

Automated Lighting Tutorial for Version 2.8.6 with Console Screen Examples



This addendum tutorial covers the 500 series console software version 2.8.6 for the operation of automated fixtures only. It is designed as the third instructional tutorial to follow the *Strand 500 Series Console Tutorial – Conventionals (with screen capture)* V2.8.6 and the *Strand 500 Series Console Tutorial – Scroller Addendum (with screen capture)* V2.8.6. If you haven't done so, I recommend going through the conventional tutorial *first* and the scroller tutorial *second*. If you haven't gone through these tutorials but feel comfortable enough with conventional and scroller control, then feel free to continue here. This version includes console screen examples as visual aids.

This tutorial is setup to give the operator a place to start as a hands-on training session.

The tutorial will cover setup and operation geared toward the Broadway market which has been dominated by Light Palette friendly consoles such as the Light Palette series and the Obsession series. This workbook will go through all operational functions that are considered both normal and advanced for a Broadway-style programming session. This does not intend to mimic any one designer's style of language used for programming but is intended to get the programmer familiar with all programming features of these consoles that are typical of theatre, opera, and dance. Experience is still the best teacher, but this should get anyone, not previously familiar with the 500 series consoles, on their way to being able to program any advanced lighting show.



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Tutorial Syntax

This font and box indicates the syntax for standard hard key input.

Any > indicates a soft key that is a level below the previous soft key.

Any **{bracketed}** text indicates a **hard display** key that should be pressed. The display tile is at the upper right hand portion of the console.

Any (enclosed) text indicates a soft key that should be pressed.

Any "quoted" text indicates keyboard entry that will label a cue, group, or the like.

On the screen captures, I will also draw a circle around the area of the screen that has the appropriate information.

During the tutorial, perform the keystrokes when listed. This will keep you in the proper screen as you go through the text and allow you to maximize your benefit from the lesson.

Even with the powerful features of the 500 Series consoles, it must be simple to operate the simple things. Here is where we will start...

Another thing, some screen shots will be from Windows, these are just text files and the visual format does not change the content in any way. Most of the screen shots are based on a 2 screen system, if you only have 1 monitor your screens may vary.





Understanding the Strand Attribute System

Here is the attribute list found in the fixture library. To access the fixture library...

{MORE} (NOTES DISP>) (LOAD FILE>) (FIXT LIB)

📮 a	ttribute list for 2.8.5 - Notepa	d				
Eile	<u>E</u> dit F <u>o</u> rmat <u>V</u> iew <u>H</u> elp					
#	Attribute List (hAtt):	_				~
#	1 Intensity	2 Colour				_
#	5 Pari - 4	FILL 5 FOCUS	7 Prism			
#	8 Gobo) RGobo 1	0 Frost			
#	11 Cyan 12	2 Magenta 1	.3 Yellow			
#	14 Red 1	i Green 1	.6 Blue			_
# #	1/ Speed 10	s coispeea - 1	9 Beamspeed 2 Duration			
# #	23 Index 24	Index2 2	5 Index3			
#	26 Gobo2 21	7 Gobo2Index 2	8 Gobo2Funct	ion		
#	29 Gobo3 30) Gobo3Index 3	1 Gobo3Funct	ion		
# #	32 Prism2 33	SPrismIndex 3	4 PrismFunct	nor		
#	38 Friost 2 30	Fan 4	0 Fan2	UII		
#	41 Strobe 42	2 Strobe2 4	3 Strobe3			
#	44 Colour2 4	ColMixFunc 4	6 ColourFunc	tion		
#	47 Inis2 41	3 Power 4	9 Power2	~1		
#	53 Zoom 54	L FUCUSS 3	5 Zoom3	01		
#	56 Reserved Was	; PanCoarse now	use 3 Pan			=
#	57 Reserved Was	s PanFine now us	e x3 Pan ext	endeo	d	
#	58 Reserved Was	5 TiltCoarse now	/use 4 Tilt		al e al	
#	60 X 6	STITCETTE TOW C	13 E X4 I I I L E 12 7	63 xtent	Theta	
#	64 Smoke 63	smoke2 6	6 slide	67	slide2	
#	68 Shutter 69	Shutter2 7	0 Shutter3	71	Shutter4	
#	72 Shutter1A 73	3 Shutter1B 7	'4 Shutter2A	75	Shutter2B	
# #	80 Autopilot 8	/ Shutterse /	8 Shutter4A 2 Evindey	83	Shutter48	
#	84 Checksum 8	5 Checksum2	2 TAINGER	05	17A dire	
#	86 ShutterRotate	8	7 Macro		-	
# #	88 ColourTemperati	ureorange 8	9 Colour⊤emp	erati	ureBlue	
#	91 PProfile 92	2 TProfile 9	3 PSize	94	TSize	
#	95 PSpeed 90	5 TSpeed 9	7 PPhase	98	TPhase	
#	99 PTRotate 100) Att100				
# #	101 Library 10.	2 File 10 5 Playsneed	3 InFrame	104	outframe	
#	107 Kev:X1 10	3 Kev:Y1 10	9 Kev:X2	110	Kev:Y2	
#	111 кеў:х3 112	2 кеў: ҮЗ 11	.3 кеу:X4	114	Key:Y4	
#	115 Trails 110	5 VisualFunc 11	.7 FX2	118	FX2Index	
# #	119 FX2Function 120	JFX3 12 L∆++124 12	L FX3INDEX	122	FX3FUNC Att126	_
TT.	125 AU(125 12	- AULI24 I2	J AULIZJ	T20	ACCIED	×
\leq						≥:

Note: Scroll down until you see this attribute list on screen.

This list of attributes is consistent within the world of Strand's automated luminaire control. With this system, pan is always attribute 3, gobo is always attribute 8 and so on. This consistency of attributes allows you to change fixtures (as needed for tours) and all the cue data will stay the same within the show file. Any combination of any attributes can run any DMX-based moving light that's out there. It's just a matter of choosing the Strand attribute number that you want and relating it to the appropriate parameter of the fixture in the right order. The attribute order is based on the DMX table from the fixture manufacturer.



Fixture Library

The fixture library itself holds a total of 99 fixtures from many different manufacturers. With more than 99 fixtures out there, you may find that a fixture that you need isn't currently in the library. Not to fear....Strand has many libraries on their website that are built by manufacturer so start there for fixture info. Otherwise, it's simple to build a fixture yourself or email Strand for help.

The library is just a text file so the information can be edited quickly and easily as needed. Let's take a look at the beginning of the fixture library.

Fixture Library Access

In case you are not already there...

{MORE} (NOTES DISP>) (LOAD FILE) (FIXT LIB)



Note: The # at the beginning of the line indicates a remark statement. This isn't the default fixture library. It's the Vari*Lite library from the website.

It starts by giving you remark statements. At the beginning of this file is a key, or legend, of the information to follow.







Below you will find that the actual fixture data within the library is broken down into 6 columns exampled above.

hAtt – is the attribute number from the attribute list. (3 for pan, 4 for tilt...)

Steps – is the number of steps or frames that an attribute has. A color wheel might have 11 steps, a gobo wheel might have 8 steps. One rule though, since attributes can never be off, frame 0 is a position. *NDim* – determines if this attributes is dimmable or not.

Max - sets the maximum DMX value for this attribute.

Min – sets the minimum DMX value for this attribute.

Profile – assigns a profile to this attribute when its fixture is patched.

See picture with icons on the next page.

Next is a partial list of fixtures that are in this library. The example listed is the Vari*Lite library that is on the website.

