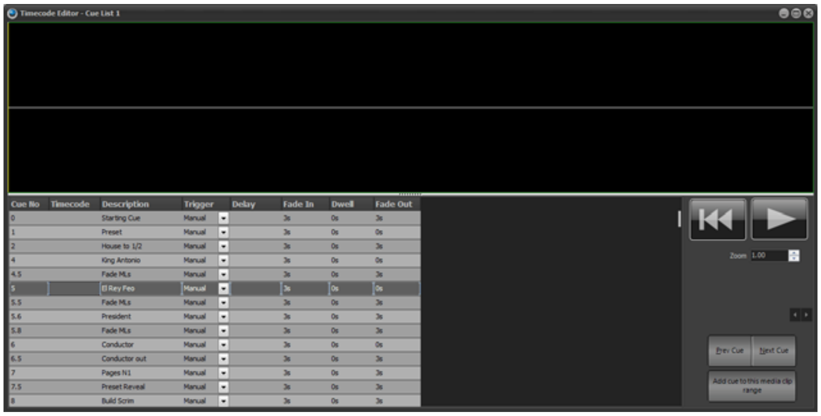
Check the "**Show tracked values**" to view what the channels will be in each cue if full tracking is turned on in the system properties.

Use the "Show unused channels when range set" to view all of the channels regardless of if they are used by the cue list. By default the track sheet will only display the channels that are used in the cue list to help minimize the information presented. This however limits the ability to add channels that are not used. By trying this option on and applying a "**Channel range**" you can add a channel to the cue list by simply entering a value into the appropriate column.

Printing & Exporting - Pressing the print button will print the track sheet to the selected printer. Use the drop down menu to the right of this button to change the print settings or preview the output. An Export option will save the contents of the track sheet to a comma separated file format (CSV).

Open Visual Timecode Editor

To make working with timecoded shows NEO provides an advanced visual editor. For each timecoded section of the cue list can be viewed as an audio waveform with each timecode point represented by a line in the display.


Timecode Editor - Cue List 1
Zoom 1.00
Prev Cue
Next Cue
Add cue to this media clip range

Cue No	Timecode	Description	Trigger	Delay	Fade In	Dwell	Fade Out
0		Starting Cue	Manual		3s	0s	3s
1		Preset	Manual		3s	0s	0s
2		House to 1/2	Manual		3s	0s	3s
4		King Antonio	Manual		3s	0s	0s
4.5		Fade MLs	Manual		3s	0s	3s
5		El Rey Feo	Manual		3s	0s	0s
5.5		Fade MLs	Manual		3s	0s	3s
5.6		President	Manual		3s	0s	3s
5.8		Fade MLs	Manual		3s	0s	3s
6		Conductor	Manual		3s	0s	0s
6.5		Conductor out	Manual		3s	0s	3s
7		Pages N1	Manual		3s	0s	3s
7.5		Preset Reveal	Manual		3s	0s	3s
8		Build Scrim	Manual		3s	0s	3s

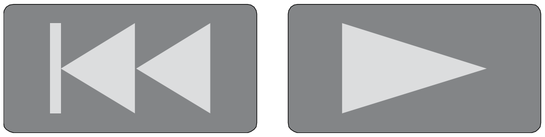
To use this window select any cue that contains a media track. You will see a "working…" dialog while the software builds the waveform display. Once this has been displayed it will only be regenerated if a different media track is selected.

NEO will automatically calculate the first and last cue for this section of the show based on the media track. The first cue that contains this media is shown on the right hand panel as with the last cue with this media.

The "**Next Cue**" and "**Prev Cue**" buttons can be used to traverse through the cue list. You can also use the keyboard shortcut of ALT-P and ALT-N.

For each of the cues in the range selected a gray line will be shown representing each of the timecode points. Note that these will only show if the trigger is set to "Timecode".

At any time you can play the media using the playback buttons at the top of the right hand panel.



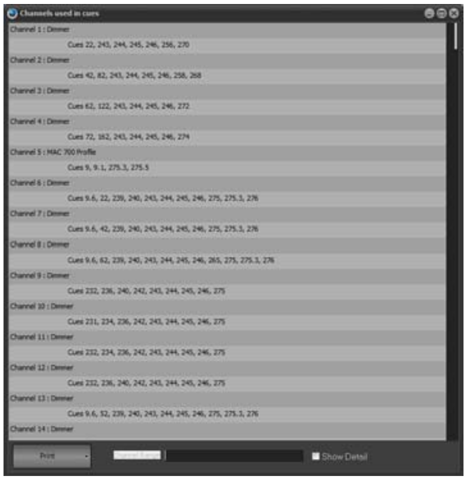
Once the media is playing you can pause the track and move the play head by using the mouse to click and drag the yellow line. As you move the line the audio is herd so that you can precisely work out the correct point to place a timecode point.

To move a timecode point visually select the corresponding cue you want to edit. The line representing this cue will be highlighted in green and can be dragged using your mouse left and right along the timeline. As the position of the line changes the timecode value shown in the grid will also change.

To insert a new timecode point right click on the position in the waveform display and select "**Insert new cue here**" from the resulting popup menu.

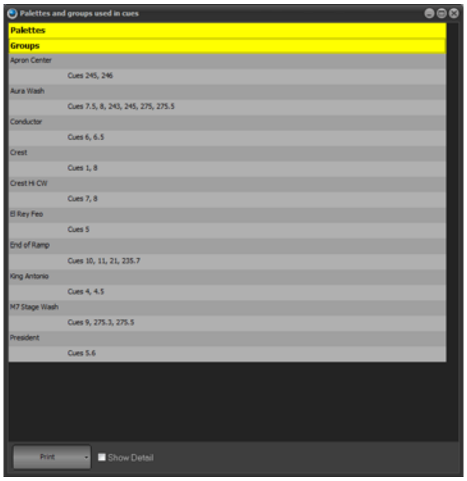
Report

Channels Used In Cues - shows a list of cues and the channels stored in them.



Channel 1 : Dimmer
Cues 22, 243, 244, 245, 246, 256, 270
Channel 2 : Dimmer
Cues 42, 82, 243, 244, 245, 246, 258, 268
Channel 3 : Dimmer
Cues 62, 122, 243, 244, 245, 246, 272
Channel 4 : Dimmer
Cues 72, 162, 243, 244, 245, 246, 274
Channel 5 : MAC 700 Profile
Cues 9, 9.1, 275.3, 275.5
Channel 6 : Dimmer
Cues 9.6, 22, 239, 240, 243, 244, 245, 246, 275, 275.3, 276
Channel 7 : Dimmer
Cues 9.6, 42, 239, 240, 243, 244, 245, 246, 275, 275.3, 276
Channel 8 : Dimmer
Cues 9.6, 62, 239, 240, 243, 244, 245, 246, 265, 275, 275.3, 276
Channel 9 : Dimmer
Cues 232, 236, 240, 242, 243, 244, 245, 246, 275
Channel 10 : Dimmer
Cues 231, 234, 236, 242, 243, 244, 245, 246, 275
Channel 11 : Dimmer
Cues 232, 234, 236, 242, 243, 244, 245, 246, 275
Channel 12 : Dimmer
Cues 232, 236, 240, 242, 243, 244, 245, 246, 275
Channel 13 : Dimmer
Cues 9.6, 52, 239, 240, 243, 244, 245, 246, 275, 275.3, 276
Channel 14 : Dimmer

Palettes / Groups Used In Cues - shows a list of Palette and then Groups with the cues that reference them.



Palettes
Groups
Apron Center
Cues 245, 246
Aura Wash
Cues 7.5, 8, 243, 245, 275, 275.5
Conductor
Cues 6, 6.5
Crest
Cues 1, 8
Crest Hi CW
Cues 7, 8
El Rey Feo
Cues 5
End of Ramp
Cues 10, 11, 21, 235.7
King Antonio
Cues 4, 4.5
M7 Stage Wash
Cues 9, 275.3, 275.5
President
Cues 5.6

Use Primary Playback

Check this option if you want that master playback on the external playback wing to be used to control the master cue list playback.

You can also access this using a programmable keyboard in the same way as shortcuts. The key sequence to run this special playback:

- Cue Go: control - q followed by "A1"
- Cue Back: control - q followed by "Z1"

Safety Playback Mode

Safety playback mode is designed to prevent accidental triggering of cues during your show. When this option is checked the "**GO**" button will not immediately execute the next cue when an existing cue is running or the cue is set to follow on.

If the previous cue is still running or the next cue is setup to be a follow on cue the "**GO**" button will be re-labeled "**Enable**". Clicking on the "**Enable**" will change it to "**GO**" and a second press will force the cue to be executed.

This mode ensures that the button must be pressed twice if the use wants to skip over the normal execution rate programmed.

Keyboard Playback Options

Use the submenu under this option to turn on various keyboard options for running cues.

Use "Space bar" for cue go - With this option on pressing the space bar on your keyboard will execute a cue go. This will only work if the cue list window is currently active.

Use numeric "Enter" for cue go - With this option on pressing the enter key on the numeric section of your keyboard will execute a cue go. This will work globally to the software - it does not matter what window is active for cue execution.

Use numeric "+/-" for cue go/back - With this option on pressing the plus (+) or minus (-) key on the numeric section of your keyboard will execute a cue go and a cue back. This will work globally to the software - it does not matter what window is active for cue execution.

Use right "ALT" for cue go - With this option on pressing the right ALT key on the keyboard will execute a cue go. This will work globally to the software - it does not matter what window is active for cue execution.

Selected Cue to Follow Current Cue

This option is useful if you have the cue list channel detail window open or docked to the cue list. As the cue list is advanced the current selected cue will automatically follow the cue currently active on stage. The channel detail, effects and groups window will automatically advance to show the information for that cue.

Cue Go to Always Apply to the Current Cue List

When this option is enabled pressing the GO button will always run the current cue list even if the current cue list is not the active cue list. The active cue list will automatically be switched to the current cue list.

Edit Cue Channels Live

With this option turned on any changes made to the channels in the current live cue will automatically be reflected on stage. With this option turned off (default) the cue list channel detail window is a blind editor meaning that changes are not seen until the next time the cue runs.

Record Current Channel State When Adding Cues

Check this option to record the currently active channels in to the cue when a new cue is added from the button on this window.

Show / Hide Search Bar

Check this item to turn on or off the search bar at the bottom of the cue list.

Print

The print option will output the currently selected cue list to the selected printer.

Print Preview

Select the preview option to open a window that will display the printed page. From this window you can choose to print.

Printing Settings

This option will open the page setting for printing the cue list.

Export To CSV File

This feature will export the cue list data to a CSV formatted file.

Export to CSD (CUESERVER) File

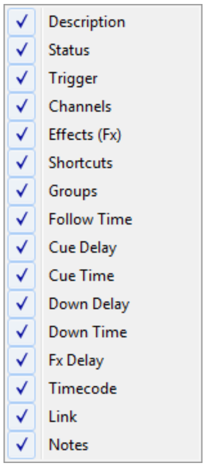
This feature will export the cue list data to a CSD (CueServer) file format.

NEO NOTES & TIPS: Point cues cannot be exported to a CSD file. Use the option in the cue menu to renumber as whole cues before proceeding with export.

Reset Grid Layout to Default

If you have resized or moved columns in the cue list grid you can restore the default positions and size by selecting this option.

Visible Columns



Selecting the "**Visible Columns**" option in the menu will open up the submenu that will list all of the columns in the cue list window. Select each one to turn the column on or off in the grid.

Cue List

The "cue list" is a series of cues each numbered between 0.000 and 999999.999. The cue number determines the default order that cue will be run; however, the strict order is determined by the "next cue" field.

To create a new cue:

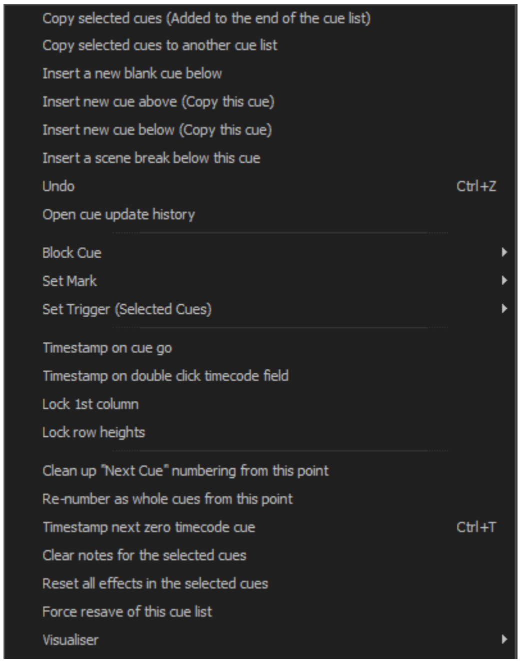
1) Click the "Add Cue" button below the cue list editor.
2) The newly created cue will be added to the end of the list with a cue number one integer value above the last cue e.g., if the last cue number was 2.35 then the newly created cue will be 3.00.
3) NEO will assign the "next cue" field to the first cue, thus creating a show that will automatically wrap around. As the new cue is the last one in the sequence, NEO will also change the previous cue and set its "next cue" value to the newly created cue.

NEO NOTES & TIPS: Double clicking on a cue will automatically make it the currently active cue and make this cue list the currently active cue list. If a cue within this cue list is active then it will appear highlighted light green.

To remove a cue:

1) Select the cue from the cue list.
2) Click on the "Delete Cue" button.
3) A confirmation dialog will prompt you to confirm this operation.

Cue Options

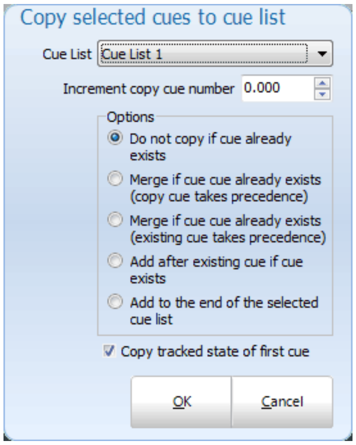

Copy selected cues (Added to the end of the cue list)
Copy selected cues to another cue list
Insert a new blank cue below
Insert new cue above (Copy this cue)
Insert new cue below (Copy this cue)
Insert a scene break below this cue
Undo Ctrl+Z
Open cue update history
Block Cue
Set Mark
Set Trigger (Selected Cues)
Timestamp on cue go
Timestamp on double click timecode field
Lock 1st column
Lock row heights
Clean up "Next Cue" numbering from this point
Re-number as whole cues from this point
Timestamp next zero timecode cue Ctrl+T
Clear notes for the selected cues
Reset all effects in the selected cues
Force resave of this cue list
Visualiser

To assist with many tedious tasks the "Cue Options" drop down menu provides several convenient options related to creating and managing cues.

Copy Selected Cue (Added to the End of the Cue List)

Selecting this will create a new cue at the end of the cue list. The cue number will be the next available integer value. All of the properties of the current cue (channels, trigger, etc) will be copied from the cue at the position of your mouse.

Copy Selected Cue to Another Cue List



Copy selected cues to cue list

Cue List: Cue List 1

Increment copy cue number: 0.000

Options
- ● Do not copy if cue already exists
- ○ Merge if cue cue already exists (copy cue takes precedence)
- ○ Merge if cue cue already exists (existing cue takes precedence)
- ○ Add after existing cue if cue exists
- ○ Add to the end of the selected cue list

☑ Copy tracked state of first cue

Selecting this will create a new cue to the selected cue list. The shown dialogue box appears to give you options.

Insert a New Blank Cue Below

This option will create a new cue directly below the cue at the position of you mouse. The cue number will be exactly half way between this cue and the next. The properties of the cue will be set to the system defaults.

Insert a New Cue Above (Copy This Cue)

This option will create a new cue above the current cue. The cue number will be half way between the previous cue and the current cue. All of the properties (channels, trigger, etc) will be copied from the current cue to the new cue.

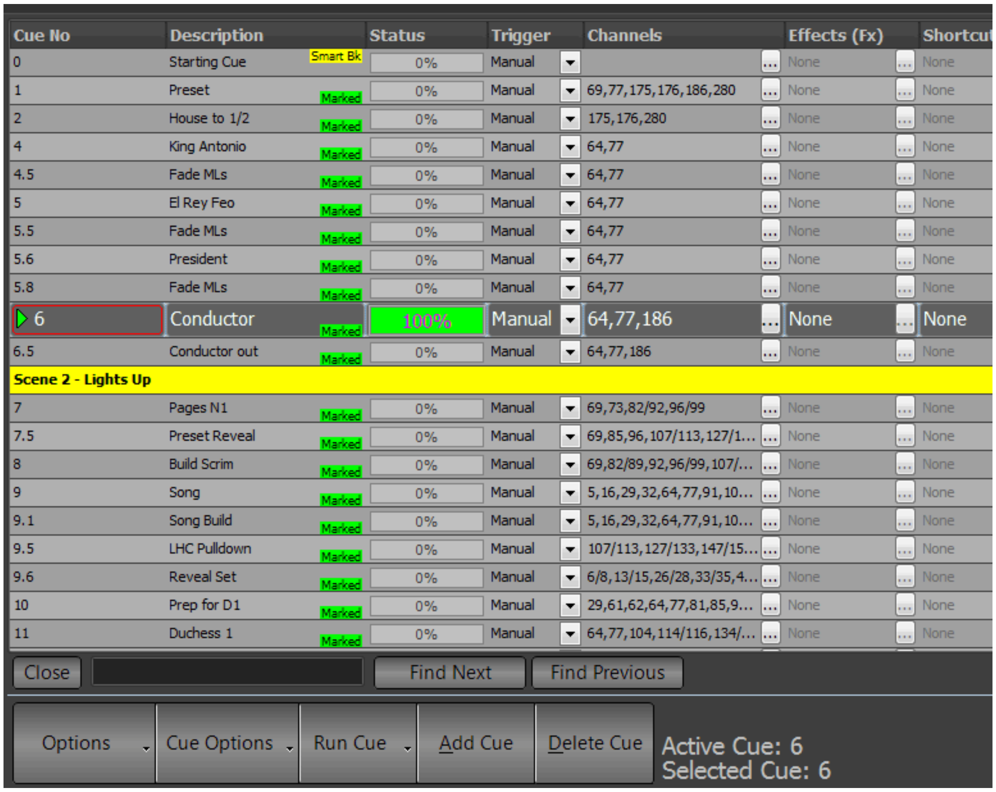
Insert a New Cue Below (Copy This Cue)

This option will create a new cue below the current cue. The cue number will be half way between the new cue and the current cue. All of the properties (channels, trigger, etc) will be copied from the current cue to the new cue.

Insert a Scene Break Below This Cue

A scene break is a description only row that can be added to your cue list to help remember what is happening at this point in the cue list. Scene breaks are not cues and do not execute any lighting operation. It is a convenient way to label your cue list at key points and assist with cue list management.

After selecting this option the software will prompt you for the name of the scene you want to label. Enter the name or description into the edit box provided and click "OK" to add the screen break. In the example below a scene break has been added below cue 6.5.



Cue No	Description	Status	Trigger	Channels	Effects (Fx)	Shortcu
0	Starting Cue Smart Bk	0%	Manual		None	None
1	Preset Marked	0%	Manual	69,77,175,176,186,280	None	None
2	House to 1/2 Marked	0%	Manual	175,176,280	None	None
4	King Antonio Marked	0%	Manual	64,77	None	None
4.5	Fade MLs Marked	0%	Manual	64,77	None	None
5	El Rey Feo Marked	0%	Manual	64,77	None	None
5.5	Fade MLs Marked	0%	Manual	64,77	None	None
5.6	President Marked	0%	Manual	64,77	None	None
5.8	Fade MLs Marked	0%	Manual	64,77	None	None
▷ 6	Conductor Marked	100%	Manual	64,77,186	None	None
6.5	Conductor out Marked	0%	Manual	64,77,186	None	None
Scene 2 - Lights Up						
7	Pages N1 Marked	0%	Manual	69,73,82/92,96/99	None	None
7.5	Preset Reveal Marked	0%	Manual	69,85,96,107/113,127/1...	None	None
8	Build Scrim Marked	0%	Manual	69,82/89,92,96/99,107/...	None	None
9	Song Marked	0%	Manual	5,16,29,32,64,77,91,10...	None	None
9.1	Song Build Marked	0%	Manual	5,16,29,32,64,77,91,10...	None	None
9.5	LHC Pulldown Marked	0%	Manual	107/113,127/133,147/15...	None	None
9.6	Reveal Set Marked	0%	Manual	6/8,13/15,26/28,33/35,4...	None	None
10	Prep for D1 Marked	0%	Manual	29,61,62,64,77,81,85,9...	None	None
11	Duchess 1 Marked	0%	Manual	64,77,104,114/116,134/...	None	None

Active Cue: 6
Selected Cue: 6

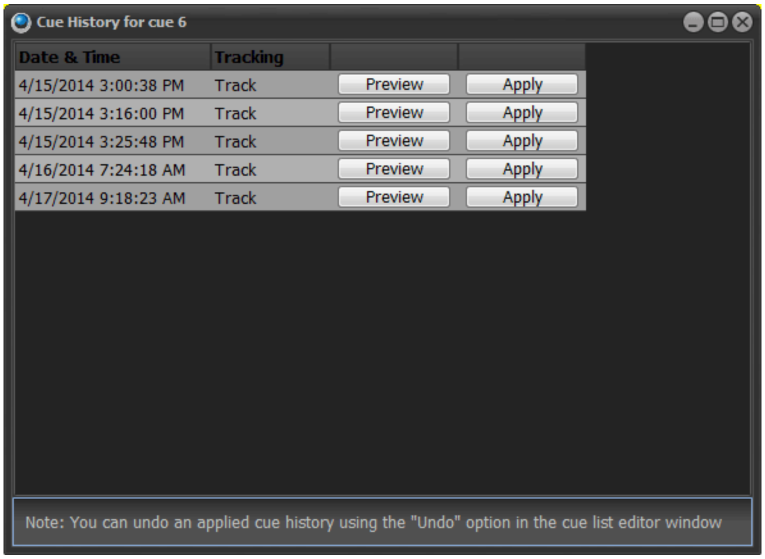
Undo

Use the undo function (alternatively you can use control-z) to undo the last change made to the cue list. In the case of the cue list channel detail window the undo command will revert back to the channel state when the cue was selected.

Open Cue Update History

The cue update history is a powerful system that remembers every state that has ever been recorded for this cue. Whenever a cue is updated or changed the cue update history is added to. You can then use this window to try and revert to a previous cue state.

When a cue is reverted to a previous state the current state is also added to the history table so that no state is ever lost.



Date & Time	Tracking		
4/15/2014 3:00:38 PM	Track	Preview	Apply
4/15/2014 3:16:00 PM	Track	Preview	Apply
4/15/2014 3:25:48 PM	Track	Preview	Apply
4/16/2014 7:24:18 AM	Track	Preview	Apply
4/17/2014 9:18:23 AM	Track	Preview	Apply

Note: You can undo an applied cue history using the "Undo" option in the cue list editor window

Use the preview button to apply on stage what the cue looked like at the specified date and time. Click on the apply button to set the state of the current cue to what it was at the selected date and time.

Toggle Blocking on the Selected Cues

When running in full tracking mode you can set an entire cue to be a block cue. A block cue will use the cue as the absolute state that is expected. If a channel does not exist in the cue then it will be turned off. Use this option to toggle the "block" flag for the cues that are currently selected.

Block Cue

This will open up the submenu for globally setting the flags on all fixtures inside the selected cue.

Set "Block" on all cues - This option will check all blocking flags in the selected cue.

Un-Set "Block" on all cues - This option will un-check all blocking flags in the selected cue.

Mark Cue

Set "Mark" on all cues - This option will check all mark flags in the selected cue.

Un-Set "Mark" on all cues - This option will un-check all mark flags in the selected cue.

Set Trigger (Selected Cues)

To modify the trigger setting of multiple cues select the rows you want to change, right click and select the trigger from the sub menu. You can select the rows by clicking on the very left of the row where the current row indicator is shown. Hold the control and shift keys while clicking with the left mouse button to select more than one row.

If you have the "trigger" column selected then this menu option will apply to every cue in the current cue list.

Timestamp on Cue Go

Turn this option on to learn the timecode for a show by running it in real time. Every time the "Go" button is pressed in the playback controls the timecode will be record for the next cue with no timecode recorded.

Timestamp on Doubleclick Timecode Field

Turn this option on to learn the timecode when you double click on the timecode field.

Lock 1st Column

This locks the first column from editing.

Lock Row Height

This locks all row heights.

Cleanup "Next Cue" Numbering from this Point

If you have got the "next cue" column out of sequence you can easily return it to the default sate (next cue always follows the cue number) by selecting this option. The cleanup will happen from the currently selected cue down. To clean up the entire cue list select the first cue before selecting this option.

Re-Number as Whole Cues from this Point

If have a lot of point cues in the cue list from inserting cues or rearranging the order of the cue you can use this option to quick re-number. After this operation every cue will be a whole number with no decimal part to it.

The re-number will happen from the currently selected cue down. To re-number the entire cue list select the first cue before selecting this option.

Timestamp Next Non-Zero Cue

When working with timecodes it is often useful or convenient to create your cue list without any timecode values loaded. Once you have created the cue list you must then go back and assign timecode values manually.

To aid with this operation NEO provides the ability to timestamp cues with the last read timecode. Once you have created the cue list you can then play back the timecode track and stamp each cue in real time. Because using the right click menu is not a quick enough operation when playing back media in real time a shortcut (control - t) is also provided. Playback the timecode track and press the control-t to stamp the next non zero cue at the appropriate times.

Clear Notes for the Selected Cue

Use this option to empty the cue notes field for the selected cues.

Reset All Effects in the Selected Cue

The reset effects option is used during playback of the cue list. If the cue contains effects you can manually stop the effect execution without stopping the cue using this option.

Force Resave of this Cue List

Use this option to force a resave of this cue list.

Visualizer Preview Options

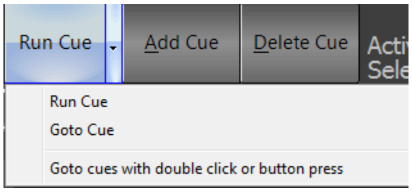
This sub menu can be used to view the state of a cue in the attached visualizer without having to run it live.

Preview this cue in visualizer - Select this option and the currently selected cue will be shown in the visualizer output. The live output will be blocked until you release it.

Release visualizer preview - Use this release option to return control of the visualizer back to the live output.

Always preview the next cue in the visualizer - This options can be toggled on or off. If this option is on and a cue is run the next cue will be shown in the visualizer and the live output will be blocked until this option is turned off or the release option is selected.

Run Cue



To the right of the cue options menu is the run cue button. The function of this button will change depending on the setting. Options are…

Run Cue - triggers cue to run in recorded time.

Goto Cue - triggers cue using the default Goto time. Goto time is set in System Properties>Show Defaults.

This button performs the same operation as double clicking on the "status" field of the cue list. It also provides an easy indication of what double clicking on a cue will do.

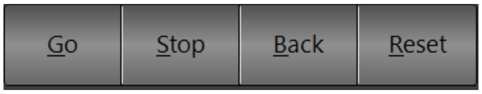
Add Cue

Adds a cue at the end of the cue list.

Delete Cue

Deletes the currently selected cue. There is an option here to delete the cue Cue Only. Otherwise, the cue will be deleted Tracking.

Cue Controls



On screen cue controls are available in the Cue List display.

GO - triggers the cue to run in the recorded time.

STOP - will pause the running cue.

BACK - will return to the previous cue.

RESET - will reset to the top of the cue list.

Cue Number

The cue number represents the order that the cues appear in the list and by default, it also determines the run order of the show. Cue numbers can be set to any number you want by clicking within the field and typing the new value.

Cue numbers must be between 0.000 and 4294966.999. When editing cues it is not necessary to enter the decimal number if all you want is an integer value.

NEO NOTES & TIPS: NEO will automatically re-order the cue list as soon as you exit the field and thus save the new value. The "next cue" value will not be changed if you edit the cue number so you must manually ensure that the show follows the desired sequence.

The most common use for editing the cue number is to insert a new cue between two existing cues. To do this, change the cue number to a valid number between the two cues.

Example…

To insert a new cue between cues 2 and 3 we would create a new cue and change its number to 2.5. To ensure that the show follows the sequence 2, 2.5, 3 we would need to change the "next cue" number of cue 2 to 2.5 and the "next cue" of 2.5 to 3.

NEO NOTES & TIPS: Changing the cue number can also be used to park a cue for use later. To do this, simply change the cue number to a high value and ensure that none of the other cues have the "next cue" set to this value.

Description

This field is for your own reference and provides the ability to describe the lighting state contained in the cue. By default, this description contains the cue number. This can be changed by clicking within the field and entering the new description.

Channels

This is a list of the channels included in the cue. This list can be edited by entering the channels separated by a coma (,) or a space. To edit, click inside the field and type the desired channel list or edit using left and right arrow keys. You can also enter channels using the same syntax as the command window.

Examples:

[1][+][3][+][4][+][1][0][/][2][0][-][1][5][ENTER]

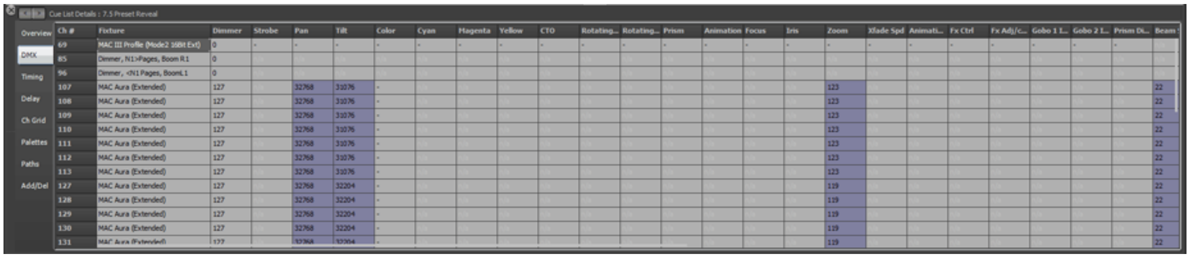
This will add channels 1, 3, 4 and channels 10 through to 20 excluding 15 to the cue.

[1][/][1][0][-][5][@][2][ENTER]

This will add channels 1 through to 10 excluding 5 into the cue and set the level to 20%.

The channels included in the cue can also be edited by clicking on the (**...**) button to the right of the field or by double clicking on the grid cell. This will bring up the "Cue List Detail" window. This window provides greater control over the maximum value the channel will reach when the cue is executed, and provides access to intelligent fixture attributes.

From version 2.9 onward the "**Cue List Detail**" window will default open and docked to the bottom of the cue list window. You can undock it at any time by clicking and dragging the bar (below the x) running down the left of the panel.



Ch #	Fixture	Dimmer	Strobe	Pan	Tilt	Color	Cyan	Magenta	Yellow	CTO	Rotating...	Rotating...	Prism	Animation	Focus	Iris	Zoom	Xfade Spd	Animati...	Fx Ctrl	Fx Adj/c...	Gobo 1 I...	Gobo 2 I...	Prism Di...	Beam :
69	MAC III Profile (Mode2 16Bit Ext)	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a
85	Dimmer, N1>Pages, Boom R1	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
96	Dimmer, <N1 Pages, BoomL1	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
107	MAC Aura (Extended)	127	n/a	32768	31076	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
108	MAC Aura (Extended)	127	n/a	32768	31076	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
109	MAC Aura (Extended)	127	n/a	32768	31076	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
110	MAC Aura (Extended)	127	n/a	32768	31076	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
111	MAC Aura (Extended)	127	n/a	32768	31076	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
112	MAC Aura (Extended)	127	n/a	32768	31076	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
113	MAC Aura (Extended)	127	n/a	32768	31076	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
127	MAC Aura (Extended)	127	n/a	32768	32204	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
128	MAC Aura (Extended)	127	n/a	32768	32204	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
129	MAC Aura (Extended)	127	n/a	32768	32204	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
130	MAC Aura (Extended)	127	n/a	32768	32204	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22
131	MAC Aura (Extended)	127	n/a	32768	32204	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22

This window has seven tabs down the left hand edge that correspond to the different information you may want to edit.

If a channel does not have an attribute for a displayed column the cell will be greyed out and cannot be edited. An "n/a" will also appear in the cell.

The values set in the overview and DMX tabs will determine the value that the attribute will reach when the cue is executed.

Tricks for Editing Multiple Cells at Once

This window provides a few hidden techniques to make entering large amounts of information easier.

The first step to using these features is to select multiple cells at once. By holding down the mouse button you can click and drag over any number of cells in the grid and all of the cells will become selected. You can select multiple cells but selecting the first one and then holding the shift key down and selecting the last one. You can select multiple cells in any number of columns however it may not make sense to edit some columns together.

Once you have selected the cells you want to edit enter a value into the first cell and press the enter key. As soon as you are done all of the highlighted cells will receive the value you have entered.

Time and Delay fields - The time and delay columns will also accept the same technique for entering values into multiple cells. These fields however also support additional syntax for spread timing. You can enter a range of times using the / as a through command.

Examples:

1/10 - This will put time values into the selected cells spreading them between 1 and 10 seconds. The first cell will receive 1 second and the last cell 10 seconds. Every other cell will receive a value between 1 and 10second depending on their position.

2/15/3 - This is similar to the above example but the middle value will be placed into the middle cell of the selected range. So that the first cell will receive 2 seconds the middle cell will receive 15 seconds and the last cell 3 seconds. All other cells will receive a proportion of the range entered.

r 10 - the "R" is a special modifier that means "random". Using the r in front of the value means that the result will be a random number between 0 and 10. All of the selected cells will receive a different random number.

Overview

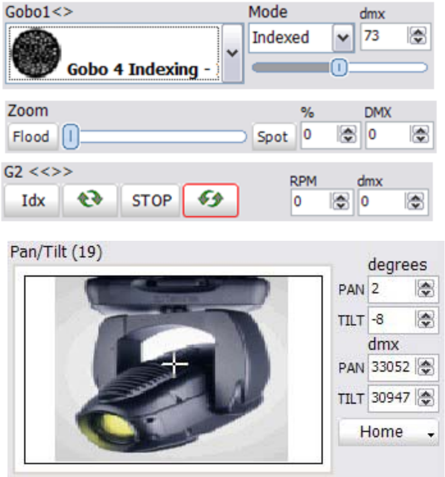
The overview tab will show the attributes values as real world information. Most values will be shown as percentage information but some values may show other data. A gobo control for example will show an image of the gobo selected and the color controls will show the color that is currently assigned.

This tab also provides optional time and delay for the individual 1/channels. For attribute level timing see the "timing" and "delay" tabs.

Block - Check the "Block" check box to force this channel to not follow tracking instructions. All of the values set in the cue will be applied to the live output regardless of the previous cue execution.

Mark - A marked cue will execute most of its attributes in the previous cue if the channel does not exist in that cue. It uses the fade in and dwell time of the previous cue as the time the fixtures will change. You can also override this operation by setting a non-zero value into the "default mark time" found in the "System Properties."

Each of the attribute cells also provide helper controls that can be accessed by double clicking on the cell. For the color cells the standard NEO color picker will appear. Once you have finished modifying the value with the helper control click anywhere in the previous window to close it.



Gobo1<>: Gobo 4 Indexing -
Mode: Indexed
dmx: 73

Zoom
%: 0
DMX: 0

G2 <<>>
RPM: 0
dmx: 0

Pan/Tilt (19)
degrees
PAN: 2
TILT: -8
dmx
PAN: 33052
TILT: 30947

DMX

The DMX tab will show all of the same information as the overview tab but all of the values will be shown as DMX values. This provides the maximum resolution when modifying the data in the cue. For example in the overview tab the dimmer is shown as a percentage giving 100 possible values but the underlying DMX associated with the dimmer has 255 (or in some cases 65535) possible values. When the percentage is changed is converted to a DMX value for storage in NEO.

Timing

To set an individual fade time for any attribute use the timing tab to enter a time value in seconds. If the value shows "Not set" then no independent fade time exists. Any fade time set here will override the channel fade time and the cue timing.

Delay

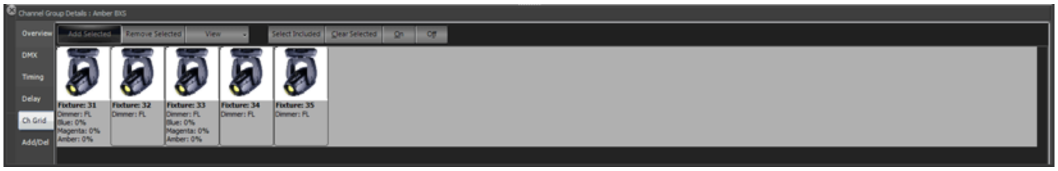
To set an individual delay time for any attribute use the delay tab to enter a time value in seconds. If the value shows "Not set" then no independent delay exists. Any delay set here will override the channel delay when the cue timing.

Profile

The profiles tab is reserved for a future version of NEO. This feature is not currently supported in this version.

CH Grid

The channel grid view will show the channels in a similar view to the channel display window. Editing channels in this view is similar to the channel display. You can select the channels using the mouse and control the dimmer value with the scroll wheel.



Channel Group Details : Amber BXS

Fixture: 31
Dimmer: FL
Blue: 0%
Magenta: 0%
Amber: 0%

Fixture: 32
Dimmer: FL

Fixture: 33
Dimmer: FL
Blue: 0%
Magenta: 0%
Amber: 0%

Fixture: 34
Dimmer: FL

Fixture: 35
Dimmer: FL

The view menu can be used to change the way each channel is displayed. See “Channel Grid” on page 100 for information on the different view styles.

In the view menu you can toggle between showing only the channels that are recorded into the cue and showing all of the channels in the system using the "**Show only channels included in this cue**". If this option is turned off the channels not recorded into the cue will be displayed in a light gray. With this mode turned on you can use the "**Add Selected**" button to add channels into the cue.

Use the "**Remove Selected**" button to remove channels from the cue.

Palettes

Palettes are a powerful way to manage fixture data in a large show. We can think of palettes as references to other objects that have already been programmed in the software. The best example of the usefulness of palettes is position presets. Position presets are a list of pan and tilt positions for each fixture in the show. When we record a cue we could set a fixture to a specific position on stage and record the value to the cue. However if at a later time the position gets moved someplace else we need to go through the cue list to find all of the places that the position was used.

Instead we could record that position into a position preset at the beginning and instead to recording the same position into the cue we would reference the position preset we have just made. If the physical position changes at a later time all we need to change is the position preset and all of the cues that reference that information will be updated automatically.

This is only one simple example of using palettes as reference values in a cue, we could do the same thing with color, gobos, focus etc.

In NEO there is two types of palette references that can be used in a cue.

A channel group can be used in cases where each fixture in the reference needs to have a different value. The position preset focus group above is an example of this as every fixture although pointing at the same spot on stage may have slightly different pan and tilt values.

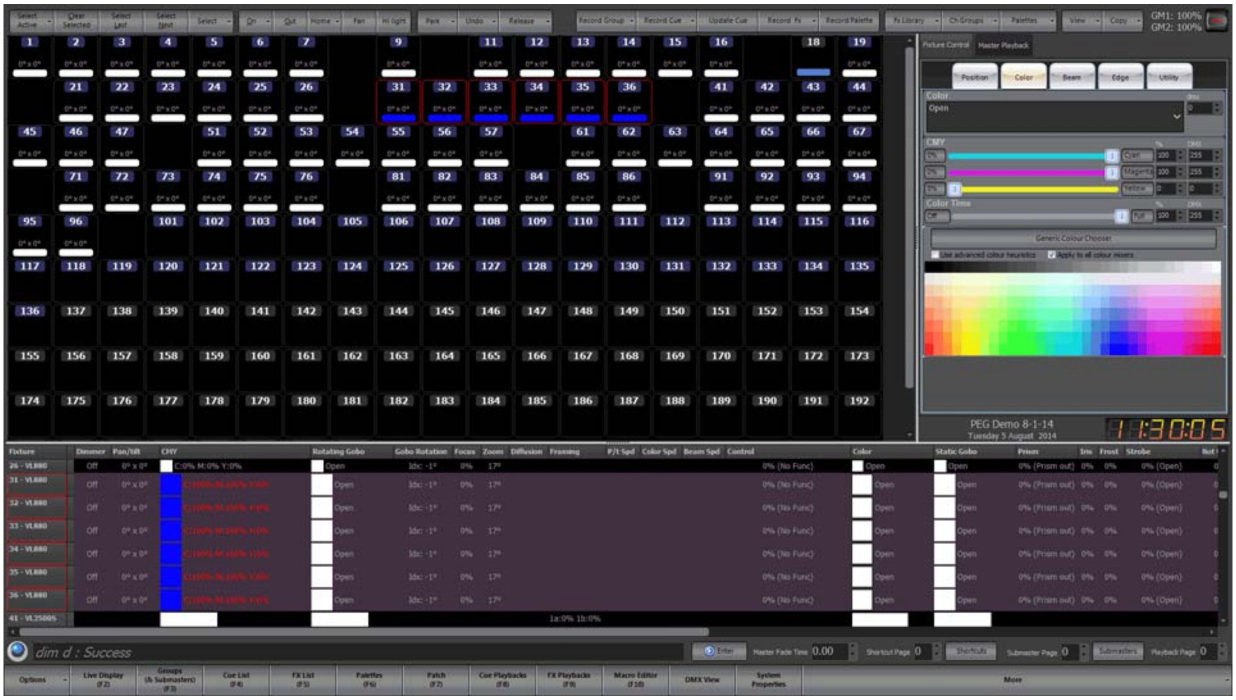
A palette is used in cases where we want to apply an abstract value to an attribute. Color is an example of this type of reference as NEO is capable of working out how to set the color on a fixture regardless of its type or place in the rig.

NEO NOTES & TIPS: When an attribute has a palette reference assigned to it the value displayed in the overview and DMX tabs will show in red. The software still remembers the "hard" values that were recorded but is indicating that the values shown are not going to be used unless the palette reference is removed.

16. Creating Palettes

Color palettes are a very common use for Palettes so let's talk about creating a color palette.

Select desired fixtures and change their color output. Cyan and Magenta are set to full to make a color (for this example) called "Show Blue".

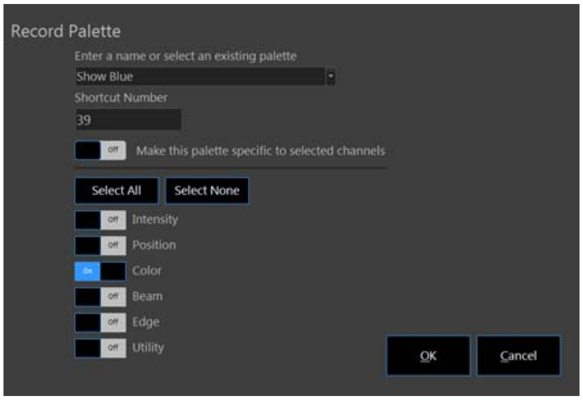


dim d : Success

Create the Palette...

From the NEO screen, press the (image: record-palette-button) or, using Command Line, press and hold [RECORD] and press [GENERIC PALETTE]. (By pressing and holding RECORD and then pressing any item button, this will bring up the dialogue box to change settings. If you know that the settings are correct and do not need adjustment, just go straight to Command Line by typing [RECORD][GENERIC PALETTE](#)[ENTER]

This example stores "Show Blue".



Record Palette

Enter a name or select an existing palette: Show Blue

Shortcut Number: 39

Off Make this palette specific to selected channels

Off Intensity

Off Position

On Color

Off Beam

Off Edge

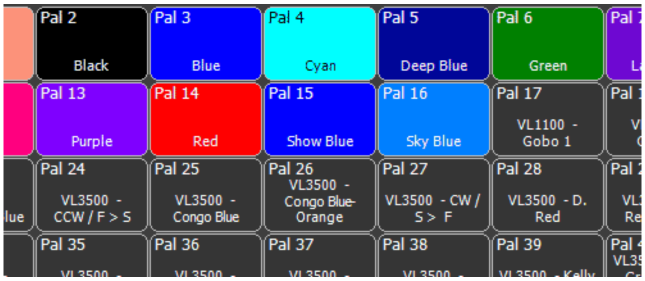
Off Utility

Once the color palette is stored, it can be applied to any color mixing fixture that is patched.

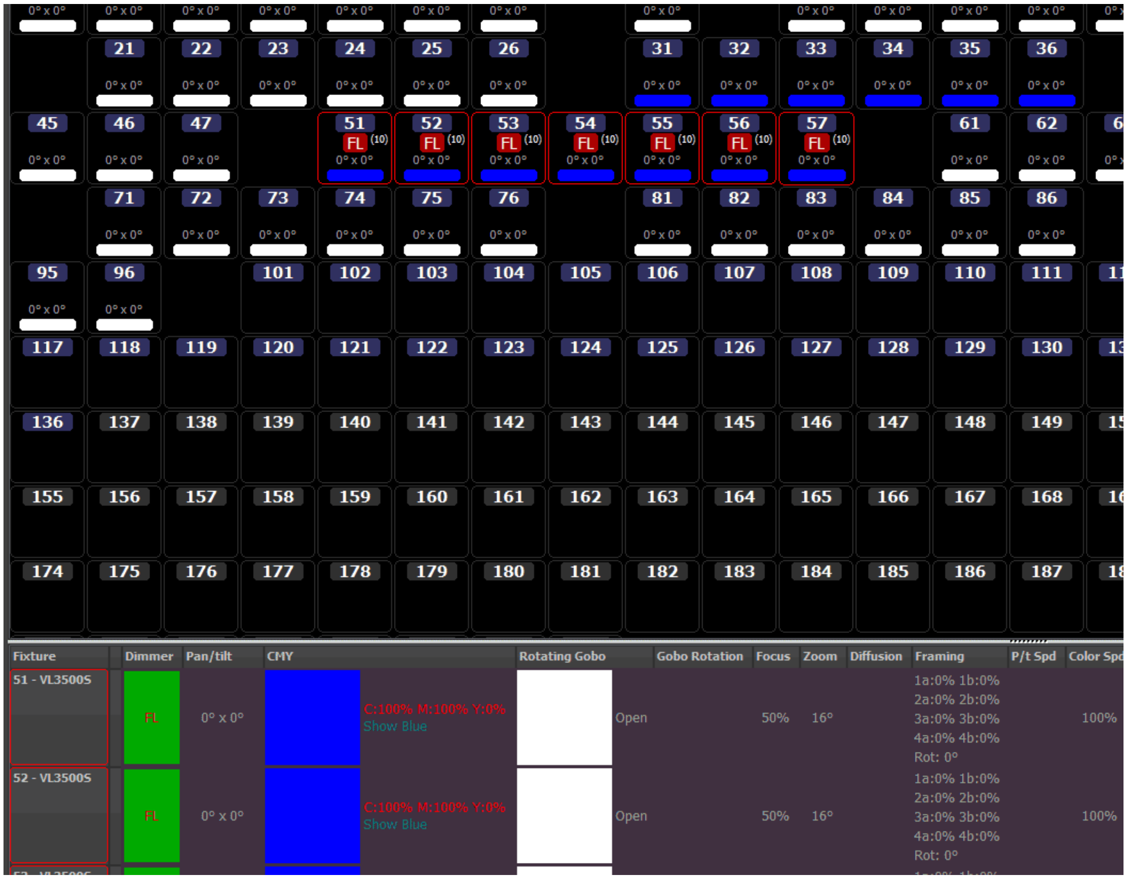
1. Select the fixtures. In this example: 51 thru 57.

2. Open the Palette window.

3. Select the desired color palette.


Pal 2
Black
Pal 3
Blue
Pal 4
Cyan
Pal 5
Deep Blue
Pal 6
Green
Pal 13
Purple
Pal 14
Red
Pal 15
Show Blue
Pal 16
Sky Blue
Pal 17
VL1100 - Gobo 1
Pal 24
VL3500 - CCW / F > S
Pal 25
VL3500 - Congo Blue
Pal 26
VL3500 - Congo Blue-Orange
Pal 27
VL3500 - CW / S > F
Pal 28
VL3500 - D. Red
Pal 35
Pal 36
Pal 37
Pal 38
Pal 39
VL3500 - Kelly

This example applies "Show Blue".

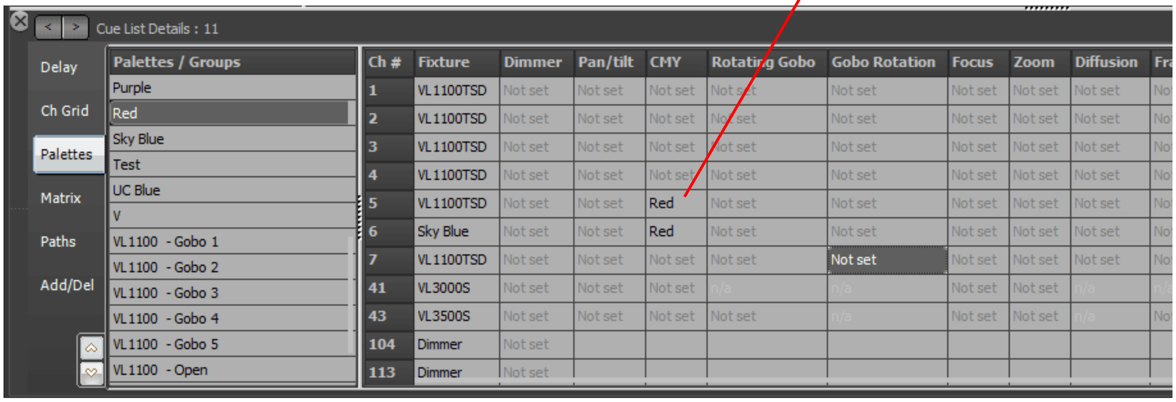

21 22 23 24 25 26 31 32 33 34 35 36
45 46 47 51 52 53 54 55 56 57 61 62
FL (10)
0° x 0°
71 72 73 74 75 76 81 82 83 84 85 86
95 96 101 102 103 104 105 106 107 108 109 110 111
117 118 119 120 121 122 123 124 125 126 127 128 129 130
136 137 138 139 140 141 142 143 144 145 146 147 148 149
155 156 157 158 159 160 161 162 163 164 165 166 167 168
174 175 176 177 178 179 180 181 182 183 184 185 186 187

Fixture	Dimmer	Pan/tilt	CMY	Rotating Gobo	Gobo Rotation	Focus	Zoom	Diffusion	Framing	P/t Spd	Color Spd
51 - VL3500S	FL	0° x 0°	C:100% M:100% Y:0% Show Blue	Open		50%	16°		1a:0% 1b:0% 2a:0% 2b:0% 3a:0% 3b:0% 4a:0% 4b:0% Rot: 0°		100%
52 - VL3500S	FL	0° x 0°	C:100% M:100% Y:0% Show Blue	Open		50%	16°		1a:0% 1b:0% 2a:0% 2b:0% 3a:0% 3b:0% 4a:0% 4b:0% Rot: 0°		100%

Notice that in the Fixture Grid, you can see that both 31 thru 36 (the fixtures that were used to create the palette) and 51 thru 57 (the fixtures used to apply the palette) are both in Show Blue. The ML Attribute window at the bottom of the screen shows both attribute data (CMY values) and the Palette reference "Show Blue".

Palette references can be added to a cue at the time of recording or using the palette tab in the cue detail window. In this tab is two panels separated by a movable splitter. In the left hand panel is a list of all the available palette references that can be added to the channels in this cue. The list is an alphabetical list of both channel groups and generic palettes.

The panel on the right is similar to the overview and DMX tab. Each row is a fixture and each column an attribute.



Assigned

Palettes / Groups
Purple
Red
Sky Blue
Test
UC Blue
V
VL1100 - Gobo 1
VL1100 - Gobo 2
VL1100 - Gobo 3
VL1100 - Gobo 4
VL1100 - Gobo 5
VL1100 - Open

Ch #	Fixture	Dimmer	Pan/tilt	CMY	Rotating Gobo	Gobo Rotation	Focus	Zoom	Diffusion	Fra
1	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
2	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
3	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
4	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
5	VL1100TSD	Not set	Not set	Red	Not set	Not set	Not set	Not set	Not set	No
6	Sky Blue	Not set	Not set	Red	Not set	Not set	Not set	Not set	Not set	No
7	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
41	VL3000S	Not set	Not set	Not set	n/a	n/a	Not set	Not set	n/a	n/a
43	VL3500S	Not set	Not set	Not set	Not set	n/a	Not set	Not set	n/a	No
104	Dimmer	Not set								
113	Dimmer	Not set								

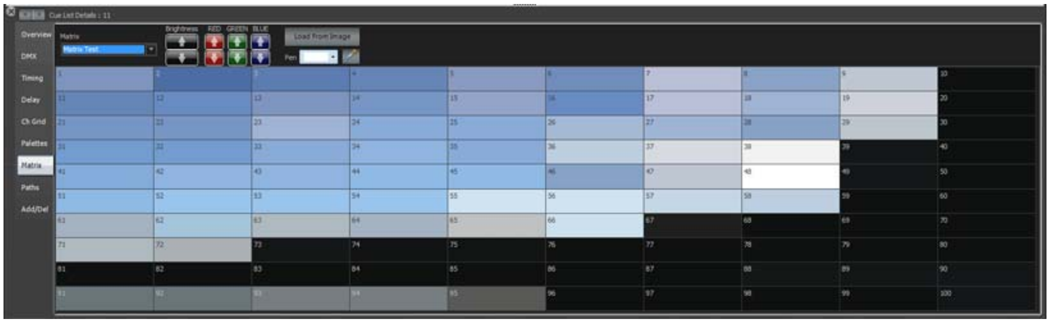
To add a palette reference to an attribute select it from the panel on the left and while holding the mouse button down drag and drop it onto the attribute.

Alternatively you can enter palettes by clicking in the required attribute field and start typing the name of the palette you want. As you begin to type a popup list of palettes will appear. Use the up and down arrow on your keyboard to select the palette you want and press enter to assign it to the attribute.

Using the palette reference tab in the detail editor is a very slow way to add palette reference and is designed to be used as an editing tool to make changes after the cue is created. The easiest way to work with palettes is to record them from the channel display.

Matrix

A cue can also be viewed as a pre-defined matrix and edited in a painting style. See "Creating Palettes" on page 122 for more information.



Fixture Detail - Matrix view

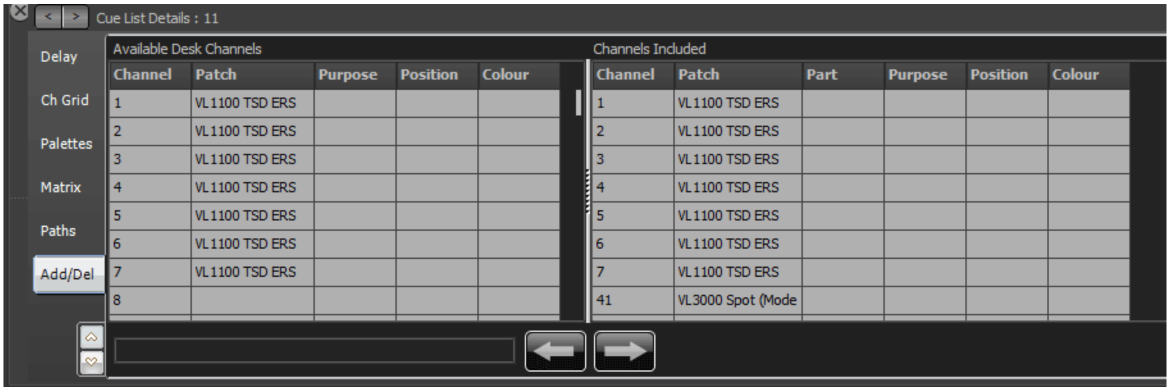
Select the matrix you want to view the cue as using the drop down box at the top left of the window. The Matrix tab shown above will appear if any matrices have been defined in the software. The two dimensional grid will show a representation of the matrix definition. You can then paint to the matrix by selecting the pen color and then clicking anywhere in the grid. Use the "Load from Image" button to map any bitmap or jpeg onto the matrix.

If the channels connected to the matrix cell do not exist in the cue they will be automatically added as soon as you paint to it and the appropriate color will be set. If the channel already exists in the cue then its color will be changed to reflect the painted color.

Additional controls allow you to tweak the brightness, red, green or blue content of the matrix.

Add/Delete

The final tab provides convenient options for adding and removing channels from the cue.



Available Desk Channels

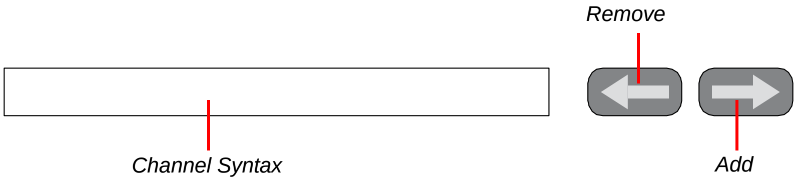
Channel	Patch	Purpose	Position	Colour
1	VL1100 TSD ERS			
2	VL1100 TSD ERS			
3	VL1100 TSD ERS			
4	VL1100 TSD ERS			
5	VL1100 TSD ERS			
6	VL1100 TSD ERS			
7	VL1100 TSD ERS			
8				

Channels Included

Channel	Patch	Part	Purpose	Position	Colour
1	VL1100 TSD ERS				
2	VL1100 TSD ERS				
3	VL1100 TSD ERS				
4	VL1100 TSD ERS				
5	VL1100 TSD ERS				
6	VL1100 TSD ERS				
7	VL1100 TSD ERS				
41	VL3000 Spot (Mode				

This window is divided into two halves. On the left hand side is a list of all the channels in the system. Additional information such as purpose, positions etc are also provided to help identify channels. The right hand panel is the list of channels that are included in the cue.

Along the bottom of this tab are the "add" and "remove" buttons.



Select the desired channels in the left hand panel to add to the cue and click on the add button (right arrow) at the bottom of the page.

To remove select the desired channels from the right hand panel and click on the remove button (left arrow).

You can also use the channel syntax box to enter channels to be added. If text is entered into this edit box it will take precedence over the selected channels when the add button is pressed.

NEO NOTES & TIPS: In any of the tabs you can enter data into multiple cells by highlighting the cells you want to change and then typing the new value. As you type the value will only populate the first cell. Pressing the enter key after you have finished typing will copy the value to all of the highlighted cells.

Trigger

The cue trigger specifies what causes the cue to execute. By default, this is set to "Cue" indicating that the software is waiting for the "Cue Go" button to be pressed. The previous cue will remain active until the trigger is activated.

To set the cue trigger, click the drop down combo button to the right of the field and select from the following options;

Cue Go - The user must physically press a "Cue Go" button either in a show runner or on the show editor window.

Auto (Follow) - Cues set with the auto trigger will execute immediately after the previous cue has completed its delay, fade in, and dwell time. An auto cue will not wait for the fade out time so that cross fades can be achieved.

MIDI - The cue will be triggered by an external midi event occurring. See page 134 for information on how to set up MIDI triggers.

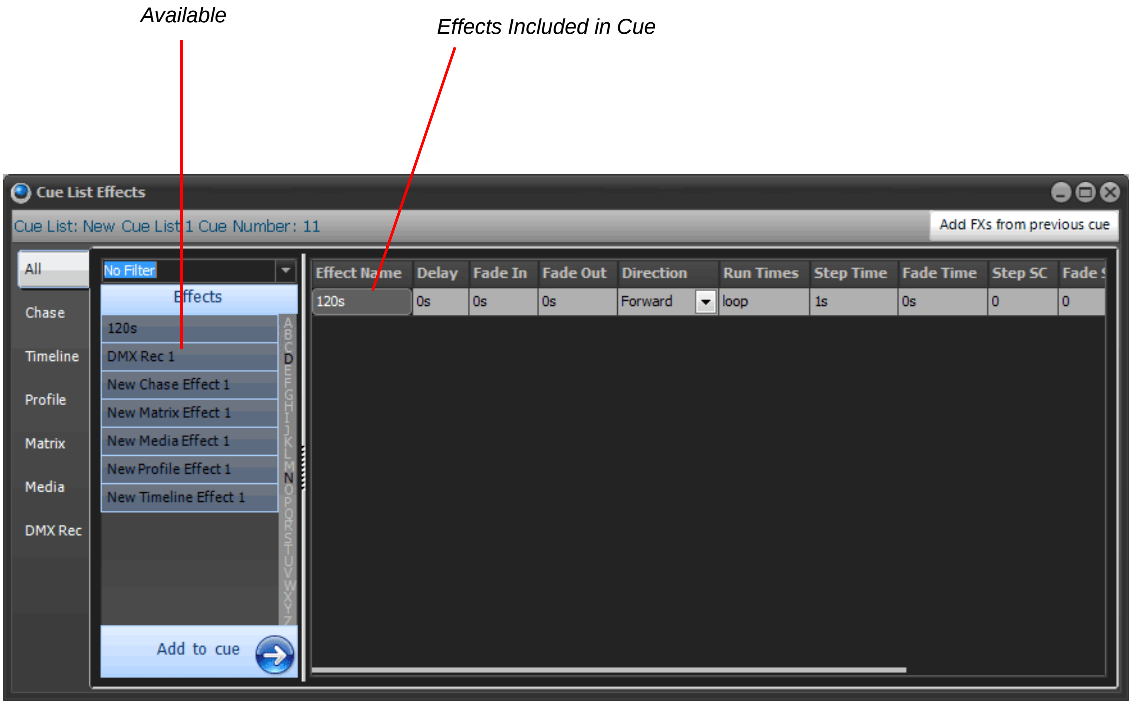
Line In - The cue will be triggered by the line-in audio source.

Timecode - The cue will trigger when the specified timecode is reached. If the timecode has already passed when this cue is reached the software will trigger the cue immediately. Enter the timecode value into the field provided.

Effects (FX)

Effect sequences are an automated sequence of lighting states that run without user interaction. For more information and detail on how to create effects, see "FX List (Effects Editor)" on page 130. A simple effect may be a traditional chase sequence or a more complex effect may perform a series of moving light changes.

Often when a cue is executed, it is desirable to run an automatic sequence until the next cue is triggered. NEO allows you to add any number of effects and chases into any cue.



Available

Effects Included in Cue

Cue List: New Cue List 1 Cue Number: 11

Effect Name	Delay	Fade In	Fade Out	Direction	Run Times	Step Time	Fade Time	Step SC	Fade S
120s	0s	0s	0s	Forward	loop	1s	0s	0	0

On the left of this window is the list of available effects in the system. If you have a large list of Fx's you can filter what is shown by clicking on the effect type tab on the left of the window or by selecting a filter from the combo box at the top of the list.

The effect window tabs will also filter what included effects are shown in the right hand panel.

To add all of the effects from the previous cue click on the button in the top right of the window labeled "**Add FX's from previous cue**".

To add an effect to the cue, select the desired effect from the available list and click the "**Add to cue**" button at the bottom of the effects list. To remove an effect from the cue click on the "**Remove**" button at the far right of the effect row. You may need to scroll the grid to the right for the button to be visible.

The "**Delay**" field allows you to set a time for the system to wait before starting the effect after the cue executes.

"**Fade In**" and "**Fade Out**"

These options allow you to set a different fade in and out time for each effect. This will only apply to the dimmer if it is used in the effect. Some effects do not use the dimmer at all and on this type of effect the fade in and out will not do anything.

When the cue exits (i.e., the next cue is triggered), all effects will be terminated.

Timeline, Profile, and Matrix Effects

Select the "**Loop**" check box so that the effect will play continuously while the cue remains current. If this is unchecked, the effect will play once and then stop.

All effects have a default length when the effect is created. To override this default time, set the "**Override length**" field to the desired value. The effect will automatically be rescaled to run within the specified time.

The "**Stagger Direction**" option is only used for property/attribute effects and set the way the stagger is setup.

Simple Chases

The "**Direction**" field specifies how the chase steps will play. Select from forward, backwards, bounce, or random from the drop down.

The "**Run times**" field allows you to specify how many times through the chase will run before stopping.

"**Step time**" and "**Fade time**" is provided to override the default values when running the chase in a cue. Set the step time to 0 to run the chase manually using a step shortcut.

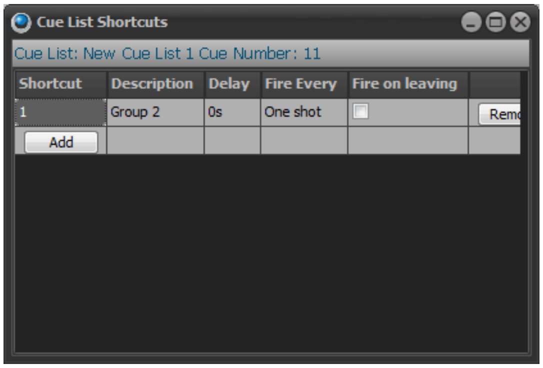
Setting the "**Step Shortcut**" will allowing you to manually step the chase. This shortcut will be loaded when the cue enters and removed when the cue exits. This allows you to use the same shortcut in several cues.

"**Fade**" and "**Step Submasters**" are also loaded when the cue enters and unassigned when the cue exits. This allows you to setup a submaster to manually control the fade transition and step time while the chase is running.

Cue List Shortcuts

Each cue can also execute any number of shortcuts when the cue runs. This allows you to run more complex operations such as executing macros, selecting channels, or jumping to another cue list.

Shortcuts can be added by simple typing a comma (,) delimited list of shortcuts. Alternatively you can click on the button ( ) to the right of the field or double click to bring up the edit window for "**Cue List Shortcuts**".



Cue List: New Cue List 1 Cue Number: 11

Shortcut	Description	Delay	Fire Every	Fire on leaving
1	Group 2	0s	One shot	☐

To add a new shortcut using the "**Cue List Shortcut**" window click on the "**Add**" button in the first cell of the last row in the grid. A new line will appear in the grid and the "Add" button will move down one row.

Use the remove buttons on the right of the grid to delete an entry form the grid.

In this window you can also specify a delay before running the shortcut. The system will then wait for the specified time before the shortcut executes.

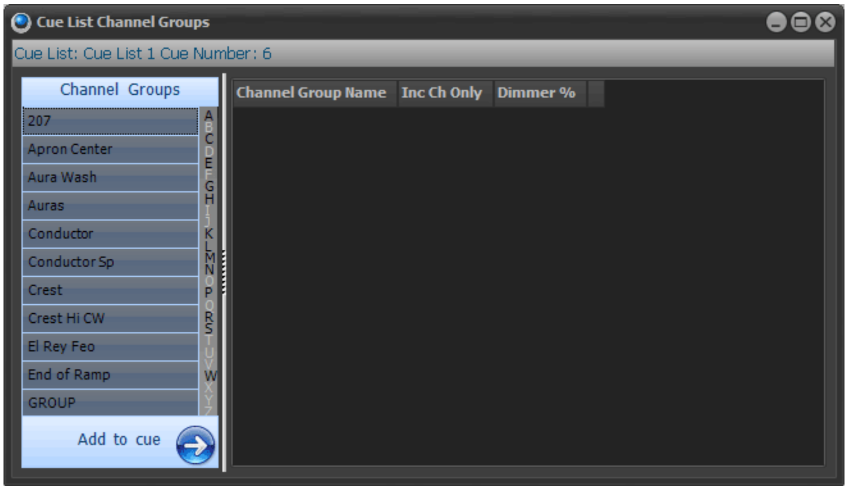
To run the shortcut on a recurring bases enter a time between execution in the "Fire every" field.

To run the shortcut when the cue exits, tick the check box in the column "Fire on leaving"

Channel Groups

By adding channel groups to a cue you can setup "stage looks" that can be edited in one place and applied to any number of cues. The channel groups become building blocks for the show and can make programming the entire show a lot faster by reusing common "stage looks".

Channel groups can be added by clicking on the button ( ) to the right of the field or double clicking to bring up the edit window for "**Cue List Channel Groups**".



You can add any number of channel groups to a cue. To add a channel group to the cue, select the desired group from the available list and click the "Add to cue" button. To remove a group from the cue click on the "Remove" button to the right of the row you no longer want in the cue.

Inc Channels Only - This option can be used to set the behavior of channel groups in relation to the channels added to the cue itself. If this option is turned on then the channels in the group will not be applied unless they also exist in the cue. For example, if you have a position preset group with 10 fixtures in it you may want to use only a subset of these fixtures in a cue. To achieve this you would add the subset of channels into the cue normally and also add the group into the cue.

Dimmer % - Set the dimmer percentage when using channel groups as scenes that you want to add into the cue. You can use this option to have the same group in many cues but with different weighting on the dimmer.

Follow Time

If the cue is set to "Auto" trigger then by default the cue will execute after the delay, fade in and dwell times have occurs. If the follow time is set then this will override the length of time before the cue executes.

Cue Delay

To specify a delay before the cue will execute, enter a valid time (in seconds) into this field. Internally a cue has finished just before the fade out executes to allow for cross fades between two cues. The delay can be used to stop this behavior by setting its delay time to the previous cue's fade out time.

Cue Time

The fade out field determines the time (in seconds) that the cue takes for each channel to go from the value contained in the cue to the value contained in the next cue. If the channel is not contained in the next cue then it will fade to 0. The fade time will apply to all fixture properties that are set within the cue.

