



User Manual

v4.3

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Congo Manual

This is the manual for Congo & Congo Jr
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A theatre and moving light control system for over 3000 control ch's and
6000 moving light attributes.



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




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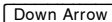

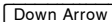

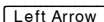
This Manual - Using the Help system (4.1)

Action	Key	Feedback
Start Help		The help system is started in a tab.
Find topic for a key	 & 	Hold the ? key and press any key in the console facepanel to jump to the chapter explaining that key.
Find topic for the last opened tab		Press ? after opening an editor or list to get help.
Jump to page 1		Press ? to jump to page 1.

- Use the up and down arrow keys to browse the table of contents. The right arrow expands a topic and the left arrow jumps to the parent and closes. See [Navigating - Browser](#).

Help System - Navigating (4.1)

Navigating in the help can be done as a paper manual (next or last page) and as a web browser (previous page).

Action	Key	Feedback
Scroll within page	 & 	Scrolls up/down within this page.
Next page		Steps to the next page.
Page before this page		Steps to the previous page.
Last visited page		Steps to the last visited page.

Help - Search Function (4.1)

Pressing TEXT in the Help tab opens a search dialog where you can search for information in the Online Help.



The result page is shown like this example. The focused link will be bold.



Navigating links is done like this. MODIFY follows the focused link (bold).

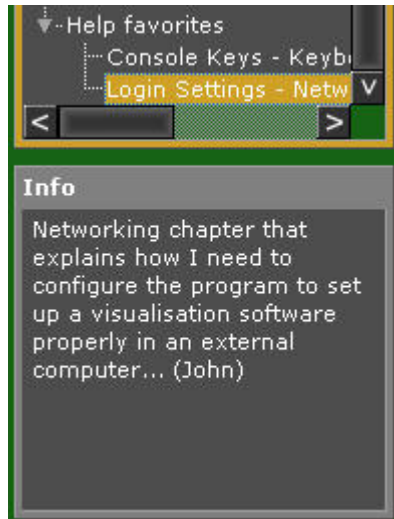
Action	Key	Feedback
Next hyperlink	C/ALT & Down Arrow	Steps to the next hyperlink (bold).
Previous hyperlink	C/ALT & Up Arrow	Steps to the previous hyperlink (bold).
First hyperlink on page	C/ALT & Left Arrow	First hyperlink on this page is focused.
Last hyperlink on page	C/ALT & Right Arrow	Last hyperlink on this page is focused.
Follow focused hyperlink	MODIFY	Follows the currently focused hyperlink.
Follow focused Hyperlink.	Right Arrow	Follows the currently focused hyperlink.

Help System - Favourites (4.1)

Press NOTE in a Help tab to record a Favourite. A dialog allows you to enter a pretty long descriptive text for the chapter you are tagging as a favourite.



This text is shown in the Info area when you focus on a Favourite in the Browser.



See [Navigating - Browser](#).

To delete a Note - focus it in the Browser and press DELETE.

Help System - Change Language (4.2)

Language is selected in the login screen system settings popup. See [LOGIN SETTINGS](#).

The system has to be rebooted to active a new language.



This Manual - Terminology

This manual is intended for use with the Avab Congo control system by ETC.

The on-line manual and the paper manual are the exact same document.

In order to be specific about where features and commands are found, the following naming and text conventions will be used

- Congo processor (hardware): the computer used to run the Congo applications.
- Congo Facepanel (hardware): the control console hardware. This is also referred to simply as the "Facepanel".
- Congo software: the application that gives you the functionality of the Congo system controlled from the Facepanel.
- Commands in the Browser Tab are indicated like this: Browser >Files >New.
- Console keys in general are indicated in all CAPS. For example RECORD.
- Console keys in tables are have a button outline like this:

RECORD

- When a key is held and another key is pressed at the same time is written like this: RECORD & MASTER
- References to other parts of the manual are indicated as underlined hyperlinks. When viewing this manual electronically, click on the reference to jump to that section of the manual.

Disclaimer (4.1)

We do everything possible to guarantee the reliability of this system.

To guarantee this it is not allowed to install anything by yourself into a Congo system. This includes printers, touch screens etc.

You are not allowed to change or add anything in Windows except for the screen resolution and the IP address.

It in doubt contact your ETC representative.


See [Troubleshooting](#).

Power-up Procedure (4.1)

For best performance, power-up your system in the following order.

NOTE

(4.1) If you set the Output mode switch to Freeze before you start the application, the output will not be updated until you move the switch to on. This makes it possible to start without output and prepare the correct light before activating it on stage.

Action	Hardware	Feedback
1. Turn on external hub(s) or switch(es)	Power switches	
2. Turn on the console and monitor(s)	Power switch on console and monitors	<p>The displays will light up with the Congo logo. The screens will load the login screen.</p> 
3. Start the Congo software	<input type="button" value="MODIFY"/>	You can select start option with mouse or console keys (trackball or arrow keys) (4.3).
4. Choose starting Play	<input type="button" value="MODIFY"/> or <input type="button" value="ESC"/>	A popup will give the choice of the last play (or recovery) or a new play. The Live channel view will be active.
5. Turn on any ETCNet2 Nodes and accessories such as Remote Focus units	Power switches	You should be able to control the outputs now**

*The user login contains separate settings for the Direct Select tabs and Screen Layouts. Play data and all other settings are the same for all users.

**See [Quick Start To Programming](#)

NOTE

In a network with multiple Congo Systems online, allow the main system to fully start-up before starting the other systems. This will ensure that your network configures correctly.

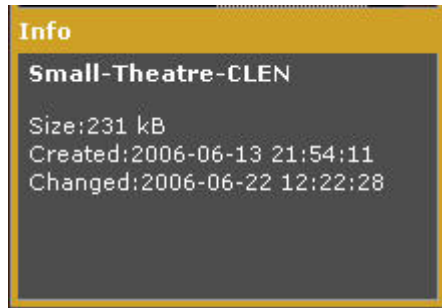
When you power-up your Congo System, the system will default to opening the show last saved in a proper shutdown.

ESC can be used in the welcome screen to abort starting locally or connecting as a client. (4.1).

Save And Load Information (4.3)

Make sure you save your information at all times. If the current Play has been altered since it was last saved, the name is displayed in yellow instead of white.

All file handling is done from the File node (BROWSER >File). It is possible to create subdirectories by pressing INSERT. Info about the selected file is shown in the Info box at the bottom of the Browser (4.2).



This system has a hard drive as the primary storage. You can also use a USB memory stick, an external USB drive, Floppy or a File Server on the network. For alternative Play Paths see [Login Settings - General Functions](#).

Function	Key	Feedback
New	<input type="button" value="MODIFY"/>	Opens a popup asking you to confirm. See Load a new (empty) Play .
Open...	<input type="button" value="MODIFY"/>	See Open a Play .
Save	<input type="button" value="MODIFY"/>	Saves the current play. Opens a popup asking you to press MODIFY to confirm.
Save as...	<input type="button" value="MODIFY"/>	See Save a Play
Import from...	<input type="button" value="MODIFY"/>	See the Import Wizard .

NOTE
 USB memory is the main external storage media.


If you insert a USB device which contains Image or Movie files, you get a question about auto importing them to the Images and Movies folders.

The Floppy drive is mainly an interface for importing shows from other systems using floppy such as Pronto, Safari, Expression, Strand 500-series etc. See [IMPORT WIZARD](#). If your system does not have a floppy drive, connect one with USB or move the files to a USB memory stick.

(4.3) Sub folders are shown at the start of the file list with the name in [brackets].

Load a New (empty) Play (4.2)

When you want to clear the console to start with a new play, you use the "New" command (Browser >Files >New).

Function	Key	Feedback
1. Select the Browser	BROWSER	The Browser is selected on the left side of screen 1. NOTE If the Browser already was selected - it will be closed. Press Browser again to reopen. 
2. Go to "Files" at the top	Arrow keys	Files is marked in orange
3. Open the File node	Right arrow	Opens a subtree of functions.
4. Select "New"	Down arrow	New is marked in orange
5. Load a new play	MODIFY	Opens a popup asking if you are sure*
6. Confirm	MODIFY	Press MODIFY to confirm. You will get a popup with patch options for the new play**

*Confirmation popup (5) if the current play has unsaved changes (4.2).




**New Play patch options (6)



See [Patch](#).

Open A Play (4.2)

When you want to open a play, you use the "Open..." command (Browser >Files >Open).

Function	Key	Feedback
1. Select the Browser	<input type="button" value="BROWSER"/>	The Browser is selected on the left side of screen 1* 
2. Go to "Files" at the top	Arrow keys	Files is marked in orange
3. Open the File node	Right arrow	Opens a subtree of functions.
4. Select "Open"	Down arrow	Open is highlighted.
5. Open this node	Right arrow	Opens a subtree of media choices.
6. Select Media	Down arrow	Selected media (Floppy, Play Archive (HD) or USB) is highlighted.
7. Open media archive	Right arrow	A subtree is opened with all plays in the selected Media**
8. Load the selected play	<input type="button" value="MODIFY"/>	Opens a popup. If there are changes in your current play you will be asked to save (4.2)
9. Confirm (or don't)	<input type="button" value="MODIFY"/>	Use arrow key to select your choice and MODIFY to confirm it. The selected Play is loaded.

*If the Browser already was selected, it will be closed. Press BROWSER again to reopen.

**If Floppy, File Server or USB files are not shown you can update this node by clicking on it.

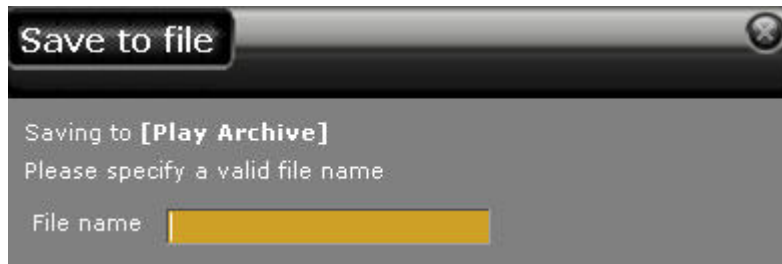
Save A Play (4.3)

Everytime a play is saved a backup version 1-9 is stored and subsequently overwritten. You can create subfolders by pressing INSERT in the file node of the Browse (4.2).

The key shortcut for saving a play is C & UPDATE (save) or C & RECORD (save as) (4.2). You can also press CTRL-S on a keyboard.

Function	Key	Feedback
1. Open the Browser	<input type="button" value="BROWSER"/>	If it was already selected it will be closed. Press again to open.
2. Go to Files	Down Arrow	Files is highlighted
3. Open subnodes	Right arrow	Subnodes are opened. Choose target drive Play Archive (Hard drive in console), USB (if inserted) or Floppy (if connected).
4. Select Save as	Down Arrow	"Save as" is highlighted
5. Open subnode	Right Arrow	Subnodes are opened*
6. Select Play Archive	Down Arrow	Play Archive is highlighted
7. Confirm Save As...	<input type="button" value="MODIFY"/>	You will get a popup where you can name the play from the keyboard in master display 2*
8. Select OK	Down Arrow	OK is highlighted
9. Confirm	<input type="button" value="MODIFY"/>	The show is saved and the show name is displayed in the top left corner of the screens.

*"Save as" popup



*It is possible to set up a file server by specifying the play patch in the Login Settings. See [Login Settings](#), [General Functions](#).

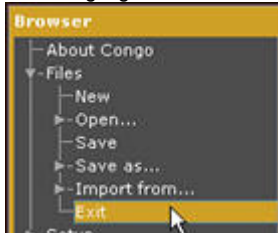

Demo Plays (4.3)

Demo plays are included in the Congo installation. They are located in a sub folder of the Play Archive. Currently there is one - more will be added. Sub folders are indicated with brackets around the name of the node [Demo Plays].

There is a training tab with a visualiser module that you can open together with the demo play - and work in a virtual learning environment. See [Media - Training Projects](#).

Exit and Shutdown

Always shut down your system correctly with the Exit function (BROWSER >File >Exit). If your console has a softpower button you can use that as well.

Function	Key	Feedback
1. Open the Browser	<input type="button" value="BROWSER"/>	If it was already selected it will be closed. Press again to open.
2. Go to Files	Down Arrow	Files is highlighted
3. Open subnodes	Right arrow	Subnodes are opened
4. Select Exit	Down Arrow	Exit is highlighted 
5. Confirm Exit	<input type="button" value="MODIFY"/>	You will get a popup asking you to confirm, and exit to the login screen.
6. Select Shutdown	Right Arrow	Highlights the Shutdown symbol in the login screen 
7. Confirm Shutdown	<input type="button" value="MODIFY"/>	The system is shut down. You can power off now.

NOTE

The current play will be saved to a temporary file called "SAVED.ASC". This file is loaded automatically the next time the Congo is powered up.

Power Loss (4.1)

In early models of Congo with an internal UPS supply, when Congo is shut down because of power loss, a status message is shown and the screen background turns red.

The internal battery of the power supply (UPS) will keep the console running approximately two minutes, after which it makes a controlled shutdown saving the Play.

NOTE

The current play will be saved to a temporary file called "SAVED.ASC". This file is loaded automatically the next time the Congo is powered up.

Always make sure to save a backup to an external media like a USB device. It is your only protection against an internal hardware failure.

System Info

This chapter describes what is included in a Congo system.

This chapter contains the following sections

- [System Info - Installation Guidelines](#)
- [System Info - Software & Update](#)
- [System Info - Console Specification](#)
- [System Info - Interface Specification](#)

System Info - Installation guidelines

Equipment required to run this system

- Congo or Congo Jr console & power cable
- Monitor(s) & power cable
- Monitor signal cable(s)
- DMX512 or Ethernet cable(s) to external equipment

Connect the monitor signal cable(s) from the back of the console to the monitor(s), and then connect the power cables to a 230/110V outlet and start all units. After approximately 30 seconds you should have this start screen on monitor 1.



If not then check:

- Is each monitor is set for VGA IBM compatible mode?
- Is each monitor cable is properly connected?
- Is each monitor power on?

See [Power-up Procedure](#).

System Info - Software & Update

We constantly update the Congo software with new features, bug fixes and changes. Check www.avabcontrol.com periodically to see if there's a more recent version than the one you are currently working with.

Software versions come in two types: Beta release and Official release. Beta releases are test versions, which are not meant for use on real Plays. Once Beta releases are tested and proven reliable, they become official releases.



The AVAB Congo software is owned and manufactured by ETC.

Version Information

You can see which version you have in About Congo (Browser >About Congo).



Upgrade Software

Function	Action	Feedback
Download latest software	www.avabcontrol.com	Save the file "congo.exe" on a USB memory stick in a folder named "Software".
Put USB in Congo		-
Go to login screen	See Exit & Shutdown	You will see the login screen 
Go to Settings	Right Arrow	Settings is highlighted 
Open Settings	<input type="button" value="MODIFY"/>	The Settings popup is opened*
Go to Software Update	<input type="button" value="TAB"/>	Software Update is highlighted. <i>(If not, Congo cannot find the file congo.exe)</i>
Confirm Upgrade Software	<input type="button" value="MODIFY"/>	You will get an installation wizard to confirm all steps.
End upgrade	<input type="button" value="ESC"/>	Pressing ESC exits to the login - where you can start as usual.

*The Settings popup



When you are done you can check [New Software Version Information](#).

New Software Version information

This information is opened from the Browser >Media >Documentation.

You should always read the Version Info for any new update of software. New functions may be added and old ones may have been changed. There are three headers:

Bugs = These are bugs that have been discovered and fixed.
 Changes = Features that have changed from previous software.
 Features = New features that have been added in this software.

System Info - Console Specification

Console data	Explanation
Control channels	<i>Maximum 3072 channels, numbering from 1 to 4999.</i>
Outputs	<i>Maximum 6144 outputs.</i>
Output protocols	<i>DMX512, ETCNET2, AVABIPX and ArtNet over Ethernet</i>
Dimmers	<i>Free proportional patch, unlimited per channel number</i>
Displays	<i>Up to three Monitors, graphical LCD-Display, LED-Displays.</i>
Channel selection	<i>RPN and At Mode (Direct Mode)</i>
Dynamics	<i>999</i>
Channel groups	<i>999</i>
Presets	<i>9999</i>
Sequences & Chases	<i>999</i>
Main Theatrical Style Playback	<i>1</i>
Master Playbacks	<i>40</i>
Backup media	<i>Harddisk, USB Memory</i>
Power	<i>110 V/230 V, 47...63 Hz, ca. 270 VA</i>
Dimensions (H x W x D)	<i>Congo: 165mm x 1135mm x 634mm</i>
Weight approx.	<i>Congo: 37kg (81,5lb)</i>

System Info - Interface Specification

Interfaces	Explanation
Monitor	<i>Three VGA interface standard</i>
Mouse or trackball	<i>USB Interface (integrated in Congo)</i>
Keyboard	<i>Integrated plus USB Interface</i>
DMX512	<i>Output 1 & 2 for DMX512. RDM ready.</i>
Ethernet	<i>RJ 45 (Twisted Pair)</i>
MIDI	<i>In/Out/Thru (2 connectors)</i>
APN	<i>For external panels or Lynx fader wing</i>
Radio remote control	<i>Radio control, able to penetrate an "iron curtain"</i>
External trigger inputs	<i>D-sub 15 pins</i>
Console lighting	<i>Connections for 2 goose neck lamps</i>
Phone Remote	<i>RJ 11 Phone Connector</i>
Audio In & Out	<i>Mini stereo plug</i>

Quick Tour

This chapter describes the console facepanel, and basic software terminology.

This chapter contains the following sections

- [Quick Tour - Congo Facepanel](#)
- [Quick Tour - Key Syntaxes](#)
- [Quick Tour - Software Terminology](#)
- [Quick Tour - Control Hierarchy](#)

Quick Tour - Console Facepanel

The facepanel of a Congo Console is divided into different sections. In **Congo** and **Congo Jr** these sections are more or less identical - there are some small differences.

Congo Console

In the Congo console everything is integrated. There is an integrated trackball and a Master Playback section. The main display has a display list section.

Congo Jr Console

In the Congo Jr console there is an external mouse. The Main Display does not have a display list section. The Master Playbacks is an optional wing. The Master Playback functionality is integrated into the Main Playback.

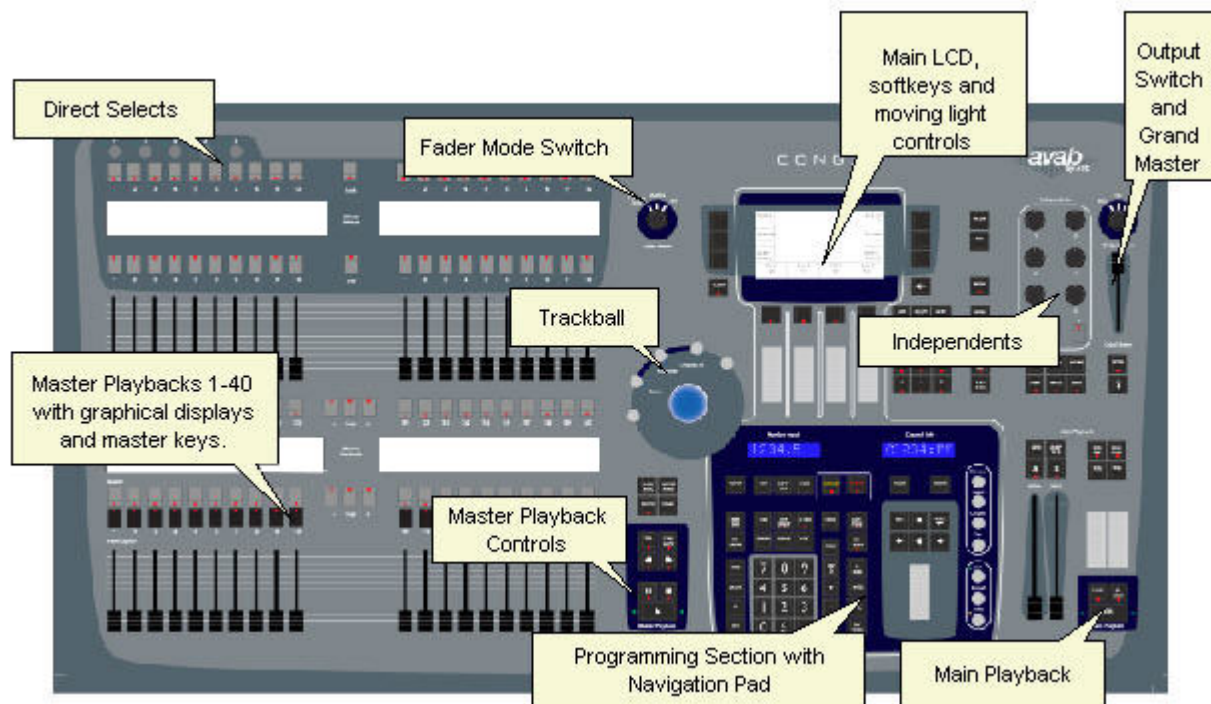
These sections are described in this chapter

- [Facepanel - Programming Section](#)
- [Facepanel - Console Main Display](#)
- [Facepanel - Output Mode Switch](#)
- [Facepanel - Grand Master](#)
- [Facepanel - Trackball](#)

These sections are described elsewhere in this manual

- [Main Playback](#)
- [Master Playbacks](#)
- [Direct Selects](#)
- [Independents](#)

Console Facepanel - Congo



Console Facepanel - Congo Jr



Facepanel - Programming Section

NOTE

Congo & Congo JR share the exact same layout of the Programming Section. The only difference is that in Congo Jr, the number input and channel info displays are only shown on the screen status bars.

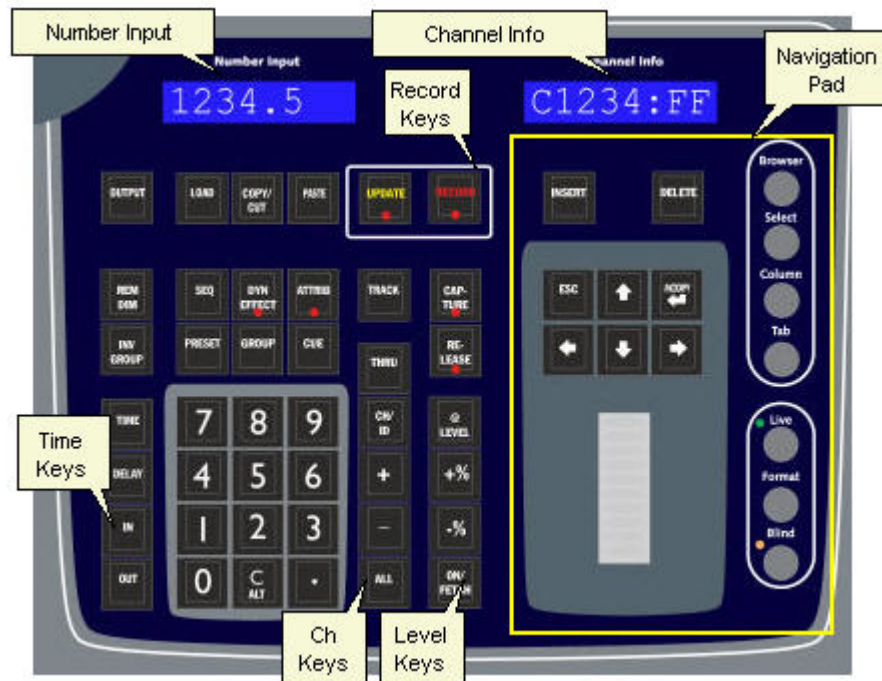
The keys in the programming section allow you to select and store channels, levels, moving light parameters and times.

General Facts

- To the right of the numeric keypad there is a row with keys for selecting groups of channels, and to the right of that is a row with keys for setting levels in different ways.
- There are keys for setting times to the sequence in the Main Playback.
- There are keys for recording and updating the current preset.
- There are direct keys to open editors for play data (SEQ, PRESET, GROUP etc)
- The Navigation pad includes the round navigating keys, the arrow keys, the level wheel and ESC and MODIFY. See [Navigating In Congo](#)

There are two small displays

- Number Input (left) shows the last entered number input from the numerical keypad.
- Channel Info (right) shows the number and level of the last selected channel.

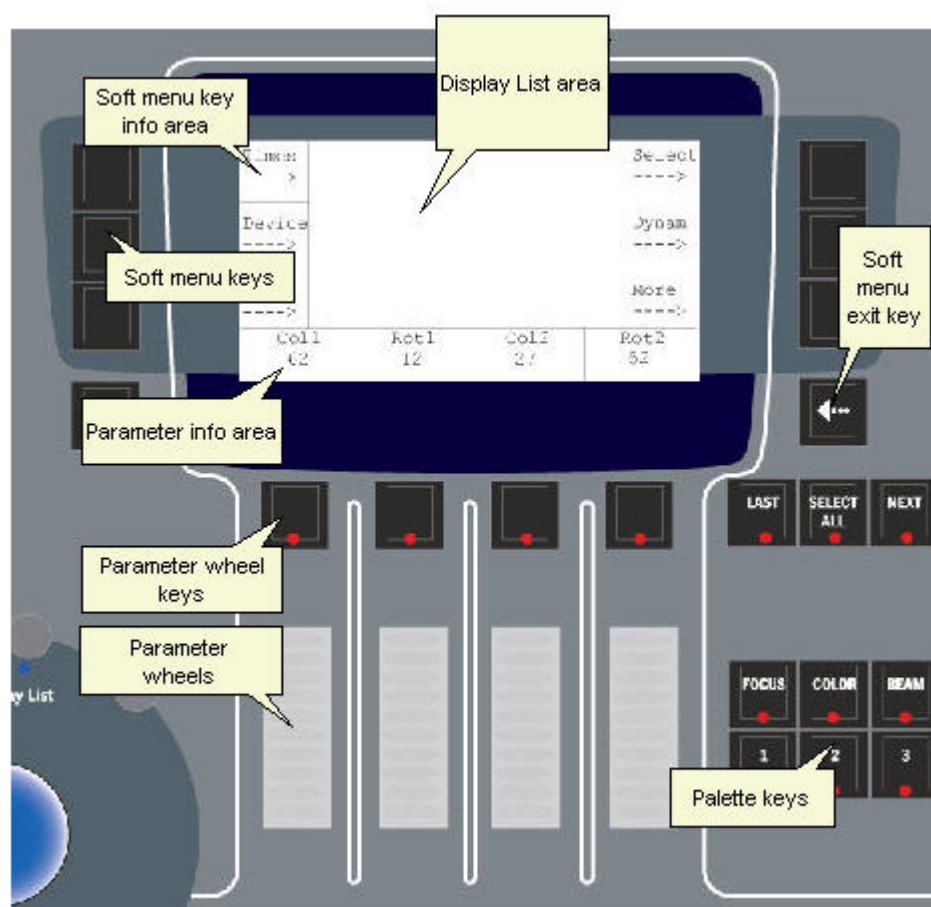


Facepanel - Console Main Display

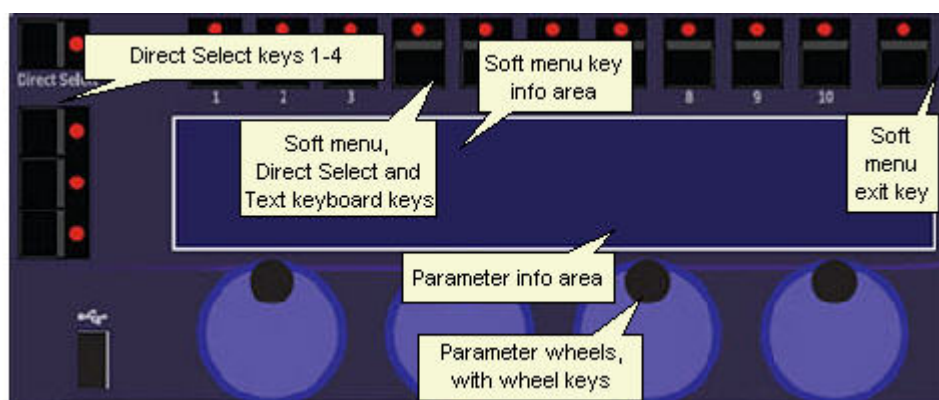
This section has different programming functions.

- The Display has soft menus with different sets of functions for the keys around it.
- The wheels can be used for any device parameter.
- There is a list section in the middle that is controlled by the Disp List function of the Trackball (*not available in Congo Jr*)

Congo main display area



Congo Jr main display area

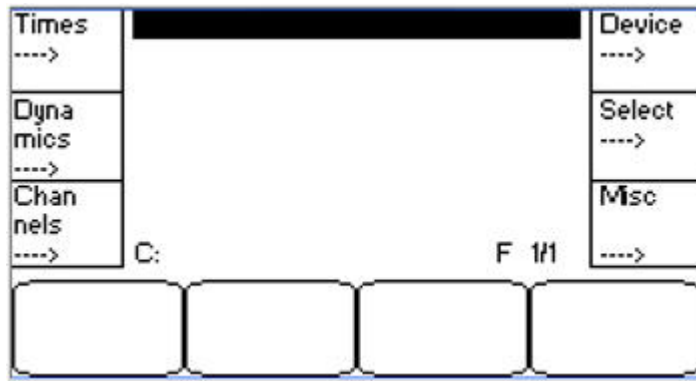


Main Display - Functions

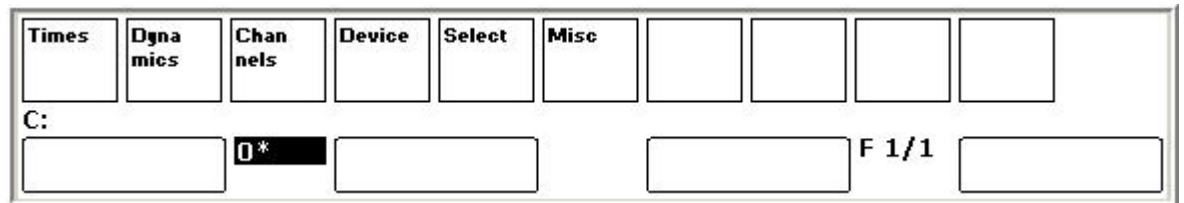
The Soft Menu exit key (<-->) moves one step back up to the top menu level each time it is pressed.

These are the soft menu keys in the top menu (4.2)

Congo



Congo Jr



Summary of soft key menus

Soft Key Menus	Explanation
Times	Shortcuts for setting times. See The Times Soft Key Page
Dynamics	Controls for running Dynamics. See Dynamics - Control
Channels	Channel functions. See Channels - Balance Mode See Channels - Group Wheel Mode See Presets - Compare Mode
Device	Device control and special functions. See Device Control - Flip See Device Palettes - Focusing Mode See Only "Changed" are recorded See Device Palettes - Update
Select	Select functions. See Device Control - Select
Misc	Miscellaneous functions. See Navigating - Misc Soft Key Page

Facepanel - Output Mode Switch

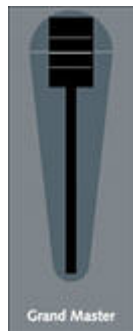
Output Mode is a three-position switch in the top right corner of the console facepanel.




Action	Feedback
B.O.	A Black Out of all outputs, except those controlled by the Independents in Exclusive mode. A red B.O. Indication will appear on the top of all screens.
ON	The mode for normal operation of the console
Freeze	The current output to stage is frozen. A blue FREEZE Indication will appear on the top of all screens. See Freeze Mode .

Facepanel - Grand Master

The Grand Master is located in the top right corner of the console facepanel.



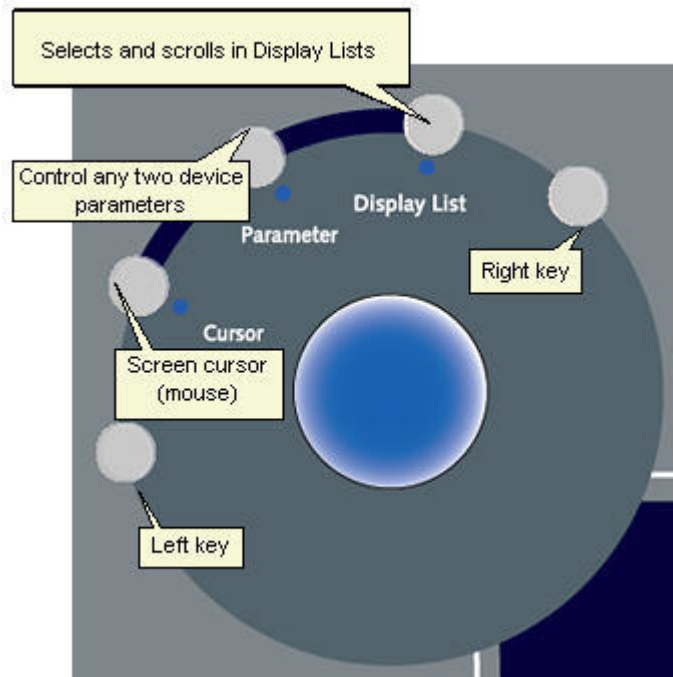
Console	Feedback
Grand Master	Will scale the total output of all intensities (only) when below 100%, except channels controlled by the Independents in Exclusive mode. A red Level Indication will appear on the top of all screens. 
NOTE Attributes are not affected by the Grand Master.	

Facepanel - Trackball

NOTE

Congo JR has no integrated mouse or trackball. It is delivered with an external mouse that is connected via USB.

The trackball has three different modes that are activated with the keys around it.



Key	Feedback
Cursor	The trackball controls the cursor in the software. This is mainly used for creating channel layouts.
Parameter	Controls Pan and Tilt of the selected Device(s)
Display List	Is used to select and scroll Display Lists. See Display Lists .
NOTE It is possible to connect any USB mouse or trackball. See External Mouse Or Trackball	

Quick Tour - Key Syntaxes

There are mainly two kinds of keys in the console: keys with a fixed function, and the softkeys around the LCD Display.

Keys in the Congo can behave in the following ways

Function	Description	Example
Direct functions	<i>Will perform a function directly when it is pressed.</i>	GO and PAUSE in the Main Playback
Functions with a numerical prefix	<i>Requires a numerical entry (0-9) before it is pressed.</i>	(#) RECORD to store a preset with that number
Prefix functions (key combinations)	<i>Will change the function of another key if it is held down while pressing that key.</i>	Hold C/Alt and press PLAYBACK to clear the Main Playback

Some keys can combine all three ways of working. An example of this is the PRESET key

- Pressing PRESET with no numerical prefix opens the Preset List with all presets.
- A number and PRESET selects the channels of that specific preset.
- A number and holding PRESET while pressing a Master Key will load preset (#) to that Master.

NOTE

Hold down the ? (HELP) key, and press a key to jump to the page in the online manual that describes that function.

Quick Tour - Software Terminology

It can be easier to understand Congo if you are familiar with the basic terminology.

Channels (terminology)

A Channel is the control handle used to call anything controlled by Congo. Regardless if it is a dimmer channel, a moving device, a smoke machine or something else it will always correspond to a channel number in the Patch.

See [Channels](#)

Attributes (terminology)

The control parameters of anything that isn't a dimmer, for example a moving device or a scroller, are called attributes. These are patched to the controls of Congo when the Template corresponding to that device is assigned to a control channel in the Patch.

See [Moving Devices](#)

Patch (terminology)

The Patch is where you configure your outputs and devices. When you start a New play the default setting is 1:1.

See [Patch](#)

Output protocol (terminology)

Congo supports a lot of output protocols through Ethernet, and has two DMX512 outputs as well.

See [Output Settings](#)

Groups (terminology)

Frequently used combinations of channels can be stored in up to 999 Groups, for quick recall from the keypad or a remote focusing system.

See [Groups](#)

Presets (terminology)

This is a specific "Avab" concept. Frequently used combinations of channels are stored in up to 9999 Presets (0.1-8999.9), for playback in the Main or Master Playbacks. The combination of a Preset and a Sequence Step is the equivalent of a "Cue" in many other systems. The advantage here is that Presets can be reused in any Sequence, with different times.

See [Presets](#)

Sequences (terminology)

Lists of Presets are called Sequences, that can be crossfaded, move faded or lock faded in consecutive order from a Master or Crossfade Playback. A Sequence can be played back in Chase mode.

See [Sequences](#)

Dynamic Effects (terminology)

Dynamic Effects are wave-forms that are applied to intensity or attribute parameters for a selection of channels to provide a Dynamic Effect, for example a circular movement or a ballyhoo.

See [Dynamics](#)

N/A

N/A

Quick Tour - Control Hierarchy

Dimmer channels are treated as HTP, all other (moving device) parameters are treated as LTP. There is a Grand Master and Inhibit Masters that can subtract from the output.

Playbacks - Introduction

Intensities and parameters can be played back from the following playbacks.

- The main playback and Live field
- The 40 master playbacks
- The Direct Selects
- The Independents
- The Blind field
- The Freeze field

The following functions can affect the playback of an intensity or parameter

- Capture Mode
- Exclusive Mode
- Inhibit Mode
- Balance Mode
- Park
- Scale
- Mute (4.2)
- Solo (4.2)

Control Hierarchy - Master Playbacks

Light output from the Masters is added to the output on a Highest Takes Precedence basis. Device attributes are controlled by Last Takes Precedence.

An Independents Master set to Inhibit Mode will subtract the assigned channels from the output similar to the function of the Grand Master.

See [Master Playbacks](#)

Control Hierarchy - Main Playback

Light output from the Main Playback is added to the output on a Highest Takes Precedence basis. Device attributes are controlled by Last Takes Precedence.

The Main Playback consists of two faders, one for the active channels, and one for the channels in the next step. These also interact on a Highest Takes Precedence basis, with the addition that channels that exist in both faders exist in a third "invisible" fader that ensures all crossfades to be dipless. As a result you cannot get a blackout in the Main Playback with both faders at 0%.

See [Main Playbacks](#)

Control Hierarchy - Highest Takes Precedence

You can output light from all Masters and the Main Playback at the same time. But what happens if you have faded in Preset 1 on the Main Playback and it's up on a Master too?

- The answer is that the highest intensity level of a channel "takes precedence" whenever it's output from more than one place in the system.

If the "Highest" level for a channel is generated from one of the Masters it is displayed in yellow, if it is generated from the Main Playback it is white.

Quick Start to Programming

This is a jump start if you want to get some lights on stage, store them and play them back from the Main and Master Playbacks.

If this is your first session with this product, we recommend you to browse this chapter - we guarantee it will save you more time than it takes to read.

This chapter contains the following sections

- [Quick Start - Reset The System](#)
- [Quick Start - Conventional Lights](#)
- [Quick Start - Moving Devices](#)
- [Quick Start - Dynamic Effects](#)

Quick Start - Reset The System

When you open a new (empty) Play, the patch is reset 1:1. This chapter is a checklist for resetting the frontpanel and checking the output.

This chapter contains the following sections


- [Reset The Console Facepanel](#)
- [Check The Output](#)

Before you start, make sure you have loaded a new (empty) Play. See [Load a New \(empty\) Play](#)


Reset The Console Facepanel

To get light you have to make sure the console is reset properly.

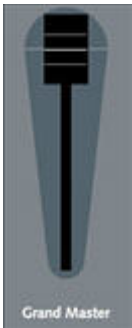
There is an Output Mode switch in the top right corner of the console.

Action	Console	Feedback
1. Enable output	Output Mode Switch to ON	


The crossfaders are in the bottom right corner of the console.

Action	Console	Feedback
2. Reset the crossfaders by moving the up and back down	A/B faders to bottom position	

The Grand Master is in the top right corner. It controls the total output of the console.

Action	Console	Feedback
3. <i>Reset the Grand Master</i>	Grand Master to 100%	 A vertical level wheel with a black handle and a grey scale. The text "Grand Master" is at the bottom.

The Playback Fade mode switch is normally in Masters mode.

Action	Console	Feedback
4. <i>Reset the Playback Fader mode</i>	Fader Mode to MASTERS	 A circular switch with three white indicators. The labels "Channels Only", "Masters", and "Jam" are at the top. The text "Fader Mode" is at the bottom.

Check The Output

After loading a new Play the patch is set 1:1 and the output protocol will be set to DMX512 on both output connectors in the back of the console.

If you enter a number and move the level wheel, a dimmer should respond - providing there is one connected.

If nothing happens, see [Lights Are Not Responding](#).

Quick Start - Conventional Lights

This is an introduction to working with conventional lights. You may want to complete the chapter [Reset The System](#) to reset the system first.

This chapter contains the following sections

- [Set Some Levels With The Wheel](#)
- [Record This To Master 1](#)
- [Record A Preset In The Main Playback](#)
- [Crossfade With Default Times](#)

Set Some Levels With The Wheel

Press LIVE before you start the examples, to open the Live channel view and connect the channel controls to the A field.

The wheel is in the Navigation Pad section of the console.



Function	Key	Feedback
1. Select channel 1 and set a level	1 Level Wheel	Channel 1 is marked in orange as selected, and the level is set by the wheel.
2. Select channel 2 and set a level	2 Level Wheel	Channel 1 is left at its level, channel 2 is selected and marked in orange. The level is set by the wheel.
3. Select both and set them to full	ALL Level Wheel	All channels with a level connected to the channel control are selected (1&2). The level is set by the wheel.

Record This To Master 1

You can record the output of the selected channels to a Master Playback.

Function	Key	Feedback
1. Select the channels	ALL	All channels with a level in the channel control are selected. Should be 1 & 2 that you set a level to in the previous example.
2. Record to Master 1	RECORD & Master Key1	Hold RECORD and press the grey key over Master 1. You will get a Record popup asking you to confirm.
3. Confirm	RECORD	The preset is stored to Master 1, and the number is indicate in the graphical display over the master fader.
NOTE The same light is still output from the Channel Control (A). Clear this by selecting all channels and fading to zero with the wheel.		

Now test fading up Master fader 1. The channels should be fading up on stage and on the channel screen. Fade down the Master again so that there is no light on stage.

Record A Preset In The Main Playback

Set some new levels and record as a Preset in the Main Playback.

Function	Key	Feedback
1. Select channel 3 and set a level	3 Level Wheel	Channel 3 is marked in orange as selected, and the level is set by the wheel.
2. Select channel 4 and set a level	4 Level Wheel	Channel 3 is left at its level, channel 4 is selected and marked in orange. The level is set by the wheel.
3. Record as the next free Preset in the Main Playback	RECORD	You will get a Record Popup asking you to verify your recording.
4. Confirm recording	RECORD	The Preset is recorded as the next free Preset, in the Main Playback. Press PLAYBACK to see the Playback Tab.

Crossfade With Default Times

You can fade to any Preset with GOTO using the default fade times (5 seconds)

Function	Key	Feedback
1. <i>Fade to Preset 0 (blackout)</i>	0 GOTO	The light in the Main Playback is faded to zero in five seconds.
2. <i>Fade to Preset 2</i>	2 GOTO	The light in the Main Playback is faded to the levels of Preset 2 in five seconds.
3. <i>Fade to Preset 1</i>	1 GOTO	The light in the Main Playback is faded to the levels of Preset 1 in five seconds.

Quick Start - Moving Devices

Any kind of device that isn't a dimmer, such as a scanner, a moving head or a scroller, has to be patched before you can use it.

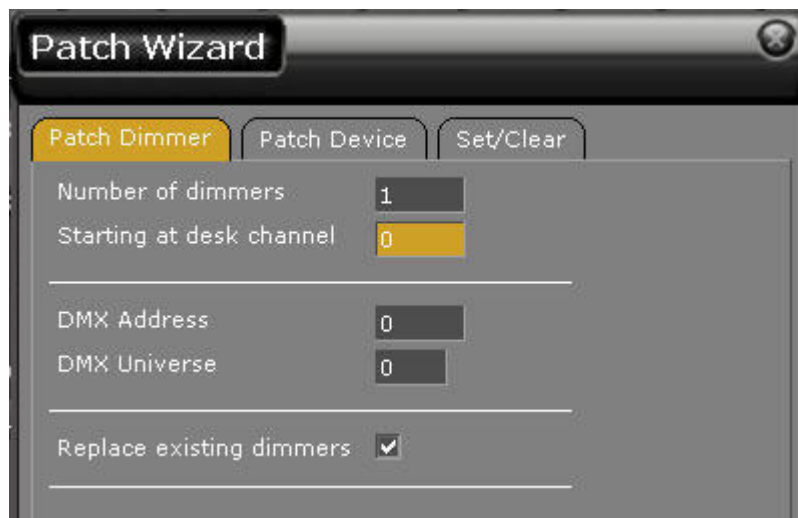
This chapter contains the following sections

- [Patch a Moving Device or scroller](#)
- [Test The Device](#)
- [Record a Moving Device To a Master](#)
- [Record a Moving Device in the Main Playback](#)

Patch A Moving Device Or Scroller (4.3)

A moving device or scroller has to be patched if you want to access it from the console.

1. *Open the Patch Wizard (BROWSER >Patching >Patch Wizard)*




2. Press TAB to select the Patch Device Tab



The screenshot shows the 'Patch Wizard' dialog box with the 'Patch Device' tab selected. The 'Type of device' dropdown is set to 'Mac 300 M4'. The 'Number of devices' is set to 1, and 'Starting at desk channel' is set to 0. A section titled 'Block of 13 outputs needed' contains 'DMX Address' (1), 'DMX Universe' (1), and 'Output offset' (13). The 'Replace existing dimmers' checkbox is checked. The 'Scroller roll' dropdown is set to 'No Scroller Roll'.

3. Open the IMPORT TEMPLATE wizard (MODIFY).
 NOTE (4.3) A standard scroller is imported by default - if you are patching such a scroller - skip this step and go to step 5!
4. Select Manufacturer, and Device (arrows and MODIFY).



The screenshot shows the 'Import Template Wizard' dialog box. The 'Import from' dropdown is set to 'Standard Library'. The 'Manufacturer' dropdown is set to 'ETC', and the 'Device' dropdown is set to 'Revolution'.

5. Enter the number of devices (# MODIFY).



Patch Wizard

Patch Dimmer **Patch Device** Set/Clear

Type of device Mac 300 M4 ▼

Number of devices 1

Starting at desk channel 0

Block of 13 outputs needed

DMX Address 1

DMX Universe 1

Output offset 13

Replace existing dimmers ☒

Scroller roll No Scroller Roll ▼

6. Select which desk channel you wish to start assign from (# MODIFY).
7. Enter the DMX address (1 for example) of the device (# MODIFY).
8. Enter the DMX universe (1 for example) for the device (# MODIFY).
9. Check "Replace existing dimmers" unless you want to keep them assigned to the Device channels (MODIFY).
10. If it is a scroller you need to define a scroller roll. You can do this afterwards as well and assign it from the Device List, see [Assing A Scroller Roll](#)- just leave at No Roll for now.
11. Press EXECUTE (MODIFY)

The moving device is patched and shall now appear as a device in the channel view



Test the Device

Function	Console	Feedback
1. Select the desk channel the moving device was assigned to.	# CH	This selects the device and connects all parameters to the controls of the console.
2. Set the device to full	@LEVEL @LEVEL	This should light the device. If there is some kind of ignition procedure you have to sort this out with the manual of that Device. If not, go back and check the address, DMX cable etc. You should, however, always be able to control pan and tilt if it has been set up properly (next step).
3. Activate Parameter mode for the trackball	PARAMETER	This connects pan and tilt to the trackball.
4. Move the device	Trackball	Moving the trackball should result in moving the device.

Record A Moving Device to a Master

Function	Key	Feedback
1. Select the channel of the moving device(s)	# Level Wheel	The channel is marked in orange as selected.
2. Record to Master 1	RECORD & Master key 1	A popup will ask you to confirm that you are recording. The next free Preset number is automatically used.
3. Confirm recording.	RECORD	You have now recorded this to the Master.

You can test it like this

Function	Console	Feedback
1. Set the selected device to it's home position	0 FOCUS	The zero palette will set the device to the default values of the template - straight down and open white.
2. Move master 1 from 0-100%.	Master 1	When you do so, the look you stored should be activated on stage (the Device attributes will not follow the fader down).

Record A Moving Device In The Main Playback

Normally, only changed moving device parameters are recorded. Therefore it is recommended to save all parameters when you record a preset for the first time in a sequence.

1. Record all parameters of the selected devices to the next free preset (you will get a popup)

RECORD & Attributes



2. Choose Merge, then confirm by selecting MODIFY and pressing MODIFY.
A message at the bottom of the screen will confirm that the attributes were recorded.

NOTE

You can test by selecting the moving device and positioning in a new position, then crossfading to the preset you just recorded.

Quick Start - Dynamic Effects






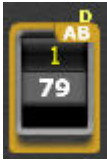
Dynamic Effects allow you to assign a Table (sine wave, saw wave etc) to an intensity or Moving Device parameter to create an Effect (fading up and down or moving in a circle).

This is a basic introduction to Dynamic Effects. See the [DYNAMICS](#) chapter for more details.


This chapter contains the following sections

- [Create a Dynamic Intensity Effect](#)
- [Control A Dynamic Effect](#)
- [Record A Dynamic Effect To A Master](#)
- [Stop A Dynamic Effect](#)
- [Create a Dynamic Effect](#)

Create a Dynamic Intensity Effect

Function	Console	Feedback
1. Select the LIVE view		The Live tab is selected and highlighted
2. Select channel 1		The number 1 will appear in the Numerical Input display
3. Set a level of around 50% with the wheel	Level Wheel	The level is set to around 50%
4. Activate Dynamic Effect 13 (smooth)	  	Dynamic Effect 13 (smooth) is started for channel 1. The Channel will start fading up and down. A small D over the channel will indicate that a Dynamic Effect is running. 

Control a Dynamic Effect

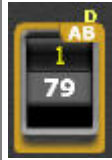
Function	Console	Feedback
1. Select the DYNAMICS soft key page in the Main Display		The soft key page for Dynamics is loaded to the main display of the console. Wheel 1 and 2 control size and rate.
2. Change rate and size with the wheel.	Wheel 1 and Wheel 2	The value of the wheels will change from 100% and affect the effect proportionally

Record A Dynamic Effect To A Master

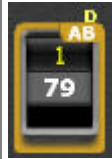
Function	Console	Feedback
1. Record to Master #	RECORD & Master Key	The recording popup will ask you to confirm
2. Confirm recording	RECORD	The preset is recorded
3. Delete the effect from the Live view	DELETE DYN	The softkey Delete Dynamic will stop the effect from running in the Live view.
4. Fade it in on the Master	Move the Master Fader up	The Dynamic Effect will fade in/out with the fader.

Stop A Dynamic Effect

To stop a Dynamic Intensity Effect you need to clear it. This is a shortcut.

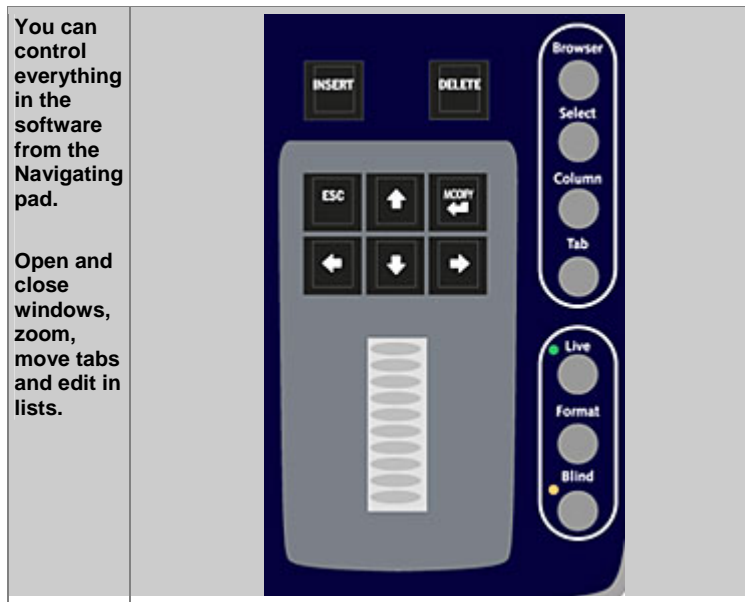
Function	Console	Feedback
1. Select all channels with Dynamic Effects	CH & DYN EFFECT	Channel 1 is selected and highlighted 
2. Clear Dynamics	C/ALT & DYN EFFECT	The Dynamics are cleared

Create a Dynamic Device Effect

Function	Console	Feedback
1. Select the LIVE view	LIVE	The Live tab is selected and highlighted
2. Select a moving device channel	#	The number # will appear in the Numerical Input display
3. Set a level of around 50% with the wheel	Level Wheel	The level is set to around 50%
4. Activate Dynamic Effect 1 (>circle)	1 DYN EFFECT	Dynamic Effect 1 (>circle) is started for channel #. The Channel will start moving in circles. A small D over the channel will indicate that a Dynamic Effect is running.* 

*If it is a moving head and pan and tilt are set to 50%, it will move in an eight. See the previous pages in this chapter on how to control, record and stop the Dynamic Effect.

Navigating



This chapter contains the following sections

- [Navigating - Introduction](#)
- [Navigating - Browser](#)
- [Navigating - Tabs](#)
- [Navigating - Channel Views](#)
- [Navigating - Lists](#)

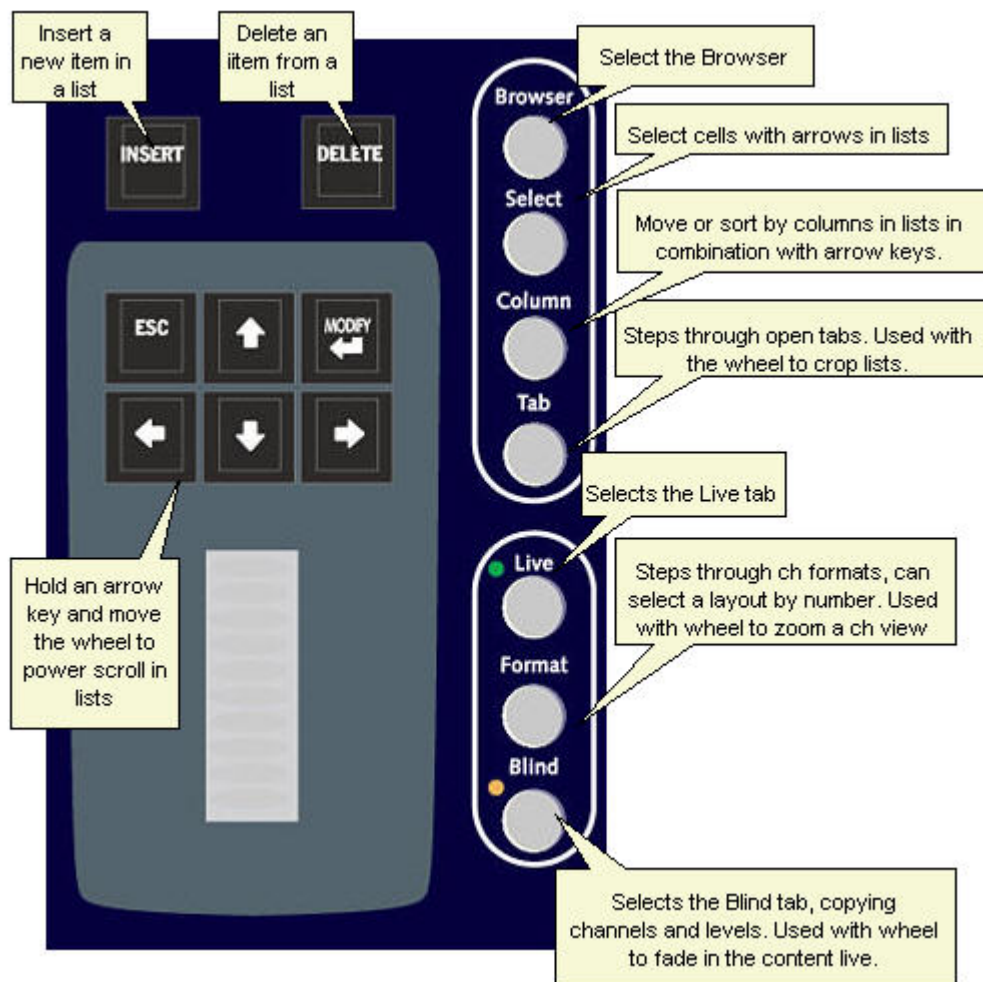
Navigating - Introduction

The Navigation Pad is the centre of all programming in Congo. It makes it possible to open windows, move tabs, browse the software and zoom without the need to use a mouse or trackball.

The round navigation keys are described in other chapters.

- For BROWSER see [The Browser](#)
- For SELECT see [The Lists](#)
- For COLUMN see [The Lists](#)
- For TAB see [The Tabs](#)
- For LIVE see [The Live Tab](#)
- For FORMAT see [The Channel Views](#)
- For BLIND see [The Blind View](#)

The Navigation Pad



The ARROW Keys

The arrow keys are used for navigating in all directions. Hold an arrow key and used the level wheel to speed scroll in that direction.

The ESC Key

The ESC Key is used to close Tabs and popups.

The MODIFY Key

Modify is the "Enter" command wherever one is needed. It is used to enter values or toggle between options or open dropdown menus.

It is also used in combination with some keys for special functions.

- Hold MODIFY and press any playback key to open its editor
- Hold MODIFY and press certain keys to open an editor, for example CH to open the Channel List.

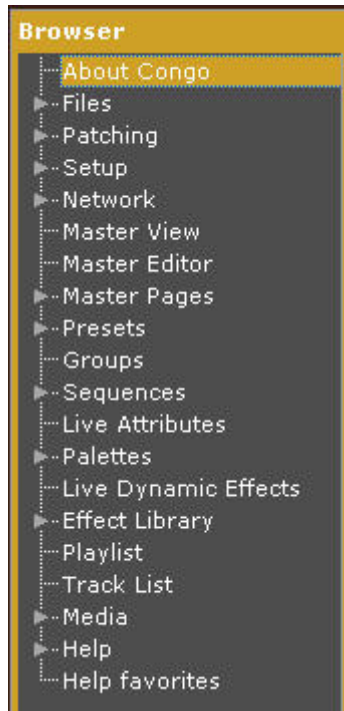
The Level Wheel

The level wheel sets intensities. Together with the navigation keys it also has the following functionality.

- Hold any arrow key and use the level wheel to speed scroll in that direction
- Hold FORMAT and use the level wheel to zoom in channel views
- Hold BLIND and use the level wheel to add that content to the output
- Hold COLUMN and use the level wheel to scroll the column width

Navigating - Browser

The Browser tab gives you a direct link to everything in Congo.



Browser Controls (4.2)

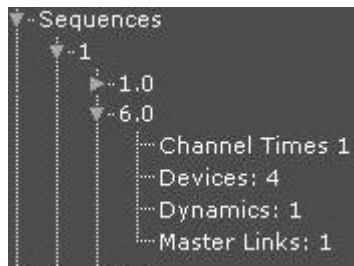
Action	Key	Feedback
Select the Browser	BROWSER	The Browser is focused. Press again to close or open it.
Move up/down in a list	Arrow Keys	Up and down arrows move in all open lists.
Open a sublist	Right Arrow	The right arrow opens a sublist under a closed node.
Jump to top and close a sublist	Left Arrow	The left arrow jumps to the top of a sublist, and then closes that node if pressed again.
Open an editor	MODIFY	Opens the editor of the object selected in the Browser.
Resize the Browser	BROWSER & Wheel	Moving the wheel while holding BROWSER will resize the Browser area.
Collapse the Browser (4.2)	C & BROWSER	All open nodes are collapsed.

Browser Functions - LOAD (4.2)

Use MODIFY and LOAD to activate selected items from the lists in the Browser.

Action	Key	Feedback
Open an editor	<input type="button" value="MODIFY"/>	Opens the editor of the object selected in the Browser.
Load a Group	<input type="button" value="LOAD"/>	Loads the selected Group to the active Channel View.
Activate a palette	<input type="button" value="LOAD"/>	Activates palette # for the selected channel(s).
Load a sequence to the main playback	<input type="button" value="LOAD"/>	Loads the selected sequence to the Main Playback*
Load a sequence to playback #	<input type="button" value="LOAD"/> <input type="button" value="⌘"/> <input type="button" value="Master Key"/>	Loads the selected sequence to Playback #
Load a Preset to Playback #	<input type="button" value="LOAD"/> <input type="button" value="⌘"/> <input type="button" value="Master Key"/>	Loads the selected Preset to Playback #
Activate a Dynamic Effect	<input type="button" value="LOAD"/>	Activates Effect library # for the selected channel(s).

*From 4.2 it is possible to expand Sequences to see linked information for each step, and to open the corresponding editor by pressing MODIFY.



Navigating - Tabs

All data and editors are opened in a tab.

- There are direct keys for most tabs (PRESET, PLAYBACK etc)
- Tabs can also be opened from the Browser
- Two tabs are never closed: LIVE and MAIN PLAYBACK



Navigating The Tabs

Function	Key	Feedback
Toggle open tabs	TAB	Steps through all open tabs in all screens
Select Tab #	# TAB	Selects the tab with that number
Split view	TAB & Down Arrow	First press creates a vertical-, second press a horizontal split.
Reset view	TAB & Up Arrow	Exits a split view.
Move a Tab	TAB & Right Arrow	Moves the selected tab to the right (or left) screen.
Close Tab	ESC	Closes any selected tab except Live and Playback.
Reset all Tabs	C/ALT & TAB	Closes all tabs except Live and Playback.
Reset all Tabs (including locked)	C/ALT & TAB TAB	Closes all tabs, including locked ones, except Live and Playback.

Tab Setup and Lock (4.2)

It is possible to lock a tab from closing when you press ESC. This is done in the Tab Setup. Hold SETUP and press TAB to open.

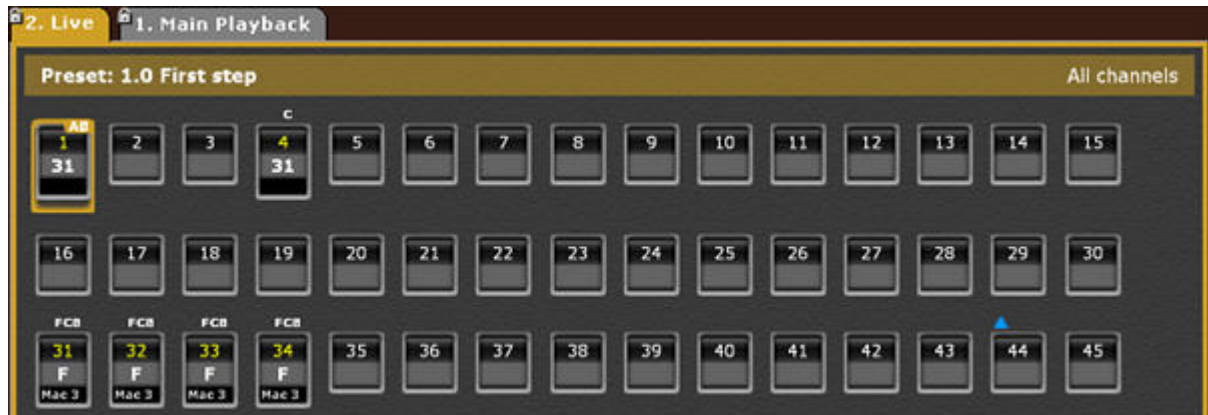


Include Channel View in Pool refers only to Live Views. See [Live - Live Tab](#).

Navigating - Channel Views (4.2)

The Channel Views are easy to navigate with the navigation keys.

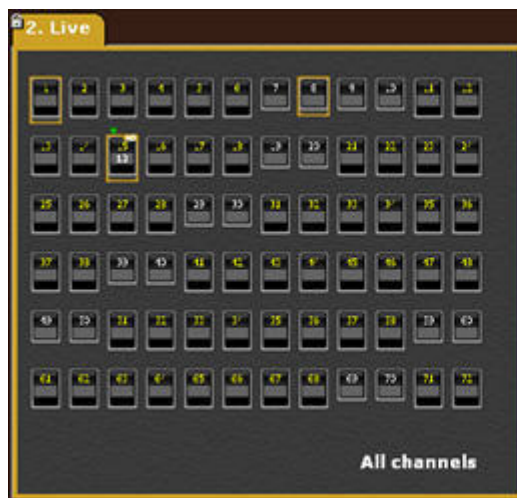
- Hold FORMAT and use the level wheel to zoom
- Hold C & FORMAT to reset the zoom factor
- Press FORMAT to toggle channel formats
Hold FORMAT and press ALL to select the All Channels format directly (4.2)
- Enter a number and press FORMAT to select a Channel Layout
- Hold CH and press Arrow keys to scroll



The status bar in the top shows the current Preset in the Main Playback to the left and the selected format to the right (4.2)

Channel View Zoom

Hold FORMAT and use the wheel to Zoom in/out.



NOTE
Hold C & FORMAT to reset the zoom factor.

Channel View Formats - Selected

Only selected channels are shown. (Pressing FORMAT toggles through the formats.)



Channel View Format - Selected and non-zero (4.2)

Selected and non-zero channels are shown. (Pressing FORMAT toggles through the formats.)



Hold FORMAT and press CH to select this format directly (4.2).

Channel View Format - Selected And Captured (4.2)

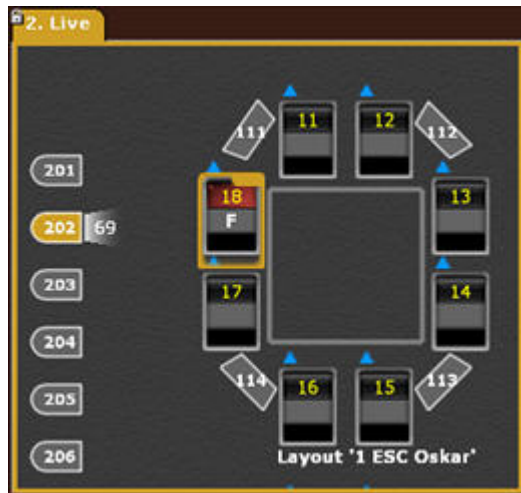
Selected and captured channels are shown. (Pressing FORMAT toggles through the formats.)



Hold FORMAT and press CAPTURE to select this format directly (4.2).

Channel View Format - Layout

The last selected Channel Layout is shown. (# FORMAT selects Layout #.) If there are no Layouts stored in the show, this screen will not appear.



Navigating - Lists

All editors are lists. They behave very similar to a standard spreadsheet.

- You can edit all cells which are not dimmed
- You can edit multiple cells
- You can sort information by column
- You can move columns
- You can resize a list by holding TAB and using the wheel

Preset	Text	Channels	Attributes	Dynamics	Mask	F-Time	C-Time	B-Time	F-Delay	C-Delay	B-Delay
1.0		0	0		F C B	100 %	30	30	30	30	100 %
2.0		0	0		F C B	3.0	3.0	3.0	3.0	3.0	100 %
3.0		0	0		F C B	100 %	100 %	100 %	100 %	100 %	100 %
4.0		0	0		F C B	100 %	100 %	100 %	100 %	100 %	100 %
5.0	ldöaskfjöldskjtr	0	0		F C B	100 %	100 %	100 %	100 %	100 %	100 %
6.0		45	0		F C B	3.0	3.0	3.0	3.0	3.0	100 %
11.0	rubber1	7	7		F C B	100 %	100 %	100 %	100 %	100 %	100 %
12.0	rubber2	7	7		F C B	100 %	100 %	100 %	100 %	100 %	100 %
13.0	rubber3	7	7		F C B	100 %	100 %	100 %	100 %	100 %	100 %
21.0	attr+dynam	7	7	1	F C B	100 %	100 %	100 %	100 %	100 %	100 %
22.0	attr+dynam	7	7	1	F C B	100 %	100 %	100 %	100 %	100 %	100 %
110.0		1	0		F C B	***	***	***	***	***	***
110.1		1	0		F C B	***	***	***	***	***	***

Navigating In Lists

Function	Key	Feedback
Step or scroll around	Arrows and wheel	Use arrow keys, or hold an arrow key and use the level wheel to speed scroll in any direction
Jump to first cell	HOME (keyboard)	Jumps to the first cell in the selected column
Jump to last cell	END (keyboard)	Jumps to the last cell in the selected column
Scroll one page up	PAGE UP (keyboard)	Scrolls one page up
Scroll one page down	PAGE DOWN (keyboard)	Scrolls one page down

Editing In Lists

Function	Key	Feedback
Edit the selected cells	MODIFY	Entering a value and press MODIFY. If it is a dropdown just press MODIFY. If it is a text cell, press MODIFY, enter a text and press MODIFY to exit.
Insert a new item	INSERT	Inserts a new item with the next free number. If you enter a number first, the inserted item will have that number.
Delete selected item(s)	DELETE	Deletes the selected items (cannot be undone).
Select all items in a column	COLUMN	Selects all cells in a column from the current cell down.*
Select multiple cells	SELECT & Arrow keys	Hold Select and use Right and Down arrows to select multiple cells.*
Select multiple cells in any column or order	CTRL and Click (Keyboard & trackball)	Hold CTRL and use the cursor to select multiple cells.*

* When you enter a value and press MODIFY it is applied to all selected cells.

Sort By Column

Function	Key	Feedback
Sort from low to high	COLUMN & Up Arrow	The list is sorted by this column from low to high.*
Sort from high to low	COLUMN & Down Arrow	The list is sorted by this column from high to low.*

* These changes are temporary, they will be lost if the tab is closed and opened again.

Change The List View

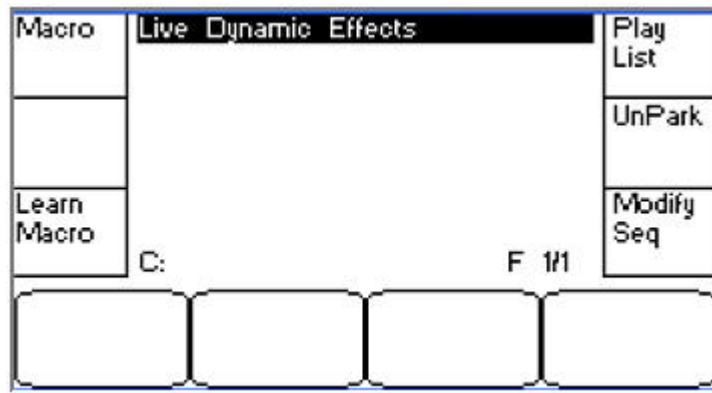
Function	Key	Feedback
Move a column	COLUMN & Side Arrows	The selected column is moved left/right depending on which arrow you press*
Resize the list part	TAB & Wheel	The list part is resized*

* These changes are temporary, they will be lost if the tab is closed and opened again.

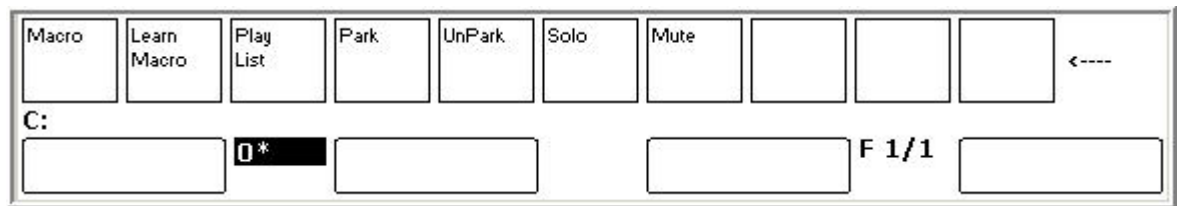
Navigating - Misc Soft Key Page (4.2)

The Miscellaneous Soft Key Page is selected with the soft key PLAYBACK in the Main Display of the console.

Congo



Congo Jr



These are the functions

Function	Softkey	Feedback
Play back Macro #	# Macro	Macro # is played back.. See MACROS .
Learn Macro #	# Learn Macro	Macro # is recorded.. See MACROS .
Playlist mode	Playlist	The Playlist is activated. See The Playlist .
UnPark	UnPark	Is used in combination with other keys to unpark channel values. See Park .
Suspend auto-times in Main Playback	Modify Seq	When on, links and wait/followon times are not activated during playback.

Live

This chapter contains general information about selecting and controlling channels and devices live.

This chapter contains the following sections

- [Live - Introduction](#)
- [Live - Live Tab](#)
- [Live - Playbacks](#)

Live - Introduction

Press LIVE to view and control all channels and Devices live. The channel controls will be mapped to the A field of the Main Playback.

HTP

Add any channel to the output by selecting it and raising the level. It is piled HTP on top of the output, from the A field of the main playback.

Capture Mode

Subtract any channel, regardless of where it is output from, with Capture Mode. Capturing a channel is similar to using a programmer, which means that the channel has to be released back to the playbacks or it will stay at the captured level. See [Capture Mode](#).

Channel Control

Channel Controls can be connected directly to any playback. See [Live Editing In Playbacks](#)

Live - Live Tab

The Live Tab (press LIVE) focuses the Live tab.

The Channel View in the Live Tab shows all channel levels, no matter where they are output from. If you add channels they will be output from the Active field of the Main Playback (A). If you want to subtract channels that are output from any other Playback, activate CAPTURE Mode. See [Capture Mode](#).



NOTE
The Live Tab cannot be closed.

Multiple Live Tabs (4.2)

It is possible to open several Live tabs. They can be set to operate individually, or linked to the same channel pool - synchronising to show as many channels as possible at all times.

Action	Key	Feedback
Open a new Live tab	TAB & LIVE	A new Live tab is opened.

Every Live tab that is supposed to be linked to the same channel pool needs to activate this feature.

1. Hold **SETUP** and press **TAB** (with the Tab in mind focused).



2. Check the box "Include Channel View in pool".

Live - Playbacks (4.1)

If you select a Playback for editing it will be live if the playback is over 0%. In the main playback, the A field is normally at 100% and the B field at 0%.

Action	Key	Feedback
Edit a Master	MODIFY & Master Key	The Master editor is opened positioned at this master, and the channel controls are mapped to this master.
Edit A	A	The A channel view tab is opened and the channel controls are mapped to the A field.
Edit B	B	The B channel view tab is opened and the channel controls are mapped to the B field.
Edit Live (A)	LIVE	The Live channel view tab is opened and the channel controls are mapped to the A field.
Move Live (A) to Blind (4.1)	LIVE & BLIND	The content of A is copied to Blind.

Blind

This chapter contains information about controlling channels and devices blind, leaving levels on stage unaffected.

This chapter contains the following sections

- [Blind - Introduction](#)
- [Blind - Blind Tab](#)
- [Blind - Freeze Mode](#)

Blind - Introduction

Press BLIND anytime you want to control channels and devices blind. All channel controls will be mapped to the BLIND field.

General Features

- If you hold down LIVE and press BLIND when you are in Live, the channels in Live are automatically copied to Blind.
- Hold BLIND and use the level wheel to pile the content of Blind HTP to the output.
- Load the content of any playback to Blind, and load the content of Blind to any playback.
- Record the content of Blind

Blind - Blind Tab

The Blind Tab (BLIND) allows you to edit any information without affecting the output.



The Blind Tab - Functions (4.1)

Action	Key	Feedback
Activate the Blind tab	[BLIND]	The Blind tab is opened. All Channel controls are mapped to Blind.
Fade in Blind	[BLIND] & [Wheel]	The content of Blind is piled on top of the rest of the output.
Move Blind to A	[BLIND] & [A]	The content of Blind is moved to the A field. It is immediately output.
Move Blind to B	[BLIND] & [B]	The content of Blind is moved to the B field. Press GO to fade in.
Move Live to Blind	[LIVE] & [BLIND]	The content of Live is moved to the Blind field.
Load Blind to A (4.1)	[BLIND] & [LIVE]	The content of Blind is loaded to the A field.
Load Blind to a Master	[BLIND] & [Master Key]	Selected channel(s) of Blind are loaded to that Master Playback.
Record Blind	[RECORD]	A popup will ask you to confirm that the content of Blind is recorded to the next free preset.

Blind - Freeze Mode (4.3)

When the Output Mode switch is set to FREEZE, the output is "frozen" and will remain static until the switch is set back to ON.



The output or Freeze is loaded to the A field of the Main Playback. The Sequence will also reposition to where it was when you activated Freeze.

Action	Feedback
Activate Freeze	All outputs will be "frozen", including moving devices. You can work with all functions without affecting the output*
Deactivate Freeze	The "frozen" output of Freeze is loaded to the A field of the Main Playback**

*The complete output, including all Master Playbacks is loaded to Freeze.

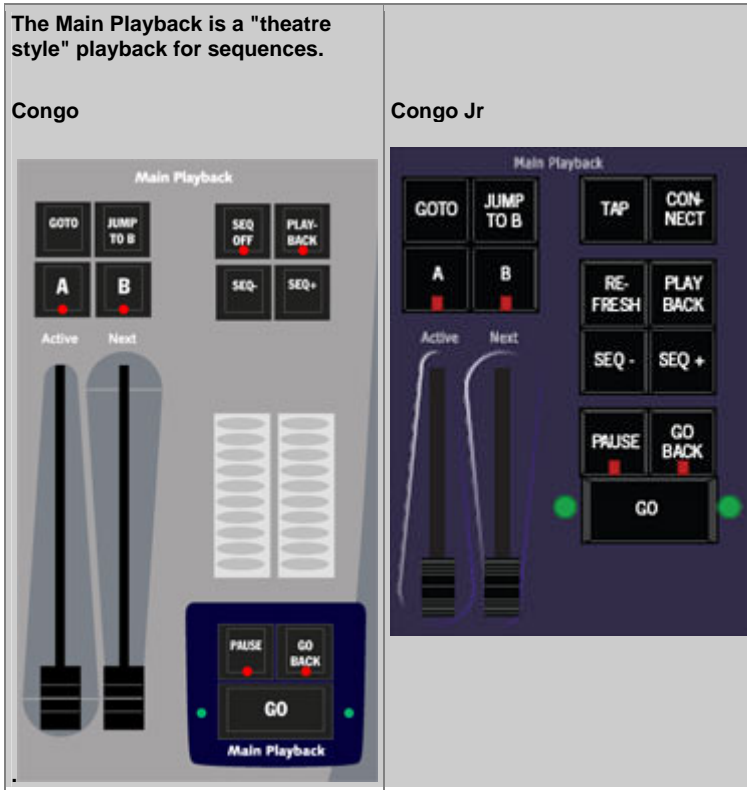
**If all Masters are down when you exit Freeze, there is no change in the output on stage.

NOTE

(4.1) If you set the Output mode switch to Freeze before you start the application, the output will not be updated until you move the switch to on. This makes it possible to start without output and prepare the correct light before activating it on stage.

(4.3) This is indicated at the top of the screens with the text "Output Held".

