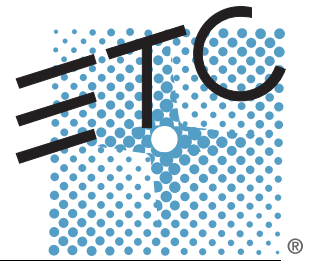


C O N G O[®] Family

User Manual

v6.4



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CONGO MANUAL

This is the manual for the Congo Family.
(V6.4 2013-03-15 Last: 2012-08-22)

This manual covers Congo, Congo Jr, Congo Kid, Congo Lightserver,
Client and Offline editor.



Table Of Contents

CONGO MANUAL.....	1
Table Of Contents	2
CONGO MANUAL.....	39
This Manual - Using the Help system	40
Help System - Change Language.....	40
Help System - Navigating.....	40
Help - Search Function	41
Help System - Favourites.....	42
This Manual - Terminology	43
Disclaimer	44
***News in This V6.4 ***	45
*** News in 6.3 ***	46
6.3 - A More Intuitive Interface.....	46
6.3 - A New Way of Managing a Sequence.....	48
6.3 - Easy And Flexible Organization.....	48
6.3 - A Complete New Import Interface	51
6.3 - Enhanced Safari/VLC Import.....	52
6.3 - New Show Control Options.....	52
News in V6.2	53
News in V6.1	54
News in V6	55
General screen improvements in V6.....	55
Blind Attribute Editing in V6	56
Effects in V6	56
New Remote - iRFR in V6.....	57
Master Playbacks in V6	57
Printing in V6.....	58
New Dock Areas in V6.....	58
Time Code in V6.....	58
File Handling in V6	59
Lock Console in V6	59
Sequence and Presets in V6	59

Scale Key in V6	60
Auto Close Tab Mode in V6.....	60
About Play in V6	61
GETTING STARTED	62
General Info	63
System Overview	64
Console Specification	65
Interface Specification	66
Installation guidelines	67
Key Syntaxes	68
Congo Terminology	69
Control Hierarchy	71
Playbacks - Introduction	71
Control Hierarchy - Master Playbacks.....	72
Control Hierarchy - Main Playback	72
Control Hierarchy - Highest Takes Precedence.....	72
Software & Update	73
Version Information.....	73
Workflow in Congo	74
Patch (workflow)	75
Control (workflow)	76
Record (workflow).....	77
Playback (workflow).....	78
Edit (workflow).....	79
Power-up Procedure.....	81
Reset The System.....	82
Reset The Console Facepanel	82
Check The Output	84
Bypass Startup Screen	85
Troubleshooting	86

Troubleshooting - Lights Are Not Responding	87
Troubleshooting - Crashes & Bugs.....	88
An Error Popup Appears - copy log	88
What to do after a crash?	89
Making a crash or bug report	89
Troubleshooting - Reset.....	90
Troubleshooting - Help from ETC Technical Services	91
ETC Technical Services - United Kingdom	91
ETC Technical Services - Americas	91
ETC Technical Services - Asia	91
ETC Technical Services - Germany	91
System Info	92
Console Specification	92
Interface Specification	93
Console Facepanels.....	94
Facepanel - Congo	95
Facepanel - Congo Jr	96
Congo Jr Master Playback Wing	97
Facepanel - Congo Kid	99
Facepanel - Congo LS.....	100
Facepanel - Programming Section.....	101
Facepanel - Console Main Display	103
Main Display - Functions.....	104
Facepanel - Trackball.....	106
GENERAL FUNCTIONS	107
Navigating.....	108
Navigating - Introduction.....	109
The Navigation Pad.....	109
The ARROW Keys	110
The ESC Key	110
The MODIFY Key	110

The Level Wheel.....	110
Navigating - Browser.....	111
Browser Controls (6.3).....	112
Browser Functions - LOAD.....	113
Navigating - Tabs.....	114
Auto close tab mode (6.0).....	114
Navigating The Tabs.....	115
Tab Setup and Lock	115
Tabs - Drag and Drop (6.3).....	116
Navigating - Channel Views (6.3)	117
Compact Channel Format	118
Channel View Formats - Selected.....	118
Channel View Format - Selected and non-zero	119
Channel View Format - Selected And Captured.....	119
Channel View Format - Used In Play	120
Channel View Format - Layout	120
Channel View Zoom.....	121
Navigating - Lists.....	122
Navigating In Lists.....	122
Editing In Lists.....	123
Sort By Column	123
Change The List View	124
Navigating - Soft Key Pages.....	125
Copy, Cut & Paste	126
Copy, Cut & Paste Attributes.....	126
Entering Texts.....	127
The TEXT Key	127
Text From The Console Keyboard	128
Display Lists	129
Mute & Solo.....	131
Mute & Solo - MUTE.....	131

Mute & Solo - SOLO	132
Output Mode Switch.....	133
Grand Master	134
Freeze Mode	135
Direct Selects	136
Direct Selects - Introduction.....	137
Direct Selects - Content	138
Content Types (6.3)	139
Direct Selects - Record & Update.....	140
Direct Selects - User Setups.....	141
Direct Selects - Direct Mode	142
Jam Mode.....	143
Jam Mode - Introduction (6.0).....	144
Activate & Setup Jam Mode (6.0)	145
Two Scene Masters (6.0)	146
Fading Two Scene Masters (6.0)	146
Create new looks in Blind and record to masters (6.0).....	147
Device Masters (6.0).....	148
Device Masters Step 1 - Check Groups	149
Device Masters Step 2 - Update Focus Palettes.....	149
Device Masters Step 3 - Check Color Palettes	150
Device Masters Option - Create Beam Palettes	151
Device Masters - Working Method (6.0).....	152
Device Masters - Selecting Devices.....	152
Device Masters - Set Positions and Colors	153
Misc Soft Key Page (6.0).....	154
Lock Console (6.3)	156
Context Menus (6.3)	157
Drag and Drop (6.3).....	160

Drag and Drop - Replacing Data (6.3).....	163
About.....	165
About - Congo	166
About - Play	168
Dimmer/Device Feedback Log (6.2)	169
Sensor3 & Sensor+ Dimmer Feedback (6.2)	170
Files.....	171
Files - Introduction.....	172
New (6.3)	174
Open.....	178
Delete a Play	178
Save & Save as... (6.3).....	179
Creating Subfolders For Files (6.3)	180
Save Copy to USB (6.3)	181
Import from... (6.3).....	182
Import Organizer - Functions (6.3).....	183
Import - Types of items to import (6.3)	185
Import Items With Dependencies (6.3).....	185
Import From Other Lighting Control Systems (6.3).....	188
Export to Expert diskette	191
Default Play wizard (6.1).....	192
Print.....	193
Copy Log files to USB.....	195
Exit to System Settings	196
System Settings - General.....	197
System Settings - Com Port	199
System Settings - Protocols	200
System Settings - Universe Map (6.0)	202
System Settings - Output (6.4).....	204
System Settings - Backup	205
System Settings - Network	206
Network Configuration Applications (6.0).....	209

System Settings - Monitor	210
System Settings - Update	212
Update Software.....	213
System Settings - USB RFR	214
System Settings - Utilities (6.0).....	215
Exit to Welcome Screen	217
Power Off (Quit).....	219
Power Loss.....	219
General Settings	220
Play Settings.....	221
Play Settings - Introduction	222
Play Settings - Basic	223
Play Settings - Channels	224
Channel Settings	225
Play Settings - Crossfade	226
Crossfade Settings.....	227
Play Settings - Master.....	229
Master Settings.....	229
Play Settings - Effects (6.1)	230
Play Settings - System	231
System Settings.....	231
Play Settings - Attribute.....	232
Attribute Settings (6.0).....	233
Play Settings - MIDI (6.4)	235
Direct Mode MIDI (6.4)	237
Play Settings - Show Control.....	239
Show Control Settings	239

Console Settings	241
Sound Settings (6.3).....	242
Network.....	243
Network - Introduction	244
Network - Functions	245
Network - Server/Backup	246
Network - Backup Setup.....	247
Network - Client	249
Network - Multiple Users	251
Multiple Users - Global Functions.....	251
Multiple Users - Local Functions	253
Server Commands.....	254
Send Play	254
Fetch Play.....	254
Backup Sync	256
Force To Backup.....	257
Backup Commands	258
Fetch Play.....	258
Convert To Server.....	259
Network nodes	260
Find/configure CEM +.....	261
Net3/ACN Device List.....	262
Screens	263
Screen Names.....	264
Load screen (6.0)	264
Delete Screens.....	265
Dock Areas (6.1).....	266
Dock Areas - Introduction	267
Dock Areas - Functions	269

Configure Dock Areas (6.3).....	269
Navigate Dock Areas (6.3)	271
Console Mimic Dock	273
Designer Summary	274
Selected - Live dock	275
Time Code dock.....	276
Color Dock (6.1).....	277
User List.....	278
User List - Columns	278
Create a User Login	279
Change User.....	280
Event List.....	281
Event List - Introduction.....	282
Event List - Action Macros.....	283
Action Macro Rules	283
Congo Action Macros (6.2)	284
Serial COM data	285
MIDI Data.....	285
UDP data (6.2)	286
Event List - Events.....	288
Triggers for Events	288
Macro List.....	290
Macros - Record & Playback	290
Patching.....	292
Patch - Introduction	293
Patch by Channel/Dimmer.....	294
Output Editor - Formats	294
Output Editor - Patch By Channel	297
Output Editor - Patch By Dimmer	298
Output Editor - Dimmer Check Mode	299
Output Editor - Channel Check Mode (6.1).....	299

Import Template Wizard (6.2)	300
Patch Wizard.....	302
Patch Dimmer(s)	302
Patch Device(s)	303
Clear/reset patch or rename.....	304
Device List.....	305
Device Settings - Columns & Functions.....	306
Device Settings - Patching (6.1)	307
Edit/Change a Device	308
>Settings and Tools - Patching	309
Channel List.....	310
Channel List - Columns & Functions	311
Channel List - Select & Patch Channels (6.3)	312
Patch - Rename Channels	313
Change a channel name.....	313
Output List - Columns & Functions.....	314
Output List - Select & Patch Outputs	315
Parked	316
Park - Parked Items List.....	317
Templates	318
Templates - Introduction.....	319
Templates - List	320
Template List - Columns & Functions.....	320
Templates - Editor	321
Template Editor - Columns & Functions.....	322
Templates - Create	323
Templates - Type LTP or HTP	324
Templates - Type 8/16 bit control.....	325
16 Bit Control And Wheel Behaviour	325

16 Bit Control - Fine Step	326
Templates - Snap or Fade	327
Templates - Ranges.....	328
Template Range Editor - Columns	329
Template Range Wizard	329
Templates - Mode Tables	331
Define A Range Table	331
Templates - Fade With Intensity.....	333
Parameter Definitions	334
Parameter Definition Editor	334
Dimmer Curve List	336
Patch - Dimmer Curve Editor	336
Main Show Data	338
Organizer (1 tab) (6.3)	339
Opening Focused Organizer Tabs (6.3)	340
Execute from the Organizer (6.3)	341
Drag and Drop in the Organizer (6.3).....	341
Organizer (2 tabs) (6.3).....	344
Groups.....	345
Groups - Introduction.....	346
Group functionality	346
Record a Group (6.1)	347
Groups - Record.....	348
900-groups	348
Groups - Select Channels.....	349
Groups - Select Channels Context Menu (6.3)	350

Groups - Fetch Intensities	351
Groups - List	352
Group List - Columns & Functions	353
Groups - Display List.....	354
Groups - Load To Playbacks	355
Presets	356
Presets - Introduction	357
Record a Preset Live (6.1)	358
Presets - Record	359
The Recording Popup (6.3).....	360
Record Presets - Live Tab.....	362
Record Presets - Field A Only	362
Record Preset - Do not add to Sequence.....	363
Record All Attributes for selected channels	363
Record Directly To A Master	364
Record Selected Channels To Any Preset	364
Presets - Update	365
Presets - List.....	366
Preset List Channel View (6.0).....	367
Preset List - Columns.....	368
Preset List - Functions	369
Presets - Load To Playbacks.....	370
Quick-load Presets to Masters	370
Presets - Copy	371
Presets - Select Channels	372
Presets - Select Channels Context Menu (6.3).....	372
Presets - Fetch Intensities	373
Presets - Display List	374
Presets - Channel Editor Wizard.....	375
Channel Editor Wizard - Type Of Change 6.1.....	376

Channel Editor Wizard - Value.....	376
Channel Editor Wizard - Include If 0%	377
Presets - Auto-Save.....	378
Presets - Times.....	379
Presets - Compare Mode.....	380
Presets - Delete	381
Presets - Renumber (6.3)	382
Presets - Import & Undo (6.3)	383
Presets - Multiple Import & Undo (6.3).....	384
Sequences.....	387
Sequences - Introduction	388
Record a Sequence Live (6.1).....	389
Sequences - In The Main Playback.....	390
Sequences - List.....	391
Sequences List - Insert/Delete/Load	391
Sequences List - Columns.....	392
Sequences - Sequence List.....	393
Sequence List Channel View (6.0)	394
Sequence List Functions	395
Sequence List - Columns	396
Sequence and Preset texts (6.0)	397
Sequences - Crossfade Movefade & Lockfade.....	398
Sequences - Times (6.0).....	399
Sequence Times - Set To A or B.....	399
Sequence Times - Main Times (in/out/delay/wait).....	400
Sequence Times - Channel Times.....	401
Sequence - Channel Time Editor	402
The Time Editor Popup.....	403
The Times Soft Key Page (6.2).....	404
Sequence Times - FCB Times	406
Sequence Times - Parameter Times.....	406
Sequence Times - WAF Alert Times.....	407
Sequence Times - WAF Wait & Followon Times.....	407

Sequences - Crossfade Profiles (6.0)	408
Sequences - Insert Step	409
Insert A Sequence Step - In any playback	409
Insert A Sequence Step Directly In The Main Playback (6.0).....	409
Insert A Sequence Step - In The List	410
Sequences - Delete Step.....	411
Delete a sequence step directly in the main playback (6.0).....	411
Sequences - Links	412
Sequence Step Links - Master Playbacks	412
Sequence Step Links - Shortcut	413
Sequence Step Links - Master Pages	413
Sequence Step Links - Another Step.....	414
Sequences - Load	415
Sequences - Build & Modify Modes (6.3).....	416
Sequence - Build Sequence Mode	417
Sequence - Modify Sequence Mode	417
Sequences - Block Values.....	418
Sequences - Track List.....	419
Sequences - Chase Mode	420
Chase - Introduction.....	421
Chase - Playback View	422
Chase - Playback Modes.....	423
Chase - Set Rate	424
Chase - BPM & Tap Tempo	425
Set BPM Numerically	425
Set BPM using Tap Tempo.....	425
Chase - Wizard.....	426
Chase Wizard - Functions	428
Sequences - Split Fade (6.1)	429
Sequences - Drag And Drop (6.3)	430

Drag and Drop a Sequence Step (6.3).....	430
Drag and Drop Device Attributes (6.3).....	433
Sequences - Section Markers (6.3)	436
Jump Between Section Markers (6.3).....	438
Playlist (6.2).....	439
The Playlist - Mode.....	440
The Playlist - Console Display	440
Groups/Palettes Overview	441
>Settings & Tools - Main Show Data.....	442
Fade Curves (6.1).....	443
Sequence - Assign Fade Curves.....	444
Notes Editor	445
Notes - Create	445
Notes - Editor	446
Note Editor - Columns	446
Note Editor - Delete	447
Delete Wizard	448
Channels.....	450
Channels - Introduction	451
Channels - Functions.....	452
Channels - Views	453
Channels - Command Syntax	454
Select Channels (6.1)	455
Set Channel Levels	456
Park Level	457
Channels - Ch Only Mode	458
Channels - 8 bit 256 Step Levels	459
Channels - Capture Mode	460
Permanent Capture Mode	460

Capturing levels or parameters	461
Recording only Captured channels	461
Releasing Captured Channels	462
Channels - Clear Functions.....	463
Channels - Check Mode.....	465
Channels - Balance Mode.....	466
Balance Mode Key.....	467
Channels - Random Select.....	468
Channels - Scale channel levels.....	470
Clear Scale Values (6.0)	471
Channels - Used & Unused.....	472
Channels - Group Wheel Mode	473
Channels - Rem Dim.....	475
Channels - Soft key page	476
Channels - Next & Last Mode	478
Channels - Select Functions.....	479
Select - Sub-selection Functions.....	480
Live (6.0).....	481
Live - Introduction (6.0)	482
Select the Live Tab (6.0).....	482
Selecting channels with mouse (6.3).....	483
Channel viewing formats	483
Channel View Zoom	484
Channel Information - Info Box	485
Multiple Live Tabs.....	486
Editing in Live	487
Record in Live (6.0)	488
Channel Symbols (6.0)	489
Channel Information - Important modes (6.0).....	491
Channel Information - Fade indications (6.0).....	492
Blind (6.0).....	493

Blind - Introduction (6.0)	494
Select the Blind Tab	494
Editing In Blind (6.0)	495
Record and copy in Blind (6.0)	495
Track List	497
Track - Introduction (6.3)	498
Track - Lists (6.1)	499
Track List - Functions	500
Track List - Show Levels & Attributes	501
Track - Channels	502
Track Channels - In Sequences	502
Track To Wizard	503
Track Channels - In Presets	503
Track Channels - Groups	504
Track Channels - Palettes	505
Track Channels - In The Play	506
Track - Presets (6.3)	507
Track - Palettes	509
Track - Track Editing	510
Track Editing - Intensities	510
Track Editing - Update Attributes (6.1)	511
Track Editing - Unblock Attributes	512
Parked	513
Park - Introduction	514
Park - Parking values	515
Park - Edit Parked Values	516
Park - Un-parking Values	517
Park - Parked Items List	518
>Settings and Tools - Channels	519
Channel Database	520

Set Channel Texts For The Database	520
Display List - Auto Groups	523
Channel Database - Import Text File Wizard	523
Import Text File - LightWright	525
Import Text File - Excel	526
 Channel Layouts	 527
Channel Layouts - Introduction	528
Channel Layouts - Load and navigate	529
Channel Layouts - List	530
Channel Layout List - Columns & Functions	530
Channel Layouts - Editor (6.0)	532
Channel Layout Editor - General Functions	532
Channel Layout Editor - Wheels	533
Channel Layout Editor - Colors	534
Channel Layout Editor - Align	535
Channel Layout Editor - Wizard	535
Channel Layout Editor - Text	536
Channel Layout Editor - Print (6.0)	537
Channel Layouts - Create	538
Channel Layouts - Channels	539
Channel Layouts - Channel Numbers	539
Channel Layouts - Channel Features	540
Channel Layouts - Lines	541
Channel Layouts - Boxes and Circles (6.0)	542
Channel Layouts - Content	543
 Channel Partitions	 544
Partitions - Introduction	545
Partitions - List	546
Partitions List - Columns	546
Partitions - Create	547
Partitions - Add Partition Wizard	547

Partitions - Activate	549
Devices.....	550
Devices - Introduction	551
Devices - Media Servers	552
Devices - Functions	554
Device Control.....	555
Device Control - Introduction.....	556
Device Controls - Explanation.....	557
Device Control - Lamp Strike Douse & Reset	558
Control Soft Key Page - Functions	560
Device Control - Home Positioning.....	561
Device Control - U1-U2-U3	562
U1-U3 - Setting Up Parameters	563
Device Control - Align	564
Device Control - Fan.....	565
Fan Settings.....	565
Device Control - Fetch/Copy	566
Device Control - Highlight Mode (6.0)	567
Device Control - Flip	568
Device Control - Moving Light Dock Area.....	570
Device Control - Select Changed (softkey)	570
Device Views	572
Device Views - Introduction.....	573
Device Views - Live	574
Device Views - Filtering.....	575
Device Views - Editing.....	576
Device Views - Presets	577

Preset Attribute Editor - Columns.....	578
Preset Attribute Editor - Times	578
Device Views - Data.....	579
Device Recording.....	580
Device Recording - Introduction	581
Device Recording - Modes	582
Changed mode	583
Active Mode & Mark.....	584
Active Mode & Attribute Tracking.....	585
Device Recording - Block Cues.....	586
Device Recording - Delete.....	587
Device Recording - Cue Only.....	588
Device Palettes.....	589
Device Palettes - Introduction.....	590
Device Palettes - Record.....	591
Each Device or Each Device Type	591
Record A Focus Palette.....	592
Record A Color Palette	593
Record A Beam Palette.....	594
Record An All Palette	595
Device Palettes - Update.....	596
Device Palettes - UPDATE direct key	597
Re-record A Palette - Merge Or Replace	598
Device Palettes - Edit.....	599
Device Palettes - Lists.....	600
Palette List - Columns & Functions.....	600
Device Palettes - Activate By Number	601
Device Palettes - Direct Mode	602
Device Palettes - In Masters	603
Device Palettes - Select Active Channels	604
Device Palettes - Select Stored Channels	605
Device Palettes - Display List.....	606

Device Palettes - Focusing Mode	607
Device Palettes - Renumber (6.3)	608
Device Times	609
Device Times - Introduction	610
Default Attribute Time (6.2)	610
Percent times, or seconds?	611
Device Times - Individual or FCB (6.0).....	612
Device Times - Attribute Editor Times	614
Attribute Times	615
Attribute Delay Times.....	616
Device Times - Fan Times.....	617
Device Play Back.....	618
Device Play back - Introduction	619
Device Play back - Attributes Follow Faders	620
Masters And Attributes - General	620
Crossfaders And Attributes	620
N/A.....	620
Device Play back - Attrib Move	621
AutoMark	621
Live Attributes (6.0)	622
Live Attributes - Columns	623
Gel Picker	624
All Palettes.....	625
Focus Palettes	626
Color Palettes.....	627
Beam Palettes.....	628
Mask.....	629
Global Mask - Functions.....	629
Mask - Editor (6.1).....	630
User Masks - Functions (6.1).....	631

>Settings & Tools	632
Scroller Rolls	633
Scroller Rolls Editor - Columns.....	633
Create a Scroller Roll.....	633
Assign A Scroller Roll	634
Calibrate Individual Scroller Rolls	635
Scroller Fan override.....	636
Auto-create Palette Wizard (6.0)	637
Jam Mode Wizard (6.0)	638
Effects	640
Effects - Introduction (6.0)	641
Effects - Functions	643
Effects - Views (6.0).....	644
Effects in Dock Areas (6.0)	645
Effects - Command syntax.....	646
Select and activate effects (6.1)	646
Select channels from effect (6.1)	648
Home functions for effects.....	648
Load an effect to a master.....	649
Effect Soft Key Page.....	649
Effects - Edit (6.0)	651
Effects - Record	652
Effects - Channel Distribution Wizard	653
Live Effects.....	655
Effect Playbacks	656
Create an Effect Playback.....	657
Effect Overview	658
Chase Effects	659
Create a Chase.....	660
Copy a chase effect (6.0)	661
Control a Chase Effect	662

Chase Tap Tempo	662
Chase Effect Parameters	663
Chase Editor.....	665
Chase Editor - Functions.....	666
Chase Step Editor.....	667
Chase Step Editor - Functions.....	668
Content Effects (6.0).....	669
Create a Content Effect Playback	670
Control Content Effects	671
Content Effect Parameters	671
Content Effect Modes	675
What mode do I use?.....	675
Content Effect Times	677
Series List	678
Series List - Functions	679
Series Step Editor.....	680
Series Step Editor - Functions.....	681
Dynamic Effect.....	682
Waveforms - Dynamic Templates & Tables.....	683
Create a Dynamic Effect Playback	683
Control a Dynamic Effect	684
Dynamic Effect Parameters	684
Dynamic Templates	686
Dynamic Effect Library - Columns & Functions.....	686
Dynamic Template Editor - Create	686
Dynamic Template Editor - Functions.....	687
Dynamic Tables	688
Table Editor	689

Live Dynamics (old)	690
Live Dynamic Effects - Columns.....	691
Old Dynamic Effects	692
Dynamics - Base Value.....	693
Dynamics - Start	694
Start Dynamics By Number	694
Start Dynamics From The Effect Library Tab	694
Start Dynamics From The Effect Library Node	695
Start Dynamics From The Direct Selects.....	695
Start Dynamics With Direct Mode	696
Dynamics - Control.....	697
Clear Dynamics Soft Keys.....	697
Dynamic Wheels - Size, Rate, Offset & Delay	698
Live Dynamic Effects Display List.....	698
Keep Dynamics In Next Preset.....	698
Set Distance In %	698
Dynamics - Stop.....	699
Stop Dynamics Manually.....	699
Activate A Dynamic Stop Table	700
Delete A Dynamic From Running Dynamics	700
Delete A Dynamic Using The Dynamics Display	701
Fade In A Preset In The Main Playback	702
Load a new Sequence to the Main Playback	702
Dynamics - Record	703
Record Changed Dynamics.....	703
Record Dynamics To Another Preset	703
Record Dynamics To A Master	703
Record Keep Dynamics (New Base Value).....	704
Dynamics - Preset Dynamics Editor	705
Dynamics - Size & Rate.....	706
Size.....	706
Size Channel	706
Rate	707
Rate Channel.....	707

Dynamics - Relations & Distance.....	708
Offset Relation	708
Offset Relation - Dynamics Display	708
Delay Relation & Distance	710
Delay Relation & Distance - Dynamics Display	711
Dynamics - Loop Count.....	712
Dynamics - Fade	713
Dynamics - Form	714
Dynamics - Fetch From A Preset.....	715
Dynamics - Playing Back	716
Dynamics - Store Running To Library	717
Image Effects (6.0)	718
Create an image effect playback (6.0)	719
Control image effects (6.0)	719
Image effect parameters (6.0)	720
Animation effects (6.0)	721
Effect layouts (6.0)	722
Create a new effect layout (6.0)	723
Effect layout wizard (6.0)	724
Effect Layout Editor wheels (6.0).....	725
Effect layout channel tools (6.0).....	725
Copy an effect layout (6.0)	727
Effect Images (6.0)	728
Create a new image (6.0)	728
Edit an image (6.0).....	729
Copy an effect image (6.0).....	730
Effect Texts (6.0)	731
Create an effect text (6.0).....	731
Import Effect Images (6.0).....	732
Channel Sets	733
Create a Set	733
Edit a Set	734
Main Playback	735

Main Playback - Introduction	736
Main Playback - Functions	739
Main Playback - Manual Crossfades	740
Main Playback - Transport Keys	741
The GOTO List (6.1)	742
Main Playback - Edit Keys	743
Main Playback - Time Settings.....	744
Main Playback - Default Settings	745
Main Playback - Refresh Functions.....	746
Playback View	747
Sequence Playback Views - The Graphical Representation	748
Sequence Playback Views - Column Format.....	749
Sequence Editor	750
Load Sequence.....	751
Independents	752
Independents - Introduction	753
Independent Dock Areas.....	754
Using the Independents.....	755
Independent Modes.....	756
Independent Dock Area	757
Masters.....	759
Masters - Introduction (6.0).....	760
Important master control keys (6.0).....	760
Master Fader Mode Switch (6.0)	761
Masters - Functions (6.0)	762
Masters - Settings (6.1).....	763
Master Mode	765
Exclude Record.....	765
Master button (6.3).....	766

Master fader settings (6.1)	767
Flash settings (6.1)	768
Disable Flash Keys (6.3).....	769
Master Settings From the Console	770
Masters - Commands	771
Select masters and set levels	771
Master single field editor (6.1).....	772
Select channels in a master	772
Mask in masters (6.1).....	773
Masters - Clear	773
Masters - Times	774
Set In-Wait-Out times for a Master	774
Master settings for times.....	774
Flash On Time.....	775
Masters - Channels (6.0).....	776
Load channels to masters (6.1)	776
Master Settings for channels (6.0)	777
Masters - Presets (6.0)	779
Load a preset to a master (6.0).....	780
Record a preset to a master (6.0)	780
Master settings for presets (6.0).....	783
Masters - Groups (6.0).....	785
Load a group to a master (6.0)	785
Master settings for groups (6.0).....	785
Masters - Effects (6.0)	788
Load an effect to a master (6.0)	788
Master settings for effects (6.0)	789
Masters - Palettes (6.1)	791
Load palettes to masters.....	792
Play back palettes from a master	792

Masters - Sequences (6.1).....	793
Load a sequence to a master	793
Record a sequence to a master (6.1)	794
Master settings for sequences	794
Dual Fader mode for Sequences (6.1).....	797
Masters - Chase mode sequences (6.0).....	799
Load a chase sequence to a master (6.0).....	800
Master settings for chase mode sequences (6.0).....	800
Masters - Dynamics	803
Load a dynamic template to a master (6.0).....	803
Masters - Channel Layouts	804
Load a channel layout to a master (6.0).....	804
Masters - Attribute parameters (6.1).....	805
Load a parameter to a master (6.0)	805
Masters - Console keys	806
Assign a console key to a master (6.0).....	806
Masters - Macros	807
Assign a macro to a master (6.0)	807
Master Playback - Functions.....	808
Masters - Drag and Drop Data (6.3)	809
Drag and Drop Master Links (6.3).....	811
Master View.....	812
Master View - Formats	813
Master List	814
Master list - Columns & Functions.....	815
Masters - Content	816
Master Pages.....	817

Master Pages - Introduction	818
Master Pages - Record (6.2)	819
Master Pages - Functions (6.1)	820
Master Soft Key page for Jr & Kid (6.2)	821
Master Pages - List	822
Master Pages List - Columns	822
Master Pages List - Functions.....	823
Master Pages - Editor.....	824
Master Page - Columns	825
Master Pages - Times.....	826
Master Page Times - In, Out, Wait	826
Master Page Times - Page Time	826
Master Page Times - BPM.....	827
Master Pages - Auto-update Mode	828
Master Pages - Display List.....	829
Remote Controls	830
Clear Remotes.....	830
Remote Control List.....	830
Media	832
Media - Introduction	833
Movies	834
Images.....	835
Media Images - Delete	835
Training Projects.....	836
Training Projects - Open Project.....	836
Training Projects - The Camera	836
Training Projects - Hints.....	838
CONSOLE KEYS.....	839
Console Key Quick Help	840

Console Key - ?.....	840
Console Key - <-- (Disp Mode).....	840
Console Key - @LEVEL.....	841
Console Key - A.....	841
Console Key - ALIGN.....	841
Console Key - ALL.....	842
Console Key - Arrow Keys.....	842
Left Arrow	842
Right Arrow	842
Up Arrow	843
Console Key - ATTRIB	843
Console Key - B.....	843
Console Key - BALANCE.....	843
Console Key - BANK.....	844
Console Key - BEAM.....	844
Console Key - BLIND	844
Console Key - BROWSER.....	845
Console Key - C/ALT (6.3)	845
Console Key - CAPTURE	846
Console Key - CH/ID.....	846
Console Key - CHANNEL SET	846
Console Key - CHASE	847
Console Key - CH TIME	847
Console Key - CH DELAY	847
Console Key - CLEAR CHANGED.....	848
Console Key - CLIENT	848
Console Key - COLOR.....	849
Console Key - COLUMN.....	849
Console key - CONNECT	849
Console Key - COMPARE.....	850
Console Key - COPY/CUT.....	850
Console Key - CURSOR	850
Console Key - DATA (6.0).....	851
Console Key - DELAY	851
Console Key - DELETE	851
Console key - DEVICE.....	852
Console Key - Direct Select Pages	852
Console Key - DISPLAY LIST	852
Console Key - EFFECT	853
Console Key - EFFECT OVERVI.....	853
Console Key - ESC (6.3)	853
Console Key - FAN	854
Console Key - FCB DELAY	854
Console Key - FCB TIME	854
Console Key - FLASH.....	855

Console Key - FLASH MODE (6.2)	855
Console Key - FLIP	855
Console Key - FOCUS.....	856
Console Key - FOCUS MODE.....	856
Console Key - FORMAT.....	856
Console Key - GO.....	857
Console Key - GO (Master Playback)	857
Console Key - GO BACK.....	857
Console Key - GO BACK (Master Playback)	858
Console Key - GOTO	858
Console Key - GROUP.....	858
Console Key - GROUP WHEEL MODE	859
Console Key - HIGHLIGHT	859
Console Key - HOME ATTRIB	859
Console Key - IN	860
Console Key - INDEPENDENTS 7,8,9	860
Console Key - INSERT	860
Console Key - INV GROUP.....	861
Console Key - JUMP TO B	861
Console Key - LAST	861
Console Key - LEARN ALERT	862
Console Key - LEARN MACRO	862
Console Key - LEARN PROFILE (6.0)	862
Console Key - LEFT.....	862
Console Key - LIVE	863
Console Key - LOAD (6.3).....	863
Console Key - MACRO.....	863
Console Key - MARK	864
Console Key - MASK.....	864
Console Key - MASTER KEYS.....	865
Console Key - MASTER	865
Console Key - MINUS.....	866
Console Key - MINUS PERCENT (-%)	866
Console Key - MODIFY.....	867
Console Key - MODIFY SEQ	867
Console Key - MUTE	867
Console Key - NEXT.....	868
Console Key - NOTE.....	868
Console Key - Numerical Keypad	868
Console Key - ON/FETCH.....	869
Console Key - OUT	869
Console Key - OUTPUT.....	869
Console Key - PAGE	870
Console Key - Page+	870
Console Key - Page-	870

Console Key - PAUSE.....	870
Console Key - PAUSE (in Master Playback)	871
Console Key - PALETTE (Alt P)	871
Console Key - PARAMETER	871
Console Key - PARK.....	872
Console Key - PASTE	872
Console Key - PLAYBACK.....	872
Console Key - PLAYLIST.....	873
Console Key - PLUS.....	873
Console Key - PLUS PERCENT (+%).....	873
Console Key - PRESET	874
Console Key - PRINT SCREEN.....	874
Console Key - RANDOM.....	874
Console Key - REM DIM.....	875
Console Key - RECORD	875
Console Key - REFRESH.....	876
Console Key - RELEASE.....	876
Console Key - RIGHT (DispSel).....	877
Console Key - SCALE (6.0)	877
Console Key - SELECT	877
Console Key - SELECT 2ND	877
Console Key - SELECT 3RD	878
Console Key - SELECT ALL	878
Console Key - SELECT CHANGE	878
Console Key - SELECT NTH.....	878
Console Key - SERIES	879
Console Key - SETUP	879
Console Key - SET CHANGED.....	879
Console Key - SEQ.....	880
Console Key - SEQ +.....	880
Console Key - >> (Master Playback).....	880
Console Key - SEQ -.....	881
Console Key - << (Master Playback).....	881
Console Key - SOLO	881
Console Key - START.....	881
Console Key - TAB	882
Console Key - TAP	882
Console Key - TEXT	882
Console Key - THRU.....	883
Console Key - TIME.....	883
Console Key - TRACK.....	884
Console Key - TYPE	884
Console Key - U1-U3	885
Console Key - UNPARK	885
Console Key - UPDATE.....	885

Console Key - UPDATE PALETTE	886
Console Key - WAIT	886
Console Key - WIZARD	886
Soft Key Menu - Channels.....	887
Soft Key Menu - Device	887
Soft Key Menu - Effect.....	887
Soft Key Menu - Learn	887
Soft Key Menu - Misc.....	888
Soft Key Menu - Select.....	888
Soft Key Menu - Times.....	888
Soft Key Menu - Wheel Keys.....	888
 Console Key Shortcuts.....	 889
Shortcuts - Select Channels	890
Shortcuts - Channel Levels	891
Shortcuts - Channel Modes.....	892
Shortcuts - Select Nth Functions.....	892
Shortcuts - Channel Views.....	893
Shortcuts - HELP	893
Shortcuts - Channels Only Mode	894
Shortcuts - General Editing Keys	894
Shortcuts - Spreadsheet Editing	895
Shortcuts - Navigation Keys	896
Shortcuts - Master Playbacks.....	897
Shortcuts - Masters & Channels	899
Shortcuts - Master Pages.....	900
Shortcuts - Devices To Home Position.....	901
Shortcuts - Device Attribute Editors.....	901
Shortcuts - Device Masking.....	902
Shortcuts - Device Palette Recording	903
Shortcuts - Device Palette Activating	904
Shortcuts - Device Palette Updating	904
Shortcuts - Device Palette Specials.....	905
Shortcuts - Device Palette Views.....	905
Shortcuts - Device Palettes In Masters	906
Shortcuts - Device Align & Fetch.....	906
Shortcuts - Patch & Outputs	907
Shortcuts - Main Display, General.....	908
Shortcuts - Track.....	908
Shortcuts - Presets.....	909
Shortcuts - Groups	910
Shortcuts - Live & Blind.....	911
Shortcuts - Record Functions.....	912
Shortcuts - Update Functions.....	912

Shortcuts - Channel Text Wizard.....	913
Shortcuts - Main Playback	913
Shortcuts - Sequence Editor.....	914
Shortcuts - Direct Selects.....	915
Shortcuts - Notes.....	915
Shortcuts - Capture & Release	916
Shortcuts - Dynamics (old).....	918
Shortcuts - Times	920
ACCESSORIES.....	921
Accessories - Ext. Keyboard.....	922
Keyboard - Numerical Input on a Notebook.....	922
Keyboard - Standard Functions	922
Console Keys in a Keyboard.....	922
Keyboard - Level Wheel.....	925
Keyboard - CH Step.....	925
Accessories - Ext. Mouse or Trackball (6.3)	926
Accessories - Fader Wings	927
Master Playback Wing.....	927
Universal Fader Wings (6.0).....	928
Lynx Fader Wing	928
Accessories - Remote Control	929
Remote Control - Introduction (6.0).....	930
Remote Controls and at mode.....	931
Remote Control - RFR Radio Remote.....	932
Connecting the RFR.....	932
RFR - General Functionality.....	933
RFR Channel functionality	933
RFR Group List.....	934
RFR Devices	934
RFR Playback (6.1).....	935
RFR Patch (6.0)	935
RFR Palettes (6.1).....	936
RFR Focus Mode	937
RFR Scroller Calibration	937
Remote Control - Phone Remote	938

Phone Remote - Functions	938
Remote Control - iRFR (6.0)	941
Using the iRFR (6.0).....	941
iRFR Color Picker (6.0).....	943
iRFR Settings (6.0)	943
Network configuration for iRFR (6.0).....	944
iPhone and iPod Configuration (6.0)	945
Testing iRFR network connectivity (6.0)	946
Connecting iRFR to your console (6.0)	948
Remote Control - cRRFU Radio Remote	951
Crrfu Remote Functions.....	951
Transmitter Setup.....	953
Replacing the transmitter battery	954
Remote Control - TT Radio Remote.....	955
TT Radio Remote Functions.....	955
Accessories - Visualisation Software	957
Visualisation - WYSIWYG	957
Visualisation - Capture	958
Visualisation - Blind output (6.0)	958
Accessories - Client	959
Accessories - Net3 Remote Video Interface.....	960
X-keys.....	961
APPENDIX.....	962
Connectors	963
Connector - DMX512	963
Connector - VGA Monitor.....	964
Connector - Phone Remote	964
Connector - Remote Radio.....	965
Connector - MIDI	965
Connector - APN.....	965
Connector - External Trig 1-9.....	966
Connector - Ethernet	967
Connector - Keyboard and Mouse	967

Connector - Desk Light.....	967
Connector - Congo Jr Backpanel	967
Connector - Congo Kid Backpanel	968
MIDI	969
MIDI - Introduction	970
MIDI - Standard MIDI.....	971
MIDI - MIDI Show Control.....	972
MIDI - Time Code	975
Edit time code in the sequence list (6.0)	976
MIDI - Implementation Chart.....	977
Console Keys - MIDI Chart	978
Console Faders - MIDI Chart	982
The Congo Story	984
Congo - The Avab Heritage	985
Congo - Creating the specification	985
Congo - Designing The Screens	986
Congo - Designing The Hardware	987
Congo - The Eurovision.....	988
Congo - The arrival of Jr!	989
V5 - a new approach to effects!	990
V6 - Time to Play!	990
RDM Functionality (6.3)	991
RDM Patching (6.2).....	991
RDM Indicators (6.2).....	993
RDM Device List (6.2)	994
RDM Device List Cache (6.3)	995
RDM Device Parameter List (6.2)	996
RDM Device Sensor List (6.2)	996
OSC Functionality (6.3).....	997
Receive - OSC Input (6.3)	998
Transmit - OSC Output (6.3)	999
INDEX	1001

CONGO MANUAL

This is the manual for the Congo Family.
(V6.4 2013-03-15 Last: 2012-08-22)

This manual covers Congo, Congo Jr, Congo Kid, Congo Lightserver,
Client and Offline editor.



The introduction contains the following sections

- [This Manual - Using the Help System](#)
- [This Manual - Terminology](#)
- [Disclaimer](#)

This Manual - Using the Help system

Action	Key	Feedback
Help	[?]	The help system is started in a tab.
Find topic	[?] & [Key]	Hold the ? key and press any key in the console to open help for that key.
Find topic 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 - Change Language

Language is selected in the system settings. See [System Settings - General](#).

Help System - Navigating

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	[Down Arrow] & [Wheel]	Scrolls up/down within this page.
Next	[Down Arrow]	Steps to the next page.
Previous	[Up Arrow]	Steps to the previous page.
Last visited page	[Left Arrow]	Steps to the last visited page.

Help - Search Function

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).

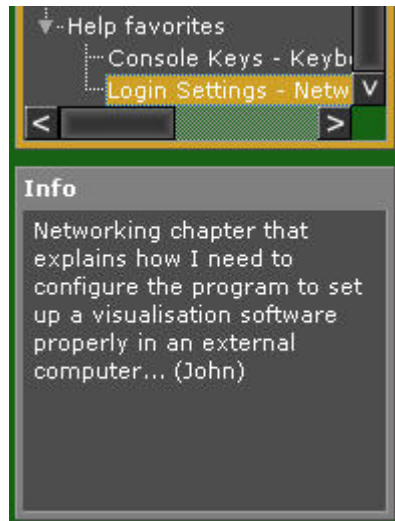
Action	Key	Feedback
Next	<input type="button" value="C/ALT &"/> <input type="button" value="Down Arrow"/>	Steps to the next hyperlink (bold).
Previous	<input type="button" value="C/ALT &"/> <input type="button" value="Up Arrow"/>	Steps to the previous hyperlink (bold).
First	<input type="button" value="C/ALT &"/> <input type="button" value="Left Arrow"/>	First hyperlink on this page is focused.
Last	<input type="button" value="C/ALT &"/> <input type="button" value="Right Arrow"/>	Last hyperlink on this page is focused.
Open	<input type="button" value="MODIFY"/>	Follows the currently focused hyperlink.

Help System - Favourites

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.

This Manual - Terminology

This manual is intended for use with the Congo lighting 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

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

Please don't load other software onto your Congo lighting console. ETC has tested the configuration of this system to guarantee its best performance. Additional software or unauthorized changes within the operating system may significantly affect the performance of this lighting control system. In the worst case, ETC may require that the hard disk be reimaged back to factory default settings to return a system to an operational state.

We highly recommend that you save your play data frequently while programming and that you back up important data to portable media often.

Please contact your ETC representative with questions or concerns.

See [Troubleshooting](#).

News in This V6.4

One of the main differences in 6.4 are the addition of Direct Mode Midi that allow you to connect any MIDI device that is set up to address the functions described in this chapter and use as a remote interface for Congo.

See [Direct Mode Midi](#).

Another main differenc is the possibility to use RDM on the local DMX ports of the console. This is default set to ON.

See [System Settings - Output](#).

Besides this there are a lot of minor tweaks, in general search for "6.4".

*** News in 6.3 ***

Version 6.3 is an exciting version in many ways. You can use the search function and search for "6.3" to find all new instances directly in the help system.

- [A more intuitive Interface](#)
- [A new way of structuring a sequence](#)
- [Easy and flexible organization](#)
- [A Complete new import interface](#)
- [Enhanced Safari/VLC import](#)
- [New interface options](#)

6.3 - A More Intuitive Interface

Many users tell us they choose Congo because it provides an intuitive user interface: "*Once you understand the basic structure it is usually easy, fun, and intuitive to find the right commands*".

One example of this is the way the RECORD key always has worked in combination with other keys:

RECORD = Records a preset
RECORD & GROUP = Records a group
RECORD & FOCUS = Records a focus palette
etc...

This is fast, logical and simple, but... you have to KNOW that the record key is the one you need, right?

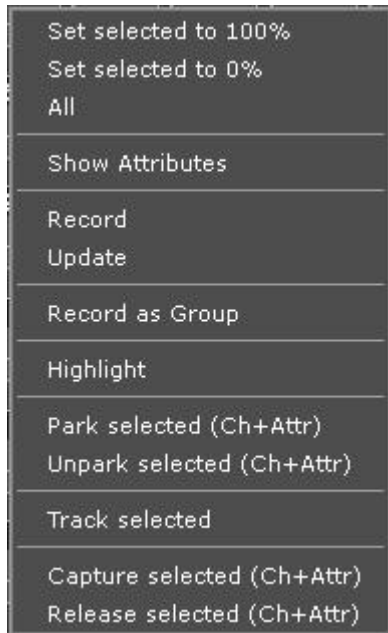
So, what if you are wondering "which of all functions are the most useful ones when I am working in the channel view?"

Well, there is the HELP system, so you can hold "?" and press LIVE to open the Help Page for the Live button. If you know that the CH button is key in selecting channels you can hold "?" and press CH to get all those shortcuts as well. But, what if you just want to find some of the most important functions for the channel view in Live (or any other situation)?

Answer: *Context Menus!*

When in Live: try pressing SELECT twice. This will open the Context Menu for Live.

These are the options you get in a channel view:



You can choose any of the functions with the arrow keys and press MODIFY to confirm.

The reason it is called a "Context" menu is that it opens the functions that apply most to the part of the interface you have focused at the moment.

Examples

- *Press BROWSER to select the Browser. Select any node with the arrows and press SELECT twice to open the appropriate Context Menu.*
- *Press PRESET to open the Preset List. Select any cell with the arrows and press SELECT twice to open the appropriate Context Menu.*
- *Working with a mouse? Right-Click to open the Context Menu!*

See [Context Menus](#).

6.3 - A New Way of Managing a Sequence

When there is a long main sequence, with many different sections, you may want to get out of navigating by Preset or Step numbers. This is where the simple philosophy of "bookmarks" enter in the form of Sequence Section Markers.



They are easy to activate and deactivate from the new context menus directly in the Playback tab but also available as a column in the Sequence List editor, and an option in the Advanced tab in the Record dialogue - the Section Markers offer a visual aid as well as a new way to jump between sections using a key combination or a new type of Direct Selects.

Curious? See [Sequences - Section Markers](#).

6.3 - Easy And Flexible Organization

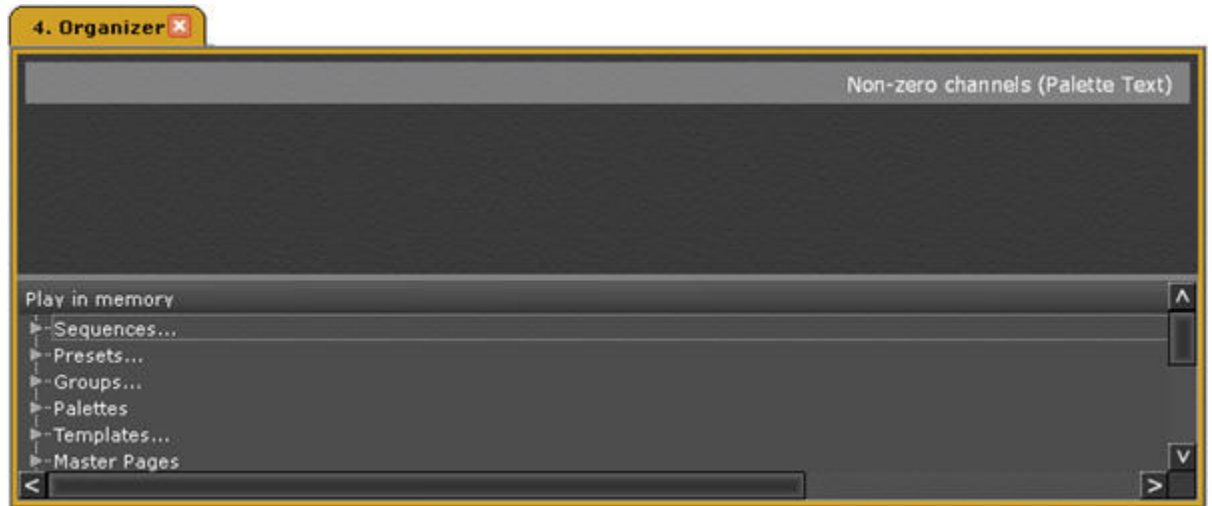
Most of the work with a show is about sorting and grouping data of different kinds and trimming times. You sort channels and parameters as Groups to select them faster, as Focus, Color or Beam Palettes to be able to reuse and reference data - and as Presets that can be played back as steps in a Sequence, or from Masters.

Sometimes you need to reorganize data, maybe move presets from one master to another, or copy a series of sequence steps to another location.... or just move a device link from one

sequence step to another because it makes too much noise and has to be positioned earlier....

Wouldn't it be great if it was possible to do this as easy as copying and pasting or dragging and dropping in a text document?

Answer: *The Organizer tab!*

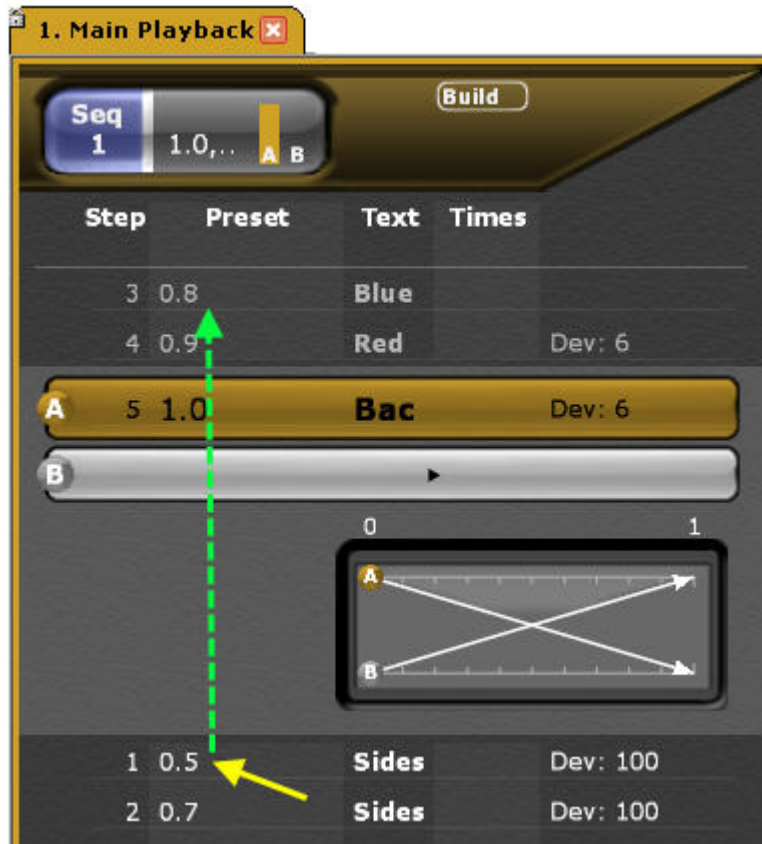


This is a new tab in 6.3 and it's packed with power under its simple and innocent looking grey surface. It shows you the entire data of your show file, in a simple tree structure - similar to the Browser.

You can navigate with keys or with a mouse. Using keys it is exactly like navigating in the Browser:

- up/down arrows to scroll
- left/right arrows to open/close nodes
- SELECT and arrows to select multiple objects
- Use COPY/CUT and PASTE to move objects around
- SELECT SELECT to open the context menu for an object

Using a mouse you can click on any node to expand it, you can select any item, select several with Shift-Click - and drag (hold left key and drag to a new location).



Examples of drag and drop

- Click-hold and drag a preset to a Sequence Step.
- Click-hold and drag an attribute link from a sequence step to another sequence step.

Other actions

Right-click on a group to open the context menu. Choose action:



See [Drag And Drop](#).

6.3 - A Complete New Import Interface

The interface for importing parts of another play into the current play has changed completely from the Import Wizard into the new Organizer - with a special Import tab for the Organizer where you can drag and drop easily from a play in memory to the current play.



See [Import From...](#)

6.3 - Enhanced Safari/VLC Import

These are ASCII Safari show file reading improvements:

- Additional palette types (4 and 5) are merged into Beam palettes. Note: If there is a corresponding Beam palette, its existing name will be kept. If there is no corresponding beam palette, the VLC palette name will be used.
- Sequences above 1 are read.
- VLC Effects are translated to Chase Sequences with numbers offset by 10 (similar to Presto import).

See [Import From - Avab VLC Safari \(6.3\)](#)

6.3 - New Show Control Options

Are you familiar with the feeling of wanting your lighting system to interact with other equipment, and you know it should be possible, but not how easy it can be?

Congo 6.3 integrates Open Sound Control (OSC), a content format for messaging among computers, sound synthesizers, and other multimedia devices. OSC is often used as an alternative to MIDI, when higher performance, higher resolution and a richer parameter space is desired.

Here are some examples of situations where OSC can be useful:

- *Customize remote control by extracting control surfaces from the console such as master faders and playback buttons to any computer, iPad®, iPhone®, Android™ or similar touch interface...*
- *Customizing data views such as master and playback status from your lighting system into other equipments...*
- *Integrating lighting with sensory devices of any kind such as switches, light sensors, Nintendo Wii™ remote or sound to light over third party OSC software such as Isadora or Max/MSP*

See [OSC Functionality](#).

News in V6.2

You can find all new functions in the help system by using the search function (press TEXT when the help is open) and searching for "6.2".

Congo V6.2 offers the following **features** and **improvements**:

Dimmer/Device Feedback

Information from CEM3, FDX and RDM devices has been added.
See or search the chapter Browser >About >[Dimmer/Device Feedback](#).

RDM Device Patching & Control

Congo will detect and offer patching and control of RDM devices on the network.
See or search the chapter Browser >[RDM Functionality](#).

UDP Strings

Congo can now receive and send UDP strings.
See or search the chapter Browser >General Settings >Event List >Event List - Action Macros >[UDP Data](#).

Minor additions

- FCB Time and Delay Soft keys in Jr and Kid Time Displays.
- Macros and Action Macros are indicated in the Playback view
- Devices with native Hue/Saturation parameters are fully supported by the Gel and Color Picker.
- Templates with calibrated color data that can be controlled with Hue/Sat and color picker and are indicated in the Import Template Wizard with a (C).

News in V6.1

Congo V6.1 brings the following **features** and **improvements**:

Performance improvements

These are all around and improve speed of performance, screen updates, saving and loading shows.

New Color Engine

A new color dock and color picker. Please note to see calibrated color gamut lines in the color picker, you need to use templates from the Extended Library.

See [Color Dock](#).

Masters Settings

These have been improved giving you more options and control over how the faders and buttons control the content of the faders. New “dual fader mode” masters allow for true AB crossfading of sequences on masters, spreading the sequence across two consecutive master faders.

See [Dual Fader mode for Sequences](#)

Split Fade

An option for manual fades that removes the dipless crossfade behavior from the fader pair.

See [Sequences - Split Fade](#)

You can find all new functions in the help system by using the search function (press TEXT when the help is open) and searching for "6.1".

News in V6



Congo V6 is a *major* upgrade bringing **new features** and **improvements** to **all kinds of operational styles**. This includes improved graphics, response times, timing resolution and blind editing.

Part of V6 is designed specifically for those of you who need to **improvise on the fly** - bringing old school operation to a completely new level with two-scene master mode and enhanced master settings.

You can find all new functions in the help system by using the search function (press TEXT when the help is open) and searching for "6.0".

General screen improvements in V6



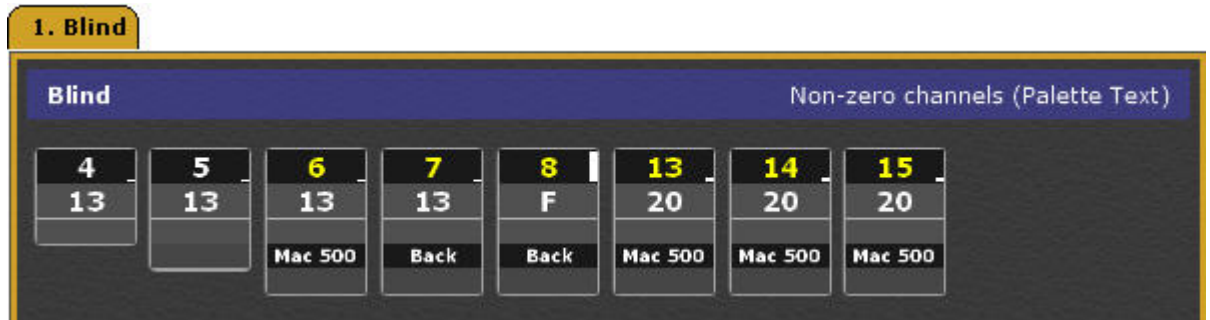
The channel symbols have been redesigned to give you more channels in the same view. There are several new formats, clearer indications of modes and a lot more information for moving devices.

See [Channel Symbols](#).

Also, the Attribute view is now integrated into all channel views, editors, blind/live - everywhere - simply press ATTRIB to activate it.

See [Device Views](#).

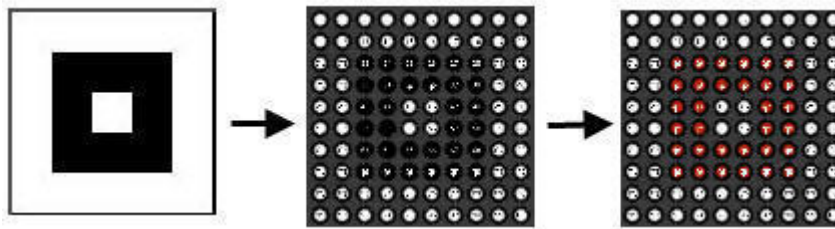
Blind Attribute Editing in V6



Since Attributes now can be shown in any channel view, spreadsheet editing now is something you activate per tab - this allows you to use parameter wheels, Fetch and Palette functions in all Attribute views including BLIND.

See [Device Views - Editing](#).

Effects in V6



The new effect playbacks that were introduced in V5 have new symbols with more details, and a new type of effect that works great for channel mapping applications has been added: Image Effects. Image effects allow you to map images, animations (supplied) and texts to channels, and apply them to intensity, color mix, iris or zoom.

See [Image Effects](#).

There are some new functions for quickly selecting all channels involved in effect playbacks.

See [Select channels from effect](#)

New Remote - iRFR in V6



In V6 the new iRFR for iPhone or iPod touch is supported giving you all the functionality of the RFR.

See [Remote Control - iRFR](#)

Master Playbacks in V6



This is a big part of V6. We have added 40 more master playbacks - giving you a total of 80 master playbacks. These can be accessed both from the software and using any combination of fader wings.

See [Masters](#).

The master settings and screens have been redesigned to provide fine tuning of the behavior of every single master playback. This includes flash modes, key modes, fader modes, masking, inhibit, exclusive, contribution to the LTP field and rubberbanding.

See [Masters - Settings](#).

A new mode called Two-Scene Masters brings old school improvisation to a completely new level providing you with 20 blind masters for presetting and then fading into 20 live masters.

See [Two Scene Masters](#).

Every master now also has a single editor for the channel content of that master.

See [Master Single Field Editor](#).

Printing in V6



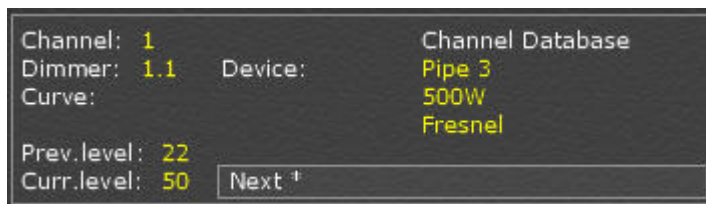
There is a completely new printing wizard that allows you to print play data to pdf or text files, sorted in different ways and in different formats. These files are copied to a USB memory and printed from any standard computer.

See [Print](#).

You can print Channel Layouts in grey or color as jpg files.

See [Channel Layout Editor - Print](#).

New Dock Areas in V6



Dock area navigation has been simplified so you always reach the Browser when pressing BROWSER - and you can close/open or resize any dock area by holding BROWSER and pressing the arrow key of that dock.

- There is a new Designer Summary dock with information about the current playback status and palettes.
- There is a new Selected - Live dock for channels and effect playbacks.
- There is a new Time Code dock.

See [Dock Areas](#).

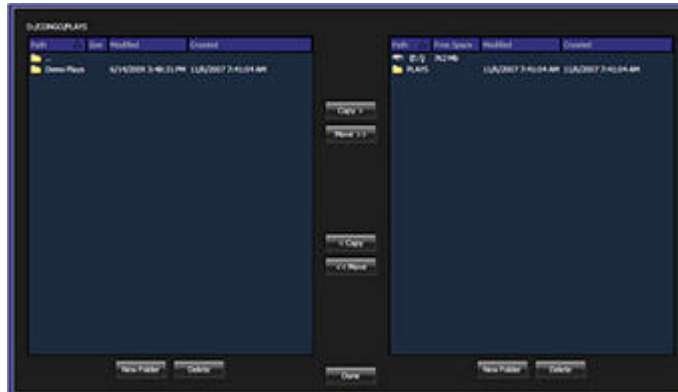
Time Code in V6



There is a new Time Code dock area and a new Time Code Editor for editing multiple steps.

See [Time Code Dock](#) and [Edit time code in the sequence list](#)

File Handling in V6



In system settings there is a new utility for moving play files between your Congo system and a USB memory.

See [System Settings - Utilities](#)

Lock Console in V6



You can lock the console so that unauthorized operators are unable to use it.

See [Lock Console](#)

Sequence and Presets in V6

Record new preset **9999,999**

Preset numbering is increased to 9999.999 providing you with a lot of new possibilities for organizing your numbering.

See [Presets - Introduction](#)

Sequence times are also increased to double decimals, providing more refined timing.

See [Sequences - Times](#)

Sequence profiles can be recorded manually and played back.

See [Sequences - Crossfade Profiles](#).

You can insert and delete sequence steps directly with an new shortcut: INSERT & A/B or DELETE & A/B.

See [Sequences - Insert Step](#).

Scale Key in V6



In V6 the popular SCALE key is added to the Channels soft key page allowing you to Scale directly by holding the key which makes it easier to use the function for touring and television when intensities may need to be scaled.

See [Channels - Scale channel levels](#)

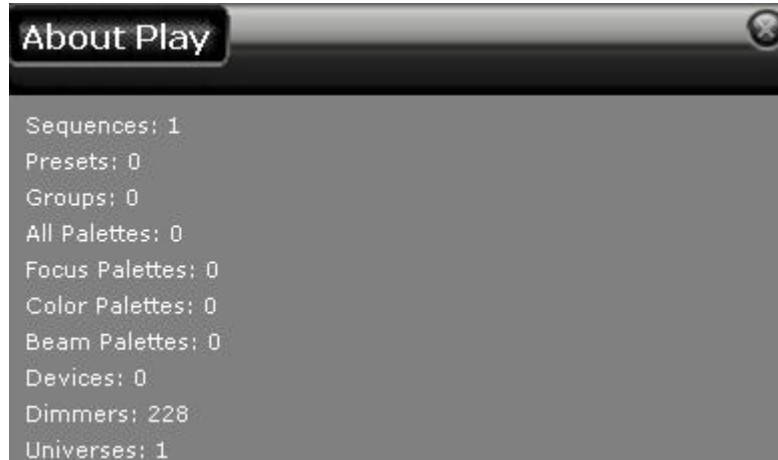
Auto Close Tab Mode in V6



In Congo System Settings you can activate a mode that will close the previous tab when a new tab is opened, to keep down the number of tabs at all times.

See [System Settings - General](#).

About Play in V6



There is a new summary of your play in the About node of the Browser.

See [About Play](#)

GETTING STARTED

Getting Started is all about connecting your console, powering up and understanding the basic functionality.

- [General Info](#)
- [Workflow In Congo](#)
- [Power-up Procedure](#)
- [Troubleshooting](#)
- [System Info](#)
- [Console Facepanels](#)
- [General Functions](#)

NOTE

We recommend new users to spend half an hour on the [Workflow in Congo](#). Also see the [movies](#) in the MEDIA folder of the Browser.

General Info

This chapter describes the key syntaxes, basic software and control terminology.

This chapter contains the following sections

- [System Overview](#)
- [Installation Guidelines](#)
- [Key Syntaxes](#)
- [Congo Terminology](#)
- [Control Hierarchy](#)
- [Software & Update](#)

System Overview

Congo is a control system for conventional lights, moving devices, scrollers and media servers. It controls up to 3072 channels and 6144 outputs.

Consoles and main accessories



1. Congo
2. Congo Jr
3. Congo Light Server, Net3 RVI & Client
4. Radio Remote
5. Congo Jr Master Playback wing 2x20
6. Universal Fader Wings 1x20, 2x20, 2x10
7. Net3 Node
8. Congo Kid (new) See [Facepanel - Congo Kid](#)

For 30 years ETC has been known for revolutionary lighting control design. For 30 years Avab products have been known for a spirit of bold innovation. Now those great minds have met, in Congo. Melding together the engineering brilliance and experience of ETC and Avab systems, Congo maintains the simplicity of classic systems with the feature-rich functionality of a dedicated moving lights console. Clean functions for everyday theatre work with conventional lights, plus advanced control of hundreds of moving lights, without mouse operations or computer menus. Like today's sophisticated but deadline-driven productions, Congo is high energy -- with short commands for fast results.

With Congo, you can move independent channels such as worklights, conductor lights, followspot and smoke machine control to a special section that isn't affected by the rest of the system. You have somewhere to put your screens without blocking your view of the stage. You see the important information, at any time, on the screens or in the console displays. And you can even have remote control of your rig with your own cordless phone. Simple, intuitive and innovative lighting control with a big brain for complexity wherever it arises. Congo handles the future without forgetting the past. Congo is designed for theater, broadcast, club systems, concert and special-event lighting. At the *Eurovision Song Contest* broadcast in Kyiv, Ukraine, Congo consoles controlled 300+ moving lights, 200+ conventionals and 16 media servers, among other devices. Complete with a theatrical-style main playback fader pair, 40 multipurpose Masters for group, submaster, effect and additional sequence control, 40 Direct Selects and a dedicated moving lights control section, Congo's hardware is suitable for any kind of playback situation. Over 200 moving-light

templates and a brand new Effects system is provided within the console, with an amazing ability to build and edit effects on the fly.

Console Specification

Console data	Explanation
Control channels	<i>Maximum 3072 channels, numbering from 1 to 4999. Congo Kid: 250 channels.</i>
Outputs	<i>Maximum 6144 outputs. Congo Kid: 1024 outputs.</i>
Output protocols	<i>DMX512, ETCNET2, ETCNet3, AVABIPX and ArtNet over Ethernet, streaming ACN.</i>
Dimmers	<i>Free proportional patch, unlimited per channel number</i>
Displays	<i>Up to two Monitors (three in the large Congo console), graphical LCD-Display, LED-Displays.</i>
Channel selection	<i>RPN and At Mode (Direct Mode)</i>
Effect Playbacks	<i>999</i>
Channel groups	<i>999</i>
Presets	<i>9999.999</i>
Sequences & Chases	<i>999</i>
Main Theatrical Style Playback	<i>1</i>
Master Playbacks	<i>80 by numbers and wings Congo Kid: 40 in facepanel, 40 virtual by number</i>
Backup media	<i>Hard drive, USB Memory</i>
Power	<i>110 V/230 V, 47...63 Hz, ca. 270 VA</i>

Interface Specification

Interfaces	Explanation
Monitor	<i>Congo: 3 x VGA Congo jr: Y-cable splitter for 2x DVI or VGA (with adapters, included) Congo Kid: 2 x DVI or 1 x DVI+1 x VGA, two monitors maximum</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 (not available in Congo Jr)</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 (1 in Congo Jr).</i>
Phone Remote	<i>RJ 11 Phone Connector</i>
Audio In & Out	<i>Mini stereo plug</i>

Installation guidelines

Equipment required to run this system

- Congo, Congo Jr, Congo Lightserver, Net3 RVI, Client software
- Monitor(s) starting at 1024 x 768 resolution
- Power cables
- Monitor signal cable(s) - with Congo Jr you need a split from DVI to VGA
- 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 Congo should be running.

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?

NOTE

The Congo Jr ONLY supports monitors from the dual DVI connector. You NEED the split DVI to VGA converter to connect a VGA monitor to Congo Jr.

See [Power-up Procedure](#).

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	<i>Will perform a function directly when it is pressed.</i>	GO and PAUSE in the Main Playback
Numerical Prefix	<i>Requires a numerical entry (0-9) before it is pressed.</i>	(#) RECORD to store a preset with that number
Combination	<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.

Congo 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 of non-intensity parameters, 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)

Patch is where outputs are assigned to channels, either directly in the case of dimmers or using a Template in the case of devices. All settings pertaining to outputs, channels and devices are also adjusted within the patch.

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 9999.999 Presets 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](#)

Effects (terminology)

Effects are run in effect playbacks, very similar to channel handles for moving devices. There is also a backwards compatible older style of chase effect which is a mode for any sequence.

There are four types of effects.

- Chase Effects - intensity only, step based with tap tempo.
- Content Effects - very powerful content based effects that can be reused with new data.
- Dynamic Effects - Wave-form effects to provide movements.
- Image Effects - a text or an image source is mapped to a channel layout.

See [Effects](#)

Control Hierarchy

Intensity is handled with highest-takes-precedence (HTP) logic, meaning the highest output level will be the "winner" and have control of those channels.

Attributes are handled using last-takes-precedence (LTP) logic, meaning the last instruction given to the attribute will be the winner.

There is a Grand Master and Inhibit Masters that can subtract from the output.

There is a Capture mode which can override HTP control of intensities.

Playbacks - Introduction

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

- The main playback and Live field
- The 80 master playbacks
- 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
- Solo

SUMMARY

Congo has a main theatrical playback, plus 80 Master Playbacks. All of them are capable of running a sequence or chase. The main difference is that the theatrical playback has a large amount of different manual controls for crossfades.

- The Live and Blind fields are central to the concept of Congo - being able to work in both at the same time.
- The Independents are a special set of masters, designed for control of special channels you want to keep separate from the rest of the system.
- The Direct Selects are used for quick selection and assignment of data suitable for single-button action like group selects, palettes, screen layouts and such. They are extremely powerful.

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 (A), and one for the channels in the next step (B). A and B also interact on a Highest Takes Precedence basis, with the addition that channels that exist in both faders are calculated so all crossfades are dipless. As a result, even if both faders are at 0%, common channels will remain on stage.

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.

Software & Update

We constantly update the Congo software with new features, bug fixes and changes. Check www.etcconnect.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.

To update the software see [System Settings - Update](#).

Version Information

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



Workflow in Congo

The workflow in Congo can be divided into five steps



This chapter is a simplified introduction to this workflow - meant to serve as an introduction to the basic functionality of the system.

Patch

Before you can control a dimmer or device it has to be patched to a channel. See [Patch \(workflow\)](#).

Control

Control is how you select channels, set levels and control parameters. See [Control \(workflow\)](#).

Record

To be able to playback something it has to be recorded. See [Record \(workflow\)](#).

Playback

There is a main playback and 40 master playbacks. See [Playback \(workflow\)](#).

Edit

When recorded information needs to be adjusted there are many tools for editing. See [Edit \(workflow\)](#).

Patch (workflow)



There are various approaches to patching, which depend on your situation. Very often conventional lights are patched in one universe, and moving devices in another, in order to simplify troubleshooting. The main work with patching is the planning involved before approaching the console.

Patching Conventional Lights

There are three basic approaches to patching conventional lights

Patch 1:1

You can choose the option "Patch 1:1" when you open a new play, or you can set the Patch 1:1 in the Patch Wizard.

See [Patch Wizard](#).

Patch by channel

Patch by channel is easy and fast in the Output editor. It can be done live or blind. You can start with a cleared patch or with a 1:1 patch.

See [Patch by Channel/Dimmer](#).

Patch by dimmer

Patch by dimmer is easy and fast in the Output Editor. It can be done live or blind. You can start with a cleared patch or with a 1:1 patch.

See [Patch by Channel/Dimmer](#).

NOTE

To clear the Patch, see the [Patch Wizard](#).

To get an overview of the current patch, see the [Channels List](#).

Patching Moving Devices

To patch a moving device, scroller, color mixing device or media server you need to load a template for this device. This can be imported with the Import Template Wizard or from another play. You can also create custom templates in the Template Editor.

See [Import Template Wizard](#).

There are two approaches to patching single or multiple moving devices

Patch Wizard

In the Patch Wizard it is easy to patch single devices, and multiple devices that have consecutive addresses. It's possible to add a channel offset to a template as well.

See [Patch Wizard](#).

Device List

If you are patching single devices, or multiple devices with irregular addresses the Device List is a great tool. It's also great for changing address or universe, and for adjusting

individual parameters like pan, tilt and scroller calibration.
See [Device List](#).

Control (workflow)



Controlling channels, levels and moving device parameters is very straightforward. The default setting is to work in "Live" which is the sum of all playbacks. Intensities are added to live in the A field of the main playback.

Command Syntax

The whole command structure of Congo is designed to get you from point A to point B with as few keystrokes as possible. Basically, there is no function or feature that involves more than two key presses (besides numbers).

The structure is simple

- Press a key
- Hold a key and press another key.

When a number is required, simply enter it before either of the key combinations above.

See [Channels - Command Syntax](#).

Channel "handles"

Regardless if a lighting instrument is a conventional light, or some kind of moving device, the intensity function of this device is assigned a unique Channel number in the patch.

Example

- *Enter a number and move the level wheel to select the channel and change the intensity.*

When you select this channel, all parameters are automatically mapped to the controls of the console. All parameters are divided into three groups that have a dedicated key in the console.

- FOCUS (pan/tilt)
- COLOR (color mixing and color wheels)
- BEAM (gobos, shutters, iris, zoom, prism etc)

Example

- *If a selected channel has a scroller, press COLOR. The scroller can be controlled from one of the four parameter wheels by number (frame) or continuously.*

- If a selected channel is a moving device press **FOCUS** to get pan and tilt functions on the parameter wheels.

See [Devices - Control](#).

NOTE

If you are looking for a "RELEASE" function you are probably used to working with a console that has a "programmer". There is no programmer in Congo, instead you work directly in any playback.

Record (workflow)



If you press RECORD in LIVE, the default record target is the next free Preset, of the Sequence in the Main Playback. You can record to any other target as well, using the various recording functions.

See [Presets - Record](#).

What is recorded?

Intensities

The default setting is that all intensities on stage are stored. Conventional lights and moving devices alike.

Moving Devices

Before you start recording moving devices, you need to make two decisions in the default settings for attributes (parameters).

- What parameters do I want to record? (**active** (default), **changed**, **popup**, **all**,). See [Device Recording - Modes](#).
- How do I want parameters to be executed? (**Auto Mark** (default), **On Go**, **In B**). See [Device Play back - Go OnGo or GoInB](#).

Where is it recorded?

Presets - the basic building block

Light intensities and moving device parameters are stored in Presets. A Preset is referenced data that can be played back on its own in a master or the main playback. It can also play back as the content of a **sequence step** or **content effect**. A preset can contain absolute data (values) or referenced data (**palettes**).

See [Presets](#).

See [Sequences](#).

Other types of record targets

Besides presets there are Groups for organising channel selection and Palettes for referencing moving device data.

See [Groups](#).

See [Devices - Palettes](#).

Playback (workflow)



There is a Main Playback, and forty Master Playbacks. The Main Playback is used for theatre style sequential playback of any Preset or Sequence.

The Master Playbacks can play back

- Single channels
- Groups
- Palettes
- Parameters
- Presets
- Sequences
- Console keys

See [Masters](#).

Playing back Presets and the main sequence.

- As soon as a preset is recorded you can play it back in the Main Playback or any of the 80 Master Playbacks.
See [Presets - Load To Playbacks](#).
- All presets that have been recorded in Live have been added to the Sequence of the Main Playback as Steps with default fade times (5s). They can be played back with or without this default time, or manually.
See [Main Playback](#).

Rules for playback

- Intensities will play back following HTP (Highest Takes Precedence) between all playbacks.
- Attributes are LTP (Latest Takes Precedence). As soon as they are triggered they will move to this position. They are never owned by a playback.

Exceptions

- CAPTURE will override all normal playback features and "hold" the values of intensities and/or attributes.
See [Capture](#).
- There is a PARK feature to park any intensity or parameter at a fixed value.
See [Parked](#).
- There is an exclusive mode for the Independents and Master Playbacks, that will "remove" the intensity of the assigned channels from the normal functionality of the console.
See [Independent Modes](#).
- There is an INHIBIT mode for the independents and Master Playbacks, that allow you to filter the maximum output of an intensity channel.
See [Independent Modes](#).
- There is a FREEZE mode that will maintain a static DMX output so you can work completely blind.
See [Output Switch](#).

Edit (workflow)



Once a Play is recorded you will want to edit and adjust data. Most of the functionality in Congo is about editing. Here is where basic data is edited.

Groups

- Channels, intensities and text is edited in the Groups list.
See [Groups - List](#).

Presets

- Intensities, text and FCB timing data are edited in the Preset List.
See [Preset - List](#).
- Attributes and individual attribute times are edited in the Preset Attribute editor.
See [Device Views - Presets](#).

Sequences


- Presets, In/Out/Delay/Wait times, text, Attribute Move, Time Code, Macros and Notes are edited in the Sequence editor.
See [Sequences - Sequence List](#).
- Channel Times are edited in the Channel Time editor.
See [Sequences - Times](#).
- Master Links are edited in the Master Link editor.
See [Sequences - Links](#).

- General playback mode (Sequence/Chase) and chase parameters are set in the Sequences list.
See [Sequences - List](#).

Additional editing features

- It's possible to track and edit intensities and parameters in a lot of different ways with the Track function.
See [Track - Track Editing](#).
- To edit channel intensities in the main playback there is a Channel Editor Wizard.
See [Presets - Channel Editor Wizard](#).

Power-up Procedure

For best performance, power-up your system in the following order.		
No output will be sent until the startup show file has been loaded.		
Action	Hardware	Feedback
1. Turn on external hub(s) or switch(es)	Power switches	
2. Turn on the console and monitor(s)	Power and/or reset 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. 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. See New .
5. Turn on any ETCNet2 Nodes and accessories such as Remote Focus units	Power switches	You should be able to control the outputs now*

*See [Console Key - OUTPUT](#)

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.

Reset The System

When you open a new (empty) Play, you can choose to set the patch 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.

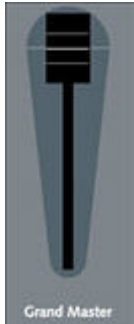
There is an Output Mode switch in the top right corner of the console.

Action	Console	Feedback
1. <i>Enable output</i>	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. Reset the Grand Master	Grand Master to 100%	

The Playback Fade mode switch is normally in Masters mode.

Note that in Congo Jr and Kid this is a soft key function. See [Master Soft Key page for Jr & Kid](#)

Action	Console	Feedback
4. Reset the Playback Fader mode	Fader Mode to MASTERS	

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](#).

Bypass Startup Screen

It's possible to set the system to boot directly into the lighting control software - without having to pass the login screen.

This was designed for backup systems and Light Servers so that they can self-boot, and it may be desirable also for a normal situation where the system settings are not needed at power-up.

This function is described in [System Settings - Backup](#)

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 - Crashes & Bugs](#)
- [Troubleshooting - Reset](#)
- [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.

- *Have you reset the console properly? See [Reset the system](#).*
- *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 - 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

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@etconnect.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

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 www.etcconnect.com/community. 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

Electronic Theatre Controls Ltd.
Technical Services Department
26-28, Victoria Industrial Estate
Victoria Road, London W3 6UU
England
Tel: +44 (0)20 8896 1000
service@etc europe.com

ETC Technical Services - Asia

Electronic Theatre Controls Asia,
Ltd
Technical Services Department
Room 1801, 18/F, Tower I
Enterprise Square
9 Sheung Yuet Road
Kowloon Bay, Kowloon, Hong Kong
+852 2799 1220
service@etcasia.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 - Germany

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

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](#)

Console Specification

Console data	Explanation
Control channels	<i>Maximum 3072 channels, numbering from 1 to 4999. Congo Kid: 250 channels.</i>
Outputs	<i>Maximum 6144 outputs. Congo Kid: 1024 outputs.</i>
Output protocols	<i>DMX512, ETCNET2, ETCNet3, AVABIPX and ArtNet over Ethernet, streaming ACN.</i>
Dimmers	<i>Free proportional patch, unlimited per channel number</i>
Displays	<i>Up to two Monitors (three in the large Congo console), graphical LCD-Display, LED-Displays.</i>
Channel selection	<i>RPN and At Mode (Direct Mode)</i>
Effect Playbacks	999
Channel groups	999
Presets	9999.999
Sequences & Chases	999
Main Theatrical Style Playback	1
Master Playbacks	<i>80 by numbers and wings Congo Kid: 40 in facepanel, 40 virtual by number</i>
Backup media	<i>Hard drive, USB Memory</i>
Power	<i>110 V/230 V, 47...63 Hz, ca. 270 VA</i>

Interface Specification

Interfaces	Explanation
Monitor	<i>Congo: 3 x VGA Congo jr: Y-cable splitter for 2x DVI or VGA (with adapters, included) Congo Kid: 2 x DVI or 1 x DVI+1 x VGA, two monitors maximum</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 (not available in Congo Jr)</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 (1 in Congo Jr).</i>
Phone Remote	<i>RJ 11 Phone Connector</i>
Audio In & Out	<i>Mini stereo plug</i>

Console Facepanels

There are four facepanels for Congo:

- Congo
- Congo Jr
- Congo Kid
- Congo LS (rack)

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.

These sections are described in this chapter

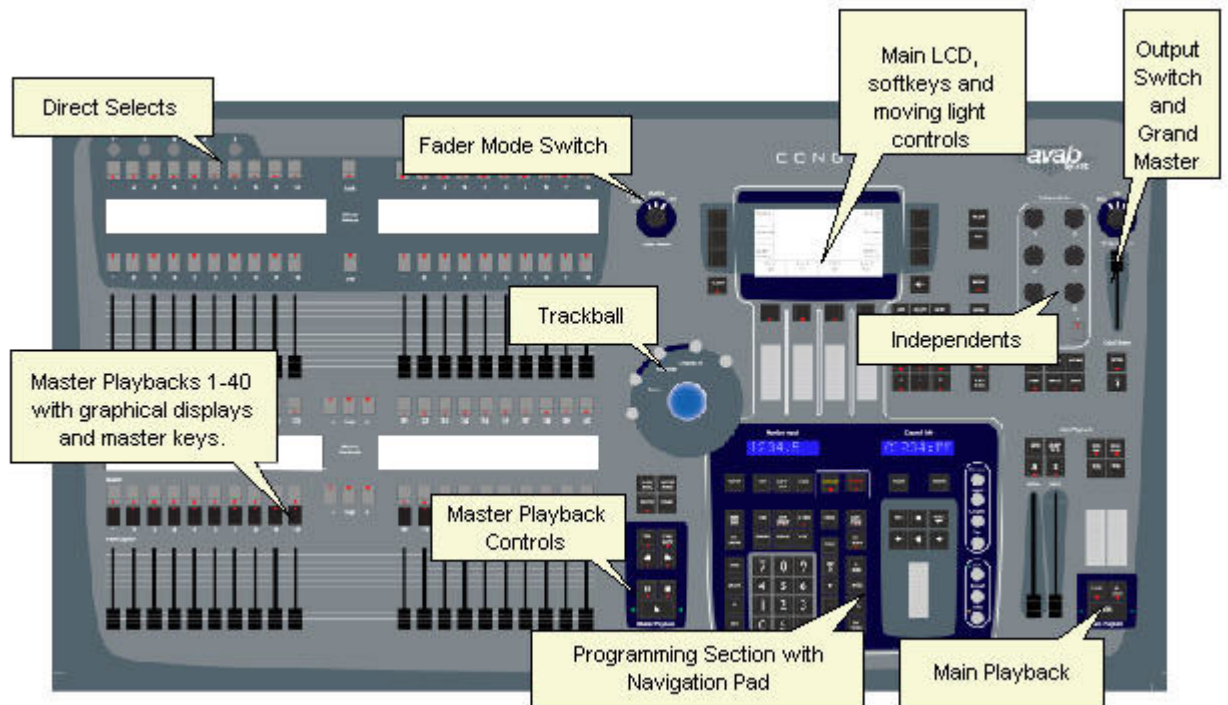
- [Facepanel - Congo](#)
- [Facepanel - Congo Jr](#)
- [Facepanel - Congo Kid](#)
- [Facepanel - Congo LS](#)
- [Facepanel - Programming Section](#)
- [Facepanel - Console Main Display](#) [Facepanel - Trackball](#)

These sections are described elsewhere in this manual

- [Main Playback](#)
- [Master Playbacks](#)
- [Direct Selects](#)
- [Independents](#)
- [Output Mode Switch](#)
- [Grand Master](#)

Facepanel - Congo

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.



Facepanel - Congo Jr

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.



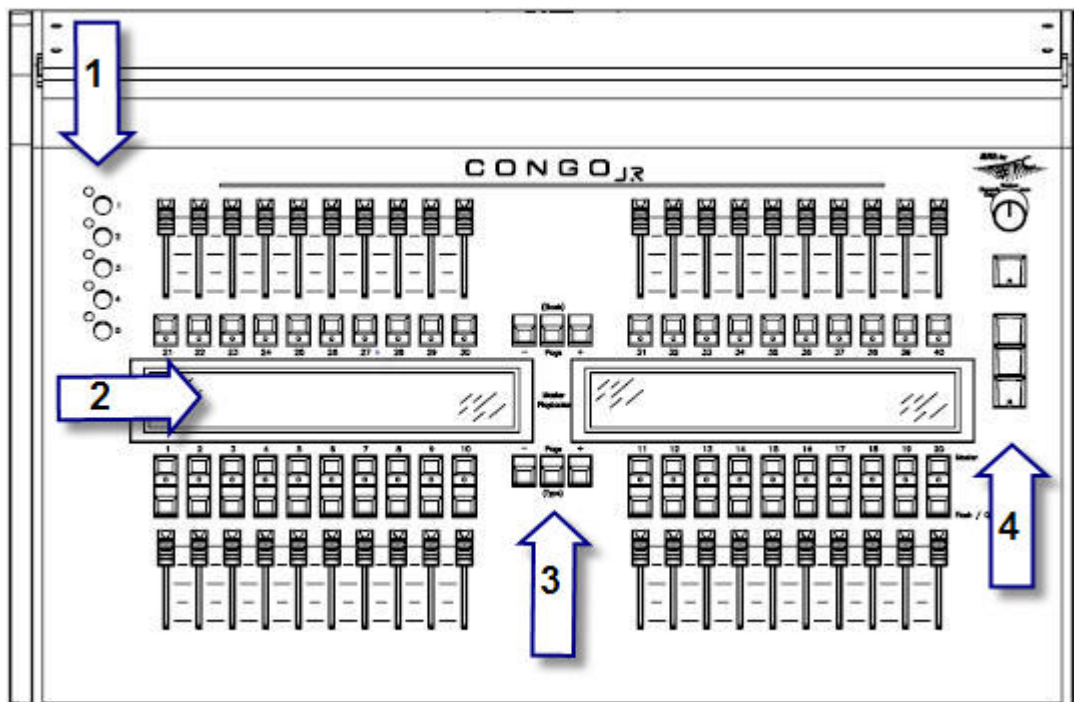
Congo Jr Master Playback Wing

For access to physical faders you can connect two different types of master playback wings to the Congo Jr.

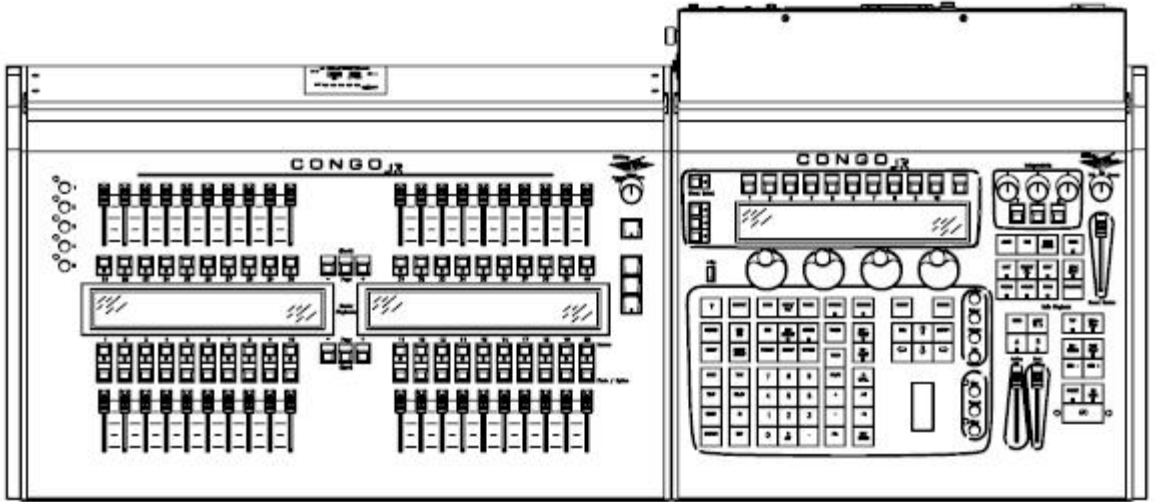
See [Accessories - Fader Wings](#).

The wing that provides the full functionality of the big Congo is the Master Playback wing. It can be connected with an external power supply and a USB cable to the Jr - or it can be mounted so they form one unit.

The functionality is the same as in the large Congo - since there are only two graphical displays, you have to switch between Direct Selects mode and Masters mode. This is done with the **DIRECT SELECT** key to the right.



1. Direct Select pages
2. Displays
3. **BANK** and **TYPE** keys for operating the Direct Selects are incorporated between the displays with the **PAGE** keys.
4. Function keys - same as in Congo plus Direct Select Mode.



Facepanel - Congo Kid

The Congo Kid is similar to Congo Jr in facepanel layout and display functionality. The mouse is external if needed (mainly for creating channel layouts). The Main Display does not have a display list section. There are few, but some limiting factors for the Kid:

Channels/outputs

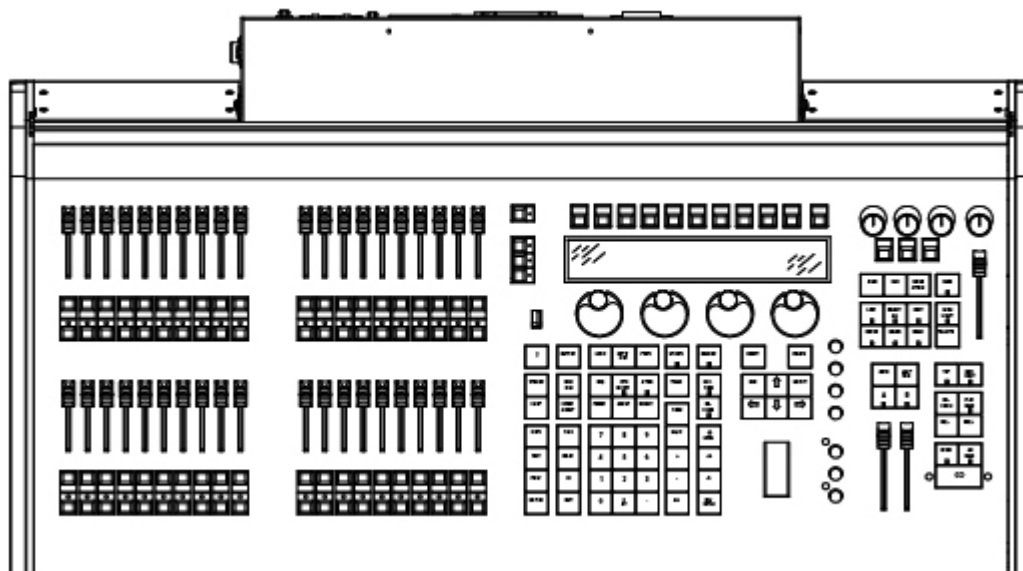
The Kid has a maximum control capacity of 256 channels/devices and 1024 outputs by direct output or Ethernet.

Masters

The Master Playback functionality is integrated into the Main Playback. The functions of the Master Switch are available in the soft key pages. See [Master Soft Key page for Jr & Kid](#)

Monitors

There are direct outputs for 2xDVi or 1xDVi & 1xVGA (but not 2xVGA).



Facepanel - Congo LS

The Congo Light Server's 19"-design packs the identical features, channel and output counts as the Congo console into a stand-alone, rack-mountable enclosure suitable for permanently installed applications. Running Congo's operating software, the Congo Light Server is a fully independent lighting playback controller or a convenient back-up option. There are twenty keys with a shift function in the front panel that make it possible to run a lot of functions. An external mouse is supplied and recommended.



Button functions - unshifted

1	2	3	4	5	6	7	8	9	0
Ch	Thru	All	+	@	Output	Master	Point	C	Shift

Button functions - shifted

Esc	Up	Modify	Insert	Live	Format	Tab	Browser	Macro	Load Play
Left	Down	Right	Delete	Goto	GO	Pause	Go Back	Record	Shift

We recommend the use of X-keys. See [X-keys](#).

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.

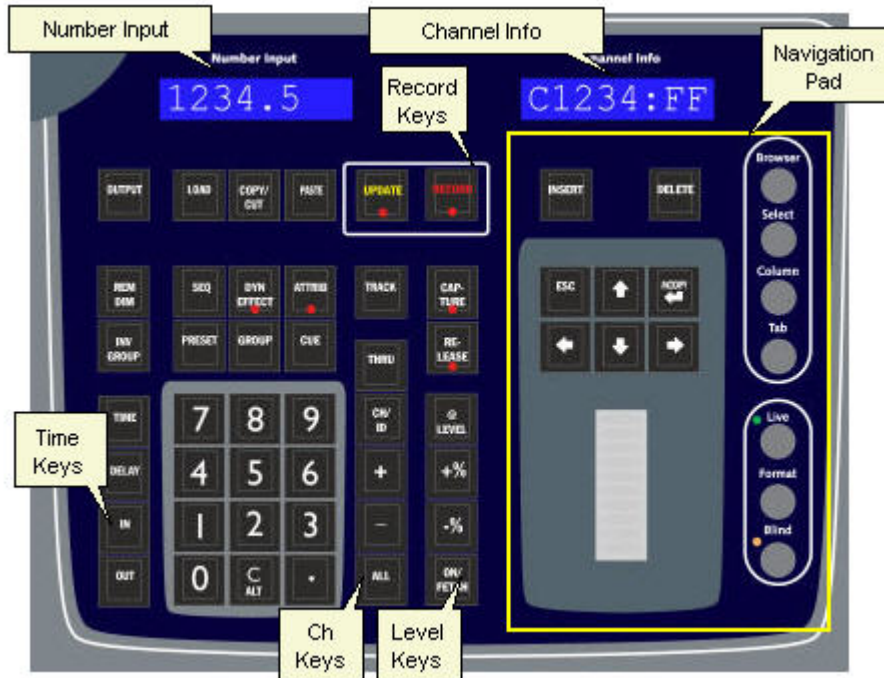
General Facts

- 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

These two displays are only available physically in the big Congo. In all systems you find them replicated at the bottom of the screens.

- 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.

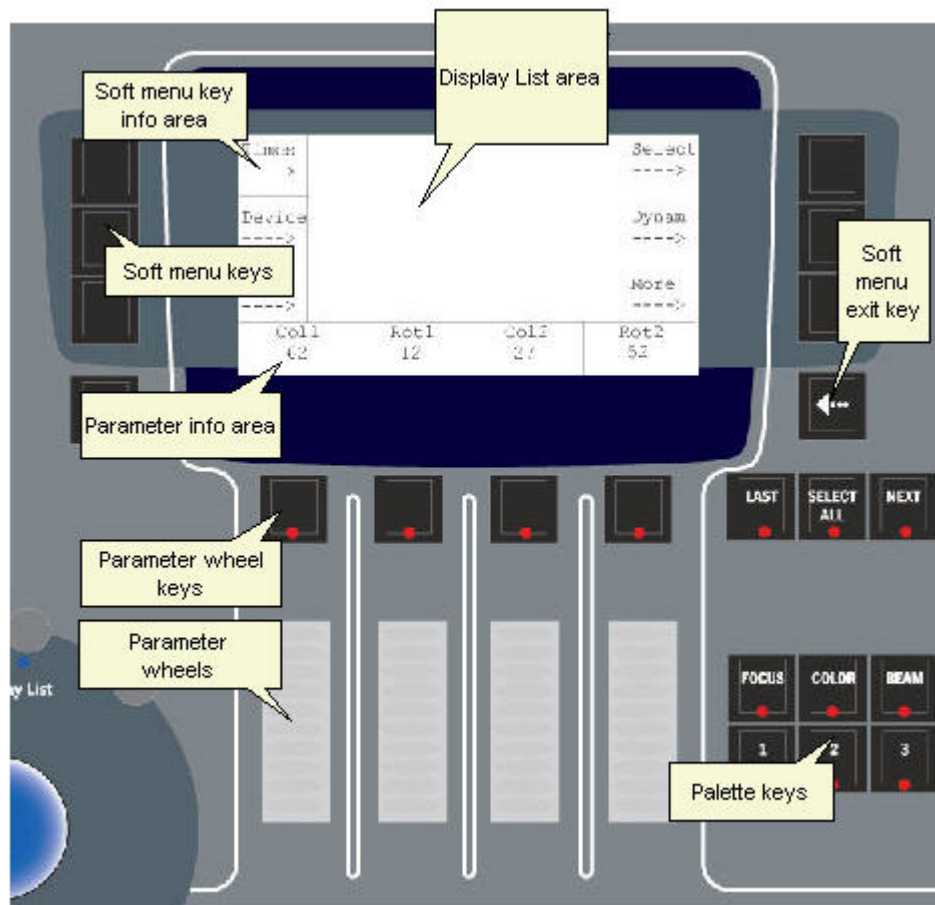


Facepanel - Console Main Display

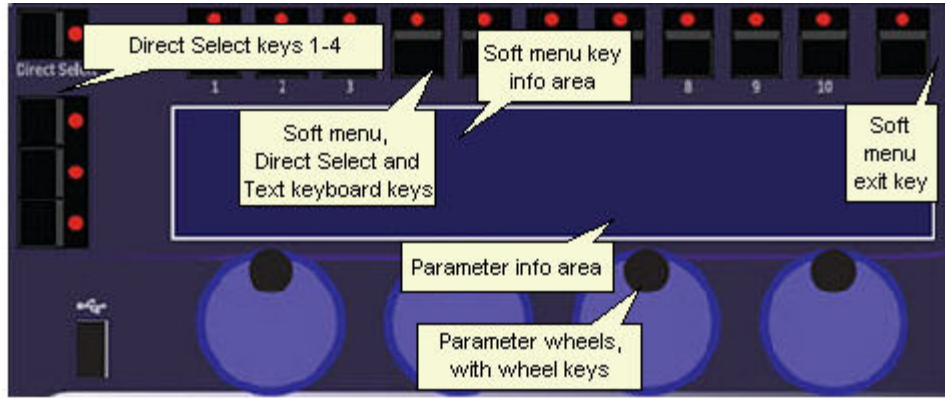
This section has different programming functions.

- 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

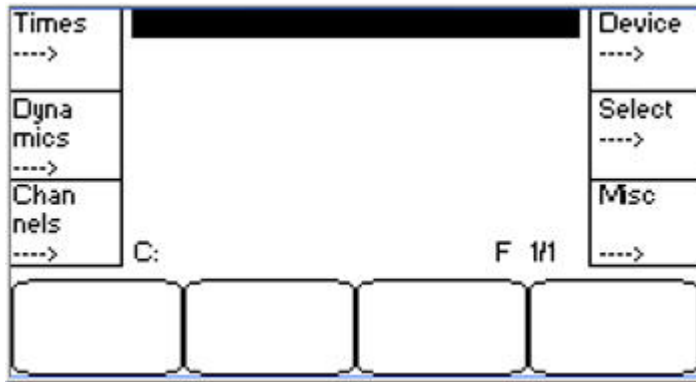


Main Display - Functions

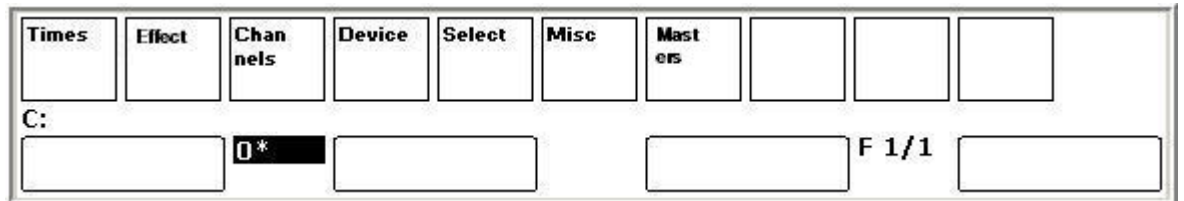
The Soft Menu exit key (<-->) moves one step back up to the top menu level each time it is pressed.

These are the soft menu keys in the top menu

Congo



Congo Jr



Summary of soft key menus

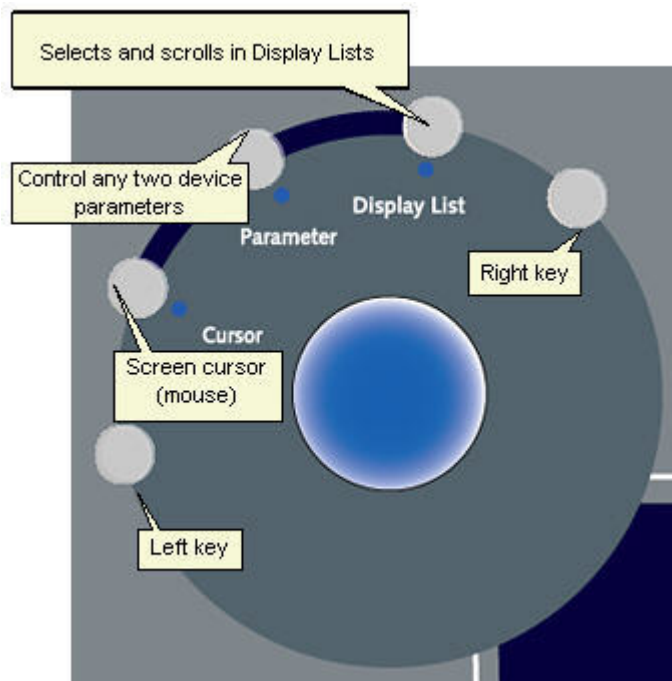
Soft Key Menus	Explanation
Times	Shortcuts for setting times. See The Times Soft Key Page
Dynamics	Controls for running Dynamics. See Dynamics - Control
Channels	Channel functions. See Channels - Balance Mode See Channels - Group Wheel Mode See Presets - Compare Mode
Device	Device control and special 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 - 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). Left/Right work as Next/Last (5.0).
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](#)

GENERAL FUNCTIONS

These are important functions that apply in general and don't belong to a specific chapter or node of the Browser.

These are the chapters

- [Navigating](#)
- [Copy, Cut & Paste](#)
- [Entering Texts](#)
- [Display Lists](#)
- [Mute & Solo](#)
- [Output Mode Switch](#)
- [Grand Master](#)
- [Direct Selects](#)
- [Jam Mode](#)
- [Misc Soft Key Page](#)
- [Lock Console](#)

Navigating

You can control everything in the software from the Navigating pad. Open and close tabs, zoom, move tabs and edit in lists. We call it mouseless navigation.

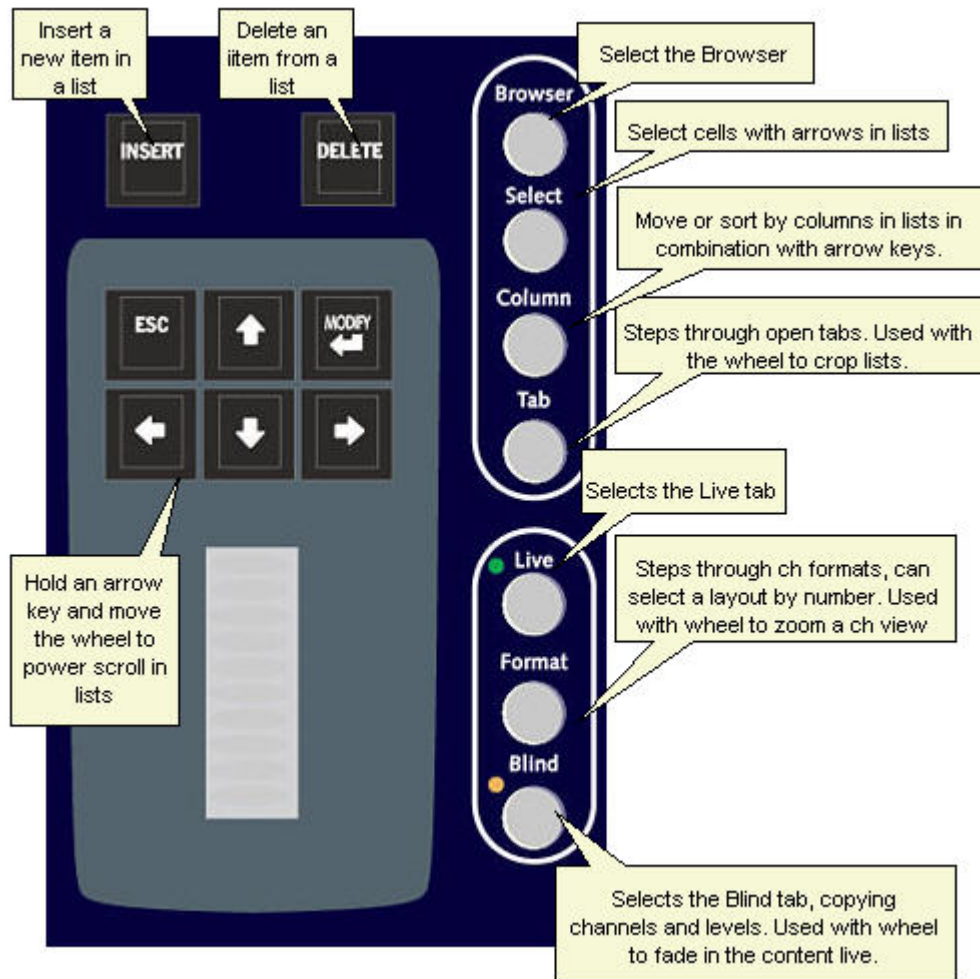
This chapter contains the following sections

- [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 tabs, move tabs, browse the software and zoom without the need to use a mouse or trackball.

The Navigation Pad



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 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.

NOTE
Pressing ESC to close a dialogue that does not have an [ESC] button will keep the settings made in that dialogue.

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.

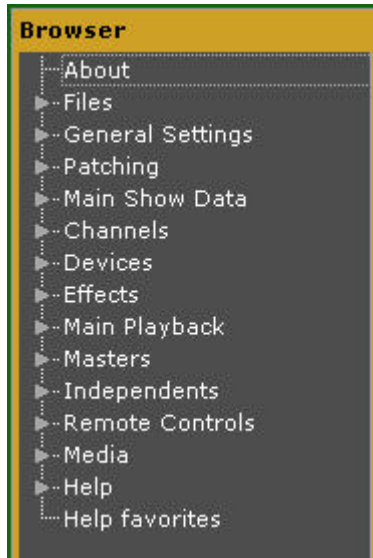
The Level Wheel

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 (6.3)

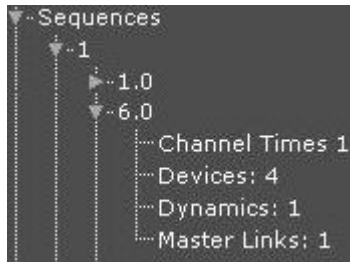
Action	Key	Feedback
Select the Browser	<input type="text" value="BROWSER"/>	The Browser is focused. Press again to close or open it.
Move up/down in a list	<input type="text" value="Arrow Keys"/>	Up and down arrows move in all open lists.
Open a sublist	<input type="text" value="Right Arrow"/>	The right arrow opens a sublist under a closed node.
Jump to top sublist	<input type="text" value="Left Arrow"/>	The left arrow jumps to the top of a sublist, and closes that node if pressed again.
Open an editor	<input type="text" value="MODIFY"/>	Opens the editor of the object selected in the Browser.
Resize the Browser	<input type="text" value="BROWSER"/> & Wheel	Moving the wheel while holding BROWSER will resize the Browser area.
Collapse the Browser	<input type="text" value="C"/> & <input type="text" value="BROWSER"/>	All open nodes are collapsed.
Open Context menu (6.3)	<input type="text" value="SELECT"/> <input type="text" value="SELECT"/>	Opens the context menu
Track item	<input type="text" value="TRACK"/>	Tracks the selected preset or palette in the Sequence loaded to the Main Playback.

Browser Functions - LOAD

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 Preset to the active channel view	<input type="button" value="LOAD"/>	Loads the selected Preset
Activate a Dynamic Effect	<input type="button" value="LOAD"/>	Activates Effect library # for the selected channel(s).

*Its possible to expand items like 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
- Tabs can be locked (PARK & TAB)
- Every tab is assigned a number when opened.



Auto close tab mode (6.0)

In Congo System Settings you can activate a mode that will close the previous tab when a new tab is opened, to keep down the number of tabs at all times.

See [System Settings - General](#).

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	TAB & Down Arrow	First press creates a vertical-, second press a horizontal split.
Reset	TAB & Up Arrow	Exits a split view.
Move	TAB & Right Arrow TAB & Left Arrow	Moves the selected tab to another screen or tab position in a split screen view.
Close	ESC	Closes any selected tab except Live and Playback.
Reset all	C/ALT & TAB	Closes all tabs except Live and Playback.
Reset all (including locked)	C/ALT & TAB TAB	Closes all tabs, including locked ones, except Live and Playback.

Tab Setup and Lock

It is possible to lock a tab from closing when you press ESC.

- Hold PARK and press TAB.
- This can also be done in the Tab Parameter Setup. Hold SETUP and press TAB to open.



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

2. Tabs - Drag and Drop (6.3)

You can drag tabs between screens and between split areas with the mouse. You have to drop the tab in the tab header area of the receiving screen or split area.



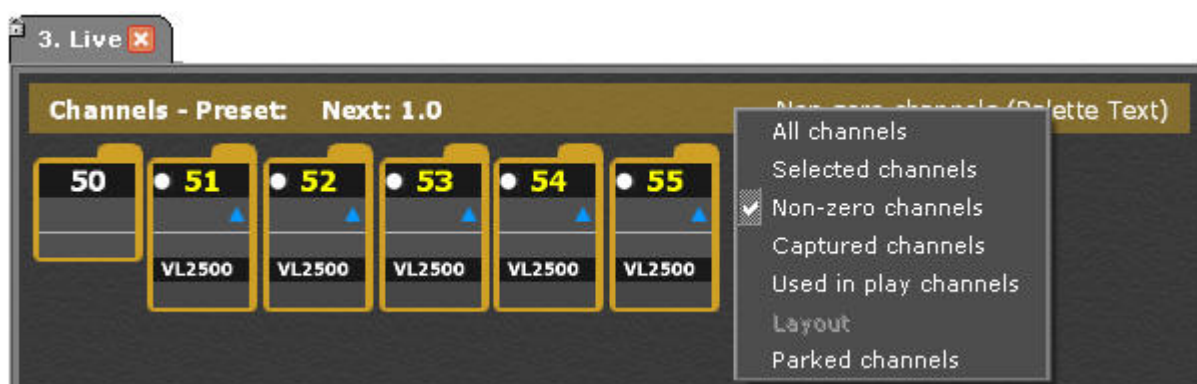
There is also a context menu for this if you right-click on the tab header:



Navigating - Channel Views (6.3)

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
- Hold FORMAT and use up/down arrow to select compact format (see below)
- Enter a number and press FORMAT to select a Channel Layout
- Hold CH and press Arrow keys to page
- Hold CH and move the level wheel to scroll (not in Ch Layouts)



The status bar in the top shows the current Preset in the Main Playback to the left and the selected format to the right. You can right-click on the right side of the header bar to open a context menu with all formats as shown above (6.3).

The channel symbols and formats are described in another chapter. See [Channel Symbols](#).

Compact Channel Format

There is a compact channel format where relative intensity levels are shown with a white status bar.

- FORMAT & up arrow - compacts the format
- FORMAT & down arrow - expands the format



Channel View Formats - Selected

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



Channel View Format - Selected and non-zero

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



Hold FORMAT and press CH/ID to select this format directly.