If you are running the software is fade up/down mode then this value will determine the time taken for channels and attributes that are decreasing in value.

NEO NOTES & TIPS: An override fade time for individual channels can be set in the "Cue List Channels" window. See page 250.

FX Delay

To specify a global delay before effects are started enter a valid time (in seconds) into this field.

Timecode

When timecode triggers are being used, this field will specify the timecode value that the software will wait for. See "Timecode" on page 90 for more information.

Link (Looping)

The Link field indicates what cue will run next and can be used to change the order that cues run.

In addition to this you can specify the number of times that a loop will occur and also what cue will be executed when the loop ends or the cue GO is executed.

For example a cue can loop back to a previous cue and loop a specific number of times and then execute a different cue when finished. If the cue GO is pressed at any time though this loop then the exit cue will be run. If no loop count is specified then the system will loop indefinitely however pressing the GO will exit the loop to the specified exit cue.

To set the loop information enter the details with the following syntax…

Cue number to loop to, Number of times to loop, Exit Cue Number

Example…

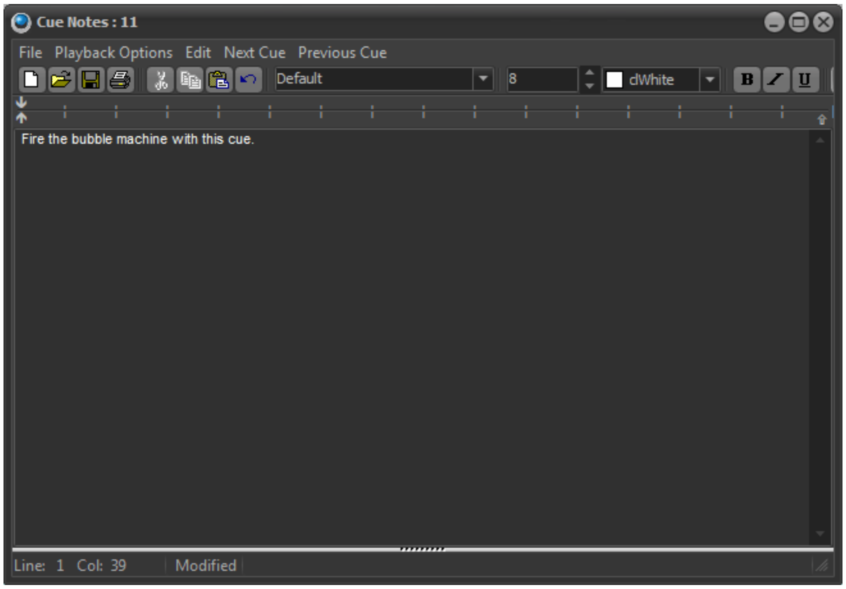
4,10,8	**Loop to cue 4, 10 times and exit to cue 8**
4,0,23	**Loop to cue 4, loop indefinitely and exit to cue 23 when the GO button is pressed**

Notes

Use the cue notes to record any additional information about the cue that might be useful later. This is a free form field that can hold almost any amount of data. You could for example use the notes field to store the script pages associated with the cue.

Double click on the notes field to open the "Cue Notes Editor". This form is a very simple text editor that will allow you to change text fonts, set alignment, copy and paste.

In the top menu of the Cue notes editor are options to move to the next or previous cue. As you select these options the cue notes will change to show the notes corresponding to the selected cue.



Fire the bubble machine with this cue.

Playback Options

When a cue is executes NEO will display the cue notes in a non-editing window. The playback options at the top of the window can be used to set other features during cue execution.

Send Notes to Telnet Sessions - If this option is on then when a cue executes the notes will be sent to all telnet clients that are currently connected.

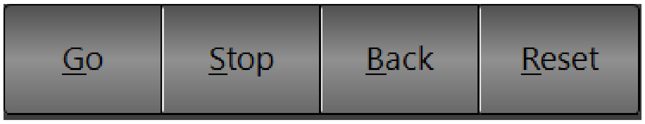
Read cue notes on execute - Using the build in speech engine of windows the software will read the text in a computer voice out the standard audio port of your computer.

Clear display if cue notes are blank - If this option is off then the last notes displayed will remain on screen until the next cue with valid notes is executes. With this option on the cue notes screen will be cleared.

Preview notes for the next cue on execute - With this option on the playback of cue notes will always be one cue ahead of the current cue.

Testing a Show

The "Cue List Editor" window provides convenient controls to allow you run and test a show. The four controls are the same as each of the cue list playbacks and operate exactly the same way. If the show you are working on has only one cue list there is no reason to use any of the additional playbacks and can run your entire show from the cue list editor window. See “Cue Playbacks” on page 175 for more information.



Cue List Editor controls for testing a show

Cue Go

This will execute the next cue in the active cue list. If there is no current cue active the "cue go" button will execute the first cue in the list. As soon as this button is pressed, the cue will start and a cue progress will be displayed in the status field of the cue

NEO NOTES & TIPS: If the cue is triggered by some external event, such as a timecode, then the "cue go" will override this and execute the cue immediately.

Cue Stop

This will stop the execution of the cue immediately. Any fades or waits will terminate and the current lighting state will be maintained. The will also stop the next cue from being executed regardless of its trigger.

Cue Back

The "cue back" button will execute the previous cue (the cue whose "next cue" value is the current cue) and terminate the current cue.

Cue Reset

"Cue Reset" resets the entire cue list and sets the current cue to nothing. Pressing the "cue go" after a reset will cause the first cue to start. Resetting the cue can be thought of as a "rewind to beginning" function. This will also release all of the channel from cue control.

17. FX List (Effects Editor)

An effect sequence is an automated sequence of lighting states that typically runs without user interaction. There are six types of effects supported in this version of NEO.

Simple Chase - Simple chases, contains a number of lighting states and are similar to a basic cues list.

Timeline - This effect contains a list of fixtures each assigned a number of timed segments. All effects have a default length of time (in seconds) that they will run for.

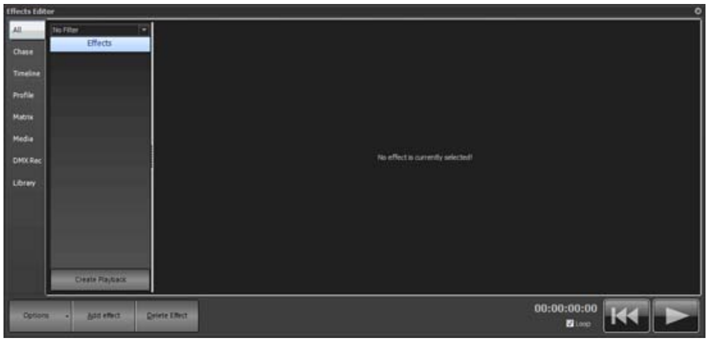
Profile - This effect allows you to assign a profile path to specific attributes of the fixture. As the effect runs over a set time the attribute follows the defined profile path.

Matrix - Specifically designed for use with LED or grid lighting this effect provides an easy way to deal with a large number of lights.

Media - To playback media files, flash animations, or control a DV desk.

DMX Recorder - The DMX recorder will use the DMX input system of NEO to record a continuous stream of data that can be played back at any time.

To access the effects editor, click the "**Effects Editor**" button on the Command Line interface window or press the F5 key on your keyboard.


Effects Editor
All
Chase
Timeline
Profile
Matrix
Media
DMX Rec
Library
No Filter
Effects
Create Playback
Options
Add effect
Delete Effect
00:00:00:00
☑ Loop

No effect is currently selected!

Effect Filters

NEO provides the ability to set filters with every effect to make managing a large number of effects easier. Double click on any of the effects to edit the list of filters that describe this effect. For example a moving light effect that does a circle might be given the filters - Movement, Intelligent Lights, Rear truss.

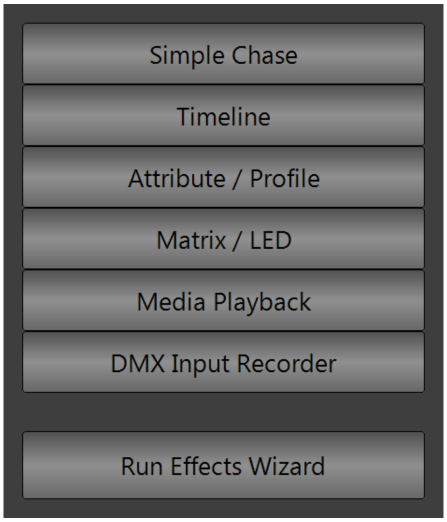
Use the combo box at the top of the effects list to select the filter you want to apply. The effects list will now only show effects that match these criteria.

You can also use the tabs on the left of the window to only show effects of a particular type. By default all of the effect are shown but if you only want media effects you can select this only this tab.

The last tab on the left of the window is different to the others in that it will switch to showing the effects stored in the Library. Library effects do not get deleted with a new show and can be used to create other effects.

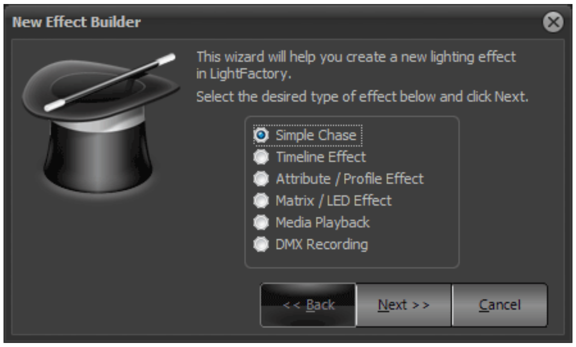
Creating New Effects

To create new effects click the "Add Effect" button. As soon as you click on the add button the effect creator pop up window appears.


Simple Chase
Timeline
Attribute / Profile
Matrix / LED
Media Playback
DMX Input Recorder
Run Effects Wizard

New Effects Builder Opening Page

Chose the type of effect you want, if you need help selecting, chose the "Run Effects Wizard".



This wizard will help you create a new lighting effect in LightFactory.

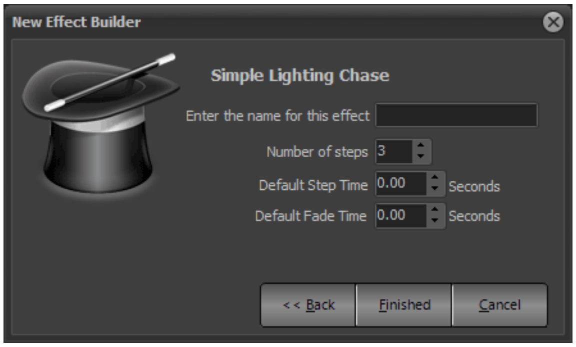
Select the desired type of effect below and click Next.

- ● Simple Chase
- ○ Timeline Effect
- ○ Attribute / Profile Effect
- ○ Matrix / LED Effect
- ○ Media Playback
- ○ DMX Recording

This first page will ask you to define what type of effect you want. Select the type of effect you want to create and click "Next" to continue.

Simple Lighting Chase

A simple chase is a step based effect similar to an automated cue list. Each step contains a list of fixtures each in a specific state.



Simple Lighting Chase

Enter the name for this effect

Number of steps 3

Default Step Time 0.00 Seconds

Default Fade Time 0.00 Seconds

New Effects Builder, Simple Chase

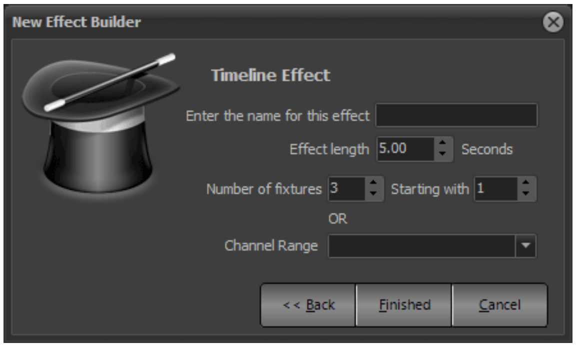
To complete building the effect, enter a name to identify the chase and set how many steps you want to include in the effect.

If you want to set the default step time (the time the system will wait before executing the next step) or fade time enter the values into the fields provided.

Click on "Finished" to create the new chase and open the chase editor. The newly created chase will immediately become visible in the right-hand side of the effects editor.

Timeline Effect

Provides the ability to build your effect by viewing its behavior over a timeline. The effect has a fixed length and each fixture can be given a specific behavior over that time.


New Effect Builder
Timeline Effect
Enter the name for this effect
OR
Channel Range
<< Back
Finished
Cancel

Effect length 5.00 Seconds

Number of fixtures 3 Starting with 1

New Effect Builder, Timeline

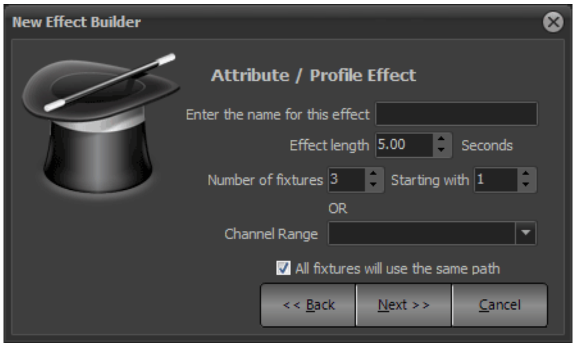
To complete the creation of an effect enter the name to identify the effect and set the length (in seconds) that you want the effect to run for.

Set the fixtures you want to include in the effect by setting the starting fixture number and specifying how many fixtures after that to include. Alternatively you can provide a range of channels using the command syntax in "Channel Range" field.

Click on "Finished" to create the new effect and open the effect editor. The newly created effect will immediately become visible in the right-hand side of the effects editor.

Profile Effect

This effect type is based on time vs. level path that is assigned to a list of fixtures and specific attributes or properties.


New Effect Builder
Attribute / Profile Effect
Enter the name for this effect
OR
Channel Range
<< Back
Next >>
Cancel

Effect length 5.00 Seconds

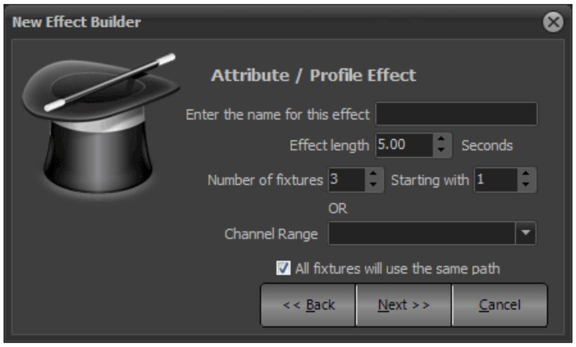
Number of fixtures 3 Starting with 1

☑ All fixtures will use the same path

New Effect Builder, Prop/Attrib Effect (Page 1)

Enter a name to identify the effect and set the default length. The channels or fixtures can be set using either a channel range (using Command Line interface syntax) or by setting the start channel and number to include.

When the effect is created with more than one fixture the wizard can place all fixtures into one path or create a separate entry for each. Use the "All fixtures will use the same path" option to set how the fixtures in the effect are organized.



Attribute / Profile Effect

Enter the name for this effect

Effect length 5.00 Seconds

Number of fixtures 3 Starting with 1

OR

Channel Range

☑ All fixtures will use the same path

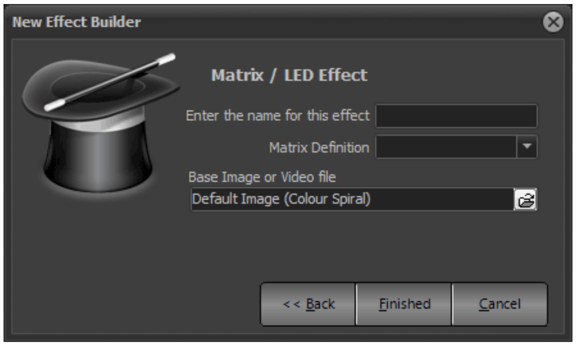
New Effect Builder, Prop/Attrib Effect (Page 2)

When you are happy with the settings click on the "next" button to move to page 2 of the effect wizard. Here you can specify the attribute that the effect will be applied to and the default path it will use. The predefined paths (sin, cos, saw, pwm) cannot be edited or changed. To create an effect using a one of these paths as a base that is will be changed select the option "Create a copy of this path for editing"

Click on "Finished" to create the new effect and open the effect editor. The newly created effect will immediately become visible in the right-hand side of the effects editor.

Matrix/LED Effect

The matrix effect is specifically designed for use with large arrays of lights such as LED fixtures.



Matrix / LED Effect

Enter the name for this effect

Matrix Definition

Base Image or Video file

Default Image (Colour Spiral)

New Effect Builder, Matrix Effect

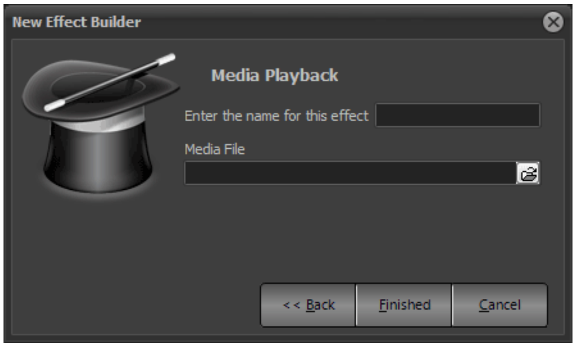
To create a matrix effect you must have already defined the fixture matrix in the dimmer patching window (See “Edit Matrices” on page 174).

To complete the creation of an effect enter the name to identify the effect and set the light matrix that you want to use.

Click on "**Finished**" to create the new effect and open the effect editor. The newly created effect will immediately become visible in the right-hand side of the effects editor.

Media Playback Effect

Use the media playback effect to play simple video and auto files directly from with NEO.


New Effect Builder
Media Playback
Enter the name for this effect
Media File
<< Back
Finished
Cancel

New Effect Builder, Media Effect

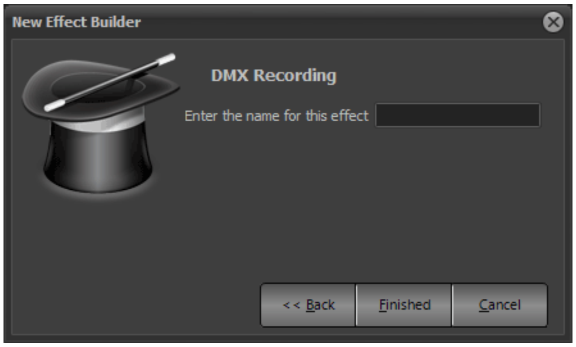
To complete the creation of an effect enter the name to identify the effect and set the media type that you want to use.

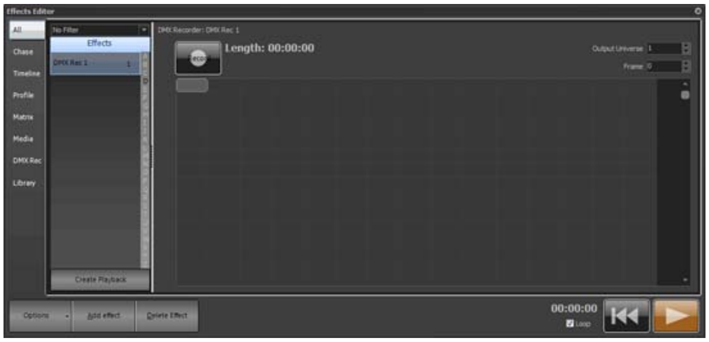
Click on "**Finished**" to create the new effect and open the effect editor. The newly created effect will immediately become visible in the right-hand side of the effects editor.

NEO NOTES & TIPS: This effect type requires the latest version of Microsoft DirectX runtime. Please visit http://www.microsoft.com/windows/directx/default.mspx for more information.

DMX Recorder

The DMX recorder will perform a real-time read of the incoming DMX channels and record this into the software. The record DMX stream can then be played back to any DMX universe on an LTP bases. Only DMX channels that have changed will be applied meaning that you can mix a recorded DMX stream with other NEO functionality.

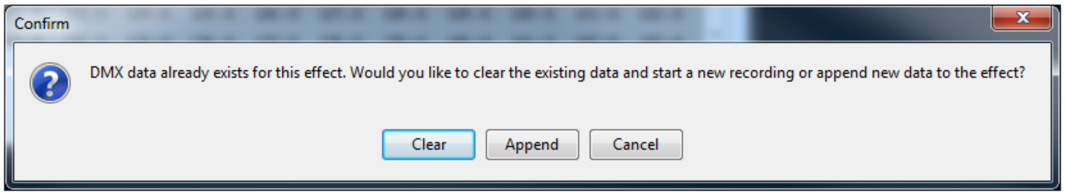

New Effect Builder
DMX Recording
Enter the name for this effect
<< Back
Finished
Cancel


Effects Editor
All
Chase
Timeline
Profile
Matrix
Media
DMX Rec
Library
No Filter
Effects
DMX Rec 1
Create Playback
DMX Recorder: DMX Rec 1
Length: 00:00:00
Output Universe 1
Frame 0
Options
Add effect
Delete Effect
00:00:00
☑ Loop

DMX Recorder

To begin recording click on the "Record" button in the top right corner of the window. The button will change to red and the length display will begin increasing in time. Click on the button again to stop the recording.

Clicking on the record button again will cause a dialog to appear asking if you want to clear the existing recording and start again or append to the existing recording.

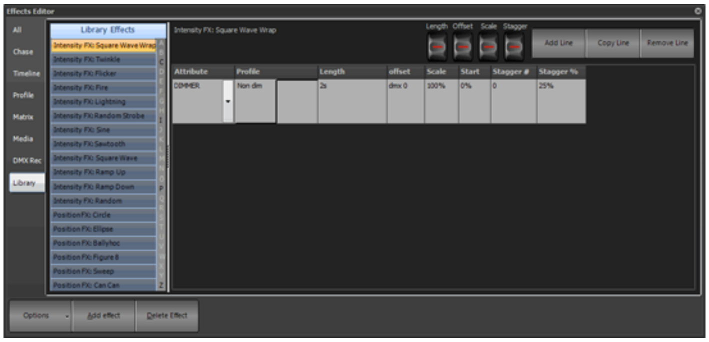

Confirm
Clear
Append
Cancel

DMX data already exists for this effect. Would you like to clear the existing data and start a new recording or append new data to the effect?

Use the output universe setting to determine the DMX universe you want to play the stream back on.

Effect Library

The effect library is a convenient way to save and recall your favorite profile effects. Once you have created an effect it can be copied to the library and will not be removed when you create a new show.


Effects Editor
All
Chase
Timeline
Profile
Matrix
Media
DMX Rec
Library
Library Effects
Intensity FX: Square Wave Wrap
Intensity FX: Twinkle
Intensity FX: Flicker
Intensity FX: Fire
Intensity FX: Lightning
Intensity FX: Random Strobe
Intensity FX: Sine
Intensity FX: Sawtooth
Intensity FX: Square Wave
Intensity FX: Ramp Up
Intensity FX: Ramp Down
Intensity FX: Random
Position FX: Circle
Position FX: Ellipse
Position FX: Ballyhoo
Position FX: Figure 8
Position FX: Sweep
Position FX: Can Can
Intensity FX: Square Wave Wrap
Length
Offset
Scale
Stagger
Add Line
Copy Line
Remove Line
Options
Add effect
Delete Effect

Attribute	Profile		Length	offset	Scale	Start	Stagger #	Stagger %
DIMMER	Non dim		2s	dmx 0	100%	0%	0	25%

A library effect looks exactly the same as the profile effect however it is missing the channels that the effect will use to run. The selected library is highlighted in green and the heading along the top of the right hand of the window will display the library name.

To add an existing profile effect into the library simply select it from the list, right click and select "Add to library". The name you have given the effect will also become the name of the library item.

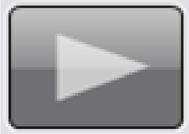
You can also create a blank library effect by selecting "Create new library effect" from the "Add Effect" drop down menu. A dialog will appear asking for the name of the new library effect. Enter an appropriate name and click "OK" to complete the operation. Click on "Cancel" to return to the effects window without creating the new item.

To remove an entry from the library use the right click menu again and select "Delete" from the available options. A dialog will appear asking you to confirm the deletion.

Effect Playback Controls

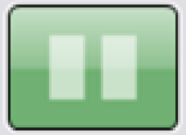
Along the bottom of the effect editor are the three playback controls for testing and debugging your effects. When the effect is played, a progress line will follow the execution through the effect.

Play



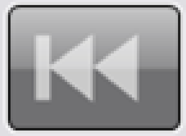
Use the play control to start the effect running. In the case of simple chases the play control is also used to step through the chase.

Pause



Pausing an effect will stop its execution immediately but keep the position pointer at the current location. If you start the effect again (press "play" button), the effect will continue from this location.

Rewind



Pressing the rewind button will stop the effect and resets its position back to the start. If the effect is restarted, it will start from the beginning. This will also release the channels used in the effect.

Selecting a Different Effect

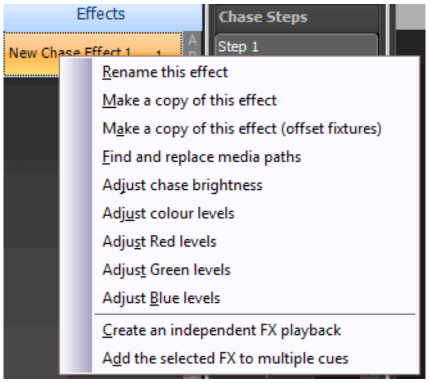
To change the current effect being edited click on the desired effect name in the list on the left of the window. The name of the currently selected effect will appear at the top of the effects grid to show which effect you are working on.

Deleting an Effect

To remove an effect form the system select it form the list and click on the "Delete" button at the bottom of the window. A confirmation dialog will ask if you are sure you want to remove the effect.

Right click Options

Right click on any of the effects for options to rename the effect, make a copy of the effect, create an effect playback or add the effect to the library (profile effects only).


Effects
Chase Steps
New Chase Effect 1
Step 1
Rename this effect
Make a copy of this effect
Make a copy of this effect (offset fixtures)
Find and replace media paths
Adjust chase brightness
Adjust colour levels
Adjust Red levels
Adjust Green levels
Adjust Blue levels
Create an independent FX playback
Add the selected FX to multiple cues

These options can also be accessed from the "Options" button at the bottom of the window.

Note: This list may vary depending on the effect type you select.

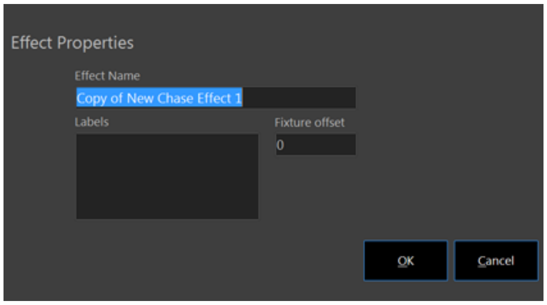
Rename This Effect

This assigns a different name to the selected effect.

Make a Copy of This Effect

This copies the selected effect when it's easier to start from an existing effect.

Make a Copy of This Effect (Offset Fixtures)



Effect Name: Copy of New Chase Effect 1

Fixture offset: 0

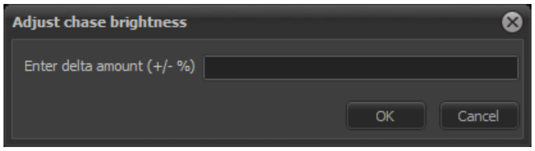
This copies the selected effect when it's easier to start from an existing effect and gives you the opportunity to offset the fixtures.

Find and Replace Media Paths

Use this option to conveniently update the location of media on your HDD in one step. If a media effect is already selected when choosing this option then the path used in that effect will automatically be used as the "Path to replace" field.

Adjust Chase Brightness

This will adjust the fixture's intensity in the effect by a relative amount.



Adjust Color Levels

This will adjust the fixture's color intensity in the effect by a relative amount.

Adjust Red Levels

This will adjust the fixture's red level in the effect by a relative amount.

Adjust Green Levels

This will adjust the fixture's green level in the effect by a relative amount.

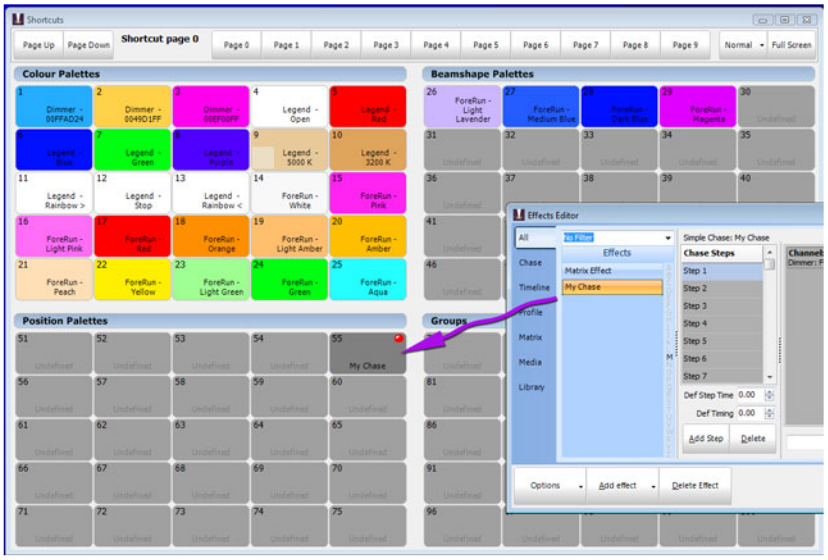
Adjust Blue Levels

This will adjust the fixture's blue level in the effect by a relative amount.

Create an Independent FX Playback

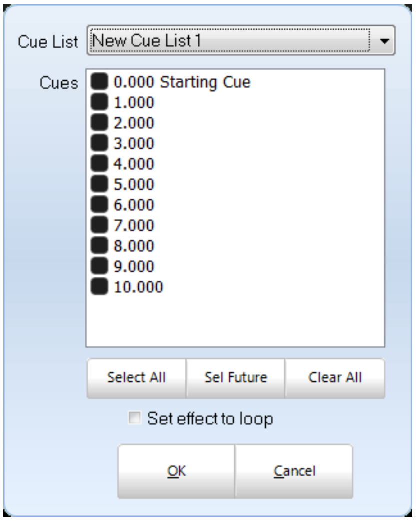
Once you have created your effect you can quickly add the effect to a playback control using the "Create Playback" button at the bottom of the effect list. A new playback will appear in the "Effect Playbacks" window that can then be used to run the effect outside of the effects editor.

An alternative way to create an effect playback and assign a shortcut all at the same time is to simply drag and drop it from the effects editor to the shortcut window.


Shortcuts
Page Up
Page Down
Shortcut page 0
Page 0
Page 1
Page 2
Page 3
Page 4
Page 5
Page 6
Page 7
Page 8
Page 9
Normal
Full Screen
Colour Palettes
Beamshape Palettes
Position Palettes
Groups
My Chase
Effects Editor
All
No Filter
Effects
Matrix Effect
My Chase
Chase
Timeline
Profile
Matrix
Media
Library
Simple Chase: My Chase
Chase Steps
Step 1
Step 2
Step 3
Step 4
Step 5
Step 6
Step 7
Def Step Time 0.00
Def Timing 0.00
Add Step
Delete
Options
Add effect
Delete Effect

Drag and Drop FX to Shortcuts

Add the Selected FX To Multiple Cues


Cue List: New Cue List 1

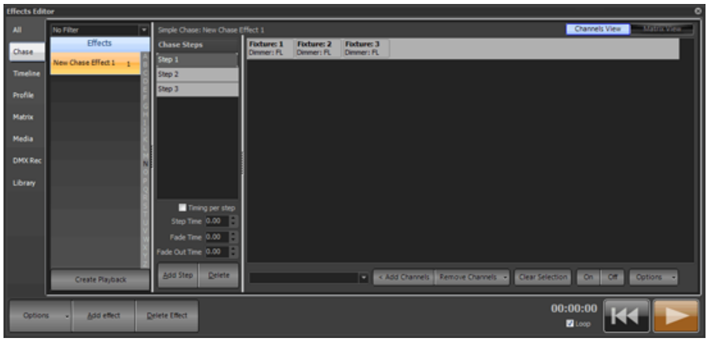
Cues
- 0.000 Starting Cue
- 1.000
- 2.000
- 3.000
- 4.000
- 5.000
- 6.000
- 7.000
- 8.000
- 9.000
- 10.000

Select All
Sel Future
Clear All
☐ Set effect to loop
OK
Cancel

This will add the selected effect to multiple cue as selected in this dialogue box.

Simple Chase

A simple chase is a series of steps each containing a specific lighting state. Each step can contain any number of channels each in a different state. A chase can either run automatically or wait for a trigger before stepping onto the next state.


Effects Editor
All
Chase
Timeline
Profile
Matrix
Media
DMX Rec
Library
No Filter
Effects
Create Playback
Chase Steps
Add Step
Delete
Channels View
Matrix View
< Add Channels
Remove Channels
Clear Selection
On
Off
Options
Options
Add effect
Delete Effect

Simple Chase: New Chase Effect 1

New Chase Effect 1 1

Step 1
Step 2
Step 3

Fixture: 1 Dimmer: FL
Fixture: 2 Dimmer: FL
Fixture: 3 Dimmer: FL

☐ Timing per step
Step Time 0.00
Fade Time 0.00
Fade Out Time 0.00

00:00:00
☑ Loop

Effect Editor, Simple Chase

Clicking on each step will show the detailed channel state in the right hand panel.

To add a new step click on the "Add Step" button found below the step list. New steps will always be added to the end of the list. To remove a step click on the entry you want to delete and click "Delete". A dialog will ask you to confirm the deletion, click "Yes" to complete this operation or "No" to cancel.

The default step time specifies the time waited before the next step will be executed. If this is set to zero (0) then the step will wait indefinitely so that the chase can be stepped manually using the play control.

The default fade time specifies the time it takes to transition from step to step. Simple chases will always cross fade between steps by the time specified in the default fade time.

The fade out time can be used to specify the time it takes for the previous step to fade out. By default this will be the same value as the fade time.

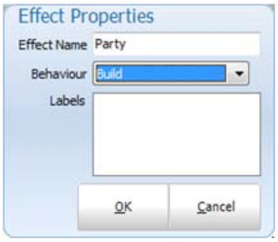
Setting the Chase Behavior

Simple chase effects can be run with different behavior types as with the channel groups. By default this is set to Latest Takes Precedence (LTP) however you can change this to Build or Highest Takes Precedence (HTP). LTP is also called "override" in the channel groups as the output of this behavior will override whatever the channel is currently set to and apply the new value.

The behavior set by this option will result in playback of the chase following the same rules as the behavior set by channel groups. See "Behavior" on page 10 for further details.

Build will add the output from the chase to whatever the output currently is set in the channels. HTP will only apply the channel output from the chase if that output is higher than what the channel is already outputting.

To set the behavior double click on the name of the chase in the left panel or right click and select "rename" from the popup menu.


Effect Properties
Labels
OK
Cancel

Effect Name Party
Behaviour Build

Use the drop down combo to set the desired behavior when running the effect.

Right Click Step Options

Use the right mouse button on the "Chase Steps" panel will open a menu related to the steps of the chase.

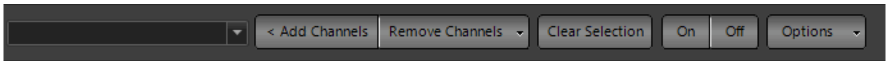
Copy step - Select this option to copy the currently selected step to the end of the chase.

Reverse step order - Select this option to reverse the order that the steps run.

Adding Channels to a Step

Along the bottom of the chase editor panel is an edit box and the "add channels" button. Enter the channel list into the exit box provided using the standard channel selection syntax. Press enter or click on the "Add Channels" button to add the channel to the chase step. e.g. "1/5@30" will add channels 1,2,3,4 and 5 to the step with their value set to 30%.

Standard Command Line entry for level changes will work provided that the cursor is inside the Command Line box for chase effects.



Removing Channels From a Step

To remove channels from the group, select the channel in the grid above and click on the "remove channels" button. To select channels use the same techniques described in the channel display window.

Editing Channel Values

To edit the dimmer or attribute values of the channels in the chase step use the same technique as the channel display. Select the channels to modify by clicking on the desired channels (hold down shift or control to select multiple fixtures) and then use the scroll wheel on your mouse to modify the dimmer values.

If the fixture has more attributes the fixture control window will be display as it does in the channel display.

The step channel display panel will only show attributes that are included. Until an attribute is modified it will default to the off state.

To clear an attribute form the selected fixtures use the drop down menu on the end of the "Remove Channels" button.

Options

The options menu in the bottom right of the window provides additional features.

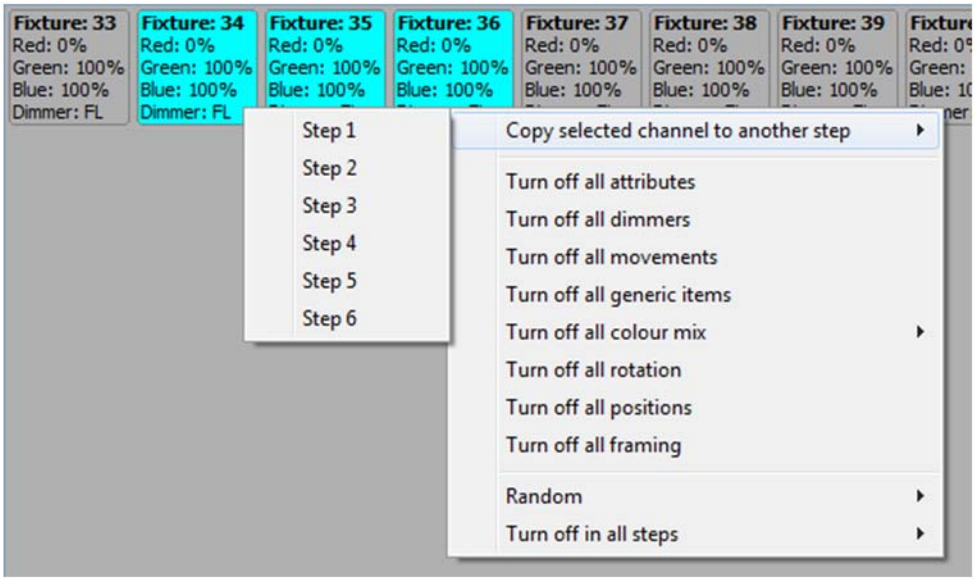
Select All - Sets all of the channels in the step to a selected state.

Set fixed column count - By default the number of channels shown across the grid will dynamically change depending on the width of the window. Use this option to set a fixed number of columns to be shown regardless of the window size. Set this to 0 to return to a dynamic column count.

Undo last action on this step - If you have made a mistake you can use this undo function to restore to the previous state of the step.

Right Click Menu

Right clicking anywhere in the channel grid will bring up the context menu for this window. This is the same menu as the dropdown off the "Remove Channels" button.


Fixture: 33
Red: 0%
Green: 100%
Blue: 100%
Dimmer: FL
Fixture: 34
Red: 0%
Green: 100%
Blue: 100%
Dimmer: FL
Fixture: 35
Red: 0%
Green: 100%
Blue: 100%
Fixture: 36
Red: 0%
Green: 100%
Blue: 100%
Fixture: 37
Red: 0%
Green: 100%
Blue: 100%
Fixture: 38
Red: 0%
Green: 100%
Blue: 100%
Fixture: 39
Red: 0%
Green: 100%
Blue: 100%
Step 1
Step 2
Step 3
Step 4
Step 5
Step 6
Copy selected channel to another step
Turn off all attributes
Turn off all dimmers
Turn off all movements
Turn off all generic items
Turn off all colour mix
Turn off all rotation
Turn off all positions
Turn off all framing
Random
Turn off in all steps

Copy selected channels to another step - Use the sub menu to select a chase step to copy the current selection to. The state of the channels will also be copied.

Turn off attributes - To remove an attribute type from the step select the channels and then select from this menu what you want to remove. In the case of color mixing you can use the submenu to select individual colors or remove all colors.

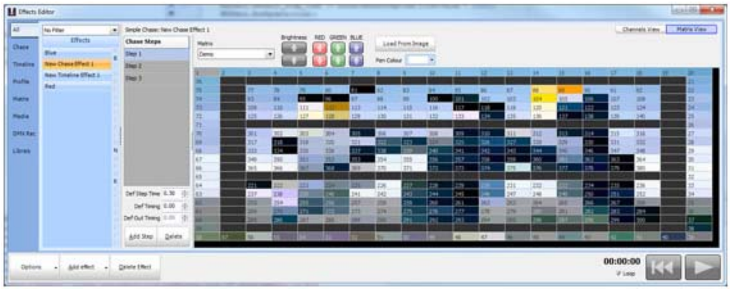
Random - Use the submenu to set an attribute type to random values for the selected fixtures.

Turn off in all steps - To turn off attributes in all fixtures and all steps use the sub menu to select the type.

Matrix View

An alternative way to view a chase step is the matrix view. You can switch between the matrix view and channel view by using the buttons in the top right of the window.

In the matrix view the step is shown as it looks from the point of view of a defined matrix.



Chase editor, Matrix View

Use the drop down combo to select the matrix you want to view as the chase step. You can work with as many matrices as you want and each will work independently of each other. Because the matrix view is just another way to edit the underlying channels you can switch matrix at any time and no information will be lost.

This view works like a painting canvas with each grid cell being a position in the matrix that we can set to a color. Use the "Pen" option to select a color and then click anywhere in the matrix grid to paint the color. As soon as a color is painted the channel will automatically be added to the chase step. If the channel already exists then it will be updated to reflect the pained color.

The eye dropper tool to the right of the pen option can be used to select an existing color from the matrix to set as your current pen color.

Load from image - Click this button to map any image to the matrix.

Copy from previous step - Use this to copy the state of the previous step to this step.

Additional controls allow you to tweak the brightness, red, green or blue content of the matrix.

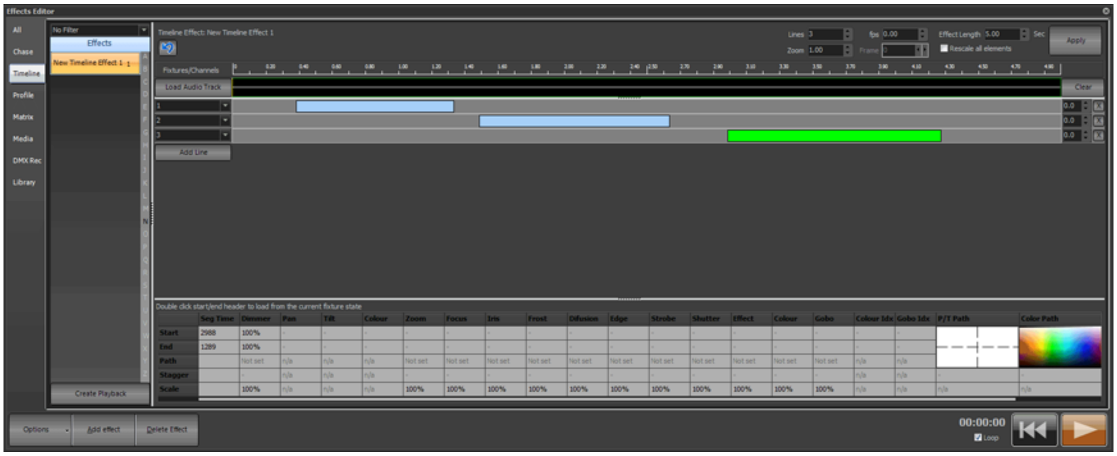
Timeline Effects

An effect segment has a start offset time, start state, length and end state. When an effect runs it will progress through the list of segments executing each one in turn. If for example the first segment has an offset of 10 seconds, the segment will execute 10 seconds after the effect itself has started.

When a segment is executed, its start lighting state will be set immediately. The fixture will then perform a fade for the length of the segment to its end lighting state. If a segment is for an intelligent fixture then all of the attributes (excluding dimmer) will be pre-fetched and set up for the start state at the end of the previous segment. If for example a moving light will start in a different position for the second segment then it will be moved to this new position at the end of the previous segment. When the effect starts, intelligent fixtures will be set to the start state of the first segment.

Timeline effects are viewed in NEO as a Fixture vs. Time graph. Along the top of the effect view, you will see a time scale from 0 to the length of the effect. On the left of the effect view is a list of the fixtures included in the timeline.

NEO NOTES & TIPS: Each segment of an effect cannot overlap any other segment.



Lines 3

Zoom 1.00

fps 0.00

Frame 0

Effect Length 5.00 Sec

☐ Rescale all elements

☑ Loop

Double click start/end header to load from the current fixture state

	Seg Time	Dimmer	Pan	Tilt	Colour	Zoom	Focus	Iris	Frost	Difusion	Edge	Strobe	Shutter	Effect	Colour	Gobo	Colour Idx	Gobo Idx	P/T Path	Color Path
Start	2988	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
End	1289	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Path		Not set	n/a	n/a	n/a	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	n/a	n/a		
Stagger		-	n/a	n/a	n/a	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	-	-
Scale		100%	n/a	n/a	n/a	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	n/a	n/a	n/a	n/a

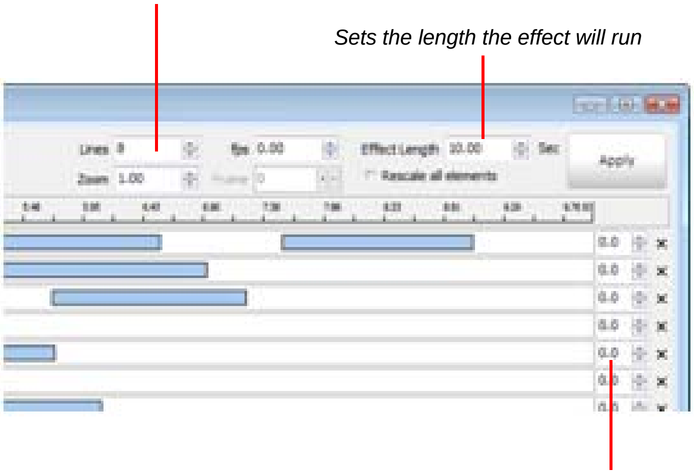
Effects Editor, Time vs. Fixture Effect

Along the top of the view is the number of lines in effect. This can be used to add or remove fixtures. If this number is increased, new lines will be added when the "**Apply**" button is pressed. Each line can have as many fixtures in it as you want. Use the standard channel selection syntax to enter channels into the fields provided. If more than one fixture is added to a line then all the fixtures in that line will do the same thing when the effect is run.

Each line can also reference channels in a channel group. Select the channel group using the drop down box to the right of this field. The channels contained in group will automatically be used for the effect.

Also along the top is the "**Effect Length**" edit that determines the default duration of the effect. Changing the effect length will change the time bar and increase or decrease how long an effect takes to run. To change the length of the effect enter the desired time and click on the apply button.

By default, changes to the length of an effect will not change any of the existing segments. If you make the effect shorter, any segments that go beyond the new length will be truncated. Use the "**Rescale**" check box to ensure that all segments are rescaled to any length changes. If this is checked and you make the effect shorter, all of the segments will also be resized by the same proportion.



Sets the number of fixtures in this effect

Sets the length the effect will run

Start offset control

To the right of each fixture there is a small X for deleting the line from the effect. Clicking on the small X will remove this line (fixture) from the effect. A confirmation dialog will appear asking you to confirm that you want to delete the fixture. Click "**OK**" to confirm or "**Cancel**" to return to the effects editor.

Start Offset Field

Use this field to specify a delay (in seconds) before starting this part of the effect. This allows you to stagger the execution of the effect across all of the lines.

Zoom

Use the zoom control to adjust how much of the effect is visible in the frame. A zoom setting of 1 will show the entire effect length in the editor window. As you increases the zoom less and less of the effect will become visible but each section of the effect will become larger for more detailed editing. A scroll bar along the bottom will allow you to move within the zoomed effect.

Load Audio Track

A convenient use of the timeline effect is to accurately apply lighting changes to match music. Use the "Load Audio Track" button to render a waveform of the selected audio above the timeline. When the effect is played the audio track will play with it and an accurate position in the audio can be seen.

If the length of the audio track is different than the length of the effect the a dialog will ask if you want to adjust the effect length. If you click no to this option the audio track will be truncated to the length of the effect.

To clear the waveform click on the "**Clear**" button on the right hand side of the view.

The waveform is stored with the effect to make rendering it quicker however the actual audio track will remain as a file on the hard drive. If you remove the original audio file the waveform can still be rendered but the audio will not play with the effect.

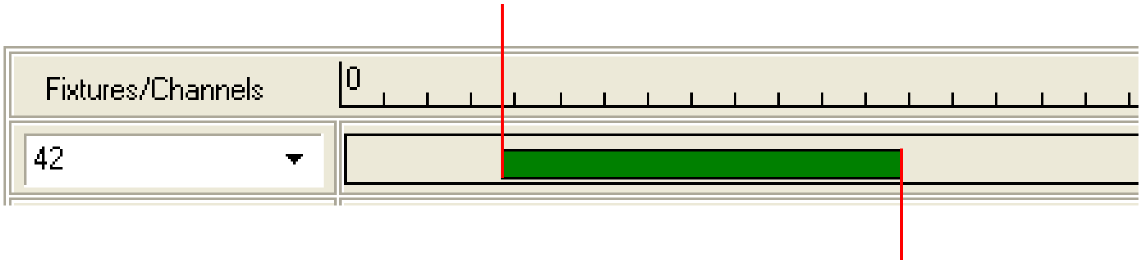
The audio track display can be resized by moving the mouse between the bottom of the audio display and the top of the first timeline. The mouse cursor will change to a size control when you are in the correct location. Click and while holding the mouse button down mouse the line up and down to increase or decrease its size.

Creating and Editing Segments

The graphical view of the effect allows you to easily see when the fixture is doing something. Each segment shows us at a glance that the fixture is changing state. The software will automatically set up intelligent fixtures between segments to their next state; hence, we need not be concerned with fixture attributes between segments. For example, often we may want the color of a fixture to be set before the light becomes visible. In the NEO effects engine, this will be done automatically for us if the next segment has this attribute set.

To create a new segment simply click inside the space provided to the right of the fixture, hold the mouse down and drag the segment to the desired length.

Click here to start (holding down the left mouse



Drag mouse to end position

Example: Creating an Effect Sequence

NEO NOTES & TIPS: By default, the newly created segment will have its start and end states set with the dimmer at full (100%) and all other properties set to zero.

The size of a segment can be adjusted by clicking and holding the mouse button down at either end of the bar and dragging it to the new length. When the mouse is moved over the end of the bar, its cursor will change to indicate the resize operation.

To move a segment to a different start position (offset), hold the mouse button down over the center of the bar and drag the bar to its new position.

To adjust the start and end state of the segment, click once on the bar to bring up the state editor panel.

Segment State Attribute Editor

The segment state editor panel will show all of the generic attributes that can be set for the segment. Each one has a start state and an end state. To edit any of these values click on the cell and enter the desired value.

At any time you can double click on the heading of the row to load values from the fixtures current state.

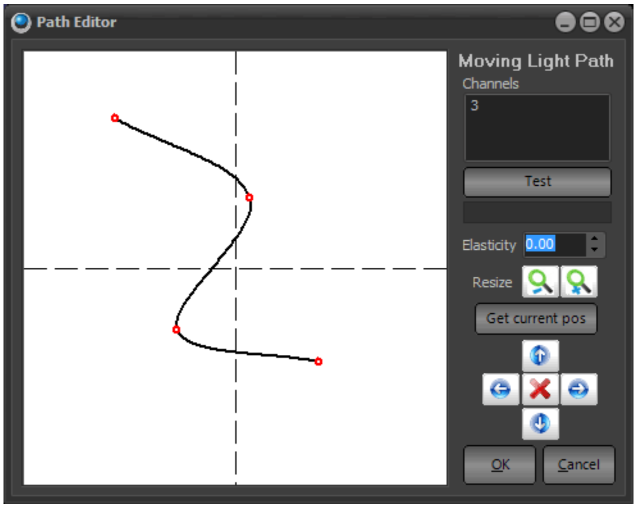
For the pan, tilt and color entries you can double click to open a helper box that will allow you to select the values.

If the end state of a property is zero, changes made to the start state will automatically be copied to the end state to assist with creating new segments.

Alternatively you can set a profile for each of the attributes. When a profile is select the start and end values will become disabled and the profile used to determine the output during the segment. The profile is a path that the values will apply during execution. To set a profile click on the appropriate column and select the profile from the list presented.

At the right of the segment state editor the pan and tilt path is displayed for the selected segment. A moving light path applies to fixtures that have both pan and tilt control, and allows you to create a continuous movement that will follow a defined curve.

NEO provides an advanced path editor that can be used to define the minimum number of points. A spline curve will automatically create the best-fit curve between each point. Two control points are automatically created to provide the ability to control the curve entering and leaving the first and last point.



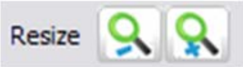
Channels: 3

Elasticity: 0.00

Moving Light Path Editor

The "Elasticity" figure below the time value is an advanced feature allowing control over the spline cure and determines the obtuseness of the curve.

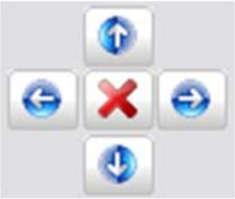
To change the size of the curve created use the resize buttons provided to the right of the edit space.



Moving Light Path
Resize Buttons

These buttons will move all of the points toward or away from the center of the effect, thus rescaling the distance the light will move while moving through the path.

The four arrows below the resize control allow you to reposition the path around the pan and tilt space.



Moving Light Path
Repositioning Controls

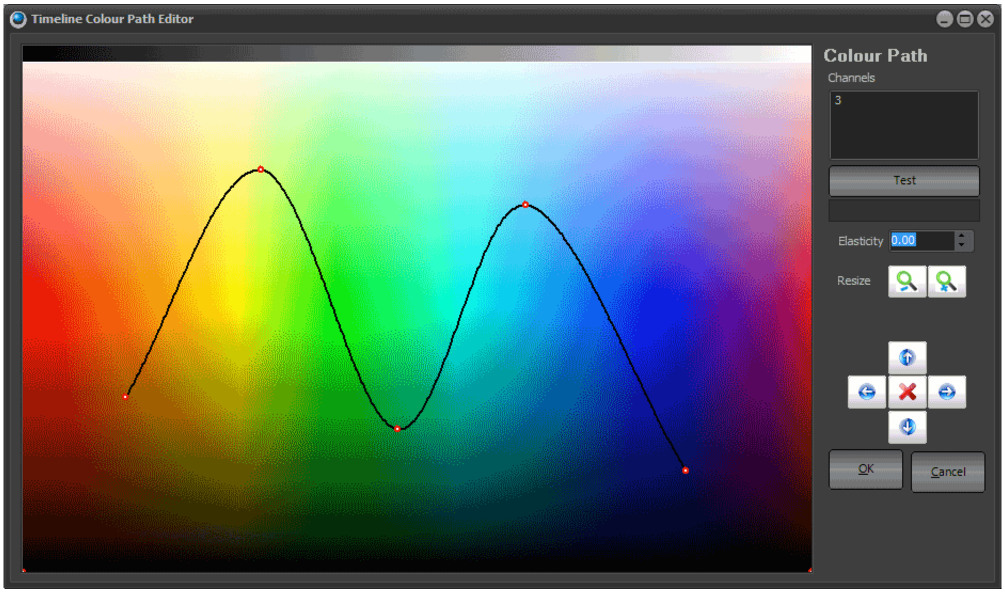
Pan and tilt can cover a large stage area. Often you only want the path to occur in a small section of the full range of the light. Clicking on these buttons will move all of the points in the direction clicked. If a point is at the edge of the edit space, it will not be moved.

Once you are happy with the shape you have created you must commit it to the effect segment you selected to edit the path. Clicking on the "OK" button will commit the new path to the selected segment.

NEO NOTES & TIPS: If you set the elasticity of the path to 1 then a straight line will be created between points (not a curve) and the software will create a single segment for each line.

Click on the "**Cancel**" button to return to the effect editor without committing the new path.

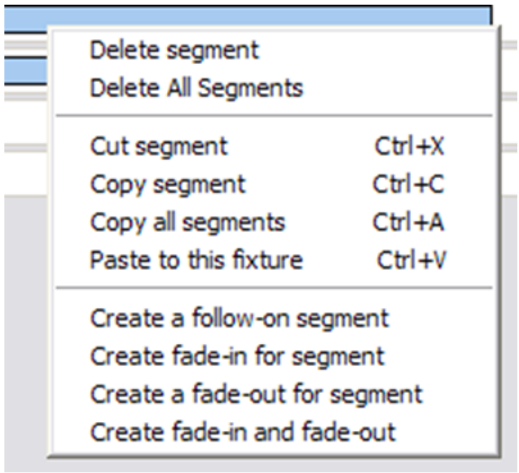
You can create a similar path for determining the color during the segment by click on the color path area of the right of the segment state editor.


Timeline Colour Path Editor
Colour Path
Channels
3
Test
Elasticity 0.00
Resize
OK
Cancel

Color Path Editor

Options

Clicking on the right mouse button while over a segment of the effect will bring up a number of advanced options to assist with creating effects.


Delete segment
Delete All Segments
Cut segment Ctrl+X
Copy segment Ctrl+C
Copy all segments Ctrl+A
Paste to this fixture Ctrl+V
Create a follow-on segment
Create fade-in for segment
Create a fade-out for segment
Create fade-in and fade-out

Delete Segment

Click on the "Delete Segment" option to remove the currently highlighted segment from the effect. A confirmation dialog will ask you to confirm this operation before the segment is deleted.

Delete All Segments

Click on the "Delete All Segments" option to remove the segments for this fixture. A confirmation dialog will ask you to confirm this operation before the segment is deleted.

Cut, Copy, Copy All, Paste Segments

The cut, copy, and paste functions operate exactly as they do in most applications you use within windows. Cutting a segment will remove it from the effect and put on the clipboard for pasting somewhere else, while copying places a copy of the highlighted segment on the clipboard without removing it from the effect.

"**Copy all segments**" ignores the currently highlighted segment and places all of the segments associated with the fixture onto the clipboard.

To place a copied segment or segments onto a fixture, select the "**Paste**" option while the mouse is over the fixture you would like to paste to.

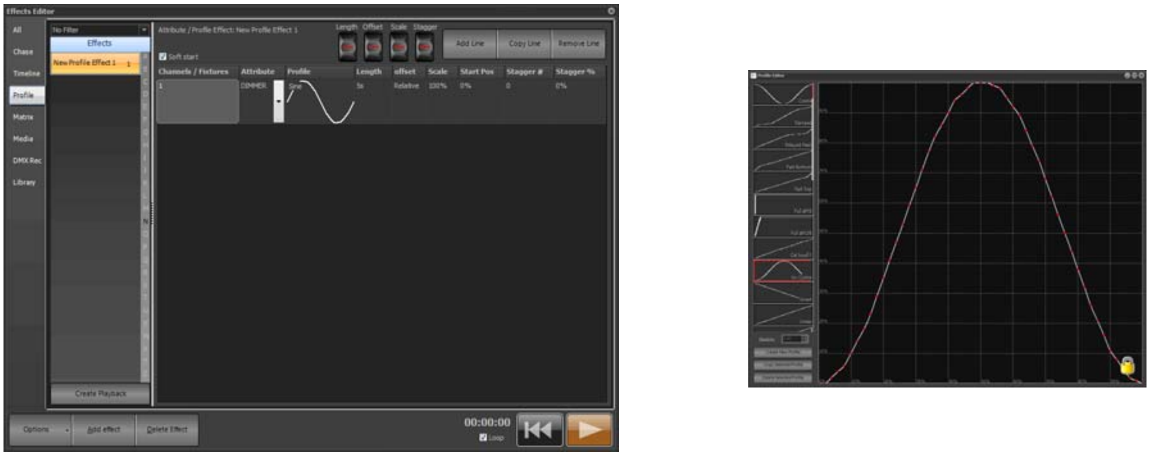
NEO NOTES & TIPS: When pasting, if a segment conflicts with segments that already exist for this fixture you are pasting to, nothing will happen.

After a paste operation, the segments will remain in the clipboard to allow you to paste segments to as many fixtures as desired.

This feature is useful after creating a moving light path to copy the newly created path to all of the other fixtures in the effect. To do this, create a path for the first fixture and then select the copy all function. To create the path for all of the remaining fixtures simply paste to each one in turn.

Profile Effect

Create this type of effect to assign a time vs. profile path to specific attributes of fixtures. When the effect runs the selected attribute will apply the set values over a set time. Profile effects are a very powerful way to create complex effects with minimal effort. Once you are use to using this type of effect you will find it the most common effect system you will use.



☑ Soft start

Channels / Fixtures	Attribute	Profile	Length	offset	Scale	Start Pos	Stagger #	Stagger %
1	DIMMER	Sine	5s	Relative	100%	0%	0	0%

Effects Editor, Property / Attribute Effects - Sine and Inverse Cosine

In the above example a profile effect has been created to operate in fixtures 200 through to 204. There are two elements in this effect, the first is a "sine" wave working on the pan property and the second is a "Inverse cosine" wave on tilt.

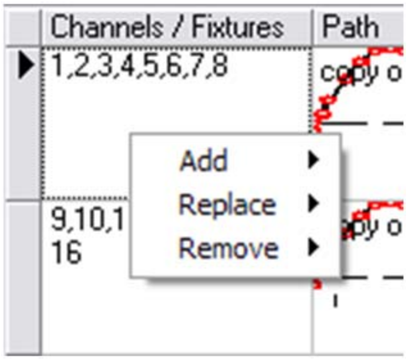
For each attribute you want to apply a profile path to you need to create a separate line in the items table. In the above example 2 entries are required to create a circle with the fixtures. The first entry controls the pan property and the second the tilt. If the desired effect was a ballyhoo we might only require one entry applying a profile to the tilt property.

To add an entry in the items table simply click on the "**Add Line**" or "**Copy Line**" button. This will create a new line with either blank values or the same values as the previous line. To delete an entry click on the "Remove Line" button.

Channels / Fixtures

This is a simple list of fixtures that the profile and attribute will operate on. You can use the same channel syntax as the Command Line interface to enter the channel list. By default channel will remain in the order they were typed. To sort the list of channels right click and select sort from the popup menu. The order that the channels are listed in is important for the stagger operation.

If you right click on the channel list cell you can add or remove channels from the selection shortcuts. The popup menu will provide options to add, replace or remove channels. Each submenu will display the selection shortcuts already setup in the system.


Channels / Fixtures
Path
1,2,3,4,5,6,7,8
copy o
9,10,1
16
Add
Replace
Remove

Prop Effect Channel List Menu

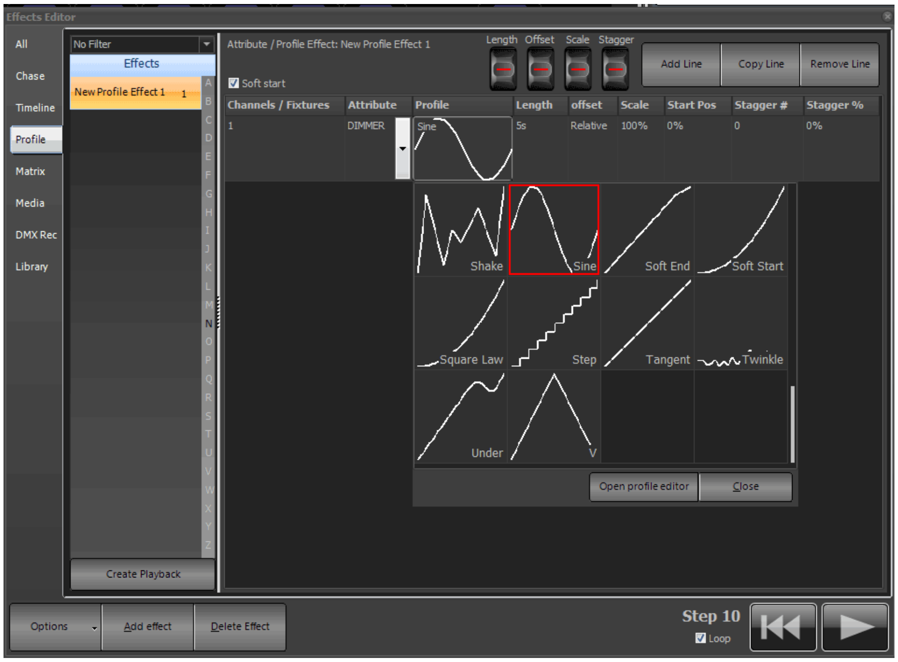
Attribute

This value specifies the attribute of each of the fixtures that values will be applied to. Use the drop down menu to select from a generic attribute list the attribute you want to use. You can also enter a number corresponding to the attribute for a specific fixture type. If you are using an attribute number then all of the fixtures should be of the same type. If different types exist then you will get strange results. The generic attribute can be used on any mix of fixtures. If the fixture does not support the selected generic attribute then any applied values will be ignored.

Profile

The profile is the key to this type of effect as it defines exactly what the selected attribute of the fixtures will do. As the effect plays, the output value (DMX value) is derived from a point in the profile path. A "sine" wave for example will output the DMX values 127 at time 0, 0 at ¼ of the way through the effect and full (255) at ¾ of the way through the effect. The selected profile is shown graphically in each line of the effect

To change the profile click on the profile column of the line you want to change. A drop down box will appear listing all of the profiles that exists in the system.


Effects Editor
All
Chase
Timeline
Profile
Matrix
Media
DMX Rec
Library
No Filter
Effects
New Profile Effect 1
Create Playback
Attribute / Profile Effect: New Profile Effect 1
Length
Offset
Scale
Stagger
Add Line
Copy Line
Remove Line
Soft start
Shake
Sine
Soft End
Soft Start
Square Law
Step
Tangent
Twinkle
Under
V
Open profile editor
Close
Options
Add effect
Delete Effect
Step 10
Loop

☑ Soft start

Channels / Fixtures	Attribute	Profile	Length	offset	Scale	Start Pos	Stagger #	Stagger %
1	DIMMER	Sine	5s	Relative	100%	0%	0	0%

The profile chooser will display four profiles access to maximize the number that can be seen. The profile currently assigned to the line will be highlighted with a red border. Use the scroll bar on the left hand side to find other profiles not visible on the page.

To select a profile click the appropriate image and the profile picker will close automatically. The selected profile will be shown in the line you are working on. To close the profile picker without changing your selection click on the close button in the bottom right of the window.

To modify a profile click on the "**Open Profile editor**" button at the bottom of this window. This will open a new window to that will allow you to modify or create profiles. See "Profile" on page 163.

Length

The length specifies how long the path will play for. The length of the effect is the length of the longest item. If the length of an item is less than the longest path then the speed that the path will play is made proportionally faster.

Offset

Offset sets where the DMX output values start from. When the path is at 0 the actual output will be the offset value. All resulting values from the path will be added to the offset up to a maximum of 255.

You can also set the offset to be "Relative" by entering an "R" into this field. This is also its default value when a new effect is created. Relative offsets mean that the offset will be whatever the fixture is on when the effect starts. This allows you to create a single effect and use it in different parts of the stage throughout your show.

If you add the effect into a cue then NEO will setup the fixture based on the data in the cue and then apply the effect over top. With this you can have 2 adjacent cues both using the same effect but running completely differently.

NEO NOTES & TIPS: If you are running this effect on Pan & Tilt then a couple of special conditions apply. Firstly the current position of the light becomes the center of the path. If (for example) we are doing a circle then the offset is automatically setup for us to make the current position the center. Secondly, when this type of effect is running you can also use the pan and tilt controls in the channel view to move the position of the effect.

Scale

The scale is a percentage value that will be applied to the final output. A scale of 50% causes the resulting values from the path to be halved. The combination of offset and scale can be used to restrict the output to a smaller range.

Start Position

The start position is used to specify the point in the path that will be used when the effect begins.

Stagger

Staggering a path is a powerful way to make an effect more interesting. The stagger value either specifies how many fixtures the effect will be staggered across or the percentage across the path each fixture will be.

A stagger number (Stagger #) of 4 means that fixtures 1 through to 4 will be equally spread across the path so that each fixture starts in a different position. Fixtures 5 though 8 will also be staggered in the same way so that fixture 5 will mirror fixture 1 and fixture 6 will mirror fixture 2 etc.

A stagger percentage (Stagger %) of 10% means that each fixture will be 10% further along the path than the fixture before it. If the total length of the path is 10 seconds then when the effect is at 0 seconds fixture 2 will be at 1 second, fixture 2 will be at 2 seconds etc.