Main Playback



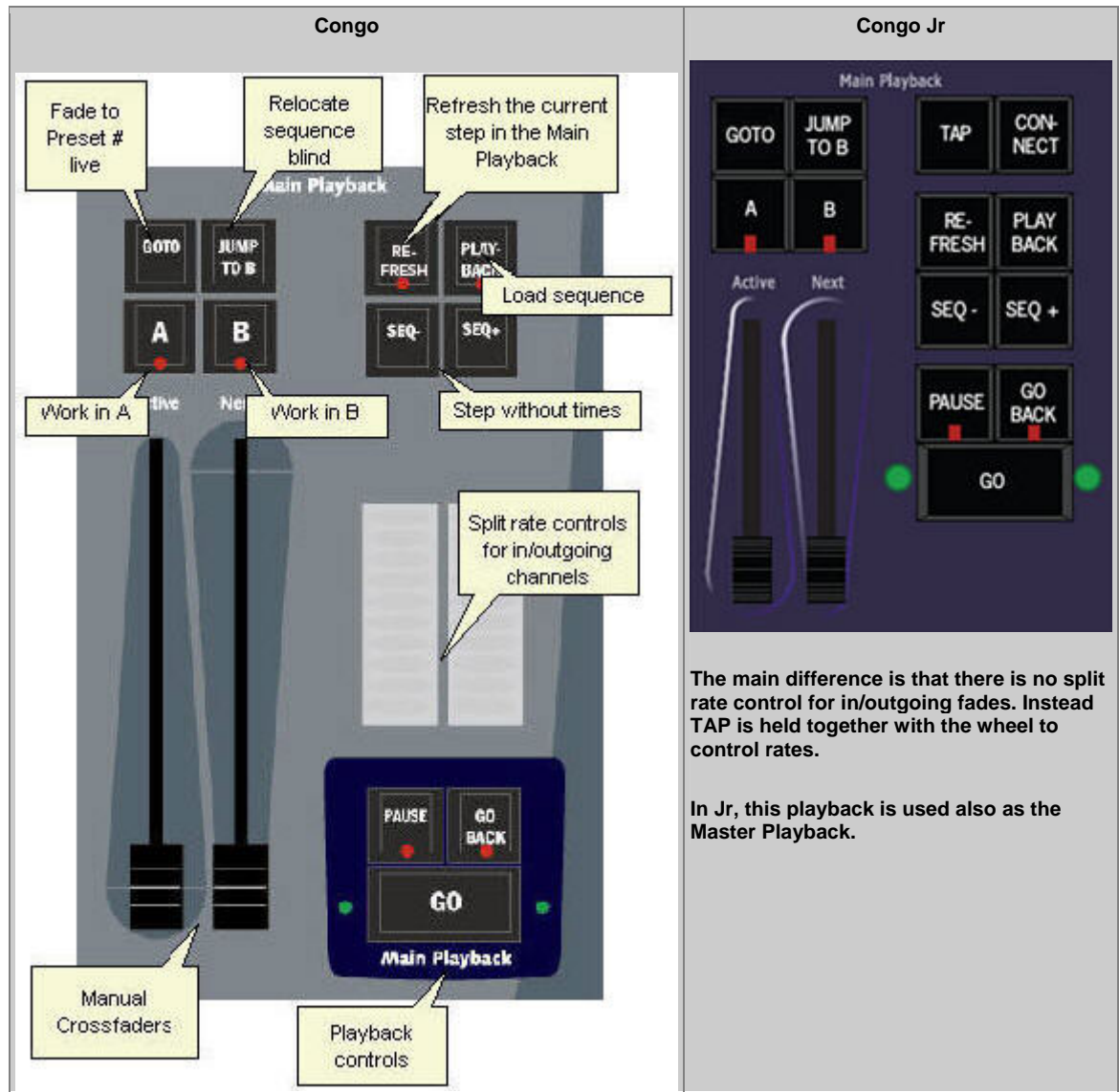
This chapter contains the following sections

- [Main Playback - Introduction](#)
- [Main Playback - Manual Crossfade](#)
- [Main Playback - Transport Keys](#)
- [Main Playback - Edit Keys](#)
- [Main Playback - Time Settings](#)
- [Main Playback - Default Settings](#)
- [Main Playback - Refresh Functions](#)

Main Playback - Introduction

The Main Playback can play back a Sequence, a chase or random presets. It has the following controls.

- Manual crossfaders.
- Transport keys for timed fades with default or preprogrammed times.
- Split speed controls for in and outgoing channels.
- REFRESH to refresh values to those of the Playback.
- PLAYBACK for assigning sequences and selecting the Main Playback Tab.



Main Playback - Manual Crossfades

Move the crossfaders from the down position to the up position to perform a manual crossfade. When both reach the top position the crossfade is terminated and the next sequence step is advanced.

General Facts

- Take over a timed fades manually.
- Press GO during a manual fade.
- Set the crossfaders to fade in both directions in the Settings for the Playback (Hold SETUP and press PLAYBACK).
- When you make a manual crossfade to a step with attributes, the attribute values that are GoOnGo will follow the movement of the B-fader.

Main Playback - Transport Keys

These are the transport keys of the Main Playback.

Function	Key
Start a crossfade*	GO
Start a new crossfade during an ongoing crossfade	GO
Pause a crossfade	PAUSE
Crossfade to the previous step	GO BACK
Reverse an ongoing crossfade	GO BACK
Step (without times) to the next step	SEQ+
Step (without times) to the previous step	SEQ-
Open the GOTO list**	GOTO
Crossfade to any recorded preset on the stored or default times	# GOTO
Relocate the sequence from preset # in B (Next)	# JUMP TO B

*When a crossfade is completed there is a beep. Turn this off in the [System Settings - System](#).

**See [The GOTO List](#)

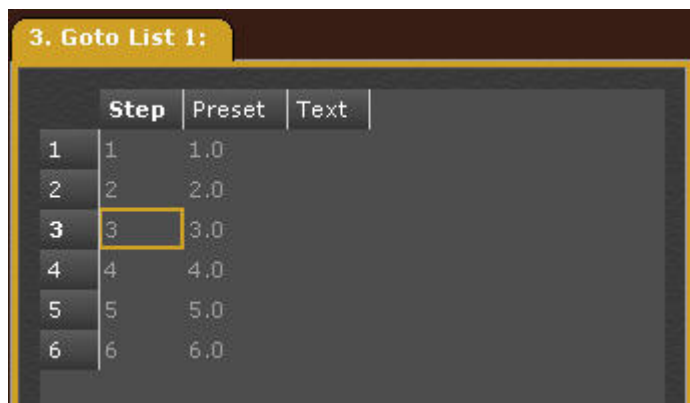
NOTE

Device parameters are executed as LTP, independent of the playback that once started them. This means that you cannot use (for example) PAUSE to stop attributes.

The GOTO List

The GOTO List is a list of all Presets in the Sequence of the Main Playback. Open by pressing GOTO.

Select any preset with the arrow keys and press GOTO to fade to that preset.



Main Playback - Edit Keys

These are the editing and mode keys of the Main Playback.

Function	Key
Connect the Active (A) field to the channel controls, and open the A Tab	A
Connect the Next (B) field to the channel controls, and open the B Tab	B
Load a sequence to the Main Playback	# SEQ & PLAYBACK
Clear the Main Playback	C/Alt & PLAYBACK
Activating the Playback Tab connects the A field to the channel controls and selects the Playback tab.	PLAYBACK

Main Playback - Time Settings

Hold SETUP and press TIME to open the Settings.



Setting	Feedback
<u>Set times to</u>	Times are set to the step in B (default). You can set them to the step in A as well.
<u>Time: Use % as default</u>	Times for FCB will be set in % of the main fade time.
<u>Default Go time</u>	The default time is set to 5 seconds.
<u>Default Go Back time</u>	The default time is set to 2 seconds.

Main Playback - Default Settings

Hold SETUP and press PLAYBACK to open these settings.



These are the default settings for the functions of the Main Playback.

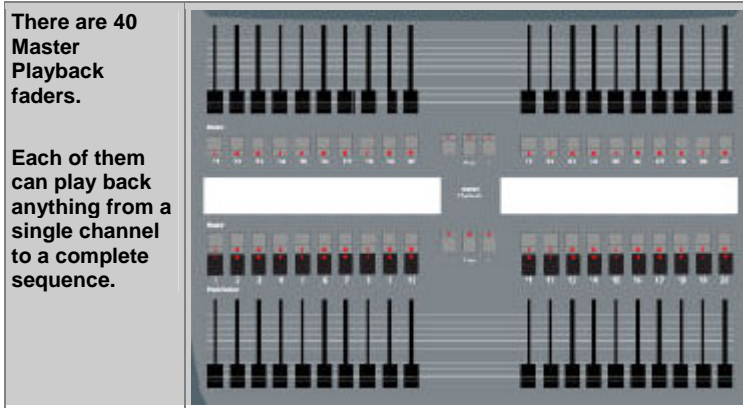
Setting	Feedback
<u>Modify Sequence</u>	When active, this mode will suppress all wait times and master links.
<u>Build Sequence</u>	When active (default) all presets recorded in A (Live) will be added to the sequence.
<u>Followon</u>	Wait times will be treated as Followon times, counting from GO instead of from the completion of the last fade.
<u>GOTO jumps to</u>	The default is PRESET, you can set it to STEP.
<u>Crossfade both ways</u>	The default setting for a manual crossfade is upwards. You can set it both ways.

Main Playback - Refresh Functions (4.3)

The Refresh function can be used for any part of a channel and will refresh to the resulting state of the current Sequence Step in the Main Playback.

Function	Key
Refresh all channels and devices	REFRESH
Refresh attributes of all device(s)	REFRESH & ATTRIB
Refresh the levels of all device(s) and channel(s)	REFRESH & @LEVEL
Refresh the Focus parameters of the selected device(s)	REFRESH & FOCUS
Refresh the Color parameters of the selected device(s)	REFRESH & COLOR
Refresh the Beam parameters of the selected device(s)	REFRESH & BEAM
Refresh the wheel parameters of the selected device(s)	REFRESH & Wheel key
Refresh the U1-U3 of the selected device(s)	REFRESH & U1-U3
Refresh intensities AND attributes for the selected device(s). (4.3)	REFRESH & CH
NOTE The changed flags are cleared for what you refresh. (4.3) The Refresh function will take the currently focused channel into account if you are using NEXT/LAST. In early Consoles the REFRESH key was labelled UPDATE PB. Contact your ETC representative for a new key cap if it's the old kind.	

Master Playbacks



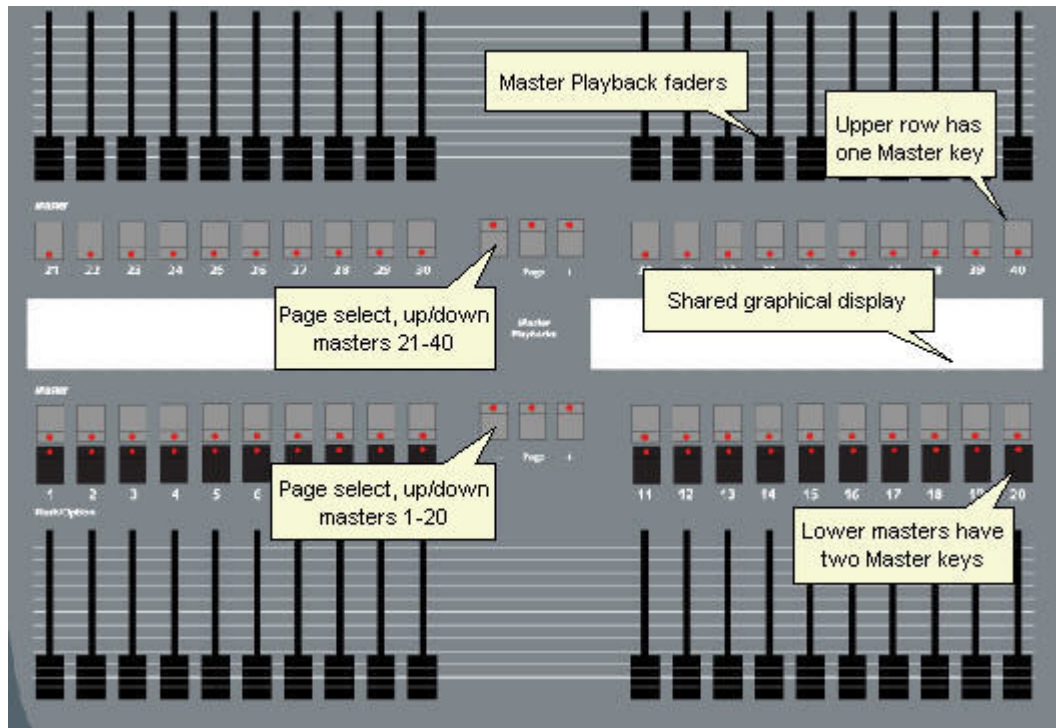
This chapter contains the following sections

- [Master Playbacks - Introduction](#)
- [Master Playbacks - Playback Keys](#)
- [Master Playbacks - Fader Mode Switch](#)
- [Master Playbacks - Master Editor](#)
- [Master Playbacks - Load/Clear/Modify](#)
- [Master Playbacks - Start Fades](#)
- [Master Playbacks - Channel Selection](#)
- [Master Playbacks - Channels](#)
- [Master Playbacks - Presets](#)
- [Master Playbacks - Sequences](#)
- [Master Playbacks - Chase](#)
- [Master Playbacks - Groups](#)
- [Master Playbacks - Flash Mode](#)
- [Master Playbacks - Solo Mode](#)
- [Master Playbacks - Macros](#)
- [Master Playbacks - Dynamics](#)
- [Master Playbacks - Channel Layouts](#)
- [Master Playbacks - Palettes](#)
- [Master Playbacks - Rate](#)
- [Master Playbacks - Times](#)
- [Master Playbacks - Master View](#)

Master Playbacks - Introduction

Each fader has the following controls.

- A Master key to load content and select channels.
- Masters 1-20 have a Flash/Option key.
- Master content and modes are shown in the master displays between the master rows.



Master Playbacks - Content

You can play back almost any kind of content from a Master Playback. The content can be loaded directly or from the Master List. See [Load/Clear](#).

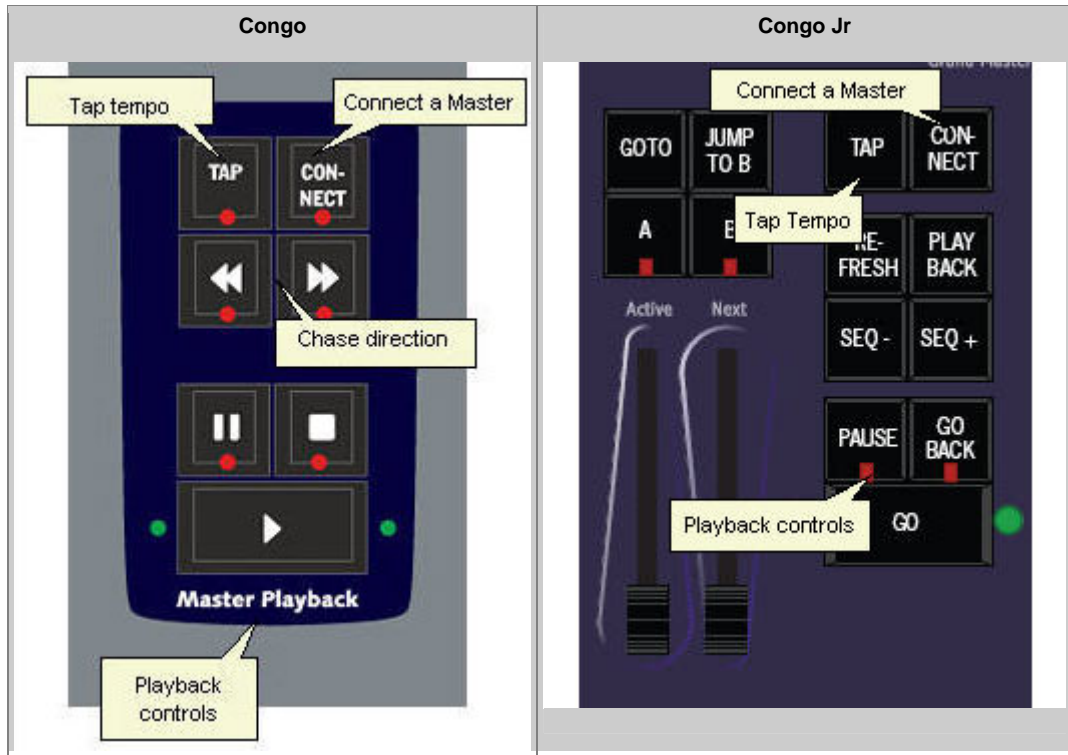
Content	Function
Channel(s)	Single channels or several channels as an unrecorded Grp.
Preset	Play back Preset from fader, select channels with Master key. Flash with Flash key.
Group	Play back Groups from fader, select channels with Master key. Flash with Flash key.
Sequence	Play back Sequences. The Master key is Go. The fader is a Grand Master for that Sequence. Connect to the Master Playback for more functions.
Chase	Play back Chases. The Master key is Go. The fader is a Grand Master for that Sequence. Connect to the Master Playback for more functions.
Dynamic Effect	Activate a Dynamic Effect for the selected channels.
Palette	Activate any kind of Palette (F, C, B, All) for the selected channels.
Moving Device Parameter	Any parameter of a moving device can be assigned to a Master Playback*
Channel Layout	Any Channel Layout can be assigned to a Master Playback

*Can be assigned by holding a Parameter key and pressing the Master key, or from the Master List.

Master Playbacks - Playback Keys

Any Master Playback can be connected to Playback Controls to be able to pause, stop, reverse and start the chase or sequence in that master. You can also set a tempo by tapping the TAP key.

- In the Congo console this is done with the Master Playback
- In the Congo Jr console, this is done with the Main Playback



Master Playback - Functions (4.3)

Function	Key	Feedback
Start a chase (or crossfade)	GO	Starts a stopped Chase or a Crossfade for a Sequence
Start a crossfade from step # (4.1)	# GO	Starts a Crossfade to step #
Pause a chase (or crossfade)	PAUSE	Pauses a running Chase or Crossfade
Reverse a fade	STOP	This key is the equivalent of GO BACK to the previous step of the Main Playback
Step without times	<< or >>	These keys are the equivalent of SEQ+ and SEQ- in the Main Playback.
Change Chase direction (4.1)	<< or >>	The currently connected Chase will change direction
Connect a Master Playback	CONNECT & Master Key	The Chase or Sequence in this Master is connected to the Playback keys. Also, the Master Playback tab is focused (4.3).
Set a tap tempo to a Master Playback or Page.	TAP & Master Key	Hold TAP and press at least twice on a Master or Page key to set a BPM tempo.

Master Playbacks - Fader Mode Switch

The Switch with three positions next to the masters sets the 40 Master playbacks into either of three modes.



Position	Function
<u>Channels Only</u>	Masters 1-40 will control the first 40 intensities in the system. Select range of channels with the Direct Selects.
<u>Masters</u>	The normal position. Masters 1-40 are Masters 1-40.
<u>Jam</u>	A special mode for busking a show with moving devices. See Jam Mode.

Master Playbacks - Master Editor

It is possible to insert and delete content in Masters, and change Flash modes in the Master Editor (MODIFY & Master Key). The Master Editor can be opened from the Browser as well (Browser >Master Editor).



Master Editor - Columns & Functions

Column	Input	Function
<u>Master</u>		The number of this Master, cannot be edited.
<u>Content Type</u>	<input type="button" value="MODIFY"/>	Press MODIFY to open a dropdown with choices of content.
<u>Content</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets the number # for the content type.
<u>In</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Used by <i>START</i> , <i>Flash on time</i> , <i>Use Master Times</i> and <i>Master links</i> . If only an In time is set, it will function as an Out time as well.
<u>Wait</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Used by <i>START</i> and <i>Master links</i> . It is how long the master will stay up before the Out time fades out.
<u>Out</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Used by <i>START</i> and <i>Master links</i> . It is how fast the master fade out after a Wait time.
<u>Flash mode</u>	<input type="button" value="MODIFY"/>	Toggles Flash mode on/off.
<u>Flash level</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets flash level #
<u>Solo Fade</u>	<input type="button" value="MODIFY"/>	Toggles Solo mode on/off. See Solo Mode .
<u>Page Time</u>		Shows the Master Page time that affects all In-Wait-Out times set in %. See Master Page Times - Page Time .

NOTE

Times can be set in % or in seconds. This is selected in the Settings Attributes - you can always toggle this by holding C before pressing MODIFY in the In/Wait/Out columns.

Master Playbacks - Load/Clear/Modify (4.1)

Function	Keys	Feedback
Clear a Master Playback	C & Master Key	The content of the Master Playback is cleared.
Clear all Master Playbacks	C & PAGE	The Master Playbacks are cleared.
Load an item from the Browser	LOAD & Master Key	Item # is loaded to the Master Playback.
Open the editor for a Master Playback	MODIFY & Master Key	The editor for the content of Master # is opened.
NOTE If a change is made to a Preset or Group that is loaded to a Master which is active - the change will be pending until the Master is brought to zero and back up. (4.1) Pending content indicated with inverted colors on the master LCD.		

Master Playbacks - Start Fades

You can start timed fades in Master Playbacks manually. If there is no fade time the Master will cut to 100% or 0% from where it is.

Function	Keys	Feedback
Start Fade	<div>START &</div> <div>Master Key</div>	Master # will fade to 0/100% on the Master Fade Time*
Start a fade to a specific level	<div># START &</div> <div>Master Keys</div>	Master # will fade to level #

*it will fade up if it is down, and down if it is up. If it has Up-Wait- Down times, it will make a complete fade up-wait-down.

Master Playbacks - Channel Selection

Press a Master key to select all channels in the Preset or Group of that Master.

Function	Keys	Feedback
Select channels in Master #	Master Key	All channels in Master # are selected in the Channel Control.
Select all channels in Master # with a level in the Channel Control	ALL & Master Key	All channels in Master # with a level in the Channel Control are selected.
Add channels in Master #	+ & Master Key	All channels in Master # are added to the selection in the Channel Control.
Subtract channels in Master #	- & Master Key	All channels in Master # are subtracted from the selection in the Channel Control.

Master Playbacks - Channels

You can load and play back single channels

Function	Keys	Feedback
Load channel(s) to Master #	PRESET & Master Key	The selected channel(s) with a level are loaded with that level as a Grp to the Master Playback
Load channels one by one from Master #	CH & Master Key	The selected channels are loaded one by one to the Master Playbacks starting at the first one pressed.

Master Playbacks - Presets

A Preset is played back with intensities, attributes and dynamic effects. Press the Master Key to select all channels in the Preset as a group.

Function	Keys	Feedback
Load Preset # to a Master Playback	# PRESET & Master Key	Preset # is loaded to the Master Playback. The number and name are shown in the master display.
Load all recorded Presets from Preset # to the Master Playbacks	# PRESET & Master Keys	Hold Preset and keep pressing new Master keys to load the next stored Preset.
Record selected channels as Preset # to a Master Playback	# RECORD & Master Key	You will get the recording popup asking you to confirm this.
Record selected channels as the next free Preset to a Master Playback	RECORD & Master Key	You will get the recording popup asking you to confirm this.
NOTE If you record a preset with dynamics to a master, the size of the dynamics will follow the master fader.		

Master Playbacks - Sequences

Hold MODIFY and press the Master Key to open the editor for that Sequence. *No levels are visible* until the Master is over 0%.

Function	Keys	Feedback
Load Sequence # to a Master Playback	# SEQ & Master Key	Sequence # is loaded to the Master Playback. The number and name are shown in the master display.
Load all recorded Sequences from Sequence # to the Master Playbacks	# SEQ & Master Keys	Hold SEQ and keep pressing new Master keys to load the next stored Sequence.
Start crossfade to the next step	Master Key	The Master Key now works exactly like the GO key in the Main Playback.
Start crossfade to step #	# Master Key	The Master Key now works exactly like the GOTO key in the Main Playback.
NOTE You can load a Sequence directly from the Sequences List as well. See Sequences List - Insert/Delete/Load .		
NOTE Connect a Master to the Master Playback controls to get more control over the Sequence. See Master Playback .		

Master Playbacks - Chase

Hold MODIFY and press the Master Key to open the editor for that Chase. The Chase will start from the first step every time the fader is brought over 0%. *No levels are visible* until the Master is over 0%.

Function	Keys	Feedback
Load Chase # to a Master Playback	# SEQ & Master Key	Chase # is loaded to the Master Playback. The number and name are shown in the master display.
Load all recorded Chases and Sequences from # to the Master Playbacks	# SEQ & Master Keys	Hold SEQ and keep pressing new Master keys to load the next stored Sequence/Chase.
Start Chase	Master Key	The Master Key is a GO key.
NOTE You can load a Chase directly from the Sequences List as well. See Sequences List - Insert/Delete/Load .		
NOTE Connect a Master to the Master Playback controls to get more control over the Chase. See Master Playback .		

Master Playbacks - Groups

A Group is played back with intensities. Press the Master Key to select all channels in the Group.

Function	Keys	Feedback
Load Group # to a Master Playback	# [GROUP] & Master Key	Group # is loaded to the Master Playback. The number and name are shown in the master display.
Load all recorded Groups from Group # to the Master Playbacks	# [GROUP] & Master Keys	Hold Group and keep pressing Master keys to load the next stored Group.

Master Playbacks - Flash Keys

Only the lower row of Master Playbacks (1-20) have flash keys (the lower row of dark keys).

Function	Keys	Feedback
Flash Master 1-20	Flash Key	The content of the Master is set to full (100%) as long as the Flash key is held*

*See [Flash Modes](#).

NOTE
Flashing a Master will activate the Attributes or Dynamic Effects of a Preset in that Master.

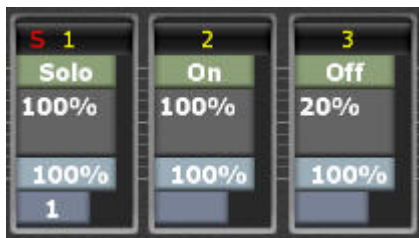
Flash Modes (4.1)

Flash mode is toggled for individually for each Master 1-20 (4.1).

There are three different Flash modes. Off, Normal & Solo. In Normal mode a Flash level can be set.

Function	Keys	Feedback
Toggle Flash mode	FLASH MODE & Master Key	Flash mode is toggled for this Master*
Set Flash level	# FLASH MODE & Master Key	Flash level # is set to this Master*

*Flash Level and Flash Mode are indicated in the Master View (press MASTER) when the FLASH MODE key is held.



NOTE
Flashing a Master will activate the Attributes or Dynamic Effects of a Preset in that Master.

Flash On Time

When Flash On Time is activated, the Master Playbacks will flash on the time assigned to each playback. See [Master Playbacks - Times](#).

Function	Keys	Feedback
1. <i>Open the Master Setup</i>	<input type="button" value="SETUP"/> & <input type="button" value="Master Key"/>	The Master Settings are opened
2. <i>Select Flash On Time</i>	Arrow keys	Flash On Time box is highlighted
3. <i>Activate</i>	<input type="button" value="MODIFY"/>	Flash On Time box is checked
4. <i>Exit Settings</i>	<input type="button" value="MODIFY"/>	Settings are closed

Master Playbacks - Solo Fade Mode

A Master Playback in Solo Mode will fade all other masters proportionally to zero, as it is faded to full.

Function	Keys	Feedback
1. <i>Open the Master Editor</i>	MODIFY & Master Key	The Master Editor is opened, focused at Master #
2. <i>Select Solo Fade</i>	Arrow keys	Solo Fade is highlighted
3. <i>Set to ON</i>	MODIFY	MODIFY toggles on/off for each Master.
4. <i>Exit</i>	ESC	Master Editor is closed
NOTE If several masters have Solo Fade mode = On, the last Solo master that leaves its 0% position will have priority over the other Solo masters. To take control with another Solo master, move it down to 0% and up again.		

Master Playbacks - Dynamics

A Dynamics is executed for the currently selected channels when you press the Master Key.

Function	Keys	Feedback
Load Dynamic Effect # to a Master Playback	# DYN EFFECT & Master Key	Dynamic Effect # is loaded with name and number. Press Master key to execute.

Master Playbacks - Channel Layouts

The Master key will activate the Channel Layout when pressed.

Function	Keys	Feedback
1. Open the View Masters tab	MODIFY & Master Key	The view masters tab is opened
2. Go to the Content Type column	Arrow keys	The cell is highlighted
3. Open the selection	MODIFY	A dropdown is opened
4. Select Channel Layout	MODIFY	Layout is indicated
5. Go to Content	Arrow keys	The cell is highlighted
6. Select Channel Layout #	MODIFY	Channel Layout # is indicated

Master Playbacks - Palettes (4.1)

A Palette is executed for the currently selected channels when you press the Master Key. You can execute on a time as well by entering the time # before pressing the Master key.

Fading the fader will move the selected channels to the palette.

Function	Keys	Feedback
Load Focus Palette # to a Master Playback	# FOCUS & Master Key	Focus Palette # is loaded with name and number. You can do the same with COLOR, BEAM and ALL PALETTE's.
Activate Palette from Master	Master Key	The Palette is activated for the selected channel(s).
Activate Palette in time # (4.1)	# Master Key	The Palette is activated for the selected channel(s).
NOTE The fader will fade the attributes of the selected channels to the palette values when moved up. What happens when you move the fader down depends on the setting of Rubberband in the Master Setup. See Master Playbacks - Devices .		

Master Playbacks - Times

The fade time can be activated when you move the fader, or when you start a Master fade with the Flash On Time or START function.

Function	Keys	Feedback
Set an In-Out time	# TIME & Master Key	The time # is assigned to the Master as an In and Out fade time.
NOTE How the time affects fading the Master manually depends on the settings of the Master. See Master Time Settings.		

Set In-Wait-Out times for a Master

You can set a In, Wait and Out time for each Master from the Master Editor.

Function	Keys	Feedback
1. Open the Master Editor	MODIFY & Master Key	The Master Editor is opened, focused at Master #
2. Go to IN time	Arrow Keys	IN time is highlighted
3. Set an IN time of # seconds	# MODIFY	An IN time of # seconds is set*
4. Set WAIT and OUT in the same way	Step 2 and 3	WAIT and OUT times are set**

*The In time is used by **Flash On Time** and **Times For Masters** in the Master Settings (SETUP & MASTER KEY).

The WAIT and OUT times are used by **Flash On Time.

NOTE
The Out time is only relevant when there is an In and Wait time.

Master Playbacks - Master View (4.3)

It is possible to view the content of the Master Playbacks in the Master View as well as the Master Editor. It can be opened by pressing MASTER or from the Browser (Browser >Master View). If MASTER is pressed again once this tab has been opened, the same tab will be selected to avoid multiple copies of the same tab (4.3).



NOTE

Master Views can be assigned to a dock area. See [Dock Areas - Configure](#).

Master View - Select And Set Levels (4.2)

It is possible to select masters and set levels from the Master view and with the MASTER key. Keyboard shortcut = Alt M.

Function	Keys	Feedback
Select a Master	# MASTER	Master # is selected and highlighted in the Master View.
Add a Master	# +	Master # is added to the selection.
Add a range of Masters to the selection	# THRU	Up to Master # are added to the selection.
Subtract a Master from the selection	# -	Master # is subtracted.
Set a level to the selected Masters	# @LEVEL	The Master levels are set to #.
Set a level to the selected Masters	Wheel	The Master levels are set to #.

Using a mouse or trackball

Function	Keys	Feedback
Using a mouse	click	Click to select and hold right key and move to set levels. Click to add more, double-click to deselect all but the last clicked.
Open the Master Editor	MODIFY & click	The Master Editor is opened.

Master View - Formats (4.2)

You can toggle between these formats by pressing FORMAT

- All Masters
- Selected Masters
- Active Masters
- Masters with content

The currently selected format is indicated in the top right corner of each Master View.

NOTE

In the All format there is a header bar visible for each row of masters that shows information about the currently selected master page.

Master View - Dock Areas (4.2)

Master Views can be assigned to a dock area. See [Dock Areas - Configure](#).

Independents

In Congo there are six independent potentiometers.

In Congo Jr there are three independent potentiometers.

These can be used for

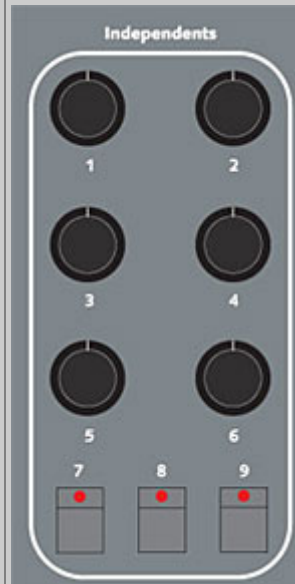
- Adding light (HTP)
- Removing light (Inhibit)
- Independent lights (Exclusive

Both consoles have three independent keys.

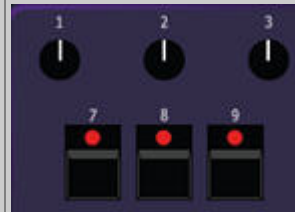
These can be used for

- Houselights
- Smoke machines
- Relays

Congo



Congo Jr



Using the Independents

Action	Console	Feedback
1. <i>Open the Setup*</i>	Hold Setup and move the potentiometer or press a key**	A popup will appear with a channel view***
2. <i>Set channels, levels and attributes</i>		
3. <i>Select Mode</i>	<input type="button" value="MODIFY"/>	See Independent Modes
4. <i>Select Execute</i>	Arrow key	Execute is highlighted
5. <i>Store</i>	<input type="button" value="MODIFY"/>	The popup is closed

*The Setup can be opened from the Browser as well (Browser >Setup >Independents)

**Keys have the option to be toggling on/off.

***The Independent popup



Independent Modes

Mode	Screen	Feedback
Exclusive	Blue level	Blackout, GrandMaster, Capture or any other channel function will not affect this channel(s).
Inclusive	No indication	Works as an additional Master Playback
Inhibit	Red level	Is an Inhibit Master - works as a Grand Master for the selected channel(s).*

*If you have several Independent Functions set to Inhibit and they have overlapping channels, the highest Special Function will be in control. The result on stage can be recorded.

NOTE

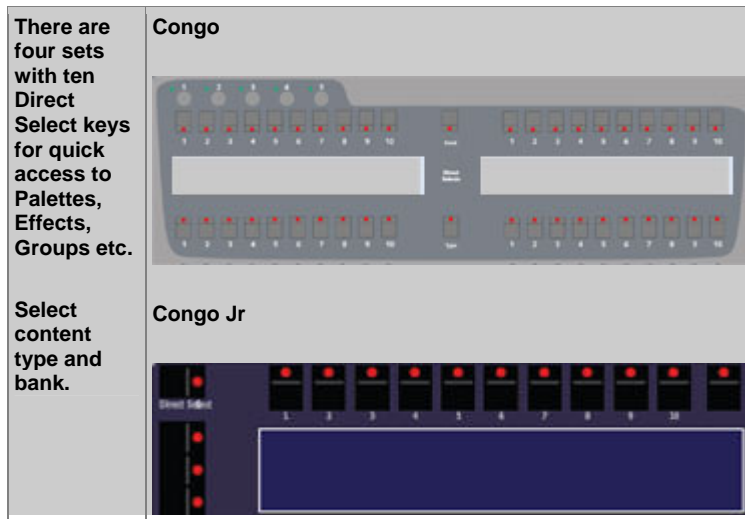
When you are in "exclusive" mode, the attributes will still be "stolen" back by any function calling them in the rest of the console, even if the intensity is "exclusive".

Independent Dock Areas (4.2)

The content of Independents can be assigned to a dock area. See [Dock Areas - Configure](#).



Direct Selects



This chapter contains the following chapters

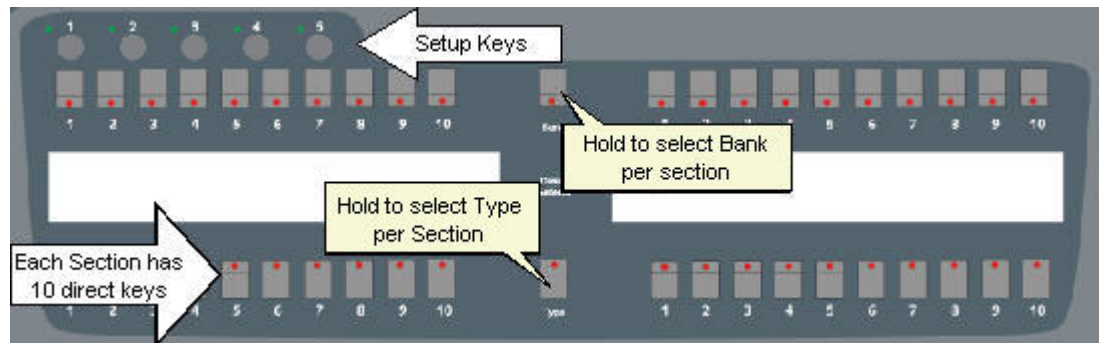
- [Direct Selects - Introduction](#)
- [Direct Selects - Content](#)
- [Direct Selects - User Setups](#)
- [Direct Selects - Save Screens](#)
- [Direct Selects - Direct Mode \(4.1\)](#)

Direct Selects - Introduction (4.3)

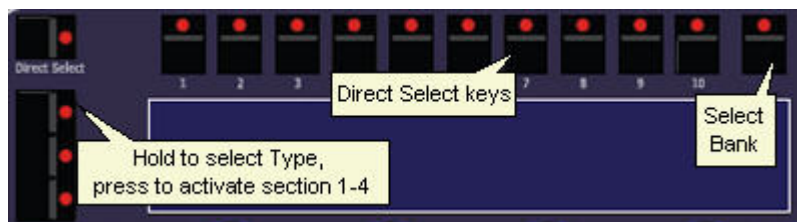
The Direct Selects give fast access to stored data such as groups, palettes, effects and screens.

- The Direct Selects have four sections with ten keys.
- You can select Type of content and bank for each section.
- You can store a complete setting of four sections to the five Setups.

Congo



Congo Jr



When you press a TYPE key, Direct Selects are activated for section 1-4. Then use BANK to select a Bank for this section. Press TYPE again to exit. You can enter a number 1-5 and press the top Direct Select key to access the five Setups that have direct keys in the big Congo console.

NOTE
(4.3) In Jr you can exit Direct Select Mode by pressing the same key again.

Direct Selects - Content (4.2)

Content is selected by type, and then by bank in groups of ten.

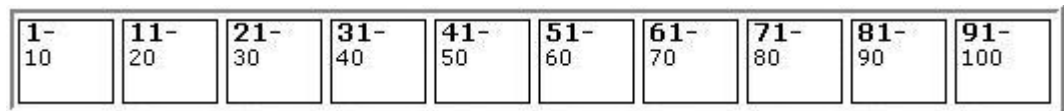
Type of content (hold TYPE)



When TYPE is held the different types are displayed over each section. Press the key corresponding to the Type you want, without letting go of TYPE.

Congo Jr: In Jr the four keys to the left of the display activate Direct Select section 1-4 AND act as TYPE key for each section when activated.

Bank (hold BANK)



When BANK is held the different banks are displayed over each section. Press the key corresponding to the Bank you want, without letting go of BANK.

Congo Jr: Activate Direct Select section 1-4 with the corresponding TYPE key, as described above and select a type of content. The key to the right of the ten Direct Select keys works like the BANK key described above.

NOTE

A bank contains the content that has been stored to those numbers. For example Focus Palette 11 is in bank 11-20.

Content Types (4.1)

These are the possible Types of content for the Direct Selects.



Type	Function	Read More
Focus	Activates a Focus Palette for the selected channel(s)*	Moving Device - Palettes
Color	Activates a Color Palette for the selected channel(s)*	Moving Device - Palettes
Beam	Activates a Beam Palette for the selected channel(s)*	Moving Device - Palettes
Pal	Activates an all Palette for the selected channel(s)*	Moving Device - Palettes
Dynam	Activates a Dynamic Effect	Dynamics
Group	Selects the channels in a Group	Groups
Param	Ranges for a parameter (gobo wheel) (4.1)	First select Param, then press the wheel key for a moving device parameter to connect that range to the Direct Select keys.
Auto Group	Auto Groups generated from the Channel Database (4.1)**	Channel Database & Auto Groups
Screen	Press to select the stored screens	Direct Select - Save Screens

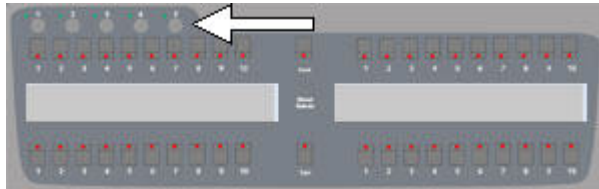
*You can enter a time # before pressing a key to activate the change in this time (4.1).

**Auto Groups are sorted by Text Column from the Channel Database.

Direct Selects - User Setups

There are five User Setup "pages" for all settings in the Direct Selects. They are stored to the five round keys over the Direct Selects.

Congo



Action	Console	Feedback
1. Select User Setup	Setup key	The LED of that key is lit
2. Select Types and Banks		The current types and banks can be recalled with this Setup key.

Congo Jr



Action	Console	Feedback
1. Activate A Direct Select Mode section	Direct Select key (1-4)	The LED of that key is lit
2. Select Setup	# Direct Select key	The LED of that key is lit
3. Select Types and Banks		The current types and banks can be recalled with this Setup key.

Direct Selects - Save Screens

There are 100 definable memories for all screens including zoom, channel format and split tabs.

Action	Console	Feedback
1. <i>Select Type</i>	TYPE & SCREEN	When TYPE is held you can press SCREEN in your choice of Direct Select Section.
2. <i>Record the current screen settings</i>	TAB & Section Key	The current screen settings are stored to that key. A number will appear over the key.

When you press this key, all screens will default to the stored layout and format.

NOTE (4.3)
In Congo Jr the four Direct Select keys to the left of the display also work as TYPE keys for each section.

Direct Selects - Direct Mode (4.2)

One of the very fast and unique functions of Congo. A large number of keys can be held to enter temporary Direct Mode for the Direct Selects. As long as the key is held it is possible to access the first forty items belonging to this key category.

Function	Key	Feedback
1. <i>Activate Direct Mode</i>	Hold a key	Direct Select display shows the first 40
2. <i>Select key (1-40)</i>	Direct Select key	When the key is pressed that item is activated.

Keys that enter Direct Mode when held

Key	Function
FOCUS	Focus Palettes.
COLOR	Color Palettes.
BEAM	Beam Palettes.
PALETTE	All Palettes.
Wheel Parameter	Any wheel parameter can be pressed to get direct access to all range positions. This includes scrollers. Including range tables (4.2)
GROUP	Select channels in Group.
DYN EFFECT	Activate Dynamic Effect # for selected channel(s).
CLIENT	Activate Client permissions

Troubleshooting

When you run into a problem with this system there are few probable reasons.

This chapter contains the following sections

- [Troubleshooting - Lights Are Not Responding](#)
- [Troubleshooting - You don't understand the function](#)
- [Troubleshooting - Crashes & Bugs](#)
- [Troubleshooting - Reset \(4.1\)](#)
- [Troubleshooting - Help from ETC Technical Services](#)

Troubleshooting - Lights Are Not Responding

If you have lights (dimmers, devices) connected and they are not responding check this list.

- *Is the device powered properly?*
- *Is the device set to receive the protocol you have set the board to transmit?*
- *Is the device receiving a signal from the console?*
- *Is the device set to the right channel address?*
- *Is there a light source connected to the device?*
- *Is it a lamp failure?*
- *Is the device circuit breaker thrown?*

If nothing works you may want to use a DMX tester to check that there is DMX at the receiving devices.

Troubleshooting - You don't understand a function

Check this manual. We've put a lot of work into trying to make it as complete as possible.

FAQ

The [Frequently Asked Questions](#) part is constantly under construction as new issues come to our knowledge.

Version Info

You should always read the Version Info for any new update of software. New functions may be added and old ones may have been changed. See [New Software Version Info](#).

Troubleshooting - Crashes & Bugs

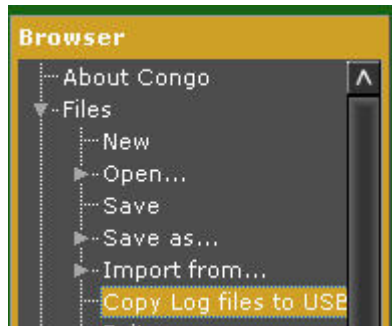
All software-based products run the risk of a crash regardless of testing procedures. In the unlikely event it happens, please help us to eliminate problems with crashes and bugs by reporting them to us.

An Error Popup Appears - copy log (4.1)

If you get an error popup we have saved your show data and created two files (log and dmp) that can be saved to a USB memory if there is one connected to the console.

Mail these file to us. It can help us solve your problem very fast.

1. Make sure there is a USB memory in one of the USB slots.
2. Open the Browser and select "Copy Log files to USB"



3. Mail both files (log & dmp) to congo@etcconnect.com

NOTE

This has to be done directly. The dmp file is a temporary file that will be overwritten if anything happens later. BOTH files are needed to solve the problem. Thank you for your help.

What to do after a crash?

In most cases your play will have been saved (recover.asc). In this case you got a popup explaining this and returned to the login screen.

- Log in again.

If you don't return to the login screen, *which is extremely unlikely* you need to restart the console.

- Press Esc if the front panel seems frozen.
- Try **resetting** the console using the **reset** button on the back, in the middle.
- If none of these efforts work, contact your local ETC Support.

Making a crash or bug report

If you have the possibility, try to reproduce the problem by repeating your actions. If you can send us a description of how to repeat the problem reliably, we are much very likely to solve it rapidly.

Crash or bug report

Date =

Your Name =

Phone/fax/mail =

Congo Software version = "4.1" (bottom left corner of the main screen, or About Congo in the Browser)

Description (example):

1. I was trying to edit a Preset on stage.
2. I started a crossfade
3. I got a crash with a message = "FILE main.cpp LINE 37" or "Offset: 12345678"
4. It is repeatable following 1 & 2.

Please fax the bugs reports to Congo BUG REPORT at +49 8024 990-300 or preferably e-mail them to congo@etcconnect.com

Troubleshooting - Reset (4.1)

There is a "reset" button in the back of the console. It works differently depending on your Congo Hardware model.

There are two kinds of Congo hardware.

Without internal UPS

These consoles have a soft switch for power.

- In order to reset the console, press reset.

With internal UPS

These consoles have a two position mains switch (on/off) for power.

- In order to reset the console, hold the reset button for more than 5 seconds. This will shut down the console.
- In order to re-start the console after the above step, hit the reset button once. This will start up the console again. It is **IMPORTANT** that you use the same reset button to start up the console again.

Troubleshooting - Help from ETC Technical Services

Emergency service is available from all ETC offices outside of normal business hours.

If you are having difficulties, your most convenient resources are the references given in this manual and the Help system. To search more widely, try the ETC website at <http://www.avabcontrol.com/>. If none of these resources is sufficient, contact ETC Technical Services directly at one of the offices identified below.

When calling for help, please have the following information handy

- Console model and serial number (located on back panel)
- Software version (is located beneath the Congo logo on Screen 1)
- Dimmer manufacturer and installation type
- Moving light information (manufacturer, mode, data cable type)
- Other components in your system (Unison®, other consoles, etc.)

ETC Technical Services - United Kingdom

ETC Europe Ltd.
Technical Services Department
5 Victoria Industrial Estate
Victoria Road,
London W3 6UU England
+44 (0)20 8896 1000
service@etceurope.com

ETC Technical Services - Americas

Electronic Theatre Controls Inc.
Technical Services Department
3031 Pleasant View Road
Middleton, WI 53562
800-775-4382 (USA, toll-free)
+1-608 831-4116
service@etcconnect.com

ETC Technical Services - Asia

Theatre Controls Asia, Ltd
Technical Services Department
Room 605-606
Tower III, Enterprise Square
9 Sheung Yuet Road
Kowloon Bay, Kowloon, Hong Kong
+852 2799 1220
service@etcasia.com

ETC Technical Services - Germany

Electronic Theatre Controls GmbH
Technical Services Department
Ohmstrasse 3
83607 Holzkirchen, Germany
+49 (80 24) 47 00-0
techserv-hoki@etcconnect.com

Troubleshooting - Network Problems (4.2)

If you are experiencing network problems using a Congo together with a laptop computer (client, visualisation etc) make sure there is only one network active - the one used for Congo. Using a wireless LAN at the same time can create the following problems:

- Improper functionality of send/fetch play.
- Improper interaction with media server.

SOLUTION

Turn off all networks except the one used by Congo in the laptop.

REFERENCE MANUAL

This is the reference section of the manual, where all functions are described in detail.

These are the chapters

- [Patch](#)
- [Channel Layouts](#)
- [Channels](#)
- [Groups](#)
- [Presets](#)
- [Sequences](#)
- [Chase](#)
- [Master Pages](#)
- [Devices](#)
- [Dynamics](#)
- [Copy, Cut & Paste](#)
- [Entering Texts](#)
- [The Import Wizard](#)
- [System Settings](#)
- [Display Lists](#)
- [Login Settings](#)
- [Network](#)
- [Media](#)
- [Notes](#)
- [Track](#)
- [Jam Mode](#)
- [Mute & Solo](#)
- [Park](#)
- [Dock Areas](#)
- [Macros](#)
- [MIDI](#)
- [User Login](#)
- [Partitions](#)

PATCH

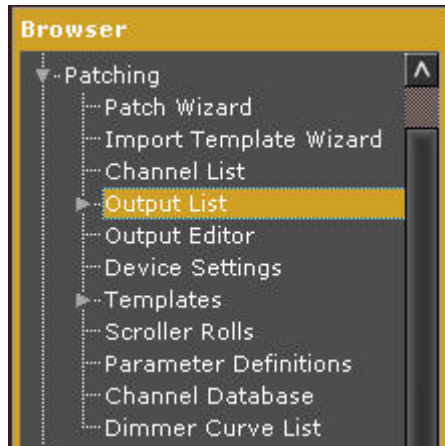
You assign channels to dimmer and moving device outputs/addresses in the Patch.

This chapter contains the following sections

- [Patch - Introduction](#)
- [Patch - Patch Wizard](#)
- [Patch - Channel List](#)
- [Patch - Output List](#)
- [Patch - Device Settings](#)
- [Patch - Rename Channels](#)
- [Patch - Edit/Change A Moving Device](#)
- [Patch - Channel Database & Auto-groups](#)
- [Patch - Dimmer Curves \(4.1\)](#)
- [Patch - Direct Patch In Lists \(4.1\)](#)
- [Patch - Output Editor \(4.2\)](#)

Patch - Introduction (4.2)

When opening a new play you can choose to set the Patch 1:1 or cleared. you can also choose to open the Patch Wizard. To patch devices or outputs look in this chapter. All Patch functions are available under the Patching node of the Browser (Browser >Patching).



The Patch functions are found in the following lists

Description	List	Functions
The easiest way to patch or remove dimmers & devices	Patch Wizard	Patch, Clear and Reset single or multiple devices or dimmers.
Channel settings. Also a patch summary.	Channel List	Edit output, address, ch scale factor, constant level, rename.
Individual device settings. Patch, clear or edit single moving devices.	Device Settings	Invert or swap pan/tilt. Scroller roll & calibration. Change template, channel or address.
Outputs and the assigned desk channels and output settings.	Output List	Edit channel, scale factor, curve.
Assign up to four texts to each channel - creates auto-groups.	Channel Database	Edit text ABCD
NOTE As soon as a moving device is patched, the channel symbol in the channel views will get an extra field for moving device information.		

Patch - Patch Wizard


The Patch Wizard is opened from the Browser (Browser > Patching > Patch Wizard). See [Navigating - Browser](#).

There are three sections

- Patch Dimmer - patch one, or a range of dimmers
- Patch Device - patch one, or a range of devices
- Set/Clear - clear or reset a range/all outputs, devices or renaming.

Patch Dimmer(s)

Enter the number of dimmers, the desk channel, DMX address and universe. If you check Replace existing dimmers, these will be unpatched automatically.



The screenshot shows the 'Patch Wizard' dialog box with the 'Patch Dimmer' tab selected. The fields are as follows:

Field	Value
Number of dimmers	1
Starting at desk channel	0
DMX Address	0
DMX Universe	0
Replace existing dimmers	<input checked="" type="checkbox"/>


Patch Moving Device(s) (4.2)

Select a template from the list, or open the Import Template Wizard. See [Import Template Wizard](#). Importing a template will add it to the list in this dropdown.

Enter the number of devices, desk channel, DMX address and universe. When the device type and number of devices are specified the required block of outputs is indicated in italic over the DMX Address (see image). The first free DMX address and output is suggested too. (4.2)

If you check Replace existing dimmers (default), they will be unpatched automatically. If you are patching scrollers, you can select a scroller roll. You can assign a scroller roll later as well, from the device settings list.

Output Offset (4.1) allows you to set an offset from the first attribute of each moving device to achieve a specific numbering for the start addresses.



Patch Wizard

Patch Dimmer | **Patch Device** | Set/Clear

Type of device: Mac 300 M4 ▼

Number of devices: 1

Starting at desk channel: 0

Block of 13 outputs needed

DMX Address: 1

DMX Universe: 1

Output offset: 13

Replace existing dimmers: ☒

Scroller roll: No Scroller Roll ▼

NOTE
Patched devices are automatically set to default values (4.2).
See [Home Positioning](#).

Clear/reset patch or rename (4.3)

You can reset (1:1) or clear the dimmer patch, the moving device patch, or the renaming system for any channel range from x to x. If you check "Apply To All" you don't need to specify a range. Unpatch All clears channel, device and name patch (4.2).



Patch Wizard

Patch Dimmer | Patch Device | **Set/Clear**

Operation: Set dimmer patch 1:1 ▼

From: 0

To: 0

Apply to all: ☐

These are the options in the Clear wizard tab



See [Renaming Channels](#)

NOTE (4.3)
Checking Apply To All clears everything up to the total system limits regardless of any prior downgrade of channels/outputs.

Patch - Channel List (4.2)

You can view and edit dimmer outputs, scaling and constant ch level in the Channel List (BROWSER >Patching >Channel List). There is a shortcut to open it: hold MODIFY and press CH.

See [Introduction To Patching](#) for more information.

3. Channel List							
	Channel	Dimmer Address	Device	Device Address	Scale	Park	Name
1	1	1.1	Scroller	101.1 (-101)	100 %	---	1
2	2	2.1		----	100 %	---	2
3	3	3.1		----	100 %	---	3
4	4	4.1	Scroller	102.1 (-102)	100 %	---	4
5	5	5.1		----	100 %	---	5
6	6	6.1		----	100 %	---	6
7	7	7.1		----	100 %	---	7

NOTE

When a step is selected, the corresponding channel and output are selected in the Live and Output Editor tabs (4.2)

Channel List - Columns & Functions

Column	Input	Function
<u>Channel</u>	No input	The number of this Channel - cannot be edited here (see Output List).
<u>Dimmer Address</u>	##	Enter the address, followed by decimal point and then DMX universe. You can change the universe by entering ".#"
<u>Dimmer Address</u>	<input type="button" value="MODIFY"/>	Opens an Output Editor for adding multiple outputs or editing.
<u>Device</u>	No input	Shows the device template - cannot be edited here (see Device Settings).
<u>Device Address</u>	No Input	Shows the device address - cannot be edited here (see Device Settings).
<u>Scale</u>	0-200%	Sets the scaling factor for the intensity of this channel.
<u>Park</u>	0-100%	Shows the level a channel is parked at. Set a level with # MODIFY and remove with C & MODIFY. See Park .
<u>Name</u>	0-6144	Enter the number and press MODIFY to change a channel name (see Renaming Channels).

Channel List - Select & Patch Channels (4.2)

It is possible to select and patch channels to outputs directly with a Command Syntax in this list (only in RPN mode).

Function	Key	Feedback
Select a channel	<input type="text" value="#"/> <input type="text" value="CH/ID"/>	The channel is selected in the list and in the top view.
Add a channel to this selection	<input type="text" value="#"/> <input type="text" value="+"/>	The channel is added to the current selection.
Add a range of channels to this selection	<input type="text" value="#"/> <input type="text" value="THRU"/>	The channel range is added to the current selection.
Patch a range of outputs to this selection	<input type="text" value="#"/> <input type="text" value="MODIFY"/>	The output range is patched to the current selection. A popup will warn if outputs are in use already.

Patch - Output List (4.2)

You can view and edit desk channel, scaling and curve for outputs in the Output List (BROWSER >Patching >Output List >Universe #).

See [Introduction To Patching](#)

	Output	Channel	Scaling	Curve	Device Info	Park
1	1.1 (1)	1	100%	No curve		---
2	2.1 (2)	2	100%	No curve		---
3	3.1 (3)	3	100%	No curve		---
4	4.1 (4)	4	100%	No curve		---
5	5.1 (5)	5	100%	No curve		---
6	6.1 (6)	6	100%	No curve		---
7	7.1 (7)	7	100%	No curve		---

NOTE

The Output List is divided into DMX universes. Open each from the Browser >Patching >Output List >Universe #

Output List - Columns & Functions (4.2)

Column	Input	Function
<u>Output (EDMX)*</u>	No input	The number of this Output (and EDMX) - cannot be edited here.
<u>Channel</u>	0-6144	Enter the number, followed by MODIFY.
<u>Scaling</u>	0-200%	Sets the scaling factor for the intensity of this output (channels can be scaled in the Channel List).
<u>Curve</u>	dropdown	Shows the output curve. See Dimmer Curves .
<u>Device Info</u>	No Input	Shows the moving device template and parameter assigned to this output. Cannot be edited - see Device Settings .
<u>Park</u>	0-100%	Shows the level an output is parked at. Set a level with # MODIFY and remove with C & MODIFY. See Park .

*Output Lists show EDMX numbers in () after the offset.port numbers in the first column. This is a direct translation of EDMX values calculated using the EDMX Start value in the Settings dialog (Congo output 1.1 = the EDMX Start number, and all subsequent outputs are calculated from there).

Output List - Select & Patch Outputs (4.1)

It is possible to select outputs directly with a Command Syntax in this list (only in RPN mode).

Function	Key	Feedback
Select an output	# <input type="text" value="OUTPUT"/>	The output is selected in the list and in the top view.
Add an output to this selection	# <input type="text" value="+"/>	The output is added to the current selection.
Add a range of outputs to this selection	# <input type="text" value="THRU"/>	The output range is added to the current selection.
Patch this selection of outputs to a channel	# <input type="text" value="MODIFY"/>	The output selection is patched to channel #.

Patch - Device Settings (4.2)

You can view and edit moving device settings in the Device Settings (BROWSER > Patching > Device Settings). There is a shortcut to open it: hold MODIFY and press DEVICE.

See [Introduction To Patching](#)

4. Device Settings									
	Item	Channel	Template	Address	Inv. Pan	Inv. Tilt	Swap Pan/Tilt	Scroller Roll	Calibration Editor
1	1	31	Mac 300 M4	201.1 (-213)				No Scroller Roll	
2	2	32	Mac 300 M4	214.1 (-226)				No Scroller Roll	
3	3	33	Mac 300 M4	227.1 (-239)				No Scroller Roll	
4	4	34	Mac 300 M4	240.1 (-252)				No Scroller Roll	
5	5	1	Scroller	101.1 (-101)					
6	6	4	Scroller	102.1 (-102)					
7	7	101	Capture camera	401.1 (-416)				No Scroller Roll	

Device Settings - Columns & Functions

Column	Input	Function
<u>Item</u>	No input	The number of this item - cannot be edited here.
<u>Channel</u>	0-6144	The number of the desk channel this device is assigned to.
<u>Template</u>	Dropdown menu	Shows the device template - dropdown to change.
<u>Device Address</u>	##	Shows the device address - change by address.universe. You can change universe by ".universe"
<u>Inv. Pan</u>	Off/On	Invert pan for this device.
<u>Inv. Tilt</u>	Off/On	Invert tilt for this device.
<u>Swap Pan/Tilt</u>	Off/On	Swap pan/tilt for this device.
<u>Scroller Roll</u>	Dropdown menu	Shows the assigned scroller roll - dropdown to change. See Scroller Rolls .
<u>Calibration Editor</u>	<input type="button" value="MODIFY"/>	Press MODIFY to open the Calibration Editor for a specific scroller roll. See Calibrate Individual Scroller Rolls .

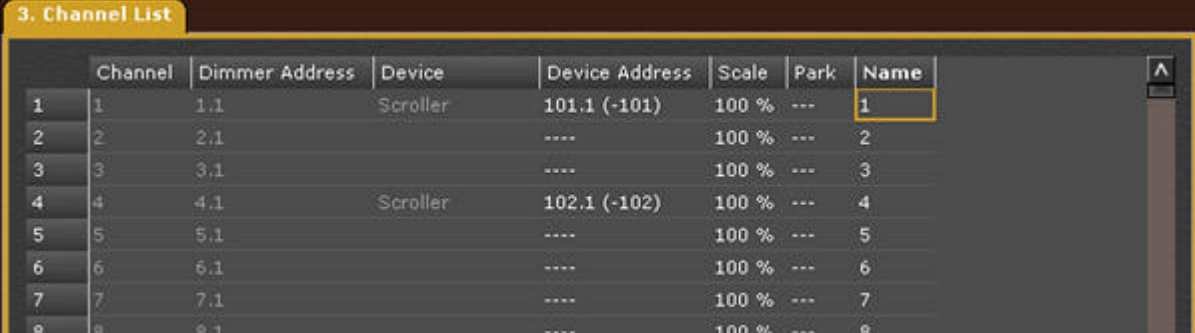
Device Settings - Patching (4.2)

It is possible to Patch devices directly into the Device Settings tab. You can use any channel selection to patch fast.

Function	Key	Feedback
Insert a new Device	# INSERT	A new Device is inserted.
Delete the selected Device	DELETE	The selected Device is deleted. You can only delete one device at a time.
Insert the current channel selection as devices	INSERT	The current channel selection is inserted as Devices.

Patch - Rename Channels

You can change the number used to access your instruments, without altering your Patch. This is useful when you want to keep your addresses and dimmer assignments as they are, but you want to change the numbering to fit the numbering of a Plot. Renaming is done in the Name column of the Channel List (BROWSER > Patching > Channel List)



	Channel	Dimmer Address	Device	Device Address	Scale	Park	Name
1	1	1.1	Scroller	101.1 (-101)	100 %	---	1
2	2	2.1		----	100 %	---	2
3	3	3.1		----	100 %	---	3
4	4	4.1	Scroller	102.1 (-102)	100 %	---	4
5	5	5.1		----	100 %	---	5
6	6	6.1		----	100 %	---	6
7	7	7.1		----	100 %	---	7
8	8	8.1		----	100 %	---	8

Change a channel name

Function	Key	Feedback
Change a channel name	# <input type="text"/> MODIFY	Enter a new name and press MODIFY. If the name exists you will get a warning <i>message</i> about this.
Set a channel selection to the same channel name	Select channels	Enter the channel number, and press MODIFY.
Remove a channel from all channel views	0 <input type="text"/> MODIFY	If a Name is set to zero, the channel will disappear from all channel views and cannot be accessed until given a name.*
Clear all channel names	Patch Wizard	All Channel Renames can be cleared from the Patch Wizard.
Set names 1:1	Patch Wizard	The Rename function can be reset from the Patch Wizard.

*It will not disappear from Channel Layouts.

Patch - Edit/Change A Moving Device

You can exchange one moving device with another from the Device Settings tab. All parameters that are similar will continue functioning.

Function	Where	Explanation
Change Device Type*	Device Settings , Template column	Press MODIFY to get a dropdown with all templates. Select a new device template.
Change Device Address	Device Settings , Device Address column	Enter a new device address with address.universe. You can change universe only by ".universe"
Change Device Channel	Device Settings , Device Channel column	Enter a new device channel.
Delete Device	Device Settings	Press DELETE in any row.

* All play information that can be read by the replacement device template will be used. You can swap back to the first device at anytime later. This is useful if you have to replace one type/brand of Moving Device with another.

Patch - Channel Database & Auto-groups

You can give each channel up to four text labels (ABCD). From these texts virtual "groups" are automatically created and available from the Name List in the Main Display (DISP MODE & CH CH).

Any moving device that is patched will automatically show up on the Name List as well, which allows you to select all "Stage Zooms" or "Scrollers" without creating any groups in advance.

The Channel Database is opened from the Browser (Browser > Patching > Channel Database).

3. Channel Database							
	Channel	Fixture	Purpose	Pipe	Filters Gobos	Template	Symbol
1	1		Scroller	Pipe Front		Scroller	Standard
2	2		Key light	Pipe Front			PAR
3	3		Key light	Pipe Front			PAR
4	4		Scroller	Pipe Front		Scroller	Fresnel
5	0 (5)						Fresnel
6	0 (6)						Fresnel
7	0 (7)						Fresnel
8	0 (8)						Fresnel
9	0 (9)						Fresnel
10	0 (10)						Fresnel

NOTE

In Congo Jr Save Screens and Auto-Groups cannot be selected from Direct Selects. They will arrive in 4.3 when the functionality of the TYPE keys is completed.

Set Channel Texts For The Database

There are three ways of setting text to channels in the Channel Database (Browser > Patching > Channel Database).

Method 1

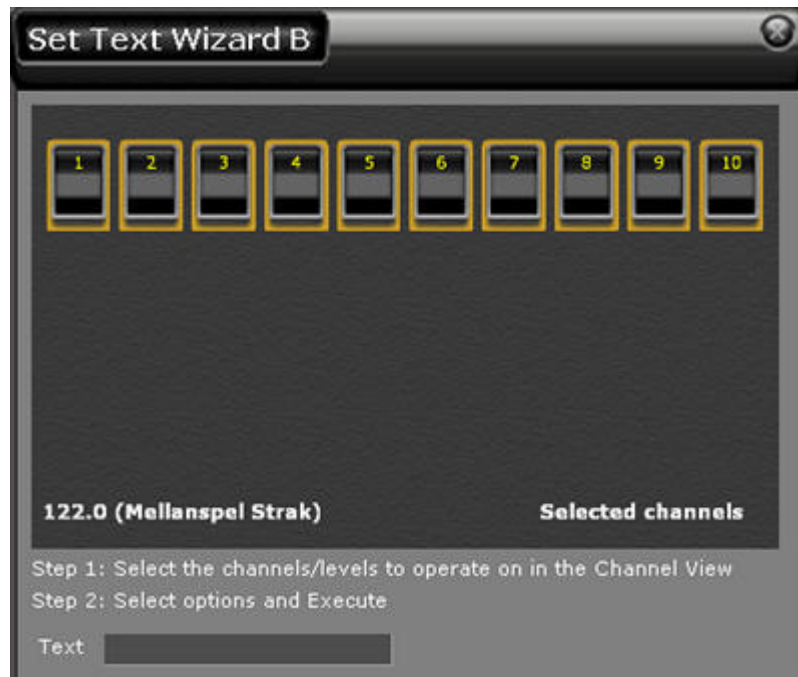
In the Channel Database cells directly

Action	Key	Feedback
Set a text in a cell(s)	Select any cell(s) in the ABCD columns	Press MODIFY, enter a text and press MODIFY again to confirm.

Method 2

In the Channel Database with a Wizard

Action	Key	Feedback
1. Select text column	Select any cell(s) in the ABCD columns	Cell is highlighted
2. Open the Wizard	<input type="button" value="WIZARD"/>	Text Wizard is opened
3. Select channels	Channel functions	Channels appear in Text Wizard



Action	Key	Feedback
4. Enter Text	Text cell	Press MODIFY, enter a text and press MODIFY again to confirm.

Method 3*In any channel view*

Action	Key	Feedback
1. Select channels	Channel functions	Channels are highlighted in yellow
2. Open Text Wizard	<input type="text" value="CH"/> & <input type="text" value="TEXT"/>	Text Wizard is opened. You can set text ABCD and EXECUTE.

**NOTE**

You will not get a warning if you are overwriting existing texts.

Display List - Auto Groups

This is the Display List for Auto Groups (not available in Congo jr yet).

Times	Auto Groups		Device
---->	[CF7 HEx]	StudioBeam	---->
	Led	Front of ho	
Dyna	Mac 250 M4	Specials	Select
mics	Mac 500 M4	Fixed rig	---->
---->	StageScan		
Chan			Play
nels			back
---->	G:81	F 1/1	---->
	Pan	Tilt	Focus Spe
	50	50	Tracking
			1

There are different ways of opening the Display list

Key	Feedback
<div>DISPLAY LIST</div> <div>CH CH</div>	You will get a list of all auto-groups.
Hold DISPLAY LIST and press AUTO GROUPS in the Direct Selects	When DISPLAY LIST is held you get all lists in the Direct Selects.

Channel Database - Import Text File Wizard (4.1)

The Channel Database can import any comma or tab-delimited file and assign four text fields to the text fields (ABCD) of the database. This makes it possible to import data from programs like Lightwright, Excel, Word, Wysiywyg and such.

The file has to have the ending .txt and is opened from the Browser (Browser >File >Import from...).

Import Text Wizard

1. Select the delimiter used by the file you are importing.
2. Select which columns that should be mapped to the internal Channel database fields.
3. If you want, choose to store the mappings under a given name for later reuse.

Text file format: Tab delimited

Map to columns

Channel (mandatory): Not mapped

Text A: Not mapped

Text B: Not mapped

Text C: Not mapped

Text D: Not mapped

Use column headers in Channel Database: ☐

Use existing mapping: New mapping

Save as new mapping: ☐

Name for new mapping:

Follow the instructions (1, 2, 3) and import the texts. You can save your mapping and reuse if you want to import a similar file later.

Field description

Setting	Feedback
<u>Text file format</u>	Choose if the file you are importing is tab or comma delimited.
<u>Map to columns</u>	Channel numbers, and text to each column.
<u>Use column headers in Channel Database</u>	The source file headers will be displayed instead of TEXT A, B, C, D.
<u>Use existing mapping</u>	Use this mapping or select a previously stored mapping.
<u>Save as new mapping</u>	Save this mapping for later use.
<u>Name for new mapping</u>	Name for this mapping when saving.

Import Text File - LightWright (4.1)

It is easy to import Channel Database texts from LightWright. Here are some good things to know.

You can download the Lightwright 4 demo from <http://www.mckernon.com>. The demo works fine and you can even save shows (it has a limit of 75 units). It also contains a demo show.

Export Format

In Lightwright, data can be exported to tab or comma separated *.txt files. We recommend tab separated files, since comma separated files can cause problems with data that includes commas. This is found under File > Export > Data. In this popup you can also select which data to export.

Uncheck Items

We suggest you select which items to export in the export popup mentioned above, or you will have an enormous amount of data to select from.

Typical categories to include would probably be

- Channel
- Dimmer
- Wattage
- Purpose
- Position
- Instrument
- Type
- Color
- Type & Wattage
- Color & Template.

A suggestion for columns to import (besides Channels) into the Channel Database would be

- Text A= Purpose
- Text B= Position
- Text C= Color & Template
- Text D= Type & Wattage

Uncheck Parentheses

Lightwright seems to by default use parentheses (#) on channel numbers. So channel 1 in Lightwright is (1). So when you export the data from LightWright, in Export options, check the option "Strip channel parentheses ()" If you do not check this option, the channel will be exported with the parentheses and Congo will not understand that it is a channel number.

There is also a setting in Edit > Preferences, "Use parentheses () around channel numbers". By checking that box, it's also possible to get rid of the parentheses in the lists.

Export Devices as Channels

Check the option "For lights with attributes, export only the first row" in Export options. Otherwise it will export all of the attribute channels as separate channels for moving lights.

LIMITATIONS

If there are multiple items/units with the same channel number. Only the item/unit data for the last item/unit will be imported. This is of course because the multiple units use the same channel number and one channel cannot contain several different data's. In this case each unit has its own row in the exported file, so several rows have the same channel number.

If the Lightwright show includes several units patched to one channel, there is no point in trying to import the Unit# to Congo, since only the last Unit# will be imported.

Import Text File - Excel (4.1)

It is easy to import Channel Database texts from an Excel file. Here are some good things to know.

If you have a nicely formatted list (check example below) and want to import this to the Channel Database, you need to make sure the table only has headers at the top, since these are recognized by the import tool. Save as a Tab delimited .txt file.

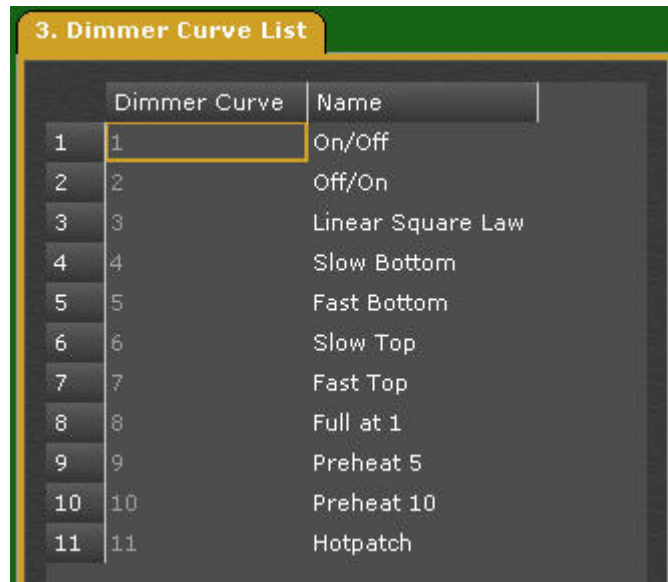
Example - Data in Excel easy to import

	A	B	C	D	E
1	Channel	Purpose	Position	Color	Watt
2	1	wash	1. truss	o/w	575W
3	2	spot	1. truss	amber	750W
4	3	else	SL	purple	500W
5	4	extra	floor	pink	50W
6	5	aud	2. truss	red	750W

Patch - Dimmer Curves (4.1)

A set of default Curves can be assigned to dimmers in the Output Setup. It is also possible to create user specific dimmer curves.

When you open a new show (4.1) some default curves are loaded at start-up (contained in the file CURVES.DEF).



Patch - Dimmer Curve Editor (4.1)

It is possible to create any kind of curve in the Dimmer Curve Editor.

Action	Key	Feedback
1. Open the Dimmer Curve List	Browser >Patching >Dimmer Curve List	The Dimmer Curve List is opened.
2. Insert a New Curve	<input type="button" value="INSERT"/>	A new curve is inserted. You can name it in the Text cell.
3. Open the Dimmer Curve Editor	<input type="button" value="MODIFY"/>	Press MODIFY in the Dimmer Curve cell to open the editor.

Dimmer Curve Editor (example: Off/On Curve)

4. Dimmer Curve Editor			
	Percent	Output	Interpolation
1	0%	0%	Off
2	51%	100%	Off

Action	Key	Feedback
4. Insert a position	INSERT	A position is inserted. You can set percent, Output and if this step should use interpolation to the next step.

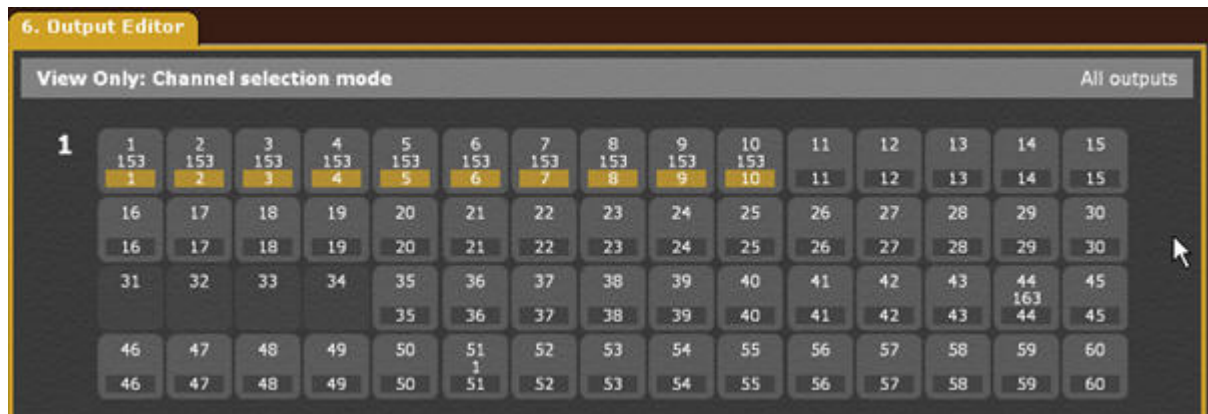
INTERPOLATION

When Interpolation is ON the values to this point will be calculated smoothly from the previous point. When Interpolation is OFF the value will be jumped to at this level.

NOTE

If a curve does not have a 0% and 100% rows, it will default to 0% = 0 output and 100% = 100 output

Patch - Output Editor (4.2)



The Output Editor gives access to the following actions.

- View Outputs in different formats (All, patched, unpatched, selected)
- Select by Output or by Channel.
- Expand information to show Device Parameter names
- Levels are shown in 8 or 16 bits.
- Changing Levels are shown with a blue background for going up, and green for down.
- Patch ranges or single channels/outputs directly.
- Park status is showed as a dimmed Output symbol.
- Next and Last can be used to step around within a selection of channels or outputs.
- Move around by holding CH/ID and using arrows or wheel.

See [Introduction To Patching](#)

The Output Editor is opened from the Browser or with keys:

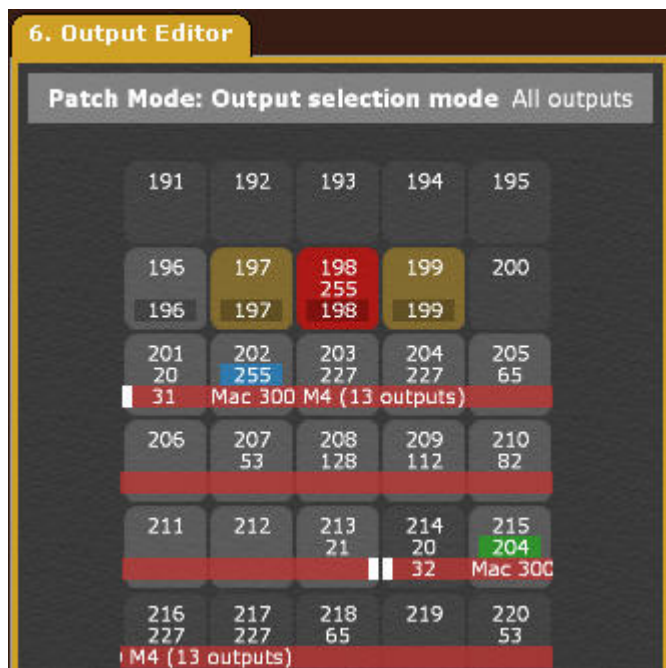
- BROWSER >Patching >Output Editor
- Hold MODIFY and press OUTPUT
- Enter an output # and press OUTPUT

Output Editor - Formats (4.2)

You can toggle between these formats by pressing FORMAT. The currently selected format is indicated in the top right corner (4.2).

- All outputs
- Patched
- Un-patched
- Selected

There are color indications for most statuses:

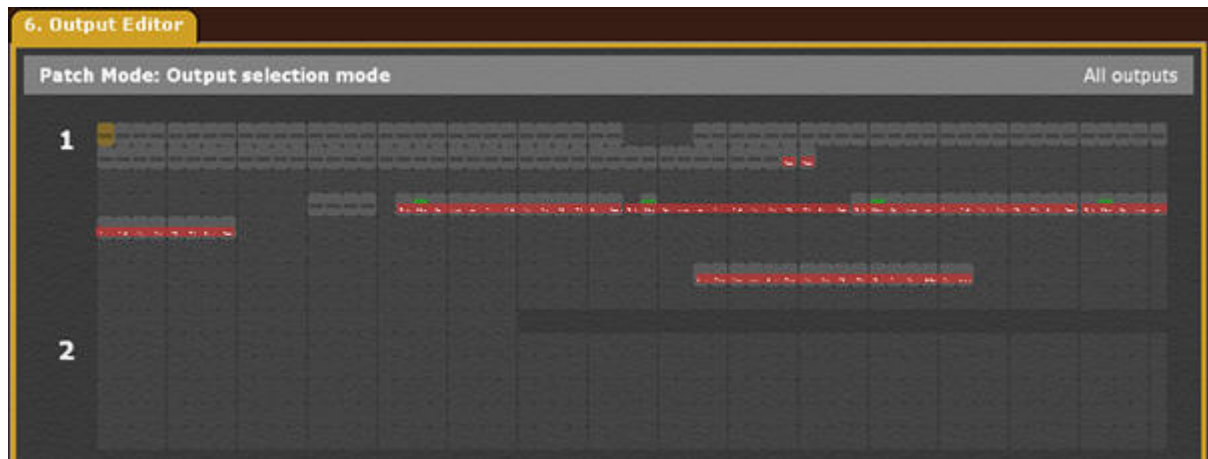


- Devices are marked in with a horizontal bar that show the involved outputs.
- Levels are shown in 8 or 16 bits (depending on template).
- Changing Levels are shown with a blue background for going up, and green for down.
- Park status is showed as a dimmed Output symbol (214 in image).
- Next and Last can be used to step around within a selection of channels or outputs (197-199 in image).

Hold **FORMAT** and press down/up arrow to open/close detailed view showing parameter names.



Hold **FORMAT** and move the level Wheel to zoom out/in.



Output Editor - Dimmer Check Mode (4.2)

Dimmer Check mode is a fast way to check the outputs consecutively.

1. Select first output with **# OUTPUT**
2. Set a Level for checking (1-255)
3. Press **+** or **-** to use this level and step to the next/previous Output. Levels that are higher than zero are restored automatically as they are passed by.
4. Select Output zero to release the last Output from check mode.

Output Editor - Patching Mode (4.2)

There is a View Mode and a Patching Mode for the Output Editor, indicated in the top status bar of the tab.



In Patching mode single channels, outputs and ranges of these can be patched really fast.

Enter patch mode by pressing **MODIFY**. There will be a confirmation popup.



Once in patch mode it is possible to patch by output or by channel.

Output Editor - Patch By Channel (4.2)

As soon as a channel is selected, the Output Editor is automatically in channel mode. Select a single channel or a range of channels to patch to Outputs. Use 0 MODIFY to unpatch.

First activate Patching Mode. See [Patching Mode](#).

Patch a single channel

Action	Key	Feedback
1. Select channel	# CH/ID	Channel is selected.
2. Patch to output	# MODIFY	A popup will ask if you want to replace existing output(s)*
3. Confirm	MODIFY	Patch is complete.