Channel View Format - Selected And Captured

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



Hold FORMAT and press CAPTURE to select this format directly.
See [Channels - Capture Mode](#).

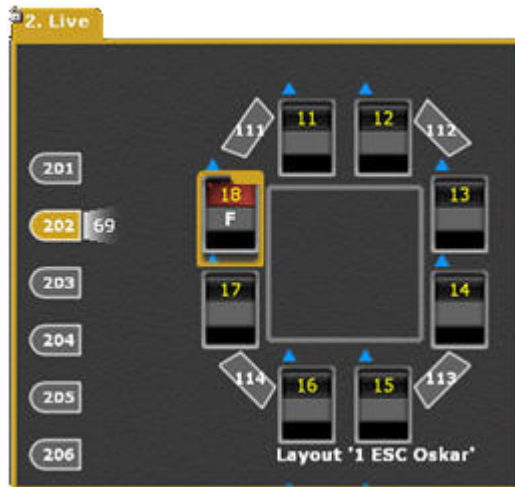
Channel View Format - Used In Play

Only channels recorded in some way in this play are shown. (Pressing FORMAT toggles through the formats).



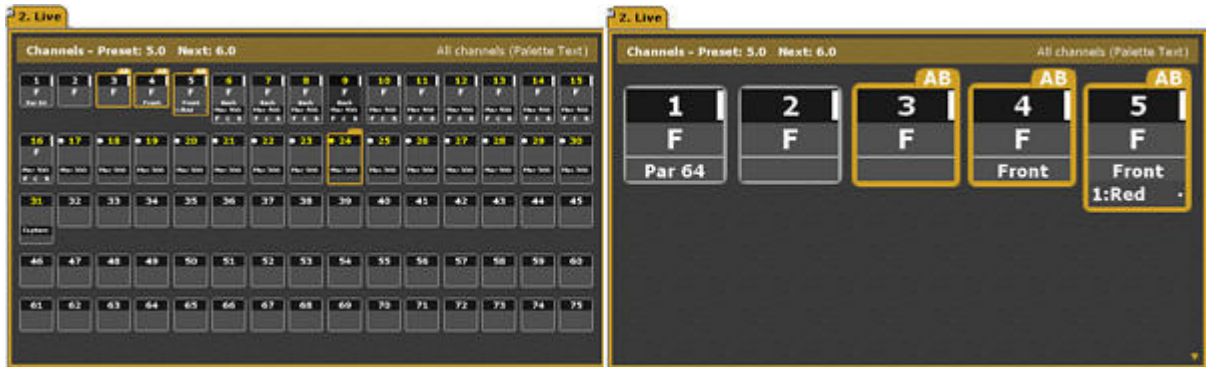
Channel View Format - Layout

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



Channel View Zoom

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



NOTE
Hold C & FORMAT to reset the zoom factor.

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 COLUMN 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	ldöaskfjöldskjfr	0	0		F C B	100 %	100 %	100 %	100 %	100 %	100 %
5.0		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

Editing In Lists

Function	Key	Feedback
Edit the selected cells	<input type="button" value="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	<input type="button" value="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)	<input type="button" value="DELETE"/>	Deletes the selected items (cannot be undone).
Select all items in a column	<input type="button" value="COLUMN"/>	Selects all cells in a column from the current cell down.*
Select multiple cells	<input type="button" value="SELECT"/> & <input type="button" value="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	<input type="button" value="COLUMN"/> & <input type="button" value="Up Arrow"/>	The list is sorted by this column from low to high.*
Sort from high to low	<input type="button" value="COLUMN"/> & <input type="button" value="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	<input type="text" value="COLUMN"/> <input type="text" value="&"/> <input type="text" value="Side Arrows"/>	The selected column is moved left/right depending on which arrow you press*
Resize a column	<input type="text" value="COLUMN"/> <input type="text" value="&"/> <input type="text" value="Wheel"/>	The column is resized
Resize the list section	<input type="text" value="TAB"/> <input type="text" value="&"/> <input type="text" value="Wheel"/>	The list section is resized*

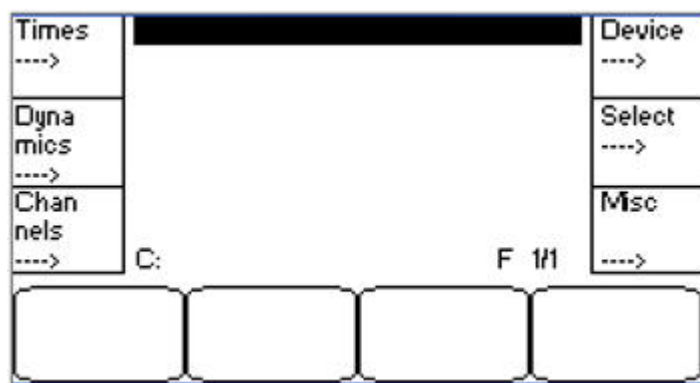
* These changes are temporary, they will be lost if the tab is closed and opened again.

Navigating - Soft Key Pages

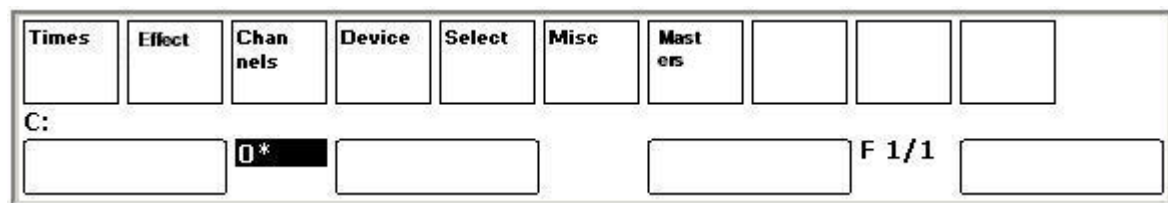
The Soft Key pages are the menu keys around the Main Display in the consoles. This display is different between console types, but the functionality is the same.

There is a menu key marked with an left arrow" <--" to the right of the display, that is used to get to the top level. Press a soft key to get to the corresponding page.

Congo Soft keys



Congo Jr/Kid Soft keys



Copy, Cut & Paste

Copy, cut and paste Sequence Steps, Groups, Presets and Device Templates.

Action	Key	Feedback
Copy	<input type="text" value="COPY/CUT"/>	The currently selected object is copied.
Cut	<input type="text" value="COPY/CUT"/> <input type="text" value="COPY/CUT"/>	The currently selected object (devices excluded) is cut.
Paste	<input type="text" value="PASTE"/>	The last copied or cut object is pasted.

NOTE

When you paste a Sequence step in the Sequence Editor, it will be inserted before the currently focused step.

When you paste a Preset in the Preset Editor, you will overwrite the content of the currently focused preset. This applies to Groups as well.

Texts can be copied with the shortcut CTL-C from a keyboard.

Copy, Cut & Paste Attributes

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

NOTE

Attributes with the value "0" will not be pasted.

Entering Texts

Almost every item in a Play can be labeled 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.

Numbers and decimal point can be entered from the numerical keypad of the console(s).

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 on the external keyboard and Congo's keypad are linked.

The TEXT Key

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
Preset in A	<input type="text" value="TEXT"/>	A popup for setting text to the step in A appears.
Preset in B	<input type="text" value="TEXT"/> & <input type="text" value="B"/>	A popup for setting text to the step in B appears.
Master	<input type="text" value="TEXT"/> & <input type="text" value="Master Key"/>	A popup for setting text to a Preset or Group in Master # appears.
Cell in a spreadsheet	<input type="text" value="MODIFY"/>	Text entry is activated for the text cell.

NOTE

In keyboard override mode, level and mouse wheels are blocked to prevent unintentional changes.

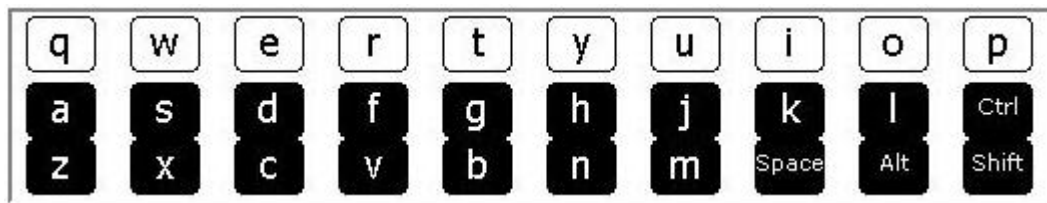
Text From The Console Keyboard

Anytime text input is activated, the lower left and right row of master keys and the displays are converted into a qwerty keyboard. The master keys correspond to the key in the display.

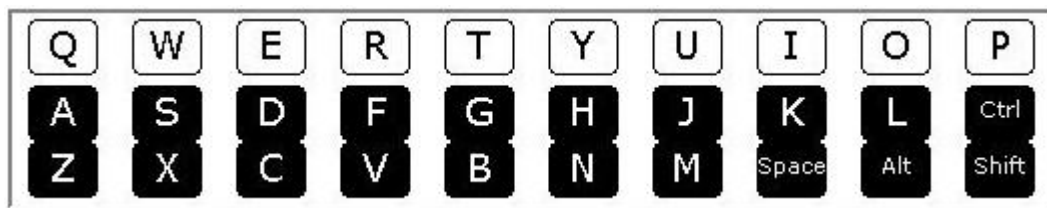
NOTE

In the Congo Jr/Kid the keyboard works in the same way, but layered in the main display of the console. You need to use the three keys to the left side of the display to select the desired line of letters to use with the top ten keys.

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	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](#)

Display Lists

NOTE

Display Lists are available on the ML display of the Congo (and ONLY the large Congo), and within Console Mimic Docks.

See [Dock Areas - Console Mimic](#).

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

Example - Display List for Auto Groups

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

Mute & Solo







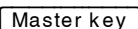




Mute & Solo allow you to treat all Playbacks (masters and Main Playback) as you would in a sound console - being able to temporarily Mute or Solo the content of any Playback.

- 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.


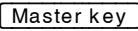




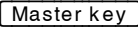




Mute & Solo - MUTE

Hold MUTE and press a Playback key to activate/deactivate.

Function	Key	Feedback
Mute a Master playback #	 & 	The Muted status is indicated in the Master Display of the console and in the Master View.
Mute Main Playback	 & 	The Mute status is indicated in the Playback tab. 
Un-mute a Master playback #	 & 	The master is no longer muted.
Un-mute Main Playback	 & 	The main playback is no longer muted.
Clear all Muted playbacks	 & 	All Muted Playbacks are reset.
<p>NOTE MUTE will not change any data or fader levels.</p> <p>In Congo Jr/Kid the MUTE key is a soft key in the Misc Soft Key Page.</p>		

Mute & Solo - SOLO

Hold SOLO and press a Playback key to activate/deactivate.

Function	Key	Feedback
Solo a Master playback #	 & 	The Solo status is indicated in the Master Display of the console and in the Master View.
Solo Main Playback	 & 	The Solo status is indicated in the Playback tab. 
Un-solo a Master playback #	 & 	The master is no longer soloed.
Un-solo Main Playback	 & 	The main playback is no longer soloed.
Clear all Soloed playbacks	 & 	All Soloed playbacks are reset.
<p>NOTE SOLO will not change any data or fader levels. The keyboard equivalent of SOLO is Alt Y. In Congo Jr/Kid the SOLO key is a soft key in the Misc Soft Key Page.</p>		

Output Mode Switch

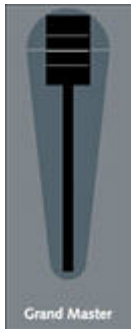
Output Mode is a three-position switch in the top right corner of the console facepanel.




Action	Feedback
B.O.	A Black Out of all intensity 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 . NOTE that a freeze on a paused playback will reset that playback on restore.
NOTE 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.	

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 and/or Masters in Exclusive mode. A red Level Indication will appear on the top of all screens. 
NOTE Attributes are not affected by the Grand Master.	

Freeze Mode

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.



When the switch is set back to ON the output 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

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.

This is indicated at the top of the screens with the text "FREEZE".

Direct Selects

The Direct Selects provide extremely fast and hands on access to all kinds of data. There are four sets with ten Direct Select keys for quick access to Palettes, Effects, Groups etc.

This chapter contains the following chapters

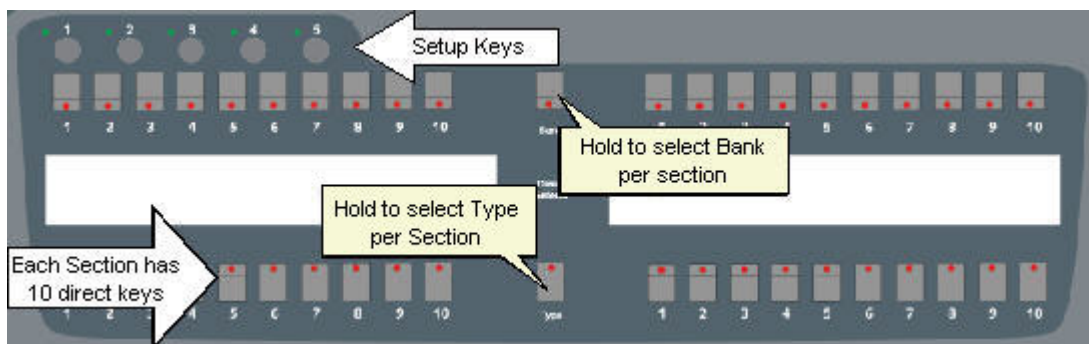
- [Direct Selects - Introduction](#)
- [Direct Selects - Content](#)
- [Direct Selects - Record & Update](#)
- [Direct Selects - User Setups](#)
- [Direct Selects - Direct Mode](#)

Direct Selects - Introduction

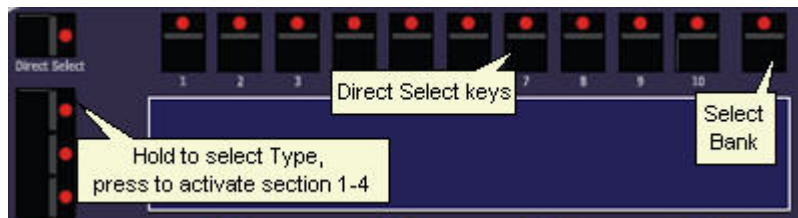
The Direct Selects give extremely fast access to stored data such as groups, palettes, effects and screens.

- 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

In Jr you can exit Direct Select Mode by pressing the same key again.

Hold MODIFY and press a Direct Select for a Palette or Group to open the corresponding editor (5.0).

Direct Selects - Content

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

Type of content (hold TYPE)

Focus	Color	Beam	Pal	Gels	Group	Param	Auto Group	Empty	More
-------	-------	------	-----	------	-------	-------	---------------	-------	------

Press More to get these

Screen		Mask	Section					Empty	More
--------	--	------	---------	--	--	--	--	-------	------

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 & Kid: 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)

1- 10	11- 20	21- 30	31- 40	41- 50	51- 60	61- 70	71- 80	81- 90	91- 100
----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	------------

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 & Kid: 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 (6.3)

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

Focus	Color	Beam	Pal	Gels	Group	Param	Auto Group	Empty	More
-------	-------	------	-----	------	-------	-------	---------------	-------	------

Screen		Mask	Section					Empty	More
--------	--	------	---------	--	--	--	--	-------	------

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
Gel	Select a Gel color for a moving device from the gel picker.	Device Views - Gel Picker
Group	Selects the channels in a Group***	Groups
Param	Ranges for a parameter (gobo wheel)	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**	Channel Database & Auto Groups
Screen	Press to select the stored screens	Screens
Mast (jr/Kid)	Master keys (1-80)	The keys will correspond to master keys in a wing.
Masks	Masks	User Masks - Functions
Section	Sections	Sequences - Section Markers

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

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

***You can hold the GROUP key and use the level wheel to change levels for this group directly (6.3)

Direct Selects - Record & Update

The data in the Direct Selects is loaded as it is recorded, regardless of how it is recorded.

It is possible to record and update directly to the direct select keys, which is a very fast working method requiring extremely few keystrokes.

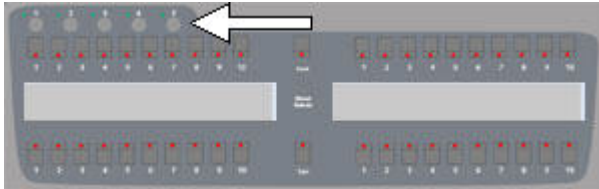
These are the content types that can be recorded and updated directly holding [RECORD] or [UPDATE] and pressing a [direct select key] for that content type.

- Focus
- Color
- Beam
- Pal (All Palette)
- Group
- Screen

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. <i>Select User Setup</i>	Setup key	The LED of that key is lit
2. <i>Select Types and Banks</i>		The current types and banks can be recalled with this Setup key.

Congo Jr

See [Direct Selects - Content](#).



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

Direct Selects - Direct Mode

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 (see below)	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
GROUP	Select channels in Group.
CLIENT	Activate Client permissions

Jam Mode

Jam Mode allows you to switch over to one of two Playback Modes that allow improvising with Moving Devices more or less directly after patching them. It is also possible to auto generate play data for improvising.

This chapter contains the following sections

- [Jam Mode - Introduction](#)
- [Two Scene Masters](#)
- [Device Masters](#)

Jam Mode - Introduction (6.0)

Jam Modes are designed to allow you to improvise directly after patching, regardless if you have a small or large rig, and regardless if you have moving devices or conventional.

There are two styles of jam mode that can be connected to the Jam Mode switch. See [Play Settings - Master](#).

Two Scene Masters (Default)

Great for both conventional rigs and moving light rigs. The upper row of masters can be set up blind and faded into live and onto the lower row of masters. Extremely flexible with full control both live and blind. As soon as you have a couple of looks you are ready to roll. Very easy to set up new looks on the fly and fade into them.

Device Masters

This mode is intended for rigs with a lot of moving lights. The console is set up with fader sections that are used to create combinations of looks on stage live.

Jam mode uses a separate direct select page to store the direct select configuration. It is therefore possible to assign whatever direct select content to the special Jam mode page and it will be restored when Jam mode is reactivated.

Data is created and can be forced. See [Jam Mode Wizard](#).

Activate & Setup Jam Mode (6.0)

Jam mode is activated from the three position switch in the top middle of the big Congo and on the 2x20 Congo wing for Congo Jr.



Jam Mode is indicated at the top of all screens



The mode for the Jam switch is set in Play Settings - Masters.

1. Press SETUP
2. Select the Masters tab
3. Use the dropdown to select Two Scene Masters (default) or Jam Mode.

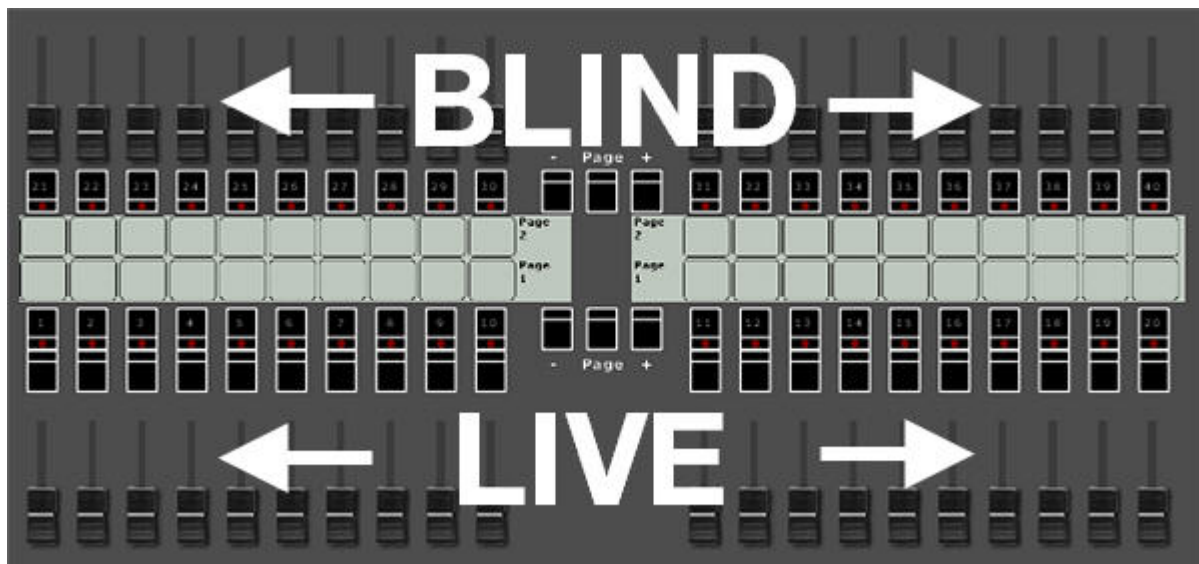
Two Scene Masters (6.0)

The most exciting addition to Congo V6 is the playback mode called Two Scene Masters. This is the default setting for the Jam Mode switch. See Play Settings - Masters.

Two scene masters takes old school improvisation where channels could be preset blind and then faded onto stage to a new level.

- The top twenty master faders are blind
- The lower twenty masters are live

You can set up and record anything on the top masters, and then fade on your choice of fade time into these settings. Once the fade is complete, all settings in the top masters have been loaded to the lower masters - which means that you have live control of them.



Fading Two Scene Masters (6.0)

To fade the settings and content of the top row of masters (blind) into the bottom row of masters (live) press START or GO on the Masters Playback.

You can enter a time before pressing START or GO. This time will continue to be used until a new time is entered.

NOTE

Any changes you make to content in the top masters will be loaded to the bottom live masters, but **ONLY** if the fader of the master is over zero %.

It is possible to modify the Live masters at all times except when there is a crossfade running between Live and Blind because of the dipless calculation.

Create new looks in Blind and record to masters (6.0)

One way of improvising on the fly in two-scene masters mode is to use the Blind field to create new looks, record them to the top masters and fade into them.

- 1. Press **BLIND** to activate the blind tab.*
- 2. Select the channels and moving devices you want to modify blind, and use the parameter wheels and palette functions to create a look.*
- 3. Hold **RECORD** and press a Master key for a master in the top row to record to that master. A popup will ask you to confirm.*
- 4. Bring up the master fader to activate the look. Press **START** to fade into that look and load it to the corresponding master in the lower "live" row.*

Device Masters (6.0)

The layout and functionality of Device Masters is based on our experience of how many moving light operators will prepare a console for improvising with moving devices. Most of this data is set up with the [Jam Mode Wizard](#).

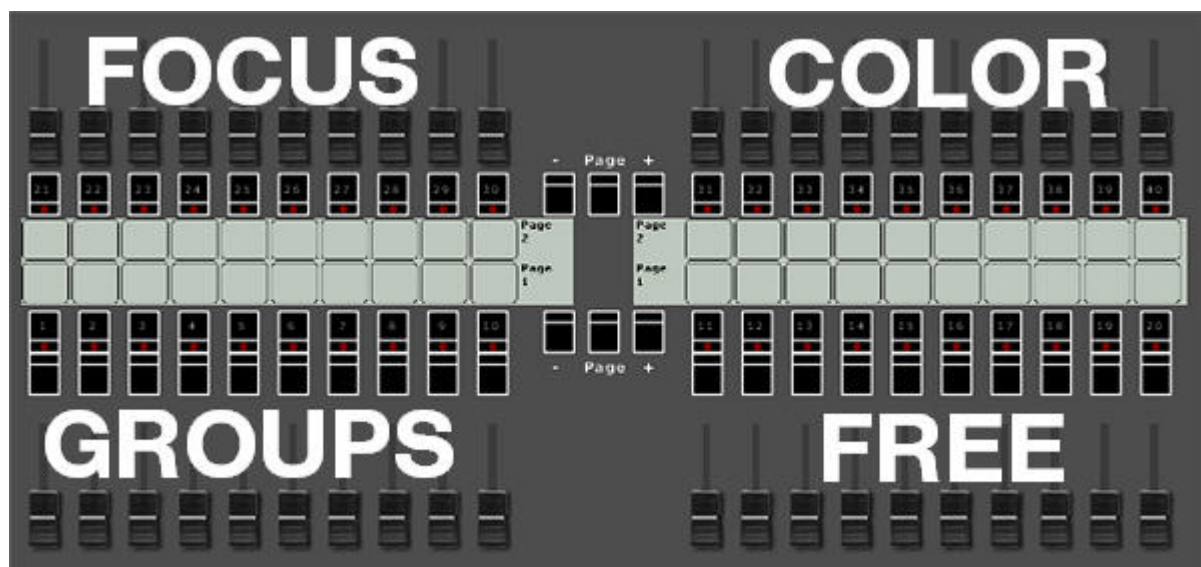
JAM MODE DESCRIPTION

Masters 1-10 are used to select (activate) a Group of Devices, and the rest of the masters are used to control them.

- Use Masters Keys 1-10 for select Groups of Devices and the faders to control the Intensities
- Use Masters 11-14 for effects and 18-20 for adjusting them.
- Use 21-30 to move to new positions with faders or buttons.
- Use Masters 31-40 to change colors with faders or buttons.

The main difference to normal master operation is that if you select a group by pressing the master key - it stays selected until another group is selected.

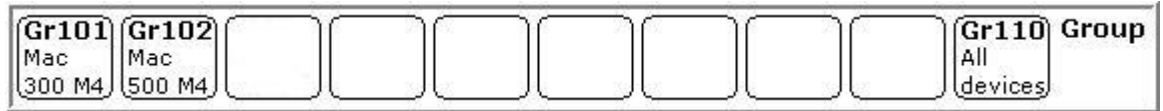
When Jam Mode is left (by moving the mode switch back to Masters or Channels Only) the console will return to the state of the Master Playbacks previous to entering Jam Mode. To avoid sudden changes, all Masters over 1% will be set to pending, which means they will refresh their content when moved to zero.



Device Masters Step 1 - Check Groups

Masters 1-10 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 Jam Mode Wizard can be used to create a maximum of ten Groups will be created starting at 101. Group number 110 on Master 10 is ALL DEVICES.



See [Groups - Record](#) and [Groups - Load to Playbacks](#).

Device Masters Step 2 - Update Focus Palettes

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.



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).

Device Masters Step 3 - Check Color Palettes

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.

Device Masters Option - Create Beam Palettes

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.*

Device Masters - Working Method (6.0)

Device Masters is based on you selecting devices and moving them to positions and colors. On top of this you have some powerful effects that can be applied on the fly and in the tempo of your choice. Most of this data is set up with the [Jam Mode Wizard](#).

Device Masters - Selecting Devices

Devices are selected from Masters.

Function	Key	Feedback
Select Group	Master Key 1-10 (>20)	The LED in the Master Key is lit. The Group stays selected until another Master Key is pressed*
Add Group	<input type="checkbox"/> + & <input type="checkbox"/> Master Key	Both LED's are lit and both Groups are active*
Subtract Group	<input type="checkbox"/> - & <input type="checkbox"/> Master Key	This Group is deactivated
Select any Device	See Select Channels	Any Device can be selected with normal Command Syntax from the numerical keypad.

Device Masters - Set Positions and Colors

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.

This is basic operation

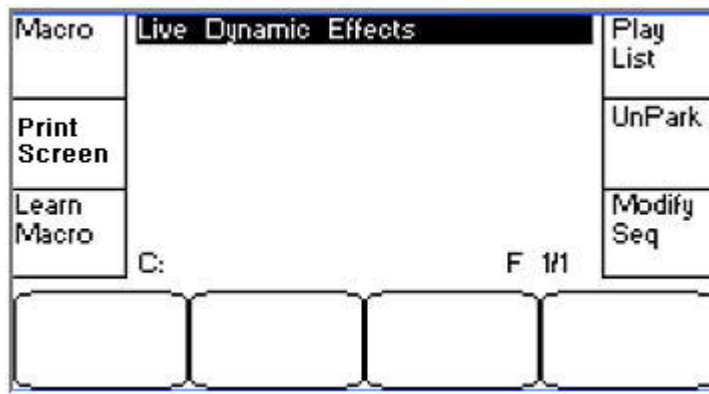
Function	Key	Feedback
Rubberband to Palette #	Move Master fader	The currently active Group will fade to the target of the Palette in that Master Playback.
Snap to Palette #	<input type="text" value="Master Key"/>	The currently active Group will snap to the target of the Palette*
Move to Palette # in a time of # seconds	<input type="text" value="#"/> <input type="text" value="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](#).

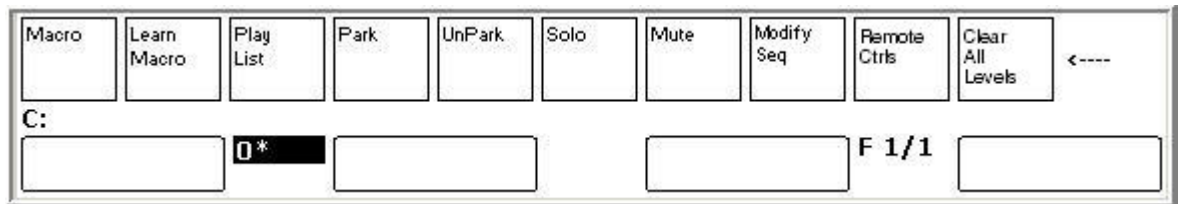
Misc Soft Key Page (6.0)

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

Congo



Congo Jr & Kid



These are the functions
(Solo, Mute and Park are described in the chapters: [SOLO](#), [MUTE](#), [PARK](#))

Function	Softkey	Feedback
Play back Macro #	# Macro	Macro # is played back.. See MACROS .
Learn Macro #	# Learn Macro	Macro # is recorded. See MACROS .
Print Screen	Print Screen	Prints the current screen to a node called PRINTOUTS. See Print .
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.
Remote Control List	Remote Ctrl	Opens the Remote Control List. See Remotes List .
Clear all remote levels	Clear All Levels	Clears all levels set by remotes. See Remote Controls .

Lock Console (6.3)



You can to lock the console by holding ESC and pressing C/ALT. The same command will unlock again.

ESC & C/ALT

NOTE

The following mouse actions are blocked (6.3)

- Screen actions from layouts
- Drag and drop
- Double clicking in editors.

Context Menu (6.3)

In most places of the Congo screen interface there is a context sensitive menu that offers the functions that apply most to the part of the interface you have focused at the moment.

It is opened by pressing SELECT twice, or by right clicking with a mouse or trackball. This works in the following views:

- Channel View
- Attribute View
- Editors
- Browser
- Organizer

Examples

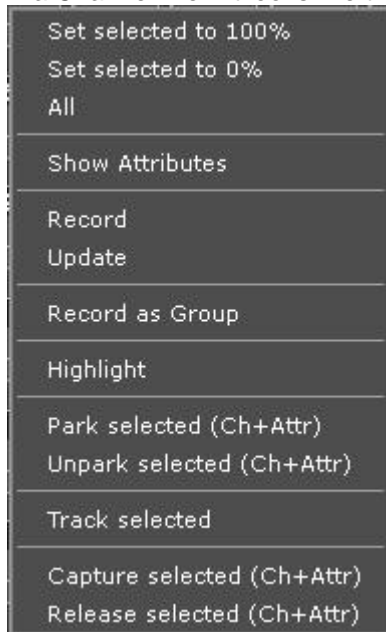
- *Press BROWSER to select the Browser. Select any node with the arrows and press SELECT twice to open the appropriate Context Menu.*
- *Press PRESET to open the Preset List. Select any cell with the arrows and press SELECT twice to open the appropriate Context Menu.*
- *Working with a mouse? Right-Click to open the Context Menu!*

In the Browser it can look like this:



You can choose any of the functions with the arrow keys and press MODIFY to confirm.

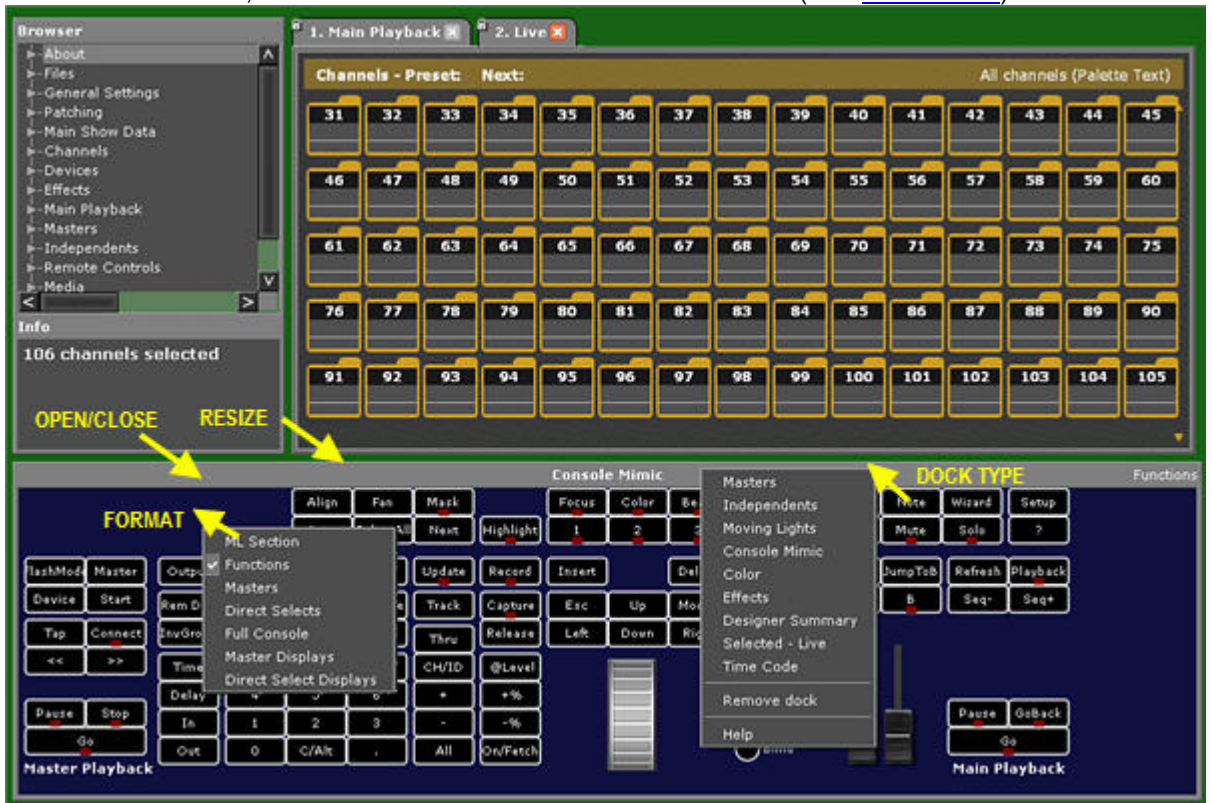
In a Channel View it looks like this:



In the Playback tab over a preset it looks like this:



When you are handling dock areas there are two context menus, one in the header to choose dock content, and one in the content area to choose format (See [Dock Areas](#)):



Drag and Drop (6.3)

In most places of the Congo screen interface you can use a mouse or trackball to drag content to other locations and drop there. This is the same as doing a copy/paste or cut/paste command with key presses.

Please note that there are two options for drag-and-drop editing within Congo - editing within the same play and using drag/drop to import data from another play - this can be an older version of the current play to perform UNDO actions, or another play entirely.

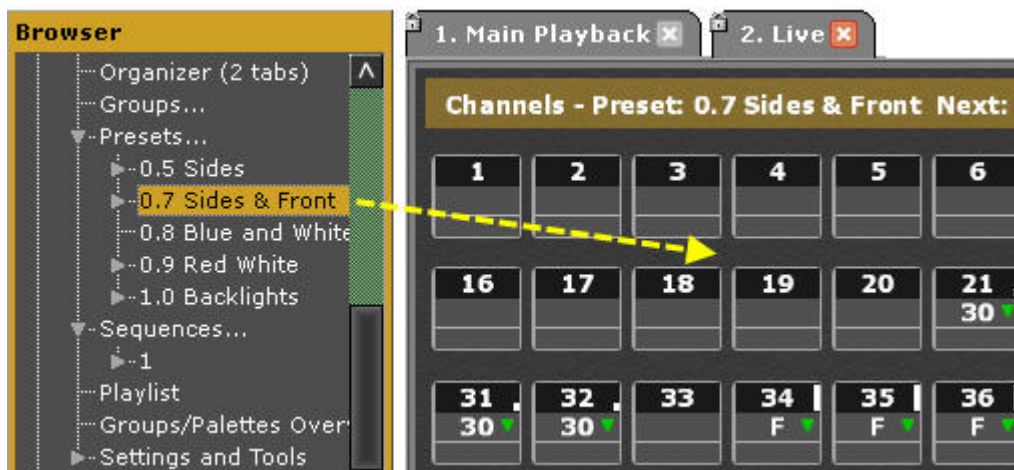
Usually there is a dialogue box to allow you a choice of results when dragging and dropping.

Examples

- *In the Browser, click and hold a preset in the preset node and drag it to a channel view and drop there to replace the content of that channel view with the preset.*
- *In a Sequence Editor, click and hold a sequence step and drag it to another sequence step and drop there for a dialogue with options of actions (copy/move). See [Sequence - drag and drop data](#).*
- *In a Master View, click and hold the content of one master, then drag and drop to another to move around. See [Masters - Drag and Drop Data](#).*

Dragging a preset from the Browser to Live

1. Click, hold and drag a preset from the Browser to Live.
2. Drop over Live - the content in Live will be replaced by the levels of the channels in that Preset.

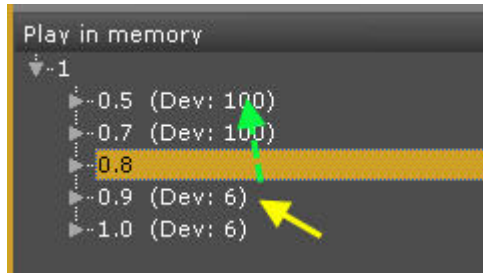


NOTE

There is no warning, the content of Live will be replaced by the intensity content of the Preset dropped.

Dragging sequence steps

1. Open the main playback Sequence Editor (MODIFY and PLAYBACK).
2. Click, hold and drag a sequence step to another sequence step, then drop.



3. You will now get a dialogue with the following options:



This dialogue allows you to COPY or MOVE the selected step.

COPY = Makes a copy of the source and inserts it into the sequence after the target step.
MOVE = Moves the source and inserts it into the sequence after the target step.

If you select the Advanced tab by pressing left arrow, you get the following options:



The first option allows you to define where you want to copy/move the step to.

- After the target step (default)
- Before the target step
- Replace the target step

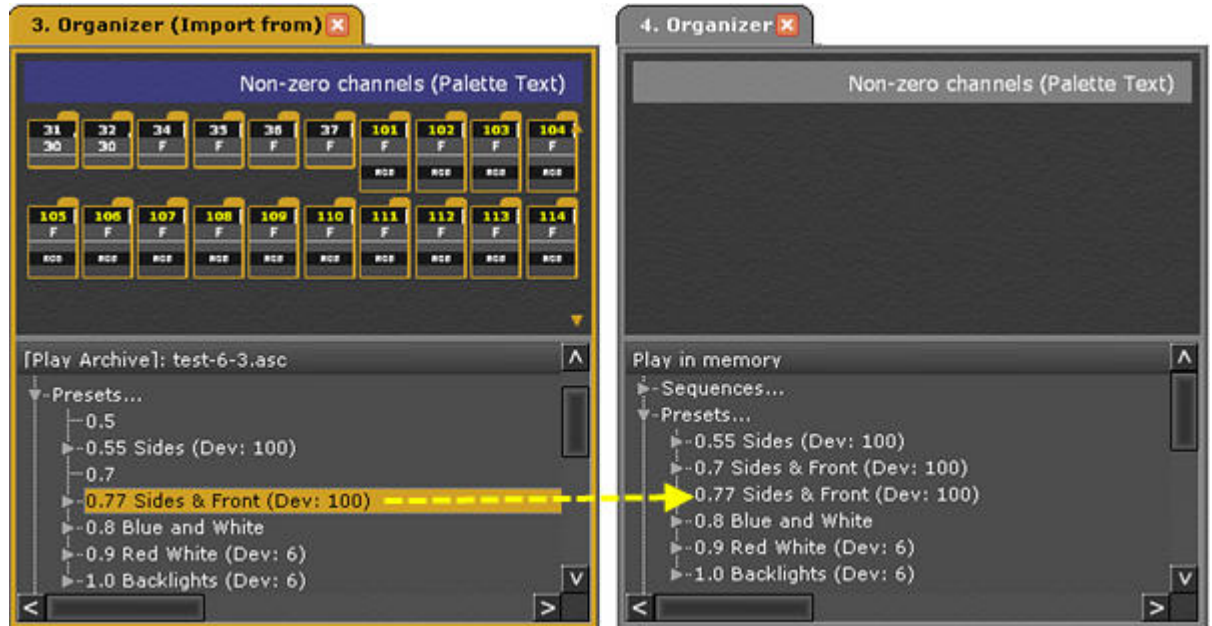
The second option "Create Between" allows you to create a new step with a new preset number and insert (after/before).

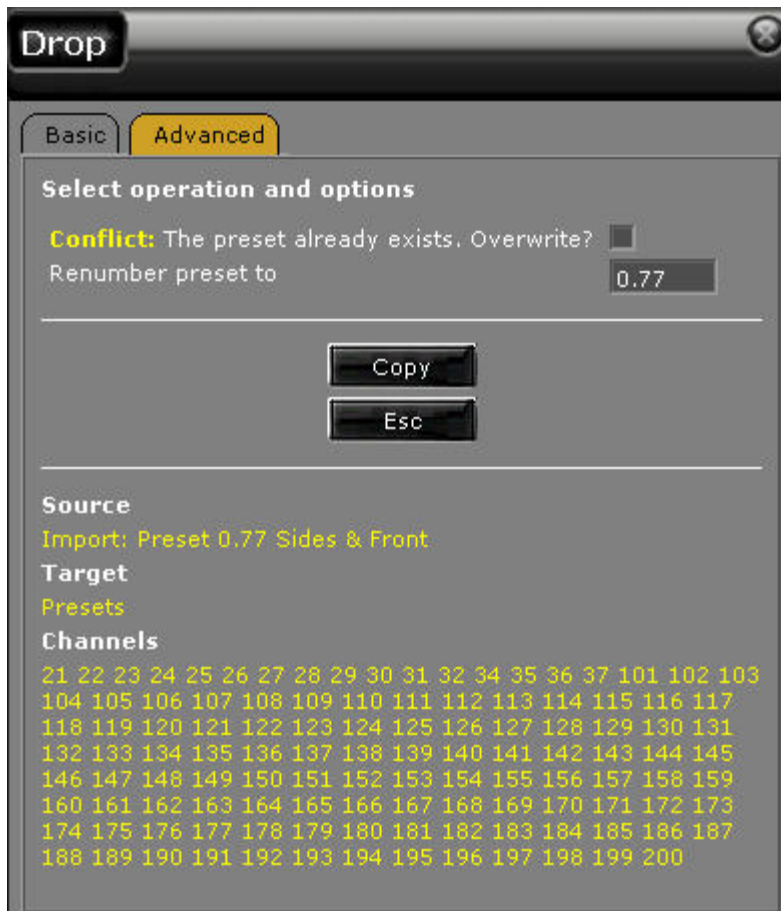
NOTE

For more info, see: [Sequence - drag and drop data.](#)

Drag and Drop - Replacing Data (6.3)

If you drag a Sequence, Preset or Palette and drop it on another node of the same kind, you will get the option of replacing the node you are dropping data on. This feature works both within the same play and in the Import From Organizer.





About

The About node shows you a summary of the system and a summary of the currently loaded play.

About Node



This chapter contains the following sections

- [About - Congo...](#)
- [About - Play...](#)

About - Congo

About Congo shows you a summary of your system configuration - this information is often only used in case of technical support.



SOFTWARE AND OUTPUTS

- **Software Version:** The version and revision of the Congo software installed.
- **Qt Library:** Qt is a supporting tool that is used by Congo. Only for support.
- **Dongle number:** This is your unique software number that is required when you upgrade your system size.
- **Console Firmware Version:** Shows the version of the Congo Sr face panel firmware. Only for support.
- **IO Firmware Version:** Shows the version of the I/O board firmware. Only for support.
- **Channels:** The number of channels your system can run. If your system is downgraded in the System Settings the downgrade number is shown.
- **Outputs:** The number of outputs your system is upgraded to run. The maximum is 6144 (12 DMX universes). Contact your ETC dealer for upgrade information.

ROLE

- **Possible roles:** These are the possible roles your dongle permits: Server, Backup and/or Client.
- **Name:** System name
- **Current Role:** The currently active role

NETWORKING

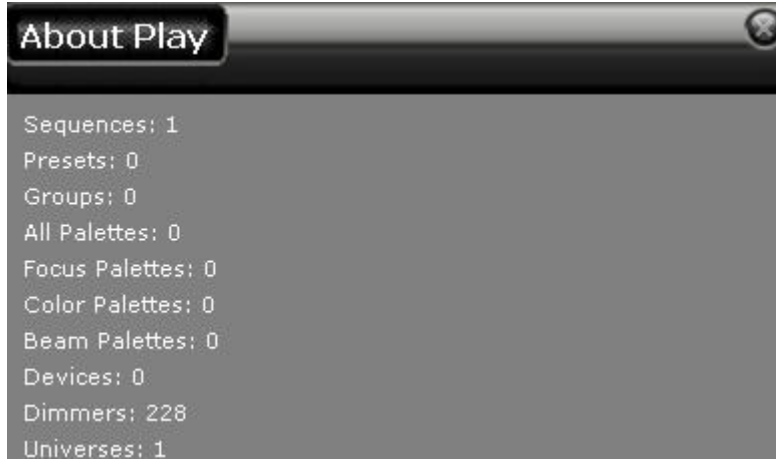
- **Net:** The logical network this console is active on.
- **IP:** IP address of this system.
- **Enabled network protocols:** A summary of enabled protocols and the current Universe Map for each of them.
- **Network DMX input:** Shows if this is active.
- **ACN Library Info:** Shows information about Advanced Control Network libraries in use .

FILE PATHS

- **FileServer path:** If a FileServer path has been defined, it is shown here.
- **USB path:** This is the drive-letter the system is looking for a USB drive under. If Congo cannot find a connected USB memory, you can check here to see that it corresponds with the drive letter assigned by Windows.

About - Play

This is a summary of your play. The same information is included in your printouts.



Dimmer/Device Feedback Log (6.2)

The Dimmer/Device feedback log (Browser >About) will show all logged dimmer feedback messages from:

- RDM (new in v6.2)
- CEM3 (new in v6.2)
- FDX (new in v6.2)
- CEM+
- Dimstat

Active errors are marked with red. A column "Type" will show the source of the error.

5. Dimmer/Device Feedback Log						
TimeStamp	Channel	Error	Status	Active	Type	
12/13/2011 9:13:31 AM	Channel 25	Sensor 'LED Head Temperature' over temp.	OK		RDM	
12/13/2011 9:13:31 AM	Channel 25	Sensor 'Control Temperature' over temp.	OK		RDM	
12/13/2011 9:12:19 AM	Rack: 1 (CEM3)	No DMX Port B	OK		CEM3	
12/13/2011 9:11:26 AM	Channel 25	Sensor 'LED Head Temperature' over temp. at 25.84°C	Error	✓	RDM	
12/13/2011 9:11:26 AM	Channel 25	Sensor 'Control Temperature' over temp. at 47.87°C	Error	✓	RDM	
12/13/2011 9:11:26 AM	Channel 25	Sensor 'LED Head Temperature' over temp. at 24.2°C	Error		RDM	
12/13/2011 9:11:26 AM	Channel 25	Sensor 'Control Temperature' over temp. at 47.85°C	Error		RDM	
12/13/2011 9:09:44 AM	8 (S430) Rack: 2 (CEM3 Rack)	AF Bkr Top 3	Error	✓	CEM3	
12/13/2011 9:04:10 AM	Rack: 1 (CEM3)	Fan Fail	Error	✓	CEM3	
12/13/2011 9:04:10 AM	Rack: 1 (CEM3)	No DMX Port B	Error		CEM3	
12/13/2011 9:04:05 AM	Rack: 1 (CEM3 Rack)	No DMX Port B	Error		CEM3	

Features

- The Active column 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.
- Select one or more rows in the Dimmer Feedback Log and press DELETE to remove them from the list.
- If general dimmer errors are active, there is a warning sign in the title bar (see below).



Sensor3 & Sensor+ Dimmer Feedback (6.2)

These devices will show up in the "Net3/ACN Device List" (Browser >General Settings >Network >Net3/ACN Device List).

Channel Display

When a channel is patched to an output that is associated with a Sensor3 or Sensor+ dimmer then that channel will indicate the state of that dimmer.

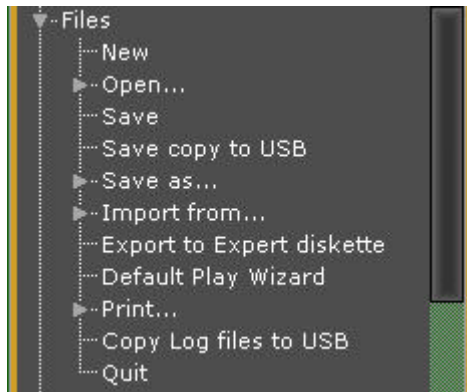
When the associated dimmer has an error or warning then the channel display will include a small warning sign as part of the display.

If a channel is selected, the number of active dimmer errors for the channel will be shown in the Info box below the Browser.

Files

The files node is where you can open, save, export and import show files. You can also save a default show, copy log files to a USB memory - and exit the system.

Files Node



This chapter contains the following sections

- [Files - Introduction](#)
- [New](#)
- [Open](#)
- [Save & Save as...](#)
- [Import from...](#)
- [Export to Expert diskette](#)
- [Default show data Wizard](#)
- [Copy Log files to USB](#)
- [Exit to System Settings](#)
- [Exit to Welcome Screen](#)
- [Power Off \(Quit\)](#)

Files - Introduction

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. If over 30 minutes have passed without saving, the time stamp will turn red (6.1).

All file handling is done from the File node (BROWSER >File).



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.

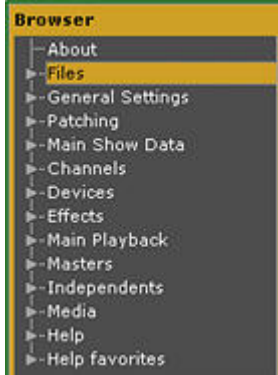
The Floppy drive is mainly an interface for importing shows from other systems using floppy such as Pronto, Safari, Expression, Strand 500-series etc. If your system does not have a floppy drive, connect one with USB or move the files to a USB memory stick. On

more information about importing shows files see [IMPORT WIZARD](#).

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

New (6.3)

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. <i>Select the Browser</i>	<input type="text" value="BROWSER"/>	The Browser is selected on the left side of screen 1. If the Browser already was selected - it will be closed. Press Browser again to reopen. 
2. <i>Go to "Files" at the top</i>	Arrow keys	Files is marked in orange
3. <i>Open the File node</i>	Right arrow	Opens a subtree of functions.
4. <i>Select "New"</i>	Down arrow	New is marked in orange
5. <i>Load a new play</i>	<input type="text" value="MODIFY"/>	Opens a dialogue - see below

If the current play has unsaved changes this dialogue will open;



After which this one will open:



If the current play has unsaved changes and has never been saved this dialogue will open instead:

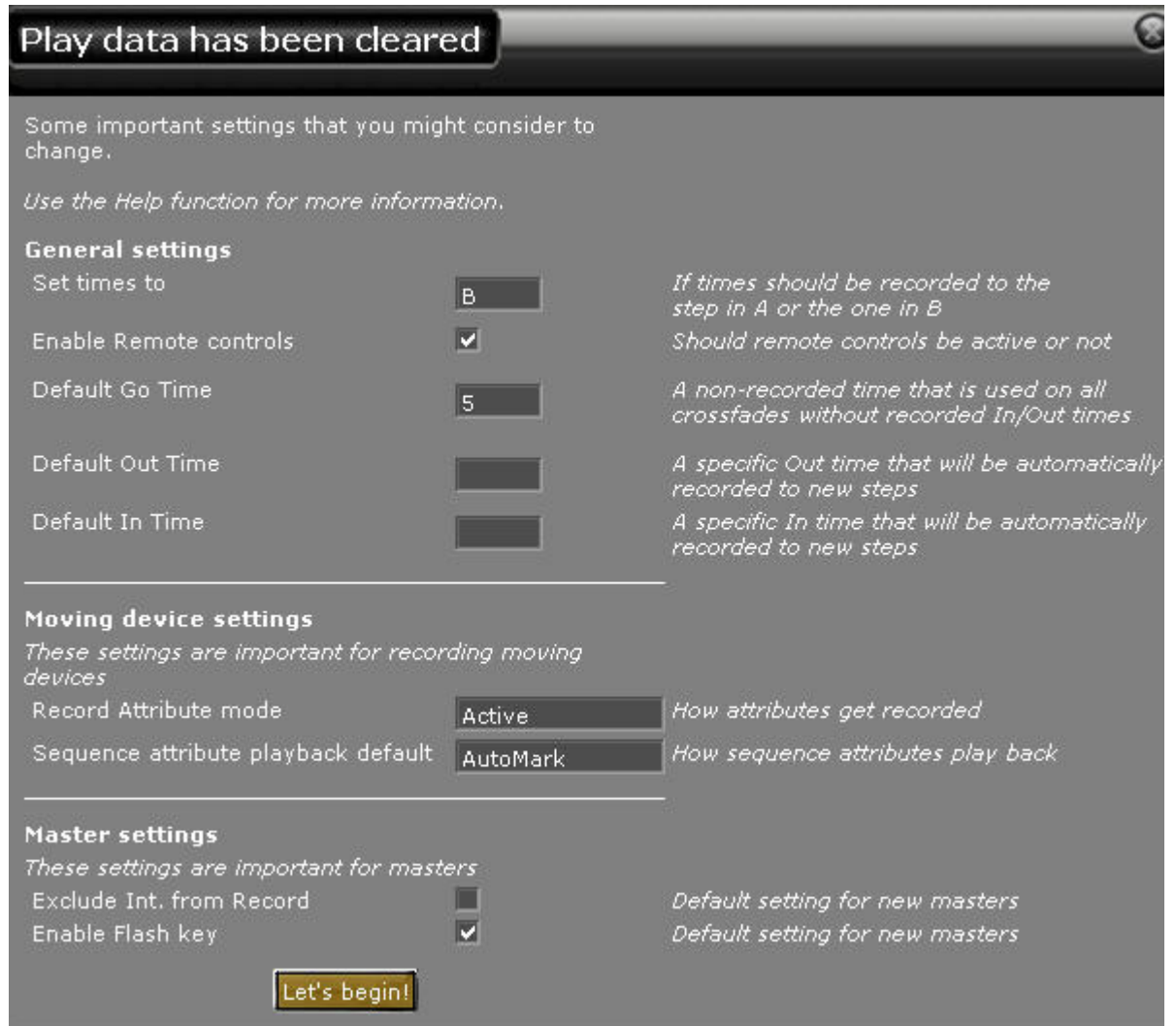


New Play Patch Options

These are the most important settings that you need to consider when starting a new Play in Congo.

First there is a dialogue asking you about the patch options for the new play. There is an option to use a **default** patch, a channel-to-dimmer **patch 1:1**, to start with **No patch**. See [Patch](#).

Then there will be a dialogue asking you to select the most important settings for the new play



General Settings

These settings affect default times and master recording in Live.

- **Set times to** - Options are A and B to set which sequence step will receive timing commands made Live. See [Sequences - Times](#).

- **Enable Remote Controls** - When checked, allows remote controls to interact with the lighting system.
See [Play Settings - System](#).
- **Default Go Time** - Sets the time used by sequence steps with no other recorded timing data.
See [Play Settings - Crossfade](#).
- **Default out Time** - Sets the out-fade time to be recorded to sequence steps.
See [Play Settings - Crossfade](#).
- **Default In Time** - Sets the in-fade time to be recorded to sequence steps.
See [Play Settings - Crossfade](#).

Moving Device Settings

These settings affect how moving devices are recorded and played back.

- **Record Attribute mode** - See [Device Recording - Modes](#).
- **Sequence attribute playback default** - [See Device Play Back - Attrib Move](#).

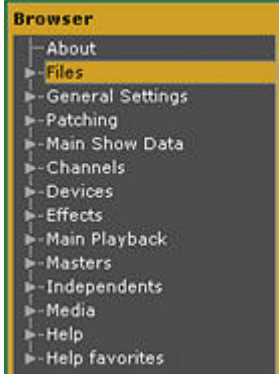
Master Settings

These settings are important for the general behavior of masters and master flash keys.

- **Exclude Int. from Record** - Excludes the intensities from masters when pressing Record (default is off).
- **Enable Flash key** - Sets Flash keys to be active (default is on).

Open

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

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

Delete a Play

You can delete a Play file by selecting it in the browser and pressing DELETE.

Save & Save as... (6.3)

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

To save using the Files node in the Browser:

Function	Key	Feedback
1. Open the Browser	BROWSER	If it was already selected it will be closed. Press again to open.
2. Go to Files	Down Arrow	Files is highlighted
3. Expand subnodes	Right arrow	Subnodes are expanded.
4. Select Save as	Down Arrow	"Save as..." is highlighted
5. Confirm	MODIFY	A dialogue is opened (see below). Choose target drive Play Archive (Hard drive in console), USB (if inserted) or Floppy (if connected).

Depending on if the current play was saved or not you will either get the "Save" dialogue



or the "Save as" dialogue



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

Creating Subfolders For Files (6.3)

You can create sub-folders for files with the INSERT command in the context menu (press SELECT SELECT or the INSERT console key) for the Play Archive node in Browser >File >Save as... >Play Archive.



Save Copy to USB (6.3)

There is an option to save a copy of the play directly to a USB memory stick. For example, this can be used to create a backup copy of the show.

BROWSER >Files >Save Copy To USB

Simply connect your USB memory stick and select this option.

NOTE (6.3)

You have the option of saving revisions 1-9 of a play every time you store it with the same name on the same USB memory if you use the Save... option to save to USB.

Import from... (6.3)

You can import part of any play into your current play, if you want to reuse color palettes, presets, groups or if you want to reload a previous version of an object such as a preset from an earlier version of the same play.

You can also import lists from Excel, LightWright or WYSIWYG. See [Channel Database - Import Text File Wizard](#).

This chapter describes the import functions. Parts about drag and drop are referred to the chapter about Drag and Drop. See [Drag and Drop](#).

Import from other lighting systems

If you are importing a play, or parts of a play from a different lighting system see exceptions and notes in this chapter.

1. Open the play - any play in Standard ASCII Light Cues format (name.asc or name.alq) can be opened directly.
2. Save the play as a normal Congo play.
3. Use this import Organizer to import parts of these plays.

CAUTION

We strongly advise you to save your Play before using the Import Organizer, since it can alter your Play greatly.

Import Organizer - Functions (6.3)

The basic functionality of the Import Organizer is that you can use drag and drop (mouse) or copy and paste (keys) to copy any type of data from an external play to the one in memory.



Importing single items

When you want to import a single item you have a choice of using drag and drop, or the copy/paste function.

Drag & Drop

1. Click and hold on the single item you want to import in the Organizer (import from) tab.
2. Drag the item to the same position in the Organizer tab and let go.
3. Confirm what kind of action you are doing in the drag and drop dialogue. See [Drag And Drop](#).

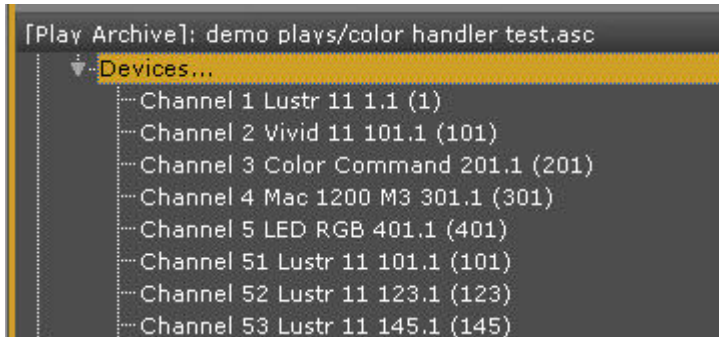
Copy/Paste

1. Use the arrows to select the single item you want to import in the Organizer (import from) tab.
2. Press COPY
3. Select the Organizer tab (TAB) and use the arrows to select the node you wish to import this item to.
4. Press PASTE
5. Confirm what kind of action you are doing in the drag and drop dialogue. See [Drag And Drop](#).

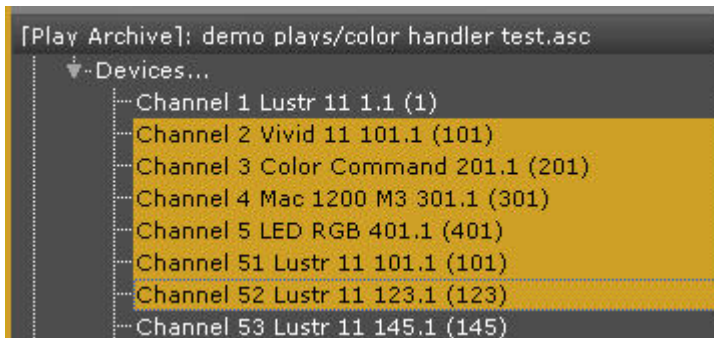
Importing multiple items

When you want to import multiple items, you do it in the exact same way as when importing single items. The difference is in how you select which items to import.

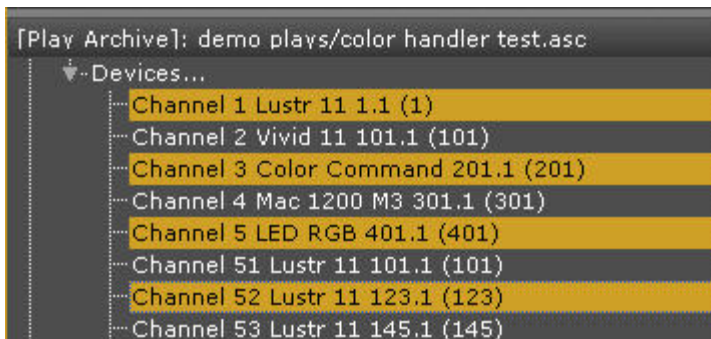
Select the top node to import all items of the same kind, like Sequence, Presets, Groups etc...



Hold SHIFT (keyboard) or SELECT and click to select a range of multiple items of the same kind. Hold SELECT and use arrows in console.



Hold CTRL (keyboard) and click to select multiple items of the same kind in a random order. This is only possible with mouse/trackball and keyboard.



Import - Types of items to import (6.3)

Here are some examples of items that can be imported from any play to the one in memory using the import function:

- Sequences
- Sequence steps
- Channel Times
- Device Links
- Master Links
- Action Macros
- Presets
- Groups
- Palettes
- Templates
- Patch
- Devices
- Effects
- Master Pages
- Scroller Rolls
- Channel Layouts

Import Items With Dependencies (6.3)

Many items in a Play are dependent on other items. For example, if you want to import a Focus Palette, it will be dependent on the specific device that is stored within it and the template of that device. To make it simple, there is an intelligent function under the hood that finds these dependencies and imports all related items for you.

These are the four situations with dependencies:

1. When you import a patch with devices, you will also import the device templates
2. When you import a palette, you will also import the related patch, devices and templates
3. When you import a preset, you will also import all related palettes, patch, devices and templates
4. When you import a sequence, you will also import all related presets, patch, devices, palletes and templates

Every time you make an import with dependencies you will first get a drop dialogue



And after this you will get a dialogue confirming the dependencies that have been imported as well.



Import From Other Lighting Control Systems (6.3)

Importing a show from another lighting system is easy, as long as it is saved in the Standard ASCII Light Cues format.

Basically the easiest way to get the information into Congo is to

1. Open the play - any play in Standard ASCII Light Cues format (name.asc or name.alq) can be opened directly.
2. Save the play as a normal Congo play.
3. Use the import Organizer in this chapter to import parts of these plays.

Check each system for specific conversion rules. The ASCII Light Cues format is quite old and contains standard definition of simple play data like dimmer patch, cues for intensity information, groups and submasters. More complex data, like moving light data and effects, is not defined in the standard. Some control systems' ASCII files contain data not included in the standard, some not. Congo can get differing amounts of data from these ASCII show files. Systems with expanded capabilities are described below.

NOTE

Due to some difference in play structure some play data may not be transferred.

Import from - ETC Express/Expression/Emphasis

Only ASCII light cue format is supported (files ending ".asc"). Export this using Expression Offline or within Emphasis. See the Express(ion) and Emphasis manuals for more details.

- 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 from - Strand

The following applies when opening a show with 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

Parts are translated to Channel Times. Strand consoles can store channels and values overlapping in Part cues in a 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 lose 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 from - Avab VLC Safari (6.3)

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.

These are ASCII Safari show file reading improvements in 6.3

- Additional palette types (4 and 5) are merged into Beam palettes. Note: If there is a corresponding Beam palette, its existing name will be kept. If there is no corresponding beam palette, the VLC palette name will be used.
- Sequences above 1 are read.
- VLC Effects are translated to Chase Sequences with numbers offset by 10 (similar to Presto import).

NOTE

Due to some difference in play structure some play data may not be transferred.

Import from - Avab Expert

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 allows 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 from - GrandMa

Congo can read GrandMA alq files. The tracking cues of GrandMA will be converted to full cues.

Export to Expert diskette

This option allows you to export the current play to a floppy disc in Avab Expert play format.

1. Connect an external floppy drive
2. Insert an empty floppy
3. Select Export to Expert diskette and press MODIFY

Default Play wizard (6.1)

The Default PlayWizard allows you to store various parts of your current show as a default file. The data in the default file will be offered when you start with a New Play.



Print

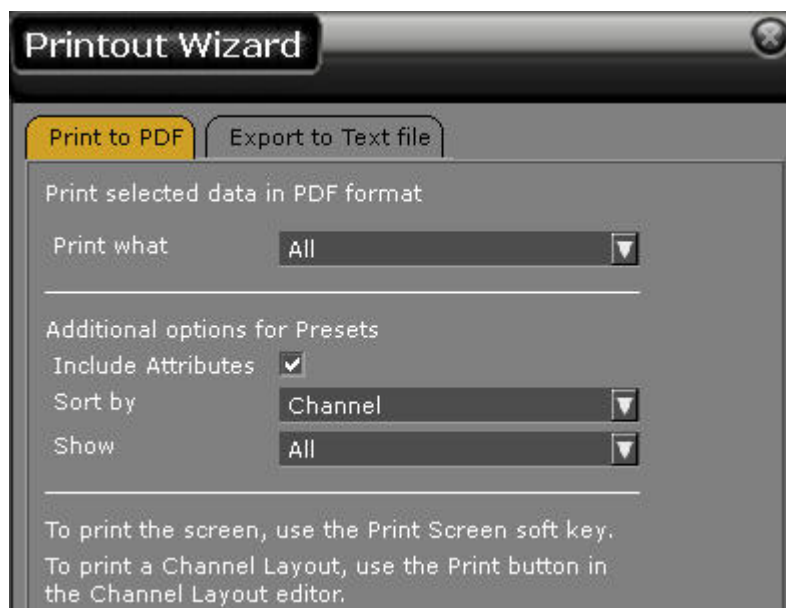
You can print play data to pdf files, sorted in different ways and in different formats. These files are copied to a USB memory and printed from any standard computer.

Patch and Channel Database can be exported to a comma separated text file, suitable for spreadsheet or database programs like Excel.

Channel Layouts are printed separately from the Channel Layout editor.

1. Open the Printout Wizard (*BROWSER >Files >Print...*)

This popup will appear

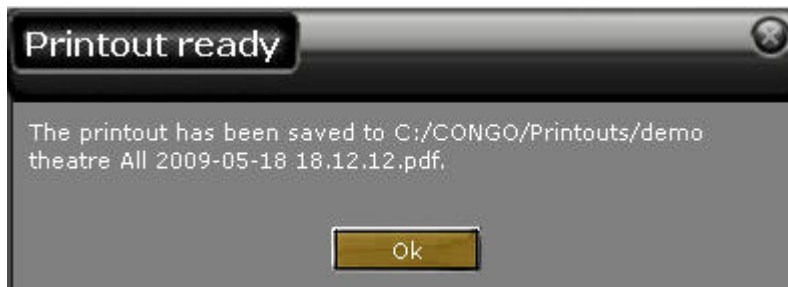


2. Select what to print to pdf (or select Print to Text)

- All
- Sequences & Presets
- Sequences
- Presets
- Groups
- Palettes
- Device List
- Channel Database (only those with texts)
- Channel List (only patched channels)
- Output List (only patched outputs)

3. Choose if you want to include attributes or not.
4. Choose if you want to sort by Channel, by level or by difference.
5. Choose if you want to print All channels or just those that are changed (more compact).
6. Press EXECUTE to confirm, two things will happen:
 - The print file will be stored under the print node in a node called PRINTOUTS.
 - If a USB memory is inserted before pressing EXECUTE, the files will be copied to it, in a folder called PRINTOUTS.

This popup will appear and show the name of the file consisting of the play name followed by the name of the printout and the date and time stamp.



Copy Log files to USB

This function will copy the log files that are automatically stored in case of a program termination to a USB memory so you can email them to ETC for analysis.

See [Troubleshooting - Crashes & Bugs](#)

Exit to System Settings

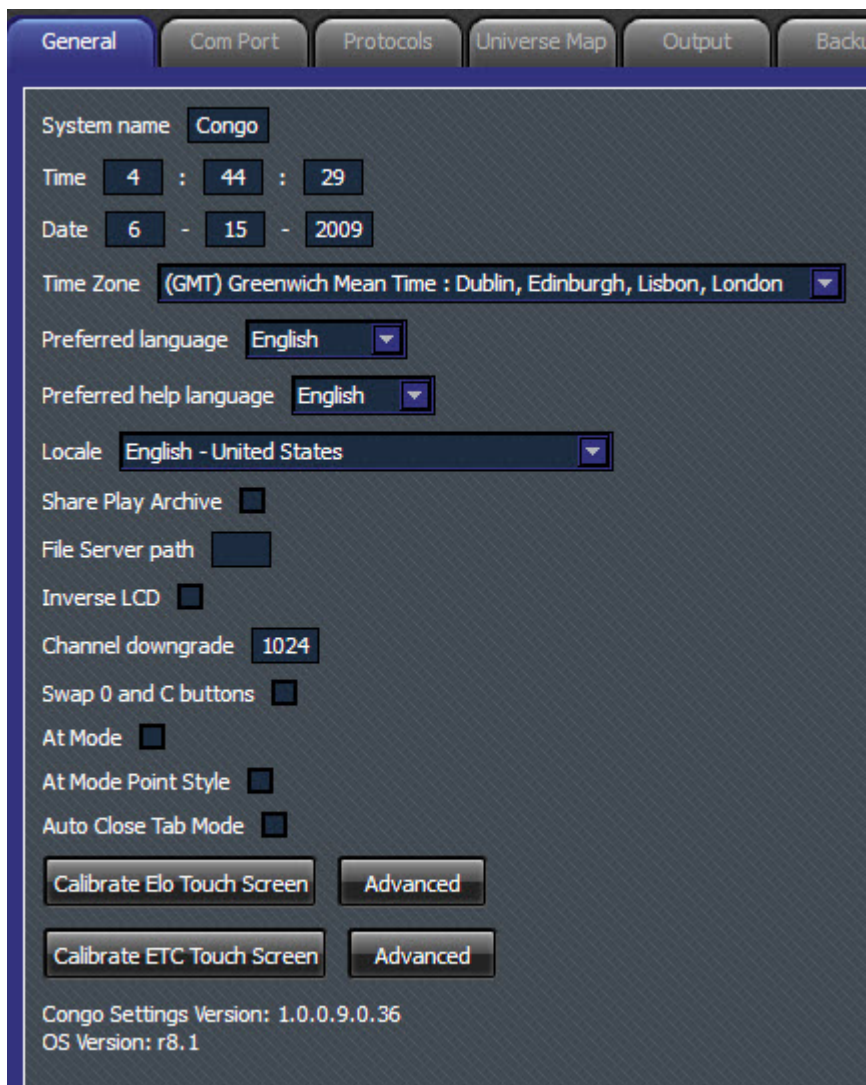
The System Settings is where you configure time, nationality, output, network, protocols and software update/upgrade.

The Congo System Settings are opened from the Welcome Screen, or from the Browser (Browser >Files >Exit To System Settings). If you start an offline system all of the options will not be available, since they relate to the hardware of a console.

- [System Settings - General](#)
- [System Settings - Com Port](#)
- [System Settings - Protocols](#)
- [System Settings - Universe Map](#)
- [System Settings - Output](#)
- [System Settings - Backup](#)
- [System Settings - Network](#)
- [System Settings - Monitor](#)
- [System Settings - Update](#)
- [System Settings - RFR](#)
- [System Settings - Utilities](#)

System Settings - General

These are the general System Settings.



The screenshot shows the 'General' settings tab for the Congo console. The interface includes a top navigation bar with tabs for 'General', 'Com Port', 'Protocols', 'Universe Map', 'Output', and 'Back'. The main settings area contains the following fields and options:

- System name:** Congo
- Time:** 4 : 44 : 29
- Date:** 6 - 15 - 2009
- Time Zone:** (GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London
- Preferred language:** English
- Preferred help language:** English
- Locale:** English - United States
- Share Play Archive:**
- File Server path:** [Empty text field]
- Inverse LCD:**
- Channel downgrade:** 1024
- Swap O and C buttons:**
- At Mode:**
- At Mode Point Style:**
- Auto Close Tab Mode:**

At the bottom of the settings area, there are two calibration buttons: 'Calibrate Elo Touch Screen' and 'Calibrate ETC Touch Screen', each with an 'Advanced' button next to it. The version information at the bottom reads: 'Congo Settings Version: 1.0.0.9.0.36' and 'OS Version: r8.1'.

System Name

This specifies the name this Congo console will use to identify itself on the network to other devices. It is displayed at the top of each screen.

Time & Date

Set time and date for this system.

Preferred Language

Select a language with MODIFY and confirm with MODIFY.

Preferred Help Language

Select a language with MODIFY and confirm with MODIFY.

Locale

This will change the way *dates* are entered, and the international *keyboard* setting.

Fileserver Patch

This is the default location to save show files. The full path must be typed in and specified in a legal Windows format.

Example

D:\congo\backup (internal path/folder)

\\anders\playfolder (external server name/folder)

\\192.168.1.1\plays (external IPaddress/folder)

Inverse LCD

Inverts the colors for the Master and Direct Select LCD's in the console facepanel.

Channel Downgrade

Reduces the number of control channels in a system. Default is 1,024 channels, but this may be increased to 3,072 on any Congo system.

Swap 0 & C

Swap the physical location of the numerical keypads 0 and C buttons (do so in the console as well physically).

At Mode

Sets At Mode for the console. An indicator will show that it is active, in the status bar at the bottom of all screens.

At Mode point style

This allows you to enter levels "5.5" for 55 and then ".6" for turning that into 56.

Auto Close Tab Mode

When this is checked you will close the previous tab when opening a new one, to keep the number of tabs down.

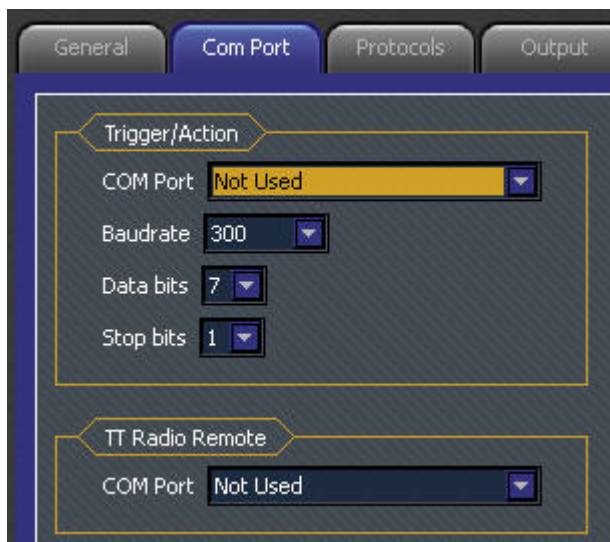
Calibrate Touch Screens

You can calibrate ETC TouchKit or ELO touch screens here

System Settings - Com Port

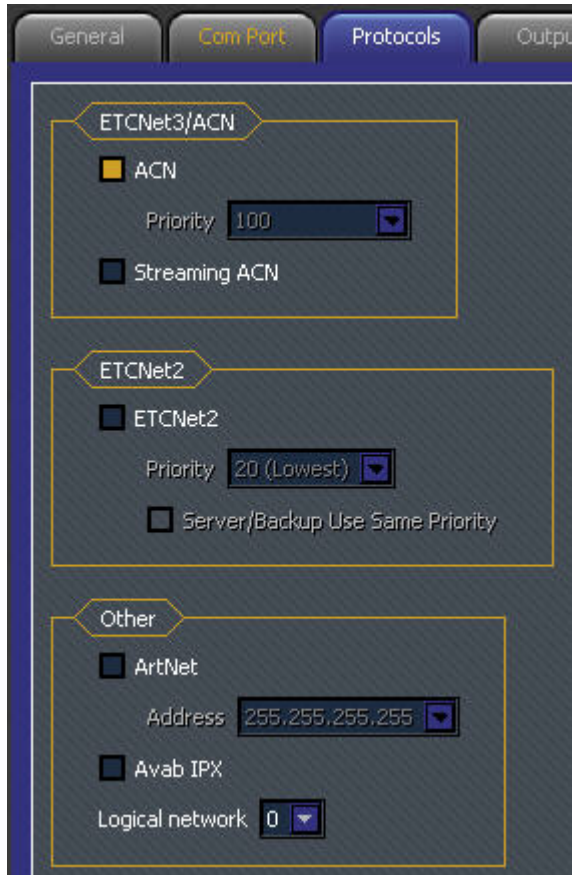
This is used to set up the COM port(s) of your Congo Jr or Congo Light Server system. This has to be defined if you are communicating to an external device through the serial port OR if you are using an older TT Radio Remote.

Consult the manual of your device for the required settings of the serial port. Please observe that you cannot use the same serial port for radio remote and trigger devices at the same time.



System Settings - Protocols

This is where you activate different output protocols.



Net3/ACN

Net3 is the equivalent of ACN. The system name that is exposed on Net3 is "Congo " + the system name.

There are two options:

- **ACN**
This needs to be enabled if you have units with bi-directional communication, like for example the Net3 I/O Gateway.
Priority: A Net3/ACN source can have a priority of 1-200. 200 is highest, and 1 is lowest. This parameter decides the priority status of this system if there are multiple sources (for example Congo and Unison). Sources with the same priority share on an HTP level. If there are different priorities, the highest one will "win".
- **Streaming ACN**
This is a broadcast protocol, like DMX over ethernet, designed to be simple. Check this feature if you are using devices or nodes receiving streaming ACN. Priority is

fetched from the setting above. In Offline mode, Streaming ACN is sent on priority 1. Visualisation software such as Capture require sACN for CITP.

ETCNet2

Activate if you are using any ETCNet2 nodes. The system name that is exposed on Net2 is "Congo " + the system name.

- **ETCNet2**
Priority: An ETCNet2 source can have a priority of 20-1. 1 is highest, and 20 is lowest. This parameter decides the priority status of this system if there are multiple sources (for example Congo and Unison). Sources with the same priority share on an HTP level. If there are different priorities, the highest one will "win". See ETCNet2 documentation.
- **Server/Backup Use Same Priority**
This setting inhibits the Congo Backup unit from activating at a higher priority than the server. Normally, the backup will activate at a higher priority to ensure that the system is being controlled by only one server. In some systems, however, control is shared by the Congo server and other consoles or architectural lighting control in such a way that having the backup jump a priority can cause unexpected behavior of the system. In those systems, it may be desired to force the backup to activate at the same priority as the server.

Other

Two other common third party protocols are ArtNet and AvabIPX.

- **ArtNet**
- Check this feature if you are using devices or nodes receiving ArtNet.
Address: Choose network and IP address if more than one is available.
- **Avab IPX**
- Check this feature if you are using devices or nodes receiving AVAB IPX. The settings of the Logical Network will affect the AvabIPX settings. Visualisation software such as WYSIWYG require Avab IPX to be ON.

UNIVERSE MAP

Opens the universe map tab.

System Settings - Universe Map (6.0)

Each server in a multiple server system requires a logical network of it's own. There are ten networks, 0-9. In each of these networks you can set a name, and the EDMX, sACN and Artnet mapping.



In a setup with several systems in the same network, such as for example a television studio, you can assign names to the networks belonging to each studio.

When the system is started these names will appear in the top right corner of the Welcome screen.



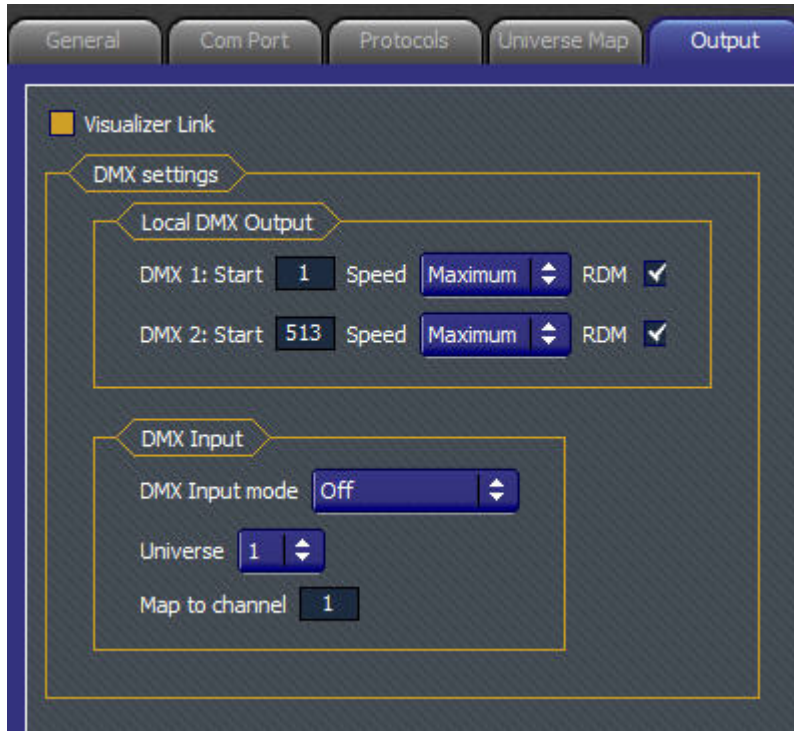
Use the up/down arrows to select and MODIFY to activate.

HINT

If you want to turn the protocol off for a specific universe, set it to zero.

System Settings - Output (6.4)

These are the settings for the DMX outputs of the consoles, and ethernet to visualizers.



Visualizer Link

Activates bi-directional communication with third party visualisation tools.

NOTE

When the software is started in Offline mode there is no DMX output.

DMX SETTINGS

Local DMX Output

Set the start output and output speed for the DMX outputs of the consoles. The main reason for changing output speed is that you are controlling older equipment that isn't compatible with full speed DMX.

Disable Local RDM (6.4)

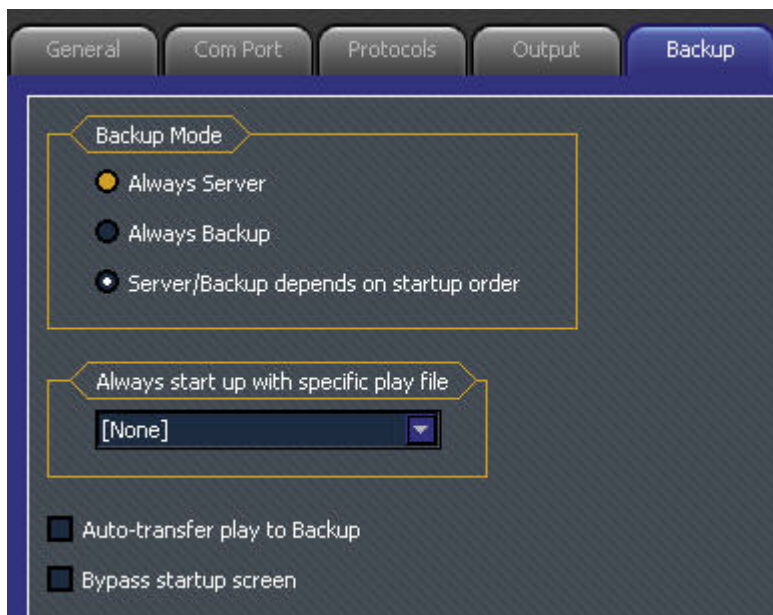
This checkbox allows you to deactivate local RDM on the DMX ports of the console.

DMX Input mode

You can activate DMX input for one DMX universe (selectable) though an ETC node from an EDMX or sACN universe and map it to a channel which will be the start channel for that universe. When DMX input is activated, master playback 20 will act as a master for the DMX input.

System Settings - Backup

These are settings mostly used in a Server/Backup situation, although some options may be interesting in a single Server system as well.



BACKUP MODE

Sets start mode of your choice for this system.

- Always Server
- Always Backup
- Server/Backup depends on startup order

ALWAYS START UP WITH SPECIFIC PLAY FILE

Select any play file to be auto-loaded at startup, skipping the startup screen. Suitable for museum and event applications. You can also select the option "Use last saved file".

Auto-transfer play to Backup

When checked, the Server will always transfer its play to the Backup when a new play is opened.

Bypass startup screen

Sets the system to boot directly into the lighting control software and load the last saved show - without having to pass the Welcome screen. This was designed for backup systems and Light Servers so that they can self-boot, and it may be desirable also for any situation where the system settings are not needed at power-up.

System Settings - Network

These are specific network settings for Net3 services and IP settings.

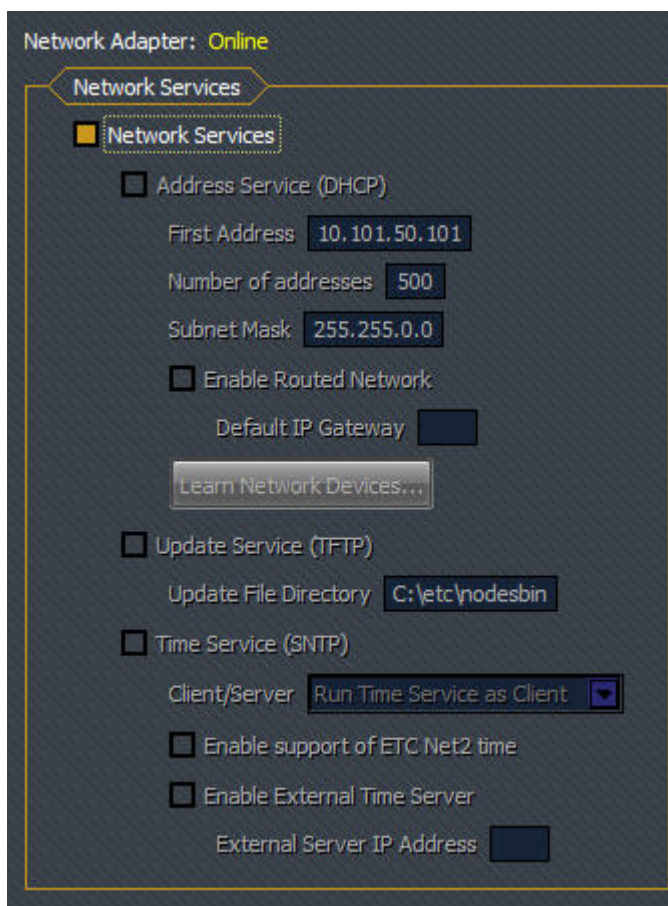


Network Adapter

This will say Online if a network is detected, otherwise it will say Offline.

NET3 SERVICES

Net3 Services are a suite of services that provide infrastructure support for a Net3/ACN network. Those services are a dynamic IP address server, a network time server and a file server. Each of these services are described below. Unchecking this box acts to disable all of the Net3 Services. Checking the box only enables services selected to be active.



Network Services

Clicking in the enable box will activate the Net3 settings for Address or Time Server, or TFTP (file transfer for software distribution).

Address Service (DHCP)

Net3 Services uses a DHCP (Dynamic Host Configuration Protocol) address server. DHCP is a TCP/IP protocol that dynamically assigns an IP address to a network device when it requests one. This is a small and simple DHCP server that is intended to be used on non-routed networks. It will not serve IP addresses across a router.

CAUTION: *There should only be a single DHCP server active on a network. It is possible to start more than one DHCP server on a single network (nothing is built-in to DHCP servers to prevent this from happening). If this occurs, it will result in unstable conditions and possibly result in network communications failures.*

Clicking in the enable box will start the DHCP server in the Congo console. It will use the settings below to determine which IP addresses it gives out.

- **First Address** - This sets the starting IP address for the range of IP addresses that the DHCP server will hand out.
- **Number of Addresses** - This sets how many IP addresses the DHCP server will give out. A setting of 500 means it will give out IP addresses to the first 500 devices that ask for an IP address.
- **Subnet Mask** - This sets the logical network size vs. the device address. ETC's default is 255.255.000.000 (class B). This is the subnet mask that the DHCP server will give to network devices.
- **Enable Routed Network** - This specifies the IP address of a router if one is present on your network. This is the gateway IP address that the DHCP server will send to network devices to use. ***If you are on a flat or non-routed network***, the Gateway IP address should match the IP address of the device. In order to configure this DHCP server to send out matching gateway IP addresses, ***configure this gateway IP address to match the First Address field***. Then the DHCP server will give out a gateway IP address that matches the IP address.
- **Learn Network Devices...**
Makes a refresh of all ACN network devices.

Update Service (TFTP)

Clicking in the enable box will start the TFTP (Trivial File Transfer Protocol) server.

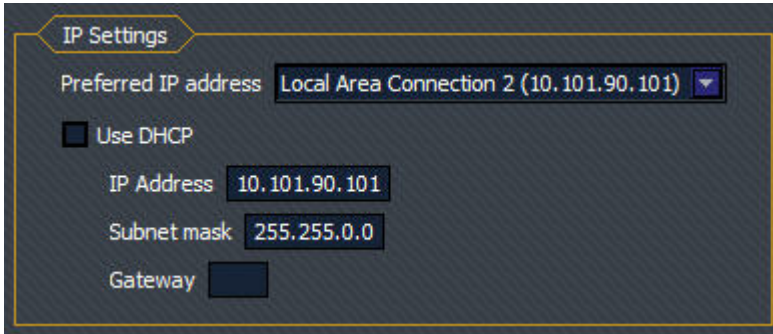
- **Update File Directory** - This sets the directory where files are to be served through TFTP. This must be the full path to the directory, including drive letter. For example: C:\etc\nodesbin

Time Service (SNTP)

Clicking in the enable box will start the SNTP (Simple Network Time Protocol) service. You determine if the service is running as a client (receiving time messages) or as a server (sending time messages) during the installation process.

IP SETTINGS

These are the settings that determine the *method* to get an IP address and/or the *actual IP* address information that Congo uses for network communication.



Preferred IP address

This tells Congo which network adapter it should use for communication with the lighting system. In consoles and Light Servers, there is only one network adapter so the Automatic (default) setting is fine. When Congo is run offline or on a Client PC, there may be more than one network connection on that PC (such as on laptops with both wired and wireless connections). In these cases you may need to tell Congo specifically which network connection to use to communicate with the lighting system or a connected visualization software application..

Use DHCP

Clicking in the enable box will set Congo to get its IP address dynamically from a DHCP server. While the console is starting, it will ask for an IP address from a DHCP server. If one responds, it will use the assigned IP address.

If no DHCP server is available, Congo will default to a self-generated link-local IP address in the range of 169.254.x.y. The IP address used by Congo in this configuration may change dynamically as needed. A change should typically only occur when there are changes to the network configuration or to resolve an IP address conflict.

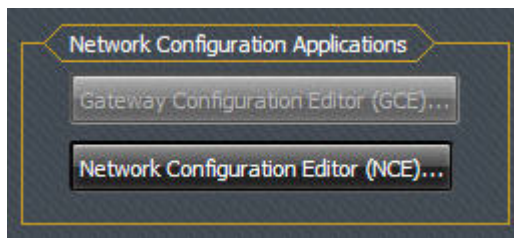
Enabling or disabling the DHCP setting will require you to reboot Congo for the new setting to take effect.

- **IP address**
 - If DHCP is *disabled*, you *set* the Congo IP address here. This is a static IP address and will remain set until changed by a user.
 - If DHCP is *enabled*, this field will *display* the IP address that is being used by the console (whether it is served via DHCP or a self-generated link-local IP address).
- **Subnet mask**
 - If DHCP is *disabled*, you *set* the Congo subnet mask here. This is a static setting and will remain set until changed by a user.
 - If DHCP is *enabled*, this field will *display* the subnet mask that is being used by the console (whether it is served via DHCP or a self-generated link-local IP address).

- **Gateway**
 - If DHCP is **disabled**, you **set** the Congo gateway IP address here. This is a static gateway IP address and will remain set until changed by a user. If DHCP is **enabled**, this field will **display** the gateway IP address that is being used by the console (whether it is served via DHCP or a self-generated link-local IP address).

Network Configuration Applications (6.0)

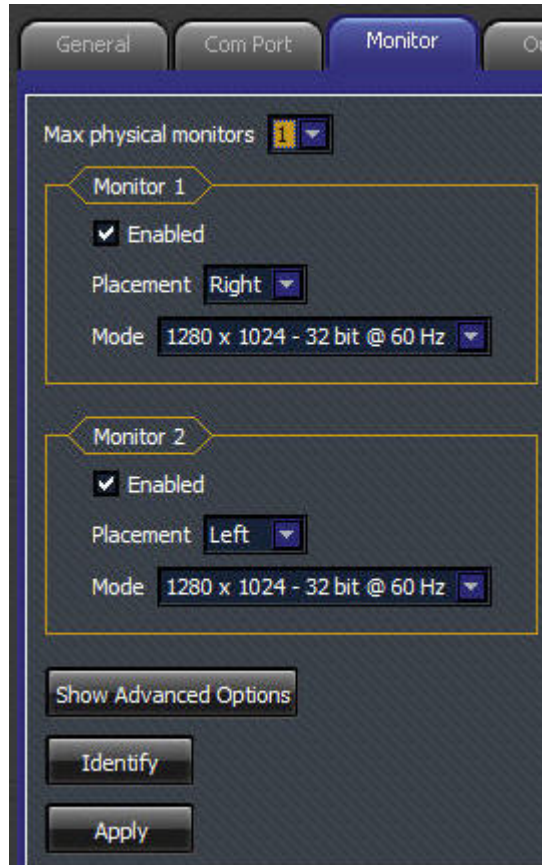
This is where you can configure your Net3 Gateways and ETC Networks. To be able to configure nodes from the console NCE and/or GCE have to be installed. Download the latest GCE from the ETC website, put it on a USB stick in the same folder as Congo installers and install it in the same way as you update the Congo software.



Please check the corresponding manuals for these products.

System Settings - Monitor

System Settings - Monitor



Max physical monitors

Select the number of physical monitors you want to run your system with. If you are running an offline version you can choose virtual screens.

Monitor 1

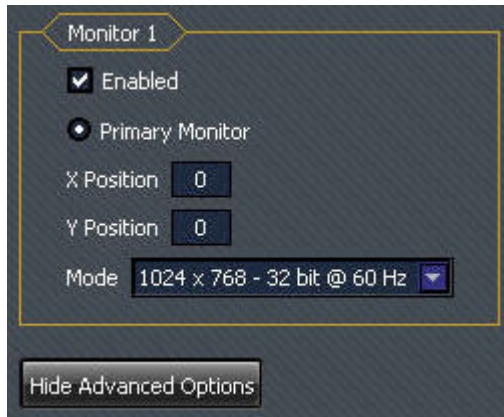
Check this enable box to change **Placement** (left/middle/right) or **Mode** (resolution).

Monitor 2

Check this enable box to change **Placement** (left/middle/right) or **Mode** (resolution).

Show Advanced Options

If you have a custom widescreen monitor with specific coordinates, you can use the Advanced Options.



Identify

Click here to identify all monitors with a number.

Apply

Click here to apply the current monitor settings with a time-out option to return to the previous settings.

System Settings - Update

You can **update** software, and **upgrade** the number of *outputs* your system supports.

- To update the software you need a USB memory stick with the latest congo.exe file from www.etcconnect.com that is inserted in a USB port before activating this tab.
- To upgrade the outputs you need an upgrade code from your ETC retailer.



Update Software

In a Congo Jr or Server **you will need a mouse** to do this. In the big Congo you can use the trackball.

Function	Action	Feedback
1. Download latest software	www.etcconnect.com	Save the file "congo.exe" on a USB memory stick
2. Put USB in Congo		-
3. Exit to Settings	"Exit to System Settings" node in the browser	You will open the system settings.
4. Go to Update	click on Update	
5. Select software in dropdown	click on Software Update dropdown	The Software Update dropdown is activated.
6. Select INSTALL	click on INSTALL	
7. Confirm Update Software	Follow the steps in the installation wizard	You will get an installation wizard to confirm all steps.
End update	Click on OK	Reboots console, and returns to the Welcome screen showing updated version.

System Settings - USB RFR

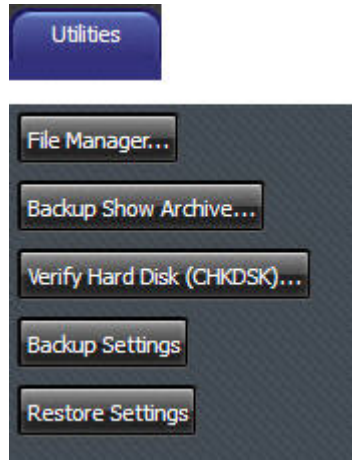
You can set HF (frequency) and Network ID (group) for each RFR remote. Simply make sure they correspond to your remote settings. You can also update the firmware of your RFR base unit and remote. For more information see [Remote Control - RFR Radio Remote](#).



For the remote to work both base station and console need to be set to the same HF and Network ID.

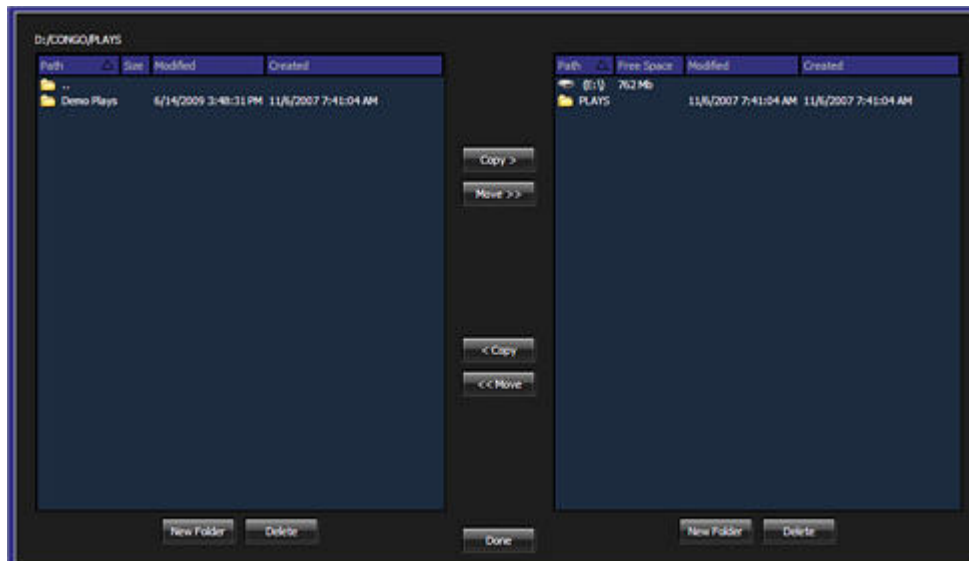
System Settings - Utilities (6.0)

These are some useful utilities for file handling.



FILE MANAGER

This opens a file manager utility for copying and/or moving files between Congo and a USB memory or file server.

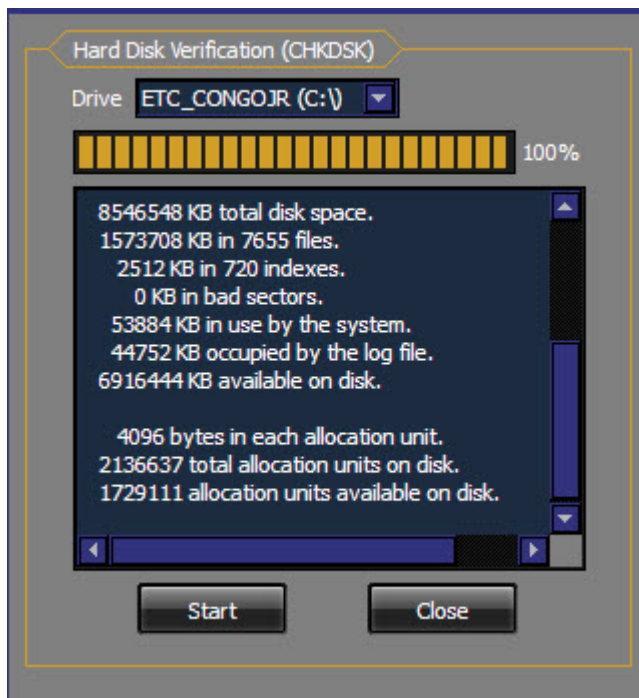


BACKUP SHOW ARCHIVE

Will copy all shows in the archive including backup plays to a USB memory.

VERIFY HARD DISK

Technical Services request that you do this as part of fault-finding. Select the appropriate drive letter and click START..



BACKUP SETTINGS

Creates a backup of your console settings in case you need to reimage the system.

RESTORE SETTINGS

Allows you to restore settings from a backup.

Exit to Welcome Screen

Press MODIFY to exit to the Welcome Screen. From here you can start as Server, Backup or Offline. You can open System Settings and Quit.

In the message box you will be notified

- If there are Congos with different software versions running on the same network.
- If the same sACN or Net2 universe is mapped to multiple Congo universes.



In the top right corner network and command syntax settings are shown when appropriate.



In the top left corner you will see if there are multiple user setups, for example for different tv-studios.



Power Off (Quit)

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

Function	Key	Feedback
1. Open the Browser	<input type="text" 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 Power Off	Down Arrow	Power Off is highlighted
5. Confirm Power Off	<input type="text" value="MODIFY"/>	You will get a popup asking you to confirm, and exit the system.

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

ETC recommends use of an external UPS (Uninterruptible Power Supply) to ensure the possibility to save your data and perform a proper shutdown of the Congo system in the event of an external power loss. The console and the monitor with the Browser should be connected to the UPS.

In early models of Congo with an internal UPS supply, on a power loss the screen background turns orange. 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

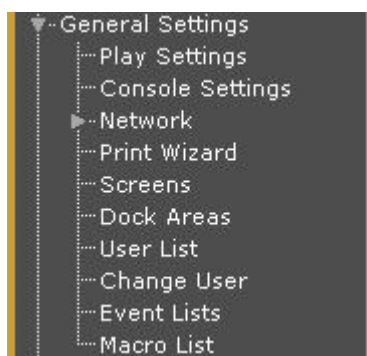
The current play will be saved to a temporary file called "SAVED.ASC". This file is loaded automatically the next time the Congo is powered up.

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.

General Settings

The General Settings node contains all the settings for the play, the console, networking, printing, dock areas etc.

General Settings Node



This chapter contains the following sections

- [Play Settings](#)
- [Console Settings](#)
- [Network](#)
- [Print Wizard](#)
- [Screens \(5.0\)](#)
- [Dock Areas](#)
- [User Login](#)
- [Event List](#)
- [Macro List](#)

Play 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

- [Play Settings - Introduction](#)
- [Play Settings - Let's Begin](#)
- [Play Settings - Channel](#)
- [Play Settings - Crossfade](#)
- [Play Settings - Master](#)
- [Play Settings - Effects](#)
- [Play Settings - System](#)
- [Play Settings - Attribute](#)
- [Play Settings - Show Control](#)

Play 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

- [LETS BEGIN](#) >A summary of the most important settings.
- [CHANNELS](#) >Configure default values and select Command Syntax.
- [CROSSFADE](#) >Configure default times, fader modes and fade direction.
- [MASTERS](#) >Configure Flash and fade on time and Auto-save master pages.
- [EFFECTS](#) >Configure "Remember Effect Parameters".
- [SYSTEM](#) >Configure Auto-save, rubberband, beep, remote etc.
- [ATTRIBUTES](#) >Configure default times and recording modes.
- [MIDI \(6.4\)](#) >Midi Settings
- [SHOW CONTROL \(6.0\)](#) >Configure Midi, Show Control and Time Code.

Play Settings - Basic

The "Let's Begin" settings are a cross selection of settings from all tabs that are very important to fill in before starting to work with a new show. [See New.](#)

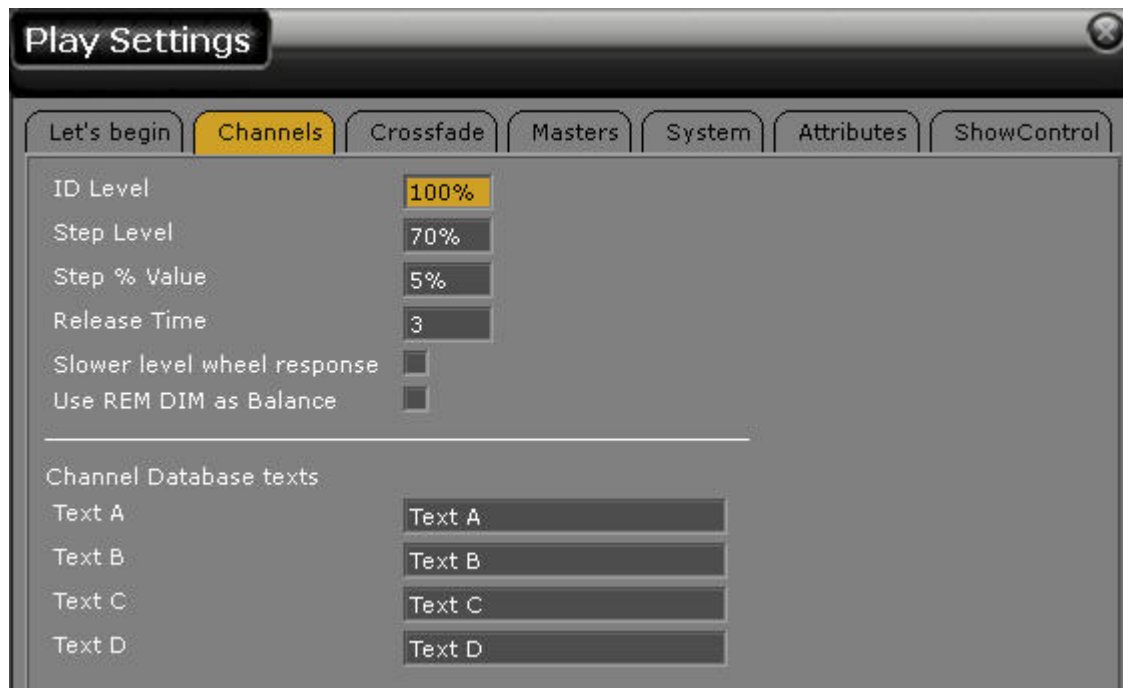
The screenshot shows a software interface for "Play Settings". At the top, there is a title bar "Play Settings" and a row of tabs: "Basic", "Channels", "Crossfade", "Masters", "Effects", and "System". The "Basic" tab is selected and highlighted in yellow. Below the tabs, the "Basic settings" section is titled and includes a descriptive sentence: "This is a summary of basic settings that will affect your programming experience". It contains five settings: "Set times to" with a dropdown menu showing "B"; "Enable Remote controls" with a checked checkbox; "Default Go Time" with a text input field containing "5"; "Default Out Time" with an empty text input field; and "Default In Time" with an empty text input field. The "Moving device settings" section is titled and includes a descriptive sentence: "These settings are important for recording moving devices". It contains two settings: "Record Attribute mode" with a dropdown menu showing "Active"; and "Sequence attribute playback default" with a dropdown menu showing "AutoMark". The "Effect settings" section is titled and includes one setting: "Remember effect parameters" with a checked checkbox. The "Masters" section is titled and includes a descriptive sentence: "These settings are important for masters". It contains two settings: "Exclude Int. from Record" with an unchecked checkbox; and "Enable Flash key" with a checked checkbox. At the bottom center of the dialog is a "Close" button.

Setting	Value
Set times to	B
Enable Remote controls	<input checked="" type="checkbox"/>
Default Go Time	5
Default Out Time	
Default In Time	
Record Attribute mode	Active
Sequence attribute playback default	AutoMark
Remember effect parameters	<input checked="" type="checkbox"/>
Exclude Int. from Record	<input type="checkbox"/>
Enable Flash key	<input checked="" type="checkbox"/>

Play Settings - Channels

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

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>Release Time</u>	Default release time for Captured channels	3**
<u>Slower level wheel response</u>	Reduces the response speed of the level wheel	Off
<u>Use REM DIM as Balance</u>	Sets the function of the REM DIM key to BALANCE	Off***
<u>Channel Database Texts</u>	Sets a text header for the Channel Database texts	-.****

** See [Channels - Capture Mode](#)

*** See [Channels - Balance Mode](#)

**** See [Channel Database](#)

Play 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.

Setting	Value
Default Go Time	5
Default Go Back Time	2
Default Out Time	
Default In Time	
Modify Sequence	<input type="checkbox"/>
Build Sequence	<input checked="" type="checkbox"/>
Crossfade both ways	<input type="checkbox"/>
Set times to	B
GOTO jumps to	Preset
Disable PB Rubberband	<input type="checkbox"/>
Always start dynamics on Go	<input checked="" type="checkbox"/>
Don't loop sequence	<input type="checkbox"/>
Don't advance playback	<input type="checkbox"/>
Show sequence numbers	<input checked="" type="checkbox"/>
Designer dock shows data from	B
Alert Alarm time	5
Beep on Alert	<input type="checkbox"/>

Crossfade Settings

The Crossfade Settings are general for the Main Playback.

Timing settings

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>Default Out/In Time</u>	Causes the specified time(s) to be automatically recorded into all new sequence steps, which will be used instead of the Default GO time.	

Playback mode settings

Function	Explanation	Default value
<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 added into 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

Specific playback settings

Function	Explanation	Default value
<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
<u>Don't advance Playback</u>	Crossfades will not advance any sequence steps automatically.	Off
<u>Show sequence numbers</u>	Display of Sequence Steps in the Playback tab.	On
<u>Designer dock shows data from</u>	Designer dock shows data from A or B	A
<u>Alert Alarm Time</u>	The time at which the warning (yellow and beep) will be issued before the Alert time is finished.	5
<u>Beep on Alert</u>	Audio Alert warning.	On

Play Settings - Master

In v6 most settings for the masters have moved into individual Master Settings. These are the global settings for the whole play.

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

The Master Settings are general for the Master Playbacks.

Function	Explanation	Default value
<u>Auto-Update master page</u>	Changes to a Master Page are stored automatically.	On
<u>Jam mode switch controls</u>	Sets Jam Mode for the switch	Two Scene masters
<u>Exclude Int. from Record (6.1)</u>	Excludes all master intensities from record actions in Live	Off
<u>Enable Flash key (6.1)</u>	Enables Flash mode to momentary (on) in all consoles and wing panels with physical flash keys.	On

Play Settings - Effects (6.1)

These are global effect settings for the whole play.

Press SETUP and use the right/left arrows to select the **Effects Settings** tab.

- Use the down arrow to select "Remember Effect Parameters"
- Use MODIFY to toggle on/off. The default value is on.



When this is set to "on" all effect parameters are stored and recalled when you shut down the system, regardless if they are stored into palettes or presets or not.

Play 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

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	On
<u>Remote Control</u>	Activate Radio remote focus units and remote trigger.	On
<u>Auto-save on Record</u>	Saves the Play after each time you press RECORD. Caution , this can take some time with large play files.	Off
<u>Auto-send play on Record</u>	Sends the play to the Backup after each time you press record.	Off
<u>Auto-stop Dynamics in PB</u>	Loading a new Sequence to the Main Playback stops all running Dynamics started from the current Sequence.	Off

Play 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 (6.0)

The Attribute settings affect recording and control of moving device parameters.

Recording and control functions

Function	Explanation	Default
<u>Sequence attribute playback default</u>	Record attributes to move "live" (GoOnGo), when the positions are loaded for the next Crossfade (GoInB) or Auto Move.	Auto Mark*
<u>Record Attribute mode</u>	There are different modes for recording Attributes. See Device Recording - Modes . See Attrib Move in Sequence List - Functions .	Active
<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>	When checked, holding down the Wheel Key gives 'fine' control on the parameter wheel. When unchecked, moving the wheels slowly gives fine 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>Sort devices by type (6.0)</u>	Specifies if attribute views should be sorted by channel number or by device type	Off

*You can change this separately for each Sequence Step in the [Sequences - Sequence List](#).