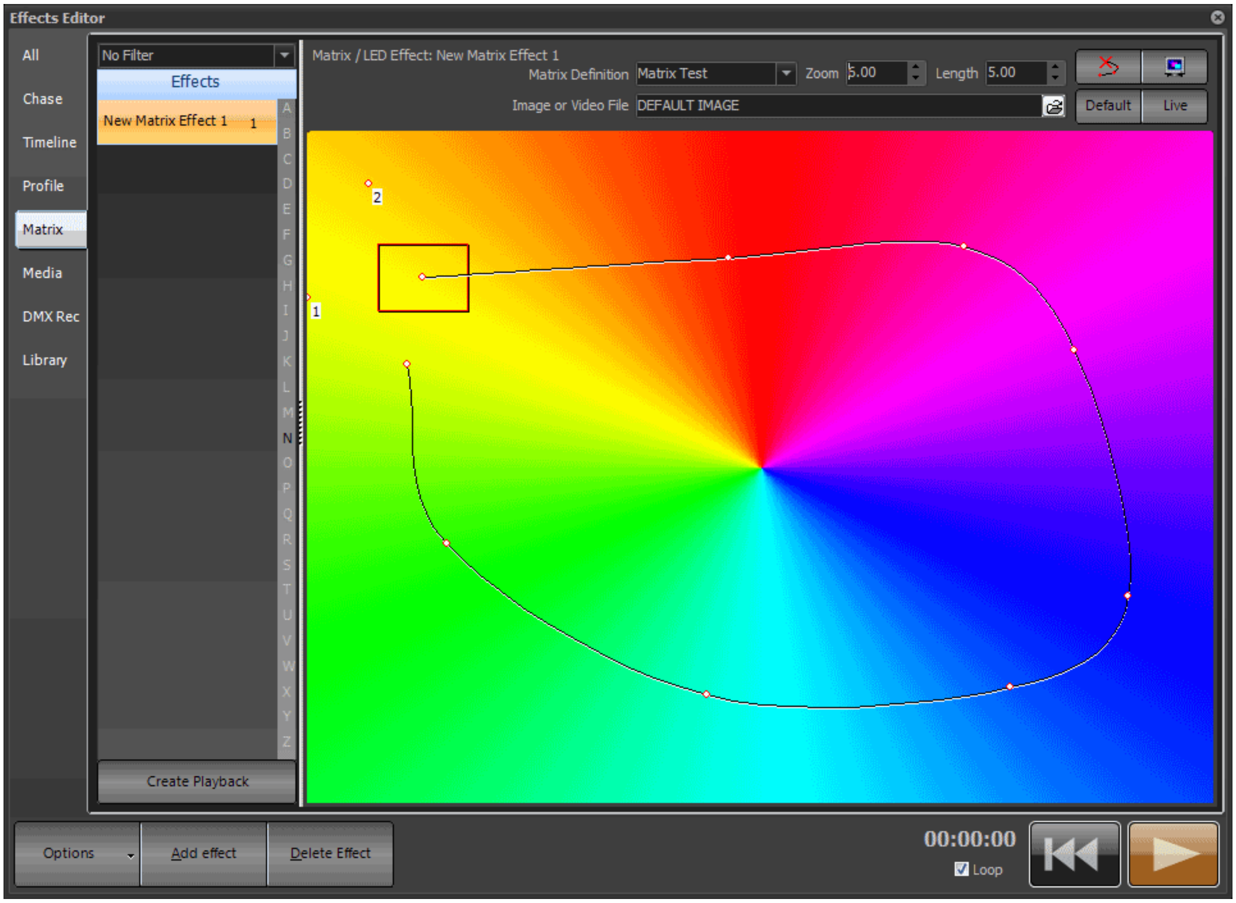
This results in the fixtures all working slightly different. Making a number of moving lights all perform a simple circle can look good but then to add variety we can use the stagger feature to make each fixture start at a different point in the circle.

Soft Start

The "Soft Start" option for each profile effect determines if the effect starts abruptly or slowly. When an effect is set to start slowly (soft) then it will ramp up the scale from 0 to whatever value is set over one complete cycle of the effect. If this option is turned off the effect will immediately start at the scale factor set.

Matrix Effect

This effect type is specifically designed for large arrays of lights and LED fixtures. Every LED fixture provides a different way to control all of the individual lights contained in it. To define the layout of the lights use the "Edit Matrices" option. See "Edit Matrices" on page 174.


Effects Editor
All
Chase
Timeline
Profile
Matrix
Media
DMX Rec
Library
No Filter
Effects
New Matrix Effect 1 1
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Create Playback
2
1
Default
Live
Options
Add effect
Delete Effect
00:00:00
Play
Loop

Matrix / LED Effect: New Matrix Effect 1

Matrix Definition: Matrix Test

Zoom: 5.00

Length: 5.00

Image or Video File: DEFAULT IMAGE

☑ Loop

Effects Editor, Matrix/LED Effect

Once you have created the effect you must define the background that the effect will operate on. The background can be a jpeg, bitmap, or video (AVI) file. To set the background either enter the filename into the "Image or Video File" edit box or click on the button to the right to bring up the open file dialog box.

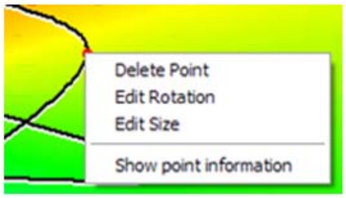
A default background image is always available by clicking on the "Default" button in the top right of the window. The default image allows you to create simple color fades by providing a pinwheel of the color spectrum. When a new effect of this type is created the default image is always set.

Once the background has been set you can define a path that the matrix will use to play the effect. In the example above the matrix is defined as a red box and the path is the black line tracking around the image.

To add a point, click on the desired location and the path will now trace to the newly created point. To move an existing point click on the point (holding the mouse button down) and drag the mouse to the desired location.

To remove the last point in the path click on the remove point button (shown right) in the top left corner of the window.

At any point you can right click to edit the details of the point.


Delete Point
Edit Rotation
Edit Size
Show point information

Matrix Effect, Right Click Menu

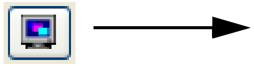
To remove any other point in the path right click on the desired point and select "Delete" from the resulting popup menu.

To change the rotation of the matrix at a point select "Edit Rotation" from the right click menu and enter the desired value (in degrees) into the edit box that appears.

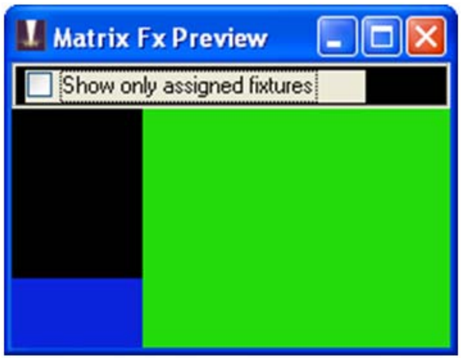
To change the scale of the matrix at a specific point select "Edit Size" from the right click menu and enter the desired value into the edit box that appears. When the effect plays the scale of the matrix will transition between values across the length of the path.

Use the "Show point information" option (toggle) to turn on or off popup balloons that will show you what the rotation and scale setting are for each point. The balloons will appear as you hover the mouse over each point in the path.

When the effect is played from the editor the red box will track the path over the specified time. As the effect runs NEO will map the contents of the red box onto the defined matrix. The color of each fixture will be mapped to the color on the image or video clip. The preview button (shown below) can be used to see the resulting output on screen.



Preview Button



Click on the "Show only assigned fixtures" to apply a mask over the preview that represents the fixtures in the real world.

Effect Length

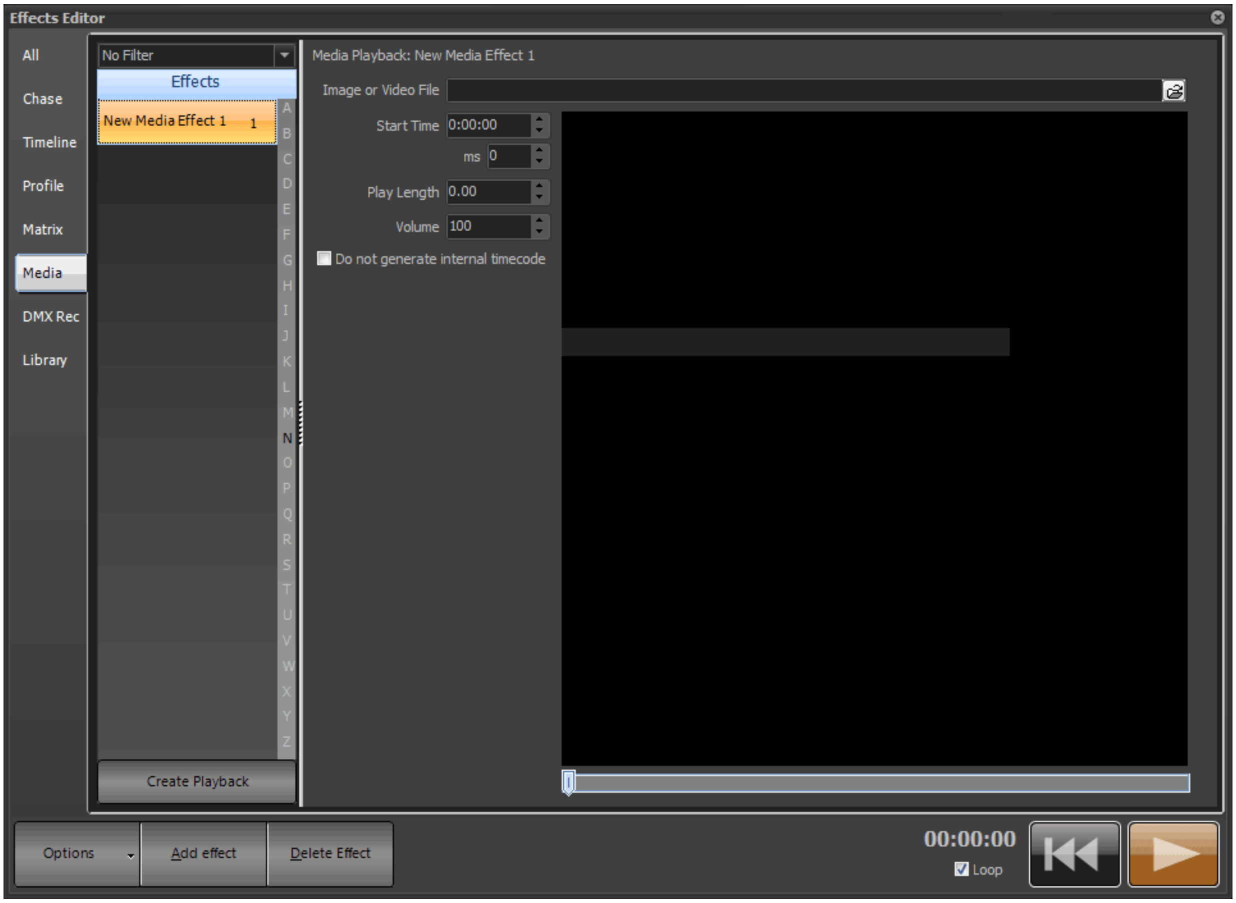
The length defines how long the effect will play for and can be any value up to 1 hour. If a video file is selected the software will prompt you to set the length of the effect to the same length as the video. If the length of the effect is shorter then the video the video clip will be truncated.

Zoom Matrix

To change the size of the area that the matrix will use to generate output set the zoom field. When playing back the effect the image will be rescaled to the zoom setting to apply the correct color.

18. Media Effect

The media playback provides an easy way to trigger audio and video clips from with NEO. You can use this feature to playback sound effects or video clips within a cue lists.



Media Playback: New Media Effect 1

Image or Video File

Start Time 0:00:00

ms 0

Play Length 0.00

Volume 100

☐ Do not generate internal timecode

00:00:00

☑ Loop

Once you have created the effect you can modify the file that will play, where the file starts playing (in seconds) and how long it will play for.

File Name: This is the actual media file located somewhere on your system. Use the button at the end of the edit box to open a file dialog for locating your media.

Start Time: Set the time in HH:MM:SS:MS that you want the media clip to play from. If (for example) you want the clip to play 1 minute and 23 seconds into the file then enter 00:01:23:00 into the edit provided.

Play Length: Set the length in decimal seconds that the clip will play for before either stopping for playing again from the start position. A play length of 3.5 will play for 3 and a half seconds each time it runs.

Volume: This value will override the volume of the effect when it is played back.

Don't generate internal timecode: The internal timecode will always read the last played effect time. If you want to play other media while using the internal timecode of a master track turn this off for all of the audio tracks other than the one you want timecode red from.

The system relies on the correct codec's for the media to be played back. If the codec is not available on the system then an error may occur when attempting the playback.

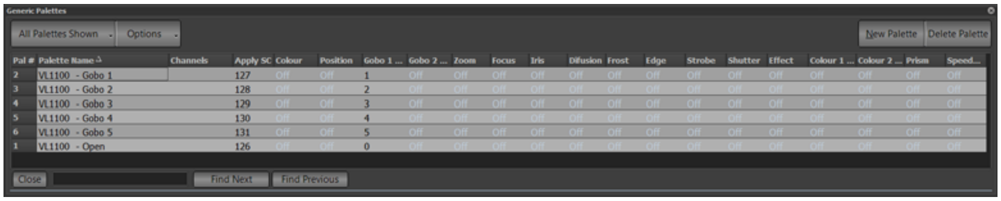
There are a number of global media playback controls that can be set in the "System Properties". See “Media” on page 208.

If you attempt to play a video file and have only a single monitor connected then the software will only show the video in a window on you primary display. In a multi monitor situation the system will default to use the 2nd display as the full screen output of the video clip.

The effects editor will show a preview of the video clip in the black box. Only when the effect is run in an effect playback or cue list will it play full screen.

19. Palettes & Preset Focus Groups

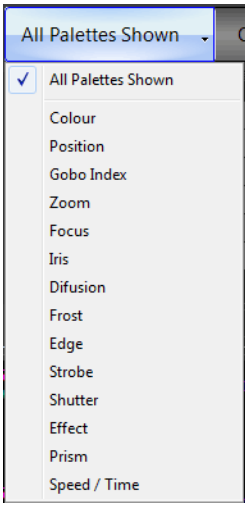
One of the most powerful features in NEO is the use of preset focus groups as building blocks for your show. These are useful not only in on-the-fly control but also for building flexible cue lists. This section will cover both uses for palettes and groups and explain how these are related.


Generic Palettes
All Palettes Shown
Options
New Palette
Delete Palette
Close
Find Next
Find Previous

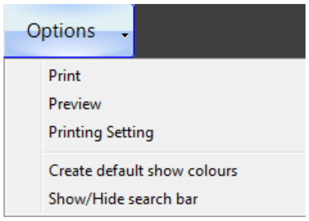
Pal #	Palette Name	Channels	Apply SC	Colour	Position	Gobo 1 ...	Gobo 2 ...	Zoom	Focus	Iris	Difusion	Frost	Edge	Strobe	Shutter	Effect	Colour 1 ...	Colour 2 ...	Prism	Speed...
2	VL1100 - Gobo 1		127	Off	Off	1	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
3	VL1100 - Gobo 2		128	Off	Off	2	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
4	VL1100 - Gobo 3		129	Off	Off	3	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
5	VL1100 - Gobo 4		130	Off	Off	4	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
6	VL1100 - Gobo 5		131	Off	Off	5	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
1	VL1100 - Open		126	Off	Off	0	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off

All Palettes Shown

Allows the user to filter the palettes shown by attribute.


All Palettes Shown
✓ All Palettes Shown
Colour
Position
Gobo Index
Zoom
Focus
Iris
Difusion
Frost
Edge
Strobe
Shutter
Effect
Prism
Speed / Time

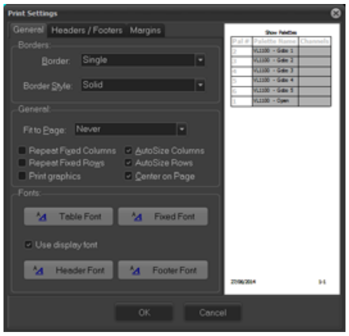
Options


Options
Print
Preview
Printing Setting
Create default show colours
Show/Hide search bar

Print - prints the show's list of palettes.

Preview - initiates a print preview.

Printing Setting - allows the configuration of the printing.

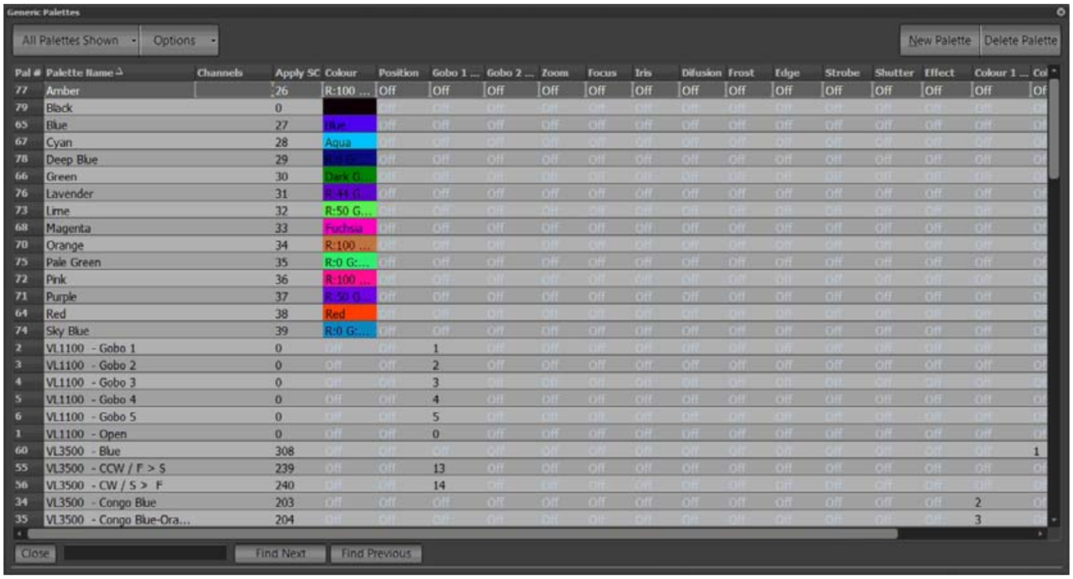

Print Settings
General
Headers / Footers
Margins
Borders
General
Fonts
Table Font
Fixed Font
Header Font
Footer Font
OK
Cancel

Border: Single
Border Style: Solid
Fit to Page: Never
☐ Repeat Fixed Columns ☑ AutoSize Columns
☐ Repeat Fixed Rows ☑ AutoSize Rows
☐ Print graphics ☑ Center on Page
☑ Use display font

Create default show colors - creates a set of default generic show colors.

Creating Color Palettes

The easiest way to start working with color palettes is to open the palette window and choose "Create Default Show Colors" from the options menu.



Pal #	Palette Name	Channels	Apply SC	Colour	Position	Gobo 1 ...	Gobo 2 ...	Zoom	Focus	Iris	Difusion	Frost	Edge	Strobe	Shutter	Effect	Colour 1 ...	Col
77	Amber		26	R:100 ...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
79	Black		0	■	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
65	Blue		27	Blue	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
67	Cyan		28	Aqua	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
78	Deep Blue		29	R:0 G:...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
66	Green		30	Dark G...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
76	Lavender		31	R:44 G...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
73	Lime		32	R:50 G...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
68	Magenta		33	Fuchsia	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
70	Orange		34	R:100 ...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
75	Pale Green		35	R:0 G:...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
72	Pink		36	R:100 ...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
71	Purple		37	R:50 G...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
64	Red		38	Red	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
74	Sky Blue		39	R:0 G:...	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
2	VL1100 - Gobo 1		0	Off	Off	1	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
3	VL1100 - Gobo 2		0	Off	Off	2	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
4	VL1100 - Gobo 3		0	Off	Off	3	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
5	VL1100 - Gobo 4		0	Off	Off	4	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
6	VL1100 - Gobo 5		0	Off	Off	5	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
1	VL1100 - Open		0	Off	Off	0	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
60	VL3500 - Blue		308	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	1
55	VL3500 - CCW / F > S		239	Off	Off	13	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
56	VL3500 - CW / S > F		240	Off	Off	14	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Of
34	VL3500 - Congo Blue		203	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	2	Of
35	VL3500 - Congo Blue-Ora...		204	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	3	Of

You will see that several default colors are created for you when using this option. Note that all of the other attributes listed (position, gobo 1 idx etc) are all set to "Off". This means that when the palette is applied these attributes will not apply. If we want the "Blue" palette to also apply a zoom setting then we can simply enter a value into the appropriate field.

To create your own color click on the "New Palette" button and enter a name when prompted. A new line will appear in the palette list with all attributes set to "Off" by default.

Double click on the color field for your new palette and the NEO color chooser will appear. Use this window to set the real world color for your new palette and click "Select" to close this window and store the color into the palette.

For each of the colors we have created enter a shortcut number starting at 1 into the shortcut field. You can enter these numbers into any order you wish.

Show/Hide search bar - will expose or hide the search bar.

Palettes (Generic Palettes)

Palettes are often referred to as generic palettes or generic control items. This is because palettes do not care what fixture they get applied to. Using smart logic inside the software a palette can be applied to any fixture regardless of its capabilities. Obviously if a fixture does not have a specific attribute (zoom for example) then the palettes will not do anything with that fixture.

The application of some palettes is not always obvious but this highlights the power of what can be done with them. For example if a palette containing color information is applied to a CMY fixture then NEO will work out what levels to set the CMY flags to reproduce this color. If the fixture only has a color wheel then NEO will find the color that is the closest match to the color in the palette. If the fixture has no color attributes at all then it will calculate the grey level of that color and apply this as a dimmer percentage.

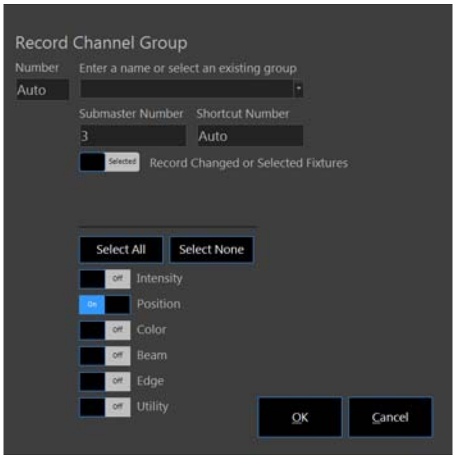
The disadvantage of palettes is that they hold one set of values for any fixture they get applied to. This is useful for color where NEO can work out how to apply the setting to the fixture but is not so useful for position where the same pan & tilt angle will have a different position on stage for each fixture. A 20deg tilt on a fixture upstage is a different position to 20deg tilt of a fixture down stage. To get around this we need a palette that is capable of holding different information for each of the fixtures. This is often referred to as a specific palette because the values held by the palette is specific to the fixture. NEO uses "Channel Groups" for specific palettes.

Groups

While groups are typically used with submaster to control a group of lights they are capable of holding any combination of fixture information. This makes them perfect for use as a specific palette. By storing only the position information into the group we have effetely created a specific palette for a position on stage (this is called a position preset focus group).

Because groups can store any combination of data we are not restricted to just one attribute. We can store color information with our position if we wanted but this is generally not recommended because it limits flexibility when we come to using it later. We may however want to store zoom information with the position so that we always have the same size circle of light on stage regardless of the position.

When recording groups NEO provides options specifically designed for using it as a palettes.



Number: Auto

Submaster Number: 3

Shortcut Number: Auto

Selected: Record Changed or Selected Fixtures

Off: Intensity

On: Position

Off: Color

Off: Beam

Off: Edge

Off: Utility

If we are only using the group as a palette then we do not need to assign a submaster. We may however want to assign a shortcut for quick access to call this up.

The "Record Attributes" check boxes allow you to select the subset of attributes you want to include. All other attributes will be set to "OFF" and will not be changed when the group is applied.

On the Fly Control (Busking a Show)

When using NEO in live control environment palettes become a key component of your show. You can use palettes to pull up looks on stage quickly and as required.

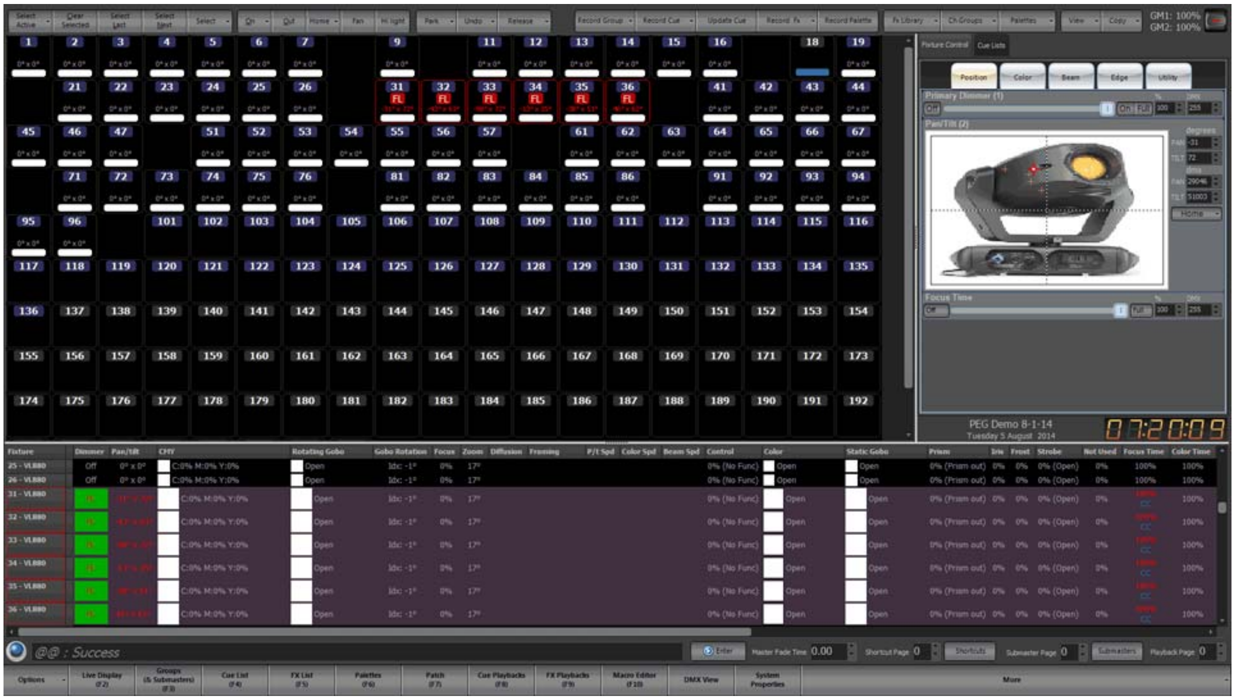
This is also useful when programming a cue list based show by making it quicker to setup scenes.

For the examples shown here we are going to work with color and positions but remember that any attribute can be used.

Creating Position Preset Focus Group

To create a position preset focus group we need to record a channel group with each fixture pointing into the location we want.

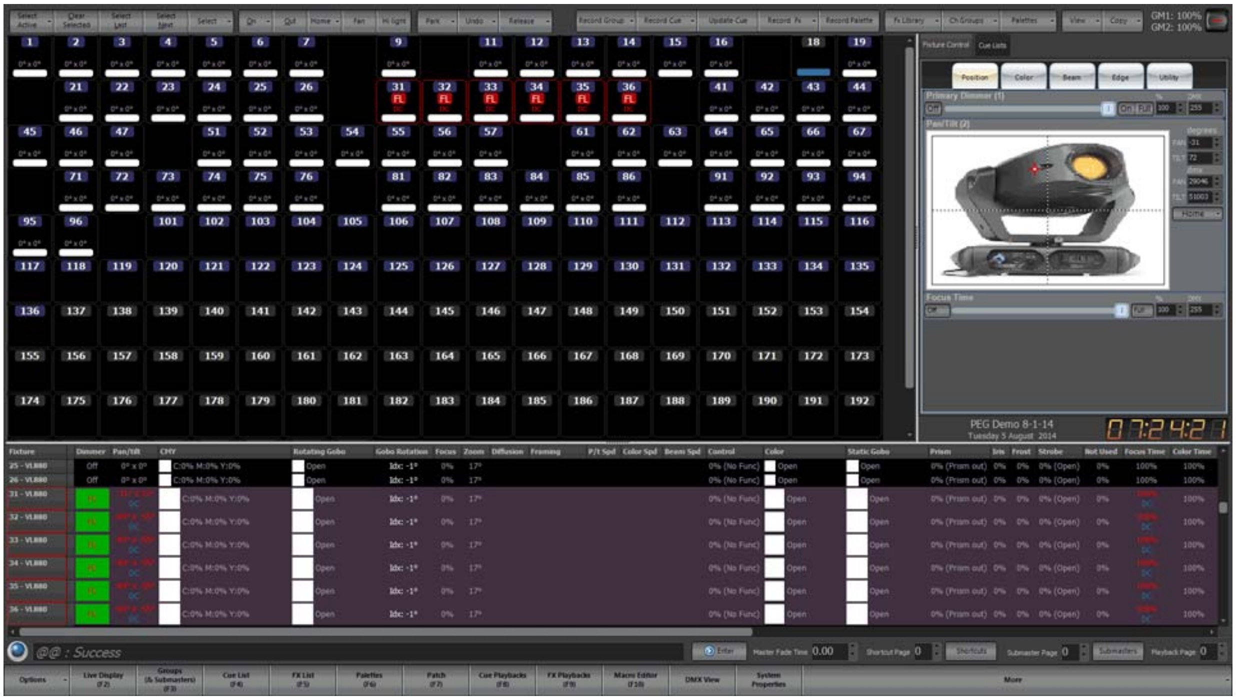
With all of the fixtures selected click on the "Record Group" button. In the group name enter a description of the position (e.g. Pos DSC or Position Down Stage Center). Set the submaster to 0 so that no submaster will be set for this group. In the shortcut field enter 51 and select only "Position" in the "Record Attributes" options.


Record Group
Record Cue
Update Cue
Record Palette
Position
Color
Beam
Edge
Utility
PEG Demo 8-1-14
Options
Live Display
Groups (& Submasters)
Cue List
FX List
Palettes
Patch
Cue Playbacks
FX Playbacks
Macro Editor
DMX View
System Properties
More

@@ : Success

Creating Position Preset Focus Groups

Click "**OK**" to proceed with the record and a new channel group will be created recording only the position information for the changed fixtures.

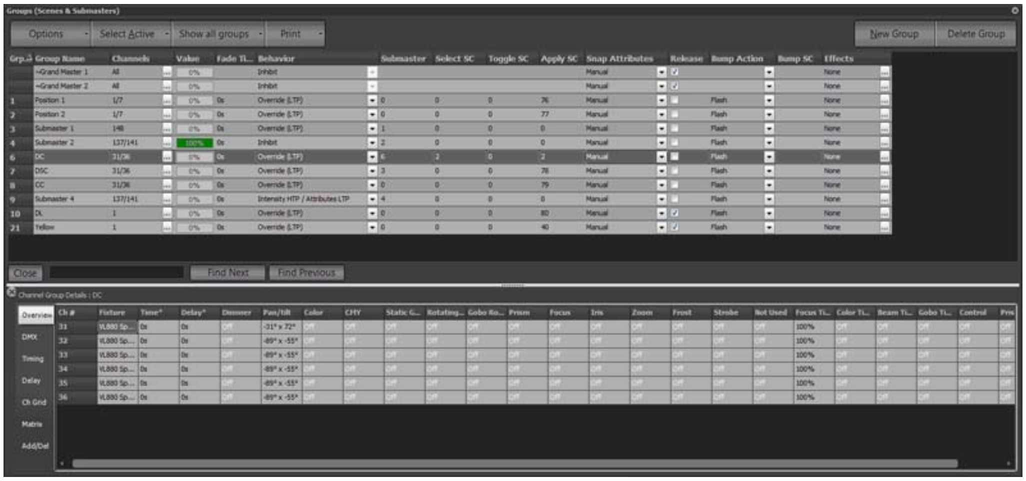

Record Group
Record Cue
Update Cue
Record Palette
Position
Color
Beam
Edge
Utility
PEG Demo 8-1-14
Options
Live Display
Groups (& Submasters)
Cue List
FX List
Palettes
Patch
Cue Playbacks
FX Playbacks
Macro Editor
DMX View
System Properties
More

@@ : Success

Note that as soon as the preset focus group has been recorded, the Classic View will show the group name in the fixture box. Also, the ML Attribute view shows both the degree values and the focus group name so that if we record a cue the correct reference will be recorded.

Repeat the process for positions DC and CC so that 3 position preset focus groups have been stored.

Open the Groups display and you will see the new groups labeled appropriately. If you double click on the channel field of the first group, the Channel Group Detail will open.


Groups (Scenes & Submasters)
Options
Select Active
Show all groups
Print
New Group
Delete Group
Close
Find Next
Find Previous
Overview
DMX
Timing
Delay
Ch Grid
Matrix
Add/Del

Grp.	Group Name	Channels	Value	Fade Ti...	Behavior	Submaster	Select SC	Toggle SC	Apply SC	Snap Attributes	Release	Bump Action	Bump SC	Effects
	~Grand Master 1	All	0%		Inhibit					Manual	☑			None
	~Grand Master 2	All	0%		Inhibit					Manual	☑			None
1	Position 1	1/7	0%	0s	Override (LTP)	0	0	0	76	Manual	☐	Flash		None
2	Position 2	1/7	0%	0s	Override (LTP)	0	0	0	77	Manual	☐	Flash		None
3	Submaster 1	148	0%	0s	Override (LTP)	1	0	0	0	Manual	☐	Flash		None
4	Submaster 2	137/141	100%	0s	Inhibit	2	0	0	0	Manual	☐	Flash		None
6	DC	31/36	0%	0s	Override (LTP)	6	2	0	2	Manual	☐	Flash		None
7	DSC	31/36	0%	0s	Override (LTP)	3	0	0	78	Manual	☐	Flash		None
8	CC	31/36	0%	0s	Override (LTP)	0	0	0	79	Manual	☐	Flash		None
9	Submaster 4	137/141	0%	0s	Intensity HTP / Attributes LTP	4	0	0	0	Manual	☐	Flash		None
10	DL	1	0%	0s	Override (LTP)	0	0	0	80	Manual	☑	Flash		None
21	Yellow	1	0%	0s	Override (LTP)	0	0	0	40	Manual	☑	Flash		None

Channel Group Details : DC

Ch #	Fixture	Time*	Delay*	Dimmer	Pan/tilt	Color	CMY	Static G...	Rotating...	Gobo Ro...	Prism	Focus	Iris	Zoom	Frost	Strobe	Not Used	Focus Ti...	Color Ti...	Beam Ti...	Gobo Ti...	Control	Pris
31	VL880 Sp...	0s	0s	Off	-31° x 72°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
32	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
33	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
34	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
35	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off
36	VL880 Sp...	0s	0s	Off	-89° x -55°	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	100%	Off	Off	Off	Off	Off

Creating Position Presets - Details

Notice that in the channel details for the newly created group that all of the attributes are set to "Off" except for the pan & tilt and the Focus Time. If we do not want to include Focus Time into the position preset focus group simply select all of the values and press "O" (for off) and press the enter key.

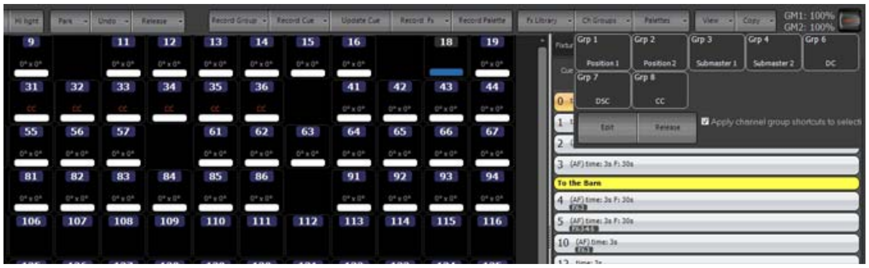
Using the Color Palettes

The quickest way to apply a color palette is to select the fixtures you want to change and then click on the "palette" button. A menu will drop down with each of the colors listed. Select the color "Red" from the list and the color of the selected fixtures will change to red. If the light does not have color mixing capabilities, it will find the closest match on any available color wheel. The results will depend on the fixture and it's capabilities.

We can also apply the color over time by simply entering the number of seconds before selecting the palette. On the keyboard enter the number 5 and then select "Green" from the palette menu. You will notice that rather than jumping to the color green the fixtures will fade to green over 5 seconds.

Using the Position Preset Focus Groups

Groups (the position preset focus groups that have just been recorded) can be applied the same way as the color palettes. However because the channel group contains a specific list of channels we can apply it without selecting channels first. To apply a position preset to all channels that were originally recorded simply select it from the drop down menu "ar" in the channel display.


Hi light
Park
Undo
Release
Record Group
Record Cue
Update Cue
Record Fx
Record Palette
Fx Library
Ch Groups
Palettes
View
Copy
GM1: 100%
GM2: 100%
Grp 1
Position 1
Grp 2
Position 2
Grp 3
Submaster 1
Grp 4
Submaster 2
Grp 6
DC
Grp 7
DSC
Grp 8
CC
Edit
Release
☑ Apply channel group shortcuts to selecti
To the Barn

Applying Position Preset Focus Groups (CH Group)

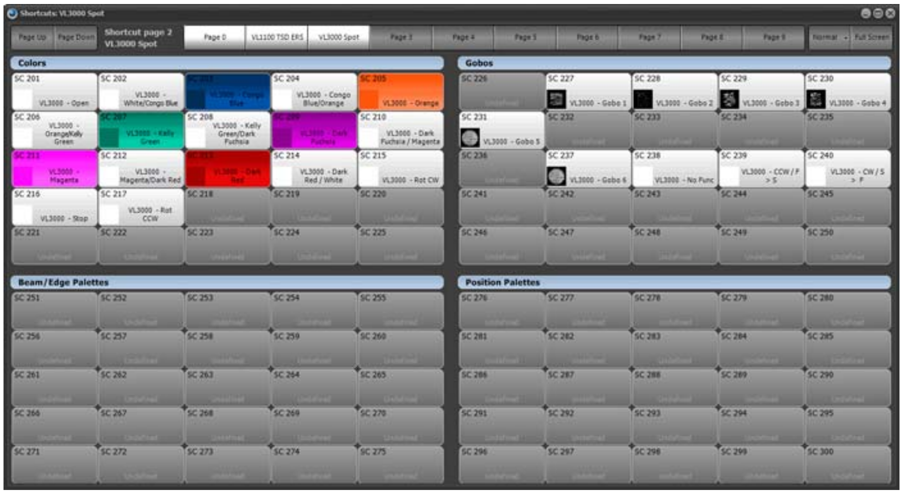
Alternatively if we want to apply the position preset to just a few of the fixtures then select the desired channels before selecting the preset. For example, if i select 31 thru 33 and then pick CC from the Ch Groups drop down menu, then these 3 fixtures will move to the CC position.

NEO NOTES & TIPS: If you are using movement effects with a relative offset you can use position focus groups to move the effect around the stage. For example if the fixtures are performing a circle you could create a position with the fixture on stage and a position with the fixtures pointing at the audience. Once the effect is running you can move the effect between the stage and the audience by applying the position focus group.

Using Palettes from the Shortcut Window

Using the drop down menus in the channel display can be slow in a live show environment because it relies on several mouse clicks and can be hard to hit with a touch screen.

An alternative way to access these palettes is to use the shortcut window or an external shortcut keyboard. To open the shortcut window click on the "Shortcuts" button on the main NEO window.


Shortcuts: VL3000 Spot
Page Up
Page Down
Shortcut page 2
VL3000 Spot
Page 0
VL1100 TSD ERS
VL3000 Spot
Page 3
Page 4
Page 5
Page 6
Page 7
Page 8
Page 9
Normal
Full Screen
Colors
SC 201 VL3000 - Open
SC 202 VL3000 - White/Congo Blue
VL3000 - Congo Blue
SC 204 VL3000 - Congo Blue/Orange
SC 205 VL3000 - Orange
SC 206 VL3000 - Orange/Kelly Green
SC 207 VL3000 - Kelly Green
SC 208 VL3000 - Kelly Green/Dark Fuchsia
VL3000 - Dark Fuchsia
SC 210 VL3000 - Dark Fuchsia / Magenta
SC 211 VL3000 - Magenta
SC 212 VL3000 - Magenta/Dark Red
VL3000 - Dark Red
SC 214 VL3000 - Dark Red / White
SC 215 VL3000 - Rot CW
SC 216 VL3000 - Stop
SC 217 VL3000 - Rot CCW
Gobos
SC 227 VL3000 - Gobo 1
SC 228 VL3000 - Gobo 2
SC 229 VL3000 - Gobo 3
SC 230 VL3000 - Gobo 4
SC 231 VL3000 - Gobo 5
SC 237 VL3000 - Gobo 6
SC 238 VL3000 - No Func
SC 239 VL3000 - CCW / F > S
SC 240 VL3000 - CW / S > F
Beam/Edge Palettes
Position Palettes

In the above example you will see the shortcuts that we have created in the earlier examples. In the top right corner of this window is a button that will toggle between the text "**Normal**" and "4-Up". The display shows the window in "4-Up" mode. This mode segments the shortcuts into 4 groups with configurable labels. At the top you can see that there are different pages for each different fixture type. On each page, the shortcuts are broken up into 4 types. Colors, Gobos, Beam/Edge and Positions. By default the color palettes automatically assign the appropriate background color to the button representing the color that the palette will produce.

Pressing any of the shortcuts in this window will apply the palette associated with it without needing to open the drop down menus in the channel display.

Using this window we can still enter timing information on the keyboard before pressing the shortcut. Pressing the number 3 before pressing a color palette will apply that palette in 3 seconds.

By adding selection shortcuts to this window you can select some fixtures, set the color and set the position with 3 clicks of the mouse or presses on a touch screen.

Cue List Based Shows

While using palettes and channel groups is not required for programming a show you will find that by creating your show with building blocks will make it easier to make changed later. At the same time palettes and channel groups will also make programming quicker because you will minimize the need to setup moving lights for each cue.

When recording a cue in NEO will the channel state and all attributes associated will be store so that it can be recalled for playback. The values recoded are referred to as hard values because the value recorded directly represents the output values.

For Example: Channel 1 = 50%

When palette recording is enabled NEO stores the reference to the palette rather than the actual value of the attribute. This means that if a palette is changed any cues that reference that palette will automatically use the new value. The cue does not actually hold the value of the attribute but obtains the value when the cue is run by looking up the referenced palette.

For Example: Channel 1 = Dimmer Palette = 50%

If "Dimmer Palette" is changed to 60% then channel 1 will automatically reflect this change.

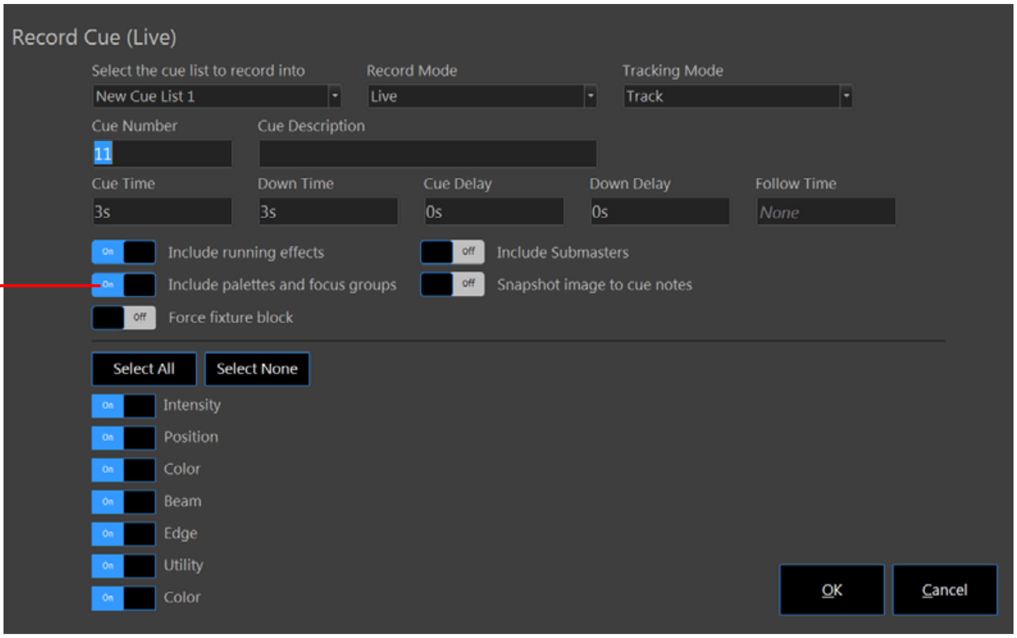
A good example of where this is useful is with position presets. If we create a show and record hard values with every cue then the show moves to a different venue we need to go back and revisit every cue and change the positions of the lights. If the show is recorded with position presets then a change in venue only requires that we update the position presets that are referenced by the cue list.

Recording Palettes into Cues

NEO is able to automatically use the palettes or focus groups (often referred to as preset focus groups) you have created when a cue is recorded.

Before recording the cue apply the palettes you want to use. In some of the views (Verbose view, ML Attribute view you will see the name of the Palette or Preset Focus Group that is applied to the attribute(s).

Record the cue as you would normally and enable the option "Include palettes and focus groups".



Include Palettes and Focus Groups

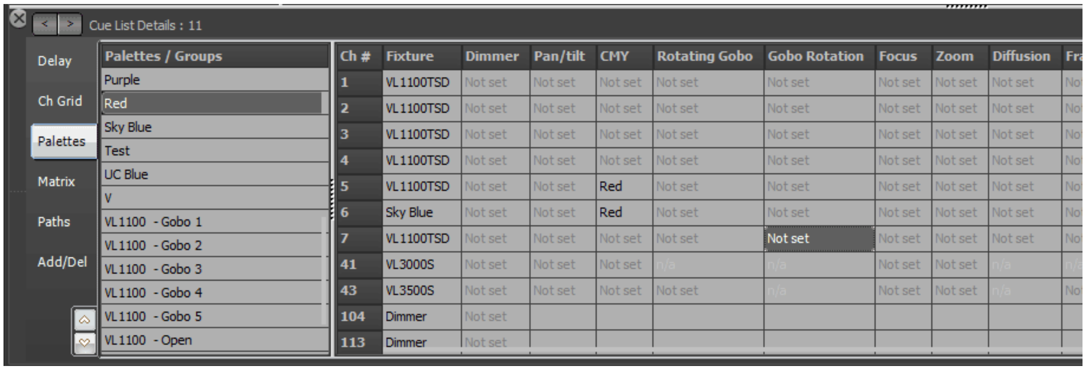
Record Cue (Live)

Select the cue list to record into: New Cue List 1
Record Mode: Live
Tracking Mode: Track
Cue Number: 11
Cue Description:
Cue Time: 3s
Down Time: 3s
Cue Delay: 0s
Down Delay: 0s
Follow Time: None

On Include running effects
Off Include Submasters
On Include palettes and focus groups
Off Snapshot image to cue notes
Off Force fixture block

On Intensity
On Position
On Color
On Beam
On Edge
On Utility
On Color

After recording the cue open the cue list editor and double click on the channel field to access the "Cue List Details" window.



Cue List Details : 11

Palettes / Groups
Purple
Red
Sky Blue
Test
UC Blue
V
VL1100 - Gobo 1
VL1100 - Gobo 2
VL1100 - Gobo 3
VL1100 - Gobo 4
VL1100 - Gobo 5
VL1100 - Open

Ch #	Fixture	Dimmer	Pan/tilt	CMY	Rotating Gobo	Gobo Rotation	Focus	Zoom	Diffusion	Fra
1	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
2	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
3	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
4	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
5	VL1100TSD	Not set	Not set	Red	Not set	Not set	Not set	Not set	Not set	No
6	Sky Blue	Not set	Not set	Red	Not set	Not set	Not set	Not set	Not set	No
7	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
41	VL3000S	Not set	Not set	Not set	n/a	n/a	Not set	Not set	n/a	n/a
43	VL3500S	Not set	Not set	Not set	Not set	n/a	Not set	Not set	n/a	No
104	Dimmer	Not set								
113	Dimmer	Not set								

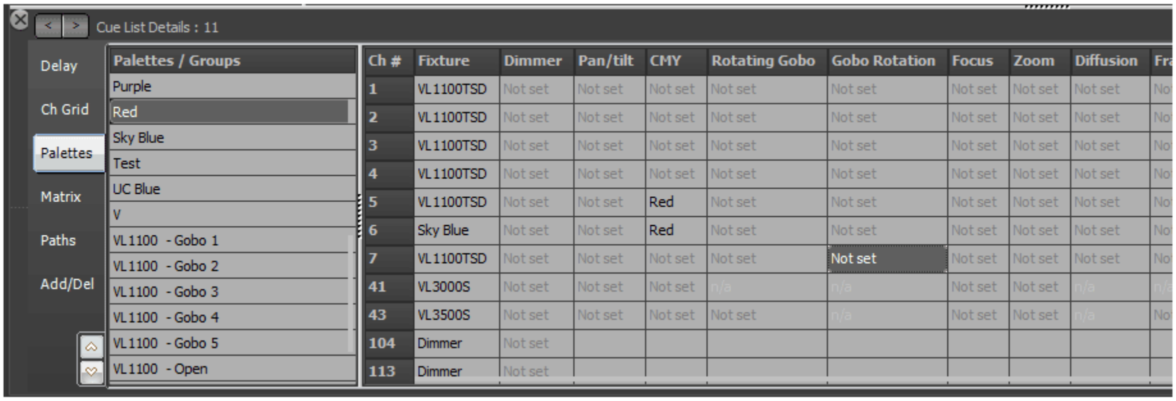
In the cue list detail window recorded palettes show up as red text. We can see that the "color 1" attribute and the "Pan & Tilt" attribute are now referencing palettes. Some of the "P/T Speed" attributes are referencing palettes and some have hard values of 0%.

Clicking on the DMX tab of this window will display the values that are referenced by this palette. Remember that the value is not actually stored with the cue but rather referenced. If a change is made to the channel group "Pos DSC" then all of the cues that use this channel group (as a palette) will automatically reference the changed value.

Manually Changing a Palette in a Cue

The channel detail window can also be used to manually change palette references. If in the example above we wanted to remove the palette references for "P/T Speed" and change channel 3 and 4 to blue rather than magenta.

Do this by clicking on the "Palettes" tab of the channel detail window to view only palette information for this cue.



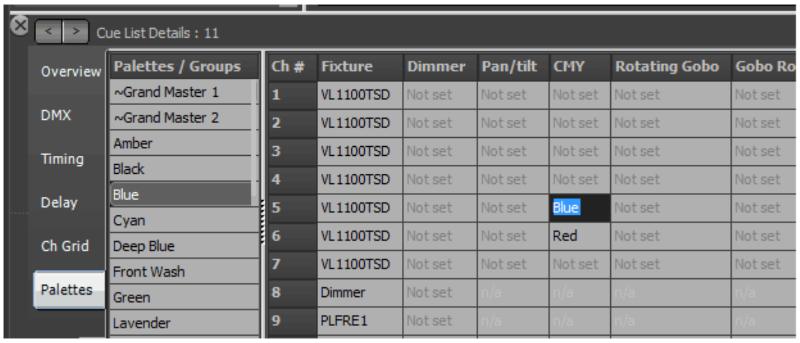
Palettes / Groups
Purple
Red
Sky Blue
Test
UC Blue
V
VL1100 - Gobo 1
VL1100 - Gobo 2
VL1100 - Gobo 3
VL1100 - Gobo 4
VL1100 - Gobo 5
VL1100 - Open

Ch #	Fixture	Dimmer	Pan/tilt	CMY	Rotating Gobo	Gobo Rotation	Focus	Zoom	Diffusion	Fra
1	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
2	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
3	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
4	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
5	VL1100TSD	Not set	Not set	Red	Not set	Not set	Not set	Not set	Not set	No
6	Sky Blue	Not set	Not set	Red	Not set	Not set	Not set	Not set	Not set	No
7	VL1100TSD	Not set	Not set	Not set	Not set	Not set	Not set	Not set	Not set	No
41	VL3000S	Not set	Not set	Not set	n/a	n/a	Not set	Not set	n/a	n/a
43	VL3500S	Not set	Not set	Not set	Not set	n/a	Not set	Not set	n/a	No
104	Dimmer	Not set								
113	Dimmer	Not set								

To remove a palette click on the cell and press the backspace key to clear out the entry. Once cleared press the enter key and the cell will change to "Not set" indicating that no palette is referenced for this attribute any more.

To change a palette reference select the desired palette from the left hand panel and drag and drop it onto the cell you want to replace.

Alternatively you can click in the field you want to change and simply type the name of the palette you want to reference. As you type a list will appear below the cell of all the palettes that match what you have typed so far. Use the up and down arrow to select from the list and press enter to apply the selected palette. You can also select a palette from the list using the mouse.



Palettes / Groups
~Grand Master 1
~Grand Master 2
Amber
Black
Blue
Cyan
Deep Blue
Front Wash
Green
Lavender

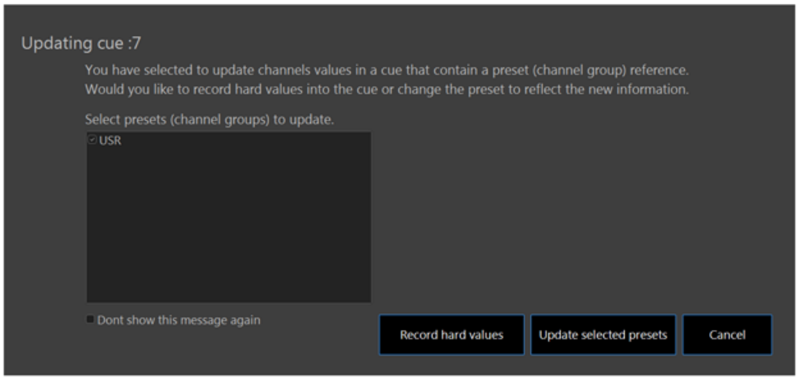
Ch #	Fixture	Dimmer	Pan/tilt	CMY	Rotating Gobo	Gobo Ro
1	VL1100TSD	Not set	Not set	Not set	Not set	Not set
2	VL1100TSD	Not set	Not set	Not set	Not set	Not set
3	VL1100TSD	Not set	Not set	Not set	Not set	Not set
4	VL1100TSD	Not set	Not set	Not set	Not set	Not set
5	VL1100TSD	Not set	Not set	Blue	Not set	Not set
6	VL1100TSD	Not set	Not set	Red	Not set	Not set
7	VL1100TSD	Not set	Not set	Not set	Not set	Not set
8	Dimmer	Not set	n/a	n/a	n/a	n/a
9	PLFRE1	Not set	n/a	n/a	n/a	n/a

You can also edit multi palettes at the same time by highlighting multiple cells and typing the name of the palette to apply. As soon as the palette is selected it will be saved to all of the selected cells.

You will notice that when editing palettes in this window both palettes and channel groups are displayed as a merged list. Any attribute in a cue can reference a channel group or a palette and so the two types are merged to make selection easier.

Updating a Cue with a Palette

When updating cues that contain palettes special care must be taken to ensure that the end result is what you intended to happen. If a attribute that is referencing a palette is changed and you update a cue you must decide if you want to record the new value into the cue as a hard value or if you want NEO to change the palette that is referenced.



Updating cue :7

You have selected to update channels values in a cue that contain a preset (channel group) reference.
Would you like to record hard values into the cue or change the preset to reflect the new information.

Select presets (channel groups) to update.

☑ USR

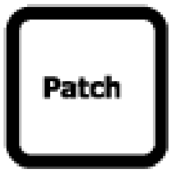
☐ Dont show this message again

If NEO detects that an attribute has changed that is referencing a palette a dialog will appear asking you what it should do with this change. The dialog above will list all of the palettes that are referenced and require updating.

If you do not want to change the palette (or channel group) and simply record hard values into every cue press the button labeled "Record hard values". The dialog will close and the cue will be update with all changed palette references replaced with the actual values of the attribute.

Use the "Update selected palette" button to change the reference to the new value. Use the check boxes to update only a subset of the palettes in the cue.

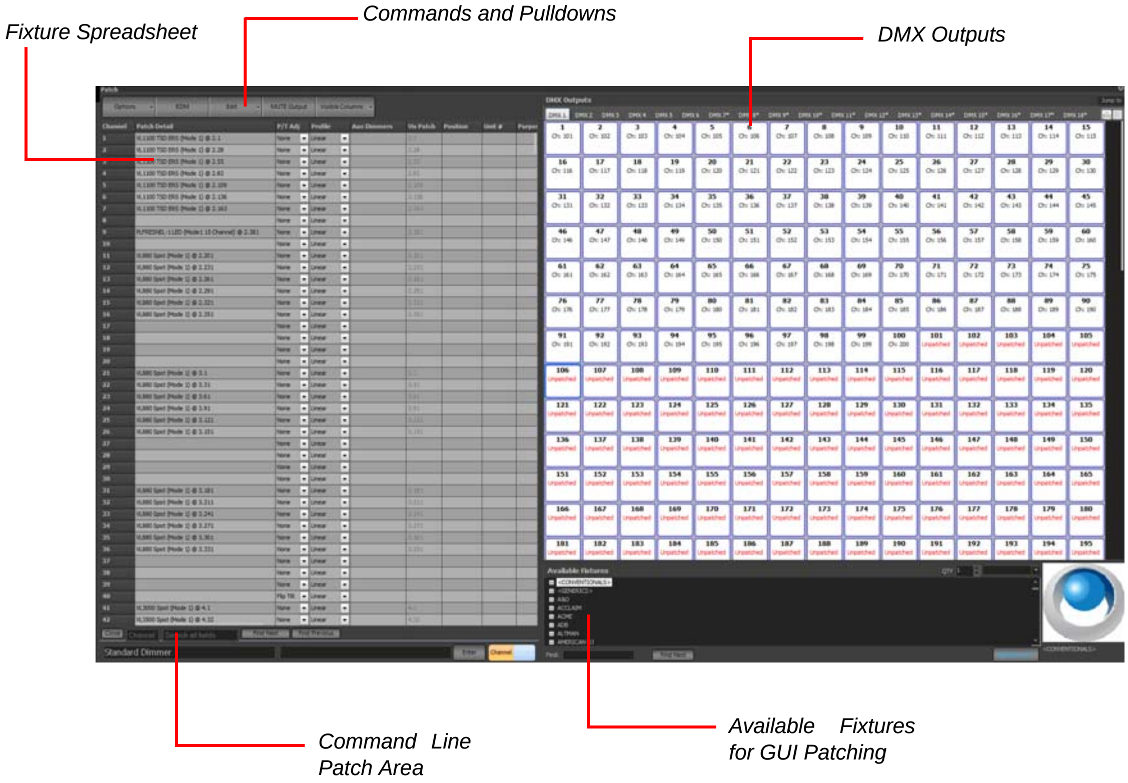
20. Patch



NEO provides up to 25,000 control (desk) channels that can be assigned any number of DMX dimmers or intelligent fixtures. Up to 51,200 DMX outputs are supported by the software and can be patched into the control channels or fixtures. By default the system will create 500 control channels however you can increase this number in the "System Properties". You should try and keep the number of channels as low you think you will need as the more channels the system creates the slower the start-up and the more load there will be on the system.

NEO NOTES & TIPS: System will require a restart when the channel number is changed.

To modify the patching of dimmers or intelligent fixtures to channels open the "Patch" window by clicking on the "Patch" button on the command window or pressing F7 on your keyboard.



The "Dimmer Patch" window is broken into three sections.

Channel/Fixture View - On the left of the window, this allows you to see all of the channels and how they are currently patched.

DMX Output View - At the top right is the DMX output view, containing all of the available outputs.

Fixture List - At the bottom right is the fixture list, containing all the different fixtures that can be patched into channels.

When NEO is started for the first time or when a new show is created, all channels will be patched 1 to 1 with the available dimmers.

P/T (Pan & Tilt) Adjust

These options give you the ability to reverse the operation of the pan and tilt control of moving lights. If you find that a moving light has been hung in reverse to the logical movement of the light then you can correct it without having to physically change the position of the light. Use the drop down combo to select the adjustment you want.

Flip Pan - The pan function of the fixture will be reversed

Flip Tilt - The tilt function of the fixture will be reversed

Flip Pan & Tilt - The pan & tilt function of the fixture will be reversed

Swap Pan & Tilt - The pan function will operate tilt and the tilt will operate pan.

Profile

Use the drop down combo box to select the default profile for the dimmer. See “Profile” on page 120 for more information about this option.

Aux Dimmers

Some fixtures require a separate DMX channel for dimmer control. The VARI*LITE VL5 wash for example does not have the dimmer included in the list of control channels. This is because the dimmer is a separate power feed to the fixture. To aux dimmer can be used to set the channel number for this type of fixture.

Use this option when working with color scrollers where the dimmer is not located at a fixed distance from the control channel.

You can enter any list of dimmers required into this field.

Vis Patch

NEO supports having a separate patch for the visualizer output. If nothing is set in this field the software will default to the same patch information shown in the "patch detail" column and the information will be displayed in a light gray color.

To change the visualizer patching for any channel simply edit the data in the same way as the "patch detail" column.

To return the visualizer patching to the default simply delete the contents of the field. As soon as you press enter the default information will be displayed in a light gray color.

Position

Use the position field to describe where the fixture is located in the lighting rig. This field will be displayed in the verbose view of the channel display.

Unit

The unit number can be a number that stays with the fixture. Use the unit number field to store any number you find useful to identify the fixture.

Purpose

The purpose field should describe what the fixture is being used for. For example - general wash, actor special etc. This field will be displayed in the verbose view of the channel display.

Color Description

The color description field can hold any text you want to describe the color filters that may have been added to the light. This field will be displayed in the verbose view of the channel display.

Color

The color field is used for a real world representation of the color used in the fixture. This color will be shown in the channel display for easy reference. To set the color you can type any known color description (e.g. Red, Yellow, RE202, L194) into this field. If the color description is not known then the color will be set to "None". You can also select the color from the standard NEO color chooser by clicking on the button to the right of the field or by double clicking on the field.

Fixture Type

The fixture type field will automatically be populated by patching a fixture from the library. You can however change this at any time. The fixture type is used to determine the symbol used in the Magic Sheet view for the channel.

Power

The power field will automatically be populated by patching a fixture from the library. This field should show the power consumption of the light.

Weight

The weight field will automatically be populated by patching a fixture from the library. This field should show the physical weight of the fixture.

Circuit Name, Circuit Number & Dimmer Phase

Use these fields to record the power source to the fixture. This information may be needed later to debug power problems.

Accessories

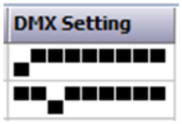
If the fixture has any added accessories added to it (top hat etc) the information can be recorded into this field.

Generic Data 1, 2 and 3

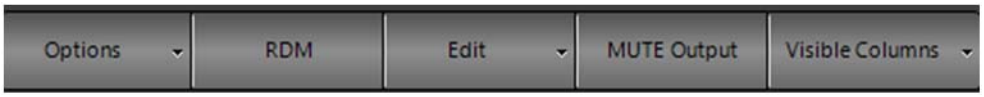
Any other information you want to record with the fixture can be stored in any of the three generic fields. Information in these fields will be displayed in the verbose view of the channel display.

DMX Settings

The DMX settings column is a read only display of the dip switch settings for the patched address. If the fixtures address is set by dip switched then this field can be used as a handy reference.

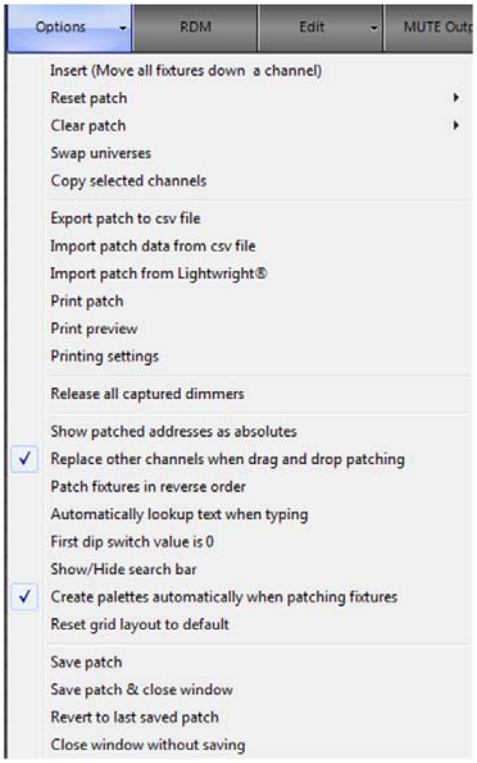

DMX Setting

Command Buttons and Pulldowns


Options
RDM
Edit
MUTE Output
Visible Columns

Options

Listed are the different options available to the user in patch.


Options
RDM
Edit
MUTE Outp
Insert (Move all fixtures down a channel)
Reset patch
Clear patch
Swap universes
Copy selected channels
Export patch to csv file
Import patch data from csv file
Import patch from Lightwright®
Print patch
Print preview
Printing settings
Release all captured dimmers
Show patched addresses as absolutes
✓ Replace other channels when drag and drop patching
Patch fixtures in reverse order
Automatically lookup text when typing
First dip switch value is 0
Show/Hide search bar
✓ Create palettes automatically when patching fixtures
Reset grid layout to default
Save patch
Save patch & close window
Revert to last saved patch
Close window without saving

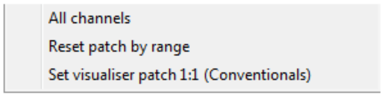
The main issue to understand about patching in NEO is that the patch data is not saved until you say Save Patch. This gives the user the flexibility to make changes and restore the patch prior to committing to it for the showfile.

Insert (Move All Fixtures Down a Channel)

Use the insert if you need to add a fixture to the patch and want to add it between two other patched channels. The insert option will move all of the patch information down one channel form the currently selected channel.

Reset Patch

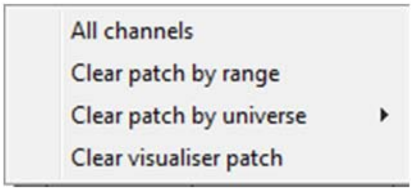
Selecting "Reset patch" from the menu will return all of the channels back to a 1:1 patch. Each channel will be patched to the corresponding dimmer number.


All channels
Reset patch by range
Set visualiser patch 1:1 (Conventionals)

To reset only a range of channels select the desired channels by clicking in the left of the system channels grid to highlight the desired channels. Select "Reset patch by range" to only reset the highlighted channels.

Clear Patch

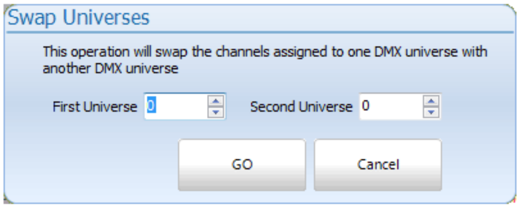
Selecting "Clear patch" from the menu will remove all of the patch information form the system. Each channel will no longer be patched to dimmers.



To clear only a range of channels select the desired channels by clicking in the left of the system channels grid to highlight the desired channels. Select "Clear patch by range" to remove dimmers and patching details form the channels.

You can also clear the patch by universe by selecting one of the sub menu items that will appear when clicking on "Clear patch by universe"

Swap Universe



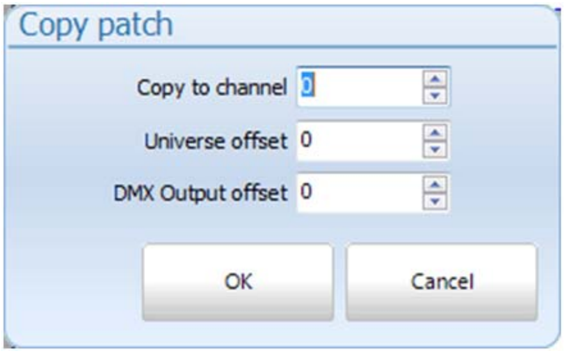
This operation will swap the channels assigned to one DMX universe with another DMX universe

First Universe 0

Second Universe 0

Use this option to move fixtures from one DMX universe to another.

Copy Selected Channels



Copy to channel 0

Universe offset 0

DMX Output offset 0

This will copy any selected fixtures patch info to a different fixture.

Options allow for DMX Universe offset and DMX Output offset.

Export Patch to CSV

Use this option to create a csv file of the patch that can be imported into Excel or other application. This is also a good way to get the correct fields to use for importing patch data.

Import Patch Data from CSV File

To import patching from a delimited file format (csv) select "Import Patch Data" from this menu. An "open file" dialog will be displayed to select the file to import. Import patch will trigger the same auto-palette creation feature as traditional patching.

The format for the imported data is channel, dimmer, fixture brand, fixture name. To supply a list of dimmers for a channel enclose the list in quotation (") marks. If you are including an intelligent fixture in the patch information it is recommended that the brand and fixture name be enclosed in quotation marks.

Import Patch from LIGHTWRIGHT®

Patch information can also be imported from a LIGHTWRIGHT® file. You will first need to export from LIGHTWRIGHT® as a CSV file and keep all default column settings and assignments.

Note: NEO needs the first record to be the export field labels. The first 3 are the important ones and they must be 1. Purpose. 2. Channel. 3. Dimmer in that order. If that is not there, then it will not be recognized as a legal file.

Print Patch

Select "Print Patch" to print all patched channels to a system printer.