*



Patch a channel range

Action	Key	Feedback
1. Select channel range	Channel functions	Channels are selected
2. Patch to output(s)	# MODIFY	A popup will ask if you want to patch a range of outputs starting at #
3. Confirm	MODIFY	Patch is complete.

Output Editor - Patch By Output (4.2)

As soon as an output is selected, the Output Editor is automatically in outputmode. Select a single output or a range of outputs to patch to channels. Use 0 MODIFY to unpatch.

First activate Patching Mode. See [Patching Mode](#).

Patch a single output

Action	Key	Feedback
1. Select output	# OUTPUT	Output is selected.
2. Patch to channel	# MODIFY	A popup will ask if you want to replace existing channel*
3. Confirm	MODIFY	Patch is complete.

*

**Patch an output range**

Action	Key	Feedback
1. Select output range	Output functions	Outputs are selected
2. Patch to channel(s)	# MODIFY	A popup will ask if you want to patch all to one channel or as a range*. Use 0 to unpatch selected outputs.
3. Confirm	MODIFY	Patch is complete.

*



Patch - Direct Patch In Lists (4.1)

See [Output List - Select & Patch Outputs \(4.1\)](#)

See [Channel List - Select & Patch Channels \(4.2\)](#)

See [Output Editor - Patching Mode \(4.2\)](#)

CHANNEL LAYOUTS

A Channel Layout is a topographical custom view of your whole lighting rig, or part of it. It can also contain show data.

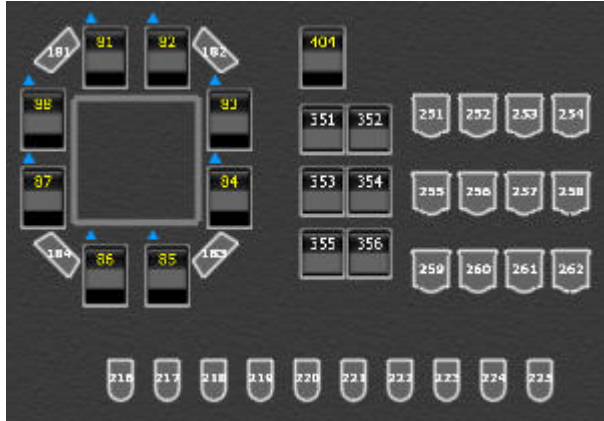
This chapter contains the following sections

- [Channel Layouts - Introduction](#)
- [Channel Layouts - List](#)
- [Channel Layouts - Editor](#)
- [Channel Layouts - Create](#)
- [Channel Layouts - Channels](#)
- [Channel Layouts - Lines](#)
- [Channel Layouts - Boxes](#)
- [Channel Layouts - Content](#)
- [Channel Layouts - Load](#)

Channel Layouts - Introduction

You can have up to 999 custom Channel Layouts in addition to the normal channel views.

This is an example of some instrument symbols in a Channel Layout.

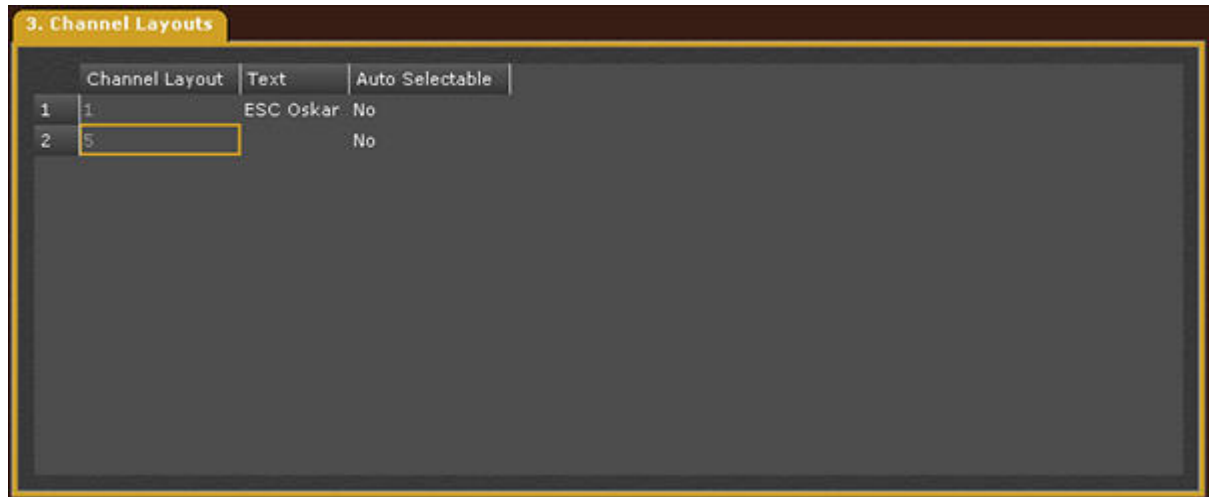


General Facts

- Auto-select function by channel content
- The same channel can exist in several Channel Layouts
- There are USITT plot symbols for different light sources
- They can contain any type of data besides channels
- FORMAT is used to open a Channel Layout
- Channel Layouts can be assigned to Master Playbacks

Channel Layouts - List

You can insert and delete Channel Layouts in the Channel layout list (Browser >Setup >Channel Layout).



Channel Layout List - Columns & Functions (4.2)

Function	Key	Feedback
<u>Channel layout</u>		The ID of each Layout. Cannot be changed.
<u>Text</u>	<input type="button" value="MODIFY"/>	Press MODIFY to activate and end text input. This text is shown in the lower right corner of the channel views.
Auto Selectable	<input type="button" value="MODIFY"/>	Enables Auto-Select*
Delete Layout	<input type="button" value="DELETE"/>	Deletes the currently selected Channel Layout. Cannot be undone.
Insert a new Channel Layout #	<input type="button" value="#"/> <input type="button" value="INSERT"/>	Inserts a new Channel Layout **
Copy a Layout	<input type="button" value="COPY"/>	Copies the selected layout (4.2)
Paste a Layout	<input type="button" value="PASTE"/>	Pastes a copied layout (4.2)

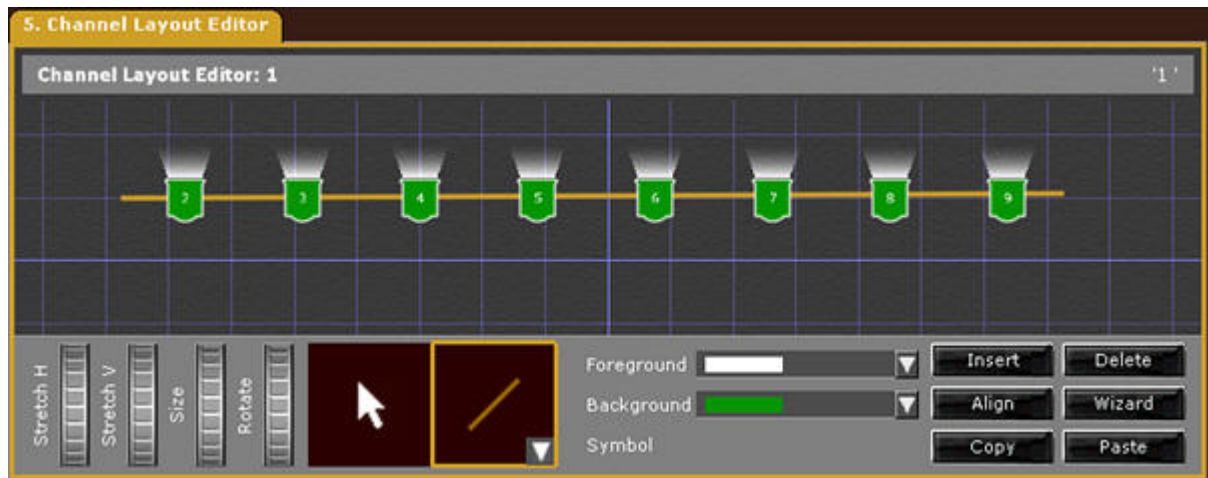
*If you select a channel that is included in a layout marked as "Auto-selectable", this layout will be selected. If the same channel is included in several layouts, the first Auto-Selectable one will be selected.

****NOTE**

When a new Layout is inserted it is possible to pre-fill it with the current channel selection or all patched channels. There is a limit to 500 objects for this.

Channel Layouts - Editor (4.2)

This is where you create and edit a Channel Layout (Browser >Setup >Channel Layout >#).



Channel Layout Editor - General Functions (4.2)

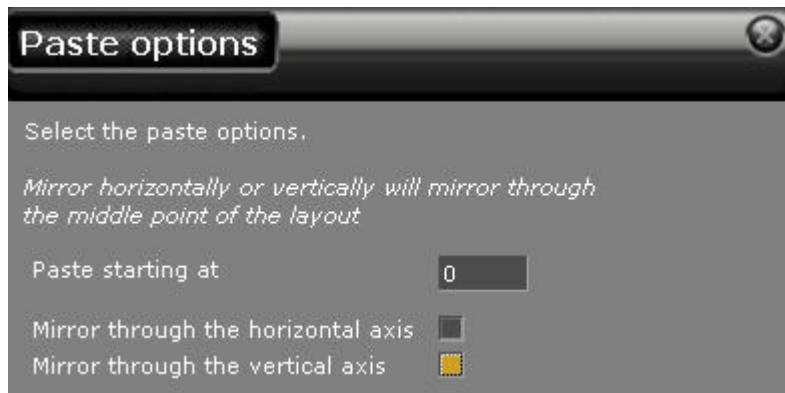
The Channel Layout Editor requires a mouse or trackball. Select objects in the upper area and action in the toolbar. Each function is described in the following chapters.

- Select ARROW to select or edit objects.
- Select OBJECT and type to insert objects.

These are general functions.

Function	Key	Feedback
Insert item #	# Mouse click	Item # is inserted at the cursor. Selected content type is used.
Insert next item	Mouse click	Next item of same type as the previous is inserted.
Insert channels	INSERT	Selected channels are inserted.
Delete item	DELETE	The currently selected item(s) is deleted.
Copy selected items	COPY	Copies selected items.
Paste selected items	PASTE	Paste last copied items*
Move selected items	Arrow keys	Moves selected items.

*The paste popup has options for pasting a range of channels, or mirroring the selected object.



Channel Layout Editor - Wheels (4.2)

The wheels are used to spread the selected objects horizontally or vertically, and to change size or rotation.

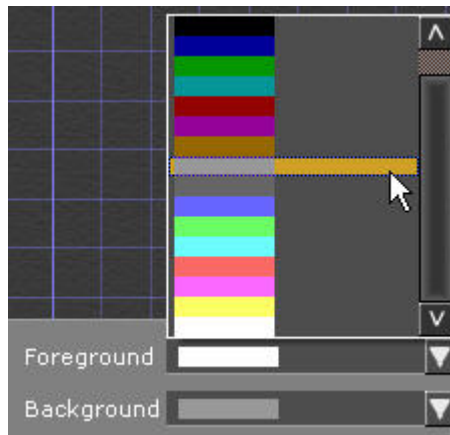


1. Select objects (Cursor mode).
2. Use wheel to edit.

Function	Feedback
Stretch H	Objects are spread horizontally
Stretch V	Objects are spread vertically
Size	Object size is changed
Rotate	Object is rotated. Hold C to rotate individual objects within selection.

Channel Layout Editor - Colors (4.2)

It is possible to set Foreground and Background color for all objects.

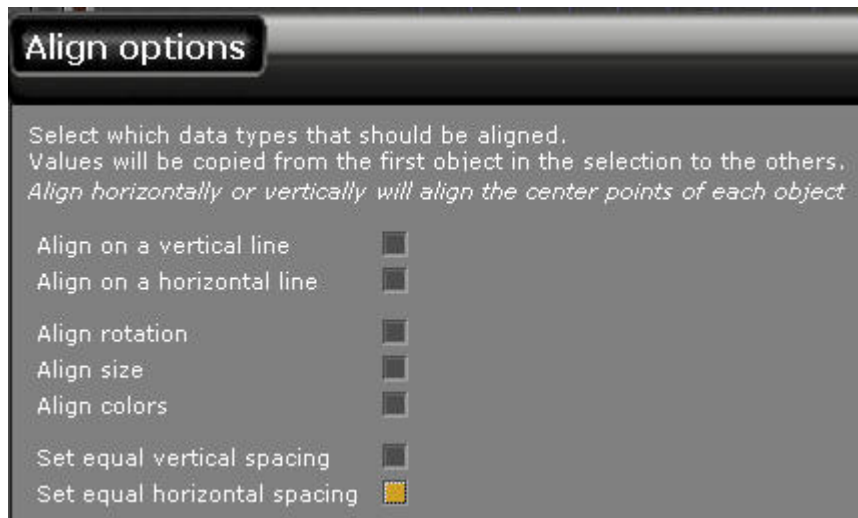


1. *Select object.*
2. *Select Foreground or Background color (deselect object to view colors)*

Channel Layout Editor - Align (4.2)

There are different align options for a selection of objects.

1. *Select objects*
2. *Click on ALIGN to get the Align popup.*

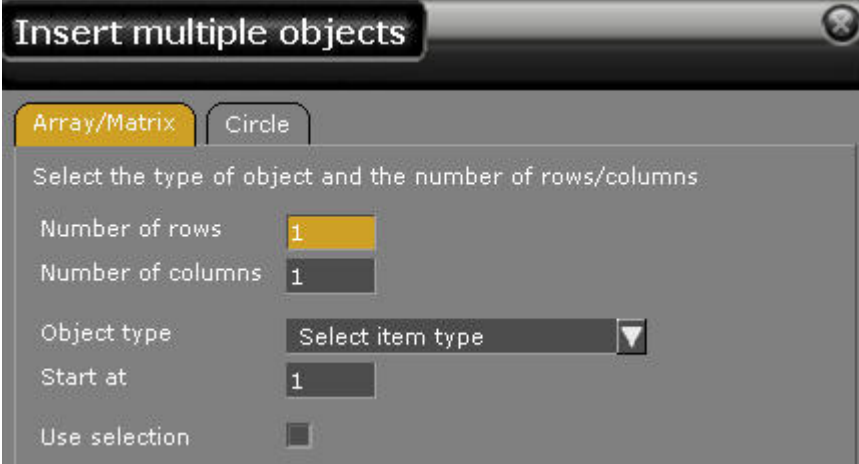


3. *Make selection and confirm with MODIFY.*

Channel Layout Editor - Wizard (4.2)

The wizard makes it possible to insert a matrix/array or circle of objects of any type.

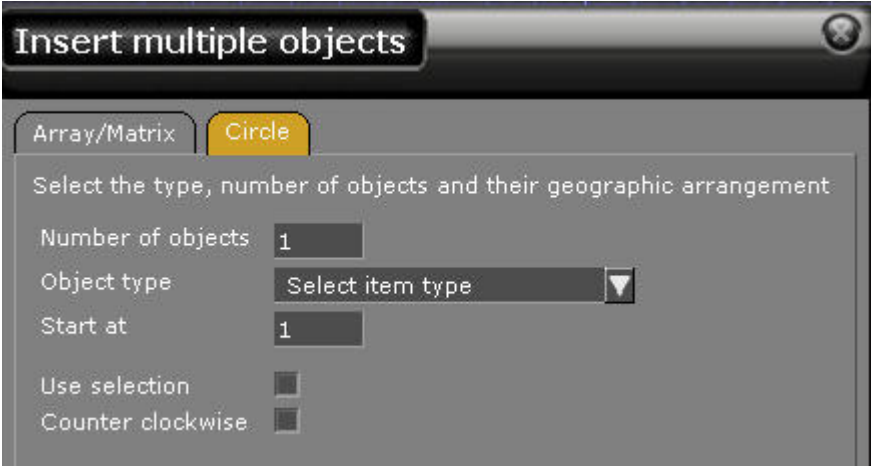
1. Open the wizard by pressing or clicking WIZARD.



The screenshot shows the 'Insert multiple objects' wizard dialog. The title bar is 'Insert multiple objects'. There are two tabs: 'Array/Matrix' (selected) and 'Circle'. The main area contains the following fields:

- Number of rows: 1
- Number of columns: 1
- Object type: Select item type (dropdown menu)
- Start at: 1
- Use selection: ☐

2. Select matrix/array or circle.



The screenshot shows the 'Insert multiple objects' wizard dialog. The title bar is 'Insert multiple objects'. There are two tabs: 'Array/Matrix' and 'Circle' (selected). The main area contains the following fields:

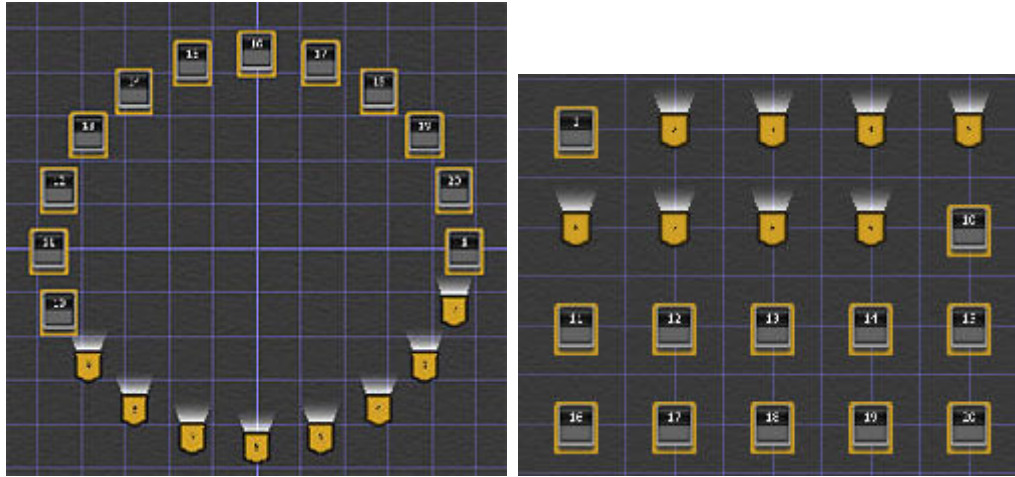
- Number of objects: 1
- Object type: Select item type (dropdown menu)
- Start at: 1
- Use selection: ☐
- Counter clockwise: ☐

3. Fill in numbers, type and behaviour.

4. Confirm.

HINT: Use the Stretch H and V wheels to trim the insertion.

Examples of circle and matrix



Channel Layout Editor - Text (4.2)

It is possible to set a text to a line or box.

1. *Select the object.*
2. *Press TEXT (Alt T from keyboard).*
3. *Enter a text and confirm with MODIFY.*

NOTE
Use size to resize a text for an object.

Channel Layouts - Create (4.2)

1. Start by inserting and naming a new Layout.

Function	Key	Feedback
Open the Channel Layout List.	Browser >Setup >Channel Layout	Opens the Channel Layout list.
Create a new layout	# INSERT	A new layout is inserted. A popup will ask if you want to pre-fill with patch or channel selection.
Name Layout	MODIFY	Move to TEXT cell and press MODIFY. Give a name.

2 Now open the Channel Layout Editor

Function	Key	Feedback
Select the Item cell of the new Layout	Arrow Keys	The cell is highlighted.
Open the Channel Layout Editor.	MODIFY	The Channel Layout Editor is opened.

To Load this Layout, see [Channel Layouts - Load](#).

Channel Layouts - Channels (4.2)

Channels can have color, symbol, rotation and color. You can use Align, Copy, Paste and Wizard to edit and insert channels. See [Channel Layouts - Editor](#).

Insert single channels

1. Select channel object with the arrow in the lower corner of the object box.



2. Enter a starting number
3. Click to insert the first
4. Continue clicking to insert consecutive objects. Select the arrow tool to edit an existing line.

Insert a channel selection

1. Create a channel selection with channel select functions.
2. Press INSERT. The selected channels will be inserted at the top left corner of the Channel Layout.

NOTE

Channel Symbols can be changed here, and are stored in the Channel Database. See [Patch - Channel Database & Auto Groups](#).

It is possible to copy a channel selection and paste with new numbers. See [Channel Layouts - Editor](#).

Channel Layouts - Channel Numbers (4.2)

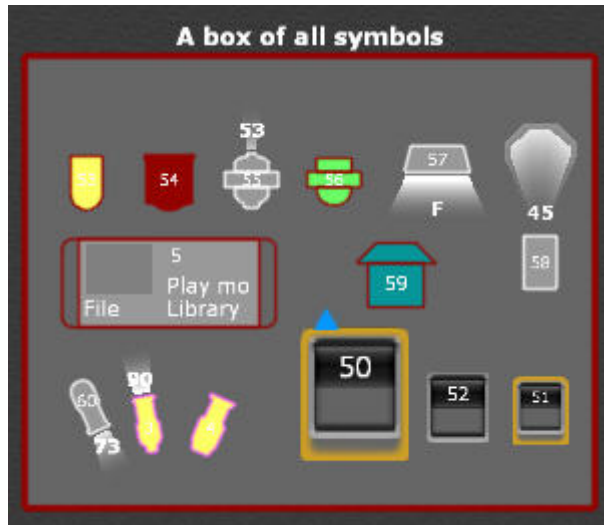
It is possible to change the numbering of any channel selection.

1. Select channels.
2. Enter first number.
3. Confirm with MODIFY. All channels in the selection will change with the same offset as the previous numbering. For example if channel 1 and 5 are selected and 10 MODIFY is pressed - they will change into 10 and 15.

Channel Layouts - Channel Features (4.2)

There are various features for a channel in a Layout. Color, size, rotation etc. All of these features are described in the chapter [Channel Layouts - Editor](#).

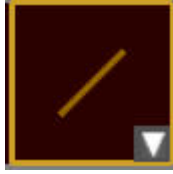
These are examples of most functions in use.



Channel Layouts - Lines (4.2)

Lines can be drawn in any direction.

1. *Select line object with the arrow in the lower corner of the object box.*



2. *Click and drag to draw a line.*
3. *Click and drag again to create a new line.*

Select the arrow tool to edit an existing line.

NOTE

If you click on a line in an active layout, you will select all channels that are on top of it. If you double click, all other channels will be de-selected first. Objects will be executed.

Channel Layouts - Boxes (4.2)

Boxes can be filled or frames and have a text label.

1. *Select box object with the arrow in the lower corner of the object box.*



2. *Click and drag to draw a box.*

3. *Click and drag again to create a new box.*

Select the arrow tool to edit an existing box.

NOTE

If you click on a box in an active layout, you will select all channels inside. If you double click, all other channels will be de- selected first. Objects will be executed.

Channel Layouts - Content (4.2)

The following types of Play content, besides channels, can be added to a channel layout. To activate a content object in a Layout - click on it.

Color and Size do **not** apply to these objects. All other Layout functions are available.



- Focus Palettes
- Color Palettes
- Beam Palettes
- All Palettes
- Dynamics
- Groups
- Devices
- Masters

Channel Layouts - Load

Function	Key	Feedback
Load Channel Layout #	# <input type="text" value="FORMAT"/>	Channel Layout # is loaded in the currently selected Channel View.
Hide channel symbols	<input type="text" value="FORMAT"/> & Down Arrow	All channel symbols are set to the standard symbol of Congo.
Show channel symbols	<input type="text" value="FORMAT"/> & Up Arrow	All channel symbols from the Channel Layout are shown.

CHANNELS

Every dimmer or device controlled from Congo is selected and controlled by its channel number.

This chapter contains the following sections

- [Channels - Introduction](#)
- [Channels - Ch Only Mode](#)
- [Channels - Views](#)
- [Channels - Command Syntax](#)
- [Channels - 255 Bit Levels](#)
- [Channels - Capture Mode](#)
- [Channels - Clear All](#)
- [Channels - Check Mode](#)
- [Channels - Balance Mode](#)
- [Channels - Random Selection](#)
- [Channels - Constant Level](#)
- [Channels - Scale Level](#)
- [Channels - Used & Unused](#)
- [Channels - Group Wheel Mode](#)
- [Channels - Rem Dim](#)

Channels - Introduction

A channel is the "handle" you call upon to control any dimmer or moving device connected to the system.

Channels are selected in the Channel Control, which is the channel functionality of the programming section. The Channel Control functions are mapped to any section of the console at any time - for example pressing LIVE connects to the A field of the Main Playback, pressing BLIND connects to the Blind field.

NOTE

Channel Control is not the same thing as a "programmer" where channels are "stolen" into the programmer and have to be "released" - instead the Channel Control is mapped to any Playback (A, B, Live, Blind, Masters), and controls the channels directly in that playback.

General Facts

- Channel levels can be set with the faders in Channels Only Mode
- Channels can be selected and set with a Command Syntax from the keypad
- Channel levels are set from 0-100%. 0% values are not displayed on the channel screen and 100% values are displayed as F, standing for "Full". The full resolution of DMX 512 is higher than 100 steps, its 256 steps called bits. Therefore there are functions for setting and changing levels in increments of bits (0-255).
- Channels are always controlled directly in a playback or an editor, and the current one is indicated in the small display "Channel Control" at the bottom of all screens.
- There is a Highlight mode, mainly used for focusing devices, that can also be used for conventional lights. See [Device Control -- Highlight Mode](#).

Channels - Ch Only Mode

The idea of a Channels Only Mode allows a complete novice to get some lights on stage. The Channels Only Mode switch converts all 40 Playback faders to channel faders temporarily, actually turning the console into a single scene board.

See [Master Playbacks - Fader Mode Switch](#)

Action	Console	Feedback
1. Make sure the Grand Master is up	Grand Master	Otherwise there is no light output
2. Make sure the FREEZE switch is set to ON	Freeze Switch	Otherwise there is static, or no light output
3. Turn Channels Only Mode switch to "Channels Only"	Mode Switch	Channels 1-40 can be accessed from the Master faders now. Move fader 1 and you can see the value for channel 1 on the channel views.
You can select a channel range from the Direct Select keys.	Direct Select keys	The channels in each range are indicated in the displays.

The levels will remain when you exit Channel Only mode and can be used in the normal mode.

To exit Channels Only Mode move the switch back to Masters.

Channels - Views

Channels are displayed graphically in channel views. The main channel view is the LIVE tab. Channel views are zoomable (hold FORMAT and move the LEVEL wheel) from 20 to over 500 channels in a full screen view.



Toggle Channel viewing format (4.2)

The currently selected format is indicated in the top right corner of each Channel View (4.2). You can toggle between these formats by pressing FORMAT

- All channels
- Selected channels
- Selected and non-zero channels
- Selected and captured channels
- Selected and used in play channels* (see NOTE)
- Channel Layout (if there is one defined)
- # Channel Layout




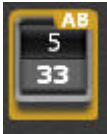

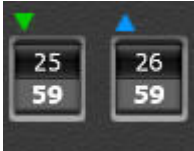

You can also activate the following formats by holding FORMAT and pressing a key

- All channels (FORMAT & CH)
- All non-zero channels (FORMAT & ALL)
- Captured channels (FORMAT & CAPTURE)
- Parked channels (FORMAT & PARK)

NOTE

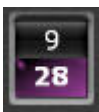

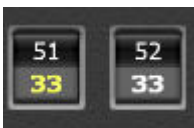



***New format (4.1) Selected and used in Play.** Shows channels that are recorded in presets and Groups (4.2). If you select previously not recorded channels, they will be shown in this view. But, when you select this format the next time, a new scan through all groups and presets will be made and they will disappear again if they don't have recorded levels..

Channel Information - basic (4.2)






Function	Screen	Explanation
Dimmer Channel		Channel number (top) and level (under)
Moving Device or scroller		Channel number is yellow, there is an extra box for palette info. The box under will show the template, or Text A of the Channel Database if defined (4.2)
Selected		Yellow frame indicates selected
Selected and source of highest level		Yellow frame and in the top right corner the source of the current highest level*
Captured		Red background for channel number
Fade direction		An arrow for down (green) and up (blue).
Parked (4.2)		Channel is dimmed and PARK is written under. Values are shown.

*Masters are 1-40, Main Playback is AB and Independents are displayed as "I".

Channel Information - detailed (4.2)

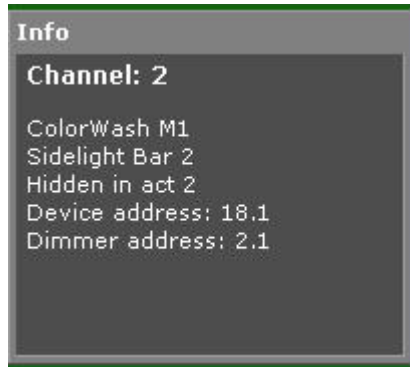
Function	Screen	Explanation
Changed intensity		Purple background for intensity (4.2)
Changed moving device parameters		Purple background for the letter (FCB) to indicate what parameter group has changed (4.2). Yellow FCB means moving, white means will move in next fade.
Source is Master or Main Playback		Yellow level for master playback, white for main playback
Exclusive level		Exclusive level is indicated in blue
Scale Factor		A scaled channel level has a +/- sign after
Inhibit		Red level indicates an inhibit master

Channel Information - Running Fades

Function	Screen	Explanation
Channel Times		Channel Time (T) and Delay (D) are indicated under the level
Move Fade		Channel Time (T) and Delay (D) are indicated under the level
Lock Fade		An "L" after the time indicates Lock Fade
Running Dynamics		A "D" over the channel symbol
Running moving device parameters		FCB and Dynamics running for this device

Channel Information - Info Box (4.1)

Under the Browser there is an INFO box which will show information for the currently selected channel(s). It is possible to use NEXT/LAST to focus a single channel within a selection and get the channel info.



The following information is shown

- Text A-D for the channel
- Template name.
- If a dimmer curve is assigned.
- The Dimmer/Device Addresses.
- Park status.
- More than one channel select is shown as "x channels selected".
- If there are dimmer errors reported for a channel.

Channels - Command Syntax

The default mode for entering commands in the system is the AVAB RPN mode. It is simple to learn, requires few keystrokes and applies to all functions in the system. Since RPN applies to everything in the system we recommend you spend the necessary 30 minutes to convert. There's one single rule: enter the number first and press the function key after.

At Mode (also called (Direct Entry) is different in the way that ch numbers are entered directly, followed by a function (@ LEVEL for example) and the value of that function.

You can select syntax in the [Settings - Channel..](#)

Select Channels (4.1)

The fastest way to select a channel and set a level regardless of syntax is to enter the number of that channel and move the level wheel.

This is a table with the key entries for most channel commands.

Channel command	RPN	AT MODE
Clear selected channels (4.1)	C/ALT & C/ALT	C/ALT & C/ALT
Select channel 1	1 CH	1
Add channel 2	2 +	+ 2
Add through 7	7 THRU	THRU 7
Subtract ch 3	3 -	- 3
Select all channels with a level in the channel control	ALL	ALL
Select all channels with a level (4.1)	ALL ALL	ALL ALL
Invert the current channel selection (of all channels with a level)	INV GROUP	INV GROUP
Step to the next ch	+	+
Step to the previous ch	-	-
NOTE In At Mode you can press @LEVEL after selecting channels, to see the channel selection. See Channels - Clear Functions		

Set Channel Levels

Once a channel(s) is selected you can set levels in the following ways.

Level Command	RPN	AT MODE
Set to 50%	<input type="text" value="5"/> <input type="text" value="0"/> <input type="text" value="@LEVEL"/>	<input type="text" value="@LEVEL"/> <input type="text" value="5"/>
Set to 55%	<input type="text" value="5"/> <input type="text" value="5"/> <input type="text" value="@LEVEL"/>	<input type="text" value="@LEVEL"/> <input type="text" value="5"/> <input type="text" value="5"/>
Set to 100%	<input type="text" value="@LEVEL"/> <input type="text" value="@LEVEL"/>	<input type="text" value="@LEVEL"/> <input type="text" value="@LEVEL"/>
Set to 70%*	<input type="text" value="@LEVEL"/>	<input type="text" value="@LEVEL"/> <input type="text" value="ON/FETCH"/>
Set to 0%	<input type="text" value="C"/> <input type="text" value="&"/> <input type="text" value="-%"/>	<input type="text" value="C"/> <input type="text" value="&"/> <input type="text" value="-%"/>
Add 5%	<input type="text" value="+%"/>	<input type="text" value="+%"/>
Subtract 5%	<input type="text" value="-%"/>	<input type="text" value="-%"/>
Select ch # and add 5%	<input type="text" value="#"/> <input type="text" value="+%"/>	<input type="text" value="#"/> <input type="text" value="+%"/>
Select ch # and subtract 5%	<input type="text" value="#"/> <input type="text" value="-%"/>	<input type="text" value="#"/> <input type="text" value="-%"/>
Increase level by #%	<input type="text" value="#"/> <input type="text" value="."/> <input type="text" value="+%"/>	
Diminish level by #%	<input type="text" value="#"/> <input type="text" value="."/> <input type="text" value="-%"/>	

*This is the Step Level value of the SETUP for the Level key. You can change it by holding SETUP and pressing @LEVEL.

NOTE

There is a function for setting the last recorded level, and for fetching levels from any recorded Preset.

See [Presets - Fetch Intensities](#)

Channels - 8 bit 256 Step Levels

You can work with 8 bit 256 step levels directly.

Action	Key	Feedback
Set a 256 bit step level	<input type="text" value="#"/> <input type="text" value="."/> <input type="text" value="&"/> <input type="text" value="@LEVEL"/>	Holding the decimal while pressing @LEVEL sets the level in 256 bit steps.
Increase a level by a 1 bit step	<input type="text" value="."/> <input type="text" value="&"/> <input type="text" value="+%"/>	As long as the decimal point is held, pressing +% will add one bit step to the selected channels
Decrease a level by a 1 bit step	<input type="text" value="."/> <input type="text" value="&"/> <input type="text" value="-%"/>	As long as the decimal point is held, pressing +% will subtract one bit step from the selected channels

EXPLANATION

Levels for channels controlling dimmers are traditionally set from 0-100%. The internal resolution of DMX 512 however, is almost 2.5 times higher. A DMX channel is output from 0-255 bit steps. You may want to use this higher accuracy when you are setting values for mechanical dimming devices.

The board will display the %-value rounded off to the closest value. (1.4% will be displayed as 1% and 1.6% will be displayed as 2%)

If you want to find out what 0-100% level corresponds to a 0-255 bit level, you divide the % level with 0.39 (100/255=0.39). For example: 50% / 0.39 = 128 bit steps (actually 128.21)

If you want to find out what 0-255 bit step level corresponds to a 0-100% level you multiply by the same factor of 0.39. Example: 129 x 0.39 = 50,31%

NOTE

256 bit step levels cannot be displayed on the channel screen, but are stored with the show and exported in ASCII Light Cues.

Channels - Capture Mode (4.2)

Capture Mode makes it possible to control and record any channel level or parameter, regardless of where it is output from. Captured levels are considered to be changed at all times and will be recorded into Presets accordingly. The channel is kept until released.

The channel number background of a captured channel is red.



RECORD will store the captured level.

It is possible to work in a permanent Capture mode, and there are functions for Capturing any part of a ch.

Permanent Capture Mode (4.2)

When Capture mode is activated, all channels that are changed are automatically captured.

Action	Key	Feedback
Activate Capture Mode	<input type="button" value="CAPTURE"/>	Capture will light up. All channels that are selected and changed will remain at that level until released.
Deactivate Capture Mode	<input type="button" value="CAPTURE"/>	Capture light goes off. Captured channels remain captured until released. Captured channels will have a red background for the channel number.

Capturing levels or parameters (4.2)

Regardless if Capture mode is active or not, it is always possible to capture channels or part of channels.

Action	Key	Feedback
Capture everything	CAPTURE & CH	Captured channels will have a red background for the channel number.
Capture level	CAPTURE & @LEVEL	Level is captured until released.
Capture attributes	CAPTURE & ATTRIB	Attributes are captured until released.
Capture parameters	CAPTURE & Wheel key	Parameters are captured until released.
Capture Focus parameters	CAPTURE & FOCUS	Parameters are captured until released.
Capture Color parameters	CAPTURE & COLOR	Parameters are captured until released.
Capture Beam parameters	CAPTURE & BEAM	Parameters are captured until released.
Capture Beam parameters	CAPTURE & U1-U3	Parameters are captured until released.

Releasing Captured Channels (4.2)

Captured channels are released back to the sum of all playbacks, this can be done on time.

Action	Key	Feedback
Release intensities for selected channel(s)	RELEASE	The selected channel intensities are released, regardless if Capture is active or not.
Release intensities and attributes for selected channel(s)	RELEASE & CH/ID	The selected channel intensities are released, regardless if Capture is active or not.
Release all captured channels on a time	# RELEASE	The selected channels are released on the time #, regardless if Capture is active or not.
Release intensities and attributes for all captured channels	RELEASE RELEASE	All captured channels are released, regardless if Capture is active or not.
Release Focus parameters	RELEASE & FOCUS	Release captured Focus parameters
Release Color parameters	RELEASE & COLOR	Release captured Color parameters
Release Beam parameters	RELEASE & BEAM	Release captured Beam parameters
Release single parameters	RELEASE & Wheel key	Release captured parameters
Release grouped parameters	RELEASE & U1-U3	Release captured parameters

Channels - Clear Functions (4.3)

The C/ALT key is used in combination with other keys to quickly clear different playback areas of channel levels and channel selection.

These functions can be used to clear channels and levels

Action	Key	Feedback
Clear selected channels	C/ALT & C/ALT	All channels in the contributing field of the channel view connected to the channel control are deselected.
Clear all channels & levels in A	C/ALT & LIVE	All channels in the A field are set to zero and deselected.
Clear all channels & levels in all playbacks*	C/ALT & LIVE LIVE	All channels in all Playbacks are set to zero and deselected**
Clear all channels & levels in Blind	C/ALT & BLIND	All channels in the Blind field are set to zero and deselected.
Clear all channels & levels in the focused channel view	C/ALT & CH	All channels in the Playback connected to the Channel Control are set to zero and deselected.
Clear all selected channels & levels in the focused channel view AND clears all changed flags AND homes all devices. (4.3)	C/ALT & CH CH	All channels in the Playback connected to the Channel Control are set to zero, deselected, homed and the changed flag is reset.
Clear selected channels & levels in the focused channel view	C/ALT & @LEVEL	Selected channels in the Playback connected to the Channel Control are set to zero and deselected.

*Captured channels and Independent Channels in Exclusive mode are not cleared.

**Channels in Master Playbacks are restored by bringing the Master fader to zero and back up.

New Home Attribute functions in 4.3

Action	Key	Feedback
Clear	C/Alt & HOME ATTRIB	Homes all attributes and clears all Dynamics.
Clear	C/Alt & HOME ATTRIB HOME ATTRIB	Homes all attributes and clears all Dynamics and intensities.

Channels - Check Mode

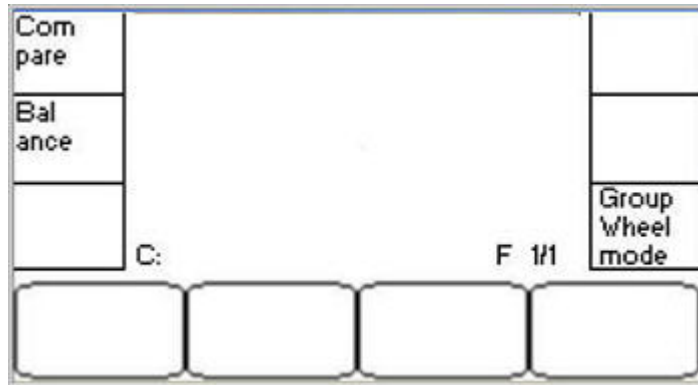
There is a function for stepping through a series of channels at any selected level. If a channel is already set to a level when checked it will cut back to the previous level when the next channel is checked.

Action	Key	Feedback
1. <i>Select start channel and set a level</i>	<input type="button" value="#"/> <input type="text" value="Level Wheel"/>	This level will be used by check mode.
2. <i>Activate temporary check mode in up or down direction</i>	<input type="button" value="C/Alt"/> <input type="button" value="↔"/> <input type="button" value="+"/>	As long as C/Alt is held the + and - keys will check the next or previous channel.
3. <i>Exit temporary check mode</i>		Let go of the C/Alt key.

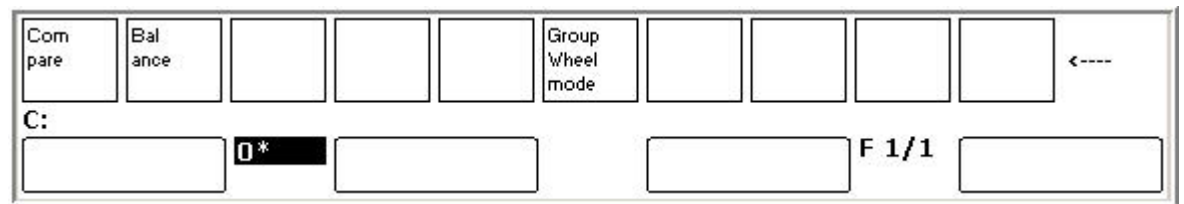
Channels - Balance Mode

The Balance makes it possible to temporarily set all channels to 0% except a selection. The original output of these channels is restored when Balance Mode is exited. This key is in the Channels Soft Key Page.

Congo



Congo Jr



Action	Key	Feedback
1. Select the channels to work with		See Channel Command Syntax
2. Activate Balance Mode	BALANCE	All other channels in the channel view will be set to 0% temporarily. You can now work with the selected channels.
3. Exit Balance Mode	BALANCE	The channel levels that were muted are restored.
NOTE It is not possible to use RECORD when Balance mode is active.		

Balance Mode Key (4.2)

It is possible to set the REM DIM key to function as BALANCE instead. This is done in the System Settings.

See [System Settings - Channel](#)

Channels - Random Select

It is possible to randomize the order of the channels within the current selection. This can be used to get a random order in a chase or with a Dynamic Effect.

These functions are keys in the Selects Soft Key Page

Congo

Select 2nd		Select Change
Select 3rd		Random
Select Nth		
C:		F 1/1
<div></div> <div></div> <div></div> <div></div>		

Congo Jr

Select 2nd	Select 3rd	Select Nth	Select Change	Random						←----
C:										
		0*					F 1/1			

Action	Soft Key	Feedback
1. Select the channels you want to work with		See Channel Command Syntax
2. Select the Selects Soft Key Page	[SELECT]	This changes soft menu to the Select functions
3. Make a random selection	[RANDOM]	A random order is applied, it can be used by the Chase Wizard.

You can use the numbering functions that allow you to select every 2nd, 3rd or Nth together with the random function.

Function	Soft Key	Feedback
Select every random 2nd	[RANDOM] & [SELECT 2nd]	Every random 2nd is selected.
Select every random 3rd	[RANDOM] & [SELECT 3rd]	Every random 3rd is selected.
Select every random Nth	[RANDOM] & [SELECT Nth]	Every random Nth is selected.

Channels - Constant Level

You can set a channel at a constant level. It will not be affected by any other controls (including the Grand Master).

See [Park](#).

Channels - Scale Level

You can scale the output of each channel individually from 0-200%.

Scaling is mainly used in these situations:

- When the light source is too bright due to temporary change of hanging position (100-0%)
- When you need to brighten part of a rig temporarily to adapt it for camera footage (100-200%).

Action	Key	Feedback
1. Enter the ch number	1-9999	
2. Open the Channel List	<input type="button" value="MODIFY"/> & <input type="button" value="CH"/>	The Channel List is opened and focused at the channel with that number.
3. Move to the Scale column	Arrow keys	
4. Set a Scale level	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	All levels of this channel will be multiplied by the Scale factor. A +/- symbol will be shown next to the level. Set 100% to remove the Scale factor.

Channels - Used & Unused

You can create a selection of channels based on if they are used or not in the sequence loaded to the Main Playback.

Action	Key	Feedback
1. Open the Channel Selection Wizard	<input type="button" value="WIZARD"/> & <input type="button" value="CH"/>	A popup with the Channel select wizard is opened.
2. Select <i>UNUSED</i> or <i>USED</i>	<input type="button" value="MODIFY"/>	This is a choice in the dropdown menu.
3. Select the Start and Stop ranges	Arrow keys	This is default set to the first and last step of the Sequence.
4. Execute the selection		Based on your choice all unused or used channels of the sequence loaded to the Main Playback are selected.

Channels - Group Wheel Mode (4.3)

In Group Wheel Mode you can assign a channel group to each wheel under the Main Display. All wheels interact inside the A field of the Live tab on a Latest Takes Precedence basis.

Action	Key	Feedback
Select the CHANNELS Soft Key Page	Channels (Softkey)	The CHANNELS Soft Key Page is selected in the Main Display of the Console.
NOTE (4.3) In a client setup with multiple users each client will have individual settings for group wheel mode.		

Congo

Times ---->					Device ---->
Dyna mics ---->					Select ---->
Chan nels ---->					Misc ---->
C:		F 1/1			

Congo Jr

Times	Dyna mics	Chan nels	Device	Select	Misc				
C:									
	D*				F 1/1				

The Channels soft key page:

Congo

Com pare					
Bal ance					
	C: F 1/1				Group Wheel mode
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 100px; height: 30px;"></div> <div style="border: 1px solid black; width: 100px; height: 30px;"></div> <div style="border: 1px solid black; width: 100px; height: 30px;"></div> <div style="border: 1px solid black; width: 100px; height: 30px;"></div> </div>					


Congo Jr

Com pare	Bal ance				Group Wheel mode					←----
C:										
		0*						F 1/1		

Action	Key	Feedback
Load the selected channels to a wheel	PRESET & Wheel Key	The selected channels are loaded as a channel group to the wheel.
Load the selected channels to a wheel	GROUP & Wheel Key	The selected channels are loaded as a channel group to the wheel.
Load channels of group # to a wheel	# GROUP & Wheel Key	The channels of Group # are loaded to the wheel.
Load the selected channels to a wheel	CH & Wheel Key	The selected channels are loaded as a channel group to the wheel.
Load channel # to a wheel (4.2)	# CH & Wheel Key	The channel # is loaded to the wheel.
NOTE (4.2) The channels affected by a group wheel are updated when they are selected. This means that if the level has changed (by a crossfade or a manual change of some kind), the group wheel will now always catch up. The overflow/underflow information will therefore be lost if you are taking multiple channels over 100% or under 0%.		

Channels - Rem Dim (4.2)

Rem Dim will set all channels in the Channel Control to zero, except the currently selected channel(s)

Function	Key	Feedback
Rem Dim		All channels in the Channel Control are set to zero, except the current selection.

NOTE

It is possible to set the REM DIM key to function as BALANCE (4.2). This is done in the System Settings. See [System Settings - Channel](#)

GROUPS

Groups are a way of recalling a channel selection with a single number. They are often used to speed up programming.

This chapter contains the following sections

- [Groups - Introduction](#)
- [Groups - Record](#)
- [Groups - Select Channels \(4.1\)](#)
- [Groups - Fetch Intensities \(4.1\)](#)
- [Groups - List](#)
- [Groups - Display List](#)
- [Groups - Load To Playbacks \(4.1\)](#)

Groups - Introduction

You can store channel combinations into groups. The difference between a group and a Preset is that a group does not necessarily need levels for the channels involved, only the channels selected are stored regardless of how many other channels are active. **Groups also do not contain moving light attributes**

For editing groups see [Group List Functions](#).

Groups are accessible from the remotes. See [Remote Control](#).

Group functionality

- Only selected channels are stored in a group.
- Each group will "remember" the order in which channels were selected to create the group.
- Groups are not automatically inserted into the Sequence in the Main Playback.
- Each group can have a text label.
- A group can be selected in the same way as a single channel
- A group can be loaded to a Master or a channel layout.
- Preset numbers 900-999 are reserved for Expert-style groups.

Groups - Record

Only selected channels are recorded. The selected channels can have a level, but it is not necessary.

Function	Key	Feedback
Record a new Group with the next free number	<input type="button" value="RECORD"/> <input type="button" value="G"/> <input type="button" value="GROUP"/>	You will get a popup where you confirm recording this group, and can write a text label.
Record a new Group with a specific number	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="G"/> <input type="button" value="GROUP"/>	You will get a popup where you confirm recording this group, and can write a text label.
NOTE The order in which the channels were selected is stored with the group.		

900-groups (4.3)

900 groups is a remnant from the eighties, when consoles often never had more than 900 channels. To be able to access user definable channel groups from a remote control for focusing, an exception was made for these presets. In Congo groups 1-999 are available instead. If an play with 900-groups is imported they will be converted to Congo Groups.

Groups - Select Channels (4.1)

You can add and subtract channels that are stored in Groups to/from the current channel selection.

Function	Key	Feedback
Select all channels in a Group (4.1)	# [GROUP]	All channels with a level in the specified Group are selected and can be controlled by wheel or with level functions.
Add all channels in a Group to the current channel selection	# [GROUP] & +	All channels with a level in the specified Group are added to the current channel selection.
Subtract all channels in a Group from the current channel selection	# [GROUP] & -	All channels with a level in the specified Group are subtracted from the current channel selection.
Select all channels in a range of Group	# [GROUP] # [GROUP] & THRU	All channels stored in every Group from # to # are selected.

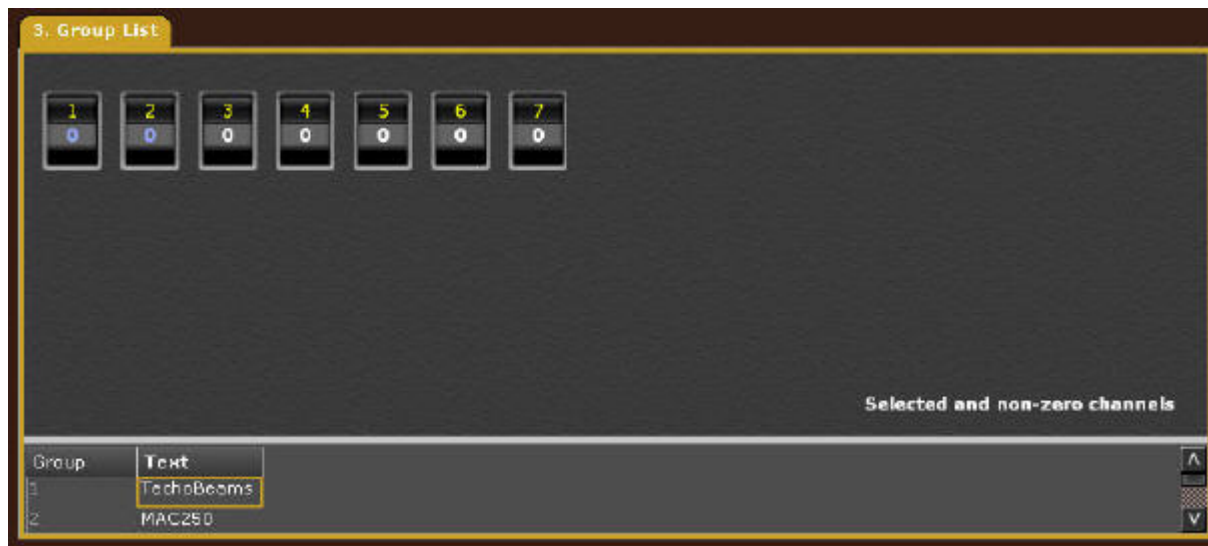
Groups - Fetch Intensities (4.1)

Fetch intensities for all or specific channels from any Group.

Function	Key	Feedback
Copy level from Group #	# [FETCH/ON] & [GROUP]	All selected channels are set to the levels stored in Group #.*
Copy levels and channels from Group #	# [GROUP] & [@LEVEL]	All channels in the specified Group are selected and set to the levels in Group #.
Ride Group # Proportionally on the Level Wheel (4.1)	# [GROUP] & [Level] [Wheel]	Group # is faded in proportionally on the Level Wheel

Groups - List

You can view, edit and create new Groups directly in the Group List (GROUP or BROWSER >Group).



Group List - Columns & Functions (4.3)

These are the functions in the Group list.

NOTE (4.3) The behaviour of UPDATE and RECORD in the Group List are different in 4.3 than in earlier versions of the software. See below.		
Function	Key	Feedback
Open the Group List	[GROUP]	The Group List is opened.
Open the Group List focused at group #	[#] [MODIFY] & [GROUP]	The Group list is opened and focused at the specified group.
Update changes to the selected Group (channels over zero are stored).	[UPDATE] [UPDATE] or [RECORD] [RECORD]	Updates all changes in the current group. There is a popup after the first key. (4.3)
Insert a new Group	[INSERT]	Inserts a new group with the next free number, with the channels that are selected.
Insert a new Group with number #	[#] [INSERT]	Inserts a new group with this number, with the channels that are selected.
Delete selected Group	[DELETE]	Deletes the selected group. Cannot be undone.
Set text to a Group	[MODIFY]	Press MODIFY in the text cell, enter the text and press MODIFY to exit.

Groups - Display List

You can use this list to view, select, add and subtract groups to the current channel selection.

Function	Console	Action
Open the Group list in the main display of the console	<div> <div>DISPLAY LIST</div> <div>&</div> <div>GROUP</div> </div>	Opens the Group List. Use the trackball in Display List mode to scroll.
Select a group	Trackball in Display List Mode	Select with the trackball and right- or left click.
Add a group (to the current selection)	Trackball in Display List Mode	Hold right- or left click and press +.
Subtract a group (from the current selection)	Trackball in Display List Mode	Hold right- or left click and press -.

Groups - Load To Playbacks (4.1)

You can load Groups directly to any Playback.

Action	Key(s)	Feedback
Load Group # to a Master Playback	# GROUP & Master Key	Group # is loaded to the Master Playback
Add Group # to Live (4.1)	# GROUP & LIVE	Group # is added to Live
Add Group # to Blind (4.1)	# GROUP & BLIND	Group # is added to Blind

PRESETS

A Preset is used to store intensities, attributes or attribute times for playback in a Sequence, Main- or Master Playback.

This chapter contains the following sections

- [Presets - Introduction](#)
- [Presets - Record](#)
- [Presets - Update](#)
- [Presets - List](#)
- [Presets - Load To Playbacks](#)
- [Presets - Copy](#)
- [Presets - Select Channels](#)
- [Presets - Fetch Intensities](#)
- [Presets - Display List](#)
- [Presets - Channel Editor Wizard](#)
- [Presets - Auto-Save](#)
- [Presets - Times](#)
- [Presets - Compare Mode](#)

Presets - Introduction

The basic building block in Congo is a Preset.

General Facts

- Channels, levels, attributes and Dynamic Effects are stored into Presets.
- Presets can be played back from the Master Playbacks, and the Main Playback one by one, or as part of a Sequence or Chase.
- You can store 9999 individual Presets using Preset numbers 0.1-999.9.
- Presets can be arranged in a list called a Sequence, with predefined fade times.
- Presets can be modified blind or live.
- Presets can be copied.
- Presets can be added together to create new Presets
- You can retrieve individual channel levels from recorded Presets with Fetch.
- When a Preset is recorded in the A playback, it is automatically placed in numerical order in a step of the Sequence in that playback.

NOTE

A Preset is a memory that can be reused in several Sequences or Playbacks at the same time. To delete it completely you have to go to the source of all Presets: the [Preset List](#).

This does NOT mean that the Preset number will disappear from the Sequence or from Master Pages, but it means that it will be an empty Preset with no channels or levels stored. It also means that the number of the Preset will be regarded as an unused Preset in the system.

(4.1) When deleting a Preset in the Preset List you will get a checkbox option of deleting all related Sequence Steps.

Presets - Record

You can record the output on stage, or part of it, to a Preset. What you see in the active Channel View is what is recorded. Normally only changed moving device parameters are recorded.

Function	Key	Feedback
Record the content of the selected Channel View to a new Preset with the next free number	<input type="button" value="RECORD"/>	You will get a popup. See The Recording Popup
Record a new Preset with a specific number	<input type="button" value="#"/> <input type="button" value="RECORD"/>	You will get a popup. See The Recording Popup
NOTE You can define how moving device parameters are stored in the Record Settings. Hold SETUP and press RECORD. A recorded Preset is always added to the Preset List (Browser >Presets). (4.1) If there are moving devices defined, the first preset in an empty sequence will ask you if you want to make a block cue.		

The Recording Popup (4.3)

The recording popup has a Basic and an Advanced section. The last used tab of these two is remembered for the next Record action.

In the **Basic** part you can confirm recording a Preset (RECORD or MODIFY). You can also add a Preset or Sequence text and define the fade type.



In the **Advanced** part you can set fade and moving device times and define the fade type. You can set a Block flag for intensities, attributes, and keep Running Dynamics. It is also possible to toggle the GoOnGo flag (4.2).

Record Preset

Basic
Advanced

Record new preset 9.0

Next free preset number: 10.0

P-Text

S-Text

Fade Type
Crossfade

Set block flag for intensity

Record all attributes

Keep running dynamics

Record attributes as
GoInB

Record Attribute mode
Automatic

Timing

Delay Out

Out

Delay In

In

FCB-Times

F-Delay

C-Delay

B-Delay

F-Time
100%

C-Time
100%





B-Time
100%

Attribute Times

See [Preset Times](#)
 See [Sequence Times](#)
 See [Moving Device Times](#)

Record Presets - Live Tab




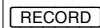

When the channel control is set to the Live Tab, you will record the complete stage output. The Preset is automatically added to the sequence in the Main Playback.

Action	Key	Feedback
1. Activate the Live tab		The Channel Controls are mapped to the A field.
1a. Record the complete stage output to a new Preset with the next free number		You will get a popup with the next free preset suggested. You can write a text label. The Preset is added to the sequence in the Main Playback.*
1b. Record a new Preset with a specific number	 	You will get a popup where you also can write a text label. The Preset is added to the sequence in the Main Playback

*This depends on the BUILD SEQ mode (softkey in the Playback soft key page of the Main Display).





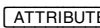

Record Presets - Field A Only

There are a lot of options for recording presets. some are set in the Record Settings (hold SETUP and press RECORD). This is a summary of the rest.

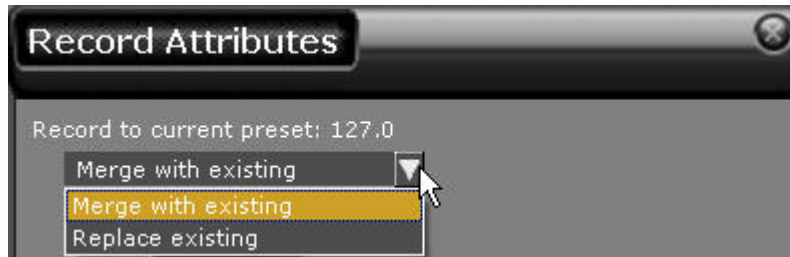
Action	Key	Feedback
Record channels and changed moving device parameters in the A field to the next free preset.	 	No output from the Master Playbacks will be recorded. The Preset is added to the sequence in the Main Playback. See The Recording Popup .
Record channels and changed moving device parameters in the A field to a specific preset.	  	No output from the Master Playbacks will be recorded. See The Recording Popup . The Preset is added to the sequence in the Main Playback.

Record All Attributes for selected channels (4.3)

Depending on how attribute recording is set up only changed moving device parameters are recorded. You can record all parameters of the selected channels at any time with a shortcut (similar to a block cue). (4.3). See [Device Recording - Introduction](#).

Setting	Key	Feedback
Record all attributes for the selected channels to the currently loaded Preset in the A field.	  	You will get a popup where you can choose to merge or replace with the values stored already in that Preset.
Record all attributes for the selected channels to Preset #	  	You will get a popup where you can choose to merge or replace with the values stored already in that Preset.

This is the Record Attributes popup

**NOTE**

Control parameters are not recorded.

Record Directly To A Master (4.2)

You can record the selected channels, or all channels with an intensity on stage directly to a Master. A preset will be created automatically if none is specified. If Attribute recording is set to Automatic, attributes will also be recorded. The time is default set to 100%. See [Presets - Times](#).

Action	Key	Feedback
Record the selected channels to a Master Playback*	RECORD & Master Key	You will get a popup with the next free preset suggested**.
Record the selected channels with a specific Preset number to a Master Playback*	# RECORD & Master Key	You get the message "Preset Recorded" in the status bar.

*If no channels are selected - all channels in A are recorded.

** (4.1) To separate the number series of Presets in Masters and in the Main Playback the suggested Preset number (if no number is entered) will be starting at Preset 801. After this the last used number when recording to a Master will be incremented.

NOTE

For a Master with a Sequence or Chase, a new preset is recorded to that Sequence or Chase.

For a Preset - all attributes are recorded, except those Masked by the Global Mask. For a Sequence step only changed attributes are recorded - just like in the sequence of the Main Playback (4.2)

Record Selected Channels To Any Preset

Record the selected channels, with attributes and dynamics, to a specified Preset. All moving device attributes for the selected channels will be recorded (not only changed attributes).

Setting	Key	Feedback
Record the selected channels to a new Preset.	CH & RECORD	You will get a popup where you confirm recording this Preset, and can write a text label.
Record the selected channels to Preset #.	# CH & RECORD	You will get a popup where you confirm recording this Preset, and can write a text label.

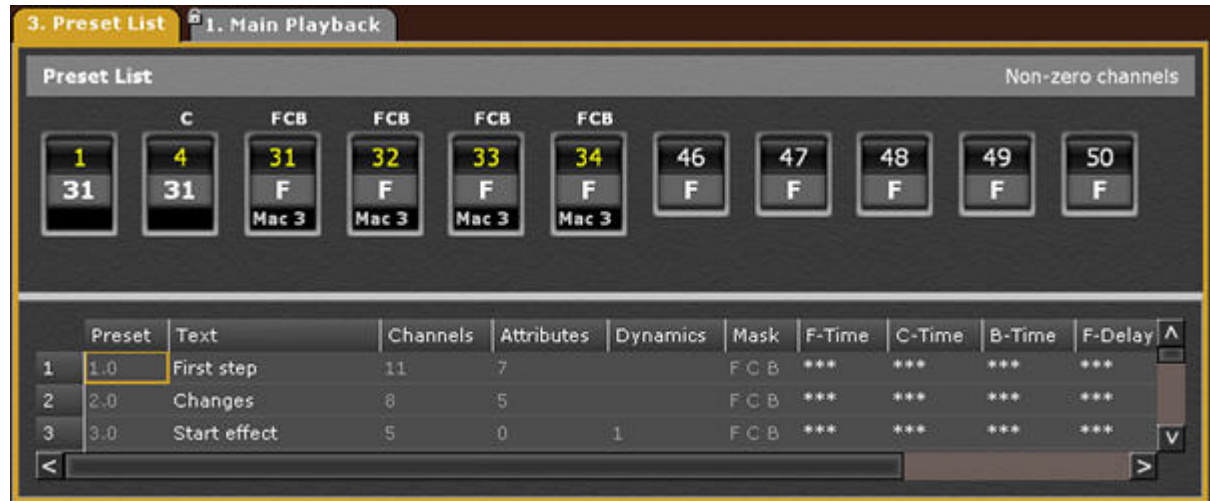
Presets - Update

Updates the preset in the playback connected to the channel control. This can be Live, Blind, any Master Playback or a step in the Preset List.

Action	Key	Feedback
Update changed levels and attributes to the currently loaded Preset	<input type="button" value="UPDATE"/>	You will get a simpler version of the Recording popup. See The Recording Popup
NOTE If you are in the Live field the Preset loaded to the A field of the Main Playback will be updated.		

Presets - List

You can view, edit and create new Presets (blind) in the Preset List (PRESET or Browser >Presets). See [Introduction to Presets](#). See also [Preset List - Functions](#).



Preset List - Columns (4.2)

Column	Input	Function
<u>Preset</u>	No input	The number of this Preset - cannot be edited.
<u>Text</u>	ABCDE...	Press MODIFY to activate and end text input. This text is shown also in the Playback views.
<u>Channels</u>	No input	Shows how many channels/devices that are stored with an intensity in this Preset
<u>Attributes</u>	<input type="button" value="MODIFY"/>	Shows how many moving devices are stored in this Preset. MODIFY opens the attribute editor.
<u>Dynamics</u>	<input type="button" value="MODIFY"/>	Shows how many Dynamics are stored in this Preset. MODIFY opens the Dynamics editor.
<u>Mask</u>	<input type="button" value="MODIFY"/>	Open the Mask editor where you can mask any parameter.
FCB-Time	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Hold C and press MODIFY to enter a time in seconds instead of % of the main fade times.
FCB-Delay	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Hold C and press MODIFY to enter a time in seconds instead of % of the main fade times.
Note	<input type="button" value="MODIFY"/>	Opens the Note list for a note (4.2)

Preset List - Functions

These are the functions in the Preset list. See also [Copy, Cut & Paste](#).

Setting	Key	Feedback
Open the Preset List	<input type="button" value="PRESET"/>	The Preset List is opened.
Open the Preset List (old shortcut)	<input type="button" value="MODIFY"/> <input type="button" value="PRESET"/>	The Preset List is opened.
Open the Preset List focused at Preset #	<input type="button" value="#"/> <input type="button" value="MODIFY"/> <input type="button" value="PRESET"/>	The Preset list is opened and focused at the specified Preset.
Update the focused Preset	<input type="button" value="UPDATE"/>	Updates all changes in the current Preset.
Copy a Preset to number #	<input type="button" value="#"/> <input type="button" value="RECORD"/>	Records a copy of the current Preset with this number.
Delete selected Preset	<input type="button" value="DELETE"/>	Deletes the selected Preset. Cannot be undone. See Presets - Delete.
Insert a new Preset with number #	<input type="button" value="#"/> <input type="button" value="INSERT"/>	Inserts a new Preset #, with the channels and levels from Live (A).
Insert a new Preset with the next free number	<input type="button" value="INSERT"/>	Inserts a new Preset with this number.
Edit a cell with a numeric value	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Changes the value of the selected cell.

Presets - Load To Playbacks (4.1)

You can load Presets directly to any Playback.

Action	Key(s)	Feedback
Load Preset # to the Active field (A) of the Main Playback	# PRESET & A	The Preset is loaded to the A field, replacing the content of that field.
Load Preset # to the Next field (B) of the Main Playback	# PRESET & B	The Preset is loaded to the B field, replacing the content of that field.
Load Preset # to a Master Playback	# PRESET & Master Key	Preset # is loaded to the Master Playback
Add Preset # to Live (4.1)	# PRESET & LIVE	Preset # is added to Live
Add Preset # to Blind (4.1)	# PRESET & BLIND	Preset # is added to Blind

Quick-load Presets to Masters

The direct functions allow you to load a series of recorded Presets to Masters, this is called quick-loading Presets to Masters.

1. Enter the number of the first Preset.
2. Hold down the PRESET key, and pull your finger over a range of Master Keys.

All existing consecutive Presets will be loaded.

Presets - Copy

Copy a Preset by recording it with a different Preset number. This can be done in any Playback, or directly in the Preset List. In the Preset List it can be done with the COPY function as well. See [Preset List](#) and [Copy, Cut & Paste](#).

Action	Key	Feedback
Copy the Preset in the channel view connected to the channel controls to a new number.	# <input type="text"/> RECORD	You will get a popup. See The Recording Popup

Presets - Select Channels (4.1)

You can add and subtract channels that are stored in Presets to/from the current channel selection.

Function	Key	Feedback
Select all channels in a Preset (4.1)	# PRESET	All channels with a level in the specified Preset are selected.
Add all channels in a Preset to the current channel selection	# PRESET & +	All channels with a level in the specified Preset are added to the current channel selection.
Subtract all channels in a Preset from the current channel selection	# PRESET & -	All channels with a level in the specified Preset are subtracted from the current channel selection.
Select all channels from a Preset that have a level in the channel control	# PRESET & ALL	All channels with a level in the channel control, that also have a level in the specified Preset, are selected.
Select all channels in a range of Presets	# PRESET # PRESET & THRU	All channels stored in every Preset from # to # are selected.

Presets - Fetch Intensities (4.1)

Fetch intensities for all or specific channels from any Preset.

Function	Key	Feedback
Set last stored level	[FETCH/ON]	All selected channels are set to their last stored levels.
Copy level from Preset #	[#] [FETCH/ON]	All selected channels are set to the levels stored in Preset #.*
Copy levels and channels from Preset #	[#] [PRESET] [&] [@LEVEL]	All channels in the specified Preset are selected and set to the levels in Preset #.
Ride Preset # Proportionally on the Level Wheel (4.1)	[#] [PRESET] [&] [Level] [Wheel]	Preset # is faded in proportionally on the Level Wheel


HINT

You can fetch attribute values as well. See [Device Control - Fetch/Copy](#).

*You can press # ON/FETCH & PRESET as well (4.1).

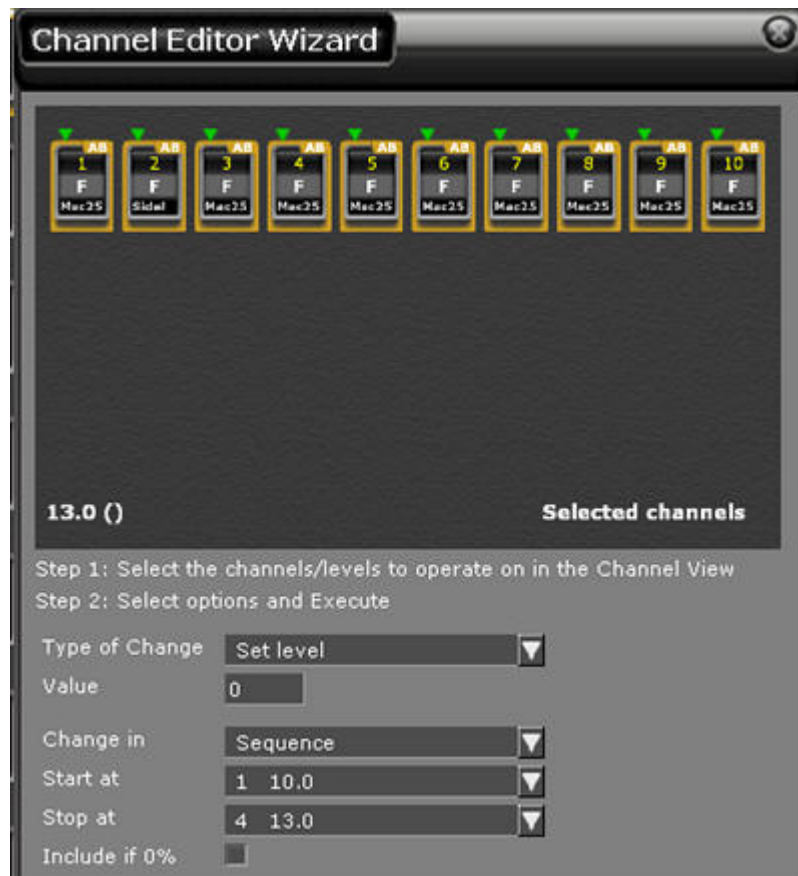
Presets - Display List

Opens a list that shows all Presets in the Main LCD of the console.

Function	Console	Action
Open the Preset Display list in the main display of the console	<div>DISPLAY LIST </div> <div>PRESET</div>	Opens a list of all Presets. Use the trackball in Display List mode to scroll.

Presets - Channel Editor Wizard

The Channel Editor Wizard allows you to track level changes in all Presets with powerful arguments. Press WIZARD in any channel view to open the Channel Wizard.



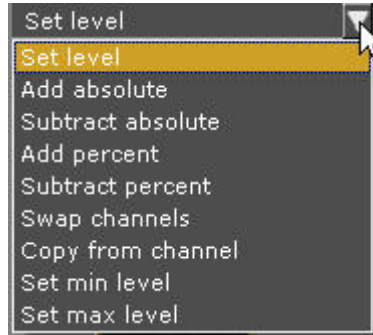
NOTE

You cannot reverse or undo changes made with this Wizard. We therefore recommend you strongly to save your play before using this function.

Channel Editor Wizard - Type Of Change

You can do the following commands through any range of Presets.

The parameter "Include All Channels" will affect channels with no level (0%) as well, and is necessary in some cases.



Function	Explanation
Set Level	Set level #
Add Absolute	Add #% to all levels.
Subtract Absolute	Subtract #% from all levels.
Add percent	Increase with #% of current levels
Subtract percent	Diminish current levels with #%
Swap channels	Change levels between the selected channel and the channel # in Argument.
Copy from channel	Copy all levels from the selected channel to channel # in Argument
Set min level	Sets a minimum level HTP with the current levels.
Set max level	Sets a maximum level to the current levels.

Channel Editor Wizard - Value

Depending on the type of change - the number here is the Value used. It can be a level or a channel number.

Channel Editor Wizard - Include If 0%

This parameter will allow the change to affect the channels with no level (0%) in the target Presets.

Presets - Auto-Save

Each time you record a preset or a group all changes to the play since the last RECORD or Save are stored in a play called AUTOSAVE.ASC.

This play is stored in the Play Archive (Browser >File >Open >Play Archive) and can be opened like any play.

Function	Console	Feedback
Open the Auto Save setting	<input type="button" value="SETUP"/> & <input type="button" value="RECORD"/>	Opens a popup where you can set Auto-Save to ON.
NOTE This is a feature that we recommend you to use with caution. Saving a large show can slow down the system temporarily.		

Presets - Times

FCB times for moving device parameters are stored with the Preset.

- The default setting for FCB times is 100% of the main In time
- The default setting for FCB delay times is 100% of the Delay main In time

These times are executed when played back from a Sequence or from a Master Playback.

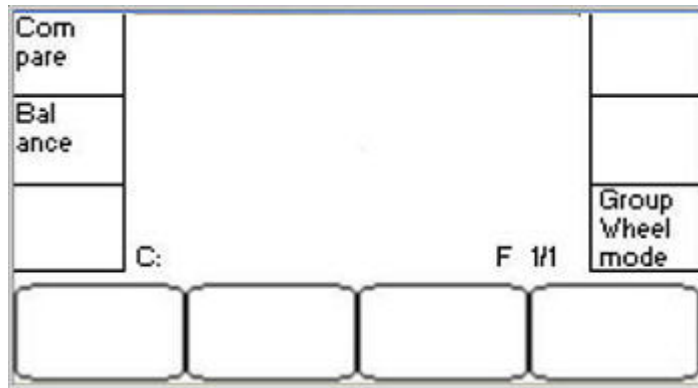
You can set them in % or as absolute times in seconds. You can select what to default to in the Time Settings (SETUP & TIME). Hold C/Alt and press MODIFY to set the opposite of what is currently selected.

Presets - Compare Mode

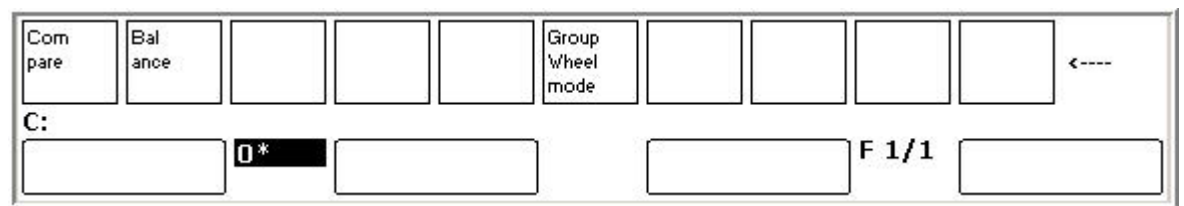
The Compare function allows you to compare the current light in the active field with the recorded version of the preset in the active field.

This key is in the Channels Soft Key Page.

Congo




Congo Jr

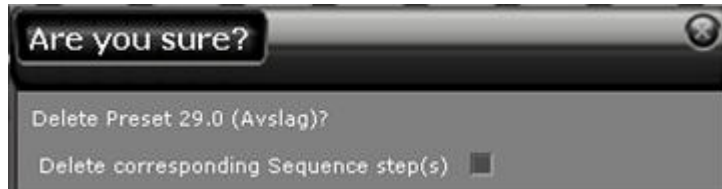


Action	Key	Feedback
Compare recent changes in a channel view with the last stored version.		The last stored version will be loaded. Press COMPARE to exit Compare mode.
Compare the content of a channel view with any preset.		The selected preset will be loaded. Press COMPARE to exit Compare mode.

Presets - Delete

Presets are deleted from the Preset List (Browser >Presets).

Action	Key	Feedback
Delete the selected Preset.		You will get a popup where you can choose to delete the corresponding Sequence Steps this Preset is used in as well.



SEQUENCES

A sequence is a list of presets that can be played back manually, with fade times, and as a chase.

This chapter contains the following sections

- [Sequences - Introduction](#)
- [Sequences - In The Main Playback](#)
- [Sequences - Playback Views](#)
- [Sequences - List](#)
- [Sequences - Sequence List](#)
- [Sequences - Crossfade Movefade, Lockfade](#)
- [Sequences - Times](#)
- [Sequences - Insert Step](#)
- [Sequences - Delete Step](#)
- [Sequences - Links](#)
- [Sequences - Load](#)
- [Sequences - Track List](#)
- [Sequences - Playlist](#)
- [Sequences - Build & Modify Modes](#)
- [Sequences - Fade Curves \(4.1\)](#)

Sequences - Introduction

A sequence is a list of sequence steps. Each step always contains a preset. Each time a Preset is recorded in the Live tab a new Sequence step is created with that Preset.

A Sequence Step consists of two main components

Item	Contains	Read More
Sequence Step Data	Fade Times, Auto Times, Text, Master Link, Master Page Link, Macro Link, GoOnGo flag for Attributes.	See Sequence List
Preset	Intensities, Dynamics, Attributes and Attribute Times.	See Preset List

General Facts

- You can rearrange the order in a Sequence at anytime.
- The same Preset can exist in several sequence steps, and sequences.
- You can set times to every channel and parameter in a sequence step.
- Sequences can be played back from the Main playback, or any Master Playback.
- You can create up to 999 sequences.
- You can link any Master Playback to a sequence step.
- You can trig a Sequence with MIDI and Time Code.
- You can play back any Sequence in Chase (looped) mode with BPM and rate.
- There is always a default sequence in the Main Playback.

Sequences - In The Main Playback

When you open a new play there is a default sequence (1) in the Main Playback.
When you record a Preset in the Live field it will be added to the sequence in the Main playback.

These are the sequence functions for the Main Playback

Function	Key	Feedback
Record a new Preset and create a new step	# RECORD	Each time a Preset is recorded in Live it is added as a new step to the sequence loaded to the Main Playback*
Edit a Sequence Step	MODIFY & PLAYBACK	Opens the Sequence List for the sequence in the Main Playback. See Sequence List .
Navigate in the Sequence of the Main Playback		See Main Playback .

*Unless the mode Build Sequence is off. See [Playback Soft Key Page](#).

Sequences - Playback views (4.3)

The Playback views normally have a packed format like this. There is an [unpacked format](#) (4.3) as well (see below).



It provides highlighted information about the current step, and a graphical time representation for the next step. Notes are shown with a yellow flag and displayed to the left of the graphical view for the next step. There are progress bars for A/B at the top.

Standard Times are described like this

Out: #

In: #

Time (In=Out): #

Delay In: # (with a "d", for example d2 >3)

Delay Out: # (with a "d", for example d2 >3)

TimeCode: ##.##.##.##

Channel Times

- are summarised as ChT: #. The # indicates how many different time groups there are in a step.

Moving Devices

- are summarised as Dev: #. The # indicates how many moving devices are affected by the step.

Master Links

- are indicated as ML: #. The # indicates how many Masters are linked to the step.

Master Pages

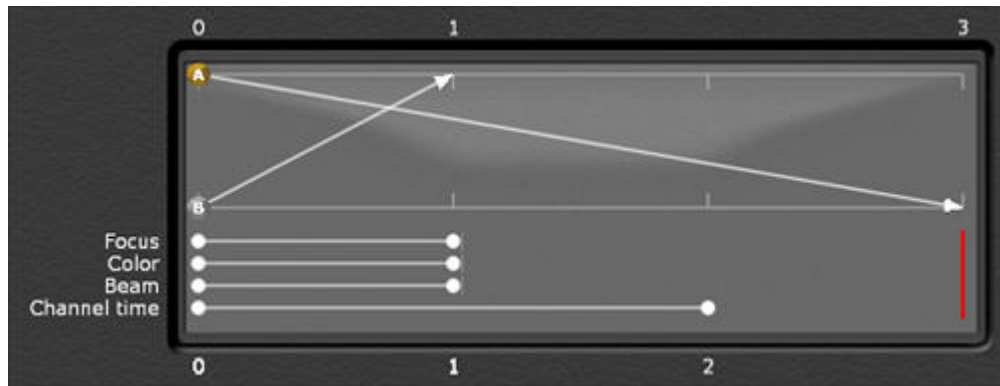
- are indicated as MP: #. The # indicates which Master Page is linked to the step.