	/arilit	e.lib -	Notepad			×
Eile	<u>E</u> dit	F <u>o</u> rmat	⊻iew <u>H</u> e	зір		
****		[60] *Sma [61] [62] [63] [74] [73] [74] [75] [77] [77] [78] [81] [83] [84] [92] [93]	[VL7 Mo rt Repe [VL7B M [VL7000 [VL1000 [VL2000 [VL2000 [VL2000 [VL2000 [VL2000 [VL2000 [VL2000 [VL2000 [VL2416 [VL2416 [VL2416 [VL2416 [VL2416 [VL2416 [VL2416 [VL2416][VL2400][VL24000][VL24000][VL24000][VL240000][VL24000][VL24000][VL24000][VL240000[VL24000][VL240000][VL240000[VL24000][VL240000[VL240000][VL240000][VL240000][VL240000[VL240000][VL240000][VL240000][VL240000][VL240000][VL240000][VL240000][VL240000][VL240000][VL200000][VL200000][VL200000][VL20000][VL2000000000][VL200000][VL2	de 10 - 16 bit Extended - ater Plus Unit Only*(if used w/ VL7B)] ode 9 - 16 bit w/ Reset] ode 10 - 16 bit Extended] T/A/TI/AI - 16 Bit Enhanced] TS/AS - 16 Bit Enhanced] Spot 8 Bit Standard] Spot 16 Bit Enhanced] Spot 16 Bit Enhanced] Wash 8 Bit Enhanced] Wash 16 Bit Standard] Wash 16 Bit Enhanced] Wash 16 Bit Enhanced] 8 Bit Standard] 16 Bit Standard] 16 Bit Enhanced] 8 Bit Enhanced] 9 Bit Enhanced] 9 Bit Enhanced] 9 Spot Enhanced 16 Bit Mode] 9 Wash Enhanced 16 Bit Mode] 9 Spot Enhanced 16 Bit Mode] 9 Spot Enhanced 16 Bit Mode]		
\leq					>	

Note: This is only a partial fixture list for this library file.

Scrolling down below all the remark statements, you will get to the actual content of the fixture library file. Let's break this down...

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Fixture Library Editing

Editing the fixture library is simple. It's just a text file so use your keyboard to edit current fixtures or add new ones. Just remember that your softkeys (*cut line, copy line* and *paste line*) can help you.

Take the DMX table from any fixture and determine what Strand attribute numbers that you want to control the fixtures parameters. If the first parameter is Control, then use 20 (Reset). If the second one is Pan, then use 3. if the third one is Pan Fine, then use x3. Just continue until you have your list and then input into the fixture library. It's that simple!



Patch

Just remember that with a Strand console, patching is always *Dimmer @ Channel ENTER*. Patching a moving light is just an extension of that. *DMX number @ Channel (@FIXTURE) Fixture Number ENTER*.

Patching Automated Fixtures

Most production electricians that I work with like to separate the automated fixtures to a different universe that the universe that is used for dimmers. This is often universe 1 for dimmers and universe 2 and up for movers. We'll use this format in the patch example.

The first thing that I like to do when patching to multiple universes is set the desk to show me universe and DMX output numbers versus dimmer number. So instead of typing in 513, I type in 2.1. The 2 or the number left of the period is the universe number and the .1 or the number to the right of the period is the DMX number. So the first DMX address in the 2nd universe is 2.1. Here is how you change your display...

{PATCH} (SET>) (DMX/OUTPUT) (<BACK)

Single Fixture

To patch a single fixture, it's...

2.1 @ 1 (@FIXTURE) 19 ENTER

MS L	ightPalett	e - CIOS							_ 8 ×
Ŧ	6 x 10 🔹		6	🔁 🖻					
3:5	7PM 10/00	5/05 (DUTPUT OF	RDERED P	ATCH 1	*Demo	ocracy B	rooks	GM=FL/FL
	1.505 1	1.506 1	.507 :	1.508 1	1.509 1	1.510 1	1.511 :	1.512	Intensity Total 6000 Totlse 117
DMX	2.1:19	VL5-1	LGE M4 V;	ari-lite	.5	.6	.7	.8	Free 5883
CHN		Pan	Fine	Tilt	Fine	Cyan	Yellow	Magenta	Attribute Total 2000
DMX CHN	2.9 1.10 Frost	.10 1.17 Speed	.11 1.18 Col Spee	.12 1.19 BeamSpe	.13 1.20 Reset	2.14	2.15	2.16	InUse 278 Free 7605
DMX CHN	2.17	2.18	2.19	2.20	2.21	2.22	2.23	2.24	Live 1 Edit 1
DMX CHN	2.25	2.26	2.27	2.28	2.29	2.30	2.31	2.32	Wheel
DMX CHN	2.33	2.34	2.35	2.36	2.37	2.38	2.39	2.40	10
DMX CHN	2.41	2.42	2.43	2.44	2.45	2.46	2.47	2.48	
OUTP Set chan	UT ORDERED patch for nels	D PATCH 1 Level, (l:2.1 @P) Colour an	ATCH 1 @A nd Non-D	IXTURE 1 im1 -DEFLT	L9 * 2 : @NON -	3@FIX- 4 -TURE -4	≝6k12k-⊂⊦	6 IAN⊯ −SET⊫

When you type in the fixture number (19 in this case) you will see the fixture name show up at the bottom of your screen. This is BEFORE you press the *Enter* key. If the number is not the correct fixture, just



press *Next* or *Last* and you'll cycle through all the fixtures in the library. When the right one is selected, just press *Enter*.

Range of Fixtures

A range of fixtures can be patched as well. This will minimize the keystrokes that are needed for patching multiple fixtures.

2.14 @ 2 THRU 4 (@FIXTURE) 19 ENTER



This took the next available DMX address in universe 2 and patched the VL5 to channels 2 thru 4. Notice that I didn't have to identify the starting address of every fixture. The software did that for me. This way, I can patch the show and then give the patch information to the electrician to address the fixtures.

Invert Pan / Tilt

I always make sue that the lights are working intuitively on the trackball. So that when I roll the trackball upstage, the fixture moves upstage as well. If it doesn't, then I usually need to invert the tilt on the unit.

2.1 (@FIXTURE) (INVERT TILT) ENTER

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Notice that the softkeys change once you press @*FIXTURE*. *Invert Tilt* is now available as a soft key. Once it is accepted, the labels for the tilt attributes change to cyan from blue. This lets you know that these attributes have been inverted.

Also notice the other softkeys available now. *Swap Pan & Tilt* does just that. Pan now controls tilt and tilt now controls pan. *Invert Pan* should be used if the light pans right when you roll the trackball to the left. Just invert what is necessary on all fixtures until you have intuitive movement for everyone. It will make your life much easier for programming.

A quick note...If the fixtures are not oriented properly, don't program cues prior to inverting pan and tilt. This WILL insure that the lights will be pointing in the wrong direction so make sure they are oriented correctly prior to cueing.

Delete Fixture Patch

If you need to delete a fixture, it's as simple as following the old LightPalette syntax for getting rid of a command...just expanded a little for the moving light world.

2.1 (@FIXTURE) ENTER

Unpatching a fixture does just that. But you should take note that it doesn't delete the channels. All the show data (cue, group, sub and fx) are still within the console. It's just that the channel doesn't control anything because a fixture isn't patched.

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MS L	ightPalet	te - CIOS	;						_ 8 ×		
Ŧ	6 x 10	•	Pa 💼	🔁 🖆							
4:1	1PM 10/0	06/05	OUTPUT O	RDERED P	ATCH 1	*Demo	ocracy Br	rooks	GM=FL/FL		
DMX CHN	1.505	1.506	1.507	1.508	1.509	1.510 1	1.511 1	1.512	Intensity		
	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	InUse 117 Free 5883		
	2.9	2.10	2.11	2.12	2.13	2.14:19 2	VL5-0 2.3	LGE M4 V 2.3	Attribute Total 2000 InUse 278 Free 7605		
	ari-lite	₂.18 2.4	.19 2.11	.20	.21	.22	.23 2.17	.24 2.18	Live 1 Edit 1		
DMX CHN	2.25 2.19	.26 .26 .2.20	Cyan 2.27:19 3	VEI Iow VL5- 3.3 Pow	16E M4 V 3.3	ari-lite 3.4	.31 3.4	.32 3.11	Wheel		
DMX CHN	2.33 3.13 Yellov	.34 3 3.12 V Magenta	.35 3.10 Frost	.36 3.17 Speed	.37 3.18 Col Spee	.38 3.19 BeamSpe	.39 3.20 Reset	2.40:19 4	10		
DMX CHN	VL5- 4.3 Par	-16E M4 V 4.3 1 Fine	ari-lite 4.4 Tilt	.44 4.4 Fine	.45 4.11 Cyan	.46 4.13 Yellow	.47 4.12 Magenta	.48 4.10 Frost			
OUTP Set chan	DUTPUT ORDERED PATCH 1:2.1 @FIXTURE * Set patch for Level, Colour and Non-Dim1 2 3@FIX-4 5 6 channels -DEFLT -@NON -TURE -@6k12k-CHANP -SETP										

This leads to the next item.

Replace One Type of Fixture with Another

If you program a show that moves and some of your equipment changes, all you have to do is unpatch one type of moving light and patch in another. The first step was accomplished above by unpatching the VL5. Now if another wash light is going to be used, like a Mac600, you can just patch that new fixture to the old channel number.