Use the print preview and printer settings to adjust the look and layout of the patch information that will be sent to the printer.

Print Settings

This allows the user to set the print settings of the document.

Release All Captured Dimmers

If a dimmer has been manually set to a value it is considered captured. This means that regardless of the desk channel setting the output of that dimmer will remain at its captured value. Captured dimmers are identified by a red number showing in the top right hand corner of the channel.

To release all channels back to regular control select this option from the menu. This can also be achieved by entering "dim rel" in the command line interface.

Highlight Dimmers Used by Channel Selection

Will highlight the output assigned to the selected channel/fixture.

Show Patched Addresses as Absolutes

By default, patched address will display as "Universe.Address". So the first address in the second universe will be "2.1". If this option is checked, the address will show as the absolute DMX values of 513.

Replace Other Channels When Drag and Drop Patching

When using the GUI solution of drag and drop patching, the new channel will replace the old channel assignment with this in the default position of on. If turned off, drag and drop patching shall add to the current assignment.

Patching Fixtures in Reverse Order

When doing range patching, will patch the list of items in reverse order rather than in numerical order.

Automatically Look Up Text When Typing

When you are in a cell of the grid and you start typing test it will try to auto complete based on what's already in the grid. Similar to the way Excel does.

First Dip Switch Value is 0

The last column in the grid shows the dip switch settings. You can use this setting to change if the dip switches start at 0 or 1.

Show / Hide Search Bar

This will reveal or hide the patch search bar.

Create Palette Automatically When Patching Fixtures

When an automated luminaire is patched, this gives you the option of having the NEO software automatically create palettes based upon the patched fixtures wheel assignments. This will create palettes for colors and gobos.

Reset Grid Layout to Default

This resets all column width settings to default.

Save Patch

A patch change is not automatically saved. This is to allow you to make changes to the patch and revert back should those changed not be desired.

This will save the patch changes to the show file.

Save Patch and Close Window

This will save the patch changes and close the patch window taking you back to the Live screen.

Revert to last Saved Patch

This will allow you to ignore the patch changes made since the last patch save.

Close Window without Saving

This will allow you to ignore the patch changes made since the last patch save AND close the patch window taking you back to the Live screen.

Standard Dimmer Patching

By default the "Standard Dimmer" fixture is selected. Standard dimmers use only one dimmer to control the luminaire.

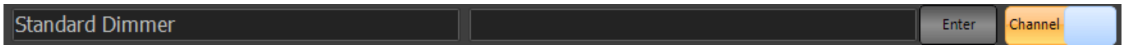
To change the dimmer associated with a channel:

1) In the dimmer view, click on the desired dimmer number and hold the left mouse button down.
2) Drag the dimmer over the channel in the channel view area. When you release the mouse the channel will automatically be patched to the new value.

Multiple dimmers can be patched to a single channel by clicking in the "Detail" field and entering a list of channels separated by a comma (,).

Command Line Patch

At the bottom of the Patch display, there are two entry boxes an Enter button and a Channel/Dimmer switch.



The left box determines "what" gets patched. Standard Dimmer is the default for conventional dimmer patching. The right box determines "where" the patching occurs for channels/fixtures and dimmers/outputs.

The Channel/Dimmer switch determines the order of the info for Command Line patch.

For example, to patch a standard dimmer of 12 to fixture 2, type [2][@][1][2][ENTER]. This will assign dimmer 12 to fixture 2.

You can flip the Channel/Dimmer switch and type this output first. [1][2][@][2][ENTER].

Patching in reverse range order is also achievable. [6] [Thru] [10] [@] [10] [Thru] [6] [Enter].

NEO NOTES & TIPS: Multiple dimmers connected to a channel will output the same value dependent on the channel value and the channel profile curve (for more on profiles, see "Profiles".

Intelligent Fixtures

Intelligent fixtures use more than one physical output to control various aspects or attributes of the luminaire. A channel can only be patched to one intelligent fixture and can be identified by the name of the fixture in the detail column of the channel view.

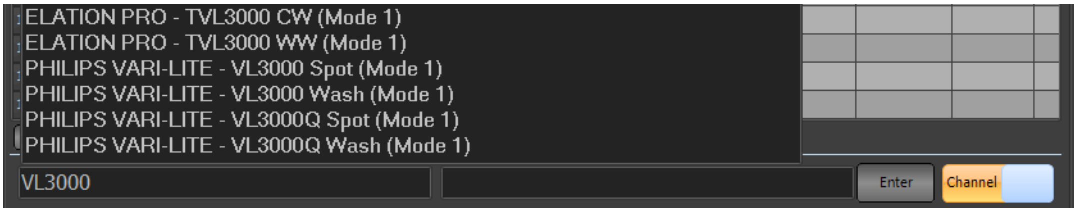
To patch an intelligent fixture to a fixture:

1) Select the desired luminaire from the tree view under the title "Available Fixtures".

Command Line Patch

At the bottom of the Patch display, there are two entry boxes an Enter button and a Channel/Dimmer switch.

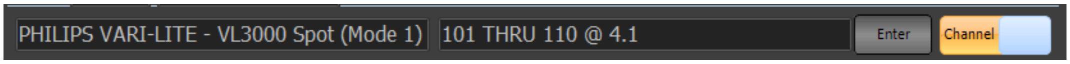
To patch an automated luminaire, start typing the fixture name in the left field. Once you have typed 3 digits, the NEO software will attempt to find it. I've typed in VARI*LITE VL3000 as an example. From here, ARROW Up/Down or click with the mouse pointer to select.



ELATION PRO - TVL3000 CW (Mode 1)
ELATION PRO - TVL3000 WW (Mode 1)
PHILIPS VARI-LITE - VL3000 Spot (Mode 1)
PHILIPS VARI-LITE - VL3000 Wash (Mode 1)
PHILIPS VARI-LITE - VL3000Q Spot (Mode 1)
PHILIPS VARI-LITE - VL3000Q Wash (Mode 1)

VL3000

Once selected, type TAB to move the cursor to the right box. Now type in [Channel List][@][Starting Address].



PHILIPS VARI-LITE - VL3000 Spot (Mode 1) | 101 THRU 110 @ 4.1

In this example, we'll patch 10 - VL3000 Spots (Mode 1) starting at address 4.1. You can also type the absolute address number here as well.

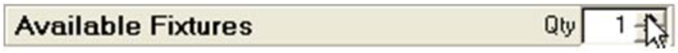
Note: All of the fixtures are grouped under the brand name and can be accessed by clicking on the small plus (+) to the left of the brand name. The brand will then be expanded showing all of the models available.

2) Click on the fixture model you want to patch and you will see a picture of the light on the right.
3) When you move the mouse over the "Dimmers" section of the window, click the mouse on the dimmer where the fixture starts and, while holding the mouse button down, drag the dimmer over the channel you want to patch.

NEO NOTES & TIPS: When intelligent fixtures are selected, the dimmers will be highlighted in a grey background to show the number of dimmers that the fixture uses.

The channel detail will now show the newly patched fixture followed by the "@" symbol and the start dimmer number.

You can patch multiple intelligent fixtures at one time (consecutively) by changing the quantity (Qty) value at the top right of the "Available Fixtures" section. If more than one fixture is patched then additional fixtures will occupy the channels following the first one you drag the patch to.



Quantity Control for Intelligent Fixtures

Once you have patched an intelligent fixture you can add more to the patch by holding down the shift key on the desired fixture and pressing the down arrow.

Other Information

The channels grid on the left hand side of the window also allows more information about the patch to be stored. Some of the fields directly influence the output of the channel while other are used for reference to help program you show.

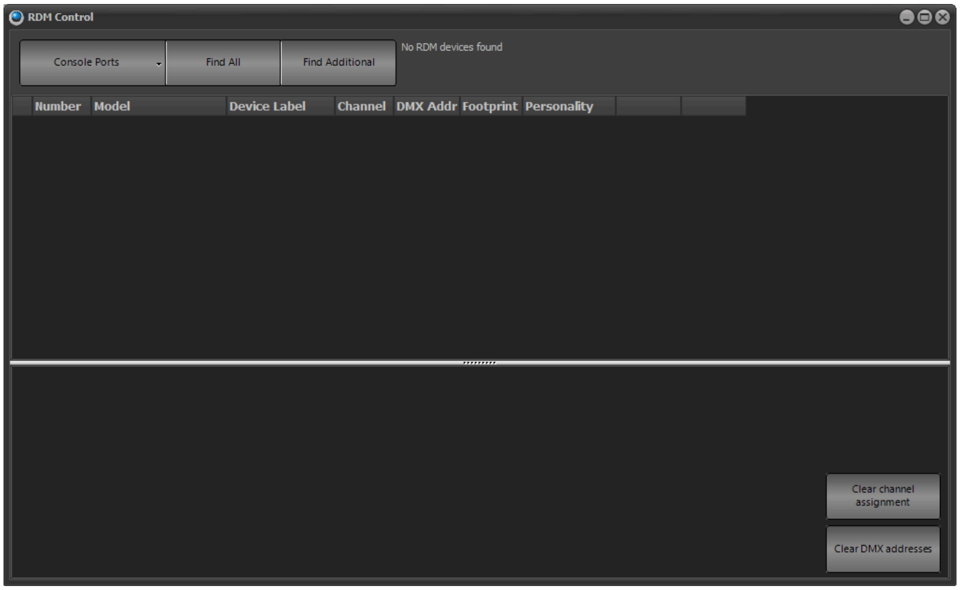
21. RDM

RDM is an extension to the DMX protocol that provides bi-directional communications with RDM compatible devices and fixtures.

Clicking on the RDM button will bring up a separate window for RDM control.

NEO NOTES & TIPS: Not all output devices support RDM functionality. The universe selection in the RDM window will only display hardware that supports RDM. If your device is not listed then you will not be able to use the RDM functionality.

The RDM window can be used to find devices connected to the DMX network, change their label, set the start address and personality. If the fixture supports identifying its attribute list NEO can also automatically build a fixture and store it in the fixture library the first time it is patched.



No RDM devices found

RDM Control Window

To start the discovery process select the DMX universe form the menu in the in the top left corner and click on "Find All". The discovery process may take some time to return and if possible NEO will notify you of its progress. This is not always possible and it may appear as though nothing it happening. When the discovery process has finished the "find al" button will become active again. If you add devices to the system you can use the "Find additional" button to find only those not already found.

Once the devices have been found they will be listed in the grid as shown. If not all of the information is correctly found you can use the small button to the right of the "Number" to attempt a second retrieve.

Model - The model field is a read only field that will typically tell you what the device is.

Device Label - The device label is a changeable field stored on the device. You can use this to store your own information on the fixture itself. When the device is patched into NEO the label will automatically be placed into the first generic data field.

Channel - When the devices are discovered NEO will work out what channel is currently assigned to the DMX start address and display it in this field. If the channel number has an asterisk (*) attached to it then this indicates that the fixture definition does not match the model and footprint. This simply means that while the start address is patched the fixture is not.

Note: Any changes made to the channel field will not apply until the "patch" button is pressed.

DMX Address - The DMX start address is the first DMX channel number that the fixture or device will use for control. Changing this field will automatically update the device with the new value. If the value returns to the previous setting then the message has not reported a successful change.

Note: Changes to the DMX address field will automatically patch the fixture.

Footprint - The footprint is a read only field to indicate how many DMX channels the fixture uses for control.

Personality - Setting the personality will change how the fixture or device is controlled. Changing the personality by selecting form the drop down list will automatically update the device/fixture. If the value returns to the previous setting then the message has not reported a successful change. Changing the personality may change the footprint of the fixture.

Identify - Use the identify button to find the fixture or device. This function is used for the user to physically identify the device. The device/fixture shall physically identify itself using a visible or audible action. For example, strobing a light or outputting fog. Click on this button will put the device/fixture into identify mode and change the label top "Identify Off". Clicking again will turn off the identify mode.

Clear channel assignment - Click on this button to clear all of the channel numbers currently assigned to the devices. No changes will be made to the actual patch at this point. All of the devices/fixtures will show "not patched".

Clear DMX address - Click on this button to clear all of the DMX addresses shown. This will not change the assigned DMX start address on the device/fixture. Use this option when you want to automatically patch all of the fixtures found using the instructions below.

Automatic Patching

The NEO RDM window provides a quick and easy way to patch all of the RDM devices that have been found. Before starting this process click on the "clear channel assignment" and the "clear DMX addresses" button.

Next use the identify button to find the first fixture you want patched. Once you have found the first fixture you want click on the "Patch" button. The selected fixture will be patched to the first channel and the first DMX address.

If the fixture (referenced by the Manufacturer and Model information) if not found the NEO fixture database then the software will interrogate the fixture using RDM and build a suitable fixture profile. The amount of detail contained in the new fixture profile will depend on the RDM commands supported by the device/fixture.

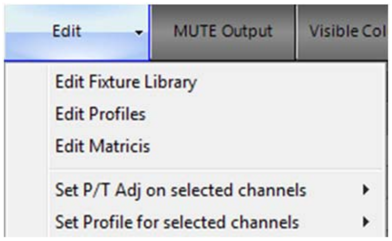
To patch the rest of the devices/fixtures use the identify button to find the next fixture and click "Patch" to patch it into NEO. The software will automatically assign the next channel and the correct DMX start address to fit the fixture.

Edit Menu

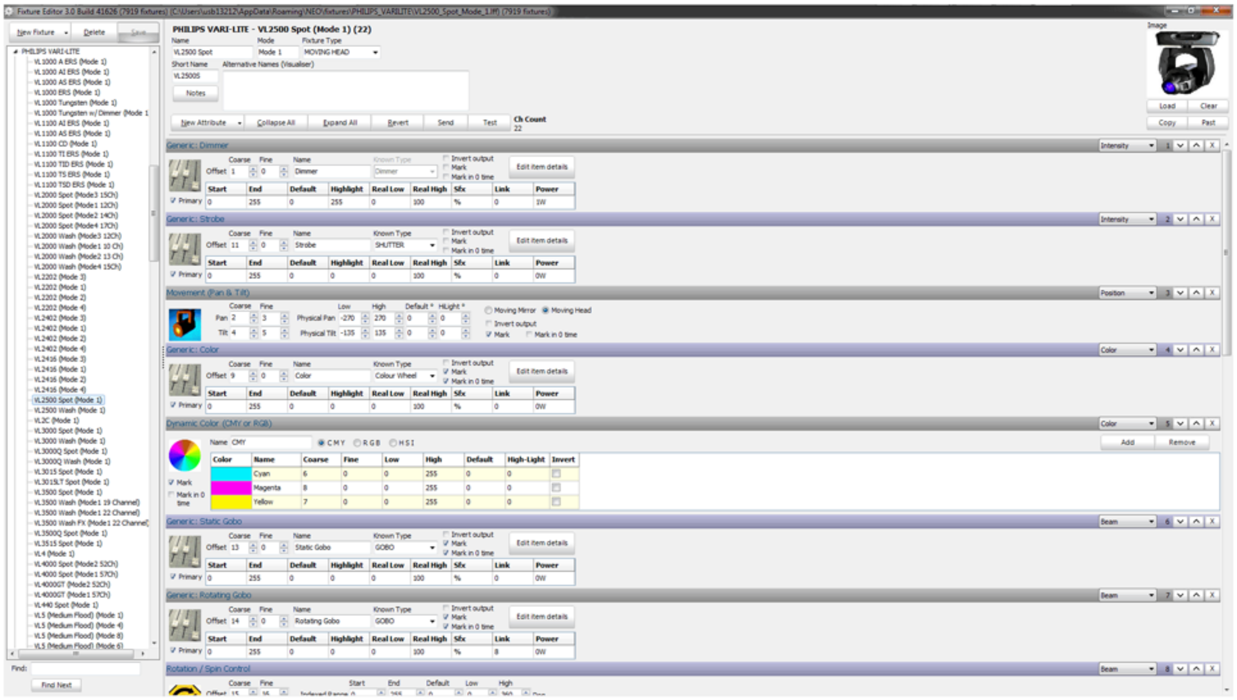
The edit menu provides access to the following windows:

Edit Fixture Library

The fixture library is the list of all available fixtures that can be patched in the software. Each fixture has an associated definition file that contains information about how the NEO can manipulate the features of the light.



The fixture editor is a separate program provided with NEO. You can use the graphical interface to add, remove or modify fixtures.



See the "NEO Fixture Editor Manual" for a detailed description of how to work with this application.

Edit Profiles

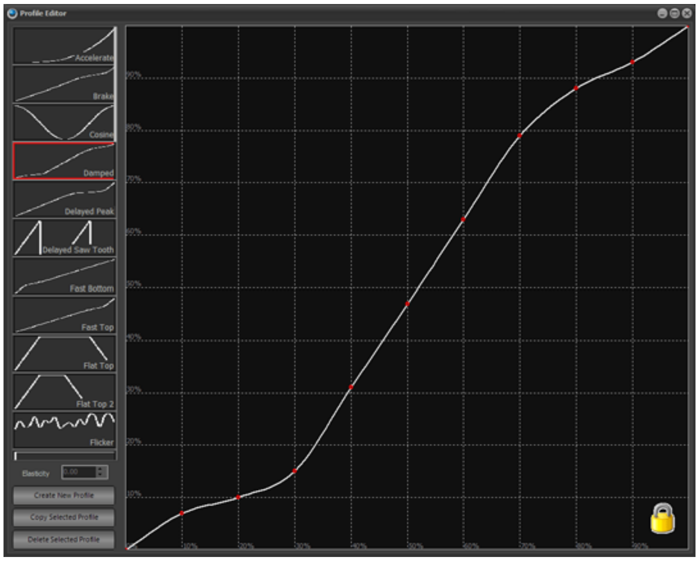
The channel profile is a way to adjust the relationship between channel value and the final output of the dimmers. The default relationship is called linear (1:1) meaning that if the channel is set to 0 then the output is 0, if the channel is set to 50 then the output is 50 and if the channel is set to 255 then the output is also 255.

Changing the profile allows you to correct for older lamps or make special channels for fixtures that do not have full dimmer functions. (e.g. A smoke machine)

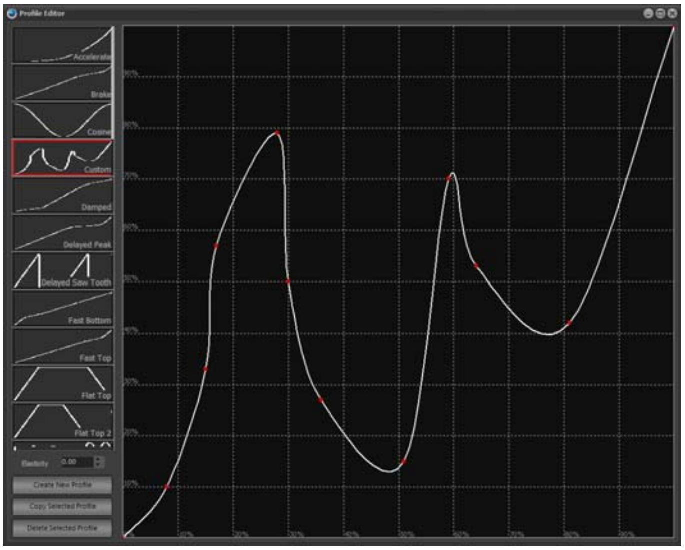
Profiles are also used in the "Profile Effect" as the path that the effect will apply to an attribute. See “Profile Effect Options” on page 181 The same editing window is used for both the channel profile and the profile effect.

To selection a profile for a channel simply use the drop down list in the channels grid. The list that appears will show a small image of the profile and its name.

To adjust a profile or to make a new one choose "Edit Profiles" from the drop down menu attached to the "Edit" button. You can also access the profile editor from the main command window from the "Extras" menu.


Profile Editor
Accelerate
Brake
Cosine
Damped
Delayed Peak
Delayed Saw Tooth
Fast Bottom
Fast Top
Flat Top
Flat Top 2
Flicker
Elasticity
Create New Profile
Copy Selected Profile
Delete Selected Profile

Profile Editor, Damped Profile Selected


Profile Editor
Accelerate
Brake
Cosine
Custom
Damped
Delayed Peak
Delayed Saw Tooth
Fast Bottom
Fast Top
Flat Top
Flat Top 2
Elasticity
Create New Profile
Copy Selected Profile
Delete Selected Profile

Profile Editor, Custom Profile

On the left side of the window is the list of profiles in the system. Profiles are not stored with the show information and will remain in the system until deleted using the profile editor.

When the software is first installed a number of default profiles will be created. The default profiles cannot be edited and are identified by the small padlock that is sown in the bottom right corner of the window. To edit a default profile you will first need to make a copy of it using the button provided.

To create a new profile click on the "Create New Profile" button under the list of available profiles. A dialog will appear asking for the name of the new profile. Enter a short description of the profile you plan to create and click on the "OK" button. The new profile will default to the "Linear" path.

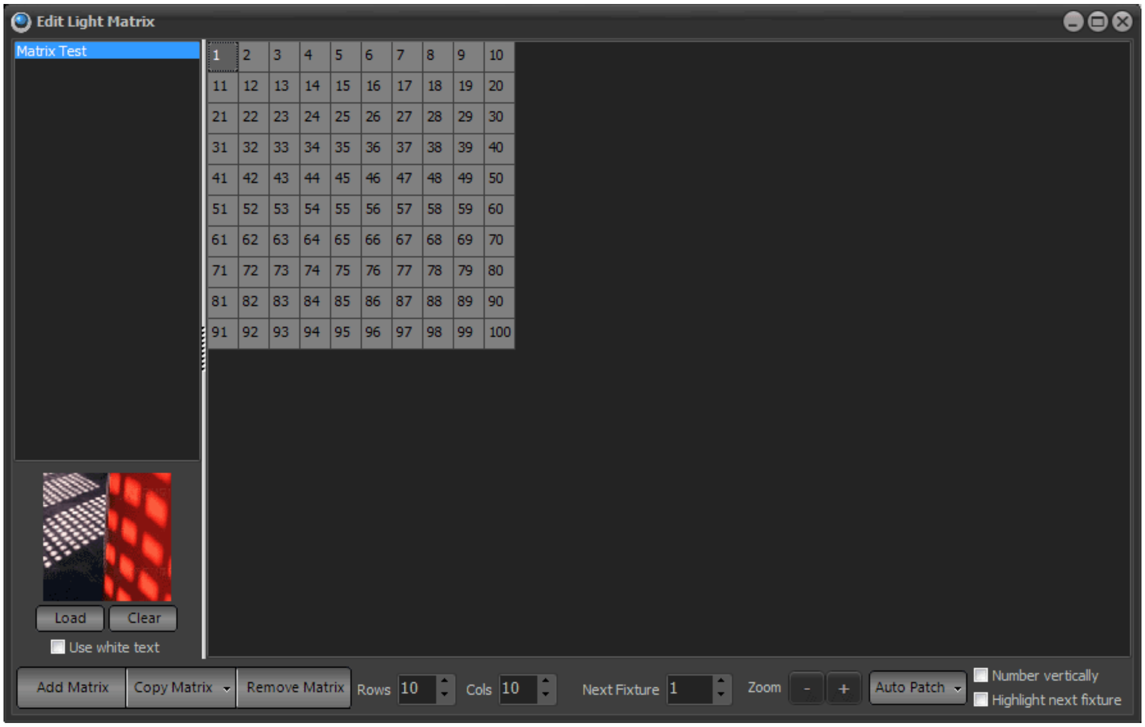
To make a change to this click anywhere on the grid and a small red dot will appear. The path will now smoothly go through the point just created. You can move this point by clicking and holding your mouse button down to drag the point around the window. Repeat this process to create more points.

By default the system will draw a tight path between every point created. Use the Elasticity spin edit to adjust the obtuseness of the curve. Setting the elasticity to 1 will draw straight lines between each point without a curved fit.

Edit Matrices

Before creating matrix or LED effects you must define how the fixtures and lights are laid out in the real world. The "Edit Matrices" window provides a simple interface to provide a rough layout of the fixtures.

You can also access this window from the "**Extras**" menu on the NEO Command Line interface window.



Matrix Test

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

☐ Use white text

Rows 10

Cols 10

Next Fixture 1

☐ Number vertically

☐ Highlight next fixture

Edit Matrix Window

A lighting matrix is a simple two dimensional grid where each cell can be assigned a channel or fixture from the system. On the left of the window is a list of available matrices that have been created previously. To edit any matrix, click on the name and the right hand grid will change to show the definition.

To create a new matrix definition click on the "**Add Matrix**" button in the bottom left corner of the window. A dialog will ask you to enter a name for the new matrix. Click on the "**OK**" button and the new definition will appear in the list on the left hand side of the window.

To delete a matrix click on the "**Remove Matrix**" button in the bottom left corner of the window. A dialog will ask you to confirm the operation. Click on the "**OK**" button to delete it from the system.

The size of the matrix can be changed at any time by setting the columns and rows spin edit boxes along the bottom of the window.

By default a matrix will be empty with no fixtures assigned. In order to output a matrix effect to fixtures you must identify where the fixtures are in the grid. To do this click on the desired cell and a fixture number will appear. The "Next Fixture" edit at the bottom of the window will automatically increment so that the next fixture can be assigned.

At any time you can change the "Next Fixture" number to any desired system channel.

By clicking in the grid (holding the mouse button down) and dragging the mouse over several cells you can assign a number of fixtures at the same time. Each cell will be assigned a unique fixture and the "Next Fixture" value will be incremented.

Assigning an Image

Use the Load & Clear options to assign a picture of the matrix for future reference. The image assigned to the matrix is displayed behind the matrix editor and can be used to align the position of fixtures in a real environment.

Click on the "Load" button to open an image dialog. Select any image that represents the matrix of fixtures and click "Open" to complete the operation. The image should appear in the window just above the load and clear buttons.

Click on the "Clear" button to remove the image from the system.

In the "Auto Patch" menu is an option labeled "Match rows and columns to the image size". This will automatically set a 1:1 relationship between the pixels in the image and the matrix itself. This option should not be used on images bigger than 500 pixels wide and high.

If the predominant color of the image makes the text unreadable in the matrix view tick the "use white text" option below the Load and Clear buttons.

Auto Patch

The auto patch menu makes it easy to setup simple matrix situations such as filling the entire matrix or creating bars and checker patterns.

This menu also provides an option the Clear Patch to remove all channel assignments from the matrix.

Use the Number Vertically check box to have increasing numbers vertically rather than horizontally when automatically assigning channels.

MUTE Output

The mute button will temporarily **STOP** all DMX output from NEO at a hardware level. If you want to use another DMX controller temporally you can mute NEO so that the output streams do not fight for control.

This button will toggle the MUTE state so clicking again will unmute the system. When the system is muted the button is display in red.

Visible Columns

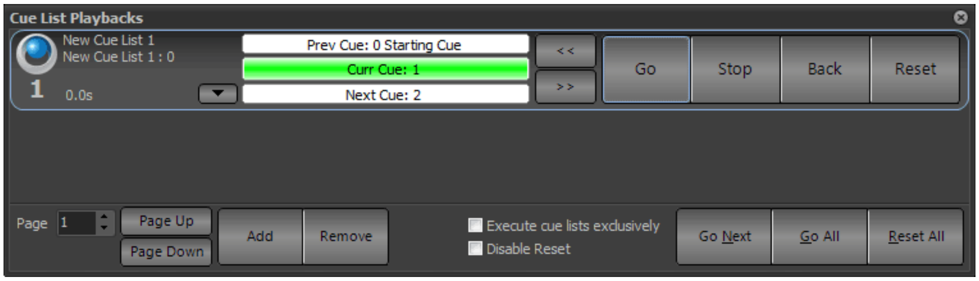
Click on the Visible Columns menu to pop up a list of columns displays in the left panel of the window. From this list you can turn on and off any of the columns so that you can see only the fields you need.

This menu will persist until you click anywhere outside of the menu. This is to help make the selection process quicker when you want to turn on and off multiple columns.

22. Cue Playbacks

The cue playbacks are designed to execute multiple cue lists from one place. Each playback is a repeat of functions seen in the cue list editor window. (See “Cue List Display / Editor” on page 106 for more information).

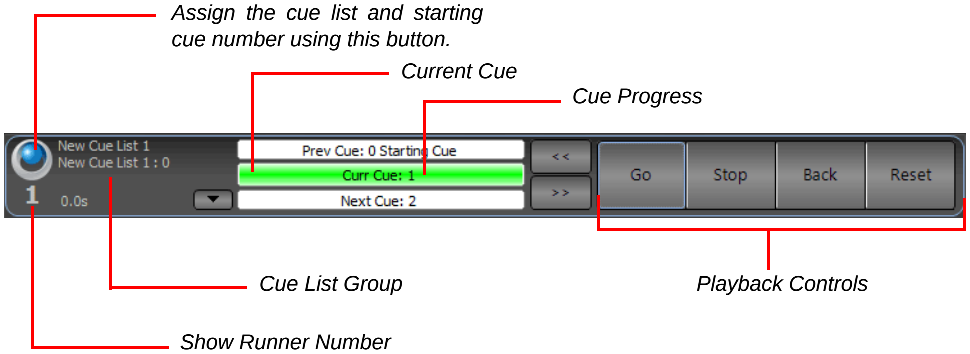
Open the "Cue Playbacks" window by clicking on the button at the bottom of the Command Line interface or by pressing F8 on your keyboard.



NEO provides the ability to assign cue lists to a virtually unlimited number of playbacks. Use the system properties settings to define how many playbacks will appear on each page. Use the page control at the bottom left corner of the window to move between pages.

To use a cue playback you must assign a "Cue List" and a "Starting Cue" number. This determines which cue will be executed when the "Go" button is pressed for the first time. It also determines which cue the system will jump to when the "Reset" is pressed.

Add a playback to the system by pressing the "Add" button at the bottom of the page. The new playback will be placed at the end of the list. To remove the last playback click on the "Remove" button provided. A confirmation dialog will ask that you are sure you want to remove the playback.



Assign the cue list and starting cue number using this button.

Current Cue

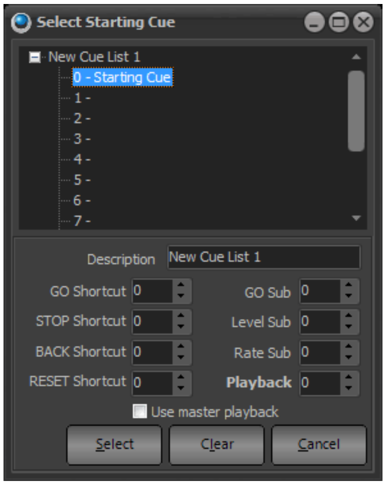
Cue Progress

Cue List Group

Playback Controls

Show Runner Number

Click on the button on the left of the playback to assign a cue list and starting cue. The following dialog will appear listing the available cues and cue lists in the system.


Select Starting Cue

New Cue List 1
- 0 - Starting Cue
- 1 -
- 2 -
- 3 -
- 4 -
- 5 -
- 6 -
- 7 -

Description: New Cue List 1

GO Shortcut: 0
STOP Shortcut: 0
BACK Shortcut: 0
RESET Shortcut: 0
GO Sub: 0
Level Sub: 0
Rate Sub: 0
Playback: 0

☐ Use master playback

Cue Playback, Cue Selection

Expand the cue list that you want by clicking on the small plus next to its name and then select the starting cue (Normally Cue 0). Click on "Select" to use this as in the cue playback or click "Cancel" to return without making any changes.

To clear out the cue playback and disable the controls use the "Clear" button.

The description field can be used to enter a meaningful name to the cue playback for future reference. Use the other fields to set shortcuts and submasters to the playback.

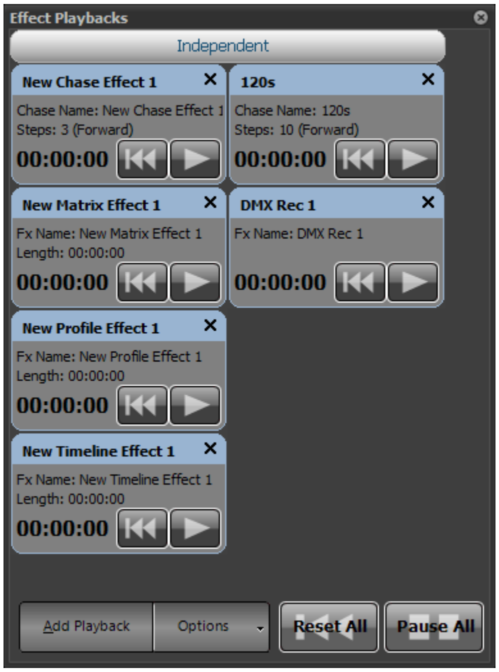
After you have selected a valid cue list and starting cue number, the playback controls will become active. You can now use them to run your show.

To move a playback to a different location right click anywhere on the playback and select "Move" from the resulting menu. The mouse cursor will change to a small hand indicating for you to click on the playback you want to move it to.

23. FX or Effects Playbacks

"Effect Playbacks" provide a quick and easy way to access effects in an ad-hoc manner. Once you have created your effects (See "Effects Editor" to learn how), they can be used either within cue lists or manually from effects runners.

Open the "Effects Playback" window by clicking on the "Fx Playbacks" button at the bottom of the Command Line interface or pressing the F9 key on your keyboard.


Effect Playbacks
Independent
New Chase Effect 1
120s
New Matrix Effect 1
DMX Rec 1
New Profile Effect 1
New Timeline Effect 1
Add Playback
Options
Reset All
Pause All

New Chase Effect 1: Chase Name: New Chase Effect 1, Steps: 3 (Forward), 00:00:00

120s: Chase Name: 120s, Steps: 10 (Forward), 00:00:00

New Matrix Effect 1: Fx Name: New Matrix Effect 1, Length: 00:00:00, 00:00:00

DMX Rec 1: Fx Name: DMX Rec 1, 00:00:00

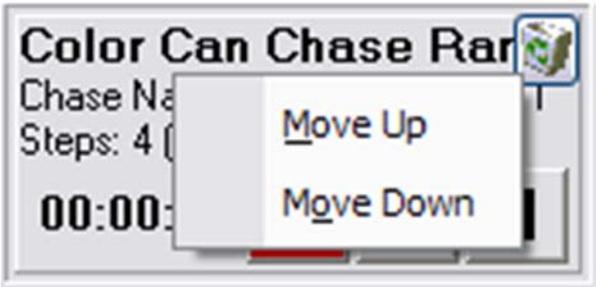
New Profile Effect 1: Fx Name: New Profile Effect 1, Length: 00:00:00, 00:00:00

New Timeline Effect 1: Fx Name: New Timeline Effect 1, Length: 00:00:00, 00:00:00

Effects Playbacks

This window will remain empty until you begin adding playbacks by clicking on the "Add Playback" button. Playbacks can be removed by clicking on the small X in the top right of the frame.

At any time you can re-order the effects playbacks by right-clicking to bring up the move menu. Click on the "Move Up", "Move Down" or "Move To" to rearrange the effect runner appearance order.


Color Can Chase Rar
Chase Na
Steps: 4 (
00:00:
Move Up
Move Down

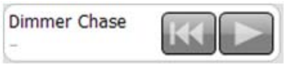
Effects Playbacks Move Options

Options

The "Options" button at the bottom of this window can be used to change the size of the playbacks or toggle the edit mode sate. When the edit mode is turned off you will be able to delete a playback or change its settings. This switch is designed to avoid accidentally changing the configuration during a show.

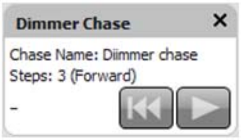
Effects Playback Sizes

The "Options" menu will allow you to set 3 different sizes for the playbacks.


Dimmer Chase

–

Effect Playbacks - Compact Mode

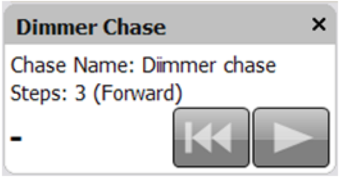

Dimmer Chase

Chase Name: Diimmer chase

Steps: 3 (Forward)

-

Effect Playbacks - Normal Mode


Dimmer Chase

Chase Name: Diimmer chase

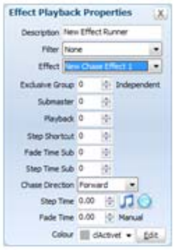
Steps: 3 (Forward)

-

Effect Playbacks - Large Mode

Setting up a New Effect Playback

Left click inside the playback to bring up the "Effect Playback Properties" window.


Effect Playback Properties

Description: New Effect Runner

Filter: None

Effect: New Chase Effect 1

Exclusive Group: 0 Independent

Submaster: 0

Playback: 0

Step Shortcut: 0

Fade Time Sub: 0

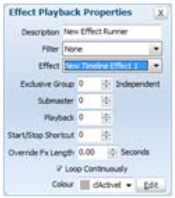
Step Time Sub: 0

Chase Direction: Forward

Step Time: 0.00

Fade Time: 0.00 Manual

Colour: dActivel


Effect Playback Properties

Description: New Effect Runner

Filter: None

Effect: New Timeline Effect 1

Exclusive Group: 0 Independent

Submaster: 0

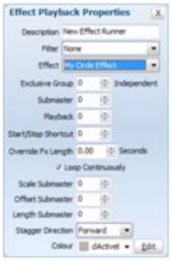
Playback: 0

Start/Stop Shortcut: 0

Override Fx Length: 0.00 Seconds

✓ Loop Continuously

Colour: dActivel


Effect Playback Properties

Description: New Effect Runner

Filter: None

Effect: My Circle Effect

Exclusive Group: 0 Independent

Submaster: 0

Playback: 0

Start/Stop Shortcut: 0

Override Fx Length: 0.00 Seconds

✓ Loop Continuously

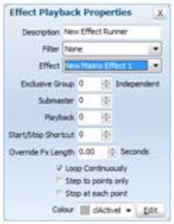
Scale Submaster: 0

Offset Submaster: 0

Length Submaster: 0

Stagger Direction: Forward

Colour: dActivel


Effect Playback Properties

Description: New Effect Runner

Filter: None

Effect: New Matrix Effect 1

Exclusive Group: 0 Independent

Submaster: 0

Playback: 0

Start/Stop Shortcut: 0

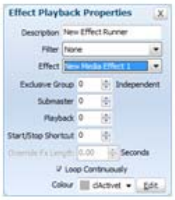
Override Fx Length: 0.00 Seconds

✓ Loop Continuously

☐ Step to points only

☐ Stop at each point

Colour: dActivel


Effect Playback Properties

Description: New Effect Runner

Filter: None

Effect: New Media Effect 1

Exclusive Group: 0 Independent

Submaster: 0

Playback: 0

Start/Stop Shortcut: 0

Override Fx Length: 0.00 Seconds

✓ Loop Continuously

Colour: dActivel

Effect Playback Properties Windows

The description field can be used to easily identify the playback and will appear along the top of the control. By default, this will be set to the same as the effect name but can be changed as desired.

To set the effect to the playback, select the desired effect from the drop down list and the effect playback will become active.

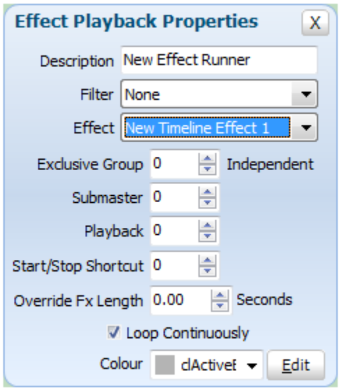
Depending on the type of effect you have selected different options will become visible.

Click on the "Edit Effect" button to open the effects editor and automatically show the effect assigned to this playback.

Exclusive Group

When a playback is created it is automatically placed into the "Independent" group (exclusive group 0). Effects contained in the independent group will run independently and can all be run at the same time. Setting an effect into an exclusive group other than 0 will make it exclusive. Only one effects contained in an exclusive group (group other than 0) can be active at any time. If you start another effect in an exclusive group while another is already running then the existing effect will stop and the new one started.

Timeline Effects Options



Effect Playback Properties

Description: New Effect Runner

Filter: None

Effect: New Timeline Effect 1

Exclusive Group: 0 Independent

Submaster: 0

Playback: 0

Start/Stop Shortcut: 0

Override Fx Length: 0.00 Seconds

☑ Loop Continuously

Colour: clActiveE

Submaster - Assigning a submaster to the playback will override the dimmer of the fixtures contained in the effect. As the effect runs the position of the submaster will determine output of the fixtures.

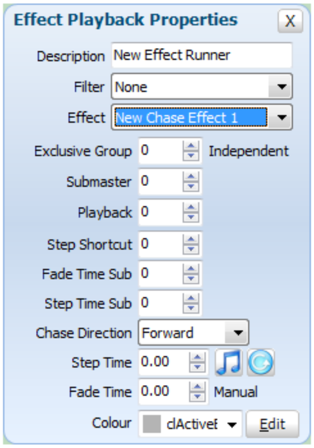
Playback - Assigning a playback will disable the submaster edit box as only one can be assigned to the playback. A playback relates to the Enttec Playback wing. Assigning a playback does more than just utilize the fader on the wing but also allows you to use the play, back and pause buttons to run the effect.

Start/Stop Shortcut - Set a shortcut number to assign to the playback controls for this playback. Pressing the shortcut will start the effect running. Pressing the shortcut while the effect is running will pause the effect and pressing it twice within 2 seconds will rewind the effect to the start.

Override Effect Length - Set this field to change the length that the effect will run for. If this value is set to 0, the default length (Set during creation of the effect) will be used. If the effect length is overridden then all of the segments in the effect will be rescaled to this new length.

Loop Continuously - Check this option to make the effect loop back to the start when it finishes. If this option is not checked then it will stop as soon as the effect ends.

Chase Options



Description: New Effect Runner
Filter: None
Effect: New Chase Effect 1
Exclusive Group: 0
Submaster: 0
Playback: 0
Step Shortcut: 0
Fade Time Sub: 0
Step Time Sub: 0
Chase Direction: Forward
Step Time: 0.00
Fade Time: 0.00
Colour: clActiveE

Submaster - Assigning a submaster to the playback will override the dimmer of the fixtures contained in the effect. As the effect runs the position of the submaster will determine output of the fixtures. A submaster assigned to a chase will also cause the effect to automatically start when the value is above 0 and pause with it returns to 0.

Playback - Assigning a playback will disable the submaster edit as only one can be assigned to the playback at a time. A playback relates to the Enttec Playback wing. Assigning a playback does more than just utilize the fader on the wing but also allows you to use the play, back and pause buttons to run the effect.

Step Shortcut - Set a shortcut number to use to step the chase. Pressing the assigned shortcut will cause the chase to transition from the current step to the next.

Fade Time Submaster - To manually adjust the fade time or transition time as the chase is running you can assign a submaster that will control this. As each step executes the fade time will be dependent on the position of the submaster. The maximum fade time that can be set by the submaster is 10min.

Step Time Submaster - To manually adjust the step time (time between automatic executions of steps) as the chase is running you can assign a submaster that will control this. As each step executes the time before the next step executes will be determined by the position of the submaster. The maximum step time that can be set by the submaster is 10min.

Chase Direction - Use this drop down option to specify how chase will run.

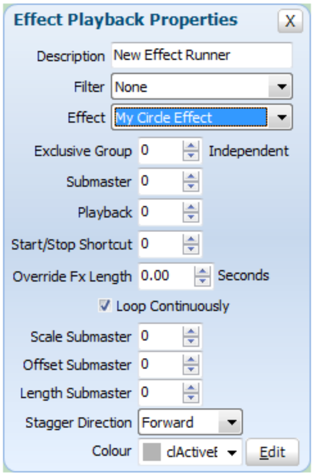
- **Forward** - The chase will run from the first step to the last. If the chase is set to loop the chase will return to the first step after the last step.
- **Backward** - The chase will run from the last step to the first step. If the chase is set to loop the chase will return to the last step after reaching the first step.
- **Bounce** - The chase will run from the first step to the last step and then back to the first step. If the chase is setup to loop then this will operation will repeat.
- **Random** - Every step in the chase will execute in a random order.

Step Time - To specify a step time other than the default defined in when the chase was created enter a value into this field. Setting the step time to zero (0) will cause the default step time to be used.

Click on the buttons to the right of the "**Step Time**" field to set the chase to be triggered by either the audio or tap tempo features.

Fade Time - To specify a fade time other than the default defined in when the chase was created enter a value into this field. Setting the fade time to zero (0) will cause the default fade time to be used.

Profile Effect Options



Effect Playback Properties

Description: New Effect Runner
Filter: None
Effect: My Circle Effect
Exclusive Group: 0 Independent
Submaster: 0
Playback: 0
Start/Stop Shortcut: 0
Override Fx Length: 0.00 Seconds
☑ Loop Continuously
Scale Submaster: 0
Offset Submaster: 0
Length Submaster: 0
Stagger Direction: Forward
Colour: clActiveE

Submaster - Assigning a submaster to the playback will override the dimmer of the fixtures contained in the effect. As the effect runs the position of the submaster will determine output of the fixtures.

Playback - Assigning a playback will disable the submaster edit as only one can be assigned to the FX playback at a time. A playback relates to the Enttec Playback wing. Assigning a playback does more than just utilize the fader on the wing but also allows you to use the play, back and pause buttons to run the effect.

Start/Stop Shortcut - Set a shortcut number to assign to the playback controls for this playback. Pressing the shortcut will start the effect running. Pressing the shortcut while the effect is running will pause the effect and pressing it twice within 2 seconds will rewind the effect to the start.

Override Effect Length - Set this field to change the length that the effect will run for. If this value is set to 0, the default length (Set during creation of the effect) will be used.

Loop Continuously - Check this option to make the effect loop back to the start when it finishes. If this option is not checked then it will stop as soon as the effect ends.

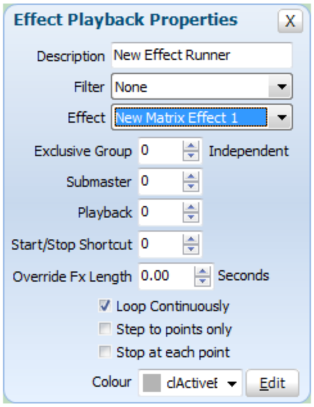
Scale Submaster - Assign a submaster to this field to manually adjust the scale parameter of the effect while it is running. This can provide a dynamic way to vary the effect.

Offset Submaster - Assign a submaster to this field to manually adjust the offset parameter of the effect.

Stagger Direction - Use this drop down option to specify how stagger will operate on the list of fixtures.

- **Forward** - The stagger will be spread across the fixtures starting at the first fixture.
- **Backward** - This is the opposite of the forward stagger as the fixtures will be staggered from the last one through to the first.
- **Bounce** - Each time the effect runs the direction of the stagger will alternate between forward and backward behavior.
- **Random** - The fixtures in the effect will have a random order and the stagger applied over the new order.

Matrix Effect Options



Description: New Effect Runner
Filter: None
Effect: New Matrix Effect 1
Exclusive Group: 0 Independent
Submaster: 0
Playback: 0
Start/Stop Shortcut: 0
Override Fx Length: 0.00 Seconds
☑ Loop Continuously
☐ Step to points only
☐ Stop at each point
Colour: clActive

Submaster - Assigning a submaster to the playback will override the intensity the all of the fixtures contained in the matrix.

Playback - Assigning a playback will disable the submaster edit as only one can be assigned to the FX playback at a time. A playback relates to the Enttec Playback wing. Assigning a playback does more than just utilize the intensity control of the fixtures in the matrix but also allows you to use the play, back and pause buttons to run the effect.

Start/Stop Shortcut - Set a shortcut number to assign to the playback controls for this playback. Pressing the shortcut will start the effect running. Pressing the shortcut while the effect is running will pause the effect and pressing it twice within 2 seconds will rewind the effect to the start.

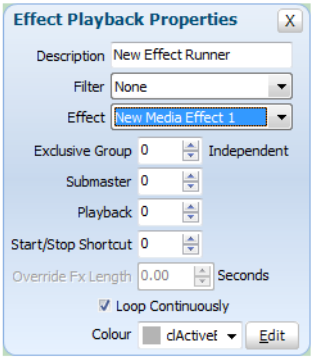
Override Effect Length - Set this field to change the length that the effect will run for. If this value is set to 0, the default length (Set during creation of the effect) will be used.

Loop Continuously - Check this option to make the effect loop back to the start when it finishes. If this option is not checked then it will stop as soon as the effect ends.

Step to points only - Set this option to jump between points rather than tracking a smooth path. When the effect is started the length of the effect will be broken up into the number of control points. As the effect runs it will jump from point to point at equal time intervals.

Stop at each point - Set this option to run the effect more like a chase where each point becomes a step. The effect will play normally however when each point is reached the effect will pause and wait for a play command.

Media Effect Options



Description: New Effect Runner
Filter: None
Effect: New Media Effect 1
Exclusive Group: 0 Independent
Submaster: 0
Playback: 0
Start/Stop Shortcut: 0
Override Fx Length: 0.00 Seconds
☑ Loop Continuously
Colour: clActive

Submaster - Assigning a submaster to the playback will override the volume of audio and the brightness of video during playback of the effect.

Playback - Assigning a playback will disable the submaster edit as only one can be assigned to the FX playback at a time. Assigning a playback will control the running the media file plus provide submaster functionally via the slider below the playback controls.

Start/Stop Shortcut - Set a shortcut number to assign to the playback controls for this playback. Pressing the shortcut will start the effect running. Pressing the shortcut while the effect is running will pause the effect and pressing it twice within 2 seconds will rewind the effect to the start.

Loop Continuously - Check this option to make the effect loop back to the start when it finishes. If this option is not checked then it will stop as soon as the effect ends.

Playback Controls

Along the bottom of the effect playback frame are the three playback controls and a progress time indicator.

Play

Use the play control to start the effect running. As soon as the effect starts the play control will be highlighted in green and the time progress will beginning counting. In the case of simple chases the play control is also used to step through the chase.

Pause

Pausing an effect will stop its execution immediately but keep the position pointer at the current location. If you start the effect again, the effect will continue from this location.

At the bottom of the page is a button to pause all active effects. Pressing this is the equivalent of clicking on the pause button of all running effects.

Rewind

Pressing the rewind button will stop the effect running and reset its position back to the start. If the effect is started again, it will start from the beginning.

At the bottom of the page is a button to reset all active effects. Pressing this is the equivalent of clicking on the reset button of all running effects.

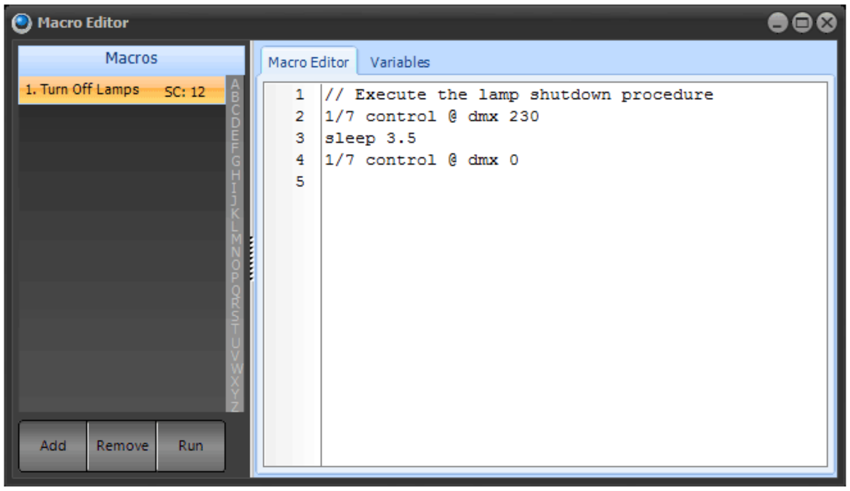
24. Macro Editor

The macro editor is an enhancement to the Command Line interface and allows you to create a list of commands that are executed in one operation.

NEO NOTES & TIPS: This is particularly useful if you have a sequence of commands that you use frequently. Creating a macro enables you to activate the sequence in one operation rather than entering each command manually.

You can use the macro editor to create new macros or to edit existing ones.

Open the "Macro Editor" by clicking on the button at the bottom of the Command Line interface or by pressing F10 on your keyboard.



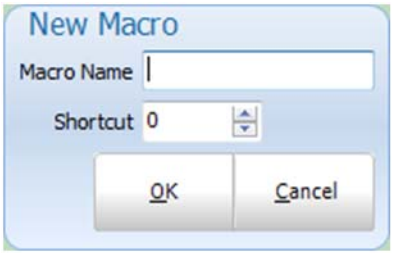
```
// Execute the lamp shutdown procedure
1/7 control @ dmx 230
sleep 3.5
1/7 control @ dmx 0
```

Figure 13: Macro Editor Screen

NEO NOTES & TIPS: You can create any number of macros, limited only by system resources.

To create a macro:

1) Click the "Add" button at the bottom left of the window.
2) The add macro dialog box will appear. Enter a meaningful name and click "OK" to create the macro. If you want to assign a shortcut to the macro you can do so in the same dialog.



3) Type the commands for your macro into the window at the right-hand side of the macro editor.
4) The "Run" button can be used to execute the macro (or a shortcut if you assigned one). As the macro executes, each line will appear in the Command Line interface window.

Deleting a macro can be achieved by clicking on the appropriate row and clicking the "Delete" button. A confirmation dialog will prompt you to confirm the deletion before the macro is removed.

To edit the macro name and/or shortcut double click on the row in the macro list. The same dialog as was used to add a macro will be displayed.

Additional Commands

Macros consist of the same commands that are available in the command window. In addition to these commands, you can also enter comments and an execution delay (sleep).

C++ Style Comments

To add a line of text that will not be executed, place two back slashes (//) before the text. As the system executes each line, it will ignore lines that begin with these symbols.

Sleep

The sleep command will cause the software to pause before continuing to execute commands after this line. In the above example (**Figure 13 on page 183**), the control channel is set to DMX 230 and then set back to 0 after a short delay of 3.5 seconds. Enter the time of the delay in brackets after the commands.

Loop & End Loop

You can loop a series of commands using the "Loop" and "End Loop" keywords.

Loop *{number of times}* - This command will mark the beginning of the loop and also define how many times NEO will perform the loop block.

Loop End - This command will mark the end of the loop. All the command between these two commands will execute however many times was specified in the "Loop" command.

Branch

The "Branch" command can be used to create conditional jumps in the macro. If the condition is true the macro will jump to a predefined label.

Branch {condition} {Label}

Labels are any text that starts with the hash (#) character.

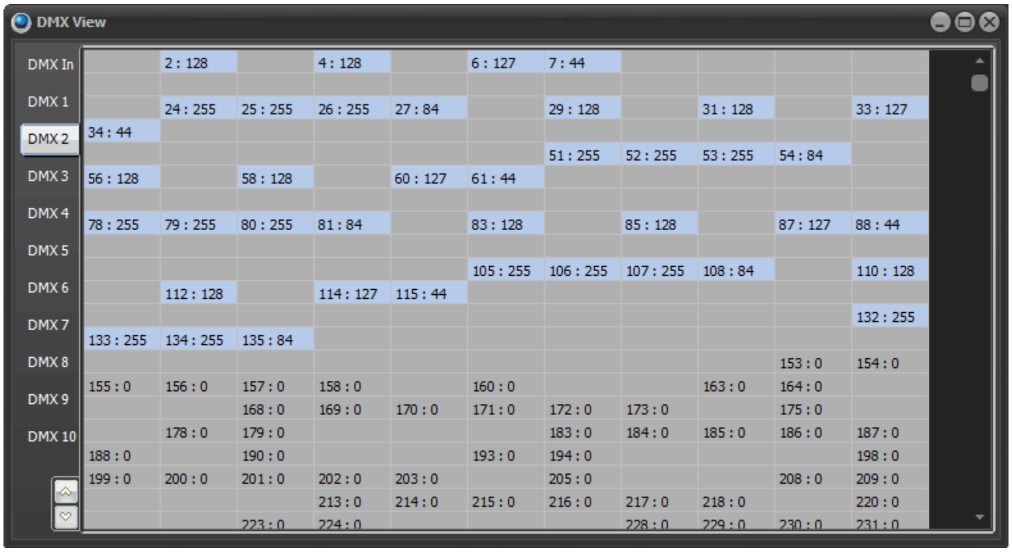
branch channel(3) > 30 label1
3@10
end
#label1
3@50.
The above macro will set channel 3 to 50% if its current value is greater than 30 otherwise it will be set to 10%

branch my_variabe <= 5 label1
Jump to label1 if the system variable is less than or equal to 5.

branch playback(0) > 10.5 label1
Jump to label1 is the current active cue in playback 0 is greater then 10.5

25. DMX View

The DMX display is provided as a means to debug the system output by showing the final output values being sent to the DMX hardware.



	2 : 128		4 : 128		6 : 127	7 : 44				
	24 : 255	25 : 255	26 : 255	27 : 84		29 : 128		31 : 128		33 : 127
34 : 44										
						51 : 255	52 : 255	53 : 255	54 : 84	
56 : 128		58 : 128		60 : 127	61 : 44					
78 : 255	79 : 255	80 : 255	81 : 84		83 : 128		85 : 128		87 : 127	88 : 44
					105 : 255	106 : 255	107 : 255	108 : 84		110 : 128
	112 : 128		114 : 127	115 : 44						
										132 : 255
133 : 255	134 : 255	135 : 84								
									153 : 0	154 : 0
155 : 0	156 : 0	157 : 0	158 : 0		160 : 0			163 : 0	164 : 0	
		168 : 0	169 : 0	170 : 0	171 : 0	172 : 0	173 : 0		175 : 0	
	178 : 0	179 : 0				183 : 0	184 : 0	185 : 0	186 : 0	187 : 0
188 : 0		190 : 0			193 : 0	194 : 0				198 : 0
199 : 0	200 : 0	201 : 0	202 : 0	203 : 0		205 : 0			208 : 0	209 : 0
			213 : 0	214 : 0	215 : 0	216 : 0	217 : 0	218 : 0		220 : 0
		223 : 0	224 : 0				228 : 0	229 : 0	230 : 0	231 : 0

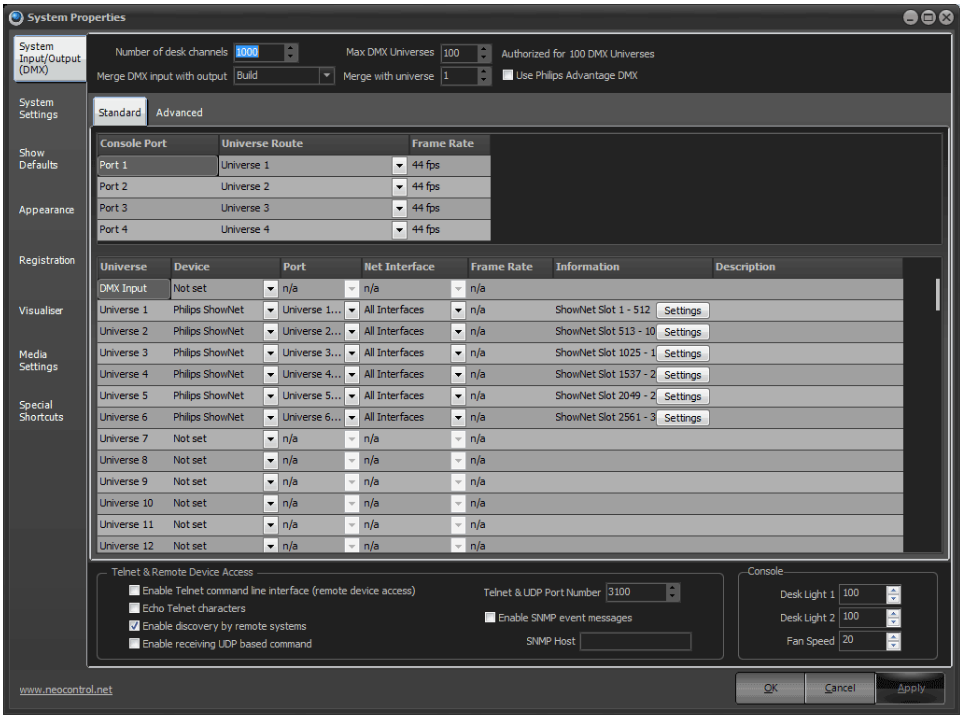
DMX Output Display Window

To open the " DMX View" window click on the DMX View button or select from the MORE pulldown. Each of the DMX dimmers is represented as a cell in the above grid. The DMX value is displayed to the right of the dimmer number. Whenever a DMX dimmer has a value greater than 0, it will be highlighted in grey.

The first tab in the window will always display the DMX in state for use in debugging submasters. Click on the "DMX In" tab to see what is being received by the DMX in hardware.

26. System Properties

The "system properties" window can be accessed by selecting the "Options" drop down menu.



Number of desk channels 1000

Max DMX Universes 100

Authorized for 100 DMX Universes

Merge DMX input with output Build

Merge with universe 1

☐ Use Philips Advantage DMX

Console Port	Universe Route	Frame Rate
Port 1	Universe 1	44 fps
Port 2	Universe 2	44 fps
Port 3	Universe 3	44 fps
Port 4	Universe 4	44 fps

Universe	Device	Port	Net Interface	Frame Rate	Information	Description
DMX Input	Not set	n/a	n/a	n/a		
Universe 1	Philips ShowNet	Universe 1...	All Interfaces	n/a	ShowNet Slot 1 - 512	
Universe 2	Philips ShowNet	Universe 2...	All Interfaces	n/a	ShowNet Slot 513 - 10	
Universe 3	Philips ShowNet	Universe 3...	All Interfaces	n/a	ShowNet Slot 1025 - 1	
Universe 4	Philips ShowNet	Universe 4...	All Interfaces	n/a	ShowNet Slot 1537 - 2	
Universe 5	Philips ShowNet	Universe 5...	All Interfaces	n/a	ShowNet Slot 2049 - 2	
Universe 6	Philips ShowNet	Universe 6...	All Interfaces	n/a	ShowNet Slot 2561 - 3	
Universe 7	Not set	n/a	n/a	n/a		
Universe 8	Not set	n/a	n/a	n/a		
Universe 9	Not set	n/a	n/a	n/a		
Universe 10	Not set	n/a	n/a	n/a		
Universe 11	Not set	n/a	n/a	n/a		
Universe 12	Not set	n/a	n/a	n/a		

Telnet & Remote Device Access

☐ Enable Telnet command line interface (remote device access)
☐ Echo Telnet characters
☑ Enable discovery by remote systems
☐ Enable receiving UDP based command

Telnet & UDP Port Number 3100

☐ Enable SNMP event messages

SNMP Host

Console

Desk Light 1 100
Desk Light 2 100
Fan Speed 20

There are nine tabs of settings that you can configure in this window:

System Input/Output (DMX) - provides access to settings affecting the flow of DMX data and system channels. This is primarily related to external DMX hardware installed with your software

System Settings - provides settings that effect the operation of the software. This tab also provides access to the tracking backup options.

Show Defaults - setting in this tab provide default options for cue lists, channel groups and recording.

Appearance - the appearance tab allows you to change colors and fonts used throughout the software.

Registration - Options for registering your NEO software. Without a valid registration, NEO will not produce any DMX output.

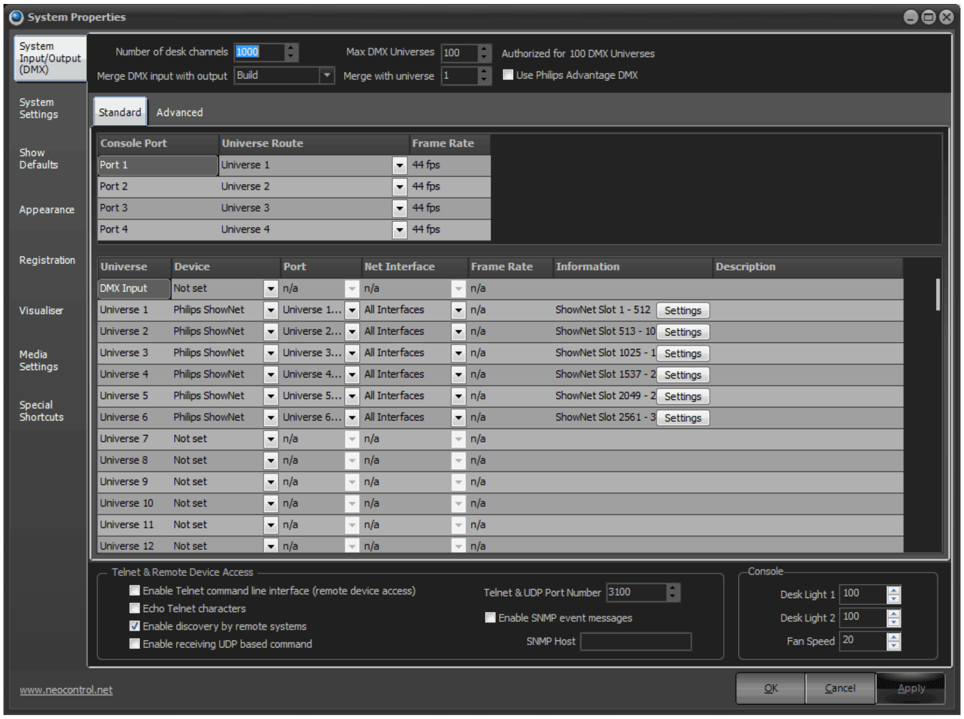
Visualizer - Configures integration with WYSIWYG, Capture, or Light Converse visualization tool.

Media - Setting that control the global output of media playback

Special Shortcuts - Setup special shortcuts to control miscellaneous functions.

System Input/Output (DMX)

The system input/output tab provides access to settings affecting overall operation of the software. This is primarily related to external DMX hardware installed with your software. Also found in this tab is setting to enable the telnet and UDP interface.



Number of desk channels: 1000
Max DMX Universes: 100
Authorized for 100 DMX Universes
Merge DMX input with output: Build
Merge with universe: 1
☐ Use Philips Advantage DMX

Console Port	Universe Route	Frame Rate
Port 1	Universe 1	44 fps
Port 2	Universe 2	44 fps
Port 3	Universe 3	44 fps
Port 4	Universe 4	44 fps

Universe	Device	Port	Net Interface	Frame Rate	Information	Description
DMX Input	Not set	n/a	n/a	n/a		
Universe 1	Philips ShowNet	Universe 1...	All Interfaces	n/a	ShowNet Slot 1 - 512	
Universe 2	Philips ShowNet	Universe 2...	All Interfaces	n/a	ShowNet Slot 513 - 10	
Universe 3	Philips ShowNet	Universe 3...	All Interfaces	n/a	ShowNet Slot 1025 - 1	
Universe 4	Philips ShowNet	Universe 4...	All Interfaces	n/a	ShowNet Slot 1537 - 2	
Universe 5	Philips ShowNet	Universe 5...	All Interfaces	n/a	ShowNet Slot 2049 - 2	
Universe 6	Philips ShowNet	Universe 6...	All Interfaces	n/a	ShowNet Slot 2561 - 3	
Universe 7	Not set	n/a	n/a	n/a		
Universe 8	Not set	n/a	n/a	n/a		
Universe 9	Not set	n/a	n/a	n/a		
Universe 10	Not set	n/a	n/a	n/a		
Universe 11	Not set	n/a	n/a	n/a		
Universe 12	Not set	n/a	n/a	n/a		

Telnet & Remote Device Access
☐ Enable Telnet command line interface (remote device access)
☐ Echo Telnet characters
☑ Enable discovery by remote systems
☐ Enable receiving UDP based command
Telnet & UDP Port Number: 3100
☐ Enable SNMP event messages
SNMP Host:

Console
Desk Light 1: 100
Desk Light 2: 100
Fan Speed: 20

Figure 14: System Properties, System I/O Tab

Number of Desk Channel

NEO can support over 25,000 desk channels (also referred to as system channels). Each desk channel can control multiple DMX channels either by patching several DMX channels to a desk channel or by patching an intelligent fixture that requires multiple DMX channels for operation.

The more desk channels you configure the software for the more CPU and resources will be required. By default the software configures 500 desk channels as this will run without issue on the minimum specification for the software. Any PC purchased in the last couple of years will easily run a lot more than 500 channels.

This number will also define the number of cells in the channel display window. Some may find it easier to view this window will only the number of channels they need for a show.

Enter the number of channels you want the software to use and restart NEO for the change to take effect.

Max DMX Universes

By default the software will be setup for 10 DMX universes. A DMX universe is a block of 512 DMX channels. You can think of a DMX universe as a physical cable running out from the system.

Although any number of Universes can be configured output will always be restricted to the limit of your registration. You can configure as many universes as you want but on the universes registered will be active. This allows you to program any sized show you want without the registration being required until output is needed.

As you change the "Max DMX Universe" spin edit you will notice the number of rows in the grid below will also change. Each row defines the output for a DMX universe.

Merge DMX input with output

The most common use for DMX input is the ability to add external physical submasters to the software. In some cases however it may be desirable to simply merge the input with one of NEO's outputs. The output of the merged DMX channels will be defined by the behavior set by this combo box.

The merge options are "Highest takes precedence (HTP)", "Lowest takes precedence (LTP)", "Build", "Input takes precedence" and "Desk Channel Merging".

Merge with Universe

Use this spin edit option to set what NEO universe the software will merge input with. Merging will only occur on the universe if the "Merge DMX input with output" combo box is set to something other than "None".