NOTE

You can click on objects in the Playback View to open the corresponding editor directly. For example PRESET or DEV or MASTER LINK.

Sequence Playback Views - The Graphical Representation

The graphical representation of the next crossfade is very simple.



It shows the in and outgoing fade times as arrows, and FCB times and channel times as progress bars.

You can toggle this view on/off by holding FORMAT and pressing the UP or DOWN arrow.

Sequence Playback Views - Packed Format (4.3)

It is possible to show the information in the Playback view in a traditional columnised format, instead of the packed default format.



You can toggle this view on/off by holding FORMAT and pressing the RIGHT or LEFT arrow.

Sequences - List

You can insert and delete sequences, and change playback modes (chase) in the Sequences list (SEQ or BROWSER >Sequence).

3. Sequences								
	Sequence	Text	Mode	Rate	Bounce	Reverse	Single shot	BPM
1	1	Main	Normal	100 %	Off	Off	Off	0
2	2		Normal	100 %	Off	Off	Off	0
3	11	Chase 1-7	Chase	100 %	Off	Off	Off	0
4	12	Chase 11-17	Chase	100 %	Off	Off	Off	0
5	13	Chase 21-27	Chase	100 %	Off	Off	Off	0
6	14	Seq 31-37	Normal	100 %	Off	Off	Off	0
7	21	Song Sweden	Normal	100 %	Off	Off	Off	0
8	22	Song UK	Normal	100 %	Off	Off	Off	0
9	23	Song Germany	Normal	100 %	Off	Off	Off	0
10	24	Song Finland	Normal	100 %	Off	Off	Off	0

Sequences List - Insert/Delete/Load

Function	Key	Feedback
Insert a new sequence	# INSERT	Sequence # is inserted into the list
Delete a sequence	DELETE	The selected sequence is deleted*
Load a sequence	Master Key	The selected sequence is loaded to this Master Playback.

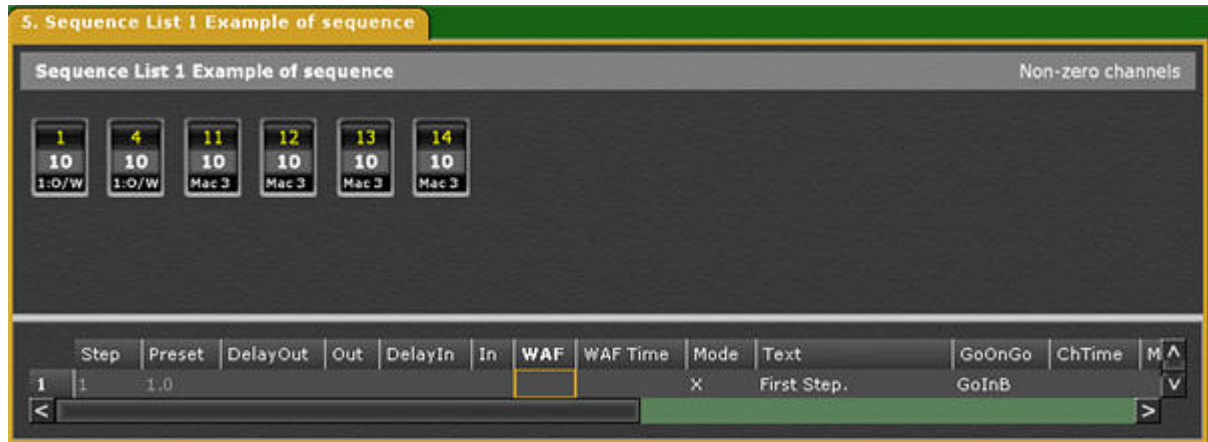
*The Sequence is deleted, and all timing and text information. The Preset still exists in the Preset list and can be used again.

Sequences List - Columns

Column	Input	Function
<u>Sequence</u>	MODIFY	The number of this Step- cannot be edited. Press MODIFY to open the Sequence List.
<u>Text</u>	MODIFY	Press MODIFY to activate and end text input. This text is shown in the top of the Playback views.
<u>Mode</u>	MODIFY	Toggles between Normal and Chase mode.
<u>Rate</u>	# MODIFY	Speeds up the playback by #% (Chase mode).
<u>Bounce</u>	MODIFY	Sets playback to alternate continuously between forward and reverse (Chase mode).
<u>Reverse</u>	MODIFY	Sets Playback in the reverse direction only (Chase mode).
<u>Single Shot</u>	MODIFY	Sets Playback to one time (Chase mode).
<u>BPM</u>	# MODIFY	Suppresses fade times and sets step time (wait) to BPM # (Chase mode).

Sequences - Sequence List (4.1)

You can view, edit and delete sequence steps in the Sequence list (# SEQ or BROWSER >Sequence >#).



NOTE

You can open the Sequence List for the Main Playback by holding **MODIFY** and pressing **PLAYBACK**. This is not possible, however, in Tabs that use **MODIFY** for other functions.

It is possible to enter the number of a step/preset first to open the list with that step focused (4.1)

Sequence List - Functions (4.1)

Function	Key	Feedback
Open the Sequence List	# SEQ	The Sequence List is opened.
Go to the selected Step	GOTO	Fades in the Main Playback to the selected step.
Update the current Step	UPDATE	Updates level changes in the current step.
Insert a new Step and a Preset with number #	# INSERT	Inserts a new step, with Preset #.
Edit Text in a step.	MODIFY	Opens the text cell for editing. The Congo keyboard is activated in Master Playback display four.
Delete selected Step(s)	DELETE	Deletes all selected Step(s). Cannot be undone.
Edit any value	# MODIFY	Enter a new value and press MODIFY.
Move a Step	Drag and drop	You can drag and drop a Sequence Step with the trackball to move it.
Set an In time to the focused step (4.1)	# IN	Sets an In time of # seconds directly to the focused step.
Set an Out time to the focused step (4.1)	# OUT	Sets an Out time of # seconds directly to the focused step.

Sequence List - Columns (4.3)

Part 1

Column	Input	Function
<u>Step</u>	No input	The number of this Step. Cannot be edited.
<u>Preset</u>	No input	This is the number of the Preset in this step. Cannot be edited.
<u>DelayOut</u>	# <input type="button" value="MODIFY"/>	Edit the delay out time.
<u>Out</u>	# <input type="button" value="MODIFY"/>	Edit the Out time.
<u>DelayIn</u>	# <input type="button" value="MODIFY"/>	Edit the Delay In time.
<u>In</u>	<input type="button" value="MODIFY"/>	Edit the In time.
<u>WAF</u> *	<input type="button" value="MODIFY"/>	Toggle time type between Wait, Alert and Followon (4.3).
<u>WAF Time</u>	# <input type="button" value="MODIFY"/>	Edit the (WAF) time.
<u>Mode</u>	<input type="button" value="MODIFY"/>	Change fade mode. Select between crossfade (x) movefade (m) and lockfade (l).
<u>Text</u>	<input type="button" value="MODIFY"/>	Press MODIFY to activate and end text input. This text is shown in the Playback views.








* 4.3 You can toggle the time between two steps between Wait, Alert and Followon. See [Sequence Times - Alert Times](#) and [Sequence Times - WAF Wait & Followon Times](#)

Part 2

Column	Input	Function
<u>GoOnGo</u>	<input type="button" value="MODIFY"/>	Toggle between GoOnGo and GoInB. Controls if moving devices will move on GO or when the step is loaded in B (next).
<u>ChTime</u>	<input type="button" value="MODIFY"/>	Shows the number of channel times in this step. Opens the channel time editor.
<u>MastLink</u>	<input type="button" value="MODIFY"/>	Shows the number of master links in this step. Opens the master link editor.
<u>MastPage</u>	# <input type="button" value="MODIFY"/>	Shows or edits which Master Page is linked.
<u>Fade Curve</u>	# <input type="button" value="MODIFY"/>	Shows or edits which Fade Curve is linked.
<u>LinkToStep</u>	# <input type="button" value="MODIFY"/>	Shows or edits which step this step is linked to.
<u>TimeCode</u>	# <input type="button" value="MODIFY"/>	View/Edit Tiem Code for this step (4.2)
<u>Note</u>	<input type="button" value="MODIFY"/>	Opens the editor for a Note (4.2)
<u>Block Tracking</u>	<input type="button" value="MODIFY"/>	Blocks tracking through this step (4.2)

Sequences - Crossfade Movefade & Lockfade

When you record a new Preset to a Sequence you will get the option to store it as a Crossfade, a Movefade or a Lockfade. Each of these modes affects how channels in that Preset will be played back when a the next crossfade is started.

Function	Shortcut	Feedback
Record a crossfade		Normally a crossfade (x) is recorded. This means that all channel values are replaced when a new crossfade is started.
Record a Move Fade	  	When a movefade (m) is followed by another movefade, only channels with new levels will be affected.
Record a LockFade	  	When a lockfade (l) is started, the channels involved will not be affected by anything until they have finished the fade they started. Stepping in the sequence will stop ongoing lock fades.

HINTS

- When you jump in the sequence with GOTO, the history of all fades will be executed to recreate the correct state after the jump.
- GOTO & B updates the current state (scanning backwards in the sequence accumulating Move/Lock fades).
- For a Lock fade, it is not possible to press PAUSE or GO BACK, since the nature is to "lock" the fade regardless of other playback controls.
- Stepping through the sequence with SEQ+/SEQ- or using GOTO will stop current Lock fades.
- If you start a move or lock fade on top of a crossfade, the crossfade now continues to run in the background and is also available for speed control on the display.
- Move and Lock fades are indicated with M and L in the Channel Views.

Sequences - Times (4.3)

You can set times to a sequence step, and all channels and moving device parameters will follow that time.

You can also set individual times in seconds, or as a percentage of the in- and delay times for each channel and moving device parameter in a sequence step.

Times are set from 0.1seconds to 49.59 minutes (0.1- 4959).

When no time is set to a sequence step, the default time (5seconds) will be used. Change this setting by holding SETUP and pressing A.

The easiest way to set times to ANY step of the sequence in the main playback is to use the TIME EDITOR. Enter the number of the step, hold MODIFY and press TIME. See [The Time Editor Popup](#) (4.3).

NOTE

Fade times of a Sequence Step are related to that step, not to the Preset occupying the Step. This makes it possible to use the same Preset with different fade times in other Steps or in the Masters.

To edit the times for a step open the Sequence List.

Sequence Times - Set To A or B (4.3)

Times are set to A or B depending on what situation you are working in. The current setting is indicated with an arrow next to the times:

► Out: 5 In: 5

It is possible to toggle if times are set to A or B by holding TIME and pressing A or B.

Sequence Times - Main Times (in/out/delay/wait)

Times are set to the step in A (Active) or B (Next) depending on the setting for times (SETUP & TIME).

Function	Key	Feedback
Set an In time	# IN	A time is set for the incoming channels.
Set an Out time	# OUT	A time is set for the outgoing channels.
Set In- and Out time	# TIME	A time is set for the in- and outgoing channels.
Set a Delay In time	# DELAY & IN	A delay time is set for the incoming channels.
Set a Delay Out time	# DELAY & OUT	A delay time is set for the outgoing channels.
Set a Wait, Alert or Followon time * (4.3)	Sequence List	Enter the time in the WAFcolumn of the Sequence List. You can toggle between Wait, Alert or Followon in this column (4.3)

* A Wait or Followon time will automatically execute a crossfade to the Step it is assigned to. The difference is that a Wait time starts counting down after the END of the previous crossfade, while the Followon time starts

counting down from the START of the previous crossfade. Wait times is the default setting. The Alert time will count down as a warning to the operator, but not execute the next fade. See [Sequence Times - Alert Times](#).

See [Times Soft Key Page](#).

You can view/edit the main times in the [Sequence List](#).

Sequence Times - Channel Times (4.3)

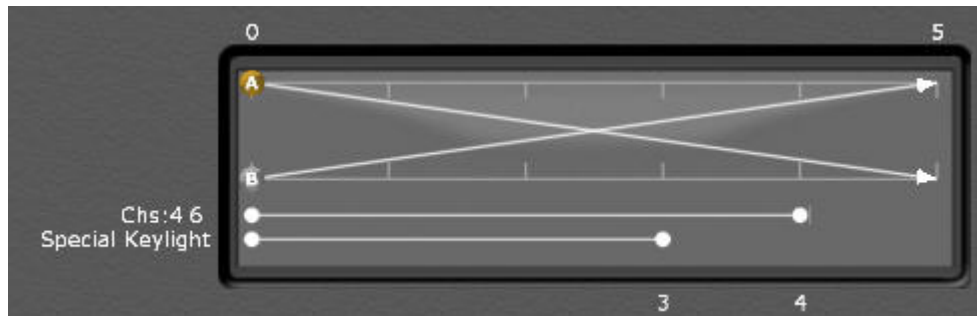
P>Times are set to the step in A (Active) or B (Next) depending on the setting for times (SETUP & TIME).

Function	Soft Key	Feedback
1. Select the TIME soft menu page	TIMES (soft key)	The time soft key page is selected in the main display.
Set a channel time for the selected channels	# CH TIME	A time is set for the selected channels. You can set a text label to the channel time group.
Set a channel delay time for the selected channels	# CH DELAY	A time is set for the selected channels.

You can set channel times with a shortcut as well.

Function	Key Shortcut	Feedback
Set a channel time for the selected channels	# CH & TIME	A time is set for the selected channels. You can set a text label to the channel time group.
Set a channel delay time for the selected channels	# CH & DELAY	A time is set for the selected channels.

This is what it looks like in a playback view, If no name is assigned, the channel numbers will be shown (4.3).



This is how the time is indicated in the live channel view, under the level.



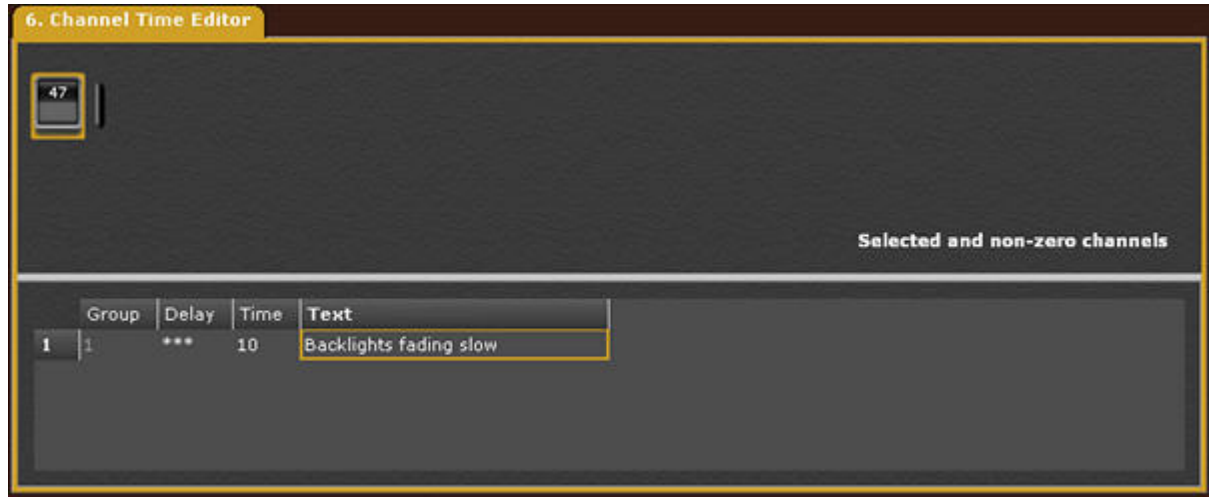
NOTE

When Channel Times are activated, the first four Channel Times are shown on the Main Display over the 4 wheels. The status for each Channel Time is displayed over each wheel. Rate for each channel can be adjusted with the corresponding wheel and the Channel Time can be started/stopped with the corresponding wheel key.

Sequence - Channel Time Editor (4.1)

Channel Times are edited in the Channel Time Editor (press MODIFY in the ChTime column of the Sequence List). See [Sequence List](#).

This is where you can add a text to each channel time group. This text is shown in the graphical time line view of the Playback list.



Editing Channels in a Channel Time Group

1. Select the Group in the Channel Time Editor
2. Add or remove Channels.
3. Press *UPDATE* to store.

The Time Editor Popup (4.3)

The Time Editor (also part of the Record popups Advanced tab) allows you to edit the times of any sequence step from a popup.

Press MODIFY and TIME to open the Time Editor popup for the step in A or B (see NOTE below). Enter the number of a step first to open it for any step.

Time Editor

Times | Channel Times

Preset 6.0

WAF ☐

Time

Delay Out

Out

Delay In

In

FCB-Times

F-Delay

C-Delay

B-Delay

F-Time

C-Time

B-Time

NOTE

The Time Editor follows the setting of the "Times in A/B" parameter in the Congo Setup (SETUP or F12).

The WAF box allows you to toggle between Wait, Alert and Followon time for this step.

The first six existing Channel Times can be edited directly in the Channel Times tab.

Time Editor

Times | **Channel Times**

Delay: 2 Time: 3 Red cyc

Delay: 3 Time: 4 Green cyc

Delay: 4 Time: 5 Blue cyc

The Times Soft Key Page (4.3)

The Time Soft Key Page is selected with the soft key TIMES in the Main Display of the console.

Congo

Ch Time					FCB Time
Ch Delay					FCB Delay
Wait					Learn Alert
C:		F 1/1			
Out	DelOut	DelIn	In		

Congo Jr

Ch Time	Ch Delay	Wait	Learn Alert							←----
C:										
Out	0 *	DelOut				DelIn	F 1/1	In		

These are the functions available. All times are set to the Main Playback.

Function	Softkey	Feedback
Set a channel time	# CH TIME	Sets a channel time (#) to the selected channels.
Set a channel delay time	CH DELAY	Sets a channel delay time (#) to the selected channels.
Set a wait time	WAIT	Sets a Wait time (#) to the Preset in A (or B).
Set an out time	OUT	Sets an out time (#) to the Preset in A (or B).
Set a delay out time	DELAY OUT	Sets a Delay Out time (#) to the Preset in A (or B).
Set a delay in time	DELAY IN	Sets a Delay In time (#) to the Preset in A (or B).
Set an in time	IN	Sets an In time (#) to the Preset in A (or B).
Set an FCB time	FCB Time	Sets FCB times (#) to the Preset in A (or B).
Set an FCB delay	FCB Delay	Sets FCB delay (#) to the Preset in A (or B).
<u>Learn Alert</u> *	Learn Alert	Activates Learn Alert Time mode (4.3).

* See [Sequence Times - WAF Alert Times](#).

Sequence Times - FCB Times

FCB Times are set to the Preset of a Sequence Step. See [Moving Device Times - FCB Time](#)

Sequence Times - Parameter Times

Individual Moving Device Parameter times are set to the preset of a Sequence Step. See [Moving Device Times - Parameter Time](#).

Sequence Times - WAF Alert Times (4.3)

An Alert time will count down from the completion of the previous crossfade, and alert the operator as to when the next fade should be manually executed.

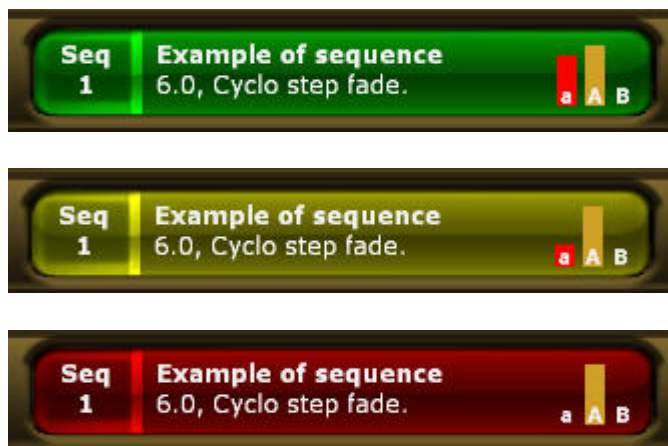
There is a Learn Mode that will record Alert times automatically as a show is played back in real time by an operator. This mode is activated with the soft key LEARN ALERT in the Times Soft Key page. See [The Times Soft Key Page](#).

Time Limit

There is both a visual and an audio warning set to alert 5 seconds before the next fade. You can change this time limit in the Time Settings. See [Settings - Crossfade](#).

Visual

The top part of the playback view will be green as long as the alert time is over 5 seconds. At 5 seconds it turns yellow and after completion it turns red.



The Alert time is edited in the Sequence List WAF and WAF Time columns. It can be toggled to be a Wait or Followon Time as well. See [Sequences - List](#). See also [Sequence Times - WAF Wait & Followon Times](#).

Sequence Times - WAF Wait & Followon Times (4.3)

It's possible to set a Wait or Followon time between each step of a Sequence.

Wait

A Wait time will execute the step *it is on*, # seconds after the completion of the previous fade.

Followon

A Followon time will execute the *next* step, # seconds after the start of the fade. The Followon time is displayed in the same way as the Alert Times. See [Sequence Times - WAF Alert Times](#).

The Wait and Followon times are edited in the Sequence List WAF and WAF Time columns. They can be toggled to be an Alert Time as well. See [Sequences - List](#).

Sequences - Insert Step

There are two ways of inserting a sequence step between two existing ones.

- Record a preset with a (decimal) number that fits between
- Insert any preset in the Sequence List (See [Sequence List](#))

Insert A Sequence Step - In A Playback

When you are working directly in a Playback and record a new preset, it is inserted numerically into the sequence of that Playback.

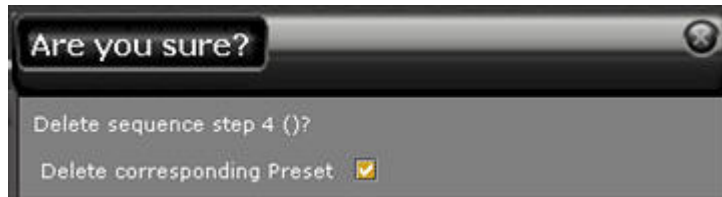
Function	Shortcut	Feedback
Insert a Step between step 1 and 2	1 . 5 RECORD	A popup will ask you to confirm recording preset 1.5
Confirm recording	RECORD	The preset is recorded between 1 and 2.

Insert A Sequence Step - In The List

Function	Shortcut	Feedback
1. Open the Sequence list	# SEQ	The List for sequence # is opened.
2. Move to the step you wish to insert a new step after	Arrow Keys	The selected step is highlighted in yellow.
3. Insert Preset #	# INSERT	The preset is inserted after the selected step*
NOTE The Preset does not bring sequence texts, fade times or links from other sequence steps if it has been used earlier.		

Sequences - Delete Step

Function	Shortcut	Feedback
1. Open the Sequence list	# SEQ	The List for sequence # is opened.
2. Select the step you wish to delete	Arrow Keys	The selected step is highlighted in yellow.
3. Delete the selected step	DELETE	You will get a popup where you can choose to delete this step and the related Preset.



NOTE

When you delete a Sequence Step all assigned times, links and texts are lost. The Preset of that step can still exist in the Preset List, and be used again.

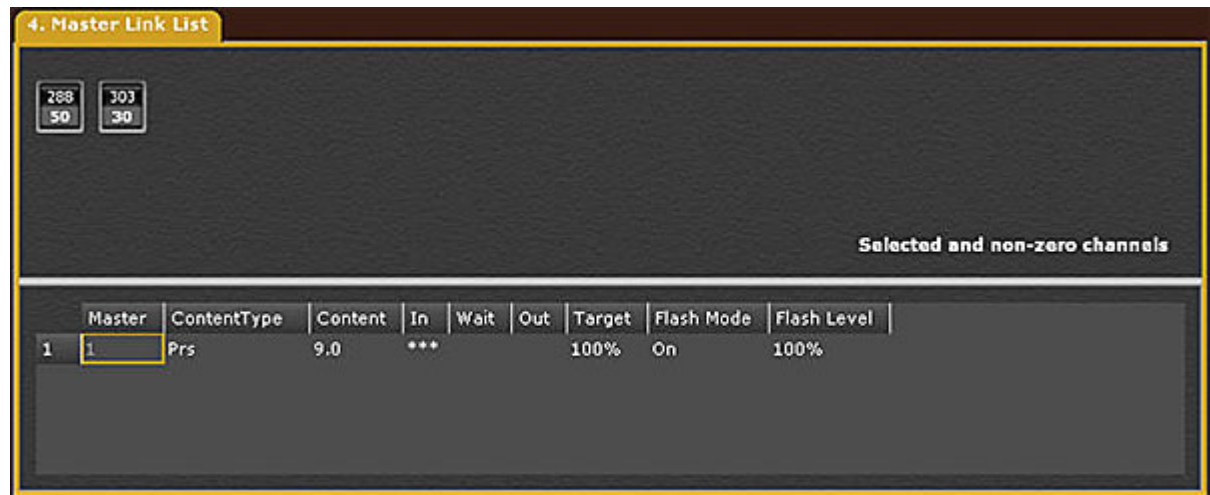
Sequences - Links

A sequence step can have a link to Master fades, a Master Page, a different sequence step (see NOTE in this explanation), and a Macro.

All links are done in the Sequence List (# SEQ or BROWSER >Sequences >#).

Sequence Step Links - Master Playbacks

Master Links are loaded when the Sequence step is loaded to the B field. They are faded when GO is pressed or the crossfade faders are moved.



Function	Key	Feedback
Select the MastLink column*	Arrow keys	The column is highlighted
Open the Master Link List	<input type="button" value="MODIFY"/>	The Master Link List is open.
Insert a link to Master #	<input type="button" value="#"/> <input type="button" value="INSERT"/>	Master # is linked, with its current content, and a target level of 100%.

*In the [Sequence List](#).

NOTE

All functions in the Master Link list are the same as in the View Masters list. The only differing one is Target, which is the level the Master will fade to. To load a Master for manual operation, set the target level to 0%.

For the other functions, see [Master View List](#).

Sequence Step Links - Shortcut (4.1)

There is a shortcut for inserting a Master Link directly to the current Sequence Step in the Main Playback.

Function	Key	Feedback
Insert a link to Master #	<input type="button" value="INSERT"/> <input type="button" value="Master Key"/>	Master # is inserted as a link to the Step in A.
Insert a link to Master # with target #	<input type="button" value="#"/> <input type="button" value="INSERT"/> <input type="button" value="Master Key"/>	Master # is linked, with its current content, and a target level of 100%.

Sequence Step Links - Master Pages

Function	Key	Feedback
Select the MastPage column*	Arrow keys	The column is highlighted
Insert a link to Master Page #	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Master Page # is linked. It will be loaded to Masters 1-20 when this step is loaded to the B (Next) playback.

*In the [Sequence List](#).

Sequence Step Links - Another Step

NOTE
Links to another sequence step are used mainly to create playback loops. Links are NOT used to change a playback order in Congo - this is done by cutting and pasting a step in a different location. See [Copy, Cut & Paste](#).

Function	Column	Feedback
Select the LinkTo column*	Arrow keys	The column is highlighted
Insert a link to Sequence Step #	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sequence Step # is linked. When this step is faded in, the next step will be Step #.

*In the [Sequence List](#).

Sequences - Load

A Sequence can be loaded to the Main Playback, or any Master Playback. For information on how to control a Sequence once it is loaded, see [Main Playback](#) and [Master Playbacks](#).

Function	Keys	Feedback
Load Sequence # to the Main Playback	# SEQ & PLAYBACK	Sequence # is loaded to the Main Playback. The light in A (Active) and B (Next) is not affected.
Load Sequence # to a Master Playback	# SEQ & Master Key	Sequence # is loaded to the Master Playback.
NOTE Loading a non-existent Sequence to Playback will open a window asking if you wish to create that Sequence.		

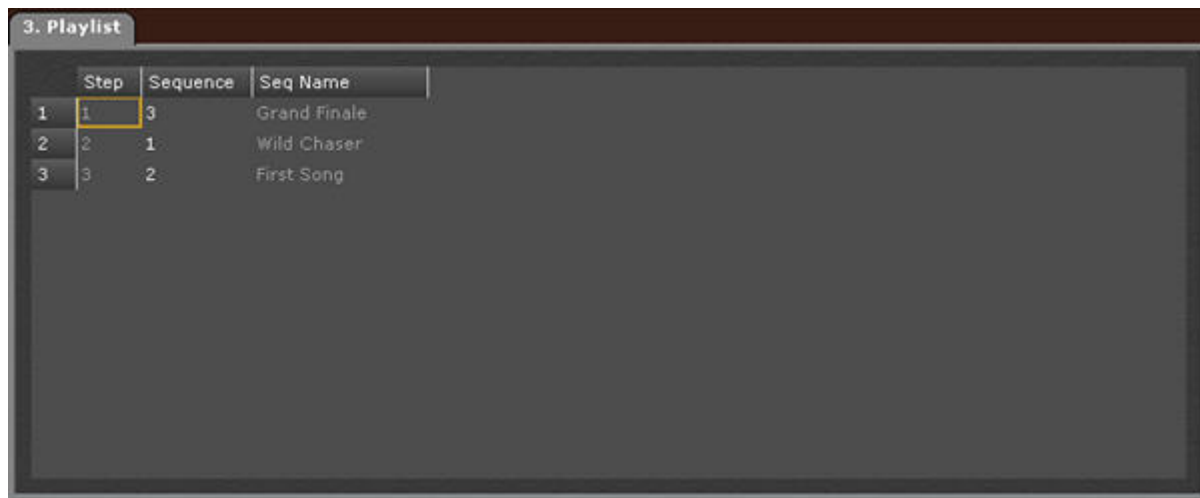
You can load a sequence directly from the Browser as well

Function	Keys	Feedback
Load the selected sequence to the Main Playback	LOAD & PLAYBACK	Sequence # is loaded to the Main Playback. The light in A (Active) and B (Next) is not affected.
Load the selected sequence to a Master Playback	LOAD & Master Key	Sequence # is loaded to the Master Playback.

Sequences - Playlist

You can arrange the order in which sequences are played back in a Playlist.

The Playlist is opened from the BROWSER> Playlist (press MODIFY).



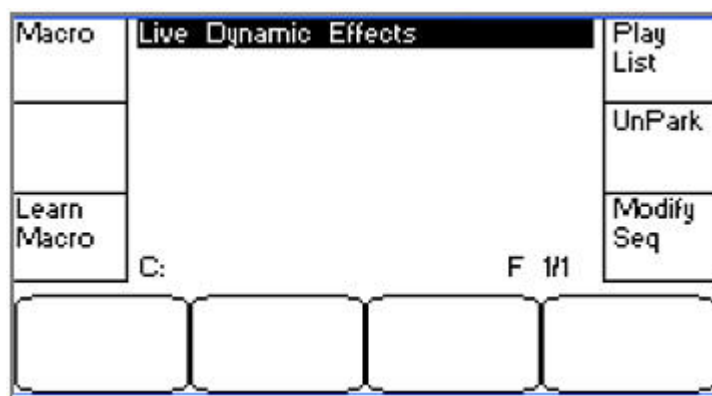
These are the functions in the Playlist.

Function	Column	Feedback
Insert Sequence #	# INSERT	Sequence # is inserted into the Playlist
Delete a Sequence	DELETE	Sequence # is inserted into the Playlist
Load a Sequence	GOTO	Loads the selected Sequence to the Main Playback from the next fade.

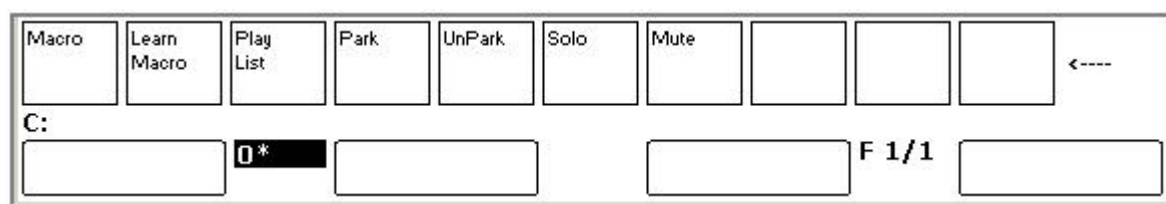
The Playlist - Mode

Playlist mode is activated by the softkey PLAYLIST in the **Misc** Soft Key Page.

Congo



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When it is active all Sequences in the Playlist will be loaded when the previous is finished, until the end. Every time a new Sequence is loaded this will be notified with a message on the main screen.

The Playlist - Console Display

Hold <--- and press the softkey PLAYLIST to activate the Playlist in the Main Display of the console.

You can select any sequence with the trackball in DisPList mode by clicking on it.

Sequences - Build & Modify Modes

There are two modes that affect recording and playback of Sequences. Build Sequence and Modify Sequence.

Sequence - Build Seq mode (4.2)

This mode is set in the Crossfade Settings. See [System Settings - Crossfade](#).

The default setting for this mode is ON. When ON every Preset recorded in the Live or A tab will automatically be added to the Sequence in the Main Playback (in numerical order). The only reason to set this mode to OFF is when a Preset recorded in Live or A should NOT be added to the sequence in the Main Playback.

Sequence - Modify Sequence Mode



This function is accessed by a softkey in the Misc Soft Key Page. See [Navigating - Misc Soft Key Page](#).

The default setting for this mode is OFF. When turned ON all crossfade in Sequences will disregard Wait and Followon Times, Master Links, Master Pages, Links and other linked information. It is a mode created for rehearsals where only the main lighting changes are advanced manually.

When activated there will be a popup explaining what this means for the user.


Sequences - Fade Curves (4.1)

It is possible to create and assign fade curves to each crossfade. It is possible to create any kind of curve in the Fade Curve Editor. The curves affect intensities, not Moving Device attributes.

Action	Key	Feedback
1. Open the FadeCurve List	Browser >Setup >FadeCurve List	The Fade Curve List is opened.
2. Insert a New Curve		A new curve is inserted. You can name it in the Text cell.
3. Open the Fade Curve Editor		Press MODIFY in the Fade Curve cell to open the editor.






Fade Curve Editor (example: fast start Curve)



Action	Key	Feedback
4. Insert a position		A position is inserted. You can set percent, Output and if this step should use interpolation to the next step.

Sequence - Assign Fade Curves (4.1)

Assign curves to a sequence step in the Sequence Editor.

Action	Key	Feedback
1. Open the Sequence Editor	 & 	The Sequence Editor is opened.
2. Move to the column "Fade Curve"	Arrow Keys	The cell is highlighted
3. Open the Fade Curve popup		The popup is opened. If no curves are defined it will only have "No curve". 
4. Select a Curve	Arrow keys	The selected curve is highlighted
5. Confirm		The popup is closed and the selected curve is assigned to this step.

Sequences - Block Values (4.2)

It is possible to set an intensity block for the tracking functions for a step. This is done in the Sequences List.

See [Sequences - Sequence List](#). See also [Track - Track Editing \(4.2\)](#)

A block is indicated in the Playback List with a B after the Preset and a line over the step. In this image step 7 is blocked.

5	5.0	P:Blue m	Wait: 5			
6	6.0	P:Focus		ChT: 1	Dev: 4	Dyn..
7	8.0	B P:Stop all	Out: 0.1	Dev: 4	Dyn: 1	
8	9.0	P:Chaser	Out: 0.1	ML: 1		

NOTE

Currently all intensities are blocked. To block the intensity for an individual channel set the value in the Preset to 1%.

Sequences - Track List (4.1)

All tracking features have been moved to the chapter TRACK.
See [TRACK](#).

CHASE

A chase is a sequence set to chase mode, which means it will constant loop during playback. See [Sequences](#).

This chapter contains the following sections

- [Chase - Introduction](#)
- [Chase - Playback View](#)
- [Chase - Playback Modes](#)
- [Chase - Set Rate](#)
- [Chase - BPM & Tap Tempo](#)
- [Chase - Wizard](#)

Chase - Introduction

A Sequence can be set to run in Chase mode. This means the Sequence will chase endlessly through all Steps on the predefined times. There are several parameters that can affect how it will run in Chase mode.

General Facts

- Chases are edited in the same way as Sequences.
- In addition to Sequences they have Rate and BPM.
- BPM can be set with TAP from the Master Playback.
- A Chase has playback modes such as Reverse, Bounce, Single Shot.
- You can link any chase to a sequence step.
- You can play back a chase from any playback, including the Main Playback.

Chase - Playback View

The Chase playback view is the same as the Sequence Playback view with some added functionality.



The added chase functionality appears under the sequence name display in the top of the Playback view. The functions are described in [The Sequences List Columns](#) as well as the rest of this chapter.

Chase - Playback Modes

There are three modes that affect the playback of a chase.

Mode	Where	Function
Reverse	Set in The Sequences List Columns	Reverses the chase direction.
Bounce	Set in The Sequences List Columns	Makes the chase reverse direction every second time.
Single Shot	Set in The Sequences List Columns	The chase will run one time and stop.

Chase - Set Rate




You can set a rate 1-1000% for a Chase. It will scale all times proportionally.

Action	Keys	Feedback
1. Open the Sequences list	<input type="button" value="SEQ"/>	The Sequences List is opened.
2. Step to the Rate cell for a chase	Arrow Keys	The cell is highlighted.
3. Enter a new Rate	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	The Rate # is assigned to this Chase. All fade times are proportionally scaled.

Chase - BPM & Tap Tempo



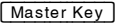

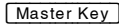
You can set the tempo/speed to a chaser in BPM. This can be set numerically in the Sequences window (Browser >Sequences) or using the Tap Tempo function.

Set BPM Numerically

Action	Keys	Feedback
1. Open the Sequences list		The Sequences List is opened.
2. Step to the BPM cell for a chase	Arrow Keys	The cell is highlighted.
3. Enter a new BPM	 	The BPM # is assigned to this Chase. *

*The BPM parameter is only used for sequences in Chase mode. When the BPM parameter is set, it will override all programmed times. The In and Out times will be 0 s and the Wait time will be set according to the BPM parameter.

Set BPM using Tap Tempo

Action	Keys	Feedback
1. Assign the chaser to a Master	  	The Chase is assigned to the Master Playback.
2. Tap the Tempo	 	Hold TAP and tap the Master Key at least twice.*

*You have to tap at least 2 times in a row before the new tempo is activated. The tapping speed is translated to, and stored as the BPM parameter in the Sequence List. You can easily change it afterwards.

Chase - Wizard

The Chase Wizard can create a chase sequence from a channel selection. It is activated from within the Sequences List.

Action	Keys	Feedback
1. Open the Sequences list	<input type="button" value="SEQ"/>	The Sequences List is opened.
2. Open the Chase Wizard	<input type="button" value="WIZARD"/>	The Chase Wizard is opened. The next free Sequence number is suggested.
3. Select channels and set levels	Channel functions	The current channel selection from Live is automatically loaded. Change if wanted to.
4. Fill in the Chase Wizard	Arrow Keys	See Chase Wizard - Functions
5. Execute the Chase Wizard	<input type="button" value="EXECUTE"/>	The Wizard is closed, and the new Chase is added to the Sequences List.

This is the Chase Wizard



Chase Wizard - Functions

Column	Input	Function
Number of steps	# <input type="button" value="MODIFY"/>	The number of steps the Chase shall have.
Channels per step	# <input type="button" value="MODIFY"/>	The number of channels you wish to have in each step
Step time	# <input type="button" value="MODIFY"/>	Default wait time for each step. Can be edited after.
Chase number	# <input type="button" value="MODIFY"/>	The number this Chase will have. Next free is suggested.
Start at preset	# <input type="button" value="MODIFY"/>	The Preset number this Chase will use for the steps. It will start at Preset 800 by default.
Increment	# <input type="button" value="MODIFY"/>	You can set the Chase to use Presets with an increment of .1 here.
Build	<input type="button" value="MODIFY"/>	Check if you want the Sequence Steps to continue adding new channels in each step to the previous ones.
NOTE If you want to make changes in the Chase Sequence you just created, use the Sequence and Preset editors. It is a "normal" Sequence that has been created by the Chase Wizard.		

MASTER PAGES

Master Pages store all content for 20 masters and can be used in the lower (1-20) or upper (21-40) row of Master Playback faders.

This chapter contains the following sections

- [Master Pages - Introduction](#)
- [Master Pages - Record](#)
- [Master Pages - Functions](#)
- [Master Pages - List](#)
- [Master Pages - Editor](#)
- [Master Pages - Times](#)
- [Master Pages - Auto-update Mode](#)
- [Master Pages - Display List](#)

Master Pages - Introduction

You can store all content of 20 Master Playbacks into a Master Page. Master Pages can be stepped through, or loaded.

General Functionality

- Master Pages are stored for 20 Master Playbacks.
- Page 1 & 2 are automatically loaded when creating a new Play (4.1).
- You can store up to 999 Master Pages.
- Each Page can have a text label.
- A Page can be Transparent - meaning empty Master Playbacks are not cleared when this page is loaded.
- Each Page can have a Time and BPM affecting all chasers, presets and palettes.

NOTE

Loading a new Master Page puts the new content in a pending state if the master is above 0%. When the Master is faded to 0% the new information is loaded.

Master Pages - Record (4.1)

All content changes in the affected Master Range (1-20 or 21-40) are automatically recorded (4.1) when [Auto-Update](#) is On (default). They can be recorded manually to the same Page or to another Page as well.

Function	Key	Feedback
Record to the currently loaded Master Page	<input type="button" value="RECORD"/> <input type="button" value="PAGE"/>	You will get a confirmation in the message window at the bottom of the screens.
Record to Master Page #	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="PAGE"/>	You will get a confirmation in the message window at the bottom of the screens.

Master Pages - Functions (4.2)

It is possible to load and change Master Pages separately to either row (1-20 or 21-40) of Master Playbacks. When a new play is created Page 1 & 2 are automatically loaded. (4.1)

Function	Key	Feedback
Load Master Page #	<input type="text" value="#"/> <input type="text" value="PAGE"/>	Master Page # is loaded*
Step to next Master Page	<input type="button" value="+"/>	Loads the next Master Page.
Step to previous Master Page	<input type="button" value="-"/>	Loads the previous Master Page.

*The corresponding Masters are cleared (4.2) If the Page does not exist it will be created (4.1)

NOTE

PENDING - If a master fader is over 0% when new content is loaded - it will load the new content after fading to 0%.

Master Pages - List (4.1)

You can view, edit and create Master Pages directly in the Master Page List (BROWSER >Master Pages).



NOTE

The system always creates 10 empty Master Pages when a new Play is opened (4.1).

Master Pages List - Columns

Column	Input	Function
<u>Page</u>	No input	The number of this Preset - cannot be edited.
<u>Text</u>	ABCDE...	Press MODIFY to activate and end text input.
<u>Transparent</u>	<input type="button" value="MODIFY"/>	When ON this Master Page will only load the stored masters.
<u>Time</u>	<input type="button" value="MODIFY"/>	This time can be set to affect all percent times in this Master Page. See Master Page Times .
<u>BPM</u>	<input type="button" value="MODIFY"/>	This value can be set to affect all chase rates in this Master Page. See Master Page Times .

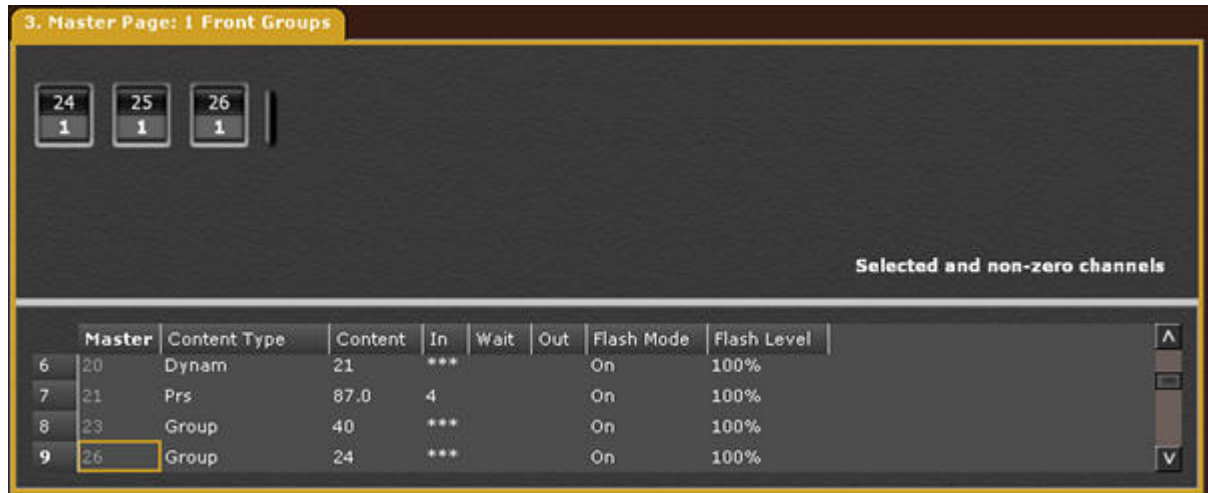
Master Pages List - Functions (4.1)

These are the functions in the Master Pages List

Function	Key or column	Feedback
Insert a Master Page (4.1)	<input type="button" value="INSERT"/>	Inserts a new Master Page with the next free number
Insert Master Page #	<input type="button" value="#"/> <input type="button" value="INSERT"/>	Inserts a new Master Page #
Delete the selected Master Page	<input type="button" value="DELETE"/>	Deletes the selected Master Page. Cannot be undone.

Master Pages - Editor

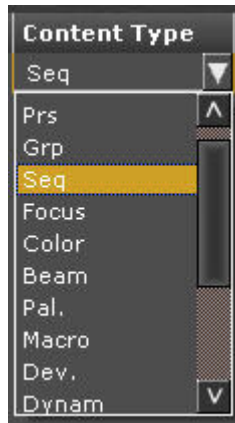
The Master Page Editor is where you can view and edit the content and times of Master Pages. Open in BROWSER> Master Pages> Master Page #.



Master Page - Columns

Column	Input	Function
<u>Master</u>	No input	The number of this Master - cannot be edited.
<u>Content Type*</u>	<input type="button" value="MODIFY"/>	Opens a dropdown where you can choose content.
<u>Content</u>	<input type="button" value="MODIFY"/>	Sets the number ID of the content in the previous column.
<u>In</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets an In time. If there is no other time it is also an out time.
<u>Wait</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets a wait time
<u>Out</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets an out time
<u>Flash Mode</u>	<input type="button" value="MODIFY"/>	Toggles Flash Mode on/off
<u>Flash Level</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets # as the Flash level of a Master Playback.

*Content dropdown



Master Pages - Times

Master Playback times can be stored in Master Pages. Times are set from 0.1seconds to 49.59 minutes (0.1-4959).

General Facts

- A Master Playback can have an in/wait/out time.
- A Master Page can have a general time used for all Palettes and Presets.
- A Master Page can have a BPM time for all Chases.

Master Page Times - In, Out, Wait

Fade times for a Master Playback can be stored in a Master Page.

The times are activated in the following situations

- When the master is linked from a Sequence Step.
- When you hold START and press the Master Key.
- When Flash On Time is active (SETUP & Master Key).

Function	Keys	Feedback
1. <i>Activate the Master Page List</i>	Browser >Master Pages	The Master Page List is opened.
2. <i>Go to In-Wait-Out Times</i>	Arrow keys	Each selected cell is highlighted
3. <i>Set a time*</i>	# <input type="text"/> MODIFY	A time of # is set.

Master Page Times - Page Time

The Master Page Time is used for Palettes (content= palette) and Presets with In times set in %.

Function	Keys	Feedback
Set Master Page Time*	# <input type="text"/> TIME <input type="text"/> & <input type="text"/> PAGE	A Master Page Time # is set to the currently loaded Master Page.

*The Master Page Time can be set from the Master Page List as well.

Master Page Times - BPM

The Master Page BPM will affect all chasers running in that Master Page.

Function	Keys	Feedback
Set Master Page BPM*	TAP <input type="text"/> & <input type="text"/> PAGE	Tap at least two times to set a BPM. You can edit it in the Master Page List.

*If chases have a rate, it will be scaled by the BPM.

Master Pages - Auto-update Mode (4.1)

This is the default mode for Master Pages - in which all changes automatically are stored to the current Master Page (4.1).

Function	Keys	Feedback
1. <i>Open the Master Page Settings</i>	<input type="button" value="SETUP"/> & <input type="button" value="PAGE"/>	The Master Page Settings popup is opened.
2. <i>Toggle Auto-update</i>	<input type="button" value="MODIFY"/>	MODIFY will toggle this parameter on/off.
NOTE Without this mode, Master Pages have to be recorded manually. See Record Master Pages .		

Master Pages - Display List

The Display lists are shown in the main display of the console. The trackball has to be in DISP LIST mode.

Function	Keys	Feedback
1. <i>Open the Master Page Display List</i>	DISP & PAGE	The Master Page Display List for a Master Row (1-20, 21-40).
2. <i>Select a Master Page</i>	Trackball	The selected item is highlighted with >arrows<.
3. <i>Load the selected Master Page</i>	Right (or left) click and press PAGE	The Master Page is loaded to Masters 1-20.

DEVICES

A channel with other attributes (parameters) than intensity is treated as a moving Device.

This chapter contains the following sections

- [Devices - General](#)
- [Devices - Control](#)
- [Devices - Views](#)
- [Devices - Times](#)
- [Devices - Palettes](#)
- [Devices - Play Back](#)
- [Devices - Recording](#)
- [Devices - Templates](#)
- [Devices - Media Servers \(4.2\)](#)

Devices - General

A moving Device has to be Patched before you can start controlling it. See [Patch Moving Device\(s\)](#).

Devices - Controls

- Select a channel to get control of a Moving Device.
- The Main Display of the console has wheels and keys for controlling Moving Device parameters.
- Position pan/tilt with the trackball or wheels.
- There is a special Device mode for testing.
- Load and change templates at any time
- There is a soft key page for lamp strike.
- Select odds and evens at any time with the Selection tool.
- Fan and align any kind of parameter
- Mask any parameter or group of parameters
- Special functions for scrollers with rolls and calibration.

Devices - Views

- The Live Attribute View shows all parameters for selected moving devices.

Devices - Palettes

- Store reference Palettes for Focus, Color and Beam (or All).
- Select all active devices using a palette - "all blue" or "all centre stage".
- Store palettes for "all of the same type" and reuse (for color mixing).
- Palettes are quickly accessible from the Direct Selects.
- Load Palettes to Masters and fade selected channel(s).

Devices - Playing Back

- Play back Moving Devices from any playback.
- Parameters can follow the fader.
- Any device parameter can be assigned to a Master Playback
- There is a GoOnGo or GoInB function (Move while dark)
- Times can be set to follow In, to groups (FCB), devices or single parameters.

Devices - Focusing Mode

- Next & Last Mode
- Highlight Mode
- Palette Focusing Mode

Devices - Effects

- Use Dynamic Effects to create patterns such as circles or fly-outs.
- Define your own Dynamic Effects

Devices - Templates

- Edit a template at any time
- Create your own templates
- Change a template (device) for another

Devices - Control

The Main Display section of the console is optimized for working with functions in moving devices.

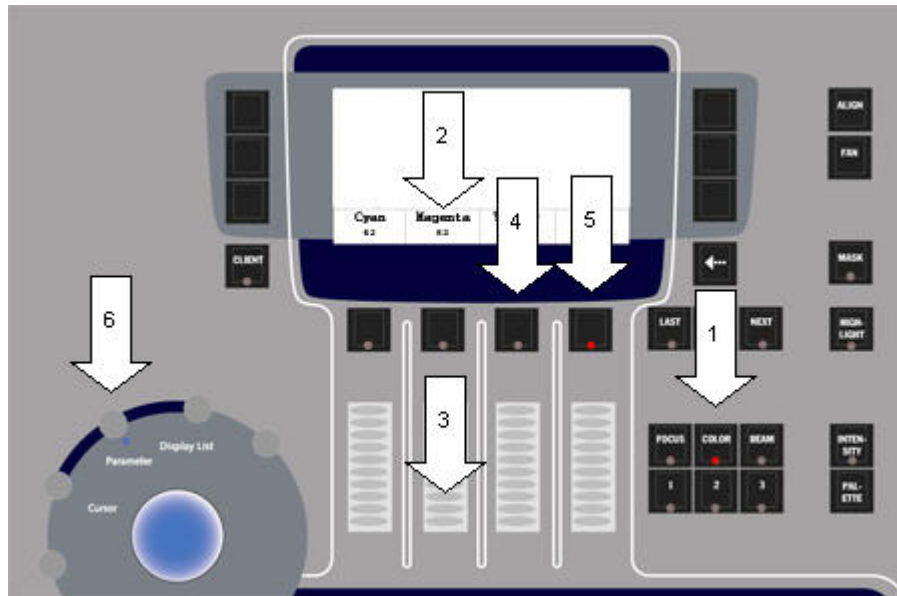
These are the sections in this chapter

- [Device Control - Introduction](#)
- [Device Control - Lamp Strike & Reset](#)
- [Device Control - Home Positioning](#)
- [Device Control - U1-U2-U3](#)
- [Device Control - Mask](#)
- [Device Control - Select](#)
- [Device Control - Align](#)
- [Device Control - Fan](#)
- [Device Control - Fetch/Copy](#)
- [Device Control - Next & Last Mode](#)
- [Device Control - Highlight Mode](#)

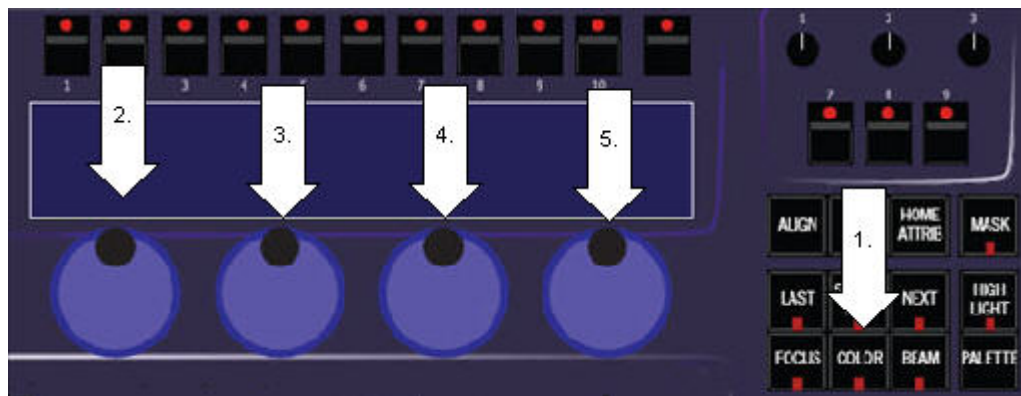
Device Control - Introduction

When you select the channel(s) of a moving device(s) - all controls are automatically mapped to this section.

Congo



Congo Jr



Moving Device Controls - Explanation

Number	Function	Explanation
1	Parameter Groups*	Parameters are divided into three categories, Focus, Color and Beam. Select category by pressing one of these keys. All available Moving Device Parameters within this category are mapped to the Wheels and shown in the display above them (2). If there are more than four parameters, press the category key again for the next set.
2	Wheel Content	Each wheel has a section of the display dedicated to it. In this section the parameter type is displayed on top, and the current value (or Palette name) under. If there is a range number it is displayed.
3	Parameter Wheel	Move the parameter wheel to set a value. For 16-bit control move slowly, for 8-bit control move fast.
4	Wheel key with value	Press to toggle between zero and full. Enter a number and press the key to set a value.
5	Wheel key with list	Hold wheel key to get the sublist in the display. Use the wheel to select, and let go to activate. Enter a number and press the key to select a range.
6	Parameter mode	In Parameter mode the trackball controls pan and tilt of the selected channel(s).

*All parameters of a moving device are grouped into four groups of functions.

Focus = *Pan and tilt*

Color = *all color functions such as CMY, color wheels etc*

Beam = *everything else*

Intensity = *is stored in Presets*

Control parameters = *are never stored.*

Device Control - Lamp Strike & Reset

In Control Soft Key Page there are functions for lamp ON/OFF and RESET for moving devices (which are defined in the template of that device).

1. Go to the top menu for the Main Display in the console facepanel by pressing <-- until you have this page.

Congo

Times ---->			Device ---->
Dyna mics ---->			Select ---->
Chan nels ---->			Misc ---->
C:		F 1/1	
<div style="border: 1px solid black; height: 30px; width: 100%;"></div>			

Congo Jr

Times	Dyna mics	Chan nels	Device	Select	Misc				
C:		0*				F 1/1			

2. Press DEVICE to select the Device Soft Key page.

Congo

Flip	Live Dynamic Effects		Cont rol ---->
Update Palett			Set Chnged
Focus Mode			Clear Chnged
C:		F 1/1	
<div style="border: 1px solid black; height: 30px; width: 100%;"></div>			

Congo Jr

Flip	Update Palett	Focus Mode	Cont rol	Set Chnged	Clear Chnged		U1	U2	U3	<----
C:		0*				F 1/1				

3. Press Control to get the Control Soft Key Page

Congo

Enable			Lamp On
			Lamp Off
Lamp Idle	C:	F 1/1	Lamp Reset
<div style="border: 1px solid black; height: 20px; width: 100%;"></div>			

Congo Jr

Enable		Lamp Idle	Lamp On	Lamp Off	Lamp Reset					←----
C:										
	0*				F 1/1					

Control Soft Key Page - Functions

NOTE

These functions are Device and Template Specific. Check the manual and template of each moving Device.

Control parameters are not stored in Presets.

Press HOME ATTRIB after a Lamp On/Off/Reset to avoid sending control commands to the lights forever.

Action	Soft Key	Feedback
Enable	ENABLE	This key has to be pressed together with Lamp On/Off/Reset to activate them (as a safety measure).
Lamp Idle	ENABLE & Lamp Idle	The Device is set to it's Lamp idle value
Lamp On	ENABLE & Lamp On	A lamp strike is set to the selected channel(s)
Lamp Off	ENABLE & Lamp Off	A lamp off is set to the selected channel(s)
Reset	ENABLE & Reset	A lamp reset is set to the selected channel(s)

Device Control - Home Positioning

Home positioning of a device means setting all parameters (or part of them) to the default values defined in the template of this device. See Templates.

Normally it means setting pan and tilt to 50%, color to white and all other parameters to neutral.

These functions apply to the currently selected channel(s)

Action	Key	Feedback
Home all attributes	HOME ATTRIB HOME ATTRIB	All parameters are set to home
Home FOCUS	HOME ATTRIB & FOCUS	Focus parameters are set to home
Home COLOR	HOME ATTRIB & COLOR	Color parameters are set to home
Home BEAM	HOME ATTRIB & BEAM	Beam parameters are set to home
Home single parameters	HOME ATTRIB & Wheel Key	Parameter # is set to home

Another way of doing the same thing

Action	Key	Feedback
Home FOCUS	0 FOCUS	Focus parameters are set to home
Home COLOR	0 COLOR	Color parameters are set to home
Home BEAM	0 BEAM	Beam parameters are set to home
Home all attributes	C/ALT & ATTRIBUTES	All parameters are set to home

Device Control - U1-U2-U3 (4.1)

The parameter group keys U1-U3 can be set up with any mix of moving device parameters. Each of them have three sub-pages. This makes a total of nine user definable parameter pages.

This editor is opened by holding MODIFY and pressing U1-U3 (4.1) or a Wheel key when a bank (U1-U3) is selected.



NOTE

Each User Band (U1-U3) has three parameter pages (1-3). They are shown in the same editor.

U1-U3 - Setting Up Parameters (4.1)

Column	Function	Feedback
<u>Page</u> (4.1)	No function	This is the number of the Page (1-3) under this User Bank (U1-U3)
<u>Wheel</u>	No function	This is the number of the Wheel, and cannot be changed.
<u>Parameter</u>	MODIFY	Opens a dropdown with all parameters. Select one and press MODIFY to confirm*

*The letter (FCB) after a parameter indicates it's parameter group.

NOTE

Parameters in U1-U3 are still stored in the original palette types (Focus, Color, Beam).

Device Control - Mask (4.3)

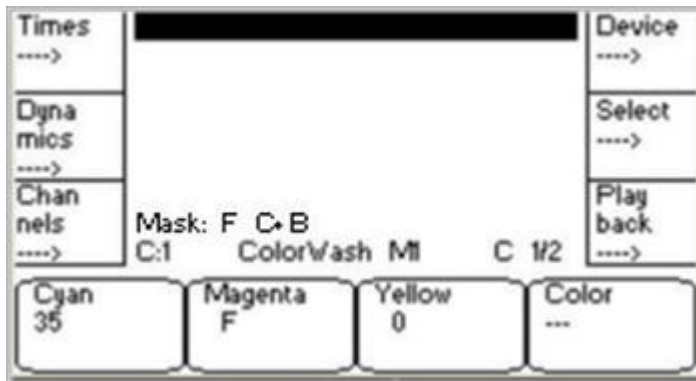
You can mask whole groups of parameters (FCB) or single parameters in a group with the MASK key.

- When mask is active it is indicated in the LED of the MASK key, and at the top of the screens (4.3).
- The mask is used when recording Presets, Palettes and Dynamics.
- When you record Attributes to a Preset with a MASK enabled, the masked values will NOT be recorded. They will be indicated like this "---"

Mask - Functions

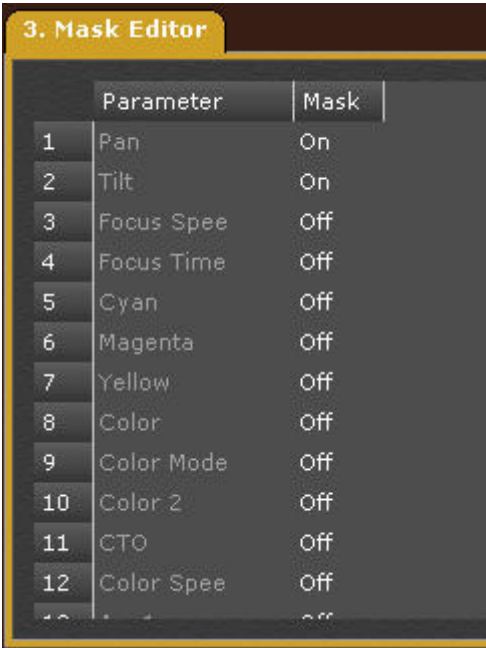
Function	Key	Feedback
Toggle Mask on/off	MASK	The LED in MASK is lit. In the Main Display you can see "Mask: FCB" and a "+" sign after a masked parameter group.
Mask FOCUS	MASK & FOCUS	Toggles the Mask for the all FOCUS parameters
Mask COLOR	MASK & COLOR	Toggles the Mask for the all COLOR parameters
Mask BEAM	MASK & BEAM	Toggles the Mask for the all BEAM parameters
Mask single parameters	MASK & Wheel Key	Toggles the Mask for any single parameter
Open the Mask editor	MODIFY & MASK	Opens the Mask editor (see below).

A + indicates that all parameters in a parameter group are masked. A - indication indicates that some are masked. The Mask editor gives a comprehensive list of masked parameters. See Mask - Editor.



Mask - Editor

In the Mask Editor single parameters can be toggled on/off by pressing MODIFY in the Mask column. Hold MODIFY and press MASK to open the editor.



The screenshot shows the '3. Mask Editor' window. It contains a table with two columns: 'Parameter' and 'Mask'. The table lists 12 parameters, each with a corresponding mask status. The 'Mask' column contains toggle buttons labeled 'MODIFY'.

	Parameter	Mask
1	Pan	On
2	Tilt	On
3	Focus Spee	Off
4	Focus Time	Off
5	Cyan	Off
6	Magenta	Off
7	Yellow	Off
8	Color	Off
9	Color Mode	Off
10	Color 2	Off
11	CTO	Off
12	Color Spee	Off
13	Color 1	Off

Device Control - Select

The Select Soft key page has functions for creating a sub-selection of the current channel selection, by numbers or random.

Open by pressing SELECT (softkey) from the top menu in the Main Display of the console facepanel. See [Main Display - Functions](#).

Congo

Select 2nd			Select Change
Select 3rd			Random
Select Nth			
C:		F 1/1	

Congo Jr

Select 2nd	Select 3rd	Select Nth	Select Change	Random						←----
C:								F 1/1		
		0*								

Select - Sub-selection Functions

In all cases below - Press SELECT ALL to return to the original selection.

Function	Soft Key	Feedback
Every 2nd	Select 2nd	Every second channel from the current channel selection is selected. Use NEXT/LAST to step.
Every 3rd	Select 3rd	Every second channel from the current channel selection is selected. Use NEXT/LAST to step.
Every # th *	# Select Nth	Every # th channel from the current channel selection is selected. Use NEXT/LAST to step.
Random 2nd	RANDOM & Select 2nd	Two random selections are created from the current selection. Use NEXT/LAST to step.
Random 3rd	RANDOM & Select 3rd	Three random selections are created from the current selection. Use NEXT/LAST to step.
Random Nth	RANDOM & Select Nth	Nth random selections are created from the current selection. Use NEXT/LAST to step**

*If no number is entered, the last used number will be used.

**The last used Random selection # is used.

Select - Change (softkey)

Function	Soft Key	Feedback
Select changed channels	Select Change	Selects all device channels that have manually changed attributes other than intensity since the current Preset was loaded to the A field.

Device Control - Align

The Align key copies parameters from one Moving Device to others.

Action	Key	Feedback
1. Select the moving device you want to copy from	Channel select functions	The selected channel is highlighted
2. Add the channels of all devices you want to copy to	Channel select functions	The selected channels are highlighted

Hold ALIGN and then press the key corresponding to the parameter or parameter group you want to copy

Function	Key	Feedback
Align FOCUS	ALIGN & FOCUS	All Focus parameters are copied*
Align COLOR	ALIGN & COLOR	All Color parameters are copied*
Align BEAM	ALIGN & BEAM	All Beam parameters are copied*
Align single parameters	ALIGN & Wheel Key	The parameter assigned to the wheel is copied.

*If Palettes are used, the palettes will be aligned, not the values.

NOTE

If you are using NEXT/LAST the currently focused channel is the one you will copy from - to the rest.

Device Control - Fan

FAN is used to distribute values of a parameter evenly around a centre point. There are four different shapes of fan:

Linear

S = S shaped

V = V shaped

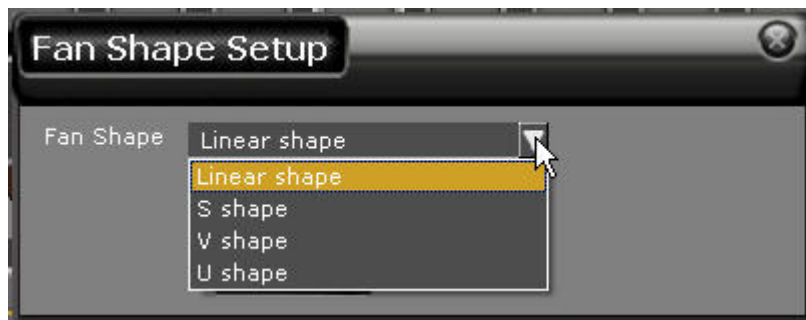
U = U shaped

Function	Key	Feedback
1. <i>Select channels</i>	Channel Select functions	Selected channels are highlighted in the Channel View
2. <i>Select base channel*</i>	<input type="button" value="NEXT"/>	The focused channel is highlighted in red
3. <i>Fan parameter #</i>	<input type="button" value="FAN"/> & <input type="button" value="Wheel"/>	Parameter # is fanned according to the shape in the Settings, around the channel focused by NEXT/LAST.

*If no base channel is selected, the centre channel of the selection is used.

Fan Settings

Hold SETUP and press FAN to open the Fan Settings



Select with arrow keys, and press MODIFY to confirm.

Device Control - Fetch/Copy

Use FETCH to copy parameter values for moving devices from any Preset.

First select the devices you wish to copy values to.

Function	Key	Feedback
Fetch FOCUS values from Preset #	# [FETCH] & [FOCUS]	Focus values from Preset # are copied to the selected channel(s).
Fetch COLOR values from Preset #	# [FETCH] & [COLOR]	Color values from Preset # are copied to the selected channel(s).
Fetch BEAM values from Preset #	# [FETCH] & [BEAM]	Beam values from Preset # are copied to the selected channel(s).
Fetch single parameter values from Preset #	# [FETCH] & [Wheel Key]	Parameter values from Preset # are copied to the selected channel(s).
Fetch all parameter values from Preset #	# [FETCH] & [ATTRIB]	All parameter values from Preset # are copied to the selected channel(s).

HINT

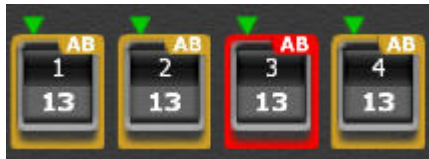
You can fetch intensity values as well. See [Presets - Fetch Intensities](#).

Device Control - Next & Last Mode

Next/Last will step through the current channel selection, in the order they were selected. The focused channel is mapped to intensity and parameter controls.

Action	Key	Feedback
Activate Next/Last	<input type="button" value="NEXT"/>	The first channel in the current channel selection is marked as red, and mapped to the level and device controls. LAST can be used as well.
Step forward	<input type="button" value="NEXT"/>	Channels are focused in the order they were selected. The focused channel is highlighted in red in the active Channel View*
Step backwards	<input type="button" value="LAST"/>	Same as above, but backwards.
Leave Next/Last mode	<input type="button" value="SELECT ALL"/>	All channels are selected again

*Focused channel is highlighted in red.







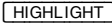
NOTE

Next/Last and Highlight Mode are often used in combination for focusing single channels within a channel selection. See [Highlight Mode](#)

When you focus a channel with NEXT/LAST, it will be shown with number and name in the Information area (middle) of the LCD Display.

Device Control - Highlight Mode (4.3)

Highlight is a temporary mode. It will set all intensity channels to a predefined level (Step Level in Congo Settings, default 70%) and all moving device channels to the values defined in their templates, with the highlighted device to white.

Action	Key	Feedback
Activate Highlight		All channels in the current selection are highlighted. The LED in the key is lit. Highlight is indicated at the top of the screens (4.3) 
Step forward		Channels are focused, and Highlighted in the order they were selected.
Step backwards		Channels are focused, and Highlighted in the order they were selected.
Leave Highlight mode		Highlight mode is deactivated. The LED in the key is off. All Devices return to their last CB values.
NOTE Highlighted Intensity channels are indicated in the channel views with a highlighted background.		

Device Control - Flip (4.1)

If a moving head reaches it's en position for Pan - it is possible to press FLIP (softkey in the Device Soft Key Page) to invert the pan and tilt values so that the end position is "passed".

1. Go to the top menu for the Main Display in the console facepanel by pressing <-- until you have this page.

Congo

Times ---->					Device ---->
Dyna mics ---->					Select ---->
Chan nels ---->					Misc ---->
C:		F 1/1			

Congo Jr

Times	Dyna mics	Chan nels	Device	Select	Misc				
C:									
		0*				F 1/1			

2. Press *DEVICE* to select the Device Soft Key page.

Congo

Flip	Live Dynamic Effects		Cont rol ---->
Update Palett			Set Chnged
Focus Mode	C:	F 1/1	Clear Chnged
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> </div>			

Congo Jr

Flip	Update Palett	Focus Mode	Cont rol	Set Chnged	Clear Chnged		U1	U2	U3	←----
C:										
		0*					F 1/1			

3. Select the device(s) you wish to flip, and press *FLIP*. To undo press *FLIP* again.

Device Control - Moving Light Dock Area (4.2)

A Moving Light control panel can be assigned to a dock area. See [Dock Areas - Configure](#).



All features are the same as in the console, and controlled by mouse.

The color picker is unique here. Click to select a color for the selected Moving Device(s).

NOTE

You cannot click to hold a key and press another at the same time, like FAN and PAN. To achieve this from an offline editor, use a keyboard shortcut in combination with this view. For example Ctrl F (FAN) and click on the Pan wheel to fan Pan.

Device Control - Color Mix Modes (4.2)

Any Device with color mixing can be controlled in three different ways from the wheels in the console or the wheels in the Moving Light Dock Area. See [Dock Areas - Configure](#).

Hold SETUP and press COLOR to toggle between these three modes.

- CMY (Cyan, Magenta & Yellow)
- RGB (Red, Green and Blue)
- HSV (Hue & Saturation & Value)

NOTE

The system still works with CMY values internally so everything will be translated between CMY and the other color model. This may lead to some rounding or accuracy differences in some cases.

In the HSV model, if you fade down Saturation to 0, you need to reselect the Hue.

In the Preset Attribute Editor everything is displayed as CMY.

Devices - Views

There are two Moving Device Attribute Views, one for editing Attributes Live, and one for Attributes and Times in Presets.

This chapter contains the following sections

- [Device Views - Introduction](#)
- [Device Views - Live](#)
- [Device Views - Filtering](#)
- [Device Views - Editing](#)
- [Device Views - Presets](#)

Device Views - Introduction (4.2)

There are two device attribute views

- Live Attributes
- Preset Attribute Editor.

They are edited in the same way. Both Attribute Editors have the possibility to edit/set times (4.2). See [Devices - Times](#).

General Facts

- Devices are listed by type
- You can set attribute values directly (depending on the Attribute Setup)
- You can set Palettes directly (depending on the Attribute Setup)
- You can filter parameter groups
- Changed values are shown with a purple background (Live)
- You can view/edit attribute times

NOTE

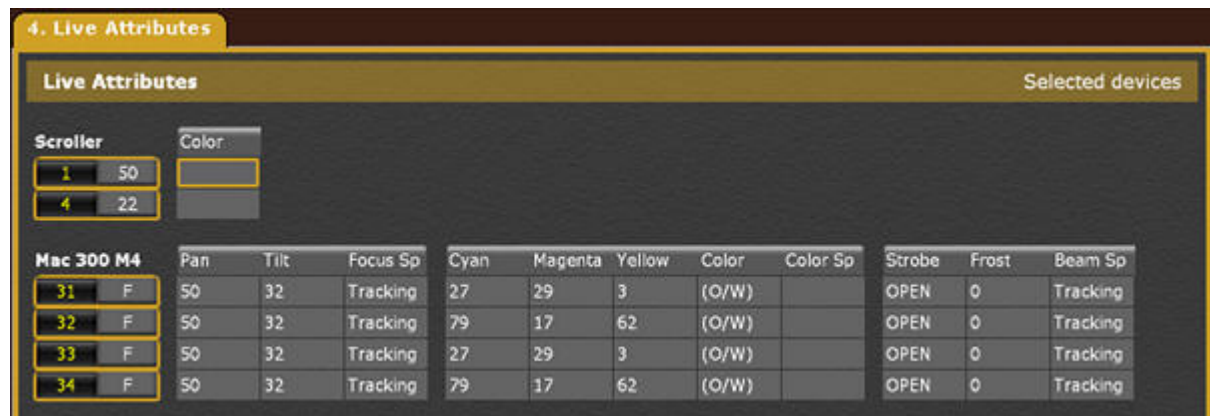
Hold FORMAT and press @LEVEL to toggle levels between 100% and full 8/16 bit values (4.2).

Device Views - Live (4.2)

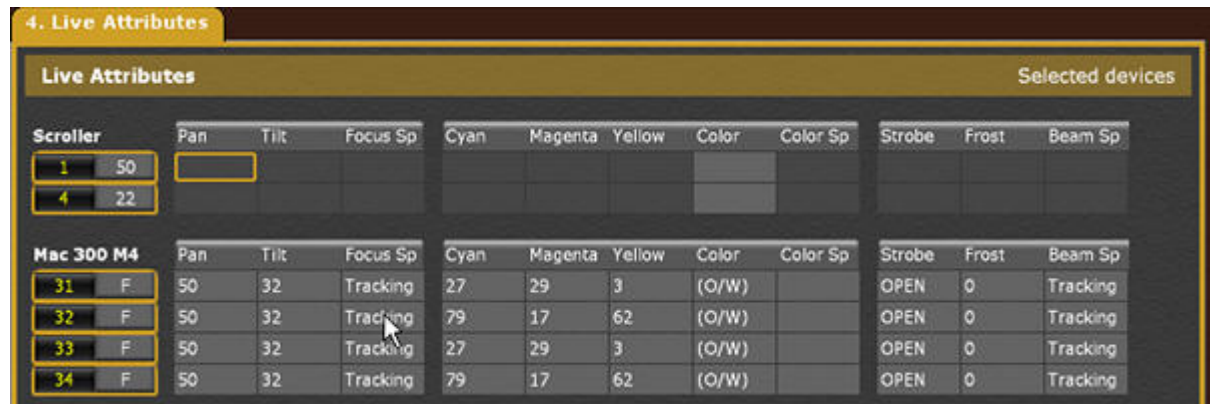
It is possible to view and edit all moving device parameters in the Live Attribute Editor (ATTRIBUTE). This tab can be opened from the Browser as well (Browser >Live Attributes).

NOTE

PARK works against selected cells when an Attribute View is open.



Hold FORMAT and press Right Arrow to show all parameters listed over each other, blanking out the ones not relevant. Hold FORMAT and press Left Arrow to change back (4.2).



Running attributes are shown with yellow progress bars.

Cyan	Magenta	Yellow
9	43	40
9	43	40
9	43	40
9	43	40

NOTE

Select format by pressing **FORMAT**.

Hold **FORMAT** and press **Down Arrow** to open up Time and Delay rows.
See [Device Times - Attribute Time Editor](#)

Live Attributes - Columns (4.2)

These are the different Moving Device parameters that are displayed for each with their current values. For editing see [Device Views - Editing](#)

Function group	Parameters	Explanation
Channel & Level	No input	The number of the device is highlighted when selected, and red when focused with NEXT/LAST. The level is indicated to the right.
FOCUS parameters	<i>Pan, Tilt, Focus Speed</i>	Current parameter values are shown.
COLOR parameters	<i>Cyan, Magenta, Yellow, Color, Color2, CTO, Color speed etc...</i>	Current parameter values are shown.
BEAM parameters	<i>Focus, Iris, Zoom, Strobe, Gobo, Gobo <>, Gobo rot, etc...</i>	Current parameter values are shown.
CONTROL parameters*	<i>Aux 1, Control, Dummy ch's etc...</i>	Current parameter values are shown.

*Control parameters labeled "control" can be edited, but will not be stored, Aux values are stored.

NOTE
Hold **COLUMN** and move wheel to change column sizes (4.2).

Device Views - Filtering

Hold the FORMAT key and press FOCUS, COLOR or BEAM to select which parameter group to hide/show in a Moving Device View.

3. Live Attributes

ColorWash M	Pan	Tilt	Focus Spee	Control
1	50	50	0	Idle
2	50	50	0	Idle
3	50	50	0	Idle
4	50	50	0	Idle
5	50	50	0	Idle
6	50	50	0	Idle
7	50	50	0	Idle
8	50	50	0	Idle
9	50	50	0	Idle
10	50	50	0	Idle

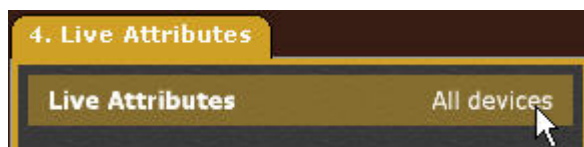
Selected and changed devices

Live Attributes - Channel Formats (4.2)

You can toggle between these formats by pressing FORMAT

- Selected devices
- Non-zero devices
- Selected and changed devices
- All devices

The currently selected format is indicated in the top right corner of each Channel View (4.2)



Device Views - Editing

The Live and Preset Attribute Editors are very similar. You can enter a value or a Palette reference, depending on the Attribute Editor Default Settings. The default setting is Palette. See [Attribute Settings](#).

This is how you can enter values for the selected cell(s)

Function	Key	Feedback
Enter a value*	# <input type="button" value="MODIFY"/>	The Palette # is assigned to the selected cell(s)
Open a dropdown	<input type="button" value="MODIFY"/>	All available Palettes (FCB) for the selected cell(s) are opened in a dropdown
Set an absolute value	# <input type="button" value="C/Alt"/> & <input type="button" value="MODIFY"/>	The absolute value is set to the selected cell(s)
Delete the content of selected cell(s)	<input type="button" value="DELETE"/>	The content is deleted for these cells.

*Changed values get a purple background in the Live Attributes View

ColorWash M	Pan	Tilt	Focus Spec	Control
<input type="button" value="1"/>	50	50	0	Idle
<input type="button" value="2"/>	*F Tr Home	*F Tr Home	0	Idle
<input type="button" value="3"/>	50	50	0	Idle

NOTE

If the Attribute Editor Default Setting is set to Absolute, you can select Palettes in the same way as setting absolute values in Palette mode: enter the number, hold C/ALT and press MODIFY.