2.1 @ 4 (@FIXTURE) 46 ENTER

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This patched the Mac 600 in its place. Now, as long as the attributes are the same, then all the show data will still be there. Different manufactures deal with fixtures differently so there may be variation in the show data based on the physical differences in the fixtures. Allow time to convert the data appropriately.

Just repeat patching your fixtures until you have all your moving lights patched for your show. Make sure that all pans and tilts are inverted properly before we move on.

FYI, I'll repatch the Mac 600 back to a VL5 for the remainder of the tutorial.



Setup Options

There are some setup options that I recommend to facilitate automated fixture programming. See the screen below...

💦 LightPalette - CIOS			_ 8 ×
ዥ 6 x 10 💽 🛄 🛍 🔂 💕		X	
5:29PM 10/06/05 USER SET Control Modes Channel Control Mode COMMAND LINE CC Auto Hold Mode ON ON Level %80 UP DOWN %5 Wheel Mastering PROPORTION Wheel Sensitivity MEDIUM Wheel CC In Preview OFF Stop Key OFF GM Affects Record OFF	TUP	*Democracy Broo Default X Back, Cut Cue Fade Up/Down Cue Delay Up/Down Cue Wait FX Step FXStep In/Dwell/Ou FX Up/Down Undo Time	ks GM=FL/FL 1 mes 0 /0 5 /5 0 /0 0FF 0.1 t 0 /0FF /0 0.5 /0.5 2
Display Options Display Language ENGLISH Channel Display LP+ Smart Channel Display TRACKER PRESET Auto Channel Page ON Channel Formatting OFF Live Screen Layout PB X Playback Colors LIGHT PALETTE D X Playback Colors LIGHT PALETTE D X Playback Format EXPANDED Show Last Recorded Cue OFF Screen Menus ON Preview Follows Live ON	I	Number Screens LCD Contr, Backlt Gooseneck Bright Buzzer Volume Macro Tablet - Mode - Net Node, Port Mouse - Net Node, Port Console Keys Layou Submaster Layout	2 100 ON OFF MACRO (LOW) LOCAL OFF LOCAL OFF LOCAL OFF DEFAULT
1	6	1	
SETUP: *	1	2 3 4	5MEMORY6
Select item to edit	-DEFLT		-LOCKBACK

This is the way I like my User Setup screen. You don't have to copy it exactly but the important setup selection is the display option – *Smart Channel Display*. Set that to *Tracker Preset*.

Tracker Preset

Tracker is the moving light application for the Strand operating software. Tracker Preset will allow you to see the Preset Focus Groups for moving lights. You'll see what this looks like when we go to the Live display.

Auto Move While Dark

Let's not forget about Auto Move While Dark. That lovely feature that was discussed in the Scroller Addendum tutorial. Set it and forget it!

{REPORT} (ADV SETUP>) (SHOW SETUP)

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S 127.0.0.1 User 1 Screen	1 Login				
12:33PM 11/06/05		SHOW SETUP	×		GM=FL/FL
Show	Details			MIDI	
Cue Tracking Playbacks	ON Single	Fade /Ne lau	Channel, Mo Net Node Eader Key	ode Controlle	OFF BACKUP
Auto Move While Dark Auto Preheat	on off	3 /0.5 1 /1	Notes, Velo Trigger Mac	controlle poity pro	OFF OFF
Power-up Restore Power-up Macro	on Off		MSC ID Rx, Tir	tes Tx mecode Opt	OFF OFF OFF OFF ions
			Source		OFF
GM 1 Fade Up∕Down GM 2 Fade Up∕Down	0 /0 0 /0		Frame Rate Clock Over	ride	30 frames OFF
Chappel Partitioning	055			10de	
Playback Partitioning	OFF			Patch	LUCHL
Handhald Perete	Mada		Default Sca	ale %	100
	Nisnlau	Anto	Default N-I	Nim 2	80
Ż	Display	Only		Console Ti	me
3	Display	Only	Time Displa	ay	AM/PM
4	Display	Only	Date Displa	iy	MMZDDZYY
			Set Time H	1:MM	12:33
Cue Sheet Macros	MAIN CO	NSOLE	Set Date DI	D/MM/YYYY	_6/11_2005
MTUTE00 044 T 40	-4- 1-4-	At lime Ma	Cros	_ M	
AAAAAAA	ate Inter		DEF DEF DEF	j nacro	
	FF		OFF OFF OFF		
	FF	OFF	OFF OFF OFF		
VVVVVV OFF O	FF	OFF	OFF OFF OFF		
OFFON					
SETUP:					
Select item to edit		1 DEF	2MIDI 3 Lt sync	4	5 6 ∢back

{LIVE}

While running cues, the console will look ahead one cue and one cue only. Any automated fixtures that have intensity in the next cue will be automatically set to the attribute values for the next cue in the default time that was set in the *Show Setup* screen shown above.

I've used my default values for the settings. The fade time will determine how fast or slow the fixtures move and the delay time sets the amount of time that the console holds before it processes the auto move after the previous cue completes.



Live Control

Let's go to Live and see what we have.

{LIVE}



This shows the conventional screen but notice a few things. I only have the channels that I'm actually using showing. This is because I only patch the channels that I'm using. This is NOT just a display option. All other channels have actually been deleted.

Also notice that most of the channels numbers are in cyan or white. (Cyan for LightPalette – white for GeniusPro) This represents a standard intensity channel. Some of the channels are in light grey. This represents an intelligent fixture. An intelligent fixture can be anything from a Leko with a scroller up to a moving light or media server. If you capture one of the intelligent channels, Tracker Preset will show you the rest. The number under the intensity value location for channels 15 thru 17 indicate a color wheel or color scroller.

Let's capture our first moving light and see what we have...

1 ENTER



Locking Pan and Tilt

You can choose to lock Pan and Tilt if you ever need to just move just the X or the Y on the unit.

HOLD THE CENTER TEAL KEY ABOVE THE TRACKBALL

TOGGLE THE LEFT TEAL KEY ABOVE THE TRACKBALL

Now there is a flag on the bottom right of the cue list that says PAN LOCKED and the appropriate attribute is in grey on the channel screen's attribute list.

Toggle the left teal key again while holding down the center teal key and it will release it. Repeat for the right teal key and the tilt will lock.

Speed Multiplier

You can also hold down the center teal key and move the trackball. This multiplies the rate of movement.



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ATC Page

The ATC or Attribute Control Page is a simple text document that allows flexibility in how the automated fixtures are controlled, displayed and filtered for recording. There are 3 sections to the ATC Page. We'll go into each one at a time but first, let's access the file.

{MORE} (NOTES DISP) (LOAD FILE) (ATC PAGE)



The remark statements at the beginning of the file give the details of the information contained within the file. I'll go through this file in the order that I edit the file...not in the order of the information presented.

Display Order

The display order allows the flexibility of determining the display order of the attributes. Scroll down until you find the information displayed below...

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🔀 LightPalett	e - CIOS						- 8
∏ nr 6 x 10 _	-	è 🔒	🔁 🖻		1		
11:15PM 10/0	6/05 atcp	bage.lib	N	DTES	*De	mocracy Broo	oks GM=FL,
[F9][Filter9]							4
[F10][Filter1	0]						
[F11][Filter1	1]						
[F12][Filter1	2]						
[D1]							wheel
[51][Gen]], 3,	4,	2,	5,	53,			6
[52][Gobo] 1, 3,	4,	6,	8,	9,	23		±
[53][CMY] 1, 3,	4,	10,	11,	12,	13		
[54][Blades 1 1, 3,	& 2] 4,	72,	73,	76,	77		1
NOTES: * Use trackball text	to move	cursor,	then ed	it1CUT LINE	2COPY	3PASTE 4 LINE	5SAVE 6LO FILEFI

D1 – stands for Display 1 and that is for the display of user 1 which is always the main console. With the line below it blank or default, this means that you are seeing the attribute information in numerical order - 1 thru 126. Since we have VL5s, let's assume that we want to change that display order and we want Frost to appear below CMY and that all the speed channels want to be moved below reset. Simply input the numerical order that you want. Scroll your cursor to the line below [D1] and type this in...

1, 3>4, 11>13, 10, 20, 17>19, 2>126

What you have done is set the attribute order numerically. You inputted the specific info; now let the software do the tedious math. Press (*Save File*) and watch the screen.