Configuring DMX Universes

The grid in this tab of the system properties defines what physical hardware the software will use to send DMX data on a universe.

The first column of information cannot be edited and identifies the universe by a number. The first row is different from all of the rest as it defines the input configuration for the software.

Device

Use the drop down box's provided in the device column to configure the input or output protocol used by the software to communicate with your DMX system.

- Supported protocols used to input/output DMX data:
- Philips Strand Lighting ShowNet
- Artistic License ArtNet
- Color Kinetics KiNet
- Pathway Pathport
- Streaming ACN (E1.31)

In addition, many external hardware devices are available for configuration. These are primarily available for NEO PC.

NEO NOTES & TIPS: After changing either of the hardware selection you will need to restart NEO for the changes to take effect.

Port

Some device options have several output ports available. Each port is a separate DMX universe. In the case of USB hardware this will refer to a physical plug on the device. For Ethernet hardware the number of ports can be as many as the protocol supports.

The drop down box in the port column will only list the available ports for the selected device. For USB hardware you must have the device connected for the port to be selected.

When selecting the device the next available port number will be automatically chosen and populated into the port field.

Network Interface

When using any of the Ethernet based protocols you may need to configure the network interface that the software will use to communicate with the DMX system.

By default the system will be set to output to all available network interfaces however if you want to restrict the output to a specific device use the Network Interface drop down provided. The network interfaces are identified by the IP address that it is bound to.

DMX Frame Rate

Some of the USB hardware also provides the ability to set the DMX frame rate. Use this control to define the frame rate you want to use. You should not change this from the default (40) fps unless requested to by our support staff. Changing this frame rate may stop your DMX output from working correctly.

Information

The "information" column of the grid will display any additional data that could be obtained about the port. For USB devices this will often show the firmware version and device serial number. For Ethernet options this will usually show the official name used to identify the port on the network.

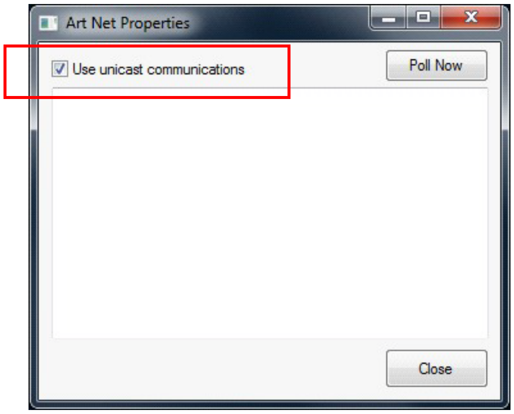
ArtNet & sACN Unicast options

The ArtNet and sACN DMX over Ethernet protocols also support a unicast option. By default these protocols broadcast the data onto the network meaning that all devices on the network receive all data. For large installations this can mean that all devices are receiving and handling a lot of data.

Unicast transmission of the DMX data means that the data packets are sent only to the devices that need it. The data packets for universe 1 for example will only be sent to the devices that need universe 1. This mode also helps with network management as many Ethernet switches can struggle with continuous broadcast data.

In order to use Unicast transmission NEO needs to know what devices are outputting each DMX universe. The ArtNet protocol has a discovery process that can configure this automatically (assuming the device supports the ArtPoll message). For sACN the Unicast routing must be configured manually by editing a file.

To turn on Unicast communications double click on any line of the device settings page that is set to ArtNet or sACN to open the advanced protocol options. If you are using both protocols you must configure each one separately.



☑ Use unicast communications

Tick the check box labeled "use unicast communications" to enable this system. Below this check box any devices found or configured will be shown.

To manually configure Unicast routing create a CSV file in the NEO install directory called "unicast_list.csv". Each line has 3 fields - IP Address, DMX Universe, Description.

For example: 10.27.34.73,1,"Desc 1"

Telnet Command Line Interface

To access the Command Line interface remotely from any computer on the network enable the telnet interface. Once checked you can connect to NEO through port number 3100.

If you do not see the characters you type in your telnet client enable the "Echo Telnet characters" option. Use the "Telnet Port" edit box to set the IP port number that the software will bind to.

The "Enable discovery by remote systems" will cause NEO to broadcast a message onto the network at regular intervals so that the system can be discovered automatically without needing to know the IP address.

NEO can also receive commands via a direct UDP message. Unlike the Telnet interface the UDP system is connectionless and no acknowledgement of the message is sent back to the sender. Turn on "Enable receiving UDP based commands" to allow NEO to listen for commands via UDP messages.

Note: The Telnet interface must be enabled to use any of the remote (e.g. LFRemote for iPad) applications with NEO.

System Input/Output - Advanced

The Advanced tab will allow you to configure advanced and complex DMX routes that don't necessarily conform to the standard DMX universe length.

NEO NOTES & TIPS: Not all protocols allow for sending a partial DMX universe string. Philips ShowNet does which gives the system the ability to output to discreet DMX routes over Ethernet.

Route - is the ordered number of the DMX route itself. This is just a numerical listing and has no bearing on output or priority.

Start - is the starting DMX address of the DMX route.

End - is the finishing DMX address of the DMX route.

Protocol - is the Ethernet protocol over which this advanced routing is allowed to be configured.

NetSlot - is the starting location of the route on the Ethernet string.

For example, you can have a route that starts at DMX 1 and ends at DMX 100 but is placed on the Ethernet at the Net Slot of 10,001. This is often used when you have multiple control signals going to the same range of DMX address thus allowing two points of control onto the same DMX device.

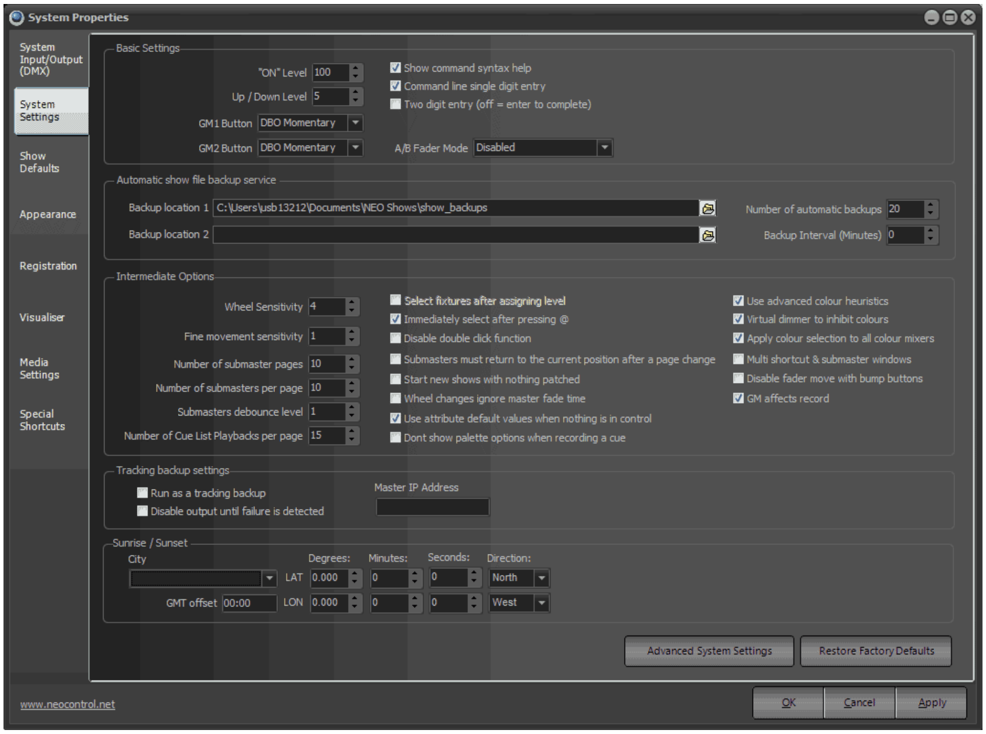
Notes - allows for a simple short note on the route.

Delete - allows for the removal of the selected route.

Add - allows for the addition of another route.

System Settings

The system settings page provides settings that effect the operation of the software. This tab also provides access to the tracking backup options and sets your currently location for sunrise and sunset calculations.


System Properties
System Input/Output (DMX)
System Settings
Show Defaults
Appearance
Registration
Visualiser
Media Settings
Special Shortcuts
Advanced System Settings
Restore Factory Defaults
www.neocontrol.net
OK
Cancel
Apply

Basic Settings
"ON" Level 100
Up / Down Level 5
GM1 Button DBO Momentary
GM2 Button DBO Momentary
☑ Show command syntax help
☑ Command line single digit entry
☐ Two digit entry (off = enter to complete)
A/B Fader Mode Disabled

Automatic show file backup service
Backup location 1 C:\Users\usb13212\Documents\NEO Shows\show_backups
Backup location 2
Number of automatic backups 20
Backup Interval (Minutes) 0

Intermediate Options
Wheel Sensitivity 4
Fine movement sensitivity 1
Number of submaster pages 10
Number of submasters per page 10
Submasters debounce level 1
Number of Cue List Playbacks per page 15
☐ Select fixtures after assigning level
☑ Immediately select after pressing @
☐ Disable double click function
☐ Submasters must return to the current position after a page change
☐ Start new shows with nothing patched
☐ Wheel changes ignore master fade time
☑ Use attribute default values when nothing is in control
☐ Dont show palette options when recording a cue
☑ Use advanced colour heuristics
☑ Virtual dimmer to inhibit colours
☑ Apply colour selection to all colour mixers
☐ Multi shortcut & submaster windows
☐ Disable fader move with bump buttons
☑ GM affects record

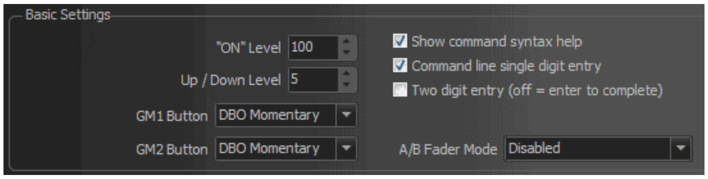
Tracking backup settings
☐ Run as a tracking backup
☐ Disable output until failure is detected
Master IP Address

Sunrise / Sunset
City
GMT offset 00:00

	Degrees:	Minutes:	Seconds:	Direction:
LAT	0.000	0	0	North
LON	0.000	0	0	West

Basic Settings

These are the settings most likely used during traditional programming on your NEO console. System Settings stay with the console and are not saved with the showfile.



Basic Settings
"ON" Level 100
Up / Down Level 5
GM1 Button DBO Momentary
GM2 Button DBO Momentary
☑ Show command syntax help
☑ Command line single digit entry
☐ Two digit entry (off = enter to complete)
A/B Fader Mode Disabled

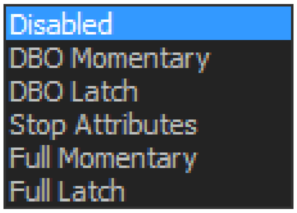
On Level

Use this to specify the value fixtures will be set to when clicking on the "ON" or "SOLO" buttons in the channel window. This also applies to the ON command in the command window.

Up / Down Level

Pressing the [UP] [DOWN] keys level change.

GM *(Grand Master)* Buttons


Disabled
DBO Momentary
DBO Latch
Stop Attributes
Full Momentary
Full Latch

Disabled - feature is turned off. Button will not function.

DBO Momentary - will blackout all fixtures configured for this GM button as long as the button is depressed.

DBO Latch - will blackout all fixtures configured for this GM button as a toggle. Pressing again shall release.

Stop Attributes - will pause all attribute movement for all fixtures configured for this GM button.

Full Momentary - will take all fixtures configured for this GM button to full as long as the button is depressed.

Full Latch - will take all fixtures configured for this GM button to full as a toggle. Pressing again shall release.

Show Command Syntax Help

Default On - This option will toggle the balloon popup that provides context sensitive help about the commands being entered. As you enter a command in the system the popup will appear telling you what commands are valid in the context of what has been types so far.

Command Line Single Digit Entry

Default on - In most cases when entering commands the channel values are in multiples of 10 (e.g. 10%, 20%, 50% etc.). To save the typing of an extra digit this mode allows you to enter just the first number and the additional 0 will be added automatically.

With this mode on you can still enter values below 10 by putting a 0 in front of the number (e.g., 03%, 05%, 08%).

Two Digit Entry

Default Off - with this setting off the Enter key will complete all Command Line level change entries. With this on two digit level will auto complete. Ex: [1] [@] [50] will set 1 to 50%.

A/B Fader Mode

Disabled

If you chose this option, the sliders will do nothing. If you are just doing a "GO SHOW", this is the safest mode of operation as inadvertent moves on these faders will have no effect.

PB (Playback) Master + Disabled

In this mode, the left hand fader is the overall intensity master of the cue list assigned to this playback and the right hand fader is disabled. You may want to use this mode if you are sure that you will never want to manually execute fades and don't want to inadvertently start a transition by touching a fader.

PB (Playback) Master + Crossfader

In this mode, the left hand fader is the overall intensity master of the cue list assigned to this playback and the right hand fader is, at will, a manual cross fader. The [GO] and [Halt/Back] buttons function as normal, but at any time you can grab the fade and manually complete it using this handle. If you [Halt] the cue, you can either press [GO] to complete it, or use the handle to manually complete the transition to the next cue. If you are sitting in a cue, moving the handle will initiate the transition to the next cue.

All levels going up and down will be affected. All times will be re-scaled to the distance the handle has to travel, with the greatest time in the cue being measured using that distance and all others scaled to that. Wait times will be scaled too.

At any point before reaching the end of travel, you can move the handle backward to reverse the transition. Once you reach the end of travel, the next cue in the cue list will be pending. You do not have to physically reload a cue or move the fader back to its starting position. The next cue transition will begin by moving the fade off the end of travel you just reached or by simply pressing [GO].

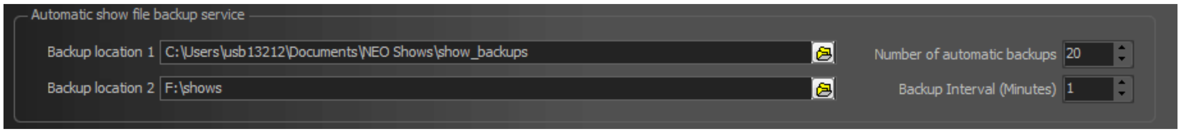
If you hold down [SHIFT] while manually moving a Crossfader, you can move backwards through a cue list. (i.e., the cue that has just been completed will be the pending cue, rather than the next cue in the cue list). In this case, the pending cue is Cue 1 - the cue just before Cue 2:

Cue List Split Crossfader

The Split Crossfader mode sets up the left-hand fader to, at will, manually control the levels moving up in the next cue while the right-hand fader manually controls the levels going down in the next cue. Moving these faders in tandem executes a standard crossfade. Both handles need to reach their end-travel destination before the cue completes. Once the cue completes, the pending cue changes and the handles are ready to execute the next manual fade. You do not need to exercise the full travel of the handles to re-load the next cue.

NEO NOTES & TIPS: Regardless of configuration of the A/B and C/D faders, the [SELECT], [HALT/BACK] and [GO] buttons will function as normal on the appropriate cue list.

Automatic Show File Backup Service



Automatic show file backup service

Backup location 1: C:\Users\usb13212\Documents\NEO Shows\show_backups

Backup location 2: F:\shows

Number of automatic backups: 20

Backup Interval (Minutes): 1

Determines backup file settings.

Backup location

By default NEO will store the backups in a sub folder of the "NEO Shows" directory. Use this field to change this location. This can be useful for automatically storing the backup on a remote system.

The second location allows you to double your backup locations for backup redundancy.

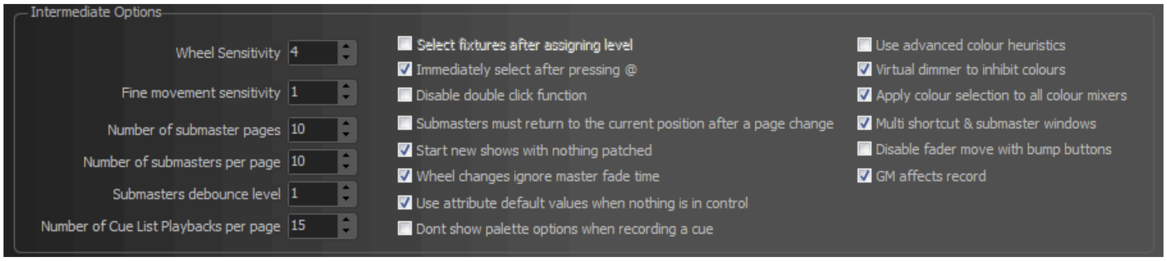
Number of automatic backups - Determines the quantity of backups kept in the configured folder.

Backup Interval (Minutes) - Determines the frequency at which the backups are triggered.

When NEO is shut down the software will automatically create a backup of your current show file. Each backup file created will have the date and time encoded into the name of the file. Use this option to determine how many of these backups should be kept before automatically deleting the oldest one.

Intermediate Options

These are options that are needed when more than basic programming is required.



Intermediate Options

Wheel Sensitivity: 4

Fine movement sensitivity: 1

Number of submaster pages: 10

Number of submasters per page: 10

Submasters debounce level: 1

Number of Cue List Playbacks per page: 15

☐ Select fixtures after assigning level
☑ Immediately select after pressing @
☐ Disable double click function
☐ Submasters must return to the current position after a page change
☑ Start new shows with nothing patched
☑ Wheel changes ignore master fade time
☑ Use attribute default values when nothing is in control
☐ Dont show palette options when recording a cue

☐ Use advanced colour heuristics
☑ Virtual dimmer to inhibit colours
☑ Apply colour selection to all colour mixers
☑ Multi shortcut & submaster windows
☐ Disable fader move with bump buttons
☑ GM affects record

Mouse Wheel Sensitivity

The mouse wheel sensitivity allows you to alter the percentage increment that will apply for each segment rotation. By default, rotating the mouse wheel by one increment will change the fixtures or groups by 5%.

Fine Movement Sensitivity

The fine movement sensitivity determines the resolution moved when the fixture control is set to fine mode.

Number of Submaster Pages

This setting will allow you to configure the maximum page number for the onscreen submasters, external submasters connected via MIDI, DMX or the Playback wing.

Number of Submasters Per Page

The software will allow up to 100 submasters per page. Use this option to configure the submasters per page count to match the number of physical handles on the device you are using.

For example if you have a external 24 channel DMX lighting board connected to DMX input then it is recommended that you set number of submasters per page to 24. This means that when you change to the second page in NEO channel 1 on you physical lighting desk will correspond to submaster 25.

Submaster Denounce Level

The submaster sensitivity option will determine how much the DMX value of an external or hardware submaster must change before it is registered by the system. In most cases this option should be left at 1 as we want the software to register a change every time the submaster moves.

In some cases the external submaster can be set just between 2 values and the output may jump between these values continuously (This is known as bouncing). To get around this problem we can set the submaster debounce to 2 and the system will not update the submaster unless the value moves by 2 or more.

Number of Cue List Playbacks Per Page

There are virtually unlimited cue list playbacks that can be setup in NEO. To manage the display of the playbacks set the number you want to appear on each page with this setting.

NEO NOTES & TIPS: It is recommended that you set this to the maximum number that is visible without the need for the scroll bar.

Select Fixtures After Setting

Default off - When using the command line to set channel values this option will allow you to perform a selection at the same time. The channels set will automatically become selected after applying the value.

Immediately Select After Pressing @

When on, and typing in a fixture number, the moment the @ is pressed, the fixture is selected. This is to help the designer find the fixture on the grid.

Disable Double Click Function

Default off - Double clicking on a channel or fixture will toggle it between the on value and off. Use this option to disable this function to prevent accidentally performing this operation.

Submasters Must Return to the Current Position After a Page Change

Use this option to avoid unexpected jumps in stage output after changing the submaster page. Normally if a submaster is moved after a page change the output will take effect immediately. With this option on the effect of the submaster will not be applied until the physical slider is returned to the current value of the submaster.

Start New Show with Nothing Patched

When you create a new blank show NEO will patch all of the available desk channels 1:1 with the dimmer (dmx) channels. Tick this option stop this happening and start all new shows with no channels patched.

Wheel Changes Ignore Master Fade Time

When using the mouse wheel to control the dimmer intensity of a channel the master fade time will not be used if this option is turned on.

Use Attribute Default Values When Nothing is in Control

If all control of a fixture is released and no instruction is currently active the DMX output will default to a zero (0) value. Turning this option on will result in the default output value set for the attribute being used instead. The most common use of this is the pan and tilt setting that would typically have their mid points set as the defaults.

Don't Show Palette Options When Recording a Cue

Simplifies programming by limiting recording options. This keeps it to raw data.

Use Advanced Color Heuristics

Default Off - NEO has a unique feature that allows the software to calculate color matching for fixture that have more than the 3 primary colors (RGB, CMY or HSI).

For example if a fixture has red, green, blue, amber, and white LEDs (RGBAW) traditional color matching is only able to apply the first 3. This is because in a perfect system all colors can be achieved by the combination of red, green and blue. Because LEDs are not perfect some manufacturers add additional colors to the fixture to expand the available colors that can be produced. The software however can traditionally only work in a perfect color space when converting from a selected color to the elements of that color.

The advanced color heuristics system of NEO attempts to overcome this problem by applying an advanced algorithm to calculate how much of other colors should be applied.

It should be noted that this algorithm is not perfect and is an approximation of the maximum output for a selected color.

Because you may need to work with this option frequently you will find the same check box in the attribute color picker. You can change this setting in either location.

Virtual Dimmer to Inhibit Colors

When a fixture does not have a dimmer (RGB LED fixture for example) NEO will create a virtual dimmer to make working with that fixture easier. The way the virtual dimmer operates can be changed between a inhibit function and a build operation.

With this option turned off the virtual dimmer will add to each of the color values eventually making it white (all colors at full). Each of the colors will be adjusted proportionally to maintain the color hue until one of the colors reaches 100%. Continuing to increase the virtual dimmer will result in the color moving towards white.

With the virtual dimmer in inhibit mode the fixture will not output any color without the dimmer on. Each of the colors in the fixture will be scaled by the value of virtual dimmer such that when the dimmer is at full the set colors will be fully realized.

Apply Color Selection to All Color Mixers

If the fixture used has more than 1 color mixer then selecting a color using a color picker will be applied to all of the color mixers in the light. If this option is off then the selected color will only apply to the first mixer in the fixture.

This option can also be changed in the generic color picker that is shown with color mixing fixtures.

Multiple Shortcut and Submaster Windows.

Default Off - With this option off only one shortcut and one submaster window can be opened at any time. Clicking on the button once opened will cause the window to be brought to the foreground and given the current focus.

When this option is turned off click on the buttons will cause another copy of the window to appear. This can be convenient for running the submasters or shortcuts on multiple pages if you have the screen real estate for it.

If this option is turned on the save and restore options will only work on the first window opened.

Disable Fader Move with Bump Buttons

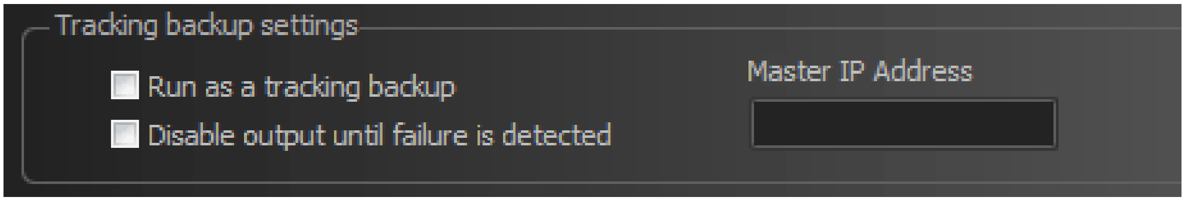
Will disallow motorized fader movement when bump buttons are used to minimize distractions and improve response time.

GM (Grand Master) Affects Record

When on and the GM inhibiting values by not being at full, the record function will record the actual values. When off, the record function shall ignore any affect the GM has on output and record as if the GM is not in use.?

Tracking Backup Options

A tracking backup is a second console mirroring the main console. This backup console mimics the master system so that in the event of something going wrong with the master the backup can take over.


Tracking backup settings
☐ Run as a tracking backup
☐ Disable output until failure is detected
Master IP Address

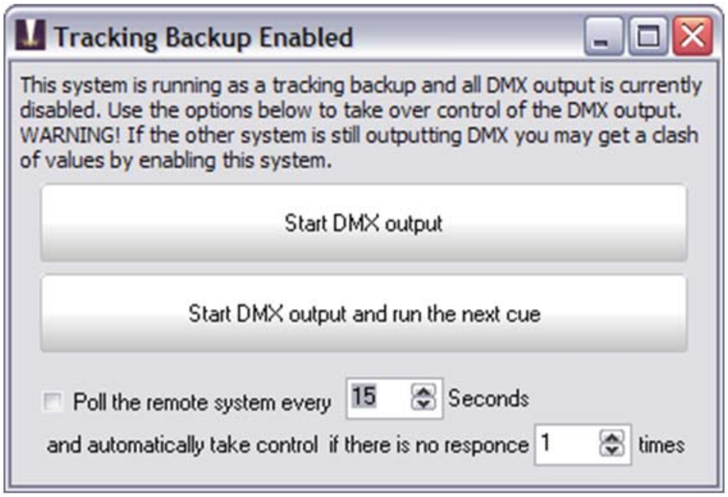
The tracking backup options should only be turned on for the secondary system. The only option needed on the master system is the Telnet interface must be turned on.

Check the option "Run as a tracking backup" to identify the system as the backup.

Set the **Master IP address** to identify the master system. The IP address of the master can be found on the command window when the software starts.

It is also recommended that **you disable the output until a failure is detected**. This option will temporarily stop DMX output until the operator tells the software start outputting DMX or the auto failure detection is activated.

Restart the software and you will see a dialog identifying that the system is running as a backup.



This system is running as a tracking backup and all DMX output is currently disabled. Use the options below to take over control of the DMX output. WARNING! If the other system is still outputting DMX you may get a clash of values by enabling this system.

☐ Poll the remote system every 15 Seconds
and automatically take control if there is no responce 1 times

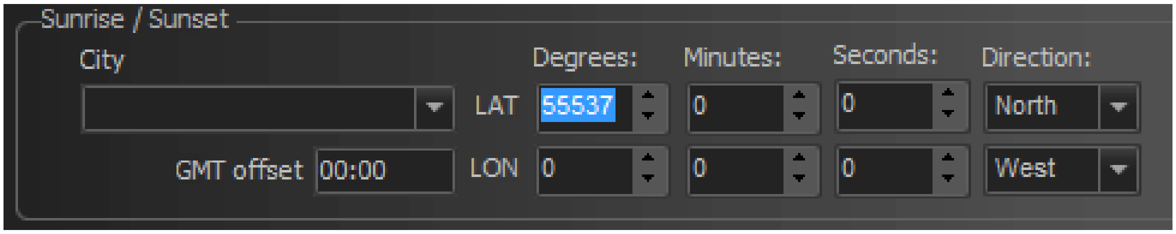
Tracking Backup Window

In the event of a failure by the master system click on either of the two large buttons "Start DMX output" or "Start DMX output and run the next cue".

Below these buttons are options to automatically poll the remote system. Set how often the poll message should be sent using the spin edit directly below the buttons and set the number of failures that should be detected before taking over.

Sunrise / Sunset

When using the built in scheduling feature of NEO you can create schedule items that will operate on sunrise and/or sunset. The software will automatically calculate the time of the day for these events based on your location.



Sunrise / Sunset

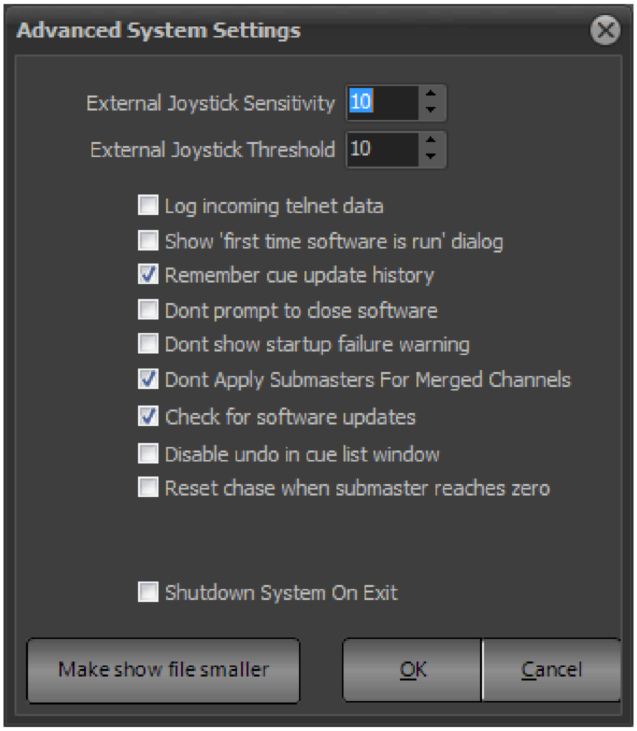
City		Degrees:	Minutes:	Seconds:	Direction:
	LAT	55537	0	0	North
GMT offset 00:00	LON	0	0	0	West

In order for this feature to work you must set the latitude and longitude information. To make this easier you can select your closest city from the drop down combo provided and latitude and longitude information will be populated automatically.

You are still able to adjust these numbers if you know more precisely your global position. A GPS may be used to set these numbers.

27. Advanced System Settings

Click on the advanced options button to open an additional screen of system settings.



Advanced System Settings

External Joystick Sensitivity 10

External Joystick Threshold 10

☐ Log incoming telnet data
☐ Show 'first time software is run' dialog
☑ Remember cue update history
☐ Dont prompt to close software
☐ Dont show startup failure warning
☑ Dont Apply Submasters For Merged Channels
☑ Check for software updates
☐ Disable undo in cue list window
☐ Reset chase when submaster reaches zero

☐ Shutdown System On Exit

Advanced System Settings

External Joystick Sensitivity

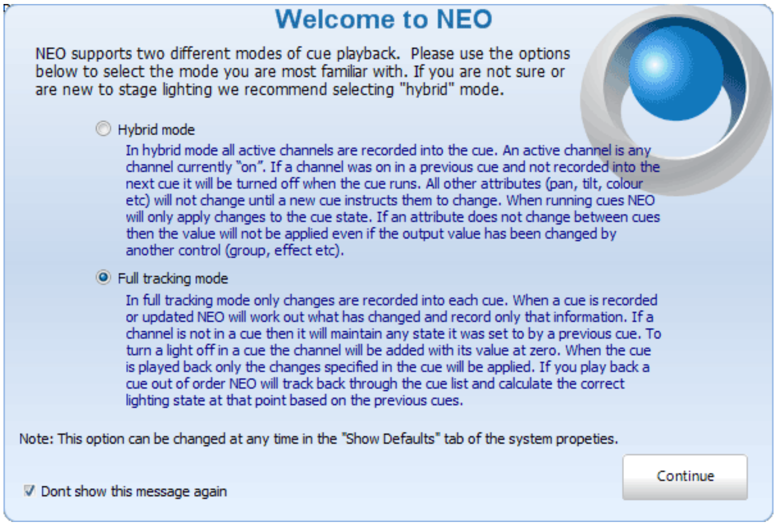
Controls the sensitivity to an external joystick.

External Joystick Threshold

Controls the range of the dead zone before the joystick responds to movement.

Log Incoming Telnet Data

Show "first time software is run" Dialog



NEO supports two different modes of cue playback. Please use the options below to select the mode you are most familiar with. If you are not sure or are new to stage lighting we recommend selecting "hybrid" mode.

○ Hybrid mode

In hybrid mode all active channels are recorded into the cue. An active channel is any channel currently “on”. If a channel was on in a previous cue and not recorded into the next cue it will be turned off when the cue runs. All other attributes (pan, tilt, colour etc) will not change until a new cue instructs them to change. When running cues NEO will only apply changes to the cue state. If an attribute does not change between cues then the value will not be applied even if the output value has been changed by another control (group, effect etc).

● Full tracking mode

In full tracking mode only changes are recorded into each cue. When a cue is recorded or updated NEO will work out what has changed and record only that information. If a channel is not in a cue then it will maintain any state it was set to by a previous cue. To turn a light off in a cue the channel will be added with its value at zero. When the cue is played back only the changes specified in the cue will be applied. If you play back a cue out of order NEO will track back through the cue list and calculate the correct lighting state at that point based on the previous cues.

Note: This option can be changed at any time in the "Show Defaults" tab of the system propeties.

☑ Dont show this message again

When on, the following screen appears to help the user chose which tracking mode to use.

Remember Cue Update History

The cue update history is a powerful system to enable you to retrieve a cue state from any previous record operation. At any time you can revert to a previous cue state. To do this the software will store the cue state into an update history table. This feature can cause the show file to grow in size much faster than normal. If you do not want to keep this historical information (to save space) turn this option off.

Don't Prompt to Close the Software

If you are using the NEO console in an automated shutdown environment turn this option on to prevent the software from prompting the user to confirm closing.

Don't Show Startup Failure Warning

If NEO does not start correctly it will prompt if you want to open a default show the next time you start. To disable this prompt turn this option on.

Don't Apply Submasters for Merged Channels

By default DMX input will always be routed to the submaster system. Use this option to disable DMX input going to submasters when using the DMX merge feature.

Check for Software Updates

Default on - With this option on NEO will attempt to connect online and check if a new version is available. When a new version is released a popup will notify you soon after startup.

Disable Undo in the Cue List Window

If you are using a very high channel count then the undo system can result in sluggish performance. If you find that modifying a cue is taking a long time then disable the undo using this option.

Reset Chase When Submaster Reaches Zero

By default a chase will be paused when an assigned submaster reaches zero (0). Turn this option on to perform a Reset rather than a pause.

Shutdown System on Exit

Default on for consoles, it is recommended to turn this off for laptop or PC use.

Make Show File Smaller

This option will perform a database pack on your show file. Packing the database removes dead space from deleted allocations and makes the allocations for tables, blobs and indexes contiguous in the database. So it compacts and defragments within the database file. The result of this operation is often a significantly smaller file.

When you click on this option you will see a new window appear (external to NEO) that will perform this operation. The show file you are working on will be closed while the database pack is running.

This option can also be used if you suspect that the show file has become corrupted.

This operation will export all of the data in your show file and re-import it into a new clean file.

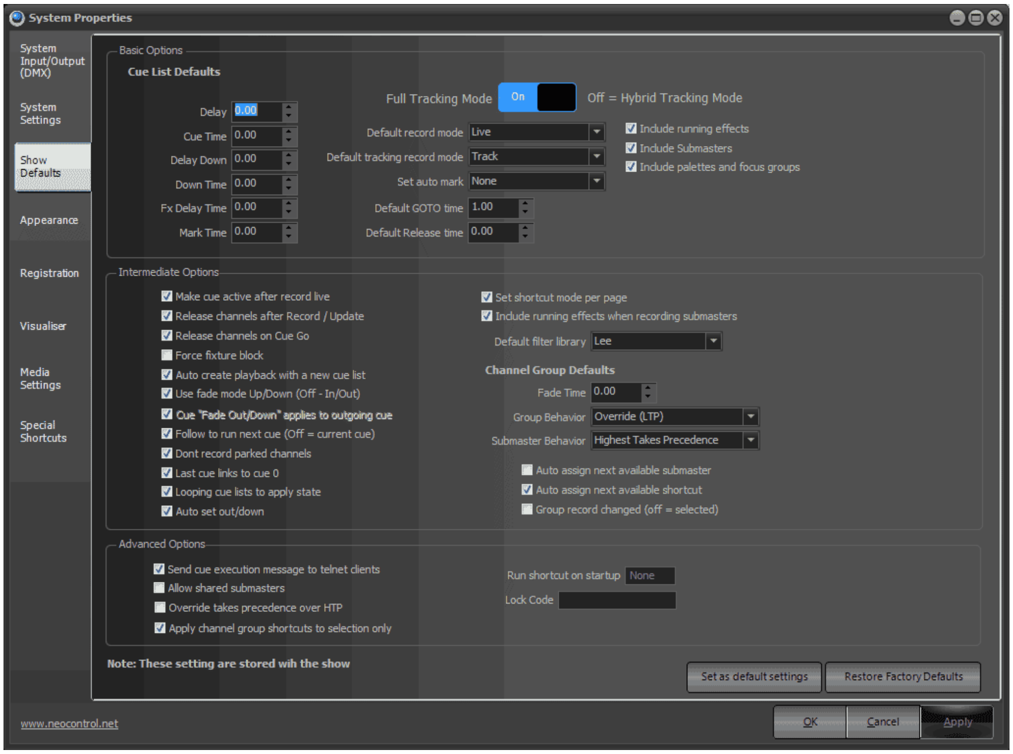
Restore Factory Defaults

Will restore all System Settings back to factory defaults.

28. Show Defaults

Use the show defaults settings to provide default options for cue lists, channel groups and recording. The settings on this page are stored with the show file and can change when you load a show or create a new show.

To make the current setting the default for future shows click on the "Set as default settings" button at the bottom of this tab. Any new show created will have these settings automatically.



Basic Options

Cue List Defaults

Delay 0.00
Cue Time 0.00
Delay Down 0.00
Down Time 0.00
Fx Delay Time 0.00
Mark Time 0.00

Full Tracking Mode On — Off = Hybrid Tracking Mode
Default record mode: Live
Default tracking record mode: Track
Set auto mark: None
Default GOTO time: 1.00
Default Release time: 0.00

☑ Include running effects
☑ Include Submasters
☑ Include palettes and focus groups

Intermediate Options

☑ Make cue active after record live
☑ Release channels after Record / Update
☑ Release channels on Cue Go
☐ Force fixture block
☑ Auto create playback with a new cue list
☑ Use fade mode Up/Down (Off - In/Out)
☑ Cue "Fade Out/Down" applies to outgoing cue
☑ Follow to run next cue (Off = current cue)
☑ Dont record parked channels
☑ Last cue links to cue 0
☑ Looping cue lists to apply state
☑ Auto set out/down

☑ Set shortcut mode per page
☑ Include running effects when recording submasters
Default filter library: Lee

Channel Group Defaults

Fade Time 0.00
Group Behavior: Override (LTP)
Submaster Behavior: Highest Takes Precedence

☐ Auto assign next available submaster
☑ Auto assign next available shortcut
☐ Group record changed (off = selected)

Advanced Options

☑ Send cue execution message to telnet clients
☐ Allow shared submasters
☐ Override takes precedence over HTP
☑ Apply channel group shortcuts to selection only

Run shortcut on startup: None
Lock Code:

Note: These setting are stored wih the show

System Properties, Show Defaults

Basic Options - Cue List Defaults

The cue list defaults will apply every time a new cue is created (By default, these settings are all set to zero seconds). Set a cue default by either typing the desired time or using up and down arrow controls to the right of the edit box.

Delay - default delay or wait time when a cue is recorded.

Cue Time - default cue time used when a cue is recorded.

Delay Down - default delay for the cue's down time when a cue is recorded.

Down Time - default cue down time used when a cue is recorded.

FX Delay Time - default delay time used when a cue triggers an effect.

Mark Time - default Mark time set for a cue that is recorded.

Full Tracking Mode / Hybrid Tracking Mode Switch (Important)

This is a systemic switch that determines how the NEO console records cues.

NEO NOTES & TIPS: ***This is an important option, please read below prior to selecting.***

Hybrid Mode - In hybrid mode all active channels are recorded into the cue. An active channel is any channel currently "on". If a channel was on in a previous cue and not recorded into the next cue it will be turned off when the cue runs. All other attributes (pan, tilt, color etc) will not change until a new cue instructs them to change.

When running cues, NEO will only apply changes to the cue state. If an attribute does not change between cues then the value will not be applied even if the output value has been changed by another control element in the software (group, effect etc.).

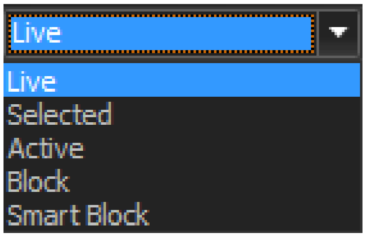
Full Tracking Mode - In full tracking mode only changes are recorded into each cue however any channel that is currently on will stay at that level. When a cue is recorded or updated NEO will work out what has changed and record only that information. If a channel is not in a cue then it will maintain any state it was set to by a previous cue. To turn a light off in a cue the channel will be added with its value at zero.

When the cue is played back only the changes specified in the cue will be applied. If you play back a cue out of order NEO will track back through the cue list and calculate the correct lighting state at that point based on the previous cues.

Tracking is a playback function in NEO but there are some important recording options that will assist you to program your show. Tracking behavior will be applied regardless of if the cues are run sequentially or out of order.

The tracking mode is set per show in NEO and can be changed at any time in the system properties. The tracking switch will be stored with the show to avoid the chance of a hybrid show running on a tracking setup or the other way around.

Default Record Mode



When a cue is recorded, what channels/fixtures does it take into account?

The options are…

Live - this stores everything the desk is outputting with the exception of running effect and submasters (depending on how the "Include Submasters" option is set. This is the NEO default option as its most common in a theatrical environment.

Selected - this stored only channels that are currently selected (in the red box).

Active - this stores only channels that have an intensity above zero.

Changed Only - this stores only changed values (shown in red).

Block - this will force an instruction for every channel/attribute in the system.

Smart Block - this will force an instruction for every channel that has a level.

Default Tracking Record Mode

Determines what data gets recorded and tracked.

The options are…

Cue Only - will store the information normally (instruction or tracked value) in this "cue only". Information will not track beyond the current cue.

Tracking - will store the information normally (instruction or tracked value) in this cue and all changed values will continue down the cue list until each fixture's attribute hits another instruction. This means that the light will stay where it is until it gets an instruction to do something else. This occurs per attribute.

Trackback - will store the information normally (instruction or tracked value) and will go back up the cue list, in reverse order until each values gets another instruction. This is tracking back up the cue list.

Set Auto Mark

Auto Mark will prepare the moving lights for their next use before they are needed. This happens automatically and is calculated by the NEO console.

The options are…

None - meaning that the NEO console will not auto mark when running cues.

Mark as early as possible - will mark for the next use as soon as the lights go to 0 intensity.

Mark as late as possible - will mark for the next use in the cue previous to the next use.

Default Release Time - default time used with the Release command.

GOTO Time - default time used with the GOTO command.

Include Running Effects

If an effect is running while a cue is being recorded, this feature will determine if the running effect is stored to be triggered by the cue. This feature is turned on by default.

Include Submasters

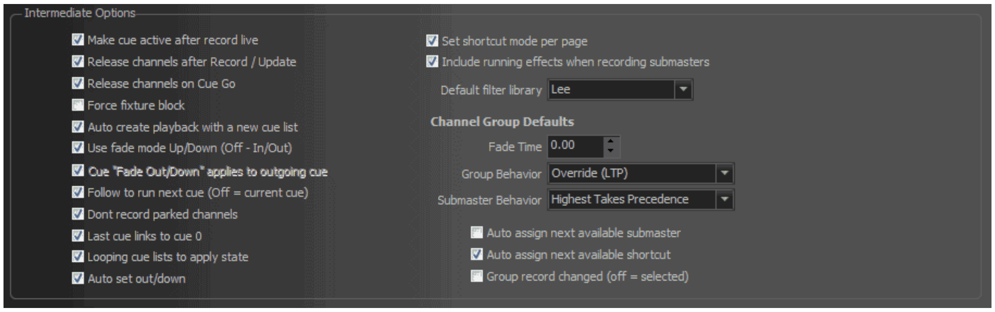
If any channels/fixtures are being controlled by a submaster (levels in yellow), this feature will determine if the action of Recording will include those levels when stored. This feature is turned off by default.

Include Palettes and Presets

If any channels/fixtures are being controlled by palettes or focus groups, this feature will determine if the action of recording will include those palette or focus group references. If not, then the cue will hold raw data. This feature is on by default.

Intermediate Options

These are show defaults that may need to be adjusted for more than basic operation. However, most of them are likely set and forget.



Intermediate Options

☑ Make cue active after record live
☑ Release channels after Record / Update
☑ Release channels on Cue Go
☐ Force fixture block
☑ Auto create playback with a new cue list
☑ Use fade mode Up/Down (Off - In/Out)
☑ Cue "Fade Out/Down" applies to outgoing cue
☑ Follow to run next cue (Off = current cue)
☑ Dont record parked channels
☑ Last cue links to cue 0
☑ Looping cue lists to apply state
☑ Auto set out/down

☑ Set shortcut mode per page
☑ Include running effects when recording submasters
Default filter library: Lee

Channel Group Defaults
Fade Time: 0.00
Group Behavior: Override (LTP)
Submaster Behavior: Highest Takes Precedence

☐ Auto assign next available submaster
☑ Auto assign next available shortcut
☐ Group record changed (off = selected)

Make cue active after record live - When this option is selected the cue that was just recorded or updated will automatically become the active cue. *Note: This only works when using the Record Live setting.*

Release channels after Record/Update - when this option is on and a cue is recorded or updated, the channels/ fixtures will be released to the cue.

Release set channels on cue go - When you press "cue go" the system will release all channels not being controlled by cues before running the next cue.

Force Fixture Block - when this option is on and attribute information is stored in a Cue/Group/FX, any attribute that is changed will force the entire fixture to be recorded.

Auto create playback with a new cue list - When a new cue list is created a cue list playback will automatically be created and assigned to the new cue list.

Use fade mode up/down (off - in/out) - This option allows you to work the way you are familiar with on other consoles. By default NEO fades cues with incoming channels and outgoing channels. Up/Down fade mode means that the channel or attributes increasing in value will fade in the "Up" time and channels or attributes decreasing in value will fade in the "Down" time.

NEO NOTES & TIPS: With Fade mode in Up/Down (not In/Out) the next option is as the option does not apply.

NEO NOTES & TIPS: Cue List time options change when this is turned off.

Cue "Fade Out" applies to outgoing cue - Some lighting systems apply the fade out of a cue differently to NEO. With this mode turned on the fade out of a cue applies to the cue executed before this one.

Follow to run next cue - with this option on, Follow works in a traditional theatrical console style where the follow time goes on the cue that is "triggering" the follow and not the cue that is "triggered". If this is off, then it works in the traditional LightFactory mode where the follow time goes on the cue that is "triggered".

Don't record parked channels - By default parked channels are recorded into cues. If you do not want parked channels recorded (e.g. house lights) you can enable this option.

Last cue links to cue 0 - with this option on, when you get to the last cue of the show, pressing GO will go back and start the cue list again at cue 0. With this option off, it will function as a traditional theatrical console.

Looping cue lists to apply state - with this option on, looping cue list will output no differently than if they were non-looping. The entire state of each cue shall output.

Auto set out/down - with this option on and a cue time is changed, it will apply equally to the in/up as to the out/down.

Set shortcut mode per page - The shortcut mode refers to the 4up mode or the standard mode. By default this is a global setting for all shortcut pages. By turning this option on the mode can be set for each page. Include running effects when recording submasters - will include running effects when recording into Groups or Subs.

Default filter library - choose the gel manufacturer so that Command Line entry for color filters works.

Channel Group Defaults

The channel group defaults will apply every time a new channel group is created. Set the default fade time and behavior using the controls provided.

Fade Time - default fade time set for future recorded groups.

Group Behavior

A channel group can behave in one of many ways when setting the actual output values. To change the behavior of a group select the desired option from the drop down menu accessed by clicking on the small arrow to the right of the field.

Override (LTP) - Also known as "Latest Takes Precedence". This is the default behavior of channel groups. This behavior will apply the channel levels set in the group to output channels and take over control of that channel. As soon as something else sets the channel value the group value will get overridden. Likewise as soon as the group value changes it will override the existing values set in the channel.

Build - The values set in the channel group will be added to the current output value of the channels.

Exclusive - All other channels will be set to zero and only the channels in this group will be applied.

Highest Takes Precedence (HTP) - When a group value is set with HTP behavior the output on the channel is determined by what has a higher value. If the value set in the group is higher than the value in the channel then the group will control the channel. If the value in the channel is higher than the group value it will remain unchanged.

Independent - Channels in an "Independent" group will override all other requests to modify the channel value. As soon as the group level is above 0, channels within this group will be controlled by the group values.

Inhibit - With an inhibit group the value masters all channels that are in the group. The output value of the channel will be scaled by the value of the inhibit group it belongs to.

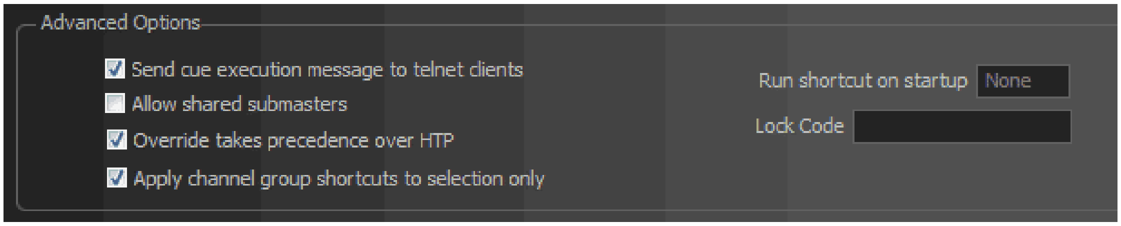
Subtract - Similar to the "Build" behavior this option will subtract the value set by the group from the output value of the channel and attributes.

Auto assign next available submaster - When checked (default) the submaster field will automatically be populated with the next free submaster when recording a new channel group.

Auto assign next available shortcut - When checked (default) the apply shortcut field will automatically be populated with the next free shortcut when recording a new channel group.

Group Record Changed (off = selected) - when on the default for record groups will record only changed data. This means that it's easy to record a group while outputting cues and not have it affect the group recording. With this option off recording groups by default will record all selected fixtures.

Advanced Level Programming Options



Advanced Options

☑ Send cue execution message to telnet clients

☐ Allow shared submasters

☑ Override takes precedence over HTP

☑ Apply channel group shortcuts to selection only

Run shortcut on startup: None

Lock Code:

Advanced options are likely only needed for advanced level programming.

Send cue execution messages to telnet clients - With this option checked (default) connected telnet clients will receive a message each time a cue is executed.

Allow shared submasters - By default a submaster can only control a single element within the software. If you try to assign a submaster to more than one control element an error will be reported. Turning this option on will allow the submaster to control multiple elements.

Override takes precedence over HTP - Override will not apply to HTP channels if the override value is less that the set HTP value. Turning this on will allow the LTP value to take priority over the HTP value.

Apply channel group shortcuts to selection only - When checked channel groups will only apply to the channels currently selected. This option is also available in the "Channel Groups" menu in the channel display.

Run shortcut on startup - allows the ability to run any shortcut number when the NEO console starts up.

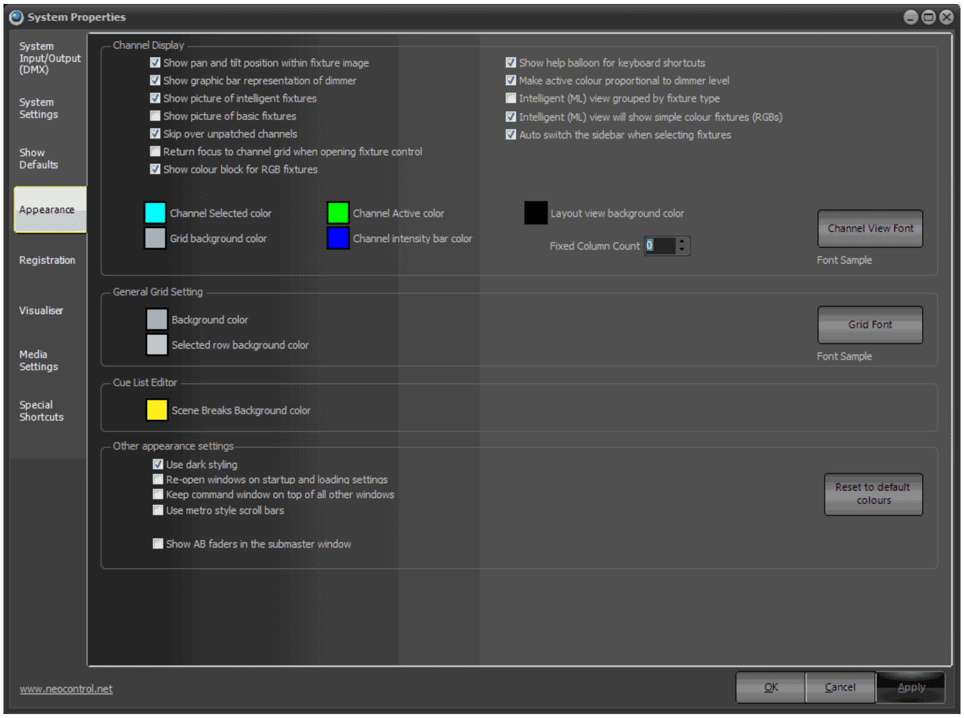
Lock Code - set the code here to add additional security to the console lock functionality. [SHIFT] + [HELP] shall lock the console. Without a password, the same command shall unlock it. With the lock code set, [SHIFT] + [HELP] will allow the user to input the code to unlock.

Set as default settings - The options in the "Show Defaults" tab are stored with your show. Click this button to make the current settings the default for all future shows.

Restore Factory Defaults - will restore all Show Defaults back to factory defaults.

29. Appearance

Use the options in the appearance tab to define how the software looks on screen. This provides the ability to set up the software to your own personal look and feel. If you are running NEO on a slow computer system you way also want to turn off some of the graphical options in the channel window.



Channel Display

☑ Show pan and tilt position within fixture image
☑ Show graphic bar representation of dimmer
☑ Show picture of intelligent fixtures
☐ Show picture of basic fixtures
☑ Skip over unpatched channels
☐ Return focus to channel grid when opening fixture control
☑ Show colour block for RGB fixtures

☑ Show help balloon for keyboard shortcuts
☑ Make active colour proportional to dimmer level
☐ Intelligent (ML) view grouped by fixture type
☑ Intelligent (ML) view will show simple colour fixtures (RGBs)
☑ Auto switch the sidebar when selecting fixtures

Channel Selected color
Grid background color
Channel Active color
Channel intensity bar color
Layout view background color
Fixed Column Count 0

General Grid Setting

Background color
Selected row background color

Cue List Editor

Scene Breaks Background color

Other appearance settings

☑ Use dark styling
☐ Re-open windows on startup and loading settings
☐ Keep command window on top of all other windows
☐ Use metro style scroll bars

☐ Show AB faders in the submaster window

System Properties, Appearance Tab

Show pan and tilt position within fixture image - By default NEO will draw a small x inside the image at the top of the channel cell to represent the position of the pan and tilt values. Turn this option off to disable this feature.

Show graphic bar representation of dimmers - The "fade bar" is a blue (default) bar that displays the current channel level and appears just under the text. Toggle this option to determine if the software displays this bar.

Show picture of intelligent fixtures - If you have patched an intelligent fixture you can display a picture in each cell of the channel view. Toggle this option to turn this on or off.

Show picture of basic fixtures - A basic fixture is a fixture with only a single dimmer attribute. Use this option to toggle if the software will display a picture in each cell of the channel view.

Skip over unpatched channels - With this option on the software will not draw a cell for every channel unless it is patched. Unpatched channels will be ignored. When turned off the unpatched channels will appear as a grey cell in the channel display.

Return focus to channel grid when opening fixture control - When an intelligent fixture is selected the fixture control window will automatically appear. This option determines if the focus is retained in the channel display or moved to the new fixture control window.

Show color block for RGB fixtures - By default a color only fixture will not display an image of the fixture like other intelligent fixtures but rather a block representing the color set. Turn this option off to show the image instead of the color. The color will still be shown but in a small bar below the image.

Show help balloon for keyboard shortcuts - In the channel display a help balloon will appear in the top right hand corner as soon as the control key is pressed to show all of the keyboard shortcuts that can be accessed. Use this option to turn off the display of these messages.

Make active color proportional to dimmer level - Use this option to make the active channel colors intensity proportional to the current output level. When the channel is at full the background will be the defined active channel color. At 50% the background will be a half shade of the defined color.

Intelligent (ML) view grouped by fixture type - with this on, all MLs will be grouped together by type. With this off, MLs will appear in numerical fixture patch order.

Intelligent (ML) view will show simple color fixtures - with this on, simple color mixing fixtures will appear in the ML view.

Auto switch the sidebar when selecting fixtures - When turned on and fixtures are selected, the side bar will automatically switch to show fixture control. When turned off, the side bar will stay on Master Playback.

Channel Display - Channel Select Color - Defines the background color of selected channels. Click on the colored box to select a different color.

Channel Display - Channel Active Color - Defines the background color of active channels. Click on the colored box to select a different color.

Channel Display - Grid Background Color - Defines the background color of the entire channel grid. Click on the colored box to select a different color.

Channel Display - Channel Intensity Bar Color - Defines the color of bar representing the dimmer output value. Click on the colored box to select a different color.

Channel Display - Magic Sheet background color - Defines the background color of Magic Sheet view. Click on the colored box to select a different color.

Channel Display, Font - Click on the font button to set the text style used in the channel display. A sample of the font will be displayed just below this button.

Fixed column count - If this value is set to zero then the channel view will adjust the number of columns depending on the width of the window. Setting a fixed column count will automatically adjust the width of each of the cells but maintain the same number of columns per row.

General Grid Settings - background color - Defines the background color of all grids other than the channel display. Click on the colored box to select a different color.

General Grid Settings - Selected row background color - Defines the background color of all selected rows in grids other than the channel display. Click on the colored box to select a different color.

General Grid Settings - Font - Click on the font button to set the text style used in all grids other than the channel display. A sample of the font will be displayed just below this button.

Cue List Editor - Scene breaks background color - Defines the background color of all scene break rows in the cue list editor. Click on the colored box to select a different color.

Use Dark Styling - Turning this option on (requires a restart) put LightFactory in a dark mode. All of the windows and controls will adopt a color scheme that is dark (black, dark grey etc).

Reopen windows on startup and loading settings - When saving setting and closing down the software the position of all windows will be saved. With this option turned on the windows will return to the position they were when the software starts up or the setting are restored.

Keep command window on top of all other windows - By default whatever window is active will draw itself on top of all other windows including the Command Line interface. Turn this option on to make sure that the command window is always drawn on top of all other windows regardless of its focus status.

Create a taskbar button for every window

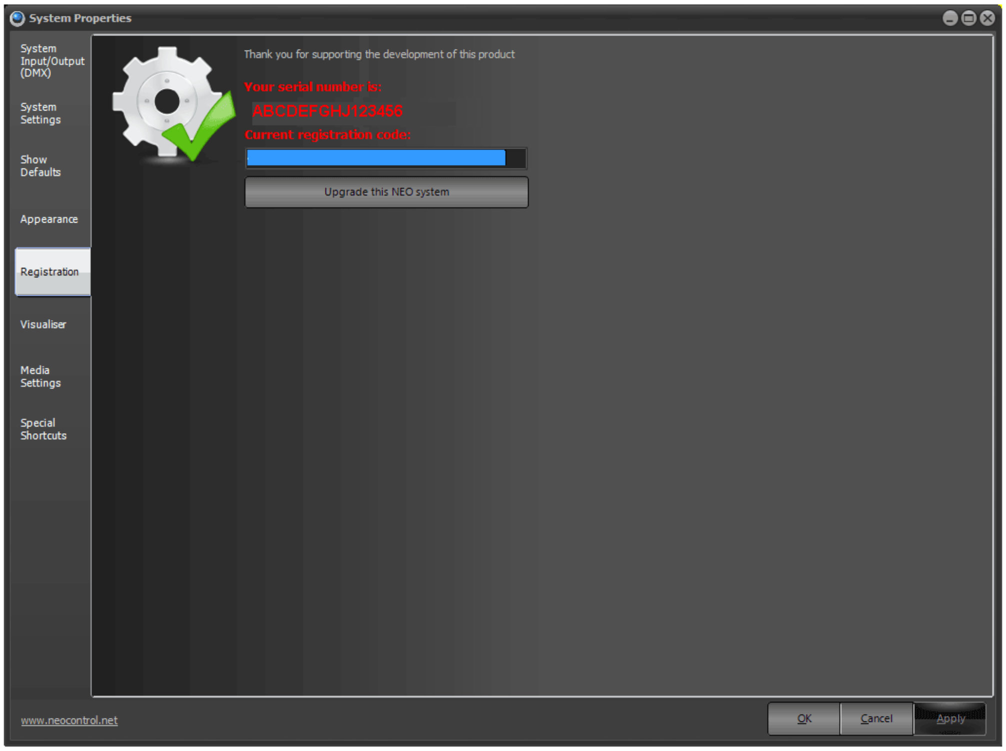
Use metro style scroll bars - with this option on, the scroll bars will be a sleeker version. With this off, the scroll bars are bigger.

Reset to default colors - will restore colors to factory defaults.

30. Software Registration

NEO uses a software license to ensure that the product has been legally purchased. Without a valid registration code, the software will still operate normally and no functionality will be restricted, however the software will not produce any DMX output.

To enable the DMX hardware interface, a valid registration must be entered - whether at time of install, or through the "Registration" tab in this window.


System Properties
System Input/Output (DMX)
System Settings
Show Defaults
Appearance
Registration
Visualiser
Media Settings
Special Shortcuts
Upgrade this NEO system
www.neocontrol.net
OK
Cancel
Apply

Thank you for supporting the development of this product

Your serial number is: ABCDEFGHJ123456

Current registration code:

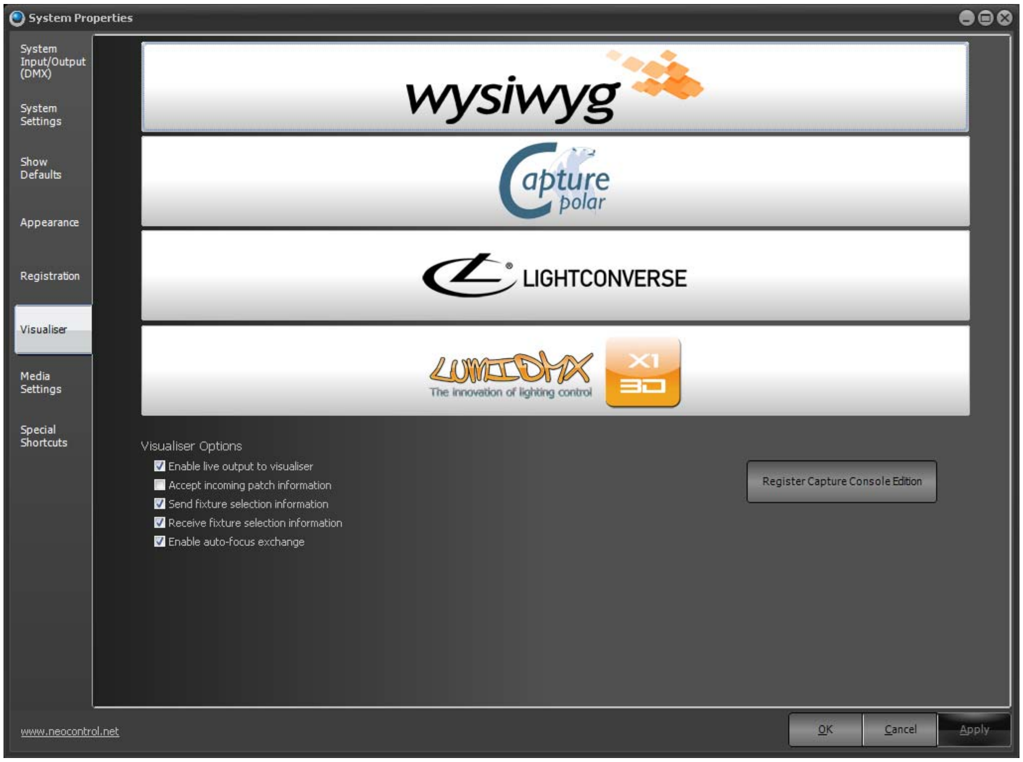
System Properties, Registration Tab

Contact your local Philips Entertainment dealer or Philips Entertainment Technical Support for more information.

31. Upgrade this NEO system

Enter your registration details and click on the "Upgrade this NEO system" to confirm that the details entered are correct. A dialog will inform you if incorrect details have been entered.

32. Visualization


System Properties
System Input/Output (DMX)
System Settings
Show Defaults
Appearance
Registration
Visualiser
Media Settings
Special Shortcuts
wysiwyg
Capture polar
LIGHTCONVERSE
LUMIDMX
The innovation of lighting control
X1 3D
Register Capture Console Edition
www.neocontrol.net
OK
Cancel
Apply

Visualiser Options

☑ Enable live output to visualiser
☐ Accept incoming patch information
☑ Send fixture selection information
☑ Receive fixture selection information
☑ Enable auto-focus exchange

NEO supports integration with the popular WYSIWYG (Cast Group. http://www.cast-soft.com), Capture (http://www.capturesweden.com), LumiDMX and Light Converse (discontinued support in the latest version of Light Converse) visualization software.

- To use this feature select the desired visualizer by clicking on the appropriate button.
- If you want to temporarily disable the output uncheck the "Output live data to visualizer"

Accept incoming patch information - Use this option to enable or disable receiving patch information if the visualizer supports sending it.

Send Fixture Selection Information - With this option turned on NEO will send messages to the visualizer to indicate if a fixture is selected or not.

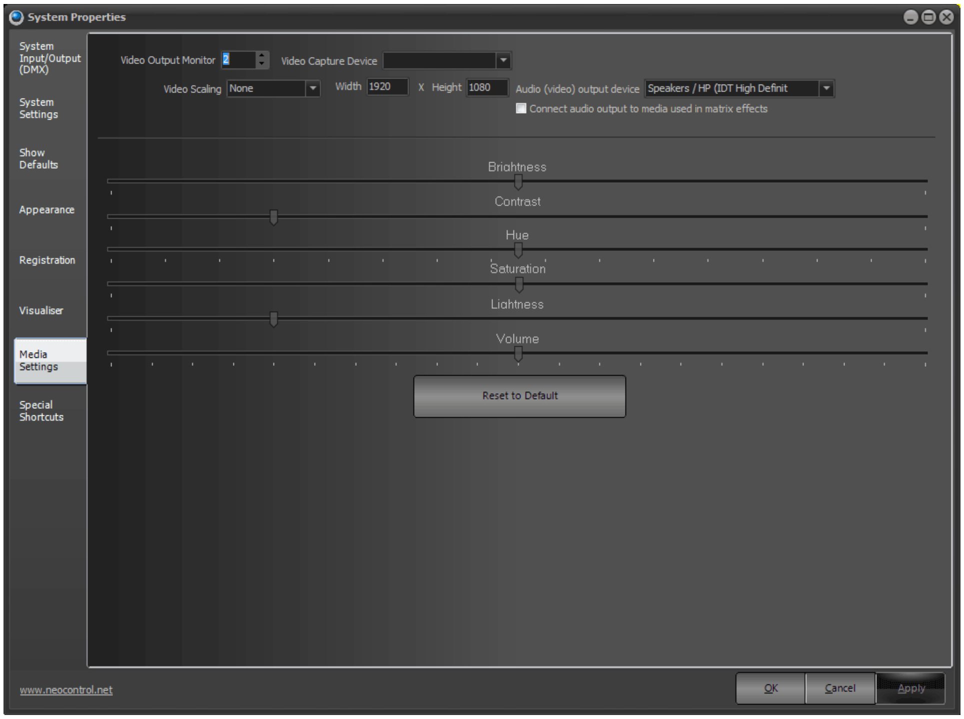
Receive Fixture Selection Information - With this option turned on NEO will select and de-select fixtures in the channel display when they are selected or de-selected in the visualizer.

Enable Auto Focus Exchange - Auto focus is the term used for transfer of fixture state between the visualizer and NEO. If enabled changes made to the fixture in the visualizer will be transferred back to NEO. For example setting the position of the fixture in the 3D environment can be automatically translated into pan and tilt information in NEO.

Add snapshot of live view to cue notes when recording - with a camera installed, will allow recording of cues to create a visualizer snapshot and store that in the cue notes.

33. Media

The settings in the media tab are used to globally control the output of media playback when using the media effect.


System Properties
System Input/Output (DMX)
System Settings
Show Defaults
Appearance
Registration
Visualiser
Media Settings
Special Shortcuts
Brightness
Contrast
Hue
Saturation
Lightness
Volume
Reset to Default
www.neocontrol.net
OK
Cancel
Apply

Video Output Monitor 2

Video Capture Device

Video Scaling None

Width 1920 X Height 1080

Audio (video) output device Speakers / HP (IDT High Definit

☐ Connect audio output to media used in matrix effects

System Properties, Media Settings

Video Output Monitor - Use this option to define what display on your computer all video content go to. If you only have 1 monitor or you select your primary monitor then the video will play in a sizeable window. If you are using a secondary display the video output will automatically be played in full screen.

Video Capture Device - The video capture is used to map live video into a matrix effect and can also be used to capture an image when recording cues. This setting determines the device that will be used.

Video Scaling - NEO supports a number of advanced scaling routines to improve the output quality when the video size does not match the output size. These options can require a lot of CPU to work at full frame rate so it is always recommended that your video be pre rendered to the size you need.