Device Views - Presets (4.2)

You can view and edit all moving device parameters for a Preset in the Preset Attribute Editor (# PRESET & ATTRIB).

4. Preset Attribute Editor: 16.0											
Preset: 16.0										Selected devices	
Mac 300 M4	Device	GoOnGo	Pan	Tilt	Focus Sp	Cyan	Magenta	Yellow	Color	Color Sp	Strobe
31		On Go	50	32	Tracking	27	29	3	(O/W)	Tracking	OPEN
Time											
Delay											
32		On Go	50	32	Tracking	79	17	62	(O/W)	Tracking	OPEN
Time											
Delay											

NOTE

Select format by pressing FORMAT.

Hold FORMAT and press Down Arrow to open up Time and Delay rows.

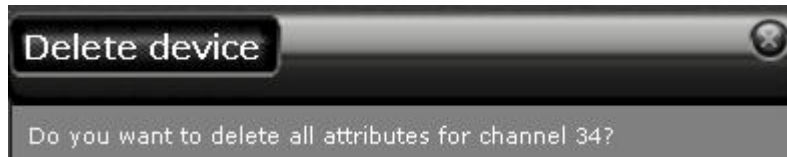
See [Device Times - Attribute Time Editor](#)

Preset Attribute Editor - Columns (4.2)

These are the different Moving Device parameters that are displayed for each with their current values. For editing see [Device Views - Editing](#).

Function group	Parameters	Explanation
<u>Channel</u> & <u>Level</u>	No input	The number of the device is highlighted when selected, and red when focused with NEXT/LAST. The level is indicated to the right.
<u>Device</u> (4.2)	Delete Device	Press DELETE to delete this device completely*
<u>GoOnGo</u>	GoOnGo or GoInB per Device	Sets the flag if this Device shall move on GO, or when the Device is loaded to the B field. The value is toggled. No value will follow this flag for the Sequence Step.
FOCUS parameters	<i>Pan, Tilt, Focus Speed</i>	The parameters that exist for the selected device are shown with their values.
COLOR parameters	<i>Cyan, Magenta, Yellow, Color, Color2, CTO, Color speed etc...</i>	The parameters that exist for the selected device are shown with their values.
BEAM parameters	<i>Focus, Iris, Zoom, Strobe, Gobo, Gobo <>, Gobo rot, etc...</i>	The parameters that exist for the selected device are shown with their values.
CONTROL parameters	<i>Aux 1, Control, Dummy ch's etc...</i>	The parameters that exist for the selected device are shown with their values.

*There is a popup to confirm deleting a device.



Preset Attribute Editor - Times

You can toggle the format of the Preset Attribute Editor to show Times and Delays by pressing FORMAT. The current Format is shown in the bottom right corner. See [Device Times - Attribute Time Editor](#)

Devices - Times

Times for Moving Devices can be set in seconds or as a percentage of the Sequence Step In-times.

This chapter contains the following sections

- [Device Times - Introduction](#)
- [Device Times - Percent or Seconds](#)
- [Device Times - FCB Time](#)
- [Device Times - Attribute Time](#)
- [Device Times - Editor](#)
- [Device Times - Default Attribute Time](#)

Device Times - Introduction (4.2)

A Moving Device can have Times and Delays in the following ways.

- **No time** - follows the Sequence Step In-time.
- **Parameter group times** - an attribute time for FOCUS, COLOR or BEAM parameters.
- **FCB times** - Same as above, but there is a shortcut for setting all three (4.2)
- **Device parameter times** - A time for each attribute of a Moving Device.

NOTE

All times are set to the Preset in the A or B field depending on the setting of the parameter "[Set Times To Field](#)" in the Congo Settings.

All attribute times are stored with a Preset.

There is a default Attribute Time that is used when Moving Devices are positioned manually or with GoInB. See [Moving Device Times - Default Attribute Time](#).

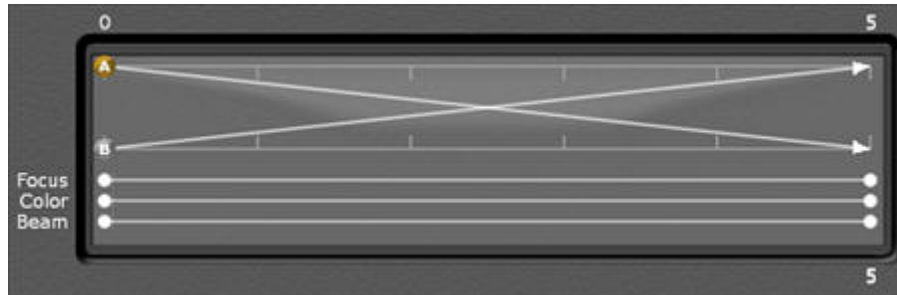
Device Times - Percent or Seconds (4.2)

Times for Moving Devices are set in seconds (absolute) or as a percentage of the IN time of a Sequence Step.

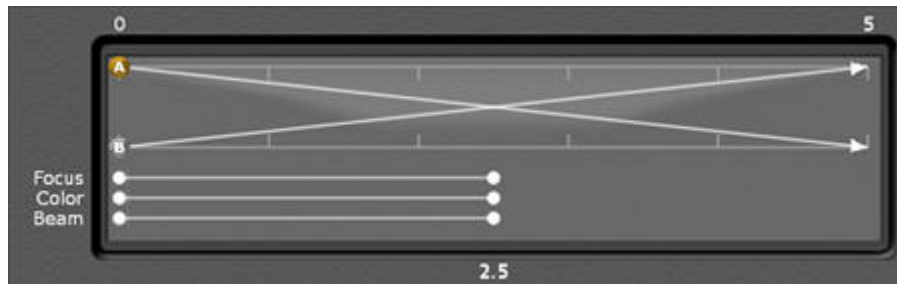
The default setting is percent. This means that all FCB-Times will equal the IN time of a Sequence Step, and all FCB-Delay Times will execute as a percentage of the IN time (4.2) of a Sequence Step.

NOTE

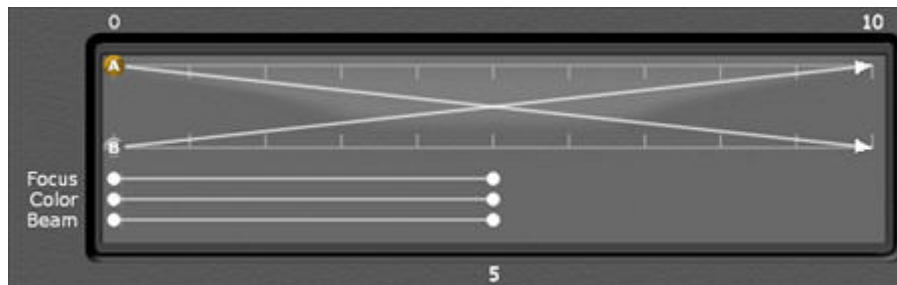
In all plays files earlier than 4.2, the FCB Delay time was set to 100% due to the fact that Delay Times were inherited from the Delay In time. These plays (pre-4.2) with FCB Delays set to 100% will be converted to use a delay of 0 instead.



If the FCB Times are set to 50% of the IN-time they will be 2.5 seconds at an in time of 5 seconds.



If the In-time is changed to 10 seconds, the FCB-times will be 50% of 10 (= 5 seconds).



Device Times - FCB Time

FCB times are defaulted to run in 100% of the main In and Delay times for a step. You can change this % or set a time in seconds. FCB times are overrun by [Device/Parameter times](#).

You can set these times directly in the Advanced tab of the [Recording Popup](#) or with key shortcuts.

When you set a time you will get a popup asking if you want to set the times on an FCB -level or as individual Parameter Times.



Function	Key Shortcut	Feedback
Focus time	# [TIME] & [FOCUS]	A Focus time is set for the selected channels.
Color time	# [TIME] & [COLOR]	A Color time is set for the selected channels.
Beam time	# [TIME] & [BEAM]	A Beam time is set for the selected channels.
Focus delay time	# [DELAY] & [FOCUS]	A Focus delay time is set for the selected channels.
Color delay time	# [DELAY] & [COLOR]	A Color delay time is set for the selected channels.
Beam delay time	# [DELAY] & [COLOR]	A Beam delay time is set for the selected channels.

You can edit FCB times in the [Preset List](#).

NOTE

There is a shortcut for setting both F, C and B-Times to the same value. Enter the time and hold TIME or DELAY and press ATTRIBUTE.

In the Times soft key page there are keys for setting FCB time and delay directly. See [Times Soft Key Page](#).

Device Times - Attribute Time

Attribute times take precedence over all other times for Moving Devices.

Times are set to the step in A (Active) or B (Next) depending on the setting for times (SETUP & TIME)

Function	Key shortcut	Feedback
Attribute time	# TIME & Parameter key	An attribute time is set for the selected channels.
Attribute delay time	# DELAY & Parameter key	An attribute delay time is set for the selected channels.
NOTE The Attribute times for a Device can be viewed/edited in the Preset Attribute Time Editor .		

Device Times - Attribute Editor Times (4.3)

Times can be set and edited in the Live Attributes and Preset Attribute Editors.

- Press ATTRIB to open the Live Attribute Editor.
- Enter a Preset number, hold PRESET and press ATTRIB to open the Preset Attribute Editor.



Hold FORMAT and press the down arrow to open Time and Delay rows.
Hold FORMAT and press the up arrow to close these rows.

In this editor press FORMAT to toggle between

- Selected devices
- Non-zero devices
- Changed devices
- All devices
- Devices with attributes (4.3)

The current format is indicated in the upper right corner ("Selected devices" in the example above).

NOTE

Times can be set default as % or in seconds. See [Device Times - Percent Or Seconds](#).

Attribute Times (4.2)

These functions will work in the Live Attribute Editor and the Preset Attribute Editor.

Action	Key	Feedback
1. Open the Time row	FORMAT & Down arrow	The Time row is opened under each cell
2. Select Attribute time cell(s)	Arrow keys	The cell(s) is highlighted
3. Set time #	# MODIFY	The time # is set to the selected cell(s)
4. Update Preset	UPDATE	Only needed in Live Attributes Editor.

NOTE

Times can be set to the selected devices also by holding TIME and pressing FOCUS, COLOR or BEAM (4.2).

Set Time to Devices popup.



Attribute Delay Times (4.2)

These functions will work in the Live Attribute Editor and the Preset Attribute Editor.

Action	Key	Feedback
1. Open the Delay row	FORMAT & Down arrow Down arrow	The Delay row is opened under each cell
2. Select Attribute delay cell(s)	Arrow keys	The cell(s) is highlighted
3. Set delay time #	# MODIFY	The delay time # is set to the selected cell(s)
4. Update Preset	UPDATE	Only needed in Live Attributes Editor.
NOTE Delay times can be set to the selected devices also by holding DELAY and pressing FOCUS, COLOR or BEAM (4.2).		

Device Times - Default Attribute Time

The Default Attribute Time (3 seconds) is used when a Moving Device is positioned with a Palette, with Home Attributes or with GoInB. The main objective is to keep noise and unnecessary mechanical friction down.

To change this time see [Attribute Settings](#).

Device Times - Fan Times (4.2)

In the Live and Preset Attribute Views there is a wizard for fanning parameter times. This Wizard will only open when a Time or Delay cell is selected. The selected cells are fanned between the devices.

1. Open an Attribute view. See [Device Views - Live](#) and [Device Views - Presets](#).
2. Open the Time and Delay rows by holding **FORMAT** and pressing the Down Arrow. See [Device Times - Attribute Time Editor](#).
3. Select the Time or Delay cells for the parameters and devices intended.

Mac 300 M4		Pan	Tilt	Focus Sp
31	F	50	32	Tracking
	Time	5	5	5
	Delay			
32	F	50	32	Tracking
	Time	5	5	5
	Delay			

4. Press **WIZARD**. The Fan Time Wizard popup will open.



Fan Time Wizard

Fanning will be performed on the selected cells

Select the min and max times and the distribution

Minimum time

Maximum time

Distribution **Low -> High**

- Low -> High
- High -> Low
- Centered High
- Centered Low

5. Select values and confirm.

Devices - Palettes

Moving Device values can be stored in Palettes, that are used to recall these values. Palettes can be stored in Presets, as references to the stored values. Palettes are organized in parameter groups (Focus, Color, Beam, All).

This chapter contains the following sections

- [Device Palettes - Introduction](#)
- [Device Palettes - Record](#)
- [Device Palettes - Update](#)
- [Device Palettes - Edit](#)
- [Device Palettes - Lists](#)
- [Device Palettes - Activate By Number](#)
- [Device Palettes - Direct Mode](#)
- [Device Palettes - In Masters](#)
- [Device Palettes - Select Active Channels](#)
- [Device Palettes - Select Stored Channels](#)
- [Device Palettes - Display List](#)
- [Device Palettes - Focusing Mode](#)

Device Palettes - Introduction

A Palette is a memory for all or some parameters of a Moving Device. A Palette is used to load these parameters quickly, and stored as a reference in Presets for playback.

Direct selects are important for accessing Palettes. See [Direct Selects](#).

There are four kinds of Palettes

Type	Parameters	Key
Focus Palettes	<input type="text" value="FOCUS"/>	Position parameters like <i>pan, tilt...</i>
Color Palettes	<input type="text" value="COLOR"/>	Color parameters like <i>cyan, magenta, yellow, color wheel...</i>
Beam Palettes	<input type="text" value="BEAM"/>	Beam parameters like <i>gobo, shape, shutter, focus, iris...</i>
All Palettes	<input type="text" value="PALETTE"/>	All parameters

"All of same type" or "All Devices"

Palettes usually store individual values for all devices. Color and Beam Palettes can be stored for one device, and reused for all devices of the same type. This choice is available in the recording popup.

Palettes in Presets

When a Palette is used to position a Device before recording a Preset - the Palette is referenced, not the individual values for each Device. This means that changing the Palette will update this reference in the whole Play.

Palettes in Direct Selects

- Palettes can be accessed from the Direct Selects

Device Palettes - Record

Palettes are stored to the currently selected channel(s). To re-record a Palette, store it with the same number again.

In the recording popup for Palettes there is a Text field to label each Palette. This is displayed every time the Palette is used.

NOTE

(4.3) When you record a Palette, it is also activated and will be recorded into the next Preset.

Each Device or Each Device Type

In the Palette recording popup there is a choice to store the values individually for **Each Device**, or for **Each Device Type**.

- Positions (FOCUS) are best stored for Each Device, since they always are unique for each Device (channel).
- Color and Beam values are best stored for a Each Device Type, since color and beam parameter levels are the same for each Device (channel), and can be reused.

NOTE

If several Device Types are selected, the highest selected channel of each type will be recorded.

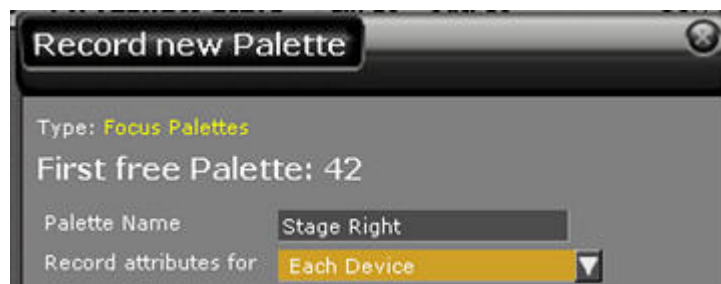
An "Each Device Palette" (individual) will override an "Each Device Type Palette" (General).

Record A Focus Palette

1. Select channel(s)
2. Initiate recording of next free Palette or Palette #

Function	Key	Feedback
Record next free Focus Palette	<input type="button" value="RECORD"/> <input type="button" value="F"/> <input type="button" value="FOCUS"/>	You will get a popup*
Record Focus Palette #	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="F"/> <input type="button" value="FOCUS"/>	You will get a popup*

*Popup



3. Enter a text (optional)

4. Select Recording mode. For Focus Palettes this is usually "Each Device".
See [Each Device or Each Device Type](#).

5. Press MODIFY to confirm recording.

NOTE

The MASK function can be used to filter out unwanted parameters when recording a Palette. See [Device Control - Mask](#).

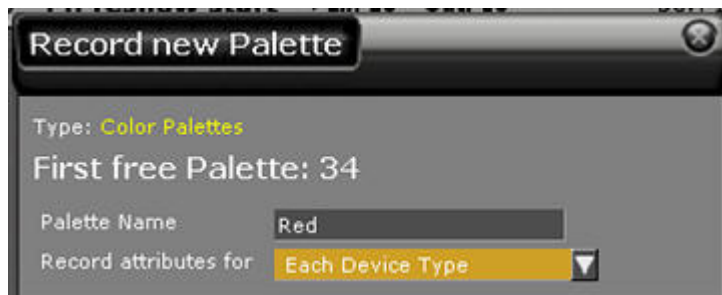
Record A Color Palette

1. Select channel(s)

2. Initiate recording of next free Palette or Palette #

Function	Key	Feedback
Record next free Color Palette	<input type="button" value="RECORD"/> & <input type="button" value="COLOR"/>	You will get a popup*
Record Color Palette #	<input type="button" value="#"/> <input type="button" value="RECORD"/> & <input type="button" value="COLOR"/>	You will get a popup*

*Popup



3. Enter a text (optional)

4. Select Recording mode. For Color Palettes this is default set to "Each Device Type".
See [Each Device or Each Device Type](#).

5. Press MODIFY to confirm recording.

NOTE

The MASK function can be used to filter out unwanted parameters when recording a Palette. See [Device Control - Mask](#).

Record A Beam Palette

1. *Select channel(s)*
2. *Initiate recording of next free Palette or Palette #*

Function	Key	Feedback
Record next free Beam Palette	<input type="button" value="RECORD"/> <input type="button" value="BEAM"/>	You will get a popup*
Record Beam Palette #	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="BEAM"/>	You will get a popup*

*Popup



3. *Enter a text (optional)*
4. *Select Recording mode. For Focus Palettes this is usually "Each Device Type". See [Each Device or Each Device Type](#).*
5. *Press MODIFY to confirm recording.*

NOTE

The MASK function can be used to filter out unwanted parameters when recording a Palette. See [Device Control - Mask](#).

Record An All Palette

1. *Select channel(s)*
2. *Initiate recording of next free Palette or Palette #*

Function	Key	Feedback
Record next free All Palette	<input type="button" value="RECORD"/> & <input type="button" value="PALETTE"/>	You will get a popup*
Record All Palette #	<input type="button" value="#"/> <input type="button" value="RECORD"/> & <input type="button" value="PALETTE"/>	You will get a popup*

*Popup



3. *Enter a text (optional)*
4. *Select Recording mode. For All Palettes this is usually Each Device. See [Each Device or Each Device Type](#).*
5. *Press MODIFY to confirm recording.*

NOTE

The MASK function can be used to filter out unwanted parameters when recording a Palette. See [Device Control - Mask](#).

Device Palettes - Update

The UPDATE PALETTE (softkey) in the Device Soft Key page is the fastest way to update all changed Palettes.

1. Go to the top menu for the Main Display in the console facepanel by pressing <-- until you have this page.

Congo

Times ---->					Device ---->
Dyna mics ---->					Select ---->
Chan nels ---->					Misc ---->
C:		F 1/1			

Congo Jr

Times	Dyna mics	Chan nels	Device	Select	Misc				
C:									
		0*					F 1/1		

2. Press **DEVICE** to select the Device Soft Key page.

Congo

Flip	Live Dynamic Effects		Control ----->
Update Palett			Set Chnged
Focus Mode	C:	F 1/1	Clear Chnged
<div style="display: flex; justify-content: space-between; height: 40px;"> <div></div> <div></div> <div></div> <div></div> </div>			

Congo Jr

Flip	Update Palett	Focus Mode	Control	Set Chnged	Clear Chnged		U1	U2	U3	<-----
C:										
		0*					F 1/1			

3. Press **UPDATE PALETTE** to update all changed Palettes for the selected channel(s). You will get a popup confirming which ones are involved.

Device Palettes - UPDATE direct key (4.1)

If a Palette is loaded to a Direct Select section, or to a Master Playback - it is possible to update it by selecting the involved channels, holding **UPDATE** and pressing the corresponding Direct Select or Master key.

NOTE

This shortcut is currently not possible when an Editor is focused that uses **UPDATE** for something else. For example the Preset List.

Re-record A Palette - Merge Or Replace

When you re-record a preset or palette where attribute information already exists, you will get a choice of merging or replacing the existing attributes.



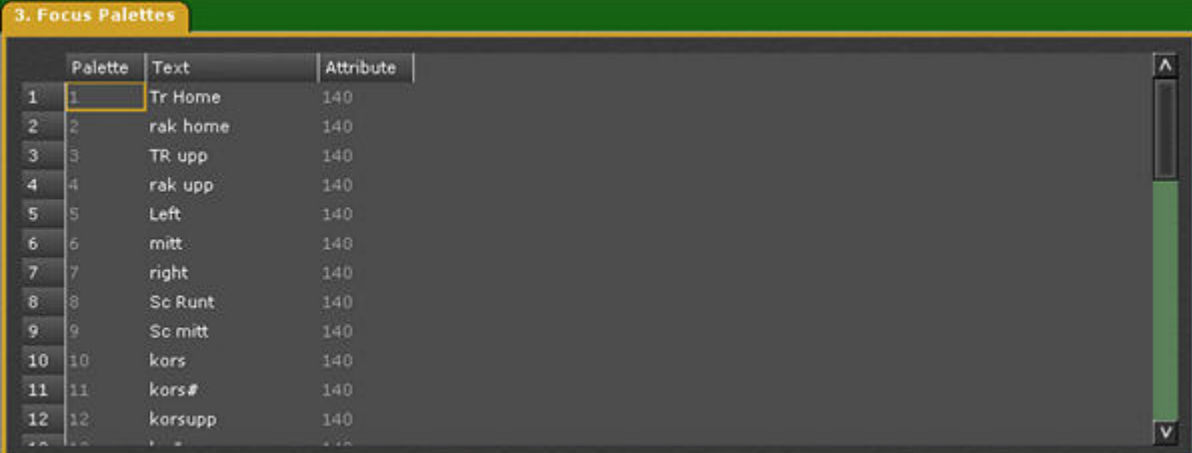
- **Merge with existing** will add the changes for the selected channel(s)
- **Replace existing** will replace all values in this Palette with those of the selected channel(s)

Device Palettes - Edit

Device Palettes can be edited and filtered in the same way as the [Live Attributes](#) and [Preset Attribute views](#). See [Device Views - Editing](#) and [Device Views - Filtering](#).

Device Palettes - Lists (4.3)

The Palette Lists are opened from the Browser (Browser >Palettes >Focus Palettes). You can open them directly by holding MODIFY and pressing FOCUS, COLOR, BEAM or PALETTE.



	Palette	Text	Attribute
1	1	Tr Home	140
2	2	rak home	140
3	3	TR upp	140
4	4	rak upp	140
5	5	Left	140
6	6	mitt	140
7	7	right	140
8	8	Sc Runt	140
9	9	Sc mitt	140
10	10	kors	140
11	11	kors#	140
12	12	korsupp	140

NOTE

(4.3) Palettes that have been recorded "per type of device" are shown first in these lists. Most often these are Color Palettes. See [Each Device](#) or [Each Device Type](#)

Palette List - Columns & Functions

Function	Key	Feedback
<u>Palette</u>		The ID of each Palette. Cannot be changed.
<u>Text</u>	MODIFY	Press MODIFY to activate and end text input.
<u>Attribute</u>	MODIFY	Opens the Palette Attribute Editor. The number indicates how many Devices are stored in this Palette.

Device Palettes - Activate By Number

Activate a Palette for the selected channel(s) by number.

Function	Key	Feedback
Focus Palette #	# <input type="text" value="FOCUS"/>	Values are set from Palette #.
Color Palette #	# <input type="text" value="COLOR"/>	Values are set from Palette #.
Beam Palette #	# <input type="text" value="BEAM"/>	Values are set from Palette #.
All Palette #	# <input type="text" value="PALETTE"/>	Values are set from Palette #.
NOTE Only selected channel(s) that are referenced in Palette # will be affected.		

Device Palettes - Direct Mode

When a Palette key (FOCUS, COLOR, BEAM, PALETTE) is held the first 40 Palettes can be activated from the Direct Select keys.

Function	Key	Feedback
1. <i>Activate Direct Mode</i>	Hold a Palette key	Direct Select display shows the first 40
2. <i>Select Palette</i>	Direct Select key	When the key is pressed that Palette is activated.

Device Palettes - In Masters

Device Palettes can be played back from Master Playbacks. [See Master Playbacks - Palettes.](#)

Device Palettes - Select Active Channels

All channels currently referencing a Palette can be selected using the Direct Select keys for Palettes (FOCUS, COLOR, BEAM, PALETTE), in combination with CH and ALL.

Palettes are selected from the Direct Selects for this function. See [Direct Selects](#).

Function	Key	Feedback
Channels in Palette #	<div>CH &</div> <div>Direct Select#</div>	All channels stored in Palette # are selected in the active Channel View.
Channels in Palette # with a level in the Channel View	<div>ALL &</div> <div>Direct Select#</div>	All channels with a level in the active Channel View are selected .

Device Palettes - Select Stored Channels

You can Select all channels that are stored in a Palette as Each Device.

NOTE This is not possible for palettes stored as "Each Device Type", since no specific channels are stored with them.		
Function	Key	Feedback
Channels in Focus Palette #	# CH & FOCUS	All channels stored in Palette # are selected in the active Channel View.
Channels in Color Palette #	# CH & COLOR	All channels stored in Palette # are selected in the active Channel View.
Channels in Beam Palette #	# CH & BEAM	All channels stored in Palette # are selected in the active Channel View.
Channels in All Palette #	# CH & PALETTE	All channels stored in Palette # are selected in the active Channel View.

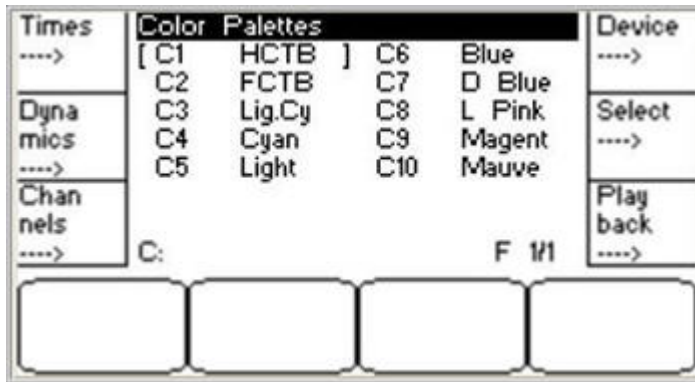
Device Palettes - Display List

All Palettes can be activated from the Display Lists in the Main Display of the console facepanel.

When the Trackball is in DISPLAY LIST mode you can use it to select/activate palettes by pressing RIGHT/LEFT click.

Function	Key	Feedback
Focus Palette List	<input type="button" value="Display List"/> & <input type="button" value="FOCUS"/>	The Focus Palette list is opened in the Main Display.
Color Palette List	<input type="button" value="Display List"/> & <input type="button" value="COLOR"/>	The Color Palette list is opened in the Main Display.
Beam Palette List	<input type="button" value="Display List"/> & <input type="button" value="BEAM"/>	The Beam Palette list is opened in the Main Display.
All Palette List	<input type="button" value="Display List"/> & <input type="button" value="PALETTE"/>	The All Palette list is opened in the Main Display.

This is an example of the Color Palette list in the main display (*Display Lists are currently only available in Congo, not in Congo Jr*).



Device Palettes - Focusing Mode

Focusing mode is designed for quickly focusing and updating palettes. It works together with the List section of the LCD Display. It is activated from the FOCUS MODE soft-key in the DEVICE Soft page.

Action	Key	Feedback
1. Select the <i>DEVICE</i> soft page	DEVICE (Softkey)	The Device soft functions are selected in the Main Display of the console.
2. Activate Focus Mode	FOCUS MODE (Softkey)	"Focusing mode" is shown on the Main Display. The Focus Palette list is automatically activated.
3. Select Palette from the list	Use the Trackball Disp List function to select a Palette	The corresponding channels are selected and displayed in the Channel Display list. The palette is activated and Highlight mode is turned on.
4. Focus one by one with <i>NEXT/LAST</i>	NEXT & LAST	Each focused channel is mapped to the channel controls.
5. Update the Palette	UPDATE PALETTE (Softkey)	The Palette is updated and you are returned to the Focus Palette list to select a new Palette.
6. Exit Focus Mode	FOCUS MODE (Softkey)	Focusing mode is exited.

Devices - Play Back

When moving Devices are played back from the Main Playback and the Master Playbacks there are different modes for when and how attributes are triggered.

This chapter contains the following sections

- [Device Play back - Introduction](#)
- [Device Play back - Attributes Follow Faders](#)
- [Device Play back - GoOnGo or GoInB](#)

Device Play back - Introduction

Attributes will be triggered during playback in the following situations

- A Preset is faded in a Sequence or Chase
- A Preset is faded in on a Master Playback fader
- A Preset is faded out on a Master Playback fader
- A Master is flashed
- A Dynamic effect is started

In a Sequence Step attributes can be set to GoOnGo (live) or GoInB (move while black, preposition).

Device Play back - Attributes Follow Faders

Attributes will follow the manual movement of masters and the crossfaders of the Main Playback.

- They start moving at 1%.
- Snap parameters also trig at 1%.

Master Playbacks behave different from the crossfaders of the Main Playback.

Masters And Attributes - General

When a master leaves its 0% position, the corresponding attribute parameters are triggered and follow the fader.

During a timed fade in a Master, attributes will follow the FCB-times of the Preset in that Master.

If another master with overlapping attribute parameters is activated, (leaves 0%), it will take control of the corresponding attributes. To re-gain control from any Master, move it to 0% and up again.

How attributes behave when moving the Master fader down depends on the setting of Rubberband. See [Masters And Attributes - Rubberband](#).

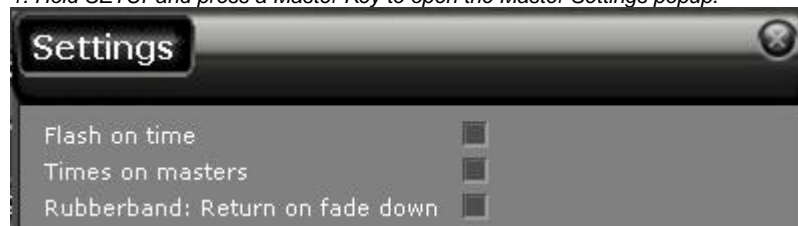
Masters And Attributes - Rubberband (4.1)

Rubberband mode sets if attributes will follow a Master fader down as well as up. It can be disabled completely in the Master Settings. See [System Settings - Master](#).

- If set to "On", moving a fader down will fade back attributes to the previous values.
- If set to "Off", moving a fader down does nothing with attributes.

By holding the C/Alt key pressed while you move down, you can temporarily reverse either of these settings. This way you can select if you want the rubberband behaviour or not when you fade a master down.

1. Hold **SETUP** and press a Master Key to open the Master Settings popup.



2. Select (4.1) Rubberband: Return on fade down (MODIFY).

3. Exit with **ESC**.

Crossfaders And Attributes

When a manual crossfade is made, the attribute positions will follow the B fader. If the fader is moved slower than the time assigned to the attributes, the fader has control. If the fader is moved faster than the assigned time, the time will take control to make a smooth movement.

Device Play back - GoOnGo or GoInB (4.3)

This parameter sets if Attributes will be executed when the step is faded in live (GoOnGo) or when the Step is loaded to be faded in (GoInB).

You can set this to be stored automatically as always GoOnGo or GoInB depending on the style of your show - and then change individually for any step or device.

Automatic GoInB Logic (4.3)

If you are working in a theatrical, sequential style of programming you can allow the system to decide this for you based on the intensity of the device in the preceeding step. The correct setting for this to work is GoInB and unchecking the box for "Disable automatic GoOnGo logic". See [System Settings - Attribute](#).

The GoOnGo function can be edited individually for each step and device in the [Sequence List](#).

NOTE

GoInB attributes follow the default attribute time, not the times recorded in the preset. See [Settings - Attribute](#).

NOTE

Dynamics are slightly different. Either they follow the same logic as attributes - or they can be set to start on GO always - See [Settings - Crossfade](#).

Device - Recording

Attributes are stored in Presets just like intensities. There are different recording modes.

This chapter contains the following sections

- [Device Recording - Introduction](#)
- [Device Recording - Modes](#)
- [Device Recording - Block Cues](#)
- [Device Recording - Delete](#)

Device Recording - Introduction (4.3)

Only changed Device parameters are recorded. This means that it is important to record all parameters (a block cue) in the beginning of each Sequence. There is a check box for this in the Advanced Tab of the [Recording Popup](#).

General Facts

- There are four recording modes: automatic, popup, manual, all and active (4.3)
- It is possible to record all attributes manually
- It is possible to record selected device(s) only
- It is possible to record selected device(s) to any Preset
- It is possible to set all or selected parameters to Changed.

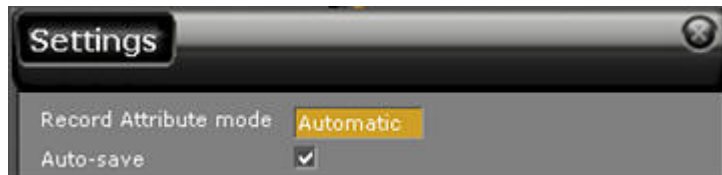
NOTE

The SET CHANGED softkey in the Devices soft key page of the Main Display allows you to force the flag changed for any parameter or parameter group. See [Device Recording - Modes](#).

Device Recording - Modes (4.3)

There are three different Recording modes for recording Device attributes.

They are set in the RECORD SETTINGS (Hold SETUP and press RECORD). You will get this popup



These are the three modes

Function	Description
<u>Automatic</u> (default)	All changed attributes are recorded automatically*
<u>Popup</u>	A popup is provided to confirm recording all changed attributes
<u>Manual</u>	No attributes are recorded
<u>All Parameters</u>	All attributes are recorded
<u>Active</u>	All attributes are recorded devices with an intensity over zero (4.3).

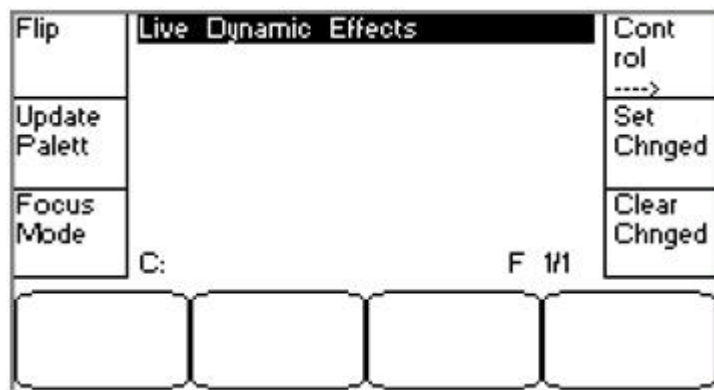
*This means that it is necessary to record all attributes for the first step in a Sequence manually. See [Record All Attributes for selected channels](#)

Only "Changed" are recorded

Attributes are tagged as Changed when they have been altered since they were last recorded. This indication is a purple background in Channel and Attribute views.

You can force this flag manually with the soft key SET CHNGED in the **Devices** soft key page of the console Main Display.

Congo



Congo Jr

Flip	Update Palett	Focus Mode	Control	Set Chnged	Clear Chnged		U1	U2	U3	←----
C: <div></div> <div>0*</div> <div></div> <div></div> <div>F 1/1</div> <div></div>										

All commands are executed to the currently selected Devices.

Function	Key	Feedback
Set all parameters to changed	<div>Set Chnged</div> <div>PALETTE</div>	All parameters are flagged as changed (purple background).
Set Focus parameters to changed	<div>Set Chnged</div> <div>FOCUS</div>	Focus parameters are flagged as changed (purple background).
Set Color parameters to changed	<div>Set Chnged</div> <div>COLOR</div>	Color parameters are flagged as changed (purple background).
Set Beam parameters to changed	<div>Set Chnged</div> <div>BEAM</div>	Beam parameters are flagged as changed (purple background).
Set a specific parameter to changed	<div>Set Chnged</div> <div>Wheel Key</div>	Specific parameters are flagged as changed (purple background).

The changed device indication is cleared when you fade or step in the Sequence. You can clear them manually by holding C/ALT and pressing FOCUS, COLOR and BEAM.

See [Channel Information - Detailed](#)
 For more information see [Presets - Record](#)

NOTE

It is possible to use the C/ALT key as well as the SETCHNGED key.

Device Recording - Block Cues (4.1)

Normally only changed parameters are recorded for moving devices. The opposite of this is to record all values - this is called a "block cue".

A Block Cue is automatically created when you record moving devices directly to a Master Playback. In the sequence it is an option in the advanced Recording Popup. See The [Recording Popup](#).

Record all attributes ☐

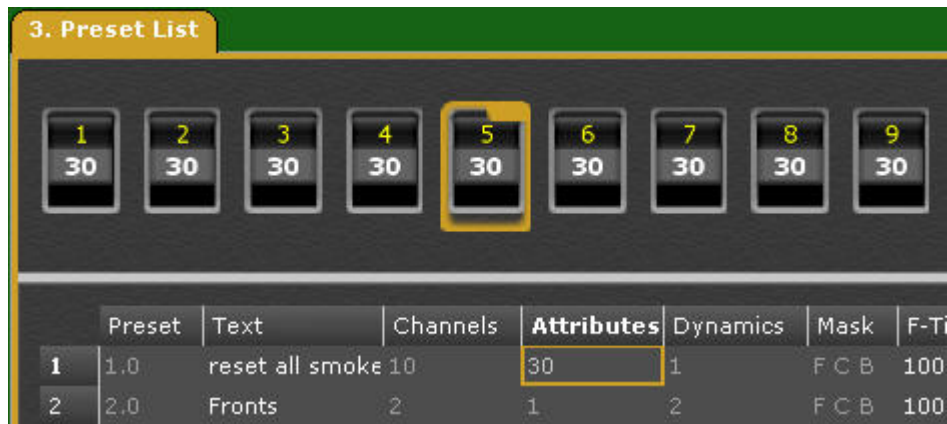
Check the box "Record all attributes" to create a block cue.

Device Recording - Delete (4.1)

Deleting a Device from a Preset is done in the Preset Editor.

1. Open the Preset List for the Preset.

- Enter the number of the Preset, hold MODIFY and press PRESET
- Open the List from the Browser (Browser >Presets)



2. Select the Attributes column.

3. Select the channels you wish to delete.

4. Press Delete. A popup will appear for confirmation.



5. Press MODIFY to confirm.

Devices - Templates

A Template maps the functions of a Moving Device to the moving light controls of Congo This chapter is about creating and editing Templates.

This chapter contains the following sections

- [Device Templates - Introduction](#)
- [Device Templates - List](#)
- [Device Templates - Editor](#)
- [Device Templates - Create](#)
- [Device Templates - Parameter](#)
- [Device Templates - Type LTP or HTP](#)
- [Device Templates - Type 8/16 Bit Control](#)
- [Device Templates - Snap Or Fade](#)
- [Device Templates - Ranges](#)
- [Device Templates - Mode Tables](#)
- [Device Templates - Fade With Intensity](#)
- [Device Templates - Scroller Rolls](#)
- [Device Templates - Import Template Wizard \(4.2\)](#)

Device Templates - Introduction (4.2)

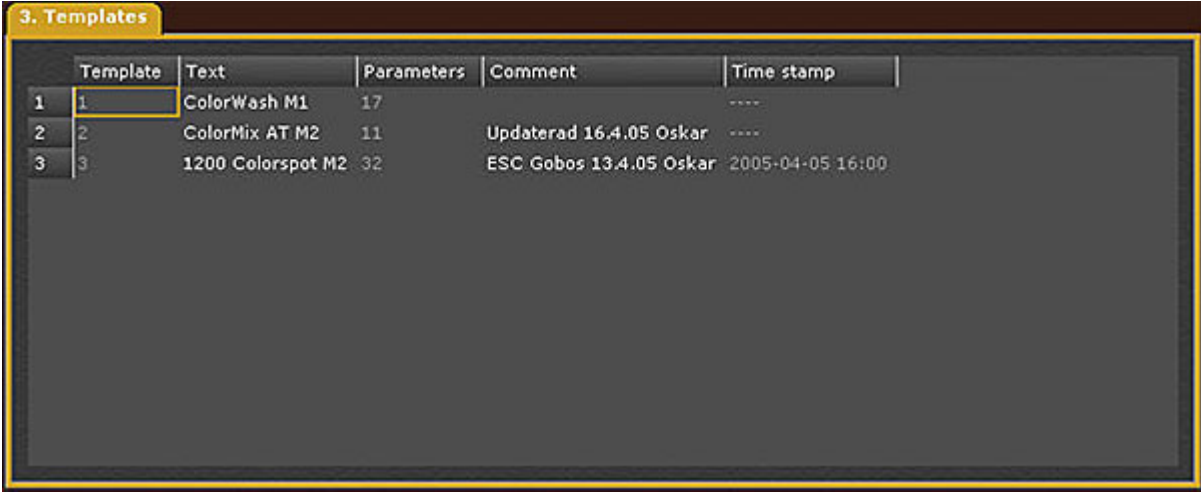
A template maps the attributes of a moving Device to the controls and functions of Congo. Most common devices and scrollers already have templates in the library, ready to use.

General Facts

- Templates can be edited or created at any time.
- Templates are stored to and imported from Plays.
- Change a Template during a show and all similar parameters will continue functioning.
- Table ranges can be set to control modes in devices such as the **x.Spot** from High End.
- Color mix can follow intensity to dim mixing devices such as the Nesys Quadra.
- Trim the 16bit resolution to finetune control of 16bit parameters.
- Extensive scroller handling with roll libraries and individual calibration per unit.
- Assign any device parameter to a Master and store in a Master Page.

Device Templates - List

The Template Lists are opened from the Browser (Browser >Patching >Templates).



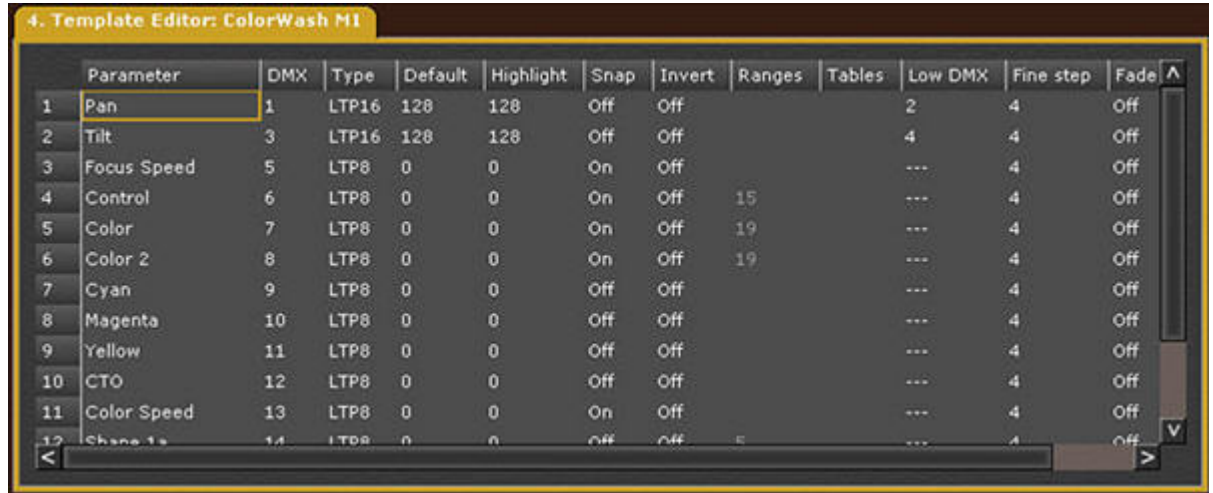
	Template	Text	Parameters	Comment	Time stamp
1	1	ColorWash M1	17		----
2	2	ColorMix AT M2	11	Updaterad 16.4.05 Oskar	----
3	3	1200 Colorspot M2	32	ESC Gobos 13.4.05 Oskar	2005-04-05 16:00

Template List - Columns & Functions

Function	Key	Feedback
<u>Template</u>	<input type="button" value="MODIFY"/>	The ID of each Template. Press MODIFY to open the Editor
<u>Text</u>	<input type="button" value="MODIFY"/>	Press MODIFY to activate and end text input.
<u>Parameters</u>	<input type="button" value="MODIFY"/>	The number of DMX channels it uses. Press MODIFY to open the Editor.
<u>Comment</u>	<input type="button" value="MODIFY"/>	Press MODIFY to activate and end text input.
<u>Time Stamp</u>		Date and time

Device Templates - Editor

The Template Editor is opened from the Item or Parameter cell in the Template List (Browser >Setup >Templates). Open an existing one directly in this node as well (Browser >Patching >Templates >xxxx).



Template Editor - Columns & Functions

Press INSERT to insert a new Parameter. These are the functions in the columns.

Function	Key	Feedback
<u>Parameter</u>	<input type="button" value="MODIFY"/>	Opens a dropdown. Select parameter.
<u>DMX</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Set DMX offset (1-256).
<u>Type</u>	<input type="button" value="MODIFY"/>	Set LTP/HTP 8/16bits.
<u>Default</u>	<input type="button" value="MODIFY"/>	The default value that is used when patched, and by HOME ATTRIB.
<u>Highlight</u>	<input type="button" value="MODIFY"/>	The value used in Highlight mode.
<u>Snap</u>	<input type="button" value="MODIFY"/>	Set Snap or Fade.
<u>Invert</u>	<input type="button" value="MODIFY"/>	Invert the values of a parameter.
<u>Ranges</u>	<input type="button" value="MODIFY"/>	Opens the Range Editor for subranges such as gobo positions.
<u>Tables</u>	<input type="button" value="MODIFY"/>	Opens the Table Editor for table functions.
<u>Low DMX</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Set the low resolution DMX offset for 16 bit parameters
<u>Fine Step</u>	<input type="button" value="MODIFY"/>	See 16 Bit Control - Fine Step
<u>Fade with int</u>	<input type="button" value="MODIFY"/>	The parameter will follow the intensity of this Device.

Device Templates - Create

1. Open the Template List from the Browser (Browser > Patching > Templates)

3. Templates

	Template	Text	Parameters	Comment	Time stamp
1	1	ColorWash M1	17		----
2	2	ColorMix AT M2	11	Updaterad 16.4.05 Oskar	----
3	3	1200 Colorsport M2	32	ESC Gobos 13.4.05 Oskar	2005-04-05 16:00

2. Go to the end of the list and press **INSERT** to select a new Template.
3. Enter a name in the text column (press **MODIFY** to activate and **MODIFY** to store).
4. Press **MODIFY** in the first column. This will open the Template Editor, which will be empty.



5. Use **INSERT** to create as many steps as the Moving Device has control channels.
6. Edit the columns for each step to fit the specification of the Moving Device.

Device Templates - Parameter

Parameter types are defined in the first cell or the Template Editor.

Each parameter is used differently. For example, Pan and Tilt automatically belong to Focus Palettes, and are mapped to the trackball in Parameter mode.

Press modify in the Parameter cell to open the dropdown. Select with arrow keys and press MODIFY to confirm.



The Parameters are picked from the Parameter Definition Editor. Parameters can be added to this list if necessary. See [Parameter Definition Editor](#).

Parameter Definition Editor

The complete Parameter Definition Editor contains all to this point known parameters.



Function	Description
<u>Parameter</u>	Parameter ID - cannot be changed.
<u>Name</u>	The name is used for controlling the parameter. WARNING - Changing an existing name could alter the complete functionality of all Templates
<u>Palette</u>	The Group defines which Palette and parameter group a parameter will belong to*

*Palette and parameter Groups

Group	Description
INT	All intensities belong to INT.
FOCUS	Focus parameters
COLOR	Color parameters
BEAM	Beam parameters
AUX 1	Control parameters
AUX 2	Control parameters

Device Templates - Type LTP or HTP

Each parameter in a Template can be set to LTP (Latest Takes Precedence) or HTP (Highest Takes Precedence).

- HTP8 is used for intensity parameters
- LTP8 is used for 8 bit parameters
- LTP16 is used for 16 bit parameters*



This is set in the Template Editor. See [Device Templates - Editor](#).

*Observe that the DMX offset of a parameter has to be incremented by 2, if the previous parameter is set to 16-bit resolution.

See [Device Templates - 16 bit Control](#)

Device Templates - Type 8/16 bit control

Some Devices have parameters that require 16 bit control. Usually this is Pan or Tilt. This is set in Type cell of the Template Editor.

- LTP 8 bit - normal 8 bit control
- LTP 16 bit - 16 bit control



16 Bit Control And Wheel Behaviour

The functionality of "*Coarse/Fine 16 bit control*" is set in the Attribute Setup. Hold SETUP and press ATTRIB.



- On = The wheel controls the **Coarse** part of the 16-bit value. Hold the wheel key down and move the wheel to control the Fine part of the 16-bit value.
- Off (default) = The wheel will control Coarse when moved fast, and Fine when moved slowly.

16 Bit Control - Fine Step

Devices with 16 bit control rarely use all 16 bits. Therefore it is possible to fine tune the resolution of this parameter in the cell **Fine Step** in the Template Editor.



Fine step
1
4

Full 16 bit control, which few Devices use (Catalyst is one) require this value to be set to 1 (default = 4).

Device Templates - Snap or Fade

Snap or Fade is defined in the Template Editor.



When set to Snap (checked) it will not be affected by times. It will move at the beginning of each repositioning.

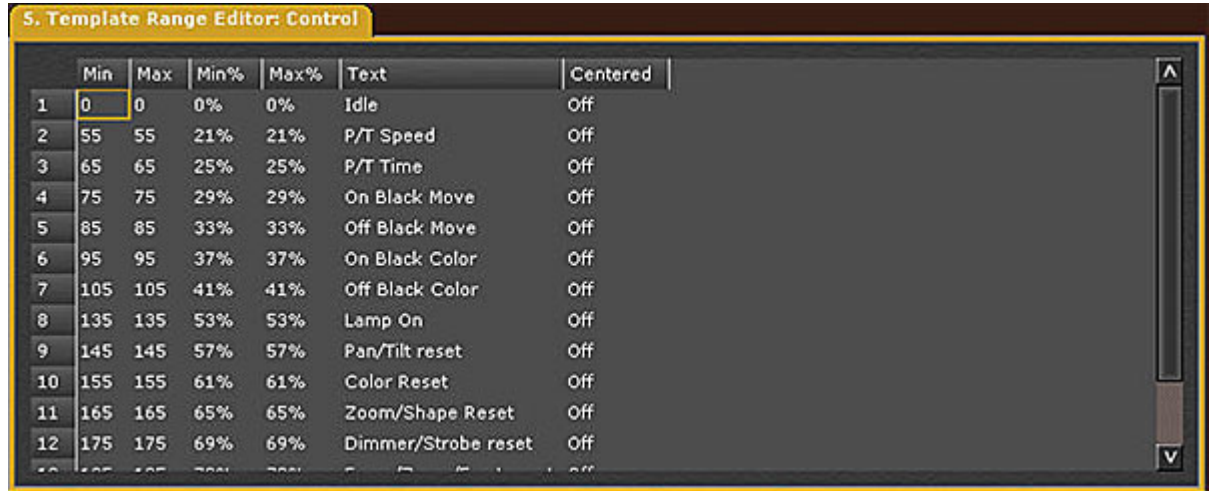
When Snap is Off (unchecked) - the parameter will fade on times. See [Devices - Times](#).

Press modify in the Parameter cell to toggle On/Off.

Device Templates - Ranges

The Template Range Editor makes it possible to define (and edit) ranges, subranges and positions (for colors, gobos etc) in Templates.

This editor is opened by pressing MODIFY in the Range column of the Template Editor.



There is a Range Wizard to create ranges. See [Template Range Wizard](#).

Template Range Editor - Columns

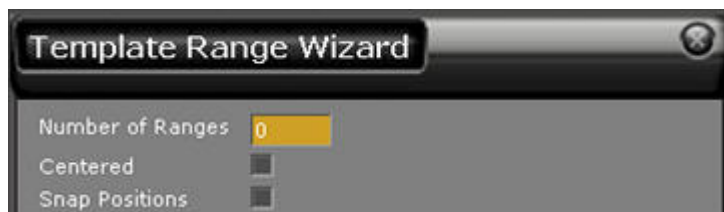
Function	Value	Feedback
<u>Min</u>	0-255	This is the start value for a sub range *. The same value for Min and Max will be treated like a position (for a color or gobo for example). The Min value can be entered in the Min% column as well.
<u>Max</u>	0-255	This is the end value for a sub range *. The Max value can be entered in the Max% column as well.
<u>Min%</u>	0-100	The Min value can be entered as % here instead of bits (0-255) in Min.
<u>Max%</u>	0-100	The Max value can be entered as % here instead of bits (0-255) in Max.
<u>Text</u>		This text is displayed in all editors, and in with the Parameter Wheels.
<u>Centered</u>	On/Off	When On, selecting a range will set the output to the middle of the given range. Parameter values are displayed relative to this centre position with +/- steps. This can useful for speed, rotation or index parameters for wheels, with a stop position in the middle.

*Values between positions (start=stop) cannot be set with the wheel, unless they are specified as subranges.

Template Range Wizard

Press WIZARD in the Template Range Editor. This Wizard simplifies entering a number of evenly spread ranges, for example frames, between 0-255. This is useful to create positions for a scroller, or a gobo/color wheel.

1. Open the Template Range Editor. See [Device Template - Ranges](#).
2. Press WIZARD.



3. Enter the number of ranges you wish to create and press MODIFY.
4. Step to Centered and Snap Positions with arrow keys. Use MODIFY to toggle.
 - Centered = The middle value of a range is always output when selected
 - Snap Positions = Fixed positions (Start = Stop)
6. Select EXECUTE and press MODIFY (previously existing ranges will be overwritten).

Device Templates - Mode Tables

Range Tables make it possible to control multiple mode devices such as, for example, the High End x.Spot.

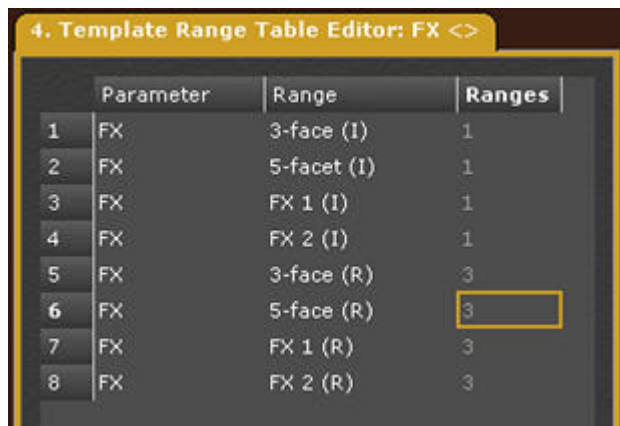
- A set of ranges are defined for a parameter.
- The Table defines which range is used for one parameter based upon the Range setting of another parameter.

In the High End x.Spot there are Mode parameters (color mode) that affect the function of another parameter (color wheel). When a mode is set by selecting a Range on one function, the corresponding Table Range will be assigned to the other parameter.

If there are both Range Tables and Ranges defined for a parameter, the Range Table will be used if there is a corresponding range, otherwise the normal Ranges will be used.

Define A Range Table

1. Define the ranges for the different "modes" of the Device. See [Device Templates - Ranges](#).
2. Define Range Tables for these modes in the corresponding function parameter. Start by opening the Range Table editor by pressing **MODIFY** in the Tables column of the Template Editor.



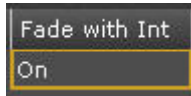
3. Use **INSERT*** to create a Range Tables. These are the options.

Function	Key	Feedback
<u>Parameter</u>	<input type="button" value="MODIFY"/>	Opens a dropdown. Select the mode <i>parameter</i> that activates this Range Table.
<u>Range</u>	<input type="button" value="MODIFY"/>	Opens a dropdown. Select the range <i>position</i> in the mode parameter that activates this Range Table.
<u>Ranges</u>	<input type="button" value="MODIFY"/>	Opens the Range Editor for defining these ranges.

*When you make INSERT for additional Range Tables, the parameter will be copied from the first defined Range Table.

Device Templates - Fade With Intensity

Fade with Intensity can be set in the Template Editor.



When On, the parameter will be scaled through the intensity channel of the device. Also, the types of fixtures where color = intensity will be able to be controlled by the Grand Master and Black Out key when set up with an Intensity parameter.

This is useful for controlling a softlight or LED fixture with color mix coming from colored fluorescents, that also are light sources. It makes it possible to mix a color and fade the intensity of the result without changing the Hue (color mix result).

For LED fixtures, a "false" output should be patched to the channel to take advantage of the Fade with Intensity and Grand Mastering features of the console.

Device Templates - Scroller Rolls

Scroller Rolls are defined in the Scroller Roll Editor. It is opened from the Browser (Browser >Patching >Scroller Rolls)

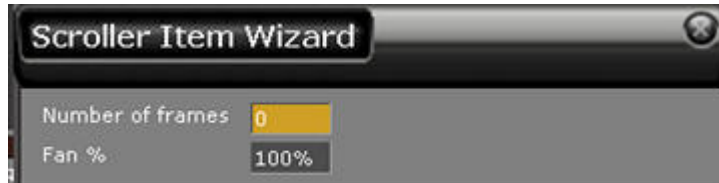
	Scroller Roll	Fan = Intensity	Default Time	Text
1	1	On	3	Standard Roll
2	2	Off	1	FOH Roll
3	3	On	1	Revolution

Scroller Rolls Editor - Columns

Function	Value	Feedback
<u>Scroller Roll</u>	1-999	The ID of each Template. Press MODIFY to open the Editor
<u>Fan = Intensity</u>	On/Off	Press MODIFY to toggle if Fan should follow intensity channel of the scroller Device to keep down noise when not in use (providing the scroller and template have a fan parameter).
<u>Default Time</u>	0s-45min	This is the default time per frame the scroller will use when changed manually, to keep down noise, and save the gel string.
<u>Text</u>		Press MODIFY to activate and end text input.

Create a Scroller Roll (4.3)

1. Open the Scroller Rolls List from the Browser (Browser >Patching >Scroller Rolls).
2. Press **INSERT** to create a new Roll.
NOTE (4.3) A number of standard Rolls are created by default when you open a new Play.
3. Set **Fan=Intensity**, **Default Time** and **TEXT** for this roll.
4. Press **MODIFY** in the Scroller Roll cell to open the Scroller Roll Editor. A Wizard is opened where you can define the number of frames and the default Fan value (can be edited later).



5. This is what the scroller roll editor looks like with five frames defined

4. Scroller Roll Editor Standard Roll					
	Position	Text	Fan%	AutoMove	Value
1	1		100%	0	25
2	2		100%	0	76
3	3		100%	0	127
4	4		100%	0	178
5	5		100%	0	229

You can define the following functions

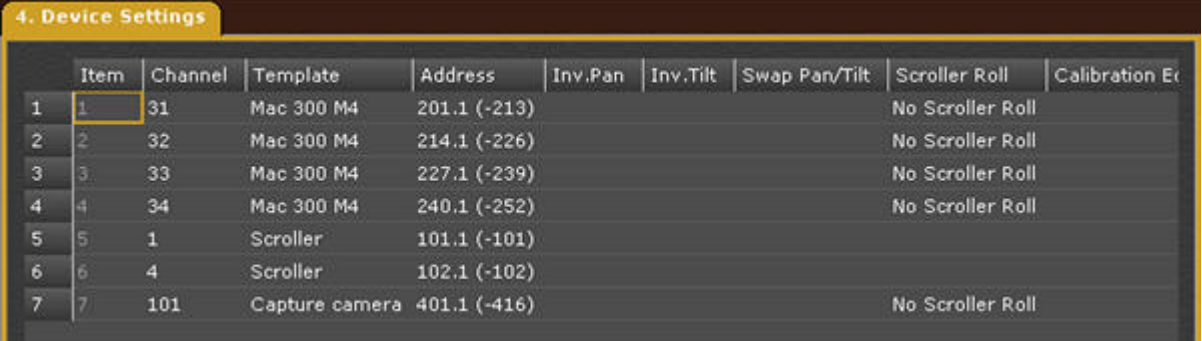
Function	Value	Feedback
<u>Position</u>	1-999	The ID of each Position. Cannot be changed.
<u>Text</u>		Press MODIFY to activate and end text input.
<u>Fan %</u>	0-100%	It is possible to set a Fan value for each color (to keep noise down).
<u>AutoMove</u>	0-10bits	The scroller will move slowly forth and back when the corresponding color is selected. It will not take individual calibration into account.
<u>Value</u>	0-255	This is the 8 bit value (0-255) that will be output when this frame is selected.

6. Exit with **ESC**.

Assign A Scroller Roll

Scroller Rolls can be assigned from the Device Settings. They can also be assigned when a scroller is patched, from the Patch Wizard.

1. Open the Device Settings (Browser >Patching >Device Settings). (You can also hold MODIFY and press DEVICE).



Item	Channel	Template	Address	Inv.Pan	Inv.Tilt	Swap Pan/Tilt	Scroller Roll	Calibration E
1	31	Mac 300 M4	201.1 (-213)				No Scroller Roll	
2	32	Mac 300 M4	214.1 (-226)				No Scroller Roll	
3	33	Mac 300 M4	227.1 (-239)				No Scroller Roll	
4	34	Mac 300 M4	240.1 (-252)				No Scroller Roll	
5	1	Scroller	101.1 (-101)					
6	4	Scroller	102.1 (-102)					
7	101	Capture camera	401.1 (-416)				No Scroller Roll	

2. Use arrow keys to select the Scroller Roll Cell for a channel.

3. Press MODIFY to get a dropdown with all defined Rolls.

4. Select a roll with arrow keys.

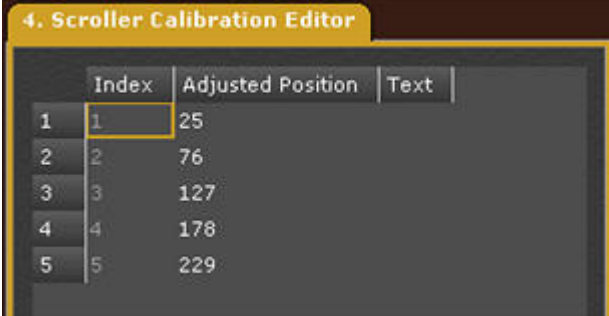
5. Press MODIFY to confirm.

The currently selected color will be shown in the black box under the level in the Channel Views.

Calibrate Individual Scroller Rolls

Each scroller roll can be calibrated individually. This is done in the Scroller Calibration Editor that is opened from the Device Settings.

1. Open the Device Settings (Browser >Patching >Device Settings).
2. Use arrow keys to select the Calibration Editor cell to the far right.
3. Press *MODIFY* to open the Calibration Editor for the selected channel.



	Index	Adjusted Position	Text
1	1	25	
2	2	76	
3	3	127	
4	4	178	
5	5	229	

4. Select *Adjusted Position*, enter a new value (confirm with *MODIFY*). It is updated live.
5. Press *ESC* to exit. Changes are stored automatically.

Scroller Fan override

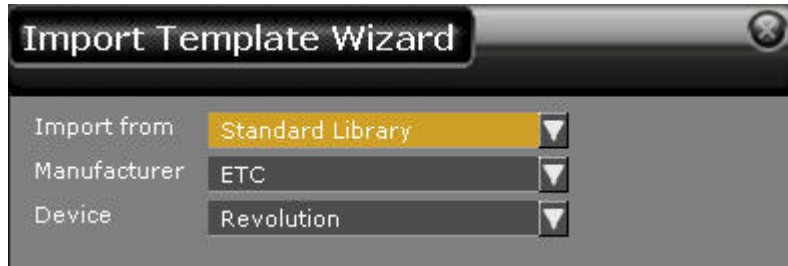
In the Attribute setup (SETUP & ATTRIBUTE) it is possible to specify an Override value for all Scroller Fans. If you set a value > 0%, this value will be used instead of the Fan values programmed in the Scroller Roll. This is useful for making a temporary and absolute override of all fans, for example during long rehearsals when heat is higher than during a performance.

Device Templates - Import Template Wizard (4.2)

Templates are imported from external libraries or from another Play.

- To import from the libraries, use the Import Template Wizard in the Browser (Browser >Patching > Import Template Wizard). This wizard is automatically opened from within the Patch Wizard as well. See [Patch Wizard](#).
- User templates from other Plays are imported with the Import Wizard. See [Import Wizard](#).

1. Open Import Template Wizard from Browser >Patching >Import Template Wizard



2. Select Library (standard or Extended - see NOTE below).

3. Select Manufacturer

4. Select Device/mode

The imported Template is added to the "Templates" node of the Browser >Patching.

NOTE

Standard or Extended Library?

There are two libraries of templates - standard (smaller) and extended (larger) - both are accessed from the Import Template Wizard (4.2). We recommend that you use the extended library if you cannot find the fixture in the standard library

The standard library is the one that's been in Congo from the start. All templates are hand-made. The Extended library is data we get from the Carallon subscription service and is made by crunching a lot of data. The templates are as good as Carallon (with some work from ETC) can make them, but they have not all been tested with real lights or adjusted by humans.

Devices - Media Servers (4.3)

A media server is no different from any other device - patch the template and use it. However we have created a standardised interaction interface that allows interaction, currently only with the ArKaos media server, in an unreleased version of ArKaos. In the future, other media server manufacturers are discussing to adopt this new communications standard which will mean Congo will have similar interactivity with servers from Coolux, Green Hippo and others.

ArKaos support

1. *Before trying this interaction make sure the ArKaos system is up and running on the network, with the right show loaded.*
2. *You must patch the layers of the media server first, and all layers of a single server must be patched to a continuous range of channels. Enter the channel number that the first layer will be mapped to. Subsequent layers will be mapped to the following channels. The number of layers is defined in the ArKaos software.*
3. *When an ArKaos system is detected, it will show up under Network Devices in the Browser. Double clicking on the ArKaos item will allow you to connect to it. A popup will confirm the connection.*

When you connect to an ArKaos system, the names of the available media will be transferred into the ArKaos template and can be used in all situations where a range name normally occurs. For this to work, you need to use the Arkaos full fixture mode template.

- When connecting to the ArKaos system, all old media names in the ArKaos template will be cleared first.
- Unused media names will be set to #: No name.
- A media that is playing is indicated with a play symbol (triangle) in the media preview in the Channel Layout.
- ArKaos: Media extensions (like .jpg) are stripped off the range names.
- When using Library and File parameters on Direct Selects, File content is now updated when you change the Library.

NOTE

When you connect to a media server the first time (this is when it just says ArKaos in the Network Devices menu), the names of the media elements, types and their thumbnails are transferred from the media server to the Congo application. After this, the connection is only used for transferring runtime status like if a media is playing or not. Updates to media on the ArKaos side after you connect won't be transferred to Congo. (In the future, there will be an automatic update in this case).

Even if you try to connect again on the Congo side, this will not trigger an update so make sure that all media elements are loaded on the ArKaos side before you connect.

4.3 Effect types and names are transferred and appear under Effect Type and Effect Index.

ArKaos MSEX Beta 2 or later must be used!

DYNAMICS

The effect generator assigns wave-forms (tables) to intensities or attribute parameters. The result is called Dynamic Effects and can be effects like a "circle" or a "ballyhoo".

This chapter contains the following sections

- [Dynamics - Introduction](#)
- [Dynamics - Start](#)
- [Dynamics - Control](#)
- [Dynamics - Edit Live Dynamic Effects](#)
- [Dynamics - Stop](#)
- [Dynamics - Record](#)
- [Dynamics - Effect Library](#)
- [Dynamics - Preset Dynamic Effects](#)
- [Dynamics - Base Value](#)
- [Dynamics - Size & Rate](#)
- [Dynamics - Relations & Distance](#)
- [Dynamics - Loop Count](#)
- [Dynamics - Fade](#)
- [Dynamics - Form](#)
- [Dynamics - Fetch From A Preset](#)
- [Dynamics - Playing Back](#)
- [Dynamics - Store Running To Library](#)
- [Dynamics - Tables](#)

Dynamics - Introduction

Dynamics are a way of creating effects by assigning *waveforms* (sinus, saw etc) to intensity, color, movement or any other parameter. See [Dynamics - Tables](#).

The waveform will "run" the parameter it is assigned to, but you can still move the "*base value*" of the parameter that the Dynamic is working with.

Dynamics are stored in Presets, and channels can be added or subtracted at a later point.

General Facts

- Dynamic Effects are created in the **Effect library** (Browser)
- **Size** and **Rate** can be set in the Dynamics Soft Key page
- **Offset-** and **Delay Relation** can be set in the Live Dynamic Effects list, and the Dynamics Soft Key page.
- **Distance** can be set in the Live Dynamic Effects list
- **Loop Count** can be set in the Live Dynamic Effects list
- Dynamic effects can be **stored** and **played back** from all Playbacks

Effect Library

- A number of common Dynamic Effects are included in the Effect Library of the Browser. It is possible to create new ones as well.

Intensity and Attributes

- Intensity Dynamics require a **Stop Dynamic**.
- All Dynamics in a Master Playback will stop when a Master is faded to zero
- Attribute Dynamics will stop when new attribute values are played back

Dynamic Views

- There is a Live Dynamics Editor
- There is a Preset Dynamics Editor

NOTE

To create a movement, like a "Circle" for a moving Device, two sinus waves are applied to pan and tilt, and one of them is offset 25%.

Dynamics - Start

Dynamics are activated for the currently selected channel(s). The current attribute and intensity values are used as the **Base Value** for the Dynamic Effect.

A "D" will appear in the top right corner of the channel symbol.



NOTE

Activating a Dynamic Effect will "lock" the attributes and intensities of the selected channels to the Dynamic Effect.

See [Dynamics - Stop](#).

Start Dynamics By Number

Function	Key	Feedback
Start Dynamic Effect #	# <input type="text" value="DYN EFFECT"/>	Dynamic Effect # is activated for the currently selected channel(s).

Start Dynamics From The Effect Library Tab

Action	Key	Feedback
1. Open Effect Library (4.1)	<input type="text" value="MODIFY"/> <input type="text" value="DYN EFFECT"/>	The Effect Library tab is opened.
2. Select Effect	Arrow Keys Up/Down	The selected Effect is highlighted.
3. Start Effect	<input type="text" value="MODIFY"/>	The selected Effect is activated for the currently selected channel(s).
4. Exit Effect Library	<input type="text" value="ESC"/>	The Effect Library tab is closed.

Start Dynamics From The Effect Library Node In The Browser

Action	Key	Feedback
1. Select the Browser	<input type="text" value="BROWSER"/>	The Browser is selected and highlighted. If it was already selected it is closed. Press again to open.
2. Go to the Effect Library node	Arrow keys Up/Down	The Effect Library node is highlighted.
3. Open the Effect Library node	Right arrow	The Effect Library node is opened.
4. Select an Effect	Down arrow	The selected Effect is highlighted

5. <i>Start the Effect</i>	LOAD	The selected Effect is activated for the currently selected channel(s).
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Start Dynamics From The Direct Selects

Action	Key	Feedback
1. <i>Select Dynamics for a section</i>	TYPE & Dynamics	When TYPE is held you can select Dynamics for a section. The first ten dynamics are displayed in the section immediately.
2. <i>Activate a Dynamic</i>	Section keys 1-10	The selected Effect is activated for the currently selected channel(s).

See [Direct Selects](#).

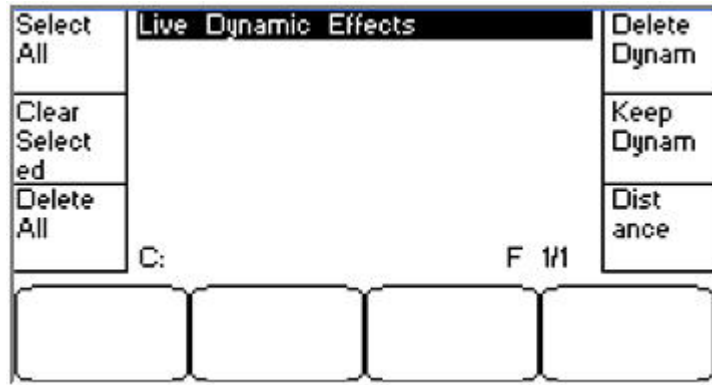
Start Dynamics With Direct Mode

1. *Hold DYN EFFECT (don't let go until the Dynamics are started).*
- *When this is held, the first 40 Dynamic Effects in the Effect Library are displayed on the Direct Select keys.*
2. *Activate a Dynamic by pressing the corresponding key*
3. *Let go of DYN EFFECT.*

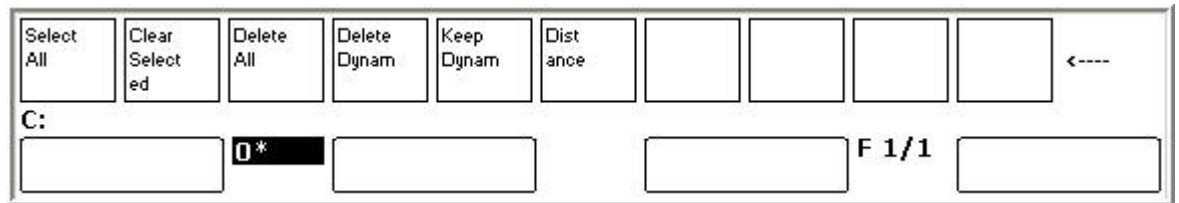
Dynamics - Control (4.1)

The Dynamics Soft Key Page in the Main Display of the console facepanel is opened by pressing DYNAMICS in the top menu soft key page.

Congo



Congo Jr



It has the following functions for controlling live Dynamics

- Clear Dynamics Soft Keys
- Dynamic Wheels
- Delete Selected Dynamics in Display List (soft key)
- Keep Dynamics in next Preset (soft key)
- Set Distance in % (soft key)

Clear Dynamics Soft Keys (4.1)

The Clear Dynamics soft keys (left column) are used to clear and/or stop running Dynamics.

- Select All active Dynamics (SELECT ALL)
- Clear all Selected Dynamics (CLEAR SELECT)
- Delete All running Dynamics (DELETE ALL)

See [Dynamics - Stop](#).

Dynamic Wheels - Size, Rate, Offset & Delay (4.1)

Wheels 1 and 2 are used to set Size and Rate for Live Dynamics. See [Dynamics - Size & Rate](#).

- Select channels and set values.
- Set numerical values with # and Wheel Key.

Wheels 3 and 4 are used to set Offset and Delay relations. See [Dynamics - Relations & Distance](#).

- Hold the key and use the wheel.

Live Dynamic Effects Display List

All live Dynamic Effects are shown in this list.

- Use the Trackball in Display List mode to select (click) a running dynamic
- Use DELETE DYNAM to delete the currently selected Dynamic from this list

Keep Dynamics In Next Preset (4.1)

The KEEP DYNAM soft key is used to record a new base position for a running Dynamic Effect. See [Record Keep Dynamics \(New Base Value\)](#).

Set Distance In % (4.1)

The DISTANCE soft key is used to set the Distance % parameter for the selected running Dynamics directly. See [Dynamics - Relations & Distance](#).

Dynamics - Edit Live Dynamics Editor (4.2)

All parameters of running Dynamic Effects can be edited in the Live Dynamic Effects tab. Press DYN EFFECT to open it (4.1). This tab can be opened from the Browser as well (Browser >Live Dynamic Effects).

The top right corner shows a pan/tilt monitor with a dot representing each channel. This is a visualisation for the Offset Relation, Delay Relation and Distance values (4.1).



NOTE (4.2)

If you start to select channels in Live Dynamics, you will get a popup if you want the selection to affect the running effect or not. Once you have said yes to this, all channel selection will update the running effect until you close and reopen Live Dynamics.

RECORD and **UPDATE** cannot be used when this tab is focused. Select **LIVE** to use them.

Live Dynamic Effects - Columns

Column	Input	Function
<u>Library</u>	<input type="button" value="MODIFY"/>	Opens a dropdown to select a Dynamic Effect from the Effect Library.
<u>Status</u>	No input	Running status. Cannot be edited.
<u>Channels</u>	No input	The amount of channels assigned to this Dynamic Effect.
<u>Size</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Set the size from 1-1000%. See Size & Rate
<u>Size Channel</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Assign a size channel. See Size & Rate
<u>Rate</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Set the rate from 1-1000%. See Size & Rate
<u>Rate Channel</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Assign a rate channel. See Size & Rate
<u>Offset Relation</u>	<input type="button" value="MODIFY"/>	See Relations & Distance
<u>Delay Relation</u>	<input type="button" value="MODIFY"/>	See Relations & Distance
<u>Distance</u>	<input type="button" value="MODIFY"/>	See Relations & Distance
<u>Text</u>	<input type="button" value="MODIFY"/>	Press MODIFY to activate and end text input.
<u>Fade</u>	<input type="button" value="MODIFY"/>	See Fade
<u>Loop Count</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	See Loop Count
<u>Form</u>	<input type="button" value="MODIFY"/>	See Form

Dynamics - Stop

Dynamic Effects can be stopped in the following ways.

- Stop Dynamics manually
- Activate A Dynamic Stop Table
- Delete the Dynamic from Live Dynamic Effects
- Delete the Dynamic using the Dynamics display
- Fade in a Preset in the Main Playback
- Load a new Sequence to the Main Playback*

*Providing the Auto-Stop parameter in the System Settings is set to ON. See [System Settings](#).

Moving Device attributes are stopped automatically when a new value is played back from any Playback or Master. Intensity Dynamics can only be stopped with the Stop Dynamics table of the manual stop functions.

NOTE
Dynamics act like Attributes - they are executed in A or B depending on the GoOnGo or GoInB flag of the step.
See [Device Play back - GoOnGo or GoInB](#).

Stop Dynamics Manually

Action	Key	Feedback
1. <i>Select channels</i>	Channel functions	The selected channels are highlighted in the Channel View
2. <i>Stop Dynamics</i>	<div> <div>C/ALT</div> <div>&</div> <div>DYN EFFECT</div> </div>	All Dynamics are cleared for the selected channel(s)

This is a shortcut to select all channels with Dynamics assigned to them.

Function	Key	Feedback
Select all channels with dynamics	<div> <div>CH</div> <div>&</div> <div>DYN EFFECT</div> </div>	All selected channels are highlighted in the Channel View

Activate A Dynamic Stop Table

Intensity Dynamics can only be stopped by assigning a Stop Intensity Table. There is a STOP I Dynamic in the Effect Library for this.

1. *Select the channels*
2. *Assign the "STOP I" Effect (See [Dynamics - Start](#))*

You can record this to the Preset in the A field of the Main Playback. When the Preset with this Stop Table is activated, the Intensities will fade the size of the Dynamic Effect using the IN time of this Preset.

Delete A Dynamic From Running Dynamics

1. Open the Live Dynamic Effects Tab by pressing DYN EFFECT.



2. Select a Dynamic effect with the arrow keys
3. Press DELETE to stop (a popup will ask for confirmation)



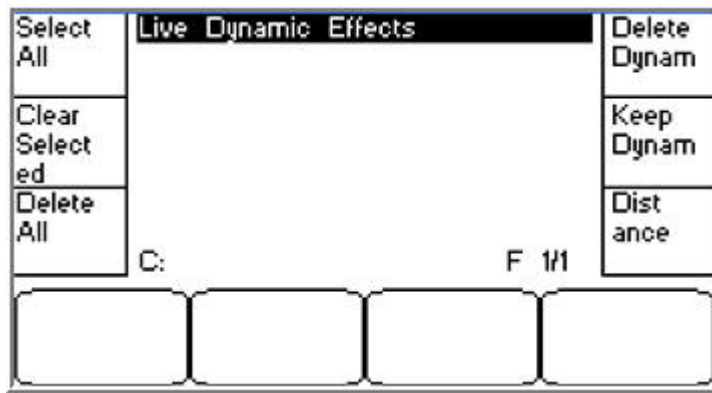
4. Press MODIFY to confirm.