(SAVE FILE)

The software has fixed all of the syntax for you to make that a legal entry. Here is what you should see...

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the second se	LightPalet	te - CIOS							_ 8
Ŧ	6 x 10	• 🗆	à 🛍	🔁 🖆					
11:2	21PM 10/0	6/05 atc	page.lib	N	OTES	*De	mocracy	Brooks	GM=FL
[F9]	[[Filter9]								3
[F10)][Filter1	0]							
[F11	l][Filter1	1]							
[F12	2][Filter1	2]							
[D1] 1, 3] 3 > 4, 11	> 13, 10	, 20, 17	> 19, 2	, 5 🛯 9,	14 > 1	6,21 >	126	Wheel
1000									
[51] 1,	[Gen] 3,	4,	2,	5,	53,				6
[51] 1, [52] 1,][Gen] 3,][Gobo] 3,	4, 4,	2, 6,	5, 8,	53, 9,	6 23			⊧ 6. ∃
[51] 1, [52] 1, [53] 1,][Gen] 3,][Gobo] 3,][CMY] 3,	4, 4, 4,	2, 6, 10,	5, 8, 11,	53, 9, 12,	6 23 13_			4 6

To see the fruits of your labor, go to Live and press Live again 3 times total. What this will do is refresh your Tracker Preset screen to show the new order...

MS	LightPalette -	CIOS								_ 8 ×
Ŧ	6 x 10 🝷	[]] 🖻 🛍	*		- A					
11:	28PM 10/06/0	5 0001 VL5-16	0002	LIV VL5-16	E 0003	*Der VL5-16	nocrac 0004	y Brook≤ VL5-16 C	;)005 VL	GM=FL/FL .5-16
13	Intensity Pan		0		0		0		0	1
4	Tilt	000	0		000		00		000	4
11	Cyan Magenta	0	Ŏ O		ŏ		Ŏ		Ŏ O	11
10	Yellow Frost	0.0	000		000		000		000	13
17 18	Speed Col Speed		000		000		000		000	20 17 18
19	BeamSpeed	0005 VL5-16	0 0007	VL5-16	0008	VL5-16	0 0009	VL5-16 C	0 0010 VL	.5-16 ¹⁹
T R	Pan	00	0		0		0		0	3
4	Tilt	0 0	0 0		0 0		0 0		0 0	4
11	Cyan Magenta Vellow	0	0		0		77 0 45		000	12
10 20	Frost Reset	0 0	ŏ		ŏ		0		ŏ	10 20
17 18	Speed Col Speed Poorssood	0	000		000		000		000	17 18
13	beamspeed	0			0					13
LIVE > CL	E: 4e: 1 :F	BO		7	COLOR	8GOBO CLR	9HARD G1	1IRIS OOPEN	1HOME 1	1CLEAR 2



The really nice thing about this feature is that if you are on a multiple desk system, you can add D2 for the 2nd user and so on. The maximum is 5 consoles on a system so you can have 5 user lists. This is great for a programmer that wants one list and a designer that wants another order.

Attribute Groupings

There are two line groupings in the *ATCPAGE.LIB*. Each of these groupings is an ATC Page. They allow the flexibility to determine which grouping of attributes work together on the encoders. To understand this better, let's see how these are used.

From the Live screen, go to the 3 teal keys that are above the trackball. If you press the right one of the three, the attribute selection will move down the ATC Pages list.

On my console, this is what I get...

🔀 LightPalette -	CIOS						_ 8 ×
7 r 6 x 10 .▼	[]] 🖻 💼						
9:28AM 10/07/0)5 >> 0001 VL5-16	0002	LIVE	*Den VL5-16	nocrac 0004	y Brooks VL5-16 OOM	GM=FL/FL DS VLS-16
Intensity Pan	0	0	0		0	0	1 3
4 Tilt	0	000	0		000	0	4
11 Cyan 12 Magenta	0	000	0		00	0	11 12
13 Yellow 10 Prost	0	00	0		0	0	13 10
17 Speed	0	000	0		000	0	17
19 BeamSpeed	0 0006 VL5-16	0 0007	VL5-16 0008	VL5-16	0 0009	0 VL5-16 00	19 10 VL5-16
Pan Pan	0	0	0		0	0	1
4 Tilt	0 0	ŏ	ŏ		ŏ	ŏ	4
11 Cyan 12 Magenta 13 Yellow	0	000	0		77 0 45	0	11 12 17
10 Frost	ů o	ŏo	ő		0	ů o	10
17 Speed 18 Col Speed	0	000	0		000	0	17
	0	0	0		U	ų	19
LIVE:			7COLOR	8GOBO	9HARD	1IRIS	LHOME 1CLEAR

Now, it's the Reset and Speed attributes that are on the encoders where it was CMY and Frost on the earlier set. If you press the left teal key, it will go back to the previous assignment.

Rotary Window

Now look at the cue list screen. (This assumes you have a 2 monitor setup) in the upper right hand corner at the "Rotary Window". This will show you the DMX values rather than the percentages for the attribute values. The important thing for now is look at the Page info. It says 53/93. This tells us that the encoders are using ATC Page 53 and the highest numbered ATC Page is 93. If you page through using the right and left teal keys, the encoder assignments will change as the page number changes.

6 x 10 -

10/07/05

ΔF

Ŧ

:33AM

Page 22



Also, if you press and hold the center teal key above the trackball and look at your softkeys, you'll see that these are ATC Pages for encoder assignments. Pressing any of these softkeys will assign that attribute grouping to the encoder wheels. The softkeys are accessing ATC Pages 51 thru 56.

FULL

-DOWNX

HIP%

Now let's go back to the ATC Page and see what we can edit to help our encoder assignments. If you haven't gone to any other page, you can just press Last Screen to get back.

LAST SCREEN

IVE:

Cue:

: FBO

Scroll down until you find a page that looks similar to this. You'll find different ATC Pages since the file that I'm using has already been modified for this production.

6THRU

-FLASH

Page 23





Editing this file is easy, just change the ATC Page number, name or attribute number that the appropriate device is controlling. If you look at the one that has been highlighted, 53 is the Attribute Map number and since this is within the range of 51 through 56, it shows up on the softkeys when the center teal key is pressed. I have named it CMY because it assigns Frost, Cyan, Magenta and Yellow to the White, Blue, Red (or orange) and Purple encoders in that order.

Create as many ATC Pages as you need. You'll probably notice that many ATC Pages already exist in your file. Some are specific to fixtures where some are generic to attribute groupings. You can also delete ones that you don't use. That is something that I do. I don't want to use the right and left teal keys and page thru a bunch of ATC Pages that I never use. Just use the *Cut Line, Copy Line* and *Paste Line* soft keys to help in editing. Just remember to press *Save File* when you are done. If you forget to...don't worry. It automatically saves. I like to do it so that it I see the console fix any formatting issues.

Attribute Filters

The attribute filters allow the flexibility of filtering out information for recording of preset focus groups. When you press the @ATT key, the attribute filters show up on your softkeys.

@ATT

Attribute filters F1 thru F6 appear on your softkeys. If you need more, attribute filters F7 thru F10 are available on the 520i. They are your center 4 teal keys. Just watch the screen menus. Attribute filters F7 thru F12 are available on the 530i and 550i on your center grouping of teal keys.



🎇 Ligi	htPalette - CIO	S				_ 8 ×
ካ 6	x 10 💌 []]	h 🛍 🛃				
11:39A)	M 10/07/05	X Plavhack 1	LIVE - This Cue Or	*De	mocracy Brooks	GM=FL/FL Rotary
0 0	AF Time	0	intro cue or		6	E .
					HL's P/set	VL5-16E M4
					FBO	Vari-lite
					bld chair top ri	
					add MSL pool	Pan 0
					add DL	Tilt 0
					shift to top gen	
					X to MSL	Frost 0
		3/5			shift to chair t	Cyan 🧧 🚺
	Time				shift to SL & ta	Magent U
			and the second second		build gen bot le	Tellow U
		1/3			A to down left	D F7 (07
					add desks & step	Page 53/93
		240			SK desk & bars	lilace1
					X to bright bot	wrieet
					shift to SR deal	
					add SR & top des	
					lose top bld gen	
0 14.					add door sp	e o 1
0 14.	7 Time				lose sp	
					focus to desk SR	
		0/5			X to DSL table	
		1/2			shift to chair t	
					shift to DSL tab	
		2/4			shift to top rig	
Q 20		2/3			return	
		2/3	AttTime	- 9	X to top right	
Q 22	Time	2/3	AttTime	1	return DSL	
LIVE: (BAIT _		10	-1-		- the color
- C	10 - EDO		1Positi2	Colou	insBeam 4Focus 5SI	nuttessnape
> cue:	1 : FBU		-on -		r	-

These attribute filters can be edited quickly and easily to filter the attributes that you want to group together. Look toward the beginning of the ATC Page for the filters.