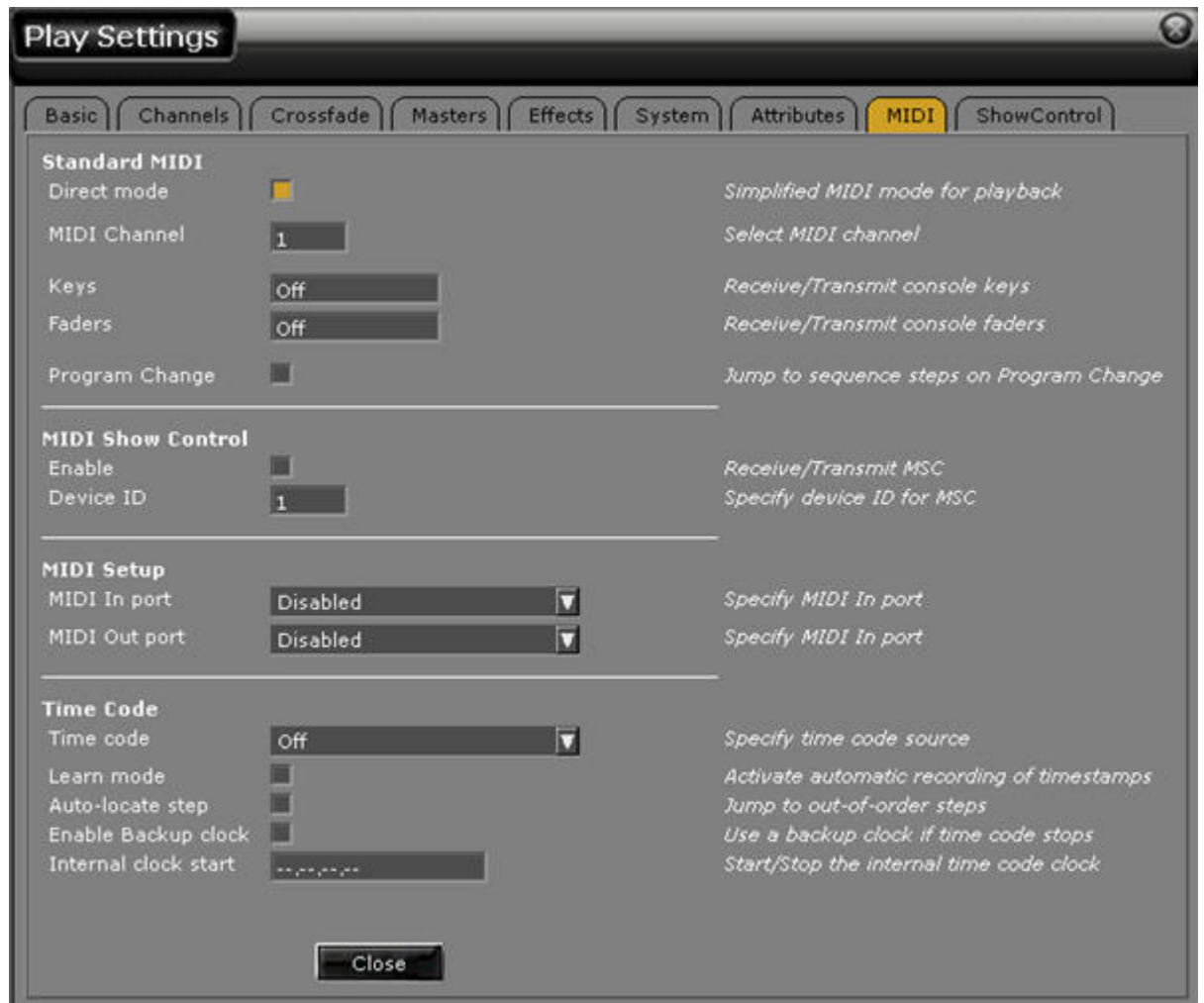
Time settings

Function	Explanation	Default
<u>F-Del</u>	A default delay time in seconds or % (of the In time), used when recording Preset with Attributes.	0 seconds
<u>C-Del</u>	See above	0 seconds
<u>B-Del</u>	See above	0 seconds
<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%

Play Settings - MIDI (6.4)

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.



Standard MIDI (6.4)

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. The Congo can also be set to activate a specific crossfade when receiving a Program Change command through MIDI. See [MIDI](#).

Function	Explanation	Default value
<u>Direct mode</u>	Midi Direct Mode (6.4)	On
<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 #	-

MIDI Show control

Congo supports sending and receiving of MIDI Show Control (MSC) commands. See [MIDI - MIDI Show Control](#).

Function	Explanation	Default value
<u>Enable</u>	Activates reception of MSC.	Off
<u>Device ID</u>	Sets a Device ID for this Congo.	1

Time Code

Every sequence step can be triggered both manually, and by a specific MIDI Time Code time on the MIDI port. See [MIDI - Time Code](#).

Function	Explanation	Default value
<u>Time Code</u>	MIDI Times Code reception is on.	Off
<u>Learn mode</u>	Activate learn mode for setting Time Code to Sequence Steps.	Off
<u>Auto-locate step</u>	Sets if Time Code should auto-locate steps or not.	Off
<u>Enable Backup clock</u>	Enables the backup clock	Off
<u>Internal clock start</u>	Sets a start time for the internal clock.	--:--:--:--

Direct Mode MIDI (6.4)

Direct Mode is designed to allow you to connect any MIDI equipment to Congo and be able to make it work, providing it is sending the corresponding MIDI commands.

MIDI - Direct playback mode				
Notes	MIDI Channel	Start at Number	End at number	Count
Master 1-20	1	0	19	20
Flash 1-20	1	20	39	20
Page+/Page-, block 1	1	40	41	2
Master 21-40	2	0	19	20
Flash 21-40	2	20	39	20
Page+/Page-, block 2	2	40	41	2
Master 41-60	3	0	19	20
Flash 41-60	3	20	39	20
Page+/Page-, block 3	3	40	41	2
Master 61-80	4	0	19	20
Flash 61-80	4	20	39	20
Page+/Page-, block 4	4	40	41	2
Direct Select 1-40	1	50	89	40
Direct Select Page 1-5	1	90	94	5
Independent 7-9	1	100	102	3
GO, Pause, GoBack	1	103	105	3
Refresh?	1	106	106	1
Controllers				
Master 1-20	1	0	19	20
Master 21-40	2	0	19	20
Master 41-60	3	0	19	20
Master 61-80	4	0	19	20
Crossfade A, B	1	100	101	2

MIDI - Direct playback mode				
Speed Control A, B	1	102	103	2
GrandMaster	1	104		1
Independent 1-6	1	110	115	6
Program Change				
Page, block 1	1	0-127		128
Page, block 2	2	0-127		128
Page, block 3	3	0-127		128
Page, block 4	4	0-127		128
Jump in main playback	5	0-127		128
MSC				
Extend to allow control of all masters.				

Play Settings - Show Control

Press SETUP and use the right/left arrows to select the **Show Control Settings** tab.

- Use the down arrow to select a cell.
- Use MODIFY or # MODIFY to change values.



The screenshot displays a settings menu with two main sections: DSC and UDP Strings. The DSC section includes an 'Active' toggle (checked), 'Input Port' (8000), 'Output Port' (7000), and 'Output IP(s)'. The UDP Strings section includes 'Input Port' (0), 'Output Port' (0), and 'Output IP(s)'. Each input field is a dark grey box with white text.

Section	Parameter	Value
DSC	Active	<input checked="" type="checkbox"/>
	Input Port	8000
	Output Port	7000
	Output IP(s)	
UDP Strings	Input Port	0
	Output Port	0
	Output IP(s)	

Show Control Settings

The Show Control Settings are general for the system.

UDP Strings (6.2)

UDP (User Datagram Protocol) is a communications protocol where messages are exchanged between computers in a network that uses the Internet Protocol (IP). See [UDP data](#).

In Congo UDP allows you to use the Ethernet network to:

- Receive Congo specific Action Macros directly from another unit, without having to first create a trigger and event.
- Send any proprietary string of data to another unit that can receive commands over UDP

Function	Explanation	Default value
<u>Input Port</u>	The Input Port Congo listens to	0
<u>Output Port</u>	The Output port Congo sends to	0
<u>Output IPs</u>	The Output IP(s) Congo sends to, add multiple and separate with semicolon ";".	0

OSC (6.3)

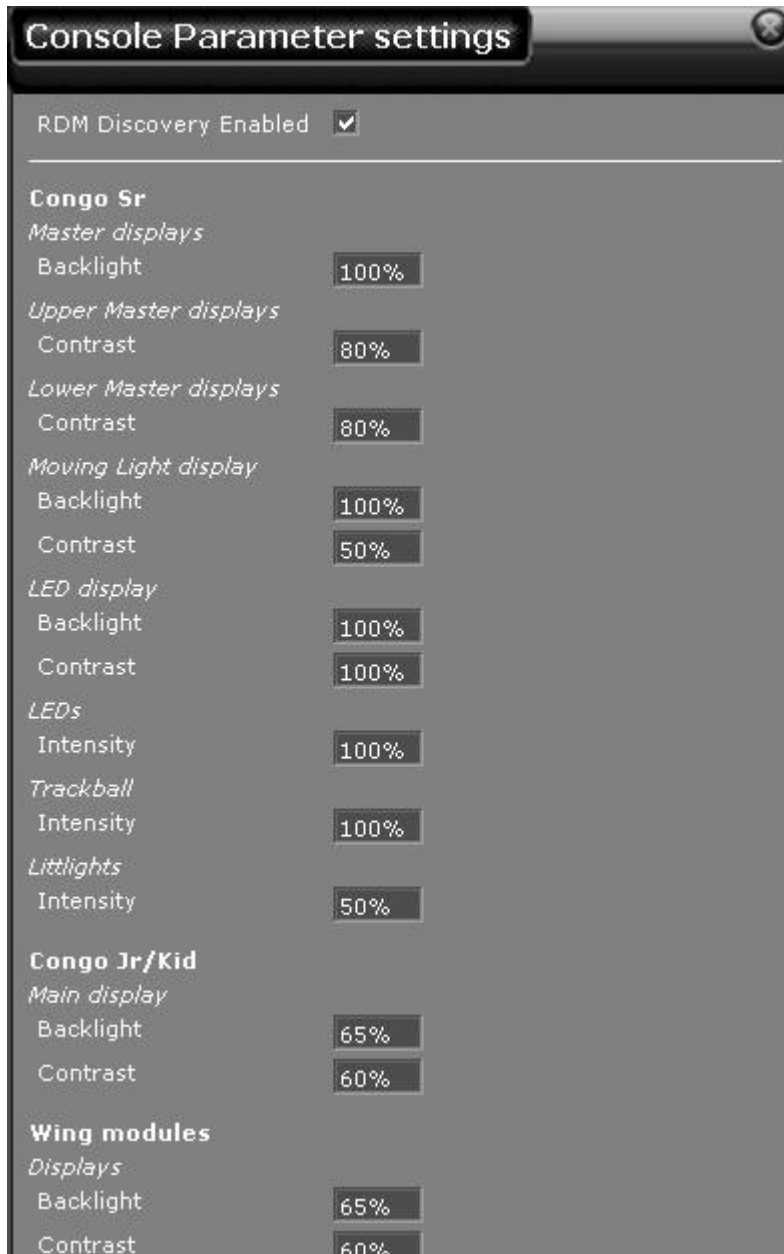
Open Sound Control (OSC) is a content format for messaging among computers, sound synthesizers, and other multimedia devices. See [OSC Functionality](#).

Function	Explanation	Default value
<u>Activate</u>	Activate OSC	Off
<u>Input Port</u>	The Input Port Congo listens to	8000
<u>Output Port</u>	The Output port Congo sends to	7000
<u>Output IPs</u>	The Output IP(s) Congo sends to, add multiple and separate with semicolon ";".	-

Console Settings

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.



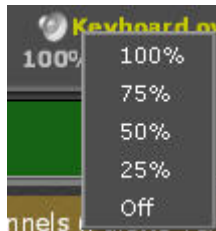
Sound Settings (6.3)

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.



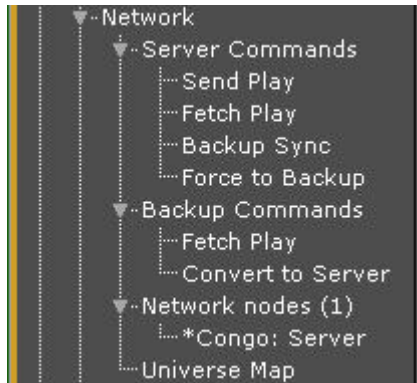
This will take effect immediately and is NOT related to different play files.

You can also right-click on the speaker to open a context menu for setting sound levels (6.3).



Network

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.

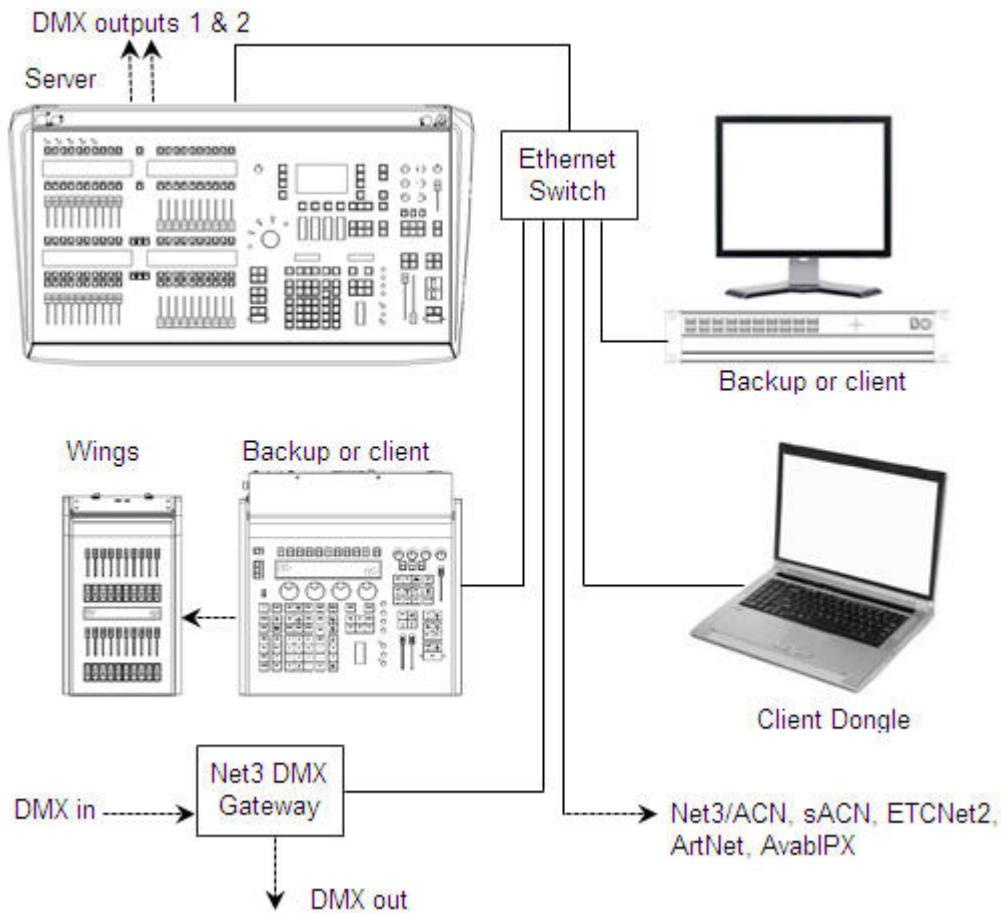


This chapter contains the following sections

- [Network - Introduction](#)
- [Network - Functions](#)
- [Server Commands](#)
- [Backup Commands](#)
- [Network nodes](#)
- [Universe Map](#)

Network - Introduction

A Congo network consists of a Server and a Backup, and/or Clients. A Server can have up to ten Clients.



NOTE

Any Congo, Congo Jr, Congo Kid or Congo Light Server can be started as Server, Backup or Client. A backup can only back up within its channel and output limitations.

General Facts

- A system can be setup to start as either Server, Backup or auto-detect.
- 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

See [System Settings - Networking](#).

Network - Functions

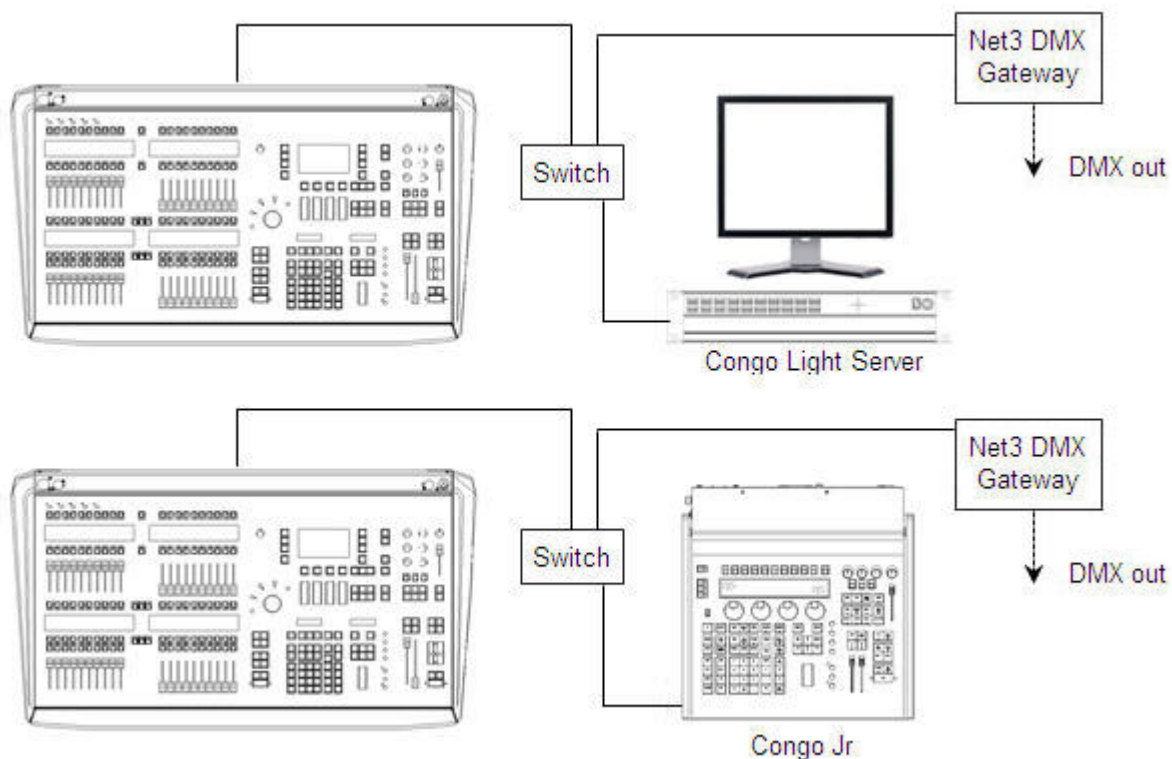
These are the general network functions.

This chapter contains the following sections

- [Network - Server/Backup](#)
- [Network - Client](#)
- [Network - Multiple Users](#)

Network - Server/Backup

Backup consoles/Light Servers are used when it is imperative that control of the lighting system be maintained in the event of a failure of the server. A Backup sends no data to the lighting system until it has activated and taken over by converting to a server (either manually or automatically due to loss of communication with a server).



It is possible to use a crossed cable with just two consoles. But if you are using Server and Backup, you should use a Switch AND have a Net3 gateway (or similar) that is taking care of the output of DMX. 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

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

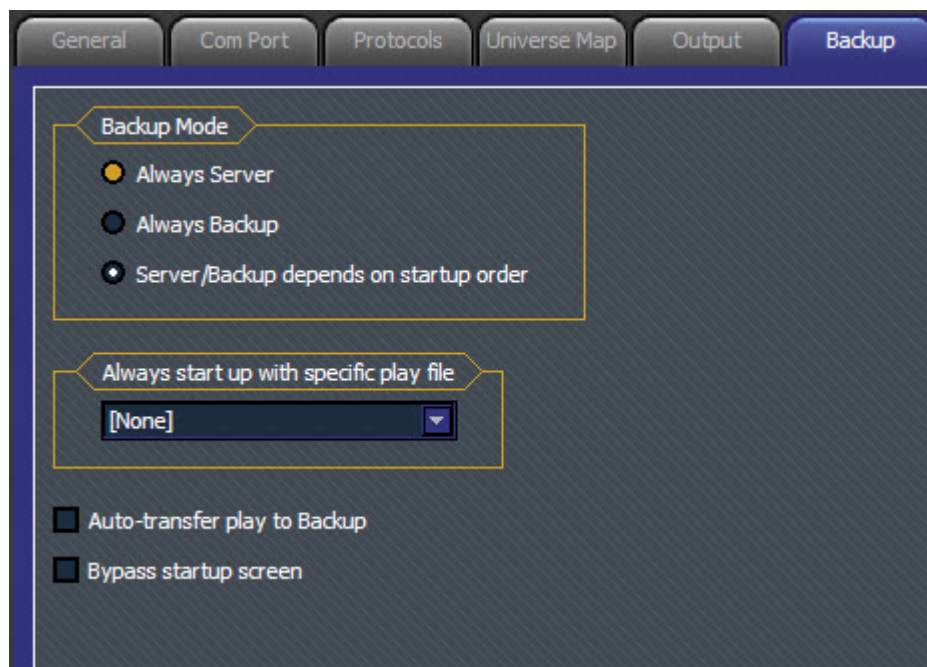
You can connect to ETC nodes with a Switch (avoid routers, they tend to complicate things). Congo consoles/Client PCs should be given IP addresses in the 10.101.201.101+ range when used with ETCNet2. Please see the ETCNet2 v4 Planning Guide for information on configuring an ETCNet2 network.

Network - Backup Setup

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 Welcome Screen .

1. *Exit to the system settings if Congo is running (Browser >File node).*
2. *Open System Settings*
3. *Select Backup Setup at the bottom.*



NOTE

If using fixed roles (always server or always backup) make sure that both consoles are configured into a fixed role (one as server and one as backup).!

When the **Auto-transfer** setting is checked in **both** Server and Backup, the following actions will be performed each time you make a New, Open, Save or Save As command on the Server:

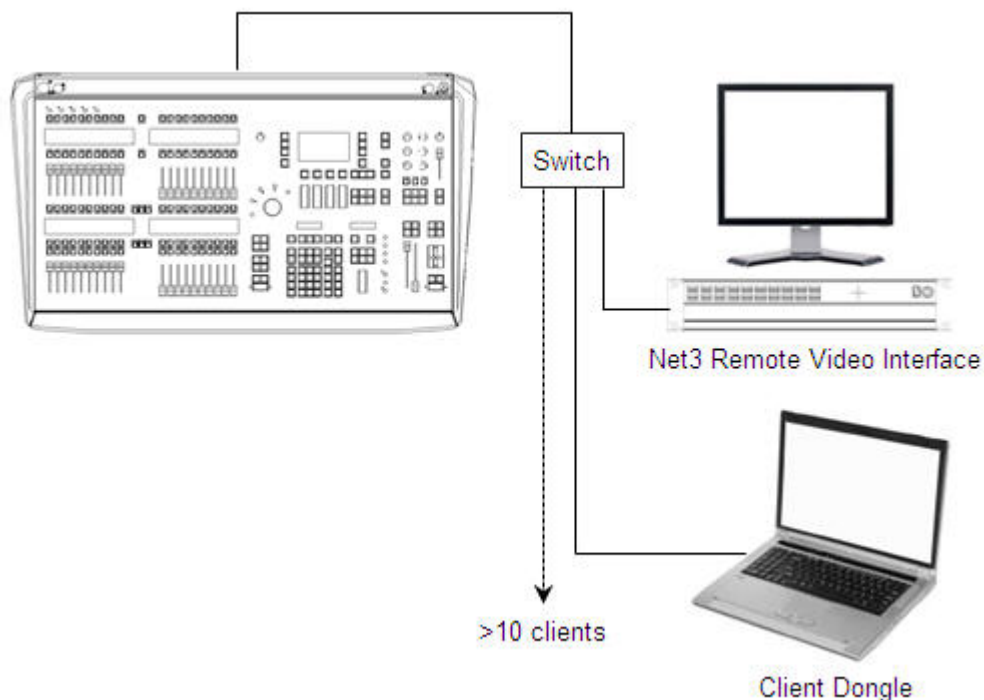
- Transfer play to the Backup.
- Save play on the Backup.
- Activate Sync mode.

You can also set the system to transfer the play automatically every time you record a preset, in the Recording Setup. Hold SETUP and press RECORD.



Network - Client

You can use the ETC Net3 Remote Video Interface or a personal computer as a client. You can connect a maximum of ten clients to a server. You need a dongle to run the software in a personal computer as a Client to an existing Server. See [Net3 Remote Video Interface](#).



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.

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.

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

In a Multi User setup there will always be a Server. You can connect up to ten clients to this Server. Each client can access and work independently with the data of the Play in the Server. Playback controls are shared (See [Multiple Users - Global Functions](#)).

This is a true client/server system. This means that all light output is calculated and output from the Server at all times.

To set up a Multi User system it is important to do things in a specific order. It is also important to structure the working method of the Users since they will all be sharing the same system. A Backup can be connected to the Server - Note that it is not to be used as a client - it is a Backup.

Patch First!

Start by patching the whole system, with devices and everything. See [Patch](#). Basically you can connect several clients directly after patching, to a Server, or Server/Backup system - and each client can access the whole system in parallel with the other clients.

Option: Define Partitions

You can define Partitions that can be activated for different users. The Partitions can be helpful to avoid one user affecting channels of another user. Make sure you do this BEFORE activating Partitions or User Logins other than the default ones. See [Partitions](#).

Option: Define Users

If necessary, define User Logins for different work stations. The User Logins may be of help when different users try to access the Server - partly because there are personal settings, and partly because Partitions can be set to default and automatically be activated when a specific User logs in. See [User Login](#).

Multiple Users - Global Functions

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 are global. This means any user can control them for the whole system.

Multiple Users - Local Functions

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.

Server Commands

These are the general Server functions.

This chapter contains the following sections

- [Send Play](#)
- [Fetch Play](#)
- [Backup Sync](#)
- [Force To Backup](#)

Send Play

Play data is not replicated automatically - for security reasons. A play can only be sent from Server to Backup. Always send or fetch the most current play before running a show.

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 Send Play and press MODIFY. 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 Commands](#).

Fetch Play

Play data is not replicated automatically - for security reasons. Always send or fetch the most current play before running a show.

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 Fetch Play and press MODIFY. 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](#).

Backup Sync

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 the Main or Master Playback.
- 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](#).

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.

Force To Backup

Force To Backup is only used if there are two servers in a network, due to network dropouts.

- 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 >Server Commands >Force to Backup.*
- 3. Select **Force to Backup** and press MODIFY. You will get a confirmation message in the bottom of the screens.*

Backup Commands

These are the general Backup functions.

This chapter contains the following sections

- [Fetch Play](#)
- [Convert To Server](#)

Fetch Play

Play data is not replicated automatically - for security reasons. Always send or fetch the most current play before running a show.

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 Fetch Play and press MODIFY. 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](#).

Convert To Server

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.



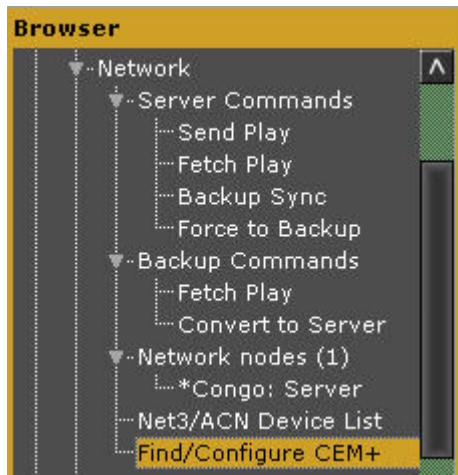
Changing manually

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 **Convert To Server** and press MODIFY. You will get a confirmation message in the bottom of the screens.

Network nodes

This node shows all Congo devices on the network, including the one you are working on, which is indicated with a * before the name.

You can see the role, IP address and logical network in the Info area. See [System Settings](#).



Find/configure CEM +

This opens an explorer window to discover CEM dimmers on the network.



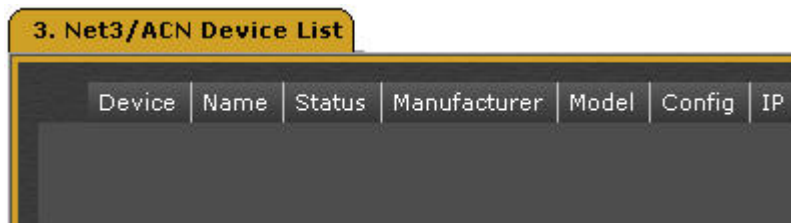
See the manual for the CEM dimmers for more information.

Net3/ACN Device List

Lists all Net3 Devices in the network, and allows some editing. Congo servers and backups will automatically connect to discovered CEM3s as it does with CEM+s when it is configured to do so. Congo console will attempt re-connect CEM3s when a network disconnect occurs as it does with CEM+s.



Press MODIFY to open the Net3/ACN Device List

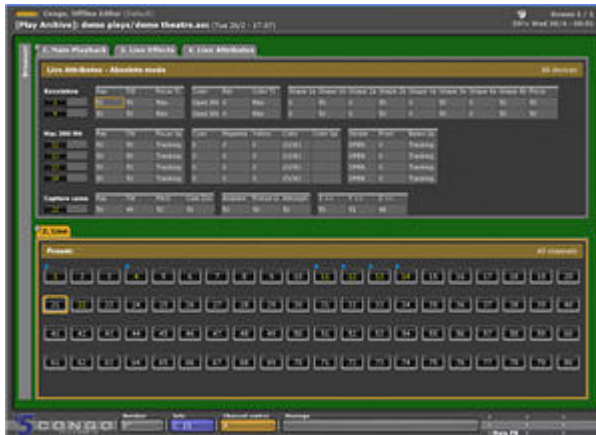


HINTS (5.1)

RFR BaseStation and RFR Handheld devices are shown in the list.
RFR Host is shown as active.

Screens

There are 100 definable memories for all screens including zoom, channel format and split tabs. They are stored in the Direct Selects, as Screens.



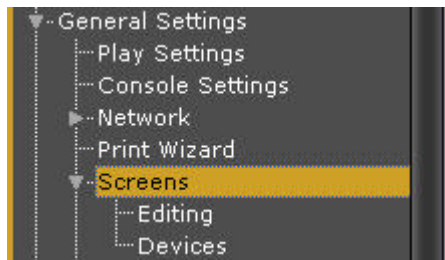
Action	Console	Feedback
1. Select Type	<div style="border: 1px solid black; padding: 2px; display: inline-block;">TYPE</div> & <div style="border: 1px solid black; padding: 2px; display: inline-block;">SCREEN</div>	When TYPE is held you can press SCREEN in your choice of Direct Select Section.
2. Record the current screen settings (5.0)	<div style="border: 1px solid black; padding: 2px; display: inline-block;">RECORD</div> & <div style="border: 1px solid black; padding: 2px; display: inline-block;">Section Key</div>	The current screen settings are stored to that key. A number will appear over the key.

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

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

Screen Names

Open the screen list in the Browser >General Settings >Screens, to see and edit names.



Select the Text cell, press MODIFY and enter a text.

3. Screen Layout List

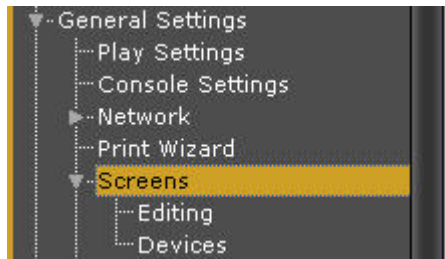
Layout	User	Text
1	Default: 1	Editing
2	Default: 2	Devices

Load screen (6.0)

You can load a screen from the direct selects or from the Browser. To load from the Browser, select the screen and press MODIFY or double click.

Delete Screens

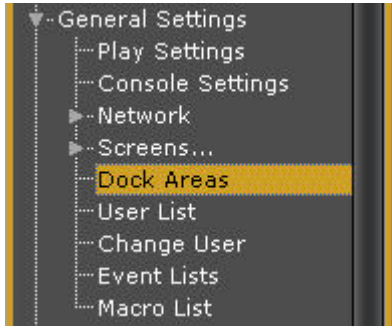
Open the screen list in the Browser >General Settings >Screens, to see and delete screens.



Select a screen and press DELETE.

Dock Areas (6.1)

Congo is designed so windows never overlap. Instead there is a concept of tabs that are opened in the middle of each screen, and dock areas around them.



This chapter contains the following sections

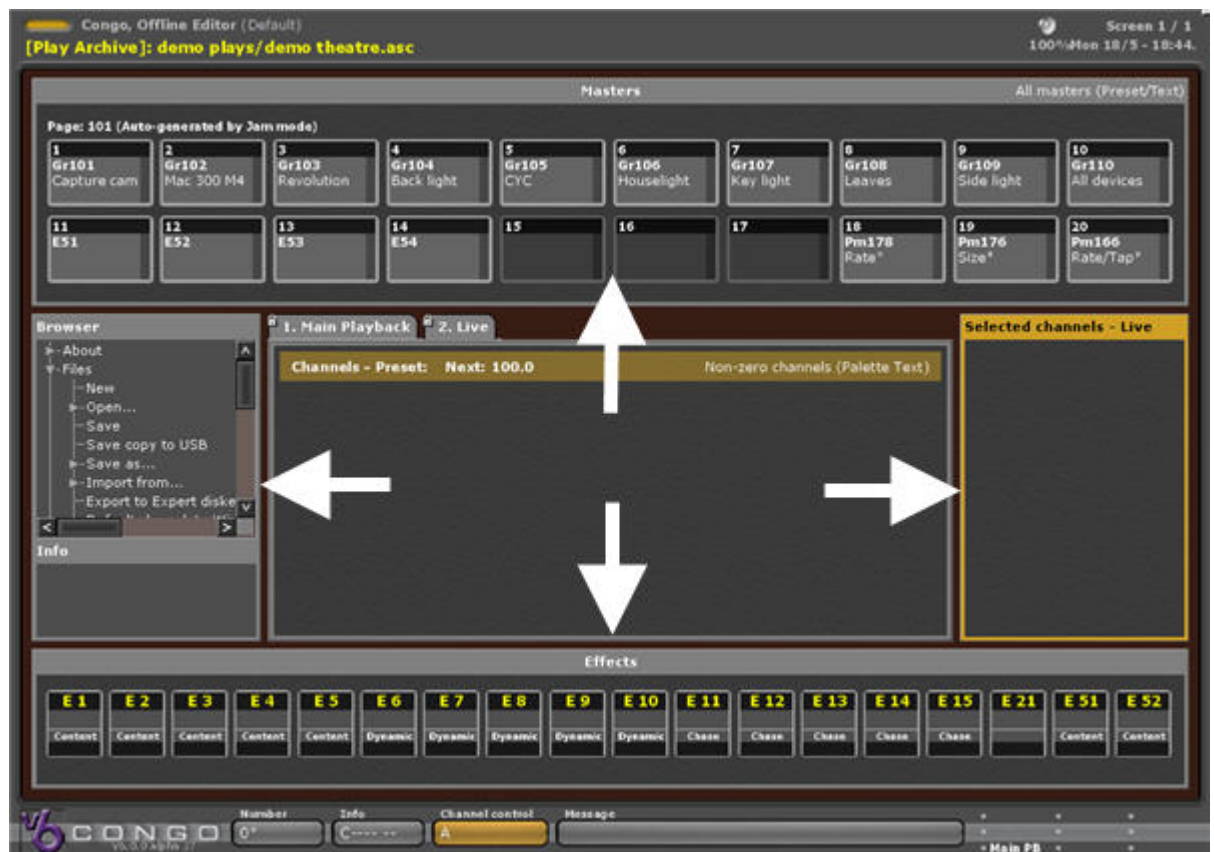
- [Dock Areas - Introduction](#)
- [Dock Areas - Functions](#)
- [Designer Summary](#)
- [Selected channels - Live dock](#)
- [Time Code dock](#)
- [Color dock](#)

Dock Areas - Introduction

Dock areas are fast and flexible control and viewing panels that can be set up in the top/bottom/left/right borders of each screen.

The left Browser dock and the bottom Effect dock are opened by default.

Once they are set up you can toggle the content by holding BROWSER and pressing FORMAT.



The left/right docks can show

- Browser
- Masters
- Independents
- Effects
- Selected channels - Live (6.0)

The top/bottom docks can show

- Masters
- Independents
- Moving Lights
- Console Mimic
- Effects
- Designer (6.0)
- Selected channels - Live (6.0)
- Time Code (6.0)

Dock Areas - Functions

The dock areas are easy to use once they are configured. Two dock areas are set up default, the left (browser) and the bottom (effects) on screen 1.

You can toggle the contents of any selected dock area by holding BROWSER and pressing FORMAT.

Configure Dock Areas (6.3)

A dock area has to be configured before you can use it.
< dock configure >

- SETUP & BROWSER
- Right-click on the background at the edge where the dock will reside. (6.3)
- From the Browser >General Settings >Dock Areas (MODIFY)

SETUP & BROWSER

Configure new dock areas for the currently focused screen by holding SETUP and pressing BROWSER.



NOTE

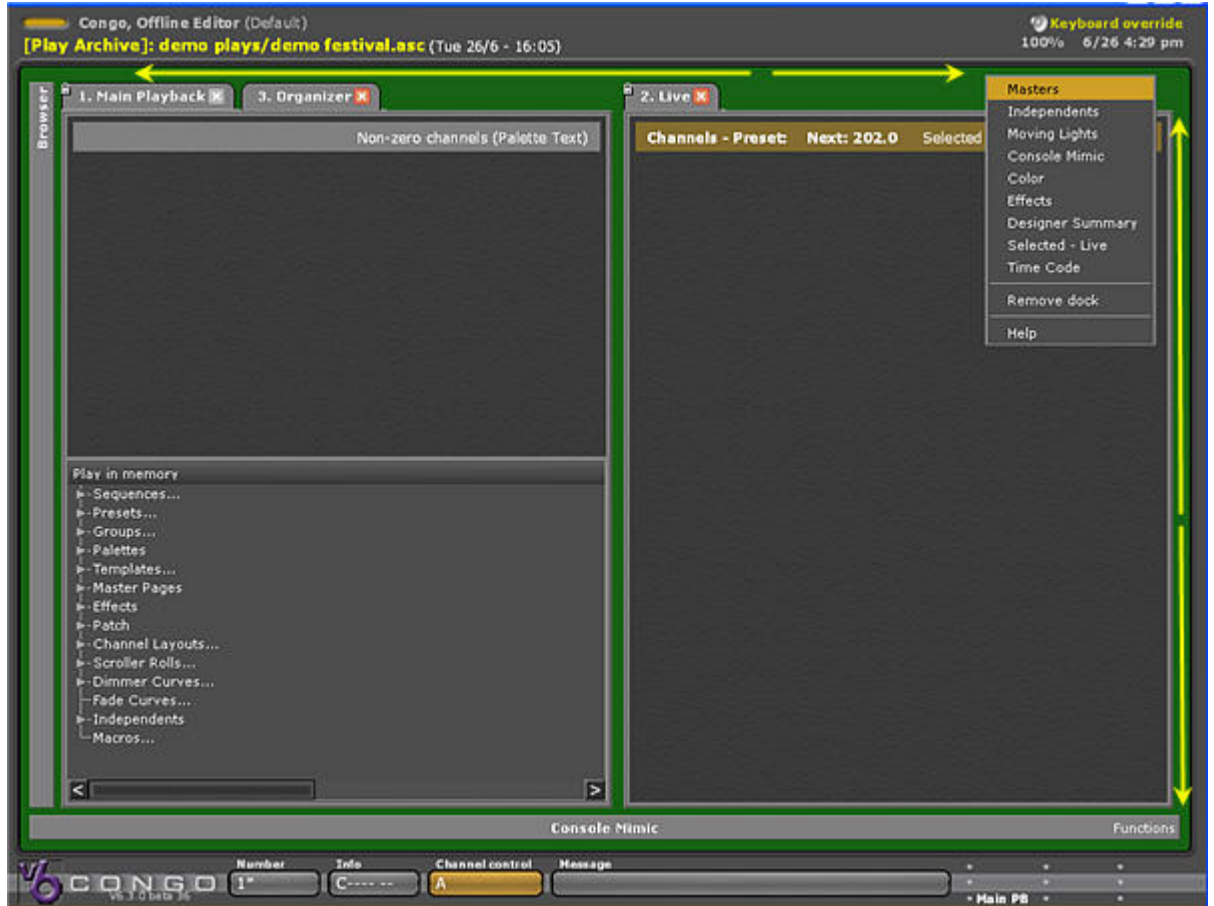
Docks are defined for each display on the Congo - so each monitor can support 4 docks. To configure docks, first select a tab on the screen you want to assign docks to, then press SETUP & BROWSER to open the setup dialog.

It is possible to configure any type of area several times.

In Congo Sr it is not possible to open docks on the right side of screen 1.

Right-click in the Dock Area of the screens (6.3)

Another way of opening and configuring dock areas is to right click in the dock areas of the screens. This will work also in screens with no tabs. Please note that you actually click on the dark edge of the frame in the upper and lower dock areas and on the background color in the left and right areas.



NOTE

You can resize any open dock area either holding **FORMAT** and moving the level wheel, OR just left-clicking and dragging with the mouse or trackball.

Navigate Dock Areas (6.3)

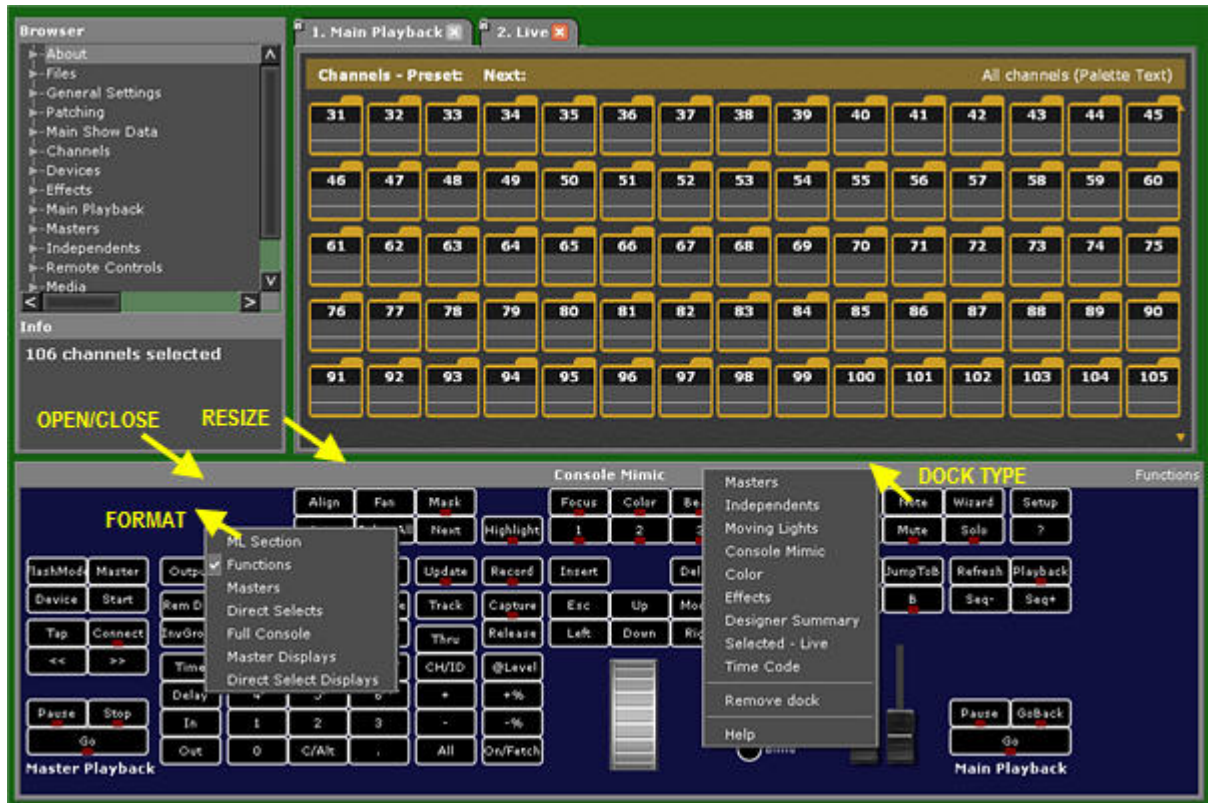
Dock Areas can be opened with these key combinations or using a mouse.

Key functions

Function	Key	Feedback
Open/close the Browser	<input type="text" value="BROWSER"/>	The Browser dock in screen 1 is operated directly with the Browser key.
Open/close the right dock	<input type="text" value="BROWSER"/> & <input type="text" value="Right arrow"/>	Right area is opened.
Open/close the top dock	<input type="text" value="BROWSER"/> & <input type="text" value="Up arrow"/>	Top area is opened.
Open/close the bottom dock	<input type="text" value="BROWSER"/> & <input type="text" value="Down arrow"/>	Bottom area is opened.
Resize selected	<input type="text" value="BROWSER"/> & <input type="text" value="Wheel"/>	The selected dock area is resized.

Mouse functions (6.3)

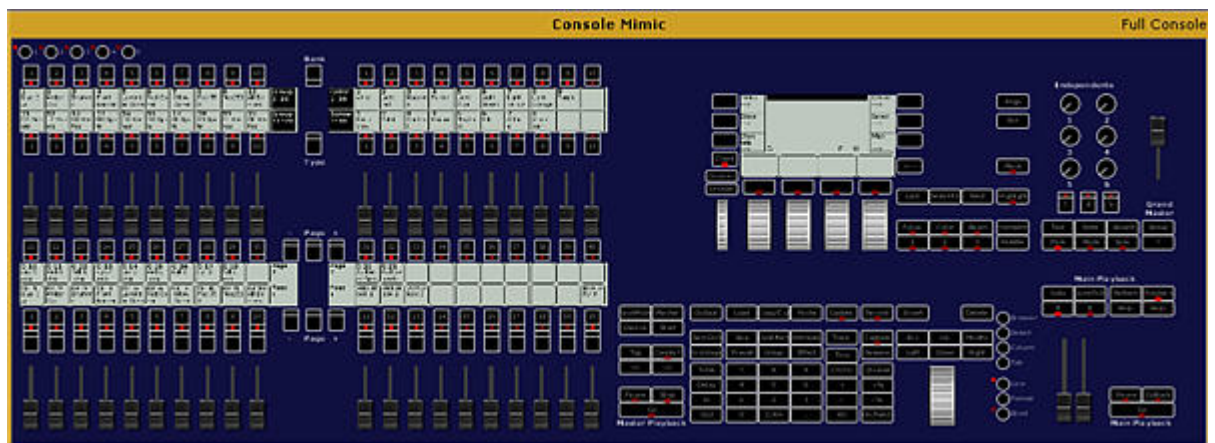
- Right-click for context menu
- Right-click on header to choose format
- Double-click (left) on dock to open
- Drag on divider line to resize



Console Mimic Dock

The Console Mimic dock gives you the user interface of the physical console.

- Click on a button or fader to press or move. Pressed button is indicated with a yellow background.
- Hold CTRL and click on a button to "hold" it so you can press another button after.
- Combine the Console Mimic and keyboard or console commands in any way.
- Press FORMAT to toggle different console mimic formats
- Hold FORMAT and use the Level Wheel to zoom.
- Hold Browser (F10) and use the Level Wheel to resize the selected dock area.



NOTE

Important Limitation - because the mimics are within Congo, when dialog boxes open on top of Congo all other Congo controls are unavailable, including the mimic dock. For data entry and navigation of dialogs, physical console keys, alpha keyboard/mouse or an attached X-Keys panel must be used.

Designer Summary

The designer summary provides playback information at a glance that is intended to be useful for the lighting designer.

There are three formats that can be toggled with the FORMAT key:

- Selected (channels)
- Main playback
- Main playback & selected (channels)

Selected



The Selected view shows

- Active palettes
- Channel database texts
- Dimmers address, curves and device address (single channels only)
- The previous level
- The current level
- A command line view of the last key presses

Main Playback

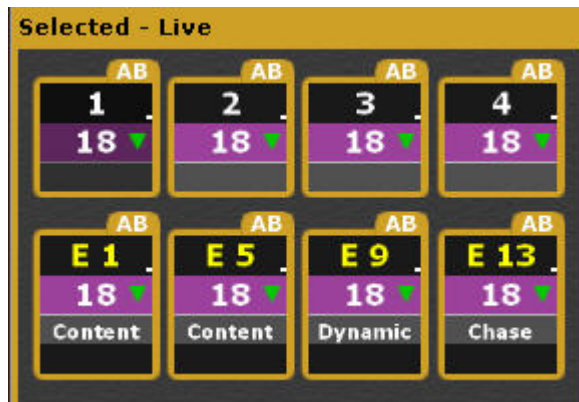


The Main Playback format will show

- Palette information for A or B depending on what is selected in the Crossfade Settings, see [Play Settings - Crossfade](#). The Palette section only shows palette info for palettes that have been executed by the main playback, as part of the sequence. The box to the left indicates with Red background in the playback info block that a crossfade is running.
- The number of Devices in the next fade
- The total duration of the step in A or B, plus In/Out/Delay times for intensity and Focus, Color, Beam.
- Timecode in and the next timecode step.
- Recording mode for moving devices
- If times are set to A or B

Selected - Live dock

The selected - live dock provides a summary the currently selected channels and effect playbacks in the Live tab. This is the only view that will show effect playbacks and channels together.



Time Code dock

The Time Code dock provides a summary of the important time code features and information.



To the right, use the screen buttons to select **Internal** or **External** time code source.

Enable BU (BackUp) clock will set the internal clock to take over if the external source is lost.

Console Time code Settings

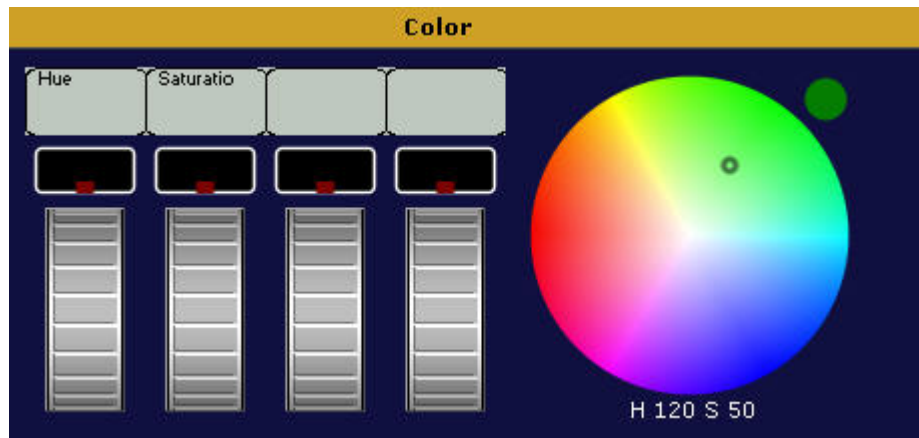
- LEARN activates learn mode. See [MIDI - Time Code](#)
- Auto Locate activates auto location. See [MIDI - Time Code](#)

Color Dock (6.1)

The Color dock allows you to choose colors with a color picker. For most types of color-mixing devices, the color gamut (possible colors) is indicated in the color picker.

Click on the color picker using a mouse or touch screen to choose a color. The small black circle in the color picker indicates the current output of the selected channel.

The color picker does not work for devices with scrollers or fixed color wheels.



User List

User logins allow you to keep personal settings for Direct Selects, Screens and Notes, within the same Play as other users.

See [Direct Selects](#), 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 that user.

See [Partitions](#).

You can view, edit and create new Users in the User List (Browser >General Settings >User List).



	User	Name	Default Partition	Allowed Partitions
1	1	Default	All	
2	2	View	All	

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.

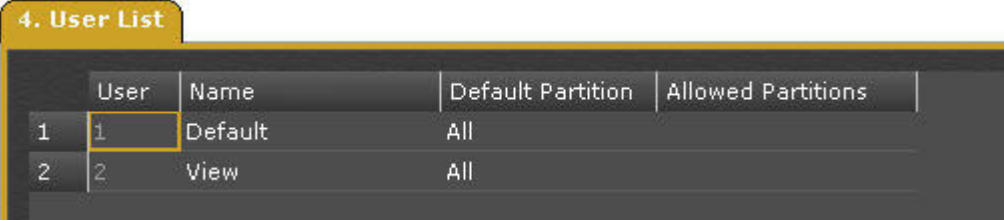
NOTE

The default Users "Default" and "View" are defined to allow access to the full system.

Create a User Login

User Logins are created in the User List.

1. Open the User List (BROWSER >General Settings >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)

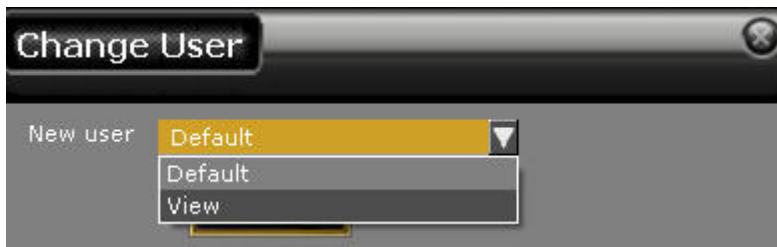
Allowed Partitions

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.

Change User

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 >General Settings >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.

Event List

An Event combines a Trigger with an Action Macro.

Action Macros are a powerful way of creating commands inside Congo and to control external devices.

Triggers can start Congo commands from external inputs like the COM port (unison macros for example).

This chapter contains the following sections

- [Event List - Introduction](#)
- [Event List - Action Macros](#)
- [Event List - Events](#)

Event List - Introduction

An **Event** is a combination of a **Trigger** and an **Action Macro**. An Action Macro can be defined also directly in the step of a *Sequence*.

Action Macro

An Action Macro consists of a string of characters forming a line of commands. These commands can be used to trigger internal actions (Go, Pause etc) or external devices (DVD players, computers etc) with serial & MIDI commands

Trigger

A Trigger is used only to trigger an Action Macro. This can be done from the local Com or MIDI ports, Closure or through a Net3 node.

Event

An Event is created when a Trigger is combined with an Action Macro.

NOTE

The COM port of Congo has to be activated to receive Triggers. See [System Settings - Com Port](#).

Event List - Action Macros

An Action is a kind of Macro that consists of a string of characters forming a line of commands. These commands can be internal (Congo) or external (COM port serial communication with DVD player, computers etc). Action Macros can be entered directly in the Sequence Action Macro column. Action Macros can be linked to Triggers in the Event list.

In the [Playback View](#) Action Macros are shown with the "*" character or the word "Action Macro" depending on format.

Action Macro Rules

The rules for all Action Macros are very strictly defined. There is no warning if your formatting is wrong.

- An Action Macro starts with an action type (for example COM, MIDI, GO, RELAY). The command is followed by a list of parameters, separated by commas.
- Parameters in <> are optional.
- Multiple commands can be entered in the same Action Macro, separated by a semicolon ; character.

Congo Action Macros (6.2)

These are the available Congo Action Macros. Some have changed from over the years. Please note that existing Action Macros using the changed commands will not be converted automatically. They have to be manually updated to work as expected.

Remember the RULES.

Function	Command	Information
Master START	START Mx <,target> <,time>	Moves Master x to 'target' percent in 'time' seconds
Master GO	Go Mx <,preset> <,time>	Mx,preset,time. If Preset is 0 or omitted, a simple GO command is made, otherwise a GOTO (preset) is executed. If Time is set, it will replace sequence timing.
Playback GO	Go PB <,preset> <,time>	As per Go Mx but in the Main Playback.
Master PAUSE	Pause Mx	Pause fade on master.
Playback PAUSE	Pause PB	Pause fade on playback.
Run Macro #	Macro x	Executes macro x
Change Page #	Page x<,y>	Selects page x on bank y (1=lower bank 1-20), (2=upper bank 21-40).
Relay Status	Relay Groupx ,Relayx,ON/OFF	Sets the status of relay 1-24, in relay group #. Group 0 is local to the console.
UDP String (6.2)	UDP <String>	Sends an UDP string to the port and IP defined in System Settings.

Examples

Go M3,100 (Master 3 GOTO Preset 100 in default time)

Go PB,1 (Goto Step 1 in the sequence of the Main Playback)

Relay 1 ,2 ,ON (Set relay 2 in group 1 to ON)

See also [OSC Functionality](#)

Serial COM data

In an Action Macro, this data is started with the word COM. Two parameters are used after the COM type.

- Group number (group 0 is the local console) followed by a comma.
- The parameter values (hexadecimal or ASCII)

RULES

- You can mix ASCII and hexadecimal values.
- The data bytes are separated by a space character.
- A hex byte is always written as two hexadecimal characters (like AE) followed by a space.
- An ASCII character is written as a single character followed by a space.
- Carriage return is written 0D.
- Line feed is written 0A.
- Tab is written 09.

Examples

COM 1 ,ee 0e 00 00 40 M a c r o 1 . E X E C 00 00 (ETC Unison system example string)

COM 1 ,41 42 43 sends a serial string with three bytes (all values in hex)

COM 1 ,P L A Y 1 sends a serial string with the value PLAY1 (ASCII data)

COM 1 ,P L A Y 1 0D sends a serial string with the value PLAY1 followed by Carriage Return.

MIDI Data

You can send an arbitrary data string on the console MIDI port, or through MIDI on a Net3 Gateway.

In an Action, this data is started with the word MIDI followed by port, comma and data.

RULES

When specifying data for a MIDI port trigger or Action, you enter the string with hexadecimal values.

- Group number (group 0 is the local console) followed by a comma.
- The data bytes are separated by a space character.
- A hex byte is always written as two hexadecimal characters (like 7E) followed by a space.
- Basically any type of MIDI message can be sent from an Action Macro. Note On, Note Off, Program Change and System Exclusive (including Midi Show Control) messages are most frequently used.

Examples

MIDI 0, 90 24 40 sends a Note On message to the console output on Channel 1 for note 24 (36 in decimal) with a velocity of 40 (64 in decimal)

MIDI 1, 80 24 00 sends a Note Off message on group 1 in a Net3 Gateway on Channel 1 for note 24.

More examples for the local console port

MIDI 0, F0 7F 01 02 01 01 F7 sends a Midi Show Control (System Exclusive) command: GO

MIDI 0, F0 7F 01 02 01 01 31 30 F7 sends a Midi Show Control (System Exclusive) command: GOTO Cue 10

MIDI 0, C0 10 sends a Program Change message (on channel 1) for program 10 (16 in decimal)

UDP data (6.2)

UDP (User Datagram Protocol) is a communications protocol where messages are exchanged between computers in a network that uses the Internet Protocol (IP). UDP is an alternative to the Transmission Control Protocol (TCP) and, together with IP, is sometimes referred to as UDP/IP.

In Congo UDP allows you to use the Ethernet network to:

- Receive Congo specific Action Macros directly from another unit, without having to first create a trigger and event.
- Send any proprietary string of data to another unit that can receive commands over UDP

Receiving Action Macros over UDP

For Congo to receive Action Macros you need to set a receive port in the [Play Settings - Show Control](#) (Browser >General Settings >Play Settings) and make sure that the incoming Action Macro text strings are written by the rules for Congo Action Macros explained in that chapter. An incoming Action Macro is processed the instant it is received.

Sending UDP Strings

For Congo to send Action Macros a send port and IP address have to be set up in the [Play Settings - Show Control](#) (Browser >General Settings >Play Settings) and the the text string you send needs to be written according to the specifications of the receiving device.

Basic Channels Crossfade Masters Effects System Attributes **ShowControl**

Standard MIDI

MIDI Channel *Select MIDI channel*

Keys *Receive/Transmit console keys*

Faders *Receive/Transmit console faders*

Program Change *Jump to sequence steps on Program Change*

MIDI Show Control

Enable *Receive/Transmit MSC*

Device ID *Specify device ID for MSC*

Time Code

Time code *Specify time code source*

Learn mode *Activate automatic recording of timestamps*

Auto-locate step *Jump to out-of-order steps*

Enable Backup clock *Use a backup clock if time code stops*

Internal clock start *Start/Stop the internal time code clock*

UDP Strings

Input Port *Specify UDP port for reception. 0 = disabled*

Output Port *Specify UDP port for sending. 0 = disabled*

Output IP(s) *Specify IP addresses to send to separated by ;*

OSC

Active *Specify if OSC is active*

Input Port *Specify port for OSC reception. 0 = disabled*

Output Port *Specify port for sending OSC. 0 = disabled*

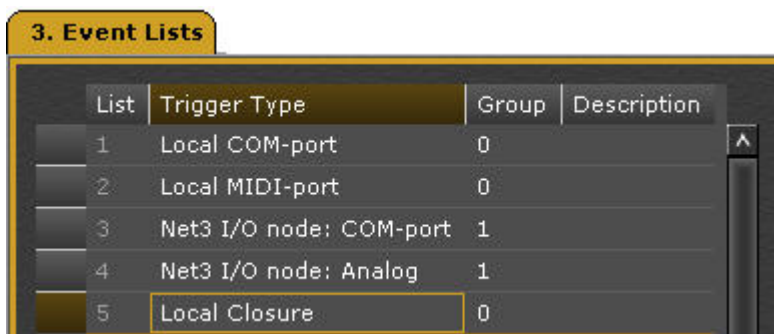
Output IP(s) *Specify IP addresses to send to separated by ;*

Event List - Events

To trigger an Action Macro from an external input an Event has to be created and a Trigger has to be defined. This is done in the Event List.

For each type of trigger (input), an Event list needs to be created. This is to allow for future expansion of both internal ports and network ports.

1. Open the Event List



List	Trigger Type	Group	Description
1	Local COM-port	0	
2	Local MIDI-port	0	
3	Net3 I/O node: COM-port	1	
4	Net3 I/O node: Analog	1	
5	Local Closure	0	

Insert an item (INSERT) and define a Trigger (you can add a description).

2. Open the editor by pressing MODIFY in the first column.



Item	Trigger string	Action Macro	Description
1	00 ee ff	GO M1	Start Mas..

Use INSERT to insert a new line. Define the Trigger and Action string using the formats described in [Actions & Events - Actions](#). You can add a description as well (recommended)

Triggers for Events

An Event is a way to link a Trigger to an Action Macro. A Trigger can be serial communication received on a COM or MIDI port of the console. Note that COM x,' and 'MIDI x,' are not required in Triggers.

- **Local Com-port** - See [Serial COM data](#)
- **Local MIDI-port** - See [MIDI](#) and [Serial MIDI data](#)
- **Net3 I/O Node Com-port**

- **Net3 I/O Node Closure** - You can specify the closure input (1-24) and if you want to trigger on close of open state. Note: Closure input are using the analog inputs of the physical node but has only two states, on and off.
- **Net3 I/O Node Analog** - You can specify an analog input (1-24), a trigger value and the direction.
- **Local Closure** - You can define triggers and actions for the external trig inputs in the same way as for Net3 I/O node closures.
If a trigger is defined for an input, the default action (Go, Pause, Go Back and Master 40) won't be carried out. See [Connectors](#)

Group Numbers

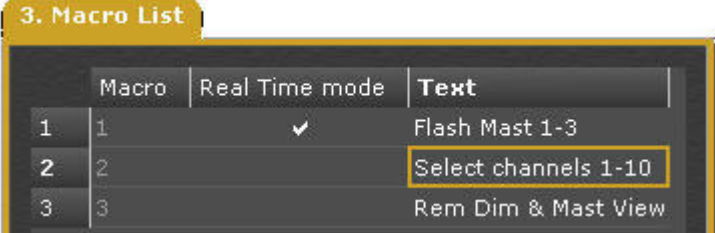
Using Group numbers, you can set up a system where Congo listens to several different I/O nodes (or local ports) and reacts with different actions. Group 0 applies to local serial and MIDI ports, Group 1-x applies to network ports and has to match the group configured in the node.

Macro List

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.

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.



3. Macro List

	Macro	Real Time mode	Text
1	1	✓	Flash Mast 1-3
2	2		Select channels 1-10
3	3		Rem Dim & Mast View

Macros - Record & Playback

Macros are recorded with the LEARN MACRO soft key of the Misc Soft key page in the consoles.

Record a Macro

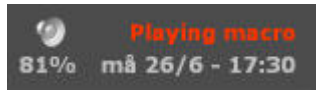
1. Select the Misc Soft Key page.
2. Enter a number and press LEARN MACRO. As long as recording is going on the text "Recording macro" is displayed in the top right corner of the screens.



3. Click on **Recording Macro** in the top right corner of the screens to end recording.

Playback a Macro

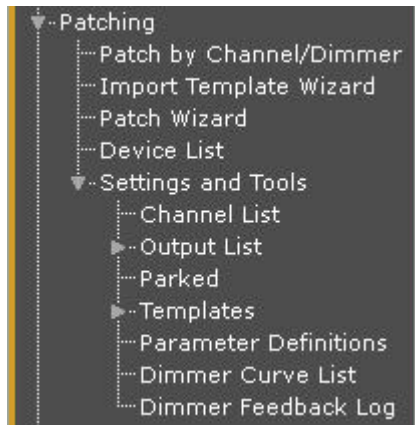
Enter the number and press MACRO. As long as the Macro is being played back the text "Playing macro" is displayed in the top right corner of the screens.



Patching

Before you can control a channel or moving device, it needs to be patched.

Patching Node



This chapter contains the following sections

- [Patch - Introduction](#)
- [Patch - Output Editor](#)
- [Patch - Patch Wizard](#)
- [Patch - Device List](#)
- [>Settings and Tools - Patching](#)

Patch - Introduction

Patch is where outputs are assigned to channels, either directly in the case of dimmers or using a Template in the case of devices. All settings pertaining to outputs, channels and devices are also adjusted within the patch.

Before you can control a dimmer or device it has to be patched to a channel. When opening a new play you can choose to set the Patch 1:1 or cleared. There are many ways to patch. These are the available options.

Patch by channel or output

Depending on how you mount your rig you may want to patch by output (not knowing which output is connected to which light) or by channel (having a plot). Both are done easily in the Output Editor. See [Patch by Channel/Dimmer](#).

- To edit Channel scale factor, fade curve, park status or rename, see the [Channel List](#).
- To edit Output scale factor, fade curve & park status, see the [Output List](#).
- To clear the patch see the [Patch Wizard](#).

Patch multiple moving devices

Before you can patch a moving device, you need to import the template using the Import Template Wizard. See [Import Template Wizard](#).

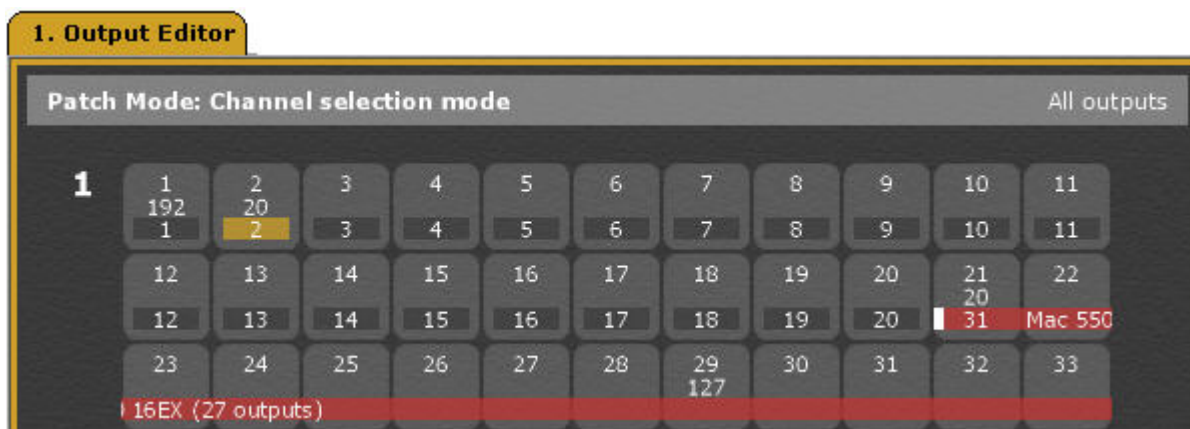
Once a template is imported, you can adjust it and patch single or multiple devices using either the Patch Wizard, or the Device List. See [Patch Wizard](#). See [Device List](#).

- To adjust individual devices, such as inverting or swap pan/tilt. Scroller roll & calibration. Change template, channel or address. See [Device List](#).

Channel Database

The channel database allows you to tag each channel handle with up to four texts. These texts will create auto-groups. See [Channel Database](#).

Patch by Channel/Dimmer



The Output Editor gives access to the following actions.

- View Outputs in different formats (All, patched, unpatched, selected)
- Select by Output or by Channel.
- Patch by Channel/Dimmer.
- Expand information to show Device Parameter names
- Levels are shown in 8 bits (0-255).
- 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 [Patch - Introduction](#)

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

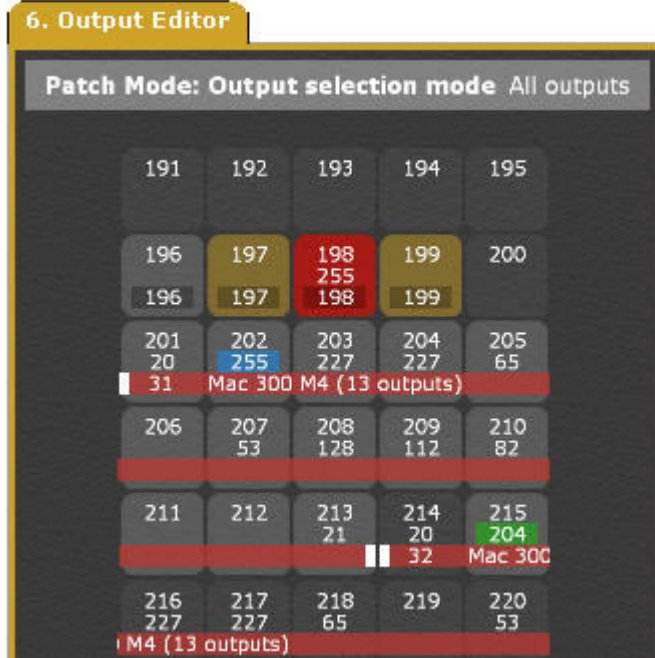
- BROWSER >Patching >Patch by Channel/Dimmer
- Hold MODIFY and press OUTPUT
- Enter an output # and press OUTPUT

Output Editor - Formats

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

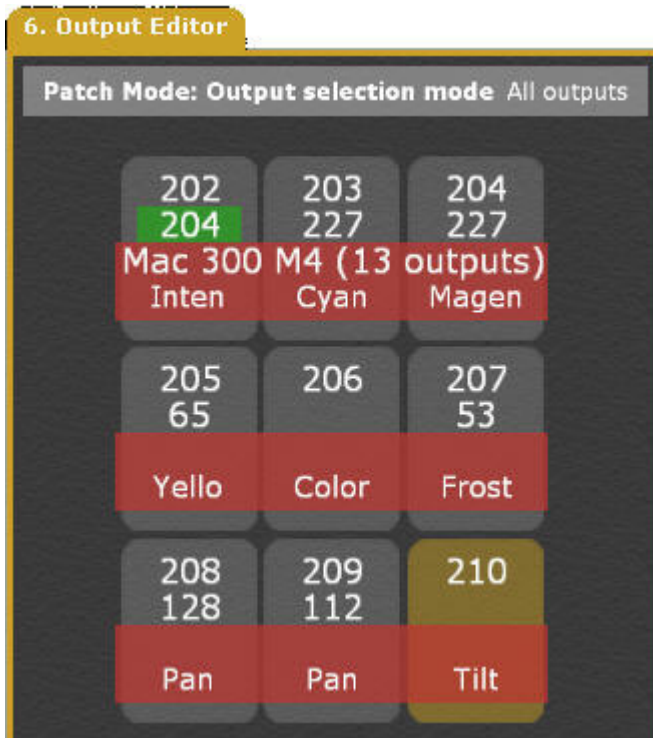
- All outputs
- Patched
- Un-patched
- Selected

There are color indications for most statuses:

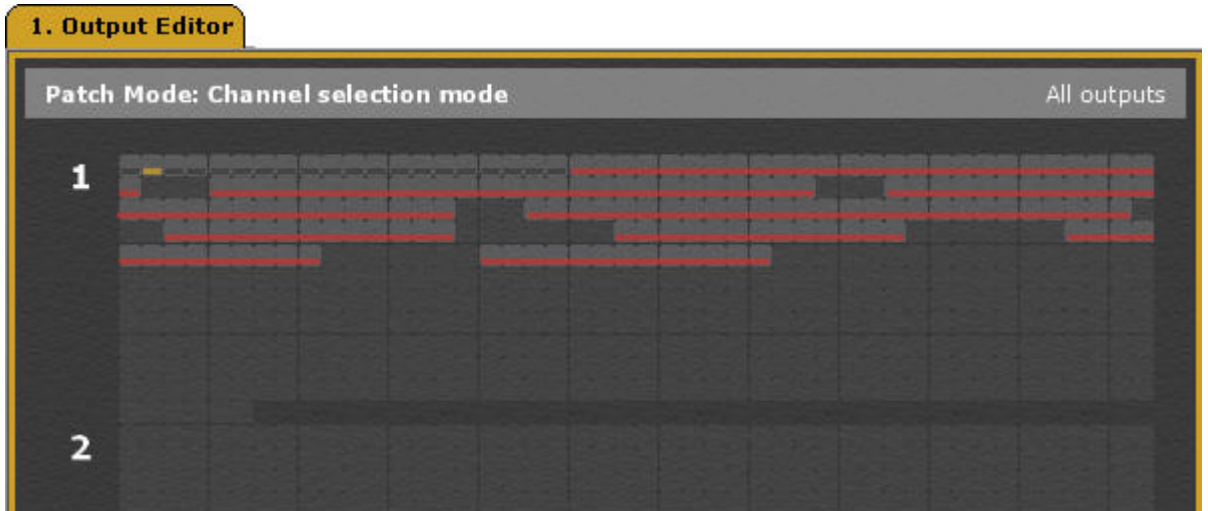


- Devices are marked in with a horizontal bar that show the involved outputs.
- Levels are shown in 8 or 16 bits (depending on template).
- Changing Levels are shown with a blue background for going up, and green for down.
- Park status is showed as a dimmed Output symbol (214 in image).
- Next and Last 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. When you zoom out you will see all available universes.



Output Editor - Patch By Channel

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.

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 Dimmer

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.

Patch a single output

Action	Key	Feedback
1. Select output	# OUTPUT	Output is selected. You can use the format output.universe.
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.

*



Output Editor - Dimmer Check Mode

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

- 1. Select first output with # OUTPUT*
- 2. Set a level for checking with # @ LEVEL (a level is given between 0-255. 128 = 50%)*
- 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. Deselect the last output to leave channel check mode (0 OUTPUT). Or, simply set that output to a level of 0% (0 @ LEVEL or use the wheel)*

Output Editor - Channel Check Mode (6.1)

Channel Check mode is a fast way to check the channels consecutively in the output editor.

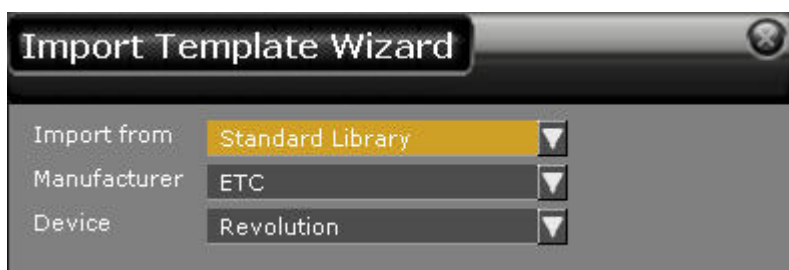
- 1. Select first output with # CH*
- 2. Set a level for checking with # @ LEVEL (a level is given between 0-255. 128 = 50%)*
- 3. Press + or - to use this level and step to the next/previous patched channel. Levels that are higher than zero are restored automatically as they are passed by. Channels that are not patched will not be lit.*
- 4. Deselect the last channel to leave channel check mode (0 CH or C/ALT CH). Or, simply set that channel to a level of 0% (0 @ LEVEL or use the wheel)*

Import Template Wizard (6.2)

Before you can patch a moving device you need to import or create the corresponding template.

- To import from the libraries, use the Import Template Wizard in the Browser (Browser >Patching > Import Template Wizard).
- User templates from other Plays are imported with the Import Wizard. See [Import Wizard](#).
- Custom templates can be created from scratch with the [Templates Editor](#).

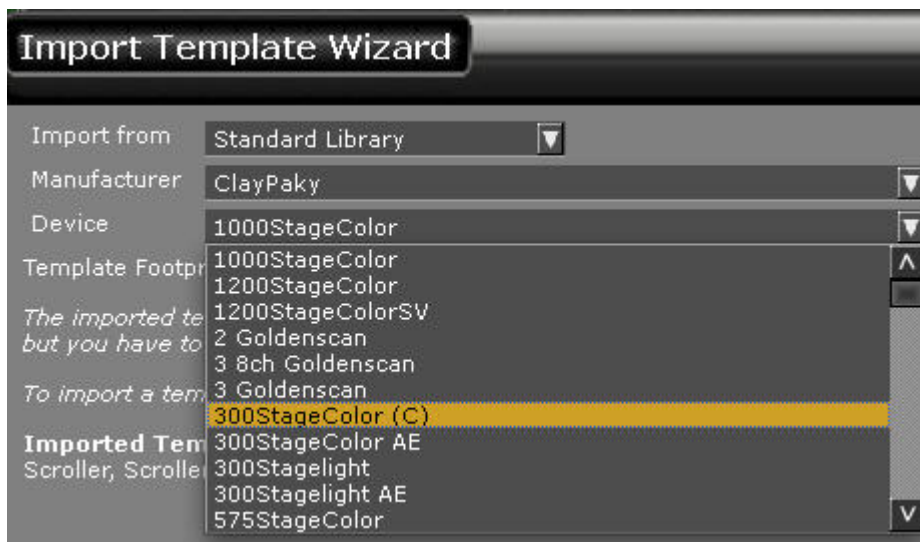
1. Open Import Template Wizard from Browser >Patching >Import Template Wizard



2. Select Library (standard or Extended - see NOTE below).

3. Select Manufacturer

4. Select Device/mode



Note that devices with calibrated color data are indicated with a (C) - this means they will be possible to use with the Gel Picker and calibrated Color Picker even if they have more than three color emitters (6.2)

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. 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.

Patch Wizard

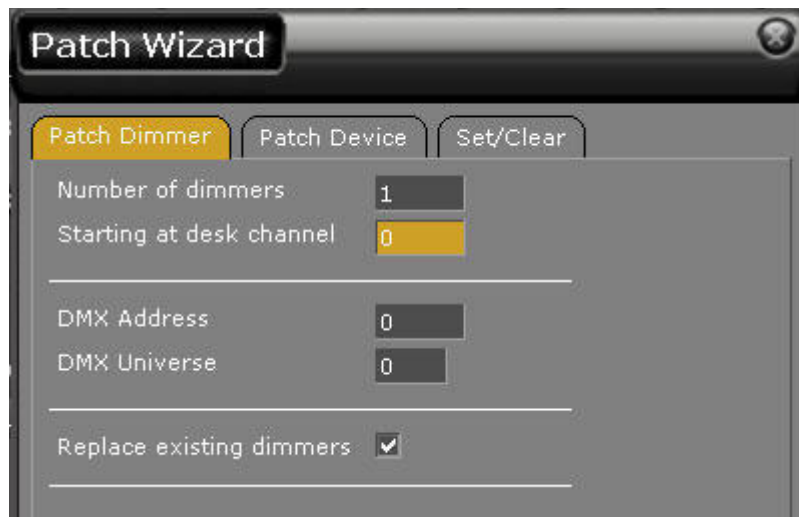
The Patch Wizard is opened from the Browser (Browser > Patching > Patch Wizard). See [Navigating - Browser](#).

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 dialog has a title bar with 'Patch Wizard' and a close button. Below the title bar are three tabs: 'Patch Dimmer' (highlighted in yellow), 'Patch Device', and 'Set/Clear'. The 'Patch Dimmer' section contains the following fields:

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

Patch Device(s)

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 offset is suggested too.

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

The screenshot shows the 'Patch Wizard' dialog box with the 'Patch Device' tab active. The 'Type of device' is set to 'Mac 300 M4'. The 'Number of devices' is 1, and 'Starting at desk channel' is 0. Below these fields, the text 'Block of 13 outputs needed' is displayed in italics. The 'DMX Address' is 1, 'DMX Universe' is 1, and 'Output offset' is 13. The 'Replace existing dimmers' checkbox is checked. The 'Scroller roll' dropdown is set to 'No Scroller Roll'.

NOTE

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

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.

Clear/reset patch or rename

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



These are the options in the Clear wizard tab



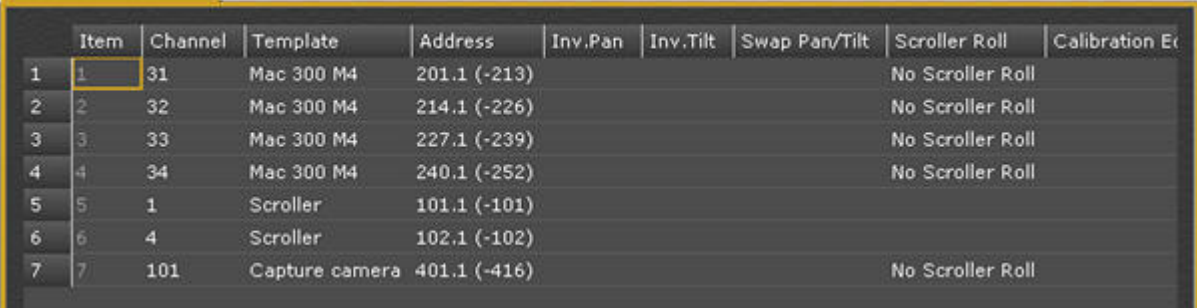
See [Renaming Channels](#)

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

Device List

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

See [Introduction To Patching](#)



The screenshot shows a table titled "4. Device Settings" with the following columns: Item, Channel, Template, Address, Inv.Pan, Inv.Tilt, Swap Pan/Tilt, Scroller Roll, and Calibration Ex. The table contains 7 rows of data. The first row has Item 1, Channel 31, Template Mac 300 M4, Address 201.1 (-213), and Scroller Roll No Scroller Roll. The second row has Item 2, Channel 32, Template Mac 300 M4, Address 214.1 (-226), and Scroller Roll No Scroller Roll. The third row has Item 3, Channel 33, Template Mac 300 M4, Address 227.1 (-239), and Scroller Roll No Scroller Roll. The fourth row has Item 4, Channel 34, Template Mac 300 M4, Address 240.1 (-252), and Scroller Roll No Scroller Roll. The fifth row has Item 5, Channel 1, Template Scroller, Address 101.1 (-101), and Scroller Roll No Scroller Roll. The sixth row has Item 6, Channel 4, Template Scroller, Address 102.1 (-102), and Scroller Roll No Scroller Roll. The seventh row has Item 7, Channel 101, Template Capture camera, Address 401.1 (-416), and Scroller Roll No Scroller Roll.

	Item	Channel	Template	Address	Inv.Pan	Inv.Tilt	Swap Pan/Tilt	Scroller Roll	Calibration Ex
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)				No Scroller Roll	
6	6	4	Scroller	102.1 (-102)				No Scroller Roll	
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>	0-3072	The number of the desk channel this device is assigned to.
<u>Template</u>	Dropdown menu	Shows the device template - dropdown to change. Use the Import Template Wizard to import templates.
<u>Device Address</u>	##	Shows the device address - change by address.universe. You can change universe by ".universe"
<u>Inv. Pan</u>	Off/On	You can invert pan for this device on the input (manual control) or output (stored data) (6.0)
<u>Inv. Tilt</u>	Off/On	You can invert tilt for this device on the input (manual control) or output (stored data) (6.0)
<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 (6.1)

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.
Change template for multiple devices	SELECT	Use SELECT to select multiple cells. Select a new template from the dropdown and press MODIFY *
Change address for multiple devices	SELECT	Use SELECT to select multiple cells. Enter a start address and press MODIFY.
Unpatch a device (6.1)	0 MODIFY	In the Address cell you can unpatch the currently selected devices by entering 0.

*If a template isn't available, use the Import Template Wizard to import it. See [Import Template Wizard](#).

Edit/Change a Device

You can exchange one moving device with another in the Device List. 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.

>Settings and Tools - Patching

These are the settings and tools for Patching.

This chapter contains the following sections

- [Channel List](#)
- [Output List](#)
- [Parked](#)
- [Templates](#)
- [Parameter Definitions](#)
- [Dimmer Curve List](#)

Channel List

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

See [Patch - Introduction](#) 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

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>	##	Enter the address, followed by decimal point and then DMX universe. You can change the universe by entering ".#" (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 (6.3)

It is possible to select and patch channels to outputs directly with a Command Syntax in this list (this does not work in At Mode).

Function	Key	Feedback
Select a channel	# CH/ID	The channel is selected in the list and in the Live tab.
Add a channel to this selection	# +	The channel is added to the current selection.
Add a range of channels to this selection	# THRU	The channel range is added to the current selection.
Patch a range of outputs to this selection	# MODIFY	The output range is patched to the current selection. A popup will warn if outputs are in use already. Once the current channel is patched the next channel is auto-selected so you can continue entering # MODIFY, # MODIFY... to continue patching. (6.3)

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)

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
8	8	8.1		----	100 %	---	8

Change a channel name

Function	Key	Feedback
Change name	# MODIFY	Enter a new name and press MODIFY. If the name exists you will get a warning <i>message</i> about this.
Change names	# MODIFY	Select several cells, enter a start name and press MODIFY.
Remove selected channel(s) from all channel views	0 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.

Output List

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

See [Patch - Introduction](#)

3. Output List

Output	Channel	Proportion	Curve	Device Info	Pa
1.1 (1)	1	100%	No curve		-- ^
2.1 (2)	2	100%	No curve		--
3.1 (3)	3	100%	No curve		--
4.1 (4)	4	100%	No curve		--
5.1 (5)	5	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

Column	Input	Function
<u>Output (EDMX)*</u>	No input	The number of this Output (and EDMX) - cannot be edited here.
<u>Channel</u>	0-3072	Enter the number, followed by MODIFY.
<u>Proportion</u>	0-100%	Sets a proportional 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

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

Function	Key	Feedback
Select output	# OUTPUT	The output is selected in the list and in the Live tab.
Add output	# +	The output is added to the current selection.
Add a range	# THRU	The output range is added to the current selection.
Patch to channel	# MODIFY	The output selection is patched to channel #.

Parked

When an output or attribute is parked it will remain fixed at the parked value regardless of all other functionality.

Park - Parked Items List

The Parked Items list shows all parked channels, intensities and attributes. Individual items can be unparked by selecting the appropriate row and pressing [DELETE]. See [Parked](#).

	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

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

- [Templates - Introduction](#)
- [Templates - List](#)
- [Templates - Editor](#)
- [Templates - Create](#)
- [Templates - Type LTP or HTP](#)
- [Templates - Type 8/16 Bit Control](#)
- [Templates - Snap Or Fade](#)
- [Templates - Ranges](#)
- [Templates - Mode Tables](#)
- [Templates - Fade With Intensity](#)
- [Templates - Scroller Rolls](#)
- [Templates - Import Template Wizard](#)

Templates - Introduction

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.

Templates - List

The Template Lists are opened from the Browser (Browser >Patching >Settings and Tools >Templates).

Template	Text	Parameters	Comment	Time stamp
1 ...	Scroller	1		2007-01-28 11:00
2	Scroller Speed & Fan	3		2002-08-08 10:00
3	Mac 250 Wash 16BT	13		2007-01-05 10:00
4	Mac 550 16EX	27		2005-07-31 12:00

Template List - Columns & Functions

Function	Key	Feedback
<u>Template</u>	MODIFY	The ID of each Template. Press MODIFY to open the Editor
<u>Text</u>	MODIFY	Press MODIFY to activate and end text input.
<u>Parameters</u>	MODIFY	The number of DMX channels it uses. Press MODIFY to open the Editor.
<u>Comment</u>	MODIFY	Press MODIFY to activate and end text input.
<u>Time Stamp</u>		Date and time
Import Wizard	WIZARD	Opens the Import Template Wizard.

Templates - Editor

The Template Editor is opened from the Item or Parameter cell in the Template List (Browser >Patching >Templates). Open an existing one directly in this node as well (Browser >Patching >Templates >xxxx).

4. Template Editor: ColorWash M1

	Parameter	DMX	Type	Default	Highlight	Snap	Invert	Ranges	Tables	Low DMX	Fine step	Fade
1	Pan	1	LTP16	128	128	Off	Off			2	4	Off
2	Tilt	3	LTP16	128	128	Off	Off			4	4	Off
3	Focus Speed	5	LTP8	0	0	On	Off			---	4	Off
4	Control	6	LTP8	0	0	On	Off	15		---	4	Off
5	Color	7	LTP8	0	0	On	Off	19		---	4	Off
6	Color 2	8	LTP8	0	0	On	Off	19		---	4	Off
7	Cyan	9	LTP8	0	0	Off	Off			---	4	Off
8	Magenta	10	LTP8	0	0	Off	Off			---	4	Off
9	Yellow	11	LTP8	0	0	Off	Off			---	4	Off
10	CTO	12	LTP8	0	0	Off	Off			---	4	Off
11	Color Speed	13	LTP8	0	0	On	Off			---	4	Off
12	Shine 1	14	LTP8	0	0	Off	Off			---	4	Off

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 HTP (intensity) or LTP 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.

Templates - Create

1. Open the Template List from the Browser (Browser >Patching >Templates)

1. Templates

Template	Text	Parameters	Comment	Time stamp
1 ...	Scroller	1		2007-01-28 11:00
2	Scroller Speed & Fan	3		2002-08-08 10:00
3	Mac 250 Wash 16BT	13		2007-01-05 10:00
4	Mac 550 16EX	27		2005-07-31 12:00

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.

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](#)

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.



Full 16 bit control, which few Devices use (generally Media Servers, for example Catalyst) require this value to be set to 1 (default = 4).

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.

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.

1. Template Range Editor: Color						
	Min	Max	Min%	Max%	Text	Centered
1	0	0	0%	0%	Open	
2	26	26	10%	10%	CTC 5500-2900	
3	51	51	20%	20%	Pink 312	
4	77	77	30%	30%	UV	
5	102	102	40%	40%	Red 308	
6	128	128	50%	50%	Green 206	
7	153	153	60%	60%	Blue 108	
8	180	183	70%	72%	Blue 108 [ST]	

There is a Range Wizard to create ranges. See [Template Range Wizard](#).

Template Range Editor - Columns

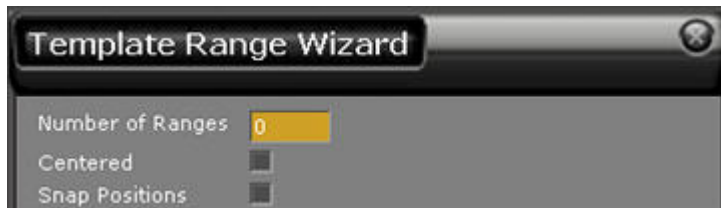
Function	Value	Feedback
<u>Min</u>	0-255	This is the start value for a sub range *. The same value for Min and Max will be treated like a position (for a color or gobo for example). The Min value can be entered in the Min% column as well.
<u>Max</u>	0-255	This is the end value for a sub range *. The 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*)
5. Select *EXECUTE* and press *MODIFY* (previously existing ranges will be overwritten).

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.



	Parameter	Range	Ranges
1	Gobo	Open	1
2	Gobo	Fire Sun	1
3	Gobo	Rotator	1
4	Gobo	Ing. Waves	1
5	Gobo	Limbo	1
6	Gobo	Water 4	1
7	Gobo	Flames 6	1
8	Gobo	Fire Sun[R]	3
9	Gobo	Rotator[R]	3
10	Gobo	Ing. Waves[R]	3

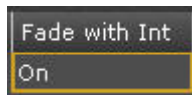
3. Use *INSERT** to create a Range Tables. These are the options.

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.

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).

Parameter Definitions

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.

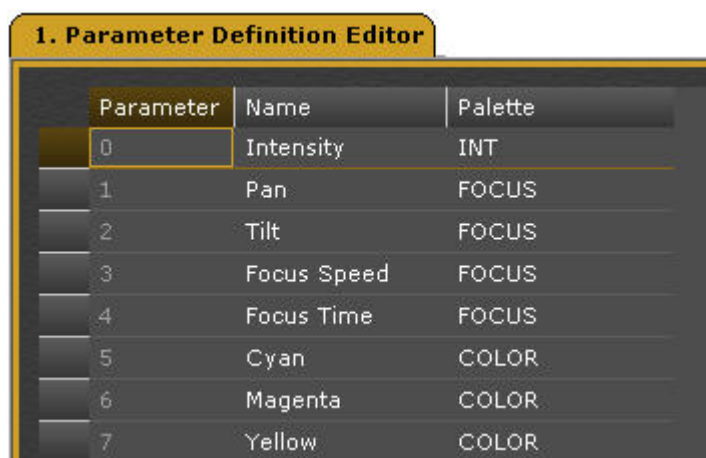
Press MODIFY in the Parameter cell to open the dropdown. Select with arrow keys (or use the first letter from the keyboard) and press MODIFY to confirm.



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.

A screenshot of the "1. Parameter Definition Editor" interface. It features a table with three columns: "Parameter", "Name", and "Palette". The table lists several parameters and their corresponding palettes. The "Parameter" column has values 0 through 7. The "Name" column lists "Intensity", "Pan", "Tilt", "Focus Speed", "Focus Time", "Cyan", "Magenta", and "Yellow". The "Palette" column lists "INT", "FOCUS", "FOCUS", "FOCUS", "FOCUS", "COLOR", "COLOR", and "COLOR". The interface has a dark theme with a yellow header bar.

Parameter	Name	Palette
0	Intensity	INT
1	Pan	FOCUS
2	Tilt	FOCUS
3	Focus Speed	FOCUS
4	Focus Time	FOCUS
5	Cyan	COLOR
6	Magenta	COLOR
7	Yellow	COLOR

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*

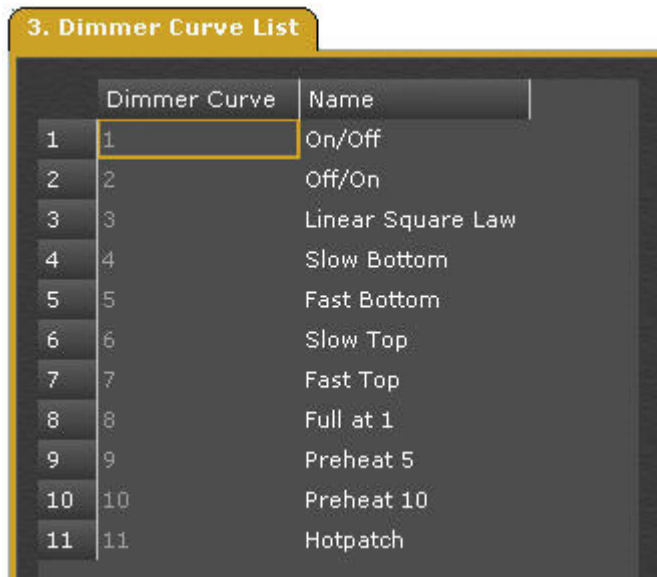
*Palette and parameter Groups

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

Dimmer Curve List

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 (contained in the file CURVES.DEF).



The screenshot shows a window titled "3. Dimmer Curve List" with a table containing 11 rows. Each row has three columns: a number (1-11), a "Dimmer Curve" ID (1-11), and a "Name". The first row is highlighted.

	Dimmer Curve	Name
1	1	On/Off
2	2	Off/On
3	3	Linear Square Law
4	4	Slow Bottom
5	5	Fast Bottom
6	6	Slow Top
7	7	Fast Top
8	8	Full at 1
9	9	Preheat 5
10	10	Preheat 10
11	11	Hotpatch

Patch - Dimmer Curve Editor

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

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

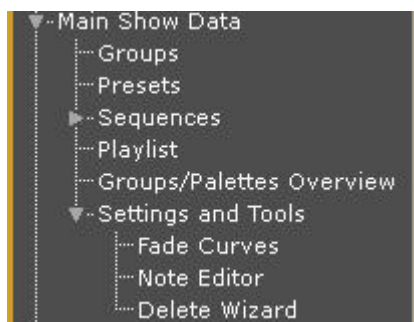
NOTE

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

Main Show Data

The main show data is what you generate when you start recording. All data are under this node of the Browser, except effects, which have a node of their own.

Main Show Data Node



This chapter contains the following sections

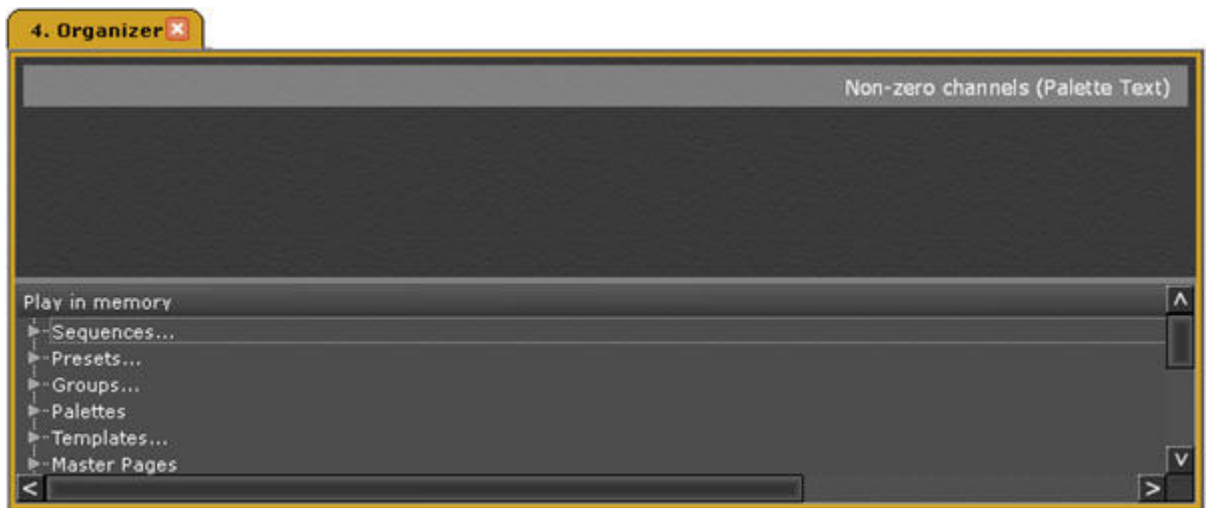
- [Groups](#)
- [Presets](#)
- [Sequences](#)
- [Playlist](#)
- [Groups/Palettes overview](#)
- [>Settings & Tools - Main Show Data](#)

Organizer (1 tab) (6.3)

The Organizer tab allows you to view, edit and restructure all data in your show in one tab, The Organizer can be opened with focus on a specific type of data or with all show data visible at once.

There are three ways to open it

- Open from the Browser> Main Show Data> Organizer (1 tab)
- Press LOAD to open in any tab or spreadsheet cell (except from Browser)
- From a context menu in any List (SELECT SELECT)



Most things in the Organizer can be edited.

There are two main working methods in the Organizer

- Drag and drop with mouse
- Context Menus (SELECT SELECT)

You can press TRACK for items like presets, groups, palettes to track use in the current Play.

Opening Focused Organizer Tabs (6.3)

You can open an organizer tab with only one type of object focused by holding LOAD and pressing one of the following keys.

- PRESET
- GROUP
- SEQUENCE
- FOCUS
- COLOR
- BEAM
- PALETTE

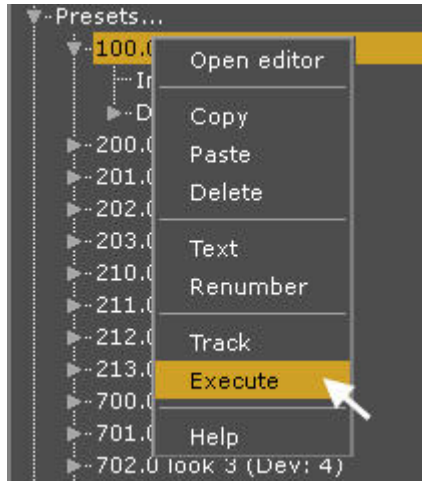
Example of organizer focused on presets



Execute from the Organizer (6.3)

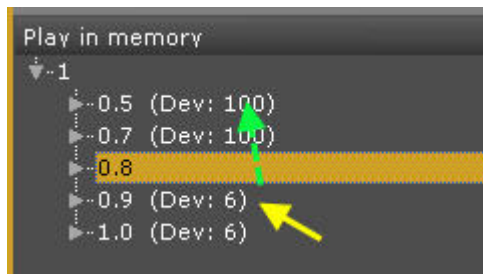
In the Organizer there is a function that allows you to execute (play back) Sequence Steps, Groups and Presets in the Live field directly.

Right-click on the appropriate object to open the context menu and select Execute.



Drag and Drop in the Organizer (6.3)

You can click, hold and drag items in the Organizer from one place to another. See [Sequence - Drag and Drop](#).



Here are some examples of items that can be copied or moved by dragging and dropping:

- Sequences
- Sequence steps
- Channel Times
- Device Links
- Master Links
- Action Macros
- Presets
- Groups
- Palettes
- Templates

- Patch
- Devices
- Effects
- Master Pages
- Scroller Rolls
- Channel Layouts

If you drag and drop an item on top of a similar item, for example a **Sequence Step**, you get the option of creating a **copy** of this item or **moving** it.



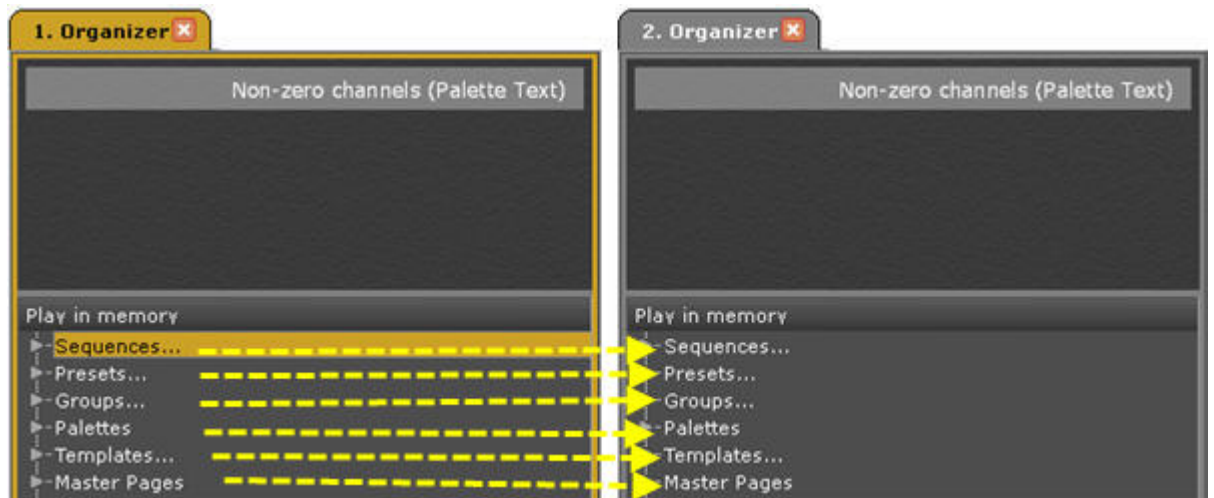
There is also an advanced tab where you can choose if you want to create an extra step, an extra preset, before or after or replacing the step you dropped it on.



Organizer (2 tabs) (6.3)

This is the same organizer as the 1 tab organizer, with the option of being able to move items between two windows, to make work simpler.

See [Organizer \(1 tab\)](#).



Groups

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

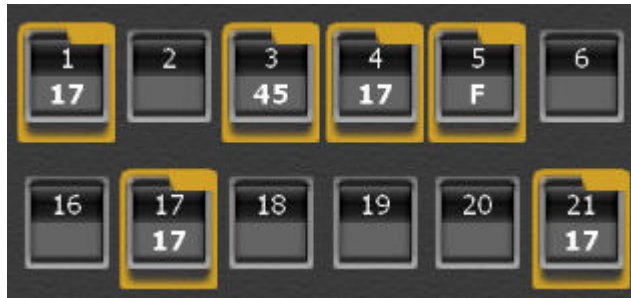
This chapter contains the following sections

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

Groups - Introduction

Groups are used mainly for selecting lights, but may also be assigned to masters where they function like traditional intensity submasters. 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.

Example: channels and levels are stored in groups, under a single number and name.



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.

Record a Group (6.1)

Record a Group:

1. Select channels (setting levels is optional)
2. Hold RECORD and press GROUP - you will get a popup suggesting the next free group number
3. Press MODIFY- you have now recorded a group

Use this Group to select channels:

1. Enter 0 and press CH - no channels are selected
2. Enter the number of the group you just recorded and press GROUP - these channels should now be selected

NOTE: If you are operating in the At Mode syntax you select a group by pressing GROUP followed by the group number.

Assign this Group to a master:

1. Enter the number of the Group
2. Hold GROUP and press a master key. This group is now assigned to this master. If the group has intensities stored they will apply when the master is raised. To select the channels in this group, press the master key.

Groups - Record

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

Function	Key	Feedback
Record	<input type="button" value="RECORD"/> <input type="button" value="GROUP"/> &	You will get a popup where you confirm recording this group, and can write a text label.
Record as...	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="GROUP"/> &	You will get a popup where you confirm recording this group, and can write a text label.
Record with Direct Selects	<input type="button" value="RECORD"/> <input type="button" value="direct select"/> &	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

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 a play with 900-groups is imported they will be converted to Congo Groups.

Groups - Select Channels

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

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

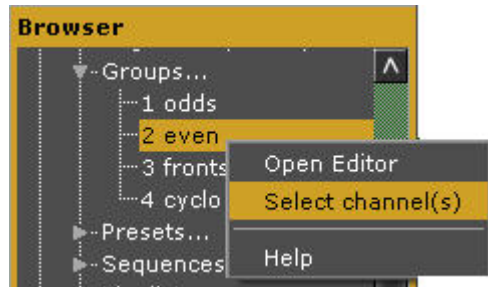
At mode syntax

If your Congo is set to use At Mode for channel commands, groups are selected in the same way as channels once the GROUP key has been pressed. Press CH to return to channel selection.

Action	Key	Feedback
Select group mode	GROUP	From this point all select functions apply to groups.
Select group	#	Group # is selected
Add group	+ #	Group # is added to the current selection
Subtract group	- #	Group # is subtracted from the current selection
Add multiple group	# THRU	Up to group # is added to the current selection

Groups - Select Channels Context Menu (6.3)

You can select the channels of a Group in the Browser by opening the context menu and choosing SELECT CHANNEL(S).



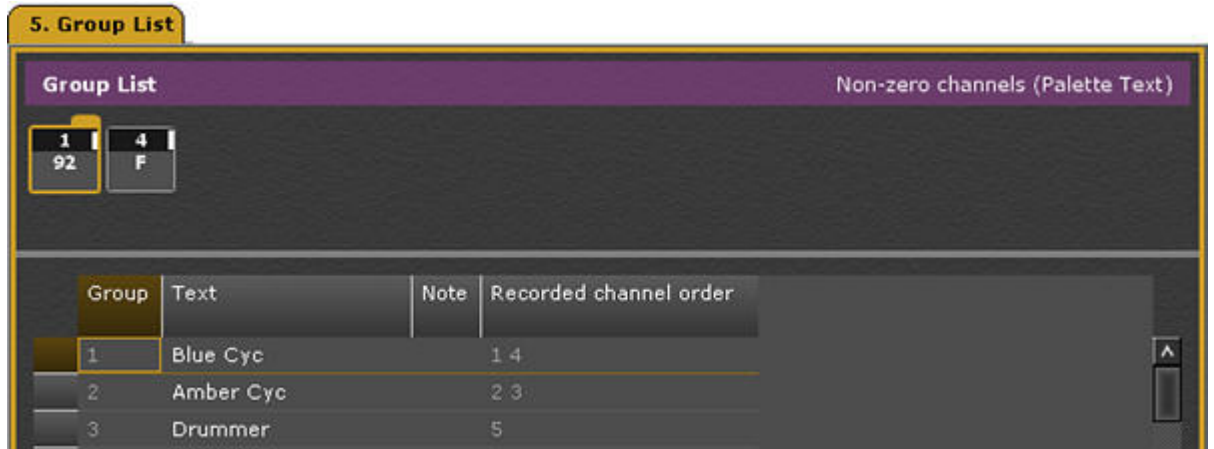
Groups - Fetch Intensities

Fetch intensities for all or specific channels from any Group.

Function	Key	Feedback
Copy level	# [FETCH/ON] & [GROUP]	All selected channels are set to the levels stored in Group #.
Copy levels and channels	# [GROUP] & [@LEVEL]	All channels in the specified Group are selected and set to the levels in Group #.
Add proportionally	# [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 >Main Show Data>Group).



If the content of a group is changed, the top header will be purple to indicate this. The channel order of the group is indicated in the far right column.

Group List - Columns & Functions

These are the functions in the Group list.

Function	Key	Feedback
Open list	[GROUP]	The Group List is opened.
Open list at...	[#] [MODIFY] & [GROUP]	The Group list is opened and focused at the specified group.
Update changes	[UPDATE] [UPDATE] or [RECORD] [RECORD]	Updates all changes in the current group. There is a popup after the first key.
Insert	[INSERT]	Inserts a new group with the next free number, with the channels that are selected.
Insert as...	[#] [INSERT]	Inserts a new group with this number, with the channels that are selected.
Delete	[DELETE]	Deletes the selected group. Cannot be undone.
Set text	[MODIFY]	Press MODIFY in the text cell, enter the text and press MODIFY to exit.

Groups - Display List

You can use a list of groups in the main display of the big Congo console to view, select, add and subtract groups to the current channel selection.

Function	Console	Action
Open Group list	<input type="button" value="DISPLAY LIST"/> & <input type="button" value="GROUP"/>	Opens the Group List. Use the trackball in Display List mode to scroll.
Select group	Trackball in Display List Mode	Select with the trackball and right- or left click.
Add group	Trackball in Display List Mode	Hold right- or left click and press +.
Subtract group	Trackball in Display List Mode	Hold right- or left click and press -.

Groups - Load To Playbacks

You can load Groups directly to any Playback.

Action	Key(s)	Feedback
Load to master	# GROUP & Master Key	Group # is loaded to the Master Playback
Add to Live	# GROUP & LIVE	Group # is added to Live
Add to Blind	# 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 - Delete](#)
- [Presets - Rename](#)

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 Presets with up to three decimals using Preset numbers 0.001-9999.999.
- 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. See [Presets - 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.

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

Record a Preset Live (6.1)

Record a preset in the A field (live):

1. Enter a number
2. Use the level wheel to set an intensity level
3. Press RECORD - you will get a popup suggesting the next free preset number
4. Press RECORD again - you have now recorded a preset

Try out this preset in the Main Playback (live):

1. Enter 0 and press GOTO - lights in A fade to zero
2. Enter the number of the preset you just recorded and press GOTO - it should now fade in

NOTE

The Main Playback and the Master Playbacks share intensities using HTP (Highest Takes Precedence) logic. Channels with intensities coming from Master Playbacks may not appear to fade in the Main Playback if the levels from the masters are the same or higher than those in the Main Playback.

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 new	<input type="button" value="RECORD"/>	Record the content of the selected Channel View to a new Preset with the next free number. You will get a popup. See The Recording Popup
Record new #	<input type="button" value="#"/> <input type="button" value="RECORD"/>	Records preset #. 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).

If there are moving devices defined and you are using "Changed" recording mode, the first preset in an empty sequence will ask you if you want to make a block cue.

The Recording Popup (6.3)

The recording popup has Basic, Advanced, and Times tabs. The last used tab is saved as the default choice for the next record action. The Times tab will default back to the Advanced tab for the next record action.