Delete A Dynamic Using The Dynamics Display (4.1)

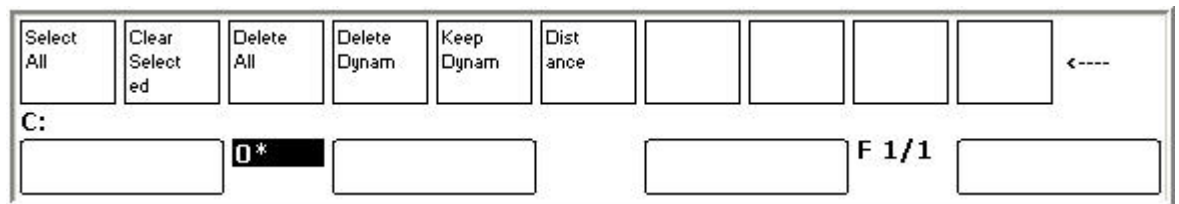
Dynamics can be cleared or deleted from the Display List or with the soft keys in the Dynamics Display.

Activate the Dynamics Soft Key Page in the Main Display of the console facepanel by pressing DYNAMICS in the top menu.

Congo



Congo Jr



- Press **SELECT ALL** to select all channels running a Dynamic effect.
- Press **DELETE ALL** to delete all running Dynamic Effects.
- Press **CLEAR SELECT** to clear Dynamic Effects from the current channel selection.

It is also possible to work with the list

1. Activate Display list mode for the trackball (**DISPLAY LIST**). The Trackball will turn green-yellow.
2. Select a Dynamic in the Live Dynamic Effects list using the trackball.
3. Press **DELETE DYNAM** to delete.

Fade In A Preset In The Main Playback

When a Preset with new attribute values is faded in the Main Playback, any active Dynamics for those attributes will be stopped.

Load a new Sequence to the Main Playback

When a new Sequence is loaded to the Main Playback, all running Dynamics are stopped the next time GO is pressed.

Dynamics - Record

Dynamic Effects are recorded in Presets for playback.

- Only Dynamics that have changed or are started since you last pressed RECORD will be stored.
- Record Mode should be set to AUTOMATIC for attributes.
- A "Keep Dynamic" flag can be set to a Preset. This will allow the Dynamic to move to new base values without stopping the Dynamic.

Record Changed Dynamics

Function	Key	Feedback
Record* Dynamics to Preset #	# RECORD	All channels are recorded including all running Dynamics to Preset #

*Record Mode has to be set to Automatic for Attributes - See [Devices - Recording Modes](#).

Record Dynamics To Another Preset

Function	Key	Feedback
Record* Dynamics to Preset #	# RECORD & DYN EFFECT	All changed and/or selected channels are recorded with running Dynamics to Preset #

*Record Mode has to be set to Automatic for Attributes - See [Devices - Recording Modes](#).

Record Dynamics To A Master

Function	Key	Feedback
Record* Dynamics to Master #	RECORD & Master Key	Selected channels are recorded including running Dynamics to Master # as the next free Preset.

*Record Mode has to be set to Automatic for Attributes - See [Devices - Recording Modes](#).

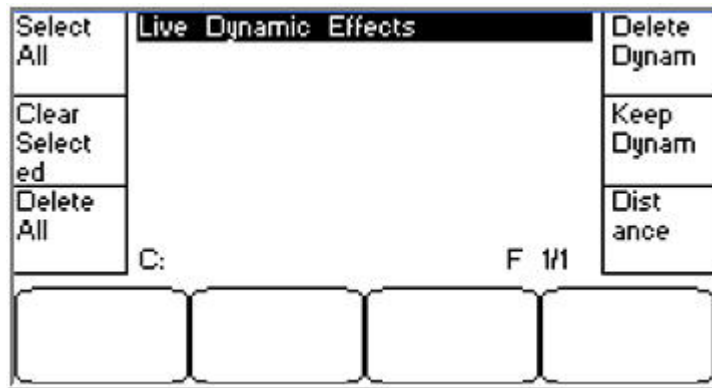
Record Keep Dynamics (New Base Value)

Keep Dynamics will set a Keep Dynamics flag to an existing Preset. When this Preset is played back in a Sequence it will change the Base Values for a running Dynamic Effect without stopping it.

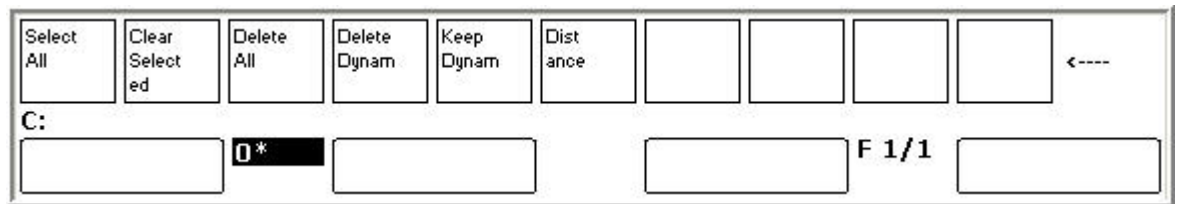
There are two ways of setting this. From a checkbox in the Recording Popup, or from the Dynamics Soft Key page (described below). See [The Recording Popup](#).

1. Select the Dynamics Soft Key Page in the Main Display of the console facepanel by pressing **DYNAMICS** in the top menu.

Congo



Congo Jr



2. Press **KEEP DYNAM**.

The Currently running dynamics are stored with a Keep Dynamics flag in the Preset active in the A field of the Main Playback. Keep dynamics is shown with a waved line under the value in the Preset Attribute Editor.

You can store to a different Preset by entering a number before Keep Dynam. The Preset has to be recorded first.

NOTE

You can set a Keep Dynamics flag for a parameter group (Focus, Color, Beam) by holding **KEEP DYNAM** and pressing either of these keys.

Dynamics - Effect Library (4.1)

The Effect Library is a library of predefined Dynamic Templates that are used to start Dynamic Effects.

Open by holding MODIFY pressing DYN EFFECT (4.1) (or Browser >Effect Library).

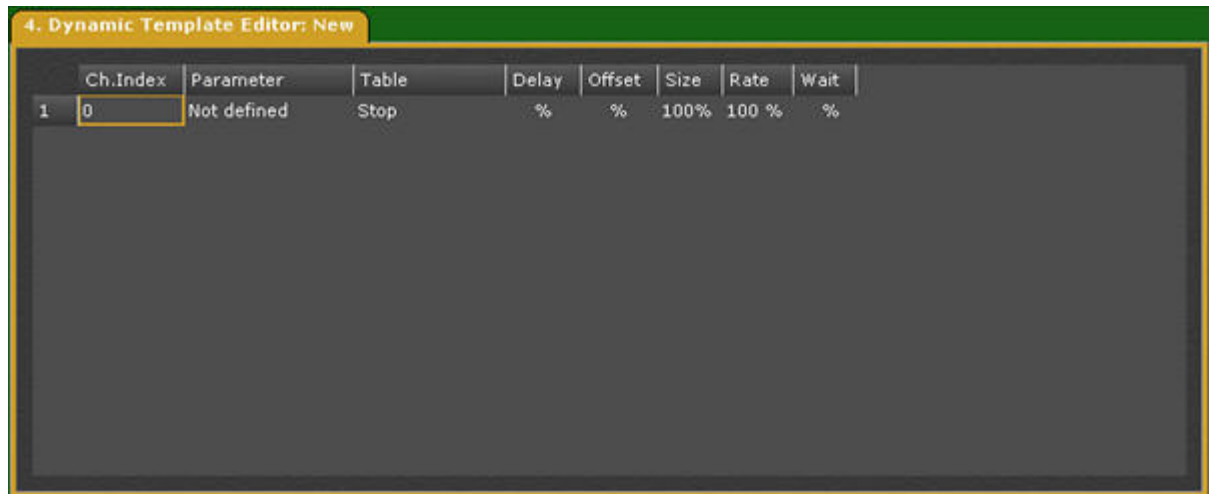
Effect	Text	Parameters	OffsRel	DelayRel	Distance
20	STOP I	Int	All	All	100 %
21	STOP F	Pan Til Foc Foc	All	All	100 %
22	STOP C	Cya Mag Yel Amb Whi +	All	All	100 %
23	STOP B	Col Fan Col Col Aux +	All	All	100 %
24	TILT	Til	All	All	100 %
25	STROBE	Str	All	All	100 %
26	BLINK	Int	All	All	100 %
27	PAN	Pan	All	All	100 %
28	Mag bort	Mag	All	All	100 %
29	CTO	CTO	All	All	100 %
30	MagYell bort	Mag Yel	All	All	100 %
31	Int blin'	Int	All	All	100 %

Dynamic Effect Library - Columns & Functions

Column	Input	Function
Effect	<input type="button" value="MODIFY"/>	Starts the selected Effect for the currently selected channel(s).
Text	<input type="button" value="MODIFY"/>	Press MODIFY to activate and end text input.
Parameters	<input type="button" value="MODIFY"/>	Opens the Dynamic Template editor. See Dynamic Template Editor - Create .
OffsRel	<input type="button" value="MODIFY"/>	See Relations & Distance
DelayRel	<input type="button" value="MODIFY"/>	See Relations & Distance
Distance	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	See Relations & Distance

Dynamic Template Editor - Create (4.1)

1. Open the Effect Library by holding **MODIFY** and pressing **DYN EFFECT** (4.1).
2. Go to the last step using the arrow keys.
3. Press **INSERT** to create a new Template.
4. Go to **TEXT** and press **MODIFY** to enter a name. Press **MODIFY** again to confirm.
5. Go to **Parameters** and press **MODIFY** to open the Template Editor.
6. Press **INSERT** to create a step. Each step contains the settings for a single parameter - for example, a pan/tilt effect would have two steps.



See [Dynamic Template Editor - Functions](#).

Dynamic Template Editor - Functions

Column	Input	Function
<u>Ch.Index</u>	# MODIFY	0 means all selected channels are affected by this step. For numbers >0 only channels that match this index number will be activated. For example "2" means that only every second channel will be affected (of the selected channels).
<u>Parameter</u>	MODIFY	Opens a dropdown. Select which parameter this step shall affect.
<u>Table</u>	MODIFY	Opens a dropdown. Select which table this step should apply. See Dynamics - Tables .
<u>Delay</u>	MODIFY	A delay in % before the step starts to move
<u>Offset</u>	MODIFY	An Offset in % where in the table this step starts
<u>Size</u>	# MODIFY	See Size & Rate
<u>Rate</u>	# MODIFY	See Size & Rate
<u>Wait</u>	# MODIFY	A wait time, in percent (1- 1000%) for this step before it is repeated. The Wait time is relative to all other steps.

Dynamics - Preset Dynamics Editor (4.2)

The Preset Dynamics Editor is identical to the Live Dynamics Editor. All editing functions are the same. See [Dynamics - Edit Live Dynamic Effects](#) .



Function	Key	Feedback
Open Preset Dynamics Editor for Preset #	# PRESET & DYN EFFECT	Dynamic Editor for Preset # is opened.
Open Preset Dynamics Editor for the Preset in A	PRESET & DYN EFFECT	Dynamic Editor for the Preset in A is opened (4.2)
Open Preset Dynamics Editor for the Preset in A	DYN EFFECT & A	Dynamic Editor for the Preset in A is opened (4.2)
Open Preset Dynamics Editor for the Preset in B	DYN EFFECT & B	Dynamic Editor for the Preset in B is opened (4.2)
NOTE You can open this editor in two more ways <ul style="list-style-type: none"> • Double-click on "Dyn:#" in the Sequence Playback View • Press MODIFY in the Dynamics Column of a Preset List 		

Dynamics - Base Value

When a Dynamic Effect is activated, it will run with the current position of the corresponding attribute or intensity as a Base Value.

If you change this Base Value, the Dynamic Effect will follow. If you run a Preset with a Dynamic Effect and then run another Preset with a new base value, the default action is for the Dynamic Effect to fade out. Use the Keep Dynamics setting to allow the Dynamic Effect to play through Presets. See [Record Keep Dynamics](#).

If a pan/tilt effect such as *Circle* is running for a moving Device, you can change the Base Value by moving Pan and Tilt, or by selecting a Focus Palette.

NOTE

If the Base Value is too small, some effects will not be visible, for example color mix and intensity effects. Set the Base Value to 50% for maximum effect.

Dynamics - Size & Rate (4.2)

Each Dynamic Effect has a Size (amplitude) and Rate (frequency) value. It is possible to assign an intensity channel to each of them.

You can set Size and Rate for running Dynamic Effects with the wheels in the Dynamics Soft Key Page. See [Dynamics - Control](#).

NOTE

From 4.2 it is no longer possible to modulate the size or rate of a dynamic effect using another intensity dynamic effect on the size/rate channel. This may change the behaviour of existing plays if this rare feature has been programmed.

Size

Si imposta una Ampiezza (Size) della curva dell'effetto (forma) dal 0-1000%.



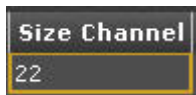
Questo si può impostare con la prima ruota dei parametri nella pagina "soft" DYNAMICS dello schermo LCD della console (DYNAMICS tasto "soft").

Si può impostare anche nelle finestre Dinamiche Live e Dinamiche del Preset.

Vedi [Dinamiche - Modifica Dinamiche Live](#) e [Dinamiche - Editor Dinamiche del Preset](#)

Size Channel (4.2)

Any channel can be set to control the Size of a Dynamic Effect. At 50% it does not affect the programmed Size at all. At 0% the Effect is stopped, and at 100% the Size is doubled.

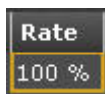


The channel is marked with SIZE in the Channel Views.



Rate

Sets the rate (frequency) of the waveforms in a Dynamic Effect. It is set from 0-1000%.

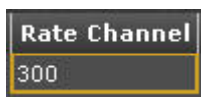


You can also change this parameter with the second parameter wheel in the Dynamics Soft Key Page (press DYNAMICS in the Index Page).

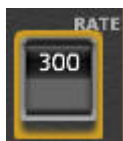
It can also be set in the Preset- and Live Dynamic Effects tabs.
See [Live Dynamic Effects](#) and [Preset Dynamic Effects](#)

Rate Channel (4.2)

Any channel can be set to control the Rate of a Dynamic Effect. At 50% it does not affect the Rate at all. At 0% the Effect is stopped, and at 100% the Rate is doubled.



The channel is marked with RATE in the Channel Views.



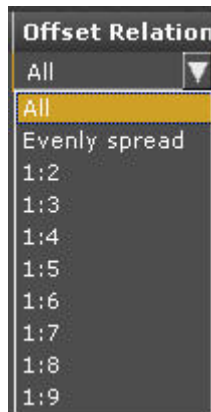
Dynamics - Relations & Distance (4.1)

Offset Relation, Delay Relation and Distance set all channels to perform a Dynamic one after the other, or overlapping.

These parameters can be set in the Live Attribute editor and from the Dynamic Display soft key page (4.1).

Offset Relation

Specifies when channels start in relation to the table assigned to them



Offset is set in the Dynamic Effect views (Live and Preset). Press MODIFY in either for a dropdown with the following options

Action	Description
<u>All</u>	All devices start at the same point in the table.
<u>Evenly Spread</u>	The starting point (offset) is evenly spread.
<u>1:2-1:9</u>	The selected devices are divided in # groups (1:#).

Offset Relation - Dynamics Display (4.1)

In the Dynamics Display the Offset Relation for the selected Dynamic Effect is mapped to wheel 3.

Activate the Dynamics Soft Key Page in the Main Display of the console facepanel by pressing DYNAMICS in the top menu.

Congo

Select All	Live Dynamic Effects		Delete Dynam
Clear Selected			Keep Dynam
Delete All	C:	F 1/1	Distance
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> </div>			

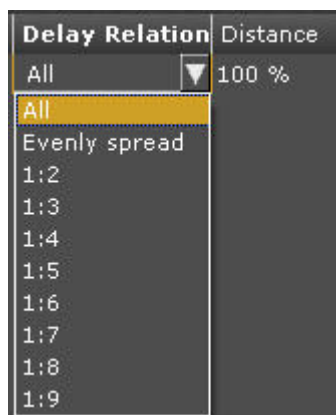
Congo Jr

Select All	Clear Selected	Delete All	Delete Dynam	Keep Dynam	Distance					←----
C:										
	0*				F 1/1					

1. Hold wheel key 3 to get a list of Offset Relations in the display.
2. Select a relation using the wheel.
3. Let go of the wheel to activate the current selection.

Delay Relation & Distance

Specify when channels start in relation to each other.



Delay Relation and Distance are set in the Dynamic Effect views (Live and Preset). Press MODIFY in **Delay Relation** for a dropdown with the following options

Action	Description
<u>All</u>	All devices start at the same time.
<u>Evenly Spread</u>	The starting time is evenly delayed.
<u>1:2-1:9</u>	The selected devices are divided in # groups (1:#).

Distance specifies the time (in percent) between the starting point of each channel when the Delay Relation is used.

Delay Relation & Distance - Dynamics Display (4.1)

In the Dynamics Display the Delay Relation is mapped to wheel 4. There is a soft key for setting the Distance parameter directly with a numeric value.

Activate the Dynamics Soft Key Page in the Main Display of the console facepanel by pressing DYNAMICS in the top menu.

Congo

Select All	Live Dynamic Effects		Delete Dynam
Clear Selected			Keep Dynam
Delete All			Distance
C:		F 1/1	
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> <div style="border: 1px solid black; width: 100px; height: 40px;"></div> </div>			

Congo Jr

Select All	Clear Selected	Delete All	Delete Dynam	Keep Dynam	Distance					←----
C:										
		0*				F 1/1				

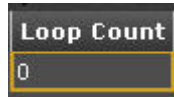
1. Hold wheel key 4 to get a list of Delay Relations in the display.
2. Select a relation using the wheel.
3. Let go of the wheel to activate the current selection.

Enter a number and press DISTANCE to set the Distance value 0-100%.

Dynamics - Loop Count

A Dynamic Effect can be set to run a specific number of loops and then stop automatically. If set to 0 it will run forever.

This is done in the *Loop Count* column of the Dynamic Effects tabs.

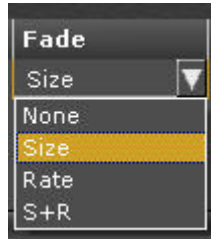


See [Dynamics - Live Dynamic Effects](#) and [Dynamics - Preset Dynamic Effects](#)

Dynamics - Fade

A Dynamic Effect can fade in size, rate or both when played back in a Sequence. When faded manually in a Master Playback, size will follow the fader (0-100%).

The Fade parameter is set in the Live and Preset Dynamic Effect tabs in the Fade column.



Action	Key	Feedback
<u>Size</u> (default)	MODIFY	Size will fade in (and out) on the time for the corresponding attribute.
<u>Rate</u>	MODIFY	Rate will fade in (and out) on the time for the corresponding attribute.
<u>S & R</u>	MODIFY	Size & Rate will fade in (and out) on the time for the corresponding attribute.
<u>None</u>	MODIFY	Activating a new attribute value will stop a corresponding dynamic directly.

Intensity Dynamics

When a Stop Table is activated, the Dynamic Effect will fade out on the in time of the corresponding sequence step. If the Stop Table is assigned manually, the effect will snap out.

Attribute Dynamics

When new attribute values are played back from the Sequence, they will fade from the Dynamic in the attribute time of that Sequence Step. When they reach zero the Dynamic is deleted automatically.

See [Dynamics - Live Dynamic Effects](#)

See [Dynamics - Preset Dynamic Effects](#)

Dynamics - Form

Form specifies the relation between the size for the Pan and Tilt parameters. It is used to control the behaviour of Pan/Tilt combinations like a Circle.

Normal value is 100 (displayed as "F:F") which means that both Pan and Tilt are equal in size.

- If you enter a value between 0 and 99, this will be used as the size for the Pan parameter showed as "0:F" to "99:F".
- If you enter a value between 101 and 200, this will be used as the size for the Tilt parameter showed as "F:99" to "F:0".

Think of it as a continuous scale from a vertical movement through the full circle to a horizontal movement.

This is done in the Form column of the Live- and Preset Dynamic Effects tab.



See [Dynamics - Live Dynamic Effects](#)

See [Dynamics - Preset Dynamic Effects](#)

Dynamics - Fetch From A Preset

Dynamics can be copied from any Preset. All channels with Dynamics in that Preset will be copied.

Function	Key	Feedback
Fetch Dynamics from Preset #	# ON/FETCH & DYN EFFECT	Dynamics in Preset # are activated. A "D" will appear next to the involved channels in the Channel View.

Dynamics - Playing Back

A Preset with Dynamic Effects can be played back in any of these ways:

- The Preset is faded in on a Sequence Step
- A Master with the Preset is faded up (size follows the Master fader).
- A Master with the Preset is Flashed

General Facts


- When activated, Dynamic Effects fade to the initial value including the Offset.
- If the attributes are masked, the Dynamic will start anyhow.
- Dynamics run until Deleted or Size is set to zero.
- Device Dynamics will stop if new attributes are faded in a Sequence Step.
- **IMPORTANT SETTING: *Always Start Dyn On Go* ([Crossfade Settings](#)) =>**
When activated from a Sequence Step, dynamic effects are always started on Go regardless of the GoOnGo setting for the sequence step.

See [Dynamics - Stop](#).

Dynamics - Store Running To Library

Running Dynamics can be stored as a Dynamic Template in the Effect Library and be reused with different channels.

1. Open the Dynamic Effect Library by holding **MODIFY** and pressing **DYN EFFECT**, or from the Browser (**Browser >Effect Library**)



Effect	Text	Parameters	OffsRel	DelayRel	Distance
20	STOP I	Int	All	All	100 %
21	STOP F	Pan Til Foc Foc	All	All	100 %
22	STOP C	Cya Mag Yel Amb Whi +	All	All	100 %
23	STOP B	Col Fan Col Col Aux +	All	All	100 %
24	TILT	Til	All	All	100 %
25	STROBE	Str	All	All	100 %
26	BLINK	Int	All	All	100 %
27	PAN	Pan	All	All	100 %
28	Mag bort	Mag	All	All	100 %
29	CTO	CTO	All	All	100 %
30	MagYell bort	Mag Yel	All	All	100 %
31	Int blin'	Int	All	All	100 %

2. Go to the end of the list (arrow keys).
3. Press **INSERT**. You will get the question "Record running dynamics as a Dynamic Template?".



If you answer **OK**, the dynamics for the currently selected channels (in the selection order) will be used as a base for creating the new Dynamic Template.

If you answer **CANCEL** you will get an empty Dynamic Template.

4. Enter a name in the text column (press **MODIFY** to activate, enter text and press **MODIFY** to confirm).
5. Exit by pressing **ESC**.

Dynamics - Tables

The basic element of a Dynamic effect is a wave-form, or "table", that is assigned to the intensity or any other attribute parameter of a channel.

A Sine wave, for example, will fade a parameter up/down continuously over/under the current Base Value.

By changing the Rate and Size of this Sine Wave, you will affect the speed and value range of the result.

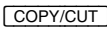
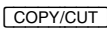
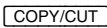

Although the idea of tables is very technical, it really requires little technical understanding: most designers prefer to experiment with different tables and parameters to understand - the effect of a Sine Wave is too different on a color parameter, compared to pan or intensity, to explain in detail here.

These are the tables

Table	Description
Stop	A "Stop Dynamics" table
Sine	A normal sinus wave
Step	An "on-off" wave
Sawtooth	A linear "fade up - fade down" wave
Ramp	A "fade up-cut down" wave
RampInv	A "cut up - fade down" wave
MarkOn	"On-longer-than-off" used for fly-in or fly- outs
MarkOff	"Off-longer-than-on" used for fly-in or fly- outs
Spiral	A sinus wave with varying amplitude
Tangent	A sinus wave with a "sharp top"
Random1	Random curve 1
Random2	Random curve 2
Random3	Random curve 3
NOTE If you are used to working with for example WholeHog (tm) Tables, a Sine + 90 degrees is a Sine with an offset of 25% here.	

COPY, CUT & PASTE

Copy, cut and paste Sequence Steps, Groups, Presets and Device Templates.

Action	Key	Feedback
Copy		The currently selected object is copied.
Cut	 	The currently selected object is cut.
Paste		The last copied or cut object is pasted.
<p>NOTE When you paste a Sequence step in the Sequence Editor, it will be inserted before the currently focused step.</p> <p>When you paste a Preset in the Preset Editor, you will overwrite the content of the currently focused preset.</p> <p>Texts can be copied with the shortcut CTL-C from a keyboard.</p>		

Copy, Cut & Paste Attributes (4.3)

In the Preset List it's possible to copy, cut and paste attributes for the selected channels from any step to any other step.

1. Open the Preset List.
2. Go to the Attributes Column.
3. Select channel(s) to copy or cut from.
4. Press COPY to copy, press COPY again to CUT (see the confirmation in the message bar at bottom of the screen).
5. Move to the attributes column for the Preset you wish to copy to.
6. Press PASTE.

ENTERING TEXTS

Almost every item in a Play can be labelled with a text.

The texts are entered from a keyboard, and there is a special TEXT key that can be used to quickly edit the text of a Sequence Step, or a Preset/Group in a Master.

IMPORTANT NOTE

If you have an external keyboard with a NUM LOCK key connected you have to activate NUM LOCK for the numerical keypad in Congo to work. This is because the numerical keypad is the same one.

The TEXT Key (4.3)

Press MODIFY in the text cell of a spreadsheet to activate text input, since the keys of an external keyboard otherwise simulate functions keys of the console.

It is also possible to activate text input directly to specific items using the TEXT key.

Action	Key	Feedback
Set text to the Preset in A	TEXT	A popup for setting text to the step in A appears.
Set text to the Preset in B	TEXT & B	A popup for setting text to the step in B appears.
Set text to the content in a Master	TEXT & Master Key	A popup for setting text to the preset in Master # appears.
Set text to a text cell in a spreadsheet	MODIFY	Text entry is activated for the text cell.
NOTE (4.3) In keyboard override mode, level and mouse wheels are blocked to prevent unintentional changes.		

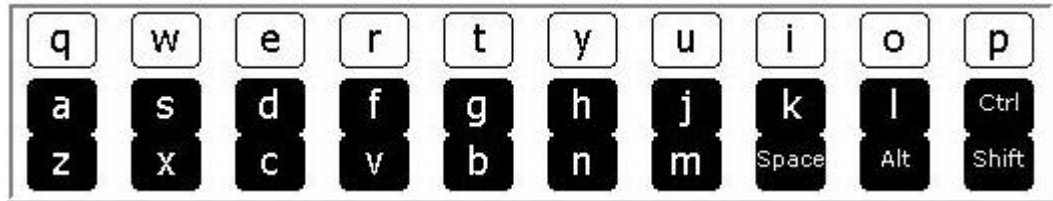
Text From The Console Keyboard (4.1)

Anytime text input is activated, the lower row of master keys and the displays are converted into a qwerty keyboard. The master keys correspond to the key in the display.

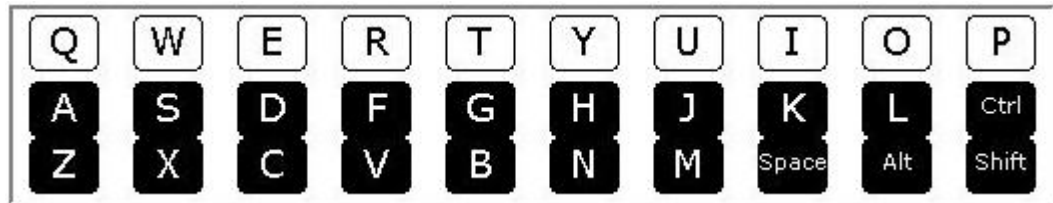
NOTE

In the Congo Jr the keyboard works in the same way, but layered in the main display of the console. The ALT key is a MORE key - stepping through these four layers.

Right Display



Hold the SHIFT key (Flash for Master 20) to get Capital letters.



Some of the Console keys are used in addition to the letters of the display keyboard.

Function	Key	Feedback
Special characters (4.1)	SHIFT & #	Hold keyboard SHIFT and press 1-9 to get special characters
DELETE	DELETE	Console key is part of keyboard functions.
INSERT	INSERT	Console key is part of keyboard functions.
BACKSPACE	C/ALT	Console key is part of keyboard functions.
Numbers	Numerical keypad	Console keys are part of keyboard functions.

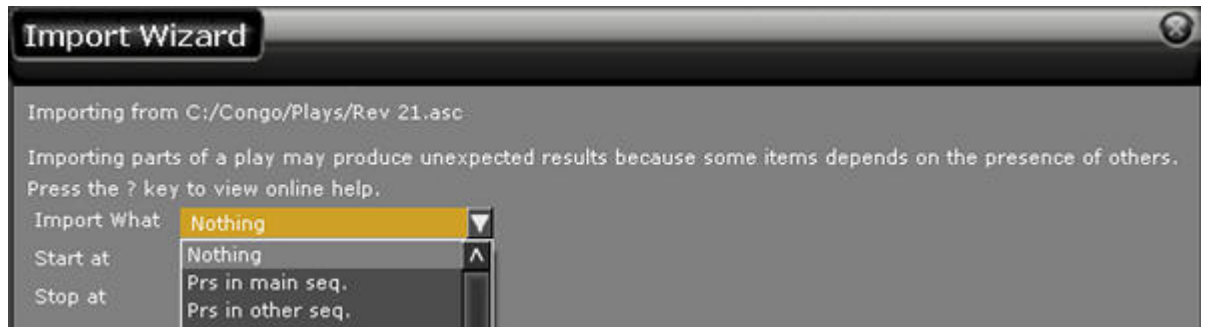
See [Accessories - Ext. Keyboard](#)

IMPORT WIZARD

You can import part of another play, and plays from Strand, Safari, Expert, Pronto or any other system, providing they are in ASCII play format (.asc) on a USB memory stick connected to the Congo.

You can also import lists from Excel, LightWright or WYSIWYG. See [Channel Database - Import Text File Wizard](#).

This is done in the Import Wizard (BROWSER >File >Import from... >Floppy/Play Archive(HD)/USB/File Server).



CAUTION

We strongly advice you to save your Play before using the Import Wizard, since it can alter your Play greatly.

NOTE

File ending has to be .asc.

Import Wizard - Functions

Function	Console/screen	Feedback
1. Open the Import Wizard for the play or media type	<input type="button" value="MODIFY"/>	The Import wizard is opened.
2. Select type of information	Dropdown	Opens the dropdown with the available data that can be imported for the selected play. The first and last available item of the selected kind is displayed in the start and stop boxes.
3. Select start item	Start at	Select first item
4. Select end item	Stop at	Select last item
5. Decide if prompt on overwrite	Checkbox	When checked you will get a warning if you are overwriting existing data with the same id.
6. Execute the import	<input type="button" value="EXECUTE"/>	Performs the import.

Wizard - Limitations (show data)

A major natural limitation is that you can't import anything regarding a moving device unless you import the template first, then the device settings. After this the show data such as Palettes.

Item	Description	Limitation
Presets	<p>You have to choose from one of three methods:</p> <ul style="list-style-type: none"> - Presets In Main Sequence = Imports all presets in the main Sequence (1). - Presets in Other Sequence = Imports all presets in the other Sequences - Presets in No Sequence = Imports all presets that are not assigned to a Sequence <p>Dynamic Effects that are stored in these Presets will be imported as well.</p>	It won't make sense to import Presets with Attributes unless you Import the Templates and Device List settings these are referring to first.
Groups	Yes	No
Master Pages	Yes	If the Page contains references to Palettes, Sequences or Presets that don't exist, they will still be assigned to the Page.
Sequences & chases	Main Sequence	You can currently only import the main sequence (1)
Palettes	Yes (All, Color, Focus, Beam)	Import the Templates and Device List settings these are referring to first.
Dynamic Templates	Yes. They will be added to the end of your Dynamic Templates List.	Make sure you have the same tables for wave-forms, or this might not work.

Import Wizard - Limitations (Patch)

To import the complete Patch you need to import first Templates, then the Channel List, then Device Settings.

Item	Description	Limitation
Templates	Yes	To import a complete Patch import Templates, Channel List and Device Settings.
Channel List	Yes	Import the Templates first. To import a complete Patch import Templates, Channel List and Device Settings.
Device Settings	Yes	To import a complete Patch import Templates, Channel List and Device Settings.

Import Wizard - Limitations (Setup)

Your Pronto/Congo Settings from a different Play can be imported, with all your settings for the Input/Outputs, record functions etc.

Import Wizard - Strand (4.2)

The following applies when importing data from a Strand System. Strand ASCII Light Cues files that ends with .alq can be opened directly.

Patch

Patch 1 is always used.

Submaster content

If a submaster contained attributes on the Strand system, the attributes are not transferred to Congo, only the intensities.

Palette references

In the Strand system, attribute information stored in groups can be used as palettes and referred to in presets. Strand groups that are referenced from presets are converted to All Palettes and a reference to the palette is stored in the Congo Preset.

Groups

Groups that are not referenced from other presets, are stored as Congo groups to avoid mix-up with preset numbers. In Strand plays groups may contain attributes - this is not supported in Congo.

Parts (4.2)

Parts are translated to Channel Times. Strand consoles can store channels and values overlapping in Part cues in a questionable way so sometimes, it isn't possible to translate this properly to Channel Times. Strand consoles can store attribute information in the Parts. This is not supported on the Congo side.

NOTE

Since a Congo Palette cannot store intensity values, a Strand group that gets converted to an All Palette will loose its intensity information.

In the Strand system, intensities in a preset can also reference a group. This is currently not supported in Congo. All such values will be set to 99% to indicate that they have to be updated manually.

Import Wizard - ETC Express/Expression/Emphasis (4.2)

Only ASCII light cue format is supported (file ending = x.asc). See local manual for export instructions to this format.

- Group keywords are now treated as real Groups and not as presets not in the sequence.
- Parameter Definitions are imported.
- Templates are imported.
- Devices are imported.
- Support for translation of parameter values from channel levels (the Emphasis style) to attribute parameters (the Congo style).

Import Wizard - Avab Expert (4.2)

Expert plays can be read directly from a floppy drive or as ASCII plays from a USB, See local manual for export instructions to this format.

The way Expert plays are read has changed completely to be able to read more data. Using an external utility, the Expert binary file format is translated into ASCII Light Cues and opened just like any other file.

- Loading an Expert play is done from Browser >File >Open. When a diskette with an Expert.pla file is detected, you get the option of converting it when you double click on it.
- An "Export to Expert" diskette command in the Browser allow you to export a Congo play to Expert format.

NOTE

There are still some parts of the play that aren't imported. More will come.

There are five parts in an expert play (pla, eff, ren, gl & set). All five are needed.

Import Wizard - Avab VLC Safari (4.2)

Most data from a Safari VLC play 3.5 or higher in ASCII format can be imported into Congo. See local manual for export instructions to this format.

- Indexed parameter numbers (like Shutters) are remapped to new Congo parameter numbers to preserve the corresponding data.
- Palette references in sequences are handled.
- Scroller Roll references in Palettes are handled.

NOTE

Due to some difference in play structure some play data may not be transferred, for example Safari Chase effects.

SETTINGS

The Settings define default times and values, the behaviour of recording functions, and attribute behaviour in faders during playback.

This chapter contains the following sections

- [Settings - Introduction](#)
- [Settings - Channel](#)
- [Settings - Crossfade](#)
- [Settings - Master](#)
- [Settings - System](#)
- [Settings - Attribute](#)
- [Settings - Output](#)
- [Settings - MIDI \(4.2\)](#)

Settings - Introduction

The system settings are opened with SETUP. You can also open a local settings popup for any key by holding SETUP and pressing that key (for example GO or RECORD)

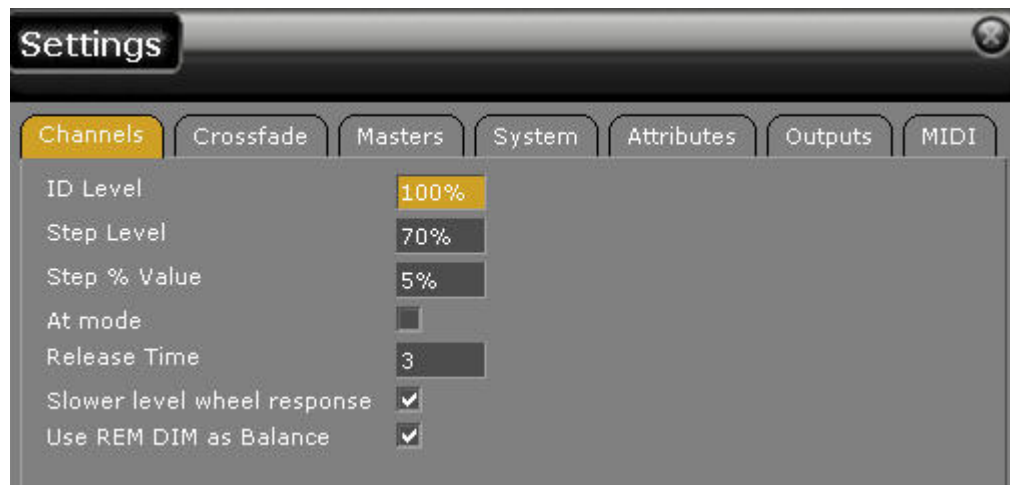
The system settings popup contains the following sections

- [OUTPUT](#) >Configure the DMX outputs of the console and visualisation.
- [ATTRIBUTE](#) >Configure default times and recording modes.
- [SYSTEM](#) >Configure Auto-save, rubberband, beep, remote etc.
- [MASTER](#) >Configure Flash and fade on time and Auto-save master pages.
- [CROSSFADE](#) >Configure default times, fader modes and fade direction.
- [CHANNEL](#) >Configure default values and select Command Syntax.

Settings - Channel

Press SETUP and use the right/left arrows to select the **Channel Settings** tab.

- Use the down arrow to select a cell.
- Use MODIFY or # MODIFY to change values.



Channel Settings (4.2)

The Channel Settings are general for all Channel Views.

Function	Explanation	Default value
<u>ID Level</u>	The level used by the ID function (hold CH and press @LEVEL)	100%
<u>Step Level</u>	The Level applied when pressing @LEVEL without any value	70%
<u>Step % Value</u>	The Level applied when pressing the +/-% keys	5%
<u>At Mode</u>	Activate the Channel Command Syntax of At Mode (Direct Mode)	Off*
<u>Release Time</u> (4.1)	Default release time for Captured channels	3**
<u>Slower level wheel response</u> (4.1)	Reduces the response speed of the level wheel	Off
<u>Use REM DIM as Balance</u> (4.2)	Sets the function of the REM DIM key to BALANCE	Off***

*See [Channels - Command Syntax](#)

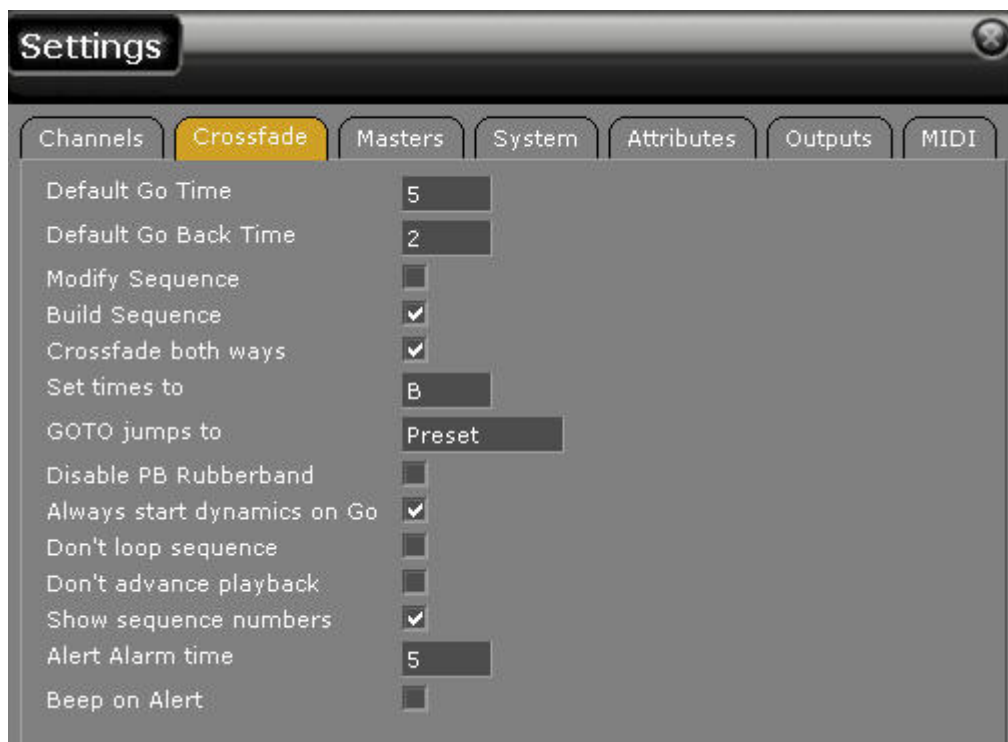
** See [Channels - Capture Mode](#)

***See [Channels - Balance Mode](#)

Settings - Crossfade

Press SETUP and use the right/left arrows to select the **Crossfade Settings** tab.

- Use the down arrow to select a cell.
- Use MODIFY or # MODIFY to change values.



Crossfade Settings (4.3)

The Crossfade Settings are general for the Main Playback.

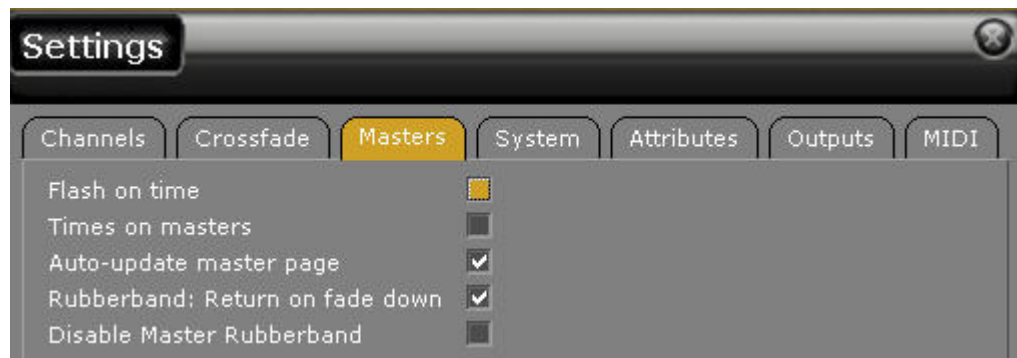
Function	Explanation	Default value
<u>Default GO Time</u>	The Time used by the GO key when no times have been assigned to a crossfade	5
<u>Default Go Back Time</u>	The Time used by the GO BACK key when pressed independent of any ongoing fades.	2
<u>Modify Sequence</u>	Deactivate all Auto-times, Master Links and other Autostart items for all Sequences.	Off
<u>Build Sequence</u>	Presets recorded in LIVE will automatically be stored in the Sequence of the A/B Playback. They will always be stored in the Preset List	On
<u>Crossfade both ways</u>	Crossfaders make a crossfade both up and down (instead of only up).	Off
<u>Set times to</u>	Times are set directly to the Sequence Step in the A field, or the B field	B*
<u>GOTO jumps to</u>	GOTO fades to Preset numbers, or Sequence Step numbers	Preset
<u>Disable PB Rubberband</u>	Disables attributes from the faders of the Main Playback.	Off
<u>Always start Dynamics on Go</u>	Sets Dynamics to start on Go regardless of other settings.	Off
<u>Don't loop Sequence</u>	At the end of a Sequence it will not restart at step 1.	Off (4.2)
<u>Don't advance Playback</u>	Crossfades will not advance any sequence steps automatically.	Off (4.2)
<u>Show sequence numbers</u>	Display of Sequence Steps.	On (4.2)
<u>Alert Alarm Time</u>	The time at which the warning (yellow and beep) will be issued before the Alert time is finished.	5 (4.3)
<u>Beep on Alert</u>	Audio Alert warning.	On (4.3)

*An arrow in the Main Playback view next to the times of A/B indicates where times are set to.

Settings - Master

Press SETUP and use the right/left arrows to select the **Master Settings** tab.

- Use the down arrow to select a cell.
- Use MODIFY to toggle a setting.



Master Settings (4.1)

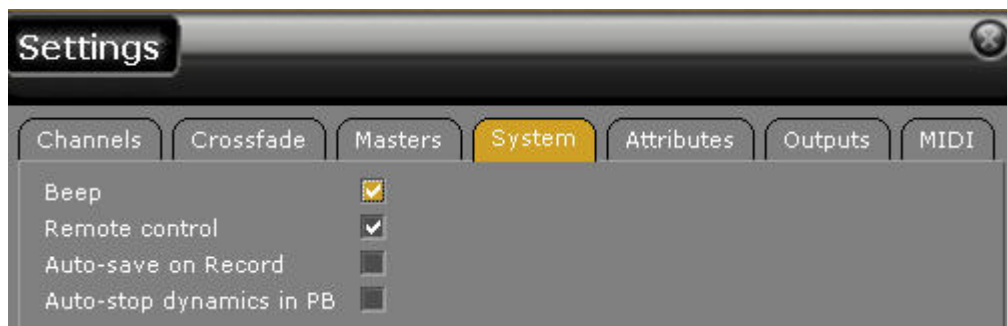
The Master Settings are general for the Master Playbacks.

Function	Explanation	Default value
<u>Flash on time</u>	Press FLASH will activate a fade following the fade times assigned to a Master	Off
<u>Times on Masters</u>	Manual fading will follow fade times assigned to a Master.	Off
<u>Auto-Update master page</u>	Changes to a Master Page are stored automatically.	On
<u>Rubberband: Return on fade down</u>	Attributes follow Master fader also when fading down.	Off
<u>Disable Master Rubberband</u>	Attributes will not follow Master faders (4.1).	Off

Settings - System

Press SETUP and use the right/left arrows to select the **System Settings** tab.

- Use the down arrow to select a cell.
- Use MODIFY to toggle a setting.



System Settings (4.2)

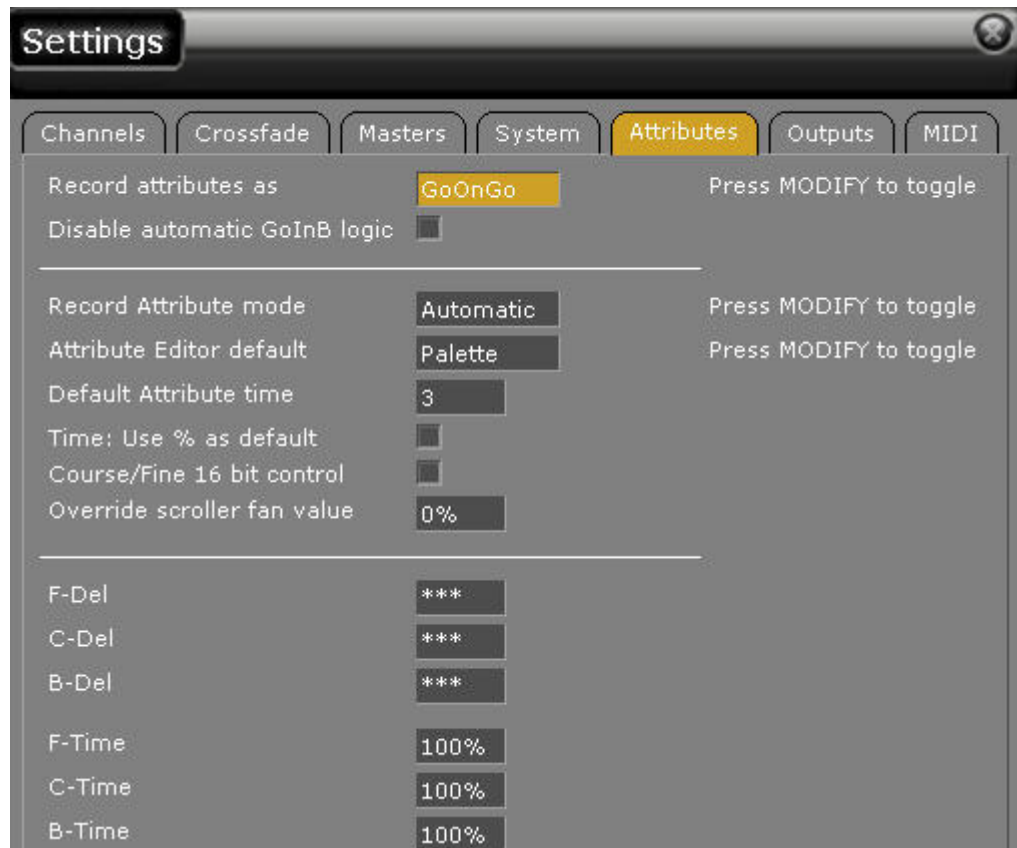
The System Settings are general for the behaviour of the console.

Function	Explanation	Default value
<u>Beep</u>	An audio "beep" warning when illegal commands are performed AND when a crossfade is completed (4.2)	On
<u>Remote Control</u>	Activate Radio remote focusing.	Off
<u>Auto-Save</u>	Saves the Play after each time you press RECORD.	Off
<u>Auto-stop Dynamics in PB</u>	Loading a new Sequence to Playback 1 stops all running Dynamics started from the current Sequence.	Off

Settings - Attribute

Press SETUP and use the right/left arrows to select the **Attribute Settings** tab.

- Use the down arrow to select a cell.
- Use MODIFY or # MODIFY to change values.



Attribute Settings

The Attribute settings affect recording and control of moving device parameters.

Function	Explanation	Default
<u>Record Attributes as</u>	Record attributes to move "live" (GoOnGo) or to move when the positions are loaded for the next Crossfade (GoInB).	GoOnGo*
<u>Disable Automatic GoInB logic</u>	The logic for automatically storing non-intensity moves as move-while-dark is disabled.	Off
<u>Record Attribute mode</u>	There are three different modes for recording Attributes. See Device Recording - Modes .	Automatic
<u>Attribute Editor default</u>	The default setting for entering values in the Attribute Editors: Palettes or %.	Palette
<u>Default Attribute time</u>	Sets a time for all moving device changes during programming.	3 seconds
<u>Time: Use % as default</u>	Times are set as % of the In-time of a crossfade, or in seconds.	Off (seconds)
<u>Coarse/Fine 16 bit control</u>	Moving parameter wheels slowly gives 16 bit control. See Device Templates - 16 bit control .	Off (8 bits)
<u>Override scroller fan value</u>	Override the fan of all patched scrollers with fan control.	0%
<u>F-Del</u>	A default delay time in seconds or % (of the In time), used when recording Preset with Attributes.	100%**
<u>C-Del</u>	See above	100%**
<u>B-Del</u>	See above	100%**
<u>F-Time</u>	A default time in seconds or % (of the In time), used when recording Preset with Attributes.	100%**
<u>C-Time</u>	See above	100%**
<u>B-Time</u>	See above	100%**

*You can change this separately for each Sequence Step in the [Sequences - Sequence List](#).

100% of the In time is displayed as "**"

Settings - Output

Press SETUP and use the right/left arrows to select the **Output Settings** tab.

- Use the down arrow to select a cell.
- Use MODIFY or # MODIFY to change values.



Output Settings (4.2)

There are two output ports that can transmit DMX512. Both can transmit the same data. For more than 1024 outputs, use Ethernet output.

Function	Explanation	Default value
<u>Output 1 Start</u>	Output connector 1	1
<u>Output 2 Start</u>	Output connector 2	513
<u>Blind Ethernet Output*</u>	Activates preview and blind output to third party visualisation tools such as WYSIWYG, SandNet or Capture.	-
<u>WYSIWYG/SandNet/Capture Link</u>	Activates bi-directional communication with third party visualisation tools.	-

*See [Visualisation - Blind Output](#)

Settings - MIDI (4.2)

Press SETUP and use the right/left arrows to select the **MIDI Settings** tab.

- Use the down arrow to select a cell.
- Use MODIFY or # MODIFY to change values.



MIDI Settings (4.2)

The MIDI Settings are general for the system.

Function	Explanation	Default value
<u>MIDI Channel</u>	The MIDI channel used by Congo	1
<u>Keys</u>	All keys are sent as notes.	Off
<u>Faders</u>	All faders are sent as controllers.	Off
<u>Program Change</u>	Jumps to sequence step #	-
<u>Read MIDI Time Code (MTC)</u>	MIDI Times Code reception is on.	-
<u>Learn mode</u>	Activate learn mode for setting Time Code to Sequence Steps.	-
<u>Auto-locate step</u>	Sets if Time Code should auto-locate steps or not.	-
<u>MIDI Show Control</u>	Activates reception of MSC.	-
<u>Device ID</u>	Sets a Device ID for this Congo.	1

DISPLAY LISTS (4.1)

NOTE

Display Lists are only available in the Congo, not in the Congo Jr.

The main display of the console handles a number of data lists in the mid section. You can use the trackball to access information in these lists in the Display List mode. There are two ways of opening a List.

- Hold DISPLAY LIST and press a function key
- Hold DISPLAY LIST and select from the Direct Selects (4.1)

Example - Display List for Groups

Times ---->	Auto Groups		Device ---->
	[CF7 HEx]	StudioBeam	
	Led	Front of ho	
Dyna mics ---->	Mac 250 M4	Specials	Select ---->
	Mac 500 M4	Fixed rig	
	StageScan		
Chan nels ---->	G:81	F 1/1	Play back ---->
Pan 50	Tilt 50	Focus Spe Tracking 1	

These are the lists. Select an item with the trackball and right- or left click to activate it.

List	Shortcut	Description
Preset List	DISPLAY LIST & PRESET	All presets.
Group List	DISPLAY LIST & GROUP	All groups. Click to select.
Channel List	DISPLAY LIST & CH	All selected channels and names.
Auto Group List	DISPLAY LIST & CH CH	All auto groups from the channel database. Click to select.
Playback List	DISPLAY LIST & PLAYBACK	Shows the sequence steps and times in the Main Playback.
Parameter List	DISPLAY LIST & WHEEL KEY	Shows all ranges of the selected parameter.
Dynamic Effect List	DISPLAY LIST & DYN EFFECT	All dynamic effects. Click to activate.
PlayList	DISPLAY LIST & PLAYLIST	The Playlist. See Playlist.
All Palette List	DISPLAY LIST & PALETTE	All Paletes. Click to activate.
Focus Palette List	DISPLAY LIST & FOCUS	All Focus Palettes. Click to activate.
Color Palette List	DISPLAY LIST & COLOR	All Color Palettes. Click to activate.
Beam Palette List	DISPLAY LIST & BEAM	All Beam Palettes. Click to activate.
Master Page List	DISPLAY LIST & PAGE	All Master Pages. Click to activate.
Master List	DISPLAY LIST & MASTER	All Master Playbacks.
Channel Layout List	DISPLAY LIST & Direct Select	All Channel Lists. Click to activate.

LOGIN SETTINGS

The Login Settings make it possible to configure system features like time, nationality, network and software update/upgrade.

This chapter contains the following sections

- [Login Settings - Introduction](#)
- [Login Settings - Editing](#)
- [Login Settings - General Functions](#)
- [Login Settings - Time Settings](#)
- [Login Settings - International](#)
- [Login Settings - Software Update](#)
- [Login Settings - Software Upgrade](#)
- [Login Settings - Networking](#)

Login Settings - Introduction

The Login Settings are opened from the Login Screen (See [Login Settings - Editing](#)). This is where you set the following items.



- System name
- Preferred language
- Fileserver path
- Inverse LCD
- Channel Downgrade
- Time Settings
- International Settings
- Software update
- Software upgrade code
- Logical network
- ETCNET2
- IPX
- ArtNet
- Logical Network
- Advanced Settings

Login Settings - Editing (4.2)

The Login Settings are opened from the Login Screen, which automatically is shown after powering up the console. Selecting this option using the arrow keys and press MODIFY.



This popup is opened. Use TAB to move around and click to activate/enter information. ESC will close. The settings are explained in the following pages.

System settings

General

System name
Congo

Preferred language
english

Preferred help language
japanese

File Server path

Inverse LCD
☐

Channel downgrade
3072

Swap 0 and C buttons
☐

Time settings...

International settings...

Software update...

Software upgrade code...

Networking

Preferred IP address
Anslutning till lokalt nätverk (192.168.0.199)

ETCNet2
☐

ETCNet2 System priority
20

ETCNet2 EDMX Start
1

Avab IPX
☐

ArtNet
☐

Streaming ACN
☐

Logical network
3

Advanced settings...

NCE...

Backup setup...

Login Settings - General Functions (4.3)

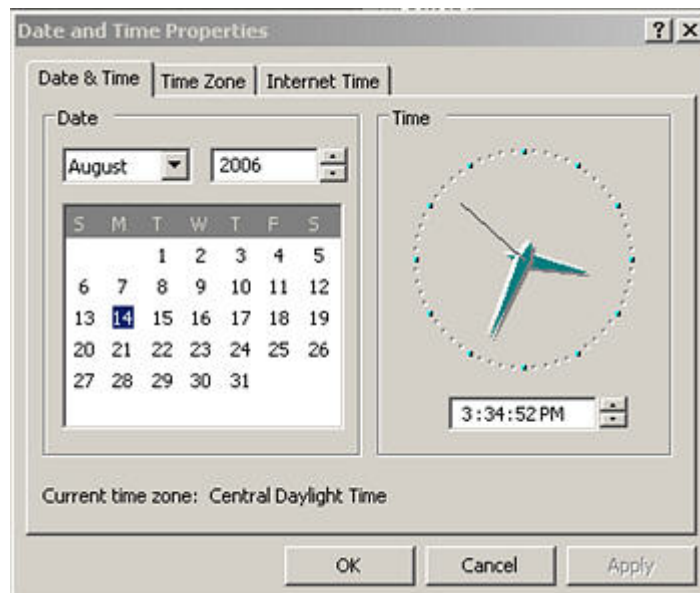
These are the general functions



Function	Feedback
<u>System Name</u>	Any system name (main, backup, foh) can be used. It is displayed at the top of each screen.
<u>Preferred Language</u>	Select a language with MODIFY and confirm with MODIFY. The application will re-launch automatically (4.3).
<u>Preferred help Language</u>	Select a language with MODIFY and confirm with MODIFY. Reboot the system to activate.
<u>Fileserver Path</u>	<p>If you are using a file server define the complete play path following window play path standards here.</p> <p>Example: <i>D:\congo\backup (internal path/folder)</i> <i>\\anders\playfolder (external server name/folder)</i> <i>\\192.168.1.1\plays (external IPaddress/folder)</i></p>
<u>Inverse LCD</u>	Inverts the colors for the Master and Direct Select LCD's in the console facepanel.
<u>Channel Downgrade</u>	Select less channels to optimize the system (not very common)
<u>Swap 0 and C buttons</u>	Swap the physical location of the numerical keypads 0 and C buttons (do so in the console as well physically).

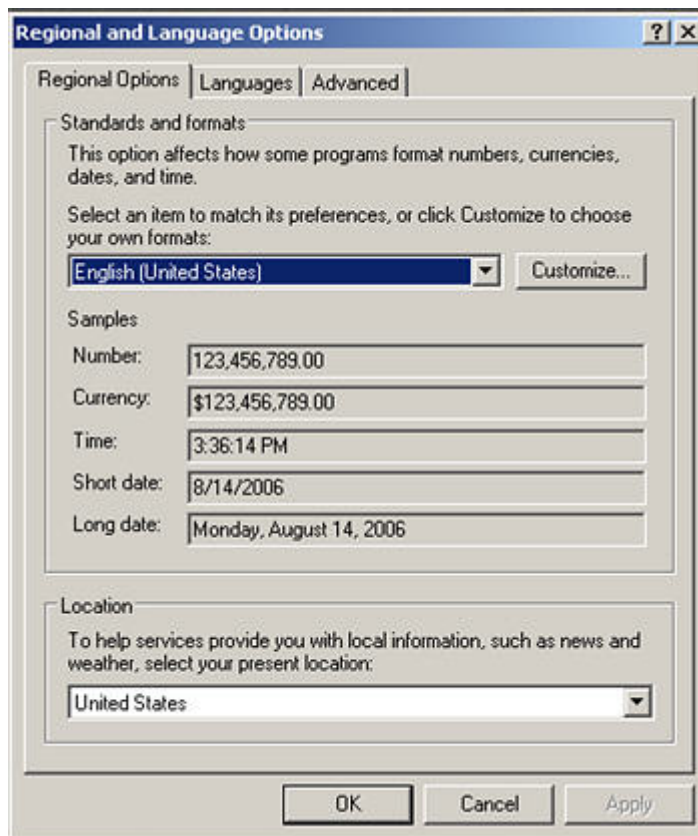
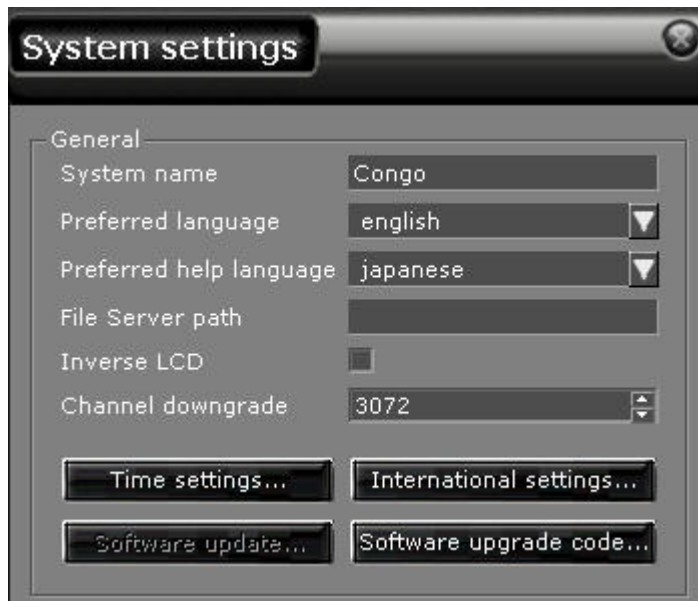
Login Settings - Time Settings

Selecting TIME SETTINGS and pressing MODIFY (or click) opens the embedded XP Time Settings. They are displayed in the language of the installation.



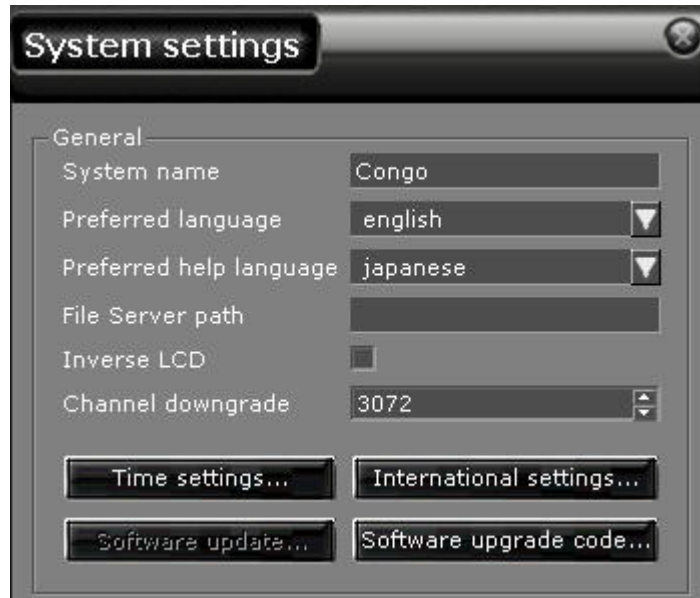
Login Settings - International

Selecting INTERNATIONAL and pressing MODIFY (or click) opens the embedded XP International Settings. They are displayed in the language of the installation.



Login Settings - Software Update

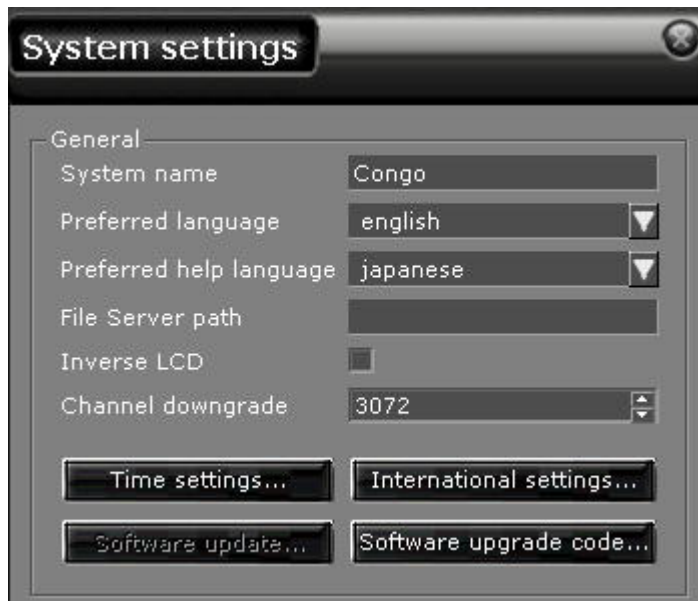
Selecting SOFTWARE UPDATE and clicking opens the software update dialog. A USB memory stick with the latest congo.exe file from www.etconnect.com in a folder called SOFTWARE should be inserted in a USB port before activating this.



How to update the software is described step by step in [System Info - Software & Update](#).

Login Settings - Software Upgrade

You can upgrade the outputs of a system with a code that you buy from your dealer. Selecting **Software Upgrade** and pressing MODIFY (or click) opens a software upgrade dialog.

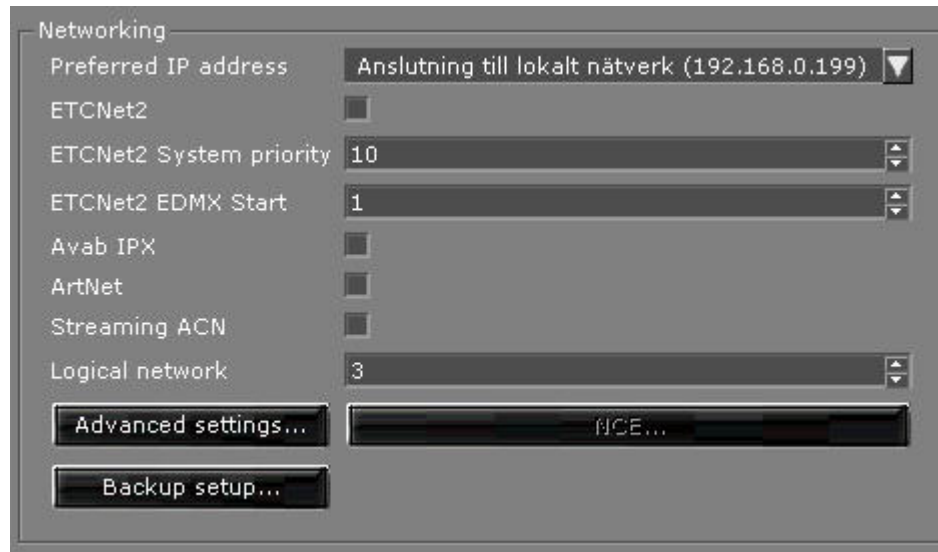


Enter the code and press MODIFY to confirm.

Login Settings - Networking (4.3)

There are ten logical Networks (0-9) that can work with different systems within the same physical network. In other words, if more than one Congo system controlling different equipments are to be on the same physical network, they should be set to different logical networks.

The Networking features set i the Login Settings are these.



Functions

Function	Feedback
<u>Preferred IP address</u>	Choose network and IP address if more than one is available.
<u>ETCNet2</u>	Check this feature if you are using devices or nodes receiving ETCNet2.*
<u>ETCNet2 System Priority (4.2)</u>	(Advanced) A ETCNet2 parameter that decides the priority status of this system. See ETCNet2 documentation.
<u>ETCNet2 EDMX Start (4.2)</u>	(Advanced) Sets the start offset for the ETCNet2 net**
<u>Avab IPX</u>	Check this feature if you are using devices or nodes receiving AVAB IPX**
<u>ArtNet (4.2)</u>	Check this feature if you are using devices or nodes receiving ArtNet.
<u>Streaming ACN (4.3)</u>	Check this feature if you are using devices or nodes receiving ACN.
<u>Logical Network</u>	This is the logical network (0-9)used to transmit all output from this system. Each server requires a logical network of it's own ***
<u>Advanced Settings</u>	Opens the embedded Windows XP network settings.
<u>NCE</u>	Currently not used
<u>Backup Setup (4.2)</u>	Sets up the Backup/Server status at startup - See Network - Backup Setup .

*The system name that is exposed on Net2 is "Congo " + the system name.

**If you have EDMX enabled, the EDMX number will be shown in parenthesis next to each output in the Output lists. See [Patch - Output List](#).

***The settings of the Logical Network will affect the AvabIPX settings. Visualisation software such as Capture require Avab IPX to be ON.

NETWORK (4.3)

Congo has client/server networking with multiple operators. It is possible to send and fetch a play between Server and Backup. There is backup sync for running shows.

This chapter contains the following sections

- [Network - Introduction](#)
- [Network - Connecting](#)
- [Network - Fetch & Send Play](#)
- [Network - Convert To Server/Backup](#)
- [Network - Backup Sync](#)
- [Network - Client](#)
- [Network - Multiple Users](#)
- [Network - Unison Macros](#)

Network - Introduction (4.2)

A Congo network consists of a Server and a Backup, and/or Clients. A Server can have any number of Clients.

NOTE

Full consoles can be Servers or Backups. Any PC running Windows XP with the requisite video ram (128MB minimum) can act as a client providing it has the license to do so.

General Facts

- Each system can be setup to start as either Server, Backup or auto-detect (4.2).
- Only the Server transmits output data
- Plays can be transferred between Main and Backup system
- There is a backup sync that can be activated from the Server
- Convert any system to Server/Backup

See [Login Settings - Networking](#).

Network - Connecting (4.3)

A network with only two systems (server/backup) can be connected with a "crossed" Ethernet cable, or an ethernet Hub can be used. They can be connected as Server/Backup, or Server/Client. The client can be used as a separate workstation in parallel with the Server, while the Backup is only used for programming once converted to Server.

Server/Backup

The first system to boot will become the Server unless it has been set up differently - See [Network - Backup Setup](#).

NOTE

(4.3) If two Servers are active on the same network for some reason, the header bar at the top of all screens will show "Warning: Dual Servers Online".

A message is shown in the Message area (bottom of screens) on the Server system when a Backup or Client is started. The system that is started as Backup now displays an information message about this.

When the contact is lost between two linked Congos a message is shown in the Message area (bottom of screens), and the Backup Congo is automatically converted to Server.

ETCNet2

You can connect to ETC nodes with a router. Congo consoles/Client PCs should be given IP addresses in the 10.101.201.101+ range when used with ETCNet2. Please see the ETCNet2 v4 Planning Guide for information on configuring an ETCNet2 network.

Network - Fetch & Send Play (4.2)

Play data is not replicated automatically - for security reasons. Always send or fetch the most current play before running a show. Plays can be fetched from Server and Backup, but only sent from Server.

1. Select the Browser by pressing *BROWSER* (if it was selected it will be closed, press again to open).
2. Use the down and right arrow keys to open the *NETWORK* node.



3. Select the appropriate action (*Send/Fetch Play*). You will get a confirmation message in the bottom of the screens.

Once the Play is transferred you have the same Play information in both consoles. The Play file name is transferred, and the playbacks in the receiving system will position to the same steps as in the main system. If you make changes in either console, you have to transfer the Play to update the other console. This guarantees that a programming crash in one system won't bring down the other system.

NOTE

The Play is transferred, but not saved. You have to save it manually.

There is an Auto-transfer Play option in the Backup Settings. See [Network - Backup Setup \(4.2\)](#).

Network - Convert To Server/Backup

The Server system is the system that transmits output. The Backup system will start doing so when it is converted to Server. ***This will happen automatically in case of a crash.*** It can be done ***manually*** at anytime too, ***but only from the Backup itself.***

The top of each screen indicates if a system is running as Server or Backup.



Changing manually

1. Select the Browser by pressing BROWSER (if it was selected it will be closed, press again to open).
2. Use the down and right arrow keys to open the NETWORK node.



3. Select the appropriate action. You will get a confirmation message in the bottom of the screens.
 - Convert to Server = can only be done from a backup (for security reasons).
 - Convert to Backup = is only used if there are two servers in a network, due to network dropouts.

Network - Backup Sync (4.2)

The link between the two consoles is activated from the Network node of the Browser. This can only be done from the Server .

The following things are synchronized

- Loading new content into a Master.
- Activating content from a Master with the Master key.
- Changing the level of a Master fader.
- Loading new content into playback 1 or 2.
- Starting a playback with the GO, GOTO, GO BACK and PAUSE keys. GO commands include the current Sequence and position to make sure that the playbacks are at the same position.
- Jumping in the Sequence with SEQ+/- or # GOTO.
- Activating a new Master Page.
- Manual Crossfades: when starting a manual crossfade, a GO command is sent to the backup system to make sure that crossfade-related things are started.

NOTE

There is an Auto-transfer Play option in the Backup Settings. See [Network - Backup Setup \(4.2\)](#).

1. Select the Browser by pressing *BROWSER* (if it was selected it will be closed, press again to open).
2. Use the down and right arrow keys to open the *NETWORK* node.



3. Select *Backup Sync*.

You will get a confirmation message in the bottom of the screens. Also, the background color of the screens in the Backup System will change to a brighter color.

Network - Backup Setup (4.2)

A system can be set up to start as Backup or Server regardless of the order in which the systems are powered, or by detecting this order.

There is also a setting for Auto-transferring the current play to the Backup when both systems are powered up.

These settings are in the System Settings of the Login Screen before launching the Congo application.

1. Exit to the login screen if Congo is running (Exit in the Browser >File node).
2. Open System Settings
3. Select Backup Setup at the bottom.



NOTE

If you are using Always Server or Backup - make sure it's set up the same way in both systems!

When the **Auto-transfer** setting is checked, the following actions will be performed each time you make a New, Open, Save or Save As command on the Server:

- Transfer play to the Backup.
- Save play on the Backup.
- Activate Sync mode.

Network - Client (4.3)

You need a dongle to run the software as a Client to an existing Server. To log in as a Client, use the CLIENT key from the Login Screen of Congo. Once you are logged in as Backup or Server you have to log out to log in as a Client again.

As soon as a Client is connected to a Server, a message is shown on all stations (4.3).

If the Server is stopped, clients will restart and present a modified welcome screen informing about what happened, allowing you to restart. If the same Server is online you will be offered to re-connect. If there is a new Server (if the Backup took over) you will be offered to connect to this Server (4.3).

For the following commands use the CLIENT key of the console.

Action	Keys	Feedback
Toggle Clients on/off	CLIENT	Confirmation message at bottom of screens.
Set permission modes	CLIENT (held)	As long as CLIENT is held permissions can be set with the direct selects. Currently only Full Access and View Only Mode are available.
NOTE Be careful when using the client since you are making changes directly in the server. Don't try to work on the patch from the client. In View Only Mode, you can change the play on the main console - which you may not want to		

Network - Multiple Users (4.3)

#####

Multiple Users - Global Functions (4.3)

All Play data is Global and owned by the database of the Server. Also, all playback features are Global, shared by all users.

NOTE

You are free to work independently blind from any client or the Server at the same time.

When working Live you are sharing control spaces - as soon as someone presses for example GO it will affect all systems. This is something you have to synchronise on a human level - operator to operator.

Main and Master Playbacks

Playback functions are global and shared by all. This includes functions like GO, PAUSE and REFRESH.

Highlight Mode

This is a global mode, both affecting and indicated on all screens on all stations.

Grand Master

The Grand Master is global. This means any user can control it for the whole system.

Freeze

The Freeze switch is global. This means any user can control it for the whole system.

B.O.

The Blackout switch is global. This means any user can control it for the whole system.

Independents

The Independents global. This means any user can control them for the whole system.

Multiple Users - Local Functions (4.3)

Basically everything is local except the global features described above. See [Multiple Users - Global Functions](#). There are some special cases:

Capture

Each user has its own Capture mode, but all captures channels are handled on a global system level on a first come, first served basis. This means that if a channel can be controlled from two clients or the Server, and one of them has Captured it - it is "owned" by this client/Server until released.

Group Wheel Mode

Group Wheel mode is local for each client - just like all other channel control functions.

Network - Unison Macros (4.3)

It is possible to synchronize Congo with Unison Systems. A Unison Command triggers the corresponding Congo Macro.

Consult your Unison manual for more information about Unison Systems.

Network - EDMX and sACN Universe Map (4.3)

There is a Universe Map that enables you to map any of the the 12 universes of Congo to:

- Any universe of ETCNet2 EDMX.
- Any sACN universe.

This is done in the Networking Node (BROWSER >Networking > Universe Map).

3. Universe Map List			
	Universe	EDMX Start At	Streaming ACN Universe
1	1	1 (1)	1
2	2	2 (513)	2
3	3	3 (1025)	3
4	4	4 (1537)	4
5	5	5 (2049)	5
6	6	6 (2561)	6
7	7	7 (3073)	7

NOTE

To use EDMX or streaming ACN these protocols have to be enabled in the Login Settings of the system. See [Login Settings - Networking](#).

MEDIA (4.1)

The Media node of the Browser has four nodes. Each of them represent a folder with the same name in the CONGO folder at the root of the system. Information dropped in these folders can be viewed in the Tabs of Congo.

Function	File Types	Explanation
<u>Movies</u>	<i>wmv</i>	Movies are played when a movie node is selected.
<u>Images</u>	<i>jpg</i>	Images are loaded in a Tab when an image node is selected.
<u>Documentation</u>	<i>htm</i>	Documentation is loaded in a Tab when a documentation node is selected.
<u>Training Projects</u>	<i>c2p</i>	Training projects created in Capture and supplied with the software can be opened here.
NOTE If you insert a USB device which contains Image or Movie files, you get a question about auto importing them to the Images and Movies folders.		

Media Images - From USB Camera (4.1)

If you connect a digital camera to the console via USB a dialog will open to allow you to import the photos into the Images folder in Congo. You have a possibility to select if all images found should be imported or just ones with a newer timestamp than last import.

NOTE

This works for cameras that show up as a new Drive in Windows (not as a camera device).

Media Images - Delete (4.1)

You can delete images directly from the Browser by pressing DELETE.



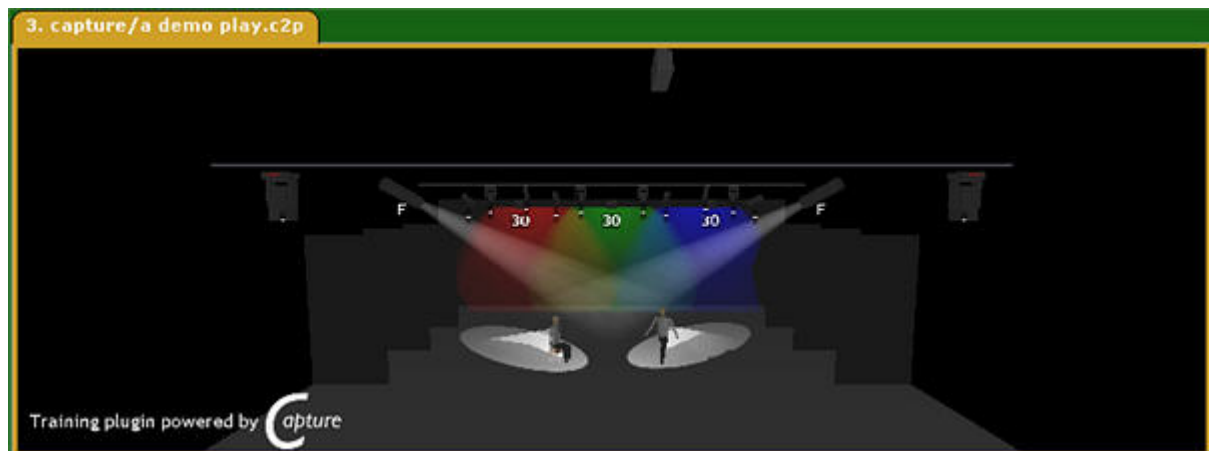
Media - Training Projects (4.3)

This is visualisation plug-in for training purposes. The projects are created in a third-party software called Capture and supplied by ETC. The idea is not to run large shows with processor-heavy visualisation inside Congo. It is meant as a training tool that allows you to understand functions like Dynamic Effects without having a rig.

Training Projects - Open Project (4.3)

Opening a Training Project

1. Go to the Browser (BROWSER)
2. Navigate with the arrow keys to the File > Open > Play Archive node
3. Open the file **A demo play** (this will close the online help - open again and continue)
4. Navigate with arrow keys to the MEDIA node.
5. Open the sub-node Training Projects
6. Open the file **A demo play.c2p**.
7. You will get a visualisation tab like this



The play loaded will correspond to this training project.