Shown here is an ATC Page that has been edited. Notice that any numerical list can be included in any filter. Just setup what is needed for speed of programming.



Recording Preset Focus Groups

Preset Focus Groups are groups that allow cue data to reference back to the group data for attributes only. The way this works is lights are placed in the correct color groups, gobo groups and position groups and then the current state is recorded as a cue. Once recorded, the cue is now referencing the preset focus groups. If you change the info in the groups, then all cue data is automatically updated. Remember that preset focus groups are from 1 to 750. Groups from 751 and up are NOT preset focus groups as well as point groups.

Group Layout

Although not mandatory, I recommend defining a group layout for your show. This is just a numerical framework that makes it easier to catalog your show groups. There are two main categories for these listed below.

Utility Groups

Utility groups are programming tools that prepare the lights for creating show content groups. There are two main utility groups that I use: Home and Clear.

Home takes the light back to a default position without affecting other attributes. If the light is a yoke based fixture (not a mirror unit) and the fixture is hung on a standard electric where the housing is square to the electric, then this will be pan at 50 and tilt at 50. Some programmers refer to this as 50/50. Using this group orients the light straight down and rotates the yoke until its square to the electric. This usually has the yoke running stage left to stage right. If the light is a mirror unit, then the pan and tilt values can be anything you want. Just have the fixture focused where you would like for its home position.

Clear takes all other attributes to a default position. Iris, Focus, Color, Gobo, Shutters...everything else goes to a default position. For Color and Gobo this will be zero so there is no color or gobo present. For Iris it could be open (Full), it could be closed (0) or 50% or anything in between. Just put it where you want it to be as a place to start. For Focus, this could be a value that would give you a hard edge or maybe a soft edge. You get the idea. I also include the reset channel at the manufacturer's required value to have the lamp on.

These groups are not meant to be part of show content so I place them outside the range of preset focus groups. Home is Group 751 and Clear is Group 752. You are also not limited to these two utility groups. If you wish you have a Clear Color group then record just color info into a Group 753. If you want a Clear Gobo group, then record the gobo info at 0 as Group 754. Remember that for a Clear Gobo group you might want focus as part of it, you might not. I usually make this determination based on the type of show that I'm doing. The main this is that I don't always assume the groups and the info in the groups will be the same for every show. Adjust the data to apply to the show as you need it.

Below is an example of utility groups that I used on a Broadway show.



Page 26

6 127.0.0	.1 User 1 Screen 1 Login			
8:21AM	31/10/05	GROUP 751 ×		GM=FL∕FL
Group	lext			Rotary
(32	DESET CLD			
753 754	ILLO DEQET			
755				Pan
756				Tilt
757				
758	CLR COLOR			Speed
759	STORAGE			ColSpe
801	DC CHKOUT			BeamSp
900				Reset
901				
902				Page 53/93
903	RAIN TEST			
992.1	*Circle			<u>Whee I</u>
992.2	∗Can Can			
992.3	*Iriangle			
992.4	*Square			
992.8	*Figure Uf Eight			445
993.1	*UN			115
773.2	*UN 2			
993.J	*UN J ∞ON 4			
993.5	≈0N 5			
993.6	*ON Handbeld			
993.7	*ON Handheld 2			
993.8	*ON Handbeld 3			
993.9	∗ON Handheld 4			
994.1	*Display			
GROUP 751	:			
Select a to edit a	group, then SHIFT + n item	TRACKBALL 1 2 3 DELETE DOWN% UP%	4 5 	6

Show Groups

Show groups are groups that contain show data for programming the cues. These usually break down into positions, colors and gobos as a minimum. On some shows, I might include FX groups, beam groups, iris groups and anything else that the show requires. On the example below, notice how I predefined my group numbering scheme so that each new item type starts with the next hundred.

6 127.0.0	.1 User 1 Screen 1 Login		
8:26AM	31/10/05	GROUP 100 *	GM=FL/FL
Group	lext		Rotary
50	SWITCH		i 🛛 🖬
52	EHOT GENHANT		
54 54	DALIN		Pan
55	W INDOW		Tilt
> 100	***Show Color Mix		
101	CYAN MIX		Speed
102	YLW MIX		ColSpe
103	LAV MIX		BeamSp
104	BLUE MIX		Reset
105	OLD CYAN		
106	1/2 CYAN		Page 53/93
107	ROSE MIX		
108	LICYANTIX		Wheel
110	Norway Sun		
200	**************************************		
201			
202	VELLOW		56
204	CYAN		
205	ROSE		
206	GREEN		
207	MAG		
208	LAV		
209	PINK		
210	ORANGE		
211	UV		
212			
GRUUP 100	: DELETEGRP 109 *	4 2 2	
Text:		DELETE DOWNX UPX	



Building Groups

In Preview

Let's start by building our utility groups. I usually build those blind in preview. The example is based on 10 VL5s that have been patched as channels 1 thru 10. Just adjust your channel numbers accordingly if you don't have the same fixtures patched.

{PREVIEW}

GROUP 751 ENTER ENTER

1.3 THRU 10.4 @ 5 ENTER



Notice that I captured the attributes that I wanted just by typing them in. The number on the left side of the point is the channel. The number on the right side of the point is the attribute number. Also notice that "THRU" worked on both sides of the point so that 1.3 thru 10.4 is actually processing 1 thru 10 but only .3 (pan) thru .4 (tilt).

I always like to press clear afterwards so that I can see the actual values not selected.

CLEAR

Page 28



99 I.	27.0.0.1 User 1	Screen 2 Logi	n				
8:4	10AM 31/10/0	15 <u>, </u> >>		GROUP 751	*		GM=FL/F
-	1-4!4	0001 VL5-1	ь 0002	VL5-16 0003	VL5-16 UUU	4 VL5-16 VVV5	VL5-16
-		FA	F A	50	го	ГА	i 💻
J	ran	50	50	50	50	50	
4	T 1 1 4	E N	ĘŇ				·
4	ΠΠτ	50	5 <u>0</u>	50	50	50	
		Ň	Ň	Ŭ	Ŭ	V	
10	Frost	0 0	Ū,	Ŭ	Ŭ,	Ŭ,	1]
11	Cyan	Ŭ	Ŭ	Ŭ	Ň	Ŭ	1
12	Magenta	0	0	0	<u>0</u>	0 Q	1 1
13	Yellow	0	0	0	0	0	1
17	Speed	0	0	0	0	0	1 1
18	ColSpeed	0	0	0	0	0	1 1
19	BeamSpeed	0	0	0	0	0	1 1
20	Reset	0	0	0	0	0	2
		0006 VL5-1	6 0007	VL5-16 0008	VL5-16 000	9 VL5-16 0010	VL5-16
1	Intensity						
3	Pan	50	50	50	50	50	i –
		0	0	0	0	0	i —
4	Tilt	50	50	50	50	50	
		0	0	0	0	0	i
10	Frost	ň	ň	ň	ň	ň	1
11	Cuan	ň	ň	ň	ň	ň	
12	Magenta	ň	ň	ň	ň	ň	-
13	Yellow	ň	ň	ň	ň	ň	
17	Sneed	ň	ň	ň	ň	ň	1
18	ColSpeed	ň	ň	ň	ň	ň	
19	ReamSpeed	ň	ň	Ň	Ň	Ň	
20	Recet	ň	ň	ň	ň	Ň	
20							
GROU	IP 751: ×						
Sele	ct a group,	then SHIFT	+ TRAC	KBALL 7GOBO	8HARD 91R	IS 1HOME 1C	I FAR 1MAC

Note: White values are the only ones that are actually values in the group. Grey values are legal attributes that don't have values in this particular group.

Now let's build the clear group.