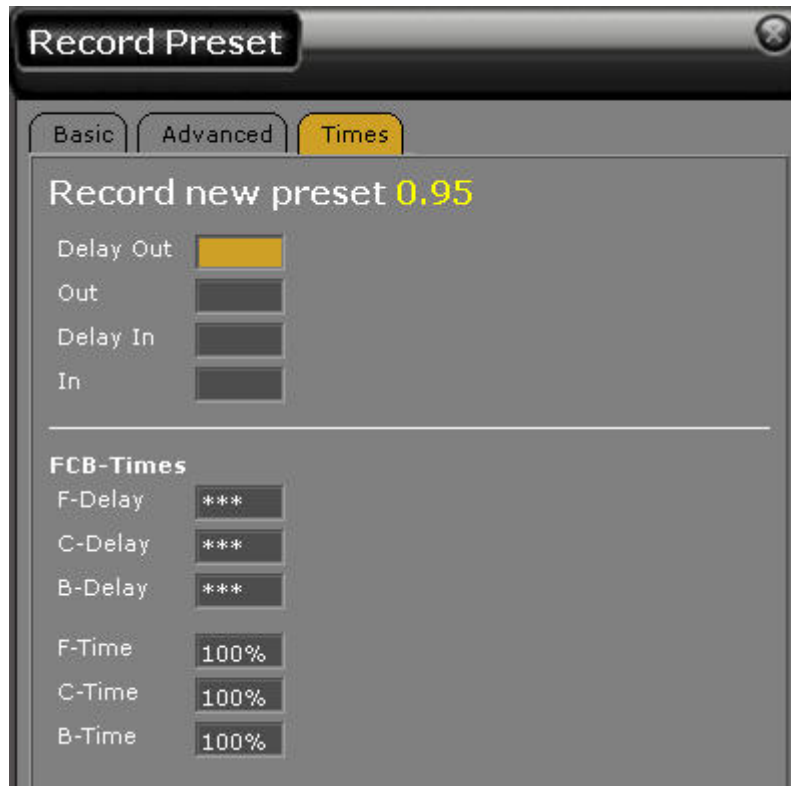
In the **Basic** tab you can confirm recording a Preset (RECORD or MODIFY). You can also add a Preset or Sequence text and define the fade type.



In the **Advanced** tab, in addition to the options of the basic tab, you can set a Block flag for intensities, attributes, and keep Running Dynamics. It is also possible to toggle the GoOnGo flag and toggle Section Markers.



In the **Times** tab you can set fade and moving device 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	<input type="button" value="LIVE"/>	The Channel Controls are mapped to the A field.
1a. Record the complete stage output to a new Preset with the next free number	<input type="button" value="RECORD"/>	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	<input type="button" value="#"/> <input type="button" value="RECORD"/>	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 new	<input type="button" value="RECORD"/> <input type="button" value="A"/>	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 new #	<input type="button" value="#"/> <input type="button" value="RECORD"/> <input type="button" value="A"/>	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 Preset - Do not add to Sequence

When a Preset is recorded, it is automatically added to the sequence in the Main Playback. It is possible to bypass this.

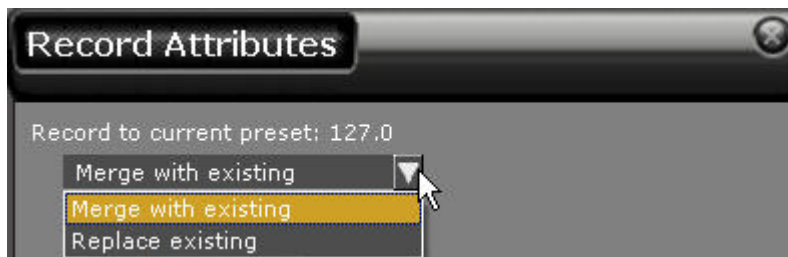
Action	Key	Feedback
Record selected to Preset #	# RECORD & PRESET	The Preset is recorded and added to the Preset List, but not to the Sequence in the Main Playback.

Record All Attributes for selected channels

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). See [Device Recording - Introduction](#).

Setting	Key	Feedback
Record selected	RECORD & ATTRIBUTES	Record all attributes for the selected channels to the currently loaded Preset in the A field. You will get a popup, see below.
Record selected to...	# RECORD & ATTRIBUTES	Record all attributes for the selected channels to Preset #. You will get a popup, see below.

This is the Record Attributes popup



NOTE

Control parameters are normally not recorded. However, many fixtures have control on the Strobe parameter, which is recorded.

Record Directly To A Master

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 selected	<input type="button" value="RECORD"/> & Master Key	You will get a popup with the next free preset suggested**.
Record selected as...	<input type="button" value="#"/> <input type="button" value="RECORD"/> & Master Key	You get the message "Preset Recorded" in the status bar.

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

**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 this 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 attributes are recorded in the same way as the sequence of the Main Playback.

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 selected	<input type="button" value="CH"/> <input type="button" value="&"/> <input type="button" value="RECORD"/>	You will get a popup where you confirm recording this Preset, and can write a text label.
Record selected to...	<input type="button" value="#"/> <input type="button" value="CH"/> <input type="button" value="&"/> <input type="button" value="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	<input type="button" value="UPDATE"/>	Updates changed levels and attributes to the currently loaded Preset. 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

The Presets list is a spreadsheet view of all presets in your play. You can view, edit and create new Presets (blind) in the Preset List.

Open the Preset list by pressing PRESET or Browser >Main Show Data >Presets.

See [Presets - Introduction](#).

See also [Preset List - Functions](#).

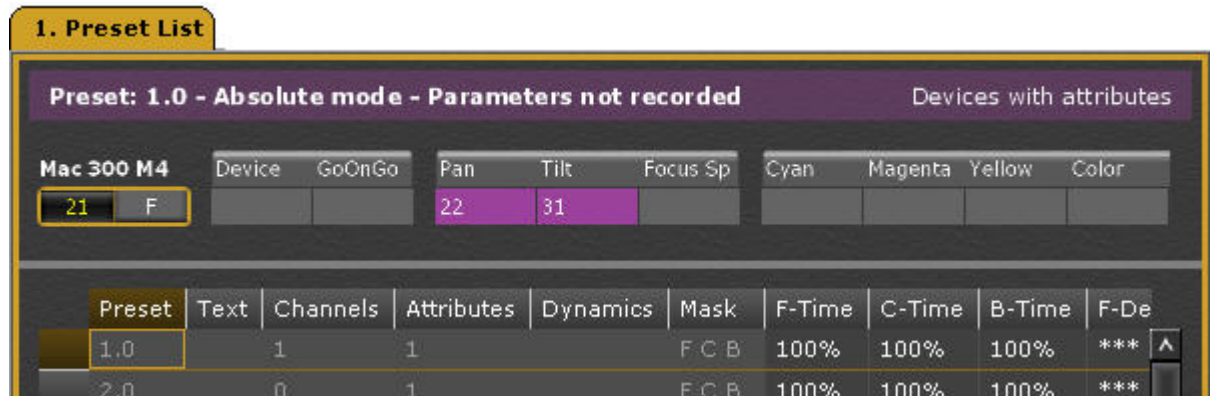
1. Preset List

Preset List										Non-zero channels (Palette Text)
1	2	3	4	5	6	7	8	9	10	
F	F	F	F	F	F	F	F	F	F	
Preset	Text	Channels	Attributes	Dynamics	Mask	F-Time	C-Time	B-Time	F-De	
0.1		10	0		F C B	100%	100%	100%	***	▲
1.0		10	0		F C B	100%	100%	100%	***	

Preset List Channel View (6.0)

The top part of the Preset list is a channel view where you can edit all the channel and attribute values directly.

Press ATTRIB to toggle to the attribute view between channels and attributes. In the attribute view you can use all the moving device controls to edit parameters.



NOTE

You can only edit attributes with console functions (wheels and keys). If you want to edit attributes on the screen, move to the Attributes cell and press MODIFY to open the Preset Attribute Editor.

Preset List - Columns

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

Preset List - Functions

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

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

You can load Presets directly to any Playback.

Action	Key(s)	Feedback
Load to A	# PRESET & A	The Preset is loaded to the A field, replacing the content of that field.
Load to B	# PRESET & B	The Preset is loaded to the B field, replacing the content of that field.
Load to master	# PRESET & Master Key	Preset # is loaded to the Master Playback
Load to Live	# PRESET & LIVE	Preset # is loaded to Live
Load to Blind	# PRESET & BLIND	Preset # is loaded 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 preset	# RECORD	Copies the preset in the channel view connected to the channel controls to a new number. You will get a popup. See The Recording Popup

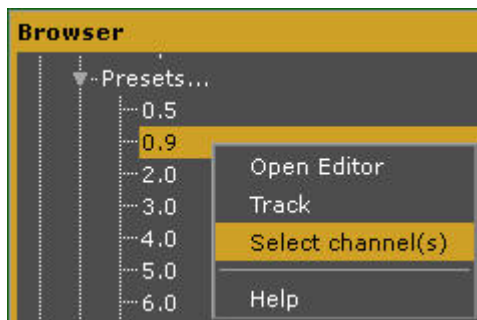
Presets - Select Channels

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

Function	Key	Feedback
Select all	# PRESET	All channels with a level in the specified Preset are selected.
Add to current	# PRESET & +	All channels with a level in the specified Preset are added to the current channel selection.
Subtract all	# PRESET & -]	All channels with a level in the specified Preset are subtracted from the current channel selection.
Select all over 0%	# PRESET & ALL	All channels with a level in the channel control, that also have a level in the specified Preset, are selected.
Select all in a range	# PRESET # PRESET & THRU	All channels stored in every Preset from # to # are selected.

Presets - Select Channels Context Menu (6.3)

You can select the channels of a Preset in the Browser by opening the context menu and choosing SELECT CHANNEL(S).



Presets - Fetch Intensities

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	[#] [FETCH/ON]	All selected channels are set to the levels stored in Preset #.*
Copy levels and channels	[#] [PRESET] [&] [@LEVEL]	All channels in the specified Preset are selected and set to the levels in Preset #.
Add proportionally	[#] [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.

Presets - Display List

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

Function	Console	Action
Preset Display list	<input type="button" value="DISPLAY LIST"/> & <input type="button" value="PRESET"/>	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 intensity changes in all Presets with powerful arguments. Press WIZARD in any channel view to open the Channel Wizard.

Channel Editor Wizard

Channels - Preset: Next: 1.0 Selected channels (Palette Text)

2 3 55 89 100

Step 1: Select the channels/levels to operate on in the Channel View
Step 2: Select options and Execute

Type of Change Set level ▼
Value 0
Change in Sequence ▼
Start at 1 1.0 ▼
Stop at 3 100.0 See BROWSER > HELP > TUTORIALS > DEMO SHOWS ▼
Include if 0%

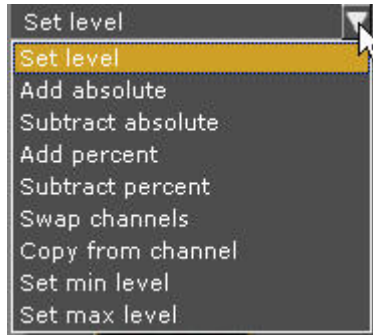
NOTE

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 6.1

You can perform the following actions 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
<u>Set Level</u>	Set level #
<u>Add Absolute</u>	Adds # points to the current channel(s) intensity level - adding with a value of 5, 50% becomes 55%, 80% becomes 85%.
<u>Subtract Absolute</u>	Subtract # points from the current channel(s) intensity level.
<u>Add percent</u>	Adds a % of the current channel(s) intensity level - adding with a value of 10, 50% becomes 55%, 80% becomes 88%.
<u>Subtract percent</u>	Subtracts a % from the current channel(s) intensity level.
<u>Swap channels</u>	Change levels between the selected channel and the channel # in Argument.
<u>Copy from channel</u>	Copy all levels from channel value # to the selected channel(s). (6.1)
<u>Set min level</u>	Sets a minimum level HTP with the current levels.
<u>Set max level</u>	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 Auto Save setting	SETUP & 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.

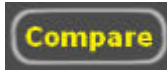
- The default setting for FCB times is 100% of the main In time
- The default setting for FCB delay times is 0 seconds. If you set FCB delay times in %, then that setting refers to main In time.

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.

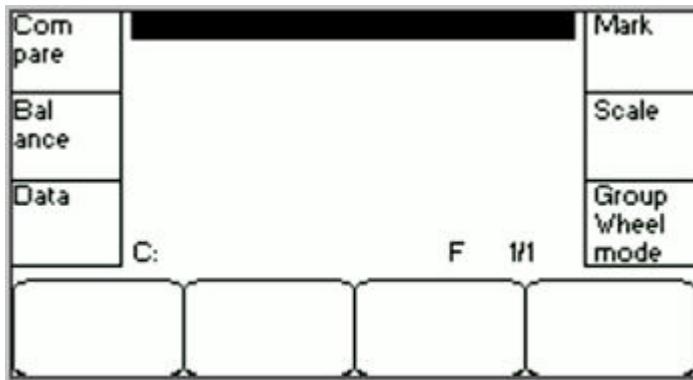
Presets - Compare Mode

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. When Compare mode is active it is indicated in the top of all screens.

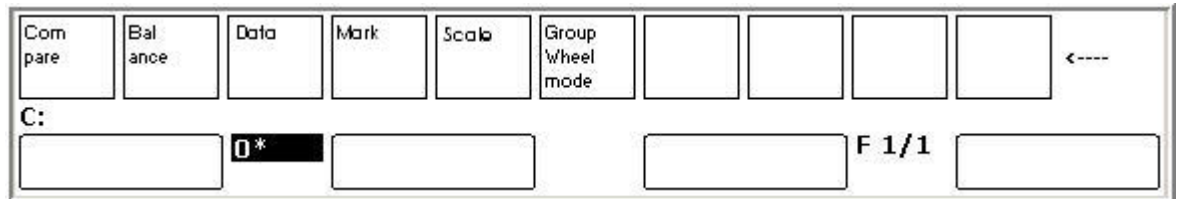


This key is in the Channels Soft Key Page.

Congo



Congo Jr



Action	Key	Feedback
Compare to stored	<input type="button" value="COMPARE"/>	The last stored version will be loaded. Press COMPARE to exit Compare mode.
Compare to preset	<input type="button" value="#"/> <input type="button" value="COMPARE"/>	The selected preset will be loaded. Press COMPARE to exit Compare mode.

Presets - Delete

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

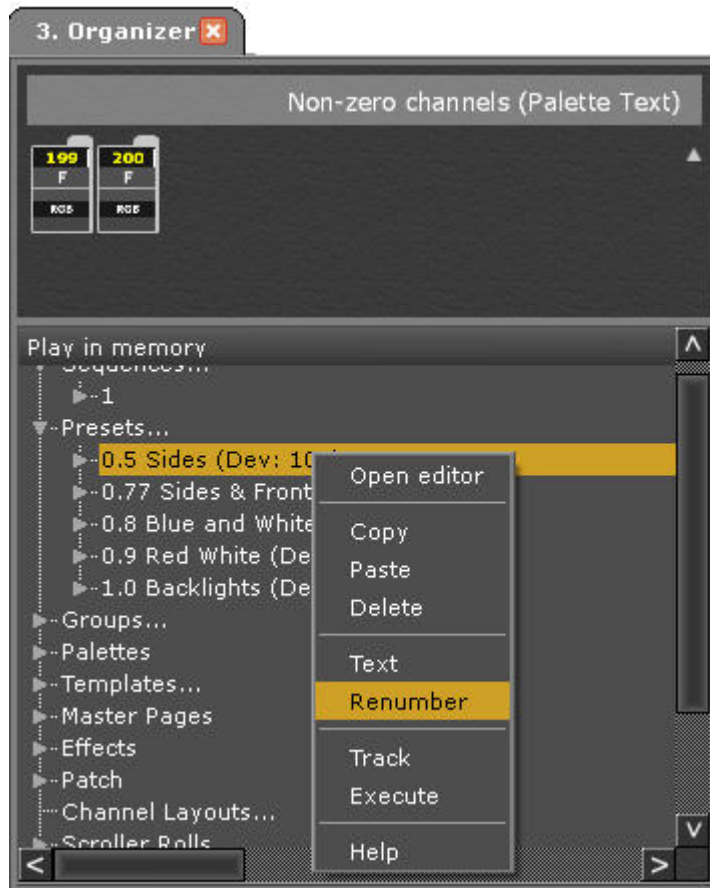
Action	Key	Feedback
Delete selected Preset.	<input type="button" value="DELETE"/>	You will get a popup where you can choose to delete the corresponding Sequence Steps this Preset is used in as well.



Presets - Renumber (6.3)

You can renumber presets in the organizer from the context menu in the Preset nodes.

1. Press SELECT SELECT or right click to open the context menu, then click Renumber.



2. Press MODIFY and click to open the Change Number dialog.



3. Enter a new preset number and press MODIFY to confirm.

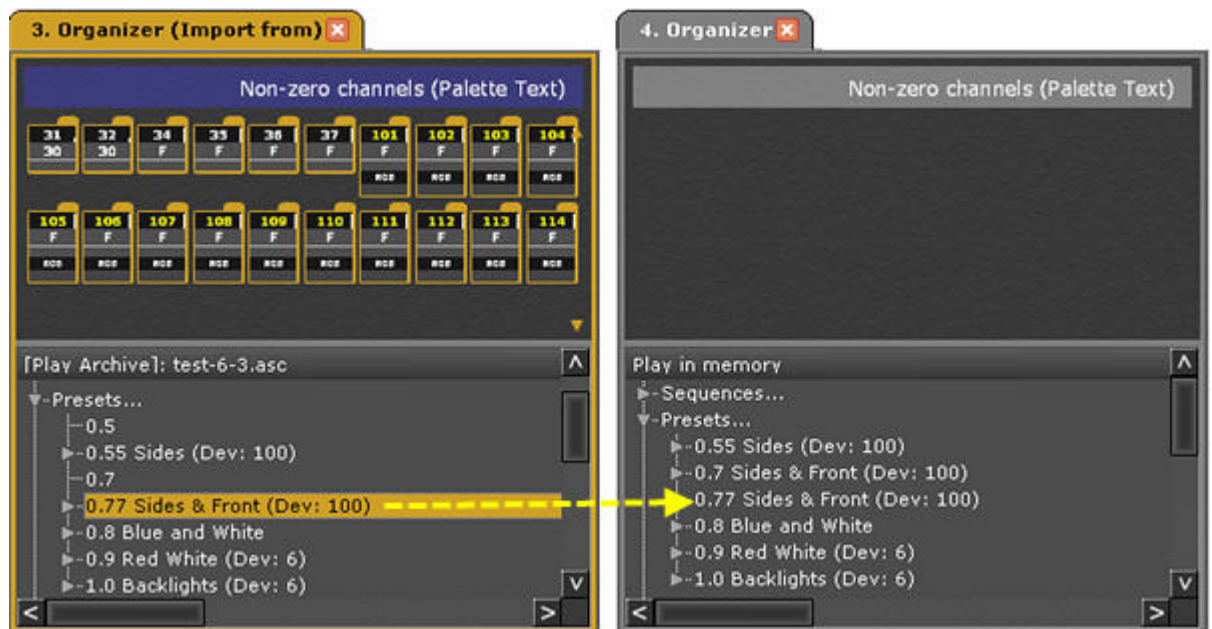
NOTE

Changing the number of a Preset will not change any of the references, such as Master Links, Masters, Sequence Steps, Content Effects, that pointed to the previous number.

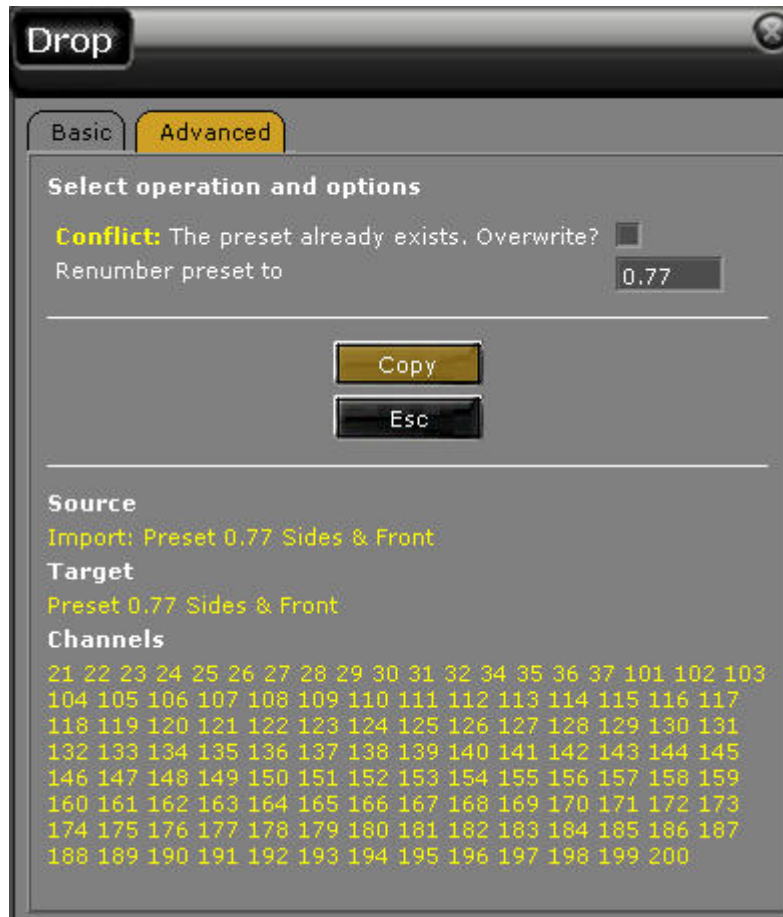
Presets - Import & Undo (6.3)

If you need to import a preset from a previously saved version of your play, because you want to undo the current changes - it is done in the organizer.

1. Open the Import Organizer for the last saved version (name.001) in the Browser (Browser >Files >Import From >Play Archive)
2. Drag the previously saved version of the preset and drop on the same preset in the current play



3. In the Advanced dialogue, check the box "overwrite" (or save with a different number)

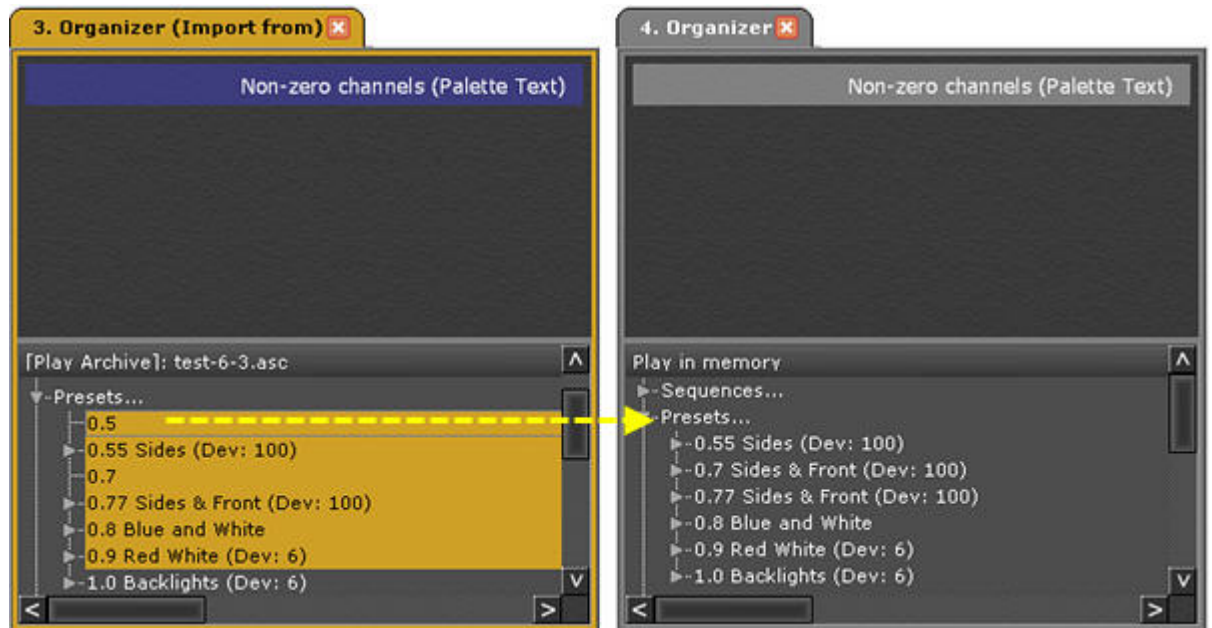


Presets - Multiple Import & Undo (6.3)

You can import a range of presets from a previously saved version of your play.

1. Open the Import Organizer for the last saved version in the Browser (Browser >Files >Import From >Play Archive)
2. Use SELECT or SHIFT & arrow/mouse to select a range of presets in the previously saved play.

3. Drag and drop on preset node in the current play



4. In the Advanced dialogue, select the renumbering option "Keep original spacing and gaps" or "Convert to consecutive numbers" and enter a "start at" number for the first preset.

Keep original spacing and gaps will keep preset numbering as it was in the old play, using the start at value to create an offset. For example, if you drag in presets numbered 1, 1.5 and 3 into the current play with a start at value of 5, the new presets will be numbered 5, 5.5 and 8.



Convert to Consecutive Numbers will clean up decimals and gaps in the preset list - so dragging in the same three presets 1, 1.5 and 3 into the current play using this setting and a start at value of 5 will create presets 5, 6 and 7.



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 - List](#)
- [Sequences - Sequence List](#)
- [Sequences - Crossfade Movefade, Lockfade](#)
- [Sequences - Times](#)
- [Sequences - Insert Step](#)
- [Sequences - Delete Step](#)
- [Sequences - Links](#)
- [Sequences - Load](#)
- [Sequences - Build & Modify Modes](#)
- [Sequences - Block Values](#)
- [Sequences - Track List](#)
- [Sequences - Chase mode](#)
- [Sequences - drag and drop data \(6.3\)](#)

Sequences - Introduction

Theatrical style playback of a number of pre-recorded looks and times is called a "sequence" in Congo.



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. Basically everything in Congo can be triggered from a sequence.

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, Automark flag for Attributes.	See Sequences - 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 trigger a Sequence with MIDI and Time Code.
- You can play back any Sequence in Chase (looped) mode with BPM and rate.
- A new play begins with Sequence 1 already loaded into the Main Playback, ready for creation by simply recording presets.

Record a Sequence Live (6.1)

Record a sequence in the Main Playback:

1. Enter a number
2. Use the level wheel to set an intensity level
3. Press RECORD - you will get a popup suggesting the next free preset number
4. Press RECORD again - you have now recorded a preset, and it has been added as the first (or next) sequence step in the main playback
5. Repeat this procedure three times - you will have a sequence with three steps

Play back this sequence on the Main Playback:

1. Enter 0 and press GOTO - lights in A fade to zero
2. Press GO to fade through the sequence - the fade time is default set to 5 seconds

NOTE

The Main Playback and the Master Playbacks share intensities using HTP (Highest Takes Precedence) logic. Channels with intensities coming from Master Playbacks may not appear to fade in the Main Playback if the levels from the masters are the same or higher than those 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 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 step	MODIFY & PLAYBACK	Opens the Sequence List for the sequence in the Main Playback. See Sequences - Sequence List .
Navigate		See Main Playback .

*Unless the mode Build Sequence is off. See [Settings - Crossfade](#).

Sequences - List

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

2. Sequences List									
Sequence	Text	Mode	Rate	Bounce	Reverse	Single shot	BPM	Show ste number	
1		Normal	100 %				0		▲
10	Lav 4 step	Chase	100 %				0		
11	Red 4 step	Chase	100 %				0		
12	Yell 4 step	Chase	100 %				0		
13	Cyc 4 step	Chase	100 %				0		

Sequences List - Insert/Delete/Load

Function	Key	Feedback
Insert	# INSERT	Sequence # is inserted into the list
Delete	DELETE	The selected sequence is deleted*
Load	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.

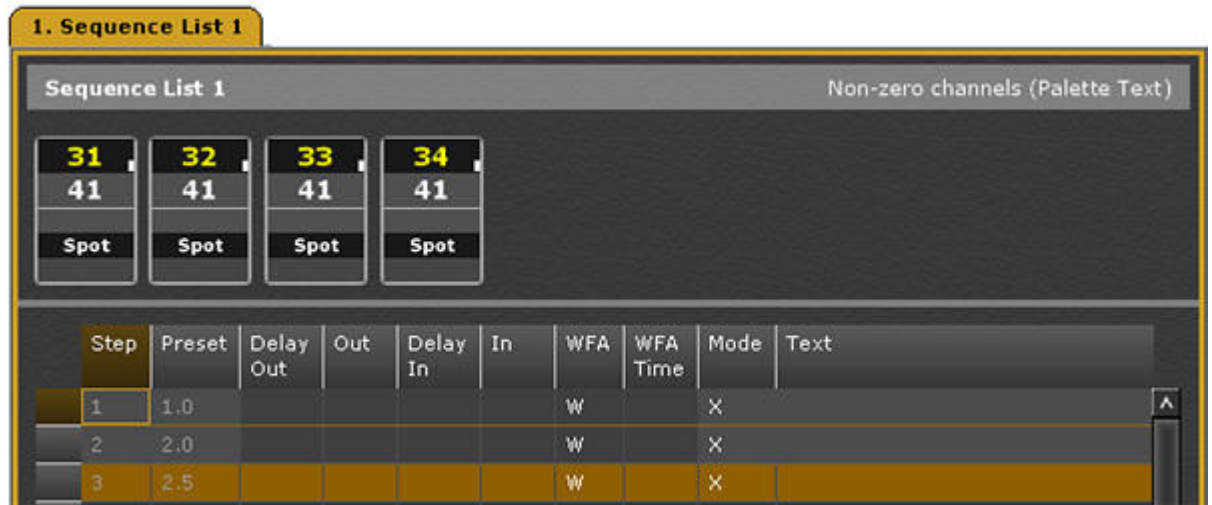
Sequences List - Columns

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

Sequences - Sequence List

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

The currently active sequence step in the main playback is indicated with a brown background.



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

Sequence List Channel View (6.0)

The top part of the Sequence list is a channel view where you can edit all the channel and attribute values directly.

Press ATTRIB to toggle to the attribute view between channels and attributes. In the attribute view you can use all the moving device controls to edit parameters.

3. Sequence List 1

Preset: 1.0 - Palette mode Devices with attributes

Mac 550 16E	Device	GoOnGo	Pan	Tilt	Focus Sp	Color	Color 2	Color Sp	Focus	Iris	Zoom
31	41		50	100	Tracking	[O/W]	[O/W]	Tracking	50	Normal	50
32	41		50	100	Tracking	[O/W]	[O/W]	Tracking	50	Normal	50
33	41		50	0	Tracking	[O/W]	[O/W]	Tracking	50	Normal	50
34	41		50	0	Tracking	[O/W]	[O/W]	Tracking	50	Normal	50

Step	Preset	Delay Out	Out	Delay In	In	WFA	WFA Time	Mode	Text
1	1.0					W		X	
2	2.0					W		X	
3	2.5					W		X	
4	3.0					W		X	

NOTE

You can only edit attributes with console functions (wheels and keys). If you want to edit attributes on the screen, move to the Preset cell and press MODIFY twice to open the Preset Attribute Editor.

Sequence List Functions

Function	Key	Feedback
Open List	# SEQ	The Sequence List is opened for seq #.
Open List	# MODIFY SEQ	The Sequence List is opened for seq #.
Go to Step	GOTO	Fades in the Main Playback to the selected step.
Update Step	UPDATE	Updates level changes in the current step.
Insert a new Step	# INSERT	Inserts a new step, with Preset #.
Edit Text	MODIFY	Opens the text cell for editing. The Congo keyboard is activated in Master Playback display four.
Delete selected Step(s)	DELETE	Deletes the selected Step. Cannot be undone.
Edit any value	# MODIFY	Enter a new value and press MODIFY.
Move Step	Drag and drop	You can drag and drop a Sequence Step with the trackball to move it.
In time	# IN	Sets an In time of # seconds directly to the focused step.
Out time	# OUT	Sets an Out time of # seconds directly to the focused step.
<p>NOTE You can use COPY, CUT and PASTE to insert and delete steps in the Sequence List as well. See Copy, Cut & Paste.</p>		

Sequence List - Columns

Part 1

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

* 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>Attrib Move</u>	<input type="button" value="MODIFY"/>	Toggle between, AutoMark, 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="#"/> <input type="button" value="MODIFY"/>	Shows or edits which Master Page is linked.
<u>Fade Curve</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Shows or edits which Fade Curve is linked.
<u>LinkToStep</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Shows or edits which step this step is linked to.
<u>TimeCode</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	View/Edit Time Code for this step
<u>Note</u>	<input type="button" value="MODIFY"/>	Opens the editor for a Note
<u>Block Tracking</u>	<input type="button" value="MODIFY"/>	Blocks tracking through this step
<u>Macro</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets this step to trigger Macro #.
<u>Action Macro</u>	<input type="button" value="MODIFY"/>	Opens this cell for text input of an Action Macro - See Actions & Events - Actions .

Sequence and Preset texts (6.0)

In the sequence list you can see and edit both the unique sequence step text and the text belonging to the preset occupying a sequence step.

- Go to the Text column and press MODIFY to edit the sequence step text.
- Go to the P-Text column and press MODIFY to edit the Preset text.



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	RECORD	Normally a crossfade (x) is recorded. This means that all channel values are replaced when a new crossfade is started.
Record a Move Fade	+ & RECORD	When a movefade (m) is followed by another movefade, only channels with new levels will be affected.
Record a LockFade	- & RECORD	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 (6.0)

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, like this: 0.01 – 9.99. seconds to 49.59 minutes (0.1- 4959). It is possible to use hundreds of seconds as input during the first 10 seconds (v6.0)

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](#).

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

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
In time	# IN	A time is set for the incoming channels.
Out time	# OUT	A time is set for the outgoing channels.
In- and Out time	# TIME	A time is set for the in- and outgoing channels.
Delay In time	# DELAY & IN	A delay time is set for the incoming channels.
Delay Out time	# DELAY & OUT	A delay time is set for the outgoing channels.
Wait, Followon or Alert time *	Sequences - Sequence List	Enter the time in the <i>WFA Time</i> column of the Sequence List. You can toggle between Wait, Alert or Followon in the previous column

* 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

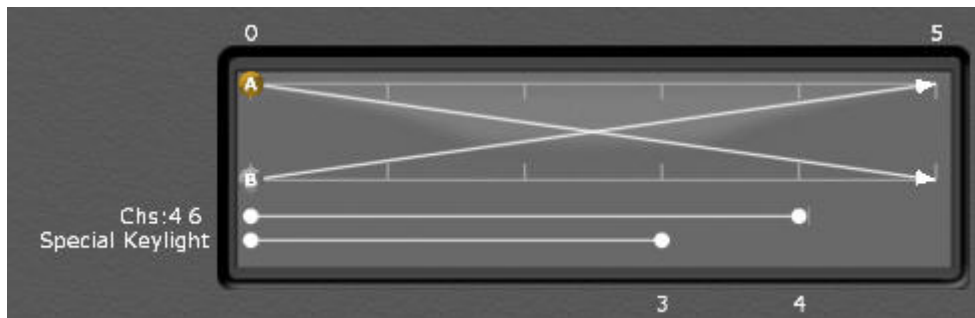
Times are set to the step in A (Active) or B (Next) depending on the setting for times (SETUP & TIME).

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.
2. 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.
3. 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 two shortcuts as well.

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



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



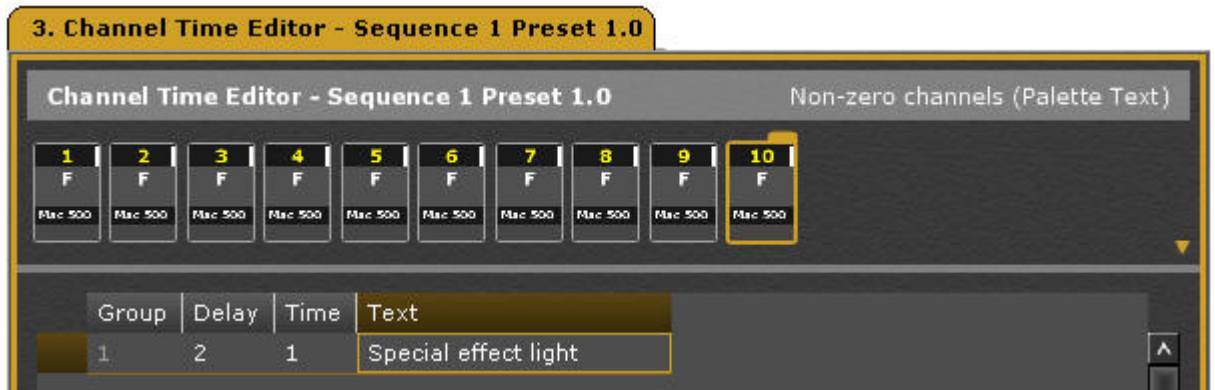
NOTE

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

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

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

Attribute Times

Channel Times

NOTE

The Time Editor follows the setting of the "Times in A/B" parameter in the Congo Setup (SETUP or F11).

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

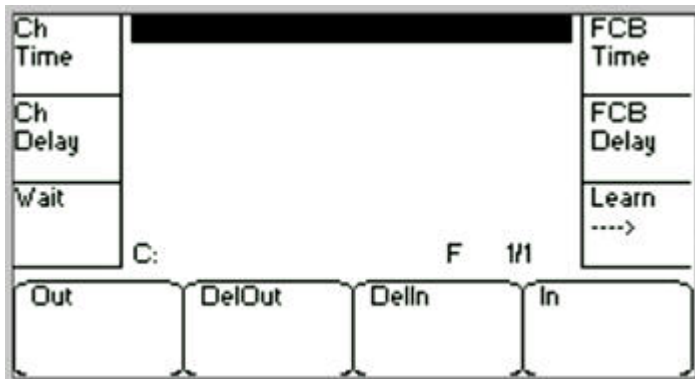
The first six existing Channel Times can be edited directly in the Channel Times tab.



The Times Soft Key Page (6.2)

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

Congo



In the big Congo the LEARN functions are a sub page:

Learn Alert	[Redacted]			
Learn Profile	C:	F	1/1	
Out	DelOut	DelIn	In	

Congo Jr (6.2)

Ch Time	Ch Delay	Wait	Learn Alert	Learn Profile	FCB Time	FCB Delay				<----
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
Channel time	# CH TIME	Sets a channel time (#) to the selected channels.
Channel delay	# CH DELAY	Sets a channel delay time (#) to the selected channels.
Wait	# WAIT	Sets a Wait time (#) to the Preset in A (or B).
Out	# OUT	Sets an out time (#) to the Preset in A (or B).
Delay out	# DELAY OUT	Sets a Delay Out time (#) to the Preset in A (or B).
Delay in	# DELAY IN	Sets a Delay In time (#) to the Preset in A (or B).
In	# IN	Sets an In time (#) to the Preset in A (or B).
FCB time	# FCB Time	Sets FCB times (#) to the Preset in A (or B).
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.
<u>Learn Profile</u>	Learn Profile	Activates Learn Profile mode for the next crossfade. See Sequences - Crossfade Profiles .

* See [Sequence Times - WFA 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

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.

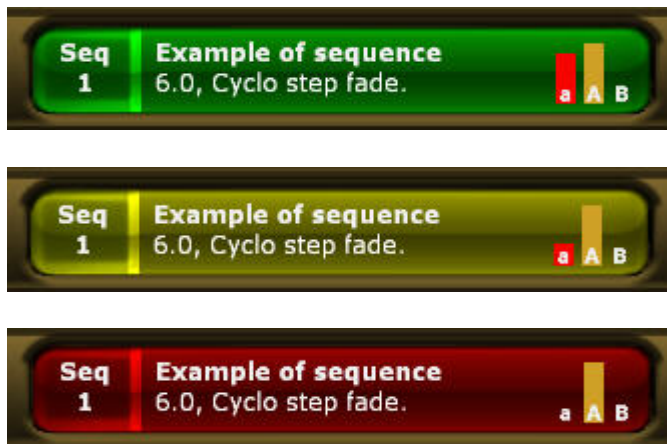
There is a Learn Mode that will record Alert times automatically as a show is played back in real time by an operator. This mode is activated with the soft key LEARN ALERT in the Times Soft Key page. See [The Times Soft Key Page](#).

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 WFA and WFA Time columns. It can be toggled to be a Wait or Followon Time as well. See [Sequence List - Columns](#). See also [Sequence Times - WFA Wait & Followon Times](#).

Sequence Times - WAF Wait & Followon Times

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 [Sequence List - Columns](#).

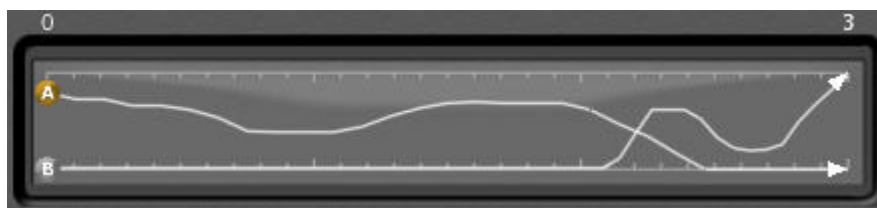
Sequences - Crossfade Profiles (6.0)

You can record the movements of the A and B faders. When you start the crossfade the next time, the profile will be played back.

1. Start recording a profile by pressing the *LEARN PROFILE* soft key in the *Times* soft key page. See [Times Soft Key Page](#).

2. The recording will stop when both faders reach their end position at the same time.

A preview of the profile is shown in the timeline view.



The total time of A and B are separately stored as the Out and In times. If you change these times, the recorded profiles will be scaled on playback to play back in the new time.

A new column (Profile) is added in Sequence Editor. It shows a check mark when a profile has been recorded. You can press DELETE in this column to delete the profile.



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 any 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 Step	<input type="text" value="1"/> <input type="text" value="."/> <input type="text" value="5"/> <input type="button" value="RECORD"/>	Inserts between 1 and 2. A popup will ask you to confirm recording.
Confirm	<input type="button" value="RECORD"/>	The preset is recorded between 1 and 2.

Insert A Sequence Step Directly In The Main Playback (6.0)

You can insert a preset into the sequence of the main playback directly.

Function	Shortcut	Feedback
Insert before A	<input type="text" value="#"/> <input type="button" value="INSERT"/> <input type="text" value="&"/> <input type="text" value="A"/>	Preset # is inserted before the current step in A
Insert before B	<input type="text" value="#"/> <input type="button" value="INSERT"/> <input type="text" value="&"/> <input type="text" value="B"/>	Preset # is inserted before the current step in B

Insert A Sequence Step - In The List

Function	Shortcut	Feedback
1. <i>Open the Sequence list</i>	# SEQ	The List for sequence # is opened.
2. <i>Move to the step you wish to insert a new step after</i>	Arrow Keys	The selected step is highlighted in yellow.
3. <i>Insert Preset #</i>	# INSERT	The preset is inserted after the selected step
NOTE You can use COPY, CUT and PASTE to insert and delete steps in the Sequence List as well. See Copy, Cut & Paste .		
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.

Delete a sequence step directly in the main playback (6.0)

You can delete a sequence step in the main playback directly. The Preset is left intact in the Preset List.

Function	Shortcut	Feedback
Delete step in A	DELETE & A	The sequence step in A is deleted.
Delete step in B	DELETE & B	The sequence step in B is deleted

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 which can be opened with # SEQ or Browser >Main Show Data >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
1. Select MastLink column*	Arrow keys	The column is highlighted
2. Open Master Link List	<input type="button" value="MODIFY"/>	The Master Link List is open.
3. 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 [Sequences - 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%.

Sequence Step Links - Shortcut

There is a shortcut for inserting a Master Link directly to the current Sequence Step in the Main Playback.

Function	Key	Feedback
Insert link	<input type="button" value="INSERT"/> <input type="button" value="&"/> <input type="button" value="Master Key"/>	Master # is inserted as a link to the Step in A.
Insert link with target	<input type="button" value="#"/> <input type="button" value="INSERT"/> <input type="button" value="&"/> <input type="button" value="Master Key"/>	Master # is linked, with its current content, and a target level of 100 or 0% depending on earlier links.

Sequence Step Links - Master Pages

You can insert a link to a master page.

Function	Key	Feedback
1. <i>Select the MastPage column*</i>	Arrow keys	The column is highlighted
2. <i>Insert a link</i>	<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
1. Select the LinkTo column*	Arrow keys	The column is highlighted
2. Insert a link to Sequence Step #	<input type="text" 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 [Masters](#).

Function	Keys	Feedback
Load	# SEQ & PLAYBACK	Sequence # is loaded to the Main Playback. The light in A (Active) and B (Next) is not affected.
Load to master	# 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

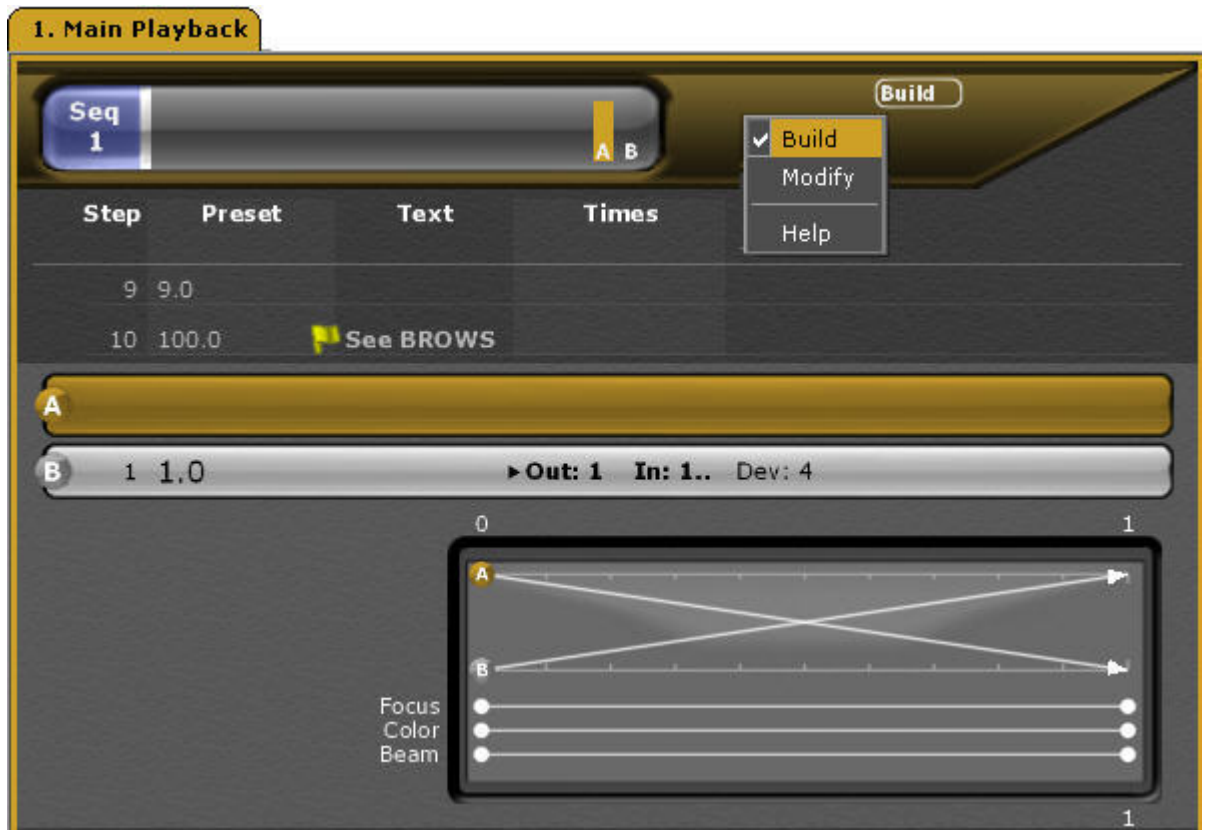
Function	Keys	Feedback
Load	LOAD & PLAYBACK	Sequence # is loaded to the Main Playback. The light in A (Active) and B (Next) is not affected.
Load to master	LOAD & Master Key	Sequence # is loaded to the Master Playback.

Sequences - Build & Modify Modes (6.3)

There are two modes that affect recording and playback of Sequences. Build Sequence and Modify Sequence.

The fastest way to toggle them on/off is with the context menu (right-click) on the header of the Playback Tab (6.3).

Both can be set in System Settings as well. See [System Settings - Crossfade](#).



Sequence - Build Sequence Mode

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.

NOTE

You can record a Preset without adding it to the Sequence in the Main Playback with a shortcut; # RECORD & PRESET

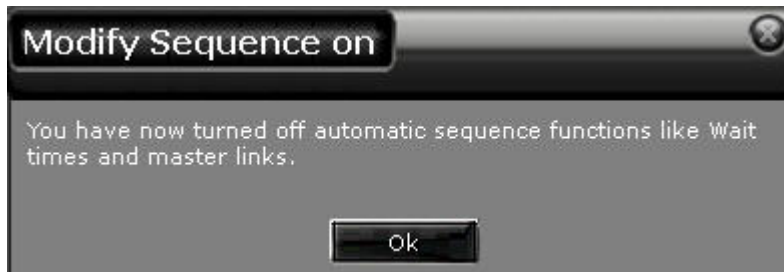
See [Record Preset - Do not add to Sequence](#)

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 - Block Values

It is possible to set a block for all track editing functions for a step. This is done in the Sequences List.

See [Sequences - Sequence List](#).

See also [Track - Track Editing](#)

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 it to a different value from incoming or outgoing values (like 99% or 49%).

Sequences - Track List

All tracking features have been moved to the chapter Track List.
See [Track List](#).

Sequences - Chase Mode

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 using a Master Link.
- 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. <i>Open the Sequences list</i>	<input type="button" value="SEQ"/>	The Sequences List is opened.
2. <i>Step to the Rate cell for a chase</i>	Arrow Keys	The cell is highlighted.
3. <i>Enter a new Rate</i>	<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 tab (Browser >Main Show Data >Sequences) or using the Tap Tempo function.

Set BPM Numerically

Action	Keys	Feedback
1. Open the Sequences list	<input type="button" value="SEQ"/>	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	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	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	<input type="button" value="#"/> <input type="button" value="SEQ"/> <input type="button" value="⌘"/> <input type="button" value="Master Key"/>	The Chase is assigned to the Master Playback.
2. Tap the Tempo	<input type="button" value="TAP"/> <input type="button" value="⌘"/> <input type="button" value="Master Key"/>	Hold TAP and tap the Master Key at least twice.*

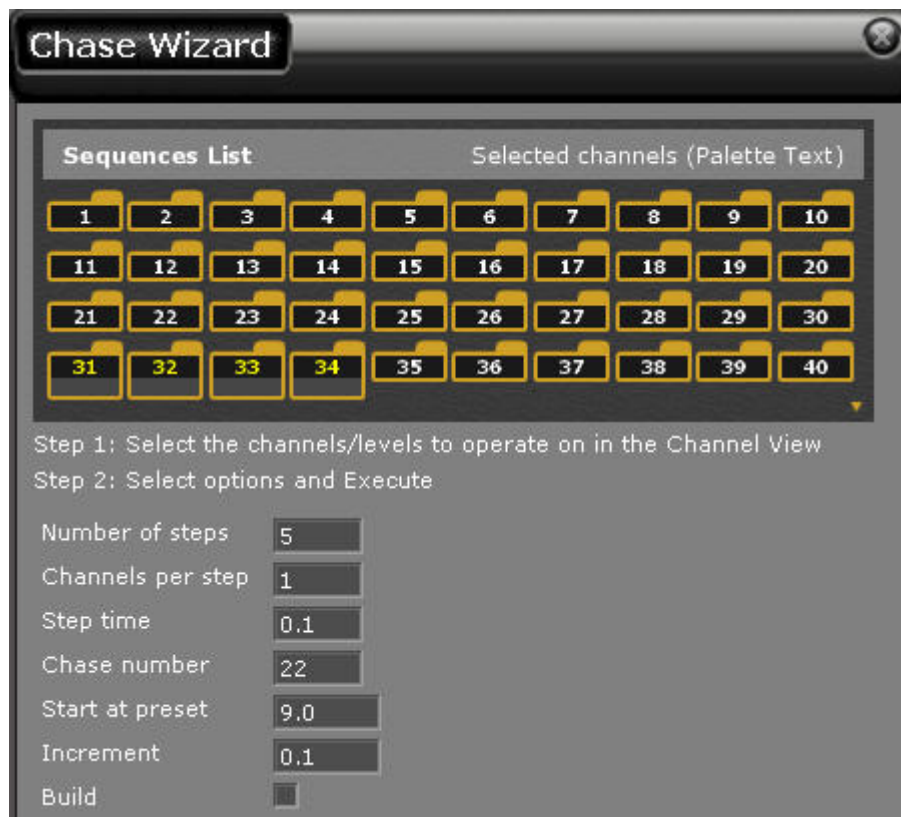
*You have to tap at least 2 times in a row before the new tempo is activated. The tapping speed is translated to, and stored as the BPM parameter in the Sequence List. You can easily change it afterwards.

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
<i>1. Open the Sequences list</i>	<input type="button" value="SEQ"/>	The Sequences List is opened.
<i>2. Open the Chase Wizard</i>	<input type="button" value="WIZARD"/>	The Chase Wizard is opened. The next free Sequence number is suggested.
<i>3. Select channels and set levels</i>	Channel functions	The current channel selection from Live is automatically loaded. Change if wanted to.
<i>4. Fill in the Chase Wizard</i>	Arrow Keys	See Chase Wizard - Functions
<i>5. Execute the Chase Wizard</i>	<input type="button" value="EXECUTE"/>	The Wizard is closed, and the new Chase is added to the Sequences List.

This is the Chase Wizard

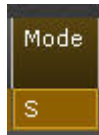


Chase Wizard - Functions

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.
<p>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.</p>		

Sequences - Split Fade (6.1)

There is a setting in the Mode cell of each step in the Sequence List that allows you to set the fade mode to S (Split) in which there will be no dipless calculation between the crossfaders - allowing for a blackout by moving each fader to zero.



See [Sequences - Sequence List](#)

Sequences - Drag And Drop (6.3)

There are many ways of moving around data in a sequence. Drag and drop is one of them. It can be useful if you want to reorganize the order of your sequence steps, or for example if you want to move an attribute link from one step to another.

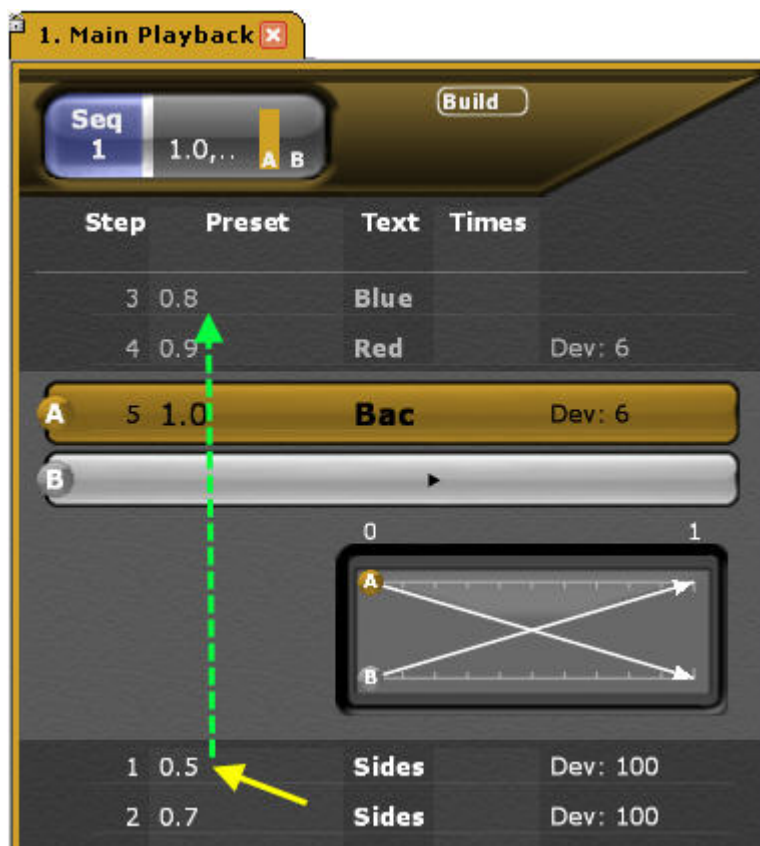
Drag and Drop a Sequence Step (6.3)

Moving or copying a sequence step to another position can be done in all three Sequence views:

- Playback View
- Sequence List
- Organizer

Simply select the step you wish to move, click, hold and drag to another position and drop.

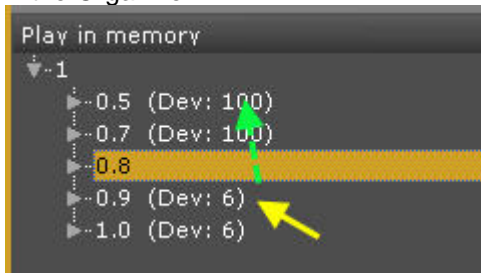
In the Playback View:



In the Sequence List:

Step	Preset	Delay Out	Out	Delay In	In	WFA	W
1	0.5					W	
2	0.7					W	
3	0.8					W	
4	0.9					W	
5	1.0					W	

In the Organizer:



In all three cases you will get the following dialogue:



This dialogue allows you to COPY or MOVE the selected step.

COPY = Makes a copy of the source and inserts it into the sequence after the target step.

MOVE = Moves the source and inserts it into the sequence after the target step.

If you select the Advanced tab by pressing left arrow you get the following options:



The first option allows you to define where you want to copy/move the step to.

- After the target step (default)
- Before the target step
- Replace the target step

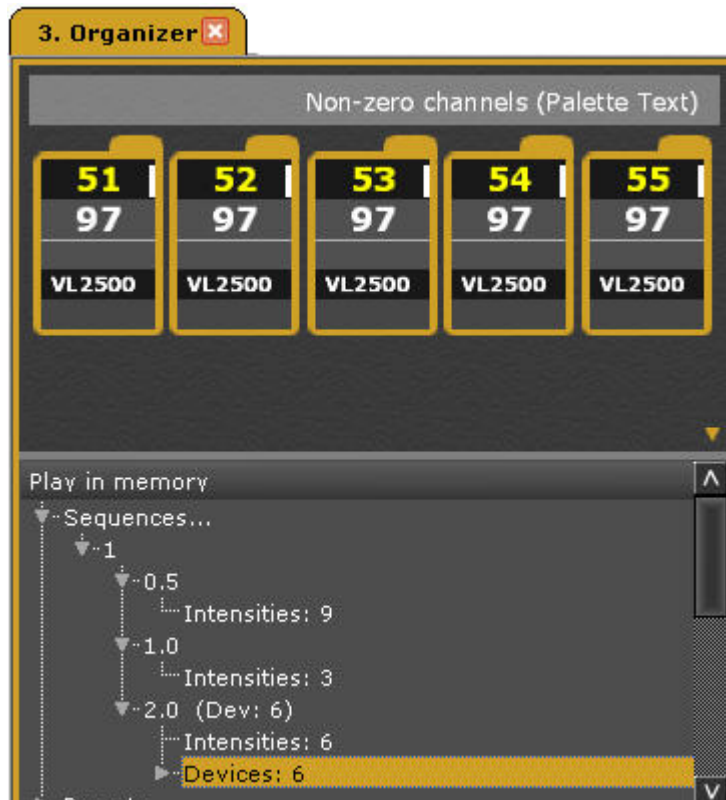
The second option "Create Between" allows you to create a new step with a new preset number and insert (after/before).

Drag and Drop Device Attributes (6.3)

Moving and copying device links in a sequence can be done in the organizer, or in the main playback tab.

Organizer

1. Open the Organizer tab (Browser >Main Show Data >Organizer (1 tab)) and expand the sequence nodes.



2. Left-click, hold and drag the Devices node from step 2 to step 1, and drop. This will give you a dialogue:

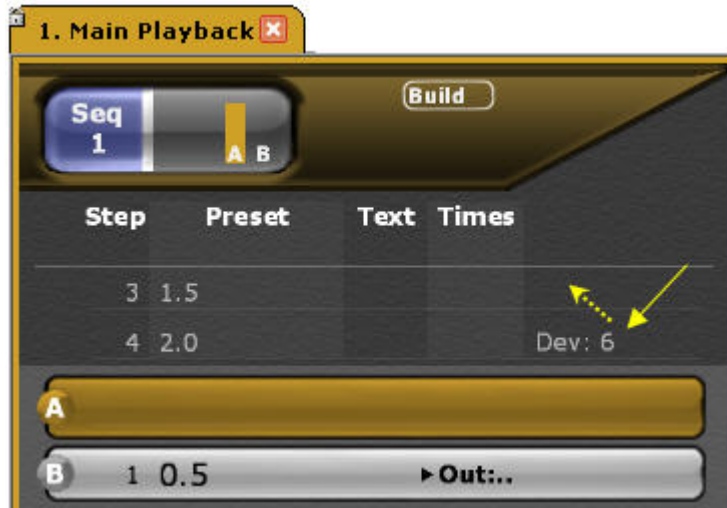


Your options are to either copy, or move the device link you just dragged.

NOTE
You can drag all devices, devices of the same type or just a single device depending on where you click when you drag.

Main Playback Tab

In the main Playback Tab, left-click, hold and drag devices in the device cell of a sequence step to another step and drop to get the same dialogue as when you drag and drop in the Organizer as described above.



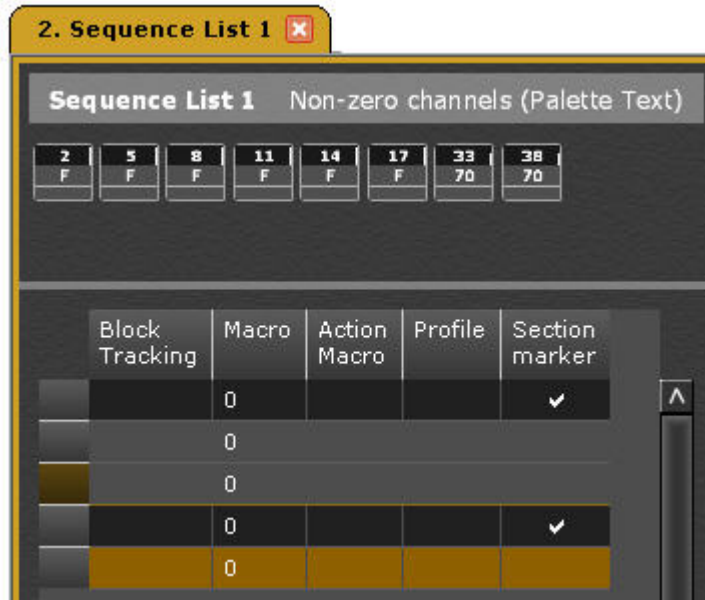
Sequences - Section Markers (6.3)

You can organize the contents of a sequence visually by setting section markers that will provide a blue heading. In addition to this you can jump between section markers.

The quickest way to apply or remove a section marker is using the context menu (right-click over a sequence step in the Playback tab).



You can see and set the section markers in the sequence editor as well - in the column at the far right



AND you can set the section marker also when you record a new preset in the sequence from the Advanced Record dialogue.



Jump Between Section Markers (6.3)

There are different ways to jump between section markers

Function	Keys	Feedback
Next marker to A	[GOTO] & [SEQ+]	Step with next marker is loaded to A
Previous marker to A	[GOTO] & [SEQ-]	Step with previous marker is loaded to A
Next marker to B	[JUMPTOB] & [SEQ+]	Step with next marker is loaded to B
Previous marker to B	[JUMPTOB] & [SEQ-]]	Step with previous marker is loaded to B
Snap to next/previous marker (from keyboard)	G & up/down_arrows	From Keyboard: Snap to next/previous marker

A new Direct Select type is available for Sections to make a Goto directly

Section 1-10	1 PRESS GO	2 NEW LOOK								

Playlist (6.2)

The Playlist allows you to arrange the order in which sequences are loaded to the main playback.

1. Make sure you have some sequences to arrange in the playlist.
2. Open the Playlist editor

The Playlist is opened from Browser >Main Show Data >Playlist.



These are the functions in the Playlist.

Function	Keys	Feedback
Insert	<input type="button" value="#"/> <input type="button" value="INSERT"/>	Sequence # is inserted into the Playlist
Delete	<input type="button" value="DELETE"/>	Sequence # is deleted from the Playlist
Load	<input type="button" value="GOTO"/>	Loads the selected Sequence to the Main Playback from the next fade.

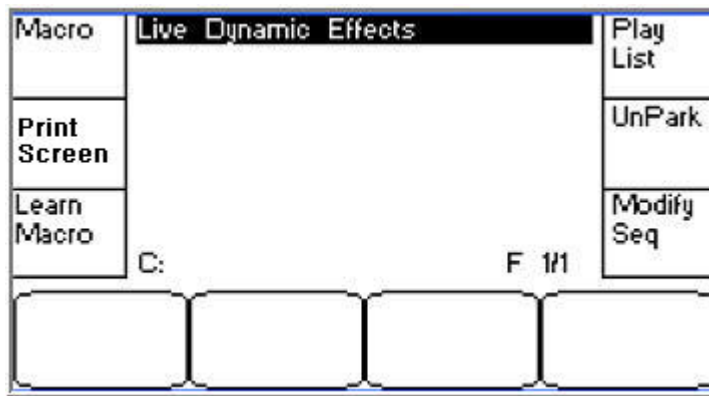
3. Activate Playlist Mode from the Misc Soft Key Page (see below).

NOTE (6.2)
You can reset the Playlist to start from the top at anytime by holding C and pressing PLAYLIST in the Misc Soft Key Page.

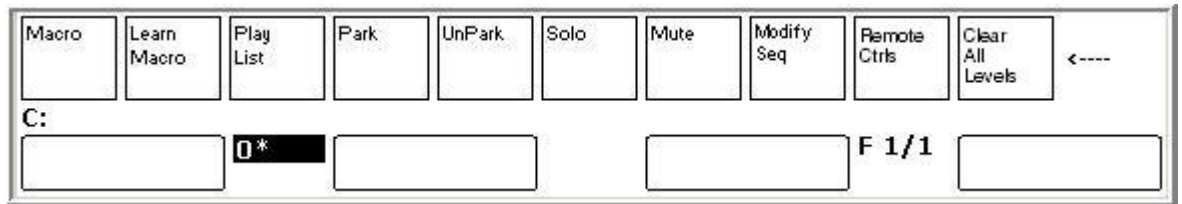
The Playlist - Mode

Playlist mode is activated by the softkey PLAYLIST in the **Misc Soft Key Page**.

Congo



Congo Jr



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 in the Misc soft key page to activate the Playlist in the main display.

You can select any sequence with the trackball in DisplList mode by clicking on it.

Groups/Palettes Overview

This is an overview showing both Groups and Palettes of all types (Focus, Color, Beam, All) in the same tab.

- Open from the Browser >Main Show Data >Group/Palette Overview.
- Press MODIFY to activate a selected item.
- Press TRACK to track a selected item.
- Press MODIFY to edit a name.

3. Groups/Palettes Overview										
#	Group	Text	Palette	Text	Focus	Text	Color	Text	Beam	Text
1	1	Key lights	1	Front R-O/W	1	Front L	1	O/W	1	Str Open
2	2	Back lights	2	Gr-Mag Look	2	Front C	2	Redish	2	Str Slow
3	3	Revolutions	3	Wall Orange	3	Front R	3	Yellowish	3	Str RND
4	4	Sides Amber	4	Wash Stage	4	Mid L	4	Greenish	4	Frost 0%
5	5	Sides Cyan	5	Default view	5	Mid C	5	Blueish	5	Frost 10
6	6	Mac 300's	6	Top View	6	Mid R			6	Frost 40
7	7	Gobo lights	7	SL view	7	Back L				
8	8	Cyclo lights	8	Back view	8	Back C				
9	9	Capture Cam			9	Back R				

>Settings & Tools - Main Show Data

These are the settings and tools for Main Show Data.

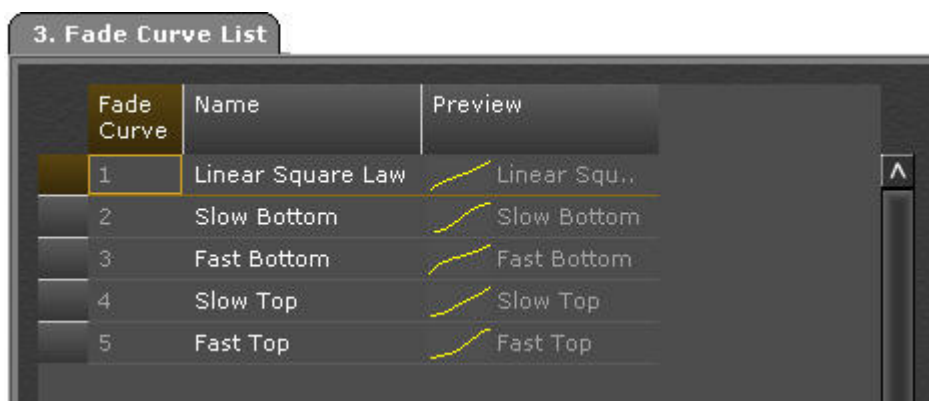
This chapter contains the following sections

- [Fade Curves](#)
- [Notes Editor](#)
- [Delete Wizard](#)

Fade Curves (6.1)

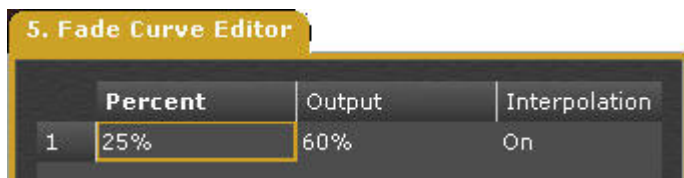
It is possible to create and assign fade curves to each crossfade. It is possible to create any kind of curve in the Fade Curve Editor. The curves affect intensities, not Moving Device attributes.

When you create a new play (6.1) a set of standard fade curves are loaded.



Action	Key	Feedback
1. Open the Fade Curve List	Browser >Main Show Data >Settings and Tools >Fade Curves	The Fade 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 Name cell.
3. Open the Fade Curve Editor	<input type="button" value="MODIFY"/>	Press MODIFY in the Fade Curve cell to open the editor.

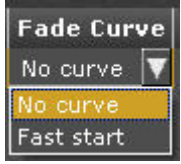
Fade Curve Editor (example: fast start Curve)



Action	Key	Feedback
4. Insert a position	<input type="button" value="INSERT"/>	A position is inserted. You can set percent, Output and if this step should use interpolation to the next step.

Sequence - Assign Fade Curves

Assign curves to a sequence step in the Sequence Editor.

Action	Key	Feedback
1. <i>Open the Sequence Editor</i>	<input type="button" value="MODIFY"/> & <input type="button" value="PLAYBACK"/>	The Sequence List is opened.
2. <i>Move to the column "Fade Curve"</i>	Arrow Keys	The cell is highlighted
3. <i>Open the Fade Curve popup</i>	<input type="button" value="MODIFY"/>	<p>The popup is opened. If no curves are defined it will only have "No curve".</p> 
4. <i>Select a Curve</i>	Arrow keys	The selected curve is highlighted
5. <i>Confirm</i>	<input type="button" value="MODIFY"/>	The popup is closed and the selected curve is assigned to this step.

Notes Editor

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.

- 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

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

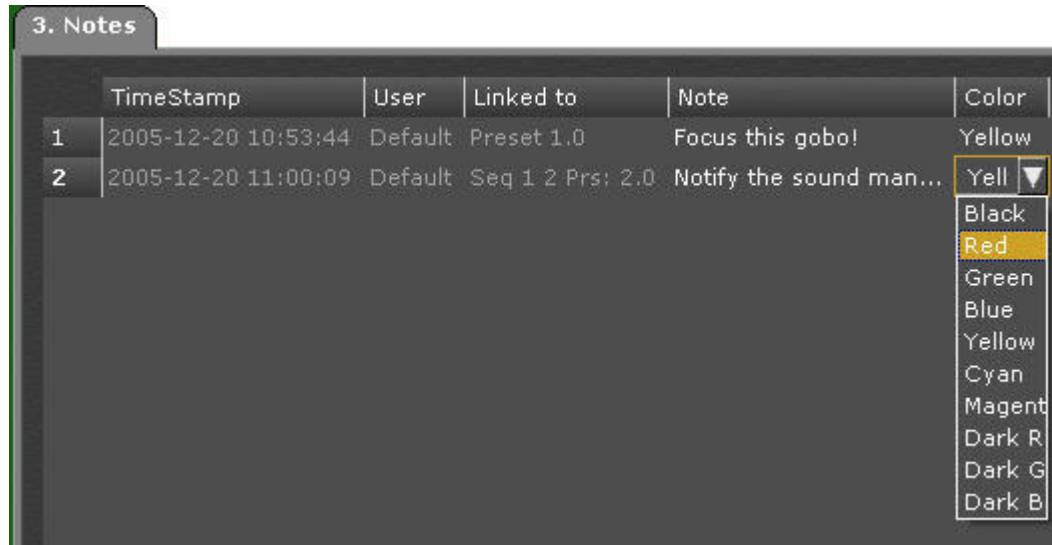
Pressing NOTE (for example in the Preset List) will produce the following popup



Press MODIFY to save. See [Notes - Editor](#).

Notes - Editor

Open the Notes Editor by holding MODIFY and pressing NOTE or from the Browser (Browser >Main Show Data >Settings and Tools >Note Editor).

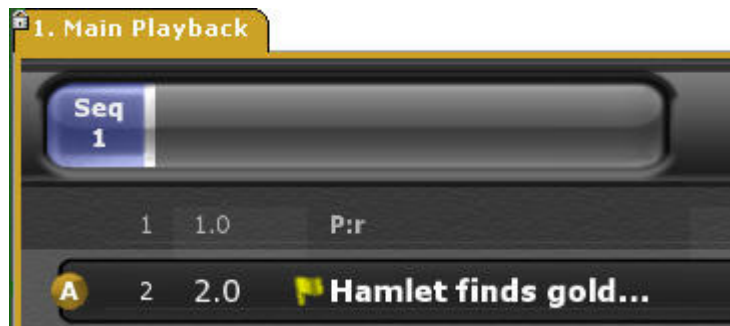


Note Editor - Columns

These are the columns in the Note Editor.

Column	Input	Function
<u>Time</u> Stamp	MODIFY	The time stamp of this Note - Press MODIFY to open the editor for this object.
<u>User</u>	MODIFY	The user that created this Note - Press MODIFY to open the editor for this object.
<u>Linked to</u>	MODIFY	The object of this Note - Press MODIFY to open the editor for this object.
<u>Note</u>	MODIFY	The Note text. MODIFY opens the text for editing.
<u>Color</u>	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

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.

Delete Wizard

The Delete Wizard allows you to delete bulk data in your play.

It is opened from the Browser >Main Show Data >Settings and Tools >Delete Wizard.

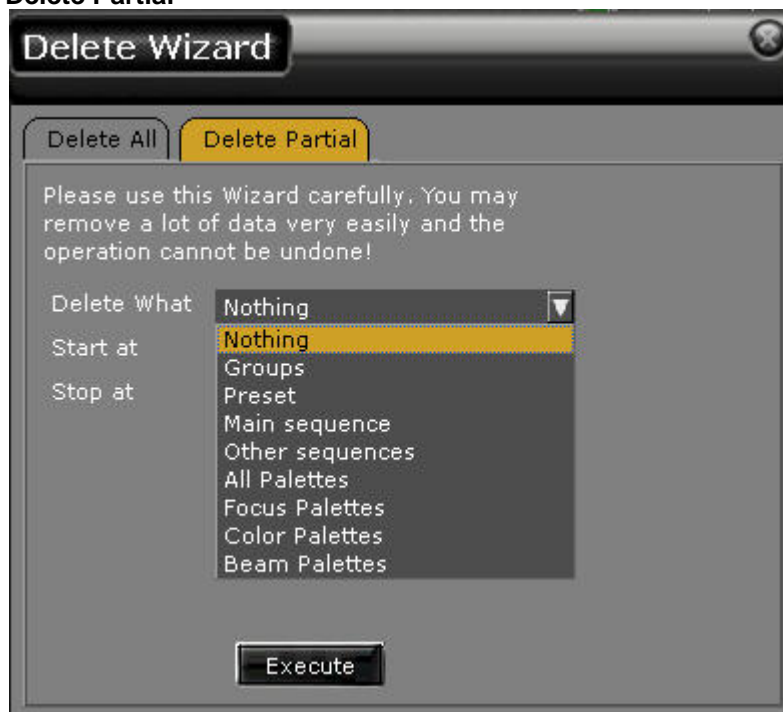
There are two tabs.

- Delete All (of a type of data)
- Delete Partial (from #-#)

Delete All



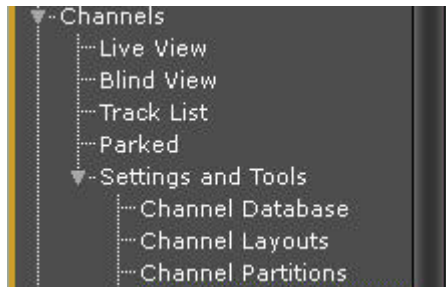
Delete Partial



Channels

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

Channels Node



This chapter contains the following sections

- [Channels Functions](#)
- [Live View](#)
- [Blind View](#)
- [Track List](#)
- [Parked](#)
- [>Settings and Tools - Channels](#)

Channels - Introduction

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

Dimmer channel



Device



Channels are selected with the channel functions 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 - Functions

These are the channel functions.

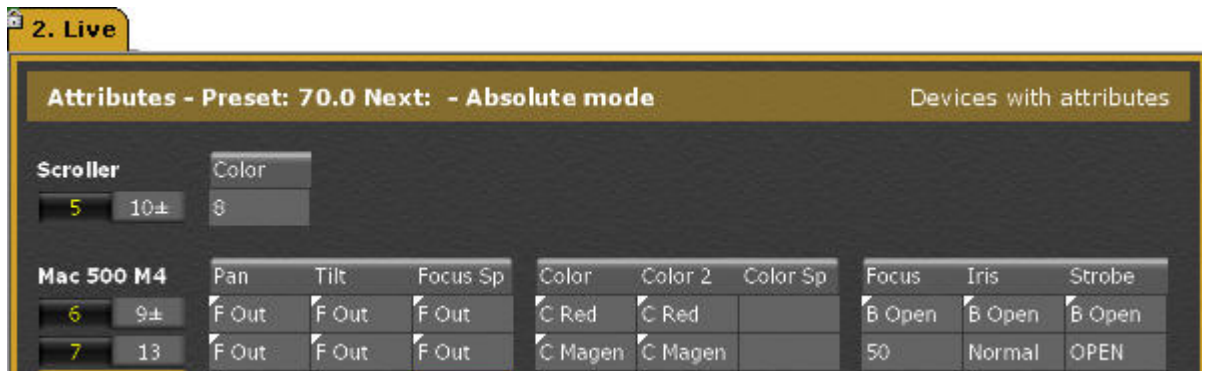
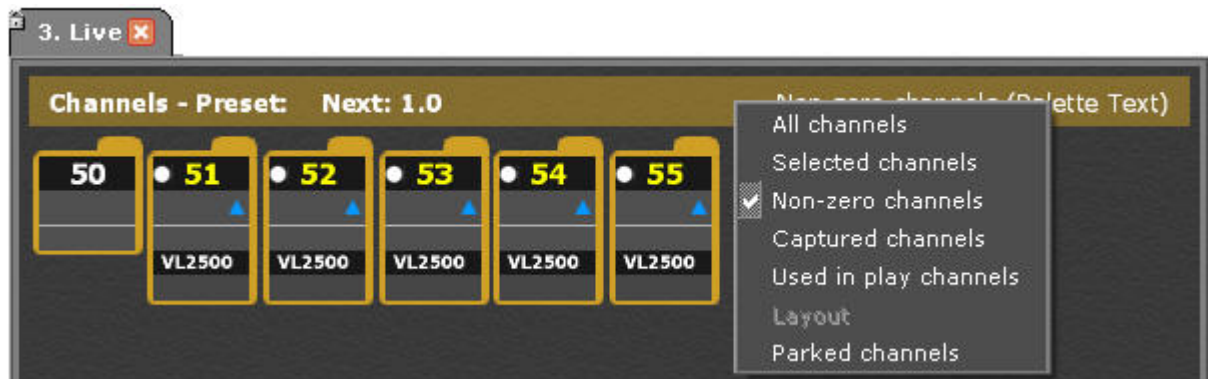
This chapter contains the following sections

- [Channels - Views](#)
- [Channels - Command Syntax](#)
- [Channels - Ch Only Mode](#)
- [Channels - 8 bit 256 Step Levels](#)
- [Channels - Capture Mode](#)
- [Channels - Clear Functions](#)
- [Channels - Check Mode](#)
- [Channels - Balance Mode](#)
- [Channels - Random Selection](#)
- [Channels - Scale Level](#)
- [Channels - Used & Unused](#)
- [Channels - Group Wheel Mode](#)
- [Channels - Rem Dim](#)
- [Channels - Next & Last Mode](#)

Channels - Views

Channels are displayed graphically in channel views. These views are part of editors like the Preset Editor, the Sequence Editor, Effect Editors etc. The main channel view is the LIVE tab.

Channel views can show channel intensities, palettes and attributes. They have different levels of detail and can be zoomed. For more information see [Navigating - Channel Views](#) and [Live - Introduction](#).



Channels - Command Syntax

The default mode for entering commands in the system is simple to learn, requires few keystrokes and applies to all functions in the system. It is used a lot in HP calculators for speedy calculations and is called Reverse Polish Notation (RPN). Since RPN applies to everything in the system we recommend you spend the necessary 30 minutes to understand it. 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.

NOTE

At mode setting is set up and stored in the registry as a system setting. See [System Settings - General](#).

Select Channels (6.1)

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	RPN	AT MODE
Clear selected channels	<input type="button" value="C/ALT"/> <input type="button" value="C/ALT"/>	<input type="button" value="C/ALT"/> <input type="button" value="&"/> <input type="button" value="C/ALT"/>
Select channel 1	<input type="button" value="1"/> <input type="button" value="CH"/>	<input type="button" value="1"/>
Add channel 2	<input type="button" value="2"/> <input type="button" value="+"/>	<input type="button" value="+"/> <input type="button" value="2"/>
Add through 7	<input type="button" value="7"/> <input type="button" value="THRU"/>	<input type="button" value="THRU"/> <input type="button" value="7"/>
Subtract ch 3	<input type="button" value="3"/> <input type="button" value="-"/>	<input type="button" value="-"/> <input type="button" value="3"/>
Select all channels with a level in the channel control	<input type="button" value="ALL"/>	<input type="button" value="ALL"/>
Select all channels at level # in the channel control (6.1)	<input type="button" value="#"/> <input type="button" value="ALL"/> <input type="button" value="&"/> <input type="button" value="@LEVEL"/>	<input type="button" value="#"/> <input type="button" value="ALL"/> <input type="button" value="&"/> <input type="button" value="@LEVEL"/>
Select all channels with a level in any playback	<input type="button" value="ALL"/> <input type="button" value="ALL"/>	<input type="button" value="ALL"/> <input type="button" value="ALL"/>
Invert the current channel selection (of all channels with a level)	<input type="button" value="INV GROUP"/>	<input type="button" value="INV GROUP"/>
Step to the next ch	<input type="button" value="+"/>	<input type="button" value="+"/>
Step to the previous ch	<input type="button" value="-"/>	<input type="button" value="-"/>
<p>NOTE To complete a channel selection in At Mode without pressing the @ LEVEL key. use the decimal [.] key.</p> <p>See Channels - Clear Functions</p>		

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%	[5] [0] [@LEVEL]	[@LEVEL] [0] [5]
Set to 55%	[5] [5] [@LEVEL]	[@LEVEL] [5] [5]
Set to 100%	[@LEVEL] [@LEVEL]	[@LEVEL] [@LEVEL]
Set to 70%*	[@LEVEL]	[@LEVEL] [7]
Set to 0%	[@LEVEL] [@LEVEL] [@LEVEL]	[@LEVEL] [@LEVEL] [@LEVEL]
Set to 0%	[C] [&] [-%]	[C] [&] [-%]
Add 5%	[+%]	[+%]
Subtract 5%	[-%]	[-%]
Select ch # and add 5%	[#] [+%]	[#] [+%]
Select ch # and subtract 5%	[#] [-%]	[#] [-%]
Increase level by #%	[#] [.] [+%]	
Diminish level by #%	[#] [.] [-%]	
Revert to last used level (Undo)	[ON/FETCH] [&] [@LEVEL]	[ON/FETCH] [&] [@LEVEL]

*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](#)

Park 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 - Ch Only Mode

The idea of a Channels Only Mode allows a complete novice to get some lights on stage. The Fader 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
<i>1. Make sure the Grand Master is up</i>	Grand Master	Otherwise there is no light output
<i>2. Make sure the FREEZE switch is set to ON</i>	Freeze Switch	Otherwise there is static, or no light output
<i>3. Turn Fader Mode switch to "Channels Only"</i>	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.
<i>You can select a channel range from the Direct Select keys.</i>	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 - 8 bit 256 Step Levels

You can work with 8 bit 256 step levels.

Action	Key	Feedback
256 bit step level	# . & @LEVEL	Holding the decimal while pressing @LEVEL sets the level in 256 bit steps.
Increase 1 bit	. & +%	As long as the decimal point is held, pressing +% will add one bit step to the selected channels
Decrease 1 bit	. & -%	As long as the decimal point is held, pressing +% will subtract one bit step from the selected channels
Show 256 bit levels	FORMAT & @LEVEL	Toggles the view between decimal and 256 bit levels

EXPLANATION

Levels for channels controlling dimmers are traditionally set from 0-100%. The internal resolution of DMX 512 however, is about 2.5 times greater, from 0 to 255. 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%)

To convert between 0-100% and 0-255 raw DMX levels, you divide the % level with 0.39 (100/255=0.39). For example: 50% / 0.39 = 128 bit steps (actually 128.21)

The other way around you multiply by the same factor of 0.39. Example: 129 x 0.39 = 50,31%

NOTE

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

Channels - Capture Mode

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.

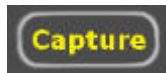
The channel number background of a captured channel is red.



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.

As soon as Capture is active for a channel or parameter, this is indicated at the top of all screens.



Permanent Capture Mode

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

Action	Key	Feedback
Activate	<input type="button" value="CAPTURE"/> <input type="button" value="CAPTURE"/>	Capture will light up. All channels that are selected and changed will remain at that level until released.
Deactivate	<input type="button" value="CAPTURE"/> <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

Regardless if Capture mode is active or not, it is always possible to capture channels or part of channels. Capture mode is **not** toggled to a permanent active state by these commands (5.0).

OBSERVE

That all of these commands will affect the currently selected channels. If a number is entered first, only this channel will be affected.

Action	Key	Feedback
Intensity and parameters	<input type="button" value="CAPTURE"/> & <input type="button" value="CH"/>	Captured channels will have a red background for the channel number.
Intensities	<input type="button" value="CAPTURE"/> & <input type="button" value="@LEVEL"/>	Level is captured until released.
Parameters	<input type="button" value="CAPTURE"/> & <input type="button" value="ATTRIB"/>	Parameters are captured until released.
Single Parameters	<input type="button" value="CAPTURE"/> & <input type="button" value="Wheel key"/>	Parameters are captured until released.
Focus parameters	<input type="button" value="CAPTURE"/> & <input type="button" value="FOCUS"/>	Parameters are captured until released.
Color parameters	<input type="button" value="CAPTURE"/> & <input type="button" value="COLOR"/>	Parameters are captured until released.
Beam parameters	<input type="button" value="CAPTURE"/> & <input type="button" value="BEAM"/>	Parameters are captured until released.
U1-U3 parameters	<input type="button" value="CAPTURE"/> & <input type="button" value="U1-
U3"/>	Parameters are captured until released.

Recording only Captured channels

You can record only captured channels.

Action	Key	Feedback
Record captured	<input type="button" value="RECORD"/> & <input type="button" value="CAPTURE"/>	Levels and parameters of only captured channels are recorded.

Releasing Captured Channels

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

Action	Key	Feedback
Selected	RELEASE	The selected channel intensities are released, regardless if Capture is active or not.
Selected	RELEASE & CH/ID	The selected channel intensities and attributes are released, regardless if Capture is active or not.
In # seconds	# RELEASE	The selected channels are released in the time #, regardless if Capture is active or not.
All	RELEASE RELEASE	All captured channels are released, regardless if Capture is active or not.
Focus	RELEASE & FOCUS	Release captured Focus parameters
Color	RELEASE & COLOR	Release captured Color parameters
Beam	RELEASE & BEAM	Release captured Beam parameters
Single parameters	RELEASE & Wheel key	Release captured parameters
Grouped parameters	RELEASE & U1-U3	Release captured parameters

Channels - Clear Functions

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	<input type="button" value="C/ALT"/> <input type="button" value="C/ALT"/>	All channels in the contributing field of the channel view connected to the channel control are deselected.
Clear A	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="LIVE"/>	All channels in the A field are set to zero and deselected.
Clear all	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="LIVE"/> <input type="button" value="LIVE"/>	All channels in all Playbacks are set to zero and deselected**
Clear Blind	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="BLIND"/>	All channels in the Blind field are set to zero and deselected.
Clear channel view	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="CH"/>	All channels in the Playback connected to the Channel Control are set to zero and deselected.
Clear and home	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="CH"/> <input type="button" value="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	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="@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.

Home Attribute functions

Action	Key	Feedback
Clear	<input type="button" value="C/Alt"/> <input type="button" value="̄"/> <input type="button" value="HOME ATTRIB"/>	Homes all attributes and clears all Dynamics.
Clear	<input type="button" value="C/Alt"/> <input type="button" value="̄"/> <input type="button" value="HOME ATTRIB"/> <input type="button" value="HOME ATTRIB"/>	Homes all attributes and clears all Dynamics and intensities.

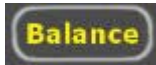
Channels - Check Mode

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
<i>1. Select start channel and set a level</i>	# <u>Level Wheel</u>	This level will be used by check mode.
<i>2. Activate temporary check mode in up or down direction</i>	C/Alt & +/-	As long as C/Alt is held the + and - keys will check the next or previous channel.
<i>3. 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. As soon as balance mode is activated, it is indicated at the top of all screens.



Congo

Com pare		Mark
Bal ance		Scale
Data	C:	F 1/1
		Group Wheel mode

Congo Jr

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

Action	Key	Feedback
1. <i>Select the channels to work with</i>		See Channel Command Syntax
2. <i>Activate Balance Mode</i>	BALANCE	All other channels in the channel view will be set to 0% temporarily. You can now work with the selected channels.
3. <i>Exit Balance Mode</i>	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

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

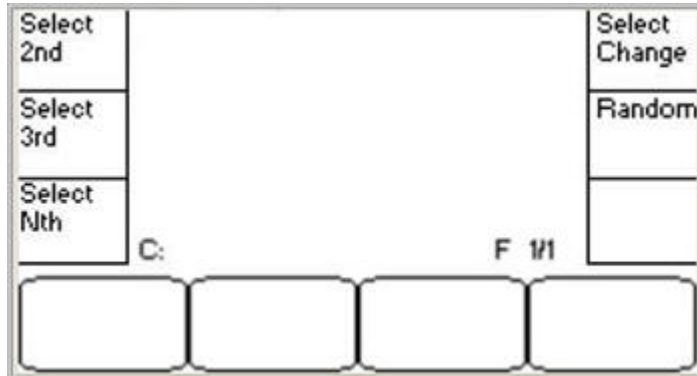
See [System Settings - Channel](#)

Channels - Random Select

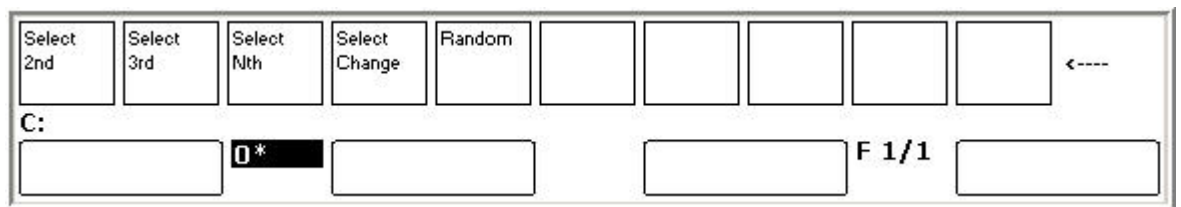
It is possible to randomize the order of the channels within the current selection. This can be used to get a random order in a chase or with a Dynamic Effect.

These functions are keys in the Selects Soft Key Page

Congo



Congo Jr



Action	Soft Key	Feedback
1. Select the channels you want to work with		See Channel Command Syntax
2. Select the Selects Soft Key Page	<input type="button" value="SELECT"/>	This changes soft menu to the Select functions
3. Make a random selection	<input type="button" value="RANDOM"/>	The channels are re-selected in a random order.

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
Random 2nd	<input type="button" value="RANDOM"/> <input type="button" value="2nd"/> <input type="button" value="SELECT 2nd"/>	Every random 2nd is selected.
Random 3rd	<input type="button" value="RANDOM"/> <input type="button" value="3rd"/> <input type="button" value="SELECT 3rd"/>	Every random 3rd is selected.
Random Nth	<input type="button" value="RANDOM"/> <input type="button" value="Nth"/> <input type="button" value="SELECT Nth"/>	Every random Nth is selected.

Channels - Scale channel levels

Channel Scale is a multiplier applied to the intensity level. When 100%, channels are controlled and played back at normal or recorded levels. Scale settings other than 100% will proportionally inhibit or boost the intensity output by the channel. For example, a channel scaled to 150% will play back 75% when actually recorded and played back at 50% by a preset.

Scaling is mainly used in these situations:

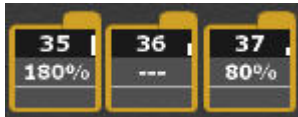
- When the light source is too bright due to temporary change of hanging position (100-0%)
- When you need to brighten part of a rig temporarily to adapt it for camera footage (100-200%).

Scaling with the SCALE soft key

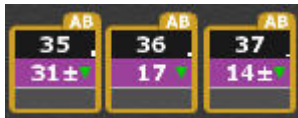
1. Hold the SCALE soft key in the Channels Soft key page of the main display. The channel view will show the scale levels.

2. Use the level wheel to set the scale level 0-200% for the selected channel(s).

No scale is shown as "---".



A channel with a scaled level gets a symbol next to the level, and the scale level is shown in the INFO area of the Browser when the channel is selected.



Scaling from the channel list

Action	Key	Feedback
1. <i>Open the Channel List</i>	MODIFY & CH	The Channel List is opened and focused at the channel with that number.
2. <i>Select the channel</i>	# CH	Channel is selected.
3. <i>Move to the Scale column</i>	Arrow keys	
4. <i>Set a Scale level</i>	# 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.

Clear Scale Values (6.0)

Clearing scales from channels is a key shortcut

Action	Key	Feedback
1. <i>Select channel(s)</i>	# CH	Channels to be unscaled
2. <i>Clear scale</i>	C/Alt & SCALE	Scales are cleared.

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.

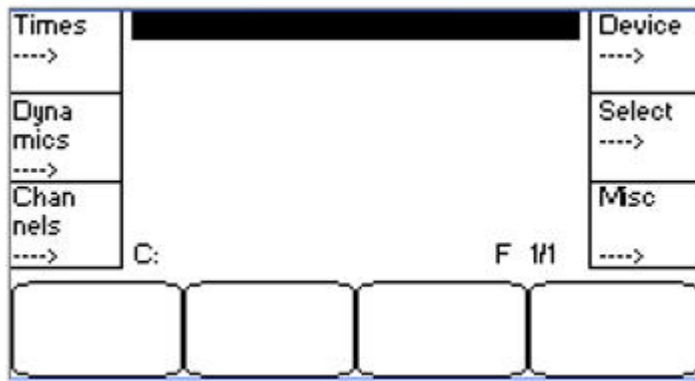
Action	Key	Feedback
<i>1. Open the Channel Selection Wizard</i>	<input type="button" value="WIZARD"/> & <input type="button" value="CH"/>	A popup with the Channel select wizard is opened.
<i>2. Select UNUSED or USED</i>	<input type="button" value="MODIFY"/>	This is a choice in the dropdown menu.
<i>3.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

Channels - Group Wheel Mode

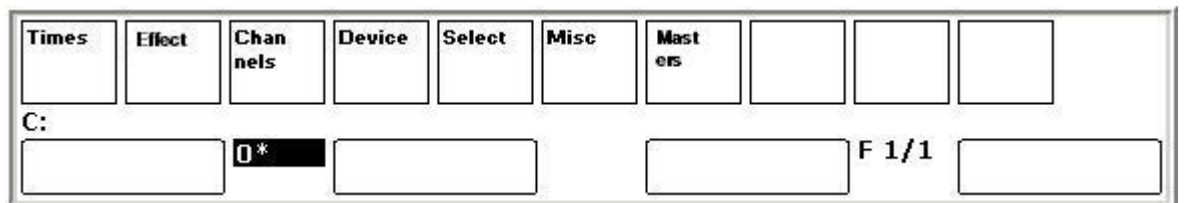
In Group Wheel Mode you can assign a channel group to each wheel under the Main Display. All wheels interact inside the A field of the Live tab on a Latest Takes Precedence basis.

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

Congo

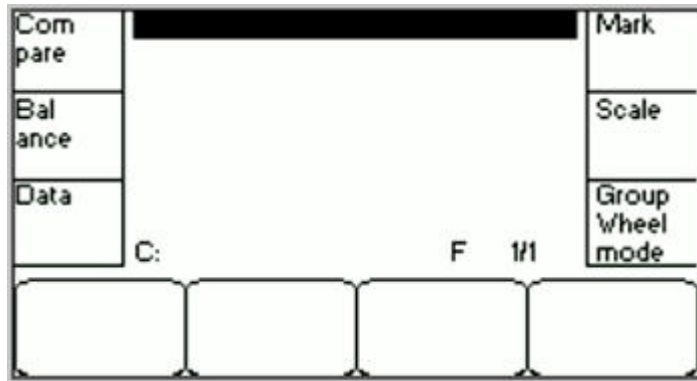


Congo Jr

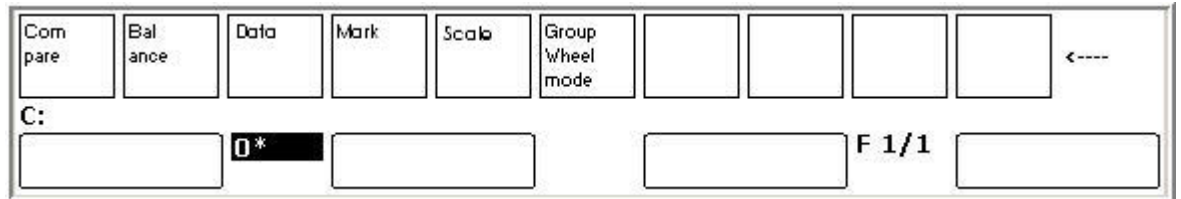


The Channels soft key page:

Congo



Congo Jr



Load channels

Action	Key	Feedback
Load selected	PRESET & Wheel Key	The selected channels are loaded as a channel group to the wheel.
Load selected	GROUP & Wheel Key	The selected channels are loaded as a channel group to the wheel.
Load group	# GROUP & Wheel Key	The channels of Group # are loaded to the wheel.
Load selected	CH & Wheel Key	The selected channels are loaded as a channel group to the wheel.
Load channel...	# CH & Wheel Key	The channel # is loaded to the wheel.

NOTE

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

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

Function	Key	Feedback
Dim remaining	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. This is done in the System Settings. See [System Settings - Channel](#)

Channels - Soft key page

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

Congo

Com pare		Mark
Bal ance		Scale
Data	C:	Group Wheel mode
		F 1/1

Congo Jr

Com pare	Bal ance	Data	Mark	Scale	Group Wheel mode					<----
C:										
		0*				F 1/1				

Functions

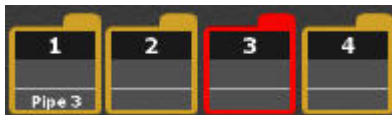
Function	Soft Key	Feedback
Compare mode	<input type="button" value="Compare"/>	Activates Compare mode. See Presets - Compare mode
Balance mode	<input type="button" value="Balance"/>	Activates Balance mode. See Channels - Balance mode
Data	<input type="button" value="Data"/>	Toggles if console displays and monitor screens display absolute device data or references to palettes.
Mark	<input type="button" value="Mark"/>	Sets a Mark level to the selected device(s). See Active Mode & Mark
Scale	<input type="button" value="Scale"/>	Activates Scale when held. See Channels - Scale channel levels .
Group Wheel Mode	<input type="button" value="Group Wheel mode"/>	Activates Group Wheel mode. See Channels - Group Wheel Mode

Channels - 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 of the Browser.

Channels - Select Functions

This key is in the Select Soft key page.

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 & Kid

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

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 third 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.

Live (6.0)

The Live tab is the most fundamental tab, where you can view and edit values for channels and devices "live".

This chapter contains the following sections

- [Live - Introduction](#)
- [Editing in Live](#)
- [Channel Symbols](#)

Live - Introduction (6.0)

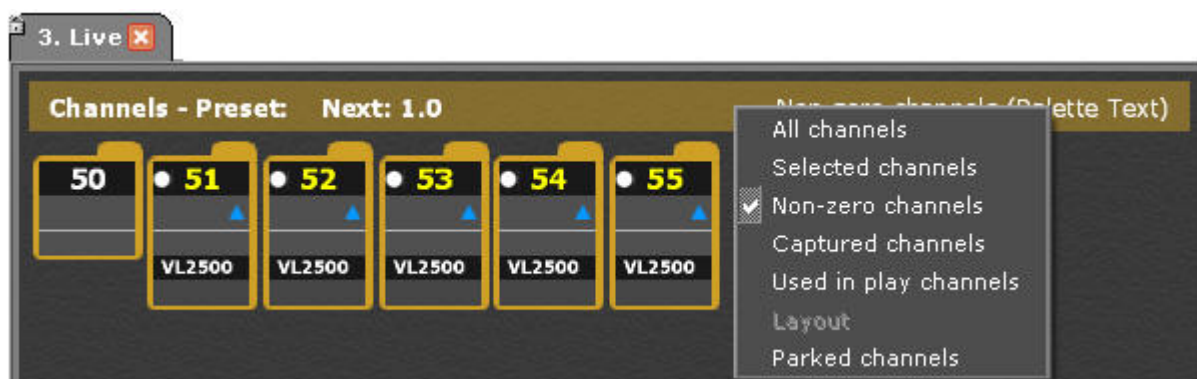
Live is the main Channel view where you can control and view the live output of all channels and devices. The Live tab shows all channel levels, no matter where they are output from. If you add channel intensities they will be output from the Active field of the Main Playback (A).

NOTE

The Live Tab cannot be closed with ESC unless it is unlocked. To unlock hold SETUP and press TAB when it is selected.

Select the Live Tab (6.0)

Pressing LIVE will always select the Live tab, and allow you to control channels and devices.



Press ATTRIB to view attributes (providing a moving device is patched).

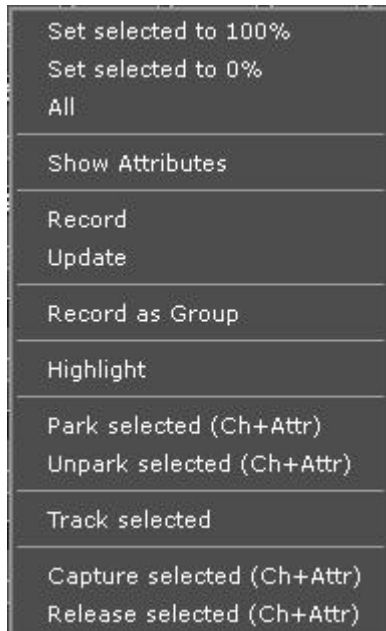


Selecting channels with mouse (6.3)

Click on a channel to select or deselect it, and hold SHIFT and click on a channel to make a THRU function. In channel layouts you can click on a bar or box to select all channel on/in it.

Double-click a channel to select just that channel.

Right-click in a channel view to open the context menu with channel functions



You can drag and drop channels between channel views, and to masters. All intensities will be copied.

Channel viewing formats

All channel views have a variety of viewing formats (selected, non-zero etc). The currently selected format is indicated in the top right corner of each Channel View. To read more about the viewing formats see [Navigating - Channel views](#).

You can toggle through these formats by pressing FORMAT repeatedly:

- 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)
- # FORMAT (select Channel Layout)

You can activate the following of those formats directly by holding FORMAT and pressing a key

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

NOTE
SELECTED AND USED IN PLAY = Shows channels that are recorded in presets and Groups. 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 View Zoom

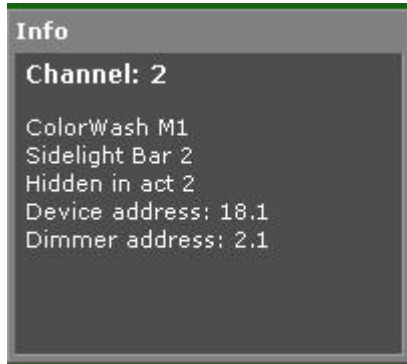
Hold FORMAT and use the wheel to Zoom in/out.



NOTE
Hold C & FORMAT to reset the zoom factor.

Channel Information - Info Box

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.

Multiple Live Tabs

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 new	<input type="button" value="TAB"/> & <input type="button" value="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*".

Editing in Live

All controls of the console are available for editing when Live is active.

Select channels and/or devices and you can

- Set/change intensities with level wheel or level keys
- Change parameters with parameter wheels
- Activate palettes with palette keys and/or direct selects

Intensities = HTP

Intensities are added to the output in the A field of the main playback. The levels are piled by Highest Takes Precedence (HTP) on top of the output from all playbacks.

Override = Capture Mode

If you want to control intensity or attributes of any channel regardless of where it is output from, use 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](#).

Edit Attributes on screen

Please note that Spreadsheet editing on screen is OFF as default. To activate this open the tab settings by holding SETUP and pressing TAB.



Record in Live (6.0)

Recording

You can record in Live directly to the sequence in the main playback, directly to a master, or to Preset.

Action	Key	Feedback
Record Live	<input type="button" value="RECORD"/>	A popup will ask you to confirm that the content of Live is recorded to the next free preset of the sequence in the main playback.
Record to a Master	<input type="button" value="RECORD"/> & <input type="button" value="Master Key"/>	A popup will ask you to confirm that the selected channels are recorded to the next free preset in that Master Playback.
Update Preset	<input type="button" value="UPDATE"/>	A popup will ask you to confirm updating the preset currently loaded to A.

Channel Symbols (6.0)

These are the different channel and device symbols with indicators for basic modes and content.

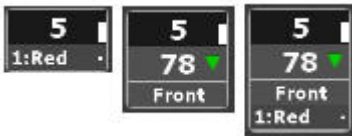
You can choose different **levels of detail** as shown below by holding FORMAT and pressing the up/down arrows.

Dimmer channels



The channel number is on top, and the level is indicated with a level bar to the right of the number and/or a level in % 0-F under.

Scrollers



Similar to dimmer channels, except there is additional information about the currently selected color.

Moving Devices





Similar to dimmer channels, except there is additional information about the device template and Focus, Color and Beam palettes and activity. If the device has color mixing there is a color preview to the left of the channel number showing the current mix.

You can toggle if palette names or number are shown by holding FORMAT and pressing left/right arrow.



Basic indications

Indicator	Screen	Explanation
Selected and HTP		<p>A yellow frame shows that a channel is selected. If a master is source the level is shown in yellow (channel 3). The top right corner shows the source of the current highest level*</p>
Changed values		<p>Purple background for indicates that a level or parameter type has changed.</p>

*Masters are 1-40, Main Playback is AB, Independents are displayed as "I", Capture as "C" and Remote fields are displayed as "Re".

Channel Information - Important modes (6.0)

These are the different modes and functions that can "steal" or "filter" the levels and parameters of a channel or device.

Function	Screen	Explanation
Captured		A red background for the channel number indicates attributes are captured. A red background for the level indicates the level is captured.
Parked		The background of all information is dimmed. "PARK" is indicated at the top of all screens.
Exclusive level		A blue level indicates this level is set as exclusive to a master or independent
Scaled level		A +/- sign after the level indicates it is scaled
Inhibited level		A red level indicates an inhibit master is limiting the level

Channel Information - Fade indications (6.0)

Channel information for fades are only shown in the Live channel view and are all related to the sequence in the main playback.

Function	Screen	Explanation
Fade direction		<p>The arrow indicates what it will do on pressing GO, not necessarily what it is doing right now.</p> <p>Up = blue arrow Down = green arrow No indication means it is not changing.</p>
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
Effects		En "E" (effect) or "D" (dynamics) is shown under the level
Device parameters		<p>White on grey = current White on purple = changed White on blue = Automarked Yellow = moving</p>

Blind (6.0)

The Blind tab allows you to view and edit values for channels and devices blind.

This chapter contains the following sections

- [Blind - Introduction](#)
- [Editing in Blind](#)

Blind - Introduction 6.0)

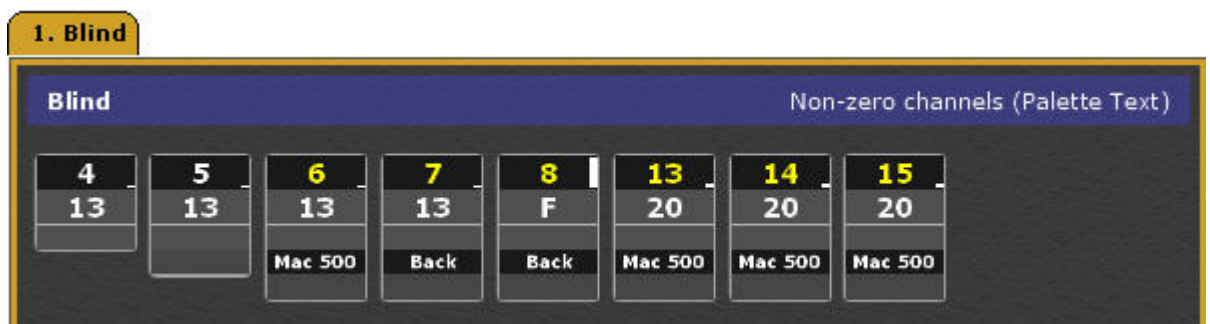
Blind is a channel view where you can control any channels and devices blind.

- Create a look blind and load or record to any playback.
- Load the content of any playback to Blind, and load the content of Blind to any playback.
- Record the content of Blind.

Select the Blind Tab

Pressing BLIND will always select the blind tab, and allow you to edit channels and devices without affecting the output.

The channel viewing formats, zoom and channel information are the same as for all channel views and Live - see [Channel viewing formats](#).



Editing In Blind (6.0)

Most normal controls of the console are available for editing in Blind.

Select channels and/or devices and you can

- Set/change intensities with level wheel or level keys

When the **attribute view is** open you can

- Change parameters with parameter wheels
- Activate palettes with palette keys and/or direct selects
- Use Fetch to copy attributes and levels from any existing preset

Edit Attributes on screen

Please note that Spreadsheet editing on screen is OFF as default. To activate this open the tab settings by holding SETUP and pressing TAB.



Record and copy in Blind (6.0)

Recording

You can record from Blind directly to a master, or to Preset.

Action	Key	Feedback
Record to a Master	<input type="button" value="RECORD"/> & <input type="button" value="Master Key"/>	A popup will ask you to confirm that the content of Blind is recorded to that Master Playback.
Record Blind	<input type="button" value="RECORD"/>	A popup will ask you to confirm that the content of Blind is recorded to the next free preset.
Update Preset	<input type="button" value="UPDATE"/>	A popup will ask you to confirm updating the preset currently loaded to Blind.

Copy and load functions

There are shortcuts for quickly copying information to and from the Blind tab.

Action	Key	Feedback
Clear	C & BLIND	Clears all values in Blind
Copy Live to Blind	LIVE & BLIND	All in Live is copied to Blind
Copy Blind to Live	BLIND & BLIND	All in Blind is copied to Live
Load Preset	# PRESET & BLIND	Preset # is copied to Blind
Load Group	# GROUP & LIVE	Group # is copied to Blind
Try intensities	BLIND & Wheel	The intensities in Blind are piled on top of the rest of the output.

Track List

It is possible to track intensities, channels, devices and attributes in Groups, Presets, Palettes and Sequences.

This chapter contains the following sections

- [Track - Introduction](#)
- [Track - Channels](#)
- [Track - Lists](#)
- [Track - Presets](#)
- [Track - Palettes](#)
- [Track - Track Editing](#)

Track - Introduction (6.3)

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)

From the Browser it is possible to track

- Where Presets are used (in Sequences)
- Where Palettes are used (Focus, Color, Beam, All)

To track an object press TRACK or open the context menu (SELECT SELECT or right-click) (6.3).



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 (6.1)

Any selection of channels/effect playbacks can be tracked. Once the Track List is opened you can

- View and edit levels directly.
- Select multiple cells by holding SELECT and using arrow keys.
- Press DELETE to delete the data in a cell (6.1).
- Enter a number and press MODIFY to set referenced data like palettes for parameters.
- Enter a number, hold C/ALT and press MODIFY to set absolute data for parameters.