Training Projects - The Camera (4.1)

There is a camera (viewing angle) that allows you to zoom, pan and rotate the "stage". There are some default functions connected to the FORMAT key of Congo, and some functions are accessible by patching the camera as a Device to a channel.

Default functions

Camera does not have to be patched as a DMX device.

Function	Key	Feedback
Zoom	FORMAT & Wheel	The view is zoomed in/out from the camera.
Pan stage right	Right Arrow & Wheel	Stage is panned to the right around the camera
Pan stage left	Left Arrow & Wheel	Stage is panned to the left around the camera
Tilt stage up	Up Arrow & Wheel	Stage is tilted up around the camera
Tilt stage down	Down Arrow & Wheel	Stage is tilted down around the camera

DMX functions

Camera is patched as a device to channel 22 in the project A Demo Play. When the channel controlling the camera is selected all functions are mapped to the device controls around the Main Display.

FOCUS functions

- **Pan** = Pan stage
- **Tilt** = Tilt stage
- **Pitch** = Pitch the angle of the stage

Beam functions page 1

- **Zoom** = Zoom
- **X <>** = Move stage right/left along the **X** axis
- **Y <>** = Move stage up/down along the **Y** axis
- **Z <>** = Move stage in/out along the **Z** axis

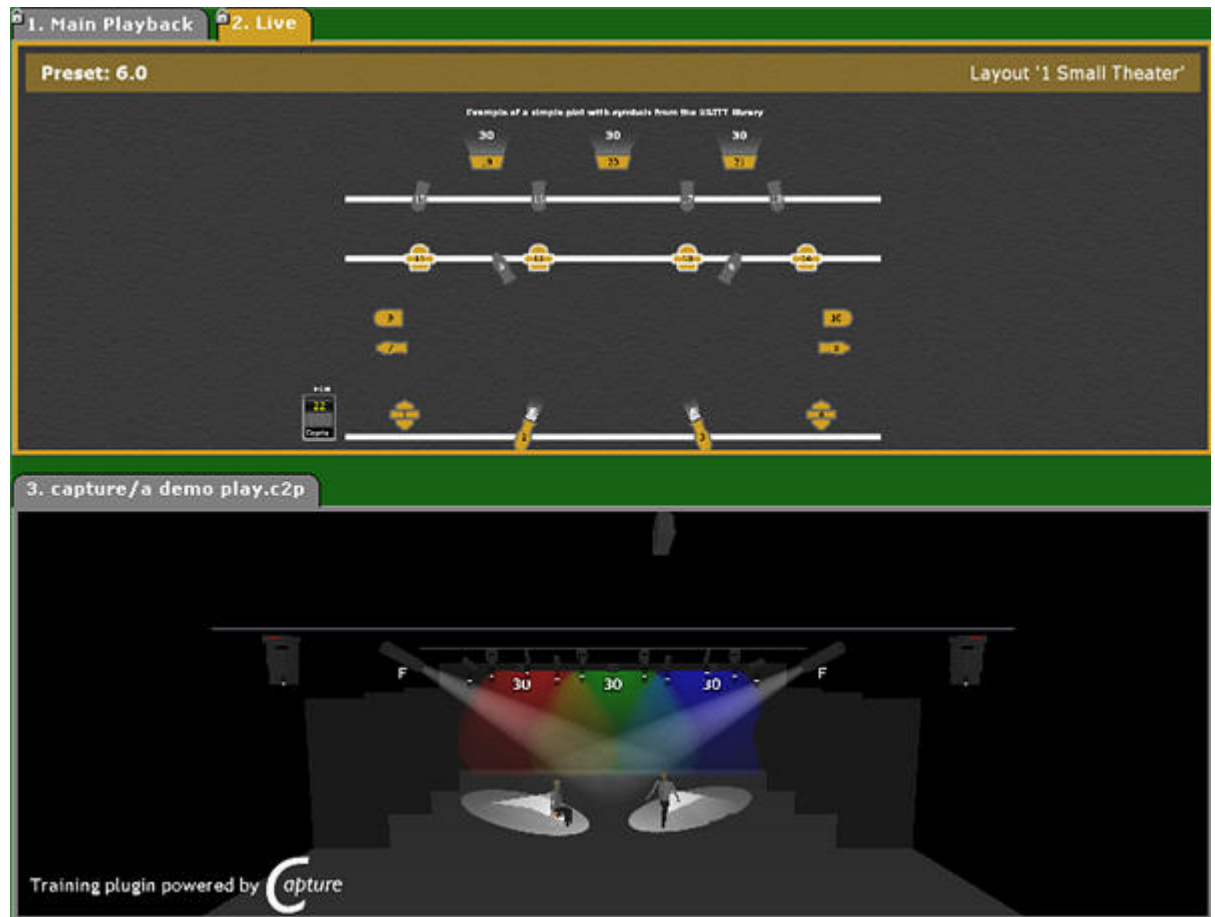
Beam functions page 2

- **Ambient L** = Houselights
- **Fixture L** = Fixture lights
- **Atmospher** = Atmosphere/smoke

Training Projects - Hints (4.1)

The Training Project is a simple way of getting to know some of the moving light functionality of Congo, and to understand Dynamics.

In the corresponding Congo Play (A Demo Play) there is a sample of a Channel Layout that can be used together with the Plug-in. If you are running one monitor and split the screens you will have a view like this.



NOTES (4.1)

Notes allow a comment and a color code to be attached to any Sequence Step, Group, Preset or Palette. All Notes are summarized in a list with a time and user stamp - and a direct link to the object the Note is attached to.

This chapter contains the following sections

- [Notes - Introduction \(4.1\)](#)
- [Notes - Create \(4.1\)](#)
- [Notes - Editor \(4.1\)](#)

Notes - Introduction (4.1)

Notes are created in lists by pressing NOTE (Alt N) or by pressing MODIFY in the Note "N" column of the list.

- All Notes are tagged with a time stamp, and the user login of the operator.
- Notes are shown in the Playback View with Flags.
- The color of these flags can be set in the Notes Editor.
- In the Notes Editor, it is possible to edit, delete and change color code for Notes.

Notes - Create (4.1)

Notes are created in the following lists by pressing NOTE.

- Playback view
- Sequence List
- Preset List
- Group List
- Focus Palette List
- Color Palette List
- Beam Palette List
- All Palette List

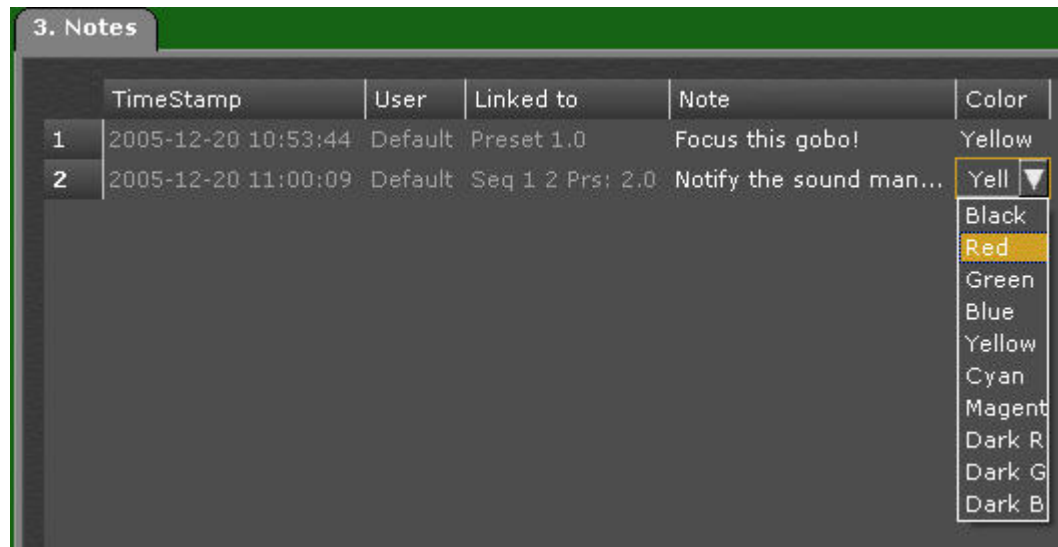
Pressing NOTE (for example in the Preset List) will produce the following popup



Press MODIFY to save. See [Notes - Editor](#).

Notes - Editor (4.1)

Open the Notes Editor by holding MODIFY and pressing NOTE or from the Browser (Browser >Setup >Note Editor).

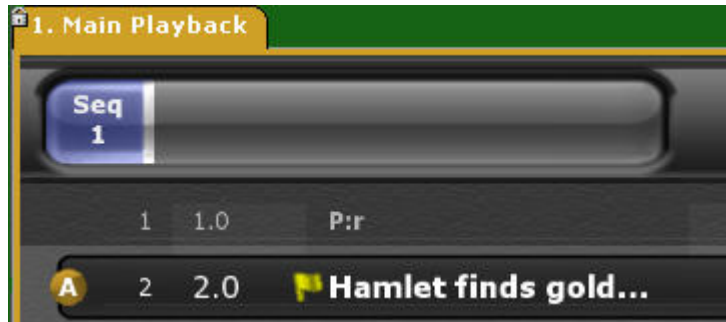


Note Editor - Columns (4.1)

These are the columns in the Note Editor.

Column	Input	Function
<u>T</u> imeStamp	MODIFY	The number of this Note - Press MODIFY to open the editor for this object.
<u>U</u> ser	MODIFY	The user that created this Note - Press MODIFY to open the editor for this object.
<u>L</u> inked to	MODIFY	The object of this Note - Press MODIFY to open the editor for this object.
<u>N</u> ote	MODIFY	The Note text. MODIFY opens the text for editing.
<u>C</u> olor	MODIFY	The color popup (only for the playback tab). Press MODIFY to open and select. Press MODIFY to close*

The color flag is shown for Notes in the Playback View.



Note Editor - Delete (4.1)

Notes are deleted in the Note Editor.

1. Open the editor. See [Notes - Editor](#).
2. Select the Note with arrow keys.
3. Press DELETE. The Note is deleted.

TRACK (4.2)

It is possible to track intensities, channels, devices and attributes in Groups, Presets, Palettes and Sequences.

This chapter contains the following sections

- [Track - Introduction \(4.1\)](#)
- [Track - Channels \(4.1\)](#)
- [Track - Lists \(4.1\)](#)
- [Track - Presets \(4.1\)](#)
- [Track - Palettes \(4.1\)](#)
- [Track - Track Editing \(4.2\)](#)

Track - Introduction (4.2)

It is possible to Track a channel/moving device selection with attributes through Play data (Presets, Groups, Palettes, Sequences). It is also possible from the Browser, to track Presets and Palettes.

A channel selection can be tracked

- In the Sequence of the Main Playback
- In the Sequence of a Master Playback
- In all Sequences
- In all Presets
- In all Groups
- In all Palettes (Focus, Color, Beam, All)
- In the Play (Sequences, Presets, Groups & Palettes) (4.2)

From the Browser it is possible to track

- Where Presets are used (in Sequences)
- Where Palettes are used (Focus, Color, Beam, All)

NOTE

You can press **MODIFY** in the first column of any track list to open the corresponding editor for that item.

There is a limit of 30 columns of data in all Track Lists to avoid creating huge spreadsheets if many channels with many parameters are selected.

As long as a Track List is open the tracking commands **UPDATE & @LEVEL** and **UPDATE & ATTRIB** are blocked to avoid confusion.

IMPORTANT: Be careful using track editing or unblock wizard in a show where presets appear in multiple sequences or on masters as well as sequences, since the changes follow through in all places.

Track - Lists (4.1)

Any selection of channels/moving devices can be tracked. Once the Track List is opened you can view and edit levels directly.

	Step	Preset	Text	Mode	Devices	1	2	3	4	5	6	7	8	9	10
1	1	1.0		X	30	30	30	30	30	30	30	30	30	30	30
2	2	2.0	Hamlet finds gold...	X	0	9								9	
3	3	3.0		X	0										

NOTE

In all Track Lists with attributes (Seq, Preset, Palettes), both attributes and levels can be toggled on/off. See [Track Channels - Show Levels & Attributes \(4.1\)](#).

Open any editor directly by pressing MODIFY in that column.

Track List - Functions (4.1)

Column	Action	Feedback
<u>Step</u>	<input type="button" value="MODIFY"/>	Opens the Sequence List focused at this Step.
<u>Preset</u>	<input type="button" value="MODIFY"/>	Opens the Preset List focused at this Preset.
<u>Text</u> (4.1)	No Input	Shows the Step Text.
<u>Mode</u>	<input type="button" value="MODIFY"/>	Opens the Sequence List focused at this Preset.
<u>Devices</u> (4.1)	<input type="button" value="MODIFY"/>	Opens the Preset Attribute List for this Preset.
<u>Channels</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets a level for the selected cells.

Track List - Show Levels & Attributes (4.1)

In all Track Lists with attributes, the attributes and levels can be toggled on/off with the following functions.

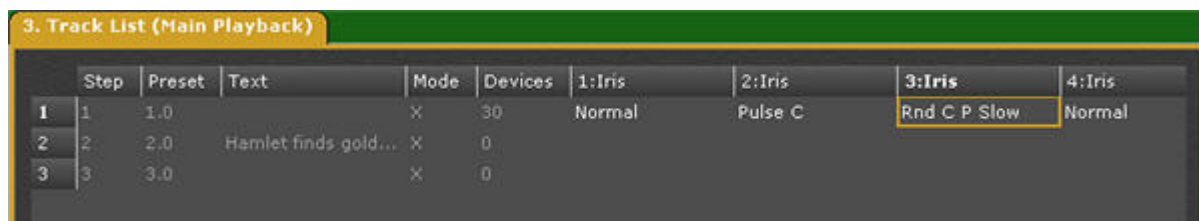
Function	Column	Feedback
Toggle Levels.	<input type="checkbox"/> FORMAT <input type="checkbox"/> @LEVEL	The intensity column is toggled.
Toggle Focus attributes.	<input type="checkbox"/> FORMAT <input type="checkbox"/> @ FOCUS	The Focus parameter columns are toggled.
Toggle Color attributes.	<input type="checkbox"/> FORMAT <input type="checkbox"/> @ COLOR	The Color parameter columns are toggled.
Toggle Beam attributes.	<input type="checkbox"/> FORMAT <input type="checkbox"/> @ BEAM	The Beam parameter columns are toggled.
Toggle single parameters.	<input type="checkbox"/> FORMAT <input type="checkbox"/> @ Parameter Key	Specific parameter columns are toggled

Example - show Focus Attributes only



	Step	Preset	Text	Mode	Devices	1:Pan	1:Tilt	1:Focus Speed	2:Pan	2:Tilt
1	1	1.0		X	30	50	50	Tracking	50	5
2	2	2.0	Hamlet finds gold...	X	0	0	10	Tracking		
3	3	3.0		X	0			Speed		
								PTSP NORM		
								PTSP FAST		

Example - show a single parameter (Iris for example)



	Step	Preset	Text	Mode	Devices	1:Iris	2:Iris	3:Iris	4:Iris
1	1	1.0		X	30	Normal	Pulse C	Rnd C P Slow	Normal
2	2	2.0	Hamlet finds gold...	X	0				
3	3	3.0		X	0				

Track - Channels (4.1)

The current channel selection can be tracked in Sequences, Chases, Presets, Groups and all kinds of Palettes (Focus, Color, Beam & All).

Once the channel(s) are selected there is a key combination of TRACK and some other key to activate the corresponding tracking tab.

Track Channels - In Sequences (4.1)

Track the current channel selection in a Sequence or Chase.

Function	Key	Feedback
Track in the Sequence of the Main Playback.	TRACK	Track List for Sequence in Main Playback is opened*
Track in all Sequences	TRACK & SEQ	Track List for all Sequences is opened**
Track in the Sequence of a Master Playback	TRACK & Master Key	Track List for Sequence in Master Playback is opened***

*Track list for the Sequence of the Main Playback

	Step	Preset	Text	Mode	Devices	1	2	3	4	5	6	7	8	9	10
1	1	1.0		X	30	30	30	30	30	30	30	30	30	30	30
2	2	2.0	Hamlet finds gold...	X	0	9								9	
3	3	3.0		X	0										

**Track list for all Sequences

	Sequence	Step	Text	51	66	81	96	1	2	3	4	5	6	7	8	9	10
1	1	1						30	30	30	30	30	30	30	30	30	30
2	1	2	Hamlet finds gold...					9								9	
3	3	1						70						70	70		
4	3	2						91						91	91		
5	3	3						33	33	33	33	91			91	91	

***Track list for the Sequence of a Master Playback

	Step	Preset	Text	Mode	Devices	1	2	3	4	5	6	7
1	1	110.0		X	0	F						
2	2	110.1		X	0		F					
3	3	110.2		X	0			F				
4	4	110.3		X	0				F			

See [Track Channels - Show Levels & Attributes \(4.1\)](#).

Track To Wizard

If you press WIZARD on a level in a sequence step, you will get a popup where you can select up to which Sequence Step the same level should be changed (= Tracked To).



Track Channels - In Presets (4.1)

Track the current channel selection in all Presets.

Function	Key	Feedback
Track in Presets	<input type="button" value="TRACK"/> & <input type="button" value="PRESET"/>	Track List for Presets is opened*

**Track list for Presets*

	Preset	Text	51	66	81	96	1	2	3	4	5	6	7	8	9	10
1	1.0	r					30	30	30	30	30	30	30	30	30	30
2	2.0						9									9
3	3.0	Making sure...														
4	4.0						26	26	26							

See [Track Channels - Show Levels & Attributes \(4.1\)](#).

Track Channels - Groups (4.1)

Track the current channel selection in all Groups.

Function	Key	Feedback
Track in Groups	<input type="button" value="TRACK"/> & <input type="button" value="GROUP"/>	Track List for Groups is opened*

**Track list for Groups*

	Group	Text	93	94	95	96	97
1	1	Backlights					
2	2	Frontlights					
3	3	Side Left					
4	4	Side Right					

Track Channels - Palettes (4.1)

Track the current channel selection in Palettes (Focus, Color, Beam, All).
See [Track Channels - Show Levels & Attributes \(4.1\)](#).

Function	Key	Feedback
Track in Focus Palettes	TRACK & FOCUS	Track List for Focus Palettes is opened*
Track in Color Palettes	TRACK & COLOR	Track List for Color Palettes is opened**
Track in Beam Palettes	TRACK & BEAM	Track List for Beam Palettes is opened***
Track in All Palettes	TRACK & PALETTE	Track List for All Palettes is opened****

*Track list for Focus Palettes

3. Track List												
	Focus Palettes	Text	2	1	3	4	5	6	7	8	9	10
1	1	Home	*	*	*	*	*	*	*	*	*	*
2	2	Front	*	*	*	*			*	*	*	*
3	3	Backstage	*	*	*	*	*	*	*	*	*	*
4	4	Back	*	*	*	*	*	*	*	*	*	*

**Track list for Color Palettes

3. Track List												
	Color Palettes	Text	1	2	3	4	5	6	7	8	9	10
1	1	Home	*	*	*	*	*	*	*	*	*	*
2	2	Ember	*	*	*	*	*	*	*	*	*	*
3	3	Green	*				*	*	*	*	*	*
4	4	Lavendel	*				*	*	*	*	*	*

***Track list for Beam Palettes

3. Track List												
	Beam Palettes	Text	1	2	3	4	5	6	7	8	9	10
1	1	Home	*	*	*		*	*	*	*	*	*
2	2	Sharp	*	*	*		*	*	*	*	*	*
3	3	Iris Small	*	*	*		*	*	*	*	*	*
4	4	Prism							*	*		

****Track list for All Palettes

3. Track List

	All Palettes	Text	1	2	3	4	5	6	7	8	9	10
1	1	Home	*	*	*	*	*	*	*	*	*	*
2	2	Mixed front	*	*	*	*	*	*	*	*	*	*
3	3	Small Iris color mix	*	*	*	*	*	*	*	*	*	*
4	4	Stars in sky	*	*	*	*	*	*	*	*	*	*

Track Channels - In The Play (4.2)

Track the current channel selection in Sequences, Presets, Groups and Palettes.

Function	Key	Feedback
Track current selection in Play.	<input type="button" value="TRACK"/> & <input type="button" value="CH"/>	Track List for Play is opened*

Track list for Play

4. Tracking List			
	Found in	Text	1
1	Sequence 1 Step 1 Preset 1.0		31
2	Sequence 1 Step 2 Preset 2.0		31
3	Sequence 2 Step 1 Preset 10.0		31
4	Preset 1.0	First step	31
5	Preset 2.0	Changes	31
6	Preset 10.0		31

Track - Presets (4.1)

A Preset can be tracked through the current Play. This can be done by selecting the Preset node of the Browser (F10) and pressing TRACK.

Function	Key	Feedback
1. Open the PRESET node in the Browser	See Navigating - Browser	Preset node is selected and opened
2. Select a Preset	See Navigating - Browser	A preset is highlighted
3. Track this Preset	<input type="button" value="TRACK"/>	Track List for Preset # is opened*

*Track list for tracking Preset 3.0 from the Browser.

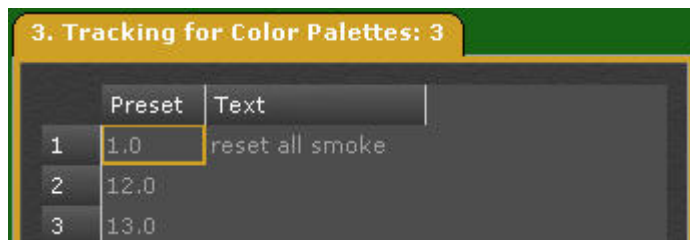


Track - Palettes (4.1)

All types of Palettes can be tracked through the current Play. This is done by that Palette in the Palette node of the Browser (F10) and pressing TRACK.

Function	Key	Feedback
1. Open the "Palettes" node in the Browser	See Navigating - Browser	Palettes node is selected and opened
2. Open a Palette type (Focus, Color, Beam, All)	See Navigating - Browser	A Palette node is selected and opened
3. Select a Palette	See Navigating - Browser	A Palette is highlighted
4. Track this Palette	<input type="button" value="TRACK"/>	Track List for Palette # is opened*

*Track list for tracking Color Palette 3.0 from the Browser.



Track - Track Editing (4.2)

Track editing is a very powerful way to edit in a Sequence. They are used to save time when the same type of change is wanted in a series of Presets.

Track Editing - Intensities (4.2)

Intensity changes in a Preset (for all channels) can be tracked forward and/or backward. When an Intensity Block is set they will stop. This can be set in the Sequence List. See [Sequences - Block Values](#).

1. Make level changes in a Preset
2. Hold UPDATE and press @LEVEL. A track popup will open.



3. Select forward, backward or both.
4. Confirm.

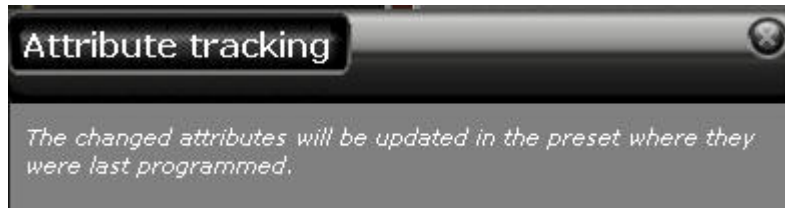
NOTE

Each channel will be tracked individually until the position where the level changes value. Dialog shows the number of channels that will be affected. A step in the sequence set to Block Tracking will prevent levels from tracking through. To set a block on individual channels in a step – set the intensity to 1% higher or lower on those channels you wish to block.

Track Editing - Attributes (4.2)

Attribute changes in a Preset (for all channels) can be updated to the Preset where they were last changed.

1. Make level changes in a Preset
2. Hold UPDATE and press ATTRIB. A track popup will open.

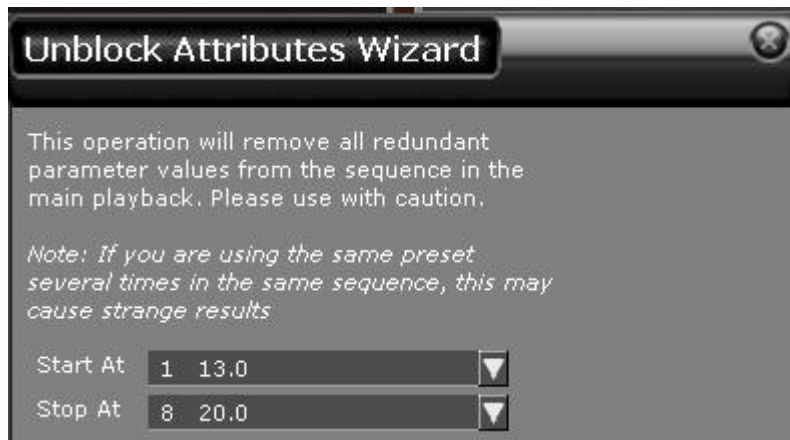


3. Confirm.

Track Editing - Unblock Attributes (4.2)

An Unblock function can be accessed by pressing WIZARD in the Sequence List. It will remove all duplicate parameter values for Devices in the sequence in the main playback. You can select the start and stop step for this operation.

1. Open the Sequence List for Sequence # by entering # SEQ.
2. Press WIZARD to open the unblock Wizard.



3. Make your selection and confirm. All redundant parameters will be deleted.

JAM MODE (4.1)

Jam Mode generates data automatically and enters a Playback Mode that allows improvising with Moving Devices directly after patching them.

This chapter contains the following sections

- [Jam Mode - Introduction \(4.1\)](#)
- [Jam Mode - Activate & Prepare \(4.1\)](#)
- [Jam Mode - Working Method \(4.1\)](#)
- [Jam Mode - Direct Selects Setup \(4.1\)](#)

Jam Mode - Introduction (4.1)

Jam Mode is designed to allow an operator to improvise with Moving Devices directly after patching them.

- This is done by generating Play Data for the Master Playbacks. See [Jam Mode - Activate & Prepare](#).
- Master Playback operation is slightly different from normal operation. See [Jam Mode - Working Method](#).
- The Direct Selects are set up in a special way. See [Jam Mode - Direct Selects Setup](#).
- When Jam Mode is deactivated the data will stay generated, and all Master Playbacks and Direct Selects will return to the status they had prior to activating Jam Mode. See [Jam Mode - Leaving](#).

Jam Mode - Activate & Prepare (4.1)

Jam Mode is designed for improvising with Moving Devices and very little preparation.

Jam Mode can be activated directly after completing the patching of Moving Devices in an empty Play, or at any other time.

The first time Jam Mode is activated - Groups, Color and Focus Palettes are generated.

NOTE

Updating the Focus Palettes is the only thing required to do before starting to use Jam Mode.

If there is channel information defined in the Channel Database it will generate Auto Groups in Jam Mode. Such texts can also be imported from external programs like *WYSIWYG*, *LightWright*, *Capture* or *Excel*. See [Patch - Channel Database & Auto Groups](#).

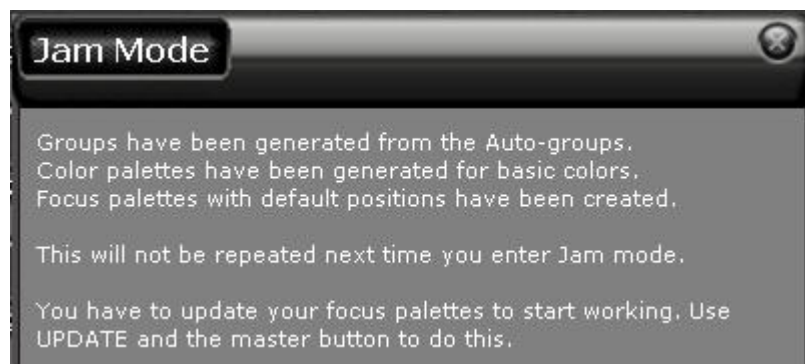
Follow these instructions to prepare working with Jam Mode.

Jam Mode - Step 1 - Activate Jam Mode (4.1)

Move the three position switch located next to the Master Playbacks to the JAM position.



If this is the first time Jam Mode is activated - data is generated and a popup is shown.



This only happens the first time. If Jam Mode has been activated earlier in this same Play - you will return to the settings of that time.

Jam Mode is indicated at the top of all screens



Jam Mode - Step 2 - Check Groups (4.1)

Masters 1-20 are used for Groups. These Groups are the main "handles" for improvising. If there is specific selection of Devices you need to access fast that isn't created already, create it.

The first time Jam Mode is activated a maximum of ten Groups will be created starting at 101, based first on the different types of patched Moving Devices, and then on the texts prepared in the Channel Database for Auto Groups. See [Patch - Channel Database & Auto Groups](#). Group number 110 on Master 10 is ALL DEVICES.

Gr101 Mac 300 M4	Gr102 Mac 500 M4								Gr110 All devices	Group
-------------------------------	-------------------------------	--	--	--	--	--	--	--	--------------------------------	--------------

Masters 11-20 are saved for Groups of your choice.

Group										
--------------	--	--	--	--	--	--	--	--	--	--

See [Groups - Record](#) and [Groups - Load to Playbacks](#).

Jam Mode - Step 3 - Update Focus Palettes (4.1)

Masters 21-30 are used for Focus Palettes. The first time Jam Mode is activated ten Focus Palettes will be created starting at 101. **They need to be updated because they are all set to HOME as default.** The first one is a HOME Palette - and does not need to be updated.

Fo101 Home	Fo102 Focus 2	Fo103 Focus 3	Fo104 Focus 4	Fo105 Focus 5	Fo106 Focus 6	Fo107 Focus 7	Fo108 Focus 8	Fo109 Focus 9	Fo110 Focus 10	Focus
----------------------	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------	-----------------------------	--------------

Updating the Focus Palettes in Master Playbacks 21-30 is the only preparation needed to set up Jam Mode for improvising with any rig of Moving Devices. Since all Moving Devices are generated as Groups by Device Type on Master Playbacks we suggest using these Groups to update the Focus Palettes.

Update the Focus Palettes

1. Select all Devices in Master 1 by pressing the master key for that Playback. The LED in the Master key will light up. All Devices of the first type are select.
2. Use the NEXT key to select them one by one and the PAN and TILT wheels (or the Trackball in Parameter Mode) to create the first Focus.
3. Hold UPDATE and press the Master Key 22 for the second Focus palette. This will provide an UPDATE POPUP.

4. Press MODIFY again to confirm.
5. Repeat this procedure for as many Focus Palettes as you think you may need. Then repeat with all devices in the Group on Master 2 (if there is more than one type patched).

Jam Mode - Step 4 - Check Color Palettes (4.1)

Masters 31-40 are used for Color Palettes. The first time Jam Mode is activated ten CMY Color Palettes will be created starting at 101. The first one is Open White (O/W).

Color	Co101	Co102	Co103	Co104	Co105	Co106	Co107	Co108	Co109	Co110
	O/W	Red	Green	Blue	Cyan	Magenta	Yellow	Warm	Cold	CONGO

These Color Palettes are auto-generated for Moving Devices with CMY mix. If there are no CMY devices - you may wish to record some Color Palettes for your Devices. It is also possible to access fixed colors from the Direct Selects.

Check the Color Palettes

1. Select all Devices in Master 1 by pressing the master key for that Playback. The LED in the Master key will light up. All Devices of the first type are select.
2. Check how they correspond to Color Palette 1 by pressing Master Key 31. They will all be set to the first color.

Update the Color Palettes

1. Select all Devices in Master 1 by pressing the master key for that Playback. The LED in the Master key will light up. All Devices of the first type are select.
2. Select COLOR parameters for the Main Display of the console.
3. Use the wheels and wheel keys to set Color parameters.
4. Hold UPDATE and press a Master key to store. There will be a popup where you can enter a Text.
5. Press MODIFY to confirm.

Jam Mode - Option - Create Beam Palettes (4.1)

Direct Selects in the fourth (lower right) section are used for Beam Palettes (1-10). Beam Palettes are not generated automatically. If there are Beam Palettes 1-10 they are displayed. If not it is easy to update/record them.

Beam 1-10										
--------------	--	--	--	--	--	--	--	--	--	--

Record Beam Palettes

1. Select all Devices in Master 1 by pressing the master key for that Playback. The LED in the Master key will light up. All Devices of the first type are select.
2. Select BEAM parameters for the Main Display of the console.
3. Use the wheels and wheel keys to set Beam parameters.
4. Hold RECORD and press a Direct Select key to store. There will be a popup where you can enter a Text.
5. Press MODIFY to confirm.

Jam Mode - Leaving (4.1)

When Jam Mode is left (by moving the mode switch back to Masters or Channels Only) the console will return to the state of the Master Playbacks previous to entering Jam Mode.

To avoid sudden changes, all Masters over 1% will be set to pending, which means they will refresh their content when moved to zero.

Jam Mode - Working Method (4.1)

Activate Jam mode and prepare according to the previous Chapter. See [Jam Mode - Activate & Prepare](#).

The layout and functionality of Jam Mode is based on our experience of how many moving light operators will prepare a console for improvising with moving devices.

JAM MODE DESCRIPTION





Masters 1-20 are used to select (activate) a Group of Devices, and the rest of the console is used to control them.

- Use Masters Keys 1-20 for select Groups of Devices
- Use Master Faders 1-20 for Intensities
- Use Masters 21-30 to move to new positions
- Use Masters 31-40 to change colors
- Use the left section of Direct Selects to start effects
- Use the right section of Direct Selects to change single parameters

All of these actions are described separately in detail in this chapter.

Jam Mode - Selecting Devices (4.1)

Devices are selected from Masters. See [Jam Mode - Step 2 - Check Groups](#).

Function	Key	Feedback
Select a Group of Devices	Master Key 1-10 (>20)	The LED in the Master Key is lit. The Group stays selected until another Master Key is pressed*
Add a Group from another Master	  Master Key	Both LED's are lit and both Groups are active*
Subtract a Group from another Master	  Master Key	This Group is deactivated*
Select any Device freely	See Select Channels	Any Device can be selected with normal Command Syntax from the numerical keypad.

*If the same channels exist in several Masters only the Master key LED with **all** the channels of that Playback Group are selected. This is to make it clear which group that is currently active. The selected channels are highlighted in the LIVE tab as usual. See [Channels - Views](#).

Jam Mode - Set Positions and Colors (4.1)

The currently active Group (Master LED is lit) will move to the target of any Palette by key or fader.

Masters 21-30 have Focus Palettes, and Masters 31-40 have CMY Color Palettes.

See [Jam Mode - Step 3 - Update Focus Palettes](#), and [Jam Mode - Step 4 - Check Color Palettes](#).

This is basic operation

Function	Key	Feedback
Rubberband to Palette #	Move Master fader	The currently active Group will fade to the target of the Palette in that Master Playback.
Snap to Palette #	Master Key	The currently active Group will snap to the target of the Palette*
Move to Palette # in a time of # seconds	# Master Key	The currently active Group will move to the target of the Palette in # seconds.

*Executing palettes by pressing the Master keys executes on the field time if there is one, or on the master page time, if a percent time is set to the field. See [Master Playbacks - Times](#).

Jam Mode - Beam Palettes (4.1)

Beam Palettes are not created automatically. Beam Palette page 1 (1-10) is set for the lower right section of Direct Selects. To create Beam Palettes see [Jam Mode - Option - Create Beam Palettes \(4.1\)](#).

This is basic operation

Function	Key	Feedback
Snap to Palette #	Direct Select key	The currently active Group will snap to the target of the Palette
Move to Palette # in a time of # seconds	# and Direct Select key	The currently active Group will move to the target of the Palette in # seconds.

Jam Mode - Parameters (4.1)

The upper right section of the Direct Selects is set up for controlling one bank of **Parameters**.

1 Select Param	2 Select Param	3 Select Param	4 Select Param	5 Select Param	6 Select Param	7 Select Param	8 Select Param	9 Select Param	10 Select Param
-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	------------------------------

1. Select a type of Device first with the Groups on Masters 1-10.
2. Select a parameter type (FOCUS, COLOR, BEAM for the Main Display of the console).
3. Press any parameter key in the Main Display section to choose a parameter for these keys. The first ten positions of this parameter will "unfold" to the Direct Select keys.

Example - Strobe parameters

Param 1-10 Strobe	1 OPEN	2 Strobe	3 Closed	4 O Pulse	5 C Pulse	6 Rnd Fast	7 Rnd Medium	8 Rnd Slow	9 Rnd O P Fast	10 Rnd O P Slow
----------------------------------	------------------	--------------------	--------------------	---------------------	---------------------	-------------------------	---------------------------	-------------------------	-----------------------------	------------------------------

You can change parameter at anytime by holding TYPE and pressing PARAM for this section. This will bring you back to the top of this description. Then repeat the procedure described above.

Jam Mode - Dynamic Effects (4.1)

The left section of the Direct Selects is set up for controlling Dynamic Effects.

- The lower part is used for activating a Dynamic Effect for the currently active Group (selected channels). See [Start Dynamics From The Direct Selects](#).
- The upper part is used for changing Offset and Delay. See [Dynamics - Relations & Distance](#).

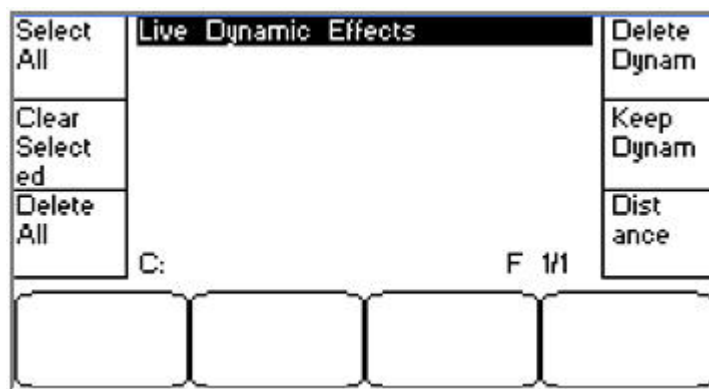
Offset All	Offset Evenly	Offset 1:2	Offset 1:3	Offset 1:4	Delay All	Delay Evenly	Delay 1:2	Delay 1:3	Delay 1:4	Dynan ctrl 1-10
1 >circle	2 <circle	3 >step square	4 <step square	5 figure 8	6 can can	7 ballyho o 1	8 ballyho o 2	9 fly in	10 fly out	Dynan 1-10

This is basic operation

Function	Key	Feedback
1. <i>Activate a Group</i>	Master key 1-20	The LED in the Master key is lit and the channels are highlighted in the Live tab.
2. <i>Activate a Dynamic Effect</i>	Direct Select Keys for "Dynam 1-10"	Dynamic Effect 1-10 is activated
3. <i>Set Offset and Delay within the Group</i>	Direct Select Keys for "Dynam ctrl 1-10"	Offset and Delay relations are set to the active Group.

More advanced controls

In addition to this, the Main Display of the console can be set to the Dynamics Soft Key Page - with soft keys and wheel functions for controlling Dynamic Effects. Press the soft key DYNAMICS.



NOTE

The four wheels are also used for controlling parameters in Moving Devices. Pressing FOCUS, COLOR or BEAM will activate this and leave the Dynamics settings for the wheels. To return to Dynamic Controls press the soft key DYNAMICS.

Jam Mode - Direct Selects Setup (4.1)

In the Direct Select area the following content is set up. Use the BANK key together with the Direct Select keys to toggle a bank within a selection.

One bank of **Dynamic controls** (upper left), plus one bank of **Dynamic Effects** (lower left)

Offset All	Offset Evenly	Offset 1:2	Offset 1:3	Offset 1:4	Delay All	Delay Evenly	Delay 1:2	Delay 1:3	Delay 1:4	Dynan ctrl 1-10
1 >circle	2 <circle	3 >step square	4 <step square	5 figure 8	6 can can	7 ballyho o 1	8 ballyho o 2	9 fly in	10 fly out	Dynan 1-10

One bank of **Parameter range** (upper right)

1 Select Param	2 Select Param	3 Select Param	4 Select Param	5 Select Param	6 Select Param	7 Select Param	8 Select Param	9 Select Param	10 Select Param
-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	-----------------------------	------------------------------

Select a type of Device first with the Groups on Masters 1-10. Then select a parameter type (FOCUS, COLOR, BEAM for the Main Display of the console. Then press any parameter key in the Main Display section to choose a parameter for these keys.

Example - Strobe parameters

Param 1-10 Strobe	1 OPEN	2 Strobe	3 Closed	4 O Pulse	5 C Pulse	6 Rnd Fast	7 Rnd Medium	8 Rnd Slow	9 Rnd O P Fast	10 Rnd O P Slow
--	------------------	--------------------	--------------------	---------------------	---------------------	-------------------------	---------------------------	-------------------------	-----------------------------	------------------------------

One bank of **Beam Palettes** (lower right)

Beam 1-10										
----------------------------	--	--	--	--	--	--	--	--	--	--

MUTE & SOLO (4.2)

Mute & Solo allow you to treat the Playbacks as you would in a sound console - being able to temporarily Mute or Solo the content of any Playback.

This chapter contains the following sections

- [MUTE & SOLO - Introduction \(4.2\)](#)
- [MUTE & SOLO - MUTE \(4.2\)](#)
- [MUTE & SOLO - SOLO \(4.2\)](#)

Mute & Solo - Introduction (4.2)


Mute and Solo allow you to temporarily mute or solo the content of any Playback(s).

- Muting a Playback will temporarily stop all output from this Playback without changing data or fader level.
- Soloing a Playback will temporarily mute all Playbacks except this one, without changing data or fader levels.

In effect this is the same functionality that is found in a sound console. It allows you to quickly isolate the lights from any Playback, for editing or for playback purposes.


Mute & Solo - MUTE (4.2)

Hold MUTE and press a Playback key to activate/deactivate.

Function	Key	Feedback
Mute the output from Playback #	MUTE & Master key	The Muted status is indicated in the Master Display of the console and in the Master View.
Mute the output from the Main Playback	MUTE & PLAYBACK	The Mute status is indicated in the Playback tab. 
Un-mute the output from Playback #	MUTE & Master key	
Un-mute the output from the Main Playback	MUTE & PLAYBACK	
Clear all Mutes	C & MUTE	All Muted Playbacks are reset.
NOTE MUTE will not change any data or fader levels. You can mute the Main Playback as well by pressing the PLAYBACK key.		

Mute & Solo - SOLO (4.2)

Hold SOLO and press a Playback key to activate/deactivate.

Function	Key	Feedback
Solo the output from Playback #	SOLO & Master key	The Solo status is indicated in the Master Display of the console and in the Master View.
Solo the output from the Main Playback	SOLO & PLAYBACK	The Solo status is indicated in the Playback tab. 
Un-solo the output from Playback #	SOLO & Master key	
Un-solo the output from the Main Playback	SOLO & PLAYBACK	
Clear all Solos	C & SOLO	All Soloed Playbacks are reset.
NOTE SOLO will not change any data or fader levels. You can Solo the Main Playback as well by pressing the PLAYBACK key. The keyboard equivalent of SOLO is Alt Y.		

PARK (4.2)

**Park allow you to Park any part of a channel or device at a constant value. The Park status is stored with the play.
Keyboard shortcut = Z.**

This chapter contains the following sections

- [Park - Introduction \(4.2\)](#)
- [Park - Parking Values \(4.2\)](#)
- [Park - Edit Parked Values \(4.2\)](#)
- [Park - Un-parking Values \(4.2\)](#)
- [Park - Parked Items List \(4.2\)](#)

Park - Introduction (4.2)

Park allows you to Park the output of any part of a channel or device at a constant value.

- Parked values are indicated with PARK in the Channel view and the Info box of the Browser when the channel is selected.



- A parked value can still be altered and recorded blind.
- Park can be held and used with

@LEVEL
CH
ATTRIB
FOCUS
COLOR
BEAM
U1-U3
Wheel parameter keys.

- There is a new sofkey UNPARK for unparking parts of a channel or device.
- In **Live Attributes** PARK and UNPARK are used for **selected cells**.
- There is a PARK tab for viewing and clearing Parked values. MODIFY & PARK.
- Keyboard equivalent = Z

NOTE

Park replaces the Constant feature of older versions than 4.2.

Park - Parking values (4.2)

The Parked status is indicated in the status part at the top of the screens in blue, in the Live channel view for each channel ("PARK") and in the attribute views (dimmed).



NOTE

PARK works against selected cells when an Attribute View is open.

There is a Parked items list that is opened with MODIFY & PARK.
You can hold PARK and press several different values consequently.

Function	Key	Feedback
Park all values of the selected channel(s)	[PARK] & [CH]	Channel is parked.
Park levels of the selected channel(s)	[PARK] & [@LEVEL]	Levels are parked.
Park attributes of the selected channel(s)	[PARK] & [ATTRIB]	Attributes are parked.
Park Focus parameters of the selected channel(s)	[PARK] & [FOCUS]	Focus parameters are parked.
Park Color parameters of the selected channel(s)	[PARK] & [COLOR]	Color parameters are parked.
Park Beam parameters of the selected channel(s)	[PARK] & [BEAM]	Beam parameters are parked.
Park U1-U3 parameters of the selected channel(s)	[PARK] & [U1-U3]	U1-U3 parameters are parked.
Park specific parameters of the selected channel(s)	[PARK] & [Wheel key]	Single parameter is parked.

Park - Edit Parked Values (4.2)

Parked values can be edited in the PARK column of the Channel and Output lists. Select the cell, enter a value and press MODIFY (or click). Both lists can be opened from the Browser > Setup.

See [Patch - Channel List](#).

4. Channel List							
	Channel	Dimmer Address	Device	Device Address	Scale	Park	Name
1	1	1.1	Scroller	101.1 (-101)	100 %	---	1
2	2	2.1		----	100 %	---	2
3	3	3.1		----	100 %	---	3
4	4	4.1	Scroller	102.1 (-102)	100 %	---	4
5	5	5.1		----	100 %	---	5
6	6	6.1		----	100 %	---	6
7	7	7.1		----	100 %	---	7
8	8	8.1		----	100 %	---	8
9	9	9.1		----	100 %	---	9
10	10	10.1		----	100 %	---	10
				----	100 %	---	
11	11	11.1		----	100 %	---	11

See [Patch - Output List](#).

5. Output List						
	Output	Channel	Scaling	Curve	Device Info	Park
1	1.1 (1)	1	100%	No curve		---
2	2.1 (2)	2	100%	No curve		---
3	3.1 (3)	3	100%	No curve		---
4	4.1 (4)	4	100%	No curve		---
5	5.1 (5)	5	100%	No curve		---
6	6.1 (6)	6	100%	No curve		---
7	7.1 (7)	7	100%	No curve		---
8	8.1 (8)	8	100%	No curve		---
9	9.1 (9)	9	100%	No curve		---
10	10.1 (10)	10	100%	No curve		---
11	11.1 (11)	11	100%	No curve		---

Park - Un-parking Values (4.2)

The Parked status is indicated in the Live channel view ("PARK") and in the attribute views (dimmed). There is a Parked items list that is opened with MODIFY & PARK where it is possible to un-park as well with DELETE.

You can hold the soft key UNPARK (Misc) and press several different values consequently.

Function	Key	Feedback
Un-park all values of the selected channel(s)	UNPARK & CH	Channel are un-parked.
Un-park all values of the selected channel(s)	C & PARK	Channel are un-parked.
Un-park levels of the selected channel(s)	UNPARK & @LEVEL	Levels are un-parked.
Un-park attributes of the selected channel(s)	UNPARK & ATTRIB	Attributes are un-parked.
Un-park Focus parameters of the selected channel(s)	UNPARK & FOCUS	Focus parameters are un-parked.
Un-park Color parameters of the selected channel(s)	UNPARK & COLOR	Color parameters are un-parked.
Un-park Beam parameters of the selected channel(s)	UNPARK & BEAM	Beam parameters are un-parked.
Un-park U1-U3 parameters of the selected channel(s)	UNPARK & U1-U3	U1-U3 parameters are un-parked.
Un-park specific parameters of the selected channel(s)	UNPARK & Wheel key	Single parameter is un-parked.

Park - Parked Items List (4.2)

In the Parked Items List it is possible to unpark any item by pressing DELETE.

4. Parked Items List			
	Item type	Name	Level
1	Parameter	Yellow (31: Mac 300 M4)	0
2	Parameter	Color (31: Mac 300 M4)	0
3	Parameter	Magenta (31: Mac 300 M4)	0
4	Channel	32	0
5	Device	32 Mac 300 M4	0
6	Parameter	Strobe (32: Mac 300 M4)	20
7	Parameter	Intensity (32: Mac 300 M4)	0
8	Parameter	Cyan (32: Mac 300 M4)	60
9	Parameter	Magenta (32: Mac 300 M4)	208

DOCK AREAS (4.2)

Dock views allow you to set up control and view areas around the perimeter of the screens.

This chapter contains the following sections

- [Dock Areas - Introduction \(4.2\)](#)
- [Dock Areas - Configure \(4.2\)](#)
- [Dock Areas - Navigate \(4.2\)](#)

Dock Areas - Introduction (4.2)

Dock areas are control and viewing panels that can be set up in the borders of each screen. There are four types of dock areas.

- Browser
- Moving Lights
- Independents
- Masters



Dock Areas - Configure (4.2)

Dock areas are configured by holding SETUP and pressing BROWSER.

**NOTE**

It is possible to configure any type of area several times.

Dock Areas - Navigate (4.2)

Dock Areas can be opened with keys or by mouse (doubleclick).

Function	Key	Feedback
Select left	<input type="button" value="BROWSER"/>	The left are is default set up as the browser, and will be selected by pressing Browser.
Select right	<input type="button" value="BROWSER"/> & <input type="button" value="Right arrow"/>	Right area is opened.
Select top	<input type="button" value="BROWSER"/> & <input type="button" value="Up arrow"/>	Top area is opened.
Select bottom	<input type="button" value="BROWSER"/> & <input type="button" value="Down arrow"/>	Bottom area is opened.
Close selected	<input type="button" value="BROWSER"/>	The selected area is closed
Resize selected	<input type="button" value="BROWSER"/> & <input type="button" value="Wheel"/>	The selected area is resized.
NOTE There are four dock areas per screen. Content may be repeated.		

MACROS (4.2)

Macros allow you to store a series of key presses and play back with a single number.

This chapter contains the following sections

- [Macros - Introduction](#)
- [Macros - Record & Playback](#)
- [Macros - List](#)

Macros - Introduction (4.2)

A Macro is basically a series of key presses and actions that are stored under a number for random playback.

- Macros can be recorded and played back in real time or fast.
- Macros can be linked to a sequence or chase step.
- Each Macro can have a text label.
- Macros can not be edited.
- There is an indication in the top right corner when a Macro is being played back.

Macros - Record & Playback (4.2)

Macros are recorded with the LEARN MACRO soft key of the Misc Soft key page in the consoles.

Record a Macro

1. *Select the Misc Soft Key page.*
2. *Enter a number and press LEARN MACRO. As long as recording is going on the text "Recording macro" is displayed in the top right corner of the screens.*



3. *Click on **Recording Macro** in the top right corner of the screens to end recording.*

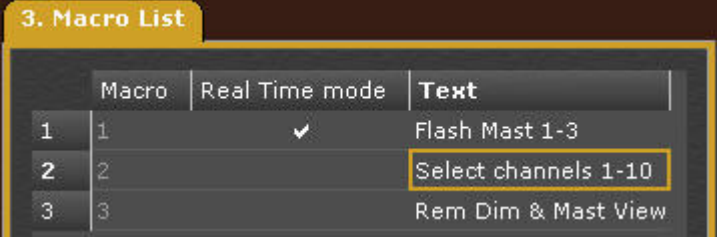
Playback a Macro

Enter the number and press MACRO. As long as the Macro is being played back the text "Playing macro" is displayed in the top right corner of the screens.



Macros - List (4.2)

The Macro List is opened by holding MODIFY and pressing MACRO. In the list it is possible to toggle between real-time and fast playback - and set a text label.



	Macro	Real Time mode	Text
1	1	✓	Flash Mast 1-3
2	2		Select channels 1-10
3	3		Rem Dim & Mast View

MIDI (4.2)

MIDI allows you to interface with Time Code and other MIDI equipment.

This chapter contains the following sections

- [MIDI - Introduction](#)
- [MIDI - Standard MIDI](#)
- [MIDI - MIDI Show Control](#)
- [MIDI - Time Code](#)
- [MIDI - Implementation Chart](#)

MIDI - Introduction (4.2)

MIDI stands for Musical Instrument Digital Interface. The reason you can find it in a lighting console is that MIDI today is being used for a lot more than having synthesizers to speak to each other as was intended originally.

Basically MIDI is a standard for transmitting notes 0—127 (on/off) with velocity (how hard they are played) and continuous controllers such as faders (volume for example). There are more parameters but these are the basic ones. In Congo all keys correspond to a note and all faders to a controller.

MIDI is transmitted serially in up to 16 individual MIDI channels in one three-lead cable. The communication is unidirectional, which means there is no feedback or intelligent bi-directional contact between MIDI units (DMX512 is also unidirectional, while a pair of walkie talkies (for example) are bi- directional, allowing communication both ways).

There is support for three sorts of MIDI.

Standard MIDI

Send and receive Notes, Controllers and Program Change.

MIDI Show Control

A standard set of commands is supported.

MIDI Time Code

Trig Sequence Steps by time code. There is a Learn Mode.

Once you have connected a MIDI Device to the Congo with the MIDI connectors in the back of the console, you have to set up the console to receive and/or transmit MIDI, and define which MIDI commands it will recognize.

There is a MIDI Setup where you can configure how the console will function with MIDI. See [System Settings - MIDI](#).

MIDI - Standard MIDI (4.2)

All MIDI functions need to be activated in the MIDI Setup. See [System Settings - MIDI](#).

MIDI NOTES & CONTROLLERS

All keys and faders can send notes and controllers when this is activated in the MIDI Settings. You can use MIDI notes and controllers to remote control any key or fader of the Console. If you connect a MIDI Sequencer you can record all key presses and fader movements in real time and play back in real time.

PROGRAM CHANGE

The Congo can be set to activate a specific crossfade when receiving a Program Change command through MIDI. When the Program Change parameter (in MIDI Settings) is set to "On" the board will activate a crossfade to step 0-127 when receiving Program Change 0-127. NOTE: You have to have a Sequence Step recorded in the board to be able to jump to it.

MIDI - MIDI Show Control (4.2)

MIDI Show Control supports reception of the following commands:

GO

Without cue number: Executes the next crossfade. With cue number: Crossfades to the corresponding sequence step or preset number (depending on the GOTO jumps to xxx setting).

STOP

Pauses the current crossfade.

RESUME

Resumes the current crossfade.

SET

0-39 controls master 1-40. 128 and 129 controls the A and B fader pair. 510 controls the grandmaster.

In the MIDI Setup there are parameters for turning MSC on/off and setting the device ID. See [System Settings - MIDI](#).

MIDI - Time Code (4.2)

Every sequence step can be triggered both manually, and by a specific MIDI Time Code time on the MIDI port.

In the Sequence Editor, this time can be set or edited in a column to the far right. It is possible to enter a time code timestamp for each sequence step. When the specific time code position is reached, the sequence step will be executed providing Time Code is set to on. See [System Settings - MIDI](#).

- Time Code is edited from the keyboard (display or external) in all Congo consoles. In the bigger Congo it can be edited from the numerical console keypad as well.
- If there is MIDI Time Code coming into the system, the running time will be shown on top of the monitor instead of the normal date and time.

Manual and Time Code trig

You can combine sequence steps with Time Code times with normal manual or automatic crossfade. The Time Code time is just an additional trigger that can activate a sequence step. If there is a problem with the MIDI Time Code input, you can always start the crossfade by pressing GO.

Time Code On/Off

There is an overall parameter "Read MIDI Time Code" that switches on or off time code in general.

See [System Settings - MIDI](#).

Time Code Format

Time code must be entered in this format: hh.mm.ss.ff.

Time code is shown in the Playback view like this



Learn mode

Each time GO is pressed, the current time code timestamp will be recorded in the current sequence step.

See [System Settings - MIDI](#).

Trig in B or Auto Mode

Normally, only Sequence steps that are in the B field will be triggered by incoming MIDI Time Code. Other Steps will not be triggered, even if the times match.

It is also possible to run the system so that any Sequence Step matching a specific Time Code time is run automatically regardless if it is in the B field or not. If the "Auto- locate step" parameter is set to "On", any step that is matching the incoming MIDI Time Code will be executed. See [System Settings - MIDI](#).

MIDI - Implementation Chart (4.2)

All MIDI messages described below can be sent or received on any MIDI Channel between 1 and 16.

The values shown in parenthesis (like this = 144) all refer to MIDI channel 1. To be able to use other MIDI channels, you have to add the channel number and subtract 1.

Example

NOTE ON on channel 4 = $144 + 4 - 1 = 147$.

Keys

All keys are transmitted as Note On and Note Off messages.

When a key is pressed, the following MIDI Message will be transmitted:

NOTE ON (=144), Key number, 64

When a key is released, the following MIDI Message will be transmitted:

NOTE OFF (=128), Key number, 64

By sending the corresponding command to the MIDI In port, the Congo will execute the key.

Since standard MIDI Notes only can accept a maximum of 127 individual notes and the Congo uses far more buttons than that, a special coding had to be introduced for the buttons above 127.

In the table below, these are shown as x, y. The first value is used as the note number and the second value is used for the velocity.

Example

Sending the Align key would look like this:

144, 125, 98 (key pressed) followed by 128, 125, 98 (key released).

Console Keys - MIDI Chart (4.2)

Key	MIDI Code (Hex)	MIDI Code (Dec)
-%	3C	60
[]	75	117
	79	121
+%	3D	61
<-----	7D, 21	125, 33
<<	7E, 5C	126, 92
>	73	115
>>	7E, 5D	126, 93
0	01	1
1	02	2
2	03	3
3	04	4
4	05	5
5	06	6
6	07	7
7	08	8
8	09	9
9	0A	10
A	0B	11
Align	7D, 62	125, 98
All	0C	12
AtLevel	22	34
Attrib	7D, 27	125, 39
B	23	35
Bank	7E, 41	126, 65
Beam	7D, 1C	125, 28
Blind	7E, 62	126, 98
Browser	7E, 71	126, 113
C	24	36
Capture	7D, 65	125, 101
Ch	25	37
Ch—	26	38
Ch+	27	39
Color	7D, 1B	125, 27
Column	7E, 53	126, 83
Connect	7E, 55	126, 85
Copy/Cut	7D, 5A	125, 90
DecimalPoint	3E	62
Delay	7D, 22	125, 34
Delete	51	81
Device	7D, 26	125, 38
Direct Select 1	7D, 6D	125, 109
Direct Select 40	7E, 1C	126, 28

Direct Select page 1	7E, 6B	126, 107
Direct Select page 5	7E, 6F	126, 111
Down	4D	77
Esc	2C	44
Fan	7D, 0A	125, 10
Fetch	2F	47
Flash 1	7E, 2D	126, 45
Flash 20	7E, 40	126, 64
FlashMode	30	48
Focus	7D, 1A	125, 26
Format	7E, 61	126, 97
GO	31	49
GoBack	32	50
Goto	33	51
Group	7E, 56	126, 86
Help	34	52
Highlight	7D, 34	125, 52
In	7D, 46	125, 70
Independent 1	7E, 63	126, 99
Independent 2	7E, 64	126, 100
Independent 3	7E, 65	126, 101
Insert	50	80
Inv Group	7D, 66	125, 102
Last	7D, 2A	125, 42
Left	4E	78
Live	7E, 5E	126, 94
Load	7E, 74	126, 116
Macro	35	53
Mask	7D, 28	125, 40
Master	7D, 2B	125, 43
Master Page- (lower)	7D, 5D	125, 93
Master Page (upper)	7E, 1D	126, 29
Master Page- (upper)	7D, 5F	125, 95
Master Page+ (lower)	7D, 5C	125, 92
Master Page+ (upper)	7D, 5E	125, 94
MasterKey1	0E	14
MasterKey20	21	33
MasterKey21	56	86
MasterKey40	69	105
MasterPage	36	54
Modify	37	55
Mute	7E, 47	126, 71
Next	7D, 29	125, 41
Note	7E, 45	126, 69
Out	7D, 45	125, 69
Output	38	56
Palette	7D, 23	125, 35

Park	7E, 46	126, 70
Paste	7D, 5B	125, 91
Pause	3B	59
Playback	6D	109
Preset	3F	63
Record	40	64
Refresh	7D, 33	125, 51
Release	7E, 70	126, 112
Rem Dim	7E, 52	126, 82
Right	4F	79
Select	7E, 58	126, 88
Select All	7D, 30	125, 48
Seq	44	68
Seq-	6B	107
Seq+	6C	108
Setup	46	70
Solo	7E, 48	126, 72
Start	45	69
Tab	7E, 5F	126, 95
Tap	7E, 54	126, 84
Text	7D, 64	125, 100
Thru	47	71
Time	48	72
Track	7D, 63	125, 99
Type	7E, 42	126, 66
U1	7D, 1D	125, 29
U2	7D, 1E	125, 30
U3	7D, 1F	125, 31
Up	4C	76
Update	7E, 4F	126, 79
Wizard	7D, 32	125, 50

Console Faders - MIDI Chart (4.2)

Fader	MIDI Code (Hex)	MIDI Code (Dec)
Lower_1	41	65
Lower_2	42	66
Lower_3	43	67
Lower_4	44	68
Lower_5	45	69
Lower_6	46	70
Lower_7	47	71
Lower_8	48	72
Lower_9	49	73
Lower_10	4A	74
Lower_11	4B	75
Lower_12	4C	76
Lower_13	4D	77
Lower_14	4E	78
Lower_15	4F	79
Lower_16	50	80
Lower_17	51	81
Lower_18	52	82
Lower_19	53	83
Lower_20	54	84
Upper_1	55	85
Upper_2	56	86
Upper_3	57	87
Upper_4	58	88
Upper_5	59	89
Upper_6	5A	90
Upper_7	5B	91
Upper_8	5C	92
Upper_9	5D	93
Upper_10	5E	94
Upper_11	5F	95
Upper_12	60	96
Upper_13	61	97
Upper_14	62	98
Upper_15	63	99
Upper_16	64	100
Upper_17	65	101
Upper_18	66	102
Upper_19	67	103
Upper_20	68	104
AFader	69	105
BFader	6A	106
GrandMaster	6C	108

USER LOGIN (4.3)

User logins are used to keep track of personal settings - like the setup of the Direct Selects and who has written Notes. Partitions can be connected to a User Login.

This chapter contains the following sections

- [User Login - Introduction](#)
- [User Login - List](#)
- [User Login - Create](#)
- [User Login - Activate](#)

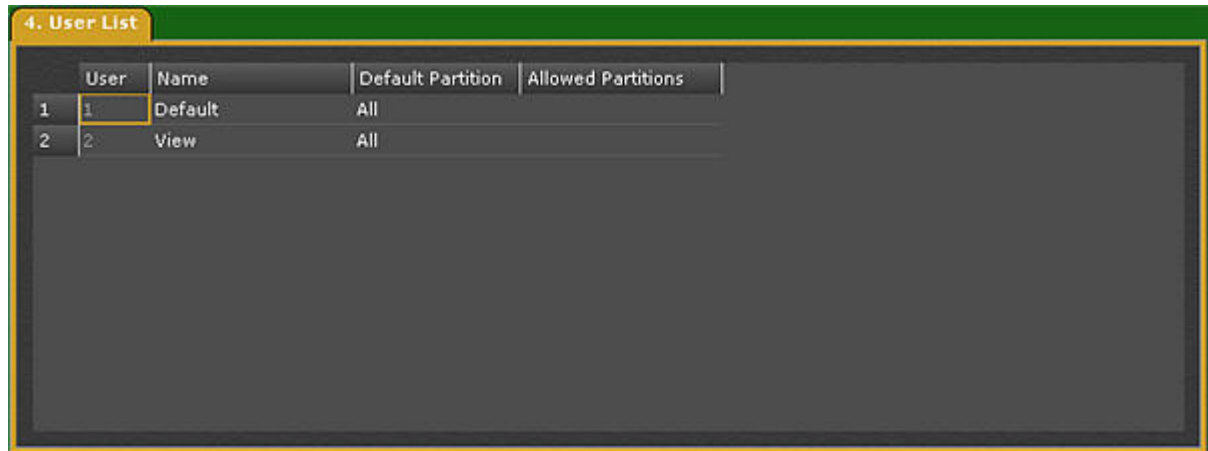
User Login - Introduction (4.3)

User logins allow you to keep personal settings for Direct Selects, Screens and Notes, within the same Play as other users. See [Direct Selects](#), [Direct Selects - Save Screens](#), and [Notes](#).

It's also possible to connect Partitions to User Logins, which makes it possible to have a User Login with a predefined set of channels that can be accessed by by that user. See [Partitions](#).

User Login - List (4.3)

You can view, edit and create new Users in the User List (Browser >Setup >User List).



User List - Columns

Function	Key	Feedback
<u>User</u>		The ID of each Partition. Cannot be changed.
<u>Name</u>	MODIFY	Press MODIFY to activate and end text input. This text is shown in the top of the screens.
<u>Default Partition</u>	MODIFY	Toggles the Default Partition on/off. This is the partition that will be activated when this User logs in.
<u>Allowed Partitions</u>	MODIFY	Opens the User Partition List where it is possible to toggle the permission for each Partition Yes/No *

* Please note that the Default Partition has to be set to YES in the User Partition List as well - this is done automatically.

NOTE
The default Users "Default" and "View" are defined to allow access to the full system.

User Login - Create (4.3)

User Logins are created in the User List.

1. Open the User List (BROWSER >Setup >User List).



	User	Name	Default Partition	Allowed Partitions
1	1	Default	All	
2	2	View	All	

2. Press INSERT to create a new User.
3. Select the Name cell and press MODIFY to enter a text label.
4. Select Default Partition (press MODIFY in the Default Partition cell)

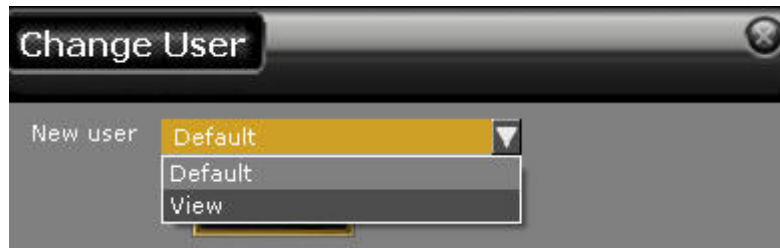
Allowed Partitions

When a new user is created, the Default Partition is set to ALL, and all Partitions are set as Allowed. You can disallow Partitions for a User by pressing MODIFY in the Allowed Partitions cell - opening the User Partition List.

User Login - Activate (4.3)

User Login is activated from the command Change User in the Browser. If no User has been logged in, the Default User will be logged in when a Play is opened.

1. Select the node Change User and press MODIFY (BROWSER >Setup >Change User). You will get a popup where you can choose from all defined Users.



2. The User is activated and indicated in the top left corner of all screens:



Any Partitions associated to this User will be activated. See [Partitions](#).

NOTE

The last used login name will be remembered in each station and used for the next startup.

PARTITIONS (4.3)

A channel partition is a definition of a limited set of channels and attributes. When activated, only these channels can be accessed.

This chapter contains the following sections

- [Partitions - Introduction](#)
- [Partitions - List](#)
- [Partitions - Create](#)
- [Partitions - Activate](#)

Partitions - Introduction (4.3)

A partition is a definition of a set of channels/devices. Every Partition has a permission mask which defines if the Partition is applied to

- IFCB
- Intensity
- Color
- Focus/Beam

Partitions can only be activated by users that have permission to activate them. Once a Partition is active, it limits the access to these channels. The following functions are filtered through the Active Partition:

- The channel selection (only allowed channels can be selected and viewed)
- Parameter access (non-allowed attributes are dimmed in Attribute Views)
- Recording of attributes or intensities

Non-allowed Partitions for the current logged in User are indicated with --- in the Partition List. Every partition can have a text label.

NOTE

The default Partition "All" allows access to all functions of all channels.

Partitions - List (4.3)

You can view, edit and create new Partitions in the Partition List (Browser >Setup >Partition List).



Partitions List - Columns (4.3)

Function	Key	Feedback
<u>Partition</u>		The ID of each Partition. Cannot be changed.
<u>Text</u>	MODIFY	Press MODIFY to activate and end text input. This text is shown in the top bar of the channel views.
<u>Active</u>	MODIFY	Toggles the Partition on/off. *
<u>Apply to</u>	MODIFY	Opens a popup where it is possible to select if the Partition applies to IFCB, Intensity, Color or Focus & Beam.

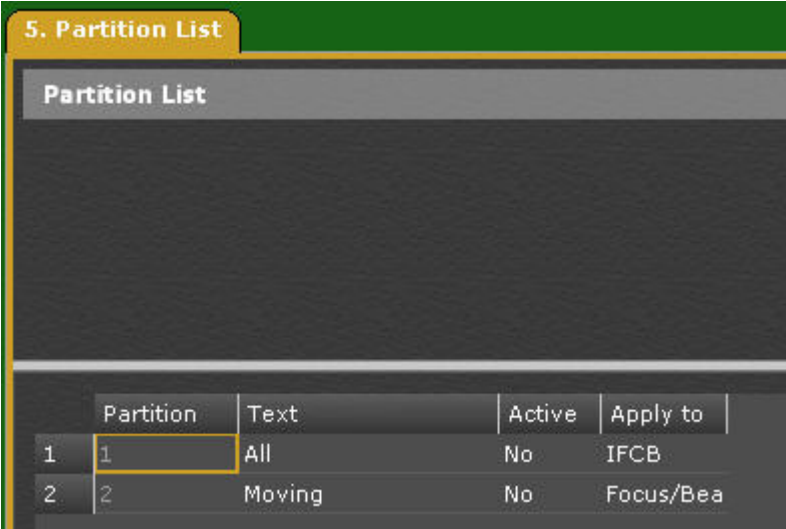
* If a User is logged in that does not have permission to activate a Partition, the Active cell will show "---". See [User Login](#).

NOTE
The default Partition "All" is always defined to allow access to the full system.

Partitions - Create (4.3)

Partitions are created in the Partition List.

1. Open the Partition List (BROWSER >Setup >Partition List)



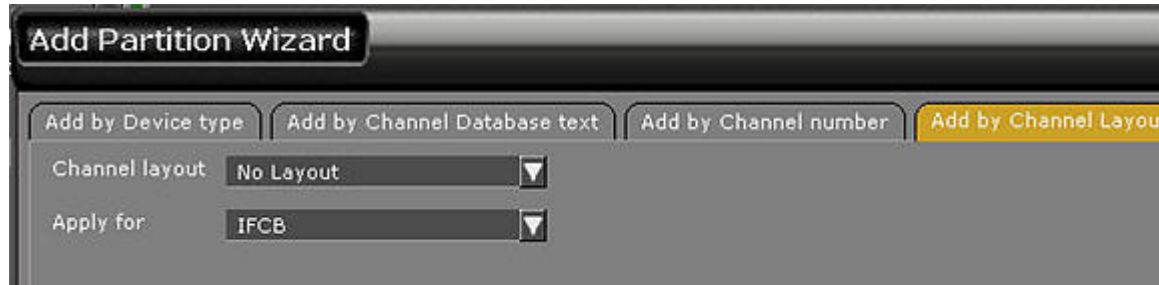
	Partition	Text	Active	Apply to
1	1	All	No	IFCB
2	2	Moving	No	Focus/Bea

2. Press INSERT
3. Select channels (they will show up in the Channel View part.
4. Press RECORD or UPDATE to store the channel selection.
5. Press MODIFY in the TEXT cell to give a name to this Partition
6. Press MODIFY in the APPLY TO cell to choose permission level.

Partitions - Add Partition Wizard (4.3)

There is a Wizard to assist you in creating Partitions using Play information that already has been generated.

1. Open the Partition List (BROWSER >Setup >Partition List)
2. Press WIZARD.



These are the different options.

Add by Device Type

Choose a Template corresponding to the Device Type, and what it applies for (IFCB, Intensity, Color, Focus/Beam/Other).

Add by Channel Database Text

Enter the Database Text you wish to search for, and what it applies for (IFCB, Intensity, Color, Focus/Beam/Other).

Add by Channel Number

Select a channel range from channel # to channel #, and what it applies for (IFCB, Intensity, Color, Focus/Beam/Other).


Add by Channel Layout

Choose a Channel Layout corresponding to the Device Type, and what it applies for (IFCB, Intensity, Color, Focus/Beam/Other).

Partitions - Activate (4.3)

Partitions are activated from the Partition List.

1. Open the Partition List (BROWSER >Setup >Partition List)
2. Press MODIFY in the ACTIVE cell to toggle Yes/No. The active Partition is indicated in the yellow info banner at the top of all Channel Views.



Preset: 6.0 Active Partitions: [All - IFCB]

NOTE

If no Partition is active, all channels are available, and shown in the Live View.

In Live Attributes, only channels and attributes that can be controlled are shown.

NOTE

REFRESH with no channels selected will affect all channels in the Playback including channels outside the Partition.

Accessories

This Chapter is about accessories and options, such as remote control, networking, printer, fader wing panel, keyboard etc.

This chapter contains the following sections

- [Accessories - Ext. Keyboard](#)
- [Accessories - Ext. Mouse Or Trackball](#)
- [Accessories - Printer](#)
- [Accessories - Lynx Fader Wing](#)
- [Accessories - Remote Control](#)
- [Accessories - Dimmer Feedback Log](#)
- [Accessories - Visualisation Software](#)
- [Accessories - MIDI](#)

Accessories - Ext. Keyboard

An external keyboard will simulate most keys of the console. See the Console Functions Table below.

This is simple to work with, since the keyboard works exactly like the console. For example pressing R is the same as pressing RECORD, and pressing 1 is the same as pressing Master key 1.

WARNING
Multi-media keyboards may have special keys, for example SLEEP - which puts CONGO - to sleep. Avoid using these keyboards, they will trigger functions that you most probably do NOT want.

Keyboard - Level Wheel

You can use a mouse wheel to emulate the level wheel for setting levels and navigating. See [Ext. Mouse Or Trackball](#).

Keyboard - CH Step

You can hold CTRL and use the left/right arrows to emulate CH+ and CH-.

Keyboard - Standard Functions

Standard keyboard functions available in all situations are:

ESC = Escape, closes open windows and exits choices.
INSERT = Inserts data in all lists.
DELETE = Deletes data in all lists.
NUMBERS (in the numeric keypad) = Numeric entries.
HOME = Jumps to the first line of the list or editor.
END = Jumps to the last line of the list or editor.
PAGE UP = Page Up in lists.
PAGE DOWN = Page Down in lists.
ARROW KEYS = Arrow keys.

Keyboard - Console Functions

Most functions in the console have direct keys in an external keyboard. Hold ? and press a key to see the shortcut. See [Console Keys](#)

Accessories - Ext. Mouse or Trackball

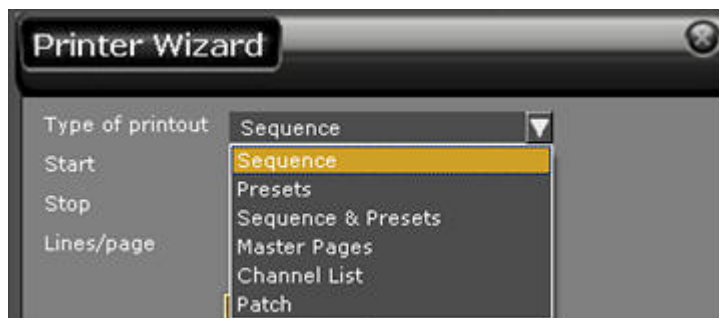
You can use an external USB mouse or trackball in the same way as the built in trackball. Connect it to the USB port.		
Function	Key	Feedback
Select channels	left click	Selects and deselects channels
Set channel levels	mouse wheel	Same as the Level wheel of Congo
Set channel levels	Right click and mouse	Same as the Level wheel of Congo
Open Browser objects	left doubleclick	Opens the corresponding editor tab
Select a cell in a list for editing	left click	Like a mouse in any pc environment

Accessories - Printer

Printing is done from the Printer Wizard to a text (txt) file. This file can be auto-loaded to a USB memory stick, to be printed from a standard computer of any kind.

1. Select the Browser by pressing **BROWSER** (if it was selected it will be closed, press again to open).
2. Use the down and right arrow keys to open the **SETUP** node.
3. Select **Printer Wizard** and press **MODIFY**.

This popup will appear

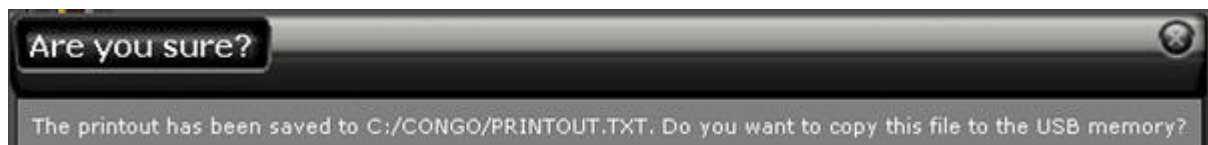


These are the options

Function	Explanation
<u>Type of printout</u>	Select what kind of data. Sequence will always print the sequence in the Main Playback.
<u>Start</u>	First item of the selected type of printout.
<u>Stop</u>	Last item of the selected type of printout.

4. Press **EXECUTE** to confirm.

This popup will appear



5. Confirm with **MODIFY**.

Accessories - Lynx Fader Wing

The Lynx is a Master fader wing with 24 extra faders and a crossfade playback.

It is connected to the APN port in the back of the console and can be used to get a remote control for Masters 1-24, the A/B Crossfade Playback, and five keys (from left to right).

Key	Function	Feedback
Key 1	Flash Mode	Toggles Flash modes for the Masters
Key 2	Start	Starts a Master fade
Key 3	Not implemented	-
Key 4	Seq -	Steps to the previous Sequence step
Key 5	Seq +	Steps to the next Sequence step

Accessories - Remote Control

This system can connect an optional remote control for controlling channels and levels. There are two options, phone remote and radio remote.

This chapter contains the following sections

- [Remote Control - Introduction](#)
- [Remote Control - Phone](#)
- [Remote Control - Radio](#)

Remote Control - Introduction (4.3)

There are two main kinds of wireless remote controls.

- [ETC cRRFU](#) (USB)
- The [Phone remote](#) (RJ45)

There are two older remotes that are backwards compatible with some functionality. Talk to your dealer.

- ETC RRFU
The functions supported in the older ETC RRFU are: GO, BACK, CHAN, REC, AT, FULL, THRU, + and -
- Transtechnik Radio Remote
The functions supported in this remote are the same as in the Avab Pronto.

All remotes are connected in the back of the console.

NOTE

Remote Control needs to be enabled in the System Settings for remotes to work. See [System Settings - System](#).

Remote Control - Phone (4.1)

The Phone Remote option allows you to use a standard phone - without a phone line (4.1) - to remote control channels and levels.

Wireless Remote

Connect the base station of a wireless phone directly to get a low-level remote control solution. Activate the handset for an internal call (depends on the system how this is done) and use the numeric keypad to control channels and levels directly.



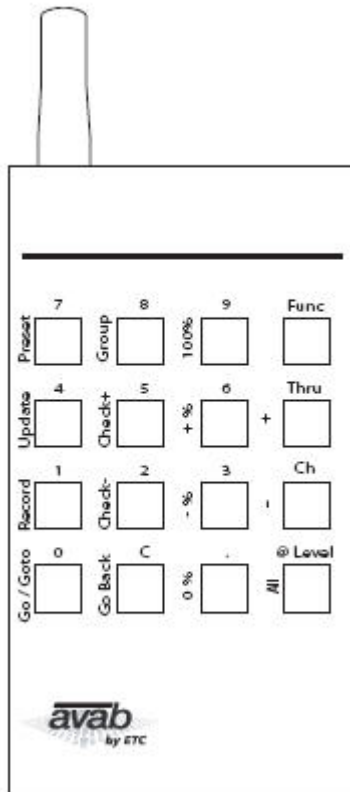
Phone Remote - Functions

UR-1	1	2	3
Shift (*)	RECORD	CH	100%
	4	5	6
Shift (*)	PRESET	@ LEVEL	CHECK +
	7	8	9
Shift (*)	GOTO/GO	THRU	CHECK -
	*	0	#
Shift (*)	Shift	ALL	0%

Once is point
Twice is CLEAR

Remote Control - ETC cRRFU Radio

All instructions for connecting and operating the ETC CRRFU Radio Remote control are packaged and delivered with this unit.