GROUP 752 ENTER ENTER

1.10 THRU 10.20 @ 0 ENTER

CLEAR

53 -	127.0	0 1 User 1	Screet	2 Login									
	121.01	o. i user i	Juneer	1 Z Login									<u>ماركار</u>
10:	09AM	31/10/0	05		0002	GRUU	P 752	*	0004	WE 40	-000E	GM	=FLZFI
	Late		0001	VL5-10	0002	VL5-10	0003	VE5-10	0004	VL5-10	0005	VL5-	16
	Pan	nsity	0		0		0		0		0		
	Tan		ň		ň		ň		ň		ň		
4	Tilt		ŏ		ŏ		ŏ		_ŏ		ŏ		
			Õ		Õ		Õ		Õ		Õ		
10	Fros	t	0		0		0		0		0		10
11	Cyan		0		0		0		0		0		1^
12	Mage	nta	0		0		0		0		0		17
13	Yell	οw	0		0		0		0		0		1
17	Spee	d	0		0		0		0		0		
10	COTA	peed	0		No.		Ň		N N		0 0		1
20	DCam Rece	speea +	Ň		Ň		Ň		Ň		Ň		1.
20	nese	L		UI 5–16	0007	Ш 5–16	0008	Ш 5–16	0009	Ш 5–16	0010	UI 5-	16
1	Inte	nsitu	0000	VLJ IO	0001	VLJ IO	0000	VLJ IO	0003	VLJ IO	0010	VL3	10
3	_Pan		0		_0		0		_0		0		
4	Tilt												
					0		0		0		0		
10	Fros	t	0		0		0		0		0		10
11	Cyan		0		0		0		0		0		1
12	llage	nta	Ň		0		Ň		<u>v</u>		0 0		11
13		wo A	Ň		0		0		Ň		0		1
18	3966 2101 !	u need	ň		ň		ň		ň		ň		15
19	Beam	Speed	ŏ		ŏ		_ŏ		ŏ		ŏ		1
20	Rese	t	ŏ		ŏ		Ŏ		ŏ		ŏ		20
GRO	UP 75	2: *											
Sel	ect a	group,	then	SHIFT +	TRACK	BALL 7	GOBO	SHARD	91818	s 1HOME	E 1CL	_ear	1MACRI
to	edit	an item					CLR	G1	OPEP	0	1		ZLCD6



Depending on the fixtures that you have patched, your syntax will change to include a wider range of attributes. That syntax was used because the fixtures were VL5s. Just reference your numerical attribute list on the left side of the channel page.

In Live

Building groups in Live is easy using the attribute filters. Let's build a position group first. Select the unit, turn it on, move the unit into position, record the group. Let's see how...

1 ON

TRACKBALL THE UNIT INTO POSITION

1 RECORD GROUP 1 @ATT (POSITION) TEXT "CAFÉ" ENTER

@ GROUP 1 ENTER



So the first thing was channel one was captured and turned on. Then the unit was moved into position over the "Café" table. Now let's breakdown the next syntax...



Now that we see all the different components to this syntax, let's talk about the options.



<u>Channel List</u>: With a channel list, the following action will only apply to the channels in the channel list. If this is excluded, the command string would start w/ Record. This means that it would take all fixtures in the show that have position attributes.

RECORD: That's the action for this command. You could change this out for Update.

Item: This could be changed so that you are recording into a *Cue* or *Sub* rather than a *Group*.

<u>Item #</u>: Choose any number that you want. Groups can be numbered from 1 to 999. If you use point groups like 1.1, then it will NOT be a preset focus group. Only whole numbers are preset focus groups. Also there are utility groups in the 900s range. These are defaults.

@ATT: This changes the softkeys to access the attribute filters.

(POSITION): This is the first attribute filter that is in the ATCPAGE.LIB.

TEXT: So that the group can be labeled at the same time that it is created. This step is optional.

"CAFÉ": Just the content of the label.

ENTER: Finishes the command syntax.

Notice that the last line of the previous example was "@ GROUP 1 ENTER". Prior to that command, the group was recorded but the fixture was not accessing the group. This tells the fixture to access or go to the group. If the data on screen is numerical, then it is NOT accessing the focus group. If the data shows the label then it IS accessing the group.

Now let's repeat this recording process for a color group.

1*0N*

ROLL THE BLUE WHEEL FOR THE CYAN COLOR FLAG

1 RECORD GROUP 101 @ATT (COLOUR) TEXT CYAN MIX ENTER

@ GROUP 101 ENTER

Note: depending on your ATC Pages, Cyan may be on a different encoder.





								_	
	<u> 1</u>	27.0.0.1 User	1 Screen 2	Login					
	11:4	12AM 31/10	/05 >>		LIVE	×		Gl	1=FL⁄FL
			<u>00</u> 01 VI	L5-16 0002	VL5-16 0003	VL5-16 0	004 VL5-16	0005 VL5-	-16
	1	Intensity	FL						1
	3	Pan	Cafe	0	0		0	0	3
	4	T:14	Cafe	U N	Ŭ,		Ŭ,	Ň	4
	4	1111	Cafe	, North State	X		0	X	4
	10	Frost		ň	ň		ň	ň	10
	11	Cvan	CYAN M	IX Ŏ	ŏ		ŏ	ŏ	11
	12	Magenta	CYAN MI	IX 0	Ō		Ō	Ō	12
	13	Yellow	CYAN MI	IX 0	0	l	0	0	13
	17	Speed	0	0	0	l	0	0	17
	18	ColSpeed	0	0	0		0	0	18
	19	BeamSpeed	0 0	U U	Ŭ,		0	Ň.	19
	20	Keset					009 11 5_16 1		-16 20
	1	Intensitu		L3-10 000r	VLJ-10 VVV0	VL3-10 V	003 013-10	0010 013-	-10
	3	Pan	0	0	0		n	0	3
			ŏ	ŏ	ŏ		ŏ	ŏ	
	4	Tilt	Ō	Ō	Ō	(Ō	Ō	4
			0	0	0	I	0	0	
	10	Frost	0	0	0	l	0	0	10
	11	Cyan	0	0	0		0	0	11
	12	Magenta	0 0	0 0	U O		0	ů,	12
	17	Speed	U N	N N	No.		0	X	17
	18	ColSneed	ň	ŏ	ŏ		ů n	Ň	18
	19	BeamSpeed	ŏ	ŏ	ŏ		ŏ	ŏ	19
	20	Reset	ŏ	ŏ	ŏ		ŏ	ŏ	20
	LIVE				70000				
	> Cu	ie: 1 :	FBO		7GUBU CLR	IG1 I	TRIS THUME Open o	1CLEAR 1	1MACRU 2LCD6
ł									

Just repeat this process for all colors that are needed in the show. You can also repeat this process using other attribute filters for gobos, shutters, focus, and iris...whatever you want! Just remember to set the attribute filters that you want to use in the ATC Page.

Preset Focus Group Display Options

Standard Group Display

You have different group displays that can help you view the group information in different ways. The view above where you see the group text is the standard group display.

Preset Display

By pressing *Shift* + *the Group Display* button at the same time, you can toggle through the group display options.

SHIFT {GROUP}

Page 32



This is now displaying the group number first, then the group text because sometimes it's easier to deal with group number info.

Control

Let's see what other options there are...

SHIFT {GROUP}



Page 33



This shows the percentage values first, then the group text because sometimes, you just want to know what the mix values are on colors.

SHIFT {GROUP}

Pressing Shift + Group Display again will toggle you back to the default group display.

Copying Info from One Fixture to All Fixtures

So we have stored our CYAN MIX color for channel 1. What if we want to copy this to all of our VL5s?