Width & Height - Used to set the output size that the video will be scaled to when using the advanced scaling routines.

Audio (video) output device - Used to set the audio device that all video sound will be sent to.

Connect audio output to media used in matrix effects - By default a matrix effect does out output any audio from the playing media. Turn this option on to connect the audio channels when the effect is played.

Brightness - The Brightness property defines the luminance intensity.

Contrast - The Contrast property defines the relative difference between higher and lower luminance values.

Hue - The Hue property defines the phase relationship, in degrees, of the chrominance components.

Saturation - The Saturation property defines the color intensity, in IRE units.

Lightness -

Volume - The volume property defines the default audio level of the playback.

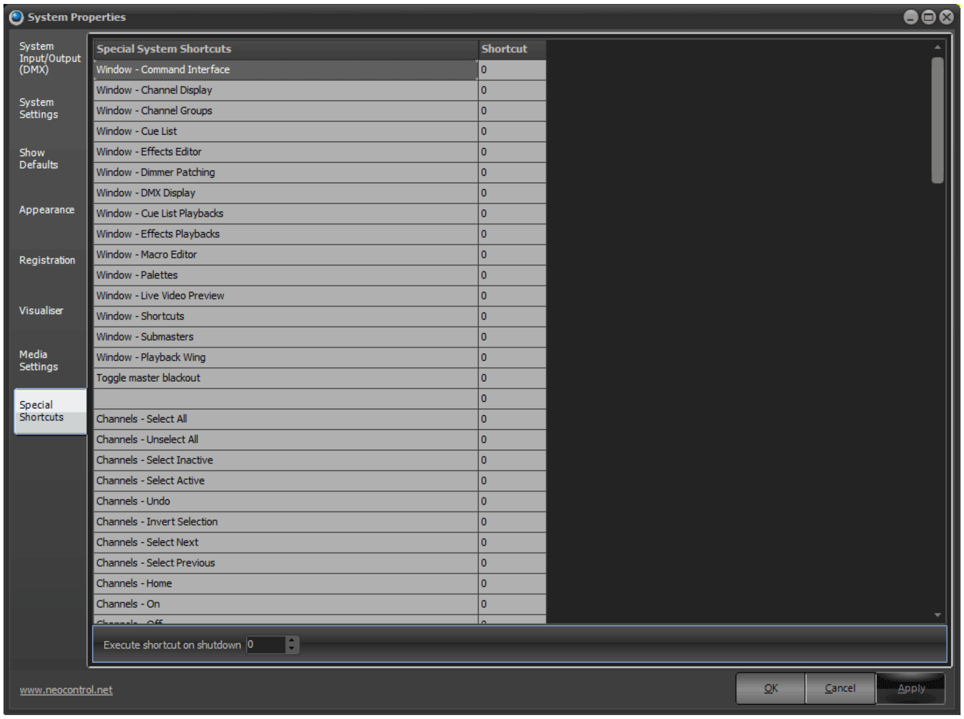
Reset to Default - pressing this will reset all settings back to default.

34. Special Shortcuts

Special system shortcuts are miscellaneous functions in the software that you may want to put onto a shortcut. Most of these functions are related to the channel view such as the options in the right click menu and at the bottom of the window.

The special shortcuts also allow you to set shortcuts to open various windows.

The attribute shortcuts also serve a dual purpose depending on the window that currently has focus. If you are in the channel display and have an intelligent fixture selected then the attribute shortcuts will shift focus to the control appropriate for the attribute. Pressing the shortcut while in the Command Line interface will bring up the appropriate word to use in the command line.


System Properties
System Input/Output (DMX)
System Settings
Show Defaults
Appearance
Registration
Visualiser
Media Settings
Special Shortcuts
www.neocontrol.net
OK
Cancel
Apply

Special System Shortcuts	Shortcut
Window - Command Interface	0
Window - Channel Display	0
Window - Channel Groups	0
Window - Cue List	0
Window - Effects Editor	0
Window - Dimmer Patching	0
Window - DMX Display	0
Window - Cue List Playbacks	0
Window - Effects Playbacks	0
Window - Macro Editor	0
Window - Palettes	0
Window - Live Video Preview	0
Window - Shortcuts	0
Window - Submasters	0
Window - Playback Wing	0
Toggle master blackout	0
	0
Channels - Select All	0
Channels - Unselect All	0
Channels - Select Inactive	0
Channels - Select Active	0
Channels - Undo	0
Channels - Invert Selection	0
Channels - Select Next	0
Channels - Select Previous	0
Channels - Home	0
Channels - On	0

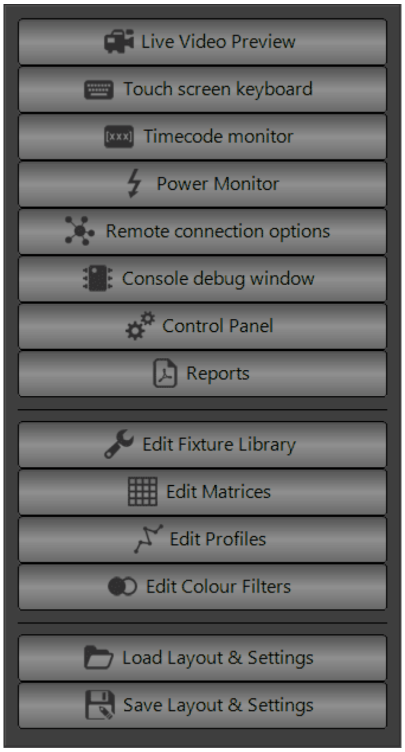
Execute shortcut on shutdown 0

System Properties, Special Shortcuts

Execute shortcut on shutdown - a Shortcut configured here will run on shutdown.

35. More

This gives you access to advanced displays and advanced features like the timecode monitor, power monitor, fixture library editor, matrix editor and more.


Live Video Preview
Touch screen keyboard
Timecode monitor
Power Monitor
Remote connection options
Console debug window
Control Panel
Reports
Edit Fixture Library
Edit Matrices
Edit Profiles
Edit Colour Filters
Load Layout & Settings
Save Layout & Settings

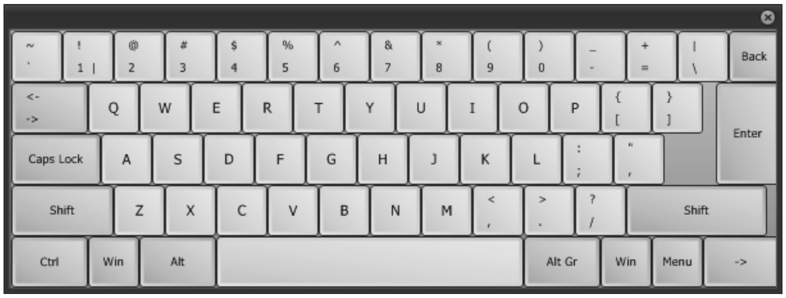
Live Video Preview

Allows the user to view the live video output of a connected video camera.

Note: Video camera by others.

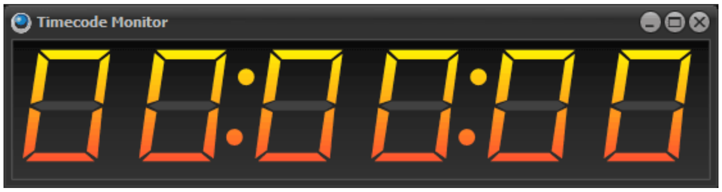
Touchscreen Keyboard

Opens up a touchscreen keyboard.


Back
Q W E R T Y U I O P
Enter
Caps Lock
A S D F G H J K L
Shift
Z X C V B N M
Shift
Ctrl
Win
Alt
Alt Gr
Win
Menu

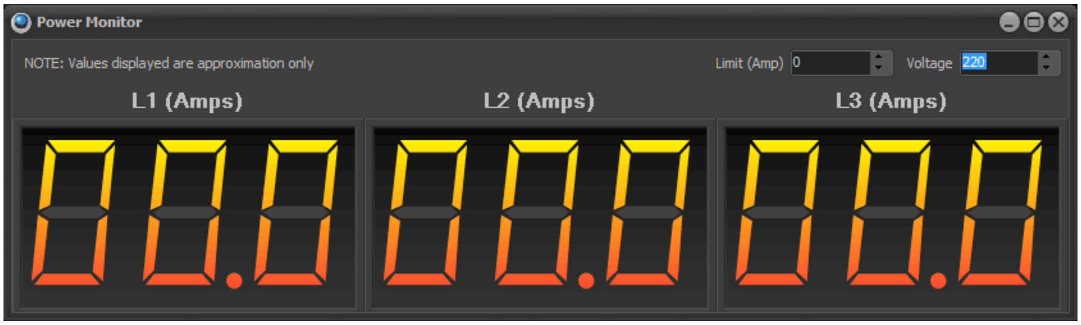
Timecode Monitor

Opens up the timecode monitor or clock.



Power Monitor

The power monitor will display the calculated amps based upon the data entered into the Power and Dimmer Phase columns in Patch.



NOTE: Values displayed are approximation only

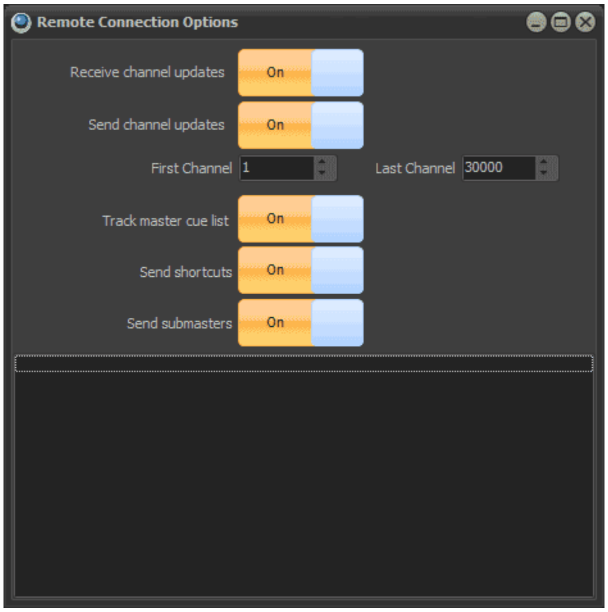
Limit (Amp) 0

Voltage 220

L1 (Amps)	L2 (Amps)	L3 (Amps)
00.0	00.0	00.0

Remote Connection Options

When using NEO as a remote console, the remote connection options allow the user to determine the level of control that NEO Remote has to the main console.



Receive channel updates: On

Send channel updates: On

First Channel 1

Last Channel 30000

Track master cue list: On

Send shortcuts: On

Send submasters: On

Receive Channel Updates - allows NEO Remote to receive channel/fixture level info from the main console.

Send Channel Updates - allows NEO Remote to send channel/fixture level info to the main console.

First Channel - starting communication channel/fixture range.

Last Channel - ending communication channel/fixture range.

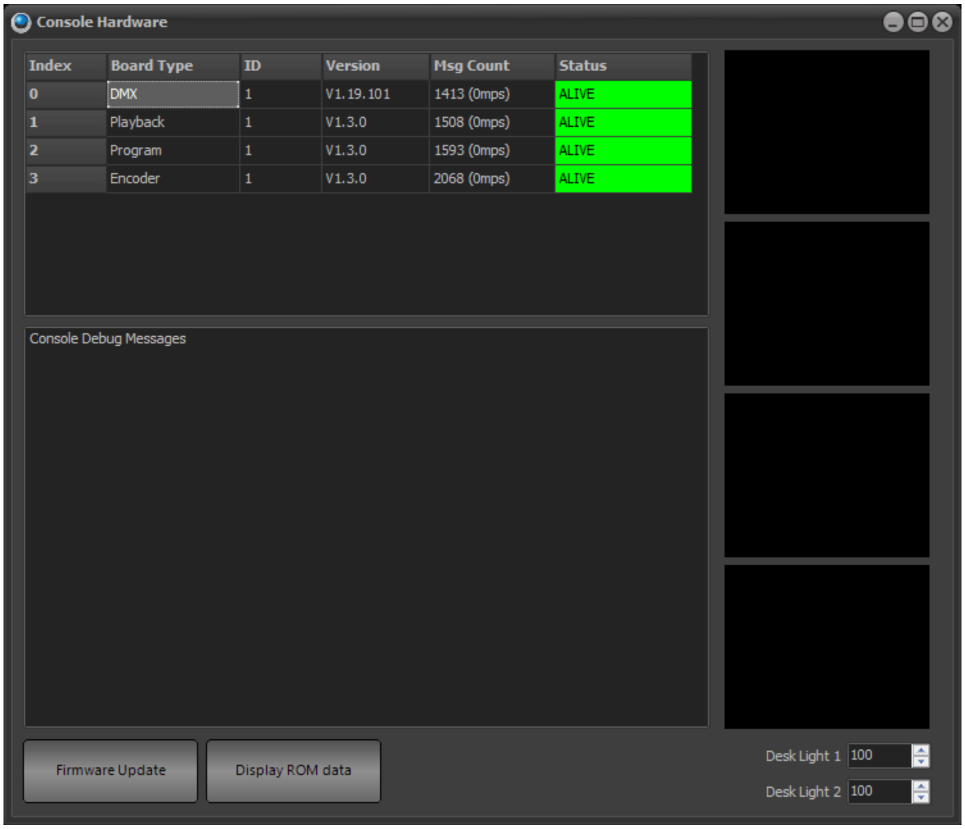
Track Master Cue List - synchronize the primary cue list.

Send Shortcuts - transmit Shortcut commands to the main console.

Send Submasters - transmit Submaster changes to the main console.

Console Debug Window

This is a great troubleshooting tool to help identify communication to the hardware.



Index	Board Type	ID	Version	Msg Count	Status
0	DMX	1	V1.19.101	1413 (0mps)	ALIVE
1	Playback	1	V1.3.0	1508 (0mps)	ALIVE
2	Program	1	V1.3.0	1593 (0mps)	ALIVE
3	Encoder	1	V1.3.0	2068 (0mps)	ALIVE

Desk Light 1 100

Desk Light 2 100

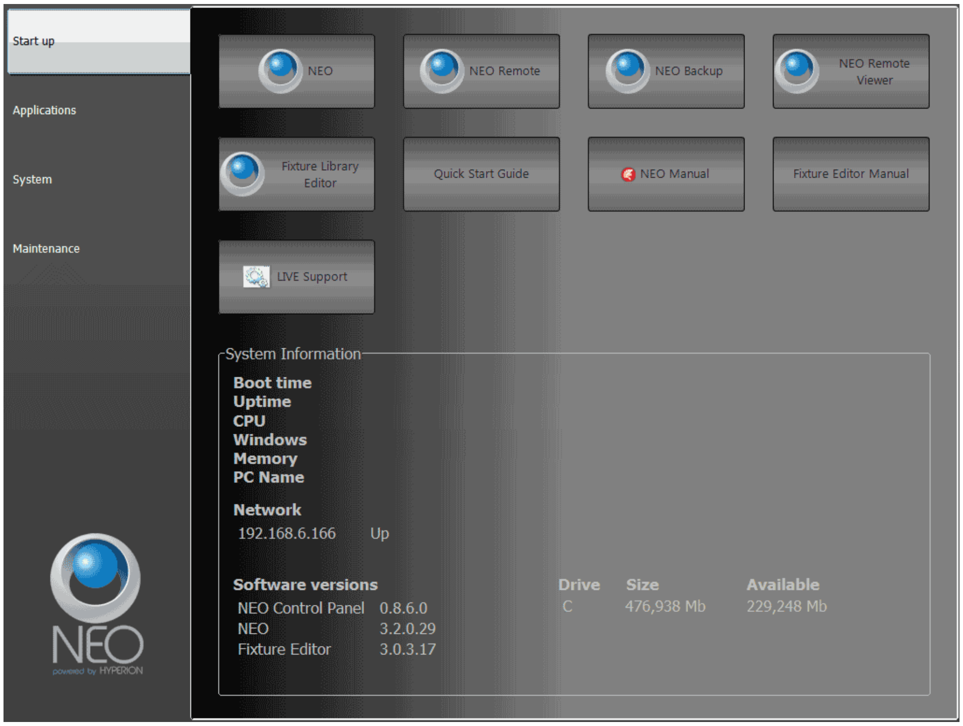
The top portion identifies the NEO console tiles that it is communicating with. It identifies the Board Type, ID, Firmware Version, Message Count and Status.

If you are troubleshooting a problem, please contact Philips Entertainment Technical Support for help.

Desk Light Control

Desk Light controls are here as well.

36. Control Panel


Start up
Applications
System
Maintenance
NEO
NEO Remote
NEO Backup
NEO Remote Viewer
Fixture Library Editor
Quick Start Guide
NEO Manual
Fixture Editor Manual
LIVE Support
NEO
powered by HYPERION

System Information

Boot time
Uptime
CPU
Windows
Memory
PC Name

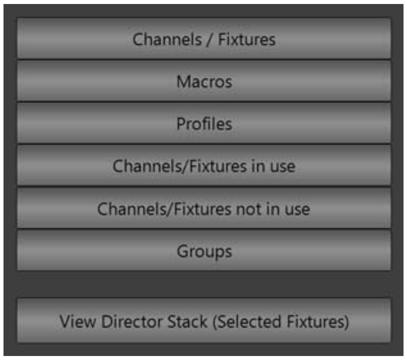
Network
192.168.6.166 Up

Software versions	
NEO Control Panel	0.8.6.0
NEO	3.2.0.29
Fixture Editor	3.0.3.17

Drive	Size	Available
C	476,938 Mb	229,248 Mb

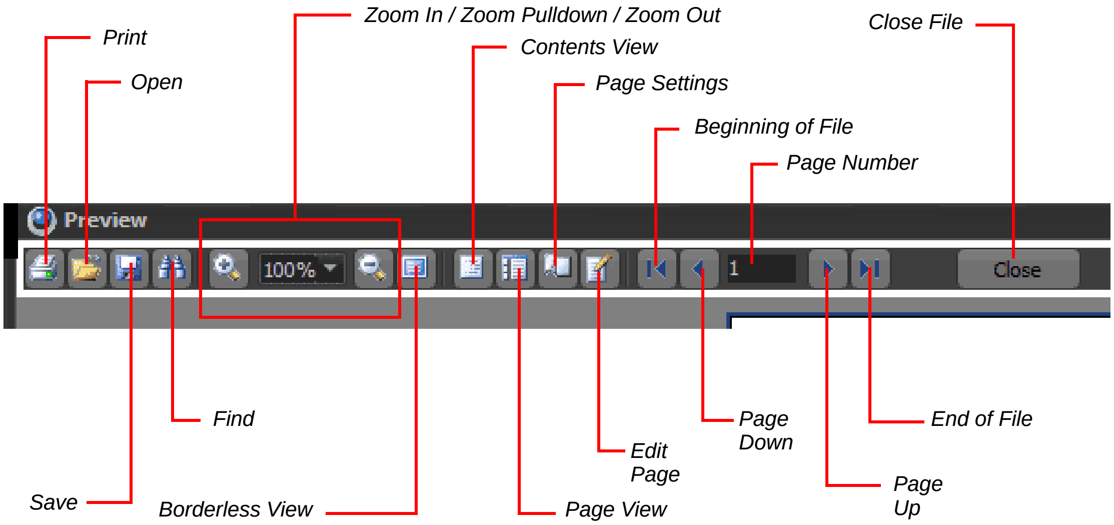
This opens the NEO Control Panel. See “Control Panel” on page 222 for more information.

Reports


Channels / Fixtures
Macros
Profiles
Channels/Fixtures in use
Channels/Fixtures not in use
Groups
View Director Stack (Selected Fixtures)

Channel/Fixture Report

The Report section allows the user to pull up a report on several different areas of the contents of the showfile.


Print
Open
Zoom In / Zoom Pulldown / Zoom Out
Contents View
Page Settings
Beginning of File
Page Number
Close File
Preview
100%
1
Close
Find
Save
Borderless View
Page View
Edit Page
Page Down
End of File
Page Up

Here is the report interface.

Print - allows the printing of the document assuming a printer has been configured.

Open - allows the opening of a Prepared Report (*.fp3) file.

Save - allows the saving of a Prepared Report (*.fp3) file.

Find - allows the finding of text.

Zoom In / Zoom Pulldown / Zoom Out - allows zooming of document.

Borderless View - allows viewing without options and border. Double click to restore.

Contents View - not associated with the viewing type.

Page View - shows thumbnails of all pages.

Page Settings - allows configuration of page settings.

Edit Page - not associated with the viewing type.

Beginning of File - goes to the beginning of the file.

Page Down - moves one page down.

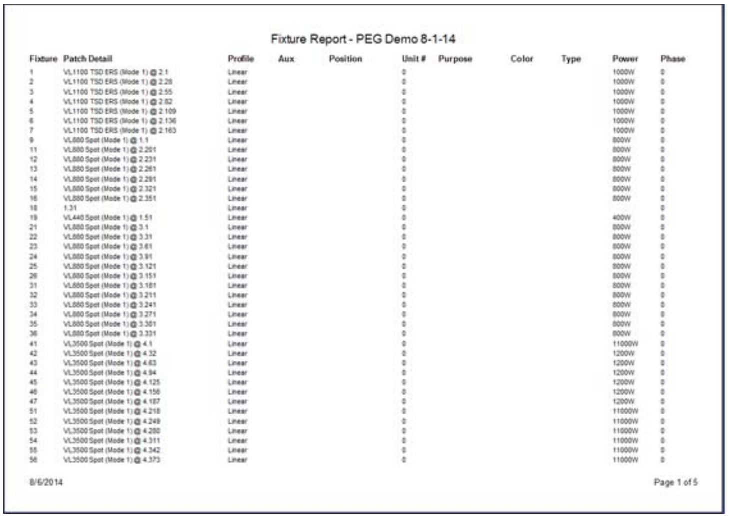
Page Number - choose by page number.

Page Up - moves one page up.

End of File - goes to the end of the file.

Close - will close the file.

Fixture Report



Fixture Report - PEG Demo 8-1-14

Fixture	Patch Detail	Profile	Aux	Position	Unit #	Purpose	Color	Type	Power	Phase
1	VL1100 TSD ERS (Mode 1) @ 2.1	Linear			0				1000W	0
2	VL1100 TSD ERS (Mode 1) @ 2.28	Linear			0				1000W	0
3	VL1100 TSD ERS (Mode 1) @ 2.55	Linear			0				1000W	0
4	VL1100 TSD ERS (Mode 1) @ 2.82	Linear			0				1000W	0
5	VL1100 TSD ERS (Mode 1) @ 2.109	Linear			0				1000W	0
6	VL1100 TSD ERS (Mode 1) @ 2.136	Linear			0				1000W	0
7	VL1100 TSD ERS (Mode 1) @ 2.163	Linear			0				1000W	0
9	VL880 Spot (Mode 1) @ 1.1	Linear			0				800W	0
11	VL880 Spot (Mode 1) @ 2.201	Linear			0				800W	0
12	VL880 Spot (Mode 1) @ 2.231	Linear			0				800W	0
13	VL880 Spot (Mode 1) @ 2.261	Linear			0				800W	0
14	VL880 Spot (Mode 1) @ 2.291	Linear			0				800W	0
15	VL880 Spot (Mode 1) @ 2.321	Linear			0				800W	0
16	VL880 Spot (Mode 1) @ 2.351	Linear			0				800W	0
18	1.31	Linear			0					0
19	VL440 Spot (Mode 1) @ 1.51	Linear			0				400W	0
21	VL880 Spot (Mode 1) @ 3.1	Linear			0				800W	0
22	VL880 Spot (Mode 1) @ 3.31	Linear			0				800W	0
23	VL880 Spot (Mode 1) @ 3.61	Linear			0				800W	0
24	VL880 Spot (Mode 1) @ 3.91	Linear			0				800W	0
25	VL880 Spot (Mode 1) @ 3.121	Linear			0				800W	0
26	VL880 Spot (Mode 1) @ 3.151	Linear			0				800W	0
31	VL880 Spot (Mode 1) @ 3.181	Linear			0				800W	0
32	VL880 Spot (Mode 1) @ 3.211	Linear			0				800W	0
33	VL880 Spot (Mode 1) @ 3.241	Linear			0				800W	0
34	VL880 Spot (Mode 1) @ 3.271	Linear			0				800W	0
35	VL880 Spot (Mode 1) @ 3.301	Linear			0				800W	0
36	VL880 Spot (Mode 1) @ 3.331	Linear			0				800W	0
41	VL3500 Spot (Mode 1) @ 4.1	Linear			0				11000W	0
42	VL3500 Spot (Mode 1) @ 4.32	Linear			0				1200W	0
43	VL3500 Spot (Mode 1) @ 4.63	Linear			0				1200W	0
44	VL3500 Spot (Mode 1) @ 4.94	Linear			0				1200W	0
45	VL3500 Spot (Mode 1) @ 4.125	Linear			0				1200W	0
46	VL3500 Spot (Mode 1) @ 4.156	Linear			0				1200W	0
47	VL3500 Spot (Mode 1) @ 4.187	Linear			0				1200W	0
51	VL3500 Spot (Mode 1) @ 4.218	Linear			0				11000W	0
52	VL3500 Spot (Mode 1) @ 4.249	Linear			0				11000W	0
53	VL3500 Spot (Mode 1) @ 4.280	Linear			0				11000W	0
54	VL3500 Spot (Mode 1) @ 4.311	Linear			0				11000W	0
55	VL3500 Spot (Mode 1) @ 4.342	Linear			0				11000W	0
56	VL3500 Spot (Mode 1) @ 4.373	Linear			0				11000W	0

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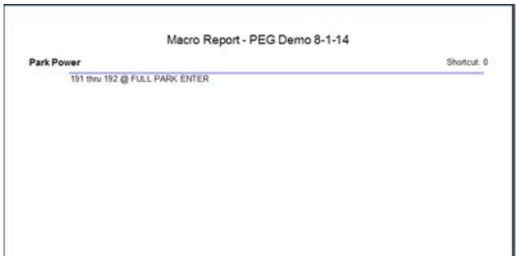
Sample Fixture Report

This shows all patched fixtures in the showfile.

Macro Report



Macro Report - PEG Demo 8-1-14

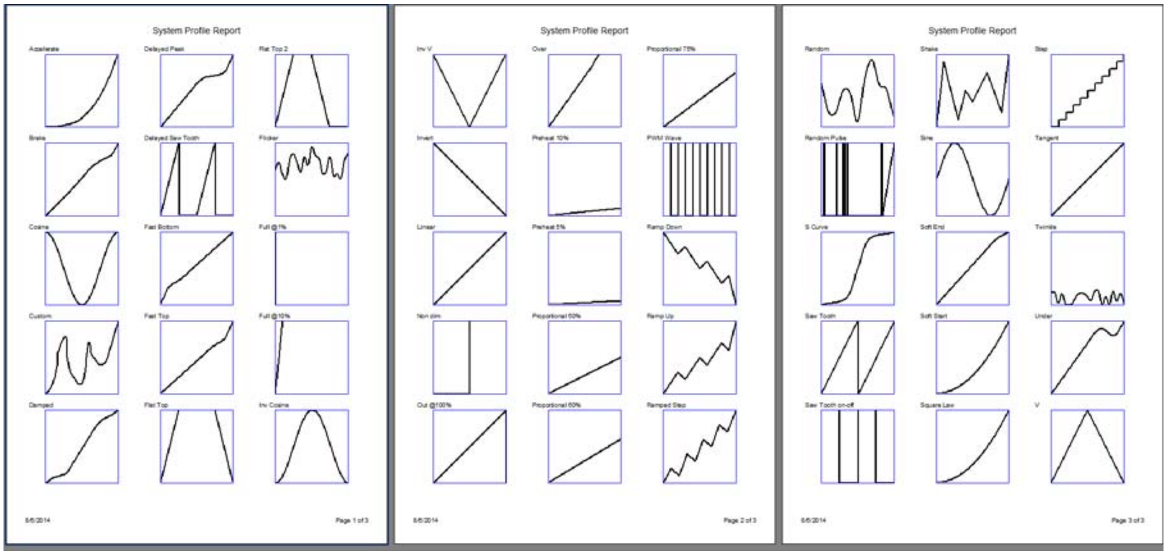
Park Power Shortcut: 0

191 thru 192 @ FULL PARK ENTER

Sample Macro Report

This shows all macros and their content in the showfile.

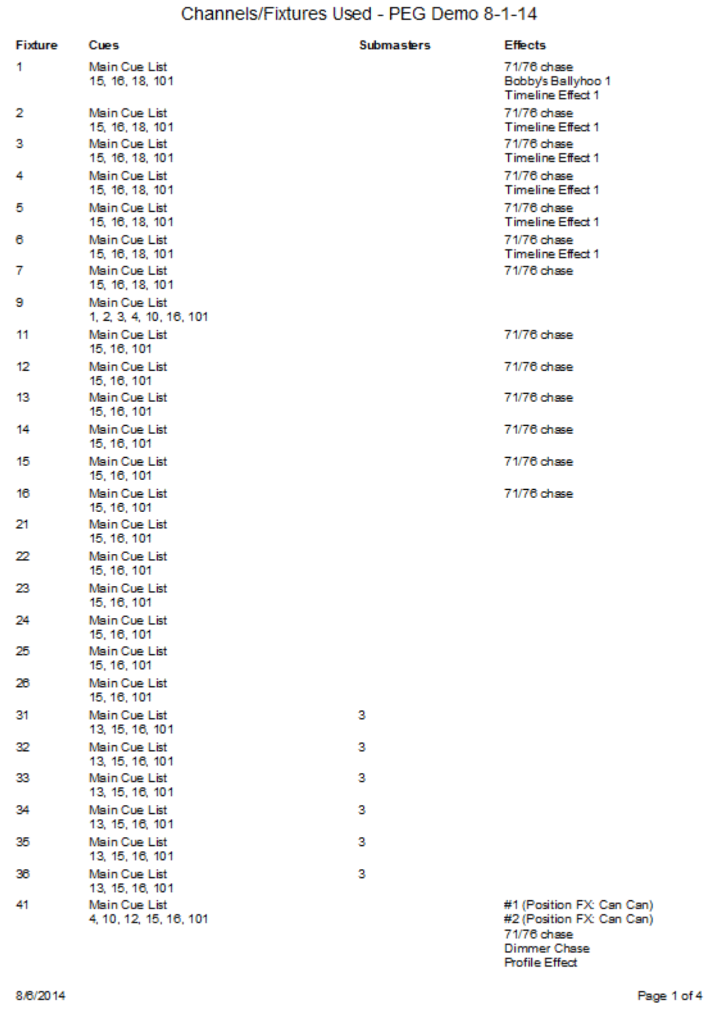
Profile Report



Sample Profile Report

This shows all profiles in the showfile.

Channels/Fixtures In Use Report



Channels/Fixtures Used - PEG Demo 8-1-14

Fixture	Cues	Submasters	Effects
1	Main Cue List 15, 16, 18, 101		71/76 chase Bobby's Ballyhoo 1 Timeline Effect 1
2	Main Cue List 15, 16, 18, 101		71/76 chase Timeline Effect 1
3	Main Cue List 15, 16, 18, 101		71/76 chase Timeline Effect 1
4	Main Cue List 15, 16, 18, 101		71/76 chase Timeline Effect 1
5	Main Cue List 15, 16, 18, 101		71/76 chase Timeline Effect 1
6	Main Cue List 15, 16, 18, 101		71/76 chase Timeline Effect 1
7	Main Cue List 15, 16, 18, 101		71/76 chase
9	Main Cue List 1, 2, 3, 4, 10, 16, 101		
11	Main Cue List 15, 16, 101		71/76 chase
12	Main Cue List 15, 16, 101		71/76 chase
13	Main Cue List 15, 16, 101		71/76 chase
14	Main Cue List 15, 16, 101		71/76 chase
15	Main Cue List 15, 16, 101		71/76 chase
16	Main Cue List 15, 16, 101		71/76 chase
21	Main Cue List 15, 16, 101		
22	Main Cue List 15, 16, 101		
23	Main Cue List 15, 16, 101		
24	Main Cue List 15, 16, 101		
25	Main Cue List 15, 16, 101		
26	Main Cue List 15, 16, 101		
31	Main Cue List 13, 15, 16, 101	3	
32	Main Cue List 13, 15, 16, 101	3	
33	Main Cue List 13, 15, 16, 101	3	
34	Main Cue List 13, 15, 16, 101	3	
35	Main Cue List 13, 15, 16, 101	3	
36	Main Cue List 13, 15, 16, 101	3	
41	Main Cue List 4, 10, 12, 15, 16, 101		#1 (Position FX: Can Can) #2 (Position FX: Can Can) 71/76 chase Dimmer Chase Profile Effect

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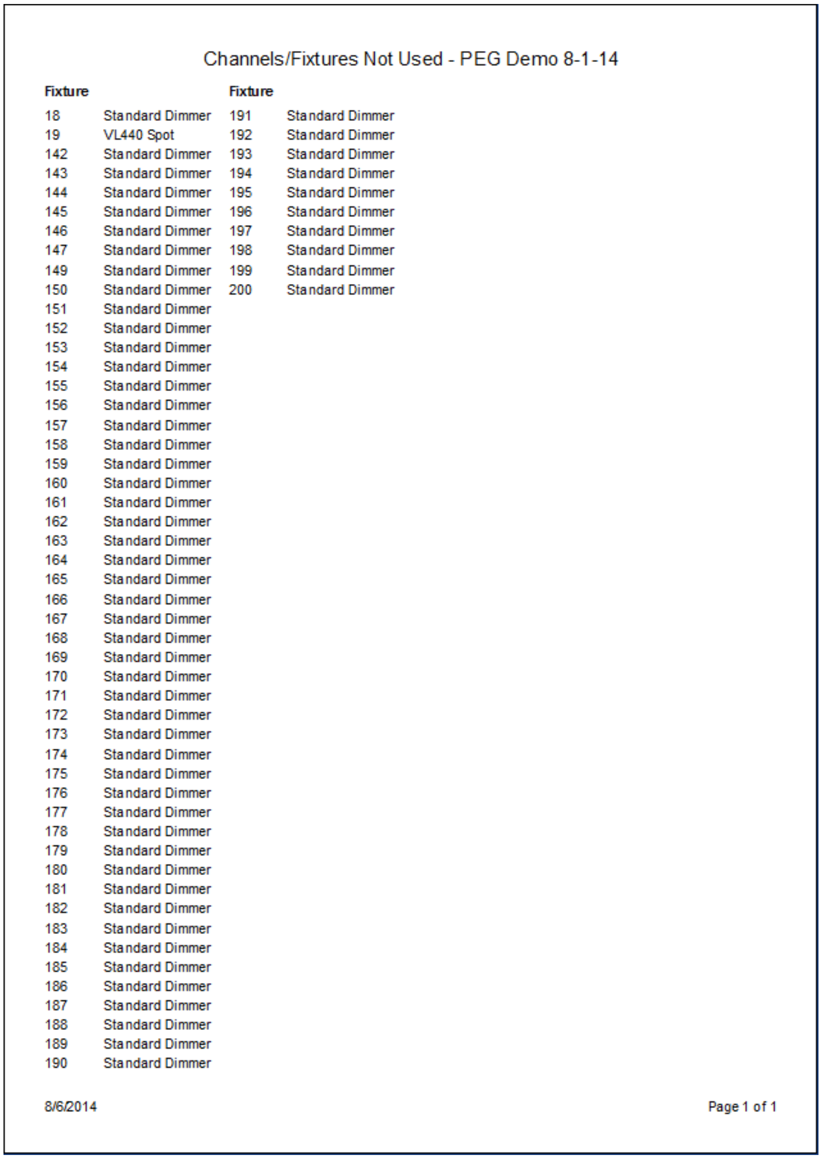
Sample Channels/Fixtures In Use Report

This shows a list of all channels/fixtures that are programmed in the showfile. This includes cues, submasters and effects.

Channels/Fixtures Not In Use Report



Channels/Fixtures Not Used - PEG Demo 8-1-14

Fixture	
18	Standard Dimmer
19	VL440 Spot
142	Standard Dimmer
143	Standard Dimmer
144	Standard Dimmer
145	Standard Dimmer
146	Standard Dimmer
147	Standard Dimmer
149	Standard Dimmer
150	Standard Dimmer
151	Standard Dimmer
152	Standard Dimmer
153	Standard Dimmer
154	Standard Dimmer
155	Standard Dimmer
156	Standard Dimmer
157	Standard Dimmer
158	Standard Dimmer
159	Standard Dimmer
160	Standard Dimmer
161	Standard Dimmer
162	Standard Dimmer
163	Standard Dimmer
164	Standard Dimmer
165	Standard Dimmer
166	Standard Dimmer
167	Standard Dimmer
168	Standard Dimmer
169	Standard Dimmer
170	Standard Dimmer
171	Standard Dimmer
172	Standard Dimmer
173	Standard Dimmer
174	Standard Dimmer
175	Standard Dimmer
176	Standard Dimmer
177	Standard Dimmer
178	Standard Dimmer
179	Standard Dimmer
180	Standard Dimmer
181	Standard Dimmer
182	Standard Dimmer
183	Standard Dimmer
184	Standard Dimmer
185	Standard Dimmer
186	Standard Dimmer
187	Standard Dimmer
188	Standard Dimmer
189	Standard Dimmer
190	Standard Dimmer
Fixture	
191	Standard Dimmer
192	Standard Dimmer
193	Standard Dimmer
194	Standard Dimmer
195	Standard Dimmer
196	Standard Dimmer
197	Standard Dimmer
198	Standard Dimmer
199	Standard Dimmer
200	Standard Dimmer

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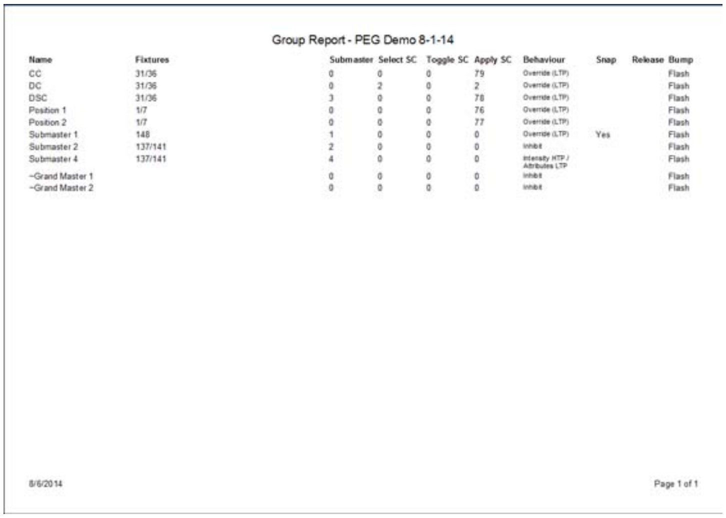
Sample Channels/Fixtures Not In Use Report

This shows a list of all channels/fixtures that are not used in the showfile. This looks at cues, submasters and effects.

Group Report



Group Report - PEG Demo 8-1-14

Name	Fixtures	Submaster	Select SC	Toggle SC	Apply SC	Behaviour	Snap	Release	Bump
CC	31/36	0	0	0	79	Override (LTP)			Flash
DC	31/36	0	2	0	2	Override (LTP)			Flash
DSC	31/36	3	0	0	78	Override (LTP)			Flash
Position 1	1/7	0	0	0	76	Override (LTP)			Flash
Position 2	1/7	0	0	0	77	Override (LTP)			Flash
Submaster 1	148	1	0	0	0	Override (LTP)	Yes		Flash
Submaster 2	137/141	2	0	0	0	Inhibit			Flash
Submaster 4	137/141	4	0	0	0	Intensity HTP / Attributes LTP			Flash
~Grand Master 1		0	0	0	0	Inhibit			Flash
~Grand Master 2		0	0	0	0	Inhibit			Flash

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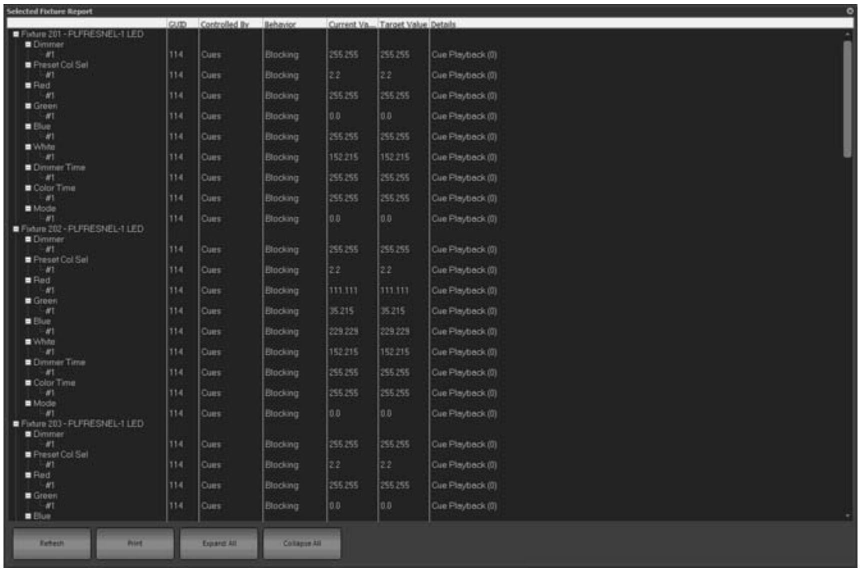
Sample Group / Group's Settings Report

This shows a list of all groups and the group's settings.

View Director Stack (Selected Fixtures)

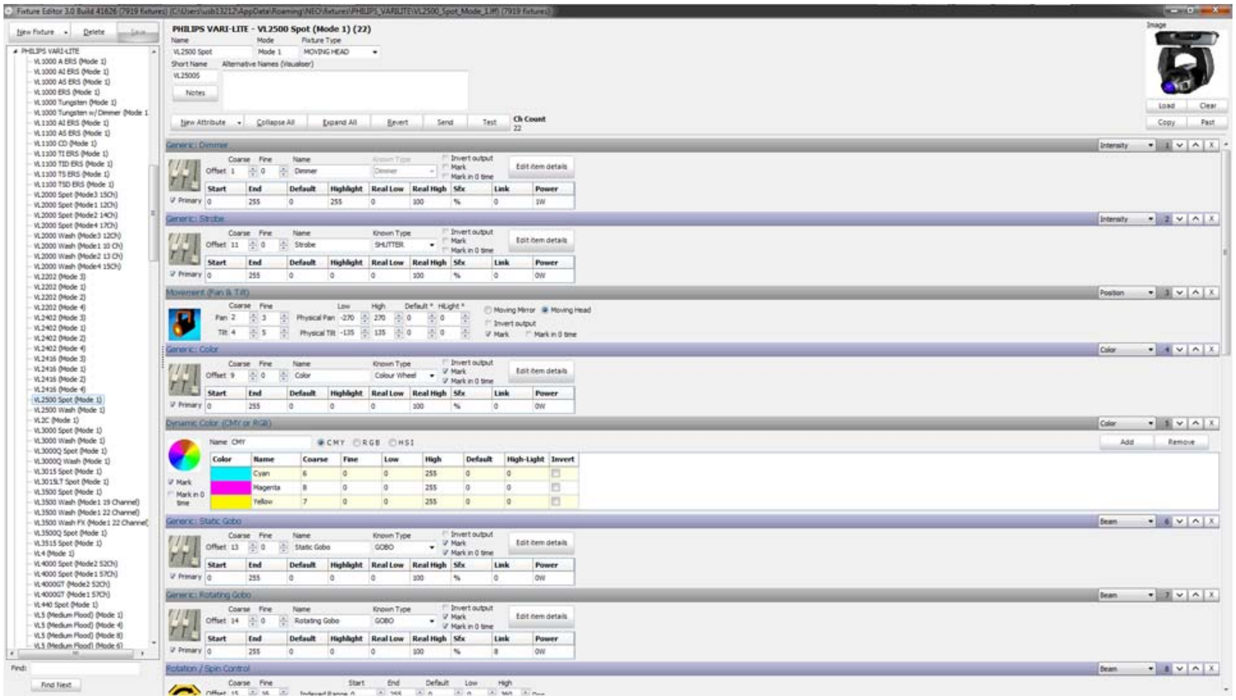


Selected Fixture Report

	GUID	Controlled By	Behavior	Current Va...	Target Value	Details
Fixture 201 - PLFRESNEL-1 LED						
Dimmer						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Preset Col Sel						
#1	114	Cues	Blocking	2.2	2.2	Cue Playback (0)
Red						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Green						
#1	114	Cues	Blocking	0.0	0.0	Cue Playback (0)
Blue						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
White						
#1	114	Cues	Blocking	152.215	152.215	Cue Playback (0)
Dimmer Time						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Color Time						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Mode						
#1	114	Cues	Blocking	0.0	0.0	Cue Playback (0)
Fixture 202 - PLFRESNEL-1 LED						
Dimmer						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Preset Col Sel						
#1	114	Cues	Blocking	2.2	2.2	Cue Playback (0)
Red						
#1	114	Cues	Blocking	111.111	111.111	Cue Playback (0)
Green						
#1	114	Cues	Blocking	35.215	35.215	Cue Playback (0)
Blue						
#1	114	Cues	Blocking	229.229	229.229	Cue Playback (0)
White						
#1	114	Cues	Blocking	152.215	152.215	Cue Playback (0)
Dimmer Time						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Color Time						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Mode						
#1	114	Cues	Blocking	0.0	0.0	Cue Playback (0)
Fixture 203 - PLFRESNEL-1 LED						
Dimmer						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Preset Col Sel						
#1	114	Cues	Blocking	2.2	2.2	Cue Playback (0)
Red						
#1	114	Cues	Blocking	255.255	255.255	Cue Playback (0)
Green						
#1	114	Cues	Blocking	0.0	0.0	Cue Playback (0)
Blue						

This is a selected fixture report that displays the selected fixtures and their current data.

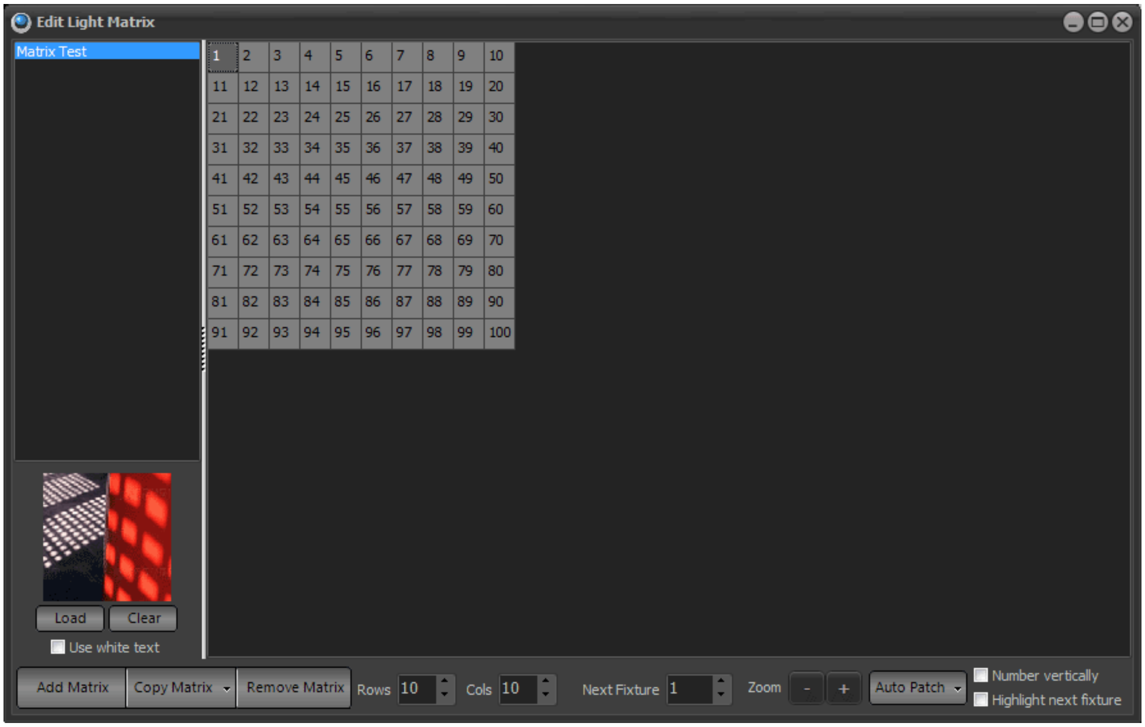
Edit Fixture Library



This opens the NEO Fixture Library Editor. There is a separate manual for the Fixture Library Editor. Please go to www.strandlighting.com or www.neocontrol.net to download.

Edit Matrices

Opens the Matrix Editor. See "Edit Matrices" on page 174 for more information.


Edit Light Matrix
Load
Clear
☐ Use white text
Add Matrix
Copy Matrix
Remove Matrix
Zoom
-
+
Auto Patch
☐ Number vertically
☐ Highlight next fixture

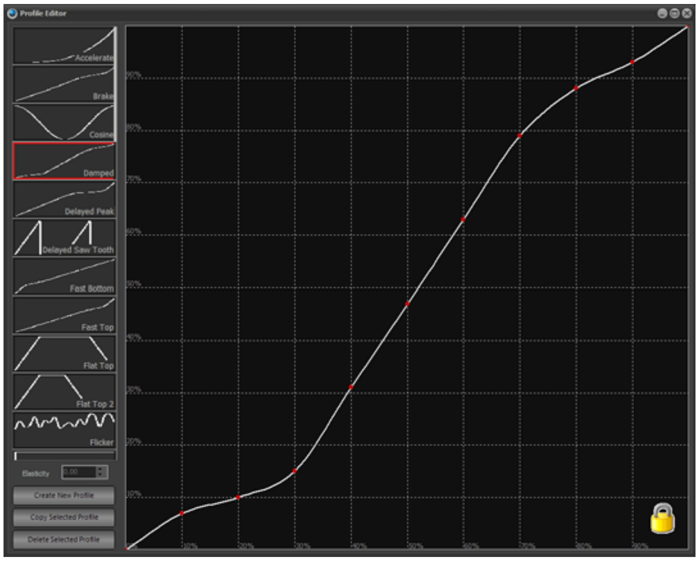
Matrix Test

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Rows 10
Cols 10
Next Fixture 1

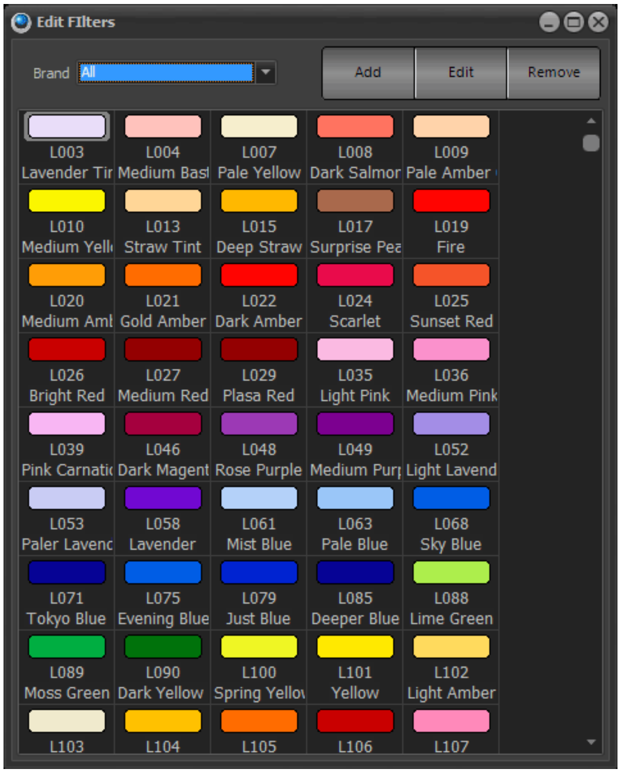
Edit Profiles

Opens the Profile Editor. See “Edit Profiles” on page 172 for more information.


Profile Editor
Accelerate
Brake
Cosine
Damped
Delayed Peak
Delayed Saw Tooth
Fast Bottom
Fast Top
Flat Top
Flat Top 2
Flicker
Elasticity
Create New Profile
Copy Selected Profile
Delete Selected Profile

Edit Color Filters

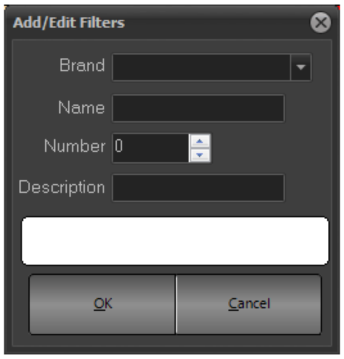
Opens the Edit Filters dialogue box.


Edit FIlters
Brand
All
Add
Edit
Remove

L003 Lavender Tir	L004 Medium Bast	L007 Pale Yellow	L008 Dark Salmor	L009 Pale Amber
L010 Medium Yell	L013 Straw Tint	L015 Deep Straw	L017 Surprise Pea	L019 Fire
L020 Medium Aml	L021 Gold Amber	L022 Dark Amber	L024 Scarlet	L025 Sunset Red
L026 Bright Red	L027 Medium Red	L029 Plasa Red	L035 Light Pink	L036 Medium Pink
L039 Pink Carnati	L046 Dark Magent	L048 Rose Purple	L049 Medium Pur	L052 Light Lavend
L053 Paler Lavenc	L058 Lavender	L061 Mist Blue	L063 Pale Blue	L068 Sky Blue
L071 Tokyo Blue	L075 Evening Blue	L079 Just Blue	L085 Deeper Blue	L088 Lime Green
L089 Moss Green	L090 Dark Yellow	L100 Spring Yellov	L101 Yellow	L102 Light Amber
L103	L104	L105	L106	L107

Allows the user to add/edit filters in the color filter library.

ADD



Allows the user to add a filter by Brand, Name, Number, Description and allows you to pick the color. (click the white box).

EDIT

This allows the user to edit an existing color filter in the library much like ADD works.

REMOVE

This allows the user to remove a color from the library.

37. Layout Setting

Save Layout and Settings

This allows the user to save their NEO window layout. The layout is saved as a separate file.

Load Layout and Settings

This allows the user to load their NEO window layout. The layout is loaded from a separate file.

38. Control Panel

The NEO OS software runs on a PC processor under a Windows® operating system (OS). An OS system means that only the software necessary to run the console is installed and no unauthorized software can be installed by the user. There are no user-configurable applications that are included in the OS. This protects the system and the operating software parameters, assuring that system integrity is never compromised.

Since the Windows OS is used, other features are available, such as a web browser, file manager and more. The Light Palette console can also be connected to a network to take advantage of services like DHCP networking, mapped network drives, Internet connectivity, and more.

The Control Panel appears when called up through the MORE display.

The Control Panel provides management of your console, lighting system configuration and data.

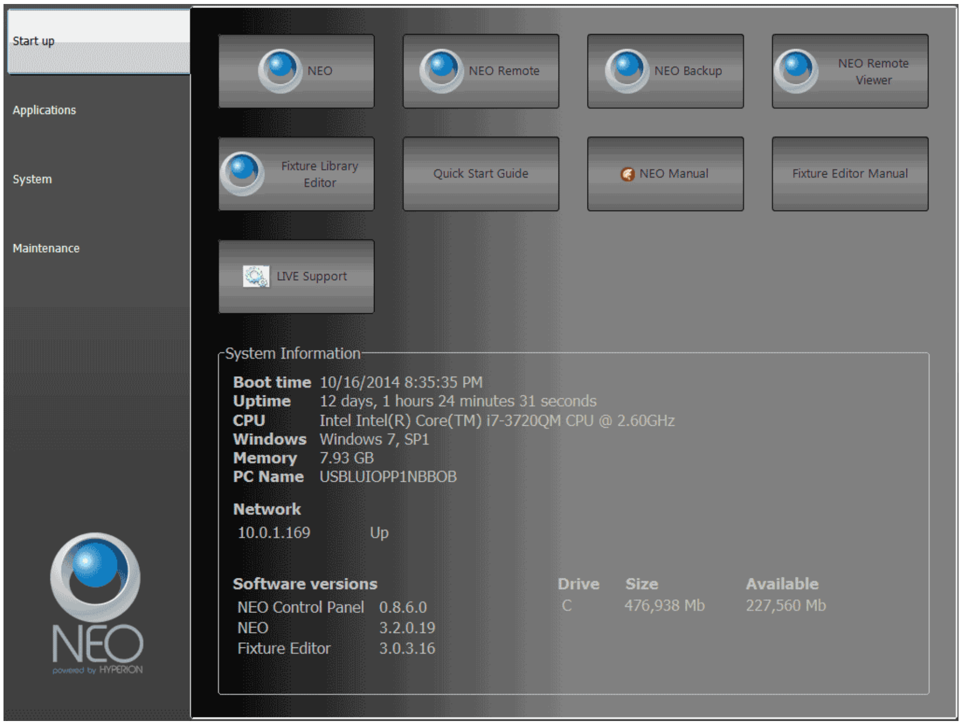
It is divided into four categories:

- Start Up
- Applications
- System
- Maintenance

Click a category to view its control icons.

Start Up

The NEO Control Panel: Start Up gives you access to basic start up icons.


Start up
Applications
System
Maintenance
NEO
NEO Remote
NEO Backup
NEO Remote Viewer
Fixture Library Editor
Quick Start Guide
NEO Manual
Fixture Editor Manual
LIVE Support
NEO
powered by HYPERION

System Information

Boot time 10/16/2014 8:35:35 PM
Uptime 12 days, 1 hours 24 minutes 31 seconds
CPU Intel Intel(R) Core(TM) i7-3720QM CPU @ 2.60GHz
Windows Windows 7, SP1
Memory 7.93 GB
PC Name USBLUIOPP1NBBOB

Network
10.0.1.169 Up

Software versions		Drive	Size	Available
NEO Control Panel	0.8.6.0	C	476,938 Mb	227,560 Mb
NEO	3.2.0.19			
Fixture Editor	3.0.3.16			

NEO - launches the NEO operating software.

NEO Remote - launches the NEO Remote Console software.

NEO Backup - launches the NEO software to connect as a tracking backup.

NEO Remote Viewer - launches the NEO software to connect as a remote viewer.

Fixture Library Editor - launches the NEO Fixture Library Editor.

Quick Start Guide - launches the Quick Start Guide document.

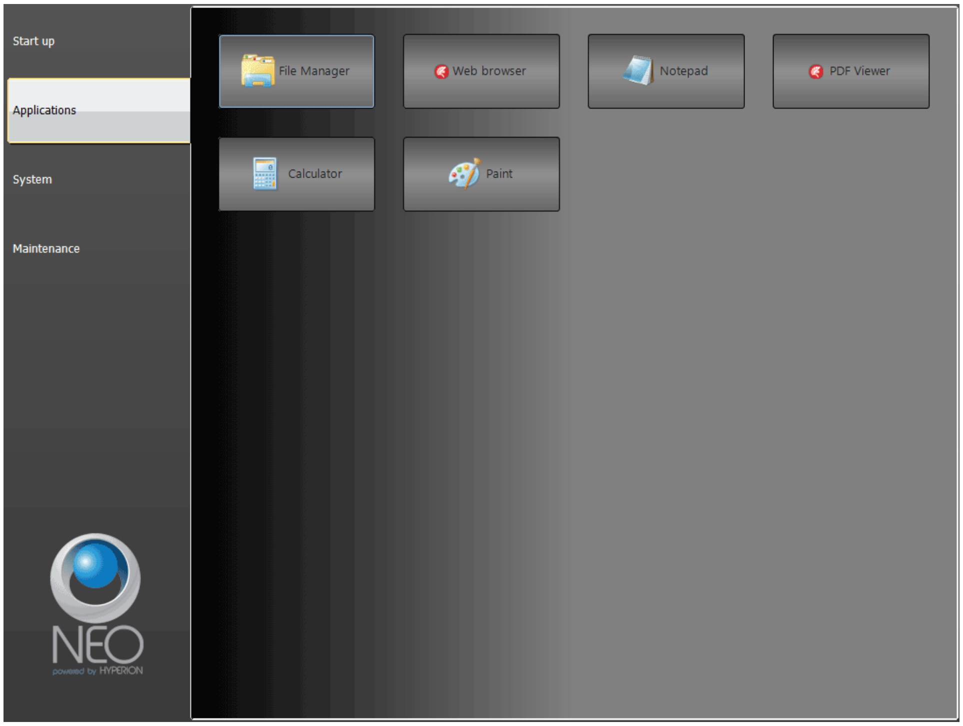
Manual - launches the manual document.

Fixture Editor Manual - launches the fixture editor manual.

Live Support - launches live support from Philips Strand Lighting technical support to allow your console to connect to a Philips Strand Lighting technical support member for troubleshooting purposes. *(Requires an internet connection at the console.)*

Applications

The NEO Control Panel: Applications gives you access to basic auxiliary applications.


Start up
Applications
System
Maintenance
File Manager
Web browser
Notepad
PDF Viewer
Calculator
Paint
NEO
powered by HYPERION

File Manager - launches the Windows file manager.

Web Browser - launches the default web browser *(NEO Console version only)*.

Notepad - launches the Windows Notepad.

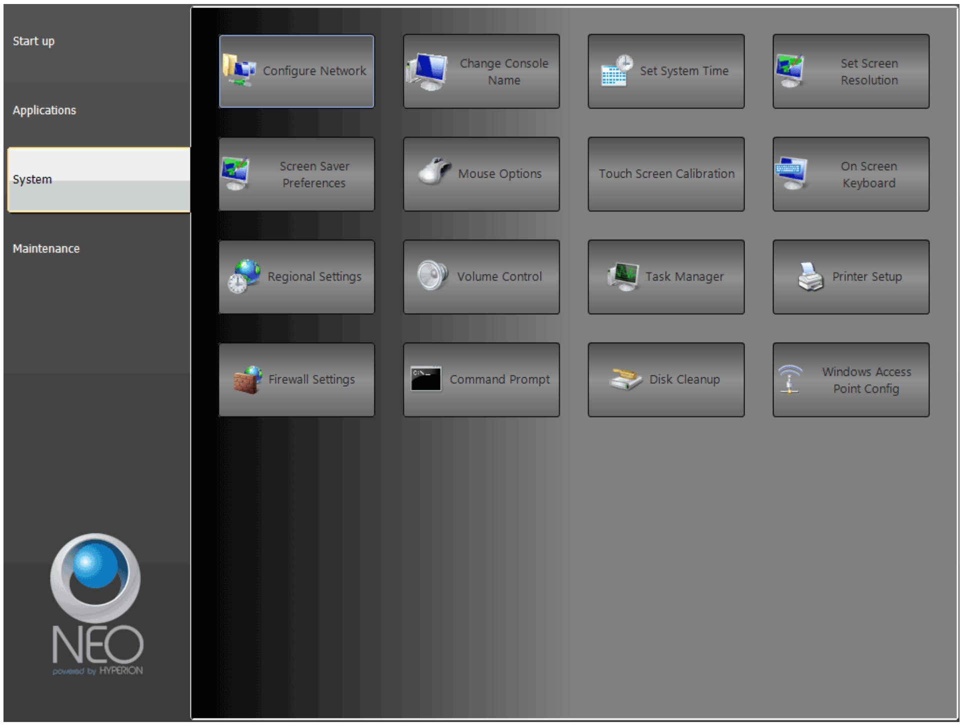
PDF Viewer - launches the Adobe PDF viewer *(NEO Console version only)*.

Calculator - launches the Windows calculator.

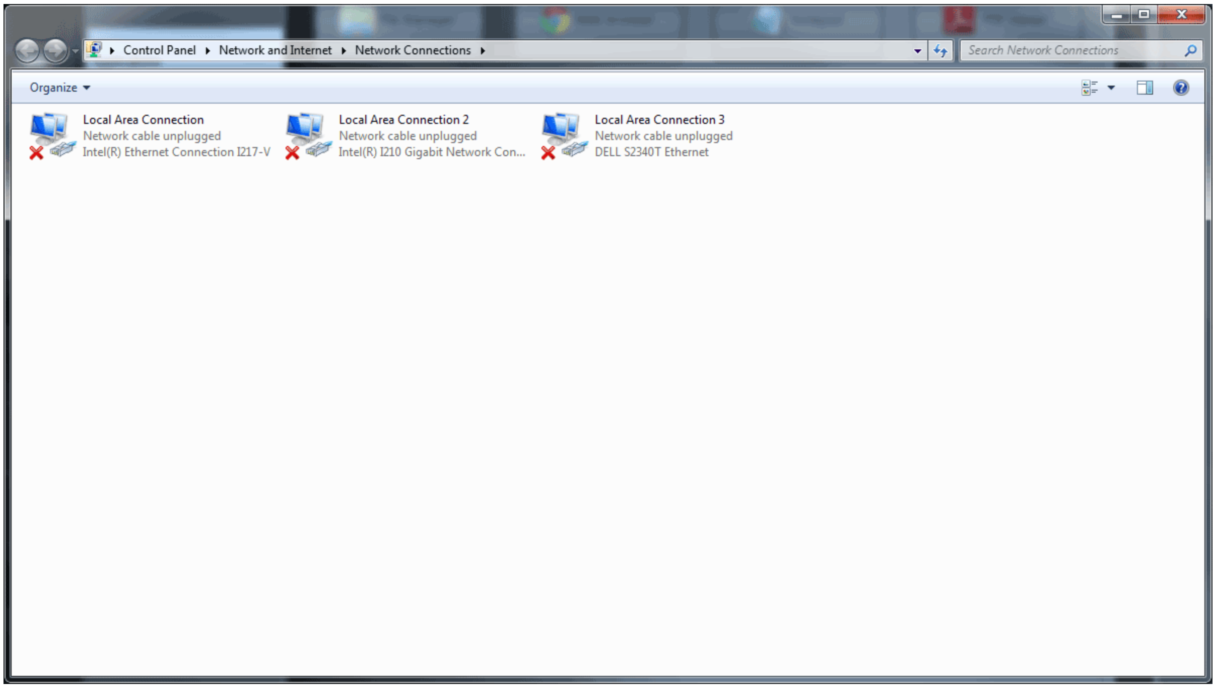
Paint - launches the Windows Paint program.

System

The NEO Control Panel: System gives you access to Windows PC system configuration items to help you configure your NEO to your system.


Start up
Applications
System
Maintenance
Configure Network
Change Console Name
Set System Time
Set Screen Resolution
Screen Saver Preferences
Mouse Options
Touch Screen Calibration
On Screen Keyboard
Regional Settings
Volume Control
Task Manager
Printer Setup
Firewall Settings
Command Prompt
Disk Cleanup
Windows Access Point Config
NEO
powered by HYPERION

Configure Network - launches the Windows Network Connections application. Here is where NEO's network can be configured for your lighting network. Remember that NEO has 2 isolated network ports so make sure you are configuring the correct one.


Control Panel ▸ Network and Internet ▸ Network Connections ▸
Search Network Connections
Organize ▾

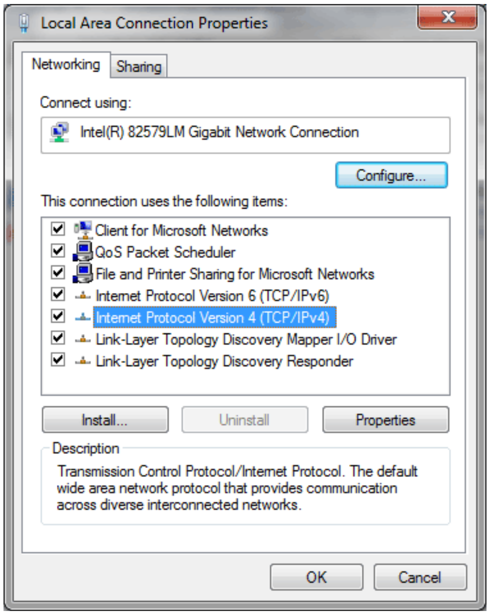
Local Area Connection
Network cable unplugged
Intel(R) Ethernet Connection I217-V

Local Area Connection 2
Network cable unplugged
Intel(R) I210 Gigabit Network Con...

Local Area Connection 3
Network cable unplugged
DELL S2340T Ethernet

Select the correct Local Area Connection. Right click and select Properties.

Select Internet Protocol Version 4 (TCP/IPv4) then press the Properties button.



Local Area Connection Properties

Connect using:

Intel(R) 82579LM Gigabit Network Connection

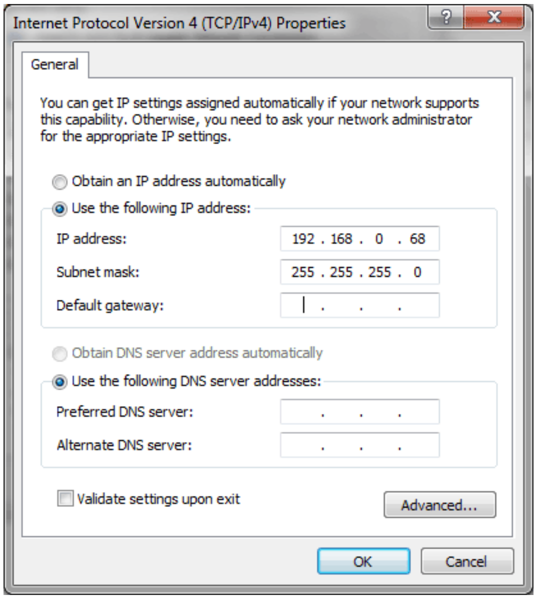
This connection uses the following items:

- ☑ Client for Microsoft Networks
- ☑ QoS Packet Scheduler
- ☑ File and Printer Sharing for Microsoft Networks
- ☑ Internet Protocol Version 6 (TCP/IPv6)
- ☑ Internet Protocol Version 4 (TCP/IPv4)
- ☑ Link-Layer Topology Discovery Mapper I/O Driver
- ☑ Link-Layer Topology Discovery Responder

Description

Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

A typical setup will require NEO to have a static IP address. Select Use the following IP address: and assign according to the needs of your network. The image below shows a standard static IP for a Strand network installation.