Accessories - Dimmer Feedback Log (4.1)

Browser >Setup >Dimmer Feedback Log

The log shows dimmer errors reported by the IES Dimstat application.

News in 4.2

- A new column (Active) has been added in the Dimmer Feedback Log. It shows if the error is active or if it has been cleared. You can also reset a known error (to get rid of the indication on the channel) by toggling the Active field. Active errors are marked with a special color and style.
- It is possible to select one or more rows in the Dimmer Feedback Log and press DELETE to remove them from the list.
- IES is now shown in the status bar when there is dimmer feedback data received from IES dimmers.
- The dimmer fault indication in the channel view has been changed to the symbol used by dimstat.
- If general dimmer errors are active, there is now a warning road sign in the title bar.

Accessories - Visualisation Software (4.1)

It is possible to connect a separate computer running a visualisation software such as WYSIWYG or CAPTURE directly to Congo with Ethernet.

In Congo there are two important settings. **IPX** and **WYSIWY/Sandnet/Capture Link**.

- IPX is a protocol being used for communicating light information over Ethernet
- The WYSIWY/Sandnet/Capture Link enables these softwares to communicate specific features back to Congo - such as focusing lights.

Preparations in Congo

1. Set "Avab IPX" to "ON" in the Login Settings. See [Login Settings - Editing](#).
2. Set the WYSIWY/Sandnet/Capture Link to "ON" in the System Settings. See [System Settings - Output](#).

Preparations in the Computer running Visualisation Software

Make sure IPX drivers are installed under Windows (normally, only TCP/ IP is installed by default).

1. Go to Network Properties in your PC (right click and select properties on the Network symbol in the Control Panel)
2. If the IPX/SPX protocol isn't installed, click on Install, select Protocol and find the IPX/SPX protocol in the list.
3. When the IPX/SPX protocol is installed, select Properties and verify that frame type is set to 802.3. Otherwise the utility will not be able to find your console on the network.

Visualisation - WYSIWYG (4.1)

In the computer hosting WYSIWYG There is an Avab Driver for WYSIWYG that needs to be installed. Also, you need to make sure IPX is active and that the frame type is set to 802.3.

1. Make sure that you have WYSIWYG Rel. 7 or later installed on your PC (Avab Vista dongles need the Console Edition (CE) version).
2. Download the setup.exe file from the www.avabcontrol.com. Execute setup.exe to start the installation. Follow the instructions on screen.
3. Open a show in Wysiwyg and follow the instruction manual to connect an external console.

Visualisation - Capture (4.1)

In the computer hosting Capture you need to make sure IPX is active and that the frame type is set to 802.3. Capture will recognize Congo on the network and patch it automatically providing Congo is set up with IPX and LINK on as described in the beginning of this chapter. [Accessories - Visualisation Software](#).

Example - getting started

1. Start Capture and open the demo play Sketching.
2. Open the demo play Sketching in Congo.

NOTE

There is a plug-in for Training Projects powered by Capture. See [Media - Training Projects](#).

Capture can be downloaded from www.capturesweden.com

Visualisation - Blind output (4.2)

When Blind Output is activated, everything edited blind will be sent to the visualisation software to provide feedback to the operator when making changes in data not being sent to stage.

Set Blind output to "ON" in the System Settings. See [Settings - Output](#)

Anytime an editor is opened, the currently focused step is sent to the visualisation software, without changing the live output from the console.

The following editors are supported:

- Preset
- Sequence
- Master View
- Focus
- Color
- Beam
- All

NOTE

When editing in a Preset, Group or Palette list, the changes are not visualised until the step is updated and reselected.

You will need an updated version of Capture 2005 to be able to display blind output properly.

When a blind output list is opened, the Live Attribute view will display Blind Attributes instead.

APPENDIX

The Appendix contains information about control interfaces, fuses, key shortcuts etc.

This chapter contains the following sections

- [Appendix - Console Keys](#)
- [Appendix - Shortcuts - By Function](#)
- [Appendix - Connectors](#)
- [Appendix - Frequently Asked Questions](#)
- [Appendix - Console & System Settings](#)

Appendix - Console Keys

Hold ? and press a key to get help. This chapter is a summary of all key help texts, to make the online help more efficient.

This chapter contains the following sections

- [Console Keys - Alphabetical Order](#)
- [Console keys - Keyboard Equivalents](#)

Console Keys - Alphabetical Order

These are the Console Keys and the online help text connected to those without a direct chapter.

Console Key - ? (F1)

- **Function** = Open the HELP tab. See [This Manual](#).
- **More** = Hold and press any key to get Help for that key.
- **More** = Press after opening an editor to get Help for that editor.
- **Location** = Top right corner, under the Grand Master.

Console Keys - <-- DISP MODE (N/A)

- **Function** = Step up one level in the menu system of the console Main Display. See [Main Display - Functions](#).
- **Location** = Under the Main Display, to the right. See [Facepanel - Console Main Display](#).

Console Key - @LEVEL (Num Lock +)

- **Function** = Set Level #. See [Set Channel levels](#).
- **More** = Press without # and get Step Level (70%). See [System Settings - Channel](#).
- **More** = Press twice to get 100%
- **Location** = Programming Section, bottom. See [Facepanel - Programming Section](#).

Console Key - A (A)

- **Function** = Open the A tab and connect A to the Channel Control. See [Main Playback - Edit Keys](#).
- **Location** = Main Playback section. See [Main Playback - Introduction](#).

Console Key - ALIGN (Alt A)

- **Function** = Align device parameters to the first selected device. See [Device Control - Align](#).
- **Location** = To the right of the Main Display section. See [Facepanel - Console Main Display](#).

Console Key - ALL (Num Lock, Shift -)

- **Function** = Select all channels with a level in the Channel Control. See [Select Channels](#).
- **Location** = Programming Section, bottom. See [Facepanel - Programming Section](#).

Console Keys - Arrow Keys (arrow keys)

- **Function** = Move around in Browser, Lists and Popups. See [Navigating - The Arrow Keys](#).
- **More** = Arrow keys are used in combination with TAB and FORMAT.
- **Location** = Navigation Pad, right. See [Facepanel - Programming Section](#).

Console Key - ATTRIB (I)

- **Function** = Open the Live Attribute List. See [Device Views - Live](#).
- **More** = Open the Preset Attribute Editor. See [Device Views - Presets](#)
- **More** = Record Attributes. See [Record All Attributes For Selected Channels](#)
- **Location** = Programming Section, next to DYN EFFECT. See [Facepanel - Programming Section](#).

Console Key - B (B)

- **Function** = Open the B tab and connect B to the Channel Control. See [Main Playback - Edit Keys](#).
- **Location** = Main Playback section. See [Main Playback - Introduction](#).

Console Key - BANK (N/A)

- **Function** = Hold to select Bank for each Direct Select section. See [Direct Select - Content](#).
- **Location** = In the middle of the Direct Select Section. See [Direct Selects - Introduction](#).

Console Key - BEAM (Alt-B)

- **Function** = Activate Beam # for the selected channels. See [Devices - Palettes](#).
- **More** = Hold RECORD and press BEAM to record a new palette. See [Record A BeamPalette](#).
- **More** = Hold BEAM to activate Direct Select Mode. See [Device Palettes - Direct Mode](#).
- **Location** = To the right of the Main Display section. See [Facepanel - Console Main Display](#).

Console Key - BLIND (F3)

- **Function** = Activate the Blind Tab. See [Blind - Blind Tab](#).
- **More** = Hold BLIND and use the level wheel to fade in BLIND.
- **More** = Hold BLIND and press a Master or Playback key to load the content.
- **Location** = Navigation Pad, right. See [Facepanel - Programming Section](#).

Console Key - BROWSER (F10)

- **Function** = Activate/hide the Browser. See [Navigating - Browser](#).
- **More** = Hold BROWSER and use level wheel to resize the Browser.
- **Location** = Navigation Pad, top right. See [Facepanel - Programming Section](#).

Console Key - BUILD SEQ (Softkey N/A)

- **Function** = Deactivates auto-creation of a new Sequence step when a Preset is recorded in the Live or A Tab. See [Sequences - Build & Modify Modes](#).
- **Location** = Softkey under the PLAYBACK page of the Main Display. See [Facepanel - Console Main Display](#).

Console Key - C/ALT (Backspace)

- **Function** = Clears last numerical entry. See [Channels - Clear Functions](#).
- **More** = Used in combination with other keys to clear Playbacks. See [Master Playbacks - Load/Clear/Modify](#).
- **Moremore**

Console Key - CAPTURE (C)

- **Function** = Activate/deactivate Capture Mode. See [Channels - Capture Mode](#).
- **Location** = Programming Section, under RECORD. See [Facepanel - Programming Section](#).

Console Key - CH/ID (Num Lock -)

- **Function** = Selecting channels. See [Select Channels](#).
- **Location** = Programming Section, middle. See [Facepanel - Programming Section](#).

Console Key - CH DELAY (Softkey N/A)

- **Function** = Sets channel time # to the selected channels. See [Sequence Times - Channel Times](#).
- **Location** = In the TIMES soft key page of the Main Display. See [Facepanel - Console Main Display](#).

Console Key - CH TIME (Softkey N/A)

- **Function** = Sets channel delay time # to the selected channels. See [Sequence Times - Channel Times](#).
- **Location** = In the TIMES soft key page of the Main Display. See [Facepanel - Console Main Display](#).

Console Key - CLIENT (N/A)

- **Function** = Controls Client functionality.
- **Location** = To the left of the Main Display section. See [Facepanel - Console Main Display](#).

Console Key - COLOR (Alt C)

- **Function** = Activate Color # for the selected channels. See [Devices - Palettes](#).
- **Additional Functions** additional Functions

Console Key - COLUMN (F9)

- **Function** = Select all cells in a column of a list. See [Navigating - Lists](#).
- **Xtra** = Hold COLUMN and use the level wheel to resize a Column.
- **Xtra** = Move columns. See [Change The List View](#).
- **Xtra** = Sort by column. See [Sort By Column](#).
- **Location** = Navigation Pad, upper right. See [Facepanel - Programming Section](#).

Console key - CONNECT (N/A)

- **Function** = Connect a Master to the Master Playback. See [Master Playback - Playback Keys](#).
- **Location** = See [Master Playback - Playback Keys](#).

Console Key - COMPARE (Softkey N/A)

- **Function** = Activates COMPARE mode - comparing a Preset with the last recorded version. See [Presets - Compare Mode](#).
- **Location** = Softkey under the CHANNELS page of the Main Display. See [Facepanel - Console Main Display](#).

Console Key - COPY/CUT (Ctrl C)

- **Function** = Copy an item in a List. See [Copy, Cut & Paste](#).
- **Xtra** = Press COPY twice to cut an item in a list.
- **Location** = Programming Section, next to PASTE. See [Facepanel - Programming Section](#).

Console Key - CURSOR (N/A)

- **Function** = Sets the trackball to trackball/mouse mode. See [Facepanel - Trackball](#).
- **Location** = See [Facepanel - Trackball](#).

Console Key - DELAY (Ctrl D)

- **Function** = Set a delay time in the Sequence of the Main Playback. See [Sequences - Times](#).
- **Location** = Programming Section, left. See [Facepanel - Programming Section](#).

Console Key - DELETE (Del)

- **Function** = Deletes selected item in Lists. See [Editing In Lists](#)
- **Location** = In the Navigation Pad. See [Facepanel - Programming Section](#).

Console key - DEVICE (D)

- **Function** = Hold MODIFY and press to open the Device Settings. See [Patch - Device Settings](#).
- **Location** = Over the Master Playback key section. See [Master Playback - Playback Keys](#).

Console Key - Direct Select Pages (N/A)

- **Function** = Each of these five round keys activate a page in which you can preselected content for all Direct Selects. See [Direct Select - User Setups](#).
- **Location** = See [Direct Selects - Introduction](#).

Console Key - DISPLAY LIST (J)

- **Function** = Sets the trackball to Display List mode. See [Display Lists](#).
- **Xtra** = Hold DISPLAY LIST to get all display list options in the Direct Selects.
- **Location** = See [Facepanel - Trackball](#).

Console Key - DYN EFFECT (E)

- **Function** = Open the Live Effect List. See [Dynamics - Edit Live Dynamic Effects](#).
- **Xtra** = Hold MODIFY and press to open the Effect Library List. See [Dynamics - Effect Library](#).
- **Xtra** = Enter a number and press DYN EFFECT to start a Dynamic Effect. See [Dynamics - Start](#)
- **Xtra** = Hold to get Direct Mode in Direct Selects. See [Start Dynamics With Direct Mode](#).
- **Location** = Programming Section, next to SEQ. See [Facepanel - Programming Section](#).

Console Key - ESC (Esc)

- **Function** = Close popups and tabs.
- **Location** = In the Navigation Pad. See [Facepanel - Programming Section](#).

Console Key - FAN (Ctrl F)

- **Function** = Fan any parameter within the current channel selection. See [Device Control - Fan](#).
- **Location** = To the right of the Main Display section. See [Facepanel - Console Main Display](#).

Console Key - FLASH (N/A)

- **Function** = Flash keys for the lower row of Master Playbacks. See [Master Playbacks - Flash Keys](#)
- **Xtra** = Can be used in combination with FLASH MODE to set flash levels.
- **Location** = Over the lower row of master faders. See [Master Playbacks - Introduction](#).

Console Key - FLASH MODE (F)

- **Function** = Sets flash level # to the flash keys for the lower row of Masters. See [Master Playbacks - Flash Keys](#).
- **Location** = Over the Master Playback key section. See [Master Playback - Playback Keys](#).

Console Key - FOCUS (Alt F)

- **Additional Functions** = Hold RECORD and press FOCUS to record a new palette. See [Record A Focus Palette](#).
- **Additional Functions** = Hold FOCUS to activate Direct Select Mode. See [Device Palettes - Direct Mode](#).
- **Location** = To the right of the Main Display section. See [Facepanel - Console Main Display](#).

Console Key - FORMAT (F4)

- **Function** = Change Format in Channel and Attribute views. See [Navigating - Channel Views](#).
- **Additional Functions** = Hold FORMAT and use the level wheel to zoom in Channel and Attribute Views.
- **Additional Functions** = Hold FORMAT and press arrow keys up/down to change detail level in views.
- **Location** = Navigation Pad, right. See [Facepanel - Programming Section](#).

Console Key - GO (Ctrl G)

- **Function** = Start a crossfade in the Main Playback. See [Main Playback - Transport Keys](#)
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - GO in Master Playback (N/A)

- **Function** = Start a crossfade in the Master Playback. See [Master Playback - Playback Keys](#).
- **Location** = Next to the Master Playbacks. See [Master Playback - Playback Keys](#).

Console Key - GO BACK (Ctrl B)

- **Function** = Crossfade to the previous step in the Main Playback. See [Main Playback - Transport Keys](#)
- **Additional Functions** = Reverse the ongoing crossfade in the Main Playback
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - GO BACK in Master Playback (N/A)

- **Function** = Crossfade to the previous step in the Master Playback. See [Master Playback - Playback Keys](#).
- **Additional Functions** = Reverse the ongoing crossfade in the Master Playback
- **Location** = Next to the Master Playbacks. See [Master Playback - Playback Keys](#).

Console Key - GOTO (G)

- **Function** = Crossfade to Preset # in the Main Playback. See [Main Playback - Transport Keys](#)
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - GROUP (Alt G)

- **Function** = Select channels in a Group. See [Groups - Select Channels](#).
- **Additional Functions** additional Functions

Console Key - HIGHLIGHT (Alt-H)

- **Function** = Set the current selection to Highlight mode. See [Device Control - Highlight Mode](#).
- **Location** = In the Main Display Area. See [Facepanel - Console Main Display](#).

Console Key - HOME ATTRIB

- **Function** = Sets all selected devices to Home. See [Device Control - Home positioning](#).
- **Location** = Programming Section, right. See [Facepanel - Programming Section](#).

Console Key - IN (Ctrl-I)

- **Function** = Set an in Time in the Sequence of the Main Playback. See [Sequences - Times](#).
- **Location** = Programming Section, right. See [Facepanel - Programming Section](#).

Console Key - INDEPENDENTS 7,8,9 (N/A)

- **Function** = Independent key functions. See [Independents](#)
- **Location** = In the Independent area (top right corner). See [Independents](#) .

Console Key - INSERT (Ins)

- **Function** = Insert items in Lists. See [Editing In Lists](#)
- **Location** = In the Navigation Pad. See [Facepanel - Programming Section](#).

Console Key - INV GROUP (Num Lock, Shift /)

- **Function** = Select all channels in the Channel control with a level, except the current selection. See [Select Channels](#).
- **Location** = Programming Section, next to PRESET. See [Facepanel - Programming Section](#).

Console Key - JUMP TO B (N/A)

- **Function** = Positions Preset # in the sequence to the B field of the Main Playback. See [Main Playback - Transport Keys](#)
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - LAST (L)

- **Function** = Select the previous channel within the current selection. See [Device Control - Next & Last Mode](#).
- **Location** = To the right of the Main Display section. See [Facepanel - Console Main Display](#).

Console Key - LIVE (F2)

- **Function** = Activate the Live tab. See [Live](#).
- **Location** = Navigation Pad, right. See [Facepanel - Programming Section](#).

Console Key - LOAD (F6)

- **Function** = Load items from the Browser. See [Browser Functions](#).
- **Location** = Programming Section, next to COPY/CUT. See [Facepanel - Programming Section](#).

Console Key - MASK (K)

- **Function** = Used in combination with other keys to toggle the mask functions that mask device parameters from recording. See [Device Control - Mask](#).
- **Location** = Navigation Pad, right. See [Facepanel - Console Main Display](#).

Console Key - MASTER KEYS (0-9)

- **Function** = Load content to the Master Playbacks. See [Master Playbacks - Load/Clear/Modify](#)
- **Xtra** = Can be pressed to select the channels in a Group or Preset to the Channel Control.
- **Location** = Over the lower row of master faders, and under the upper row. See [Master Playbacks - Introduction](#).

Console Key - MASTER (Alt M)

- **Function** = Opens the Master View tab.
- **Xtra** = Can be used to select Masters and set levels numerically. [Master View - Select And Set Levels](#).
- **Location** = Over the Master Playback key section. See [Master Playback - Playback Keys](#).

Console Key - MINUS (Ctrl <)

- **Function** = Subtract a channel from a selection. See [Select Channels](#).
- **Xtra** = Step to the previous channel.
- **Xtra** = Can be held together with Master Key to subtract those channels from the current selection.
- **Location** = Programming Section, middle. See [Facepanel - Programming Section](#).

Console Key - MINUS PERCENT (N/A)

- **Function** = Subtract Level 5%. See [Set Channel levels](#).
- **Xtra** = Hold C/ALT and press MINUS PERCENT to set 0%
- **Location** = Programming Section, middle. See [Facepanel - Programming Section](#).

Console Key - MODIFY SEQ (Softkey N/A)

- **Function** = Deactivates all auto-times and links to all Sequences. See [Sequences - Build & Modify Modes](#).
- **Location** = Softkey under the PLAYBACK page of the Main Display. See [Facepanel - Console Main Display](#).

Console Key - NEXT (N)

- **Function** = Select the next channel within the current selection. See [Device Control - Next & Last Mode](#).
- **Location** = To the right of the Main Display section. See [Facepanel - Console Main Display](#).

Console Key - Numerical Keypad (Num Lock)

- **Function** = This is where numbers are input. This is also where you have the decimal point, and the C/ALT key (clear numerical entry).
- **Xtra** = The C/ALT key is also a prefix key for clearing Playbacks, and for some console Macros.
- **Location** = Programming Section, bottom. See [Facepanel - Programming Section](#).

Console Key - ON/FETCH (Num Lock, Ctrl +)

- **Function** = Sets the last stored level for the selected channel(s). See [Presets - Fetch Intensities](#)
- **Xtra** = Fetch levels from Preset #. See [Presets - Fetch Intensities](#)
- **Xtra** = Fetch attributes from Preset #. See [Device Control - Fetch/Copy](#).
- **Location** = Programming Section, bottom. See [Facepanel - Programming Section](#).

Console Key - OUT (Ctrl U)

- **Function** = Set an Out Time in the Sequence of the Main Playback. See [Sequences - Times](#).
- **Location** = Programming Section, left. See [Facepanel - Programming Section](#).

Console Key - OUTPUT (O)

- **Function** = Enter a number and press to control an Output directly on the level wheel. Enter a number and press CH or move the level wheel to exit.
- **Location** = Programming Section, next to LOAD. See [Facepanel - Programming Section](#).

Console Key - PAGE (N/A)

- **Function** = Load a page to this row of Master Playbacks. See [Master Pages](#).
- **Location** = In the middle of each row of master faders. See [Master Playbacks - Introduction](#).

Console Key - Page+ (N/A)

- **Function** = Load the next page to this row of Master Playbacks. See [Master Pages](#).
- **Location** = In the middle of each row of master faders. See [Master Playbacks - Introduction](#).

Console Key - Page- (N/A)

- **Function** = Load the previous page to this row of Master Playbacks. See [Master Pages](#).
- **Location** = In the middle of each row of master faders. See [Master Playbacks - Introduction](#).

Console Key - PAUSE (Ctrl P)

- **Function** = Pause an ongoing crossfade in the Main Playback. See [Main Playback - Transport Keys](#)
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - PAUSE in Master Playback (N/A)

- **Function** = Pause an ongoing crossfade in the Master Playback. See [Master Playback - Playback Keys](#).
- **Location** = Next to the Master Playbacks. See [Master Playback - Playback Keys](#).

Console Key - PALETTE (Alt P)

- **Function** = Activate All palette # for the selected channels. See [Devices - Palettes](#).
- **Xtra** = Hold RECORD and press PALETTE to record a new palette. See [Record An All Palette](#).
- **Xtra** = Hold PALETTE to activate Direct Select Mode. See [Device Palettes - Direct Mode](#).
- **Location** = Navigation Pad, right. See [Facepanel - Console Main Display](#).

Console Key - PARAMETER (N/A)

- **Function** = Sets the trackball to Parameter mode. See [Facepanel - Trackball](#).
- **Location** = See [Facepanel - Trackball](#).

Console Key - PASTE (Ctrl V)

- **Function** = Paste a copied item in a List. See [Copy, Cut & Paste](#).
- **Location** = Programming Section, next to COPY/CUT. See [Facepanel - Programming Section](#).

Console Key - PLAYBACK (X)

- **Function** = Activates the Playback Tab and connects the A field to the channel controls. See [Main Playback - Transport Keys](#)
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - PLUS (Ctrl >)

- **Function** = Add a channel to a selection. See [Select Channels](#).
- **Xtra** = Step to the next channel.
- **Xtra** = Can be held together with Master Key to add channels from that Master to the current selection.
- **Location** = Programming Section, middle. See [Facepanel - Programming Section](#).

Console Key - PLUS PERCENT (N/A)

- **Function** = Add Level 5%. See [Set Channel levels](#).
- **Xtra** = Hold C/ALT and press PLUS PERCENT to set 100%
- **Location** = Programming Section, middle. See [Facepanel - Programming Section](#).

Console Key - PRESET (P)

- **More** = Used in combination with other keys to load to Playbacks. See [Presets - Load To Playbacks](#).
- **Location** = Top of Programming Section, next to UPDATE. See [Facepanel - Programming Section](#).

Console Key - REM DIM (N/A)

- **Function** = Dim all channels except those selected. See [Channels - Rem Dim](#).
- **More** = Can be set to BALANCE. See [Channels - Balance Mode](#).
- **Location** = Programming Section, next to SEQ. See [Facepanel - Programming Section](#).

Console Key - RECORD (R)

- **Function** = Record Presets. See [Presets - Record](#).
- **More** = Press RECORD together with keys to record directly to a playback.
- **More** = Press RECORD together with keys to record specific data (GROUP, DYNAMIC, ATTRIBUTE)
- **Location** = Top of Programming Section, next to UPDATE. See [Facepanel - Programming Section](#).

Console Key - REFRESH (Ctrl Y)

- **Function** = Updates changes to stored values in the Main Playback. See [Main Playback - Edit Keys](#)
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - RELEASE (Ctrl R)

- **Function** = Release selected channel(s) from Capture Mode. See [Channels - Capture Mode](#).
- **More** = Press twice to release all captured channels.
- **Location** = Programming Section, next to CAPTURE. See [Facepanel - Programming Section](#).

Console Key - SELECT (Shift)

- **Function** = Used with arrow keys to select cells in lists. See [Navigating - Lists](#).
- **Location** = Navigation Pad, top right. See [Facepanel - Programming Section](#).

Console Key - SELECT ALL (F7, Ctrl N or Ctrl L)

- **Function** = Select all channels within the current selection. See [Device Control - Next & Last Mode](#).
- **Location** = The right side of the Main Display area. See [Facepanel - Console Main Display](#).

Console Key - SETUP (F11)

- **Function** = Open the System Settings. See [System Settings](#).
- **More** = Press SETUP together with keys to open Local Settings
- **Location** = top right corner, under the Grand Master. See [Quick Tour - Console Facepanel](#).

Console Key - SET CHANGED (softkey N/A)

- **Function** = Sets all selected devices flagged as Changed. See [Devices - Recording](#).
- **Location** = Softkey under the DEVICE page of the Main Display. See [Facepanel - Console Main Display](#).

Console Key - SEQ (S)

- **Function** = Open the Sequences List. See [Sequences - List](#).
- **More** = Enter a number and press SEQ to open a Sequence List. See [Sequences - Sequence List](#)
- **More** = Enter a number, hold and press a Playback key to load Sequence #. See [Sequences - Load](#).
- **Location** = top right corner, under the Grand Master. See [Quick Tour - Console Facepanel](#).

Console Key - SEQ + (X-DownArrow)

- **Function** = Next step of the sequence in the Main Playback. See [Main Playback - Transport Keys](#)
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - >> (SEQ+) In Master Playback (N/A)

- **Function** = Next step of the sequence in the Master Playback. See [Master Playback - Playback Keys](#).
- **Location** = See [Master Playback - Playback Keys](#).

Console Key - SEQ - (X-UpArrow)

- **Function** = Previous step of the sequence in the Main Playback. See [Main Playback - Transport Keys](#)
- **Location** = In the Main Playback. See [Main Playback - Introduction](#).

Console Key - << (SEQ-) In Master Playback (N/A)

- **Function** = Previous step of the sequence in the Master Playback. See [Master Playback - Playback Keys](#).
- **Location** = See [Master Playback - Playback Keys](#).

Console Keys - Softkeys (N/A)

- **Function** = The three keys on either side of the Main Display are softkeys with menus and functions. The four keys under the Main Display are parameter keys for the functions of the wheels. See [Facepanel - Console Main Display](#).
- **Location** = Around the Main Display area. See [Facepanel - Console Main Display](#).

Console Key - START (N/A)

- **Function** = Start a fade in a Master Playback. See [Master Playbacks - Start Fades](#).
- **Location** = Over the Master Playback key section. See [Master Playback - Playback Keys](#).

Console Key - TAB (Tab)

- **Function** = Activate next Tab, or Tab #. See [Navigating - Tabs](#).
- **More** = Hold TAB and use the level wheel to resize the lower part of a List.
- **More** = Hold TAB and use arrow keys to split and move Tabs.
- **More** = Hold C/ALT and press TAB to reset all Tabs to default.
- **Location** = Navigation Pad, right. See [Facepanel - Programming Section](#).

Console Key - TAP (N/A)

- **Function** = Hold TAP and set BPM tempo by tapping a master key with a chase loaded to that Playback. See [Master Playback - Playback Keys](#).
- **Location** = See [Master Playback - Playback Keys](#).

Console Key - TEXT (ALT T)

- **Function** = Activate text input from the QWERTY keyboard (console display over Masters 11-20) for the step in the A field of the Main Playback. See [Entering Texts](#).
- **More** = Hold TEXT and press a Master or Direct Select key to activate text input for a Group or Preset.
- **Location** = Top right corner, under the Independent section.

Console Key - THRU (Num Lock /)

- **Function** = Select a range of channels. See [Select Channels](#).
- **Location** = Programming Section, middle. See [Facepanel - Programming Section](#).

Console Key - TIME (T)

- **Function** = Set an in/out Time in the Sequence of the Main Playback. See [Sequences - Times](#).
- **More** = Set a time to a Preset in a Master Playback. See [Master Playbacks - Times](#).
- **More** = Hold MODIFY and press TIME to open the Time Editor Popup. See [The Time Editor Popup](#).
- **Location** = Programming Section, left. See [Facepanel - Programming Section](#).

Console Key - TRACK (F12)

- **Function** = Open the Track List for the selected channel(s). See [Sequences - Track List](#).
- **Location** = Programming Section, under UPDATE. See [Facepanel - Programming Section](#).

Console Key - TYPE (N/A)

- **Function** = Hold to select Type for each Direct Select section. See [Direct Select - Content](#).
- **Location** = In the middle of the Direct Select Section. See [Direct Selects - Introduction](#).

Console Key - UPDATE (U)

- **Function** = Update currently active Preset. See [Presets - Update](#).
- **Location** = Top of Programming Section, next to RECORD. See [Facepanel - Programming Section](#).

Console Key - WAIT (Softkey N/A)

- **Function** = Sets Wait time # to the A or B step of the Main Playback. See [Sequences - Times](#).
- **Location** = In the TIMES soft key page of the Main Display. See [Facepanel - Console Main Display](#).

Console Key - Wizard (W)

- **Function** = Activate the Wizard function (if appropriate) for the current editor.
See [Channel Editor Wizard](#).
See [Import Wizard](#).
See [Patch Wizard](#).
See [Scroller Item Wizard](#).
See Text Wizard.
See [Track To Wizard](#).
See [Template Range Wizard](#).
- **Location** = Top right corner, under the Independent section.

Console Key - (Left) (mouse left)

- **Function** = Left key in Trackball mode. See [Facepanel - Trackball](#).
- **More** = Activets selected item in Display List Mode .
- **Location** = See [Facepanel - Trackball](#).

Console Key - (Right) (mouse right)

- **Function** = Right key in Trackball mode. See [Facepanel - Trackball](#).
- **More** = Activates selected item in Display List Mode .
- **More** = Hold and move mouse to set levels to selected channels.
- **Location** = See [Facepanel - Trackball](#).

Console Keys - Keyboard Equivalents

These are the keyboard equivalents of the console keys. If you are using an offline editor they allow you to access most of the functionality directly, as if you had a console.

Console Key	Keyboard Key
-	Keypad Ctrl *
-	Ctrl Left Arrow
+	Keypad *
+	Ctrl Right Arrow
A	A
ALIGN	Ctrl A
ALL	Keypad Ctrl -
AT LEVEL	Keypad +
ATTRIBUTE	I
B	B
BEAM (B)	Alt B
BLIND	F3
BROWSER	F10
C/ALT	Backspace
CAPTURE	C
CH	Keypad -
COLOR (C)	Alt C
COLUMN	F9
COPY	Ctrl C
CUT	Ctrl X
DELAY	Ctrl D
DELETE	DELETE
DEVICE	D
DISPLAY LIST	J
DYNAMICS	E
ESC	ESC
FAN	Ctrl F
FOCUS (F)	Alt F
FETCH/UNDO	Keypad Ctrl +
FLASH MODE	F
FORMAT	F4
GO	Ctrl G
GO BACK	Ctrl B
GOTO	G
GROUP	Alt G
HELP (?)	F1
HIGHLIGHT	Alt-H
HOME ATTR (softkey)	F5
IN	Ctrl I
IND 7	Ctrl F7
IND 8	Ctrl F8

IND 9	Ctrl F9
INSERT	INSERT
JUMP TO B	N/A
LAST	L
LIVE	F2
LOAD	F6
MACRO	Q
MASK	K
Master Keys 1- 10	1-0
MODIFY	Enter
NEXT	N
OUT	Ctrl O
OUTPUT	O
PAGE (lower)	M
PAGE (upper)	Ctrl M
PALETTE	Alt P
PASTE	Ctrl V
PAUSE	Ctrl P
PLAYBACK	X
PRESET	P
RECORD	R
RELEASE	Ctrl R
SELECT	Shift
SELECT ALL	F7, Ctrl N or Ctrl L
SEQ	S
SEQ -	X & Down
SEQ +	X & Up
SETUP	F11
START	N/A
TAB	TAB
TEXT	Alt T
THRU	Keypad /
TIME	T
TRACK	F12
U1	N/A
U2	N/A
U3	N/A
UPDATE	U
UPDATE PB	N/A
UPDATE PALETTE (softkey)	N/A
WIZARD	W

Appendix - Shortcuts By Function

This is a summary of all keys and shortcuts, organised by the type of function.

This chapter contains the following sections

- [Shortcuts - Select Channels](#)
- [Shortcuts - Channel Levels](#)
- [Shortcuts - Channel Modes](#)
- [Shortcuts - Select Nth Functions](#)
- [Shortcuts - Channel Views](#)
- [Shortcuts - Dynamics](#)
- [Shortcuts - HELP](#)
- [Shortcuts - Channels Only Mode](#)
- [Shortcuts - General Editing Keys](#)
- [Shortcuts - Navigation Keys](#)
- [Shortcuts - Master Playbacks](#)
- [Shortcuts - Masters & Channels](#)
- [Shortcuts - Master Pages](#)
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Shortcuts - Select Channels

These are the keys and shortcuts for selecting channels. Some of them assume the Command Syntax is set to RPN - see [Channels - Command Syntax](#).

DESCRIPTION	SYNTAX
Select a channel	# CH
Add channel to the channel selection	# +
Subtract channel from the channel selection	# -
Select a range of channels	# THRU
Step to the next channel	+
Step to the previous channel	-
Select all channels with a level in the Main Playback.	ALL
Select all channels with a level in any Playback.	ALL ALL
Deselect all channels (4.1)	C/ALT C/ALT
Invert the channel selection	INV GROUP
Invert the channel selection	C/ALT & THRU
Enter Next/Last mode for the next channel within the channel selection	NEXT
Enter Next/Last mode for the previous channel within the channel selection	LAST
Leaves Next/Last mode and focuses all selected channels	ALL CHANNELS
Open the Channel Select wizard	WIZARD & CH

Shortcuts - Channel Levels

These are keys and shortcuts for setting levels to the currently selected channels. Some of them assume the Command Syntax is set to RPN - see [Channels - Command Syntax](#).

DESCRIPTION	SYNTAX
Set the selected channels to 70%, second press sets 100%	@LEVEL
Set a level to the selected channels	# @LEVEL
Clear and deselect the selected channels	C/ALT & @LEVEL
Set 100%	C/ALT & +%
Set 0%	C/ALT & -%
Increase the level of selected channels 5%	+%
Decrease the level of selected channels 5%	-%
Increase the level of channel # with 5%	# +%
Decrease the level of channel # with 5%	# -%
Increase the level of selected channels #%	# . +%
Decrease the level of selected channels #%	# . -%
Set level in internal resolution (0-255)	# . & @LEVEL
Fetch values to the selected channels from a preset	# ON/FETCH
Increase level in 1 bit steps	. & +%
Decrease level in 1 bit steps	. & -%
Set the last recorded level for the selected channel(s).	ON/FETCH

Shortcuts - Channel Modes

Functions for checking, balancing & comparing channels.

DESCRIPTION	SYNTAX
Compare* the light in the Channel Control with its recorded version	COMPARE
Compare* the light in the Channel Control with preset #	# COMPARE
Toggle Balance* mode on/off	BALANCE
Step with Check mode to the next channel	C/ALT & +
Step with Check mode to the previous channel	C/ALT & -

*COMPARE and BALANCE are soft keys in the Channels Soft Key Page of the Main Display of the console. BALANCE can be set instead of REM DIM in the console settings. See [Channels - Compare Mode](#) and [Channels - Balance Mode](#).

Shortcuts - Select Nth Functions

Functions for selecting every Nth channels **from the current channel selection**. All these functions are Soft Keys in the [Channels - Random Select](#) Soft Key Page of the Main Display in the console.

DESCRIPTION	SYNTAX
Select the SELECT Soft Key Page in the Main Display	<input type="button" value="SELECT"/>
Select every # nth channel	<input type="button" value="#"/> <input type="button" value="Select Nth"/>
Select every 2nd channel	<input type="button" value="Select 2nd"/>
Select every 3rd channel	<input type="button" value="Select 3rd"/>
Select every 2nd channel randomly	<input type="button" value="RANDOM"/> <input type="button" value="Select 2nd"/>
Select every 3rd channel randomly	<input type="button" value="RANDOM"/> <input type="button" value="Select 3rd"/>
Select every Nth channel randomly	<input type="button" value="RANDOM"/> <input type="button" value="Select Nth"/>
Select devices that have changed.	<input type="button" value="SELECT CHANGE"/>

Shortcuts - Channel Views

These shortcuts control the channel views.

DESCRIPTION	SYNTAX
Scroll in the active channel view	<input type="button" value="CH"/> <input type="button" value="Arrow Keys"/>
Scroll in the active channel view	<input type="button" value="CH"/> <input type="button" value="Wheel"/>
Toggles Channel View formats.	<input type="button" value="FORMAT"/>
Selects Channel Layout #.	<input type="button" value="#"/> <input type="button" value="FORMAT"/>
Zooms the Channel View.	<input type="button" value="FORMAT"/> <input type="button" value="Wheel"/>
Toggle channel symbols in Channel Layout.	<input type="button" value="FORMAT"/> <input type="button" value="Arrow Keys"/>
Show temporary Captured format.	<input type="button" value="FORMAT"/> <input type="button" value="CAPTURE"/>
Show temporary Parked format.	<input type="button" value="FORMAT"/> <input type="button" value="PARK"/>
Select All Channels format.	<input type="button" value="FORMAT"/> <input type="button" value="ALL"/>
Select non-zero channel format	<input type="button" value="FORMAT"/> <input type="button" value="CH/ID"/>

Shortcuts - HELP (4.1)

These are the keys and shortcuts used for the online HELP function.

DESCRIPTION	SYNTAX
Open the help index. If a menu or editor is open it will open help for that.	[?]
Opens help for that key	[?] & [Any Key]
Scroll the Help window content	Down arrow & Wheel
Open the free text Search Function	[TEXT]

Navigating in the help pages

DESCRIPTION	SYNTAX
Next page	[Down Arrow]
Page before this page	[Up Arrow]
Last visited page	[Left Arrow]
Previously visited page	[Right Arrow]

Navigating the Hyperlinks

DESCRIPTION	SYNTAX
Next hyperlink	[C/ALT] & [Down Arrow]
Previous hyperlink	[C/ALT] & [Up Arrow]
First hyperlink on page	[C/ALT] & [Left Arrow]
Last hyperlink on page	[C/ALT] & [Right Arrow]
Follow focused hyperlink	[MODIFY]

Creating a Favourite

DESCRIPTION	SYNTAX
Create a Favourite from a HELP tab	[NOTE]
Delete a Favourite from the Browser	[DELETE]

Shortcuts - Channels Only Mode

Channels Only Mode is activated by the three position Fader Mode switch in the top middle of the console. It turns the console into a single field manual desk.

DESCRIPTION	SYNTAX
Switch Direct Ch mode on/off.	Fader Mode Switch
Select a channel range for the manual faders	Direct Select keys

Shortcuts - General Editing Keys

These keys are central in the general editing functions of the console. They are mostly used in combination with the navigation keys.

DESCRIPTION	SYNTAX
Closes popups and tabs without executing.	ESC
Clears numerical input, and is used in combination with other keys as an ALT key.	C/ALT
Works as an ENTER key for popups and in spreadsheet cells. Is used in combination with a lot of keys to open editors.	MODIFY

Shortcuts - Spreadsheet Editing

These functions are for editing in Spreadsheets.

DESCRIPTION	SYNTAX
The arrow keys are used to navigate in a spreadsheet or list, but also in combination with all the other navigation keys for different functions.	Arrow Keys
Will insert a new entry in most spreadsheet lists	INSERT
Will insert the entry # in most window lists	# INSERT
Will delete the focused entry in most window lists	DELETE
Selects all items (down) in the column of a spreadsheet.	COLUMN
Scrolls the size of a column.	COLUMN & Wheel
Sorts by the content of a column.	COLUMN & Up/Down Arrow
Moves a column.	COLUMN & Left/Right Arrow
Select cells to the right of the current cell	SELECT & Left Arrow
Select cells below the current cell(s)	SELECT & Down Arrow

Shortcuts - Navigation Keys

The top four Navigation keys are central in the Navigating functions of the console. They are mostly used in combination with the General Editing keys.

DESCRIPTION	SYNTAX
Focuses the Browser. If the Browser is already focused, it will be closed.	BROWSER
Scrolls the size of the Browser.	BROWSER & Wheel
Toggles through all open tabs.	TAB
Focuses Tab #.	# TAB
Scrolls the split in a spreadsheet tab.	TAB & Wheel
Splits the tab view in horizontal or vertical.	TAB & Down Arrow
Removes a split tab view.	TAB & Up Arrow
Moves the focused tab to the next screen	TAB & Right Arrow
Moves the focused tab to the next screen	TAB & Left Arrow

Shortcuts - Master Playbacks

These are the main keys and shortcuts for managing content in the Master Playbacks. See also [Shortcuts - Recording Functions](#).

Basic loading and clearing of content

DESCRIPTION	SYNTAX
Load Preset # to a master	# PRESET Master Key
Load Sequence # to a master	# SEQ Master Key
Load Group # to a master	# GROUP Master Key
Load Focus Palette # to a master	# FOCUS Master Key
Load Color Palette # to a master	# COLOR Master Key
Load Beam Palette # to a master	# BEAM Master Key
Load All Palette # to a master	# PALETTE & Master Key
Load Dynamic Effect # to a master	# DYN EFFECT & Master Key
Load a Parameter to a master	Wheel Key & Master Key
Clear a master	C/ALT & Master Key
Clear all Master Levels	C/ALT & LIVE LIVE
Set text to preset or group in a master field	TEXT & Master Key
Set a Time # to a Master with a Preset	# TIME & Master Key

Master control functions

DESCRIPTION	SYNTAX
Activate the Master View*	MASTER
Open the Master Editor.	MODIFY & Master Key
Set an individual flash level (in flash mode)	# FLASH MODE & Master Key
Toggle a master on/off	START & Master Key
Toggle master # on/off	# START
Fade a master to a specific level	# START & Master Key
Toggle individual flash mode on/solo/off	FLASH MODE & Master Key
Connect a master playback to the Master playback	CONNECT & Master Key
Tap tempo for sequence on a master (hold tap and tap Master key).	TAP & Master Key

*You can also click on the **Master View** node in the Browser.

Shortcuts - Masters & Channels

Functions for selecting channels to and from Master Playbacks.

DESCRIPTION	SYNTAX
Select the channels of a Preset/Group in a Master Playback.	Master Key
Add channels of a Preset/Group in a Master Playback to the channel selection	+ & Master Key
Subtract channels of a Preset/Group in a Master Playback from the channel selection	- & Master Key
Select channels of a Preset/Group in a Master Playback which are active on stage	ALL & Master Key
Load the selected channels one by one to Master Playbacks.	CH & Master Key
Load the selected channels as a group to a Master Playback.	PRESET & Master Key

Shortcuts - Master Pages

Main keys and shortcuts for handling Master Pages. Master pages are recorded/loaded separately for masters 1-20 and 21-40.

DESCRIPTION	SYNTAX
Load a Master Page #	[#] [PAGE]
Clear masters	[C/ALT] & [PAGE]
Record changes to current Master Page*	[RECORD] & [PAGE]
Record master content to Master Page #	[#] [RECORD] & [PAGE]
Load next Master Page	[+]
Load previous Master Page	[-]
Tap tempo for a Master Page	[TAP] & [PAGE]
Set a Master Page time	[#] [TIME] & [PAGE]
Activate the Master Page List in the Main Display**	[DISPLAY LIST] & [PAGE]

*Depends on the Master Page Settings. See [System Settings - Master](#).

**It is also possible to hold DISPLAY LIST and press the Direct Select key Mast Page.

Shortcuts - Devices To Home Position

Functions for recording & setting Home positions to the selected Devices.

DESCRIPTION	SYNTAX
Set Home All	[HOME ATTRIB] [HOME ATTRIB]
Set Home All (shortcut)	[C/ALT] & [ATTRIBUTE]
Set Home Focus	[HOME ATTRIB] & [FOCUS]
Set Home Color	[HOME ATTRIB] & [COLOR]
Set Home Beam	[HOME ATTRIB] & [BEAM]
Set Home Focus	[0] [FOCUS]
Set Home Color	[0] [COLOR]
Set Home Beam	[0] [BEAM]
Set Home All	[0] [PALETTE]
Set Home to a Parameter	[RECORD] & [Wheel Key]
Record current attribute values as the home position for the selected channels*	[RECORD] & [HOME ATTRIB]

*Make sure this is done including ALL devices - the Home Position will be fetched for all from Palette 0 instead of the template default values.

Shortcuts - Device Attribute Editors (4.1)

Keys and shortcuts for opening Attribute Editors for Devices.

DESCRIPTION	SYNTAX
Open Live Attribute Editor for selected Devices	ATTRIB
Open Attribute Editor for the Preset in field A	ATTRIB & A
Open Attribute Editor for the Preset in field A	PRESET & ATTRIB
Open Attribute Editor for the Preset in field B	ATTRIB & B
Open Attribute Editor for a Preset on a Master	ATTRIB & Master Key
Open Attribute Editor for Preset #	# PRESET & ATTRIB

Formats

Keys and shortcuts for toggling information on/off in the Attribute Editors

DESCRIPTION	SYNTAX
Toggle Focus information	FORMAT & FOCUS
Toggle Color information	FORMAT & COLOR
Toggle Beam information	FORMAT & BEAM
Toggle Time information	FORMAT & <u>up/down arrows</u>

Shortcuts - Device Masking

Keys and shortcuts for masking Device Attributes from recording.

DESCRIPTION	SYNTAX
Clear global Mask	C/ALT & MASK
Toggle global Mask on/off	MASK
Toggle Focus parameters in global Mask	MASK & FOCUS
Toggle Color parameters in global Mask	MASK & COLOR
Toggle Beam parameters in global Mask	MASK & BEAM
Toggle single parameter in global Mask	MASK & Wheel Key
Open the Mask Editor window	MODIFY & MASK

Shortcuts - Device Palette Recording

Keys and shortcuts for handling Device Palettes.

DESCRIPTION	SYNTAX
Record selected Devices to the first free Focus Palette	RECORD & FOCUS
Record selected Devices to the first free Color Palette	RECORD & COLOR
Record selected Devices to the first free Beam Palette	RECORD & BEAM
Record selected Devices to the first free All Palette	RECORD & PALETTE
Record selected Devices to Focus Palette #	# RECORD & FOCUS
Record selected Devices to Color Palette #	# RECORD & COLOR
Record selected Devices to Beam Palette #	# RECORD & BEAM
Record selected Devices to All Palette #	# RECORD & PALETTE

Shortcuts - Device Palette Activating

Keys and shortcuts for activating values in Device Palettes.

DESCRIPTION	SYNTAX
Activate values from a Focus palette	# FOCUS
Activate values from a Color palette	# COLOR
Activate values from a Beam palette	# BEAM
Activate values from an All palette	# PALETTE
Activate a single parameter from a Focus palette	# FOCUS & Wheel Key
Activate a single parameter from a Color palette	# COLOR & Wheel Key
Activate a single parameter from a Beam palette	# BEAM & Wheel Key
Activate a single parameter from an All palette	# PALETTE & Wheel Key
Activate a Palette from a Direct select	Direct Select Key
Activate a Palette from a Direct select on time #	# Direct Select Key
Activate a Palette from a Master	Master Key
Activate a Palette from a Master on time #	# Master Key

Shortcuts - Device Palette Updating

Keys and shortcuts for updating Device Palettes. Some of these keys are softkeys in the *Device* soft key page of the Main Display.

DESCRIPTION	SYNTAX
Toggle Focusing mode on/off (soft key)	FOCUSING MODE
Select Palette in Display List	Right Click
Step to the next channel in palette selection	NEXT
Step to the previous channel in palette selection	LAST
Update the current palettes for the selected channel(s) (soft key)	UPDATE PAL
Toggle Highlight mode on/off	HIGHLIGHT

Shortcuts - Device Palette Specials

Keys and shortcuts for special Device Palette functions.

DESCRIPTION	SYNTAX
Select channels recorded in a Focus palette	# CH & FOCUS
Select channels recorded in a Color palette	# CH & COLOR
Select channels recorded in a Beam palette	# CH & BEAM
Select channels recorded in an All palette	# CH & PALETTE
Direct Select mode for Focus Palettes (as long as the key is held)	FOCUS
Direct Select mode for Color Palettes (as long as the key is held)	COLOR
Direct Select mode for Beam Palettes (as long as the key is held)	BEAM
Direct Select mode for All Palettes (as long as the key is held)	PALETTE

Shortcuts - Device Palette Views

Keys and shortcuts for Device Palettes views and lists.

DESCRIPTION	SYNTAX
Open the Focus Palette Editor	MODIFY & FOCUS
Open the Color Palette Editor	MODIFY & COLOR
Open the Beam Palette Editor	MODIFY & BEAM
Open the All Palette Editor	MODIFY & PALETTE
Activate the Focus Palette Display List (console main display)	DISPLAY LIST & FOCUS
Activate the Color Palette Display List (console main display)	DISPLAY LIST & COLOR
Activate the Beam Palette Display List (console main display)	DISPLAY LIST & BEAM
Activate the All Palette Display List (console main display)	DISPLAY LIST & PALETTE

Shortcuts - Device Palettes In Masters

Keys and shortcuts for handling Device Palettes in Master Playbacks.

DESCRIPTION	SYNTAX
Load a Focus palette to a master*	# [FOCUS] & [Master Key]
Load a Color palette to a master*	# [COLOR] & [Master Key]
Load a Beam palette to a master*	# [BEAM] & [Master Key]
Load an All palette to a master*	# [PALETTE] & [Master Key]

*If you keep the Palette key pressed and continue pressing Master keys, you will continue loading the next recorded Palette of each kind to the following Masters.

Shortcuts - Device Align & Fetch

Functions for aligning & fetching values for the selected Devices. Align uses the first selected Device, or the Device focused with NEXT/LAST as the argument.

DESCRIPTION	SYNTAX
Align parameters for Focus	[ALIGN] & [FOCUS]
Align parameters for Color	[ALIGN] & [COLOR]
Align parameters for Beam	[ALIGN] & [BEAM]
Align a single Parameter	[ALIGN] & [Wheel Key]
Fetch Focus values from a preset	# [ON/FETCH] & [FOCUS]
Fetch Color values from a preset	# [ON/FETCH] & [COLOR]
Fetch Beam values from a preset	# [ON/FETCH] & [BEAM]
Fetch Parameter values from a preset	# [ON/FETCH] & [Wheel Key]
Fetch all attributes from a preset	# [ON/FETCH] & [ATTRIB]

Shortcuts - Patch & Outputs

Keys and shortcuts for patch and output functions.

Select outputs and open Patch lists

DESCRIPTION	SYNTAX
Select an output for temporary direct control - opening the Output Editor.	# OUTPUT
Add an output to the current selection	# OUTPUT +
Subtract an output from the current selection	# OUTPUT -
Add an Output range to the current selection	# OUTPUT THRU
Open the Channel List	MODIFY & CH
Open the Device List	MODIFY & DEVICE
Open the Output Editor	MODIFY & OUTPUT
Toggle level information the Output Editor	FORMAT & Up-Down arrows

Patching in the Output Editor

It is possible to patch multiple outputs and channels directly in the Output Editor using a Command Syntax (only in RPN mode).

DESCRIPTION	SYNTAX
Activate Patch Mode	MODIFY MODIFY
Patch output # to channel #	# OUTPUT # MODIFY
Patch outputs # - # to, or from, channel # (popup)	# OUTPUT # THRU # MODIFY
Patch outputs consecutively to channels # - # from output # (popup)	# CH/ID # THRU # MODIFY

Shortcuts - Main Display, General

These are the keys and shortcuts used to operate the functionality of the Main Display in the console.

DESCRIPTION	SYNTAX
Go back to the previous soft key page, then top.	<--
Clear the LCD-display List	C/ALT & DISPLAY LIST

Shortcuts - Track (4.1)

Track is applied to the current channel selection. See [Select Channels](#).

DESCRIPTION	SYNTAX
Track in the Sequence of the Main Playback.	<code>TRACK</code>
Track in all Sequences	<code>TRACK</code> & <code>SEQ</code>
Track in the Sequence of a Master Playback.	<code>TRACK</code> & <code>Master Key</code>
Track in Presets.	<code>TRACK</code> & <code>PRESET</code>
Track in Groups.	<code>TRACK</code> & <code>GROUP</code>
Track in Focus Palettes.	<code>TRACK</code> & <code>FOCUS</code>
Track in Color Palettes.	<code>TRACK</code> & <code>COLOR</code>
Track in Beam Palettes.	<code>TRACK</code> & <code>BEAM</code>
Track in All Palettes.	<code>TRACK</code> & <code>PALETTE</code>
Track in All Play Data.	<code>TRACK</code> & <code>CH/ID</code>

Formats

Keys and shortcuts for toggling information on/off in the Track lists with attributes.

DESCRIPTION	SYNTAX
Toggle Focus information	<code>FORMAT</code> & <code>FOCUS</code>
Toggle Color information	<code>FORMAT</code> & <code>COLOR</code>
Toggle Beam information	<code>FORMAT</code> & <code>BEAM</code>
Toggle Parameter information	<code>FORMAT</code> & <code>Wheel Key</code>
Toggle Intensity information	<code>FORMAT</code> & <code>@LEVEL</code>

Shortcuts - Presets (4.1)

Presets can be loaded and recorded in many ways. There are shortcuts also for selecting all channels in a Preset, or fetching the levels.

DESCRIPTION	SYNTAX
Record a Preset in a Channel View	RECORD
Record a Preset directly to a Master Playback	RECORD & Master Key
Select all channels in Preset #	# PRESET
Fetch levels from a Preset # for the selected channels	# ON/FETCH
Add channels from Preset #	# PRESET & +
Subtract channels from Preset #	# PRESET & -
Add a range of Presets until Preset #	# PRESET & THRU
Levels from Preset are fetched	# PRESET & @LEVEL
Load channel selection to a Master	PRESET & Master Key
Bring Preset in proportionately on the wheel	# PRESET & Wheel
Load Preset # to LIVE, clearing all previous light	# PRESET & LIVE
Add Preset # to BLIND	# PRESET & BLIND
Load Preset # to a Master Playback	# PRESET & Master Key
Open the Preset List	PRESET
Open Preset List focused at Preset #	# MODIFY & PRESET

Shortcuts - Groups (4.1)

Groups can be loaded and recorded in many ways. There are shortcuts also for selecting all channels in a Group, or fetching the levels. See also [Shortcuts - Recording Functions](#).

DESCRIPTION	SYNTAX
Record a Group in a Channel View	[#] [GROUP] & [RECORD]
Select all channels in a Group	[#] [GROUP]
Fetch levels from a Group	[#] [GROUP] & [ON/FETCH]
Add channels from Group	[#] [GROUP] & [+]
Subtract channels from Group	[#] [GROUP] & [-]
Add a range of Groups	[#] [GROUP] & [THRU]
Levels from Group are fetched	[#] [GROUP] & [LEVEL]
Load selection to master	[GROUP] & [Master Key]
Bring Group in proportionately on the wheel	[#] [GROUP] & [Wheel]
Add Group # to LIVE	[#] [GROUP] & [LIVE]
Add Group # to BLIND	[#] [GROUP] & [BLIND]
Load a Group to a Master Playback	[#] [GROUP] & [Master Key]
Open the Group List	[GROUP]
Temporary Direct Select mode	[GROUP] held down
Open Group List focused at Group #	[#] [MODIFY] & [GROUP]

Shortcuts - Live & Blind (4.1)

These are keys and shortcuts for loading and clearing the content of Live and Blind.

DESCRIPTION	SYNTAX
Sets the Channel Control to the A field of the Main Playback, and focuses the Live tab.	[LIVE]
Sets the Channel Control to the Blind field and focuses the Blind Tab.	[BLIND]
Clear all channels and levels in Live	[C/ALT] & [CH/ID]
Clear all channels and levels in Live	[C/ALT] & [LIVE]
Clear all channels and levels in Blind	[C/ALT] & [BLIND]
Copy Live to Blind	[LIVE] & [BLIND]
Copy Blind to Live	[BLIND] & [LIVE]
Load Preset # in Live	[#] [PRESET] & [LIVE]
Add Preset # to Blind	[#] [PRESET] & [BLIND]
Add Group # to Live	[#] [GROUP] & [LIVE]
Add Group # to Blind	[#] [GROUP] & [BLIND]
Adds the content of the Blind field to the total output.	[BLIND] & [Wheel]

Shortcuts - Record Functions (4.1)

These are shortcuts for recording Preset, Groups and master pages.

DESCRIPTION	SYNTAX
Record the next free preset in a Channel View	<input type="button" value="RECORD"/>
Record the preset # in a Channel View	<input type="button" value="#"/> <input type="button" value="RECORD"/>
Record current channel selection to a Master	<input type="button" value="RECORD"/> <input type="button" value="⌘"/> <input type="button" value="Master Key"/>
Record current Master Page content to a different Master Page	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="⌘"/> <input type="button" value="PAGE"/>
Record all attributes in this Preset for the selected channel(s)	<input type="button" value="RECORD"/> <input type="button" value="⌘"/> <input type="button" value="ATTRIB"/>
Record attributes for selected channels to Preset #	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="⌘"/> <input type="button" value="ATTRIB"/>
Record current channel selection as the next free Group	<input type="button" value="RECORD"/> <input type="button" value="⌘"/> <input type="button" value="GROUP"/>
Record current channel selection as Group #	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="⌘"/> <input type="button" value="GROUP"/>

Shortcuts - Update Functions (4.1)

These are shortcuts for updating Presets.

DESCRIPTION	SYNTAX
Update changes in the Preset loaded to this Channel View	<input type="button" value="UPDATE"/>
Update Palette # in a Direct Select	<input type="button" value="UPDATE"/> <input type="button" value="⌘"/> <input type="button" value="Direct Select Key"/>

Shortcuts - Channel Text Wizard (4.1)

This is the shortcut for opening the Channel Text Wizard that sets texts to the Channel Database directly from a Channel View.

DESCRIPTION	SYNTAX
Open the Channel Text Wizard for the current channel selection.	<input type="button" value="CH/ID"/> <input type="button" value="⌘"/> <input type="button" value="TEXT"/>

Shortcuts - Main Playback (4.1)

These are shortcuts for the Sequence in the Main Playback.

DESCRIPTION	SYNTAX
Load/Create Sequence #	# SEQ & PLAYBACK
Load Preset # to A	# PRESET & A
Load Preset # to B	# PRESET & B
Focus the Main Playback TAB and connect the Channel Control to Live	PLAYBACK
Goto Preset #	# GOTO
Goto Preset # in B	# JUMP TO B
Step to the next Preset in Sequence	SEQ+
Step to the previous Preset in Sequence	SEQ-
Start the next crossfade	GO
Start the next crossfade during an ongoing fade	GO
Insert a Master Link to the current Step	INSERT & Master Key
Insert a Master Link with Target # to the current Step	# INSERT & Master Key
Open the Sequence List at the current step	MODIFY PLAYBACK
Open the Sequence List at step #	# MODIFY PLAYBACK

Refresh functions

DESCRIPTION	SYNTAX
Refresh all channels	REFRESH
Refresh the intensity of selected channel(s)	RELEASE & @LEVEL
Refresh the attributes of all or selected channel(s)	RELEASE & ATTRIB
Refresh a parameter of all or selected channel(s)	RELEASE & Wheel key
Refresh Focus Parameters of selected channel(s)	RELEASE & FOCUS
Refresh Color Parameters of selected channel(s)	RELEASE & COLOR
Refresh Beam Parameters of selected channel(s)	RELEASE & BEAM

Shortcuts - Sequence Editor (4.1)

These are shortcut in the Sequence List that will set times directly to the focused step

DESCRIPTION	SYNTAX
Set an In/Out Time	# TIME
Set an InTime	# IN
Set an Out Time	# OUT

Shortcuts - Direct Selects (4.1)

DESCRIPTION	SYNTAX
Select Type of content (hold key)	TYPE & Direct Key
Select Bank of content (hold key)	BANK & Direct Key
Record a Palette directly	RECORD & Direct Key
Update a Palette directly	UPDATE & Direct Key
Change User Setup	User Setup key 1-5
Record a Screen Setting	TAB & Direct Key
Activate a Palette in time #	# Direct Key
Select all channels in a Palette	CH/ID & Direct Key
Select all channels with a level in a Palette	ALL & Direct Key

Shortcuts - Notes (4.1)

You can set a Note directly to the current Sequence Step or the focused step in a spreadsheet.

DESCRIPTION	SYNTAX
Create a Note for the current sequence step when in the Main Playback or Live tab	NOTE
Create a Note for a focused item in a spreadsheet	NOTE
Open the NOTE Editor directly	MODIFY & NOTE

Shortcuts - Capture & Release (4.2)

Functions for capturing & releasing channels.

Capture functions

DESCRIPTION	SYNTAX
Activate permanent Capture mode	<code>CAPTURE</code>
Capture intensity and attributes for the selected channel in Capture mode	<code>Wheel</code>
Capture intensity and attributes for the selected channel(s)	<code>CAPTURE</code> & <code>CH/ID</code>
Capture the intensity of selected channel(s)	<code>CAPTURE</code> & <code>@LEVEL</code>
Capture the attributes of selected channel(s)	<code>CAPTURE</code> & <code>ATTRIB</code>
Capture a parameter of selected channel(s)	<code>CAPTURE</code> & <code>Wheel key</code>
Capture Focus Parameters of selected channel(s)	<code>CAPTURE</code> & <code>FOCUS</code>
Capture Color Parameters of selected channel(s)	<code>CAPTURE</code> & <code>COLOR</code>
Capture Beam Parameters of selected channel(s)	<code>CAPTURE</code> & <code>BEAM</code>

Release functions

DESCRIPTION	SYNTAX
Releases the selected ch from Capture Mode	<code>RELEASE</code>
Release all Captured channels	<code>RELEASE</code> <code>RELEASE</code>
Release all Captured in # seconds	<code>#</code> <code>RELEASE</code> & <code>Wheel key</code>
Release intensity and attributes for the selected channel(s)	<code>RELEASE</code> & <code>CH/ID</code>
Release the intensity of selected channel(s)	<code>RELEASE</code> & <code>@LEVEL</code>
Release the attributes of selected channel(s)	<code>RELEASE</code> & <code>ATTRIB</code>
Release a parameter of selected channel(s)	<code>RELEASE</code> & <code>Wheel key</code>
Release Focus Parameters of selected channel(s)	<code>RELEASE</code> & <code>FOCUS</code>
Release Color Parameters of selected channel(s)	<code>RELEASE</code> & <code>COLOR</code>
Release Beam Parameters of selected channel(s)	<code>RELEASE</code> & <code>BEAM</code>

Shortcuts - Dynamics

These Dynamics functions can be used to start/stop and control Dynamic Effects. Many of them are soft keys in the Dynamics Soft Key Page. See [Dynamics - Control](#).

Start and stop Dynamics

DESCRIPTION	SYNTAX
Activate an Dynamic Template for the selected channels	# DYN EFFECT
Open the Live Dynamics List (4.1)	DYN EFFECT
Select the DYNAMICS Soft Key Page in the Main Display (softkey)	DYNAMICS
Activate the Dynamic Template or Dynamic Table list.	DISPLAY LIST & DYN EFFECT
Select all channels with a running dynamic (softkey) (4.1)	SELECT ALL
Select all channels with a running dynamic	CH & DYN EFFECT
Clear running dynamics for the selected channels (softkey) (4.1)	CLEAR SELECTED
Clear running dynamics for the selected channels	C/ALT & DYN EFFECT
Load a Dynamic Template to a master	# DYN EFFECT & Master key
Delete the selected Dynamic from the Live Dynamic Effect Display List (softkey)	DELETE DYNAM
Delete all running Dynamics (softkey)	DELETE ALL
Delete all running Dynamics (softkey)	ALL & DELETE DYNAM
Activate Direct Select for Dynamics (hold key for 2secs to get display)	DYN EFFECT
Open the Dynamic Effect List (4.1)	MODIFY & DYN EFFECT

Record and edit Dynamic Effects

DESCRIPTION	SYNTAX
Record running Dynamics to the current Preset in A	RECORD & DYN EFFECT
Record running Dynamics for the selected channels to Preset #	# RECORD & DYN EFFECT
Fetch dynamics for the selected channels from a preset*	ON/FETCH & DYN EFFECT
Open the Dynamics Editor for the current preset	PRESET & DYN EFFECT
Keep the Dynamics in the next Preset (softkey) (4.1)	KEEP DYNAM

*Dynamics are always fetched for all channels in the target Preset, even if only one is selected.

Shortcuts - Times

Keys and shortcuts for setting times. Times are set to the Active Sequence Step (in A) or the Next Sequence Step (in B) depending on the Time Settings. See [System Settings - Crossfade](#).

DESCRIPTION	SYNTAX
Set an In/Out time	# TIME
Set an In time	# IN
Set an Out time	# OUT
Set a Delay In time	# DELAY & IN
Set a Delay Out time	# DELAY & OUT
Set a Channel time (to the selected channels)	# CH/ID & TIME
Set a Parameter time	# TIME & Wheel key
Set a Channel Delay time (to the selected channels)	# CH/ID & DELAY
Set a FOCUS time	# TIME & FOCUS
Set a COLOR time	# TIME & COLOR
Set a BEAM time	# TIME & BEAM
Set a FOCUS Delay time	# DELAY & FOCUS
Set a COLOR Delay time	# DELAY & COLOR
Set a BEAM Delay time	# DELAY & BEAM
Set a Parameter time	# TIME & Wheel key
Set an FCB time	# TIME & ATTRIB
Set an FCB Delay time	# DELAY & ATTRIB

Appendix - Connectors

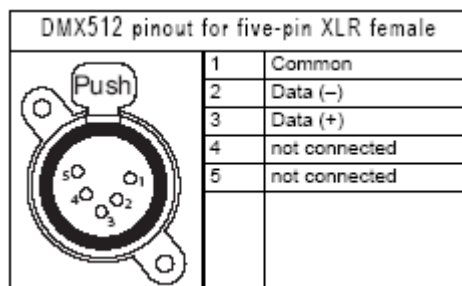
These are the connectors in the back of the console.

This chapter contains the following sections

- [Connector - DMX512](#)
- [Connector - VGA Monitor](#)
- [Connector - Phone remote](#)
- [Connector - Remote Radio](#)
- [Connector - MIDI](#)
- [Connector - APN](#)
- [Connector - External 1-9](#)
- [Connector - Ethernet](#)
- [Connector - Keyboard, Printer & Mouse](#)
- [Connector - Desk Light](#)
- [Connector - Congo Jr Backpanel](#)

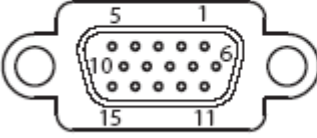
Connector - DMX512

Pin 1 Gnd
Pin 2 Data-
Pin 3 Data+



Connector - VGA Monitor

Pin 1 Red
 Pin 2 Green
 Pin 3 Blue
 Pin 5 Gnd
 Pin 6 Red Gnd
 Pin 7 Green Gnd
 Pin 8 Blue Gnd
 Pin 10 Sync Gnd
 Pin 13 Horizontal
 Pin 14 Vertical

VGA Monitor connector pinout (HD-DB15 female)				
	1	Red video	9	not connected
	2	Green video	10	Ground
	3	Blue video	11	Ground
	4	Ground	12	not connected
	5	Ground	13	Horizontal (H/V) sync
	6	Red ground	14	Vertical sync
	7	Green ground	15	not connected
	8	Blue ground		

Connector - Phone Remote

Pin 4 Data+
 Pin 5 Data -



Connector - Remote Radio

RFU is a 6-pin XLR with the same pinout as on all ETC consoles

Pin 1 --
 Pin 2 --
 Pin 3 --
 Pin 4 --
 Pin 5 --
 Pin 6 --

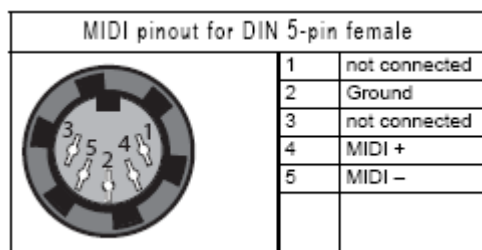
Connector - MIDI

MIDI In

Pin 4 Data +
Pin 5 Data -

MIDI Out, Thru

Pin 2 Gnd
Pin 4 +5V
Pin 5 Data



Connector - APN

Pin 4 Data+
Pin 5 Data -

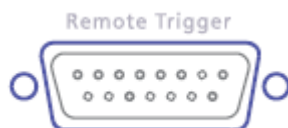
(Not in Congo Jr)

Connector - External Trig 1-9

The external trig allows the following functions:

- 1: Go
- 2: Pause
- 3: Go Back
- 4: Toggles Master 40 On/Off.

The Remote Control Setting must be turned on for the remote to work. See [Settings - System](#).



Connector - Ethernet

Pin 1 TX+
 Pin 2 TX-
 Pin 3 RX+
 Pin 4 NC
 Pin 5 NC
 Pin 6 RX-
 Pin 7 NC
 Pin 8 NC

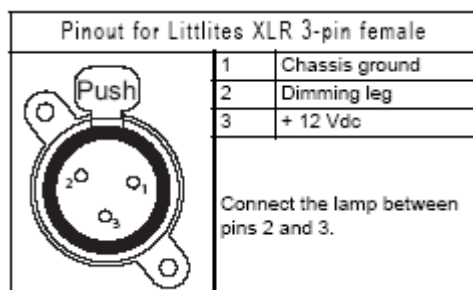


Connector - Keyboard and Mouse

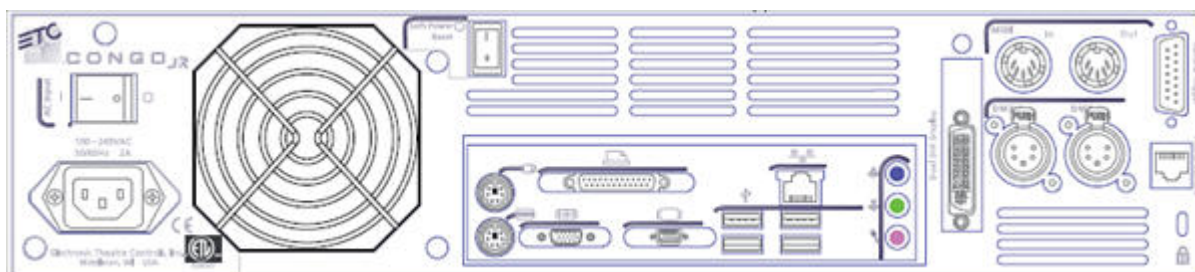
Keyboard and mouse are connected to the USB ports in the back of the console.

Connector - Desk Light

You can connect a standard desk light to the connectors in the top corners of Congo.



Connector - Congo Jr Backpanel



Appendix - Frequently Asked Questions

UNDER CONSTRUCTION

FAQ - Import Show Data From Other Systems?

Q: Can I import show data from other systems?

A: Yes. You can import from any system that can export as ASCII Light Cues. Normally you get cues (presets) with channels, levels and times. Sequence and texts. Patch.

There are limitations to ASCII Light Cues

- You may not get any attributes or scroller data.
- Effects are usually not compatible.
- Time Groups are rarely compatible.

U.S. 050601

FAQ - Channel keypad in notebook?

Q: How can I get the channel keypad when I work with the offline editor in a notebook computer?

A: In most notebooks, when you hold down the Fn key, you will get a temporary numeric keypad that is incorporated from numbers 7, 8, 9 and down over the text keys. This keypad can be activated with "num lock" as well, but it gets tedious to jump in and out of this mode since any function keys are shared with the normal keyboard.

U.S. 050601

Appendix - Console & Sound Settings

There are settings for console displays and worklights, and for sound.

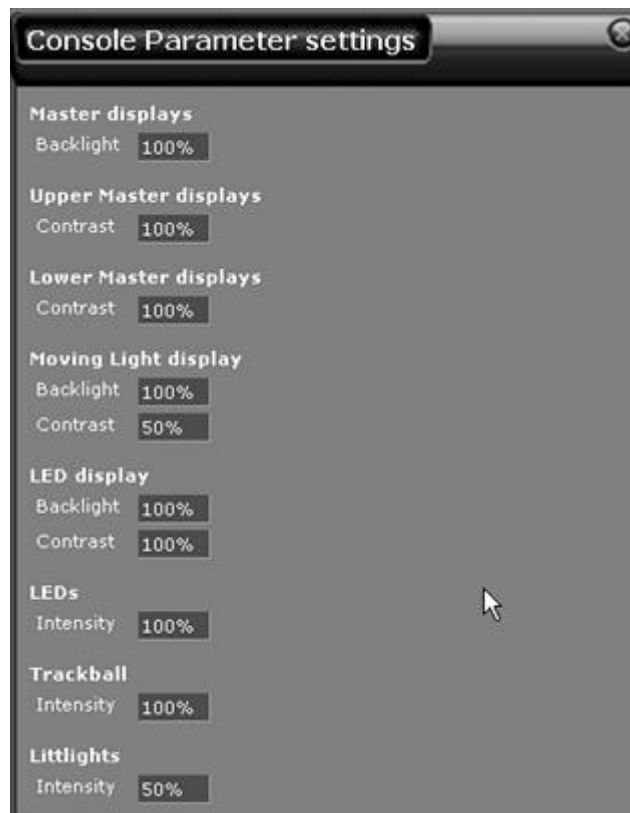
This chapter contains the following sections

- [Console Settings](#)
- [Sound Settings](#)

Console Setup

The Console Settings are set from the node Console Settings in the Setup node of the Browser. (Browser >Settings >Console Settings).

You can set the values from 0-100%. They will take effect immediately and are NOT related to different play files.



Sound Settings

The volume of the internal speaker is set by holding SETUP and moving the level Wheel. You will see the result in the value next to the loudspeaker symbol in the top right corner of the monitor screens.



This will take effect immediately and are NOT related to different play files.

Congo - The Story

Congo is the result of ETC and AVAB efforts combining over 30 years of experience in lighting control. Here is some of the story.

When Fred Foster of ETC acquired the Avab brand his aim was to maintain it and continue development. The Avab core team were given the possibility of a lifetime to hand pick people in the industry with the experience they wanted, and work together with the resources of ETC to create Congo.

If there is a better crossover between dedicated moving light console and a true traditional theatre or television console in this price range - please let us know!

Best regards, from the Congo Development Team

Anders Ekvall - Concept & Software
Ulf Sandström - Concept & Help System
Bullen Lagerbielke - Concept & Field Testing
Lars Wernlund - Graphical Interface Programming
Peppe Tannemyr - Graphical Interface Design
Magnus Anuell - Mechanical Design
Michael Lichter - Electronics and Firmware
Tony Kvoch - Electronics
Nikolaus Frank - Industrial Design
Cecilia Frank - Graphical Console Design
Sarah Clausen - Team Support & Ideas
David Lincecum - Team Support & Ideas
Ingo Bernert - Team Support & Ideas

Outside this core team there are layers of colleagues, power users and beta testers that have contributed immensely to this project. It would be impossible to remember all but here are some: Oskar Krogell (FI), Jussi Kaatrasalo (FI), Jeremy Roberts (UK), David Gray (IT), David Smith (US) - the list grows...

Congo - The Avab Heritage

Back in the seventies Avab was a leading Scandinavian lighting console manufacturer that held one of the world's two existing 999 channel consoles, the Viking. The other one was Strands Galaxy. Both were state of the art in their own way. Viking could talk (speech module) and had very exclusive thumbwheels with tactile feedback.

Most of the functions for conventional lighting existed at this point in either or both of these systems. If you want to sum up what has happened since the answer would be

- Moving Lights
- Media Servers
- Networking
- System prices have gone down 1000%

Congo - Creating the specification

During the years before Congo the development team made an extensive survey to lighting control operators and lighting designers in all paths and backgrounds of the industry. Over 200 people were interviewed.

- What is your favourite hardware?
- What are your favourite functions?
- What is vital to you with a lighting control hardware?
- Which is your favourite console?
- Why is it your favourite console?
- Etc...

There were over 100 questions. And the most important feedback for the Congo Team was this

"We want to be able to operate the console, with our concentration focused on the performance"

This may seem simple, but it implicated a lot of things we had to take in consideration.

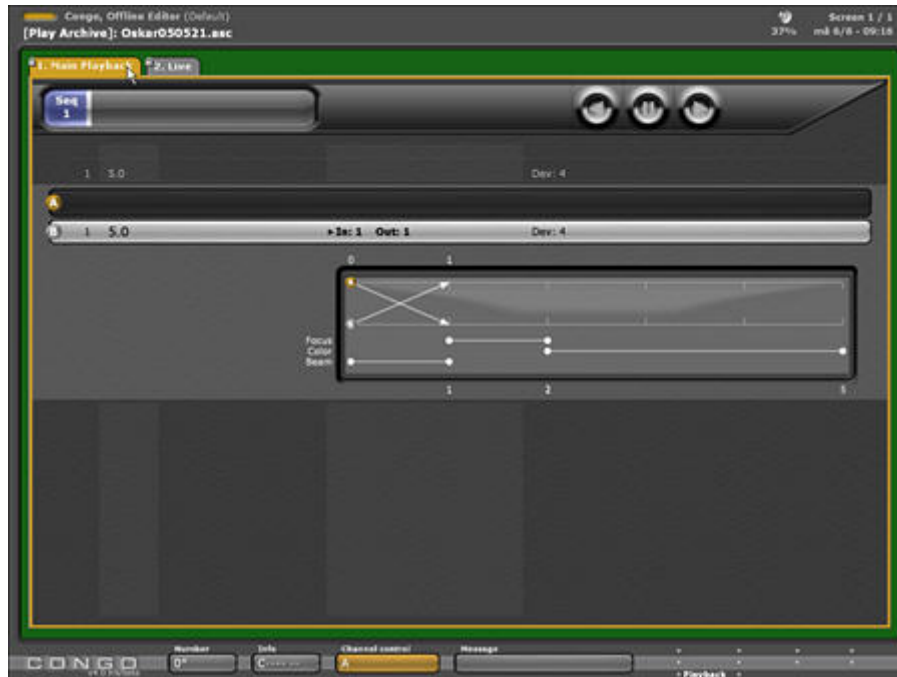
- Vital functions should have direct keys
- Navigation should be possible without looking at the screens
- The user interface should be tactile (physical keys)

Congo - Designing The Screens

Moving to a graphical interface opened a lot of possibilities. Color, graphics, local menus, toolbars...

Interviews led us quickly in a different direction. The main input we got from all roads of experience was

"Don't clutter the screens. We want only the necessary information at a glance, and only colors for important stuff."



True enough. Local menus, toolbars and colors were skipped for the simple concept of the Browser. We took aboard graphical designer wiz Peppe Tannemyr from Beacon to create an environment that used color only when necessary, that had nothing to do with office computer environments, and everything to do with lighting.

Congo - Designing The Hardware

We knew we wanted the following

- Our navigation solution made physical
- High quality faders and keys.
- Graphical displays next to the Playbacks.
- Simple access for service
- Ergonomical key layout
- Screen holders for standard screens, that allow free view over the console.



We also wanted someone with a lot of experience of the lighting industry to put it together, so we took aboard Magnus Anuell, the engineer behind the successful Rainbow Color Scrollers.

Congo - The Eurovision

The very first show run on the Congo was the Eurovision Song Contest final. The most prestigious annual live broadcast in Europe with over 250 million viewers.



"It was a fantastic experience to see how four operators with completely different backgrounds handled the system, and how well it responded. It worked past our initial expectations." (Ulf Sandström)

Four Congo operators controlled 37 universes of lighting including

- Over 300 moving lights
- A large amount of conventional lights
- 16 Catalyst media servers

The systems were networked, and all shows saved on a mutual File Server. Every system had a synchronised backup.

Let's put it this way. Congo is capable.

Congo - The arrival of Jr!

2006 at PLASA the ultra-compact and modular smaller version of the Congo Console is presented - Congo JR.

Packing every ounce of power from the larger console - this little beast is a dream come true for touring theatre operators, moving light operators and smaller-but-complex venue operators and designers.



"The Congo Jr is a dream come true for any moving light operator, designer or tech wanting a full system in a very small package." (Bullen Lagerbielke)



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