{GROUP}

TRACKBALL TO GROUP 101

2 THRU 10 @ (COPYFROM) 1 ENTER

CLR



Page 34

2:20:17 2:4		rogin				
3:36:17 3/1	1/05 22	E_16 0002 III	GKUUP 101 5-16 0002 005	* _16_0004_UL		3NEFL. 5-16
1 Intencitu	0001 0	LJ-10 0002 VL	J-10 000J VL.	J-10 0004 VL	.J-10 000J VL.	J-10
Pan	n	Λ	0	n	n	
JIAN	ň	ň	ň	ň	ň	
4 Tilt	ŏ	ŏ	ŏ	ŏ	ŏ	
	ŏ	ŏ	ŏ	ŏ	ŏ	
10 Frost	ŏ	ŏ	ŏ	ŏ	Ŏ	
11 Cvan	55	55	55	55	55	
12 Magenta	Ō	0	0	0	0	
13 Yellow	0	0	0	0	0	
17 Speed	0	0	0	0	0	
18 ColSpeed	0	0	0	0	0	
19 BeamSpeed	0	0	0	0	0	
20 Reset	0	0	0	0	0	
	0006 V	L5-16 0007 VL	5-16 0008 VLS	5-16 0009 VL	.5–16 0010 VLS	5-16
Intensity						
<mark>3</mark> Pan	0	0	0	0	0	
	0	0	0	0	0	
4 Tilt	0 0	0	0	0	0	
	0 0	0	0 0	0 0	0	
10 Frost	<u> </u>		_0		<u> </u>	
Uyan (22		• • •			
12 flagenta	No. 1	V	V	V	<u>v</u>	
	_			_		
18 ColSpeed	0	0	0	U N	0	
19 ReamSpeed	Ň	0	Ň	Ň	Ň	
20 Recet	Ň	Ň	ň	ň	Ň	
		•	· ·	· ·	· · ·	
ROUP 101:2 T	HRU 10 P C	DPYFROM 1 *				
elect a grou	p, then SH	IFT + TRACKBA	LL 7GOBO 8HA	ARD 91RIS	1HOME 1CLEA	R 1MA
a adit an it					0 1	21.0

Note: This is the view prior to pressing CLR. Once you press CLR, all the recorded info shows up in white vs the grey info.



Quick Access for Palettes

Now that you have built several colors, let's talk about the different ways to access those preset focus groups.

Access by Group Number

The traditional way to access any preset focus groups is by group number.

LIVE

1@GROUP1ENTER

5 407 0 0 4 House							6	
127.0.0.1 User	1 Screen 2 Logir)					L	
14:37:07 3/11/	05 >>		LIVE	×			G	M=FL/FL
	0001 VL5-16	5 0002	VL5-16 0003	VL5-16	0004	VL5-16 ()005 VL5	-16
1 Intensity		•						1
<mark>3</mark> Pan	Cate	0 0	0 0		0 0		0 0	3
4 7114	Cafe	Ň	v v		Ň		Ň	
4 111t	Cafe	× ×	×		×.		×	4
10 Encot		Ň	X		Ň		Ň	10
11 Cuan	Ŏ	Ň	Ň		Ň		Ň	10
12 Magenta	ň	ň	ň		ň		ň	12
13 Yellow	ň	ň	ň		ň		ň	13
17 Speed	ň	ň	ň		ň		ň	17
18 ColSpeed	0	ŏ	ŏ		ŏ		ŏ	18
19 BeamSpeed	0	ŏ	ŏ		ŏ		ŏ	19
20 Reset	Ō	0	Ō		0		0	20
	0006 VL5-16	6 0007	VL5-16 0008	VL5-16	0009	VL5-16 ()010 VL5	-16
Intensity								1
<mark>3</mark> Pan	0	0	0		0		0	3
	0	0	0		0		0	
4 Tilt	0	0	0		0		0	4
	0	0	0		0		0	
10 Frost	0	0	0		0		0	10
11 Cyan	0	0 0	0 0		0 0		0	11
12 Magenta	Ň	Ň	, v		Ň.		Ň	12
13 Yellow	Ň	Ň	, v		Ň.		N N	15
19 CollSpeed	Ň	X	X		N N		N N	10
19 BoamSpeed	Ň	Ň	Ň		Ň		X	19
20 Recet	ň	ň	ň		ň		ň	20
LV noset		· · ·	v		· ·		V	20
LIVE:1 @ GROUP	1 *							
			7G0B0	8HARD	91RIS	S 1HOME	1CLEAR	1MACRO
Text: Cafe			CLR	G1	OPEN	0	1	2LCD6

Access by Text

It may not always be convenient to access the group by number. Another way to access the group info would be by the text label.

1@TEXT CY ENTER

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When @ TEXT is entered, the console is now looking for group label info to access the groups for you. As you enter each key, it will text match at the bottom of your screen. When the correct group label is matched, you can stop entering text and just press Enter. That's why I only typed in "CY" for Cyan Mix.

My favorite thing to do is to mix color groups and label them 68R for Roscolux 68 and 201L for Lee 201. By saving the manufacturers letter for the last, I can input the label text from the console's numerical keypad rather than searching on the keyboard. Try it and see how you like it!

Access by Macros on Submaster Bump Buttons

If you like to work with palettes, the way to setup them up is to turn the submaster bump buttons into macro buttons. The first step is to build the groups and we have already learned how to do that. The second step is to switch the bump buttons over to macros.

{SUB}

TRACKBALL OVER TO THE BUMP COLUMN UNDER SUB 1

CHANGE FROM FLSH TO MAC



🥌 127.0.0.1 Use	er 1 Screen 1 L	ogin						
14:55:59 3/1	1/05	\sim	SUBMASTER	1	×			GM=FL/FL
Sub Text	[Page 1/	Bump	Up/Down	Att	FX Ext	Mac	Function	Rotary
> 1		Mac	0/0	0	OFF OFF	OFF	NORMAL	
2	/	Mac	0/0	0	OFF OFF	OFF	NORMAL	
3	/	Mac		Ō	OFF OFF	OFF	NORMAL	
4	/	Mac	0/0	0	OFF OFF	OFF	NORMAL	
5	/	Mac	0, ro	Ō	OFF OFF	OFF	NORMAL	Pan
6	/	Mac	0/0	0	OFF OFF	OFF	NORMAL	Tilt
7		Mac	0/0	0	OFF OFF	OFF	NORMAL	
8		Mac	0/0	0	OFF OFF	OFF	NORMAL	Speed
9		Mac	0/0	0	OFF OFF	OFF	NORMAL	ColSpe
10		Mac	0/0	0	OFF OFF	OFF	NORMAL	BeamŠp
11		Mac	0/0	0	OFF OFF	OFF	NORMAL	Reset
12 Camera		Mac	0/0	0	OFF OFF	OFF	NORMAL	
13		Mac	0/0	0	OFF OFF	OFF	NORMAL	Page 53/93
14		Mac	0/0	0	OFF OFF	OFF	NORMAL	
15		Mac	0/0	0	OFF OFF	OFF	NORMAL	Whee I
16		Mac	0/()	0	OFF OFF	OFF	NORMAL	
17		Mac	0∠ <mark>≬</mark> ∖	0	OFF OFF	OFF	NORMAL	
18		Mac	0/0	0	OFF OFF	OFF	NORMAL	
19	\	Mac	0/0	0	OFF OFF	OFF	NORMAL	
20	\	Mac	0/0	0	OFF OFF	OFF	NORMAL	
21	\	Mac	∮ ∕0	0	OFF OFF	OFF	NORMAL	
22	$\langle \rangle$	Mac	0/0	0	OFF OFF	OFF	NORMAL	
23	\sim	Mac	/ 0/0	0	OFF OFF	OFF	NORMAL	
24		Mac	/ 0/0	0	OFF OFF	OFF	Normal	
25		Flsh	0/0	0	OFF OFF	OFF	Normal	
26		Flsh	0/0	0	OFF OFF	OFF	Normal	
27		Flsh	0/0	0	OFF OFF	OFF	Normal	
28		Flsh	0/0	0	<u>OFF OFF</u>	OFF	NORMAL	
OFF F+S F	Ish Solo Mac	: [F+S	Latch Fish	Late	ch Solo L	atch		
SUBMASTER 1:	*						_	
Select submas	ter, then SH	IIFT +	1		2 3		4 5	6
TRACKBALL to (edit an item	1	C	LEAR	DOMN%	UP%		

Now these subs will fire the macro equal to the sub number plus 100. So Sub 1 will fire Macro 101, Sub 24 will fire Macro 124 and so on. There is also a second page of these macros. If you hold down the *Shift* key, the bump buttons will access the sub number plus 300.

The only thing left is building the macros themselves.

Build Macros

Let's go into the Macro screen and build the macros in preview.