1. Track List (Main Playback)

Preset	Step	Text	Mode	Devices	1	2	3	4	5	6
1.0	1		X	0	F					
2.0	2		X	0		F	F	F		
3.0	3		X	0						44
4.0	4		X	0		12				44
5.0	5		X	0		12				44
6.0	6		X	0		12				44

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](#).

Open any editor directly by pressing MODIFY in that column.

Track List - Functions

Column	Action	Feedback
<u>Step</u>	MODIFY	Opens the Sequence List focused at this Step.
<u>Preset</u>	MODIFY	Opens the Preset List focused at this Preset.
<u>Text</u>	No Input	Shows the Step Text.
<u>Mode</u>	MODIFY	Opens the Sequence List focused at this Preset.
<u>Devices</u>	MODIFY	Opens the Preset Attribute List for this Preset.
<u>Channel/Device cells</u>	# MODIFY	Sets an intensity or reference data for the selected cells.
<u>Channel/Device cells</u>	DELETE	Deletes intensity or data for the selected cells. (6.1)
<u>Parameter cells</u>	# C/ALT & MODIFY	Sets absolute data for the selected parameter cells when the parameter editing default is set to Palettes. Sets a Palette number when the parameter editing default is set to absolute data.

Track List - Show Levels & Attributes

In all Track Lists with attributes, the attributes and levels can be toggled on/off with the following functions.

Function	Column	Feedback
Levels	FORMAT & @LEVEL	The intensity column is toggled.
Focus attributes	FORMAT & FOCUS	The Focus parameter columns are toggled.
Color attributes	FORMAT & COLOR	The Color parameter columns are toggled.
Beam attributes	FORMAT & BEAM	The Beam parameter columns are toggled.
Parameters	FORMAT & Parameter Key	Specific parameter columns are toggled

Example - show Focus Attributes only

3. Track List (Main Playback)

Step	Preset	Text	Mode	Devices	1:Pan	1:Tilt	1:Focus Speed	2:Pan	?
1	1.0		X	30	50	50	Tracking	50	5
2	2.0	Hamlet finds gold...	X	0	0	10	Tracking		
3	3.0		X	0			Speed		
							PTSP NORM		
							PTSP FAST		

Example - show a single parameter (Iris for example)

3. Track List (Main Playback)

Step	Preset	Text	Mode	Devices	1:Iris	2:Iris	3:Iris	4:Iris
1	1.0		X	30	Normal	Pulse C	Rnd C P Slow	Normal
2	2.0	Hamlet finds gold...	X	0				
3	3.0		X	0				

Track - Channels

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.

You can delete attribute values by pressing DELETE in a cell. There is no undo for this. (5.0)

Track Channels - In Sequences

Track the current channel selection in a Sequence or Chase.

Function	Key	Feedback
Main Playback.	TRACK	Track List for Sequence in Main Playback is opened*
All Sequences	TRACK & SEQ	Track List for all Sequences is opened**
A Master Playback	TRACK & Master Key	Track List for Sequence in Master Playback is opened providing the master setting is "Selected Channels" ***

*Track list for the Sequence of the Main Playback

1. Track List (Main Playback)

Preset	Step	Text	Mode	Devices	1	2	3	4	5	6
1.0	1		X	0	F					
2.0	2		X	0		F	F	F		
3.0	3		X	0						44
4.0	4		X	0		12				44
5.0	5		X	0		12				44
6.0	6		X	0		12				44

**Track list for all Sequences

2. Track List										
Sequence	Step	Text	1	2	3	4	5	6	7	8
1	1		F							
1	2			F	F	F				
1	10	See BROWSER ..	33	33	33					
10	1								F	
10	2									
11	1									F

***Track list for the Sequence of a Master Playback

1. Track List (Master Playback 2)						
Step	Preset	Text	Mode	Devices	2	3
1	1.0		X	0		
2	2.0		X	0	F	F
3	3.0		X	0		
4	4.0		X	0		
5	5.0		X	0		

See [Track Channels - Show Levels & Attributes.](#)

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

Track the current channel selection in all Presets.

Function	Key	Feedback
Presets	<input type="button" value="TRACK"/> & <input type="button" value="PRESET"/>	Track List for Presets is opened*

*Track list for Presets

3. Track List																
	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.](#)

Track Channels - Groups

Track the current channel selection in all Groups.

Function	Key	Feedback
Groups	<input type="button" value="TRACK"/> & <input type="button" value="GROUP"/>	Track List for Groups is opened*

*Track list for Groups

3. Track List							
	Group	Text	93	94	95	96	97
1	1	Backlights					
2	2	Frontlights					
3	3	Side Left					
4	4	Side Right					

Track Channels - Palettes

Track the current channel selection in Palettes (Focus, Color, Beam, All).
See [Track Channels - Show Levels & Attributes](#).

Function	Key	Feedback
Focus Palettes	TRACK & FOCUS	Track List for Focus Palettes is opened*
Color Palettes	TRACK & COLOR	Track List for Color Palettes is opened**
Beam Palettes	TRACK & BEAM	Track List for Beam Palettes is opened***
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

Track the current channel selection in Sequences, Presets, Groups and Palettes.

Function	Key	Feedback
Play	TRACK & 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 (6.3)

A Preset can be tracked through the current Play. The TRACK function used in the Browser will produce a listing of all sequences and steps where that Preset is used in the current play.

Track a Preset in the Browser

Select the preset under the Preset Node in the Browser (F10) and press TRACK (F12) or use the context menu Track command (SELECT SELECT or right-click).



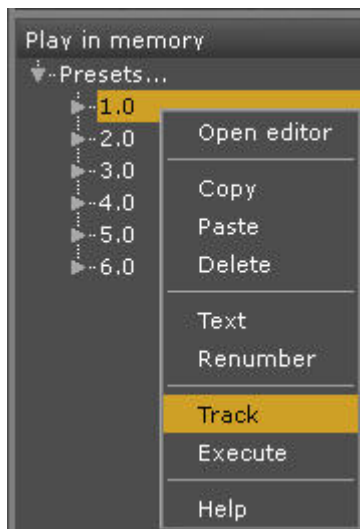
Track list for tracking Preset 3.0 from the Browser:

A screenshot of a tracking list window titled '3. Tracking for Preset 3.0'. It displays a table with three columns: 'Sequence', 'Step', and 'Text'. The first row shows '1' in the 'Sequence' column, '1' in the 'Step' column, and '3' in the 'Text' column. The '1' in the 'Step' column is highlighted with a yellow border.

	Sequence	Step	Text
1	1	3	

Track a Preset in the Organizer

Select the preset under the Preset Node in the Organizer tab and press TRACK (F12) or use the context menu Track command (SELECT SELECT or right-click).



NOTE

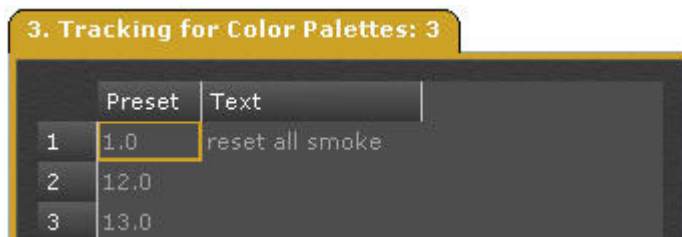
The Track command can only be used on objects within the current play and not in the Organizer (Import From) tab.

Track - Palettes

All types of Palettes can be tracked through the current Play. This is done by selecting the 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

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

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.

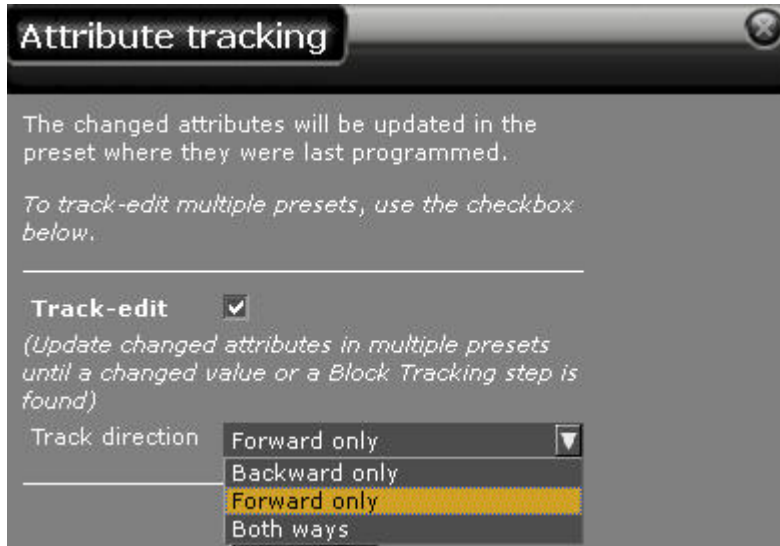
NOTE

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 - Update Attributes (6.1)

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.



This dialog includes the possibility to track forwards/backwards/both directions like the intensity dialog.

Record if changed looks up the sequence on the main playback and finds the source of the tracked-in attribute(s) and makes the update in that preset.

Record if Active updates many presets, forwards, backwards or in both directions from the current preset, until a different value or a block instruction is encountered.

3. Confirm.

NOTE

If you have RECORD set to ACTIVE the console will insert data where required in previous and/or subsequent steps when this editing is used.

Track Editing - Unblock Attributes

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.

Parked

**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.**

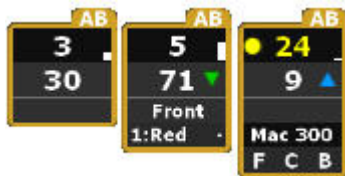
This chapter contains the following sections

- [Park - Introduction](#)
- [Park - Parking Values](#)
- [Park - Edit Parked Values](#)
- [Park - Un-parking Values](#)
- [Park - Parked Items List](#)

Park - Introduction

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 channel or parameter 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 softkey 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

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 applies to the 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
Channel	[PARK] & [CH]	Park all values of the selected channel(s)
Level	[PARK] & [@LEVEL]	Levels are parked.
Attributes	[PARK] & [ATTRIB]	Attributes are parked.
Focus	[PARK] & [FOCUS]	Focus parameters are parked.
Color	[PARK] & [COLOR]	Color parameters are parked.
Beam	[PARK] & [BEAM]	Beam parameters are parked.
U1-U3	[PARK] & [U1-U3]	U1-U3 parameters are parked.
Parameter	[PARK] & [Wheel key]	Single parameter is parked.

Park - Edit Parked Values

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 > Patching > Settings and Tools >.

See [Patch - Channel List](#).

1. Channel List

Channel	Dimmer Address	Device	Device Address	Scale	Park	Name
1	1.1		----	100 %	0	1
2	2.1		----	100 %	---	2
3	3.1		----	100 %	---	3
4	4.1		----	100 %	---	4
5	5.1		----	100 %	---	5

See [Patch - Output List](#).

3. Output List

Channel	Proportion	Curve	Device Info	Park
1	100%	No curve		---
2	100%	No curve		---
3	100%	No curve		---
4	100%	No curve		---
5	100%	No curve		---

Park - Un-parking Values

It is easy to un-park values. The Parked status is indicated in the Live channel view ("PARK") and in the attribute views (dimmed).

You can hold the soft key UNPARK (Misc) and press several different items consequently.

Function	Key	Feedback
Channel	UN-PARK & CH	Unpark entire Channel (Intensity and all parameters)
Level	UN-PARK & @LEVEL	Levels are un-parked.
Attributes	UN-PARK & ATTRIB	Attributes are un-parked.
Focus	UN-PARK & FOCUS	Focus parameters are un-parked.
Color	UN-PARK & COLOR	Color parameters are un-parked.
Beam	UN-PARK & BEAM	Beam parameters are un-parked.
U1-U3	UN-PARK & U1-U3	U1-U3 parameters are un-parked.
Parameter	UN-PARK & Wheel key	Single parameter is un-parked.

Unpark a parameter or parameter group

Hold UNPARK and press

FOCUS COLOR BEAM U1 U2 U3 Wheel Keys

Un-park all values of the selected channels and devices

C & PARK

or

UNPARK & CH

There is a Parked items list that is opened with MODIFY & PARK where it is possible to un-park as well with DELETE. See [Park - Parked Items List](#).

Park - Parked Items List

The Parked Items list shows all parked channels, intensities and attributes. Individual items can be unparked by selecting the appropriate row and pressing [DELETE]. See [Parked](#).

	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

>Settings and Tools - Channels

These are the functions in the Settings and Tools node for Channels in the Browser.

This chapter contains the following sections

- [Channel Database & Autogroups](#)
- [Channel Layouts](#)
- [Channel Partitions](#)
- [Remote Controls](#)

Channel Database

You can give each channel up to four text labels (ABCD). From these texts "auto-groups" are automatically created. The auto-groups are available from the Direct Selects and in the Congo 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 >Channels >Settings & Tools >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

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

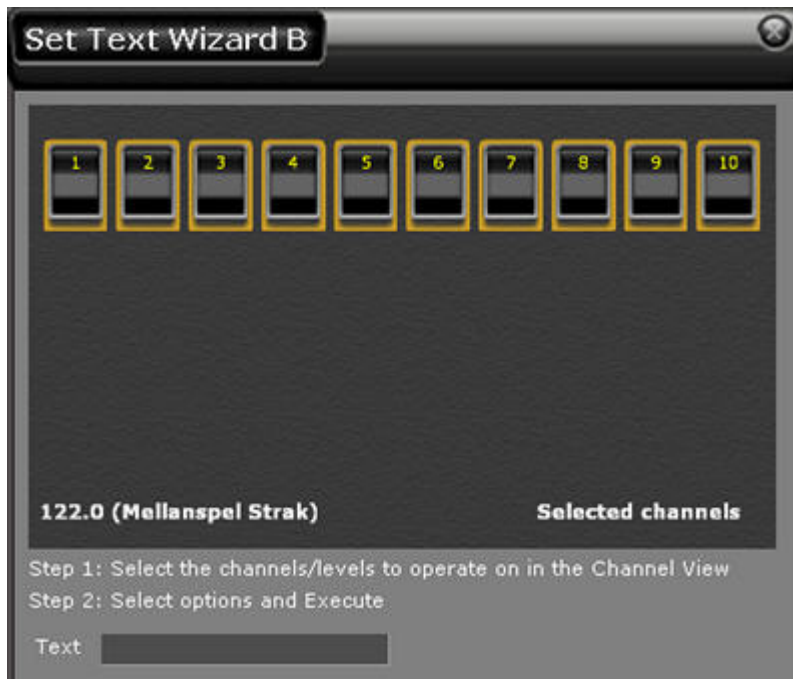
In the Channel Database cells directly

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	Select text cell, Press MODIFY, enter a text and press MODIFY again to confirm.
5. Confirm	Execute button	Select Execute, Press MODIFY to confirm.

Method 3

In any channel view

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

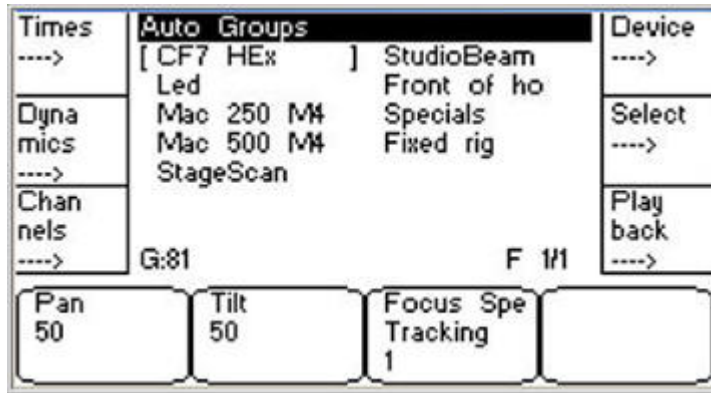


NOTE

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

Display List - Auto Groups

This is the Display List for Auto Groups (available in Congo jr using the console mimic dock).



There are different ways of opening the Display list

Key	Feedback
<input type="button" value="DISPLAY LIST"/> & <input type="button" value="CH"/> <input type="button" value="CH"/>	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

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, Wysiwyg and such.

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



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.

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.

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

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

You can download the Lightwright 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).

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 because the multiple units use the same channel number and one channel cannot contain 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, only the last Unit# will be imported.

Import Text File - Excel

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

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.

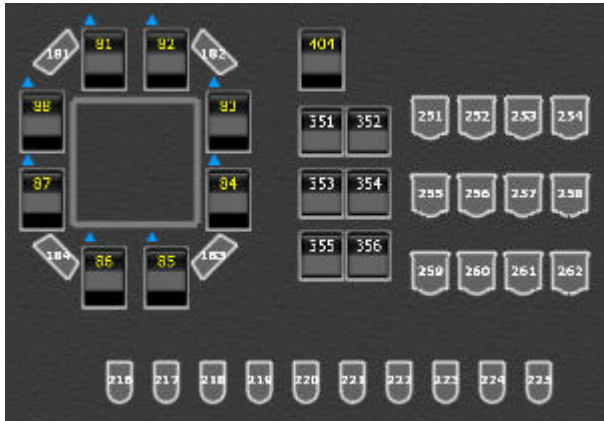
This chapter contains the following sections

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

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
- Use Arrow Keys and level wheel to move around in a layout (5.0)
- Zoom (FORMAT & level wheel) will zoom to the selected channel (5.0)
- Channels can be selected by dragging a frame around them with a mouse (5.0)

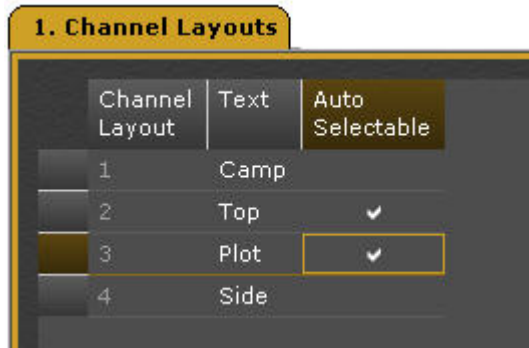
Channel Layouts - Load and navigate

These are the functions you need to load and navigate layouts in a channel view.

Function	Key	Feedback
Load	# FORMAT	Channel Layout # is loaded in the currently selected Channel View.
Hide symbols	FORMAT & Right Arrow	All channel symbols are set to the standard symbol of Congo.
Show symbols	FORMAT & Left Arrow	All channel symbols from the Channel Layout are shown.
Zoom	FORMAT & level wheel	Zoom in layout.
Move	Arrow keys & level wheel	Move in layout.
Reset	C & FORMAT	Resets zoom and move and puts layout in centre screen.

Channel Layouts - List

You can insert and delete Channel Layouts in the Channel layout list (Browser >Channels >Settings & Tools >Channel Layout).



Channel Layout List - Columns & Functions

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.
<u>Auto Selectable</u>	<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
Paste a Layout	<input type="button" value="#"/> <input type="button" value="PASTE"/>	Pastes a copied layout to a new layout #

*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.

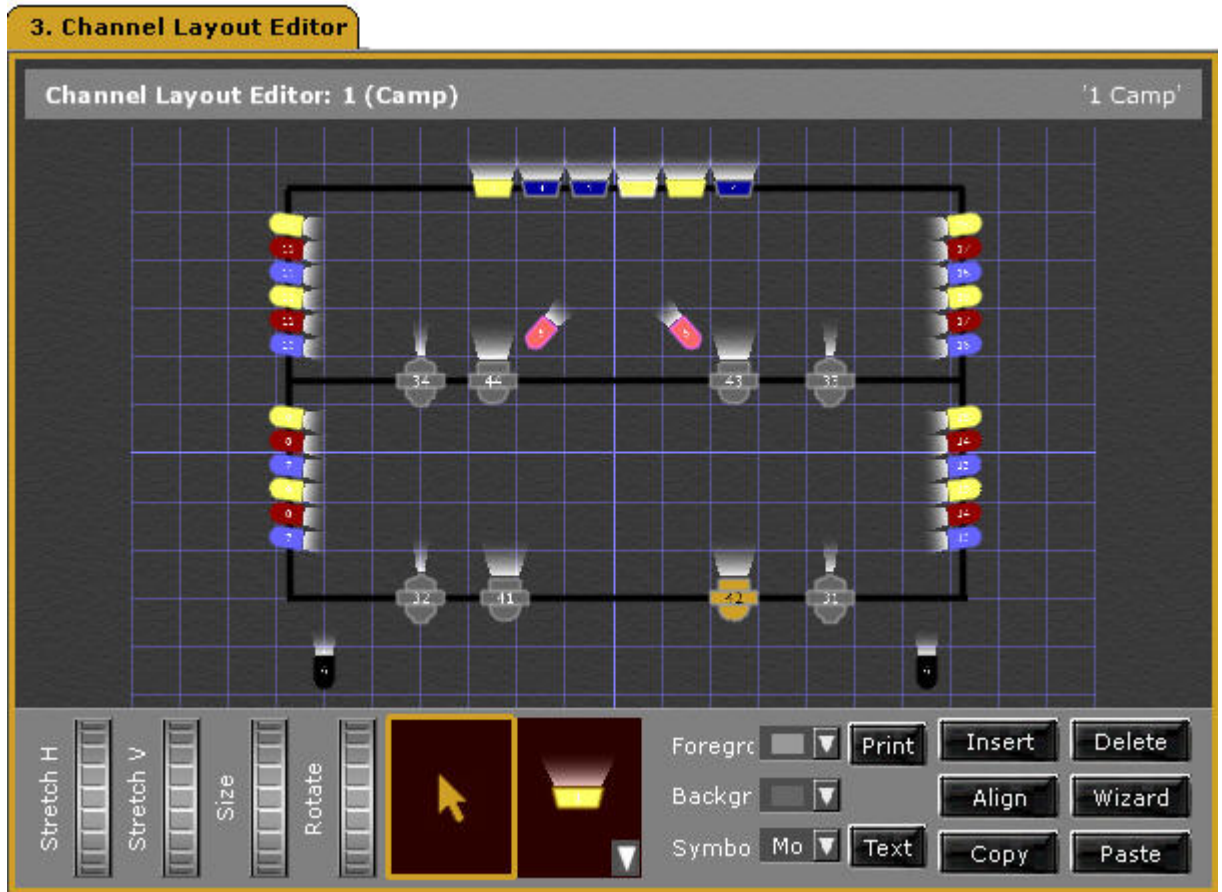
****NOTE**

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 (6.0)

This is where you create and edit a Channel Layout.

It is opened from: Browser >Channels >Settings & Tools >Channel Layout >#.



Channel Layout Editor - General Functions

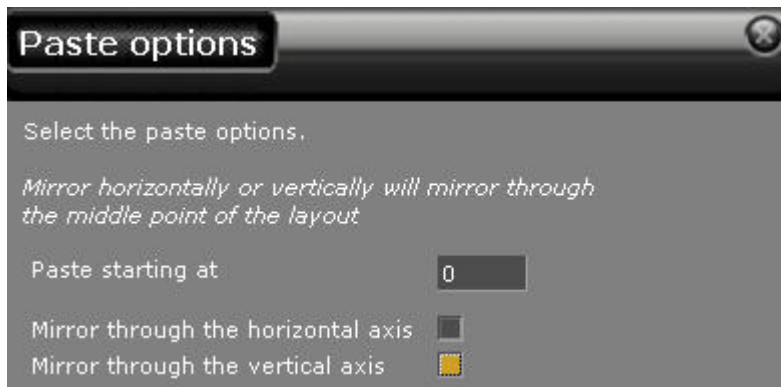
The Channel Layout Editor requires a mouse or trackball. Select objects in the upper area and action in the toolbar. Each function is described in the following chapters.

- Select ARROW to select or edit objects.
- Select OBJECT and type to insert objects.
- Select a channel and set a level to check live.

These are general functions.

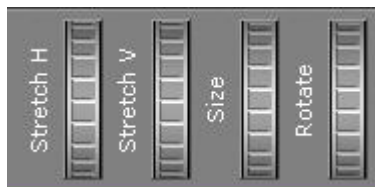
Function	Key	Feedback
Insert	# Mouse click	Item # is inserted at the cursor. Selected content type is used.
Insert next	Mouse click	Next item of same type as the previous is inserted.
Insert channels	<input type="button" value="INSERT"/>	Selected channels are inserted.
Delete	<input type="button" value="DELETE"/>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

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



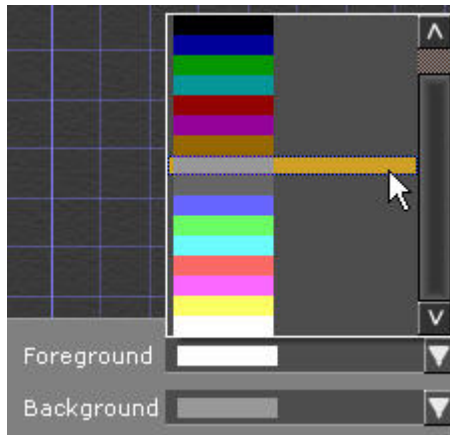
1. *Select objects (Cursor mode).*

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

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



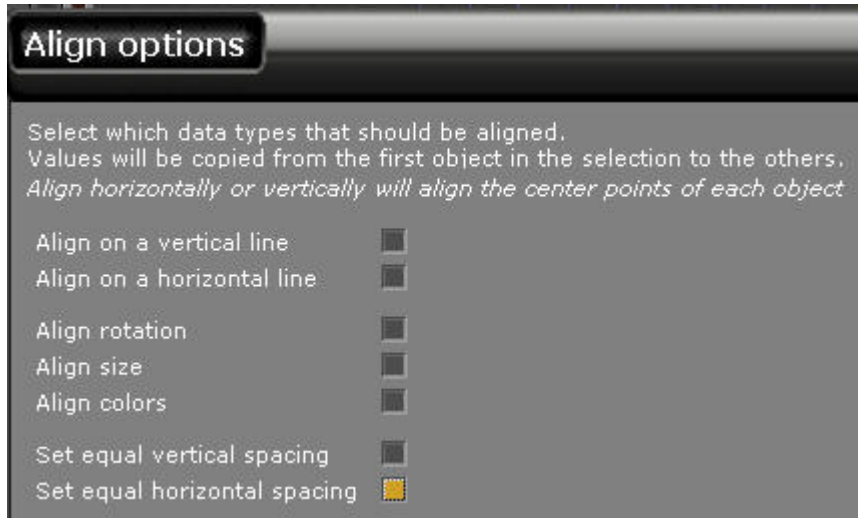
1. *Select object.*

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

Channel Layout Editor - Align

There are different align options for a selection of objects.

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

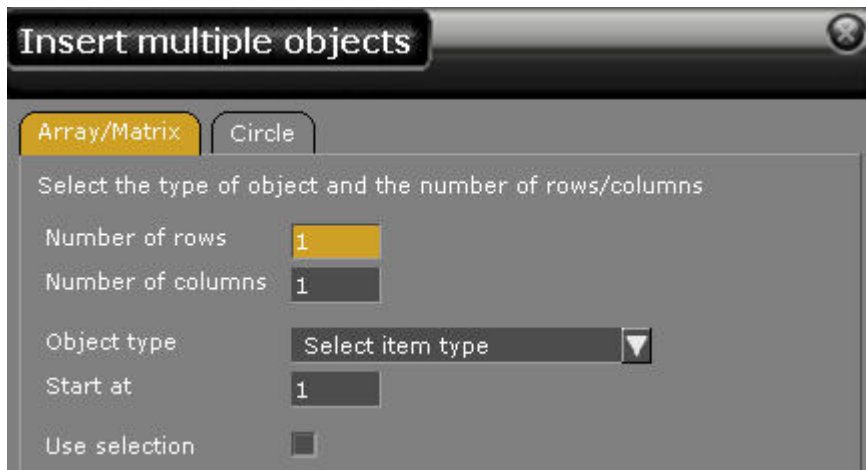


3. *Make selection and confirm with MODIFY.*

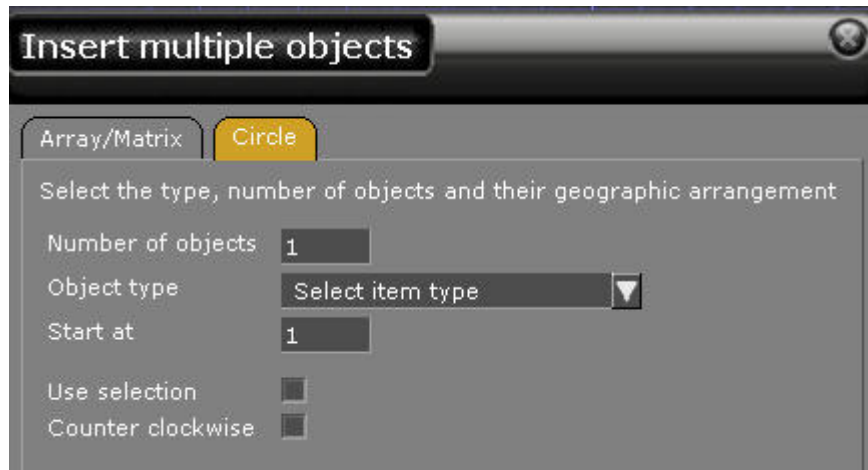
Channel Layout Editor - Wizard

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.*



2. Select matrix/array or circle.

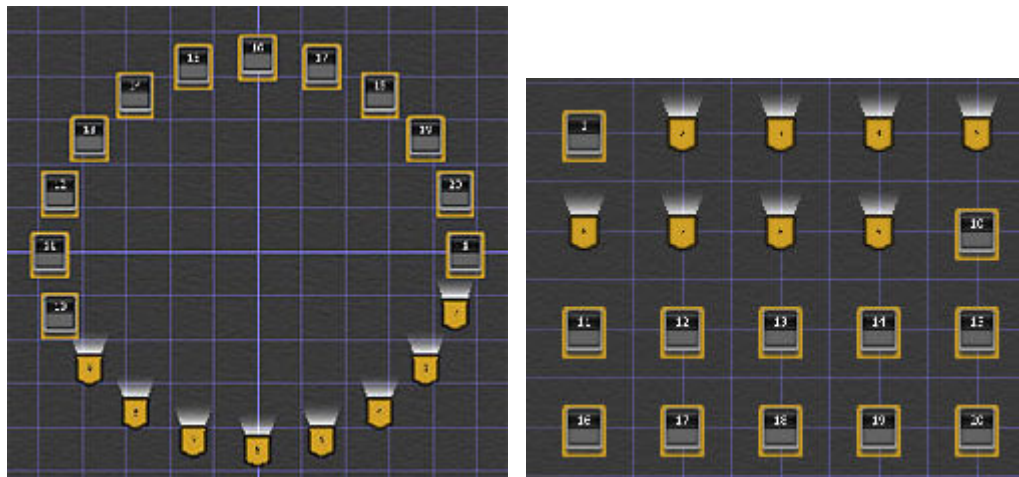


3. Fill in numbers, type and behaviour.

4. Confirm.

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

Examples of circle and matrix



Channel Layout Editor - Text

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

1. Select the object.

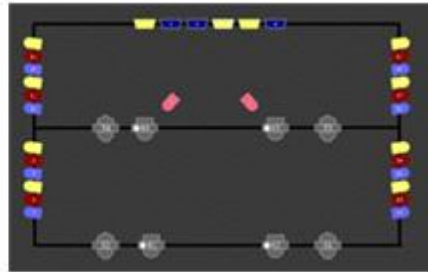
2. Press **TEXT** (Alt T from keyboard).

3. Enter a text and confirm with *MODIFY*.

NOTE
Use size to resize a text for an object.

Channel Layout Editor - Print (6.0)

You can print channel layouts the PRINT key in the Channel Layout editor to jpg in grey scale, or in color using print screen to jpg in the MISC soft key page. The print file will be stored under the print node in a node called PRINTOUTS and can be copied to a USB memory from there.



Channel Layouts - Create

Start by inserting and naming a new Layout.

Function	Key	Feedback
1. Open the Channel Layout List.	Browser >Setup >Channel Layout	Opens the Channel Layout list.
2. 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.
3. Name Layout	MODIFY	Move to TEXT cell and press MODIFY. Give a name.

Now open the Channel Layout Editor

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

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

Channel Layouts - Channels

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 object.

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 [Channel Database](#).

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

Channel Layouts - Channel Numbers

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

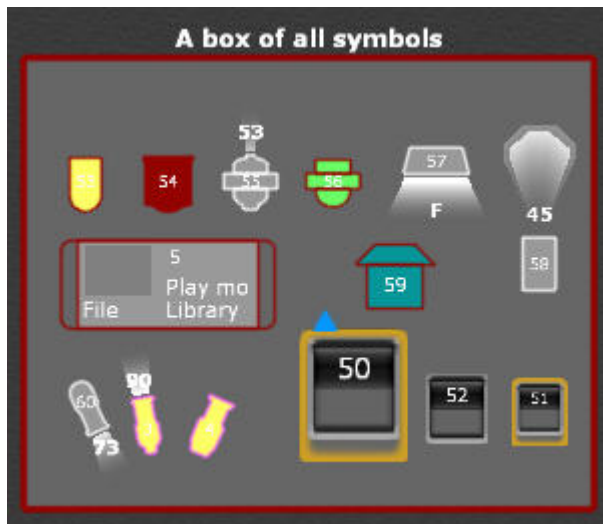
1. Select channels.
2. Enter first number.

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 14.

Channel Layouts - Channel Features

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

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.

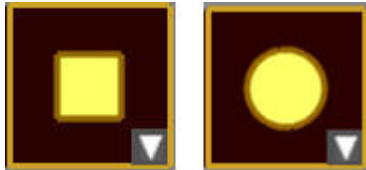
NOTE

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 and Circles (6.0)

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

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



2. *Click and drag to draw a box or circle.*
3. *Click and drag again to create a new box or circle.*

Select the arrow tool to edit an existing box or circle.

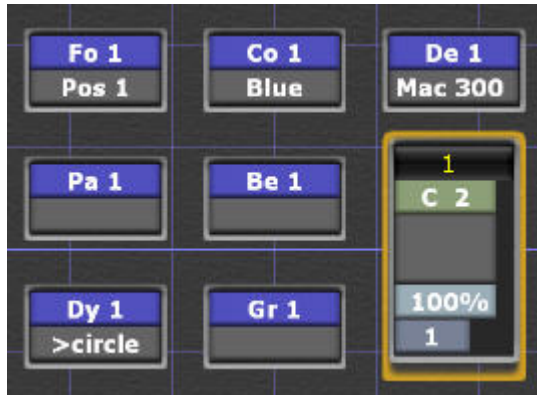
NOTE

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

Channel Layouts - Content

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 Partitions

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

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
- Intensity/Color
- Intensity/Focus/Beam/Other

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 not shown 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

You can view, edit and create new Partitions in the Partition List (Browser >Channels >Settings and Tools >Channel Partitions).



Partitions List - Columns

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.

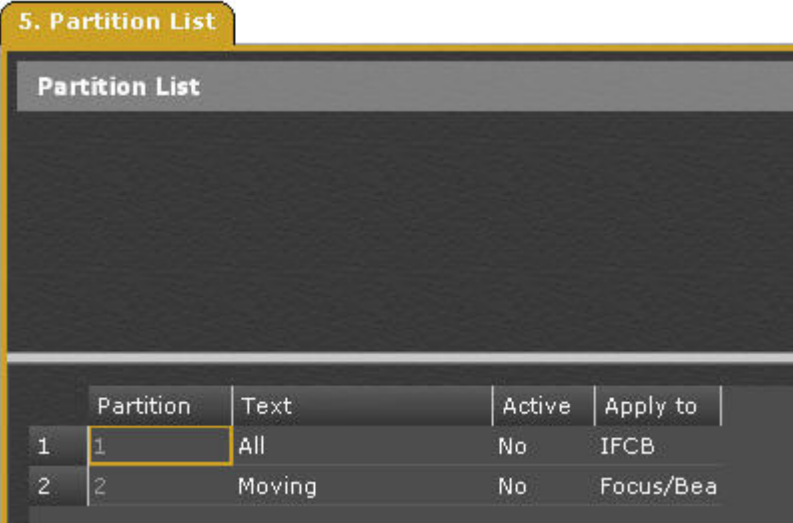
* If a User is logged in that does not have permission to activate a Partition, the Active cell will show "---". See [User Login](#).

NOTE
The default Partition "All" is always defined to allow access to the full system.

Partitions - Create

Partitions are created in the Channel Partition List.

1. *Open the Channel Partition List (Browser >Channels >Settings and Tools >Channel Partitions)*



The screenshot shows a window titled "5. Partition List" with a sub-header "Partition List". Below the header is a table with the following data:

	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

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 Channel Layout.

Partitions - Activate

Partitions are activated from the Partition List.

1. Open the Partition List (Browser>Channels>Settings and Tools>Channel Partition)
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.

Devices

A channel with any attributes (parameters) in addition to intensity is called a Device. This includes scrollers, moving lights and media servers.

Devices Node



This chapter contains the following sections

- [Devices - Introduction](#)
- [Devices - Functions](#)
- [Live Attributes](#)
- [Gel Picker](#)
- [All Palettes](#)
- [Focus Palettes](#)
- [Color Palettes](#)
- [Beam Palettes](#)
- [Mask](#)
- [>Settings & Tools](#)

Devices - Introduction

A Device has to be Patched before you can start controlling it. See [Patch Device\(s\)](#).

Devices - Controls

- Select a channel to get control of a 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 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 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 Effects to create patterns of intensity, color or movement such as circles or fly-outs.
- Define your own Effects

Devices - Templates

- Edit a template at any time
- Create your own templates
- Change a template (device) for another

Devices - Media Servers

A media server is no different from any other device - patch the template and use it. However we have created a standardised interaction interface (CITP with a MSEX extension) that allows interaction with the ArKaos media server, in a specific version of ArKaos. It is probable that more media server manufacturers will adopt this new communications standard which will allow Congo to 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 and types 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.

Media Server supporting CITP - MSEX must be used!

Devices - Functions

These are the general device functions.

This chapter contains the following sections

- [Device Control](#)
- [Device Views](#)
- [Device Recording](#)
- [Device Palettes](#)
- [Device Times](#)
- [Device Playback](#)

Device Control

The Main Display section of the console is optimized for working with functions in moving devices.

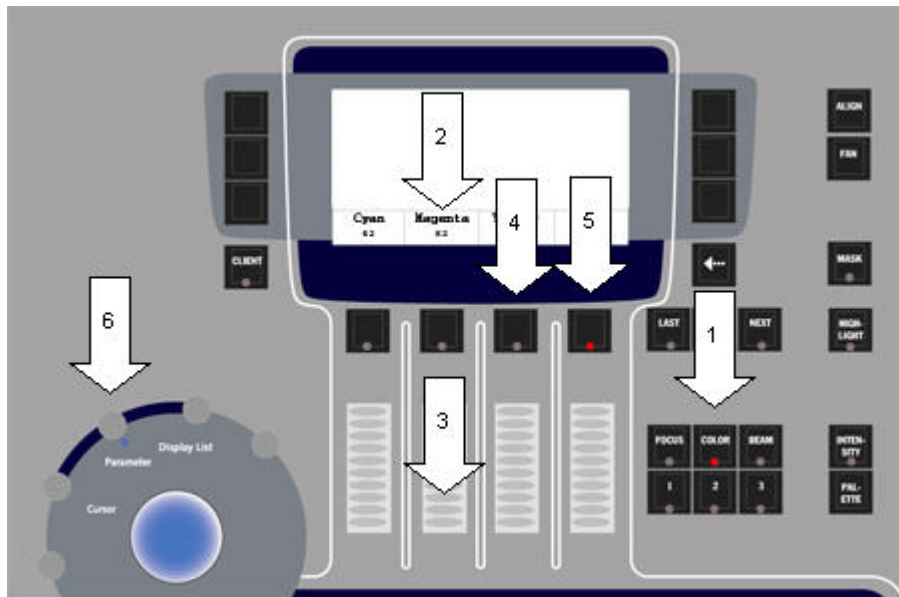
These are the sections in this chapter

- [Device Control - Introduction](#)
- [Device Control - Lamp Strike, Douse & Reset](#)
- [Device Control - Home Positioning](#)
- [Device Control - U1-U2-U3](#)
- [Device Control - Align](#)
- [Device Control - Fan](#)
- [Device Control - Fetch/Copy](#)
- [Device Control - Highlight Mode](#)
- [Device Control - Flip](#)
- [Device Control - Moving Light Dock Area](#)
- [Device Control - Select Changed](#)

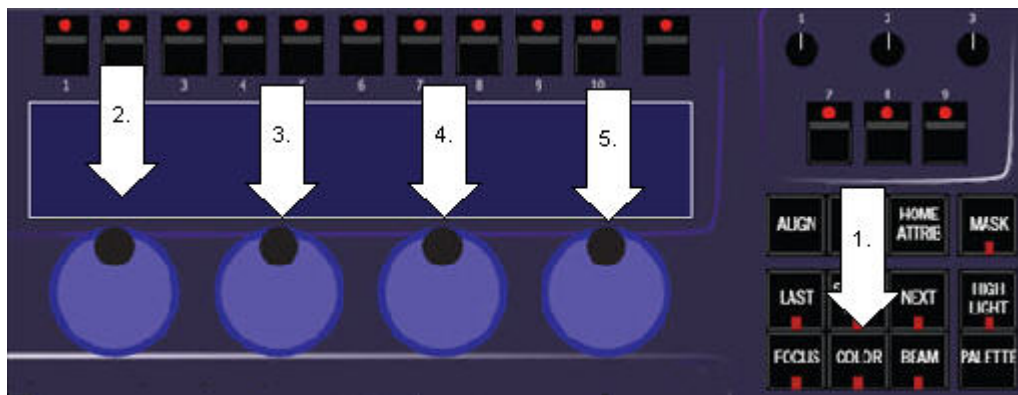
Device Control - Introduction

When you select the channel(s) of a moving device(s) - all controls are automatically mapped to this section.

Congo



Congo Jr/Kid



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 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*

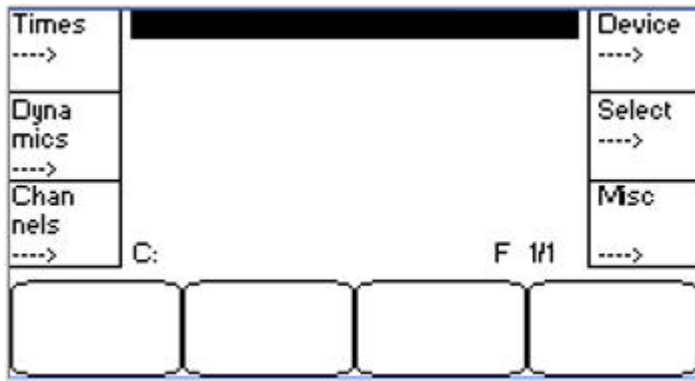
Control parameters = *are usually not stored, but can be included or excluded by using Masks.*

Device Control - Lamp Strike Douse & Reset

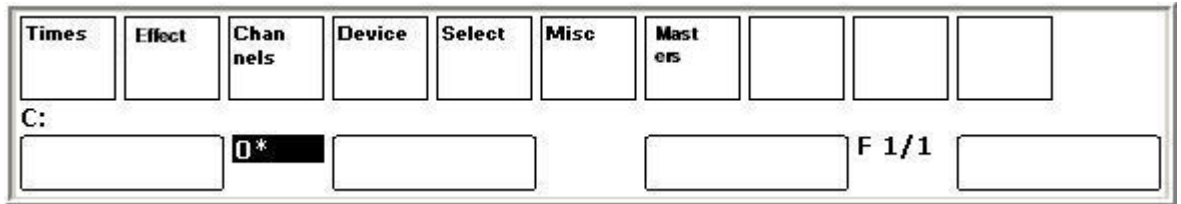
In Control Soft Key Page there are functions for lamp ON/OFF and RESET for devices (which are defined in the template of that device).

1. Go to the top menu for the Main Display in the console facepanel by pressing [←] until you have this page.

Congo

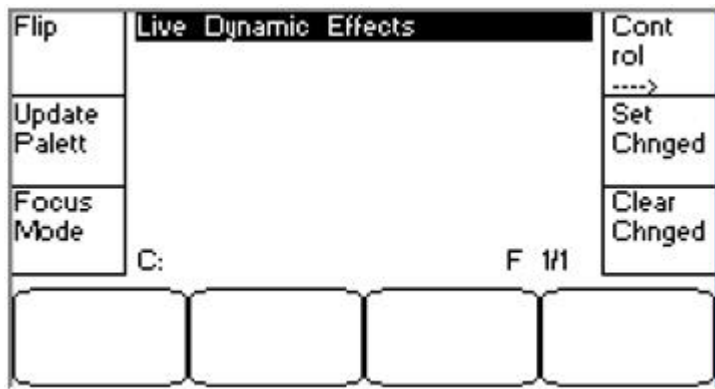


Congo Jr/Kid



2. Press DEVICE to select the Device Soft Key page.

Congo



Congo Jr/Kid

Flip	Update Palett	Focus Mode	Control	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					Lamp Reset
C:		F 1/1			

Congo Jr/Kid

Enable		Lamp Idle	Lamp On	Lamp Off	Lamp Reset					←----
C:										
	0*						F 1/1			

Control Soft Key Page - Functions

Action	Soft Key	Feedback
Enable	<input type="button" value="ENABLE"/>	This key has to be pressed together with Lamp On/Off/Reset to activate them (as a safety measure).
Lamp Idle	<input type="button" value="ENABLE"/> & <input type="button" value="Lamp Idle"/>	The Device is set to it's Lamp idle value
Lamp On	<input type="button" value="ENABLE"/> & <input type="button" value="Lamp On"/>	A lamp strike is set to the selected channel(s)
Lamp Off	<input type="button" value="ENABLE"/> & <input type="button" value="Lamp Off"/>	A lamp off is set to the selected channel(s)
Reset	<input type="button" value="ENABLE"/> & <input type="button" value="Reset"/>	A lamp reset is set to the selected channel(s)
<p>NOTE These functions are Device and Template Specific. Check the manual and template of each Device.</p> <p>Control parameters are not stored in Presets.</p> <p>Press HOME ATTRIB after a Lamp On/Off/Reset, or lamp idle, to avoid sending control commands to the lights forever.</p>		

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 [Devices - 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
All attributes	HOME ATTRIB HOME ATTRIB	All parameters are set to home
Focus	HOME ATTRIB & FOCUS	Focus parameters are set to home
Color	HOME ATTRIB & COLOR	Color parameters are set to home
Beam	HOME ATTRIB & BEAM	Beam parameters are set to home
Single parameters	HOME ATTRIB & Wheel Key	Parameter # is set to home

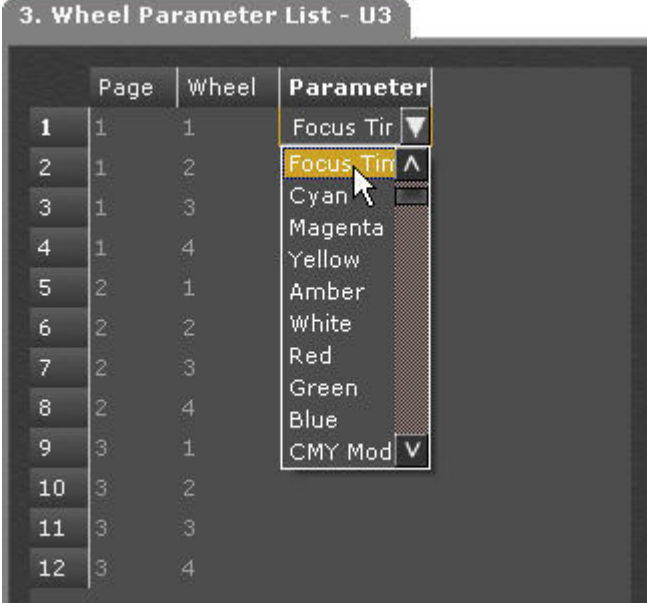
Another way of doing the same thing

Action	Key	Feedback
Focus	0 FOCUS	Focus parameters are set to home
Color	0 COLOR	Color parameters are set to home
Beam	0 BEAM	Beam parameters are set to home
All attributes	C/ALT & ATTRIBUTES	All parameters are set to home

Device Control - U1-U2-U3

The parameter group keys U1-U3 can be set up with any mix of 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 or a Wheel key when a bank (U1-U3) is selected.



The screenshot shows a window titled "3. Wheel Parameter List - U3". It contains a table with three columns: "Page", "Wheel", and "Parameter". The table lists 12 rows of parameters. A dropdown menu is open over the "Parameter" column, showing a list of color and function names: Focus Tir, Focus Tin, Cyan, Magenta, Yellow, Amber, White, Red, Green, Blue, and CMY Mod. The "Focus Tin" option is highlighted in yellow.

	Page	Wheel	Parameter
1	1	1	Focus Tir
2	1	2	Focus Tin
3	1	3	Cyan
4	1	4	Magenta
5	2	1	Yellow
6	2	2	Amber
7	2	3	White
8	2	4	Red
9	3	1	Green
10	3	2	Blue
11	3	3	CMY Mod
12	3	4	

NOTE

Each User Bank (U1-U3) has three parameter pages (1-3). They are shown in the same editor.

U1-U3 - Setting Up Parameters

Column	Function	Feedback
<u>Page</u>	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>	<input type="button" value="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 - Align

The Align key copies parameters from one Device to others.

Action	Key	Feedback
1. Select the 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:

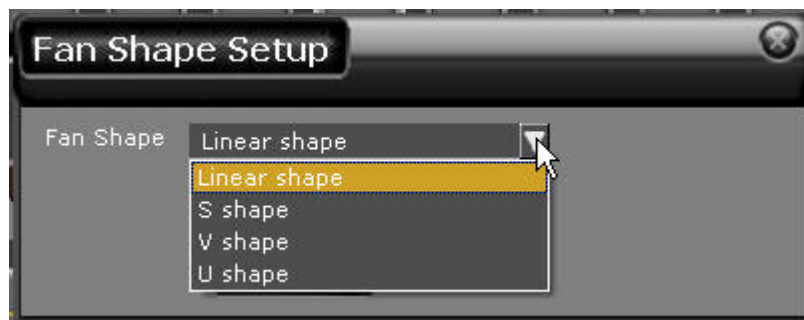
Linear
S = S shaped
V = V shaped
U = U shaped

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 devices from any Preset. Fetching from Presets in the Main Sequence will copy the STATE of those devices including any tracked values from presets earlier in the Sequence.

First select the devices you wish to copy values to.


Function	Key	Feedback
FOCUS values	# FETCH & FOCUS	Focus values from Preset # are copied to the selected channel(s).
COLOR values	# FETCH & COLOR	Color values from Preset # are copied to the selected channel(s).
BEAM values	# FETCH & BEAM	Beam values from Preset # are copied to the selected channel(s).
Parameter values	# FETCH & Wheel Key	Parameter values from Preset # are copied to the selected channel(s).
All values	# FETCH & ATTRIB	All parameter values from Preset # are copied to the selected channel(s).
<p>NOTE If the Preset specified is in the Main Sequence, you will fetch the ACTUAL STATE of the attributes in the specified preset. This is not necessarily the same values that are stored in that preset, since some of them may be tracking into it from previous presets.</p>		

HINT

You can fetch intensity values as well. See [Presets - Fetch Intensities](#).

Device Control - Highlight Mode (6.0)

Highlight is a temporary mode. It will set all intensity channels to the **ID level** in Congo Settings (default 100%) and all device channels to the values defined in their templates, with the highlighted device to white.

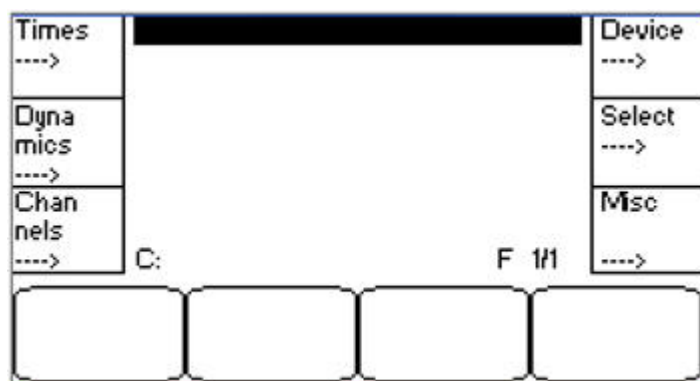
Action	Key	Feedback
Activate Highlight	<input type="button" value="HIGHLIGHT"/>	All channels in the current selection are highlighted. The LED in the key is lit. Highlight is indicated at the top of the screens 
Step forward	<input type="button" value="NEXT"/>	Channels are focused, and Highlighted in the order they were selected.
Step backwards	<input type="button" value="LAST"/>	Channels are focused, and Highlighted in the order they were selected.
Leave Highlight mode	<input type="button" value="HIGHLIGHT"/>	Highlight mode is deactivated. The LED in the key is off. All Devices return to their last CB values.
<p>NOTE Highlighted Intensity channels are indicated in the channel views with a highlighted background.</p>		

Device Control - Flip

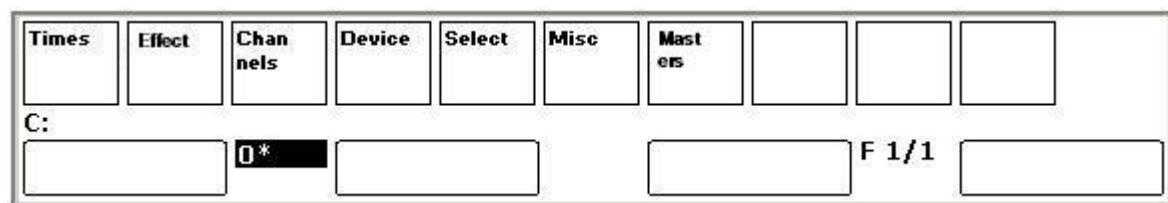
If a moving head reaches its end position for Pan - it is possible to press FLIP (softkey in the Device Soft Key Page) to invert the pan and tilt values so that the end position is "passed". Observe that the result of a flip depends on the pan range of a device, and will not always be the same position as before the flip.

1. Go to the top menu for the Main Display in the console facepanel by pressing [←] until you have this page.

Congo



Congo Jr & Kid



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

Congo Jr & Kid

Flip	Update Palett	Focus Mode	Cont rol	Set Chnged	Clear Chnged		U1	U2	U3	<----
C:										
		D*					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

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

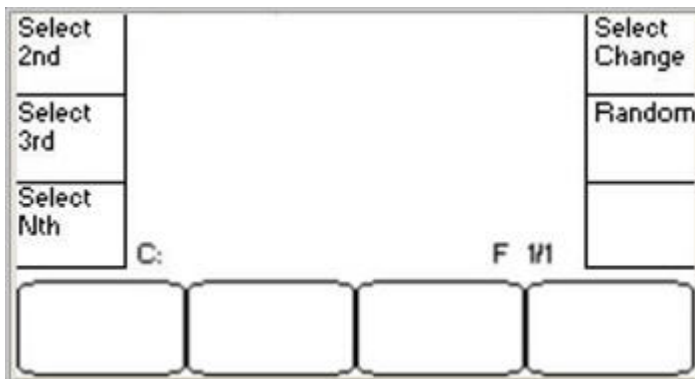
You cannot click to hold a key and press another at the same time, like FAN and PAN. To achieve this from an offline editor, use a keyboard shortcut in combination with this view. For example Ctrl F (FAN) and click on the Pan wheel to fan Pan.

Device Control - Select Changed (softkey)

This key is in the Select Soft key page.

Open by pressing SELECT (softkey) from the top menu in the Main Display of the console facepanel. See [Main Display - Functions](#).

Congo



Congo Jr & Kid

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

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 Views

Attributes for devices can be shown in any channel view.

This chapter contains the following sections

- [Device Views - Introduction](#)
- [Device Views - Live](#)
- [Device Views - Filtering](#)
- [Device Views - Editing](#)
- [Device Views - Presets](#)
- [Device Views - Data](#)

Device Views - Introduction

A device view with attributes can be opened in any channel view by pressing ATTRIB.

They are all edited in the same way. In the Live tab attribute view you can set times. See [Devices - Times](#).

General Facts

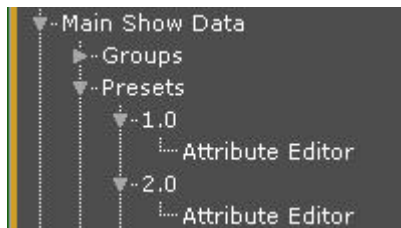
- Devices are listed by type
- You can set attribute values directly (depending on the Attribute Setup)
- You can set Palettes directly (depending on the Attribute Setup)
- You can filter parameter groups
- Changed values are shown with a purple background (Live)
- You can view/edit attribute times

NOTE

Hold **FORMAT** and press **@LEVEL** to toggle levels between 100% and full 8/16 bit values.

HINT

In the browser Preset items have a sub node called "Attribute Editor" for presets with attributes. Pressing **MODIFY** on this node opens the attribute editor (v5.0).



Device Views - Live

The Device view is viewed in the Live tab by pressing ATTRIB.

1. Live Attributes

Attributes - Preset: Next: 100.0 - Palette mode								All devices
Mac 550 16E	Pan	Tilt	Focus Sp	Color	Color 2	Color Sp	Focus	
31	50	50	Tracking	[O/W]	[O/W]		50	
32	50	50	Tracking	[O/W]	[O/W]		50	
33	50	50	Tracking	[O/W]	[O/W]		50	
34	50	50	Tracking	[O/W]	[O/W]		50	
Mac 250 Was	Pan	Tilt	Focus Sp	Cyan	Magenta	Yellow	Color	
41	50	50	Tracking	0	0	0	Open	

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



You can open cells for setting parameter times and delays directly by holding FORMAT and pressing the DOWN ARROW.

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			

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

Device Views - Editing

When you open a device view you can use all palette and wheel controls to edit attributes.

NOTE

All attribute views need to be unlocked for screen editing by holding SETUP & TAB and activating in the popup.

If you unlock the view for screen editing 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). To save changes press UPDATE.

Function	Key	Feedback
Enter a value*	# MODIFY	The Palette # is assigned to the selected cell(s)
Open a dropdown	MODIFY	All available Palettes (FCB) for the selected cell(s) are opened in a dropdown
Set an absolute value	# C/Alt & MODIFY	The absolute value is set to the selected cell(s) (not 16 bit values)
Delete the content of selected cell(s)	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
1	50	50	0	Idle
2	*F Tr Home	*F Tr Home	0	Idle
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

You can view and edit all device parameters for a Preset in the Preset Attribute Editor (# PRESET & ATTRIB).

1. Preset Attribute Editor: 1.0

Preset: 1.0 - Palette mode - Parameters not recorded All devices

Mac 550 16E		Device	GoOnGo	Pan	Tilt	Focus Sp	Color	Color 2	Color Sp	Focus
31			In B	F Cross						
32			In B		F Cross					
33			In B							
34			On Go							

Mac 250 Was		Device	GoOnGo	Pan	Tilt	Focus Sp	Cyan	Magenta	Yellow	Color
41										

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

These are the different Device parameters that are displayed for each with their current values. For editing see [Device Views - Editing](#).

Function group	Parameters	Explanation
<u>Channel & 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>	Delete Device	Press DELETE to delete this device completely*
<u>GoOnGo</u>	AutoMark, GoOnGo or GoinB per Device	Overrides the Sequence Step GoOnGo setting for this particular Device.
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.



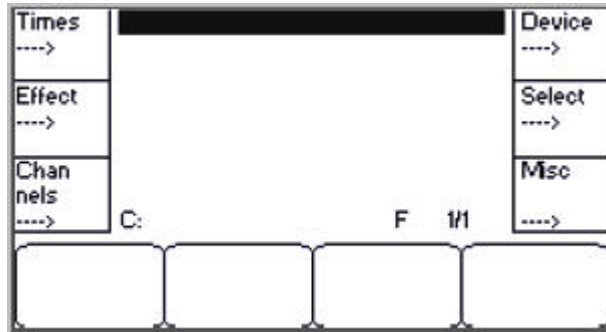
Preset Attribute Editor - Times

You can toggle the format of the Preset Attribute Editor to show Times and Delays by holding FORMAT and pressing arrow DOWN or arrow UP.

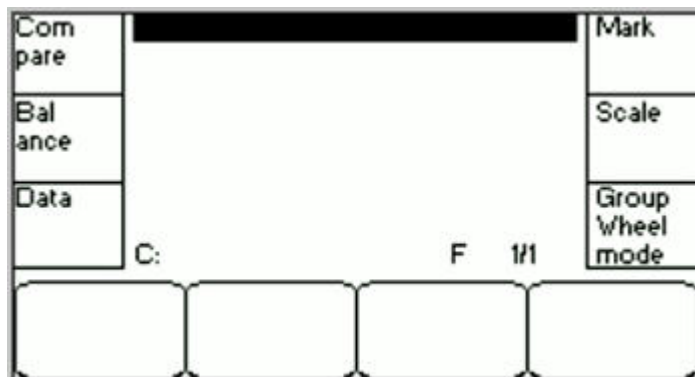
Device Views - Data

Attribute data can be shown in absolute values or referenced values (palettes). This is toggled with the Data softkey added in the Channels Soft key page. Absolute values are preceded by a # character to show that they are absolute values in stead of palettes.

Press <- to get to the top menu



Press Channels



Press DATA

Live Effects/Preset Attribute Editors show Absolute/Palette in the header depending on the current setting

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 - Cue Only](#)

Device Recording - Introduction

There are four recording modes for recording device parameters:

- Active (default)
- Changed
- All
- Popup

If only **changed** Device parameters are recorded 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](#).

Regardless of these settings it's always possible to record attributes

- All attributes manually
- Selected device(s) only
- Selected device(s) to any Preset
- Set all or selected parameters to Changed (to record as Changed) .

NOTE

IF you are working with Changed, there is a SET CHANGED softkey in the Devices soft key page of the Main Display that allows you to force the flag changed for any parameter or parameter group. See [Device Recording - Modes](#).

Device Recording - Modes

There are four 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 modes

Function	Description
<u>Changed</u>	All changed attributes are recorded automatically*
<u>Popup</u>	A popup is provided to confirm recording all changed attributes
<u>All</u>	All attributes are recorded
<u>Active</u> (default)	All attributes of devices with an intensity over zero are recorded.

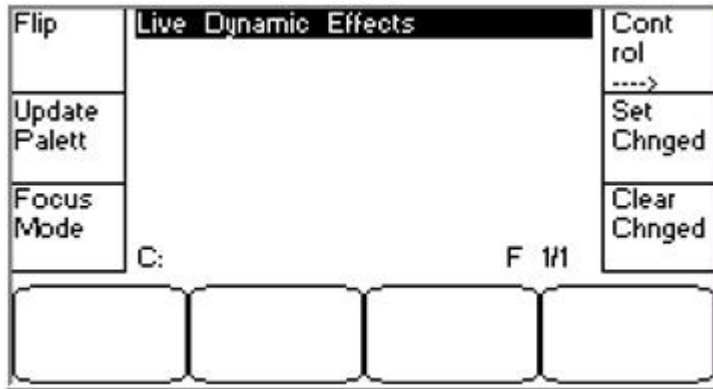
*This means that it is necessary to record all attributes for the first step in a Sequence manually. See [Record All Attributes for selected channels](#)

Changed mode

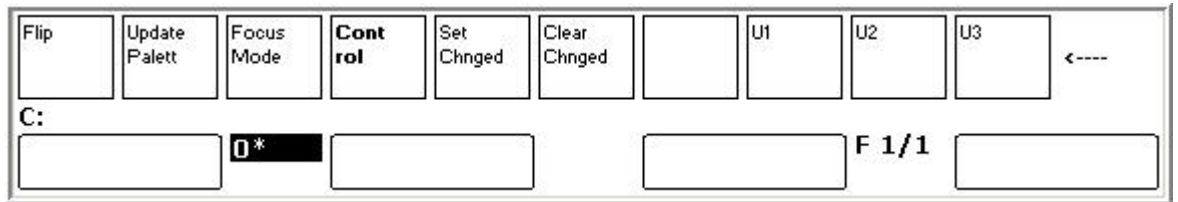
Attributes are tagged as Changed when they have been altered since they were last recorded. This indication is a purple background in Channel and Attribute views.

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/Kid



All commands are executed to the currently selected Devices.

Function	Key	Feedback
Set all parameters to changed	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Set Chnged</div> & $\bar{\&}$ <div style="border: 1px solid black; padding: 2px; display: inline-block;">PALETTE</div>	All parameters are flagged as changed (purple background).
Set Focus parameters to changed	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Set Chnged</div> & $\bar{\&}$ <div style="border: 1px solid black; padding: 2px; display: inline-block;">FOCUS</div>	Focus parameters are flagged as changed (purple background).
Set Color parameters to changed	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Set Chnged</div> & $\bar{\&}$ <div style="border: 1px solid black; padding: 2px; display: inline-block;">COLOR</div>	Color parameters are flagged as changed (purple background).
Set Beam parameters to changed	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Set Chnged</div> & $\bar{\&}$ <div style="border: 1px solid black; padding: 2px; display: inline-block;">BEAM</div>	Beam parameters are flagged as changed (purple background).
Set a specific parameter to changed	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Set Chnged</div> & $\bar{\&}$ <div style="border: 1px solid black; padding: 2px; display: inline-block;">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.

See [Channel Information - Detailed](#)
 For more information see [Presets - Record](#)

Active Mode & Mark

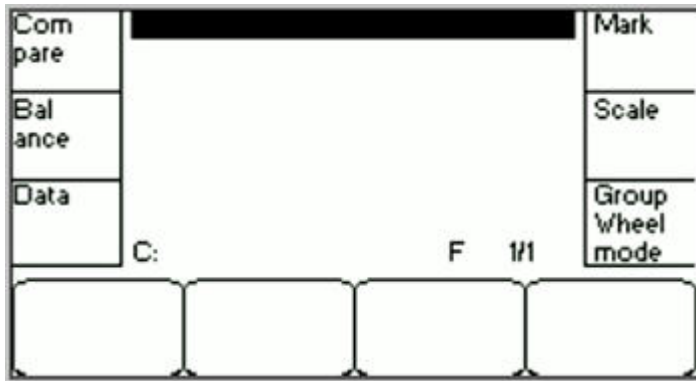
Active Mode (**default**) (5.1) means that all devices with an intensity over 0% will be recorded with all parameters.

To be able to record parameters when an intensity is at 0% there is a special intensity state called "Mark" which is indicated with an "M" where the level is normally shown.

To set a Mark level, select the channels and use the MARK key in the Channels Soft key page.

1. Select channels

2. Activate the Channels soft key page by pressing Channels in the soft key menu of the console.

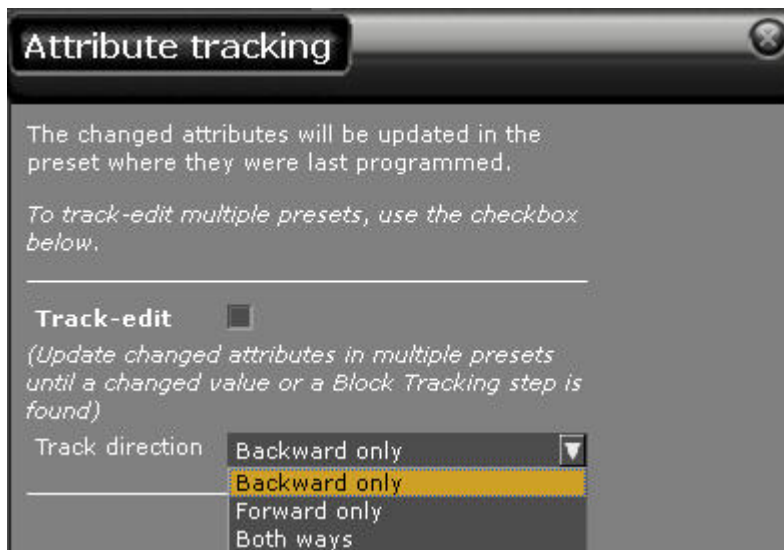


3. Press Mark.

Active Mode & Attribute Tracking

This is a mode that is automatically set to ON when you select Active mode for recording attributes (5.1).

Hold UPDATE & ATTRIB to update changed attribute values in multiple presets (useful in record if Active mode) similar to Intensity tracking.



Use the check box to activate track-editing through a series of sequence steps of the main sequence (stopping at Blocks) and select forward, backward or both in the direction dropdown.

Device Recording - Block Cues

In Changed mode, only changed (purple) parameters are recorded for 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 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.

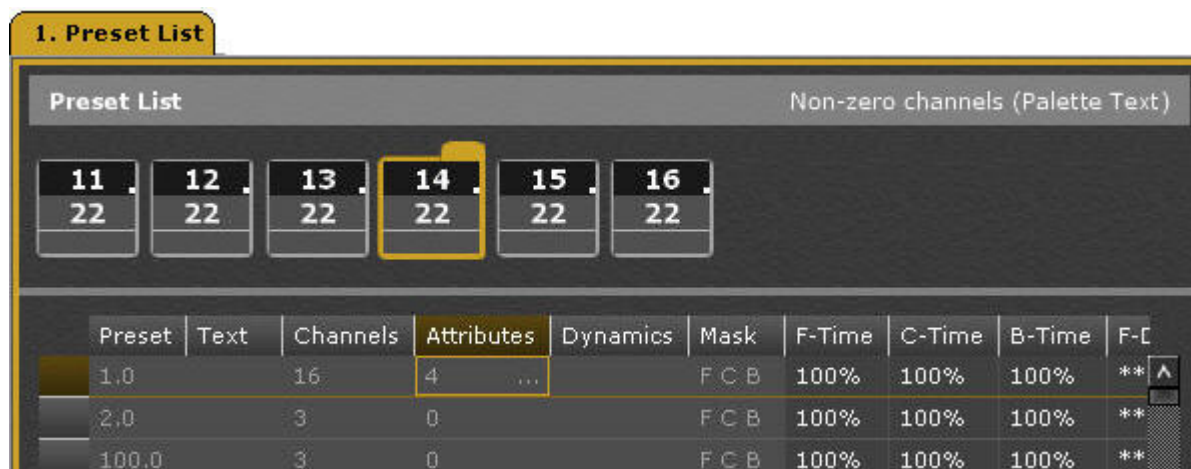
A block cue will stop all track-editing commands at the block.

Device Recording - Delete

Deleting a Device from a Preset is done in the Preset editor, or in the Preset Attribute editor. See [Device Views - Editing](#).

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 >Main Show Data >Presets)



2. Select the Attributes column.

3. Select the channels you wish to delete. **If no channels are selected, attributes for all channels will be deleted.**

4. Press DELETE. A popup will appear for confirmation.



5. Press MODIFY to confirm.

Device Recording - Cue Only

When this option in the Advanced tab of the Record dialog is activated all the attribute values that were active in the previous sequence step (regardless of where they were coming from) will be copied into the Preset in the sequence step following the newly inserted preset. This is useful when you want to record a new state within a series of tracked values.

Cue Only is an option in the advanced Recording Popup. See The [Recording Popup](#).

Attributes: Cue only

Check the box "Attributes: Cue only" to record Cue only.

Device 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 - Renumber](#)

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	Key	Parameters
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

"By device" or "By device type"

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 for 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

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.

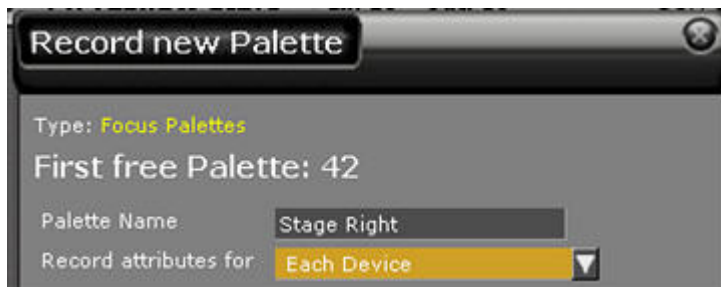
An "Each Device Palette" (individual) will override an "Each Device Type Palette" (General).

Record A Focus Palette

1. Select channel(s)
2. Initiate recording of next free Palette or Palette #

Function	Key	Feedback
Record	<input type="button" value="RECORD"/> & <input type="button" value="FOCUS"/>	Records the next free Focus palette. You will get a popup*
Record as...	<input type="button" value="#"/> <input type="button" value="RECORD"/> & <input type="button" value="FOCUS"/>	Records as palette #. You will get a popup*
Record Direct	<input type="button" value="RECORD"/> & <input type="button" value="direct select"/>	Records to a direct select in palette mode. 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

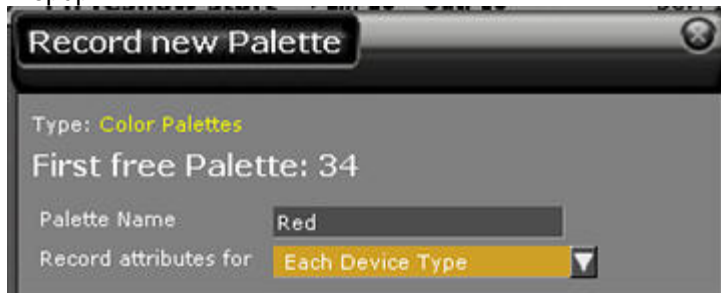
The **MASK** function can be used to filter out unwanted parameters when recording a Palette. See [Device Control - Mask](#).

Record A Color Palette

1. Select channel(s)
2. Initiate recording of next free Palette or Palette #

Function	Key	Feedback
Record	<input type="button" value="RECORD"/> & <input type="button" value="COLOR"/>	Records the next free Color palette. You will get a popup*
Record as...	<input type="button" value="#"/> <input type="button" value="RECORD"/> & <input type="button" value="COLOR"/>	Records as palette #. You will get a popup*
Record Direct	<input type="button" value="RECORD"/> & <input type="button" value="direct select"/>	Records to a direct select in palette mode. 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

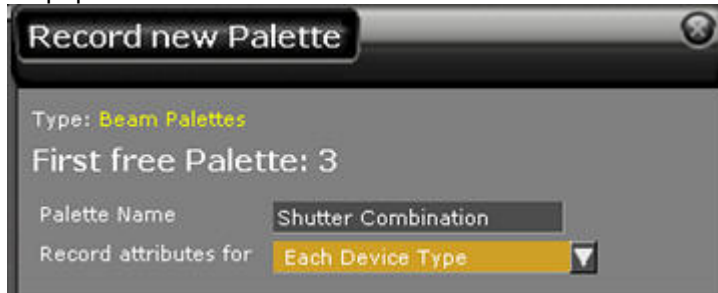
The MASK function can be used to filter out unwanted parameters when recording a Palette. See [Device Control - Mask](#).

Record A Beam Palette

1. Select channel(s)
2. Initiate recording of next free Palette or Palette #

Function	Key	Feedback
Record	RECORD & BEAM	Records the next free Beam palette. You will get a popup*
Record as...	# RECORD & BEAM	Records as palette #. You will get a popup*
Record Direct	RECORD & direct select	Records to a direct select in palette mode. 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	<input type="button" value="RECORD"/> & <input type="button" value="PALETTE"/>	Records the next free All palette. You will get a popup*
Record as...	<input type="button" value="#"/> <input type="button" value="RECORD"/> & <input type="button" value="PALETTE"/>	Records as all palette #. You will get a popup*
Record Direct	<input type="button" value="RECORD"/> & <input type="button" value="direct select"/>	Records to a direct select in palette mode. 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

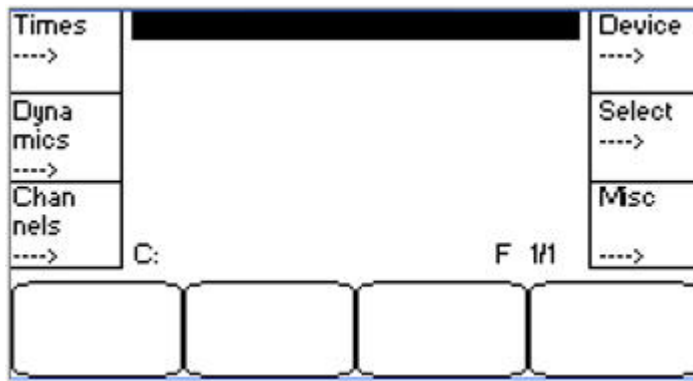
The MASK function can be used to filter out unwanted parameters when recording a Palette. See [Device Control - Mask](#).

Device Palettes - Update

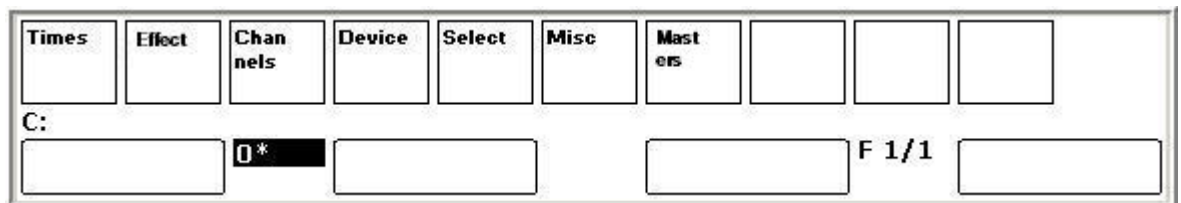
The UPDATE PALETTE (softkey) in the Device Soft Key page is the fastest way to update all changed Palettes.

1. Go to the top menu for the Main Display in the console facepanel by pressing <-- until you have this page.

Congo

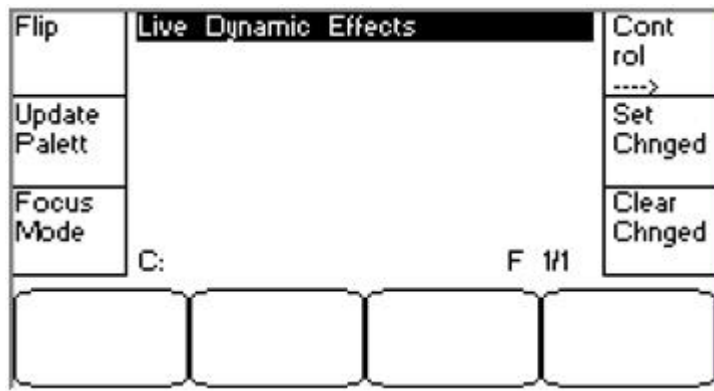


Congo Jr & Kid

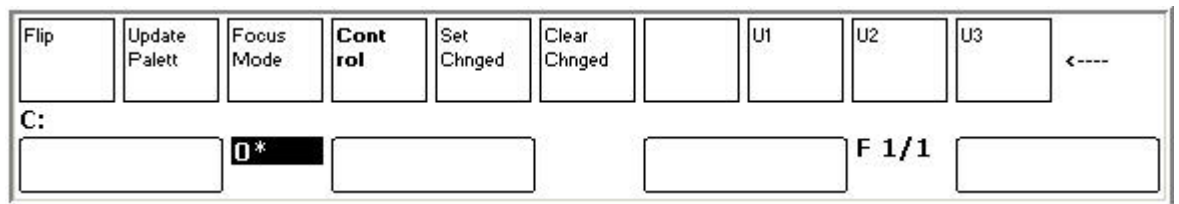


2. Press DEVICE to select the Device Soft Key page.

Congo



Congo Jr & Kid



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

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 not available 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

The Palette Lists are opened from the Browser (Browser >Devices >Palettes >Focus Palettes). You can open them directly by holding MODIFY and pressing FOCUS, COLOR, BEAM or PALETTE.

3. Focus Palettes				
Palette	Text	Attribute	Note	Channels
6	Straight	10		51 52 53 54 55 56 57 58 59 60
7	Band	10		51 52 53 54 55 56 57 58 59 60
8	Out	10		51 52 53 54 55 56 57 58 59 60
9	Back	10		57 58 59 60 51 52 53 54 55 56
10	CYC	10		51 52 53 54 55 56 57 58 59 60
11	Cross	10		51 52 53 54 55 56 57 58 59 60
12	Cross2	10		51 52 53 54 55 56 57 58 59 60

NOTE

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	# FOCUS	Values are set from Palette #.
Color Palette	# COLOR	Values are set from Palette #.
Beam Palette	# BEAM	Values are set from Palette #.
All Palette	# 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
<i>1. Activate Direct Mode</i>	Hold a Palette key	Direct Select display shows the first 40
<i>2. 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
Select channels	<input type="text" value="CH"/> & <input type="text" value="Direct Select#"/>	All channels stored in Palette # are selected in the active Channel View.
Select channels over zero%	<input type="text" value="ALL"/> & <input type="text" value="Direct Select#"/>	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
Focus channels	# CH & FOCUS	All channels stored in Palette # are selected in the active Channel View.
Color channels	# CH & COLOR	All channels stored in Palette # are selected in the active Channel View.
Beam channels	# CH & BEAM	All channels stored in Palette # are selected in the active Channel View.
Palette channels	# CH & PALETTE	All channels stored in Palette # are selected in the active Channel View.

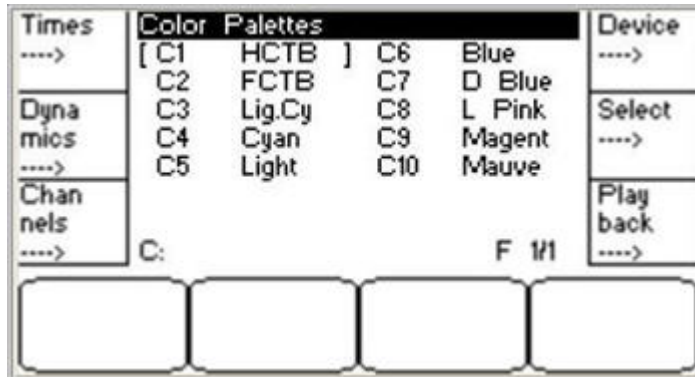
Device Palettes - Display List

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	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Display List</div> & <div style="border: 1px solid black; padding: 2px; display: inline-block;">FOCUS</div>	The Focus Palette list is opened in the Main Display.
Color Palette List	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Display List</div> & <div style="border: 1px solid black; padding: 2px; display: inline-block;">COLOR</div>	The Color Palette list is opened in the Main Display.
Beam Palette List	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Display List</div> & <div style="border: 1px solid black; padding: 2px; display: inline-block;">BEAM</div>	The Beam Palette list is opened in the Main Display.
All Palette List	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Display List</div> & <div style="border: 1px solid black; padding: 2px; display: inline-block;">PALETTE</div>	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 Jr through the console mimic*).



Device Palettes - Focusing Mode

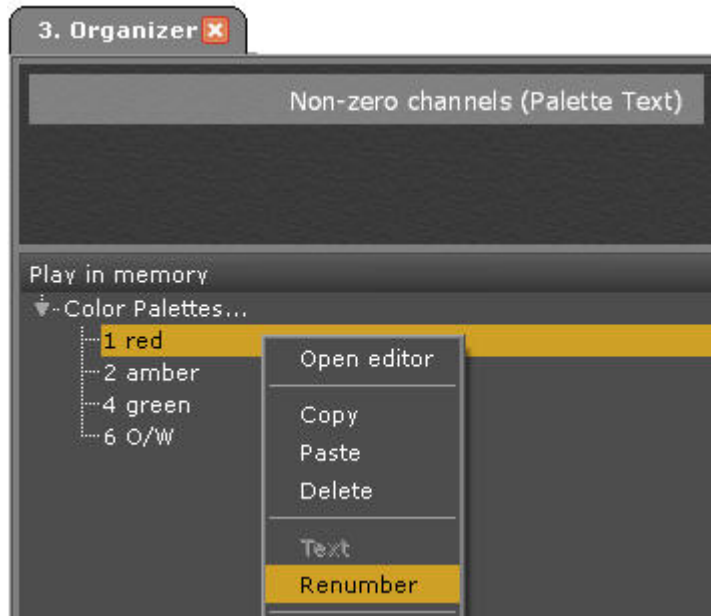
Focusing mode is designed for quickly focusing and updating palettes. It works together with the List section of the LCD Display. It is activated from the FOCUS MODE soft-key in the DEVICE Soft page.

Action	Key	Feedback
1. <i>Select the DEVICE soft page</i>	<input type="button" value="DEVICE"/> (Softkey)	The Device soft functions are selected in the Main Display of the console.
2. <i>Activate Focus Mode</i>	<input type="button" value="FOCUS MODE"/> (Softkey)	"Focusing mode" is shown on the Main Display. The Focus Palette list is automatically activated.
3. <i>Select Palette from the list</i>	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. <i>Focus one by one with NEXT/LAST</i>	<input type="button" value="NEXT"/> <input type="button" value="LAST"/>	Each focused channel is mapped to the channel controls.
5. <i>Update the Palette</i>	<input type="button" value="UPDATE PALETTE"/> (Softkey)	The Palette is updated and you are returned to the Focus Palette list to select a new Palette.
6. <i>Exit Focus Mode</i>	<input type="button" value="FOCUS MODE"/> (Softkey)	Focusing mode is exited.

Device Palettes - Renumber (6.3)

You can renumber a Palette of any type (FCBP) in the Organizer.

1. Open the Organizer for the type of palette you wish to renumber by holding LOAD and pressing the palette key (FOCUS, COLOR, BEAM, PALETTE).



2. Enter the new number and press MODIFY



Device 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 - Individual or FCB](#)
- [Device Times - Attribute Editor Times](#)
- [Device Times - Fan Times](#)

Device Times - Introduction

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
- **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](#).

Default Attribute Time (6.2)

The Default Attribute Time (3 seconds) is used mainly to keep noise and unnecessary mechanical friction down when a Moving Device is positioned in the following situations:

- When attributes are executed from Independents
- When copying Blind attributes to Live
- When using Stop table for an old dynamic
- When you press Home Attributes
- When jumping in the sequence
- Using REFRESH in the Main Playback

To change this time see [Attribute Settings](#).

NOTE

The Default Attribute Time does not affect how fast a palette is activated from direct selects or directly. This time can be set on the fly - for example #(s) DIRECT SELECT PALETTE.

See [Shortcuts - Device Palette Activating](#)

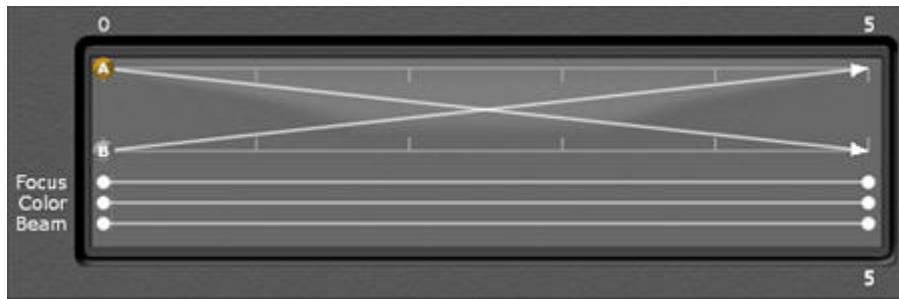
Percent times, or seconds?

Times for Moving Devices are set in seconds (absolute) or as a percentage of the IN time of a Sequence Step.

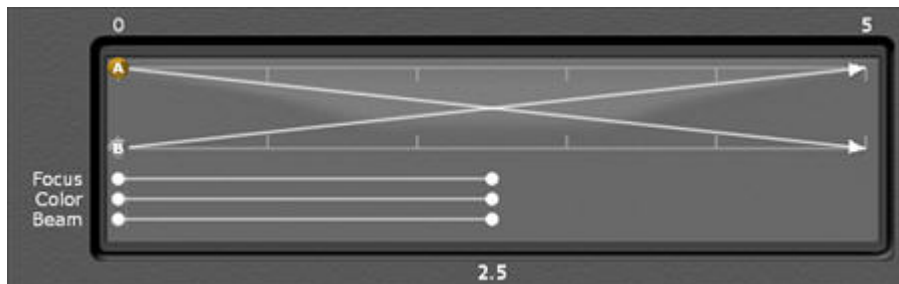
The default setting is percent. This means that all FCB-Times will equal the IN time of a Sequence Step, and all FCB-Delay Times will execute as a percentage of the IN time of a Sequence Step.

NOTE

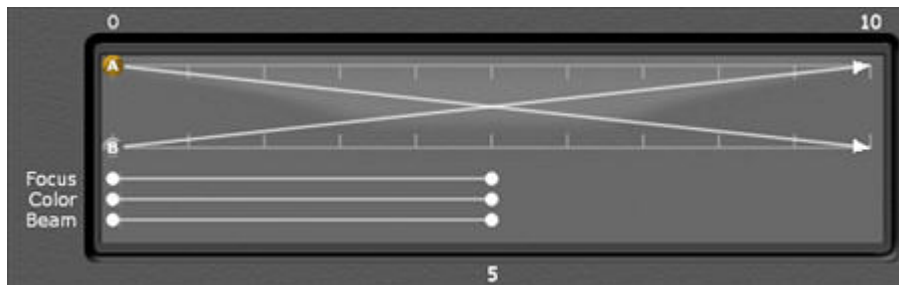
In all plays files earlier than 4.2, the FCB Delay time was set to 100% due to the fact that Delay Times were inherited from the Delay In time. These plays (pre-4.2) with FCB Delays set to 100% will be converted to use a delay of 0s instead.



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).

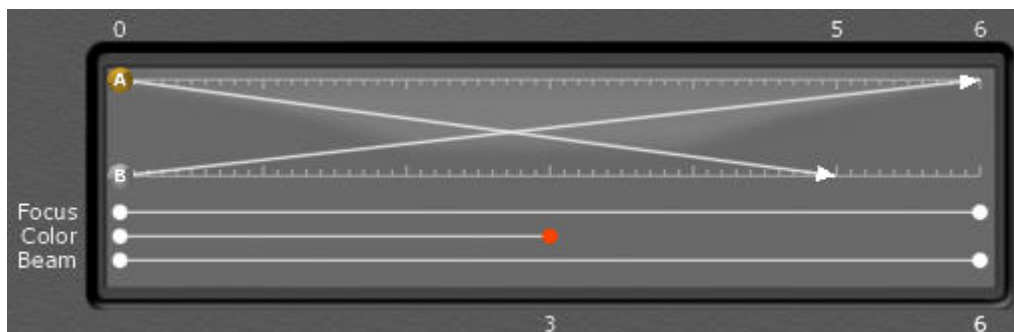


Device Times - Individual or FCB (6.0)

Device times can be set to individual parameter of selected devices, or to a parameter group like Focus, Color or Beam for all devices in the preset.

FCB times are defaulted to run in 100% of the main In and Delay times for a step. You can change this percentage or set an absolute time in seconds. An individual parameter time always wins over a general FCB time.

Times are shown in the playback view. Individual parameter times are shown as a red dot at the end of FCB timelines.



Setting times in the advanced recording popup

You can set these times directly in the Advanced tab of the [Recording Popup](#) when you record a new preset.



Setting times with key shortcuts

You can set times with a key shortcut by entering the time, holding TIME and pressing a destination key (see table).

You will get a popup asking if you want to set the times on a **general** FCB -level for **all devices**, or as **individual** Parameter Times for the **selected devices**.



Key Shortcuts for device times

Function	Key Shortcut	Feedback
Focus time	# TIME & FOCUS	Popup (see above)
Color time	# TIME & COLOR	Popup (see above)
Beam time	# TIME & BEAM	Popup (see above)
Parameter time	# TIME & Parameter Key	An individual time is set to this parameter for the selected device(s)
Focus delay time	# DELAY & FOCUS	Popup (see above)
Color delay time	# DELAY & COLOR	Popup (see above)
Beam delay time	# DELAY & BEAM	Popup (see above)
Parameter delay time	# DELAY & Parameter Key	An individual delay time is set to this parameter

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 Editor Times

Times can be set and edited in the Live Attributes and Preset Attribute Editors. *Please note that times are set to A working in this editor, regardless of all other settings.*

- 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 TIME or DELAY to do the same thing.
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

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](#).

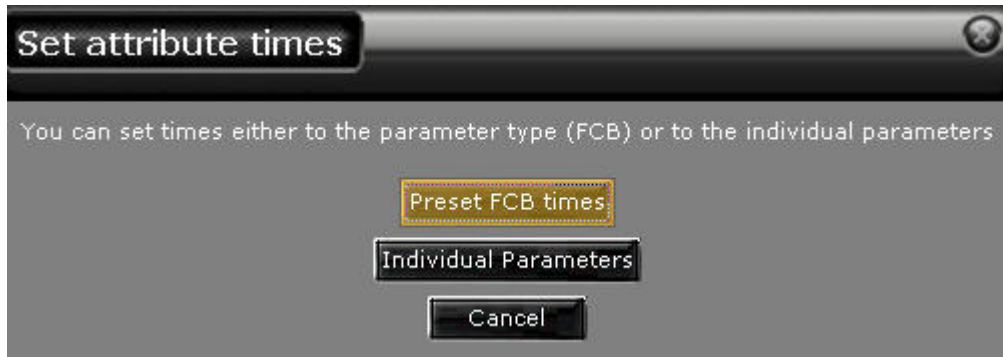
Attribute Times

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] or [FORMAT] & [TIME]	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.

Set Time to Devices popup.



Attribute Delay Times

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] or [FORMAT] & [DELAY]	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.		

Device Times - Fan Times

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.



5. Select values and confirm.

Device 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 - Attrib Move](#)

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 move with Auto Mark (5.0), OnGo (live) or InB (move while black, preposition).

Device Play back - Attributes Follow Faders

Attributes will follow the manual movement of masters depending on the Master Settings. These are some general rules. See [Master Settings](#).

The always follow the B fader 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 settings for the fader.

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.

N/A

N/A

Device Play back - Attrib Move

Attributes can be executed in three ways

- AutoMark
- On Go
- In B

Depending on this setting Attributes will be executed when a step is faded in live (On Go) or when a Step is loaded to be faded in (In B). See [System Settings - Attribute](#).

You can choose a setting as default depending on the style of your show - and then change individually for any step or device. See [Sequence List](#).

NOTE

GoInB attributes follow the times recorded in the preset.

The old (pre v5.0) dynamics can be set to start on GO always - See [Settings - Crossfade](#).

AutoMark

The default setting is AutoMark but you can change this on the sequence step or in the Preset Attribute editor. In AutoMark mode, attributes are automatically activated In B or On Go *based on the level in Live and in B*.

- If the device intensity is >0% in Live, attributes are On Go.
- If the device intensity is 0% in Live and >0% in B, attributes are In B.
- If the device intensity is 0% in Live and 0% in B, attributes are On Go.)

Live view: Channels that are auto-marking are indicated with a blue background on the FCB indicators. This indicator remains until you press GO.



Live Attributes (6.0)

In addition to the Attribute format of the Live tab you can view all moving device parameters in the Live Attribute Editor.

This tab can only be opened from the Browser (Browser >Devices >Live Attributes). The functions are the same as in any channel view with attributes.

NOTE

All attribute views need to be unlocked for screen editing by holding **SETUP & TAB** and activating in the popup.

PARK works against selected cells when an Attribute View is open.

1. Live Attributes

Attributes - Preset: Next: 100.0 - Palette mode								All devices
Mac 550 16E	Pan	Tilt	Focus Sp	Color	Color 2	Color Sp	Focus	
31	50	50	Tracking	[O/W]	[O/W]		50	
32	50	50	Tracking	[O/W]	[O/W]		50	
33	50	50	Tracking	[O/W]	[O/W]		50	
34	50	50	Tracking	[O/W]	[O/W]		50	
Mac 250 Was	Pan	Tilt	Focus Sp	Cyan	Magenta	Yellow	Color	
41	50	50	Tracking	0	0	0	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.

1. Live Attributes

Attributes - Preset: Next: 100.0 - Palette mode								All devices
Mac 550 16E	Pan	Tilt	Focus Sp	Cyan	Magenta	Yellow	Color	
31	50	50	Tracking				[O/W]	
32	50	50	Tracking				[O/W]	
33	50	50	Tracking				[O/W]	
34	50	50	Tracking				[O/W]	
Mac 250 Was	Pan	Tilt	Focus Sp	Cyan	Magenta	Yellow	Color	
41	50	50	Tracking	0	0	0	Open	

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

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	<i>Pan, Tilt, Focus Speed</i>	Current parameter values are shown.
COLOR	<i>Cyan, Magenta, Yellow, Color, Color2, CTO, Color speed etc...</i>	Current parameter values are shown.
BEAM	<i>Focus, Iris, Zoom, Strobe, Gobo, Gobo <>, Gobo rot, etc...</i>	Current parameter values are shown.
CONTROL*	<i>Aux 1, Control, Dummy ch's etc...</i>	Current parameter values are shown.

*Control parameters labelled "control" can be edited, but will not be stored, Aux values are stored.

NOTE
 Hold **COLUMN** and move wheel to change column sizes.

Gel Picker

There is a Gel Picker that uses the data for each moving device with CMY/RGB mix to generate the values for gels of each type.

It is opened from the Browser >Devices >Gel Picker. Use arrow keys and MODIFY to select a color.

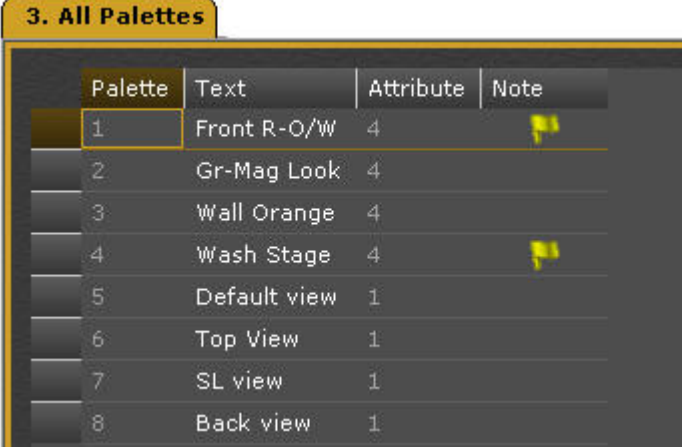
1. Gel Picker



#	Gel (Apollo)	GamColor (GAM)	Lee (Lee)	CalColor (Rosco)	Cinegel (Rosco)
1	1050	101	2	4215	3000
2	1100	103	3	4230	3001
3	1150	104	4	4260	3002
4	1400	105	7	4290	3004
5	1450	105	8	4307	3006
6	1500	106	9	4315	3007
7	1550	107	10	4330	3008
8	1600	108	13	4360	3009
9	1650	109	15	4390	3010

If you know the exact gel brand and number you can select a gel from the Direct Selects as well. See [Direct Selects - Content](#).

All Palettes

This node opens the list of All Palettes.

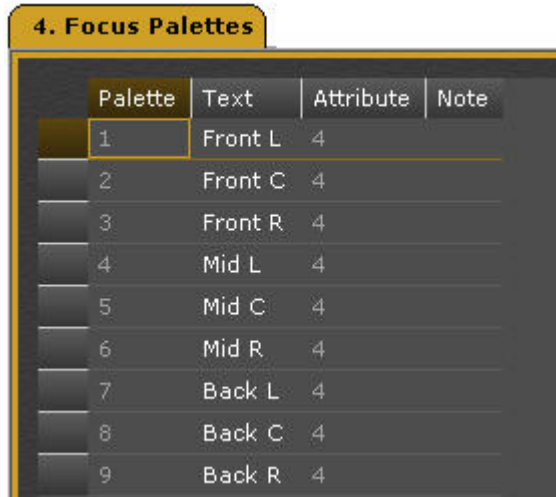


Palette	Text	Attribute	Note
1	Front R-O/W	4	
2	Gr-Mag Lock	4	
3	Wall Orange	4	
4	Wash Stage	4	
5	Default view	1	
6	Top View	1	
7	SL view	1	
8	Back view	1	

Press **MODIFY** in the **Attribute** cell to open the corresponding Palette editor.
See [Device Palettes](#).

Focus Palettes

This node opens the list of Focus Palettes.

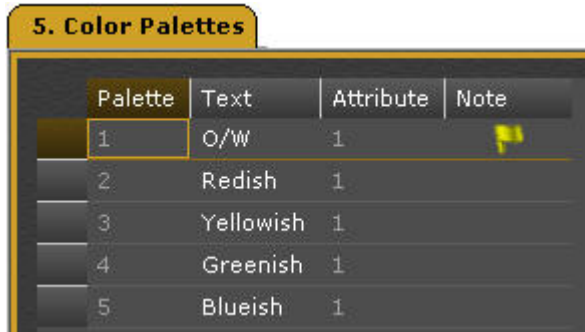


Palette	Text	Attribute	Note
1	Front L	4	
2	Front C	4	
3	Front R	4	
4	Mid L	4	
5	Mid C	4	
6	Mid R	4	
7	Back L	4	
8	Back C	4	
9	Back R	4	

Press **MODIFY** in the **Attribute** cell to open the corresponding Palette editor.
See [Device Palettes](#).

Color Palettes

This node opens the list of Color Palettes.

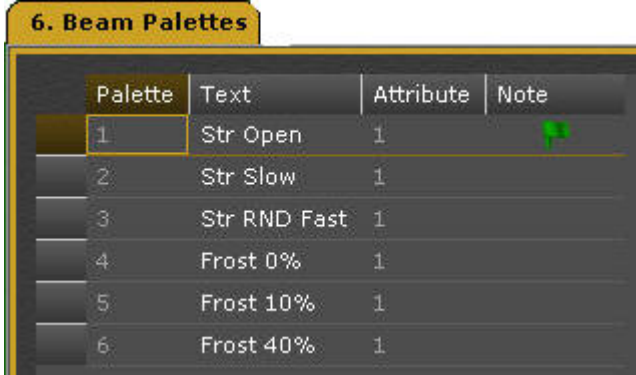



Palette	Text	Attribute	Note
1	O/W	1	
2	Redish	1	
3	Yellowish	1	
4	Greenish	1	
5	Blueish	1	

Press **MODIFY** in the **Attribute** cell to open the corresponding Palette editor.
See [Device Palettes](#).

Beam Palettes

This node opens the list of Beam Palettes.



Palette	Text	Attribute	Note
1	Str Open	1	
2	Str Slow	1	
3	Str RND Fast	1	
4	Frost 0%	1	
5	Frost 10%	1	
6	Frost 40%	1	










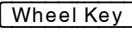


Press **MODIFY** in the **Attribute** cell to open the corresponding Palette editor.
See [Device Palettes](#).

Mask

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.
- The mask is used when recording Presets, Palettes and Dynamics.
- Masked parameters are displayed in Live tab Attributes view and in the ML LCD on the facepanel with "--".
- When you record a Preset or Palette, masked parameters are NOT recorded.
- You can prepare and store 999 Mask templates and activate as the global mask anytime.
- User Masks can be accessed as content in the Direct Selects.

Global Mask - Functions

Function	Key	Feedback
Enable/Disable Mask		The LED in MASK is lit. In the Main Display you can see "Mask: and "--" for nothing, "fcb" for partial and "FCB" for full masking. On the top of every screen you can see: 
Mask FOCUS	 & 	Toggles the Mask for the all FOCUS parameters
Mask COLOR	 & 	Toggles the Mask for the all COLOR parameters
Mask BEAM	 & 	Toggles the Mask for the all BEAM parameters
Mask parameter	 & 	Toggles the Mask for any single parameter
Open Mask editor	 & 	Opens the Mask editor (see below).

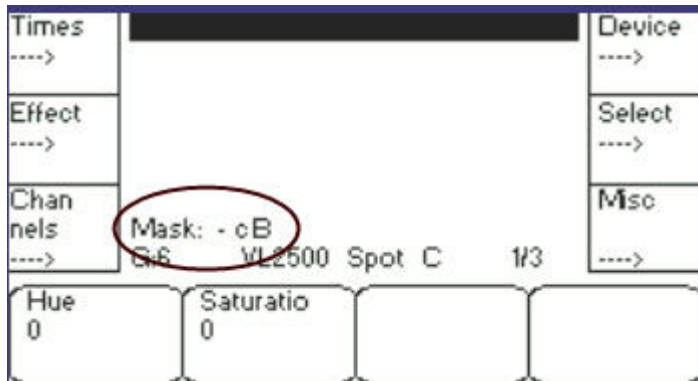
Masking indication

When Mask is enabled, a summary of active masks is shown in the ML display. Each parameter category is indicated with a dash, lowercase or uppercase letter.

"-" (Dash) means the category is unmasked - all parameters are available for control and recording.

"fcb" (Lowercase lettering) means the category is partially masked - some parameters have been masked and are unavailable for control or recording.

"FCB" (Uppercase lettering) means the entire category is masked and no parameters from that category are available for control or recording.



Mask - Editor (6.1)

In the Mask Editor, single parameters can be toggled on/off by pressing MODIFY in the Allow column. This also means that, if you want to toggle a parameter column on/off, you can select the top cell, press COLUMN to select the whole column, and then press MODIFY.

Hold MODIFY and press MASK to open the editor.

4. Mask 1 ()

FOCUS	Allow	COLOR	Allow	BEAM	Allow	AUX1	Allow	AUX2	Allow	EFFECT
Pan	✓	Red	✓	Focus	✓	Control	✓			Chase*
Tilt	✓	RedOrange	✓	Strobe	✓					Rate/Tap*
Focus Time	✓	Amber	✓	Zoom	✓					ChSource*
		Green	✓	Gobo						Set/Group*
		Cyan	✓	Gobo 2						GrpParts*
		Blue	✓	Gobo 2 <>						GrpDistributic
		Indigo	✓	Iris	✓					PartDirection

User Masks - Functions (6.1)

You can save and label up to 999 different combinations of masked parameters. These Masks can then be applied to masters as playback masks, or to the Global Mask for use when recording Palettes or Presets. They are stored in the Mask List (Browser > Devices > Masks).

To record a user Mask:

1. Set up the Global Mask any way you want (See [Global Mask - Functions](#))
2. Enter a number, hold RECORD and press MASK (with no preceding number the next free Mask is recorded)

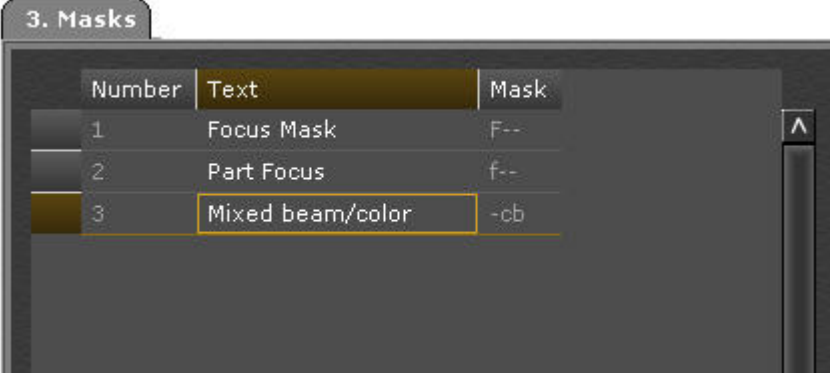
To recall a user Mask:

1. Enter a number and press MASK **or**
2. Press a Direct Select for this Mask.

To load a user Mask to a master:

1. Enter the number, hold MASK and press the Master key.
- This will load this mask as a playback mask for the content of this master.

You can use # INSERT and DELETE to add or remove masks from this list, and you can edit them by pressing MODIFY in the Mask cell - which will open the Mask Editor for that Mask.



The screenshot shows a software interface titled "3. Masks" with a table containing three rows of mask data. The table has three columns: "Number", "Text", and "Mask". The third row is highlighted with a yellow border.

Number	Text	Mask
1	Focus Mask	F--
2	Part Focus	f--
3	Mixed beam/color	-cb

>Settings & Tools

These are the settings and tools for Devices.

This chapter contains the following sections

- [Scroller Rolls](#)
- [Auto-create Palette Wizard](#)

Scroller Rolls

Scroller Rolls are defined in the Scroller Roll Editor. It is opened from the Browser (Browser >Devices >Settings & Tools >Scroller Rolls)

Scroller Roll	Fan = Intensity	Default Time	Text
1 ...	✓	3	11 Frames
2	✓	3	16 Frames
3	✓	3	24 Frames
4	✓	3	32 Frames
5	✓	3	Revolution

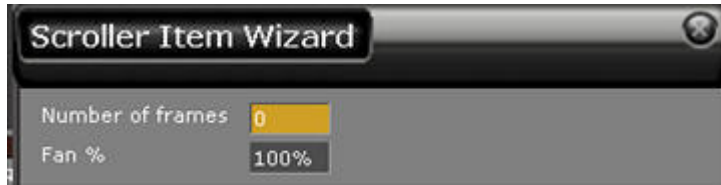
Scroller Rolls Editor - Columns

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

1. Open the Scroller Rolls List from the Browser (Browser >Devices >Settings and Tools >Scroller Rolls).
2. Press INSERT to create a new Roll (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



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>	0-10	The scroller will move slowly forth and back 0-10 bits 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**).

4. Device Settings

	Item	Channel	Template	Address	Inv.Pan	Inv.Tilt	Swap Pan/Tilt	Scroller Roll	Calibration Ex
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	

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.

4. Scroller Calibration Editor

	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.

NOTE

(v5.0) If you change the scroller calibration for a device and close the Scroller Calibration Editor, recorded data (presets, palettes) for the previous frame values will be updated to the new frame values. Values between frames will not be affected.

To "clear" calibrations from a device/scroller: Re-select the same scroller roll in the Device list

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.

Auto-create Palette Wizard (6.0)

This wizard allows you to generate palettes for each range for selected parameters in the currently selected devices. Ranges with the same name will be merged together in the same palette. You can specify the starting number for newly generated palettes.

Open in the Browser from Browser >Devices >Settings and Tools >Auto-create Palette Wizard.



The screenshot shows a dialog box titled "Auto-create Palette Wizard". The window has a dark header with the title in white. Below the header, there is a light gray area with the following text: "This wizard will generate palettes for each of the named ranges in the devices that you select". Below this, it says "Select which templates you want to generate palettes for:". There are three items listed: "Mac 500 M4", "Mac 300 M4", and "Capture camera", each with a checked checkbox. A horizontal line separates this section from the next. The next section says "Select up to 4 parameters that you want to include:". There are four rows, each labeled "Parameter 1" through "Parameter 4", with a dropdown menu next to each. All dropdown menus are currently set to "None". A final horizontal line is above a "Start at Palette" label and a text input field containing the number "101".

For example, if you choose parameter 1 to be a gobo wheel, beam palettes will be created for each gobo, with the name of the gobo starting at beam palette 101.

Jam Mode Wizard (6.0)

The Jam Mode Wizard helps you create some useful data from your patch and channel database to save you some time, regardless which Jam Mode you are planning to use.

This wizard can be opened by pressing WIZARD in Jam mode. It is invoked automatically the first time you enter Jam Mode for Device Masters. In the wizard, you can select which types of data that you want to generate and the starting numbers.

Jam mode Wizard

Select which type of data that you want to create/regenerate

Generate groups from Auto-groups	<input checked="" type="checkbox"/>
Include Text A	<input checked="" type="checkbox"/>
Include Text B	<input checked="" type="checkbox"/>
Include Text C	<input checked="" type="checkbox"/>
Include Text D	<input checked="" type="checkbox"/>
Start at group	101
Generate color palettes for basic colors	<input checked="" type="checkbox"/>
Start at color palette	101
Generate focus palettes for default positions	<input checked="" type="checkbox"/>
Start at focus palette	101
Generate effect playbacks	<input checked="" type="checkbox"/>
Start at effect playback	51
Generate master content	<input checked="" type="checkbox"/>
Generate direct select content	<input checked="" type="checkbox"/>

Execute

Generate groups from Auto-groups

Select which channel database text column you wish to generate groups from.

Generate color palettes for basic colors

Ten color palettes are generated for CMY color mixing devices.

Generate focus palettes for default positions

Three focus palettes are generated:

- Home
- Tilt 25%
- Tilt 75%

Generate effect playbacks

Four effect playbacks for content and dynamic effects are generated.

Generate master content

Masters are populated in groups of ten in Master Page 101 and 102. You can assign whatever master content to these pages and it will be activated when you enter Jam mode.

- Masters 01-10 = Groups
- Masters 11-20 = Effect playbacks and effect parameters (size, rate, tap)
- Masters 21-30 = Focus palettes
- Masters 31-40 = Color palettes

Generate Direct Select content

Direct selects are populated in page 6, which can be edited, and are loaded automatically when you activate Device Masters in Jam mode.

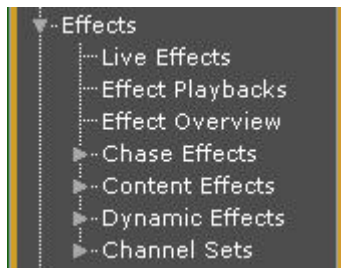
Effects

In Congo v6 there are four different kinds of effects:

- Intensity Chase (step based)
- Dynamic (relative waveforms)
- Content (Absolute)
- Image (mapped)

There are two older kinds of effects that are compatible with Congo prior to v5, which are Sequences in Chase mode, and the old Dynamics.

Effects Node







This chapter contains the following sections

- [Effects - Introduction](#)
- [Channel Distribution Wizard](#)
- [Live Effects](#)
- [Effect Playbacks](#)
- [Effect Overview](#)
- [Chase Effects](#)
- [Content Effects](#)
- [Dynamic Effects](#)
- [Image Effects](#)
- [Channel Sets](#)

Effects - Introduction (6.0)

The effects in Congo are powerful devices that allow you to create and play with effects in a very intuitive and fast way, regardless the size or nature of your rig.