Internet Protocol Version 4 (TCP/IPv4) Properties

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically

● Use the following IP address:

IP address: 192 . 168 . 0 . 68

Subnet mask: 255 . 255 . 255 . 0

Default gateway: . . .

○ Obtain DNS server address automatically

● Use the following DNS server addresses:

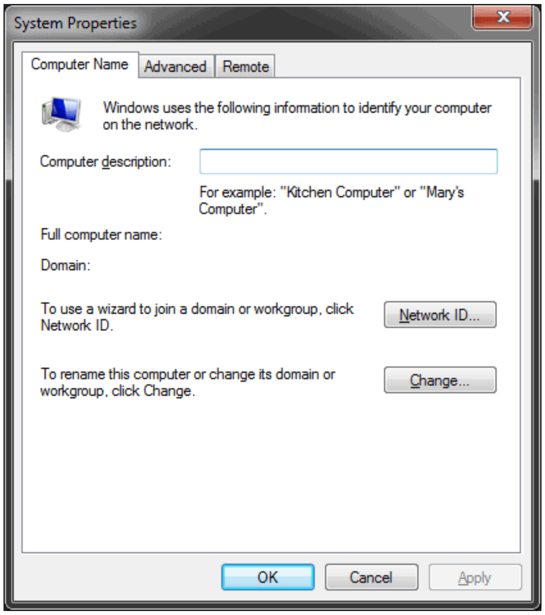
Preferred DNS server: . . .

Alternate DNS server: . . .

☐ Validate settings upon exit

NEO NOTES & TIPS: Network configurations can vary greatly. If you system has been commissioned by a certified technician, then it is recommended to leave the commissioned settings intact. Be aware that changing your network configuration can cause the NEO console to become unable to communicate with networked devices such as dimmer racks and nodes. Please consult your network administration prior to changing network settings.

Change Console Name - allows the ability to change the computer name and domain.


System Properties
Computer Name
Advanced
Remote
Network ID...
Change...
OK
Cancel
Apply

Windows uses the following information to identify your computer on the network.

Computer description:

For example: "Kitchen Computer" or "Mary's Computer".

Full computer name:

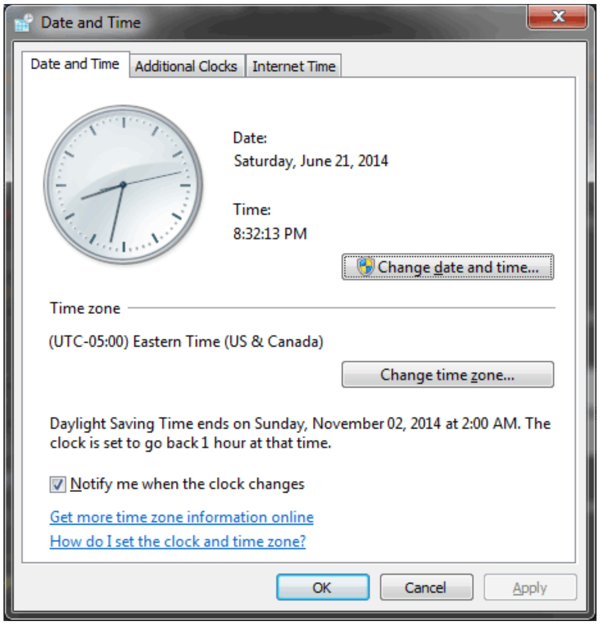
Domain:

To use a wizard to join a domain or workgroup, click Network ID.

To rename this computer or change its domain or workgroup, click Change.

NEO NOTES & TIPS: Consult your network administrator prior to changing this setting.

Set System Time - allows the ability to change the computer's date and time setting.


Date and Time
Date and Time
Additional Clocks
Internet Time
Change date and time...
Change time zone...
OK
Cancel
Apply

Date:
Saturday, June 21, 2014

Time:
8:32:13 PM

Time zone

(UTC-05:00) Eastern Time (US & Canada)

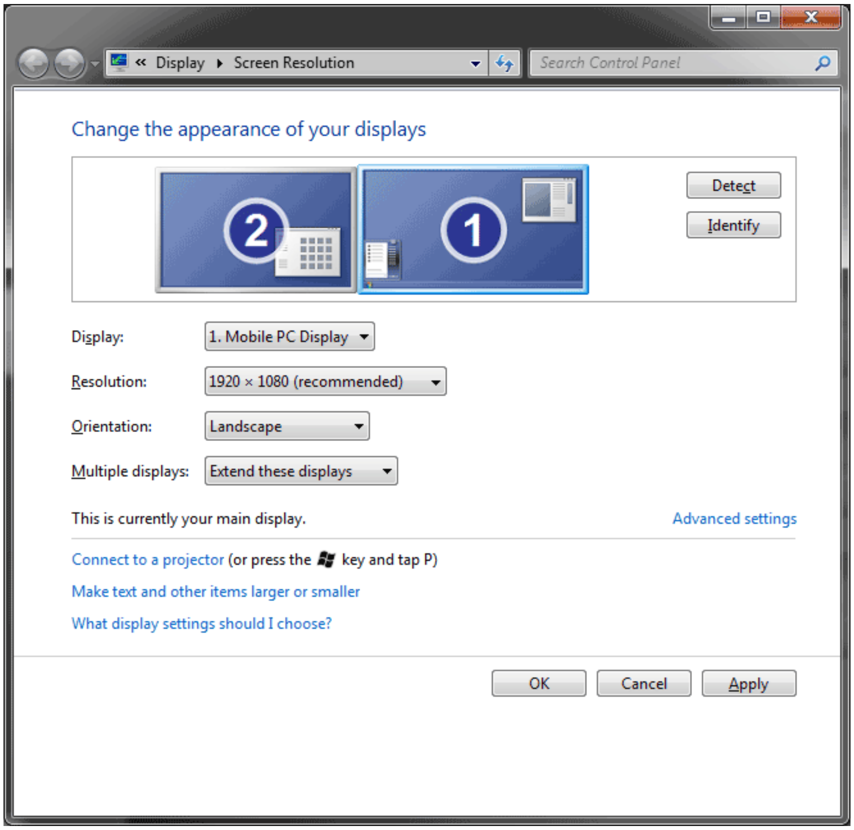
Daylight Saving Time ends on Sunday, November 02, 2014 at 2:00 AM. The clock is set to go back 1 hour at that time.

☑ Notify me when the clock changes

Get more time zone information online

How do I set the clock and time zone?

Set Screen Resolution - allows the ability to change the appearance of your displays.


« Display ▸ Screen Resolution
Search Control Panel
2
1
Detect
Identify
Advanced settings
OK
Cancel
Apply

Change the appearance of your displays

Display: 1. Mobile PC Display

Resolution: 1920 × 1080 (recommended)

Orientation: Landscape

Multiple displays: Extend these displays

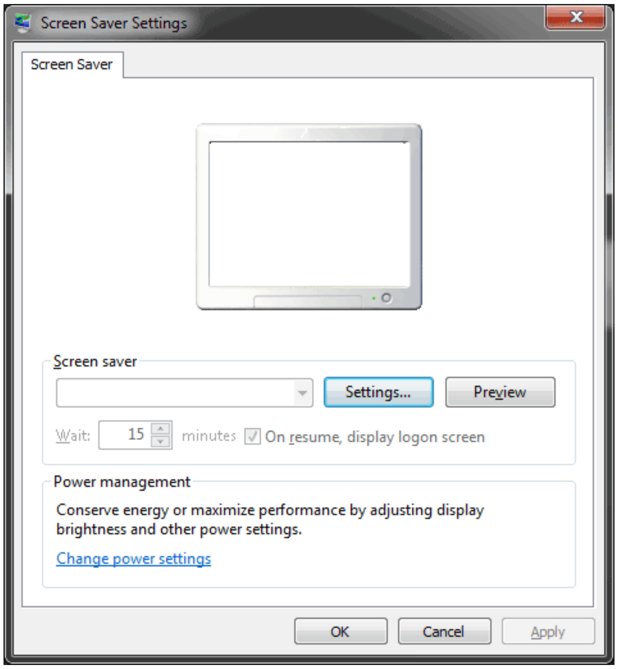
This is currently your main display.

Connect to a projector (or press the key and tap P)

Make text and other items larger or smaller

What display settings should I choose?

Screen Saver Preferences - allows the ability to change NEO's screen saver setting. This is off by default and it is recommended to keep that setting.


Screen Saver Settings
Screen Saver
Settings...
Preview
OK
Cancel
Apply

Screen saver

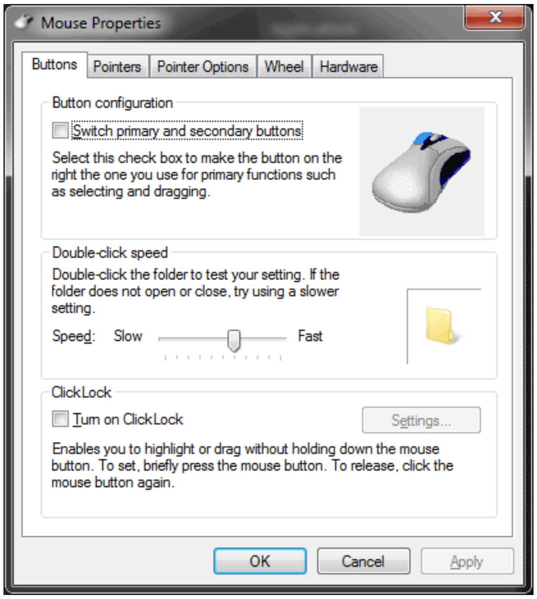
Wait: 15 minutes ☑ On resume, display logon screen

Power management

Conserve energy or maximize performance by adjusting display brightness and other power settings.

Change power settings

Mouse Options - allows the ability to change the pointer device options and settings.


Mouse Properties
Buttons
Pointers
Pointer Options
Wheel
Hardware
Button configuration
Double-click speed
ClickLock
Speed:
Slow
Fast
Settings...
OK
Cancel
Apply

☐ Switch primary and secondary buttons

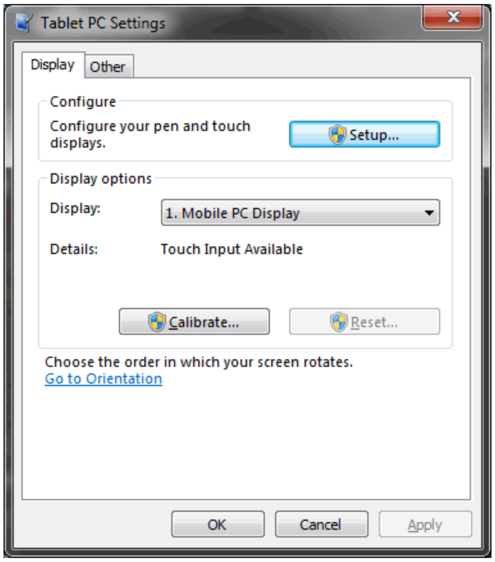
Select this check box to make the button on the right the one you use for primary functions such as selecting and dragging.

Double-click the folder to test your setting. If the folder does not open or close, try using a slower setting.

☐ Turn on ClickLock

Enables you to highlight or drag without holding down the mouse button. To set, briefly press the mouse button. To release, click the mouse button again.

Touchscreen Calibration - allows the ability to configure and calibrate your touchscreens."


Tablet PC Settings
Display
Other
Configure
Setup...
Display options
Calibrate...
Reset...
OK
Cancel
Apply

Configure your pen and touch displays.

Display: 1. Mobile PC Display

Details: Touch Input Available

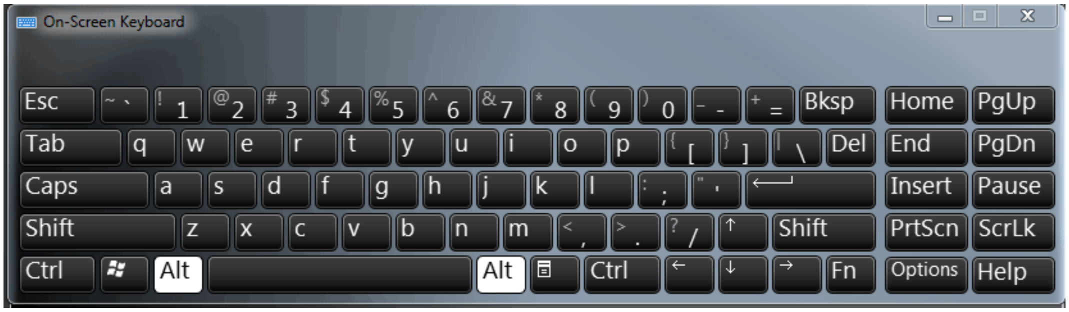
Choose the order in which your screen rotates.
Go to Orientation

- If you touchscreen(s) are not functioning correctly, go to the Touchscreen Calibration option.
- Click on Setup and follow the on screen instructions to "Touch this screen to identify it as a touchscreen."

NEO NOTES & TIPS: You may need to touch the screen multiple times. It will change screens when it has enough data.

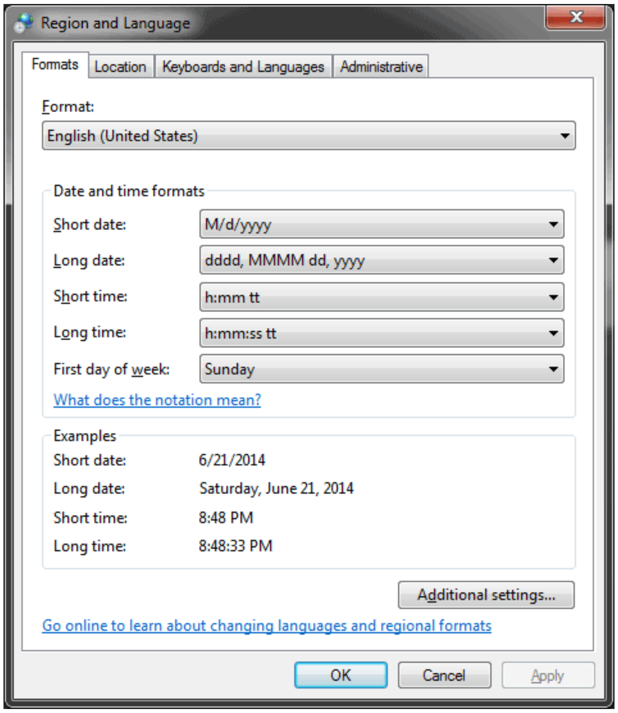
If your touchscreen is not calibrated correctly, press the **Calibrate button** and follow the onscreen instructions to calibrate your touchscreen(s).

On Screen Keyboard - allows the ability to have an onscreen keyboard that will mimic the hardware keyboard.


On-Screen Keyboard
Esc ~ ` ! 1 @ 2 # 3 $ 4 % 5 ^ 6 & 7 * 8 (9) 0 _ - + = Bksp Home PgUp
Tab q w e r t y u i o p { [}] | \ Del End PgDn
Caps a s d f g h j k l : ; " ' Insert Pause
Shift z x c v b n m < , > . ? / ↑ Shift PrtScn ScrLk
Ctrl Alt Alt Ctrl ← ↓ → Fn Options Help

Note: On screen keyboard will only operate with a touchscreen (sold separately).

Regional Settings - allows the ability to change the Region and Language settings.


Region and Language
Formats
Location
Keyboards and Languages
Administrative
What does the notation mean?
Additional settings...
Go online to learn about changing languages and regional formats
OK
Cancel
Apply

Format: English (United States)

Date and time formats

Short date: M/d/yyyy

Long date: dddd, MMMM dd, yyyy

Short time: h:mm tt

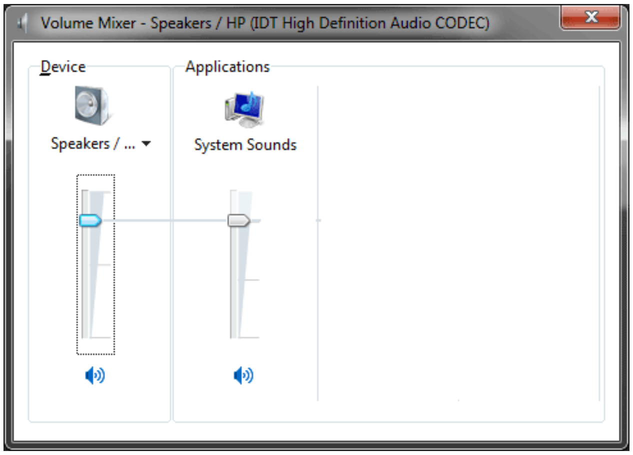
Long time: h:mm:ss tt

First day of week: Sunday

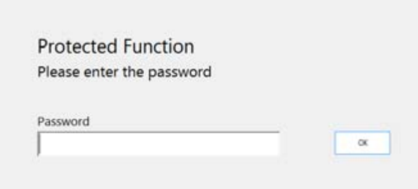
Examples

Short date:	6/21/2014
Long date:	Saturday, June 21, 2014
Short time:	8:48 PM
Long time:	8:48:33 PM

Volume Control - allows the ability to change the volume control.


Volume Mixer - Speakers / HP (IDT High Definition Audio CODEC)
Device
Applications
Speakers / ...
System Sounds

Task Manager - this accesses Windows Task Manager and is password protected.

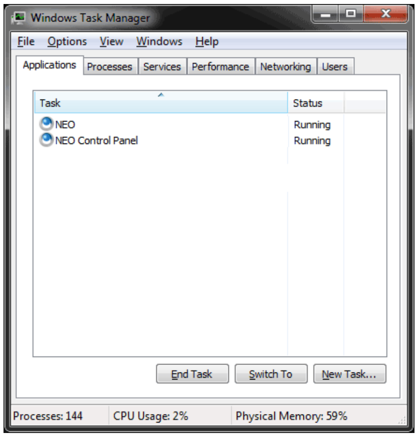


Protected Function

Please enter the password

Password
OK

Windows Task Manager is a advanced level utility that helps with discovering, diagnosing and troubleshooting Windows and Windows program issues.



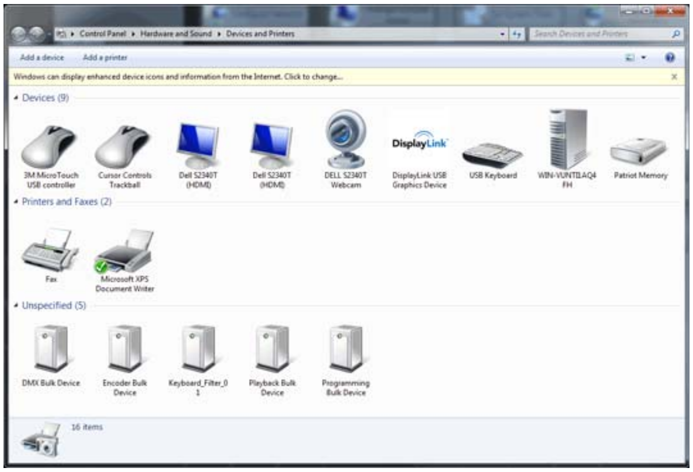
Windows Task Manager
File
Options
View
Windows
Help
Applications
Processes
Services
Performance
Networking
Users
End Task
Switch To
New Task...

Task	Status
NEO	Running
NEO Control Panel	Running

Processes: 144 CPU Usage: 2% Physical Memory: 59%

Note: Consult with Philips Entertainment Technical Support when troubleshooting any console related issue.

Printer Setup - allows the ability to setup a printer for your NEO console.

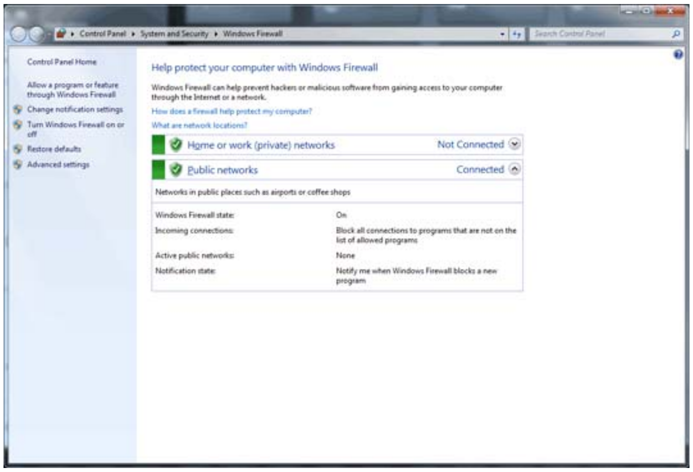


Windows can display enhanced device icons and information from the Internet. Click to change...

16 items

Control Panel ▸ Hardware and Sound ▸ Devices and Printers
Search Devices and Printers
Add a device
Add a printer
Devices (9)
3M MicroTouch USB controller
Cursor Controls Trackball
Dell S2340T (HDMI)
Dell S2340T (HDMI)
DELL S2340T Webcam
DisplayLink
DisplayLink USB Graphics Device
USB Keyboard
WIN-VUNTILAQ4 FH
Patriot Memory
Printers and Faxes (2)
Fax
Microsoft XPS Document Writer
Unspecified (5)
DMX Bulk Device
Encoder Bulk Device
Keyboard_Filter_0 1
Playback Bulk Device
Programming Bulk Device

Firewall Settings - allows access to the Windows Firewall Settings.


Control Panel ▸ System and Security ▸ Windows Firewall
Search Control Panel
Control Panel Home
Allow a program or feature through Windows Firewall
Change notification settings
Turn Windows Firewall on or off
Restore defaults
Advanced settings
How does a firewall help protect my computer?
What are network locations?

Help protect your computer with Windows Firewall

Windows Firewall can help prevent hackers or malicious software from gaining access to your computer through the Internet or a network.

Home or work (private) networks — Not Connected

Public networks — Connected

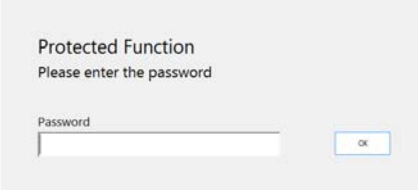
Networks in public places such as airports or coffee shops

Windows Firewall state:	On
Incoming connections:	Block all connections to programs that are not on the list of allowed programs
Active public networks:	None
Notification state:	Notify me when Windows Firewall blocks a new program

---

Note: Consult Philips Entertainment Tech Support before changing any Firewall Settings.

Command Prompt - this opens a Windows Command Prompt as is password protected.

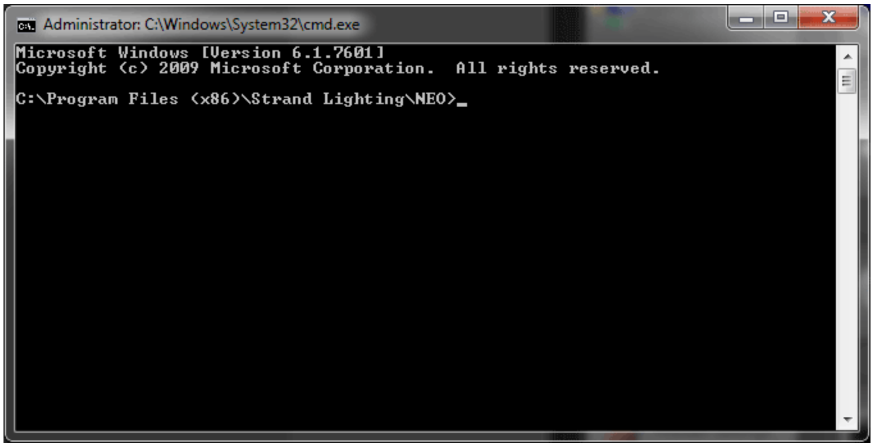


Protected Function

Please enter the password

Password

A Command Prompt gives DOS level access to the NEO Windows PC.

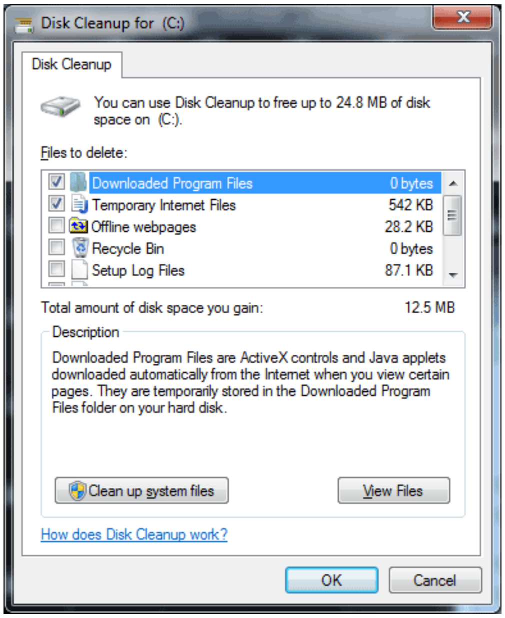

Administrator: C:\Windows\System32\cmd.exe

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Program Files (x86)\Strand Lighting\NEO>_
```

Note: Consult with Philips Entertainment Technical Support before using the Command Prompt.

Disk Cleanup - this opens Windows Disk Cleanup utility.


Disk Cleanup for (C:)
Disk Cleanup
Clean up system files
View Files
How does Disk Cleanup work?
OK
Cancel

You can use Disk Cleanup to free up to 24.8 MB of disk space on (C:).

Files to delete:

☑	Downloaded Program Files	0 bytes
☑	Temporary Internet Files	542 KB
☐	Offline webpages	28.2 KB
☐	Recycle Bin	0 bytes
☐	Setup Log Files	87.1 KB

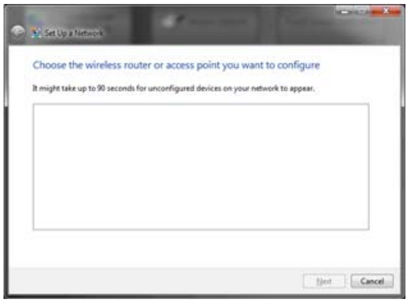
Total amount of disk space you gain: 12.5 MB

Description

Downloaded Program Files are ActiveX controls and Java applets downloaded automatically from the Internet when you view certain pages. They are temporarily stored in the Downloaded Program Files folder on your hard disk.

Note: Consult with Philips Entertainment Tech Support before using the Disk Cleanup utility.

Windows Access Point Configure - allows access to the Windows Access Point Configure utility.


Set Up a Network
Next
Cancel

Choose the wireless router or access point you want to configure

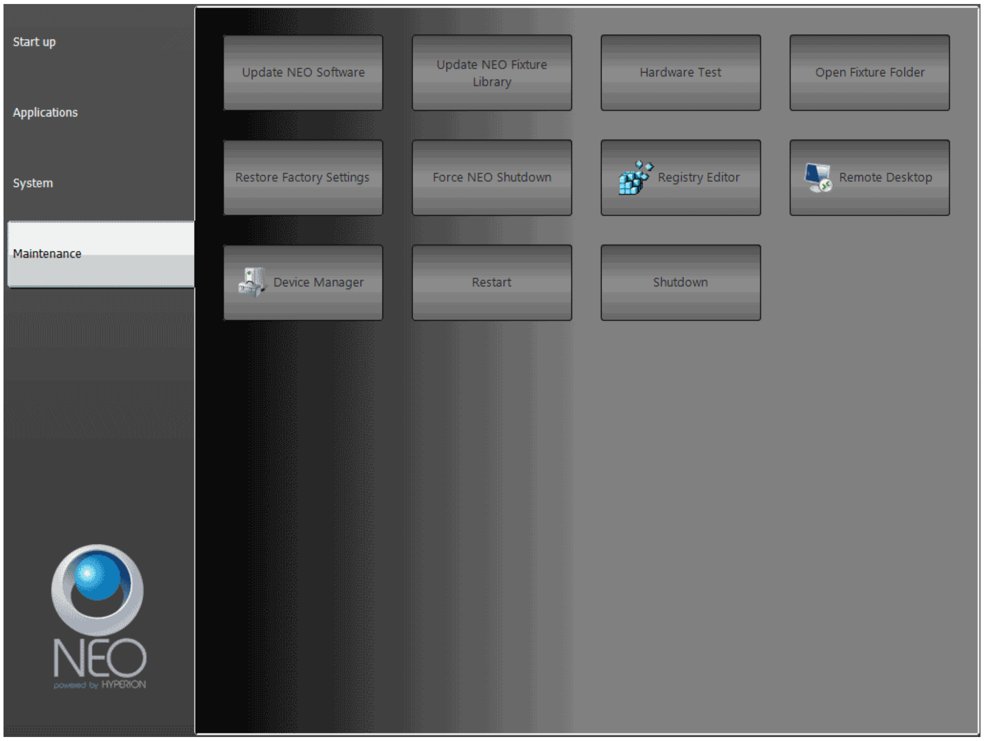
It might take up to 90 seconds for unconfigured devices on your network to appear.

Note: Consult with Philips Entertainment Tech Support before using the Windows Access Point Configure utility.

---

39. Maintenance

The NEO Control Panel: Maintenance gives you access to higher level functionality for commissioning, troubleshooting and other system level functions.


Start up
Applications
System
Maintenance
Update NEO Software
Update NEO Fixture Library
Hardware Test
Open Fixture Folder
Restore Factory Settings
Force NEO Shutdown
Registry Editor
Remote Desktop
Device Manager
Restart
Shutdown
NEO
powered by HYPERION

Update NEO Software - the first step to updating your NEO console is to copy the software file to the C: drive. Then Force NEO Shutdown. Once done, you can press the Update NEO Software button and follow the prompts to update your console's software.

Update NEO Fixture Library - will update the consoles fixture library.

Hardware Test *- will run a hardware test that is independent of the NEO console software. Allows the ability to check button functionality, the LED backlight and sliders.

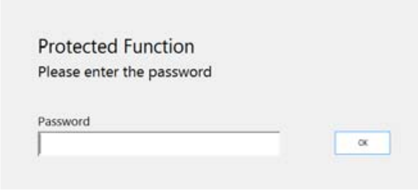
Note: * The NEO console software must not be running in order for the Hardware Test to function. Use Force NEO Shutdown prior to running the Hardware Test.

Open Fixture Folder - this will use File Manager to open the folder where NEO's fixture library is stored.

Restore Factory Settings - will restore the NEO console to factory defaults. Note: This is available on the NEO console only. If running NEO PC, this will be removed. Just use Windows File Explorer if running on a PC.

Force NEO Shutdown - will force the NEO software to shutdown. This is required prior to updating NEO's software.

Registry Editor - this accesses the Windows Registry Editor and is password protected.


Protected Function

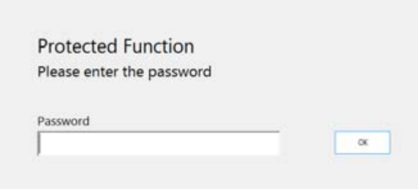
Please enter the password

Password
OK

Note: This should only be accessed by authorization of Philips Entertainment Technical Support.

Remote Desktop - this will launch the Windows Remote Desktop settings application.

Device Manager - this accesses the Windows Device Manager and is password protected.



Protected Function
Please enter the password

Note: This should only be accessed by authorization of Philips Entertainment Technical Support.

Restart - will restart your NEO console.

Shutdown - will shut down the NEO software and Windows software. DMX will be held until the power supplies rocker switch is turned off.

GENERAL CONCEPTS

This section covers some lighting basics as well as introducing you to NEO's main concepts and computer terminology required to use the software.

1. Lighting Concepts

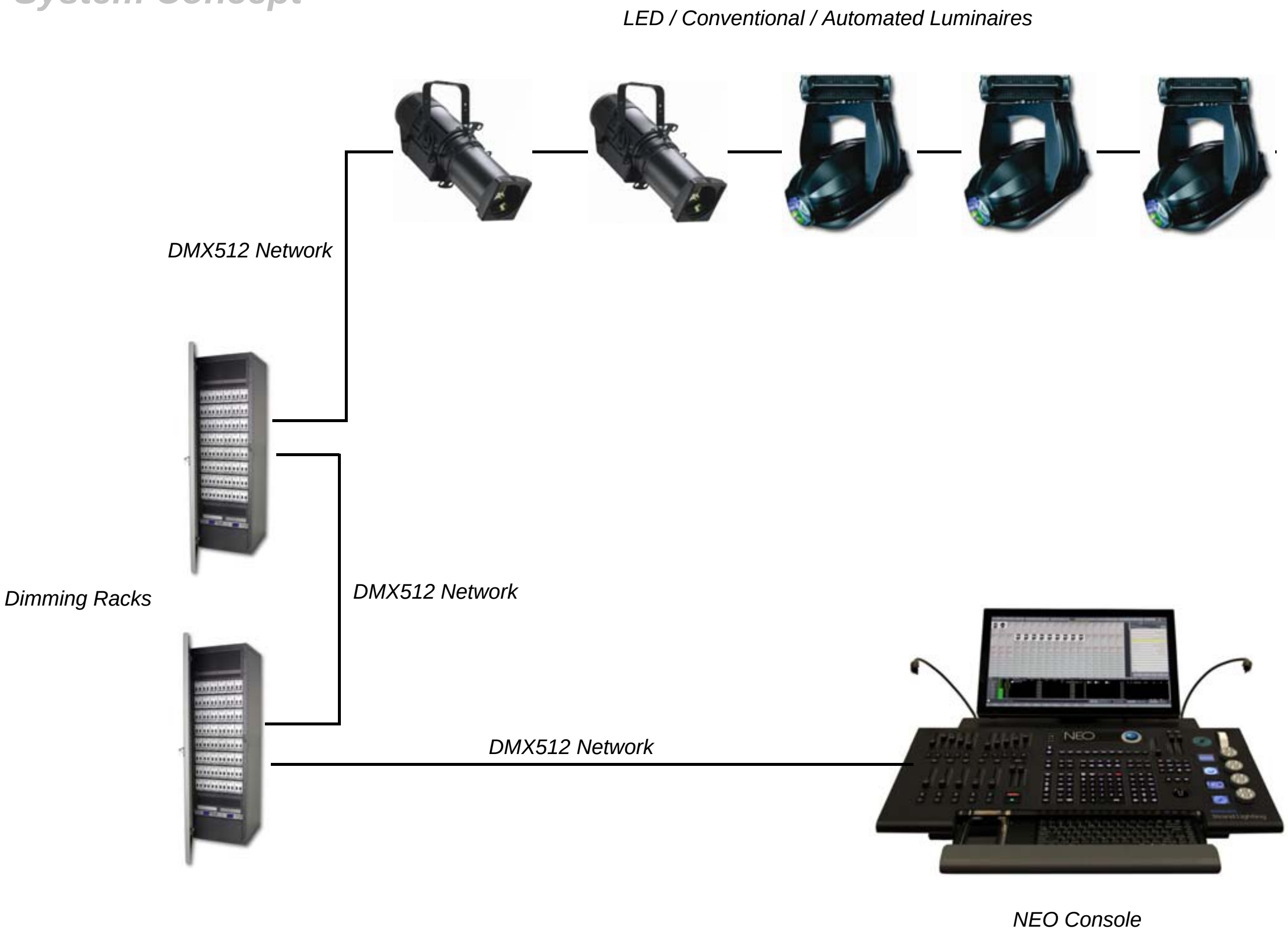
DMX System

DMX 512 is an EIA-485 based communications protocol and is the standard protocol by which lighting control desks communicate with lighting equipment.

The DMX 512 protocol is a stream of data that is sent via a cable system connected between the console (NEO) and a data receiver, which could be anything ranging from a basic light to intelligent lights, smoke machines, etc.

NEO uses the standard DMX512 protocol to communicate with the equipment it controls. DMX is connected to the NEO software via either a USB-DMX512 connection or Ethernet to DMX converters.

System Concept



Developed by the Engineering Commission of USITT, the standard started in 1986, with subsequent revisions in 1990 leading to USITT DMX512/1990. In 1998 ESTA began a revision process to develop the standard as an ANSI standard, including a Public Review process. The revised standard, known officially as "Entertainment Technology - USITT DMX512-A - Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories", was approved by ANSI in November 2004. This current standard is also known as "E1.11, USITT DMX512-A", or just "DMX512-A", and is maintained by ESTA.

DMX512 is unidirectional and does not include automatic error checking and correction, so it is not safe to use for applications involving life safety, such as controlling pyrotechnics or laser lighting display where audience or performer safety is involved.

RDM

Remote Device Management or RDM is a protocol enhancement to USITT DMX512 that allows bi-directional communication between a lighting controller and attached RDM compliant devices over a standard DMX line. This protocol will allow configuration, status monitoring, and management of these devices in such a way that does not disturb the normal operation of standard DMX devices that do not recognize the RDM protocol.

The standard was developed by the ESTA Technical Standards and is officially known as "ANSI/ESTA E1.20, Entertainment Technology - Remote Device Management over USITT DMX512"

Dimmers

In the simplest terms, a dimmer is a physical apparatus used for controlling the intensity of a conventional light.

A dimmer can be fully on, fully off, or somewhere in-between. The setting of a dimmer is referred to as the DMX value. DMX values range from zero to 255. A value of DMX 0 means the light is off, and DMX 255 means the light is fully on. By adjusting the DMX value up and down, the intensity of the light increases and decreases. By default the NEO console will control this via percentage values. So 0% will be off and 100% will be fully on.

Basic dimmers are in different formats. A permanent installation may have a full rack of 96 dimmers. This is known as a Dimmer Rack. They have 48 dimmer modules with 2 dimmers per module. A standard dimmer module will have a 2400w capacity. This is known as a 2.4k dimmer module.

Strand Lighting C21 Dimming Rack

There are also smaller collections of dimmer units known as Dimmer Packs, usually made up of 4 to 24 dimmers per pack.

For example, a 12-pack consists of 12 dimmers. Each dimmer is a physical plug on that 12-pack, each of which operates independently of the other 11.

Strand Lighting
a21

Strand Lighting A21 Dimming Panel

DMX Value

The setting of a dimmer is referred to as the DMX value. DMX values range from zero to 255. A value of zero means the light is off, and 255 means the light is fully on. By adjusting the DMX value up and down, the intensity of the light increases and decreases.

DMX Universe

A DMX universe consists of 512 DMX dimmers. In the case of the NEO system, the console was purchased with a set number of universes. This can be from 1 to 100 universes. Should the NEO console need more universes after the initial purchase, more DMX universes can be authorized at any time. Contact your local Philips Entertainment Dealer for details.

Channels (Logical/desk channels or Fixtures)

A channel is a controller on a lighting console that is used for controlling dimmers or attributed luminaires. This is often called a Fixture.

In the case of a simple light with one dimmer, a single channel would control one dimmer. More sophisticated lighting fixtures, which utilize multiple dimmers to control various properties or attributes of the fixture (such as intensity, position, color, etc), are controlled by a single channel or fixture.

Dimmer Patching

Dimmer patching is the patching of dimmers into channels. This allows a single channel to control any number of dimmers.

In NEO, this is achieved via the "Dimmer Patching" window. See “Standard Dimmer Patching” on page 168 to learn how to use this feature.

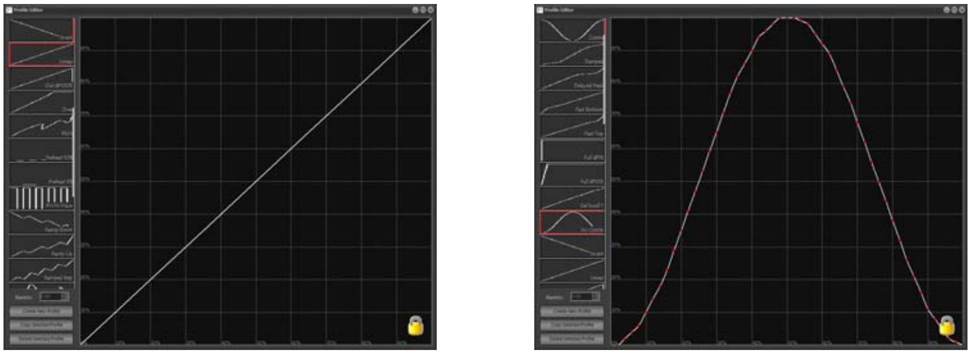
Patching is also done to define which channel/fixture controls an intelligent fixture, i.e., a fixture that utilizes multiple outputs for its various features. When you patch an intelligent fixture, all the outputs for that fixture are automatically patched into that channel/fixture.

See “Intelligent Fixtures” on page 168 for further information about intelligent fixtures.

Channel Profile

Typically, a channel:dimmer level ratio is 1:1. That is, when the channel is at a certain value, the dimmers in that channel are also at that value.

On occasion, it may be necessary to configure a channel to output levels other than 1:1. The actual level sent to the dimmer can be scaled up or down, or configured into a non-linear relationship. For example, a lamp may not perform well below a certain level. The Channel Profile curve can configure the channel to prevent the dimmer from ever reaching such levels. The Channel Profile can be used for configuring individual channels or for multiple channels at once.



Channel Profiles

Conventional fixtures

Conventional fixtures are those that have only one property that can be controlled from the lighting desk, hence requiring a single output to control it.

Examples of conventional fixtures are:

- Standard luminaires - profiles, fresnels, etc
- Effects Equipment - smoke/fog machines, bubble machines, mirror balls, etc.

Intelligent Fixtures

Intelligent fixtures, in contrast to conventional fixtures, have multiple attributes that can be controlled from the lighting desk. Examples are LEDs, automated luminaires, effects equipment and more.

Fixture Attributes

Fixture attributes can be 8-bit or 16-bit. This essentially determines how finely a property can be controlled. A 16-bit attribute uses 2 DMX outputs to control the value to be set. Instead of 256 value levels the attribute can have 256 x 256 values or 65,536 different values.

A 16-bit property can be more finely controlled than an 8-bit property. For example, 16-bit pan and tilt enables the fixture to be moved much more precisely than 8-bit pan and tilt.

- 8-bit - has 256 steps, 0 to 255 for the value.
- 16-bit - has 65535 (256 x 256) settings, 0 to 65535 for the value.

NEO's Fixture Library stores attribute information about your fixtures. The library is divided into fixture brands. This helps to organize the wide range of fixtures that are available into manageable groups.

Table 1 on page 240 shows a list of common attributes that a fixture may have.

Table 1: Common Attributes

Attribute	Description
Color wheel (color changer, color scroller)	A wheel-shaped device containing circles of colored media (gels) that attaches to a luminaire in order to create a colored beam of light. Can be manually controlled or motorized and controlled via a dimmer.
Gobo	A thin plate with a design cut out of it that can be placed in the path of the light beam, causing a pattern to be projected.
Pan	Horizontal movement of an automated lighting fixture
Tilt	Vertical movement of an automated fixture
Zoom	Zoom is a way of controlling the size of the light beam. It is achieved by moving the lens back and forward inside the fixture.
Control	Advanced fixture properties, such as turning the lamp on and off or controlling cooling fan speed.
Color Mixing	Color mixing comprises multiple colors that can be combined together in varying proportions to achieve a desired color of light. The most common mixing system is subtractive CMY (cyan, magenta, yellow) and RGB (red, green blue).
Framing shutters	Achieved via a set of shutters, this enables the shape of the light beam to be altered. The shutters can be moved towards/away from the edge of the beam, as well as angled to create non-perpendicular corners.
Iris	Iris is a set of shutters used for controlling the size of the light beam. Opening and closing the shutters allows more or less light through the iris. The light intensity is decreased, due to less light being allowed to pass through.
Edge	Controls the hardness or softness of the beam edge.
Focus	Adjusts the beam so that the light is concentrated on the focal point.
Diffusion	Created using a filter, diffusion is the scattering of light.
Strobe	Flashing light, of which the speed can be configured via the control channel.

NEO CONCEPTS AND TERMINOLOGY

1. Channel Groups

Channel groups enable you to collect channels at a level that can be recalled at a later time.

In NEO channel groups serve several functions:

1) Channel groups allow the simultaneous control of multiple channels at once. These can function as collections or channels only or collections of channels that output a particular level.
2) A channel group can also be assigned to a submaster to provide a single handle for controlling the level of the group.
3) A channel group can be applied in a single press of a Shortcut. This means that the levels set in the channel group will be set in the fade time supplied with the group.
4) By setting a selection shortcut you can use a single button press to select the channels in the group.
5) Channel groups can be put into a cues so that you do not need to repeat the look when building cue lists.
6) Channel groups can be referenced as advanced palettes in individual attributes of cues.

A channel group can be configured to have one of five types of behavior. This behavior defines what happens to the current channel settings when the group is being controlled.

NEO NOTES & TIPS: The behavior is not used when the channel group in included inside a cue.

Override (LTP) - Also known as "Latest Takes Precedence". This behavior will apply the channel levels set in the group to output channels and take over control of that channel. As soon as something else sets the channel value the group value will get overridden. Likewise as soon as the group value changes it will override the existing values set in the channel. Override will not apply to HTP channels if the override value is less that the set HTP value. You can turn this behavior off by setting the "Override takes precedence over HTP" option in the system properties, show defaults tab.

Build - The values set in the group will be added to the current output value of the channels.

Exclusive - All other channels will be set to zero and only the channels in this group will be applied.

Highest Takes Precedence (HTP) - When a group value is set with HTP behavior the output on the channel is determined by the item that has a higher value. If the value set in the group is higher than the value in the cue (or other item) then the group will control the channel. If the value in the cue (or other item) is higher than the group value, it will remain unchanged.

Independent - Channels in an "Independent" group will override all other requests to modify the channel value. As soon as the group level is above 0, channels within this group will be controlled by the group values.

Inhibit - With an inhibit group the value masters all channels that are in the group. The output value of the channel will be scaled by the value of the inhibit group to which it belongs.

Hue LTP - The Hue LTP behavior is a special type designed to be used with color mixing fixtures. As the value of the group changes from 0 to 100% the output of the group will be the saturated hue value between 0 and 360 degrees. In real terms this translates to a full color spectrum that can be accessed from the group.

Subtract - Similar to the build option, the subtraction behavior will subtract the value set from the current output value.

2. Submasters and Shortcuts

Submasters and shortcuts are both ways of accessing the various functions of the channel groups.

A submaster is generally a slider on a lighting console desk that can be assigned to a group. The submaster can then control the output value of the group.

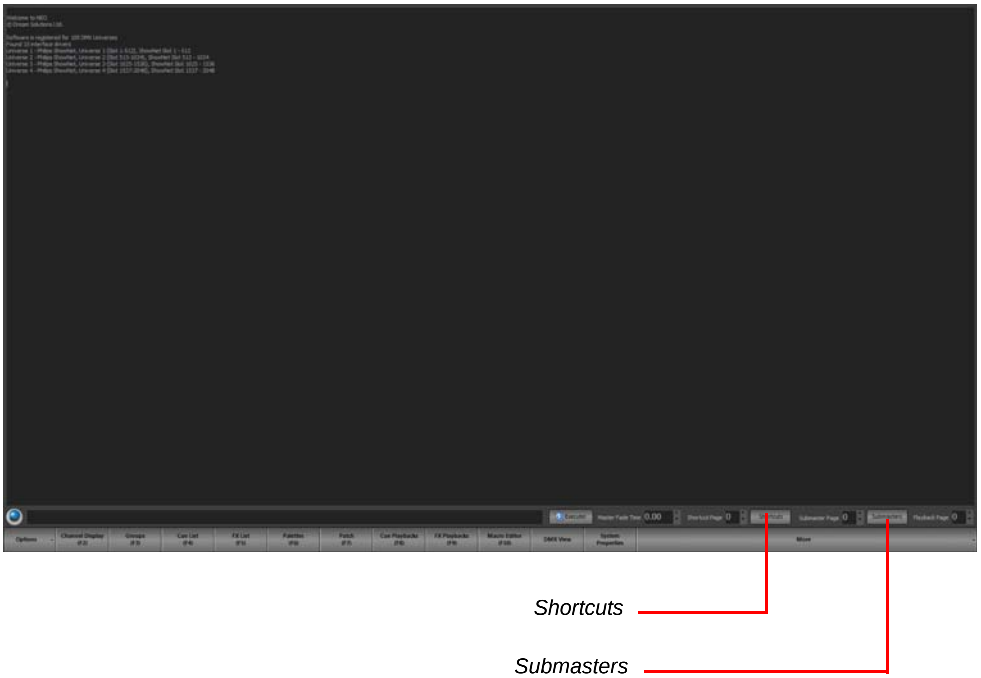
There are 3 different shortcut functions available with channel groups:

Selection Shortcut - Setting a selection shortcut will allow you to select the channels in the group with a single button press.

Toggle Shortcut - A toggle shortcut can be used to temporarily turn the channel group on and off. Pressing it once will set the channel group to full and once in that state pressing a second time till set the group to 0.

Apply Shortcut - Pressing the button assigned to an apply shortcut will set all of the channels to the state recorded into the group without changing the group value. The level will be "Applied".

Submasters and shortcuts are both accessible via controls at the top of the Command Line interface.



3. Cues

A cue is an event in a production that is the signal for a specific action. The response may include any lighting change that is required. Cues define how the lighting is set during the various parts of a performance. Using the NEO console, cues can run automatically or be user-controlled.

A cue can contain a number of channels, and defines all their states for a particular part of a performance. One or more effects can be included, as well as defining the fade times, dwell, and effect delays.

Cue can also trigger executing system shortcuts such as macro's and palettes.

Cues can be sub-grouped into "Cue Lists", enabling them to be easily identified and managed.

Cue Number

Each cue within a cue list has a unique number, known as a cue number. When a cue is created, it is automatically assigned a number. NEO supports up to 7 whole number and 3 decimal places with each cue numbering allowing for cues to be inserted in between other cues. When a cue is added to the end of the cue list it will always be given a whole cue number. If a cue is inserted between two other cues then the new cue number will be half way between the cues.

Blocking

Blocking is an override of the tracking behavior for a cue or a channel. A channel that is "Blocked" will always apply the values set regardless of the previous cue state. Blocking is most commonly applied to an entire cue to create a known or fixed lighting state in the show. The first cue should always be blocked and in NEO this will be done automatically for you as a Smart Block.

Fixture Block

In addition to blocking a cue, you can choose to "Force Fixture Block". This will block all parameters of a fixture should any parameter change in the edited cue. This is available either as a default state (System Properties>Show Defaults) or from the Record Cue or Update Cue dialogue box.

1) Force Fixture Block is designed to be a higher priority block at the fixture level. It's intent is to stop all parameter tracking for all parameters of a fixture regardless of whether the cue is blocked or unblocked.
2) This would be assigned on a per fixture basis using command line to engage and disengage.
3) Fixture Block is not affected by Cue Block. The user can Block and Unblock the cue without changing the status of any fixture block.

Smart Block

This only blocks channels/attributes that have an instruction in the cue. This allows a block to only affect the channels/fixtures that have value changes rather than blocking the entire list of patched channels.

Cue List

A Cue List is a collection of Cues. Cues are lighting states that playback in numerical order using stored time information. These are sometimes called a "cue stack" or "cue sheet". On some systems that only allow a single cue list this may be simply called the "Show".

Example: A band is performing a song in a concert. Rather than having simple lighting that does not change for the duration of the song, cues can be set up to change the lighting as the song progresses. As each "cue" in the song is reached, the lighting can be easily set for that part of the song by activating the relevant cue.

Cues are set up and managed via the "Cue List Editor". See "Cue List Editor" for more information.

Cue Lists

To easily manage and organize of a large number of cues for a production, NEO enables cues to be grouped into "Cue Lists".

Example: A concert contains 10 songs, all of which have different lighting. By creating a "Cue List" for each song, the cues for each song can be easily identified and kept separate. The benefit of having multiple cue lists is that it's easier to playback the songs in any order.

Cue Playbacks

The Cue List Editor is used for setting up and managing cue lists and cues. When it comes to running a show, the "Cue Playbacks" window can be used. The Cue Playback window is a simple screen that enables cue lists to be set up in the desired order, defining the starting cue for each.

As the show progresses, the lighting programmer simply presses the "Go" button for each cue list to activate each cue. The display shows the current cue and the next cue so that the operator can see progress during the show.

Cue Trigger

A cue's trigger defines the circumstances that cause a cue to become active. There are four types of trigger:

Manual - The user must physically press a "Go" button either on NEO or on the Cue List screen.

Auto Follow - Cues set with the auto follow trigger will execute the follow command. Once this AF countdown is complete, the following cue will execute.

MIDI - The cue will be triggered by an external midi event occurring.

Line In - The cue will be triggered by the line-in audio source.

Timecode - The cue will trigger when the specified timecode is reached. If the timecode has already passed when this cue is reached, the software will trigger the cue immediately. Enter the timecode value into the field provided.

Cue Channels

The channels that are used or recorded into a particular cue. A cue can contain any number of channels, limited only by the system resources of your NEO.

Cue Effects

Effects can be triggered by a cue so that they will run when the cue is run and stop when the cue finishes.

Cue Shortcuts

When a cue runs you can optionally fire any number of shortcuts. This is designed to extend the capabilities of the cue by allowing any function that can be assigned to shortcut to be run in the cue.

Cue Channel Groups

To make programming cues easier you can add into the cue any pre-built channel group. The channel groups become a building block for the cue and allow you to change a single channel group and have the effect automatically applied to all cues that contain the group.

4. Tracking (Intelligent Cue Execution)

NEO supports two different modes of cue playback. If you are not sure or are new to stage lighting we recommend using "hybrid" mode.

Hybrid Mode

In hybrid mode all active channels are recorded into the cue. An active channel is any channel currently "on". If a channel was on in a previous cue and not recorded into the next cue it will be turned off when the cue runs. All other attributes (pan, tilt, color etc) will not change until a new cue instructs them to change.

When running cues, NEO will only apply changes to the cue state. If an attribute does not change between cues then the value will not be applied even if the output value has been changed by another control element in the software (group, effect etc.).

Full Tracking Mode

In full tracking mode only changes are recorded into each cue however any channel that is currently on will stay at that level. When a cue is recorded or updated NEO will work out what has changed and record only that information. If a channel is not in a cue then it will maintain any state it was set to by a previous cue. To turn a light off in a cue the channel will be added with its value at zero.

When the cue is played back only the changes specified in the cue will be applied. If you play back a cue out of order NEO will track back through the cue list and calculate the correct lighting state at that point based on the previous cues.

Tracking is a playback function in NEO but there are some important recording options that will assist you to program your show. Tracking behavior will be applied regardless of if the cues are run sequentially or out of order.

The tracking mode is set per show in NEO and can be changed at any time in the system properties. The tracking switch will be stored with the show to avoid the chance of a hybrid show running on a tracking setup or the other way around.

Tracking Options

Track - If Track (or Track Forward) is selected when recording a cue then the software will look at each cue after the cue being recorded and apply the same channel settings until the channel state changes from its original value.

Cue Only - Only the cue being recorded or updated will be affected by the changes made. All of the cues after and before the cue will remain unchanged.

Trackback - If Trackback is selected when recording or updating a cue then the software will look at each cue prior to the cue being recorded and apply the same channel settings until the channel state changes from its original value.

5. Recording Modes

This define what channel/fixture selection is used to store data.

Live (Full Tracking Only) - simply put, this records the state of the lighting system. If it's "on", then it's stored. The only exception to this is whether levels from submasters are included and whether running effects are included. (These exceptions defaults can be set in System Properties > Show Defaults.)

Selected (Both Modes) - this mode records only the channels/fixtures that are currently selected (with the red box around them).

Active (Hybrid Tracking Only) - this mode records only "active" channels. Those are channels that have an intensity level above 0. All other channels/fixtures are ignored. This means that any attributed fixture with changed values will only be stored if it has an intensity above 0.

Changed Only (Full Tracking Only) - only changed values will be stored. This is primarily useful for a multiple cue list full tracking environment.

Block (Full Tracking Only) - will place a hard value on all channels/fixtures and attributes for that cue. This is useful when using Full Tracking in Tracking Mode for the cue that ends a scene, act or production number. This will stop all values from tracking into this cue.

Smart Block (Hybrid Tracking Only) - this will force an instruction for every channel that has a level. The NEO software evaluates the cue and for every channel/fixture that has a level above 0, it will block those channels and attributes.

6. Effects

Effects are time-based programs of lighting changes, such as chase sequences, simple loops, color changes, etc.

The NEO Effects Editor allows effects to be easily created, tested, and adjusted using the intuitive graphical interface. Effects can be run from inside shows via cues or by using Effect Playbacks.

To facilitate the management of large numbers of effects, effects can be given simple labels that describe what the effect does. Whenever you need to find or select an effect within NEO you can use the filters to narrow down the list.

Effect Types

NEO has 6 different effects types that can be created. Each effect type is designed to be the most efficient way of programming the effect you want.

Simple Chase - A chase is very similar to a cue list in that each step of the chase contains a static lighting state. As the chase progresses through each step the lighting state changes. Unlike a cue list the timing is made simpler and only a single fade time can be applied between steps.

Timeline - With a timeline effect you can design what happens in a graphical format of fixture vs. time. Each segment in the timeline defines a lighting state and how it will change.

Profile - The profile effect (sometimes called the Profile/Attribute effect) will apply a profile curve to a specific attribute over time.

Matrix - The matrix effect is designed to make working with large arrays of lights, such as multi-color LEDs, easy and efficient. The Matrix effect allows you to map an image or video file to a channel array while at the same time apply a moving box over the resulting image.

Media - NEO provides the ability to playback audio and video files directly from the software. This can be used to do sound effects in a show or play a video presentation for a corporate event.

DMX Recording - The DMX recorder can be used to record and playback a DMX512 stream.

Effect Playbacks

The Effect Playbacks are simple controls for running effects ad-hoc. The NEO Effects Playback screen allows the lighting programmer to see at-a-glance all the effects of interest and conveniently run them at the click of a button.

Exclusive Groups

To ensure that only one effect operates within a specified group, exclusive groups can be created. We may have a number of effects for the same group of lights where it makes no sense to run any more than one effect at a time. If we did, the effects would conflict and cause undesirable results.

By placing an effect into an exclusive group, it will stop all other grouped effects when you attempt to start it.

7. Command Line Interface

NEO comes equipped with a Command Line interface. This is similar to traditional theatrical lighting consoles and allows the programmer to type commands directly to the system bypassing the graphical interface.

It can be advantageous to do this if a quick change is required and the programmer is familiar with the required commands. The Command Line interface can be accessed via the primary monitor's window.

Command History

The command history allows the viewing of past commands made via the Command Line interface. This can be handy when something unexpected has happened and the programmer needs to check exactly what commands were sent to the dimmers.

8. Telnet Interface

Telnet allows a programmer to connect to NEO remotely using a hand-held device or similar. Commands can be sent from the remote device using the command language used by the Command Line interface.

The freedom of remote access to the NEO software means that the programmer/operator can be almost anywhere while setting up the lighting fixtures and make changes without needing to reside at the NEO itself.

9. Palettes

Palettes are a way to configure a particular look that you may want to recall quickly and without executing several commands to the system. A palette may put a fixture into a specific position or setup a number of fixtures into a specific color.

NEO allows palettes to be assigned to a specific list of fixtures or operate on currently selected fixtures.

10. Macros

Macros are simple programs made up of a sequence of commands. If a particular sequence of commands is used frequently, it makes sense to create a macro for them. This means that rather than re-typing the commands every time, the macro can be run instead, automatically executing the commands.

This saves time as well as reducing the chance of errors being made.

11. Modes

Active selection mode - Turn on the active selection option for channels/fixtures and they will automatically go to the ON level whenever selected. The fixtures will also turn OFF if the fixture is unselected. When active selection mode is enabled the on screen "Select Active" button will highlight in red as a warning and the Active Select Mode button will be backlit in red. This is a great tool for a channel check. Turn Active Select Mode on, select channel 1, then Next/Last to move up and down the channel list.

Inclusive Mode - If the "inclusive selection" option is active then each selection made will be added to the previous selection. All channels currently selected will remain selected unless they are in the new selection area. Any selection will toggle the selection state of a channel. When Inclusive Mode is enabled, the on screen "

If this option is not active then each selection made will unselect any currently selected channels. If the selection overlaps any currently selected channels then they will remain selected. If you hold down the control (ctrl) key while making selection in this mode you are able to add channels as per the exclusive mode.

Highlight selection mode - This is toggle option that will have a small check mark next to it when turned on. Turn on the highlight selection option for channels and fixtures to automatically go to the highlight state whenever selected.

12. Shortcuts

A shortcut is a quick route to a particular setting or feature that is used frequently. There are many places that shortcuts can be assigned within NEO. A shortcut may select some fixtures, run a cue, start an effect, apply a setting, or just about any operation.

COMPUTER CONCEPTS

In order to use the NEO console or the Hyperion software on a PC, it is necessary to understand a few basic computer concepts.

1. Trackball

A trackball is available for mouse-like pointer movement from the NEO console. The buttons labeled "Left" and "Right" will function as the left mouse button and the right mouse button on a mouse. The "center" button will lock the mouse point to the selected fixture's pan and tilt parameters. The Center button is locked when the backlighting is red. When the backlighting is white, it will function normally as the mouse pointer.

2. Mouse Scroll Wheel

A mouse is a small device that connects to a computer. It is used for navigating around computer software, by means of a pointer. Many types of mice have what is known as a scroll wheel. This is a wheel set into the top of the mouse, usually located between the left and right buttons.

On NEO or using the Hyperion software, the scroll wheel is used for increasing/decreasing dimmer values in a similar way to the sliders on a lighting console desk

3. Drag-and-Drop

Drag-and-drop is a commonly used method of moving one or more items from one location to another using the mouse. Typically, it is done by left clicking on the item you wish to move, then, while still holding down the mouse button, moving the mouse to the required destination. Release the mouse button when the mouse pointer is over the destination.

In NEO or Hyperion, drag-and-drop is used to assign fixtures into channels, dimmer patching, etc…

4. Right-click Pop-up Menus

Right-click menus are hidden menus, accessible by right-clicking the mouse button. If there is a right-click menu available for a feature, it will appear. Once available, you can click on the desired menu item.

If you right-click and a menu appears that you do not want to use, simply press the escape key on your keyboard (or click elsewhere on the screen) and the menu will disappear.

5. Screen Real Estate

As the name suggests, screen real estate refers to the screen area you have available on your monitor for viewing information.

There is a primary window available for single monitor systems. Once you get beyond that, there are individual features of NEO are in their own separate windows and can be arranged / resized on the computer screen according to an individual programmer's preference. NEO will remember the screen layout for next time.

It is also possible to expand to 3 monitors, thus expanding the available screen real estate.

6. Window Docking

Some windows in NEO can be "docked" onto other windows. This means that the two windows are attached to one-another, which is useful if you want to have two related windows remain next to each other at all times.

7. MIDI

Musical Instrument Digital Interface, an industry-standard interface used on electronic musical keyboards and PCs for computer control of musical instruments and devices.

8. SMPTE

Society of Motion Picture and Television Engineers. SMPTE allows for timecode triggering of cues.

9. Timecode

A feature within media that identifies individual frames to define how frames are counted throughout a project. It is similar to the page numbers of a book: if the pages of the book are out of sequence or have gaps, then things get confusing. Similarly, if a video tape does not have a timecode, then finding a particular clip on tape would be time-consuming and confusing.

10. SQL Server

Structured Query Language server. A computer that provides client computers with highly efficient access to database files.

Firebird SQL Server is a type of database. A database is an electronic way of storing information on your computer. When you use NEO, your entire lighting configuration is stored in a SQL Server database. This means that you can switch off your computer, even unplug everything, and NEO will still remember your set-up.

NEO's SQL Server database has built-in backup and restore features to safeguard you against data loss. Your individual backup settings adjusted in System Properties.

11. USB

Universal Serial Bus. USB is a standard port that enables you to connect external devices (such as digital cameras, scanners, and mice) to Windows and Macintosh computers.

The USB standard supports data transfer rates of 12Mbps (million bits per second), a vast improvement over the serial port standard it has replaced. Aside from speed advantages, USB devices can be connected or disconnected without the need to restart the computer. Many USB devices can work on either a Windows PC or a Mac, provided the device manufacturer offers connectivity software for both computer systems. Many of the latest digital cameras offer USB as well as serial connections.

NEO makes use of USB devices to transmit and receive data.

12. Ethernet

A very common method of networking computers in a LAN using copper cabling. Ethernet will handle about 10,000,000 bits-per-second and can be used with almost any kind of computer.

NEO can communicate with DMX systems using standard DMX over Ethernet protocols. 2 Ethernet jacks are available on every NEO console.?

LET'S GET STARTED!

To get you started using your NEO system, the following describes a few quick examples of controlling a lighting system.

- Using the Single Monitor Window
- Console Default Settings
- Basic Channel Control
- Storing and Editing Cues
- Adjusting Cue Parameters
- Patching a Moving Light
- Controlling a Moving Light

When the NEO is started, the single monitor window is displayed and the system is ready to go.

1. Tutorial

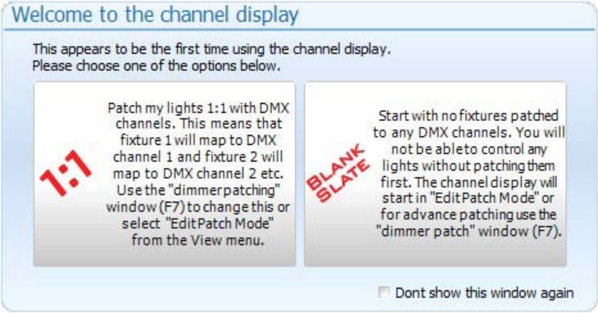
In this example, all 4 DMX ports are configured to output DMX.

Regardless of the universe authorization found, the software will initially create 500 desk channels that will be patched 1:1 with the available dimmers (The number of desk channels can be increased in the system properties).

NEO will always remember the last lighting state that was used and will automatically load the current show. If you start the software and find channels already active then this is because it is the state when the software was last shutdown.

NEO NOTES & TIPS: Make sure that the grand master (GM) is at full for all examples used in this section.

Open the Patch window by clicking on the "Patch" button at the bottom of the Command Line interface or by pressing Patch display key in the DISPLAY tile.



Welcome to the channel display

This appears to be the first time using the channel display.
Please choose one of the options below.

Patch my lights 1:1 with DMX channels. This means that fixture 1 will map to DMX channel 1 and fixture 2 will map to DMX channel 2 etc. Use the "dimmerpatching" window (F7) to change this or select "EditPatch Mode" from the View menu.

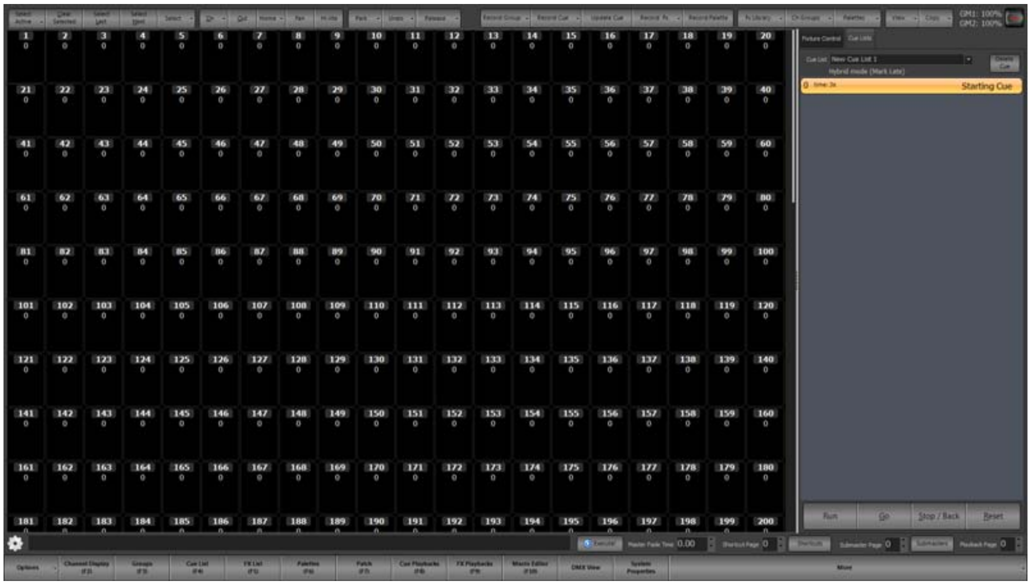
Start with no fixtures patched to any DMX channels. You will not be ableto control any lights without patching them first. The channel display will start in "EditPatch Mode" or for advance patching use the "dimmer patch" window (F7).

☐ Dont show this window again

The first time you open this window, NEO's software will ask you if you want to patch all channels 1 to 1 or start with no channels patched at all. Selecting the "Blank Slate" option will open the channel display with nothing assigned. The software will then automatically allow you to configure what you want patched.

Selecting the 1:1 option will open the channel display with channel 1 patched to DMX output 1, channel 2 patched to DMX output 2, etc.

For this tutorial select the 1:1 option.



Default Channel Display Window

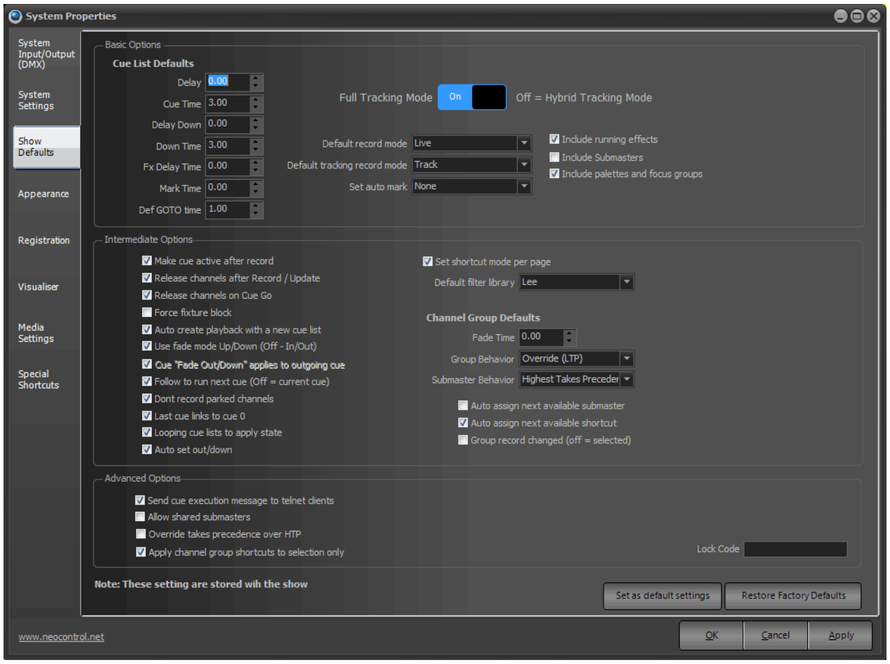
If this is the first time you have used the NEO console, you should see the window above displayed on your screen. Each channel in the system is represented by a cell in a two dimensional grid.

The grid will try to fit as many channels across as it can and so resizing the window will allow you to see as many channels as possible. If you prefer to have a fixed number of channels across the screen you can set this in the View menu. View>Enter The Column Count.

Console Default Settings

System Properties

In System Properties, on the bottom button bar, there are many tabs that have lots of options to setup your NEO console the way that you need it to work. We'll just focus on the options in the Show Defaults tab for this quick start.


System Properties
System Input/Output (DMX)
System Settings
Show Defaults
Appearance
Registration
Visualiser
Media Settings
Special Shortcuts
Set as default settings
Restore Factory Defaults
OK
Cancel
Apply
www.neocontrol.net

Basic Options

Cue List Defaults

Delay 0.00
Cue Time 3.00
Delay Down 0.00
Down Time 3.00
Fx Delay Time 0.00
Mark Time 0.00
Def GOTO time 1.00

Full Tracking Mode On Off = Hybrid Tracking Mode

Default record mode Live
Default tracking record mode Track
Set auto mark None

☑ Include running effects
☐ Include Submasters
☑ Include palettes and focus groups

Intermediate Options

☑ Make cue active after record
☑ Release channels after Record / Update
☑ Release channels on Cue Go
☐ Force fixture block
☑ Auto create playback with a new cue list
☑ Use fade mode Up/Down (Off - In/Out)
☑ Cue "Fade Out/Down" applies to outgoing cue
☑ Follow to run next cue (Off = current cue)
☑ Dont record parked channels
☑ Last cue links to cue 0
☑ Looping cue lists to apply state
☑ Auto set out/down

☑ Set shortcut mode per page
Default filter library Lee

Channel Group Defaults

Fade Time 0.00
Group Behavior Override (LTP)
Submaster Behavior Highest Takes Preceder

☐ Auto assign next available submaster
☑ Auto assign next available shortcut
☐ Group record changed (off = selected)

Advanced Options

☑ Send cue execution message to telnet clients
☐ Allow shared submasters
☐ Override takes precedence over HTP
☑ Apply channel group shortcuts to selection only

Lock Code

Note: These setting are stored wih the show

These Show Default setup options give the NEO amazing flexibility. For now, the items that we will focus on are…

Block Fixtures (Partial Block)

This will ensure that any attribute change will automatically force an instruction on all attributes for the fixture. This feature is turned off by default.

Include Running Effects

If an effect is running while a cue is being recorded, this feature will determine if the running effect is stored to be triggered by the cue. This feature is turned on by default.

Include Submasters

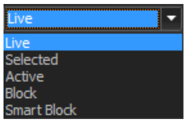
If any channels/fixtures are being controlled by a submaster (levels in yellow), this feature will determine if the action of Recording will include those levels when stored. This feature is turned off by default.

Include Palettes and Presets

If any channels/fixtures are being controlled by palettes or focus groups, this feature will determine if the action of recording will include those palette or focus group references. If not, then the cue will hold raw data. This feature is on by default.

Default Record Mode

When a cue is recorded, what channels/fixtures does it take into account?



The options are…

Live - this stores everything the desk is outputting with the exception of running effect and submasters (depending on how the "Include Submasters" option is set. This is the NEO default option as its most common in a theatrical environment.

Selected - this stored only channels that are currently selected (in the red box).

Active - this stores only channels that have an intensity above zero.

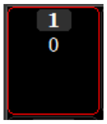
Changed Only - this stores only changed values (shown in red).

Block - this will force an instruction for every channel/attribute in the system.

Smart Block - this will force an instruction for every channel that has a level.?

Basic Channel Control

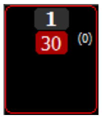
Select channel 1 by a. typing 1 ENTER. b. Left clicking on it with your mouse or c. Tapping it on the touchscreen. You will notice that the cell for channel 1 is surrounded by a red box.



Type…

[@ 30 ENTER]

As you enter the numbers, you will see them appear in the command line editor box of the main window. As soon as you press "ENTER" this text will disappear and the selected channels will now have a value of 30%.



The lights connected to this channel should now be displaying 30% of their maximum output.

Un-select channel 1 by pressing BKSP or Backspace.

NEO NOTES & TIPS: An active channel is any channel with an output value above 0.

Reselect channel 1, move the scroll wheel on your mouse up one click you should see the value increase by 5% to 35%. The mouse scroll wheel is a convenient way to control the intensity of selected channels when the exact value you want is unknown

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NEO NOTES & TIPS: If you do not have a scroll wheel on your mouse, use the + and - keys as replacements.

Channels can also be selected in large numbers by holding the mouse down and dragging it over the channels you want as follows:

1) Click on channel 5 and hold down the mouse button
2) Now drag the mouse over to channel 7 and release the button. You should now see channels 3, 5, 6 and 7 all selected.
3) Move the scroll wheel up and down and notice that all of the selected channels increase or decrease by 5% with every movement.

Storing and Editing Cues

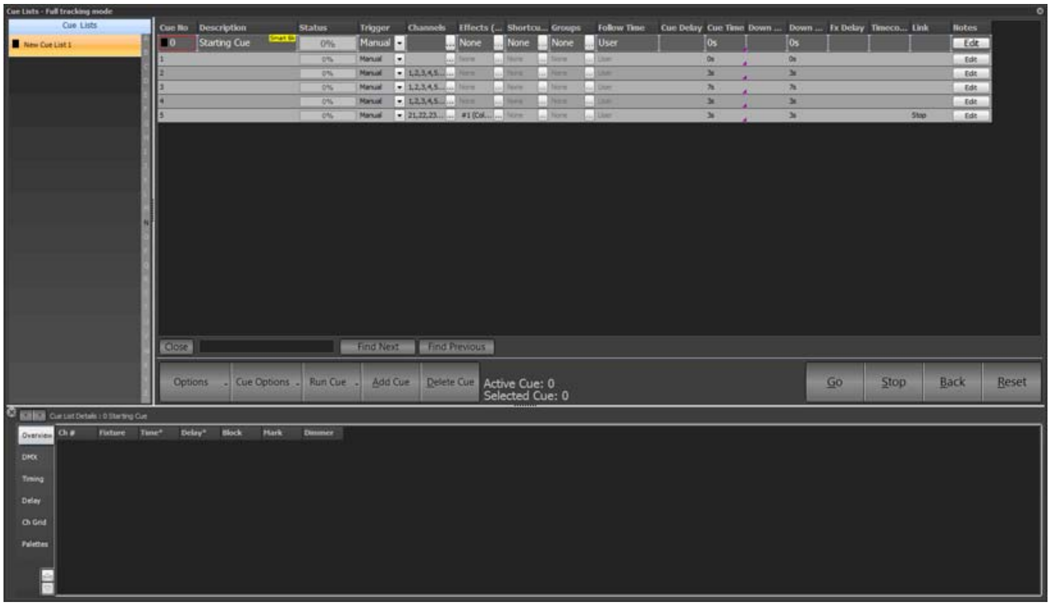
When the stage lights are set the way you want just type [RECORD] [ENTER] and that will record your first cue in the primary cue list.

You can also type [RECORD] [CUE] [ENTER] or [RECORD] [CUE] (#) [ENTER] or [RECORD] [RECORD]. There are many choices.

You can also hold down the Record key and press Cue. This will initiate the Record Cue dialogue box where you can check settings and fill in the correct info.

Adjusting Cue Parameters

Cue parameters are often time based or trigger based. The Cue List detail window will display all of the options for changing times and triggering options for an cue.


Cue Lists - Full tracking mode
Cue Lists
New Cue List 1
Smart Ed
Close
Find Next
Find Previous
Options
Cue Options
Run Cue
Add Cue
Delete Cue
Go
Stop
Back
Reset
Cue List Details : 0 Starting Cue
Overview
DMX
Timing
Delay
Ch Grid
Palettes
Ch #
Fixture
Time*
Delay*
Block
Mark
Dimmer

Cue No	Description	Status	Trigger	Channels	Effects (...	Shortcu...	Groups	Follow Time	Cue Delay	Cue Time	Down ...	Down ...	Fx Delay	Timeco...	Link	Notes
0	Starting Cue	0%	Manual		None	None	None	User		0s		0s				Edit
1		0%	Manual		None	None	None	User		0s		0s				Edit
2		0%	Manual	1,2,3,4,5...	None	None	None	User		3s		3s				Edit
3		0%	Manual	1,2,3,4,5...	None	None	None	User		7s		7s				Edit
4		0%	Manual	1,2,3,4,5...	None	None	None	User		3s		3s				Edit
5		0%	Manual	21,22,23...	#1 (Col...	None	None	User		3s		3s			Stop	Edit

Active Cue: 0
Selected Cue: 0

Command Line support is available with such commands as [CUE] [1] [TIME] [5] [ENTER]. Additional buttons such as Delay and Follow will work using similar command line structure.

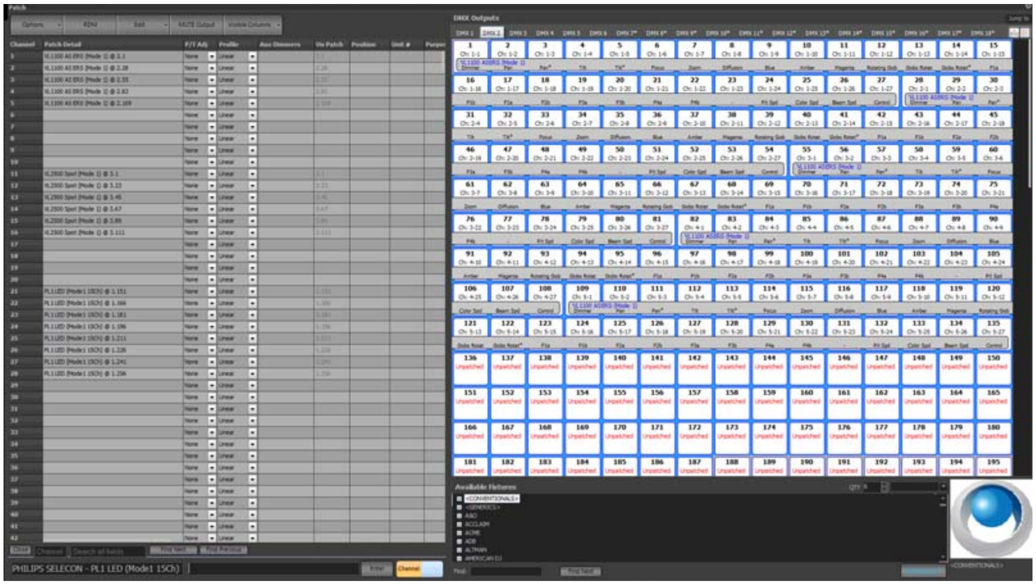
Patching an Automated Luminaire

To use the channel window for controlling a automated luminaire, we need to address the fixture in the Patch window.

In this example we have a VL1000 that we will patch into the 2nd universe.

STEP 1

Open the patching window by pressing the Patch display button or by clicking on the "Patch" icon at the bottom of the Command Line interface or press the F7 key on you keyboard.



Dimmer Patch Window

STEP 2

Below the label "Available Fixtures" near the bottom of the window you will see a list of manufacturers of lighting fixtures and devices.

Expand the "Martin" brand by clicking on the small plus (+) to the left of the name. You should then see the complete list of the Martin fixtures contained in the fixture library.

STEP 3

Click on the fixture labelled "MAC 250 Entour (Enhanced)" and notice that the picture on the right-hand side has changed to show your selection.

STEP 4

Move the mouse over the "Dimmers" section of the window and notice that as you move the mouse the 18 dimmers trailing your mouse are highlighted. This shows that the fixture we have selected uses 18 dimmers to control it and that we should consider these reserved for this light.

STEP 5

Move the mouse over dimmer 26 (our starting address) and click and hold down the left mouse button. Drag the mouse over to the left hand side of the window and over channel 6.

When you release the mouse button a popup dialog will ask you if you want to automatically setup the palettes for this fixture. Select "Yes" and the software will automatically be populated with palettes to access the color wheel and gobos. We will not be using these for this tutorial however you may want to open the shortcut window when you are finished to see what has been created for you.

In the dimmer patching window you will now see that the details column of channel 6 displayed "MAC 250 Entour (Enhanced) @ 26". This shows us that a MAC 250 is patched with the starting address of 26. You may need to expand the size of the "Patch Detail" column to see all of the text. A series of three dots (**...**) will always indicate that more text is in the field than can be shown. See Figure 16.

STEP 6

Click on the options menu and select "Save patch & Close window" from the popup menu that appears. Alternatively you can close the window with the X in the top right hand corner and the software will prompt you to save your changes. The dimmer patching window is the only place in NEO where you specifically need to save your work. In all other windows the changes are automatically saved with every change.

Dimmer Patch Window

NEO NOTES & TIPS: You will notice that dimmer 6 is now "unpatched". This is because channel 6 that use to be patched to dimmer 6 is now holding the Mac 250 we have just patched. Also channels 26 thought to 43 are now blank and do not contain any patch information. This is because the dimmers that where patched to these channels are now in use by the Mac 250 that we just patched. NEO will allow you to overlap patch information but by default it will assume this undesirable and automatically unpatch the channels for you.

We are now ready to use this fixture in the channel window as desk channel 6. To patch other moving lights, simply repeat the procedure above patching each light into the desired channel.

NEO NOTES & TIPS: You can patch multiple fixtures of the same type all at once by changing the quantity (Qty) number in the available fixtures section of the window.

Controlling a Moving Light

STEP 1

Open the channel window again (if not already open) and click on the "Clear Selection" button along the top of the window.

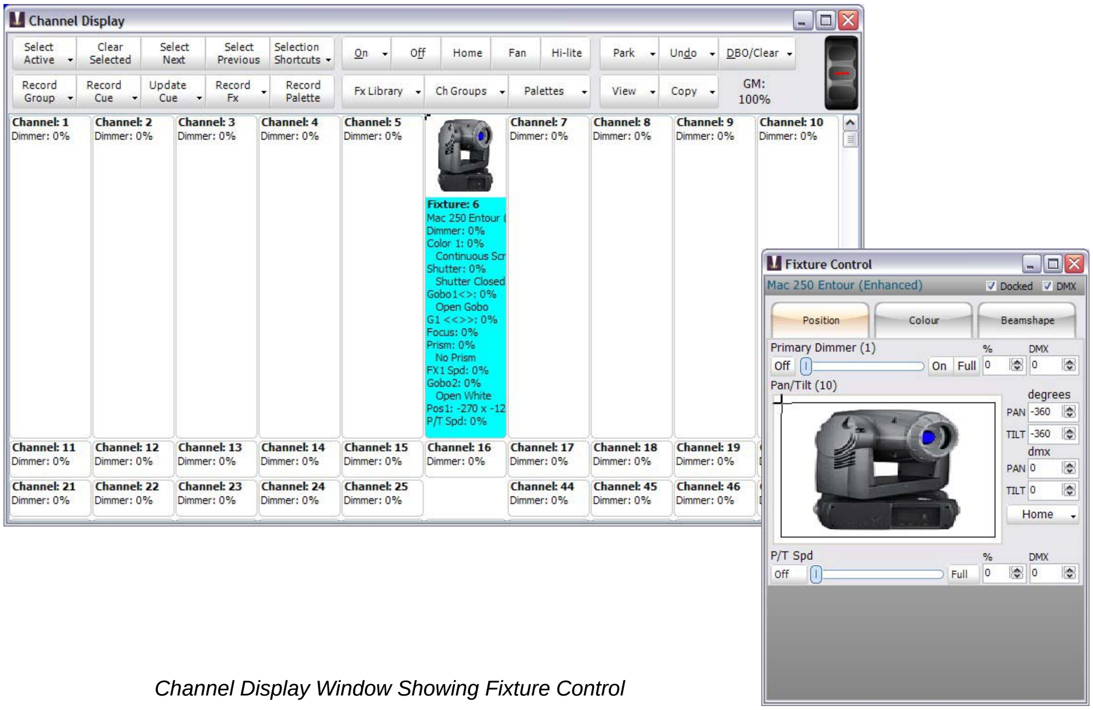
You will now have only the channels that are active highlighted.

STEP 2

Have a close look at channel six and notice that the content of the cell has changed. It is now labeled "Fixture: 6" and below the label is the name of the fixture followed by its attributes.

STEP 3

Click and select channel 6 and as well as highlighting the cell. The fixture control window will appear and attach itself to the right-hand side of the channel window.


Channel Display
Select Active
Clear Selected
Select Next
Select Previous
Selection Shortcuts
On
Off
Home
Fan
Hi-lite
Park
Undo
DBO/Clear
Record Group
Record Cue
Update Cue
Record Fx
Record Palette
Fx Library
Ch Groups
Palettes
View
Copy
GM: 100%
Fixture Control
Position
Colour
Beamshape
Primary Dimmer (1)
Off
On
Full
Pan/Tilt (10)
PAN
TILT
Home
P/T Spd
Off
Full

Channel: 1 Dimmer: 0%
Channel: 2 Dimmer: 0%
Channel: 3 Dimmer: 0%
Channel: 4 Dimmer: 0%
Channel: 5 Dimmer: 0%

Fixture: 6
Mac 250 Entour (
Dimmer: 0%
Color 1: 0%
Continuous Scr
Shutter: 0%
Shutter Closed
Gobo1<>: 0%
Open Gobo
G1 <<>>: 0%
Focus: 0%
Prism: 0%
No Prism
FX1 Spd: 0%
Gobo2: 0%
Open White
Pos1: -270 x -12
P/T Spd: 0%

Channel: 7 Dimmer: 0%
Channel: 8 Dimmer: 0%
Channel: 9 Dimmer: 0%
Channel: 10 Dimmer: 0%
Channel: 11 Dimmer: 0%
Channel: 12 Dimmer: 0%
Channel: 13 Dimmer: 0%
Channel: 14 Dimmer: 0%
Channel: 15 Dimmer: 0%
Channel: 16 Dimmer: 0%
Channel: 17 Dimmer: 0%
Channel: 18 Dimmer: 0%
Channel: 19 Dimmer: 0%
Channel: 21 Dimmer: 0%
Channel: 22 Dimmer: 0%
Channel: 23 Dimmer: 0%
Channel: 24 Dimmer: 0%
Channel: 25 Dimmer: 0%
Channel: 44 Dimmer: 0%
Channel: 45 Dimmer: 0%
Channel: 46 Dimmer: 0%

Mac 250 Entour (Enhanced) ☑ Docked ☑ DMX

Primary Dimmer (1): % 0, DMX 0
Pan/Tilt (10): degrees PAN -360, TILT -360; dmx PAN 0, TILT 0
P/T Spd: % 0, DMX 0

Channel Display Window Showing Fixture Control

The "Channel Control" window can now be used to modify the attributes of the moving light and is separated into three groupings of Position, Color and Beamshape. The groupings are tabs that allow you to switch between the groups of attributes you what to modify. If a different type of fixture is used then the grouping may be different.

On the "Position" tab you will see a picture of the luminaire you have selected as this makes the background for the primary pan and tilt control. Click and drag the mouse around this picture to change the pan and tilt values of the fixture in the channel window. If the fixture is physically attached to the system the changes will immediately take effect and you will see the fixture move.

Only the controls that are applicable to the selected fixture will be shown in the fixture control window however if you select multiple fixture types then a generic control window will be displayed. This generic window may have attributes shown that the fixture is not able to do. The software will always try to apply the generic attribute to the best of its ability based on internal logic. For example if you choose a color from the color picker and the fixture only has a color wheel (rather than color mixing capabilities) the software will find the closest match to the color chosen.

STEP 4

To control the dimmer of intelligent fixtures follow the same procedure for standard dimmers. Click on the "Channel View" window and either enter the desired value or use the scroll mouse to dim the light up and down.

Creating a Basic Cue List

A basic cue list is a series of cues each containing a specific lighting state or scene. The transition between each lighting state can also be defined to control the timing of how the cue plays back.

NEO NOTES & TIPS: This guide assumes HYBRID tracking mode was selected on start up.

NEO NOTES & TIPS: NEO allows you to create multiple cue lists and play back multiple cue lists at the same time. For this example we will focus on a single cue list. Also, in this example we are not covering the use of the effects engine, but only basic cues.

In the show we are going to create we will have three different scenes and will only use the first 12 channels. The table below shows the three cues and their contents. In this show, the cues transition from a very bright scene to a very dim scene and then back to a bright scene again. We have also use the moving light that we patched into channel 6 and placed it at a specific position for each scene.

CUE	CHANNEL	VALUE
1	2	80%
	3	80%
	6	100%, 128^{o} Pan, 27^{o} Tilt
2	1	20%
	6	30%, 128^{o} Pan, -46^{o} Tilt
	7	20%
	11	20%
3	8	100%
	9	80%

Before we create these simple cues in NEO, open the channel window (see "Using the Channel Window" on page 168) and set all of the fixtures back to zero so that no channel is active. Do this by clicking on the button "DBO/ Clear" at the top right of this window. The channel display will now look as it did when you first started with all the channels having a gray background (not highlighted).

We are now ready to start programming the show.

Creating Cue 1

STEP 1

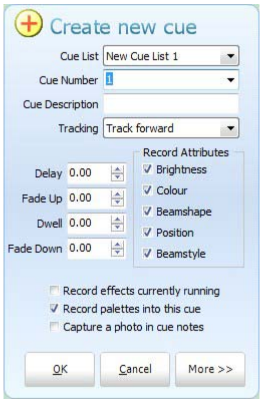
Click on channel 2 and 3 to select them and then type @80 on your keyboard and press enter. The selected channels should now be set to 80%. The * can also be used as an alternative to the @ symbol. (e.g. *80).

STEP 2

Clear the selection of these channels and double click on channel 6 to bring it up to 100%. Because channel 6 is an intelligent fixture, the "Channel Fixture Properties" window will automatically appear. Set the pan and tilt to the desired location using the control described above ("Controlling a Moving Light" on page 67).

STEP 3

Once you have set the desired scene, click on the "Record Cue" button.



Create new cue

Cue List: New Cue List 1
Cue Number: 1
Cue Description:
Tracking: Track forward

Delay: 0.00
Fade Up: 0.00
Dwell: 0.00
Fade Down: 0.00

Record Attributes
☑ Brightness
☑ Colour
☑ Beamshape
☑ Position
☑ Beamstyle

☐ Record effects currently running
☑ Record palettes into this cue
☐ Capture a photo in cue notes

STEP 4

The "Create new cue" dialog box will be displayed. NEO will automatically pick the active cue list (If you have just installed then this will be the only cue list) and set the cue number to the next available cue. Press the "OK" button to record this cue. The cue has now been recorded with the active channels in their current state.

Creating Cue 2

STEP 1

Select channels 2 and 3 and set their value back to zero.

STEP 2

Now select channels 1, 7 and 11 and set all their values to 20%.

STEP 3

Click on the "Clear Selected" button and then click on channel 6 only. Bring its intensity back to 30% by either typing @30 on your keyboard or using the scroll wheel.

STEP 4

In the "Fixture Control" window set the new position that you want the fixture in for cue 2.

STEP 5

Now that the second scene is set, click on the "Record Cue" button again. Alternatively you can use the keyboard shortcut control-c to perform the same operation.

STEP 6

In the resulting "Create New Cue" dialog, cue 2 should already be set in the "Cue" edit box. If this is not the case, enter the number 2 and press the "OK" button.

Creating Cue 3

STEP 1

Click on the "DBO/Clear" button to reset all channels back to dimmer levels of 0.

STEP 2

Double click on channel 8 to bring it up to 100%.

STEP 3

Unselect channel 8 and select channel 9. Set the value of channel 9 to 80%.

STEP 4

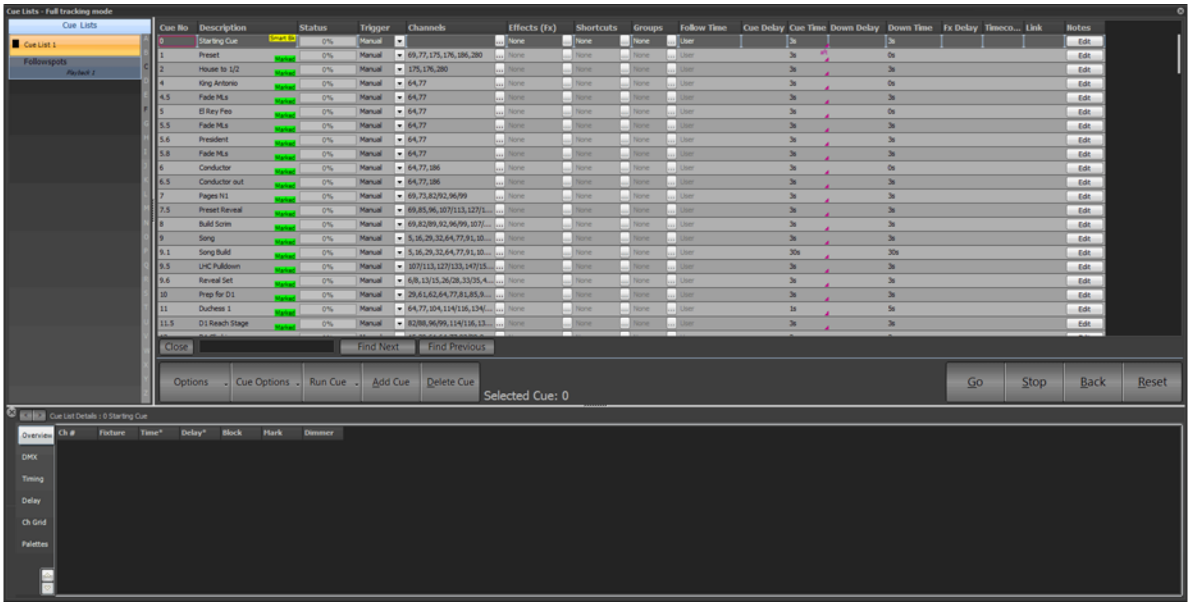
Now that the third scene is set, click on the "Record Cue" or press control-c.

STEP 5

In the resulting "Create New Cue" dialog, cue 3 should already be set in the "Cue" edit box. If this is not the case, enter the number 3 and press the "OK" button.

The Cue List Editor

To view the newly created cue list, open the "Cue List Editor" by clicking the button on the Command Line interface or by pressing F4 on your keyboard.



Cue No	Description	Status	Trigger	Channels	Effects (Fx)	Shortcuts	Groups	Follow Time	Cue Delay	Cue Time	Down Delay	Down Time	Fx Delay	Timeco...	Link	Notes
0	Starting Cue Smart Bl	0%	Manual		None	None	None	User		3s		3s				Edit
1	Preset Marked	0%	Manual	69,77,175,176,186,280	None	None	None	User		3s		0s				Edit
2	House to 1/2 Marked	0%	Manual	175,176,280	None	None	None	User		3s		3s				Edit
4	King Antonio Marked	0%	Manual	64,77	None	None	None	User		3s		0s				Edit
4.5	Fade MLs Marked	0%	Manual	64,77	None	None	None	User		3s		3s				Edit
5	El Rey Feo Marked	0%	Manual	64,77	None	None	None	User		3s		0s				Edit
5.5	Fade MLs Marked	0%	Manual	64,77	None	None	None	User		3s		3s				Edit
5.6	President Marked	0%	Manual	64,77	None	None	None	User		3s		3s				Edit
5.8	Fade MLs Marked	0%	Manual	64,77	None	None	None	User		3s		3s				Edit
6	Conductor Marked	0%	Manual	64,77,186	None	None	None	User		3s		0s				Edit
6.5	Conductor out Marked	0%	Manual	64,77,186	None	None	None	User		3s		3s				Edit
7	Pages N1 Marked	0%	Manual	69,73,82/92,96/99	None	None	None	User		3s		3s				Edit
7.5	Preset Reveal Marked	0%	Manual	69,85,96,107/113,127/1...	None	None	None	User		3s		3s				Edit
8	Build Scrim Marked	0%	Manual	69,82/89,92,96/99,107/...	None	None	None	User		3s		3s				Edit
9	Song Marked	0%	Manual	5,16,29,32,64,77,91,10...	None	None	None	User		3s		3s				Edit
9.1	Song Build Marked	0%	Manual	5,16,29,32,64,77,91,10...	None	None	None	User		30s		30s				Edit
9.5	LHC Pulldown Marked	0%	Manual	107/113,127/133,147/15...	None	None	None	User		3s		3s				Edit
9.6	Reveal Set Marked	0%	Manual	6/8,13/15,26/28,33/35,4...	None	None	None	User		3s		3s				Edit
10	Prep for D1 Marked	0%	Manual	29,61,62,64,77,81,85,9...	None	None	None	User		3s		3s				Edit
11	Duchess 1 Marked	0%	Manual	64,77,104,114/116,134/...	None	None	None	User		1s		5s				Edit
11.5	D1 Reach Stage Marked	0%	Manual	82/88,96/99,114/116,13...	None	None	None	User		3s		3s				Edit

Selected Cue: 0

Cue List Editor Window

This window will show the three cues we just created, and we will see in the channel field the fixtures we selected.

Setting the Transition Between Cues

In this example, we have decided to apply the following transition between each cue.

1) Cue 1 will fade up slowly over 5 seconds
2) Cue 1 will fade down in 2 seconds
3) Cue 2 will then fade up quickly (1 second)
4) Cue 2 will fade down in 3 seconds while cue 3 fades in.

To apply these rules, we need to set the fields on the right-hand side of the window.

STEP 1

In the row for cue 1, enter the number 5 into the field labelled "Fade In" and the number 2 into the field labelled "Fade Out".

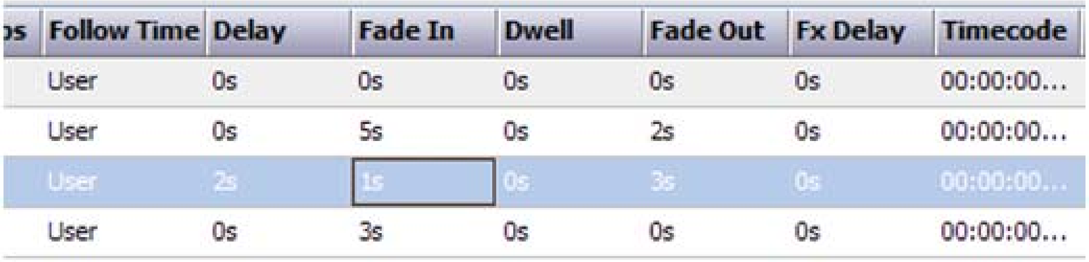
STEP 2

We do not want cues 1 and 2 to cross fade, so we need to set a delayed start on cue 2 of 2 seconds. This will cause cue 2 to wait the same length of time it takes cue 1 to fade out. In the row for cue 2, enter the number 2 in the field labelled "Delay" and enter a 1 into the field "Fade In".

STEP 3

For cue 3 we do want a cross fade so we can set the "fade out" of cue 2 to 3 seconds and the "fade in" of cue 3 to 3 seconds.

The right-hand fields should now be set as per the figure below:



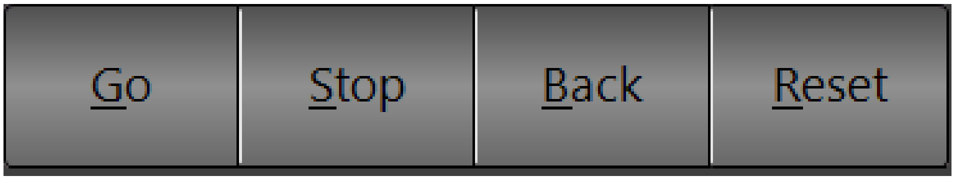
ps	Follow Time	Delay	Fade In	Dwell	Fade Out	Fx Delay	Timecode
	User	0s	0s	0s	0s	0s	00:00:00...
	User	0s	5s	0s	2s	0s	00:00:00...
	User	2s	1s	0s	3s	0s	00:00:00...
	User	0s	3s	0s	0s	0s	00:00:00...

Running the Show

We are now ready to run our show for the first time and see the result of the procedure above. If you have a real lighting rig connected to the system, you should see the result apply to your dimmer system. If you do not have any dimmers connected, use the "Channel Display" or "DMX View" to see the output.

If the start cue (cue 0) is not highlighted in green, select it as the starting cue by double-clicking on the status column for its row. In this example, we have chosen to leave this cue blank without any fixtures set. There is no reason not to use this cue other than to have a blacked-out state when the show begins.

Along the bottom of the cue list editor are the playback controls for the currently selected cue (highlighted in green).



Cue Playback Controls

Press the "Cue Go" button and notice how channels 2, 3, and 6 slowly fade from zero to their set values over a period of 5 seconds. Once this cue has finished, (A progress bar in the status field of the cue list grid will show when the cue has finished execution) click the "Cue Go" button again to go from cue 1 to cue 2. This time cue 1 will fade out, and then cue 2 will slowly fade in. The current cue will always be highlighted in by a green arrow and you will notice this will following the cue execution

At any time we can return to the previous cue by clicking on the "Back" button and can stop a cue execution (i.e. Fade In) by clicking on the "Stop" button.

NEO NOTES & TIPS: A show can be run either via the Show Editor as per the example above, or via the Show Runners.

REFERENCE / WINDOW OVERVIEW

"In theory there is no difference between theory and practice. In practice there is." - Yogi Berra

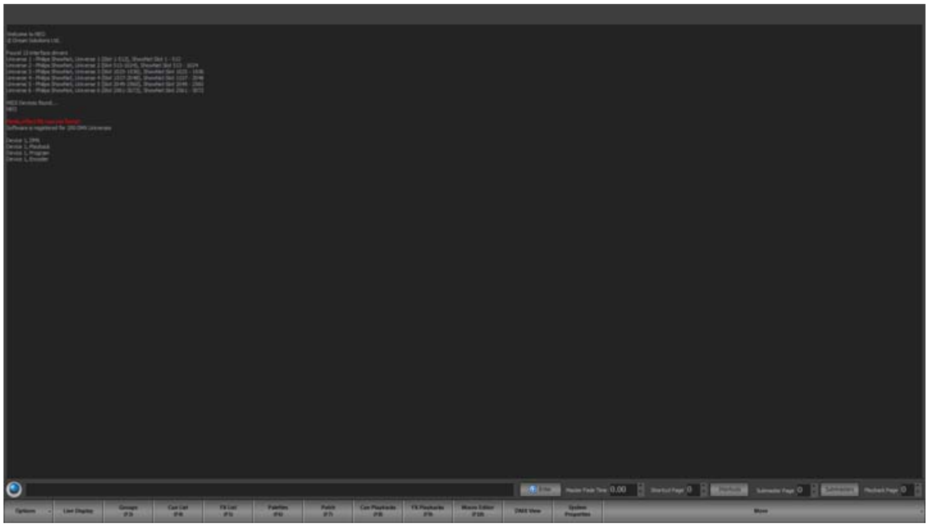
The reference section is divided by the various windows in NEO. To find information about a particular section of the software start by identifying the window you are currently in. The window you are in may have been opened from a parent window. Start with the top most window to jump to the appropriate section.

For example the "Track Sheet" is found in options menu of the cue list window. To find more information about the track sheet start by going to the section for the cue list window and scroll to the section covering the "options" menu. The top most parent windows in NEO are;

- Command Line interface
- Channel Display
- Channel Groups
- Cue List Editor
- FX Editor
- Palettes
- Dimmer Patching
- Cue Playbacks
- FX Playbacks
- Macro Editor
- Shortcut Window
- Submaster Window

1. Command Window Interface

The NEO Command Window interface is available by pressing the NEO icon to the left of the Command Line box. This window is where you can access all of the other features in the software such as the cue lists or effects editor. The grand master (GM) on the right-hand side of the window provides overall control of all fixture intensity levels.



Status Screen Interface Window

The command window can be revealed by selecting the NEO Icon to the left of the Command Line window. Here the command history part of the window is revealed.

The command window also allows you to control your lighting system using a basic text interface. Traditional lighting desks have provided a Command Line interface as a means to access large numbers of channels where individual buttons or faders were impractical. It may seem antiquated to include a Command Line interface in NEO because it has the flexible channel window providing access to thousands of channels from one simple screen, but this is far from true.

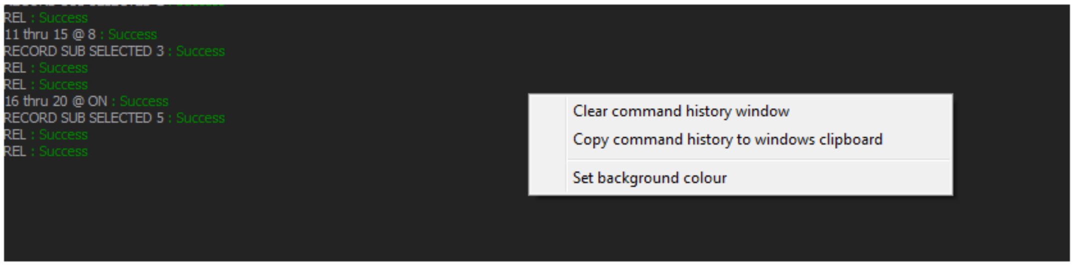
Once familiar with the command structure the Command Line interface can be a very quick and powerful way of setting up scenes during complex programming sequences.

NEO NOTES & TIPS: It is also useful to learn the command structure because you can enter the channel selection syntax anywhere you wish to enter a large number of channels. e.g. the Cue List Editor.

You can also enter command directly from the channel display without having to shift focus back to the command window. As soon as a key is pressed in the channel display it will appear in the command edit box.

Command Window Options

Right clicking on the command window history panel will popup the options menu as shown below;