There are four types of effects

Chase	Content	Dynamic	Image
			
<p>Stepped intensity effects with live control of tap tempo. The effect is edited into parts with individual timing and hi/low levels per part.</p>	<p>Step based effects with comprehensive live control over channel distributions, directions and timing. Apply to groups or sets.</p>	<p>Dynamic Templates (waveforms) are applied to parameters to create movement effects relative to a base point, such as circles, rainbows, etc. Apply to groups or sets.</p>	<p>An image (jpg/gif) or text is mapped to intensity or color in a channel layout with comprehensive live control over channel distributions, directions and timing.</p>

Control

To control an effect you create an Effect Playback from which you can control, record and edit it like a moving device into presets and palettes.

- When the intensity is over zero the effect will run.
- Effect intensities are recorded, edited, copied and tracked like any other channel intensity.
- Effect parameters are stored into palettes and presets just like any moving device parameters.
- There is a Live Effects tab, and you can open a dock area to show active effect playbacks.

Chase Effect*	Chase*	Rate/Tap								
E 1	F	C1	267							
Content Effec	ChSource	Set/Grou	PartDirec	Series*	Mode*	LoopTim	StepTim	Attack*	Sustain*	
E 2	F	Group	G: M500	Forward	Empty	Continuo		1	1	
Dynamic Effe	ChSource	Set/Grou	Rate*	OffsetRel	DelayRel	Distance	DynTem	Size*		
E 3	F	Group	G: ALL M	100	Evenly s	All	0	>circle	F	
Image Effect	Layout*	Type*	MapTo*	Index*	X-pos*	Y-pos*	Scale*	Aspect*	Rotation	
E 4	F	10x10	Image	Intensity	Square	Middle	Middle	100	100	0

NOTE

Effects are controlled, recorded and edited like any moving device with an intensity. The only difference is that you select them with # EFFECT.

LIMITATIONS

Current limitations are:

- Number of effect channels: 100
- Number of outputs used by effects: 2 x 512
- Number of groups that can be used in effects: 256

Effects - Functions

These are the general effect functions.

This chapter contains the following sections

- [Effect - Views](#)
- [Effects - Command syntax](#)
- [Effects - Edit](#)
- [Effects - Record](#)
- [Effects - Channel Distribution Wizard](#)

Effects - Views (6.0)

Effects can be viewed in three views

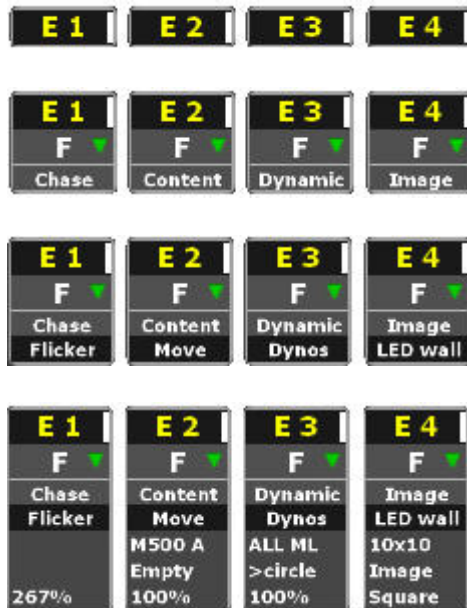
- *Effects* dock area
- *Selected channels - Live* dock area
- Live Effects tab

There are two ways to display an effect

- As a channel handle (in docks)
- As a device (in Live Effects)

Channel handle

The effect handle in the *Effects* and *Selected Channels - Live* dock have four levels of detail. Hold FORMAT and press up/down arrow to select them.



Device

In the Live Effects tab all attributes are displayed just like a moving device. See [Live Effects](#).

Chase Effect*		Chase*	Rate/Tap
E 1	F	C1	267

Content Effect		ChSource	Set/Grou	PartDirec	Series*	Mode*	LoopTim	StepTim	Attack*	Sustain*
E 2	F	Group	G:M500	Forward	Empty	Continuo		1	1	

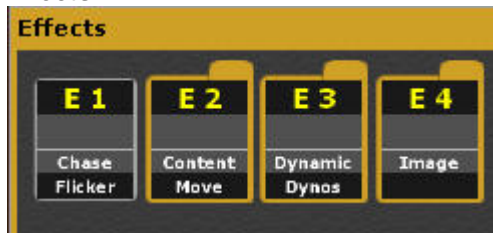
Dynamic Effe		ChSource	Set/Grou	Rate*	OffsetRel	DelayRel	Distance	DynTem	Size*
E 3	F	Group	G:ALL M	100	Evenly s	All	0	>circle	F

Image Effect		Layout*	Type*	MapTo*	Index*	X-pos*	Y-pos*	Scale*	Aspect*	Rotation
E 4	F	10x10	Image	Intensity	Square	Middle	Middle	100	100	0

Effects in Dock Areas (6.0)

Effects are shown in two dock areas. See [Dock Areas](#).

Effects



Selected channels - Live



Using a mouse or trackball

Click to select and use the mouse wheel, or hold the right key and move to set levels. Click to add more, double-click to deselect all but the last clicked.

Effects - Command syntax

Effects are selected and adjusted one by one or in groups in the same way as moving devices. Instead of using the CH key there is an EFFECT key.

As soon as an effect is selected you can control the intensity with all level functions, and attributes with attribute controls and palettes.

Select and activate effects (6.1)

An effect is activated as soon as the level of the Effect Playback is over zero. Please note that you must create an Effect Playback before you can control it. See [Effect Playbacks](#).

Default Congo syntax (RPN)

Action	Key	Feedback
Select effect	[#] [EFFECT]	Effect # is selected and can be controlled with level wheel and attribute controls
Add an effect	[#] [+]	Effect # is added to the current selection
Subtract an effect	[#] [-]	Effect # is subtracted from the current selection
Add multiple effects	[#] [THRU]	Up to effect # is added to the current selection
Add a channel	[#] [CH] [¯] [+]	Channel # is added to the current selection
Add a group	[#] [GROUP] [¯] [+]	Group # is added to the current selection
Add an effect to a channel selection	[#] [EFFECT] [¯] [+]	Effect # is added to the current selection
Subtract a channel	[#] [CH] [¯] [-]	Channel # is subtracted from the current selection
Subtract a group	[#] [GROUP] [¯] [-]	Group # is subtracted from the current selection
Subtract an effect	[#] [EFFECT] [¯] [-]]	Effect # is subtracted from the current selection

At mode syntax

If your Congo is set to use At Mode for channel commands, effects are selected in the following ways. You can terminate a selection in At Mode pressing @Level or the decimal point.

Action	Key	Feedback
Select effect	[EFFECT] [#]	Effect # is selected
Add an effect	[+] [EFFECT] [#]	Effect # is added to the current selection
Subtract an effect	[-] [EFFECT] [#]	Effect # is subtracted from the current selection
Add multiple effects	[THRU] [#]	Up to effect # is added to the current selection
Add a channel	[+] [CH] [#]	Channel # is added to the current selection
Add a group	[+] [GROUP] [#]	Effect # is added to the current selection
Subtract a channel	[-] [CH] [#]	Channel # is subtracted from the current selection
Subtract a group	[-] [GROUP] [#]	Effect # is subtracted from the current selection

Select channels from effect (6.1)

These functions make it possible to select channels involved in an effect.

Action	Key	Feedback
Select active channels	[EFFECT] & [CH/ID]	All channels involved in effects that are active are selected.
Select all in effect...	[#] [EFFECT] & [CH/ID]	All channels involved in effect playback # are selected.
Select active effects	[EFFECT] & [ALL] or [ALL] & [EFFECT]	All active effect playbacks are selected. Pressing ALL alone will never select effect playbacks.
Toggle between selecting an effect and the channels assigned to it. (6.1)	[Inv Eff/Ch] or [C/ALT] & [INV] [GROUP]	The soft key Inv Eff/Ch in the Effects soft key meny allow you to toggle the channel selection between the selected effect playback and the channels assigned to it.

Home functions for effects

A very useful function for effects is Home. You can store a home position for all parameters.

Action	Key	Feedback
Record HOME	[RECORD] & [HOME ATTRIB]	All current parameters of the selected effect(s) are recorded as a home position.
HOME	[HOME] & [EFFECT]	All Effect Playbacks move to their Home position. By default, this will stop all Content, Dynamic and Image effects but does not stop Chases.

Load an effect to a master

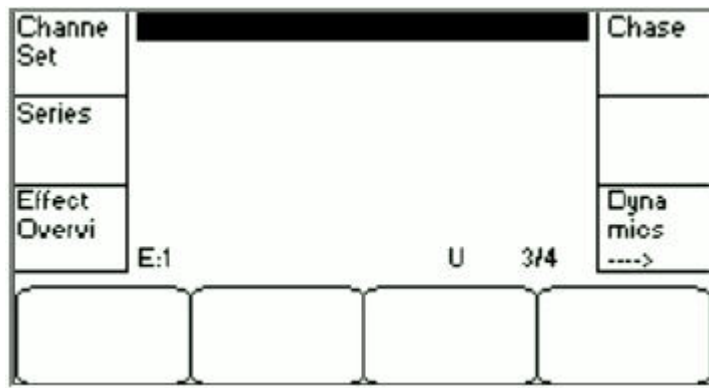
A single effect playback can be loaded to a master. This allows you to control the effect intensity with the master fader. If you press the master key you will select the effect.

Action	Key	Feedback
Load effect	# EFFECT & master key	Effect # is loaded to master #

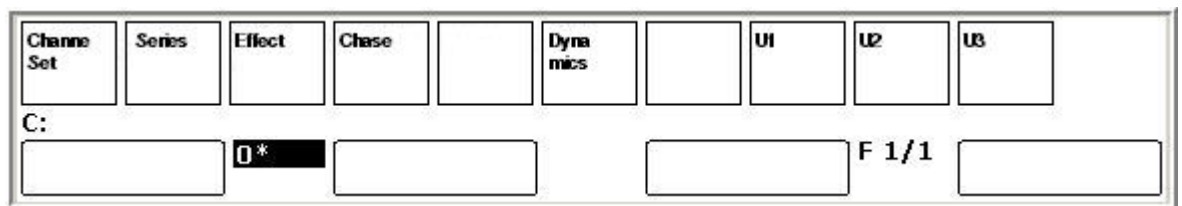
Effect Soft Key Page

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

Congo



Congo Jr & Kid



These are the functions (jr has U1-U3 which are used to select effect parameters).

Function	Softkey	Feedback
Channel Set List	<input type="text" value="Channel Set"/>	Opens the Channel Set List. See Channel Sets .
Series List	<input type="text" value="Series"/>	Opens the Series List. See Series List .
Effect Overvi	<input type="text" value="Effect Overvi"/>	Opens the Effect Overview Tab. See Effect Overview .
Chase	<input type="text" value="Chase"/>	Opens the Chase Editor. See Chase Editor .
Dynamics	<input type="text" value="Dynamics"/>	Opens the Dynamics Soft key menu. See Dynamic Effects .

Effects - Edit (6.0)

Effects are edited in the same way as moving devices.

Attribute wheels

As soon as an effect is selected the effect parameters are available on live attribute controls in parameter banks U1-U3. On Congo jr these can be found under the Device softkey or by using [C] & [FOCUS], [COLOR], [BEAM] respectively.

Palettes

All effect attributes can be stored and played back from All Palettes. Hold RECORD and press PALETTE.

Home

You can store a home position for every effect playback. Hold RECORD and press HOME.

Fetch

You can fetch attribute values for any parameter from any preset. Hold FETCH and press the parameter wheel key, or PALETTE.

Mask

You can mask attribute values for any parameter from any effect playback. Hold MASK and press the parameter wheel key.

See [Devices](#).

Effects - Record

Effects are stored in Presets in the same way devices are stored.

1. *Select the effect*
2. *Set a level*
3. *Record*

If you have the default device setting "store if active" all effect parameters are stored automatically when the intensity is over zero%.

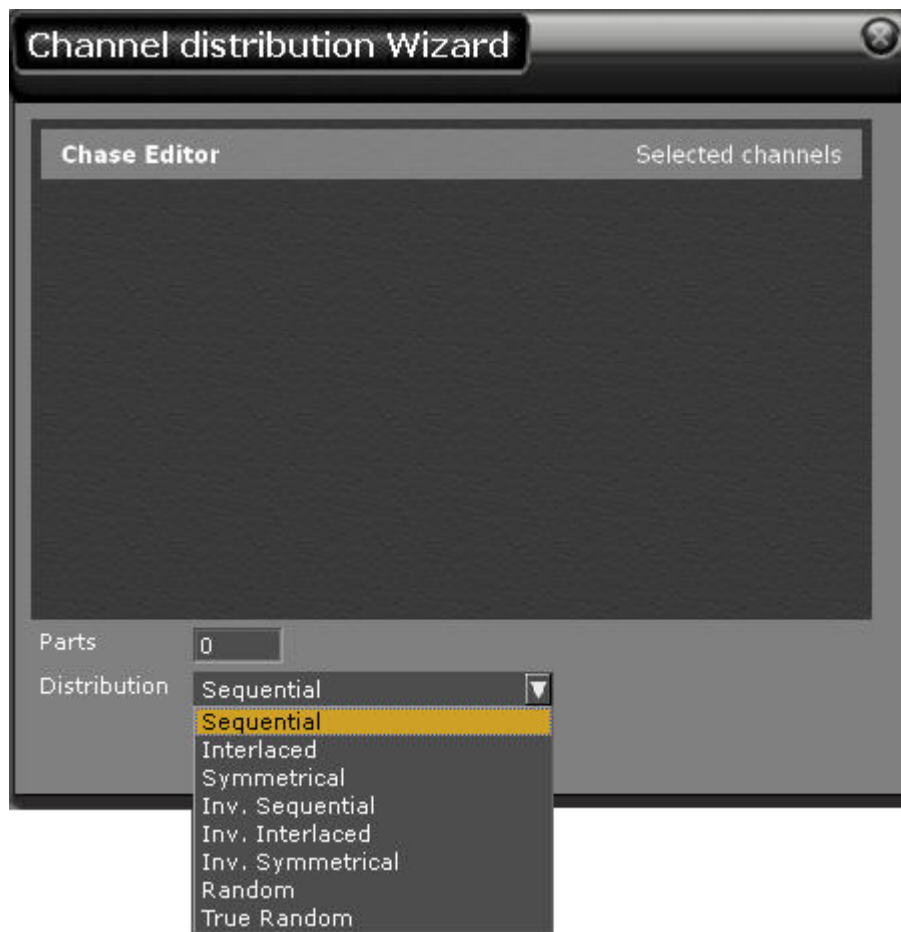
The level of the effect playback shown and edited in the same way as channel intensities.

Effects - Channel Distribution Wizard

The Channel Distribution Wizard is used for **Sets** and **Chase effects**. It allows you to distribute a selection of channels into a number of parts (steps) in eight different ways.

There are two ways to open this wizard

- Press MODIFY in the PARTS cell in a channel set list or chases list.
- Create a Chase Object.



1. Select channels
2. Select number of parts
3. Select distribution method for the channels into the parts

These are the different distribution methods. Note that if the number of channels cannot be divided by the number of parts, the results will be different when using inverted distribution, since the odd channels will end up in the last part. Also, the order in which the channels are selected is the order in which they are distributed.

Sequential, 4 parts									Inverted Sequential, 4 parts								
	Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8		Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8
Part 1	█	█							█	█							
Part 2			█	█								█	█				
Part 3					█	█								█	█		
Part 4							█	█								█	█

Interlaced, 4 parts									Inverted Interlaced, 4 parts								
	Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8		Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8
Part 1	█				█				█								
Part 2		█				█				█							
Part 3			█				█				█						
Part 4				█				█				█					

Symmetrical, 4 parts									Inverted Symmetrical, 4 parts								
	Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8		Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8
Part 1	█							█	█								
Part 2		█								█							
Part 3			█								█						
Part 4				█								█					

Random, 4 parts									True Random, 4 parts								
	Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8		Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8
Part 1	█				█				█			█					
Part 2			█					█								█	
Part 3				█			█							█			
Part 4		█								█							

Live Effects

Press EFFECT to open Live Effects. This is where you can view and edit the parameters of all running effect playbacks in the screens. In the consoles you can control the same parameters in the Main Display over the parameter wheels.

1. Live Effects

Live Effects - Preset: Next: 1.0 - Palette mode - Spreadsheet editing: Disabled All devices

Image Effect	Layout*	Type*	MapTo*	Index*	X-pos*	Y-pos*	Scale*	Aspect*	Rotation
E 4	No Layout	Image	Intensity	No Imag	Middle	Middle	100	100	0

Chase Effect*	Chase*	Rate/Tap
E 1	No Chas	100

Content Effec	ChSourc	Set/Grou	GrpParts	GrpDistri	PartDirec	Series*	PlayMod	Mode*	LoopTim
E 2	Set	S:Empty	Not used	Not used	Forward	Empty	Play For	Continuo	

Dynamic Effe	ChSourc	Set/Grou	DynTem	OffsetRel	DelayRel	Distance	Rate*	Size*
E 3	Set	S:Empty	>circle	Evenly s	All	0	100	F

Things to think about in this view

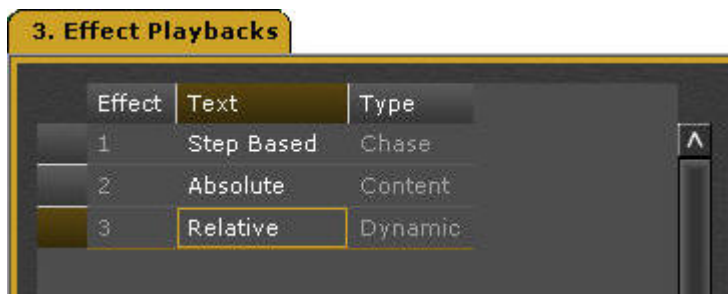
- Use arrow keys to navigate.
- Press MODIFY to get a drop down choice for a cell.
- Hold SELECT and use arrow keys to select several cells for data entry.
- Select effect with # EFFECT and set levels in live (A) with level wheel & functions.
- Depending on the Play Setting (Attributes) Attribute Editor Default - all entries directly in cells with # MODIFY will be treated as Absolute OR Palettes. The same goes for drop down choices (MODIFY). Hold C/ALT to get the alternate data when pressing MODIFY. See [Play Settings - Attribute](#).

Effect Playbacks

An effect playback is the control handle for an effect, similar to a channel controlling a moving device.



All Effect Playbacks are listed and can be inserted/deleted from the Effect Playbacks list Browser >Effects >Effect Playbacks.



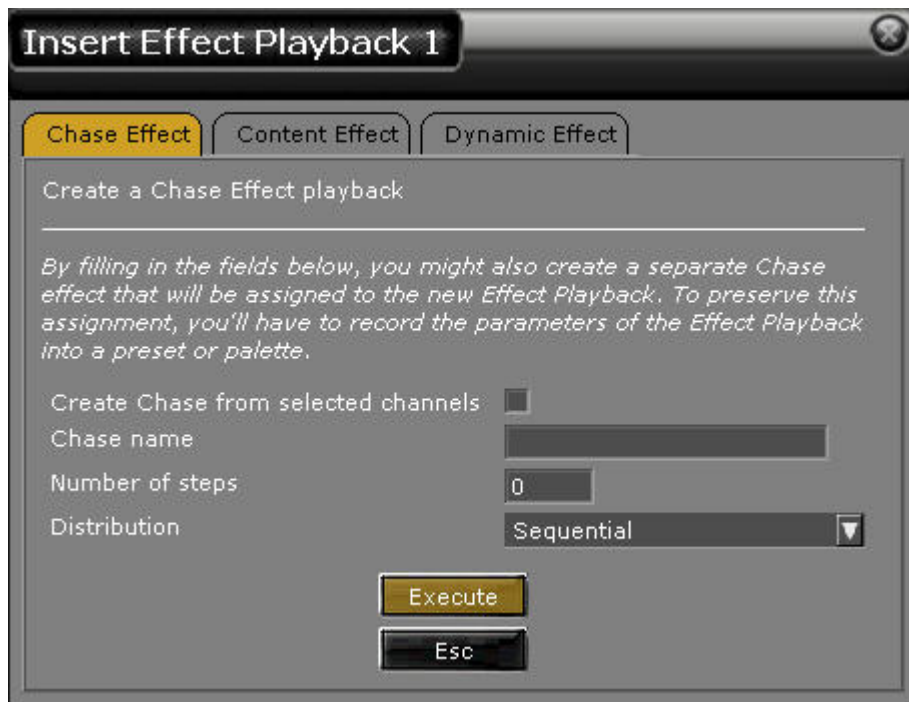
Create an Effect Playback

Effects can be created from the Effect Playbacks list, or as a key command.

1. Create an Effect Playback

- Press INSERT in the Effect Playback list
- Hold INSERT & EFFECT

2. Select type of Playback (Cannot be changed once inserted, to change you need to delete and reinsert the playback).



3. Done. You can now control the effect. See [Select & Activate Effects](#).

Effect Overview

The effect overview tab lists all types of data objects that can be involved in creating and editing effects. It's opened from the Browser >Effects >Effect Overview.

- Groups
- Series
- Channel Sets
- Playbacks
- Chases
- Dynamic templates



#	Group	Text	Series	Text	Channel Set	Text	Playback	Text	Chase	Text	Dynamic Template	Text
1			1	Empty	1	Empty	1	Step Based	1		1	>circ ^
2							2	Absolute	2		2	<circ
3							3	Relative			3	>step
4											4	<step
5											5	figure
6											6	can c
7											7	ballyt
8											8	ballyt v

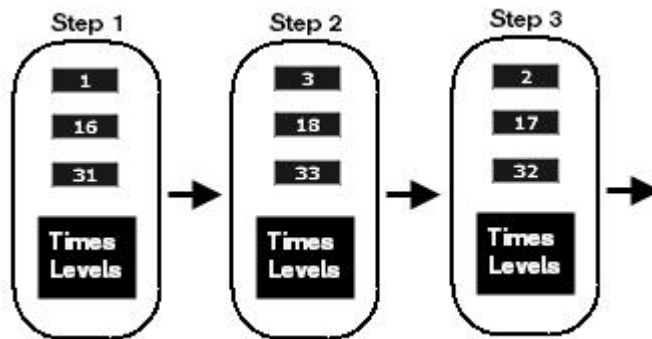
Press MODIFY in any cell to open the corresponding editor.

Chase Effects

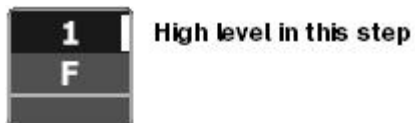
This is a step based, defined intensity effect. A chase is what you use when you want lights to chase on/off in a specific pattern.



Each step contains channels, step times and step levels.



You can define a high level for all channels in a step, and a low level which will be the background level of these channels in all steps.



Components

To start a Chase effect you need

- A Chase Object
- A Chase Effect Playback

Chase object

- Contains the channel list and the high/low intensity levels and timing values.
- It has a number of steps, with channels, up, dwell and down times.
- Intensities per step have a Max (high) and Min (low) value.
- Once a Chase object is programmed it will replay in the exact same way.

Playback

- The effect will run as soon as the effect playback intensity is over zero.
- The intensity level of the effect playback also masters the high level of the output of the effect.
- The intensities will contribute to the Live output on a HTP basis.

Live Parameters

A single Chase Effect Playback can be associated with any Chase object. To play back more than one Chase object simultaneously you need to insert multiple Chase Effect Playbacks.

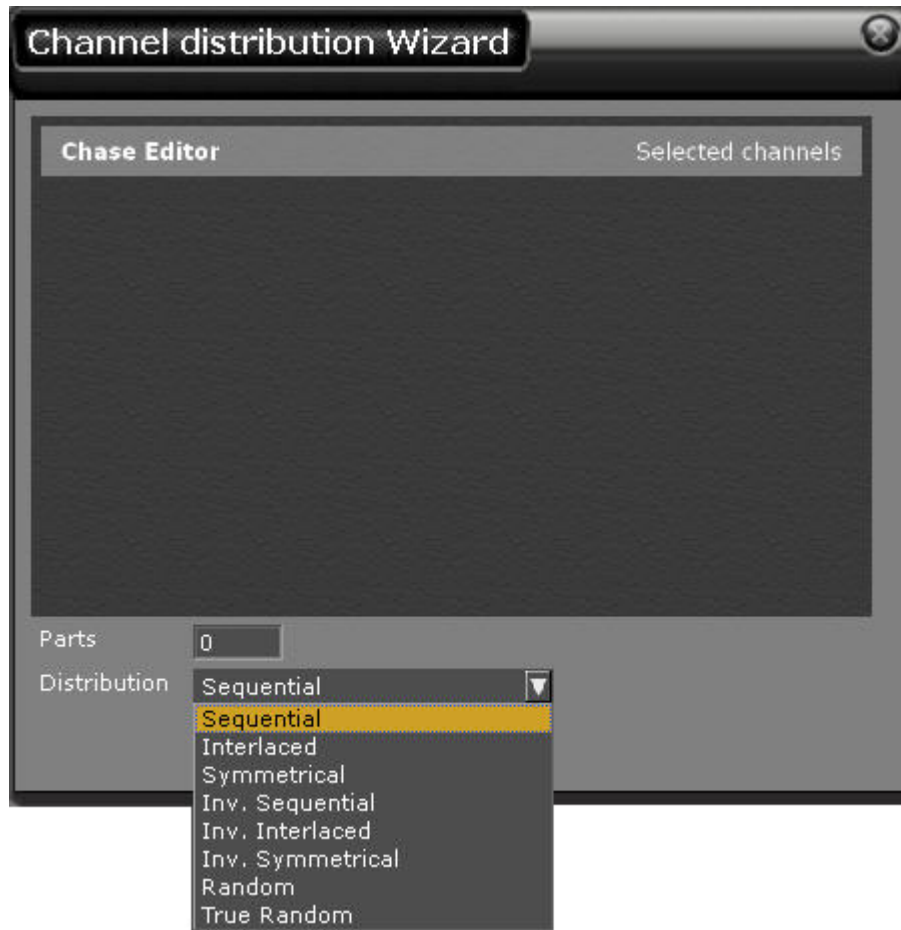
- Change direction (Forward, Backward, Bounce, Random)
- Change every step time and content
- Change playback style (Positive, Negative, Build)

Create a Chase

Chases are created in the chase channel distribution wizard.

1. Open the Channel Distribution Wizard. This can be done in two ways.

- # INSERT & EFFECT.
- Press INSERT in the Chase List
- In the Chase List, press MODIFY in the STEPS cell.



2. Select channels, parts, name and distribution. See [Channel Distribution Wizard](#).

3. You can now start the chase, by selecting it and setting a level over zero. See [Select & Activate Effects](#).

It will use the default times and values. These can be edited in the Chase Editor and the Chase Step Editor.

Copy a chase effect (6.0)

You can use the COPY function to duplicate a chase effect.

1. *Open the chase editor and select the chase you wish to copy*
2. *Press PASTE to create a copy at the end of the chase editor list.*

Control a Chase Effect

As soon as a Chase Effect playback is selected, you can control it in two ways:

- From the console parameter wheels using U1-U3. In Congo jr these can be found under the Device softkey or by using [C] & [FOCUS], [COLOR], [BEAM] respectively.
- From the Live Effects view.

Live Effects looks like this:



Press MODIFY to get a dropdown to change chase, or enter a number and press MODIFY.

NOTE

When you press **MODIFY** or enter a number it will be an absolute value or a Palette value - depending on the setting in Attribute Settings. See [Play Settings - Attribute](#).

Chase Tap Tempo

When you select a Chase Playback, you will have two parameters, Chase # and Rate/Tap.

Press the Rate/Tap parameter key in the main display of the console to set a Rate/Tap. You can also edit this parameter in the Live Effects view.

Chase Effect Parameters

A Chase object is never adjusted live - it is defined in two editors

- The Chase Editor
- The Chase Step Editor

CHASE EDITOR PARAMETERS

Its possible to edit a symmetrical Chase object from the Editor, without opening the Chase Step editor. However, if you want to edit the steps, or the individual step timing, you need to open the Chase Step Editor.

Direction

Sets the direction in which the steps are played back.

- Forward
- Backward
- Bounce
- Random

Style

The style decides the starting level.

- Positive (channels go from Low int to High int)
- Negative (channels go from High int to Low int)
- Build (channels go from Low int to High int and stay at High int until all steps have been executed)

Loop Time

This time will force a value to all Step Times = Loop Time/Steps. See Step Time further down.

In, Dwell & Out times

These times will force a value to all individual In, Dwell & Out times of the Chase Steps. See In, Dwell & Out times further down.

Rate Min & Rate Max

RateMin and RateMax work together to set the playback rate of the chase. When these values are the same, the chase is adjusted evenly. When these rates differ, the chase will play back randomly using rate values between the Min and Max value. This is a good way to create more organic chases for things like lightning and water reflections.

CHASE STEP EDITOR PARAMETERS

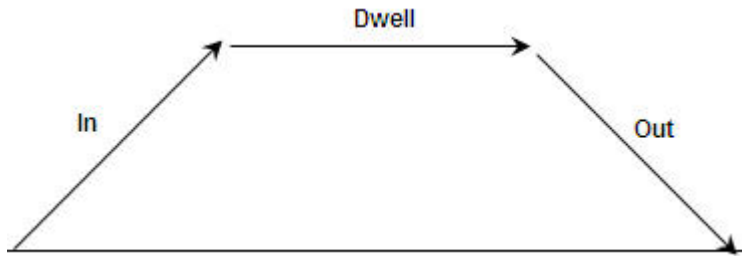
If you need to edit individual step times, or channels, you do this in the Chase Step Editor.

Step Time

This is when this step will execute in relation to the previous Step.

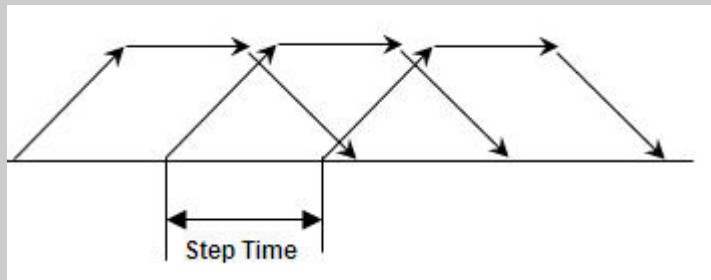
In, Dwell & Out times

These are the times for each Step.



NOTE

If the Step time is shorter than the sum of In+Dwell+Out you will get a "ripple" effect.



High & Low

Each Step has a High intensity and a Low intensity that is used by the Chase.

Chase Editor

The chase editor is a summary and editor of all chases. You can create (INSERT) and edit chases here.

- Press the soft key CHASE in the EFFECTS soft key menu
- Press MODIFY in the Browser node Browser >Effects >Chase.



Chase Editor - Functions

The Chase can only be edited from the Chase Editor and the Chase Step Editor. This ensures that a Chase will always play back in the way it is defined.

Column	Action	Feedback
<u>Chase</u>	No Input	The number of this chase, cannot be edited.
<u>Text</u>	<input type="button" value="MODIFY"/>	Enter a label.
<u>Steps</u>	<input type="button" value="MODIFY"/>	Shows the number of steps, press MODIFY to open the Channel Distribution Wizard.
<u>Direction</u>	<input type="button" value="MODIFY"/>	Choose between forward, backward, bounce and random.
<u>Style</u>	<input type="button" value="MODIFY"/>	Choose between positive, negative and build.
<u>Loop Time</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets a total Loop time *
<u>In</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets an In time for all steps**
<u>Dwell</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets a Dwell time for all steps**
<u>Out</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Sets an Out time for all steps**
<u>RateMin</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Defines a random minimum variation for Step times***
<u>RateMax</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	Defines a random maximum variation for Step times ***

*The Default times are applied until you define a different time in the Chase Steps Editor.

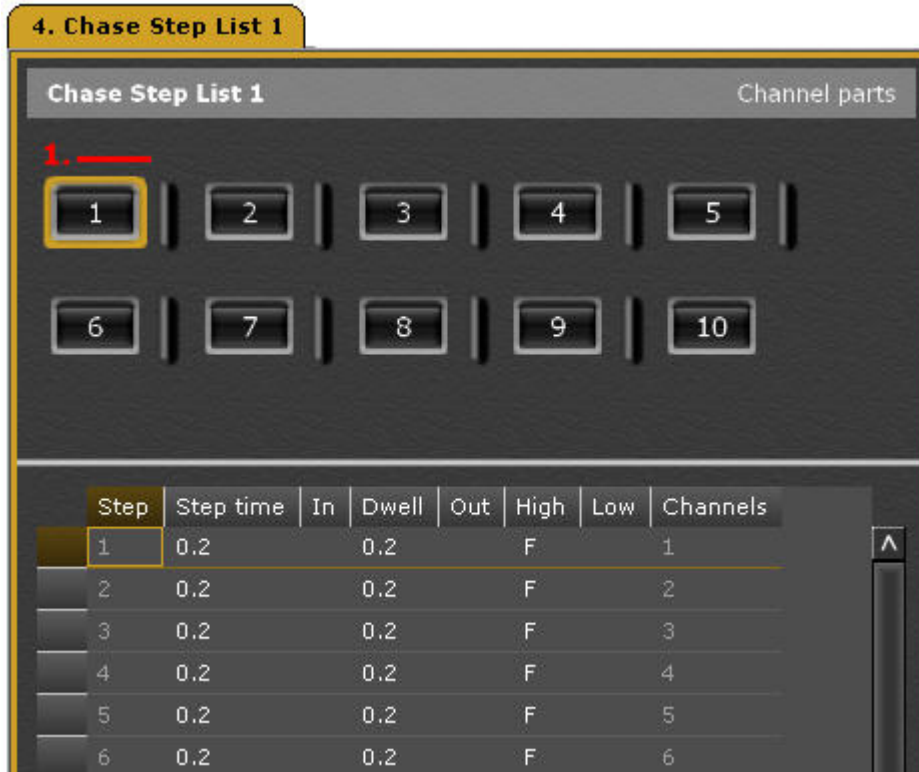
**Loop Time = the amount of time it takes to pass through all the steps of the chase once. Edit the loop time and all step times will be adjusted to evenly fit within this time value..

***RateMin and RateMax work together to set the playback rate of the chase. When these values are the same, the chase is adjusted evenly. When these rates differ, the chase will play back randomly using rate values between the Min and Max value. This is a good way to create more organic chases for things like lightning and water reflections.

Chase Step Editor

The Chase Step Editor allows you to edit channels, levels and times for each step separately.

- Press MODIFY in the STEPS cell of the Chase Editor.



The screenshot shows the 'Chase Step Editor' interface. At the top, there is a tab labeled '4. Chase Step List 1'. Below the tab, the main area is titled 'Chase Step List 1' with 'Channel parts' on the right. A red '1.' is positioned above a grid of ten buttons labeled 1 through 10. Button 1 is highlighted with a yellow border. Below the grid is a table with the following data:

Step	Step time	In	Dwell	Out	High	Low	Channels
1	0.2		0.2		F		1
2	0.2		0.2		F		2
3	0.2		0.2		F		3
4	0.2		0.2		F		4
5	0.2		0.2		F		5
6	0.2		0.2		F		6

Chase Step Editor - Functions

The Chase can only be edited from the Chase Editor and the Chase Step Editor. This ensures that a Chase will always play back in the way it is defined. Timing information on a step level overrides timing information on the Chase Editor top level.

Column	Action	Feedback
<u>Step</u>		Shows the number of each steps.
<u>Step time</u>	# <input type="button" value="MODIFY"/>	Sets a Step time.
<u>In</u>	# <input type="button" value="MODIFY"/>	Sets an In time for all steps*
<u>Dwell</u>	# <input type="button" value="MODIFY"/>	Sets a Dwell time for all steps*
<u>Out</u>	# <input type="button" value="MODIFY"/>	Sets a Out time for all steps*
<u>High</u>	# <input type="button" value="MODIFY"/>	Sets the High level for this step, which is applied to all channels when the step is active.
<u>Low</u>	# <input type="button" value="MODIFY"/>	Sets the Low level for this step, which is applied to all channels when the step is active.
<u>Channels</u>		Displays the channels in this step.

*Times set from the Chase Editor top level are edited per step here.

Content Effects (6.0)

Content effects are simply speaking simply a **series** of steps containing show content like palettes and presets or even raw parameter levels that you can apply to any existing group (or set) in your show.

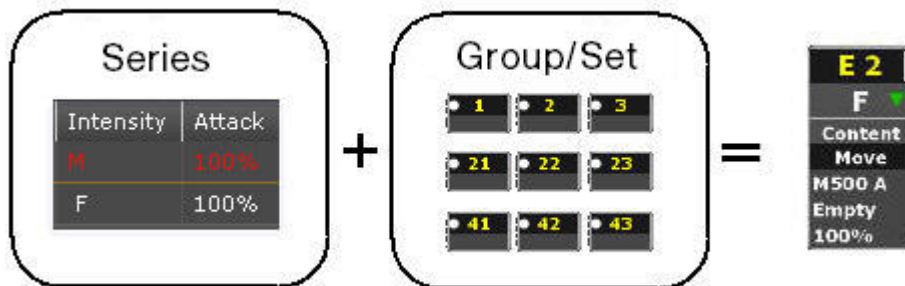


*The simplest form of content effect is the intensity series (on/off) that is created automatically when you make a new play. By applying this to a group of channels you can create chase, ripple and pulsating intensity effects on the fly. There is a **default** intensity content effect when you create a new play from v6.0.*

A more complex example of a content effect could be "set all devices in the target group that have a color mix to blue, then pop to white two by two from sides to center" and it's easy to add two lines of code to the series to make them "fly out when they pop to white".

General

The content effect separates the channel source (group or channel set) from the actions within the effect (series). Actions are defined using steps that can contain palettes, presets or parameters. Content effects can switch channel lists and/or series of steps independently and can be run in three different modes to change how the channel lists and steps interact with each other.



Content effects can be run in three different modes to change how the channel source and Series interact with each other.

- Break
- Continuous
- Build

See [Content Effect Modes](#).

Components

To start a Content effect you need

- A channel source (a Group or Channel Set)
- A Series
- An Effect Playback

Playback

- All parameters can be controlled live, similar to how a device is controlled
- The effect is applied to any predefined set or group of channels.
- The effect will run as soon as the effect playback intensity is over zero.
- The intensities will contribute to the Live output on a HTP basis.
- Attributes will replay on an LTP basis with the rest of the playbacks.

Live Parameters

- Change channels (set/group)
- Change distribution of groups (parts, symmetrical, interlaced, random)
- Change Part direction (forward, reverse)
- Change Play mode (Stop, Pause, Play forward, Random etc)
- Change Mode (Continuous, Break, Build)
- Change Rate plus times (attack, release, step, etc)
- Change Rate with the wheel or with tap

Create a Content Effect Playback

1. Create a Content Effect Playback. This can be done in two ways.

- # INSERT & EFFECT and select Content .
- Press INSERT in the Effect Playbacks List, and select Content .

Now that the effect playback is created you can apply it to any channel group, or you can create channel sets and select them. You have to have a Series defined, since it is the engine of the content effects.

2. You can now start the effect, by selecting it and setting a level over zero. See [Activate & Control Effects](#).

NOTE

The Effect playback is controlled similar to how a moving device channel is controlled. A level above 0 starts the non-intensity content and the intensity level of the playback masters the intensity levels within the effect.

Control Content Effects

As soon as a Content Effect playback is selected, you can control it in two ways:

- From the console parameter wheels using U1-U3 (In Congo Jr these are found in the Effect soft key page, or by using [C] & [FOCUS], [COLOR], [BEAM] respectively).

U1	ChSource* Group	Set/Group* G:Blue Cyc	GrpParts* 4	GrpDistribution* Sequential
U2	PartDirection Forward	Series* Empty	PlayMode* Play Forward	Mode* Continuous
U3	LoopTime*	Rate/Tap* 100		Entra* Together
U3	StepTime* 1	Attack* 1	Sustain*	Release*

- From the Live Effects view (if editing is enabled). <Press EFFECT.



Step around with arrow keys, press MODIFY to get a dropdown, or enter a number and press MODIFY.

NOTE

When you press MODIFY or enter a number it will be an absolute value or a Palette value - depending on the setting in Attribute Settings. See [Play Settings - Attribute](#).

Content Effect Parameters

Besides the necessary *channel source* (**Group** or **Channel Set**) and **Series**, a number of parameters are combined to define the result of a Content effect. You can adjust all of them live by selecting the **Effect Playback**.

The Parameters are divided into two main groups:

- Content & Play Mode
- Timing

CONTENT & PLAY MODE PARAMETERS

Channel Source

The Channel Source that the effect is applied to can be a Set or a Group. See [Channel Sets](#) and [Groups](#).

- The advantage with a Set is that you can define any type of custom channel distribution over the parts, and they will always replay in the same way.
- The advantage with Groups is that you can reuse all Groups you have already recorded, and create distribution and number of parts on the fly with the **GrpParts** and **GrpDistri** parameters.

Set/Group

Select a Set or Group as the Channel Source.

NOTE: There is a special option named Groups (Auto) which will set the number of parts to a selected group to the number of channels in this group - allowing for a single step chase effect.

GrpParts

If you have selected a Group as the Channel Source, this parameter defines how many parts the Group is divided into.

NOTE: There is a special option named Groups (Auto) which will set the number of parts to a selected group to the number of channels in this group - allowing for a single step chase effect.

GrpDistri

If you have selected Groups as the Channel Source, this parameter defines the channel distribution over the Group Parts. The options are the same that are available in the Channel Distribution Wizard used to create Sets. See [Channel Distribution Wizard](#).

PartDirec

Allows you to run the Set or Group parts **Forward** or **Backward**.

Series

A list of steps that execute specific kinds of play content or parameter settings. Each step may have 4 kinds of content - Intensity + three variable slots that can contain palettes, presets or direct parameter data. Each of those four pieces of content may have their own "Attack" (fade) time within the step.

Play Mode

There are a number of play modes:

- Stop
- Pause
- Play Forward
- Play Reverse
- Bounce
- Random

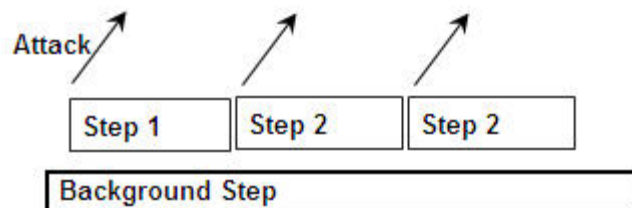
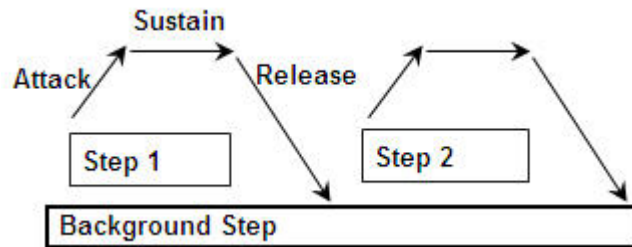
The Play mode generally refers to the way the Series gets played back, so between PartDirec and PlayMode you can change the direction of the channel source but have the steps play back as written, or vice versa.

Mode

Content Effect can play back it's Series in three modes, **Continuous**, **Break** and **Build**. The result differs quite a lot. Some Series are set to a default mode, because they are designed to be played back this way.

- In a **Continuous mode** content effect, parts are always executing a step. In a three color Red-Green-Blue effect, all channels would be in one of those three colors all the time the effect is running.
- In a **Build mode** content effect, all parts execute step 1 before they execute step 2. Using the same series as above, all parts would become red using the step and attack times until all channels are red, then they would each step into green until all are green, then they would start stepping into blue.
- In a **Break mode** content effect, assuming you have more parts than steps, then part 1 will execute the "active" portion of the series and when done it will fade into the Background state (step 0) and wait there (take a "break") until all the other parts have executed the active steps in the series. When using Break mode, the "sustain" and "release" times on the active steps come into play - if you think about the stadium "wave" phenomenon at football matches you'll know what I mean - the active step is to "Stand up and raise your arms" and the background state is "sit down". The attack time is how long it takes you to stand up, the sustain time is how long you remain standing, and the release time is how long it takes you to sit back down again. The background state has no timing of its own, as it is used when the channel is not doing anything else.

As you see in the example, the step time will control if each step goes into the background between steps.



TIMING PARAMETERS

Loop Time

This time equals how long it takes all the parts to run through the effect once. If you lengthen this time, you will impose a gap before the next pass through the effect begins. If you shorten this time, you will cause the next pass to start before the first pass is completed.

Rate/Tap

Use this value to scale the whole timing scheme faster or slower. Tapping the wheel key will adjust the timing of the effect to match your tapped in rate. Fade times will scale appropriately when you use tap.

Entry

The Entry mode decides how channels will enter into the effect.

Step Time

The tempo of the effect - this time determines when each step will be executed..

Attack Time

The fade time of the associated step or individual piece of content..

Sustain & Release times (Break mode only)

This time determines how long a step remains active before starting the release to the background state. If a break mode effect has more than one active step, each step may execute a sustain and release to the background only if the step time is greater than the combined attack+sustain+decay times of the step, otherwise you will only see attack times executed until the last active step.

Content Effect Modes

A Content Effect can play back its Series in three different modes:

- Break
- Continuous
- Build

In the Series Editor you can define a default mode that is set every time the Series is activated. It's possible to change this mode on the fly when you edit the Effect Playback parameters. See [Series List](#).

What mode do I use?

The modes allow you to get completely different results, using the same Series. The beauty of the Content Effect is that it allows you to get very specific results with little programming effort. We can provide some examples, but the whole idea is that you create your own unique effects using this powerful tool.

EXAMPLES OF APPLICATIONS

"All in blue, then pop to white one by one"

This can be done with a Content Effect in **Break** mode, with just a Background state (blue) and one step (white).

5. Series step editor ()

Step	Text	Step time	Intensity	Attack	1. Content	Value	Attack	2. Content	Value	Attack	3. Content	Value	Attack	Sustain	Release
0	Background	---		100%	Cyan	100	---	Magenta	0	---	Yellow	0	---	---	---
1	White	100%		100%	Cyan	100	100%	Magenta	100	100%	Yellow	100	100%	100%	100%

In this example absolute values for Cyan, Magenta and Yellow were used. It could have been a single color palette just as well. Also, the times are set to 100% of the default times.

"A fly out"

This can be done with a Content Effect in **Break** mode with a starting point (usually pointing down with no intensity and two steps, 1) to turn the intensity on and move to the "away" position and 2) to turn the channels off again before they return to the background state.

4. Series step editor (Fly out)

Step	Text	Step time	Intensity	Attack	1. Content	Value	Attack
0	Background	---	M	100%	Focus Palette	1	---
1	Fly away	100%	F	100%	Focus Palette	2	100%
2	Intensity out	100%	M	100%	Focus Palette	2	100%

A fly out can be done with a Dynamic Effect, but you have no control over the specific start and end points for each device. Here this is easy to change at any time by re-recording either of the two focus palettes used..

"An RGB chase"

This can be done with a Content Effect in **Continuous** mode with three steps, (color palettes "red", "green", "blue").

5. Series step editor (RGB chase)

Step	Text	Step time	Intensity	Attack	1. Content	Value	Attack
0	Background	---		100%		0	---
1	Red	100%		100%	Color Pal..	1	100%
2	Green	100%		100%	Color Pal..	2	100%
3	Blue	100%		100%	Color Pal..	3	100%

In this example Color Palettes are used, although we could have used absolute values for CMY just as well.

"An intensity ripple chase"

This can be done with a Content Effect in **Break** mode, with just a Background state (intensity = 0) and one step (intensity = full).

5. Series step editor (Ripple Chase)

Step	Text	Step time	Intensity	Attack
0	Background	---	M	100%
1	Intensity full	100%	F	100%

It is the combination of the parts distribution and the step timing that creates the overlapping ripple behavior. If the Attack+Sustain+Decay time is greater than the step time, you get ripple (overlapping) behavior. The number of Parts in the Channel Source will define how "wide" the ripple is.

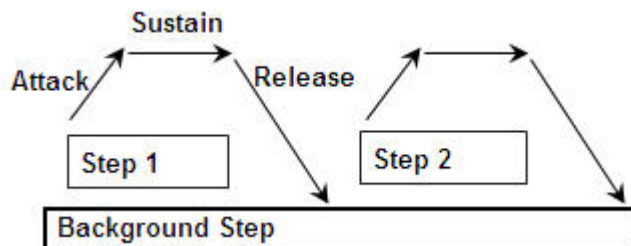
Content Effect Times

Timing information is set in two levels

- In the Series List
- In the Series Step Editor

In the **Series list**, the default times are

- Default Step Time
- Default Attack Time
- Default Sustain Time (Break mode only)
- Default Release Time (Break mode only)



See [Series List](#).

In the **Series Step editor**, the times are

- Step Time
- Attack Time (separate for Intensity and each content 1-3 in each step)
- Sustain Time (Break mode only) per step
- Release Time (Break mode only) per step


See [Series Step Editor](#).

Series List

The engine of a content effects is a Series. Browser >Effects >Content Effect >Series.

- You can think of a series as a number of place holders for parameter and intensity data.
- Each place holder has timing data that applies when it is called upon.
- There is a special place holder called background, that is used when effects are played back in Break mode.
- The place holders are general, and can be applied to any type of channel or moving device with the same parameters.

This is the Series List, press INSERT to create a new one.



Series	Text	Steps	Def. Mode	Def. StepTime	Def. AttackTime	Def. SustainTime	Def. ReleaseTime
1	Empty	1	Continuous	1	1		
2	New Series	1	Continuous	1	1		

Series List - Functions

Column	Action	Feedback
<u>Series</u>	No Input	This item can not be changed.
<u>Text</u>	<input type="button" value="MODIFY"/>	Label for this Series.
<u>Steps</u>	No Input	Shows the number of steps.
<u>Def. Mode</u>	<input type="button" value="MODIFY"/>	Opens A dropdown where you can choose default mode Continuous, Break or Build*
<u>Def. StepTime</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets a top level Step Time for all Serie Steps**
<u>Def. AttackTime</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets a top level Attack Time for all Serie Steps**
<u>Def. SustainTime</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets a top level Sustain Time for all Serie Steps**
<u>Def. ReleaseTime</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets a top level Release Time for all Serie Steps**

*Often Series are written that will be used most often in a specific mode. The Default mode is applied within the Content Effect Playback automatically when the series is selected. The mode can be changed within the playback as needed.

**The Default times are applied until you define a different time in the Series Steps Editor.

Series Step Editor

The Series Step Editor is opened by pressing MODIFY in the Series or Steps cell of the Series List (above).

3. Series step editor (New Series)

Step	Text	Step time	Intensity	Attack	1. Content	Value	Attack	2. Content	Value	Attack	3. Content	Value	Attack	Sustain	Release
0	Background	---	H	100%		0	---		0	---		0	---	---	---
1	First Step	100%	F	100%		0	100%		0	100%		0	100%	100%	100%

NOTE

When Palettes/Presets are used as content, the values will reference only to the numbers of these Palettes/Presets (not the names) - this is so that you can reuse the same series in other plays easily.

If you are doing a lot of series creation, the Groups/Palettes Overview tab is a good way to know what you have already recorded..

Series Step Editor - Functions

Column	Action	Feedback
<u>Step</u>	No Input	This item can not be changed.
<u>Text</u>	<input type="button" value="MODIFY"/>	Enter a Step Text.
<u>Step Time</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	This is the Step Time*
<u>Intensity</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Set an intensity level 0-100 or nothing. A hard 0 is indicated with "M".
<u>Attack</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets an Attack time for Intensity in this Step*
<u>1. Content</u>	<input type="button" value="MODIFY"/>	Opens a dropdown where you can select the first content type for this step
<u>Attack</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets an Attack time for this Content in this Step*
<u>2. Content</u>	<input type="button" value="MODIFY"/>	Opens a dropdown where you can select the second content type for this step**
<u>Attack</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets an Attack time for this Content in this Step*
<u>3. Content</u>	<input type="button" value="MODIFY"/>	Opens a dropdown where you can select the third content type for this step**
<u>Attack</u>	<input type="button" value="#"/> <input type="button" value="MODIFY"/>	Sets an Attack time for this Content in this Step*

*All Step timing is set to 100% of the Default times in the Series (one level up).

Dynamic Effect

A dynamic effect is a relative effect that uses a dynamic template which applies wave-forms around a base point to create a movement, for example a circle or ballyhoo. In the same way as the content effect, it is applied to any group or set.



Components

To start a Dynamic effect you need

- A Group or a Channel Set
- A Dynamic Template (many are supplied default)
- An Effect Playback

Playback

- All parameters can be controlled live, similar to how a device is controlled
- Once programmed you can also change the Dynamic Template (circle, ballyhoo) or create your own.
- The effect is applied to any predefined set or group of channels.
- The effect will run as soon as the effect playback intensity is over zero.
- The intensities will contribute to the Live output on a HTP basis.
- Attributes will replay on an LTP basis with the rest of the playbacks.

Live Parameters

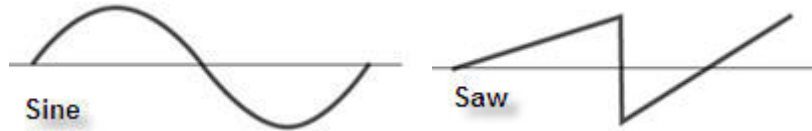
- Change channels (set/group)
- Change distribution (offset, delay, distribution)
- Change Rate & Size
- Store and recall all settings into palettes and presets, similar to how any device is controlled.

A number of common Dynamic Effect Templates are included in the Effect Library of the Browser. It is possible to create new ones as well. If you are acquainted with SmartFade effects, you will find that SFML style tables and effects have been added to the library.

Waveforms - Dynamic Templates & Tables

Dynamics are a way of creating effects by assigning *waveforms* (sinus, saw etc) to intensity, color, movement or any other parameter. you can define custom tables. See [Dynamics - Tables](#).

Examples:



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.

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%.

Create a Dynamic Effect Playback

1. Create a Dynamic Effect Playback. This can be done in two ways.

- # INSERT & EFFECT and select Dynamic.
- Press INSERT in the Effect Playbacks List, and select Dynamic.

Now that the effect playback is created you can apply all existing Dynamic templates to any channel group, or you can create channel sets and select them. The Effect playback is controlled similar to how a moving device is controlled. Select the effect and use the parameter wheels or the Live Effects editor.

2. Select the Effect, to start is set a level over zero. See [Select & Activate Effects](#).

Control a Dynamic Effect

As soon as a Dynamic Effect playback is selected, you can control it in two ways:

- From the console parameter wheels using U1-U3. On Congo jr these can be found under the Device softkey or by using [C] & [FOCUS], [COLOR], [BEAM] respectively.
- From the Live Effects view.

Live Effects looks like this:

Dynamic Effe	ChSource	Set/Grou	Rate/Tap	Library*	OffsetRel	DelayRel	Distance	Size*	
E 2	F	Group	G:One	100	smooth	Evenly s	All	0	F

Step around with arrow keys, press MODIFY to get a dropdown, or enter a number and press MODIFY.

NOTE

When you press **MODIFY** or enter a number it will be an absolute value or a Palette value - depending on the setting in **Attribute Settings**. See [Play Settings - Attribute](#).

Dynamic Effect Parameters

A number of parameters are combined to define the result of applying a Dynamic Template to a channel Set or Group. You can trim all of them live by selecting the Effect Playback.

Channel Source

This can be a Set or a Group. See [Channel Sets](#) and [Groups](#).

Set/Group

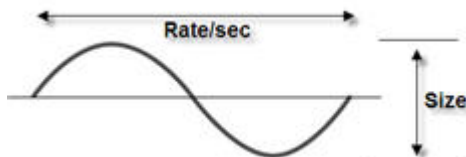
Select which Set or Group.

Dynamic Template

Templates are pre-defined in the Dynamic Templates editor. You can create your own as well. See [Dynamic Templates](#).

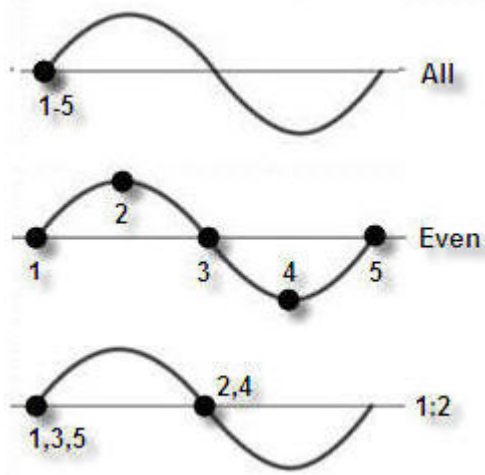
Size and Rate

The Size relates to how much the values will vary in relation to the base point. Rate defines fast the result is. See [Dynamics - Size & Rate](#).



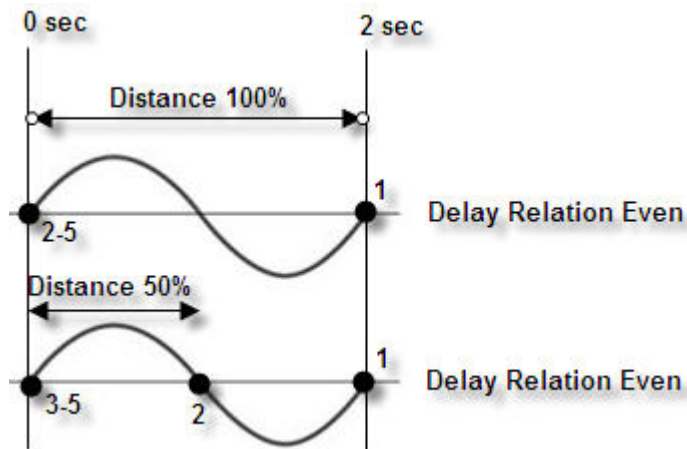
Offset

The offset parameter distributes the channels along the waveform. See the example with 5 channels on a sine wave. See [Dynamics - Relations & Distance](#).



Delay Relation & Distance

The Delay Relation defines when each channel starts in relation to the next. The Distance defines how long each channel will travel before the next is started. These two work together. If Delay Relation is set to ALL there will be no change, since distance needs at least two parts. See [Dynamics - Relations & Distance](#).



Dynamic Templates

Dynamic Templates are definitions of waveforms applied to parameters used for Dynamic Effects.

Open by holding MODIFY pressing DYN EFFECT (or Browser >Effects >Dynamic Effect > Dynamic Templates).

Effect	Text	Parameters	OffsRel	DelayRel	Distance
1	>circle	Pan Til	Evenly spread	All	100 %
2	<circle	Pan Til	Evenly spread	All	100 %
3	>step square	Pan Til	Evenly spread	All	100 %
4	<step square	Pan Til	Evenly spread	All	100 %
5	figure 8	Pan Til	Evenly spread	All	100 %
6	can can	Til	Evenly spread	All	100 %
7	ballroom 1	Pan Til	Evenly spread	All	100 %

Dynamic Effect Library - Columns & Functions

Column	Input	Function
<u>Effect</u>	MODIFY	Starts the selected Effect for the currently selected channel(s).
<u>Text</u>	MODIFY	Press MODIFY to activate and end text input.
<u>Parameters</u>	MODIFY	Opens the Dynamic Template editor. See Dynamic Template Editor - Create .
<u>OffsRel</u>	MODIFY	See Relations & Distance
<u>DelayRel</u>	MODIFY	See Relations & Distance
<u>Distance</u>	# MODIFY	See Relations & Distance

Dynamic Template Editor - Create

1. Open the Effect Library by holding MODIFY and pressing DYN EFFECT.
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>	<input type="text" value="#"/> <input type="button" value="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>	<input type="button" value="MODIFY"/>	Opens a dropdown. Select which parameter this step shall affect.
<u>Table</u>	<input type="button" value="MODIFY"/>	Opens a dropdown. Select which table this step should apply. See Dynamics - Tables .
<u>Delay</u>	<input type="button" value="MODIFY"/>	A delay in % before the step starts to move
<u>Offset</u>	<input type="button" value="MODIFY"/>	An Offset in % where in the table this step starts
<u>Size</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	See Size & Rate
<u>Rate</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	See Size & Rate
<u>Wait</u>	<input type="text" value="#"/> <input type="button" value="MODIFY"/>	A wait time, in percent (1- 1000%) for this step before it is repeated. The Wait time is relative to all other steps.

Dynamic 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.	

Table Editor

Press INSERT to create new tables at the end of the table list in the Browser, but not delete existing ones since this would mess up the indexing of existing tables used by effects.

Browser >Effects >Dynamic Effects >Dynamic Table List

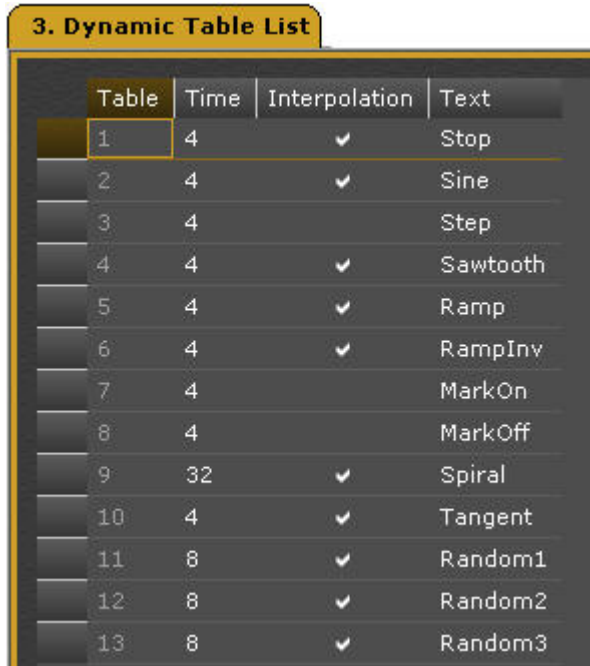
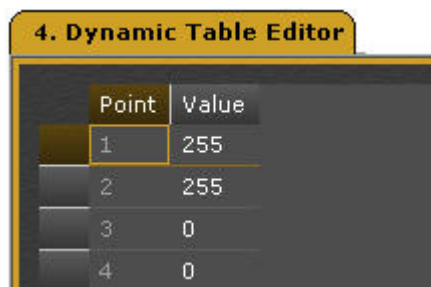


Table	Time	Interpolation	Text
1	4	✓	Stop
2	4	✓	Sine
3	4		Step
4	4	✓	Sawtooth
5	4	✓	Ramp
6	4	✓	RampInv
7	4		MarkOn
8	4		MarkOff
9	32	✓	Spiral
10	4	✓	Tangent
11	8	✓	Random1
12	8	✓	Random2
13	8	✓	Random3

Pressing MODIFY on a table opens the Dynamic Table Editor where you can insert and delete table values. You cannot have more than 64 points in a table.

This is the Dynamic Table editor with a Step table.



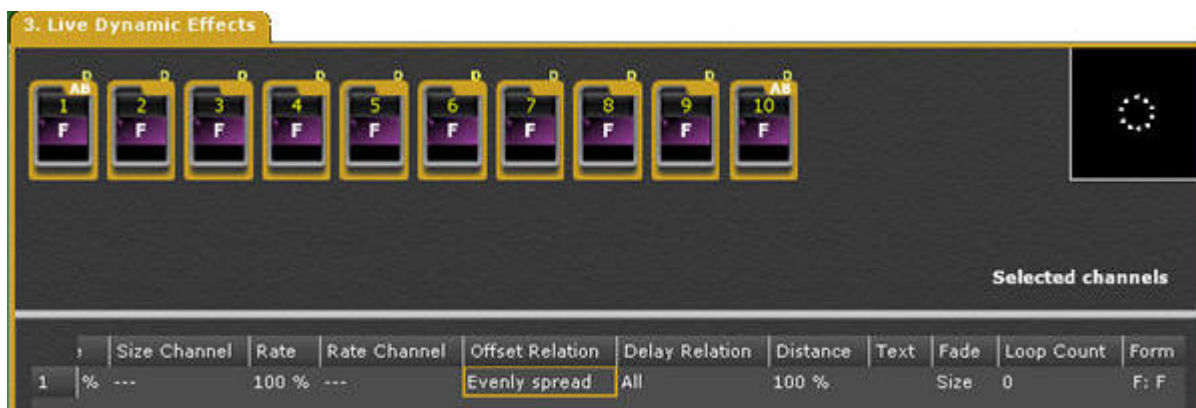
Point	Value
1	255
2	255
3	0
4	0

Live Dynamics (old)

This tab is used with the old Dynamic Effects package prior to v5. See [Dynamics \(old\)](#).

All parameters of running Dynamic Effects can be edited in the Live Dynamic Effects tab. Press DYN EFFECT to open it. 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.



NOTE

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

Old Dynamic Effects

The old Dynamic Effects prior to Congo v5 are still compatible and work in the same way. They are much more limited, so we recommend you to use the new ones unless you are importing an older Play.

This chapter contains the following sections

- [Dynamics - Base Value](#)
- [Dynamics - Start](#)
- [Dynamics - Control](#)
- [Dynamics - Stop](#)
- [Dynamics - Record](#)
- [Dynamics - Preset Dynamics](#)
- [Dynamics - Size & Rate](#)
- [Dynamics - Relations & Distance](#)
- [Dynamics - Loop Count](#)
- [Dynamics - Fade](#)
- [Dynamics - Form](#)
- [Dynamics - Fetch from A Preset](#)
- [Dynamics - Playing Back](#)
- [Dynamics - Store Running](#)

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.

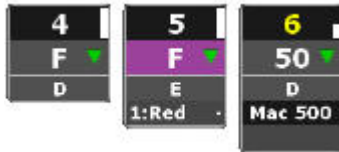
NOTE

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 - 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 #	# 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	MODIFY & DYN EFFECT	The Effect Library tab is opened.
2. Select Effect	Arrow Keys Up/Down	The selected Effect is highlighted.
3. Start Effect	MODIFY	The selected Effect is activated for the currently selected channel(s).
4. Exit Effect Library	ESC	The Effect Library tab is closed.

Start Dynamics From The Effect Library Node

Action	Key	Feedback
1. <i>Select the Browser</i>	<input type="text" value="BROWSER"/>	The Browser is selected and highlighted. If it was already selected it is closed. Press again to open.
2. <i>Go to the Effect Library node</i>	Arrow keys Up/Down	The Effect Library node is highlighted.
3. <i>Open the Effect Library node</i>	Right arrow	The Effect Library node is opened.
4. <i>Select an Effect</i>	Down arrow	The selected Effect is highlighted
5. <i>Start the Effect</i>	<input type="text" value="LOAD"/>	The selected Effect is activated for the currently selected channel(s).

Start Dynamics From The Direct Selects

Action	Key	Feedback
1. <i>Select Dynamics for a section</i>	<input type="text" value="TYPE"/> & <input type="text" value="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

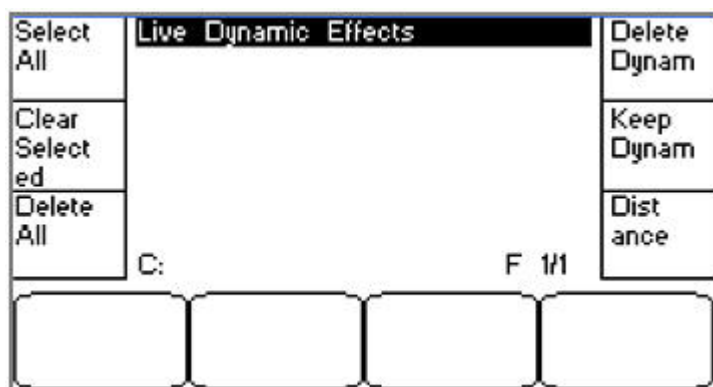
1. Hold *DYN EFFECT* (don't let go until the Dynamics are started).

- 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*.

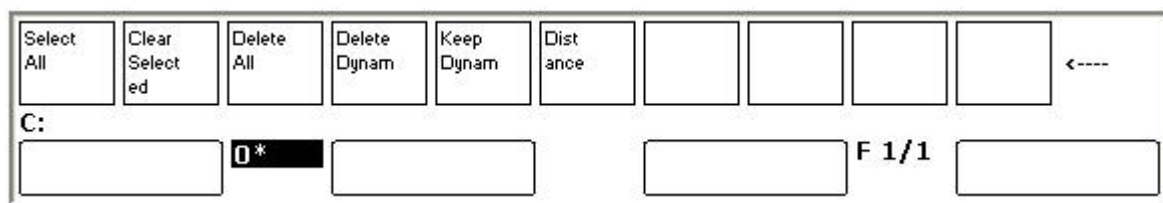
Dynamics - Control

The Dynamics Soft Key Page in the Main Display of the console facepanel is opened by pressing DYNAMICS in the Effects soft key page.

Congo



Congo Jr & Kid



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

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

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

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 %

The DISTANCE soft key is used to set the Distance % parameter for the selected running Dynamics directly. See [Dynamics - Relations & Distance](#).

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](#).

There is also an option in Settings to have them always start on GO. See [Settings - Crossfade](#).

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 style="border: 1px solid black; padding: 2px; display: inline-block;">C/ALT &</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">DYN EFFECT</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 style="border: 1px solid black; padding: 2px; display: inline-block;">CH &</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">DYN EFFECT</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)



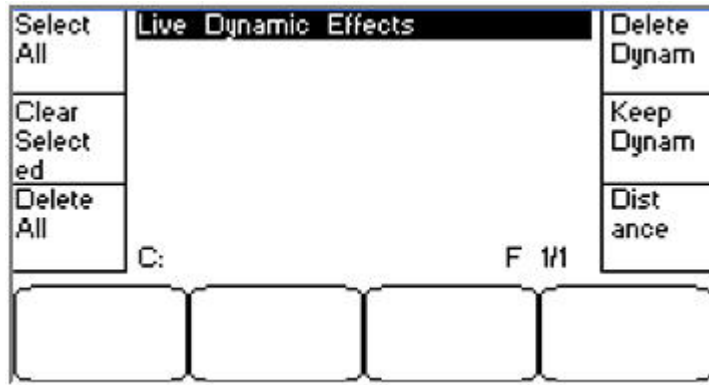
4. Press MODIFY to confirm.

Delete A Dynamic Using The Dynamics Display

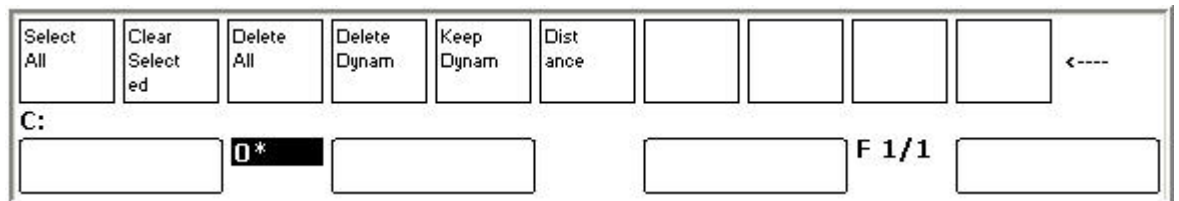
Dynamics can be cleared or deleted from the Display List or with the soft keys in the Dynamics Display.

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](#).

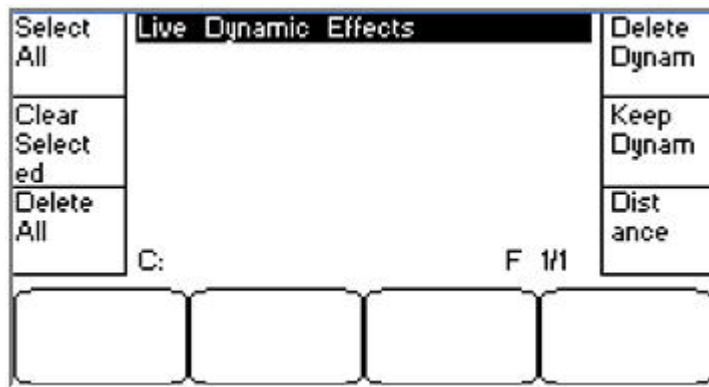
Record Keep Dynamics (New Base Value)

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.

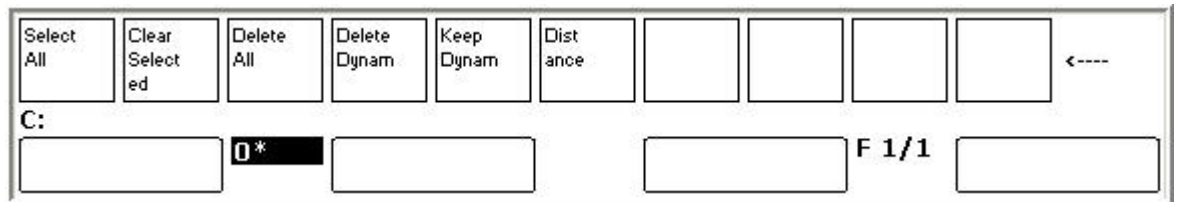
There are two ways of setting this. From a checkbox in the Recording Popup, or from the Dynamics Soft Key page (described below). See [The Recording Popup](#).

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 wavy 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 - Preset Dynamics Editor

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
Open Preset Dynamics Editor for the Preset in A	DYN EFFECT & [A]	Dynamic Editor for the Preset in A is opened
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 - Size & Rate

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

Sets the size (amplitude) of the waveforms in a Dynamic Effect. It is set from 0-1000%.



This can be set with the first parameter wheel in the Dynamics Soft Key Page of the Main Display in the Congo facepanel. (DYNAMICS softkey)

It can also be set in the Preset- and Live Dynamic Effects tabs.
See [Live Dynamic Effects](#) and [Preset Dynamic Effects](#)

Size Channel

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%.

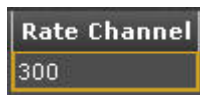


You can also change this parameter with the second parameter wheel in the Dynamics Soft Key Page (press DYNAMICS in the Index Page).

It can also be set in the Preset- and Live Dynamic Effects tabs.
See [Live Dynamic Effects](#) and [Preset Dynamic Effects](#)

Rate Channel

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.



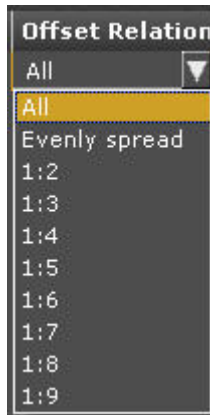
Dynamics - Relations & Distance

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.

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

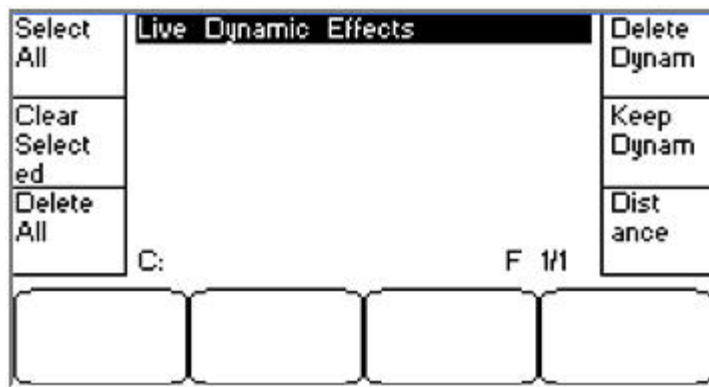
Action	Description
<u>All</u>	All devices start at the same point in the table.
<u>Evenly Spread</u>	The starting point (offset) is evenly spread.
<u>1:2-1:9</u>	The selected devices are divided in # groups (1:#).

Offset Relation - Dynamics Display

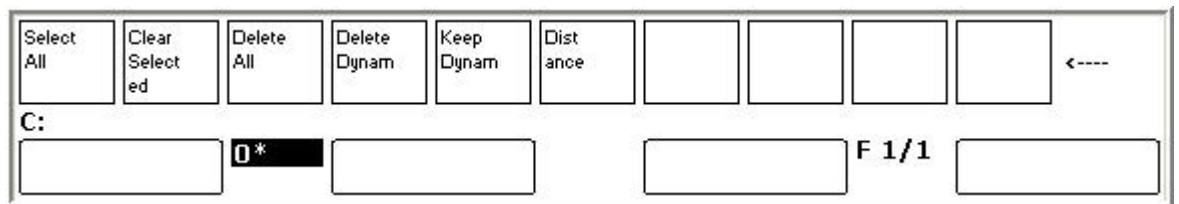
In the Dynamics Display the Offset Relation for the selected Dynamic Effect is mapped to wheel 3.

Activate the Dynamics Soft Key Page in the Main Display of the console facepanel by pressing DYNAMICS in the top menu.

Congo



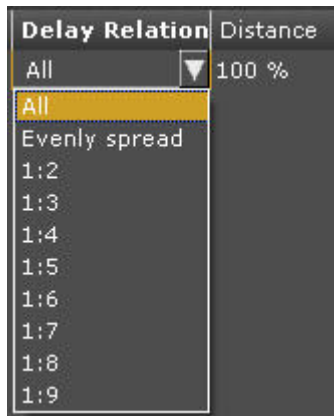
Congo Jr



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 Key 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:#).

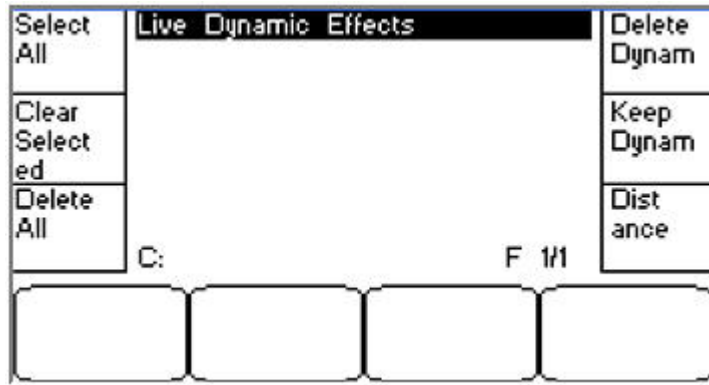
Distance specifies the time (in percent) between the starting point of each channel when the Delay Relation is used.

Delay Relation & Distance - Dynamics Display

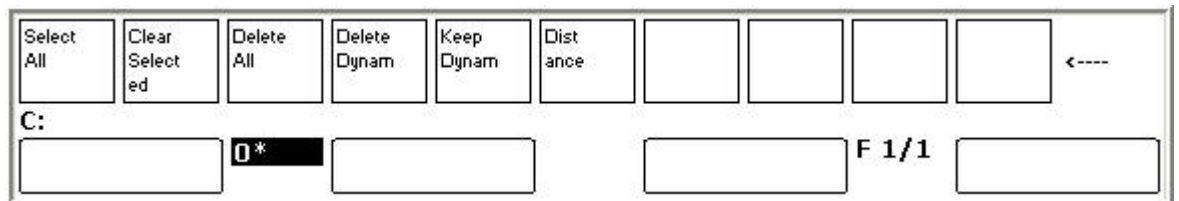
In the Dynamics Display the Delay Relation is mapped to wheel 4. There is a soft key for setting the Distance parameter directly with a numeric value.

Activate the Dynamics Soft Key Page in the Main Display of the console facepanel by pressing DYNAMICS in the top menu.

Congo



Congo Jr



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 key 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	Size and Rate will snap directly to the values of the dynamic effect. 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

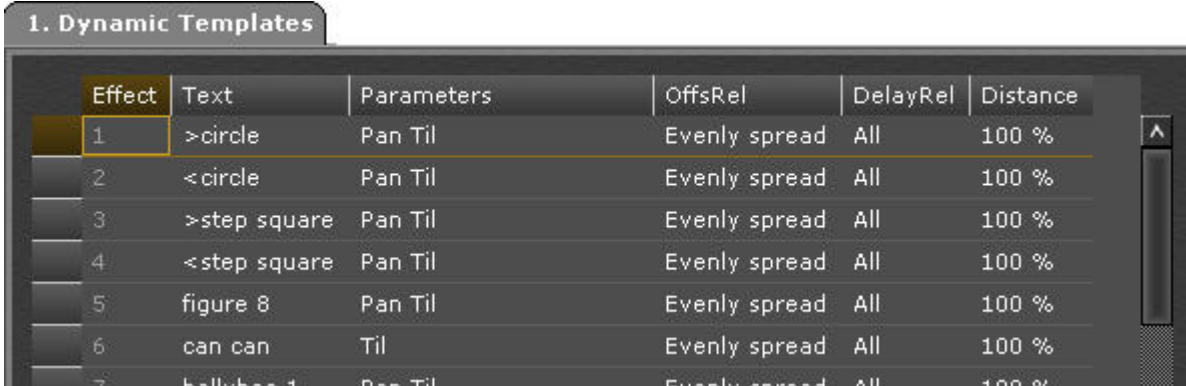
- When activated, Dynamic Effects fade to the initial value including the Offset.
- If the attributes are masked, the Dynamic will start anyhow.
- Dynamics run until Deleted or Size is set to zero.
- Device Dynamics will stop if new attributes are faded in a Sequence Step.
- **IMPORTANT SETTING: *Always 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.

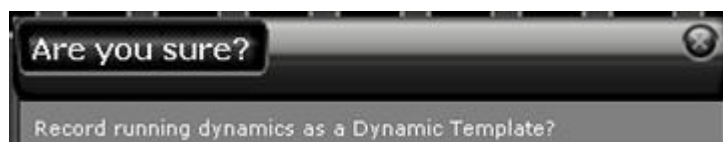
1. Open the Dynamic Effect Library by holding *MODIFY* and pressing *DYN EFFECT*, or from the Browser (*Browser >Effect Library*)



Effect	Text	Parameters	OffsRel	DelayRel	Distance
1	>circle	Pan Til	Evenly spread	All	100 %
2	<circle	Pan Til	Evenly spread	All	100 %
3	>step square	Pan Til	Evenly spread	All	100 %
4	<step square	Pan Til	Evenly spread	All	100 %
5	figure 8	Pan Til	Evenly spread	All	100 %
6	can can	Til	Evenly spread	All	100 %
7	ballroom 1	Pan Til	Evenly spread	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.

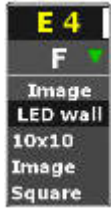
If you answer *CANCEL* you will get an empty Dynamic Template.

4. Enter a name in the text column (press *MODIFY* to activate, enter text and press *MODIFY* to confirm).

5. Exit by pressing *ESC*.

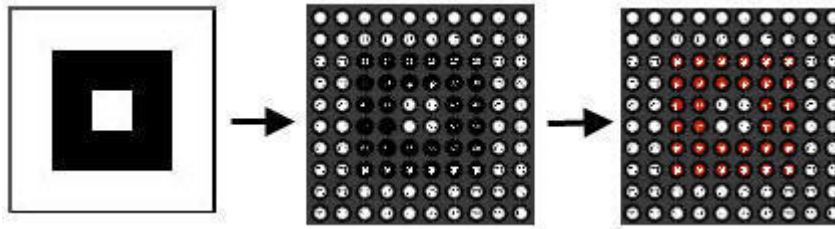
Image Effects (6.0)

Image effects allow you to map a text an image (jpg/gif) or an animation (supplied) to the intensity or color of a predefined effect layout of channels. This can be used to create abstract or absolute patterns.

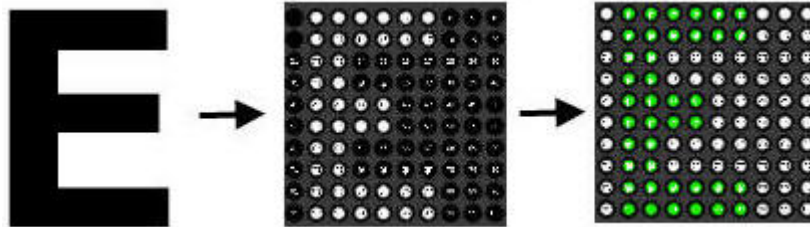


The result of mapping an image, animation or text will depend on the resolution of your effect layout.

Image mapped to intensity and then color in a 10x10 layout.



Text effect with the letter "E" mapped to intensity and then color in a 10x10 layout



There are controls for adjusting the playback of the image or text live. You can position, scroll, rotate and change colors. You can map to intensity, color mix, iris or zoom.

Effect Layout

The effect layout is a "pixel map" of channels in your rig that the effect is applied to. You can define it up to 128x128.

Effect Types

The effect types are **image**, **animation** (gif) or **text**. A library of animations are loaded when you create a new play.

Components

To start an image effect you need

- An image or text
- An effect layout
- An Image effect playback

Create an image effect playback (6.0)

Creating an image effect playback can be done in two ways.

- # INSERT & EFFECT and select Image.
- Press INSERT in the Effect Playbacks List, and select Image.

Now that the effect playback is created you need an Effect Layout to apply it to.

Control image effects (6.0)

As soon as an Image effect is selected, you can control it in two ways:

- From the console parameter wheels using U1-U3.
- From the Live Effects view.

Image effects look like this in Live Effects

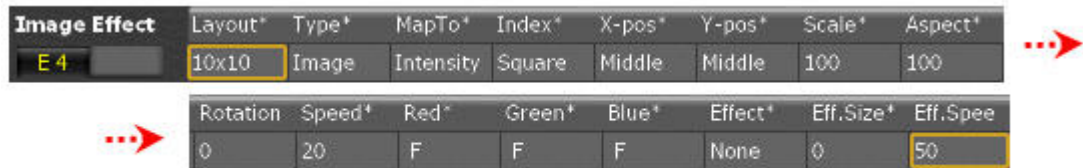


Image Effect	Layout*	Type*	MapTo*	Index*	X-pos*	Y-pos*	Scale*	Aspect*
E 4	10x10	Image	Intensity	Square	Middle	Middle	100	100
Rotation	Speed*	Red*	Green*	Blue*	Effect*	Eff.Size*	Eff.Spee	
0	20	F	F	F	None	0	50	

If you unlock the spreadsheet for screen editing (SETUP & TAB) you can step around with arrow keys, press MODIFY to get a dropdown, or enter a number and press MODIFY.

NOTE

When you press **MODIFY** or enter a number it will be an absolute value or a Palette value - depending on the setting in Attribute Settings. See [Play Settings - Attribute](#).

Image effect parameters (6.0)

These are the image effect parameters divided into **Content, Position, Color & Effect**.

CONTENT

The content can be image, animation or text. It needs a layout to be mapped to, and you have to set if it is applied to intensity, color mix, iris or zoom.

Layout

Layouts are created in the Effect Layout editor. This is the "projection screen" of an image effect.

Type

Choose between **image, animation or text**.

Index

This is the index number of the image, animation or text chosen.

MapTo

The image, animation or text can be mapped to **intensity, color mix, iris** or **zoom** of the channels in the effect layout.

POSITION

The position of the content defines where it is placed and how in the effect layout.

X-pos & Y-pos

The default position is "middle" of the effect layout. You can offset this +/- 128 increments.

Scale

The size of the content can be scaled from 0-1000. 100 is "normal".

Aspect

The aspect will adjust the shape of the content by adjusting X size against Y size.

Rotation

Rotates the content.

Speed

Sets the speed of an animation.

COLOR & EFFECT

Both color and effect are "filters" applied on top of the content and all previous parameters.

Red, green & Blue

Colorization.

Effect. size and speed

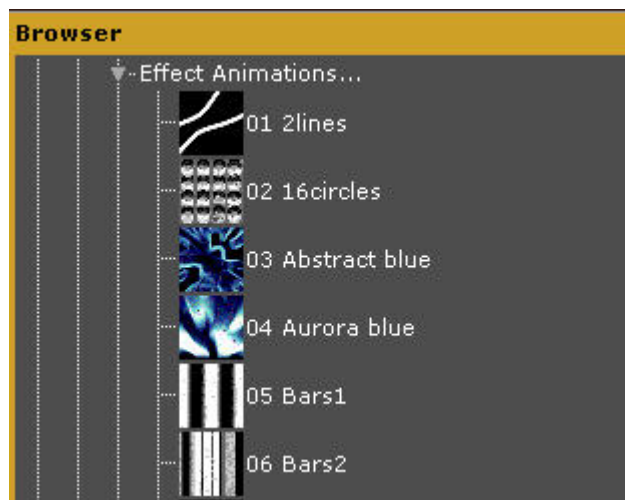
The effect parameter allows you to scroll, shake and scale the content. You can adjust size and speed of the applied effect. Size and speed 50% is stopped and normal.

The effects are

- None
- Scroll X
- Scroll X ><
- Scroll Y
- Scroll Y <>
- Rotation
- Scale
- Aspect
- Shake

Animation effects (6.0)

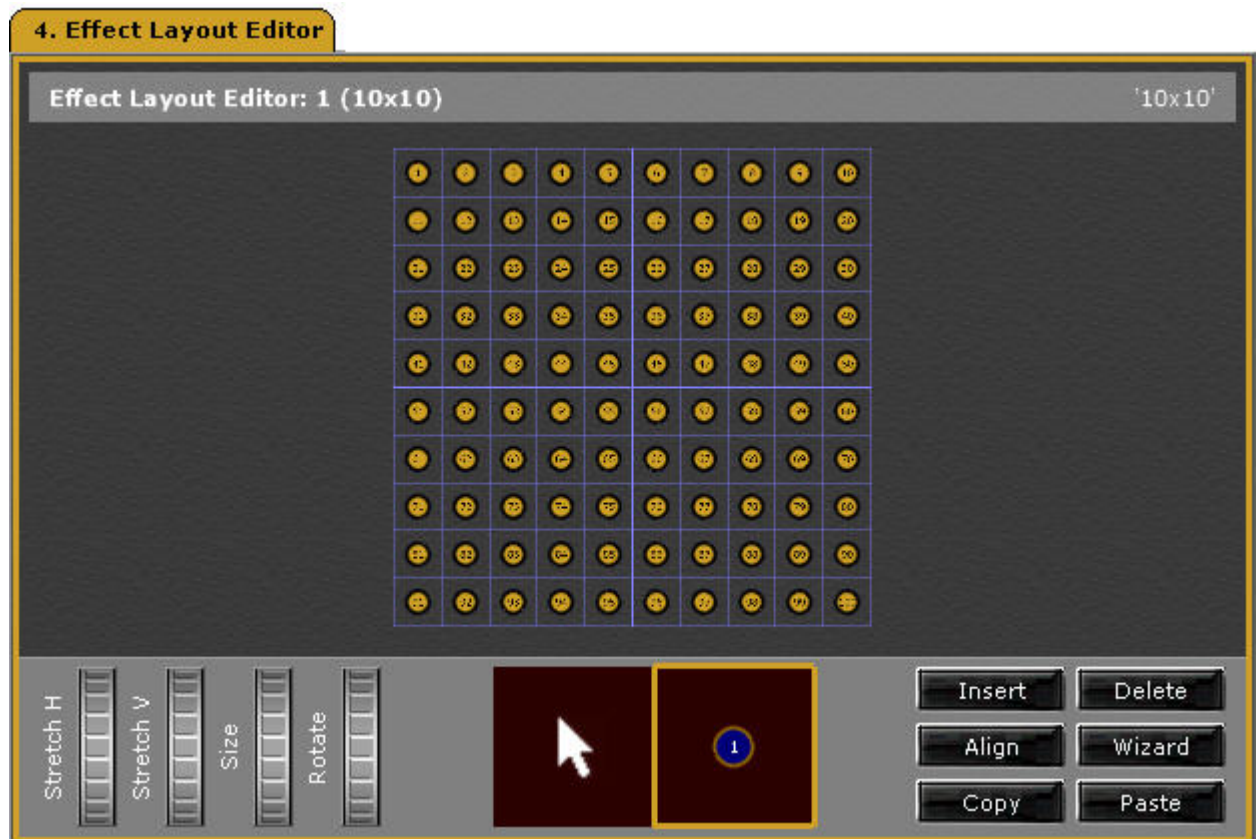
Animation effects are great for creating abstract intensity or color patterns, similar to old school video effect generators. A number of digital animations are supplied with Congo. These are a few.



Effect layouts (6.0)

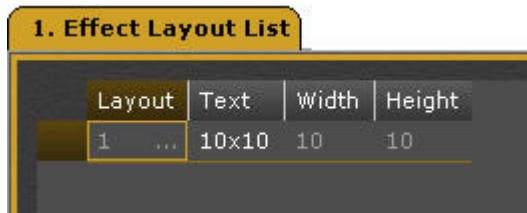
An effect layout is the "projection screen" for an image effect. The effect layout is where you create a positional relationship among channels. This in turn determines how pixels from the source image will apply to channels. It is created in the Effect Layout editor, and the tools are a simpler versions of the Channel Layout tools.

This is the effect layout editor with a simple ten by ten layout.



Create a new effect layout (6.0)

1. Open the effect layout editor (*Browser >Effects >Image Effects >Effect Layouts...*).



2. Press *INSERT*. You will get a popup where you can define the width and height in "pixels". One pixel is the smallest possible resolution, and usually a single light source.



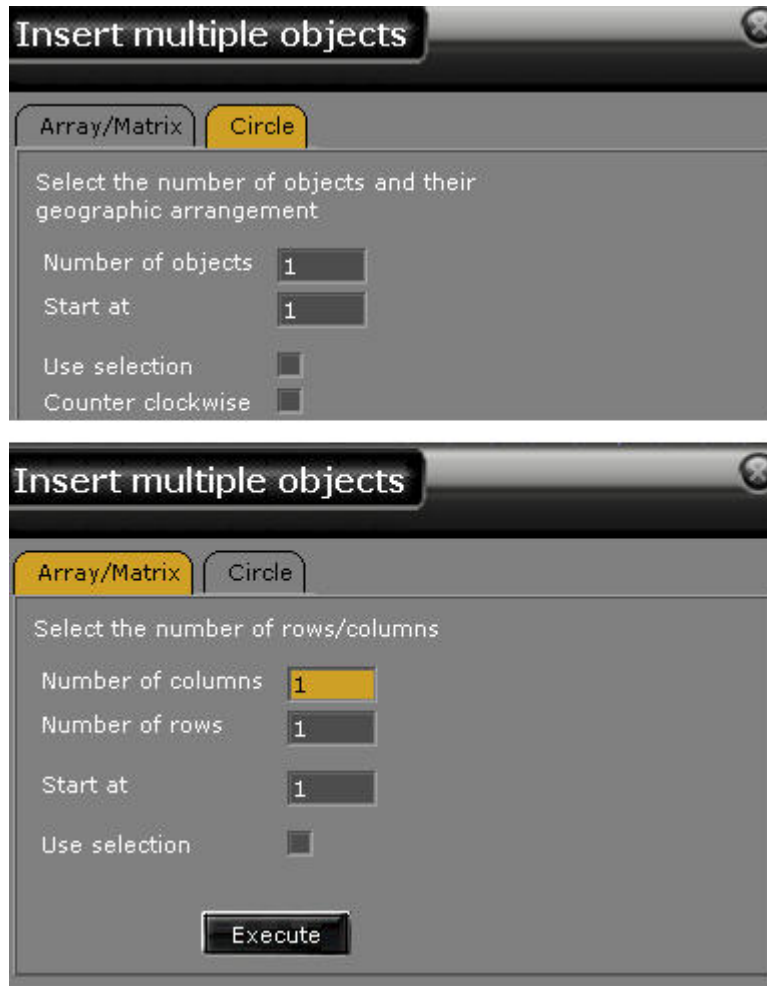
3. Press *MODIFY* in the Layout column of the new layout. This opens the layout editor tool.

Effect layout wizard (6.0)

Wizard



The wizard is the easiest way to create an array/matrix or circle of channels. It opens a popup where you can choose either of these.



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

Effect Layout Editor wheels (6.0)

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



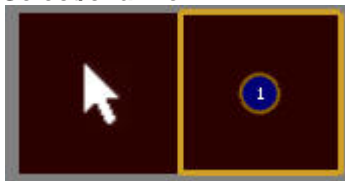
1. Select channels (*Cursor mode*).
2. Use wheel to edit.

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.

Effect layout channel tools (6.0)

If the effect layout isn't symmetrical you can work with channels one by one with these tools.

Select/channel



- The arrow tool is a select tool which you use to select channels for all other function.
- The channel tool is used to place channels on screen. Enter the number first then click.

Insert & Delete



These are the same as the keys on the console.

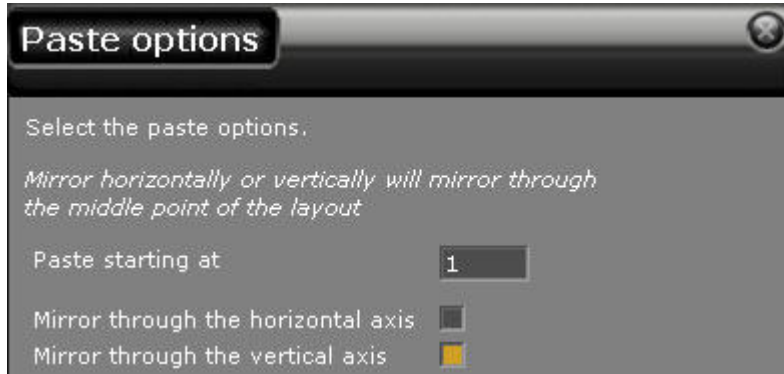
- Insert selected channels.
- Delete selected channels.

Copy & Paste



These are the same as the keys on the console.

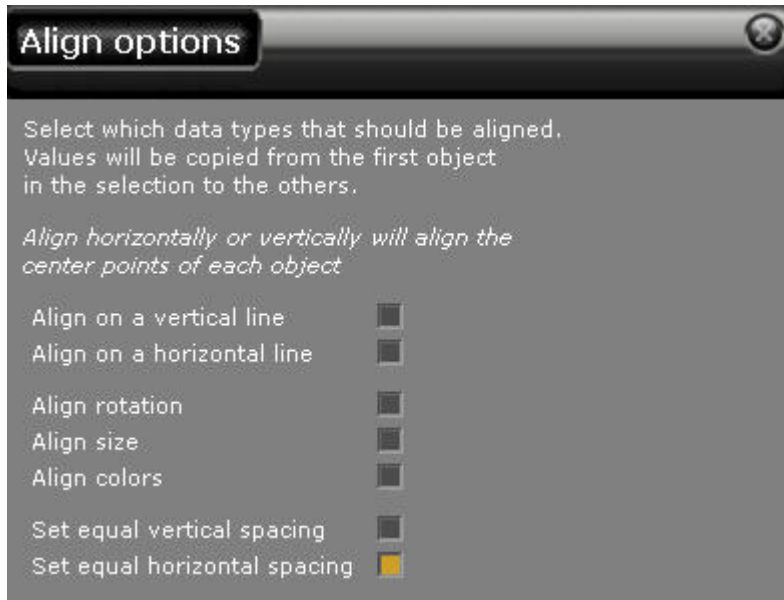
- Copy selected channels
- Paste selected channels using the Paste Popup



Align



Align is the same as the ALIGN key on the console. It will open a popup with options for aligning the selected channels.



Copy an effect layout (6.0)

You can copy effect layouts to make alternative versions.

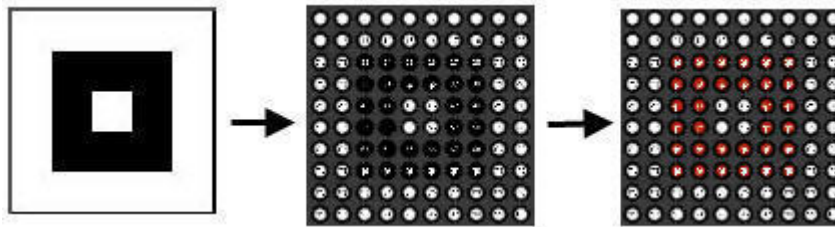
1. *Open the effect layout list (Browser >Effects >Image Effects >Effect Layouts...)*
2. *Select the layout you want to copy and press COPY/CUT.*
3. *Press PASTE.*

Effect Images (6.0)

Effect images are jpg or gif images that you can create with the Image tool, or import from a USB memory.

They are mapped pixel by pixel to the effect layout when selected. In other words, if the effect layout consists of 100 light sources that are aligned 10x10 - you can create an image that is 10x10 to fit exactly, or 128x128 if you want to be able to scale and zoom in the image.

Simple black & white image mapped to intensities, and color in a 10x10 effect layout



Create a new image (6.0)

1. Open the Effect Images tool (Browser >Effects >Image Effects >Effect Images...)



2. Press **INSERT** to create a new image. You will get a popup



3. Enter the size of the image. The size is relevant to the size of the effect layout it will be applied to. We recommend 128x128 which you can scale to a lot of layouts.

4. Press **MODIFY** in the Image column of the new image. This opens the layout editor tool.

Edit an image (6.0)

The Effect Image Editor can be used to create new images and to edit imported images. It offers some simple drawing tools. All of them are mouse operated.

Drawing tools



The drawing tools are the pen and the select tool. The pen will draw with the selected colors and the select tool can be used to select an area and drag it to a different location.

Zoom tool



Click on the zoom tools to zoom in/out.

Color tools

There are two ways to select color:

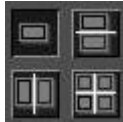
Color picker (click on a color to select)



Color sampler (click in image to sample)



Kaleidoscope tool



Anything you draw is mirrored on the other side of the lines. Makes it easy to make symmetrical patterns.

Copy an effect image (6.0)

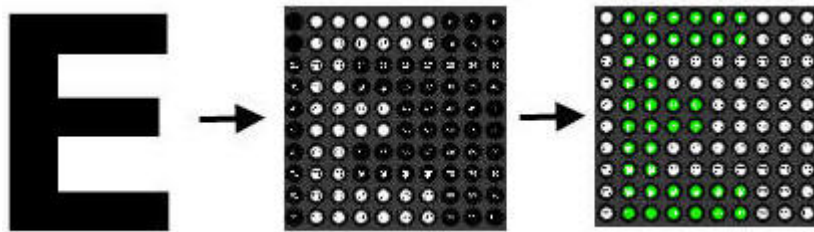
You can copy effect images to make alternative versions.

1. *Open the effect image list (Browser >Effects >Image Effects >Effect images...)*
2. *Select the image you want to copy and press COPY/CUT.*
3. *Press PASTE.*

Effect Texts (6.0)

You can create a text and apply it to an effect layout with the image effect. The text can be applied to intensity, color mix, iris or zoom.

This is an example of the letter "E" applied to intensity and then color mix in a 10x10 effect layout.



Create an effect text (6.0)

1. Open the Effect Text tool (*Browser >Effects >Image Effect >Effect Texts...*)



2. Press *INSERT* to create a new text.

3. Press *MODIFY* in the Text column, write a text and press *MODIFY* to confirm.

Import Effect Images (6.0)

You can import images (jpg/bmp/gif) from a USB memory.

1. *Connect the USB memory to Congo*

2. *Open the Import Effect Images function (Browser >Effects >Image Effects >Import Effect Image). This will open the import image popup where you can select the image you want to import.*



3 *Press MODIFY. You will get a popup*



4. *Enter the target size of the image. The size is relevant to the size of the effect layout it will be applied to. We recommend 128x128 which you can scale to a lot of layouts.*

5. *Press MODIFY in the Image column of the new image. This opens the layout editor tool.*

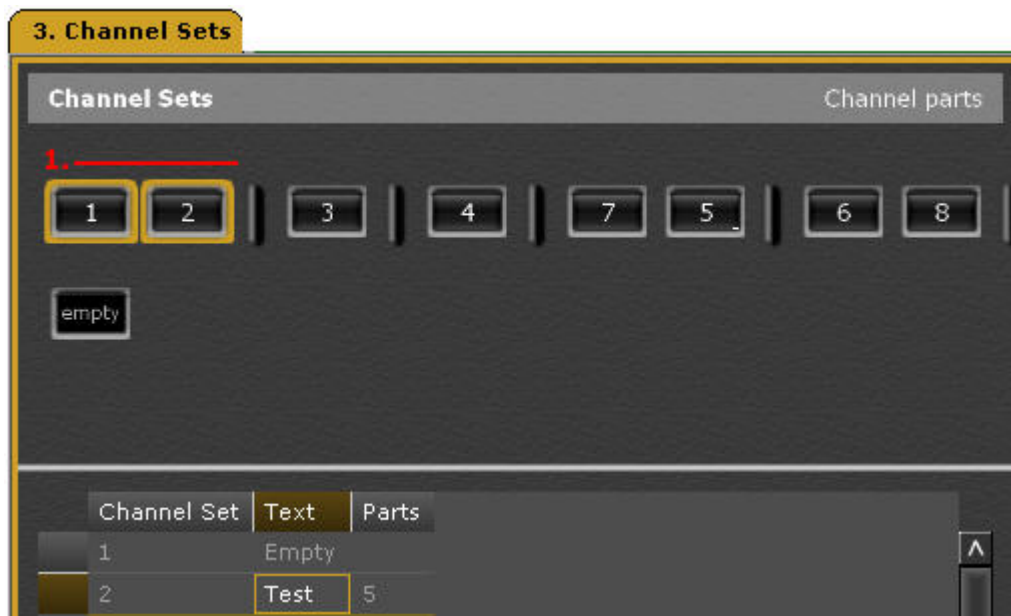
Once the image is imported you can access it from the Image Effect controls.

Channel Sets

A Channel Set is a defined set of channels distributed into a number of parts. Sets can be used as an alternative to groups, in both content and dynamic effects. The advantage of a Channel Set compared to a group is that you can create very specific distribution models. See [Channel Distribution Wizard](#).

The Channels Sets editor can be opened in two ways.

- SET (soft key in the Effects Soft Key menu)
- Browser >Effects > Channel Sets



Create a Set

Sets are created in the Channel Sets editor. You can use the Channel Distribution Wizard, or create them one by one using all channel selection and Group features in Congo as a help.

1. Open the Channel Sets Editor. See above.

Column	Action	Feedback
<u>Channel set</u>	No Input	The number of this Set. Can't be changed.
<u>Text</u>	<input type="button" value="MODIFY"/>	Opens the text cell for labeling.
<u>Parts</u>	<input type="button" value="MODIFY"/>	Opens the Channel Distribution Wizard.

2. Press *INSERT* in the Channel Sets List, then press *MODIFY* in the Parts cell.

3. Select channels, parts and distribution. See [Channel Distribution Wizard](#).

NOTE

Helpful hint: Groups can be used to enter channel selections within parts, if desired. If you are making a very complicated Channel Set distribution, it may be easier to first create a Group that corresponds to the contents of each individual Part, and then use the Groups on masters or Direct Selects to simplify the entry of the channels in each part. .

You can now use this set in any Content or Dynamic Effect Playback.

Edit a Set

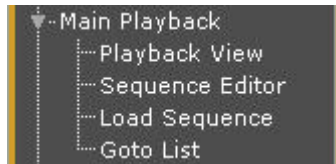
Select the set using arrow keys. The channels and parts are shown in the top of the editor.

Function	Keys	Feedback
Select a Part	<input type="button" value="NEXT"/> <input type="button" value="LAST"/>	The channels will be selected and the number of the part is indicated in red over the channels.
Edit a Part	<input type="button" value="NEXT"/> <input type="button" value="LAST"/>	Select/deselect channels. No save or record required. To add a new part select the last EMPTY one and select channels.
Delete a Part	<input type="button" value="DELETE"/>	Press DELETE to delete the selected part.

Main Playback

The Main Playback is a "theatre style" playback for sequences.

Main Playback Node



This chapter contains the following sections

- [Main Playback - Introduction](#)
- [Main Playback - Functions](#)
- [Playback View](#)
- [Sequence Editor](#)
- [Load Sequence](#)

Main Playback - Introduction

The Main Playback can play back a Sequence in normal/chase mode, or random presets.

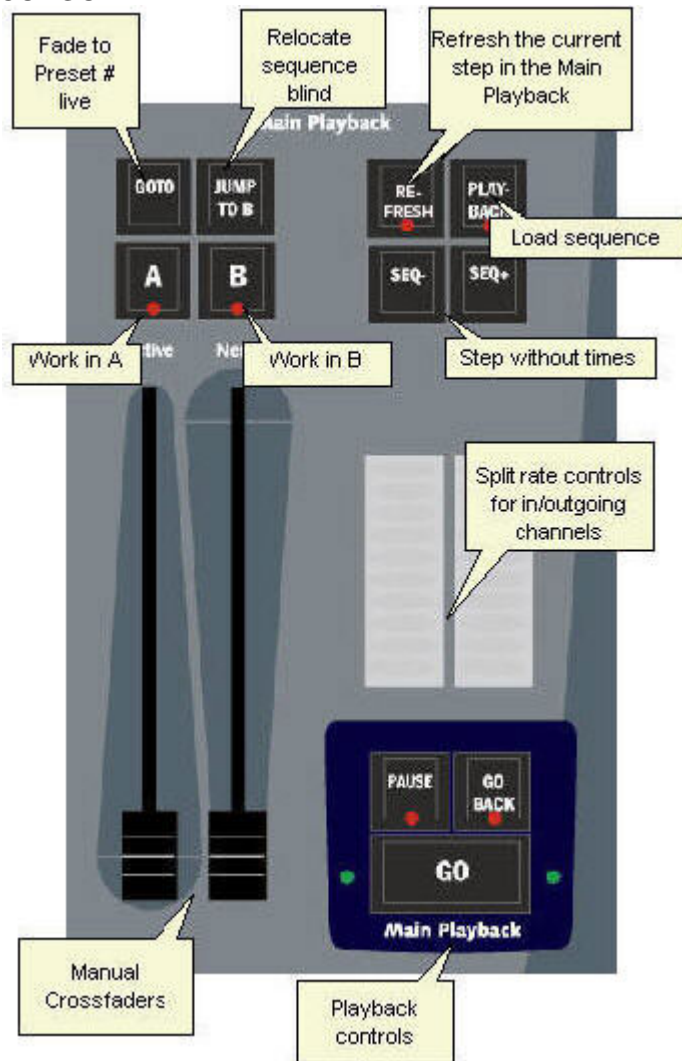
While a crossfade is being executed the "Playback" status at the lower right corner of all screens will be red.



The main playback has the following controls.

- Manual crossfaders.
- Transport keys for timed fades with default or pre-programmed 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.

CONGO



CONGO JR

In Congo Jr there is only one playback, which serves both the main playback and any of the Master playbacks.

The CONNECT key is used in combination with any Master key to control that playback. Once a master is connected, it is sufficient to press CONNECT.

The PLAYBACK key is used to set the controls to the main playback.

The main difference for the main playback compared to the large Congo console is that there is no split rate control for in/outgoing fades. Instead TAP is held together with the wheel to control rates. In Jr, this playback is used also as the Master Playback.



Main Playback - Functions

These are the functions for the Main Playback.

This chapter contains the following sections

- [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 - 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.
- You can record the actual manual movement of the crossfaders using a Crossfade Profile. See [Sequences - Crossfade Profiles \(6.0\)](#)

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 by making a crossfade to the previous step	[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 (6.1)

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 or MODIFY to fade to that preset. The current preset in A is indicated with a gold background, and the preset in B with dark background. Block cues are indicated with a slightly darker grey background.

4. Goto List 2: worship baptism				
	Step	Preset	S-Text	P-Text
	1	1.0	Pre service	Opening
	2	2.0	Choir in	Choir in
	3	15.0	Baptism	Baptism
	4	2.0	Choir in	Choir in
	5	3.0	Choir	Choir opening
	6	4.0	Cong	Worship
	7	5.0	Welcome	Welcome
	8	7.0		Worship pre off
	9	6.0	Choir Special	Choir special

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 Preset # to A.	# PRESET & A
Load Preset # to B.	# PRESET & 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

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
Everything	REFRESH
Attributes of all device(s)	REFRESH & ATTRIB
Levels of all device(s) and channel(s)	REFRESH & @LEVEL
Focus parameters of the selected device(s)	REFRESH & FOCUS
Color parameters of the selected device(s)	REFRESH & COLOR
Beam parameters of the selected device(s)	REFRESH & BEAM
Wheel parameters of the selected device(s)	REFRESH & Wheel key
U1-U3 of the selected device(s)	REFRESH & U1-U3
Intensities AND attributes for the selected device(s).	REFRESH & CH
<p>NOTE The changed flags are cleared for what you refresh.</p> <p>The Refresh function will take the currently focused channel into account if you are using NEXT/LAST.</p> <p>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.</p>	

Playback View

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

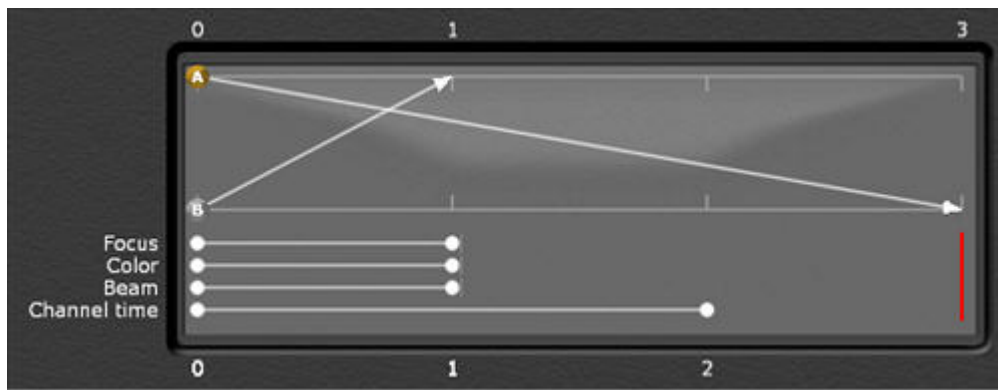
- are indicated as MP: #. The # indicates which Master Page is linked to the step.

NOTE

MOUSE FUNCTIONALITY: You can click on many 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 - Column Format

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.

Delay Times

An < or > character points to the time that will be delayed. If there are two delay times, the out delay is shown and < > characters indicate that there are two delay times defined.

Sequence Editor

This node opens the Sequence Editor for the sequence in the Main Playback. See [Sequences - Sequence List](#).

Load Sequence

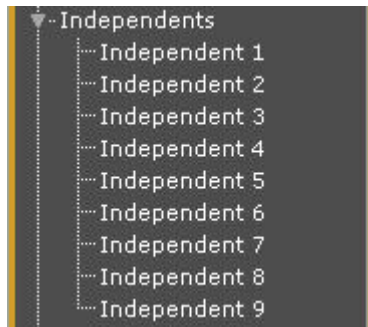
This node opens a dialogue that allows you to load any recorded Sequence to the Main Playback. Press MODIFY to activate.



Independents

The independents are potentiometers and keys that can be set up to control lights that you want to separate from the main controls - such as houselights, work lights etc.

Independents Node



This chapter contains the following sections

- [Independents - Introduction](#)
- [Using the Independents](#)
- [Independent Modes](#)

Independents - Introduction

The Independents offer a control surface for potentiometers and keys to which you can assign channels that can be excluded from normal control and recording.

- In Congo there are six independent potentiometers.
- In Congo Jr there are three independent potentiometers.

These can be used for

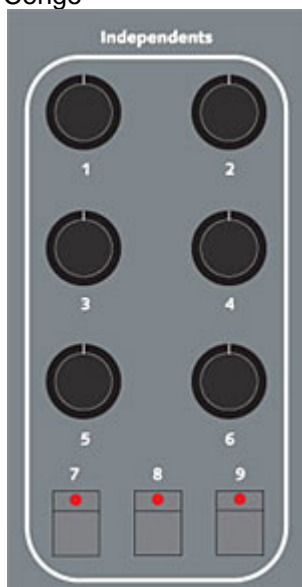
- Adding light (inclusive mode)
- Removing light (inhibit mode)
- Independent lights (Exclusive mode)

Both consoles have three independent keys.

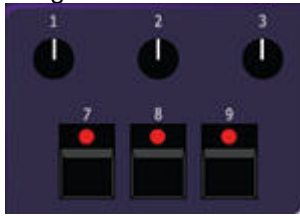
These can be used as toggle or flash for

- Houselights
- Smoke machines
- Relays

Congo



Congo Jr



Independent Dock Areas

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



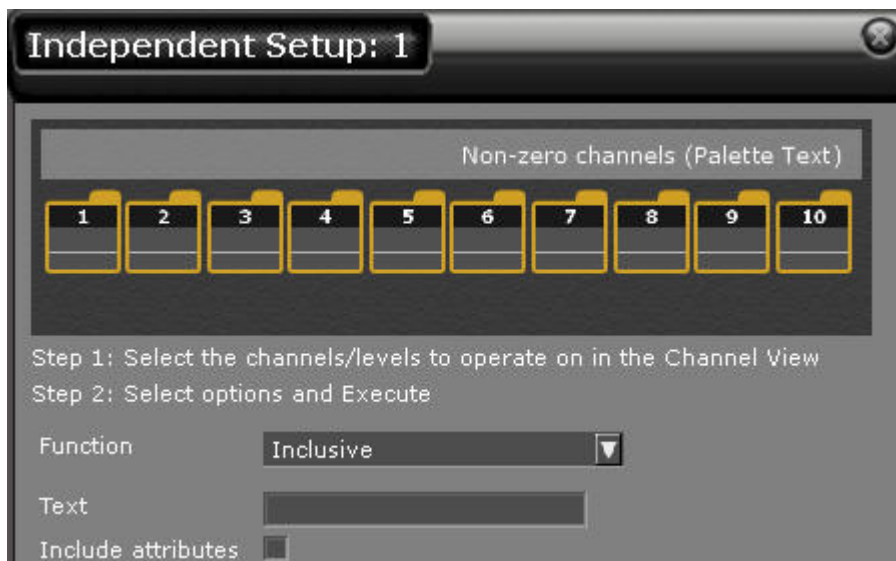
Using the Independents

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 >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

Only Intensities can be Exclusive. Attributes remain LTP, and thus may be 'stolen' back by the rest of the console.

Independent Dock Area

Dock areas are configured by holding SETUP and pressing BROWSER.



Once set up the dock area will appear on the screen



It is possible to select Independents and set levels from the dock with the MASTER key.

Function	Keys	Feedback
Select an Independent	# MASTER	Independent # is selected and highlighted.
Add	# +	Independent # is added.
Add a range	# THRU	Up to Independent # are added.
Subtract	# -	Independent # is subtracted.
Set a level	# @LEVEL	The Independent levels are set to #.
Set a level	Wheel	The Independent levels are set to #.
Step to next/previous	+ -	Steps to next/previous

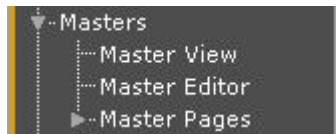
Using a mouse or trackball

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.

Masters

There are 80 Master Playbacks that can be used to playback any type of content such as channels, groups, effects, presets, sequences or console keys, macros and moving device parameters.

Masters Node



This chapter contains the following sections

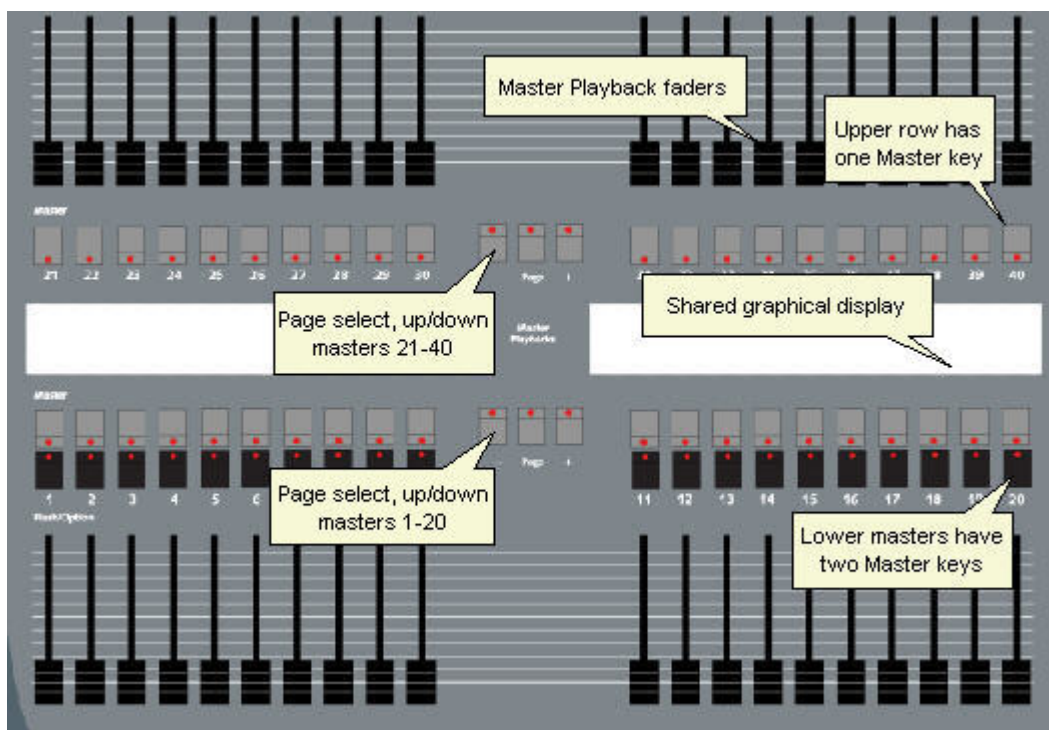
- [Masters - Introduction](#)
- [Masters - Functions](#)
- [Master View](#)
- [Master List](#)
- [Master Pages](#)

Masters - Introduction (6.0)

The masters are incredibly flexible and powerful. You can set them up individually in a number of different modes and play back virtually any type of content that can be programmed in Congo.

All of the 80 master playbacks can be controlled virtually by number. Physically you can access them depending on your choice of hardware.

- A master will always have a Master key to load content and select channels.
- Depending on hardware, some masters have a second Flash/Option key.
- Depending on hardware, master content and modes are shown in displays between the master rows, and in the master view on the screens.



Important master control keys (6.0)

There are three categories of keys that apply to master playbacks.

Fader keys

The two master keys belonging to each fader can be set up to control playback functions related to the type of content loaded to the master.

Master Playback

You can connect any master to the Master Playback controls. This gives you functions like GO, GO BACK, STEP and TAP.

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

Additional keys

Other keys that control important functions for the masters are:

- MASTER = Opens the master view and selects masters
- PAGE, PAGE+, PAGE- = Control Master pages
- FLASH MODE = Configurates master buttons
- START = Can be used to start fades
- SETUP = Used in combination with the Master key to open individual settings
- MODIFY = Used in combination with the Master key to open the Master Editor
- CLEAR = Used in combination to clear content.

Master Fader Mode Switch (6.0)

The Switch with three positions next to the masters sets the 80 Master playbacks into one of three modes.



Position	Function
<u>Channels Only</u>	Masters 1-80 will control the first 80 intensities in the system. Select range of channels with the Direct Selects.
<u>Masters</u>	The normal position. Masters 1-80 are Masters 1-80.
<u>Jam</u>	A special mode for busking shows with different functions. See Jam Mode .

Masters - Functions (6.0)

These are the master functions.

This chapter contains the following sections

- [Masters - Settings](#)
- [Masters - Commands](#)
- [Masters - Clear](#)
- [Masters - Times](#)
- [Masters - Channels](#)
- [Masters - Presets](#)
- [Masters - Groups](#)
- [Masters - Effects](#)
- [Masters - Palettes](#)
- [Masters - Sequences](#)
- [Masters - Chase mode sequence](#)
- [Masters - Dynamics](#)
- [Masters - Channel Layouts](#)
- [Masters - Attribute parameters](#)
- [Masters - Console keys](#)
- [Masters - Macros](#)
- [Masters - Playback Keys](#)
- [Masters - Drag and Drop](#)

Masters - Settings (6.1)

All settings for masters are individual per master. You can define master settings from the Master Settings popup or directly from the console if you have the full wing or big Congo. See Master Settings from the console.

You can define a lot of behaviours for the

- Fader
- Flash key
- Master key
- Contribution to the Live output
- Contribution to recording functions
- Priorities against other playbacks

Master settings are described per content type in this chapter.

Reset Master Settings

To reset Master settings to default hold C and press the Master key twice.

Open Master Settings

Hold SETUP and press Master.

The screenshot displays the 'Master Settings' menu for Master 1. The menu is organized into several sections:

- Master: 1 - ()**
 - Mode: Inclusive
 - Exclude Int. from Record:
- Master button settings**
 - Master button: Select Channels
- Master fader settings**
 - Fader type: Add
 - Fader intensity: Follow manual fader
 - Fader attribute: Follow manual fader
 - Active Parameter Lock:
- Attribute return behavior**
 - Return to (FCB): Off
 - Preset: [Empty field]
- Flash button settings**
 - Flash button: Momentary
 - Flash type: Add
 - Flash mode: All
 - Flash: Use time:
 - Flash level: 100%

To open settings for several masters select the first master (# MASTER) and add master with + and THRU, then hold SETUP & press MASTER.

To open settings for a specific master enter the master number, then hold SETUP and press MASTER.

Master Mode

These are the main modes that define the basic behaviour of a master playback.

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 from the rest of the console, even if the intensity is "exclusive". If you wish to stop this from happening enable Active Parameter Lock. See [Master fader settings](#).

Exclude Record

This setting excludes the contribution of this master to the live output, from recording functions. This is useful for worklights and effects that are on, but you don't want to include in new presets.

Master button (6.3)

The master button is the single key in all master modules that is used to assign content to the master. The different modes apply to specific content types - which is described closer in the sections of these contents.

Mode	Applies to	Feedback
Select Channels	All content	Selects the channels in this master as a group
GO	Chase, sequence	Start the next crossfade
GO/PAUSE	Chase, sequence	Start/pause
Start	Ch, group, preset, effect, palette, chase, Sequence	Sets fader to full or a level
Tap	Chase	Sets tap tempo
Execute Attributes	Preset, effect, palette	Sets if attributes are executed by the button
Flash	Ch, group, preset, effect, chase, Sequence	Sets to function like a momentary flash key
Seq +	Sequence	Sets to function like Seq +
Seq -	Sequence	Sets to function like Seq -
Go Back	Sequence	Sets to function like GoBACK
Master Editor (6.3)	Ch, group, preset, effect, chase, Sequence	Opens the corresponding editor for the master content

Master fader settings (6.1)

The fader settings define the behaviour of intensities and attributes for the fader. The different modes apply to specific content types - which is described closer in the sections of these contents.

Mode	Applies to	Feedback
Fader type	Ch, group, preset, effect	Add = Intensities are piled (HTP) on top of the output. Attributes are LTP. Solo = The content of this fader replaces all other master faders, but does not affect levels coming from the Main Playback.
Fader intensity (6.1)	Ch, group, preset, effect, chase, Sequence	Disabled = intensity is not affected by moving the fader Follow manual fader = Intensities will follow the fader Follow master time = follows master times
Fader Attributes (6.1)	Preset, effect, palette	Disabled = attributes are not affected by moving the fader Follow manual fader = Attributes will follow the fader Execute at #% = attributes are executed when the fader passes #%.
Fader: Use time	Ch, group, preset, effect, palette chase, Sequence	The fader will never fade faster than the in time
Return to (FCB)	Preset, effect	Defines what attributes will return to at fade down. None Previous = last LTP values Preset = a specified preset Main Pb = sequence step in A
Preset	Preset, effect	Return to preset (see above)
Active parameter lock	Preset, effect	Attributes cannot be stolen by another master or the Main Playback. Manual control is still possible.
NOTE		

If several masters have Fade type = Solo, 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.

Flash settings (6.1)

The flash button is the lower key in all master modules. Some modules and the large Congo only have flash keys for the lower row of faders. The different modes apply to specific content types - which is described in greater detail in the tables below.

Flash Button

Mode	Applies to	Feedback
Off	-	Flash button is disabled
Momentary	Ch, group, preset, effect, chase, Sequence	Sets the fader to full or the defined flash level when pressed and returns the fader to zero when the key is released.
Latching	Ch, group, preset, effect, chase, Sequence	Toggles the fader to full or the defined flash level when pressed, leaving the fader at that level until the flash key is pressed again
GoBack	Chase, Sequence	GoBack to previous step
Tap	Chase	Sets tap tempo

Flash type

Mode	Applies to	Feedback
Add	Ch, group, preset, effect	Intensities are piled (HTP) on top of the output. Attributes are LTP.
Solo	Ch, group, preset, effect	The content of this fader replaces all other master faders and returns other faders based on the Momentary/Latching mode setting.

Flash mode

Mode	Applies to	Feedback
All	Preset, effect, chase, Sequence	Flash executes intensity and attributes
Intensity	Ch, group, preset, effect, chase, Sequence	Flash executes intensities only
Attributes	Preset, effect, palette	Flash executes attributes only

Flash time and level

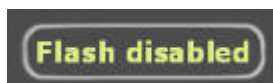
Mode	Applies to	Feedback
Flash: Use time	Ch, group, preset, effect, chase, Sequence	Flash functions will use in-wait-out times
Flash level	Ch, group, preset, effect, palette, chase, Sequence	Target level for flash functions

Disable Flash Keys (6.3)

The top area of all screens will indicate that flash is disabled by showing the Flash disabled indicator pictured below.

Hold C/ALT and press FLASH MODE. Repeat to toggle on/off.

The top of the monitor screens will indicate the Flash is Disabled like this



Master Settings From the Console

You can check and set master settings directly from the Congo console or Congo Jr Master Playback Wing. Universal Fader Wings and Congo Kid do not support this feature.

Hold FLASH MODE and use the page keys to step through the settings per master. Use the Master key to toggle the settings per master.

Add	Add	Add	Add	Add	Add	Add	Add	Add	Add	Flash type 8/14
Add	Add	Solo	Solo	Solo	Add	Add	Add	Add	Add	Flash type 8/14

Masters - Commands

You can select masters and set levels pretty similar to how channels, effects and groups can be selected. The MASTER key is used for this.

Select masters and set levels

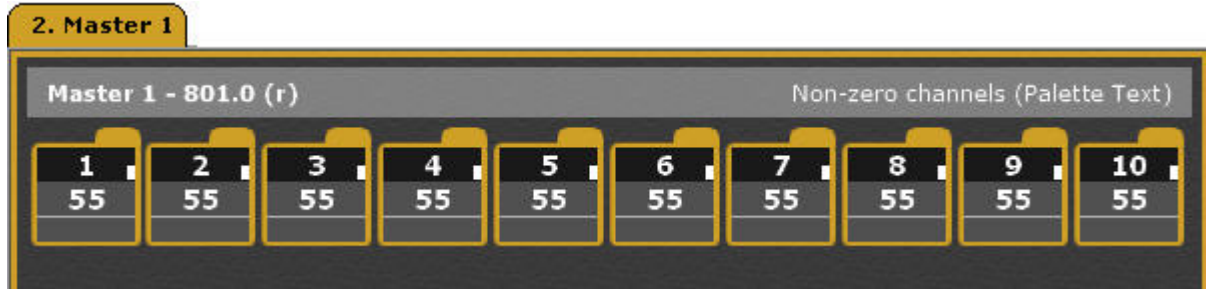
It is possible to select masters and set levels with the MASTER key PROVIDING a Master View is open and selected.

Keyboard shortcut = F8.

Function	Keys	Feedback
Open the Master view	MASTER	The Master View is opened.
Select a Master	# MASTER	Master # is selected and highlighted in the Master View.
Add	# +	Master # is added to the selection.
Add a range	# THRU	Up to Master # are added to the selection.
Subtract	# -	Master # is subtracted.
Set a level	# @LEVEL	The levels are set to #.
Set a level	Wheel	The levels are set to #.
Deselect all	0 MASTER	All are deselected.

Master single field editor (6.1)

You can open a single field master editor for channel intensities by holding MODIFY and pressing the Master key. All channel functions plus UPDATE are available.



NOTE

Adjustments made in this field are live if the master's fader is above zero. When there is an unsaved change the grey title bar will be purple and you will get an option of saving before closing or leaving this tab (6.1)

To edit attributes in this tab, press ATTRIB. Editing Attributes opens the Preset Attribute Editor tab. Edits to attributes are blind, and the fader must be brought to zero before those changes will appear on the master.

Select channels in a master

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

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

Mask in masters (6.1)

Every master has a mask that you can define per parameter. The mask will inhibit the playback of those parameters from that master. The same content on a different unmasked master will play back all of its content. You can use playback masks to reuse content for different purposes, or to keep parameters from playing back, without having to edit those parameters out of the content.

The mask is either set up from the Master List in the Mask column, or by copying the global Mask to a master by holding MASK and pressing the Master key.

You can also assign any user mask from the Mask list by entering # holding MASK and pressing the Master Key. See [Device Control - Mask](#).

The mask is indicated in the display, the Masters tab and Masters dock.



Masters - Clear

These are the general functions you use to clear content and fader levels in master playbacks.

Function	Keys	Feedback
Clear	[C] & [Master Key]	The content of the Master Playback is cleared.
Clear all	[C] & [PAGE]	The Master Playbacks are cleared.
Set all to zero	[C] & [MASTER] OR [C] & [LIVE] [LIVE]	All Master Playbacks are set to zero, no content is cleared.
Clear settings	[C] & [Master key] [Master key]	Master content is cleared AND settings are reset to default.

Masters - Times

Masters can have In, wait and out times. These times can be used by

- Flash on time
- Master Links
- The START function
- Manual fades

Set In-Wait-Out times for a Master

In times can be set with a key shortcut. Wait and out times are set from the master editor.

In Time

Function	Keys	Feedback
Set In time	# TIME & Master Key	The time # is assigned to the Master as an In time.

In, Wait and Out time

These times can only be assigned from the Master List.

1. Open the master list using [MODIFY] & [MASTER] or from the Browser >Masters >MasterList.

2. Set In, Wait and Out times.

Master settings for times

These are the settings you can set individually for master times.

Hold SETUP and press the Master key to open the settings. See [Masters - Settings](#).

These are the settings that affect times, and only for content where times apply.

Function	Function
Fader Intensity	With "Follow Master Time" Fader will never fade faster than the fade time
Flash: Use time	Flash will use master time

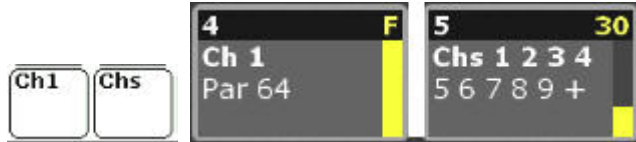
Flash On Time

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

Masters - Channels (6.0)

You can load and play back single channels (Ch#), or a group of channels (Chs) with set levels from master playbacks. These are stored in the current Master Page.



Once a channel is loaded to a master you can

- Use the master fader to set the level
- Use the flash key to flash the channel
- Use the master key to select the channel

Load channels to masters (6.1)

These functions are used to load channels (with levels) to masters.

Function	Keys	Feedback
Channels	[GROUP] & [Master Key]	The selected channel(s) are loaded with current level to the Master, which is set to full to avoid a Black Out of these channels on stage. The channel levels are also cleared from A.
Single channels	[CH] & [Master Key]	The selected channel(s) are loaded at 100% to the Master Playbacks, starting at the one pressed. The master level will be set to the level from stage and this level will be cleared from the A field.
Ch # at 100%	[#] [CH] & [Master Key]	Channel # is loaded at 100% to the Master.

Master Settings for channels (6.0)

These are the settings you can change for masters with channel content.

Hold SETUP and press the Master key to open the settings.



The screenshot shows a 'Master Settings' menu for 'Master: 1 - ()'. The settings are organized into several sections:

- Master: 1 - ()**
 - Mode: Inclusive
 - Exclude Int. from Record:
- Master button settings**
 - Master button: Select Channels
- Master fader settings**
 - Fader type: Add
 - Fader intensity: Follow manual fader
 - Fader attribute: Follow manual fader
 - Active Parameter Lock:
- Attribute return behavior**
 - Return to (FCB): Off
 - Preset: [Empty field]
- Flash button settings**
 - Flash button: Momentary
 - Flash type: Add
 - Flash mode: All
 - Flash: Use time:
 - Flash level: 100%

Please note that some settings will make other settings invalid - for example, if you set a master to Inhibit, the main function will be inhibit.

Function	Function
Mode	Inclusive = playback interacts with other playbacks Inhibit = fader limits the output of the ch's Exclusive = fader "owns" channel intensities
Exclude Int From Record	Excludes intensity from recording.
Master button	Default = Select channels in master as group Start = Toggles fader to full/zero Flash = Flashes the content
Include intensity	Playback will control intensities
Attributes follow fader	<i>Not used</i>
Fader type	Add = Adds intensities HTP Solo = Replaces the content of all other masters
Fader: Use time	Fader will never fade faster than the fade time
Return to (FCB)	<i>Not used</i>
Preset	<i>Not used</i>
Active Parameter Lock	<i>Not used</i>
Flash button	Off = No function Momentary = Flash when pressed Latching = Toggles flash off/on
Flash type	Add = Adds intensities HTP Solo = Replaces the content of all other masters
Flash mode	Intensity = Intensities only
Flash: Use time	Flash will use master time
Flash Level	Sets the target level for flash

Masters - Presets (6.0)

You can record, load and play back presets from master playbacks. Since these are the most common type of content they are displayed only with the number in the master displays.



Once a preset is loaded to a master you can

- Use the master fader to set the level
- Use the flash key to flash the preset
- Use the master key to select the channels in the preset

A preset can contain device and effect attributes. These can be set to

- Follow the fader up
- Follow the fader down (rubberband)
- Have a defined return status (previous, main pb, preset #)
- Not follow the fader at all
- Be activated on flash

See [Master settings for presets](#).

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. Pending content indicated with inverted colors on the master LCD.

Load a preset to a master (6.0)

These functions are used to load presets to masters.

Function	Keys	Feedback
Load a preset	# PRESET & Master Key	Preset # is loaded. The number and name is shown in the master display
Load several presets	# PRESET & Master Keys	Hold Preset and keep pressing new Master keys to load the next stored Preset

Record a preset to a master (6.0)

Recording a preset to a master you will be able to choose to record the current channel selection or all channels on stage (if no channel is selected).

There are a three options when you record a preset.

- *Record as a preset*
- *Record as a return to preset*
- *Record as a preset in a sequence*

Record a preset to a master

1. *Select channels (selection) or select none (all) to record.*

OPTION: Enter a preset number. If you don't the next free last used for masters will be suggested.

2. *Hold RECORD & Master key.*



3. Enter a preset text (optional) and press RECORD again. The return to preset is shown in the master display and master view.

Record a return preset to a master

1. Select channels (selection) or select none (all) to record.
OPTION: Enter a preset number. If you don't the next free last used for masters will be suggested.

2. Hold RECORD & Master key. Use the right arrow to select Return To.



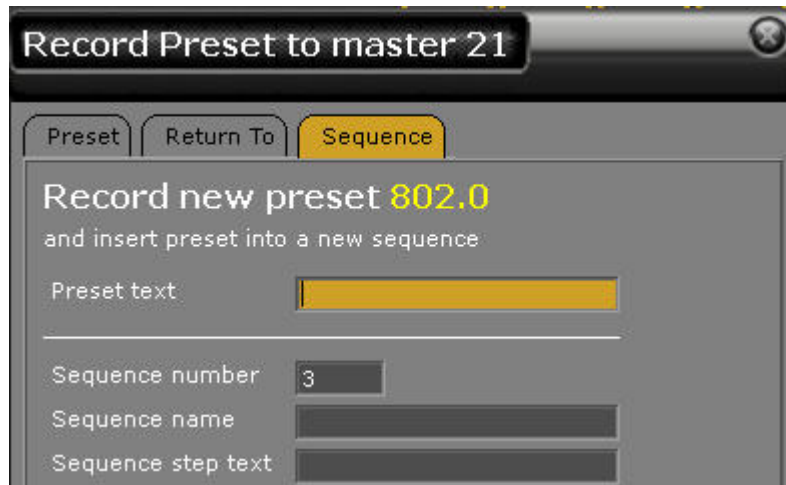
3. Enter a preset text (optional) and press RECORD again.

Record a preset to a sequence in a master

1. Select channels (selection) or select none (all) to record.

OPTION: Enter a preset number. If you don't the next free last used for masters will be suggested.

2. Hold RECORD & Master key. Use the right arrow to select Sequence.



Record Preset to master 21

Preset Return To Sequence

Record new preset 802.0
and insert preset into a new sequence

Preset text

Sequence number

Sequence name

Sequence step text

3. Enter a preset text, Sequence name, and step text (optional) and press RECORD again.

Master settings for presets (6.0)

These are the settings you can change for masters with preset content.

Hold SETUP and press the Master key to open the settings.

The screenshot displays the 'Master Settings' menu for 'Master: 1 - ()'. The settings are organized into several sections:

- Master: 1 - ()**
 - Mode: Inclusive
 - Exclude Int. from Record:
- Master button settings**
 - Master button: Select Channels
- Master fader settings**
 - Fader type: Add
 - Fader intensity: Follow manual fader
 - Fader attribute: Follow manual fader
 - Active Parameter Lock:
- Attribute return behavior**
 - Return to (FCB): Off
 - Preset: [Empty field]
- Flash button settings**
 - Flash button: Momentary
 - Flash type: Add
 - Flash mode: All
 - Flash: Use time:
 - Flash level: 100%

Please note that some settings will make other settings invalid - for example, if you set a master to Inhibit, the main function will be inhibit.

Function	Function
Mode	Inclusive = playback interacts with other playbacks Inhibit = fader limits the output of the preset ch's Exclusive = fader "owns" preset intensities
Exclude Int from Record	Excludes intensity from this master from recording
Master button	Default = Select channels in preset as group Start = Toggles fader to full/zero Execute Attributes = Only executes attributes Flash = Flashes the content
Include intensity	Playback will control intensities
Attributes follow fader	Playback fader will control attributes
Fader type	Add = Adds intensities HTP Solo = Replaces the content of all other masters
Fader: Use time	Fader will never fade faster than the fade time
Return to (FCB)	Specifies where attributes return to when the fader is faded down Off = No return target Previous = Status before the fade Preset = To a specified preset MainPB = To the preset in A of the main playback
Preset	Return to preset, if selected in previous choice
Active Parameter Lock	Attributes can not be stolen by any other playback. Manual override is possible.
Flash button	Off = No function Momentary = Flash when pressed Latching = Toggles flash off/on
Flash type	Add = Adds intensities HTP Solo = Replaces the content of all other masters
Flash mode	All = Intensities and attributes Intensity = Intensities only Attributes = Attributes only
Flash: Use time	Flash will use master time
Flash Level	Sets the target level for flash

Masters - Groups (6.0)

You can load and play back groups from master playbacks. They are displayed with a "Gr" before the number in the master displays.



Once a group is loaded to a master you can

- Use the master fader to set the level
- Use the flash key to flash the group (if it has levels)
- Use the master key to select the channels in the group

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. Pending content indicated with inverted colors on the master LCD.

Load a group to a master (6.0)

These functions are used to load groups to masters.

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

Master settings for groups (6.0)

These are the settings you can change for masters with group content.

Hold SETUP and press the Master key to open the settings.

Master Settings

Master: 1 - ()

Mode Inclusive ▼
Exclude Int. from Record

Master button settings

Master button Select Channels ▼

Master fader settings

Fader type Add ▼
Fader intensity Follow manual fader ▼
Fader attribute Follow manual fader ▼
Active Parameter Lock

Attribute return behavior

Return to (FCB) Off ▼
Preset

Flash button settings

Flash button Momentary ▼
Flash type Add ▼
Flash mode All ▼
Flash: Use time
Flash level 100%

Please note that some settings will make other settings invalid - for example, if you set a master to Inhibit, the main function will be inhibit.

Function	Function
Mode	Inclusive = playback interacts with other playbacks Inhibit = fader limits the output of the group Exclusive = fader "owns" group intensities
Exclude Int. from Record	Excludes intensity from this master from recording
Master button	Default = Select channels in master as group Start = Toggles fader to full/zero Flash = Flashes the content
Include intensity	Playback will control intensities
Attributes follow fader	<i>Not used</i>
Fader type	Add = Adds intensities HTP Solo = Replaces the content of all other masters
Fader: Use time	Fader will never fade faster than the fade time
Return to (FCB)	<i>Not used</i>
Preset	<i>Not used</i>
Active Parameter Lock	<i>Not used</i>
Flash button	Off = No function Momentary = Flash when pressed Latching = Toggles flash off/on
Flash type	Add = Adds intensities HTP Solo = Replaces the content of all other masters
Flash mode	Intensity = Intensities only
Flash: Use time	Flash will use master time
Flash Level	Sets the target level for flash

Masters - Effects (6.0)

You can load and play back effects from master playbacks. They are displayed with a "E" before the number in the master displays.



Once an effect is loaded to a master you can

- Use the master fader to set the level
- Use the flash key to flash the group (if it has levels)
- Use the master key to select the effect

An effect contains effect attributes. These will always be dependent upon the last played back settings for that Effect Playback, or manual control.

The Effect Playback on the Master does not contain any recorded settings at all but If the effect is stored to a preset that is assigned to a master, the effect attributes can be set to

- Follow the fader up
- Follow the fader down (rubberband)
- Have a defined return status (previous, main pb, preset #)
- Not follow the fader at all
- Be activated on flash

See [Master settings for effects](#).

Load an effect to a master (6.0)

These functions are used to load effects to masters.

Function	Keys	Feedback
Load an effect	# [EFFECT] & Master Key	Effect # is loaded. The number and name are shown in the master display
Load several effects	CH & Master Keys	This loads the selected effects into Masters one-by-one at current intensities.

Master settings for effects (6.0)

These are the settings you can change for masters with effect content.

Hold SETUP and press the Master key to open the settings.

The screenshot shows the 'Master Settings' menu for 'Master: 1 - ()'. The menu is organized into several sections:

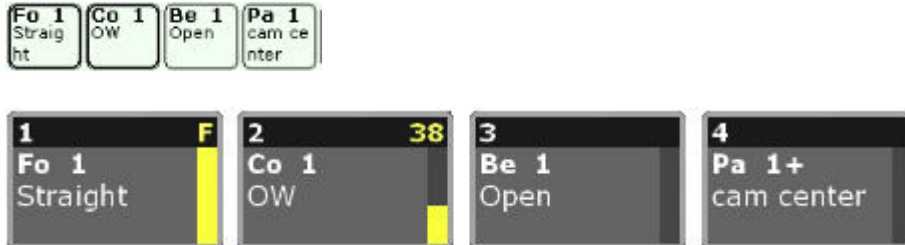
- Master: 1 - ()**
 - Mode: Inclusive (dropdown)
 - Exclude Int. from Record:
- Master button settings**
 - Master button: Select Channels (dropdown)
- Master fader settings**
 - Fader type: Add (dropdown)
 - Fader intensity: Follow manual fader (dropdown)
 - Fader attribute: Follow manual fader (dropdown)
 - Active Parameter Lock:
- Attribute return behavior**
 - Return to (FCB): Off (dropdown)
 - Preset: []
- Flash button settings**
 - Flash button: Momentary (dropdown)
 - Flash type: Add (dropdown)
 - Flash mode: All (dropdown)
 - Flash: Use time:
 - Flash level: 100%

Please note that some settings will make other settings invalid - for example, if you set a master to Inhibit, the main function will be inhibit.

Function	Function
Mode	Inclusive = playback interacts with other playbacks Inhibit = fader limits the output of the preset ch's Exclusive = fader "owns" preset intensities
Exclude Int from Record	Excludes intensity from this master from recording.
Master button	Default = Select effect channel as a group Start = Toggles fader to full/zero Execute Attributes = Only executes attributes Flash = Flashes the content
Include intensity	Playback will control intensity
Attributes follow fader	<i>Not used</i>
Fader type	Add = Adds intensities HTP Solo = Replaces the content of all other masters
Fader: Use time	Fader will never fade faster than the fade time
Return to (FCB)	<i>Not used</i>
Preset	<i>Not used</i>
Active Parameter Lock	<i>Not used</i>
Flash button	Off = No function Momentary = Flash when pressed Latching = Toggles flash off/on
Flash type	Add = Adds intensities HTP Solo = Replaces the content of all other masters
Flash mode	All = Intensities and attributes Intensity = Intensities only Attributes = Attributes only Tap = Tap tempo for the effect
Flash: Use time	Flash will use master time
Flash Level	Sets the target level for flash

Masters - Palettes (6.1)

You can load and activate palettes from master playbacks. They are displayed with a "Fo,Co, Be, Pa" before the number in the master displays.



Once a palette is loaded onto a master you can use the master to activate the palette for selected channels:

- Use the master fader to fade manually to the palettes levels
- Use the master key to snap to the palettes levels
- Use #, then press the Master Key to fade to the palette's levels in # seconds
- Hold MODIFY and press the master key to open the Palette Editor (6.1)

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 Return To in the Master Settings.

Load palettes to masters

This are the functions for loading palettes to masters.

Function	Keys	Feedback
Load Palette	# FOCUS & Master Key	Focus Palette # is loaded with name and number. You can do the same with COLOR, BEAM and ALL PALETTE's.
Load several Palettes	# FOCUS & Master Keys	Hold FOCUS and keep pressing master keys to load all existing of the same type. You can do the same with COLOR, BEAM and ALL PALETTE's.

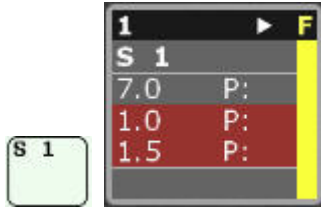
Play back palettes from a master

Palettes are activated with the master key or the fader, for the currently selected channel(s).

Function	Keys	Feedback
Fade into palette	Fader	Selected channel(s) are faded into the palette
Activate Palette	Master Key	The Palette is activated for the selected channel(s)
Activate Palette on time	# Master Key	The Palette is activated for the selected channel(s) in # seconds

Masters - Sequences (6.1)

You can record, load and play back sequences from master playbacks. They are displayed with an "S" before the number in the master displays.



Once a sequence is loaded to a master you can

- Use the master fader to control the output level
- Use the flash key to flash the sequence
- Use the master key as a GO or Go/Pause key
- Use the flash key as a GoBack key
- Hold MODIFY and press the master key to open the sequence editor (6.1)

Attributes are executed only when the fader is over zero.

Load a sequence to a master

These functions are used to load sequences to masters..

Function	Keys	Feedback
Load a sequence	# [SEQ] & Master Key	Sequence # is loaded. The number and name is shown in the master display. If the sequence doesn't exist it is created.
Load several sequences	# [SEQ] & Master Keys	Hold SEQ and keep pressing new Master keys to load the next stored Sequences.
NOTE You can load a Sequence directly from the Sequences List as well. See Sequences List - Insert/Delete/Load .		

Record a sequence to a master (6.1)

When you record a second preset to a master, or if a sequence is loaded to a master - you will get the option to continue to record to that sequence using the same recording logic as when you record to the sequence in the Main Playback (6.1).

Record a preset to a sequence in a master

1. Select channels (selection) or select none (all) to record.

OPTION: Enter a preset number. If you don't the next free last used for masters will be suggested.

2. Hold RECORD & Master key. Use the right arrow to select Sequence.



3. Enter a preset text, Sequence name, and step text (optional) and press RECORD again.

Master settings for sequences

These are the settings you can change for masters with sequence content.

Hold SETUP and press the Master key to open the settings.

The screenshot displays the 'Master Settings' menu for 'Master: 1'. The settings are organized into several sections:

- Master: 1 - ()**
 - Mode: Inclusive
 - Exclude Int. from Record:
- Master button settings**
 - Master button: Select Channels
- Master fader settings**
 - Fader type: Add
 - Fader intensity: Follow manual fader
 - Fader attribute: Follow manual fader
 - Active Parameter Lock:
- Attribute return behavior**
 - Return to (FCB): Off
 - Preset: [Empty field]
- Flash button settings**
 - Flash button: Momentary
 - Flash type: Add
 - Flash mode: All
 - Flash: Use time:
 - Flash level: 100%

Please note that some settings will make other settings invalid - for example, if you set a master to Inhibit, the main function will be inhibit.

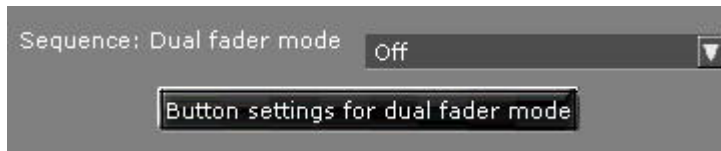
Function	Function
Mode	Inclusive = playback interacts with other playbacks Inhibit = fader limits the output of the group Exclusive = fader "owns" intensities
Exclude Int from Record	Excludes Intensity from this master from recording
Master button	Default = Select channels in current step as group GO = Same as GO in the main playback GO/Pause = Go and Pause Start = Toggles fader to full/zero Flash = Flashes the content
Include intensity	Playback will control intensities
Attributes follow fader	<i>Not used</i>
Fader type	Add = Adds intensities HTP Solo = <i>Not used</i>
Fader: Use time	Fader will never fade faster than the fade time
Return to (FCB)	<i>Not used</i>
Preset	<i>Not used</i>
Active Parameter Lock	<i>Not used</i>
Flash button	Off = No function Momentary = Flash when pressed Latching = Toggles flash off/on GoBack = Same as Go Back in the main playback
Flash type	Add = Adds intensities HTP Solo = <i>Not used</i>
Flash mode	Intensity = Intensities only
Flash: Use time	Flash will use master time
Flash Level	Sets the target level for flash

Dual Fader mode for Sequences (6.1)

When this mode is active, there are two modes involving two masters for controlling the sequence loaded to the first master, and there are more configurable buttons for controlling the sequence.

Setting a master pair to A/B mode

To be able to access these settings a sequence has to be loaded to the master. Hold SETUP and press the Master Key. This will open Master Settings with this option:



You can select the following options

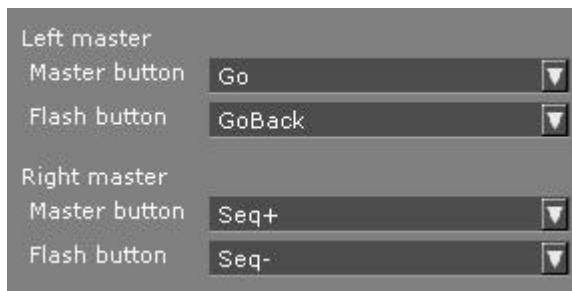
A+B

The sequence master and the next higher master will control the sequence as an A/B playback providing a crossfader pair, just like when a sequence is controlled from the Main Playback.

Int + A/B

The first master controls the intensity of the sequence, and the second is a combined A/B crossfader.

The default button settings (press MODIFY on "Button settings for dual fader mode) are:



The Master View will change to show these button settings and some more information for the A/B pair like this:



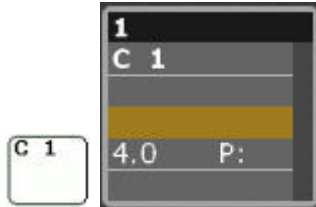
Simpler master wing displays: The linked A/B master shows the sequence number in parenthesis to indicate that the master is occupied.

NOTE

The Dual Fader mode setting can be selected also in the Master List (Browser >Masters >Master List).

Masters - Chase mode sequences (6.0)

You can load and play back sequences in "chase" mode from master playbacks. They are displayed with a "C" before the number in the master displays.



Once a chase is loaded to a master you can

- Use the master fader to control the output level
- Use the flash key to flash the chase
- Use the master key as a GO or Go/Pause key
- Use the flash key as a GoBack key

Attributes are executed only when the fader is over zero. The Chase will start from the first step every time the fader is brought over 0%.

Time Master

A special feature available for sequences in chase mode is a Time Master. By creating a time master you can control the speed of a chase.

A Time Master can only be assigned from the Master List.

1. Open the master list using [MODIFY] & [MASTER] or from the Browser >Masters >MasterList.
2. Set "Content Type" to "Time Master"
3. Set "Content" to the number of the chase you wish to control.

Load a chase sequence to a master (6.0)

These functions are used to load chase mode sequences to masters.

Function	Keys	Feedback
Load a chase	<input type="text" value="#"/> <input type="text" value="SEQ"/> <input type="text" value="&"/> <input type="text" value="Master Key"/>	Chase # is loaded to the Master Playback. The number and name are shown in the master display.
Load several chases	<input type="text" value="#"/> <input type="text" value="SEQ"/> <input type="text" value="&"/> <input type="text" value="Master Keys"/>	Hold SEQ and keep pressing new Master keys to load the next stored Sequence/Chase.
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 settings for chase mode sequences (6.0)

These are the settings you can change for masters with sequence content.

Hold SETUP and press the Master key to open the settings.

The screenshot displays the 'Master Settings' menu for 'Master: 1 - ()'. The menu is organized into several sections, each with a title in bold. The settings are as follows:

- Master: 1 - ()**
 - Mode: Inclusive (dropdown)
 - Exclude Int. from Record:
- Master button settings**
 - Master button: Select Channels (dropdown)
- Master fader settings**
 - Fader type: Add (dropdown)
 - Fader intensity: Follow manual fader (dropdown)
 - Fader attribute: Follow manual fader (dropdown)
 - Active Parameter Lock:
- Attribute return behavior**
 - Return to (FCB): Off (dropdown)
 - Preset: []
- Flash button settings**
 - Flash button: Momentary (dropdown)
 - Flash type: Add (dropdown)
 - Flash mode: All (dropdown)
 - Flash: Use time:
 - Flash level: 100%

Please note that some settings will make other settings invalid - for example, if you set a master to Inhibit, the main function will be inhibit.

Function	Function
Mode	Inclusive = playback interacts with other playbacks Inhibit = fader limits the output of the group Exclusive = fader "owns" intensities
Exclude Int. from Record	Excludes intensity from this master from recording
Master button	Default = Select channels in current step as group GO = Same as GO in the main playback GO/Pause = Go and Pause Start = Toggles fader to full/zero Flash = Flashes the content
Include intensity	Playback will control intensities
Attributes follow fader	<i>Not used</i>
Fader type	Add = Adds intensities HTP Solo = <i>Not used</i>
Fader: Use time	Fader will never fade faster than the fade time
Return to (FCB)	<i>Not used</i>
Preset	<i>Not used</i>
Active Parameter Lock	<i>Not used</i>
Flash button	Off = No function Momentary = Flash when pressed Latching = Toggles flash off/on GoBack = Same as Go Back in the main playback Tap = Tap mode for the chase Bpm
Flash type	Add = Adds intensities HTP Solo = <i>Not used</i>
Flash mode	Intensity = Intensities only
Flash: Use time	Flash will use master time
Flash Level	Sets the target level for flash

Masters - Dynamics

You can load and activate dynamic templates direct from master playbacks. These are temporary data stored in the current Master Page. They are displayed with an "Dy" before the number in the master displays.



Once a dynamic template is loaded to a master you can

- Use the master key to activate the dynamic effect for the currently selected channel(s).

NOTE

This is an old version of dynamic effects in Congo. We recommend you to use the new Dynamic Effect playback instead, since it offers much more control.

Load a dynamic template to a master (6.0)

These functions are used to load dynamic effect templates to masters.

Function	Keys	Feedback
Load a dynamic	# DYN EFFECT & Master Key	The number and name are shown in the master display
Load several dynamics	# DYN EFFECT & Master Keys	Hold DYN EFFECT and keep pressing new Master keys to load the next dynamic template.

Masters - Channel Layouts

You can load and activate channel layouts direct from master playbacks. These are temporary data stored in the current Master Page. They are displayed with an "La" before the number in the master displays.



Once a channel layout is loaded to a master you can

- Use the master key to activate it for the currently selected channel view.

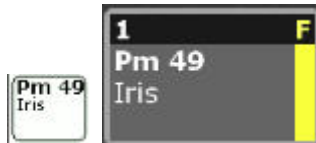
Load a channel layout to a master (6.0)

Channel Layouts can only be assigned from the Master List.

1. *Open the master list (Browser >Masters >MasterList).*
2. *Set "Content Type" to "Layout"*
3. *Set "Content" to the number of the layout you wish to assign.*

Masters - Attribute parameters (6.1)

You can load and activate attribute parameters from master playbacks. This is very useful for parameters that map well to faders, like iris, focus, shutters and color mixing. They are displayed with a "Pm" before the number in the master displays.



Once an attribute parameter is loaded to a master, and depending on the nature of the parameter, you can

- Use the master fader as the "parameter wheel"
- Use the master key as the "parameter wheel key"
- Hold the Master key and use the level wheel to change the value relatively (6.1)

The result is applied to the selected channel(s).

Load a parameter to a master (6.0)

To load a parameter to master select a device with that parameter, hold the parameter wheel key and press a master key.

Masters - Console keys

You can assign any console key to a master playback. This is useful if there is a soft key you are using a lot like "select 2nd" or "DATA", so you have fast access to it. Console keys are displayed with a "Ke" and the key function, in the master displays.



Once a console key is loaded to a master you can

- Use the master key as the console key

NOTE

You cannot clear a console key from a master by holding C and pressing the master key - since C is used in combination with console keys. To clear, go to the Master List.

Assign a console key to a master (6.0)

Console keys can only be assigned from the Master List.

1. Open the master list using [MODIFY] & [MASTER] or from the Browser >Masters >MasterList.

2. Set "Content Type" to "key"

3. Set "Content" to the key of your choice.

Masters - Macros

You can assign a macro key to a master playback so you have fast access to it. Macro keys are displayed with a "Ma" and its text, in the master displays.



Once a macro key is loaded to a master you can

- Use the master key as the macro key

Assign a macro to a master (6.0)

Console keys can only be assigned from the Master List.

1. *Open the master list (Browser >Masters >MasterList).*
2. *Set "Content Type" to "Macro"*
3. *Set "Content" to the macro number of your choice.*

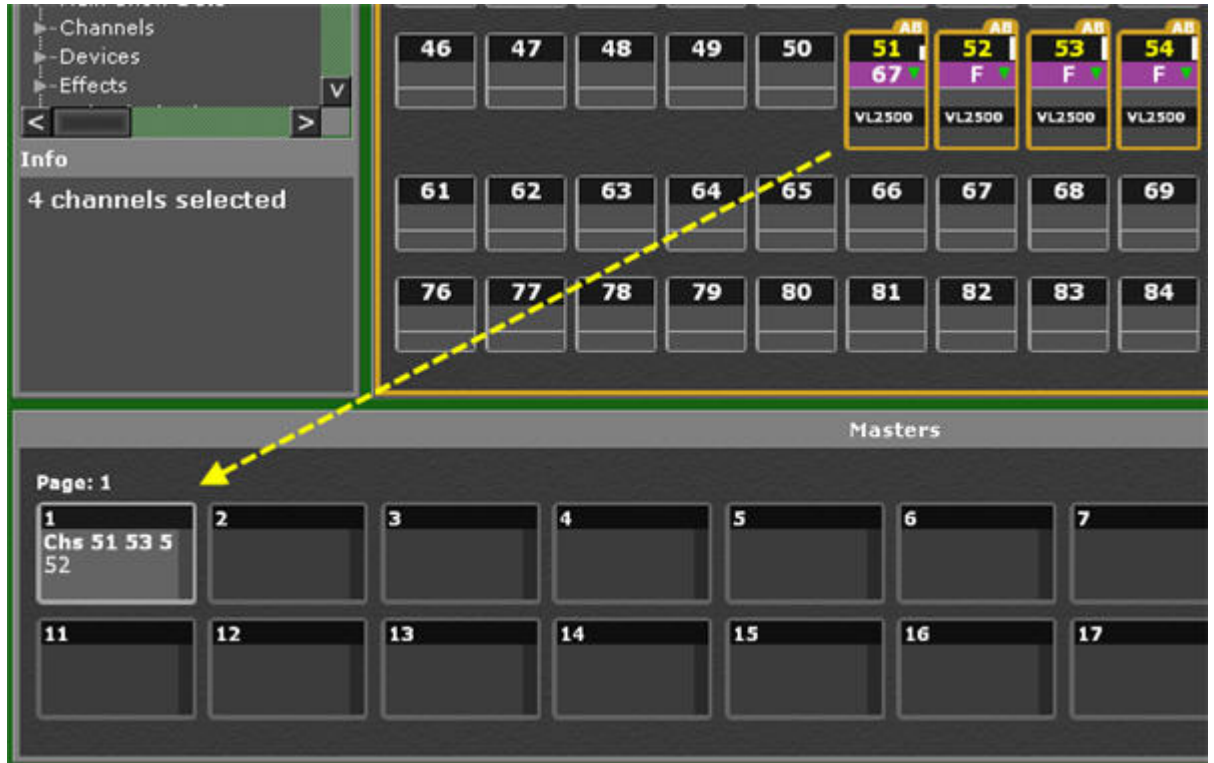
Master Playback - Functions

Function	Key	Feedback
Start a chase (or crossfade)	GO	Starts a stopped Chase or a Crossfade for a Sequence
Start a crossfade from step #	# 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	<< 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.
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.

Masters - Drag and Drop Data (6.3)

There are many ways of moving around data between masters. Drag and drop is one of them. It can be useful if you want to reorganize the content of your masters.

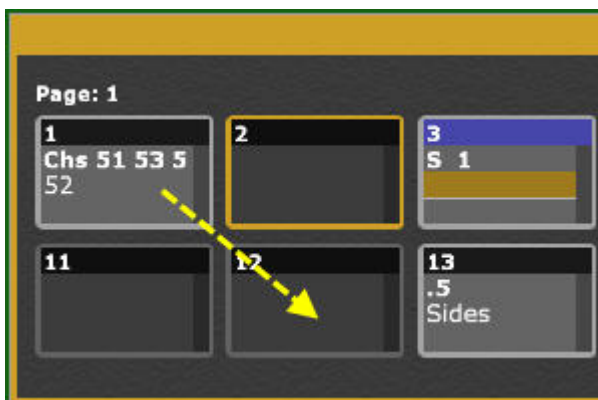
You can drag a channel selection from any channel view to a master:



You can drag any type of object that can be loaded to a master from the Browser:



You can move content between masters. Note that all master settings will be moved along with the content.



If there is content in a master field, you will get a dialogue for overwriting:



Drag and Drop Master Links (6.3)

You can create a master link in a sequence by dragging the master from the master view to the sequence step.

The master will be linked with a target level of 100% if it is over 50% when linked, and a target level of 0% if it is under 50% when linked. You can double-click the master link in the Playback view to edit it.

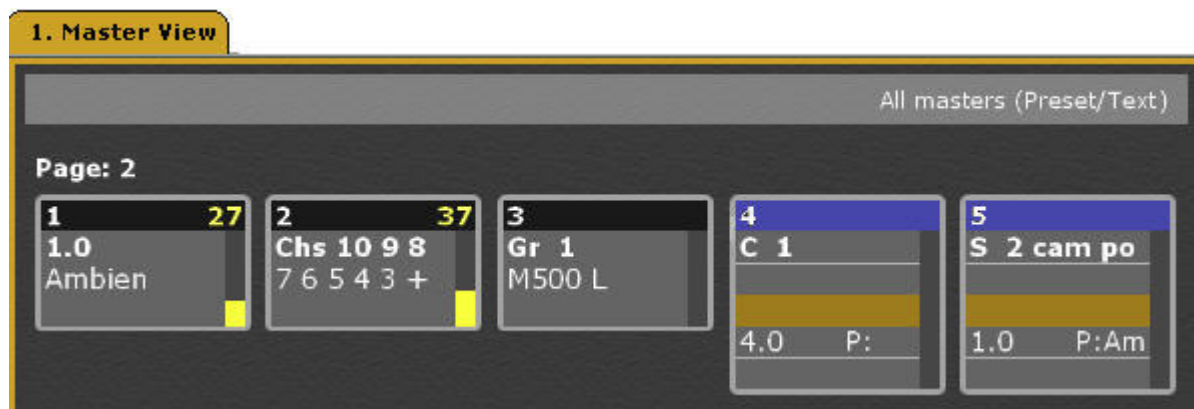
See [Sequence Step Links - Master Playbacks](#).



Master View

The master view is a graphical view of the content in the master playbacks. It has several formats and is zoomable.

It can be opened by pressing MASTER or from Browser >Masters >Master View.



NOTE

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

Using a mouse or trackball

Function	Keys	Feedback
Using a mouse	<u>click</u>	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 & <u>click</u>	The Master Editor is opened.

Master View - Formats

You can toggle between viewing formats by pressing FORMAT

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

You can toggle what is shown for a sequence or chase by holding FORMAT and pressing right/left arrows

- Preset/text
- Preset/time
- Text

You can zoom the level of detail by holding FORMAT and pressing the up/down arrows.



You can zoom the size of the masters by holding FORMAT and using the level wheel.

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 List

The Master List is a spreadsheet editor for all master fields where you can change settings and assign content to several fields at the same time.

It is opened from the console with MODIFY & MASTER or from Browser >Masters >Master List.

3. Master Editor

Master Editor Non-zero channels (Palette Text)

1	2	3	4	5	6	7	8	9	10
97	97	97	97	97	97	97	97	97	97

Master	Content type	Content	In	Wait	Out	Mode	Master button	Include intensity	Attributes follow fader
1	Chs	Chs	***			Inclusive	Default	✓	✓
2	Chs	Chs	***			Inclusive	Default	✓	✓

Master list - Columns & Functions

All of these are explained per content type in [Masters - 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. See Masters - 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 .
<u>Mode (5.0)</u>	<input type="button" value="MODIFY"/>	Set Master Mode Inclusive, Inhibit or Exclusive. See Masters - Modes .

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.

Masters - Content

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

Content	Function
<u>Prs</u>	Play back Preset from fader, select channels with Master key. Flash with Flash key.
<u>Chs</u>	Single channels or several channels as a temporary selection (previously called Grp).
<u>Seq</u>	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.
Chases (old)	Play back Sequences in Chase mode. The Master key is Go. The fader is a Grand Master for that Sequence. Connect to the Master Playback for more functions.
<u>Focus, Color, Beam, Pal.</u>	Activate any kind of Palette (F, C, B, All) for the selected channels.
<u>Macro</u>	Assign a Macro to activate with the master key.
<u>Dynamic</u>	Activate a Dynamic Effect for the selected channels.
<u>Mask</u>	Assign a Mask to activate with the master key.
<u>Key (5.0)</u>	A master can be set as any console key. The master key will function as this key.
<u>Group</u>	Play back Groups from fader, select channels with Master key. Flash with Flash key.
<u>Layout</u>	Any Channel Layout can be assigned to a Master Playback
<u>Parameter</u>	Any parameter of a moving device can be assigned to a Master Playback*
<u>Time Master</u>	Any Master can be assigned as a Time Master for a Sequence in Chase mode. See Chases (old).

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

Master Pages

Master Pages store all content for 20 masters and can be used in any row of 20 Master Playback Faders, eg the upper (21-40) or lower (1-20) rows.

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.
- 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 (6.2)

All content changes in the affected Master Range (1-20 or 21-40) are automatically recorded 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	<div style="border: 1px solid black; padding: 2px; display: inline-block;">RECORD</div> & <div style="border: 1px solid black; padding: 2px; display: inline-block;">PAGE</div>	You will get a confirmation in the message window at the bottom of the screens.
Record to Master Page #	<div style="border: 1px solid black; padding: 2px; display: inline-block;">#</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">RECORD</div> & <div style="border: 1px solid black; padding: 2px; display: inline-block;">PAGE</div>	You will get a confirmation in the message bar at the bottom of the screens.
NOTE (6.2) In Congo Jr and Kid you can record to a Master Page using the Page #-# buttons in the Soft Key Displays.		

Master Pages - Functions (6.1)

It is possible to load and change Master Pages separately to any row (1-20, 21-40, 41-60, 61-80) of Master Playbacks. When a new play is created Page 1-4 are automatically loaded.

Function	Key	Feedback
Load Master Page #	# PAGE	Master Page # is loaded*
Step to next Master Page	+	Loads the next Master Page.
Step to previous Master Page	-	Loads the previous Master Page.
Step to next Master Page for block 3/4	C/ALT & +	If C/ALT is held the page key for block 1 (1-20)loads block 3 and the page key for block 2 control block 4.
Step to previous Master Page for block 3/4	C/ALT & -	If C/ALT is held the page key for block 1 (1-20)loads block 3 and the page key for block 2 control block 4.

*The corresponding Masters are cleared. If the Page does not exist it will be created

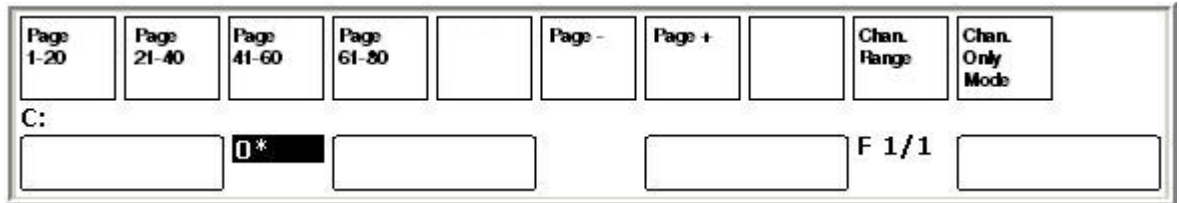
NOTE

PENDING - If a master fader is over 0% when new content is loaded - it will load the new content after fading to 0%.

Master Soft Key page for Jr & Kid (6.2)

Since Congo jr and Congo Kid support masters without dedicated paging controls, there is a Masters soft key page with master functions. The Masters soft key page is selected with the soft key MASTERS in the Main Display of the Congo jr and Congo Kid.

Display



Page keys (PAGE 1-20, PAGE 21-41, PAGE 41-60, PAGE 61-80)

These keys are the PAGE key for each master section. Master pages may be assigned to banks of masters even when no wings are attached to Congo jr. Congo Kid has physical faders for masters 1-20 and 21-40, and masters 41-60 and 61-80 may still be used with the Masters tab or dock and the keypad for selection and control.

- Enter a number and press a Page #-# key to select a page for masters #-#
- Hold a Page #-# key and press PAGE- or PAGE+ to change page last/next
- Hold C and press a Page #-# key to clear this section.
- Hold RECORD and press a Page #-# to record to this section (6.2)

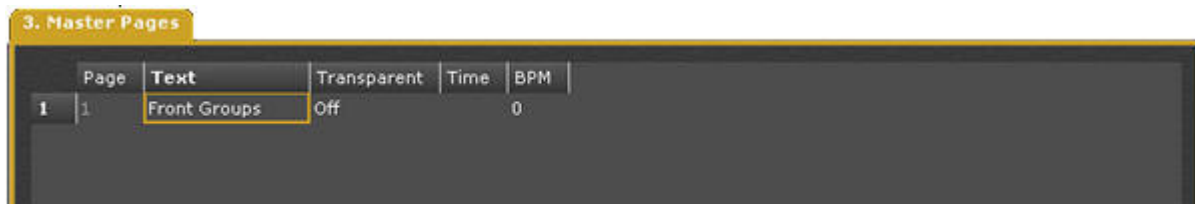
Channels Only mode keys

These two keys are used to operate Channels Only mode for Congo jr when used with Universal Fader Wings and Congo Kid.

- CHAN. ONLY MODE: Toggles Channels Only mode on/off
- CHAN. RANGE: Steps through all possible channel ranges for the faders.

Master Pages - List

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.

Master Pages List - Columns

Column	Input	Function
<u>Page</u>	No input	The number of this Page - 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

These are the functions in the Master Pages List

Function	Key	Feedback
Insert a Master Page	<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

In the Master Page Editor you can view and edit the content and times of Master Pages.
Open in Browser> Masters >Master Pages> Master Page #.

You can use copy and paste to make a copy of an existing master page.

1. Master Page: 1

Master Page: 1 Non-zero channels (Palette Text)

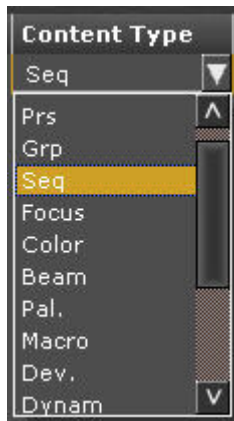
1	2	3	4	5	6	7	8	9	10
F	F	F	F	F	F	F	F	F	F

Master	Content Type	Content	In	Wait	Out	Mode	Master button	Include intensity	Attributes follow fac
2	Preset	1.0	100%			Inclusive	Default	✓	✓
3	Group	1	***			Inclusive	Default	✓	✓
4	Sequence	1	100%			Inclusive	Default	✓	✓

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="button" 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="button" value="#"/> <input type="button" value="MODIFY"/>	Sets a wait time
<u>Out</u>	<input type="button" 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="button" 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. Activate the Master Pages List	Browser >Master Pages	The Master Pages List is opened.
2. Activate a Master Page List	Arrow keys	The Master Page List is opened.
3. Go to In-Wait-Out Times	Arrow keys	Each selected cell is highlighted
4. Set a time*	# 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*	# TIME & 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*	<input type="button" value="TAP"/> & <input type="button" value="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

This is the default mode for Master Pages - in which all changes automatically are stored to the current Master Page.

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

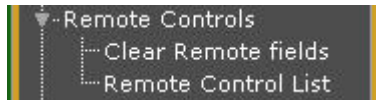
The Display lists are shown in the main display of the console. The trackball has to be in DISP LIST mode.

Function	Keys	Feedback
<i>1. Open the Master Page Display List</i>	<code>DISP</code> & <code>PAGE</code>	The Master Page Display List for a Master Row (1-20, 21-40) is opened.
<i>2. Select a Master Page</i>	Trackball	The selected item is highlighted with >arrows<.
<i>3. Load the selected Master Page</i>	Right (or left) click and press PAGE	The Master Page is loaded to Masters.

Remote Controls

There are different remote control systems for Congo. Each one has it's own working field. This is where you can set/edit and clear these fields, and rename the remotes.

Remote Controls node



This chapter contains the following sections

- [Clear Remotes](#)
- [Remote Control List](#)

All different types of remote controls are described in [Accessories - Remote Control](#).

Clear Remotes

Select this node and press MODIFY to clear all intensities set in remote fields.

This function is available in Congo Jr in the Misc soft key menu as well.

Remote Control List

This editor shows all active remote controls. BROWSER >Remote Controls >Remotes List.

You have the possibility to give names to each Remote control (currently only possible on Net3 RFR devices) and disable the contribution from specific remotes. In Settings: System, you can set all remote input to off. See [Play Settings - System](#).

- If you press MODIFY in the Clear Levels column, you can quickly clear all levels from that remote.
- The channels and levels in each remote field can be edited directly in the channel view in the top of the editor.
- The Online column is just an indicator for network RFR's.
- To set this remote to work in A instead of it's unique remote field activate this cell. (6.1)

4. Remote Control List

Remote Control List Non-zero channels (Palette Text)

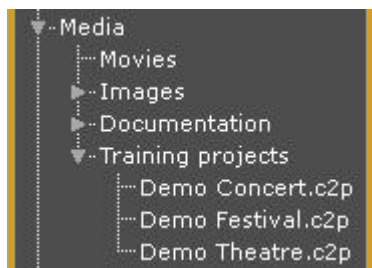
1	2	3	4	5	6	7	8
F	F	F	F	F	F	F	F

Remote	Name	Enabled	Remote uses A field	Clear Levels	Online
1	RFR (USB)	✓	✓		

Media

The Media node contains tutorial movies, images of your choice, software documentation and Training Projects.

Media Node



This chapter contains the following sections

- [Media - Introduction](#)
- [Movies](#)
- [Images](#)
- [Training Projects](#)

Media - Introduction

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>	These are tutorials. The 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>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 can import them from the Browser.		

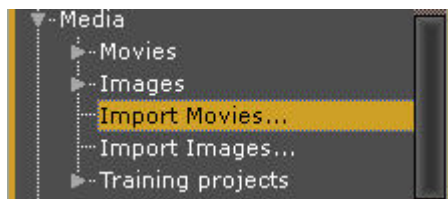
Movies

In the movies folder there are tutorials for learning Congo. Mostly, they are around five minutes and in English. You start them by selecting them and pressing MODIFY or ENTER.

NOTE

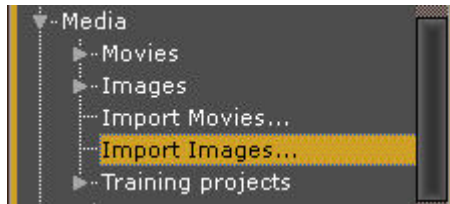
Do not watch movies in the console during playback.

You can import movies from a USB memory stick or a digital camera by connecting it to Congo and selecting "Import Images.." from the Browser >Media >Import Images node.



Images

You can import images from a USB memory stick or a digital camera by connecting it to Congo and selecting "Import Images.." from the Browser >Media >Import Images node.



NOTE

This works for cameras that show up as a new Drive in Windows (not as a camera device).

Media Images - Delete

You can delete images directly from the Browser by pressing DELETE.



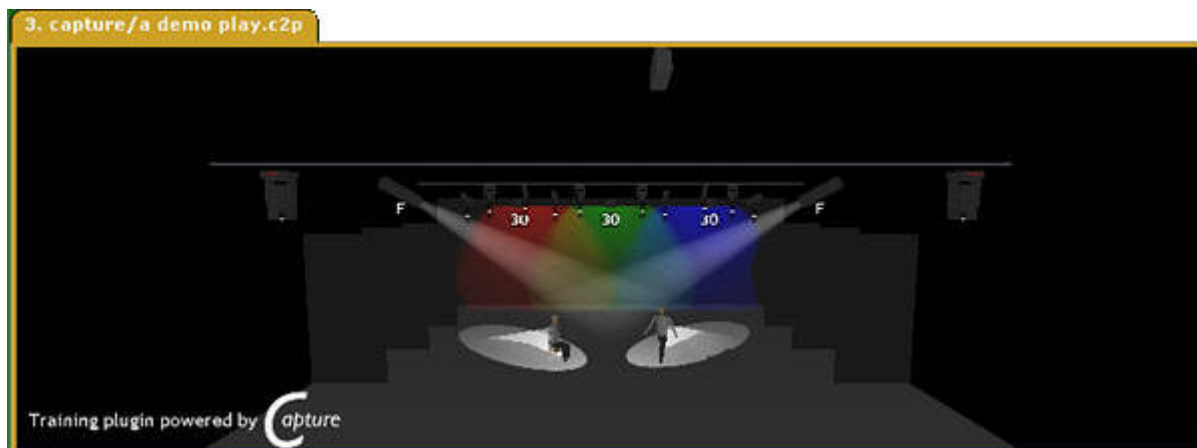
Training Projects

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

Opening a Training Project

1. Go to the Browser (*BROWSER*)
2. Navigate with the arrow keys to the File >Open > Play Archive > Demo Plays 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

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

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.



CONSOLE KEYS

This Chapter is about the console key functions, keyboard equivalents and shortcuts. Its a very useful chapter.

This chapter contains the following sections

- [Console Key Quick Help](#)
- [Console Key Shortcuts](#)

Console Key Quick Help

These are all console keys with a short explanation and a summary of functions, in alphabetical order.

- This text is linked to each key in the console and opens if you hold [?] and press a key.
- There are links to the corresponding chapters of the manual.
- The keyboard equivalent in an alphanumeric keyboard is listed.

Console Key - ?

This is the HELP function. It activates the online help system, which is a complete electronic copy of the user manual.

- [HELP] - Activates Help.
- [HELP] & [KEY] - Activates help for that key.
- [HELP] - after opening an editor or list opens help for that editor.

For more information see [This Manual](#).

Keyboard equivalent: [F1]

Console Key - <-- (Disp Mode)

Press this key to move one level up in the main display soft key menus of the console.

For more information see [Main Playback - Edit Keys](#).

No keyboard equivalent

Console Key - @LEVEL

This key is used to set levels to channels. It can also be used in combination with other keys for specific level functions.

- [#] [@LEVEL] - Set level # to the currently selected channels.
- [@LEVEL] = 70%
- [@LEVEL] [@LEVEL] = 100%
- [@LEVEL] [@LEVEL] [@LEVEL] = 0%
- [CH] & [@LEVEL] - Sets a temporary ID level 0-100% to the currently selected channels.
- [SETUP] & [@LEVEL] - Opens the level settings.
- [ON/FETCH]&[@LEVEL] - Revert (undo) changes to channel level.

NOTE

If the console is set to operate in At Mode this key has a slightly different syntax. See [Channels - Command Syntax](#).

For more information see [Set Channel levels](#).

Keyboard equivalent: [+]

Console Key - A

Opens the channel view for the A field of the Main Playback. The channel control will be connected to the A field.

- [A] - Opens and selects the A tab.
- [TIME] & [A] - Forces the setting "Times to A"

For more information see [Main Playback - Edit Keys](#).

Keyboard equivalent: [A]

Console Key - ALIGN

This key is used to align device parameters to the one currently selected with NEXT/LAST.

- [ALIGN] & [parameter key] (CYAN, or FOCUS for example) - Aligns these parameters.

For more information see [Device Control - Align](#).

Keyboard equivalent: [Alt] & [A]

Console Key - ALL

The ALL key is used for selecting channels with levels over 0% in different targets.

- [ALL] - Selects all channels with a level over 0% in any channel view.
- [ALL] [ALL] - In the Live view the first press will select all channels over 0% in A, the second press will select channels in all Master Playbacks as well.
- [ALL] & [PALETTE KEY] - Hold ALL and press a Direct Select key for a palette to select all channels with an intensity over 0% using that palette.

For more information see [Select Channels](#).

Keyboard equivalent: [SHIFT] & [-]

Console Key - Arrow Keys

The arrow keys are a vital part of all navigating functions, and are used a lot in combination with the silver colored navigating keys, and the level wheel.

- [Arrow keys] - Move in the direct of that key in the Browser, or a spreadsheet view. In dialogue boxes the side arrows will move between tabs, and up and down will select input areas. In the Browser the right arrow will open the current node, and the left arrow will close and jump to the top of any list.
- [Arrow key] & [level wheel] - Speed scroll in any list view.
- [TAB] & [side arrows] - Moves the current tab to the next screen.
- [TAB] & [down arrow] - Splits the screens, the same command with the up arrow will undo the current split.
- [FORMAT] & [down arrow] - Opens more detailed information when available.
- [FORMAT] & [up arrow] - Selects less detailed information when available.

For more information see [Navigating - The Arrow Keys](#).

Keyboard equivalent: [Arrow keys]

Left Arrow

Scroll to top of this page.

Right Arrow

Scroll to top of this page.

Up Arrow

Scroll to top of this page.

Console Key - ATTRIB

The ATTRIB key is used to record, edit and view attributes for moving devices.

- [ATTRIB] - Opens the Live Attribute view.
- [#] [RECORD] & [ATTRIB] - Record all attributes for the currently selected channels to preset #.
- [#] [PRESET] & [ATTRIB] - Opens the attribute editor for that preset.
- [SETUP] & [ATTRIB] - Opens the attribute settings.

For more information see [Device Views - Live](#), [Device Views - Presets](#), [Record All Attributes For Selected Channels](#)

Keyboard equivalent: [I]

Console Key - B

This key opens the channel view for the B field of the Main Playback. The channel control will be connected to the B field.

- [B] - Opens and selects the B tab.
- [TIME] & [B] - Forces the setting "Times to B"

For more information see [Main Playback - Edit Keys](#).

Keyboard equivalent: [B]

Console Key - BALANCE

The BALANCE key is a soft key in the CHANNELS menu of the console main display. It is used to mute all channel intensities except the current selection, temporarily.

- [BALANCE] - Temporarily mutes all channel intensities except the current selection. Press again to return.
- [SETUP] & [REM DIM] - Opens the dialogue to set this key as BALANCE.

For more information see [Channels - Balance Mode](#).

There is no keyboard equivalent.

Console Key - BANK

The BANK key is used to change bank of data in the Direct Select key sections.

Hold [BANK] - When this key is held, you can use the direct select keys to select a bank (1-10, 11-20 etc) for each section of direct select keys.

For more information see [Direct Select - Content](#).

There is no keyboard equivalent.

Console Key - BEAM

This key is used to record and recall Beam palettes for moving devices.

- [RECORD] & [BEAM] - Record the next free palette for the currently selected devices.
- [#] [RECORD] & [BEAM] - Record a new palette for the currently selected devices.
- [#] [BEAM] - Recall a recorded palette for the currently selected devices.
- [MODIFY] & [BEAM] - Open the Beam palette list.
- Hold [BEAM] - When BEAM is held, all existing palettes 1-40 can be accessed from the direct select keys.

For more information see [Devices - Palettes](#), [Record A Beam Palette](#), [Device Palettes - Direct Mode](#).

Keyboard equivalent: [ALT] & [B]

Console Key - BLIND

The BLIND key is used to edit and load content to the blind editing field. You can edit and record channels in BLIND independently from all other fields.

- [BLIND] - Open the Blind view, and set channel control to this field.
- [LIVE] & [BLIND] - Move the values of the current channels over 0% into BLIND.
- [BLIND] & [A] or a [master key] - Move the values of the currently selected channels from BLIND to that field.
- [BLIND] & [level wheel] - Fade the content of BLIND into the output of the console.

For more information see [Blind - Blind Tab](#).

Keyboard equivalent: [F3]

Console Key - BROWSER

The Browser is a fundamental part of the Congo system. This is where all functions are located, all data can be viewed, and where you can access settings, files and the Help system.

- [BROWSER] - Select the Browser. If it is already selected, it will be closed. Press again to open.
 - Use the [up/down arrows] to navigate, and in combination with the level wheel to speed scroll.
 - Use the [right arrow] to open an item.
 - Use the [left arrow] to jump to the top of the current item and close it.
 - Press [MODIFY] to open the editor for an item.
 - Press [LOAD] to activate items like Groups, Palettes etc.
 - Hold [SETUP] and press [BROWSER] to activate more Dock Areas.

For more information see [Navigating - Browser](#), [Dock Areas](#).

Keyboard equivalent: [F10]

Console Key - C/ALT (6.3)

This key is used to clear numeric entries. When it is held it can be combined with other keys for clearing information, and for Macro style functions like channel check mode.

- [C/ALT] - Clear the last numeric entry.
- [C/ALT] [C/ALT] - Deselect all channels.
- [C/ALT] & [CH] - Clear the current channel selection and levels in the selected channel view.
- [C/ALT] & [master key] - Clear that field.
- [C/ALT] & [PLAYBACK] - Clear the A field.
- [C/ALT] & [PAGE] - Clear the current master page.
- [C/ALT] & [+%] - Set 100%.
- [C/ALT] & [-%] - Set 0%.
- [C/ALT] & [+] or [-] - Activate channel check mode with the current level.
- [ESC] & [C/ALT] - Lock/Unlock the console (6.3).

For more information see [Channels - Clear Functions](#), [Master Playbacks - Load/Clear/Modify](#).

Keyboard equivalent: [Backspace]

Console Key - CAPTURE

This key is used to activate Capture mode, in which any channel that is manually altered will be Captured, and cannot be controlled from any other function until it is released from Capture mode. Captured channels are indicated with a red background in the channel views. When you record a captured channel, the captured levels are stored.

- [CAPTURE] [CAPTURE] - Activate and deactivate Capture mode.
- [#] [CAPTURE] & [CH] - Capture that channel without activating Capture mode.
- [CAPTURE] & [ATTRIB] - Capture all attributes for the selected channel(s).
- [CAPTURE] & [parameter key] - Capture that attribute for the selected channel(s).

For more information see [Channels - Capture Mode](#).

Keyboard equivalent: [C]

Console Key - CH/ID

The CH key is used to select channels, and in combination with other keys for additional channel functions.

- [#] [CH] - Select that channel (if you are operating in At Mode, this key is not used in the same way).
- [C/ALT] & [CH] - Clear levels and channel selection in the selected channel view.
- [CH] & [up/down arrow] - Scroll in the selected channel view.
- [CH] & [@LEVEL] - Toggle the levels of the selected channel(s) 100-0% for identifying.
- [#] [CH] & [TIME] - Record a channel time for the selected channel(s).
- [#] [CH] & [DELAY] - Record a channel Delay for the selected channel(s).
- [ON/FETCH]&[CH] - Revert (undo) level changes back to value at initial selection.

For more information see [Select Channels](#).

Keyboard equivalent: [-]

Console Key - CHANNEL SET

The CHANNEL SET soft key in the EFFECTS soft key menu, is used to open the Channel Set editor for effects.

- [CHANNEL SET] - Opens the Channel Set editor.

For more information see [Channel Sets](#)

There is no keyboard equivalent

Console Key - CHASE

The CHASE soft key in the EFFECTS soft key menu, is used to open the editor for chase effects.

- [CHASE] - Opens the CHASE editor.
- [#] [CHASE] - Opens the CHASE editor focused at chase #.

For more information see [Chase Effects](#)

There is no keyboard equivalent

Console Key - CH TIME

CH TIME is a soft key in the TIME menu of the console main display. It is used to record individual channel times. Times are recorded to the Sequence Step in A or B depending on the setting of Times.

- [#] [CH TIME] - Record that time to the currently selected channel(s).

For more information see [Sequence Times - Channel Times](#).

There is no keyboard equivalent.

Console Key - CH DELAY

CH DELAYT is a soft key in the TIME menu of the console main display. It is used to record individual channel delay times. Times are recorded to the Sequence Step in A or B depending on the setting of Times.

- [#] [CH DELAY] - Record that time to the currently selected channel(s).

For more information see [Sequence Times - Channel Times](#).

There is no keyboard equivalent.

Console Key - CLEAR CHANGED

CLEAR CHANGED is a soft key in the DEVICE menu of the console main display. It is used together with the attribute record setting "Changed" to clear the Set Changed flag on parameters that have been changed, so they will not be recorded.

- [SET CHANGED] & [PALETTE] - Set all parameters for the selected channels to not changed.
- [SET CHANGED] & [FOCUS] - Set Focus parameters for the selected channels to not changed.
- [SET CHANGED] & [COLOR] - Set Colorparameters for the selected channels to not changed.
- [SET CHANGED] & [BEAM] - Set Beam parameters for the selected channels to not changed.
- [SET CHANGED] & [wheel parameter key] - Set this parameter for the selected channels to changed.

For more information see [Devices - Recording](#).

There is no keyboard equivalent.

Console Key - CLIENT

The CLIENT key is used to activate and deactivate external access from network clients, and to set permissions.

- [CLIENT] - Activate or deactivate.
- Hold [CLIENT] - Set permissions from the Direct Select keys.

For more information see [Network - Client](#).

There is no keyboard equivalent.

Console Key - COLOR

This key is used to record and recall Color palettes for moving devices.

- [RECORD] & [COLOR] - Record the next free palette for the currently selected devices.
- [#] [RECORD] & [COLOR] - Record a new palette for the currently selected devices.
- [#] [COLOR] - Recall a recorded palette for the currently selected devices.
- [MODIFY] & [COLOR] - Open the Color palette list.
- Hold [COLOR] - When COLOR is held, all existing palettes 1-40 can be accessed from the direct select keys.

For more information see [Devices - Palettes](#), [Record A Color Palette](#), [Device Palettes - Direct Mode](#).

Keyboard equivalent: [ALT] & [C]

Console Key - COLUMN

The COLUMN key is used for various functions in spreadsheet views.

- [COLUMN] - Select all cells downward in the current column.
- [COLUMN] & [level wheel] - Resize a column.
- [COLUMN] & [up/down arrows] - Sort the spreadsheet by the content of this column.
- [COLUMN] & [right/left arrows] - Move a column.

For more information see [Navigating - Lists](#), [Change The List View](#), [Sort By Column](#).

Keyboard equivalent: [F9]

Console key - CONNECT

The CONNECT key is used to connect a Master with a Sequence to the Master Playback controls of the console frontpanel. A Playback tab will be opened for this master.

- [CONNECT] & [master key] - Connect.
Close the Playback view with ESC to disconnect.

For more information see [Master Playback - Playback Keys](#).

There is no keyboard equivalent

Console Key - COMPARE

COMPARE is a soft key in the CHANNELS menu of the console main display. It is used to compare the intensities in a channel view with any other Preset. It is a mode that has to be exited before returning to normal operation.

- [COMPARE] - Load the last recorded preset that was loaded to this channel view. Press again to return.
- [#] [COMPARE] - Load that preset to this channel view. Press again to return.

For more information see [Presets - Compare Mode](#).

There is no keyboard equivalent.

Console Key - COPY/CUT

The COPY/CUT key is used to copy and cut information for pasting. Information that can be copied, cut and pasted is Text, Sequence Steps (Sequence List), Groups (Group List), Presets (Preset List), Device Templates (Device Template List) and Attributes in the Preset List.

- [COPY/CUT] - Copy the selected object.
- [COPY/CUT] [COPY/CUT] - Cut the selected object.

For more information see [Copy, Cut & Paste](#).

Keyboard equivalent: [CTRL] & [C]

Console Key - CURSOR

The CURSOR key is only available in the big Congo console to set the built in trackball to mouse mode.

- [CURSOR] - Set the trackball to mouse mode. Trackball will be red.

For more information see [Facepanel - Trackball](#).

There is no keyboard equivalent

Console Key - DATA (6.0)

The DATA key is a soft key in the CHANNELS menu of the console main display. It is used to set toggle how attribute data is displayed in the channel views and the console displays.

When DATA is active absolute data is shown, for example Pan 50%.

When DATA is off, referenced data is shown, for example F1 (focus palette 1)

- [DATA] - Toggle Data on/off..

Keyboard equivalent: none

Console Key - DELAY

The DELAY key is used to set delay times to the sequence step in the A or B field of the Main Playback (depending on the Time Settings).

- [DELAY] & [IN] - Set a Delay In time.
- [#] [DELAY] & [OUT] - Set a Delay out time.
- [#] [CH] & [DELAY] - Set a channel delay time to the selected channel(s).
- [#] [DELAY] & [FOCUS] - Set an attribute delay time for the selected channel(s).
- [#] [DELAY] & [COLOR] - Set an attribute delay time for the selected channel(s).
- [#] [DELAY] & [BEAM] - Set an attribute delay time for the selected channel(s).

For more information see [Sequences - Times](#), [Sequence Times - Set To A or B](#).

Keyboard equivalent: [CTRL] & [D]

Console Key - DELETE

The DELETE key is used to delete data permanently in lists.

- [DELETE] - Delete the selected object in any list.

For more information see [Editing In Lists](#).

Keyboard equivalent: [DEL]

Console key - DEVICE

The DEVICE key is used to open the Device List, where you can edit the settings for all moving devices.

- [MODIFY] & [DEVICE] - Open the device settings.

For more information see [Patch - Device List](#).

Keyboard equivalent: [D]

Console Key - Direct Select Pages

The five Direct Select Page keys will activate a user setup that is auto-stored for the Direct Selects.

- Press any of the five keys to access that page.

For more information see [Direct Select - User Setups](#).

There is no keyboard equivalent

Console Key - DISPLAY LIST

The DISPLAY LIST key is only available in the big Congo console to open Display Lists in the main display.

- [DISPLAY LIST] - Activate display lists and set the trackball to this mode (green). Use the trackball and LEFT/RIGHT to select items in the lists.
- Hold [DISPLAY LIST] - Show all display list options in the Direct Selects.

For more information see [Facepanel - Trackball](#).

Keyboard equivalent: [J]

Console Key - EFFECT

The EFFECT key is used to operate the effect playbacks for chase, content, image and dynamic effects.

NOTE that the command syntax for effects is different when operating in At Mode. See [Effects - Command Syntax](#).

- [EFFECT] - Open the Live Effects tab.
- [#] [EFFECT] - Select effect playback #.
- [INSERT] & [EFFECT] - Insert a new effect playback.
- [#] [EFFECT] & [CH] - Select all channels in effect #.
- [EFFECT] & [ALL] - Select all effects over zero %.

For more information see [Effects](#).

Keyboard equivalent: [E]

Console Key - EFFECT OVERVI

The EFFECT OVERVI soft key in the EFFECTS soft key menu, is used to open the Effects Overview tab with a summary of all data available to use for effects.

- [EFFECT OVERVI] - Opens the Effects Overview tab.

For more information see [Effect Overview](#)

There is no keyboard equivalent

Console Key - ESC (6.3)

The ESC key is used to close and exit all tabs and dialogues.

- [ESC] - Exit the current dialogue.
- [ESC] - Close the currently selected tab.
- [ESC] & [C/ALT] - Lock/Unlock the console (6.3).

For more information see [Navigating The Tabs](#).

Keyboard equivalent: [ESC]

Console Key - FAN

The FAN key is used to fan (distribute around a centre point) attributes and times. The distribution can be set to U, V and S shape in the Fan Settings.

- [FAN] & [level wheel] - Select devices, use NEXT/LAST to set the centre point. Then hold FAN and move the wheel of the parameter you wish to fan. Attribute times are fanned with a wizard that opens when you select an attribute time or delay in an attribute view and press WIZARD.

For more information see [Device Control - Fan](#), [Device Times - Fan Times](#).

Keyboard equivalent: [CTRL] & [F]

Console Key - FCB DELAY

The FCB DELAY soft key in the Times soft key page, is used to set a delay time to FCB for the moving device channels.

- [#] [FCB_Delay] - Sets the FCB times to # for the moving device channels, in the A or B field of the main playback depending on the settings for times.

For more information see [Sequence Times - FCB Times](#).

There is no keyboard equivalent

Console Key - FCB TIME

The FCB TIME soft key in the Times soft key page, is used to set a time to FCB for the moving device channels.

- [#] [FCB_Time] - Sets the FCB times to # for the moving device channels, in the A or B field of the main playback depending on the settings for times.

For more information see [Sequence Times - FCB Times](#).

There is no keyboard equivalent

Console Key - FLASH

The lower row of masters in the Congo console and the large fader wing of the Congo Jr are equipped with two keys per master. The top key is the master key used to load content, and the lower key is a flash key. The flash key can be set to different modes and levels.

- [Flash key] - Flash the content of a master.
- [SETUP] & [flash key] - Open settings for a master.
- [#] [FLASH MODE] & [flash key] - Set a flash level for a master.

For more information see [Master Playbacks - Flash Keys](#).

There is no keyboard equivalent

Console Key - FLASH MODE (6.2)

The lower row of masters in the Congo console and the Congo Jr Master Playback Wing, the Universal wings and Congo Kid masters are equipped with two keys per master. The top key is the master key used to load content, and the lower key is a flash key. The flash key can be set to different modes and levels.

- [FLASH MODE] (held) - Shows master settings in console display, use page +/- to step through and press the Master Key to toggle settings.
- [#] [FLASH MODE] & [flash key] - Set a flash level for a master.
- [C/ALT] & [FLASH MODE] - Disable flash mode (toggles)

For more information see [Master Playbacks - Flash Keys](#).

Keyboard equivalent: [F]

Console Key - FLIP

The FLIP key will flip the pan and tilt values of the selected moving devices.

- [FLIP] - Flips pan and tilt.

For more information see [Device Control - Flip](#).

Keyboard equivalent: None

Console Key - FOCUS

This key is used to record and recall Focus palettes for moving devices.

- [RECORD] & [FOCUS] - Record the next free palette for the currently selected devices.
- [#] [RECORD] & [FOCUS] - Record a new palette for the currently selected devices.
- [#] [FOCUS] - Recall a recorded palette for the currently selected devices.
- [MODIFY] & [FOCUS] - Open the Focus palette list.
- Hold [FOCUS] - When FOCUS is held, all existing palettes 1-40 can be accessed from the direct select keys.

For more information see [Devices - Palettes](#), [See Record A Focus Palette](#), [Device Palettes - Direct Mode](#).

Keyboard equivalent: [ALT] & [F]

Console Key - FOCUS MODE

The Focus Mode soft key in the Device Soft key page is used activate a specific focus mode for quickly adjusting palettes.

- [FOCUS_MODE] - Enters Focus mode.

For more information see [Device Palettes - Focusing Mode](#).

There is no keyboard equivalent.

Console Key - FORMAT

The FORMAT key is a vital part of controlling what is shown in all views except spreadsheets (lists). It is used a lot in combination with the arrow keys, and the level wheel.

- [FORMAT] - Change channel sorting (all channels, non-zero channels etc) for the current channel view.
- [FORMAT] & [level wheel] - Zoom in channel and attribute views.
- [FORMAT] & [up/down arrows] - Compress/expand information in a view.

For more information see [Navigating - Channel Views](#).

Keyboard equivalent: [F4]

Console Key - GO

The GO key starts the next crossfade in the Main Playback.

- [GO] - Start a crossfade in the Main Playback. Press GO during an ongoing crossfade in the Main Playback to start the next one.
- [SETUP] & [GO] - Change default times and crossfade settings.

For more information see [Main Playback - Transport Keys](#).

Keyboard equivalent: [CTRL] & [G]

Console Key - GO (Master Playback)

This GO key in the Master Playback starts the next crossfade in the master/sequence connected to the Master Playback.

- [GO] - Start a crossfade in the connected master. Press GO during an ongoing crossfade in the connected master to start the next one.

For more information see [Master Playback - Playback Keys](#).

There is no keyboard equivalent

Console Key - GO BACK

The GO BACK key starts a crossfade to the previous sequence step in the Main Playback.

- [GO BACK] - Start a crossfade to the previous sequence step in the Main Playback. Press GO BACK during an ongoing crossfade to reverse it.
- [SETUP] & [GO BACK] - Change default times.

For more information see [Main Playback - Transport Keys](#).

Keyboard equivalent: [CTRL] & [B]

Console Key - GO BACK (Master Playback)

The GO BACK key starts a crossfade to the previous sequence step in the master/sequence connected to the Master Playback.

- [GO BACK] - Start a crossfade to the previous sequence step in the connected master. Press GO BACK during an ongoing crossfade to reverse it.

For more information see [Master Playback - Playback Keys](#).

No keyboard equivalent

Console Key - GOTO

The GOTO key is used to crossfade into any existing preset in the Main Playback.

- [#] [GOTO] - Start a crossfade to that preset. If the preset exists in the current sequence, the step times will be used.
- [SETUP] & [GOTO] - Change settings.

For more information see [Main Playback - Transport Keys](#) and [The GOTO List](#).

Keyboard equivalent: [CTRL] & [G]

Console Key - GROUP

The GROUP key is used to store and recall channel selections stored into Groups. NOTE that the command syntax for selecting groups is different when operating in At Mode. See [Groups - Select channels](#).

- [RECORD] & [GROUP] - Record the currently selected channels and levels into the next free group.
- [#] [RECORD] & [GROUP] - Record the currently selected channels and levels to that group.
- [#] [GROUP] - Select the channels of that group.
- [#] [GROUP] & [level wheel] - Fade the channels of that group in proportionally.
- [GROUP], or [MODIFY] & [GROUP] - Open the Group List.

For more information see [Groups - Select Channels](#).

Keyboard equivalent: [ALT] & [G]

Console Key - GROUP WHEEL MODE

GROUP WHEEL MODE is a soft key in the Channels menu of the console main display. In Group Wheel Mode you can assign a channel group to each wheel under the Main Display

- [GROUP WHEEL MODE] - Activate Group Wheel Mode.

For more information see [Channels - Group Wheel Mode](#).

There is no keyboard equivalent

Console Key - HIGHLIGHT

The HIGHLIGHT key will activate highlight mode for the currently selected devices.

- [HIGHLIGHT] - Toggles Highlight mode.

For more information see [Device Control - Highlight Mode](#).

Keyboard equivalent: [CTRL] & [H]

Console Key - HOME ATTRIB

The HOME ATTRIB key will set all or some parameters for the currently selected devices to their default home position. The home position can be re-recorded at any time.

- [HOME ATTRIB] [HOME ATTRIB] - Home all parameters for the selected devices.
- [HOME ATTRIB] & [FOCUS, COLOR, BEAM] - Home these parameters.
- [HOME ATTRIB] & [wheel parameter key] - Home only this parameter.
- [RECORD] & [HOME ATTRIB] - Record the current values as the new HOME position for the selected devices.
- [C/ALT] & [HOME ATTRIB] - Home all parameters for all devices.
- [C/ALT] & [HOME ATTRIB] [HOME ATTRIB] - Home all parameters for all devices and set intensities to zero.

For more information see [Device Control - Home positioning](#).

Keyboard equivalent: [F5]

Console Key - IN

The IN key is used to set In times to the sequence step in the A or B field of the Main Playback (depending on the Time Settings).

- [#] [IN] - Set an in time.
- [#] [DELAY] & [IN] - Set a Delay In time.

For more information see [Sequences - Times](#), [Sequence Times - Set To A or B](#)

Keyboard equivalent: [CTRL] & [I]

Console Key - INDEPENDENTS 7,8,9

The three keys and potentiometers in the Independents area of the consoles are used to control lights outside the main functionality of the console - for example houselights or worklights. They can operate in three modes: Inclusive, Inhibit and Exclusive.

- [SETUP] & [independent key] - Open the settings.
- [SETUP] & [independent pot] - Hold SETUP, then move and let go of an independent potentiometer to open the settings.

For more information see [Independents](#).

There is no keyboard equivalent

Console Key - INSERT

The INSERT key is used to insert new data in a list. In some lists a number is required, in some not. A new item is usually inserted after the current item.

- [INSERT] - Insert a new item in a list.
- [#] [INSERT] - Insert a new item with this number in a list.

For more information see [Editing In Lists](#).

Keyboard equivalent: [INS]

Console Key - INV GROUP

The INV GROUP key is used to invert the current channel selection and select all other channels with a level over 0% in a channel view.

- [INV GROUP] - Invert the current channel selection.

For more information see [Select Channels](#).

Keyboard equivalent: [SHIFT] & [/]

Console Key - JUMP TO B

The JUMP TO B key is used to reposition the sequence in the main playback blindly to continue from a different sequence step.

- [#] [JUMP TO B] - Enter the number of a preset or sequence step (depending on the settings for this function) and press JUMP TO B to move that item to the B field of the Main Playback.

For more information see [Main Playback - Transport Keys](#), [Crossfade Settings](#).

Keyboard equivalent: [SHIFT] & [/]

Console Key - LAST

The LAST key is used to select the previous channel within the current channel selection. This is useful for adjusting single moving devices within a selection, and also for selecting a specific device as reference point for the Fan and Align functions.

- [LAST] - Press LAST with more than one channel selected to activate Next/Last mode. Press SELECT ALL to exit.

For more information see [Device Control - Next & Last Mode](#).

Keyboard equivalent: [L]

Console Key - LEARN ALERT

LEARN ALERT is a soft key in the TIMES >LEARN soft key menu of the console main display. It is used to activate Learn Alert mode in which alert times are auto-stored when a sequence is played back.

- [LEARN ALERT] - toggles learn alert mode.

For more information see [Sequence Times - WFA Alert Times](#).

There is no keyboard equivalent.

Console Key - LEARN MACRO

The LEARN MACRO soft key in the Misc soft key page, is used to record Macros.

- [#] [Learn_Macro] - Starts recording a new macro, click with mouse in top right corner of the screen on "Recording Macro" to stop.

For more information see [Macros - Record & Playback](#).

There is no keyboard equivalent

Console Key - LEARN PROFILE (6.0)

LEARN PROFILE is a soft key in the TIMES soft key menu of the console main display. It is used to activate Learn Profile mode in which the actual fader movement is stored during a manual crossfade in the main playback.

- [LEARN PROFILE] - activates learn profile mode.

For more information see [Sequences - Crossfade Profiles \(6.0\)](#)

There is no keyboard equivalent.

Console Key - LEFT

The Left key, in the big Congo only, is the left mouse key of the trackball.

- [LEFT] - Activate a mouse click in cursor mode (red).

For more information see [Facepanel - Trackball](#).

Keyboard equivalent: [Mouse left key]

Console Key - LIVE

The LIVE key is fundamental. It selects the Live tab and sets the channel control to the live output, through the A field of the Main Playback.

- [LIVE] - Select the Live tab.
- [LIVE] & [BLIND] - Move the channel levels from LIVE to BLIND.
- [C/ALT] & [LIVE] - Bring all channel levels from Live (A) to zero.
- [C/ALT] & [LIVE] [LIVE] - First press of LIVE takes out A, second press takes out Masters.

For more information see [Live](#).

Keyboard equivalent: [F2]

Console Key - LOAD (6.3)

The LOAD key activates items in the Browser, like Groups, Palettes & Effects.

- [LOAD] - Select an object in the Browser and press LOAD to activate.
- [LOAD] - Select an object in a list and open in the Organizer (6.3)
- [LOAD] & [SEQ] - Open Sequences in Organizer (6.3)
- [LOAD] & [PRESET] - Open Presets in Organizer (6.3)
- [LOAD] & [GROUP] - Open Groups in Organizer (6.3)
- [LOAD] & [FOCUS] - Open Focus Palettes in Organizer (6.3)
- [LOAD] & [COLOR] - Open Color Palettes in Organizer (6.3)
- [LOAD] & [BEAM] - Open Beam Palettes in Organizer (6.3)
- [LOAD] & [PALETTE] - Open All Palettes in Organizer (6.3)

For more information see [Browser Functions](#) and [Organizer](#).

Keyboard equivalent: [F6]

Console Key - MACRO

The MACRO key in the MISC soft key page is used to activate macros.

- [#] [MACRO] - Enter the number of a macro and press MACRO to activate.

For more information see [Macro List](#).

There is no keyboard equivalent.

Console Key - MARK

MARK is a soft key in the CHANNELS menu of the console main display. It is used to set a "mark" level (less than 1%) to the selected device(s) to enforce a move command without having intensities.

- [MARK] - Sets a mark intensity level to the selected device(s).

For more information see [Active Mode & Mark](#).

There is no keyboard equivalent.

Console Key - MASK

The MASK key is used in combination with other keys to toggle the mask functions that mask device parameters from recording.

- [MASK] - Activate the mask.
- [MASK] & [FOCUS, COLOR, BEAM] - Toggle these parameter groups on/off.
- [MASK] & [wheel parameter key] - Toggle this specific parameter on/off.
- [MODIFY] & [MASK] - Open the Mask editor.
- [RECORD] & [MASK] - Records the next free user mask
- [#] [RECORD] & [MASK] - Records user mask #
- [#] & [MASK] - Recalls the settings of Mask # to the global mask
- [MASK] & [Master_key] - Assign global mask to a master.

For more information see [Device Control - Mask](#).

Keyboard equivalent: [K]

Console Key - MASTER KEYS

Every master has a master key that is used to load content to the master, and for some settings.

- [#] [PRESET] & [master key] - Load this content to master #.
- [#] [GROUP] & [master key] - Load this content to master #.
- [#] [CH] & [master key] - Load this content to master #.
- [#] [SEQ] & [master key] - Load this content to master #.
- [#] [FOCUS] & [master key] - Load this content to master #.
- [#] [COLOR] & [master key] - Load this content to master #.
- [#] [BEAM] & [master key] - Load this content to master #.
- [#] [PALETTE] & [master key] - Load this content to master #.
- [C/ALT] & [master key] - Clear the contents of that master (with the exception of console key functions).
- [MODIFY] & [master key] - Open the master editor.
- [SETUP] & [master key] - Opens the master settings.
- [master key] - Select the channels in the group or preset loaded to that master.

For more information see [Master Playbacks - Load/Clear/Modify](#).

Keyboard equivalent: [1]-[9] and [0] over the letter keys correspond to master keys 1-10

Console Key - MASTER

The MASTER key is used to open the Master List editor where you can see and control the master fields.

- [MASTER] - Open the Master view. When the Master view is open, you can enter a number and press MASTER to control that master with the level wheel.
- [SETUP] & [MASTER] - Opens settings for this key.
- [MODIFY] & [MASTER] - Opens the master list.

For more information see [Master View - Select And Set Levels](#).

Keyboard equivalent: [ALT] & [M]

Console Key - MINUS

The MINUS key (-) is part of the channel select keys. It is used to subtract a channel from the current selection. It is also used for the Channel Check function.

- [#] [-] - Deselect the channel,(if the console is set to operate in At Mode press MINUS and then enter the number).
- [C/ALT] & [-] - Make a channel check to the previous channel with the current level.
- Hold [-] & [master key] - Subtract the channels in that master from the current selection.
- [#] [GROUP] & [-] - Subtract the channels in that Group from the current selection
- [#] [PRESET] & [-] - Subtract the channels in that Preset from the current selection

For more information see [Select Channels](#).

Keyboard equivalent: [CTRL] & [<]

Console Key - MINUS PERCENT (-%)

The MINUS PERCENT key (-%) is part of the channel level keys. It is used to subtract 5% (default) from the current selection. It is also used for setting a selection to zero in combination with the C/ALT key.

- [-%] - Subtract 5% from the current channel selection..
- [#] [-%] - Select a channel and subtract 5%.
- [C/ALT] & [-%] - Flash the current selection to 0% (master content will not be affected).
- [#] [.] & [-%] - Subtract that level from the current channel selection.
- [SETUP] & [-%] - Change the default level.

For more information see [Set Channel levels](#).

Keyboard equivalent: [CTRL] & [MINUS]

Console Key - MODIFY

The MODIFY key is central for a lot of functions. It is both the equivalent of an ENTER key and part of a syntax in combination with other keys.

- [MODIFY] - Answer dialogues, activate choices, enter numbers, open lists, activate text input in text cells.
- [MODIFY] & [PRESET] - Opens the Preset List.
- [MODIFY] & [GROUP] - Opens the Group List.
- [MODIFY] & [SEQ] - Opens the Sequences List.
- [MODIFY] & [DYN EFFECT] - Opens the Effect List.
- [MODIFY] & [FOCUS] - Opens the Focus Palette List.
- [MODIFY] & [COLOR] - Opens the Color Palette List.
- [MODIFY] & [BEAM] - Opens the Beam Palette List.
- [MODIFY] & [PALETTE] - Opens the All Palette List.
- [MODIFY] & [U1-U3] - Opens the Wheel Parameter Lists.
- [MODIFY] & [PARK] - Opens the Park List.
- [MODIFY] & [NOTE] - Opens the Notes List.
- [MODIFY] & [master key] - Opens the Master Editor.

This key is so fundamental it is described everywhere in this manual.

Keyboard equivalent: [ENTER]

Console Key - MODIFY SEQ

The MODIFY SEQ key is a soft key in the MISC menu of the main display. It is used to toggle the Modify Sequence mode on or off (default). When Modify Sequence is on, you can advance the sequence in the main playback without triggering auto times or wait times and master links.

- [MODIFY SEQ] - Toggle this mode on/off.

For more information see [Sequences - Build & Modify Modes](#).

There is no keyboard equivalent

Console Key - MUTE

The MUTE key is used to inhibit the output of a Master Playback.

- [MUTE] & [master key] - Temporarily mutes the output of that master playback.

For more information see [Mute & Solo - Mute](#).

Keyboard equivalent: None

Console Key - NEXT

The NEXT key is used to select the next channel within the current channel selection. This is useful for adjusting single moving devices within a selection, and also for selecting a specific device as reference point for the Fan and Align functions.

- [NEXT] - Press NEXT with more than one channel selected to activate Next/Last mode. Press SELECT ALL to exit.

For more information see [Device Control - Next & Last Mode](#).

Keyboard equivalent: [N]

Console Key - NOTE

The NOTE key is used to set a note for the selected item in some lists and the Playback view. It can also be used to store favorites for the HELP system.

- [NOTE] - Press NOTE in a list or the playback view to set a note to the selected item.
- [NOTE] - Press NOTE in the help system to create a favorite.
- [MODIFY] & [NOTE] - Opens the Notes list.

For more information see [Notes Editor](#).

Keyboard equivalent: none

Console Key - Numerical Keypad

The numerical keypad is where numbers are input. This is also where you have the decimal point, and the C/ALT key (clear numerical entry). The C/ALT key is also a prefix key for clearing Playbacks, and for some console Macros.

NOTE that in an alphanumeric keyboard, the number keys 1-9 and 0 over the keys are master keys, and cannot be used to enter numbers. In a notebook computer the numerical keypad is integrated into the alphanumeric keyboard, and you have to activate the NUM LOCK function to access it.

Keyboard equivalent: [Numerical keypad]

Console Key - ON/FETCH

The ON/FETCH key is used to set channels on at the last used level, and to fetch levels for intensities or attributes for the selected channels from any presets.

- [ON/FETCH] - Set the last recorded level to the current channel selection.
- [ON/FETCH]&[@LEVEL] - Revert (undo) changes to channel level.
- [#] [ON/FETCH] - Fetch the level from Preset # to the current channel selection.
- [#] [ON/FETCH] & [ATTRIB] - fetch attribute information from Preset # to the current channel selection.
- [#] [ON/FETCH] & [parameter key] - fetch attribute information from Preset # to the current channel selection.

For more information see [Presets - Fetch Intensities](#), [Device Control - Fetch/Copy](#).

Keyboard equivalent: [CTRL] & [+]

Console Key - OUT

The OUT key is used to set Out times to the sequence step in the A or B field of the Main Playback (depending on the Time Settings).

- [#] [OUT] - Set an in time.
- [#] [DELAY] & [OUT] - Set a Delay Out time.

For more information see [Sequences - Times](#), [Sequence Times - Set To A or B](#).

Keyboard equivalent: [CTRL] & [U]

Console Key - OUTPUT

The OUTPUT key is used to select outputs directly, regardless if they are patched or not. It will open the Output editor where it is possible to patch by channel or output.

- [#] [OUTPUT] - Open the Output editor, and select that output. Use the level wheel to set a level.
- [MODIFY] & [OUTPUT] - Open the Output editor with no output selected.

For more information see [Patch - Output Editor](#).

Keyboard equivalent: [O]

Console Key - PAGE

The PAGE key is used to load a page of 20 masters to a master row.

- [#] [PAGE] - Load this page.
- [C/ALT] & [PAGE] - Clear the masters.

For more information see [Master Pages](#).

Keyboard equivalent: [M] (upper row) [CTRL] & [M] (lower row)

Console Key - Page+

The PAGE+ key is used to load the next page of 20 masters to a master row.

- [PAGE+] - Load the next page.

For more information see [Master Pages](#).

There is no keyboard equivalent.

Console Key - Page-

The PAGE- key is used to load the previous page of 20 masters to a master row.

- [PAGE-] - Load the previous page.

For more information see [Master Pages](#).

There is no keyboard equivalent.

Console Key - PAUSE

The PAUSE key is used to pause an ongoing crossfade in the Main Playback.

- [PAUSE] - Pauses the ongoing crossfade (intensities and attributes) in the main playback.

For more information see [Main Playback - Transport Keys](#).

Keyboard equivalent: [CTRL] & [P]

Console Key - PAUSE (in Master Playback)

The PAUSE key is used to pause an ongoing crossfade in the Master Playback.

- [PAUSE] - Pauses the ongoing crossfade in the connected master playback.

For more information see [Master Playback - Playback Keys](#).

There is no keyboard equivalent

Console Key - PALETTE (Alt P)

The PALETTE key is used for recording and recalling All Palettes, containing information from all parameters in a device.

- [RECORD] & [PALETTE] - Record the next free palette for the currently selected devices.
- [#] [RECORD] & [PALETTE] - Record a new palette for the currently selected devices.
- [#] [PALETTE] - Recall a recorded palette for the currently selected devices.
- [MODIFY] & [PALETTE] - Open the All palette list.
- Hold [PALETTE] - When PALETTE is held, all existing palettes 1-40 can be accessed from the direct select keys.

For more information see [Devices - Palettes](#), [Record An All Palette](#), [Device Palettes - Direct Mode](#).

Keyboard equivalent: [ALT] & [P]

Console Key - PARAMETER

The PARAMETER key in the big Congo console is used to set the trackball to Parameter mode, controlling pan & tilt.

- [PARAMETER] - Set the trackball to parameter mode. Trackball will be blue.

For more information see [Facepanel - Trackball](#).

There is no keyboard equivalent

Console Key - PARK

The PARK key is used to park a channel or part of a channel.

- [PARK] & [CH] - Parks intensity and attributes of the selected channel(s).
- [PARK] & [@LEVEL] - Parks intensity of the selected channel(s).
- [PARK] & [ATTRIB] - Parks attributes of the selected channel(s).
- [PARK] & [FOCUS] - Parks focus attributes of the selected channel(s).
- [PARK] & [COLOR] - Parks color attributes of the selected channel(s).
- [PARK] & [BEAM] - Parks beam attributes of the selected channel(s).
- [PARK] & [Wheel_Key] - Parks the attribute of the selected channel(s).
- [MODIFY] & [PARK] - Opens the Park list

For more information see [Park - Parked values](#).

Keyboard equivalent: None

Console Key - PASTE

The PASTE key is used to paste information that has been copied or cut. Information that can be copied, cut and pasted is Text, Sequence Steps (Sequence List), Groups (Group List), Presets (Preset List), Device Templates (Device Template List) and Attributes in the Preset List.

- [PASTE] - Paste the last copied or cut object. In the Preset List a numerical argument is needed first.

For more information see [Copy, Cut & Paste](#).

Keyboard equivalent: [CTRL] & [V]

Console Key - PLAYBACK

The PLAYBACK key selects the Playback tab and sets the channel control to the live output, through the A field of the Main Playback.

- [PLAYBACK] - Select the Playback tab.
- [#] [SEQ] & [PLAYBACK] - Load a sequence to the Main Playback.
- [C/ALT] & [PLAYBACK] - Bring all channel levels from the Playback (A and B) to zero.

For more information see [Live](#).

Keyboard equivalent: [X]

Console Key - PLAYLIST

The PLAYLIST key is used to activate the Playlist for the Main Playback.

- [PLAYLIST] - toggles the Playlist on/off.

For more information see [Playlist](#).

Keyboard equivalent: None

Console Key - PLUS

The PLUS key (+) is part of the channel select keys. It is used to add a channel to the current selection. It is also used for the Channel Check function.

- [#] [+] - Add the channel to the current selection, (if the console is set to operate in At Mode press MINUS and then enter the number).
- [C/ALT] & [+] - Make a channel check to the next channel with the current level.
- Hold [+] & [master key] - Add the channels in that master from the current selection.
- [#] [GROUP] & [+] - Add the channels in that Group from the current selection
- [#] [PRESET] & [+] - Add the channels in that Preset from the current selection

For more information see [Select Channels](#).