```
REL : Success
11 thru 15 @ 8 : Success
RECORD SUB SELECTED 3 : Success
REL : Success
REL : Success
16 thru 20 @ ON : Success
RECORD SUB SELECTED 5 : Success
REL : Success
REL : Success
```

Clear command history window
Copy command history to windows clipboard
Set background colour

Command Window Options

Clear command history window - Select this option to remove all of the text from the command history.

Copy command history to the windows clipboard - This is a useful option to help with support when using the Command Line interface. You may be asked email a copy of the commands you are using and this menu item will simply this task. Once copied to the clipboard you can past it directly into an email.

Set background color - Use this option change the background color of the command history window. The standard NEO color chooser will allow you to select any color from palette. Be aware that it is possible to choose a color that will make the text unreadable.

Command Structure

The following commands can be entered into the edit box provided along the bottom left of the window. To execute any command simply press enter or click on the "Execute" button to the right.

Some commands will execute automatically without needing to press the enter key. This is the case where the last item typed is identified as the last valid character in the line. For example the command "@@" will set the selected channels to full. There is nothing that can be entered after the second @ so the types syntax is considered complete and will execute without needing to press the enter key.

Once a command is entered, it will automatically appear in the text box above. If the command was successful, the command will be preceded by "Success" in green text. If the command is followed by the word "Failed" in red text then nothing will happen as the software did not recognize the command you entered or a mistake was made in the command syntax.

Command History

NEO displays the last 100 commands entered in the text box just above the command entry edit.

To re-process or review any command, simply double-click on the line and the command will reappear in the command entry edit. The command will not execute until you press enter or click on the "Execute" button. This enables you to edit the command before resubmitting it for processing.

NEO NOTES & TIPS: Commands in the history text box can also be retrieved into the command entry edit using the up and down arrow keys on your keyboard. Pressing the up arrow will cycle through the last 100 commands starting with the last command entered. The down arrow will scroll back through commands you have passed with the up arrow.

Channel Commands

All commands take the following format. The square brackets ([]) indicate optional syntax.

[+ or -] Channels [Attribute] @ [DMX] Value [time Value]

CHANNELS

A list of all of the channels you want to apply some change to. Each channel is separated by either a comma (,) or plus (+). A range of channels can be entered using the word "through" or the forward slash (/) symbol between two values. Channels can be removed from a selection using the minus (-) key.

If you enter a channel list only the software will select the channels in the channel view. If the channel view is not visible it will be opened and brought to the front of your screen. If you are selecting channels by not entering the "@ Value" on the end of the command then you can add a + or a - to the front of the text to add or subtract from the currently selected channels.

Additional to the above selection technique you can use the keyword "THRU ON" to select only channels with in a range that are currently active.

1,2,3,7,19 / 33
Select the channels 1, 2, 3, 7, and will also select channels 19 through to channel 33.

1+2+3+7+19/33-21
Select channels 1,2,3,7 and channels 19 through to 33 with the exception of channel 21.

-3 / 10
Remove channels 3 through to 10 from the current selection.

1 thru on 20
Select the active channels between 1 and 20.

ATTRIBUTE

This section allows you to access generic attributes of fixtures that you have selected. By default, the software will operate on the dimmer as it is assumed that all fixtures have this function (Not always true).

The following attributes can be entered:

PAN, TILT, COLOR, GOBO, GOBO R, CONTROL, EFFECT, ZOOM, DIFF, IRIS, EDGE, FOCUS, STROBE, COLORIDX, GOBOIDX

Some of these attributes can accept a number following the command to access features where more than one of an attribute exists. E.g. Some intelligent fixtures have more than one color wheel. If a command is entered with the word COLOR then color wheel 1 is selected by default. To select color wheel 2 the command should read COLOR2.

NEO NOTES & TIPS: 24 / 30 gobo2 @ 235 - *Set the gobo wheel 2 on the fixture patched to desk channel 24 through 30 to DMX value 235.*

NEO NOTES & TIPS: When fixture attributes are used in the command line the value entered is a real world value that is logical to the attribute selected. The gobo command for example will take a number corresponding to the gobo index you want to select. Another example is the zoom attribute that take beam angle (degrees) as its value. To address the dmx values enter the word "dmx" after the @.

VALUE

The value you want to set the fixture or fixture attribute to. If standard dimmers are selected, the value will set the dimmer to the entered value as a percentage of full. Accepted values for standard dimmers can be any integer number between 0 and 100.

If the selected channel is an intelligent fixture then the software will apply the value to the dimmer property unless a different attribute is specified.

NEO NOTES & TIPS: 1+2+3+7+19/33 @ 25 - *This will set channels 1, 2, 3, 7 and channels 19 through 33 to 25% of full.*

PALETTES & GROUPS

When using the command line interface to set channels you can reference groups on both sides of the "@" symbol. You can also reference palettes on the right hand side of the "@" symbol. This can be thought of this as being able to set a group at a palettes or values referenced by a group.

NEO NOTES & TIPS: LX Bridge 2 @ 25 - *This will set channels in group "LX Bridge 2" to 25%*

NEO NOTES & TIPS: LX3 Wash @ Position Down Stage Left - *This will set the channels in group "LX3 Wash" to the values set in the group/palette "Position Down Stage Left".*

As soon as you start typing the name of the palettes or group on either side of the "@" symbol a small window will appear suggesting matches to what has already been typed. This is designed to help with selecting groups and palettes without having to type all of the text. To select an item listed in the helper window use the up and down arrows to move between the values and then press the enter key to select.

DMX

The DMX keyword can be placed in front of the desired value to enter a number between 0 and 255 representing the real DMX output level.

NEO NOTES & TIPS: 1+2+3+7+19/33 @ DMX 125 - *This will set channels 1, 2, 3, 7 and channels 19 through 33 to output 125 on the DMX line.*

REM DIM

The Rem Dim keyword can be used to set channel to a value exclusively. Channels not in the selection list will be turned off or blacked out

1+2+3+7+19/33 @ rem dim 30

This will set channels 1, 2, 3, 7 and channels 19 through 33 to 30% and turn off all other channels.

TIME {FADE} VALUE

With any command an optional fade time can be specified. This will determine how long the channels will take to get from the current value to the new desired value. You can use the keyword "fade" or "time" with this directive. The fade/time directive will also be apply to fixture attributes.

The syntax is in the format; fade X - where X is any real number representing the time in seconds. The keyword can also be shortened to just the letter "f" followed by the time in seconds that you want to fade.

NEO NOTES & TIPS: 24/30 zoom @ 23 fade 2.4 - *This will set the zoom property of fixtures 24 through to 30 to 23 degrees and will take 2.4 seconds to reach this value from the current zoom attribute value.*

NEO NOTES & TIPS: When working with intelligent fixtures such as the one in this example, the term "fixture" replaces the term "channel" in NEO.

ON, OFF, SOLO, FULL, @@

The On, Off, Solo and Full commands can be used to replace the channel value.

Setting channels to "Off" will set the dimmer or attribute value to 0.

Setting the channels to "On" will set the dimmer or attribute to the on level specified in the system properties.

Setting the channel to "Solo" will turn off all other channel while turning on the selected channels.

Setting the channel to "Full" will set the dimmer or attribute to 100%

@@ is a special command that can be used to quickly set the channels to the "On" level.

When using the On, Off, Solo and Full keywords you do not need to enter the "@" symbol prior to the command.

NEO NOTES & TIPS: 3+6/9 On - *This will set channels 3 and 6 through to 9 to the on level.*

PALETTE

The palette command is used to reference the value stored in a palette. The value entered after the "Palette" keyword is the palette number to apply. The palette numbers are displayed in the "Palette" window.

NEO NOTES & TIPS: 6/9 color @ palette 2 - *This will set the color of channels 6 through to 9 to the color defined in palette 2.*

Other Commands

CLEAR (CLR)

Use the clear function to unselect channels and clear the channel display. Entering the clear command on its own will clear the command history display. Use the "CLEAR ALL" syntax to clear all channels in the system.

Optionally you can put a channel list after the clear command to clear only the listed channels.

NEO NOTES & TIPS: clr 1/20 - *The command will unselect the channel 1 through to 20.*

NEO NOTES & TIPS: clear all - *Use the "All" keyword to unselect all of the channels in the system.*

BO (BLACKOUT)

Use the blackout command to release channels. Entering the blackout command twice on its own will release all channels.

NEO NOTES & TIPS: BO BO - *This will turn off all channels in the system resulting in a total blackout.*

Optionally you can put a channel list after the blackout command to release only the listed channels.

NEO NOTES & TIPS: BO 1/20 - *The command will turn off (blackout) the channel 1 through to 20.*

DIM

You can directly access and set dimmers in NEO using the "Dim" command. When a dimmer is set to a specific value it is said to be captured and will remain on that value regardless of any channel settings patched to that dimmer. You can think of captured dimmers as an override for the output value.

The "Dim" command works in much the same way as setting channels however you cannot set a time and the value to be set is always a DMX value (0 - 255).

DIM DMX Channels @ DMX Value

NEO NOTES & TIPS: dim 1+4 @ 164 - *The command will capture dmx dimmers 1 & 4 at the dmx value 164.*

To release a captured DMX dimmer enter an "rel" at the end of the DMX channel list. If no channels are specified then the command will release all captured DMX dimmers.

DIM {DMX Channels} release

CONNECT

The connect command is used to connect to another remote NEO system. This is useful for controlling multiple systems from a single master.

Connect {ip address/machine name}

This command establishes a telnet connection with another LF system.

NEO NOTES & TIPS: Connect 192.168.1.19 - *The command will connect to a NEO system running on IP address 192.168.1.19. If the connection fails a message in the command line history will be displayed.*

SEND & SENDTO

Once connected to a remote NEO system commands can be sent using the "SEND" and "SENDTO" command.

Send {command}

Send the command to the first connected LF system

Sendto {All/remote system} {command}

Send the command to a specific remote system or all remote systems.

NEO NOTES & TIPS: Sendto All 1/40@80 - *The command will execute the command "1/40@80" on all the remote system that the software is currently connected to.*

DISCONNECT

Use the disconnect command to finish communication with a remote system.

Disconnect

Disconnects all connections to remote systems.

Disconnect {ip address/machine name}

Disconnects a specific remote system.

NEO NOTES & TIPS: Disconnect 192.168.1.19 - *The command will close the connection with the remote NEO system on 192.168.1.19.*

LOAD & SAVE

Both the load and the save commands can be used for a dual purpose.

Load (Path + Filename)

Save (Path + Filename)

If the file name entered has an extension of ".FDB" then the software will save and load the current show. If the filename extension is not ".FDB" then the system configuration and screen layouts will be saved.

NEO NOTES & TIPS: Save "c:\demo\my show.fdb" - *The command will save the current show under the name "my show.fdb" in the "c:\demo" directory.*

NEO NOTES & TIPS: Load "c:\demo\my show.fdb" - *The command will load the show "my show.fdb" in the "c:\demo" directory and make it the current show.*

For more information on loading and saving show, refer to "Options" on page 83.

UNDO

The undo is used to revert back to the previous state prior to a command being entered.

RECORD {REC}

The record command can be abbreviated to "Rec" to save typing. Entering the record command followed by enter will popup the "Record Cue" dialog that is used in the channel display when pressing the "Record Cue" button.

REC {CUE, FX, GROUP, SUB} {additional information}

If the record command is followed by the keywords CUE, FX, GROUP, SUB then the syntax is the same as if the "REC" is placed at the end of the command line. For more information see the CUE, FX, GROUP and SUB sections below. Entering the record command at the start of the command line is useful if you do not want the command to execute automatically. Entering REC at the end of the command line text will cause the command to execute automatically.

RECN {desc} {fade in} {fade out} {follow} {delay} {dwell}

Short for "Record Now" the "RECN" command will execute a silent cue record without any further interaction. All of the fields are optional and you can add as many or as few of the option as you need.

- Desc - Cue Description
- Fade in - Fade in/up time in seconds
- Fade out - Fade out/down time in seconds
- Follow - Follow time in seconds
- Delay - Cue delay time in seconds
- Dwell - Cue dwell time in seconds.

NEO NOTES & TIPS: Recn "Sunrise to sunset" 20.6 5 - *The command will record the current channel state to a new cue at the end of the active cue list. The cue description will be set to "Sunrise to sunset" and the fade in time is 20.6 seconds and the fade out time is 5 seconds.*

UPDATE {UPD}

The update command can be abbreviated to "UPD" to save typing.

Use the update command to update an existing cue to modify or replace the cue. Entering the "Update" command on its own will immediately update the current live cue with the current channel state.

GROUP {GRP}

The group command can be abbreviated to "Grp" to save typing. This command has several functions and can be used to set a channel group to a specific level or to record and update a group.

GROUP {number list} @ {value}

The above syntax can be used to set a channel group to a specific value. Any number of groups can be applied and the same syntax as selecting channels is used as the number list.

NEO NOTES & TIPS: Grp 1,3,8 @ 50 - The command will set the channel groups 1, 3 and 8 at 50%.

GROUP {number, name} {SELected} RECord

To record a new channel group use the "Record" keyword at the beginning or end of the command. By default the active channels will be recorded but by adding the "Selected" keyword the currently selected channel will be recorded.

NEO NOTES & TIPS: Grp "Back lights" sel rec - *The command will create a new group or add to the existing group called "Back Lights" and add the currently selected channels.*

GROUP {number, name} {SELected} UPDate

To update a channel group use the "Update" keyword at the end of the command. Only the channels that are currently in the group will get updated.

NEO NOTES & TIPS: Grp "Back lights" Upd - *The above command will update the existing group called "Back Lights" with the current channel state.*

FX

The effect (Fx) command is used to record chase steps into a simple chase. This command can only be used to add steps to the chase and cannot be used to modify an existing step. For more advanced chase editing it is recommended that the "Fx Editor" is used.

FX {number, name} {SELected} REC

NEO NOTES & TIPS: Fx "chase 1" rec - *The command will record the current channel state into the next step of the simple chase called "chase 1".*

SUBMASTER {SUB}

The submaster command can be abbreviated to "Sub" to save typing. This command has several function depending on the text entered after the "Submaster" keyword.

SUB {number list} @ {value}

The above command can be used to set a submaster or list of submasters to specific value. Any number of submasters can be applied and the same syntax as selecting channels is used as the number list.

NEO NOTES & TIPS: Sub 1/4 @ 23 - *The command will set submasters 1 through to 4 at 23%.*

SUB {number} {SELected} REC

The above command will create a new channel group and automatically assign the submaster identified by the {number} to it. The "Selected" keyword can be used to record only the selected channels.

NEO NOTES & TIPS: Sub 4 rec - *The command will create a new channel group and add the currently active channels to it. It will also assign submaster 4 to the new channel group.*

SUB -/+ or SUB PAGE {number}

Use the above commands to set the current submaster page. Enter a + or a - after the submaster keyword will increase or decrease the current page. Entering a number after the keyword will jump to the specified page.

SHORTCUT {SC}

The shortcut command can be abbreviated to "SC" to save typing. Use the shortcut command to execute the desired shortcut.

IF

The "IF" command is as advanced selection tool to select channel or fixtures that match a series of conditions. This command can be used to select fixtures by searching a mix of different parts of your show. Any combination of conditions can be specified with standard AND(&), OR(|) and NOT(!) combinations.

The "IF" command will reference the position, purpose and color description fields. It will also reference palettes and groups that are used by fixtures. If for example I apply a channel group as a preset focus group called "Position DSL" the "IF" statement can find it by simply typing "IF Position DSL" (not case sensitive).

NEO NOTES & TIPS: IF @40 | >70 - *Select all fixtures at 40% or greater than 70%.*

NEO NOTES & TIPS: IF @40 &! L015 - *Select all fixtures at 40% that are not using L015 as their filter (L015 could be a color description or palette)*

NEO NOTES & TIPS: IF position DSL & Red &! wide zoom - *Select fixtures in position DSL that are red but not in a wide zoom. In the above example "Red' can mean a color description and a palette reference.*

VIEW

The "View" command is used to filter the channel display so that you can focus on a specific list of channels that you want to control. This command can filter the channel display by a group name, group number or an "if" statement.

To clear a view from and return to displaying all channels use the "Clear" command as you would to clear channel selection.

NEO NOTES & TIPS: view if @35 - *Select all fixtures at 35% and turn this into a view.*

NEO NOTES & TIPS: view 12 - *Display only the channels in group ID 12*

NEO NOTES & TIPS: view SC Vocal - *Display only the channels in the group labeled "SC Vocal"*

CUE

The "cue" command can be used to execute cues in the system or record new cues.

CUE PLAYBACK {Playback number} {cue number, GO, STOP, BACK, RESET}

The above command will execute a cue on a specific cue playback. You can either enter a specific cue number or use the keywords GO, STOP, BACK, and RESET to control the playback.

NEO NOTES & TIPS: cue playback 2 go - *This will execute the next cue on playback 2.*

CUE {Cue List} {Cue Number, GO, STOP, BACK, RESET}

The above command will execute a cue on the master playback in the "Cue List Editor" window. You can optionally enter a different cue list, cue number or use the keywords GO, STOP, BACK, and RESET to control the playback.

NEO NOTES & TIPS: cue "Act 1" go - *This will execute the next cue on the cue list "Act 1" if this cue list is not the active cue list then it will become the active cue list and the first cue will be executed.*

NEO NOTES & TIPS: cue "Act 1" 3.4 - *This will execute cue 3.4 on the cue list "Act 1".*

CUE {Cue List} {Cue Number} {desc} {fade in} {fade out} {follow} {delay} {dwell} {SELected} REC

This command will execute a silent cue record without any further interaction. All of the fields are optional and you can add as many or as few of the option as you need.

- Cue List - The name of the cue list to record to.
- Cue Number - The cue number to record
- Desc - Cue Description
- Fade in - Fade in/up time in seconds
- Fade out - Fade out/down time in seconds
- Follow - Follow time in seconds
- Delay - Cue delay time in seconds
- Dwell - Cue dwell time in seconds.
- Selected - Record only the selected channels to the cue.

NEO NOTES & TIPS: Cue "Act 1" 5.3 "Sunrise" 5 - *The command will record the active channels into cue 5.3 of the "Act 1" cue list. If the cue list does not exists it will be created. Also if the cue does not exists it will also be created. The recorded cue will be given the description "Sunrise" and have a fade in time of 5 seconds. If the cue already exists then the parameters not entered in the command will remain unchanged.*

MACRO

The macro command can be used to execute any of the macros added to the show.

The syntax for this command is

Macro <macro Name>

Enter the word "macro" followed by the name (or part name) of the macro you want to run. As soon as you enter the command the macro will execute.

This command can be shortened to "M <macro name>".

NEO NOTES & TIPS: M "Reset Movers" - *The command will execute the macro called "Reset Movers" if it exists. If a macro does not exists the command will fail.*

FADE

The "Fade" command can be used to set the master fade time for the system. The master fade time can be seen on the main Command Line interface just to the right of the ENTER button.

The syntax for this command is

Fade <time in seconds>

NEO NOTES & TIPS: fade 3.4 - *Sets the master fade time to 3.4 seconds.*

SCROLLTO

The "Scollto" command can be used to bring a specific channel into view in the channel display window. This command is useful in conjunction with the quick macro feature in the shortcut window. By creating a quick macro to scroll the channel display to a specific place you can easily jump to any channel when working with a large number of fixtures.

The syntax for this command is

Scrollto <channel number>

NEO NOTES & TIPS: scrollto 115 - *Scroll the active channel display so that channel 115 is on the top row.*

SHORTCUT

Use the Shortcut command to execute a shortcut, enable or disable a shortcut. The shortcut command can be abbreviated to "SC".

NEO NOTES & TIPS: SC 2 - *Execute shortcut 2.*

NEO NOTES & TIPS: SC 2 disable - *This will temporally stop the shortcut from being executed.*

NEO NOTES & TIPS: SC 2 enable - *This will re-enable shortcut 2.*

TIMECODE

NEO now supports an internal timecode generator that can run independent of any media playback. To enable internal timecode enable the option in the timecode tab of the "External Triggers" window.

TC RESET - This command will reset the internal timecode back to 00:00:00:00.

TC PAUSE - The internal timecode will stop in its current position.

TC CONtinue - Timecode will continue from where it was paused.

TC {time value} - Use this to set the timecode to a specific value.

NEO NOTES & TIPS: TC PAUSE - *Pause the internal timecode at its current position.*

NEO NOTES & TIPS: TC 00:20:03:15 - *Set the timecode to 2 minutes, 3 seconds and 15 frames.*

NEO NOTES & TIPS: TC CON - *Start the internal timecode from a paused state.*

TEMPO

The tempo command can be used to control the tap tempo functions of the software.

TEMPO RESET - Reset the tap tempo in the system.

TEMPO PAUSE - Temporarily pause the tap tempo events.

TEMPO CONtinue - Resume the paused tap tempo events.

TEMPO {value} - Set the tap tempo rate in bpm.

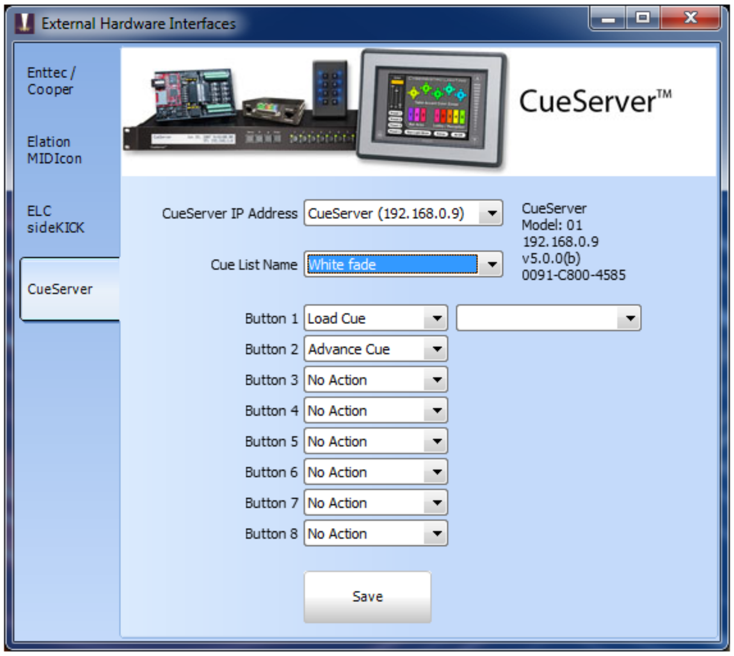
TEMPO DIV {value} - Divide the tempo by the specified amount.

2. Hardware Interfaces

External wings are dedicated hardware designed to provide hand on control to NEO. They include playback, shortcut, and program devices.

CueServer

CueServer is a lighting control solution for of stand-alone architectural and show control. NEO is now able to directly integrate with these products by exporting a cue list directly to the device. The CueServer tab will allow you to select the cue list you want to upload and the actions you want for each of the buttons. NEO will then take care of creating the necessary resources containing your show data and upload it in one operation.



CueServer IP Address: CueServer (192.168.0.9)

CueServer
Model: 01
192.168.0.9
v5.0.0(b)
0091-C800-4585

Cue List Name: White fade

Button 1: Load Cue
Button 2: Advance Cue
Button 3: No Action
Button 4: No Action
Button 5: No Action
Button 6: No Action
Button 7: No Action
Button 8: No Action

External Hardware Wings - CueServer

When this window is opened NEO will automatically search for CueServers connected on the network. You can select the CueServer you want to send a show file to by selecting it from the drop down combo box at the top of this window. Detailed information about the selected CueServer will be shown on the right including its version number, model and serial number.

Use the "Cue List Name" selection to set the cue list you want to load onto the device.

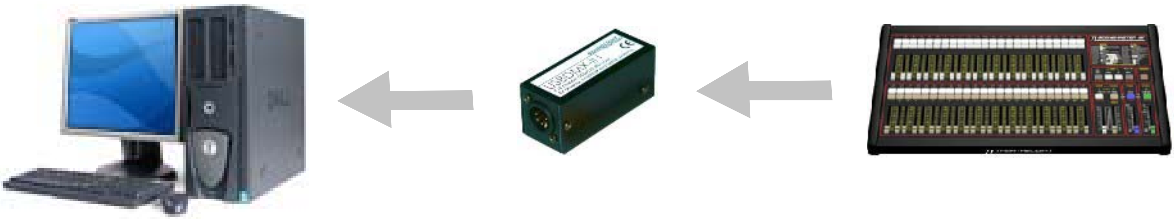
The CueServer has 8 buttons on the front of the device that can be set to either advance the cue list or load to a specific cue. Use the selection box to set the action you want for each of the buttons. If the "Load Cue" option is selected a second drop down box will be shown for you to select the cue you want.

Click on the "Save" button to upload the cue list you have selected into the CueServer. If your show file contains a lot of effects then this may take a while as each effect is rendered.

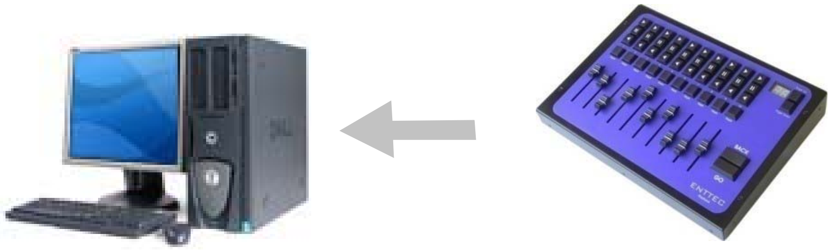
Hardware Submasters

NEO provides the ability to add physical hardware to the system by using any standard DMX lighting desk, MIDI Control desk or Playback wing. By connecting the DMX-IN hardware, you can connect your existing lighting desk to the software.

NEO will only use the first 100 channels of the lighting desk as submasters, but these 100 channels can be paged to provide up to 100,000 submasters.

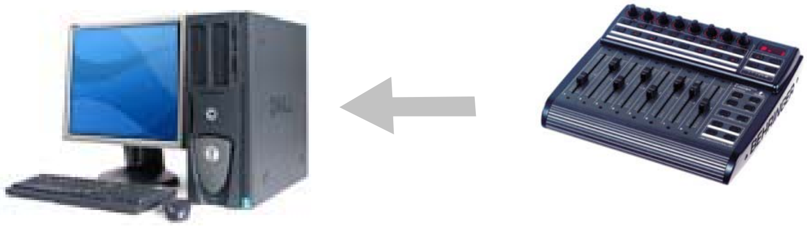


You can also use the Enttec playback wing as an external submaster board without needing to assign any playbacks.



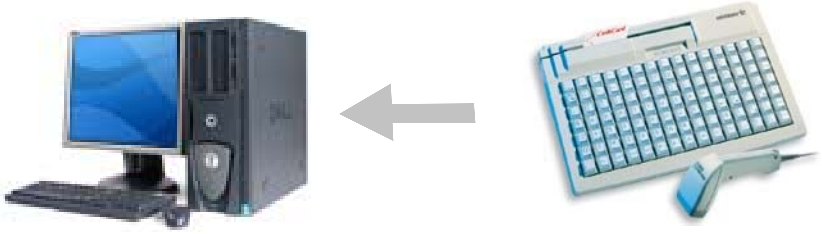
See “Hardware Setup” on page 23 for more information about connecting the playback wing to your system.

NEO can also read fader levels from a standard MIDI controller using the "Control Change" messages. If the MIDI device supports motorized faders then NEO will also send MIDI messages when changing page or setting the on-screen submasters. This will allow the physical submaster to reflect the current value.



3. Hardware Shortcuts

Programmable keyboards can be connected to the NEO system to provide physical shortcut buttons. Programmable keyboards are most commonly used in point-of-sale environments but are perfect for this application. Each key can be assigned a sequence of characters to send to the computer and are generally designed for heavy continuous use.



NEO has a built-in command sequence that will trigger shortcuts from programmable keyboards. Each shortcut can be triggered by the key sequence control-Q {digit 1} {digit 2}. For example to trigger shortcut 21 from an external keyboard you would need to program the key sequence control-Q 21.

If you are using the Enttec shortcut wing no programming is required as the system will immediately associate the keys with the shortcuts in the system.

For more information on shortcut hardware, please visit our web site. www.strandlighting.com.

4. Window Layout Options

When NEO is shutdown and restarted the position and size of the windows are remembered. The next time you use the software you will notice that the windows will re-open in the same state as they were last left.

In the Extras menu are two options that allow the positions (and settings) to be saved and re-loaded. This allows for multiple layouts to be used for different environments. You may, for example, have one layout for programming a show and one for playback.

Click on the "Save window layout & settings" to save the current position and size of all the windows to a file on your computer. A save dialog box will appear asking for a name and location to store your layout. Enter a valid name and click "Save".

To restore the position and size of the windows form a saved configuration click on "Load window layout & settings". An open file dialog will prompt you to select the file containing the settings. Once loaded the windows that are currently open will re-position to the settings saved in the file.

PHILIPS

Strand Lighting

Strand Lighting
Dallas
10911 Petal Street
Dallas, TX 75238
Tel: 214-647-7880
Fax: 214-647-8031

Strand Lighting
Asia
Unit C, 14/F, Roxy Industrial Centre
No. 41-49 Kwai Cheong Road
Kwai Chung, N.T., Hong Kong
Tel: +852 2796 9786
Fax: +852 2798 6545

Strand Selecon
Auckland
19-21 Kawana Street
Northcote, Auckland 0627
New Zealand
Tel: +64 9 481 0100
Fax: +64 9 481 0101

Strand Lighting
Europe
Rondweg zuid 85
Winterswijk 7102 JD
The Netherlands
Tel: +31 (0) 543-542516

www.strandlighting.com