Keyboard equivalent: [CTRL] & [>]

Console Key - PLUS PERCENT (+%)

The PLUS PERCENT key (+%) is part of the channel level keys. It is used to add 5% (default) from the current selection. It is also used for setting a selection to full in combination with the C/ALT key.

- [+%] - Add 5% from the current channel selection..
- [#] [+%] - Select a channel and add 5%.
- [C/ALT] & [+%] - Flash the current selection to 100% (master content will not be affected).
- [#] [.] & [+%] - Add that level from the current channel selection.
- [SETUP] & [+%] - Change the default level.

For more information see [Set Channel levels](#).

Keyboard equivalent: [CTRL] & [UP]

Console Key - PRESET

The PRESET key is used to store and recall channel levels and moving device attributes. Presets are fundamental building blocks and can be played back in masters, in sequences and randomly in the main playback using GOTO. Every Sequence Step uses a Preset to hold the level and attribute information for that step. The same Preset can be repeated any number of times in any playback or sequence.

IMPORTANT: For moving devices there are different recording modes. All, Active or Changed. This will decide what is stored in a preset. Also, there is a difference between recording to the main playback and to a master.

- [PRESET] - Open the Preset list.
- [#] [PRESET] - Select the channels in Preset #.
- [#] [PRESET] & [CH/ID] - Select the channels and levels in Preset #.
- [#] [PRESET] & [master key] - Load preset # to that master.

For more information see [Presets - Load To Playbacks](#).

Keyboard equivalent: [P]

Console Key - PRINT SCREEN

The PRINT SCREEN key is used to Print the selected Tab.

- [PRINT SCREEN] - Prints the selected tab to a jpg file in the Printout node of the Browser >Files >Print... >Printouts.

For more information see [Print](#).

Keyboard equivalent: None

Console Key - RANDOM

The RANDOM key in the Selects Soft key page allows you to randomize the order of the channels within the current selection.

- [RANDOM] & [SELECT_2nd] - Selects every 2nd random channel
- [RANDOM] & [SELECT_3rd] - Selects every 3rd random channel
- [RANDOM] & [SELECT_Nth] - Selects every Nth random channel

For more information see [Channels - Random Select](#).

There is no keyboard equivalent.

Console Key - REM DIM

The REM DIM key is part of the channel select and level keys. It is used to set all channels in the A field to zero except the current selection. It can be set to perform the BALANCE function as well which holds the cleared levels in a temporary memory bank.

- [REM DIM] - Set all channels except the current selection to zero.
- [SETUP] & [REM DIM] - Opens settings for this key.

If set to Balance Mode:

Press REM DIM to activate Balance mode and set all channels except the current selection to zero. Press REM DIM again to bring them back at their previous levels.

For more information see [Channels - Rem Dim](#), [Channels - Balance Mode](#).

There is no keyboard equivalent

Console Key - RECORD

The RECORD key is fundamental in that it is used for recording all types of data into Presets, Groups and Palettes. What is recorded depends on your Settings, where you are recording, and what your record target is.

In Live:

- [RECORD] - Opens the recording dialogue to record the current look on stage into the next free Preset.
- [#] [RECORD] - Opens the recording dialogue to record the current look on stage into that Preset..
- [RECORD] [ATTRIB] - Record all attributes for the currently selected channels to the Preset in the A field of the main playback.
- [#] [RECORD] & [ATTRIB] - Record all attributes for the currently selected channels to Preset #.
- [RECORD] & [FOCUS, COLOR, BEAM or PALETTE] - Record the next free palette for the currently selected channels.
- [#] [RECORD] & [FOCUS, COLOR, BEAM or PALETTE] - Record palette # for the currently selected channels.
- [RECORD] & [CH] - Record all attributes and levels for the currently selected channels.
- [#] [RECORD] & [CH] - Record all attributes and levels for the currently selected channels to Preset #.

Anywhere:

- [RECORD] & [master key] - Record all data for the currently selected channels to that master as the next free 800-Preset.
- [#] [RECORD] & [master key] - Record all data for the currently selected channels to that master as Preset #.
- [RECORD] & [GROUP] - Record the currently selected channels as the next free Group.
- [#] [RECORD] & [GROUP] - Record the currently selected channels as Group #.

For more information see [Presets - Record](#), [Device - Recording](#), [Groups - Record](#), [Device Palettes - Record](#).

Keyboard equivalent: [R]

Console Key - REFRESH

The REFRESH key is used to refresh channels that have been manually adjusted since the last crossfade in the main playback back to the intensity and parameter values of the previous crossfade.

- [REFRESH] - Refresh the content in A to the last crossfaded levels.
- [REFRESH] & [@LEVEL] - Refresh intensities only.
- [REFRESH] & [FOCUS, COLOR, BEAM] - Refresh these values only.
- [REFRESH] & [ATTRIB] - Refresh all parameter values.
- [REFRESH] & [CH] - Refresh all intensities and parameter values

For more information see [Main Playback - Refresh Functions](#).

Keyboard equivalent: [CTRL] & [Y]

Console Key - RELEASE

The RELEASE key is used to release channels that have been Captured. Captured channels are indicated with a red background in the channel views..

- [RELEASE] - Release the currently selected channels.
- [RELEASE] [RELEASE] - Release all captured channels.

For more information see [Channels - Capture Mode](#).

Keyboard equivalent: [CTRL] & [R]

Console Key - RIGHT (DispSel)

The Right key, in the big Congo only, is the right mouse key of the trackball.

- [RIGHT] - Activate a mouse right click in cursor mode (red).

For more information see [Facepanel - Trackball](#).

Keyboard equivalent: [Mouse right key]

Console Key - SCALE (6.0)

SCALE is a soft key in the CHANNELS menu of the console main display. It is used to scale the output level of the selected channel(s)

- [SCALE] (held) - activates temporary scale mode.
- [MODIFY] & [SCALE] - activates scale mode.

For more information see [Channels - Scale channel levels \(6.0\)](#).

There is no keyboard equivalent.

Console Key - SELECT

The SELECT key is used to select more than one cell for editing in spreadsheet views.

- [SELECT] & [down/right arrow keys] - Select multiple cells.

For more information see [Navigating - Lists](#).

Keyboard equivalent: [SHIFT]

Console Key - SELECT 2ND

The SELECT 2ND key in the Selects Soft key page allows you select every 2nd channel within the current selection.

- [SELECT_2nd] - Selects every 2nd channel
- [RANDOM] & [SELECT_2nd] - Selects every 2nd random channel

For more information see [Shortcuts - Select Nth Functions](#).

There is no keyboard equivalent.

Console Key - SELECT 3RD

The SELECT 3RD key in the Selects Soft key page allows you select every 3rd channel within the current selection.

- [SELECT_3rd] - Selects every 3rd random channel

For more information see [Shortcuts - Select Nth Functions](#).

There is no keyboard equivalent.

Console Key - SELECT ALL

The SELECT ALL key is used to return to the current channel selection after using NEXT or LAST.

- [SELECT ALL] - Reselects all channels after using NEXT or LAST.

For more information see [Device Control - Next & Last Mode](#).

Keyboard equivalent: [F7], [CTRL] & [N] or [CTRL] & [L]

Console Key - SELECT CHANGE

The SELECT CHANGE key in the Select soft key page is used to select all device channels that have manually changed attributes other than intensity since the current Preset was loaded to the A field..

- [Select_Change] - Selects all changed device channels.

For more information see [Select - Change \(softkey\)](#).

Keyboard equivalent: None

Console Key - SELECT NTH

The SELECT NTH key in the Selects Soft key page allows you select every Nth channel within the current selection.

- [#] [SELECT_NTH] - Selects every NTH random channel

For more information see [Shortcuts - Select Nth Functions](#).

There is no keyboard equivalent.

Console Key - SERIES

The SERIES soft key in the EFFECTS soft key menu, is used to open the Series editor for Content effects.

- [SERIES] - Opens the SERIES editor.

For more information see [Content Effects](#)

There is no keyboard equivalent

Console Key - SETUP

The SETUP key is used to open the system settings summary tab, or in combination with keys to open the settings for that key.

- [SETUP] - Open system settings.
- Hold [SETUP] and press a key to open the settings for that key (RECORD, GO, CH etc).

For more information see [System Settings](#).

Keyboard equivalent: [F11]

Console Key - SET CHANGED

SET CHANGED is a soft key in the DEVICE menu of the console main display. It is used together with the attribute record setting "Changed" to force the Set Changed flag on parameters that have not been changed, so they will be recorded.

- [SET CHANGED] & [PALETTE] - Set all parameters for the selected channels to changed.
- [SET CHANGED] & [FOCUS] - Set Focus parameters for the selected channels to changed.
- [SET CHANGED] & [COLOR] - Set Colorparameters for the selected channels to changed.
- [SET CHANGED] & [BEAM] - Set Beam parameters for the selected channels to changed.
- [SET CHANGED] & [wheel parameter key] - Set this parameter for the selected channels to changed.

For more information see [Devices - Recording](#).

There is no keyboard equivalent.

Console Key - SEQ

The SEQ key is used to load and administrate Sequences and Chases.

- [SEQ] - Open the Sequences list.
- [#] [SEQ] - Open that Sequence editor.
- [#] [MODIFY] [SEQ] - Open that Sequence editor.
- [#] [SEQ] [PLAYBACK] - Load Sequence # to the main playback.
- [#] [SEQ] [master key] - Load Sequence # to the master.

For more information see [Sequences - List](#), [Sequences - Sequence List](#), [Sequences - Load](#).

Keyboard equivalent: [S]

Console Key - SEQ +

The SEQ + key is used to step to the next step in the sequence of the main playback, without using times.

- [SEQ +] - Step to the next step.

For more information see [Main Playback - Transport Keys](#).

Keyboard equivalent: [X] & [down arrow]

Console Key - >> (Master Playback)

The >> key in the master playback is used to step to the next step in the connected sequence, without using times.

- [>>] - Step to the next step.

For more information see [Main Playback - Transport Keys](#).

There is no keyboard equivalent

Console Key - SEQ -

The SEQ - key is used to step to the previous step in the sequence of the main playback, without using times.

- [SEQ -] - Step to the previous step.

For more information see [Main Playback - Transport Keys](#).

Keyboard equivalent: [X] & [up arrow]

Console Key - << (Master Playback)

The << key in the master playback is used to step to the previous step in the connected sequence, without using times.

- [<<] - Step to the previous step.

For more information see [Main Playback - Transport Keys](#).

There is no keyboard equivalent

Console Key - SOLO

The SOLO key is used to solo the output of a playback, temporarily muting the rest.

- [SOLO] & [PLAYBACK] - Toggles solo mode for the main playback.
- [SOLO] & [MasterKey] - Toggles solo mode for a master playback.

For more information see [Mute & Solo - Solo](#).

Keyboard equivalent: None

Console Key - START

The START key is used to start fades in any master playback.

- [#] [START] - Fade master # to full.
- [#] [START] & [master key] - Fade to this level.
- [START] & [master key] - Fade this master to full or zero.

For more information see [Master Playbacks - Start Fades](#).

There is no keyboard equivalent

Console Key - TAB

The TAB key is a fundamental part of the Congo navigation. All views are opened in tabs, and the tab key is used to select, move, organize and record these.

- [TAB] - Step between all open tabs.
- [#] [TAB] - Select this tab.
- [TAB] & [down arrow] - Split the screen vertically, press again to split horizontally. Hold TAB and press the up arrow to exit the split.
- [TAB] & [right/left arrow] - Move the selected tab to the next screen.
- [TAB] & [level wheel] - Resize the lower part of a spreadsheet view.
- [SETUP] & [TAB] - Open a dialogue to park a tab so it can't be closed with ESC.
- [C/ALT] & [TAB] - Reset all Tabs to default (Live and Playback).

For more information see [Navigating - Tabs](#).

Keyboard equivalent: [TAB]

Console Key - TAP

The TAP key is used to set a tempo to an effect.

- [TAP] & [master key] [master key] - Hold [TAP] and press a [master key] twice to set a tempo to a chase in that master.

For more information see [Master Playback - Playback Keys](#).

There is no keyboard equivalent

Console Key - TEXT

The TEXT key is used to set text labels to items.

- [TEXT] - Open the text input for the sequence step in the A field of the main playback.
- [TEXT] & [master key] - Activate text input for the content for that master playback.
- [TEXT] & [direct select key] - Activate text input for the content for that direct select key.

For more information see [Entering Texts](#).

Keyboard equivalent: [ALT] & [T]

Console Key - THRU

The THRU key is used to select a range of channels, and in combination with other keys for additional channel functions.

- [#] [CH] [#] [THRU] - Select all channels between # and #.

NOTE

If you are operating in At Mode the syntax is "ch number - THRU - ch number".

For more information see [Select Channels](#).

Keyboard equivalent: [/]

Console Key - TIME

The TIME key is used to set In/Out times to the sequence step in the A or B field of the Main Playback (depending on the Time Settings).

- [#] [TIME] - Set an In/Out time to the next fade in the main playback.
- [#] [CH] & [TIME] - Set a channel time to the selected channel(s).
- [#] [TIME] & [FOCUS] - Set a parameter time.
- [#] [TIME] & [COLOR] - Set a parameter time.
- [#] [TIME] & [BEAM] - Set a parameter time.
- [#] [TIME] & [wheel parameter key] - Set a parameter time.
- [MODIFY] & [TIME] - Open the Time Editor for the step in A or B of the main playback. Enter a number to open for a specific sequence step.
- [TIME] & [A] - Forces the setting "Times to A"
- [TIME] & [B] - Forces the setting "Times to B"

For more information see [Sequences - Times](#), [Sequence Times - Set To A or B](#), [Master Playbacks - Times](#), [The Time Editor Popup](#).

Keyboard equivalent: [T]

Console Key - TRACK

The TRACK key is used to open the Track list for the selected channel(s). It is used in combination with RECORD and UPDATE for track recording.

- [TRACK] - Open the Track list for the selected channels. You can change the channel selection. Use FORMAT & FOCUS, COLOR, BEAM to open parameter columns.
- [TRACK] & [GROUP] - Track the current selection in all Groups.
- [TRACK] & [PRESET] - Track the current selection in all Presets.
- [TRACK] & [SEQ] - Track the current selection in all Sequences.
- [TRACK] & [PALETTE, FOCUS, COLOR, BEAM] - Track the current selection in all corresponding palettes.
- TRACK] & [CH] - Track the current selection in the whole show.

For more information see [Track List](#).

In the Browser and Organizer:

- [TRACK] - Tracks the selected preset or palette in the Sequence loaded to the Main Playback..

For more information see [Navigate - Browser](#) and [Organizer](#).

Keyboard equivalent: [F12]

Console Key - TYPE

The TYPE key is used to change type of data in the Direct Select key sections.

- Hold [TYPE] - When this key is held, you can use the direct select keys to select a type (Group, Focus, Color, Beam, Auto Group, Screens, etc) for each section of direct select keys.

For more information see [Direct Select - Content](#).

There is no keyboard equivalent.

Console Key - U1-U3

The U1-U3 soft keys in the EFFECTS soft key menu, and in the frontpanel of Congo, are used to select user parameters for the selected channels or effects.

- [U1-U3] - Selects this parameter set.
- [MODIFY] & [U1-U3] - Opens the parameter editor for U1-U3.
- [C/ALT] & [FOCUS - COLOR - BEAM] - selects U1-U3 in Congo Jr.

For more information see [Device Control - U1-U2-U3](#)

There is no keyboard equivalent

Console Key - UNPARK

UNPARK is a soft key under the MISC soft key menu of the main display. It is used to unpark a channel or part of a channel.

- [UNPARK] & [CH] - Unparks intensity and attributes of the selected channel(s).
- [UNPARK] & [@LEVEL] - Unparks intensity of the selected channel(s).
- [UNPARK] & [ATTRIB] - Unparks attributes of the selected channel(s).
- [UNPARK] & [FOCUS] - Unparks focus attributes of the selected channel(s).
- [UNPARK] & [COLOR] - Unparks color attributes of the selected channel(s).
- [UNPARK] & [BEAM] - Unparks beam attributes of the selected channel(s).
- [UNPARK] & [Wheel_Key] - Unparks the attribute of the selected channel(s).

For more information see [Park- Un-parking values.](#)

Keyboard equivalent: None

Console Key - UPDATE

The UPDATE key is used to quickly update Presets, Groups and Palettes without a numeric entry.

- [UPDATE] to open the update dialogue for the Preset loaded to the A field of the main playback.
- [UPDATE] & [direct select key] - Update a Palette or Group.
- [UPDATE] & [@LEVEL] - Open the intensity tracking dialogue.
- [UPDATE] & [ATTRIB] - Open the attributes tracking dialogue.

For more information see [Presets - Update](#), [Track - Track Editing](#).

Keyboard equivalent: [U]

Console Key - UPDATE PALETTE

The UPDATE PALETTE key is used to quickly update all currently active palettes for the selected channel(s).

- [UPDATE_PALETTE] - Updates all active palettes for the selected channel(s).

For more information see [Device Palettes - Update](#).

Keyboard equivalent: None

Console Key - WAIT

The WAIT soft key in the Times soft key menu, is used to set Wait times to the sequence step in the A or B field of the Main Playback (depending on the Time Settings).

- [#] [WAIT] - Set a Wait time.

For more information see [Sequences - Times](#), [Sequence Times - Set To A or B](#), [The Time Editor Popup](#).

There is no keyboard equivalent

Console Key - WIZARD

The WIZARD key is used to 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](#).

Keyboard equivalent: [W]

Soft Key Menu - Channels

The CHANNELS soft key, is used to open the Channels soft key page with channel tools.

- [Channels] - Opens the Channels soft key page.

For more information see [Channels - Soft key page](#).

There is no keyboard equivalent

Soft Key Menu - Device

The DEVICE soft key, is used to open the Device soft key page with device tools for control and editing.

- [Device] - Opens the Device soft key page.

For more information see [Devices - Functions](#).

There is no keyboard equivalent

Soft Key Menu - Effect

The EFFECT soft key, is used to open the Effect soft key page with tools for editing effects.

- [Effect] - Opens the Effect soft key page.

For more information see [Effect Soft Key Page](#).

There is no keyboard equivalent

Soft Key Menu - Learn

The LEARN soft key, is used to open the Learn soft key page with tools for learning times and fade profiles.

- [Learn] - Opens the Learn soft key page.

For more information see [The Times Soft Key Page](#).

There is no keyboard equivalent

Soft Key Menu - Misc

The Misc soft key, is used to open the Miscellaneous soft key page.

- [Misc] - Opens the Miscellaneous soft key page.

For more information see [Misc Soft Key Page](#).

There is no keyboard equivalent

Soft Key Menu - Select

The SELECT soft key, is used to open the Select soft key page with tools for selecting a subset of channels from the current selection.

- [Select] - Opens the Select soft key page.

For more information see [Select - Sub-selection Functions](#).

There is no keyboard equivalent

Soft Key Menu - Times

The Times soft key, is used to open the Times soft key page.

- [Times] - Opens the Times soft key page.

For more information see [Sequences - Times](#).

There is no keyboard equivalent

Soft Key Menu - Wheel Keys

The wheel keys are used together with parameter control on the wheels.

- [Wheel_Key] - toggles the parameter value 0/100%
- [#] [Wheel_Key] - sets a value to the parameter
- [Wheel_Key] & [Master_key] - assigns the parameter to the master key

For more information see [Moving Device Controls - Explanation](#).

There is no keyboard equivalent

Console Key Shortcuts

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](#)
- [Shortcuts - Devices To Home Position](#)
- [Shortcuts - Device Attribute Editors](#)
- [Shortcuts - Device Masking](#)
- [Shortcuts - Device Palette Recording](#)
- [Shortcuts - Device Palette Activating](#)
- [Shortcuts - Device Palette Specials](#)
- [Shortcuts - Device Palette Views](#)
- [Shortcuts - Device Palettes In Masters](#)
- [Shortcuts - Device Align & Fetch](#)
- [Shortcuts - Patch & Outputs](#)
- [Shortcuts - Main Display, General](#)
- [Shortcuts - Times](#)
- [Shortcuts - Track](#)
- [Shortcuts - Presets](#)
- [Shortcuts - Groups](#)
- [Shortcuts - Live & blind](#)
- [Shortcuts - Record Functions](#)
- [Shortcuts - Update Functions](#)
- [Shortcuts - Channel Text Wizard](#)
- [Shortcuts - Main Playback](#)
- [Shortcuts - Sequence Editor](#)
- [Shortcuts - Direct Selects](#)
- [Shortcuts - Notes](#)

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	[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]
Set all channels in all playbacks to zero	[C/ALT] & [LIVE] [LIVE]

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%	<input type="button" value="@LEVEL"/>
Set a level to the selected channels	<input type="button" value="#"/> <input type="button" value="@LEVEL"/>
Clear and deselect the selected channels	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="@LEVEL"/>
Set 100%	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="+%"/>
Set 0%	<input type="button" value="C/ALT"/> <input type="button" value="̄"/> <input type="button" value="-%"/>
Increase the level of selected channels 5%	<input type="button" value="+%"/>
Decrease the level of selected channels 5%	<input type="button" value="-%"/>
Increase the level of channel # with 5%	<input type="button" value="#"/> <input type="button" value="+%"/>
Decrease the level of channel # with 5%	<input type="button" value="#"/> <input type="button" value="-%"/>
Increase the level of selected channels #%	<input type="button" value="#"/> <input type="button" value="."/> <input type="button" value="+%"/>
Decrease the level of selected channels #%	<input type="button" value="#"/> <input type="button" value="."/> <input type="button" value="-%"/>
Set level in internal resolution (0-255)	<input type="button" value="#"/> <input type="button" value="."/> <input type="button" value="̄"/> <input type="button" value="@LEVEL"/>
Fetch values to the selected channels from a preset	<input type="button" value="#"/> <input type="button" value="ON/FETCH"/>
Increase level in 1 bit steps	<input type="button" value="."/> <input type="button" value="̄"/> <input type="button" value="+%"/>
Decrease level in 1 bit steps	<input type="button" value="."/> <input type="button" value="̄"/> <input type="button" value="-%"/>
Set the last recorded level for the selected channel(s).	<input type="button" value="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	[SELECT]
Select every # nth channel	[#] [Select Nth]
Select every 2nd channel	[Select 2nd]
Select every 3rd channel	[Select 3rd]
Select every 2nd channel randomly	[RANDOM] & [Select 2nd]
Select every 3rd channel randomly	[RANDOM] & [Select 3rd]
Select every Nth channel randomly	[RANDOM] & [Select Nth]
Select devices that have changed.	[SELECT CHANGE]

Shortcuts - Channel Views

These shortcuts control the channel views.

DESCRIPTION	SYNTAX
Scroll in the active channel view	[CH] & [Arrow Keys]
Scroll in the active channel view	[CH] & [Wheel]
Toggles Channel View formats.	[FORMAT]
Selects Channel Layout #.	[#] [FORMAT]
Zooms the Channel View.	[FORMAT] & [Wheel]
Toggle channel symbols in Channel Layout.	[FORMAT] & [Arrow Keys]
Show temporary Captured format.	[FORMAT] & [CAPTURE]
Show temporary Parked format.	[FORMAT] & [PARK]
Select All Channels format.	[FORMAT] & [ALL]
Select non-zero channel format	[FORMAT] & [CH/ID]

Shortcuts - HELP

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 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	<input type="button" value="C/ALT"/> & <input type="button" value="Down Arrow"/>
Previous hyperlink	<input type="button" value="C/ALT"/> & <input type="button" value="Up Arrow"/>
First hyperlink on page	<input type="button" value="C/ALT"/> & <input type="button" value="Left Arrow"/>
Last hyperlink on page	<input type="button" value="C/ALT"/> & <input type="button" value="Right Arrow"/>
Follow focused hyperlink	<input type="button" value="MODIFY"/>

Creating a Favourite

DESCRIPTION	SYNTAX
Create a Favourite from a HELP tab	<input type="button" value="NOTE"/>
Delete a Favourite from the Browser	<input type="button" value="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.	<input type="button" value="ESC"/>
Clears numerical input, and is used in combination with other keys as an ALT key.	<input type="button" value="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.	<input type="button" value="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 spreadsheet 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 & Right 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.	<code>BROWSER</code>
Scrolls the size of the Browser.	<code>BROWSER</code> & <code>Wheel</code>
Toggles through all open tabs.	<code>TAB</code>
Focuses Tab #.	<code>#</code> <code>TAB</code>
Scrolls the divider in a spreadsheet tab.	<code>TAB</code> & <code>Wheel</code>
Splits the tab view in horizontal or vertical.	<code>TAB</code> & <code>Down Arrow</code>
Removes a split tab view.	<code>TAB</code> & <code>Up Arrow</code>
Moves the focused tab to the next/last screen or split area.	<code>TAB</code> & <code>Right Arrow</code>
Moves the focused tab to the next/last screen or split area.	<code>TAB</code> & <code>Left Arrow</code>

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*	<input type="button" value="MASTER"/>
Open the Master Editor.	<input type="button" value="MODIFY"/> <input type="button" value="Master Key"/>
Set an individual flash level (in flash mode)	<input type="button" value="#"/> <input type="button" value="FLASH MODE"/> <input type="button" value="Master Key"/>
Toggle a master on/off	<input type="button" value="START"/> <input type="button" value="Master Key"/>
Toggle master # on/off	<input type="button" value="#"/> <input type="button" value="START"/>
Fade a master to a specific level	<input type="button" value="#"/> <input type="button" value="START"/> <input type="button" value="Master Key"/>
Hold FLASH MODE and press master keys to toggle modes. Use PAGE +/- to select functions.	<input type="button" value="FLASH MODE"/> <input type="button" value="Master Key"/>
Connect a master playback to the Master playback	<input type="button" value="CONNECT"/> <input type="button" value="Master Key"/>
Tap tempo for sequence on a master (hold tap and tap Master key).	<input type="button" value="TAP"/> <input type="button" value="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 and levels one by one to Master Playbacks.	[CH] & [Master Key]
Load the selected channels and levels as a group to a Master Playback.	[GROUP] & [Master Key]

Shortcuts - Master Pages

Main keys and shortcuts for handling Master Pages. Master pages are recorded/loaded separately for masters in banks of 20.

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	[PAGE] & [+]
Load previous Master Page	[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]
Next Page	[PAGE +]
Previous Page	[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	[HOME ATTRIB] & [Wheel Key]
Record current attribute values as the home position for the selected channels	[RECORD] & [HOME ATTRIB]

Shortcuts - Device Attribute Editors

Keys and shortcuts for opening Attribute Editors for Devices.

DESCRIPTION	SYNTAX
Open Live Attribute Editor for the selected tab	[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>
Toggle Single Parameter	FORMAT & <u>wheel key</u>
Zoom	FORMAT & <u>wheel</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 & <u>Wheel Key</u>
Open the Mask Editor tab	MODIFY & MASK
Save the current mask to a Direct Select (6.1)	RECORD & Direct Sel
Recall a mask setting from a Direct Select (6.1)	Direct Sel
Record the current mask to a master (6.1)	MASK & Master Key

Shortcuts - Device Palette Recording

Keys and shortcuts for handling Device Palettes.

DESCRIPTION	SYNTAX
Record selected Devices to the first free Focus Palette	<code>RECORD</code> <code>&</code> <code>FOCUS</code>
Record selected Devices to the first free Color Palette	<code>RECORD</code> <code>&</code> <code>COLOR</code>
Record selected Devices to the first free Beam Palette	<code>RECORD</code> <code>&</code> <code>BEAM</code>
Record selected Devices to the first free All Palette	<code>RECORD</code> <code>&</code> <code>PALETTE</code>
Record selected Devices to Focus Palette #	<code>#</code> <code>RECORD</code> <code>&</code> <code>FOCUS</code>
Record selected Devices to Color Palette #	<code>#</code> <code>RECORD</code> <code>&</code> <code>COLOR</code>
Record selected Devices to Beam Palette #	<code>#</code> <code>RECORD</code> <code>&</code> <code>BEAM</code>
Record selected Devices to All Palette #	<code>#</code> <code>RECORD</code> <code>&</code> <code>PALETTE</code>
Record Palette # from the Direct Selects	<code>RECORD</code> <code>&</code> <code>direct select</code>

Shortcuts - Device Palette Activating

Keys and shortcuts for activating values in Device Palettes for the currently selected device(s).

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 (only in default Congo Commans syntax, RPN, mode).

DESCRIPTION	SYNTAX
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	<input type="button" value="C/ALT"/> & <input type="button" value="DISPLAY LIST"/>

Shortcuts - Track

Track is applied to the current channel selection. See [Select Channels](#).

DESCRIPTION	SYNTAX
Track in the Sequence of the Main Playback.	<input type="button" value="TRACK"/>
Track in all Sequences	<input type="button" value="TRACK"/> & <input type="button" value="SEQ"/>
Track in the Sequence of a Master Playback.	<input type="button" value="TRACK"/> & <input type="button" value="Master Key"/>
Track in Presets.	<input type="button" value="TRACK"/> & <input type="button" value="PRESET"/>
Track in Groups.	<input type="button" value="TRACK"/> & <input type="button" value="GROUP"/>
Track in Focus Palettes.	<input type="button" value="TRACK"/> & <input type="button" value="FOCUS"/>
Track in Color Palettes.	<input type="button" value="TRACK"/> & <input type="button" value="COLOR"/>
Track in Beam Palettes.	<input type="button" value="TRACK"/> & <input type="button" value="BEAM"/>
Track in All Palettes.	<input type="button" value="TRACK"/> & <input type="button" value="PALETTE"/>
Track in All Play Data.	<input type="button" value="TRACK"/> & <input type="button" value="CH/ID"/>

Track Preset and Palette in Main Playback

In the Browser and Organizer you can track the selected preset or palette in the sequence loaded to the Main Playback.

DESCRIPTION	SYNTAX
Track selected preset or palette	<input type="button" value="TRACK"/>

Formats

Keys and shortcuts for toggling information on/off in the Track lists with attributes.

DESCRIPTION	SYNTAX
Toggle Focus information	[FORMAT] & [FOCUS]
Toggle Color information	[FORMAT] & [COLOR]
Toggle Beam information	[FORMAT] & [BEAM]
Toggle Parameter information	[FORMAT] & [Wheel Key]
Toggle Intensity information	[FORMAT] & [@LEVEL]

Shortcuts - Presets

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]
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

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	# ON/FETCH & GROUP
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 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

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

These are shortcuts for recording Presets, Groups and master pages.

DESCRIPTION	SYNTAX
Record the next free preset in a Channel View	RECORD
Record the preset # in a Channel View	# RECORD
Record current channel selection to a Master	RECORD & Master Key
Record current Master Page content to a different Master Page	# RECORD & PAGE
Record all attributes in this Preset for the selected channel(s)	RECORD & ATTRIB
Record attributes for selected channels to Preset #	# RECORD & ATTRIB
Record current channel selection as the next free Group	RECORD & GROUP
Record current channel selection as Group #	# RECORD & GROUP
Record only Captured channels to Preset #	# RECORD & CAPTURE

Shortcuts - Update Functions

These are shortcuts for updating Presets.

DESCRIPTION	SYNTAX
Update changes in the Preset loaded to this Channel View	UPDATE
Update Palette # in a Direct Select	UPDATE & Direct Select Key
Update level changes tracking	UPDATE & @LEVEL
Update attributes at source	UPDATE & ATTRIB

Shortcuts - Channel Text Wizard

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="text" value="CH/ID"/> <input type="text" value="̄"/> & <input type="text" value="TEXT"/>

Shortcuts - Main Playback

These are shortcuts for the Sequence in the Main Playback.

DESCRIPTION	SYNTAX
Load/Create Sequence #	<input type="text" value="#"/> <input type="text" value="SEQ"/> <input type="text" value="̄"/> <input type="text" value="PLAYBACK"/>
Load Preset # to A	<input type="text" value="#"/> <input type="text" value="PRESET"/> <input type="text" value="̄"/> <input type="text" value="A"/>
Load Preset # to B	<input type="text" value="#"/> <input type="text" value="PRESET"/> <input type="text" value="̄"/> <input type="text" value="B"/>
Focus the Main Playback TAB and connect the Channel Control to Live	<input type="text" value="PLAYBACK"/>
Goto Preset #	<input type="text" value="#"/> <input type="text" value="GOTO"/>
Goto Preset # in B	<input type="text" value="#"/> <input type="text" value="JUMP TO B"/>
Step to the next Preset in Sequence	<input type="text" value="SEQ+"/>
Step to the previous Preset in Sequence	<input type="text" value="SEQ-"/>
Start the next crossfade	<input type="text" value="GO"/>
Start the next crossfade during an ongoing fade	<input type="text" value="GO"/>
Insert a Master Link to the current Step	<input type="text" value="INSERT"/> <input type="text" value="̄"/> <input type="text" value="Master Key"/>
Insert a Master Link with Target # to the current Step	<input type="text" value="#"/> <input type="text" value="INSERT"/> <input type="text" value="̄"/> <input type="text" value="Master Key"/>
Open the Sequence List at the current step	<input type="text" value="MODIFY"/> <input type="text" value="PLAYBACK"/>
Open the Sequence List at step #	<input type="text" value="#"/> <input type="text" value="MODIFY"/> <input type="text" value="PLAYBACK"/>

Refresh functions

The Refresh Functions are used to reset any intensity or attribute that has been altered since the last crossfade in the Main Playback - back to where it would have been if the sequence had been run from the start.

DESCRIPTION	SYNTAX
Refresh all channels	<input type="button" value="REFRESH"/>
Refresh the intensity of selected channel(s)	<input type="button" value="REFRESH"/> & <input type="button" value="@LEVEL"/>
Refresh the attributes of all or selected channel(s)	<input type="button" value="REFRESH"/> & <input type="button" value="ATTRIB"/>
Refresh a parameter of all or selected channel(s)	<input type="button" value="REFRESH"/> & <input type="button" value="Wheel key"/>
Refresh Focus Parameters of selected channel(s)	<input type="button" value="REFRESH"/> & <input type="button" value="FOCUS"/>
Refresh Color Parameters of selected channel(s)	<input type="button" value="REFRESH"/> & <input type="button" value="COLOR"/>
Refresh Beam Parameters of selected channel(s)	<input type="button" value="REFRESH"/> & <input type="button" value="BEAM"/>

Shortcuts - Sequence Editor

These are shortcut in the Sequence List that will set times directly to the focused step

DESCRIPTION	SYNTAX
Set an In/Out Time	<input type="button" value="#"/> <input type="button" value="TIME"/>
Set an In Time	<input type="button" value="#"/> <input type="button" value="IN"/>
Set an Out Time	<input type="button" value="#"/> <input type="button" value="OUT"/>

Shortcuts - Direct Selects

DESCRIPTION	SYNTAX
Select Type of content (hold key)	<input type="text" value="TYPE"/> & <input type="text" value="Direct Key"/>
Select Bank of content (hold key)	<input type="text" value="BANK"/> & <input type="text" value="Direct Key"/>
Record a Palette directly	<input type="text" value="RECORD"/> & <input type="text" value="Direct Key"/>
Update a Palette directly	<input type="text" value="UPDATE"/> & <input type="text" value="Direct Key"/>
Change User Setup	User Setup key 1-5
Record a Screen Setting	<input type="text" value="TAB"/> & <input type="text" value="Direct Key"/>
Activate a Palette in time #	<input type="text" value="#"/> <input type="text" value="Direct Key"/>
Select all channels in a Palette	<input type="text" value="CH/ID"/> & <input type="text" value="Direct Key"/>
Select all channels with an intensity over zero, that are set to a Palette	<input type="text" value="ALL"/> & <input type="text" value="Direct Key"/>

Shortcuts - Notes

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	<input type="text" value="NOTE"/>
Create a Note for a focused item in a spreadsheet	<input type="text" value="NOTE"/>
Open the NOTE Editor directly	<input type="text" value="MODIFY"/> & <input type="text" value="NOTE"/>

Shortcuts - Capture & Release

Functions for capturing & releasing channels.

Capture functions

DESCRIPTION	SYNTAX
Activate permanent Capture mode	<input type="button" value="CAPTURE"/>
Capture intensity and attributes for the selected channel in Capture mode	<input type="button" value="Wheel"/>
Capture intensity and attributes for the selected channel(s)	<input type="button" value="CAPTURE"/> <input type="button" value="Wheel"/> & <input type="button" value="CH/ID"/>
Capture the intensity of selected channel(s)	<input type="button" value="CAPTURE"/> <input type="button" value="Wheel"/> & <input type="button" value="@LEVEL"/>
Capture the attributes of selected channel(s)	<input type="button" value="CAPTURE"/> <input type="button" value="Wheel"/> & <input type="button" value="ATTRIB"/>
Capture a parameter of selected channel(s)	<input type="button" value="CAPTURE"/> <input type="button" value="Wheel"/> & <input type="button" value="Wheel key"/>
Capture Focus Parameters of selected channel(s)	<input type="button" value="CAPTURE"/> <input type="button" value="Wheel"/> & <input type="button" value="FOCUS"/>
Capture Color Parameters of selected channel(s)	<input type="button" value="CAPTURE"/> <input type="button" value="Wheel"/> & <input type="button" value="COLOR"/>
Capture Beam Parameters of selected channel(s)	<input type="button" value="CAPTURE"/> <input type="button" value="Wheel"/> & <input type="button" value="BEAM"/>

Release functions

DESCRIPTION	SYNTAX
Releases the selected ch from Capture Mode	RELEASE
Release all Captured channels	RELEASE RELEASE
Release all Captured in # seconds	# RELEASE
Release intensity and attributes for the selected channel(s)	RELEASE & CH/ID
Release the intensity of selected channel(s)	RELEASE & @LEVEL
Release the attributes of selected channel(s)	RELEASE & ATTRIB
Capture a parameter of selected channel(s)	RELEASE & Wheel key
Release Focus Parameters of selected channel(s)	RELEASE & FOCUS
Release Color Parameters of selected channel(s)	RELEASE & COLOR
Release Beam Parameters of selected channel(s)	RELEASE & BEAM

Shortcuts - Dynamics (old)

These Dynamics functions can be used to start/stop and control older 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	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)	SELECT ALL
Select all channels with a running dynamic	CH & DYN EFFECT
Clear running dynamics for the selected channels (softkey)	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	MODIFY & DYN EFFECT

Record and edit Dynamic Effects

DESCRIPTION	SYNTAX
Record running Dynamics to the current Preset in A	<code>RECORD</code> & <code>DYN EFFECT</code>
Record running Dynamics for the selected channels to Preset #	<code>#</code> <code>RECORD</code> & <code>DYN EFFECT</code>
Fetch dynamics for the selected channels from a preset*	<code>#</code> <code>ON/FETCH</code> & <code>DYN EFFECT</code>
Open the Dynamics Editor for the current preset	<code>PRESET</code> & <code>DYN EFFECT</code>
Keep the Dynamics in the next Preset (softkey)	<code>KEEP DYNAM</code>

*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 delay time	# [DELAY] & [Wheel key]
Set an FCB time	# [TIME] & [ATTRIB]
Set an FCB Delay time	# [DELAY] & [ATTRIB]

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 - Visualisation Software](#)

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 - Numerical Input on a Notebook

If you are running the offline editor in a notebook without a numerical keypad, you can access numbers and basic channel and level functions using ALT.

CTRL & 1-9 = Numerical input

CTRL & F1 = CH

CTRL & F2 = CH+

CTRL & F2 = CH-

CTRL & F4 = THRU

CTRL & F5 = LEVEL

CTRL & F6 = ALL

Keyboard - Standard Functions

Standard keyboard functions available in all situations are:

ESC = Escape, closes open tabs and exits dialogs.

INSERT = Inserts data in all lists (in Mac computers use COMMAND & DELETE)

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.

ARROW KEYS = Arrow keys.

Console Keys in a Keyboard

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/ON	Keypad Ctrl +
FLASH MODE	F
FORMAT	F4
GO	Ctrl G
GO BACK	Ctrl B

Console Key	Keyboard Key
GOTO	G
GROUP	Alt G
HELP (?)	F1
HIGHLIGHT	Alt-H
HOME ATTR	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

Console Key	Keyboard Key
SEQ -	X & Up
SEQ +	X & Down
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
REFRESH	V
UPDATE PALETTE (softkey)	N/A
WIZARD	W

Keyboard - Level Wheel

You can use a mouse wheel (or right click held) 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-.

Accessories - Ext. Mouse or Trackball (6.3)

You can use an external USB mouse or trackball in the same way as the built in trackball. Connect it to the USB port.

Congo is designed to be used without a mouse as button pressing is faster and does not force you to look at the screen cursor. However, there are a lot of useful mouse functions for situations where you find it practical. For example, working in a workstation without a console facepanel, or while using an offline editor.

Here is some of the mouse functionality:

Function	Key	Feedback
All Views: Context Menu (6.3)	Right click	Opens the context menu
All Views: Drag and drop (6.3)	Left click, hold and drag	Drags and drops content
Channel Views: Select channels	Left click	Selects and deselects channels
Channel Views: Set channel levels	Mouse wheel	Same as the Level wheel of Congo
Channel Views: Set channel levels	Right click and mouse	Same as the Level wheel of Congo
Browser: Open Browser objects	Left doubleclick	Opens the corresponding editor tab
Spreadsheet Lists: Select a cell in a list for editing	Left click	Selects the cell for editing
Spreadsheet Lists: Select a column (6.3)	Left click on column header	Selects the whole column
Spreadsheet Lists: Toggle sort order (6.3)	Double-click on column header	Toggles sort order for the column
Spreadsheet Lists: Resize column (6.3)	Left click, hold and drag column header	Resizes column
Playback views: Open editors.	Right click or double click	Opens the context menu to open the editor. Try doing this on a step, time, device link etc.

Accessories - Fader Wings

A Congo system supports up to 80 Master Playbacks. These can be accessed physically by connecting fader wings . In Congo Kid you can access all 80 numerically but you cannot connect a wing for physical control of the last 40.

There are two kinds of fader wings.

- Congo Master Wing
- Universal fader wings (additional faders for any Congo system)

Any combination wings may be attached to a system, for a total of up to 80 master playback faders. An external power supply, provided, is required when used stand-alone.

See [Facepanel - Congo Jr.](#)

Master Playback Wing

The Congo Master Playback Wing provides physical access to 40 Congo Master Playbacks, including the LCD displays for labelling and all master, flash and paging keys. Additionally, the Wing can be switched into Direct Select Mode, providing access to the 40 direct selects. It also features the Channels-Only/Masters/Jam switch, giving the Congo Jr all the flexibility of the Congo console in a significantly smaller footprint.



The Master Playback Wing is a modular accessory for the Congo jr lighting control console. It may be connected physically to either side of the Congo jr, or it may be used as a stand-alone wing connected to the console with a provided USB cable. An external power supply, provided, is required when used stand-alone.

Universal Fader Wings (6.0)

Besides the Congo Master Wing, there are three Universal fader wings. They can be connected with a USB cable, and with Congo Jr they can be mounted on the sides or top of the console. An external power supply, provided, is required when used stand-alone.



Lynx Fader Wing

The Lynx is an older, compatible 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 optional remote controls for controlling channels and levels. Note that each remote control has its own working field. Also see [Remote Controls](#).

This chapter contains the following sections

- [Remote Control - Introduction](#)
- [Remote Control - RFR Radio Remote](#)
- [Remote Control - Phone Remote](#)
- [Remote Control - iRFR](#)
- [Remote Control - cRRFU Radio Remote](#)
- [Remote Control - TT Radio Remote](#)

Remote Control - Introduction (6.0)

There are a number of options for remote controlling a Congo system.

There are three main kinds of wireless remote controls.

RFR	Phone Remote	iRFR
		
<p>The RFR Radio/USB Remote is equipped with a display and bi-directional communication.</p>	<p>A wireless phone can be connected to the RJ11 connector in the back and be used for basic remote functions.</p>	<p>iRFR is a software for iPhone and iPod that provides bi-directional communication over a wireless LAN.</p>

NOTE



To clear input from the Remote Fields go to the Clear Remote Fields node in the Remote Controls Node.

See [Remote Controls](#).

Remote Control are enabled in the System Settings for remotes to work. There is a specific setting to enable recording from the Remotes. Both are ON by default.

See [System Settings - System](#).

There are two older remotes that are compatible with some functionality. Talk to your dealer.

RRFU	Transtechnik Radio Remote
 The image shows the ETC RRFU remote control, which consists of a blue handheld device with a keypad and a black rectangular receiver unit with a small antenna.	 The image shows the Transtechnik Radio Remote, a handheld device with a keypad and a small antenna, attached to a black carrying strap.
<p>ETC RRFU is an older ETC remote with fewer functions than the RFR.</p>	<p>Transtechnik Radio Remote. The functions supported in this remote are the same as in the Avab Pronto.</p>

Remote Controls and at mode

If your console is set to operate channels in at mode, the remote will also function in at mode. See [System Settings - General](#) and [Channels - Command Syntax](#).

HINTS

- 100%/0%/+%/-% will now complete pending at mode operations.
- C will abort pending two-digit level entries.
- Decimal point will complete pending at mode operations without pressing @.

Remote Control - RFR Radio Remote

The RFR Radio Remote provides bi-directional remote control with a hardware designed for stage environment. All of the RFR functions are the same for iRFR.



The RFR works within its own field and this field can be cleared from the console. All channel intensity levels generated by the remote can only be recorded into targets from the remote control itself.

Connecting the RFR

It's possible to connect the RFR in the following ways to a Congo.

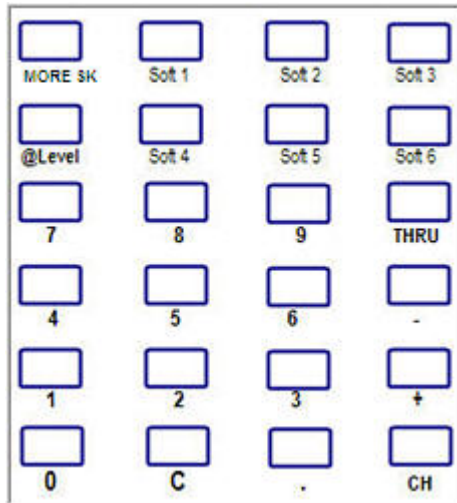
- Directly with USB
- To a base station connected with USB
- To a base station connected with Net3, which requires ACN protocol to be turned on.

Hold the decimal point when starting the RFR to get a choice of connection methods.

Group and frequency can be changed if necessary or if you have multiple units. The HF (frequency) and Network ID (group) are changed in the remote from the remote menu, and in the base station from the system settings. See [System Settings - RFR](#).

RFR - General Functionality

The upper display line shows information about the selected channel(s). The labels for the soft buttons are on the two lower rows of the display. In all displays the wheel controls the level of selected channels - except in the parameter controls display where the two encoders control the displayed two parameters (like pan/tilt, etc...)



Top Level

Soft1-6 give direct access to basic channel functionality. Pressing **MORE SK** will always return to this level. Pressing **MORE SK** from the Top Level will show the other menus.

All	100%	Check+
Group	0%	Check-

In all displays, the wheel controls the level of the selected channel(s).

RFR Channel functionality

The most common channel functions can be used to select channels and set levels (At Mode Command Syntax is supported from v5.1). This includes the console shortcut C & CH to clear all channels in A.

- CH
- +
- -
- THRU
- @LEVEL

RFR Group List

Press MORE SK and then GROUP to get a list of recorded Groups to select from. Use the wheel(s) to focus the item you want and click the wheel button to activate it. # GROUP selects the item directly without showing the list.

Normally the wheel scrolls one step per click. If you hold the wheel button and scroll, it will step in complete pages instead for faster navigation.

Pressing MORE SK will display the other available display pages.

Device	Playback	Patch
Palette	Focusing	CalibScr

RFR Devices

Press MORE SK and then DEVICE to enter the Device sub menu. When you have selected the Device sub menu, pressing ParamF/ParamC/ParamB will select the parameter pages for the selected devices. Two parameters at a time will be displayed in the middle of the display and controlled by the two wheels. Press a wheel to toggle between coarse and fine for parameters.

Last	SelAll	Next
ParamF	ParamC	ParamB

Next, Last and Select All functions are used to step within the current selection, Select All will return to the original selection.

ParamF, ParamC and ParamB keys are used like Focus, Color and Beam keys on the console. These will cycle thru the available parameter pages for the selected device(s). Use the wheels to adjust parameter values. Clicking the wheel will toggle coarse/fine mode on the wheels. Fine mode is indicated with a "-" symbol before the parameter value.

RFR Playback (6.1)

Playback

Press MORE SK and then PLAYBACK to enter the Playback sub menu. The Playback functions are

Go	Goto	Record
GoBack	Preset	Update
Function	Key	Feedback
GO	<input type="button" value="Go"/>	Next crossfade is started
GO Back	<input type="button" value="GoBack"/>	Crossfades back to the previous step
Goto preset/step	<input type="button" value="#"/> <input type="button" value="Goto"/>	Crossfades to preset # or step # (depending on the GOTO jumps to setting in Setup)
Record preset	<input type="button" value="#"/> <input type="button" value="Record"/>	Records Preset # into the Preset List. Only the levels set from the remote are recorded
Update preset	<input type="button" value="Update"/>	The selected preset (indicated as "Prs:#" on the display) is updated with levels from the remote field
Select Preset and levels	<input type="button" value="#"/> <input type="button" value="Preset"/>	Levels from Preset # are loaded into the remote field and channels of Preset # are selected (6.1)
Select Preset and levels	<input type="button" value="Preset"/>	Shows a list of Presets. Use encoder to focus a Preset and click the encoder to select Preset and load levels into the remote field.

When recording or updating a preset a confirmation message is shown on the RFR display.

To enable recording/updating from remote, check the setup option "Allow recording from remote"

RFR Patch (6.0)

Press MORE SK and then PATCH to enter the Patch sub menu.

Output	Goto	Patch
Universe	Preset	DvAddr

The Patch functions are

Function	Key	Feedback
Select channel	[#] [Chan]	Channel # is selected
Select output	[#] [Output]	Output # is selected
Select output universe	[#] [Univ.]	Universe # is selected
Patch channel to output	[#] [Chan] [#] [Patch]	Channel # is patched to output #
Patch output to channel	[#] [Output] [#] [Patch]	Output # is patched to channel #
Re-patch a device	[#] [Chan] [#] [DvAddr]	Device on channel # is patched to output # Note: Existing devices may be repatched. No new devices may be patched from the RFR.

- Outputs can be selected in address.universe format. For example [10.3] [Output] will select output 10 on universe 3.
- Use the left wheel to jump to next output and the right wheel to set a level to the selected output.
- Use a number and the @ button to set a channel or output level directly (instead of the right wheel).
- Use +/- to step outputs as well as channels.

RFR Palettes (6.1)

Press MORE SK and then PALETTE to enter the Palette sub menu.

Focus	Color	Beam

- The FCB buttons can be pressed without a number to present a palette list or with a number to select a palette directly.
- In the palette list, use one of the wheels to scroll and press the wheel to select the focused palette.
- Entering 0 and selecting a palette type will home the values of this palette type (6.1).

RFR Focus Mode

Focus mode is intended for updating palettes, mainly Focus palettes. See [Device Palettes - Focusing mode](#).

Press MORE SK and then FOCUSING to enter focusing mode.

Focus	Color	Beam
		Update

1. Select a palette from the FCB list buttons. This will enter channel/parameter mode.
2. Use Next/Last/SelAll buttons to select channels. Use ParamFCB buttons to select the parameter. Use wheels to change.
3. Press the Mode button to go back to palette select/update screen.
4. Use Update to update the palette or select a new palette with the FCB palette list buttons.
5. Press MORE SK will leave focusing mode.

RFR Scroller Calibration

Press MORE SK and then CALIBSCR to enter Scroller calibration mode. In Scroller Calibration you can calibrate each scroller roll individually, like on the console. Also see [Scroller rolls](#).

1. First, turn on the channels for which you wish to calibrate the scrollers, so you can see when the scroller is in full frame.
2. When pressing CALIBSCR a list of channels with scrollers is shown. Select a channel to calibrate it's scroller.
3. A list of the colors in the scroller is shown on the display. Use the left wheel to focus a color and use the right wheel to adjust the value so that the whole frame is shown. Changes are updated automatically (values are kept within the current frame (6.1)).
4. Use the MORE SK button to exit Scroller Calibration.

Remote Control - Phone Remote

The Phone Remote option allows you to use a standard phone - without a phone line - to remote control channels and levels.



Connect the base station of a standard 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

The handset has two available commands for each key on the unit. Numbers are accessed directly. The *-key is used as Shift to access the functions. Press the *-key first (do not press and hold) and then press the function. The #-key when pressed once is decimal point and when pressed twice clears the number input.

These are the basic functions you can access from the phone remote.

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

In the table below # means a numbers input, while [#] equals the key # on the handset.

Key	Function	Feedback
Select a channel	$\bar{\#}$ [SHIFT] [CH]	Channel is selected
Add channels	$\bar{\#}$ [SHIFT] [THRU]	Channels are added to selection
Select a group	$\bar{\#}$ [#] [SHIFT] [CH]	Channels in Group # are selected
Select All	[SHIFT] [ALL]	Selects all channels with a level that were set from the remote
Set to Full	[SHIFT] [100%]	Levels for the selected channels are set to full
Set to 0%	[SHIFT] [0%]	Levels for the selected channels are set to zero
Set to level #	$\bar{\#}$ [SHIFT] [@LEVEL]	Level # is set for selected channels
Check mode	[SHIFT] [CHECK+] [SHIFT] [CHECK-]	Steps to the Next/Last channel using level.
Load levels from Preset #	$\bar{\#}$ [SHIFT] [PRESET]	Levels from Preset # are loaded
Clear number input	[#] [#]	Clears number input
Decimal point	[#]	Decimal point
GO	[SHIFT] [Goto/Go]	Next crossfade is started
Goto preset/step	$\bar{\#}$ [SHIFT] [Goto/Go]	Crossfades to preset # or step # (depending on the GOTO jumps to setting in Setup)
Record preset	$\bar{\#}$ [SHIFT] [Record]	Records Preset # into the Preset List. Only the levels set from the remote are recorded

Examples

Turn on channels 2 thru 5 at Full.

[2] [SHIFT] [CH] [5] [SHIFT] [THRU] [SHIFT] [100%]

Using the decimal point it is also possible to select and turn on channels recorded in groups.

To set Group 1 at Full

[1] [#] [SHIFT] [CH] [SHIFT] [100%]

If a console is set to work in At Mode, channel selection functions on the remote behave differently. For example:

Set channels 1 thru 5 to 55%

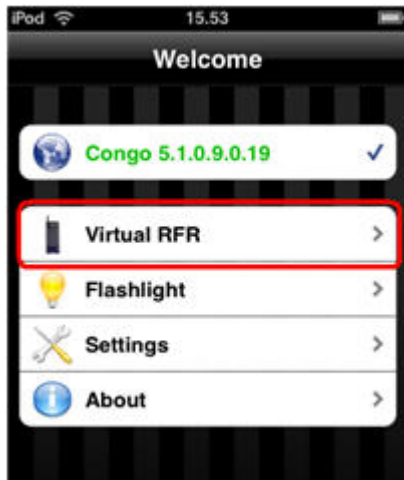
[1] [SHIFT] [THRU] [5] [SHIFT] [@Level] [5] [5]

Set channels 1 thru 6 at full

[1] [SHIFT] [THRU] [6] [SHIFT] [100%]

Note: When recording from the remote, only levels set from the remote are recorded, not the whole stage output.

Note: To enable recording from remote, check the setup option "Allow recording from remote"



The functionality of iRFR is the same as RFR. See [Remote Control RFR Radio Remote](#).

Tip 1

To turn the encoder wheels, simply drag with your finger. To press the encoder wheels, one quick tap will do the trick.

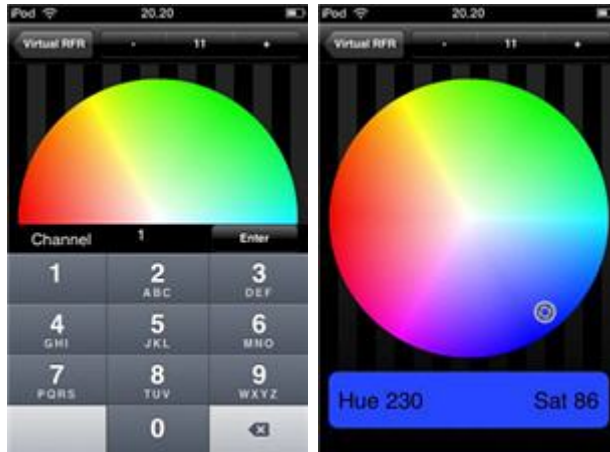
Tip 2

Tap the Virtual RFR screen to cycle through different interface layouts. (You can also lock the layout in the Settings screen)



iRFR Color Picker (6.0)

With the iRFR Color Picker you can select colors for your color mixing devices. Select the Color Picker button at the top of the Virtual RFR screen to open the Color Picker screen. You can return to the Virtual RFR anytime by pressing the Virtual RFR button in the top left corner.



The current color for the first selected channel is displayed by a small rotating indicator. Press anywhere on the color wheel to change the color, and the indicator will then move to the new color.

iRFR Settings (6.0)

These are the settings you can define in the iRFR.

Settings

- **Quick Start:** when this is turned ON, the iRFR skips past the splash screens and attempts to connect to the console automatically. If a connection is made, it goes straight into the Virtual RFR screen.
- **Sounds:** when this is turned ON, you will hear various sound effects (button presses, wheel turns, encoder ticks, etc...)
- **Lock RFR Layout:** when this is turned ON, you cannot cycle through the RFR interface layouts. Instead it remains locked on the chosen layout, and you will see a small padlock icon indicating that the lock is enabled.
- **Sleep Disabled:** when this is turned ON, your iPhone/iPod will not automatically go to sleep after a period of inactivity. (This may decrease battery life)

Flashlight

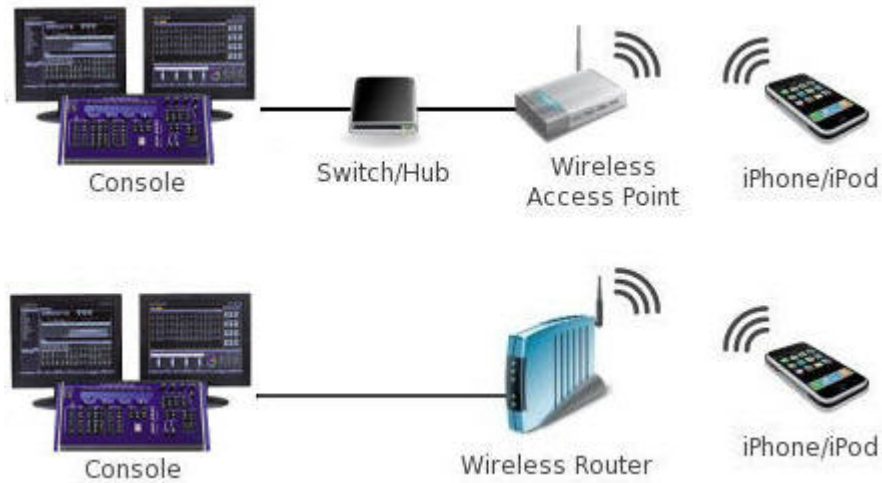
At the Welcome screen, select the Flashlight for some quick light. Tap the screen to reveal 2 sliders which control the hue & brightness of the screen.

About

Here you will find a link to the charity's website, a link to the iRFR Wiki, and the version of your iRFR app.

Network configuration for iRFR (6.0)

The iRFR requires that your console be on a wireless network. Below are a couple examples of how you may choose to configure your wireless network. If you are using a wireless router, make sure you connect to the WAN port.



Default Static IP Addresses

Congo	Congo Jr	Congo Light Server
IP Address 10.101.80.101	IP Address 10.101.81.101	IP Address 10.101.82.101
Subnet Mask 255.255.0.0	Subnet Mask 255.255.0.0	Subnet Mask 255.255.0.0
IP Gateway 10.101.80.101	IP Gateway 10.101.81.101	IP Gateway 10.101.82.101
RVI	Wireless Router/AP	iPhone/iPod
IP Address 10.101.85.101	IP Address 10.101.124.101	IP Address 10.101.125.101
Subnet Mask 255.255.0.0	Subnet Mask 255.255.0.0	Subnet Mask 255.255.0.0
IP Gateway 10.101.85.101	IP Gateway 10.101.124.101	IP Gateway 10.101.125.101

iPhone and iPod Configuration (6.0)

Once your wireless network is setup, you must configure your iPhone/iPod to connect to it:

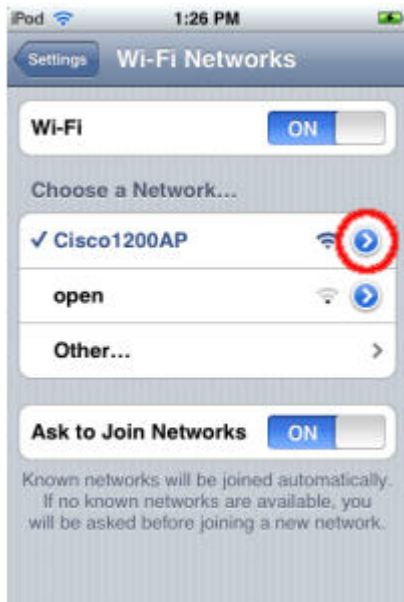
1. On your iPhone/iPod press the Settings icon.



2. At the Settings screen, select Wi-Fi.



3. At the Wi-Fi Networks screen, find the wireless network your console is on and select it. Once connected, you will see a check mark to the left of the network name. Now press the round blue arrow button to configure your network settings.



4. Now you must configure your iPhone/iPod's network settings so that it can connect to the console. The recommended IP address is as follows for a standard static network configuration.

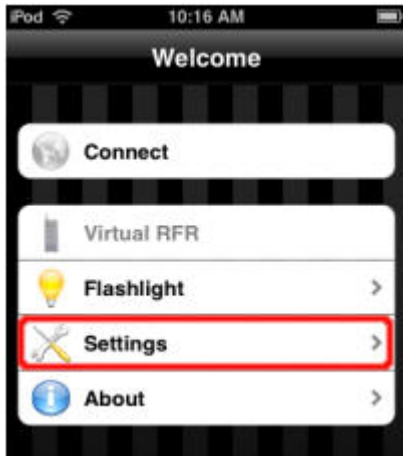


Testing iRFR network connectivity (6.0)

Once your iPhone/iPod is configured to be on the same wireless network as your console, here's a quick test to make sure the iRFR and your console can talk.

1. Launch the iRFR app on your iPhone/iPod.

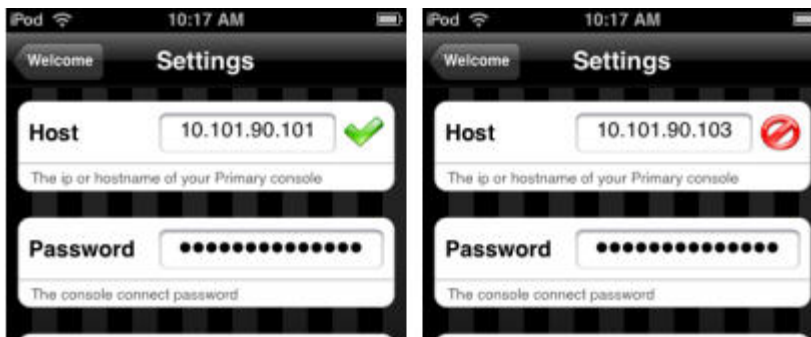
2. At the Welcome screen, click Settings.



3. Fill in the Host field with the IP address of your console (see the tip below if you don't know how to locate your console's IP address).

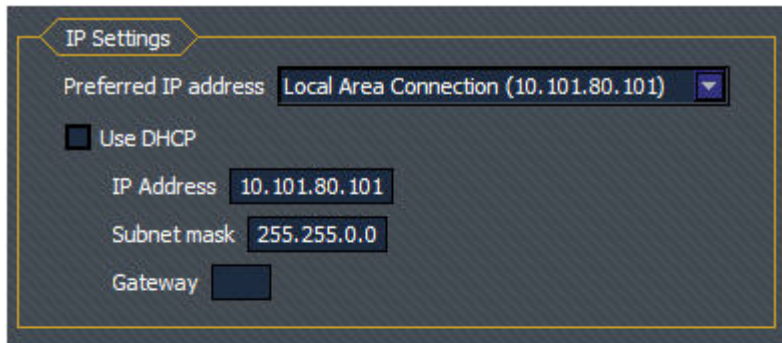


4. Now, press the magnifying glass to test communication between your iPhone/iPod and the console. You will see either a green checkmark for YES or a red circle with a line through it for NO.



5. If the communication test FAILS, double-check that you have entered the correct IP address of your console in the Host field at the Settings screen. If the test still fails, exit the iPhone/iPod home screen and verify that you are still connected to your console's WiFi network.

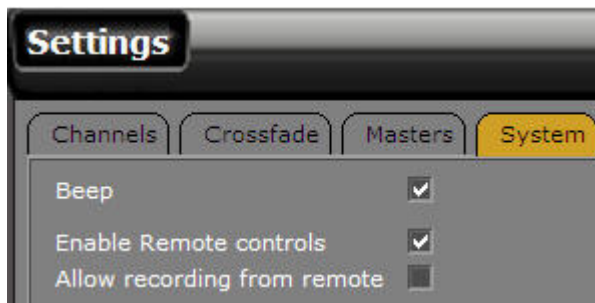
You can find the IP address of your console in Browser >About >About Congo and in System Settings >Network.



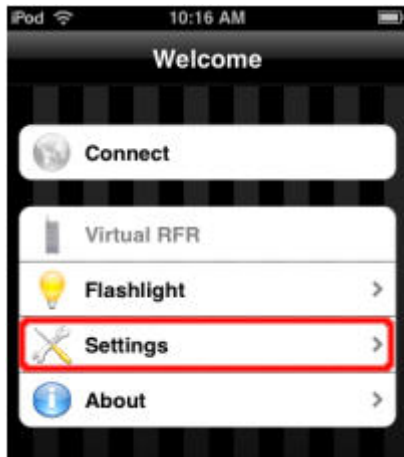
Connecting iRFR to your console (6.0)

If you have tested your network you are ready to connect to Congo.

1. You need to have Remote Controls and ACN enabled in your Congo. No other settings or protocols need to be turned on for the iRFR to work.



2. Launch the iRFR app on your iPhone/iPod. At the Welcome screen, select Settings.



3. At the Settings screen, enter your console's IP address in the Host field (this is different for Congo, Jr and Light Server, see above). If you do not see a green checkmark after entering the IP, you won't be able to connect. That means you have either entered the wrong IP address or there is a problem with your wireless network configuration. The Password is not used with Congo and CongoJr consoles. Only with Eos/Ion/Element. Leave the Password field blank.



4. Press the Welcome button at the top left to return to the Welcome screen, and then press Connect.



5. Once connected, you will see a that you are connected to a Congo, and the version of software it is running. The Virtual RFR menu item will also become available.



Remote Control - cRRFU Radio Remote

All instructions for connecting and operating the older, compatible ETC CRRFU Radio Remote control are packaged and delivered with this unit.



Crrfu Remote Functions

The transmitter has two available commands for each key on the unit.

Direct commands are displayed above each key. To access the commands that are displayed vertically to the left of each key, press the [FUNC] key first (do not press and hold [FUNC]).

An example of mixing direct and [FUNC] commands to record channels 1-5 at 75% into Preset 5 follows:

[1] [CHAN] [5] [THRU] [7] [5] [@] [LEVEL] [5] [FUNC] [RECORD]

Function	Key	Feedback
Select a channel	# CH	Channel is selected
Add channels	# THRU # FUNC +	Channels are added to selection
Subtract channels	# FUNC -	Channels are subtracted from selection
Select Group	# FUNC Group	Channels in Group # are selected
Select All	FUNC All	Selects all channels with a level that were set from the remote
Set to Full	FUNC 100%	Levels for the selected channels are set to full
Set to 0%	FUNC 0%	Levels for the selected channels are set to zero
Set to level	# @Level	Level # is set for selected channels
Increase/decrease levels	FUNC +% FUNC -%	Levels for the selected channels are changed up/down. Hold the [%+] or [%-] keys to have the channel fade up/down.
Check mode	FUNC Check+ FUNC Check-	Steps to the next/last channel using the level See Check mode (add link to "Channels - Check Mode" chapter)
GO	FUNC Go/Goto	Next crossfade is started
GO Back	FUNC Go Back	Crossfades to the previous step
GOTO a preset/step	# FUNC Go/Goto	Crossfades to preset # or step # (depending on the GOTO jumps to setting in Setup)
Record preset	# FUNC Record	Records Preset # into the Preset List. Only the levels set from the remote are recorded
Update	Update	Updates the preset that was last activated from the remote
Load levels from	# FUNC Preset	Levels from Preset # are

Function	Key	Feedback
Preset		loaded into A
Clear number input	[C]	Clears numbers input
Clear remote field	[FUNC] [All] [FUNC] [0%]	Clears all channels turned on from remote

Using Check mode from channel 1 onward:

[1] [FUNC] [100%] then [FUNC] [Check+] then [FUNC] [Check+]

At Mode

If a console is set to work in At Mode, channel selection functions on the remote behave differently. For example:

- Set channels 1 thru 5 to 55%: [1] [THRU] [5] [@Level] [5] [5]
- Set channels 11 thru 14 at full: [11] [THRU] [14] [FUNC] [100%]

Number entry after [@Level] is a two digit entry. If you only enter one number, you can press [C] to end level entry.

NOTE

When RECORDING only levels from the remote are recorded, not the whole stage output.

Transmitter Setup

The transmitter unit has a slide switch (on/off) and 16 keys for console commands. The unit has a “sleep” feature that helps to conserve battery life when the switch is left in the “on” position. Set the switch to the “off” position to guard against accidental key presses.

The keys of the transmitter unit are illuminated. The keys are brightly lit while keys are pressed and the unit is transmitting. After the key is released, the keys remain dimly lit for a period of time before the unit sleeps. The sleep delay can be programmed at the transmitter unit as described below.

Set the transmitter unit sleep delay

Step 1: Move the slide switch to the “off” position.

Step 2: Press and hold

- [FUNC] for a 5 second sleep delay.
- [THRU] for a 12 second sleep delay.
- [Ch] for a 25 second sleep delay.
- [@ Level] for no sleep delay (the unit does not turn off).

Step 3: While pressing one of the keys above, slide the switch to the “on” position and wait until the keys are blinking (about 5 seconds).

Step 4: Release the key you are pressing. The sleep delay time is now programmed to the setting you selected above.

Replacing the transmitter battery

The transmitter unit requires a single 9V alkaline battery (provided) for power. This battery should provide approximately one year of normal usage before requiring replacement. To replace the battery, remove the two M3x4mm screws at the bottom of the unit to access the battery compartment and replace with a 9V alkaline battery. Replace the lid and secure it with the same two screws. Dispose of the old battery as is appropriate in your local area.

Remote Control - TT Radio Remote

The TT Radio Remote control from Transtechnik is an old remote to which Congo is backwards compatible using the serial COM port. The COM port needs to be set up to listen to this remote. See [System Settings - COM](#).



TT Radio Remote Functions

Functions with white text are pressed directly

Functions with yellow text - hold the red SHIFT key down while pressing

NOTE		
<p>The Radio Remote ignores the transmitter ID and receives data from any transmitter. There are some functions screened on the Remote that do not apply to this console, since the same Remote is used for a whole range of products.</p>		
Function	Key	Feedback
Record current light	# REC	Preset stored.
Load a preset	# PRS	Preset is loaded to A
GOTO a preset	# GOTO	Preset is faded in A
GO	GO	Next crossfade is started
Select channels	# @ LEVEL	Channels are selected *
Add channels	# CH # + # THRU	Channels are selected
Fetch levels	# FTCH	Levels for the selected channels are fetched from Preset #

Select Palette	# FOCUS # COLOR # BEAM	Palette # is set to the selected channel(s)
Fetch levels	# FTCH	Levels for the selected channels are fetched from Preset #
Pan/Tilt	Arrow keys	Selected devices are moved.
Set to Full	# ON	Levels for the selected channels are set to full
Set to Zero	# OFF	Levels for the selected channels are set to zero
Increase/decrease levels	# +% # -%	Levels for the selected channels are changed
Check mode	CHECK+ CHECK-	Levels for the selected channels are fetched from Preset #
Clear levels and channels	CLEAR	Clears channels and levels in the working field
Select channels in Preset	# ADDP	Channels in Preset # are selected

* You are able to select Groups by entering a decimal point after the Group number, and using the Channel functions as normal.

Accessories - Visualisation Software

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 **WYSIWYG/Sandnet/Capture Link**.

- IPX is a protocol being used for communicating light information over Ethernet
- The WYSIWYG/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.
2. Set the WYSIWYG/Sandnet/Capture Link to "ON" in the System Settings.
See [System Settings - Output](#).

Preparations in the Computer running Visualisation Software

In Windows XP make sure IPX drivers are installed under Windows (normally, only TCP/IP is installed by default). Under Windows Vista and newer, CIP must be used instead.

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

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 www.etconnect.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.*

WYWISYG Link: You can send the patch in WYSIWYT to Congo. Make sure you have imported the templates involved first. Clear patch clears the dimmer patch as well as the device patch.

Visualisation - Capture

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 (6.0)

This is not available in v6 because it conflicted with the new Blind attribute handling. In addition, it only worked on IPX protocol.

Accessories - Client

Using the same graphic displays as the Congo console, the Congo Client software provides an operating environment identical to the console itself. With a complete set of alphanumeric-keyboard shortcuts for commonly used commands, Congo Client can be used to view console data or to interact with your Congo console. See [Network - Client](#).



Congo Client software can be run on a PC with the Windows® XP operating system. A dongle is required to connect the Client PC to the Congo console over an Ethernet network. When not connected to the network, or without the dongle attached, the Client PC can be used as a Congo Offline Editor workstation.

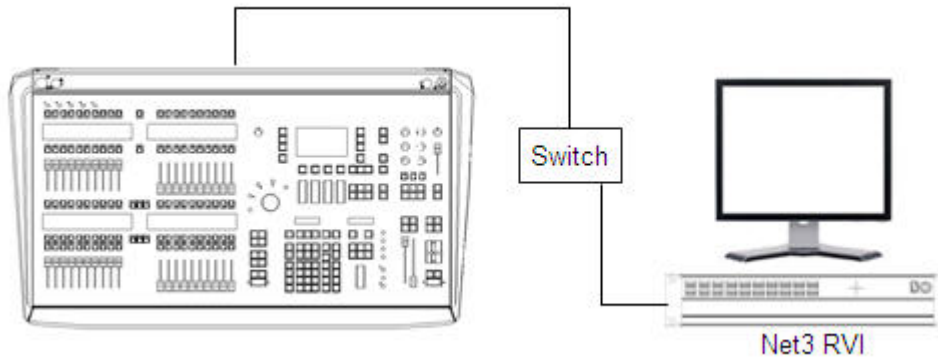
We recommend the use of X-keys. See [X-keys](#).

Accessories - Net3 Remote Video Interface

The Remote Video Interface – a 2U 19” rack mount device - provides remote video and local programming functions for Congo and Congo jr. control systems.



Controls on the front of the unit include the power switch, USB port and 20 buttons for commonly used functions. These buttons have default mapping – specific to the Congo product line, reflecting commonly used features for the designer or assistant designer.



The RVI also supports a dual video output for two DVI/SVGA high-resolution monitors.

An alpha-numeric keyboard and/or pointing devices can be connected to the RVI to provide remote programming capability using the Congo keyboard shortcuts. X-Keys can also be attached via USB.

See [X-Keys](#).

X-keys

ETC recommends the use of PI Engineering's X-Keys® panel with Congo Client software. X-Keys is a panel of user-definable keys.



We have provided a file that defines the X-Keys Professional 58-key panel with the Congo hotkey shortcuts most used in offline programming and editing. The X-Keys Professional 58-key panel is very similar to the layout of the Congo keypad, so frequently used functions appear in relative positions between the actual console and the offline editor.

See www.etcconnect.com/Congo for more details.

APPENDIX

The Appendix contains information about control interfaces, fuses, key shortcuts etc.

This chapter contains the following sections

- [Connectors](#)
- [MIDI](#)
- [The Congo Story](#)

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 - Congo Kid Backpanel](#)

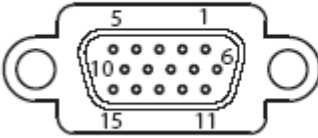
Connector - DMX512

Pin 1 Gnd
Pin 2 Data-
Pin 3 Data+

1	Common
2	Data (-)
3	Data (+)
4	not connected
5	not connected

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

	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

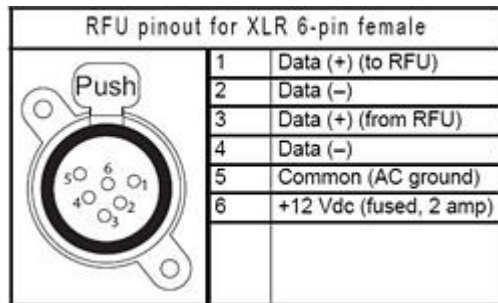
Pin 4 Data+
Pin 5 Data -



The Remote Control Setting must be turned on for the remote to work. See [Settings - System](#).

Connector - Remote Radio

RFU is a 6-pin XLR with the same pinout as on all ETC consoles



The Remote Control Setting must be turned on for the remote to work. See [Settings - System](#).

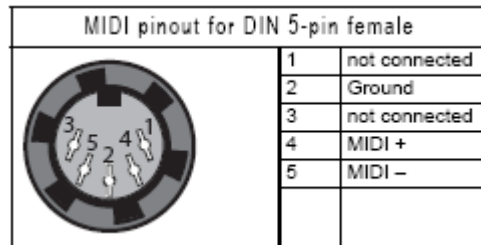
Connector - MIDI

MIDI In

Pin 4 Data +
Pin 5 Data -

MIDI Out, Thru

Pin 2 Gnd
Pin 4 Data +
Pin 5 Data -



Connector - APN

Pin 4 Data+
Pin 5 Data -

(Not in Congo Jr)

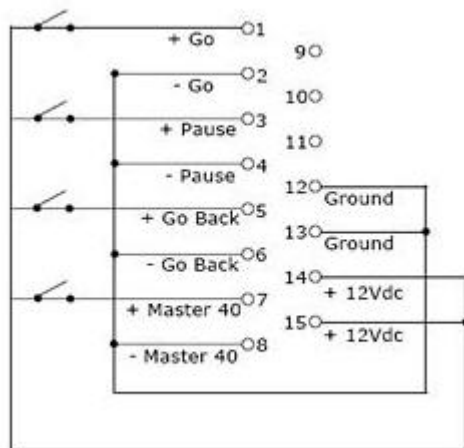
Connector - External Trig 1-9

The external trig can be used for any console function by assigning appropriate Triggers in Event Lists.

The external trig also allows the following functions directly.

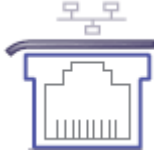
- 1: Go
- 2: Pause
- 3: Go Back
- 4: Toggles Master 40 On/Off.

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

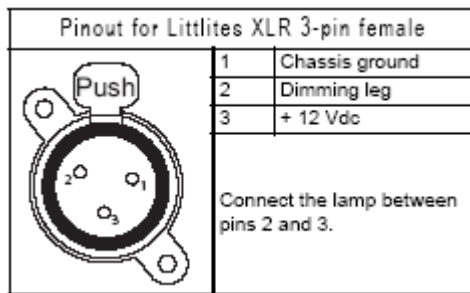


Connector - Keyboard and Mouse

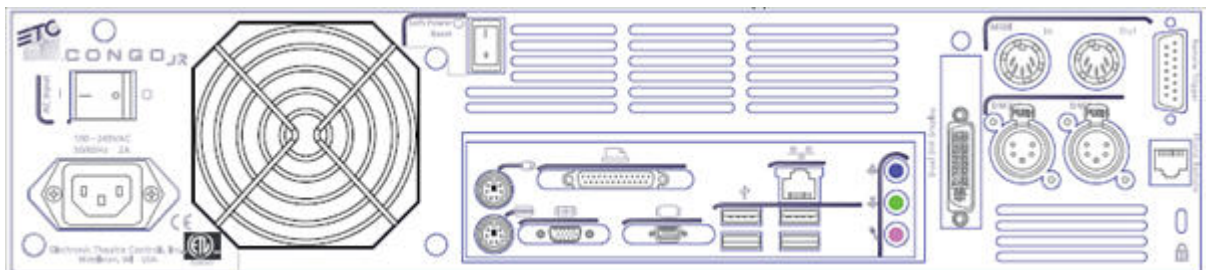
Keyboard and mouse are connected to the USB ports in the back of the console.

Connector - Desk Light

You can connect a standard desk light to the connectors in the top corners of Congo, and the rear left-hand side of Congo Jr.

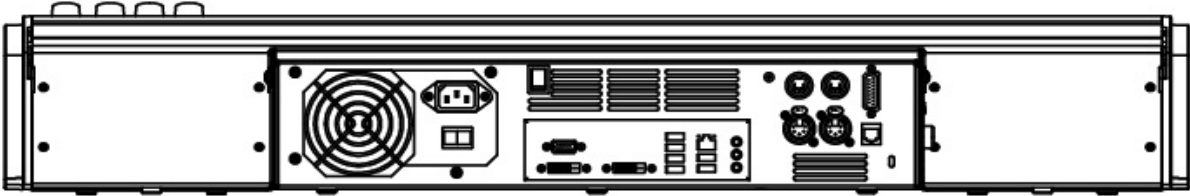


Connector - Congo Jr Backpanel



Connector - Congo Kid Backpanel

Observe that the Kid has monitor outputs to either 2xDVI or 1xDVI and 1xVGA.



MIDI

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

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

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.

You have to send both ON and OFF for notes.

MIDI - MIDI Show Control

Congo supports sending and receiving of MIDI Show Control (MSC) commands. GO and Pause/Resume are commands that Congo sends when MIDI Show Control is enabled in the setup. GO, Stop, Resume and Set commands can be sent to Congo from other devices to control playback actions.

Enable MSC and Device ID settings

In the Show Control setup there are parameters for turning MSC on/off and setting the device ID. See [Play Settings - Show Control](#).

When MSC is enabled Congo both sends and can receive MSC commands. Device IDs 00-7E (0-126 in decimal) are for individual receivers and Device ID 7F (127 in decimal) is meant for all receivers. The default setting for Device ID is 1 (01 in hexadecimal).

Congo supports reception of the following MSC commands. All example command strings are shown in hexadecimal values.

GO

Executes the next crossfade in the same way as pressing GO in the console. If GO is pressed in the console, the number of the Preset is automatically transmitted as well. This is sent automatically when GO is pressed and MSC is active.

Preset numbers in the GO command are encoded using ASCII and 2E is the decimal point. For example preset 10 equals 31 30.

GO (Main Playback):
F0 7F 01 02 01 01 F7

GOTO preset 105:
F0 7F 01 02 01 01 31 30 35 F7

GOTO preset 86.4:
F0 7F 01 02 01 01 38 36 2E 34 F7

NOTE

MSC GO commands in Congo support only one decimal number. Presets with more than one decimal number will not send an MSC GO command and these presets cannot be triggered with MSC from other sources.

STOP

Pauses the current crossfade. This is sent automatically when PAUSE is pressed and MSC is active.

Stop/Pause (Main Playback):
F0 7F 01 02 01 02 F7

RESUME

Resumes the current crossfade. This is sent automatically when PAUSE is pressed after PAUSE and MSC is active.

Resume (Main Playback):
F0 7F 01 02 01 03 F7

SET

The SET command allows setting Congo's faders to specific levels. An MSC SET command packet looks like this:

```
          F0 7F <id> 02 01 06 <cc> <cc> <vv> <vv> F7
          |   |   |   |   |   |   |   |   |
SysEx -----/
Device ID-----/
Packet type is MSC---/
Command format-----/
SET command-----/
Controller number (14-bit value)-/
Level value (14-bit value)-----/
End of system exclusive flag -----/
```

Where <cc> <cc> defines the Controller number and <vv> <vv> defines the level. These are both 14-bit values, a combination of two 7-bit values. Both in <cc> <cc> and <vv> <vv> the first value is the LSB and the second value is the MSB. For <vv> <vv> fader values Congo uses the most significant 8-bits of the 14-bit value for the level, giving a resolution of 256 steps.

Some examples of how percent value convert to <vv> <vv> values in Congo:

Percent Level	<vv> <vv> Value
0%	00 00
10%	00 0D
20%	7F 19
30%	7F 26
40%	00 33
50%	00 40
60%	7F 4C
70%	7F 59
80%	00 66
90%	00 73
100%	7F 7F

The <cc> <cc> Controller numbers used in Congo are:

Fader	<cc> <cc> Value
Master 1	00 00
Master 2	01 00
Master 3	02 00
...	
Master 39	26 00
Master 40	27 00
Grandmaster	7E 03

Examples

Master 1 at 100%
F0 7F 01 02 01 06 00 00 7F 7F F7

Master 20 at 50%
F0 7F 01 02 01 06 13 00 00 40 F7

Master 33 at 0%
F0 7F 01 02 01 06 20 00 00 00 F7

Grandmaster at 20%
F0 7F 01 02 01 06 7E 03 7F 19 F7

NOTE

For more info about MIDI, MSC and other Show Control commands a good book to have is **Control Systems for Live Entertainment** by John Huntington (ISBN: 978-0-240-80937-3)

MIDI - Time Code

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

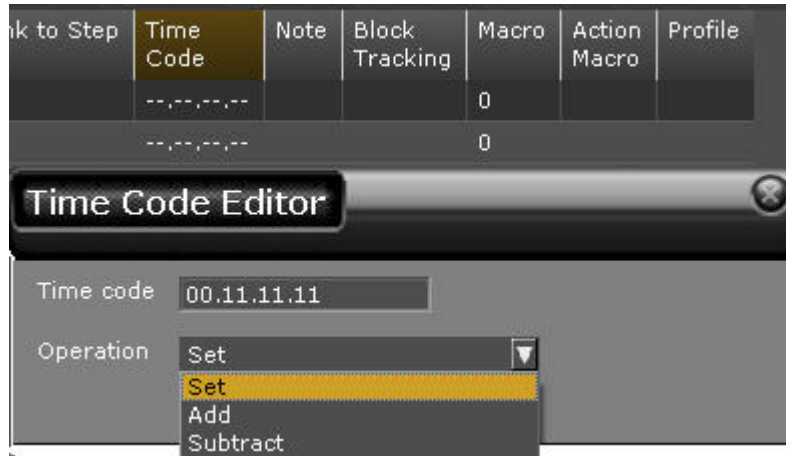
Normally, only Sequence steps that are in the B field will be triggered by incoming MIDI Time Code. Other Steps will not be triggered, even if the times match.

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](#).

Edit time code in the sequence list (6.0)

When you press MODIFY in the Time Code column, you will be presented with a Time Code Editor. In this editor you can Set, Add and Subtract time code values. All sequence steps that are selected before you open the Time Code Editor will be affected by the change. Also see [Sequences - Sequence List](#).

It is possible to enter timecode in a short form format. Entered digits will be assigned from right-to-left to frames, seconds, minutes and hours. Leading 0's can be omitted. Example: 123 would be 00.00.01.23.



MIDI - Implementation Chart

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

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

Key	MIDI Code (Hex)	MIDI Code (Dec)
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

Key	MIDI Code (Hex)	MIDI Code (Dec)
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

Key	MIDI Code (Hex)	MIDI Code (Dec)
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

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

Fader	MIDI Code (Hex)	MIDI Code (Dec)
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

The Congo 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
Oskar Krogell - Testing & 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.

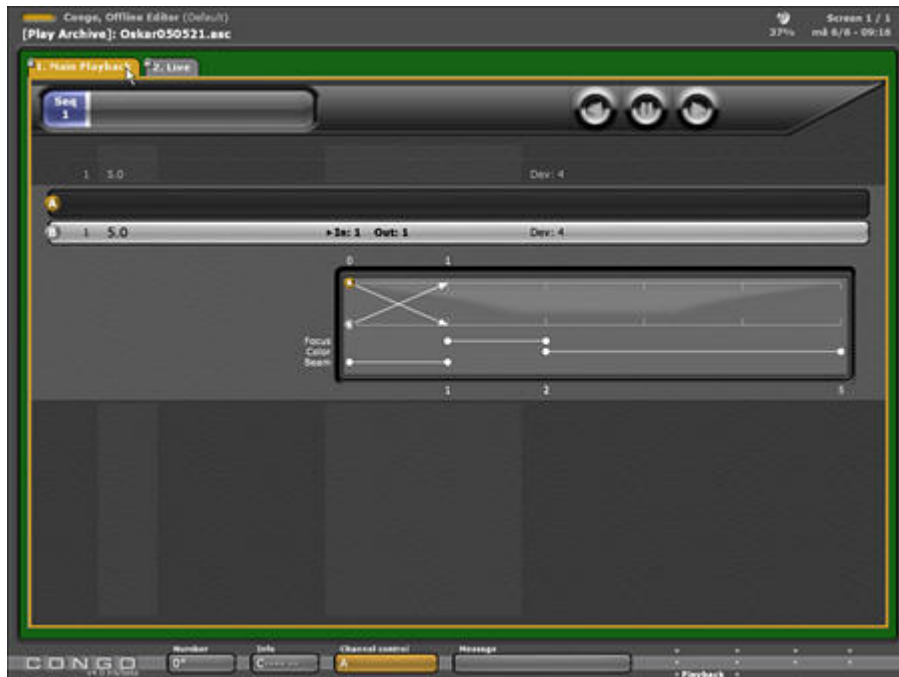
- Vital functions should have direct keys
- Navigation should be possible without looking at the screens
- The user interface should be tactile (physical keys)

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)*

V5 - a new approach to effects!

Along with cleanups, a lot of new functionality and several new related products like the rrfu remote and the Net3 Remote Video Interface the family is growing fast. Most interesting of all is the new approach to effects in v5.

By introducing the Effect Playbacks together with three types of effects, very complex effects are made possible and accessible at the same simple level of control as a single intensity channel with some extra attributes.



It doesn't look very advanced, right? It isn't, but what you can do with them is!

V6 - Time to Play!



The best way to sum up all the improvements in V6 of Congo is - **Time to Play!**

Why?

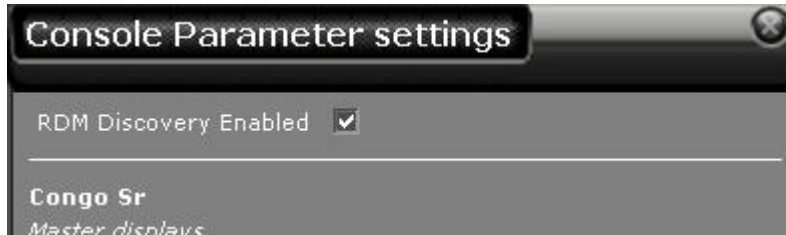
Well, this is what lighting should be all about isn't it? Not having to spend time on tedious programming routines. With all the improvements of speed and graphics backed up by the completely new and exciting Two Scene Masters mode for the Jam switch it becomes quite amazing what you can do in very little time with Congo V6.

Our advice? Get a good rig and play!

RDM Functionality (6.3)

The idea of RDM (Remote Device Management) is to make it possible for devices in a control network to communicate with the lighting control system. It can be used to simplify patching, addressing, and controlling modes of a device or supervising temperature via embedded sensors (when provided).

There is a setting in Console Settings where you can disable "RDM Discovery" - Browser >General Settings >Console Settings (6.3).



Congo is one of the world's most advanced RDM controllers of today.

ABOUT RDM

DMX communicates levels to devices. RDM adds communication back from the devices to allow us to remotely observe (sensors) control (setups) and configure (modes) these devices. The level of RDM functionality depends on the features of the controller and on the features of the device. It is possible that some devices do not support all the features available in Congo, or that Congo does not yet support all the RDM features of a device. RDM data is sent back over the DMX line.

"It's not in the right mode, it doesn't have the right address, and you don't have to bring out the ladder...."

PINS USED

The DMX512 specification requires DMX connectors to be a 5-pin XLR type, with only the first 3 pins being used (pins 4 and 5 were reserved for "future use"). RDM uses the same pins as DMX (pins 2 and 3) to make it possible for all manufacturers to implement it.

NOTE

Be aware that for RDM to work every DMX buffer/splitter has to be RDM compatible.

RDM Patching (6.2)

These are the basics of working with RDM and Congo. These steps assume you have RDM functioning, you have hung and cabled all of your devices, and that this is the first time you are working with the system:

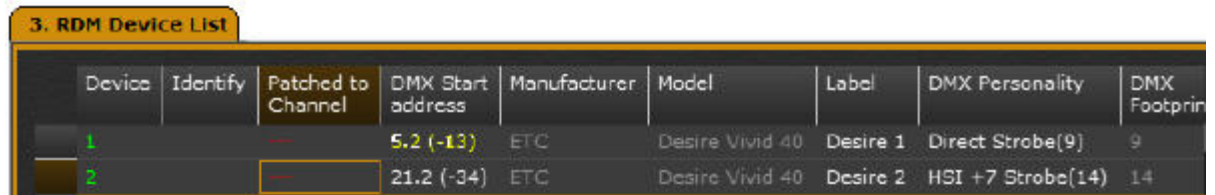
1. The outputs of the Net3 ACN DMX/RDM Gateway must have RDM Discovery enabled to allow Congo to communicate with connected RDM devices. Please consult the Net3 ACN

DMX/RDM Gateway User Manual for directions on enabling and disabling RDM Discovery. Remember that only equipment with RDM will talk back to Congo.

2. As soon as an RDM device is discovered on the network this will be indicated at the top of the monitors, with a red "RDM:" and a number. The number indicates the quantity of discovered new devices on the network. A new device is one that has not yet been patched in the current show file. (Note: if you have already patched all of your RDM devices, you will not see the number again (when restarting or reopening this show file). Only unpatched devices are indicated here.



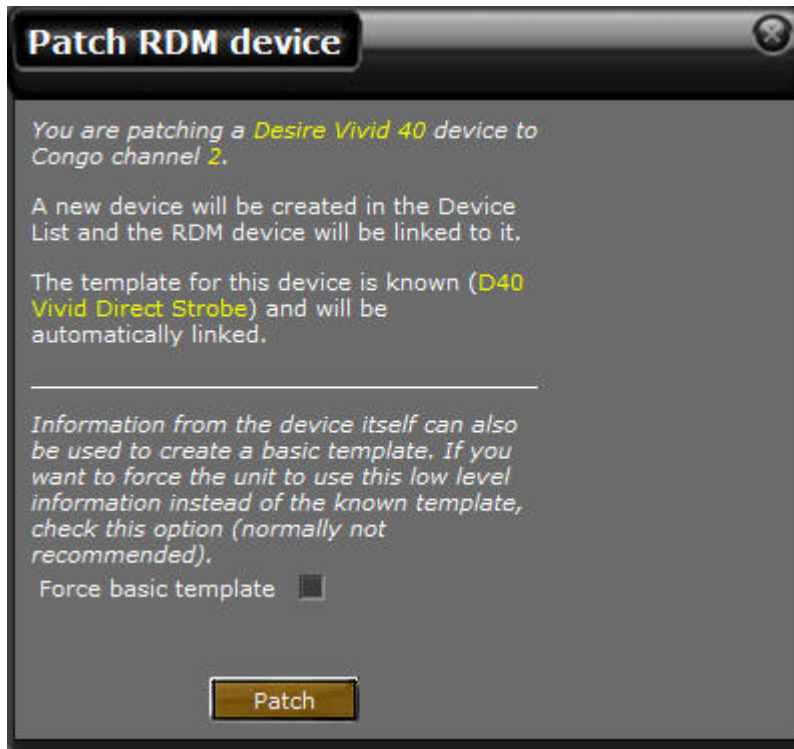
3. SEE LIST: Open the RDM Device List (Browser>Patching>RDM Device List), where you can see all discovered devices and their current addresses and settings. They are still not patched to Congo - only discovered. You now have to actively make some decisions about to which Congo channel you want to patch them, and with which template. See the RDM Device List section below.



Device	Identify	Patched to Channel	DMX Start address	Manufacturer	Model	Label	DMX Personality	DMX Footprint
1		---	5.2 (-13)	ETC	Desire Vivid 40	Desire 1	Direct Strobe(9)	9
2		---	21.2 (-34)	ETC	Desire Vivid 40	Desire 2	HSI +7 Strobe(14)	14

4. IDENTIFY: Press MODIFY in the Identify cell to tell the light to "identify itself". Depending on the type of device, this may mean the light flashes on and off, or the LCD display may flash its backlight. Consult the user manual of the device to see how the device will identify itself using RDM.

5. PATCH: In the "Patched to channel" column, enter a channel number of Congo and press MODIFY. You will get a dialogue that will show if the device is known and will match a template in Congo, or if you wish to force a basic template from the data the device can provide over RDM. At most times you will find that the template is known and matched in the extended library of Congo. The advantage of using the known template is that it (usually) contains additional information, like text names for ranges and color calibration data for use with the Color Picker and Gel Picker. If it doesn't work the way you want you always have the option of creating a template manually.



RDM Indicators (6.2)

RDM information about mismatches, communication, discovered devices and feedback is shown at the top of all screens. It will blink during RDM communication.

Shows unpatched devices on top "RDM: #"



Error messages will show as a triangle with a number



Mismatch errors will show as "MISMATCH". Mismatch errors include patched settings not matching device settings, patch overlaps, and so on.



RDM Device List (6.2)

The RDM Device List is the main RDM Window. This is a standard list of purely standard RDM information. It is the same for all devices.

This list allows you to identify devices, change basic settings of the device (like start address, personality or mode) patch to Congo channels and access deeper settings of devices, if that functionality is supported by those devices.

This list also shows conflict or mismatch states in red. In the case of overlapping device addresses, you must solve these overlaps manually by choosing and entering new starting addresses for those fixtures. RDM will send the new address setting to the fixture for you.

Device	Identify	Patched to Channel	DMX Start address	Manufacturer	Model	Label	DMX Pers
1	---		19.2 (-27)	ETC	Desire Vivid 40	Desire 2	Direct St
2	---		1.1 (-9)	ETC	Desire Vivid 40	Desire 1	Direct St

Model	Label	DMX Personality	DMX Footprint	Parameters	Sensors	Sub devices	Software label
Desire Vivid 40	Desire 2	Direct Strobe(9)	9	13	9	0	1.3.0.0.0.01
Desire Vivid 40	Desire 1	Direct Strobe(9)	9	13	9	0	1.0.0.5.0.30

Note that in the Browser there is a command to "Clear offline RDM", use this command to clean up the list if you have removed devices, or moved devices from port to port on the Gateway.

The information displayed is the standard information within the RDM Specification:

MANUFACTURER:

MODEL:

LABEL:

DMX PERSONALITY: This displays the actual device setting and will match to a template in Congo)

DMX FOOTPRINT: The number of outputs needed

PARAMETERS: This is the number of settings within the device that can be displayed or edited using RDM. This is not the same as the DMX controllable parameters (attributes) of the device.

SENSORS: Device Sensors

SUB DEVICES: If the device has more devices associated with it, for example, you have one RDM-capable dimmer rack that contains 6 individual dimmers, the rack settings would be found under Parameters and individual dimmer settings would be seen in the Sub Devices tab.

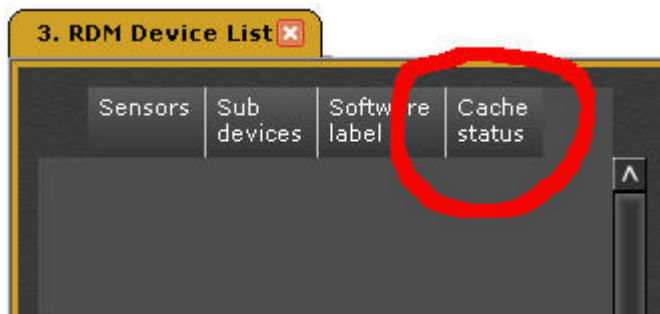
SOFTWARE LABEL: Text from the device manufacturer

RDM Device List Cache (6.3)

Normally RDM cache is something you don't have to worry about. In some rare situations you may want to force a re-query.

There is a column that shows cache status. The Cache contains stored information discovered about a device over RDM and this indicator shows if Congo has cached data about a fixture so Congo no longer needs to query about the device structure.

Press MODIFY in this cell to re-query or store the cache (see options below)



Options (press **MODIFY** to activate)

"Querying device structure..."

- This is a status that a query is going on

"Device structure available. Save to cache?"

- There is a structure, you can save it to cache manually (it is done at shutdown automatically). It will be loaded at the next restart of Congo.

"Using cached device structure. Delete cache?"

- Will delete the cached structure, and allow a re-query. It will be done at the next restart of Congo.

"Restart to use cache"

- The cache is now stored and at the next restart Congo will start using it automatically.

"Restart to re-query"

- At the next restart of Congo, a new query will be performed.

RDM Device Parameter List (6.2)

The Device Parameter List provides access to the settings of each device that can be seen and controlled over RDM. This list is only available when there are discovered RDM devices. It is opened from the RDM Device List by pressing MODIFY in the Parameter cell of the device you wish to adjust. Note that regardless of which device you use to open this tab, it will show all devices of that model in the same table.

All data in this tab is generated by the RDM device and is then displayed by Congo. Parameters you can edit are shown in white text. Changes you make in this tab are sent directly to the device and are not stored in any way by Congo. The valid data for a parameter is wholly dependent on the way the device manufacturer has developed their RDM functionality. Valid input may be numerical (type the new value and press MODIFY) or may be entered using a drop down menu (usually shown in text). Consult the user manual for the device to understand the impact of changing parameters in this tab.

4. RDM Device Parameter List

Patched to	Model	Label	LED White Point	LED Frequency	DMX Loss Behavior	Plus Seven Mode	Backlight Brightness	Backlight Time Out	Status
1	Desire Vivid 40	Desire 1	2950K	1100	Instant	Disable	100	30sec	
2	Desire Vivid 40	Desire 2	3200K	1200	Instant	Enable	100	1min	

RDM Device Sensor List (6.2)

The Device Sensor List provides access to the sensor information an RDM Device transmits (read-only). This list is only available when there are discovered RDM devices. It is opened from the RDM Device List by pressing MODIFY in the Sensors cell of the device whose sensor data you wish to view. Regardless of which device you use to open this tab, it will show all devices of that model in the same table.

4. RDM Device Sensor List

Patched to	Model	Label	LED 1 Temperature	LED 2 Temperature	LED 3 Temperature	LED 4 Temperature	LED 5 Temperature	LED 6 Temperature
1	Desire Vivid 40	Desire 1	30.95°C	32.48°C	31.06°C	30.82°C	31.09°C	32.11°C
2	Desire Vivid 40	Desire 2	24.85°C	24.01°C	25.18°C	24.11°C	24.08°C	24.11°C

OSC Functionality (6.3)

Open Sound Control (OSC) is a content format for messaging among computers, sound synthesizers, and other multimedia devices. You can remotely control Congo using OSC. You can remotely control OSC devices using Congo.

OSC is often used as an alternative to MIDI, when higher performance, higher resolution and a richer parameter space is desired. OSC messages are commonly transported across networks using (UDP/IP, Ethernet). OSC messages between gestural controllers such as the Wii Remote are usually transmitted over serial endpoints of USB by being wrapped in the SLIP protocol. OSC gives developers more flexibility in the kinds of data they can send over the wire, enabling new applications that can communicate with each other at a high level (Source Wikipedia).

To explore more about OSC on the www see <http://opensoundcontrol.org/introduction-osc>.

EXAMPLE

- Use OSC to create a remote interface for Congo, for example in an iPad, using a standard third party OSC software such as TouchOSC.
- Use third party developer software such as Max or Isadora to integrate Congo with other OSC devices.

NOTE

Be aware that for OSC to work you need to activate OSC control and relevant settings in the Play Settings.

See [Play Settings - Show Control](#).

NOTE

OSC is not intended to be used as remote control for Congo over any open Internet connection. ETC recommends strongly that lighting networks remain separate from the Internet.

Receive - OSC Input (6.3)

To receive OSC commands you have to activate reception of OSC and select the appropriate Port number (default 7000) in [Play Settings - Show Control](#). The device transmitting OSC needs both this port number and the IP address of your Congo system. You can check your IP address in Browser >About >About Congo.

About OSC commands

- An OSC command consists of an address, sometimes followed by a value and/or an argument, eg `"/masters/page/X"`
- Buttons may be momentary. eg `"/mainplayback/go"`.
- Buttons may be On/Off, use 0.0 for Off, 1.0 for On. eg `"/masters/flash/X 0.0"`
- Fader and Attribute values are 0.0 to 1.0 (float) for minimum and maximum. eg `"/masters/fader/1 0.5"` to set Master 1 to 50%

The following commands are supported:

Refresh

`/refreshstatus` = Command to force an update of all labels and fader values

Masters

`/masters/fader/X <0.0-1.0>`

`/masters/key/X <0.0-1.0>`

`/masters/flash/X <0.0-1.0>`

`/masters/pagePlus/X` = Page+ for master block X (1-4)

`/masters/pageMinus/X` = Page- for master block X (1-4)

`/masters/page/X` = Master page (1-999)

Transmit:

`/masters/fader/X <0.0-1.0>` = transmission when a fader value changes

`/masters/label/X <string>` = Sends master label changes

`/masters/page/label/X <string>` =Sends master page label changes

Main Playback

`/mainplayback/go`

`/mainplayback/pause`

`/mainplayback/goback`

`/mainplayback/seq+`

`/mainplayback/seq-`

`/mainplayback/refresh`

Effects

`/effects/bpm/X`

`/effects/tap/X`

Direct parameter control

`/parameter/pan <0.0-1.0>`

`/parameter/tilt <0.0-1.0>`

`/parameter/hue <0.0-1.0>`

`/parameter/saturation <0.0-1.0>`

`/parameter/intensity <0.0-1.0>`

/parameter/pantilt <float> <float>
/parameter/huesaturation <float> <float>

Independents

/independents/fader/X <0.0-1.0> X= 1-6
/independents/key/X <0.0-1.0> X = 7-9

Direct Selects

/directselects/page/X, X = 1-5
/directselects/key/X, X = 1-40

Transmit.

Congo will send bank labels and direct select labels when they change:

/directselects/page/label/x
/directselects/label/x

Action Macro

/actionmacro <string>

Executes the Action Macro in <string>

For example:

/actionmacro GO PB

If you are sending from Max, make sure that the whole command is sent as one string parameter, using "" around it when necessary.

Transmit - OSC Output (6.3)

OSC output can be transmitted from an Action Macro, or from a template. In addition, sequence texts and master levels are transmitted to remote devices - see [Receive - OSC Input](#).

To transmit OSC commands you have to activate transmission of OSC and select a port (default 8000) and IP address(es) of the devices to send to in [Play Settings - Show Control](#).

Action Macro OSC

The parameter names need to have this format:

OSC /oscaddress %x min max.

oscaddress is the address used on OSC, like /masters/fader/1

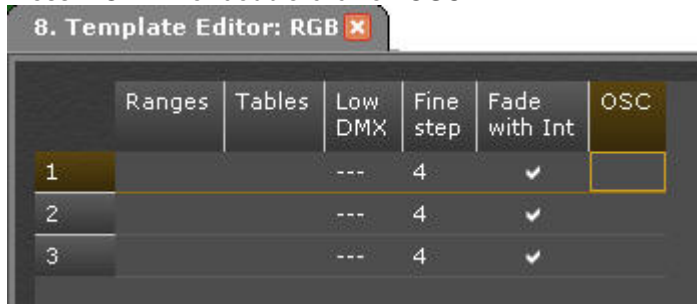
x is either "i" to send as an integer parameter or "f" to send as a float parameter

See [Congo Action Macros](#).

Template OSC

It is possible to define any parameter in a template to send optional OSC data. In the Template editor, there is now a new column called OSC. It will open a dialog where OSC parameters can be defined. Scaling through Max value is supported.

Press MODIFY or double-click on OSC



Opens



INDEX

8

8 bit 256 Step Levels, 459

A

About, 165
About - Congo, 166
About - Play, 168
Action Macros, 284
All Palettes, 625

B

Backup, 205
Backup Commands, 258
Backup Sync, 256
Balance Mode, 466
Beam Palettes, 628
Blind, 493
Block Values, 418
Browser, 111
Bugs, 88
Build & Modify Modes, 416
Bypass Startup Screen, 85

C

Capture Mode, 460
CEM +, 261
Ch Only Mode, 458
Change User, 280
Channel Database, 520
Channel Layouts, 527
Channel List, 310
Channel Partitions, 544
Channel Views, 117
Channels, 452
Channels - Used & Unused, 472
Chase - BPM & Tap Tempo, 425
Chase Effects, 659
Check Mode, 465
Client, 959
Color Palettes, 627
Com Port, 199
Compare Mode, 380
Congo Terminology, 69
Connectors, 963
CONSOLE KEYS, 839

Console Mimic, 273
Console Settings, 241
Content Effects, 669
Context Menus, 157
Control Hierarchy, 71
Convert To Server, 259
Copy Log files to USB, 195
Copy, Cut & Paste, 126
Crashes, 88
Crossfade, 398
Crossfade Profiles, 408

D

Default Play wizard, 192
Delete Wizard, 448
Designer Summary, 274
Device Control, 555
Device List, 305
Device Palettes, 589
Device Play Back, 618
Device Times, 609
Device Views, 572
Devices, 550
Dimmer Curve, 336
Dimmer/Device Feedback Log, 169
Direct Mode MIDI, 237
Direct Selects, 136
Disclaimer, 44
Display Lists, 129
Dock Areas, 266
Drag and Drop, 160
Dynamic Effect, 682

E

Effect Images, 728
Effect layouts, 722
Effect Playbacks, 656
Effect Texts, 731
Effects, 640
Event List - Action Macros, 283
Event List - Events, 288
Exit to System Settings, 196
Exit to Welcome Screen, 217
Ext. Mouse or Trackball, 926

F

Facepanels, 94

Fade With Intensity, 333
Fetch Play, 254, 258
Files, 171
Focus Palettes, 626
Freeze Mode, 135

G

Gel Picker, 624
GENERAL FUNCTIONS, 107
General Settings, 220
GETTING STARTED, 62
Grand Master, 134
Group Wheel Mode, 473
Groups, 345

H

Help system, 40

I

Import from, 182
Import Template Wizard, 300
Independents, 752
Installation guidelines, 67

K

Key Syntaxes, 68
Keyboard, 922

L

Live, 481
Live Effects, 655
Lockfade, 398
LTP or HTP, 324

M

Macro List, 290
Main Playback, 735
Main Show Data, 338
Mask, 629
Master Pages, 817
Master View, 812

Masters, 759
Masters - Settings, 763
MIDI, 969
MIDI - Implementation Chart, 977
MIDI - Standard MIDI, 971
MIDI - Time Code, 975
MIDI Data, 285
MIDI Show Control, 972
Monitor, 210
Movefade, 398
Movies, 834
Mute & Solo, 131

N

Navigating, 108
Net3 Remote Video Interface, 960
Net3/ACN Device List, 262
Network, 206, 243
Network - Client, 249
Network - Multiple Users, 251
Network nodes, 260
New, 174

O

Organizer, 339
OSC, 997
Output, 204
Output Mode Switch, 133

P

Parameter Definitions, 334
Parked, 513
Patch by Channel/Dimmer, 294
Patch Wizard, 302
Patching, 292
Play Settings, 221
Playlist, 439
Power Loss, 219
Power Off (Quit), 219
Power-up Procedure, 81

Presets, 356
Presets - List, 366
Presets - Update, 365
Print, 193
Protocols, 200

R

Random Select, 468
RDM, 991
Remote Control, 929
Remote Control - cRRFU Radio Remote, 951
Remote Control - iRFR, 941
Remote Control - Phone Remote, 938
Remote Control - RFR Radio Remote, 932
Remote Control - TT Radio Remote, 955
Rename Channels, 313
Reset The System, 82

S

Save, 179
Save as, 179
Save Copy to USB, 181
Scale channel levels, 470
Screens, 263
Scroller Rolls, 633
Selected - Live, 275
Send Play, 254
Sequences, 387
Sequences - Chase Mode, 420
Sequences - Insert Step, 409
Sequences - Links, 412
Serial COM data, 285
Server Commands, 254
Server/Backup, 246
Shortcuts, 889
Software & Update, 73
System Info, 92
System Overview, 64

System Settings, 197

T

Tabs, 114
Templates, 318
Templates - Ranges, 328
Templates - Snap or Fade, 327
Templates - Type 8/16 bit control, 325
Texts, 127
This Manual, 43
Time Code dock, 276
Track Editing, 510
Track List, 497
Training Projects, 836
Triggers for Events, 288
Troubleshooting, 86, 91
Two Scene Masters, 146

U

U1-U2-U3, 562
UDP data, 286
Universal Fader Wings, 928
Universe Map, 202
Update, 212
Update Software, 213
USB, 195

V

Visualisation, 958

W

Workflow in Congo, 74

X

X-keys, 961



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