{MACRO}

MACRO 101 ENTER ENTER

@ GROUP 101 ENTER



腾 LightPalette - C	105	_ 8 ×
7 r 6 x 10 . [II 🖻 🔁 🛃 🚰 🗛	
3:23PM 11/03/05 Text	MACRO *Democracy Brooks Macro	GM=FL/FL Rotary
101 102	: @ GROUP 1 0 1 *	
103	@ GROUP 1 0 3 *	
104	e GROUP 1 0 4 *	
106	@ GROUP 1 0 6 *	
107	G GROUP 1 0 7 *	
109	e GROUP 1 0 9 *	
110	e GROUP 1 1 0 *	
111	e GROUP 1 1 1 *	0.8
113	e GROUP 3 0 1 * Pa	age 1/93
114	: @ GROUP 3 0 2 *	Wheel
116	e GROUP 3 0 4 *	
117	e GROUP 3 0 5 *	
110	@ GROUP 3 0 7 *	
120	e GROUP 3 0 8 *	1
121	: @ GROUP 3 0 9 *	
123	@ GROUP 3 1 1 *	
124	G GROUP 3 1 2 *	
138	@ GROUP 2 0 2 *	
139	: @ GROUP 2 0 3 *	
140	: @ GROUP 2 0 4 *	1
MACRO: *		
Press MACRO MACRO editing	to start and end 1 2 3 4 5 - F1 - F2 - F3 - F4 - F5	6 5 - F6

Note: This is an example from a Broadway show. Your actual Macros and macro content may vary.

Just continue this format for all macros that need to be written.

I usually decide before I start writing macros how I want to break down the submaster panels. I'll usually do 1 thru 12 as colors, 13 thru 24 as gobos, with the shift version of 1 thru 12 as positions and the shift version of 13 thru 24 as gobo effects, beam and iris groups.

Remember that writing the macros without a leading channel number will allow the macro to work with any combination of moving lights. Just put in the channel list prior to pressing the sub bump button. That will run that macro for all the selected channels.



Writing Cues

I spend a lot of time building preset focus groups for several reasons. 1. Its faster programming than moving a light into position or mixing a color every time. 2. When I look at my moving light screens, seeing text based info is much more useful that numerical info.

Below is a look at a cue in preview. It shows the first 10 channels of VL5s in the recorded positions for Cue 5. Notice that all fixtures are referencing a position group. This is evident by the text as well as the black box surrounding the data.

📸 LightPalette -	CIOS				_ 8	×
Tr 6 x 10 ▼	[]] 🖻 💼	🔂 🖻				
3:51PM 11/03/0	5 >> 0001 VL5-16	PREVIE 0002 VL5-16	₩ 5 *De 0003 VL5-16	mocracy Broo 0004 VL5-16	ks GM=FL/ 0005 VL5-16	FL
1 Intensity	30 ORENTNG	Cofe	30 OPENTING	30 OPENTING	DSC	1
	OPENING	Cafe	OPENING	OPENING	DSC	
4 Tilt	OPENING	Cafe	OPENING	OPENING	DSC	4
10	0	0	0	0 0	0	10
12	0	0	8	8	8	12
17	ŏ	ŏ	ŏ	ŏ,	ŏ.	17
19	ŏ	ŏ	ŏ	ğ	ŏ	19
20	0006 VL5-16	0007 VL5-16	0008 VL5-16	0009 VL5-16	0010 VL5-16	20
Intensity 3 Pan	FL Top R	70 Top R	VERY DR	DSC	LOW STAIRS	1
4 Tilt	Top R Top R	Top R Top R	VERY DR VERY DR	DSC DSC	LOW STAIRS	4
	Top R	Top R	VERY DR	DSC	LOW STAIRS	10
11	Ö	ŏ	ŏ	CYAN MIX	ŏ	11
1	ŏ	ŏ	ŏ	CYAN MIX	ŏ	13
17 18	Ö	0	ů O	Ö	0 0	17 18
19 20	0	0	0	0	0	19 20
						I
CUE 5: *		2				ap
			CLR -CLR	-G1 00PE	N 1 2	70.

Let's talk about accessing those groups a little more.

Accessing Preset Focus Groups

We've learned the 3 ways to access the preset focus groups so you just need to choose the most intuitive way for you when building cues.

Below is a sample screen shot after I have placed a few lights into position and colors using preset focus groups.



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🚳 127.0.0.1 User 1	Screen 2 Login								
16:06:24 3/11/0	5 >>		I IVF	×				GM:	=FLZFL
	0001 VL5-16	0002 VL	5-16 0003	VL5-16	0004	VL5-16	0005	VL5-1	16
1 Intensity	90	FI	FI		50				1
3 Pan	Cafe	DSC	Тор		Cafe		0		3
	Cafe	DSC	Тор		Cafe		0		
4 Tilt	Cafe	DSC	Тор		Cafe		0		4
	Cafe	DSC	Тор		Cafe		0		
10 Frost							0		10
11 Cyan		YLW MIX					0		11
12 Magenta		YLW MIX					0		12
13 Yellow		YLW MIX					0		13
17 Speed							0		17
18 ColSpeed							0		18
19 BeamSpeed							0		19
20 Reset							0		20
	0006 VL5-16	0007 VL	.5-16 0008	VL5-16	0009	VL5-16	0010	VL5-1	16
Intensity	<mark>30</mark>								1
<mark>3</mark> Pan	CL	0	0		0		0		3
	CL	0	0		0		0		
4 Tilt	CL	0	0		0		0		4
	CL	0	0		0		0		
10 Frost	0	0	0		0		0		10
11 Cyan	BLUE MIX	0	0		0		0		11
12 Magenta	BLUE MIX	0	0		0		0		12
<u>13</u> Yellow	<u>bl</u> ue mix	0	0		0		0		13
17 Speed	0	0	0		0		0		17
18 ColSpeed	0	0	0		0		0		18
19 BeamSpeed	0	0	0		0		0		19
20 Reset	0	0	0		0		0		20
	-								
LIVE:6 C GROUP	3*								
T () 01			7GOBO	SHARD	91818	THOME	: 1Cl	EAR	IMACRO
lext: CL			CLR	G1	UPEN	0	1	i	ZLCD6
(4								

Remember the 3 ways of access the groups...

@ GROUP 1 ENTER – for accessing the group by number.
@ TEXT CYAN ENTER – for accessing the group by text.
Pressing Sub Bump Buttons – for accessing the groups via pallets.

Recording Cues

Recording cues with moving lights is no different than recording cues with conventional units. When you set your levels and attributes using the preset focus groups just record!

RECORD 11 ENTER

GOTO ENTER

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S 1	27.0.0.1 User 1	Screen 2 Login						
16:1	2:47 3/11/0)5 >>	L	IVE	×			GM=FL/FL
		0001 VL5-16	0002 VL5-	16 0003	VL5-16 O) 004 J	JL5-16 0005	VL5-16
1	Intensity	90	FL	FL	5	50		1
3	Pan	Cafe	DSC	Top R	C	lafe	0	3
		Cafe	DSC	Top R	C	lafe	0	
4	Tilt	Cafe	DSC	Top R	C	lafe	0	4
		Cafe	DSC	Top R	C	lafe	0	
10	Frost	0	0	0		0	0	10
11	Cyan	0	YLW MIX	0		0	0	11
12	Magenta	0	YLW MIX	0		0	0	12
13	Yellow	0	YLW MIX	0		0	0	13
17	Speed	0	0	0		0	0	17
18	ColSpeed	0	0	0		0	0	18
19	BeamSpeed	0	0	0		0	0	19
20	Reset	0	0	0		0	0	20
		0006 VL5-16	0007 VL5-	16 0008	VL5-16 O) 000	JL5-16 0010	VL5-16
1	Intensity	30						1
3	Pan	CL	0	0		0	0	3
		CL	0	0		0	0	
4	Tilt	CL	0	0		0	0	<mark>4</mark>
		CL	0	0		0	0	
10	Frost	0	0	0		0	0	10
11	Cyan	BLUE MIX	0	0		0	0	11
12	Magenta	BLUE MIX	0	0		0	0	12
13	Yellow	BLUE MIX	0	0		0	0	13
17	Speed	0	0	0		0	0	17
18	ColSpeed	0	0	0		0	0	18
19	BeamSpeed	0	0	0		0	0	19
20	Reset	0	0	0		0	0	20
LIVE	GOTO CUE	11 *						
_				7GOBO	BHARD 9	TRIS	1HOME 1C	LEAR 1MACRO
Iext	: X to brigh	nt bot level		CLR	G1	UPEN	0 1	ZLCD6
ondo	d this as Ci	10 11 thon a	avo it a G	OTO co	mmand	Th	is allows n	na ta saa all

proper colors.

I chose to record this as Cue 11 but you can record to any cue you wish. When the cue is recorded, all info will be cyan. This is to let you know that the channel info has been stored as a cue. By forcing a GOTO command with GOTO ENTER, I now see all info in its proper colors. Purple is up, green is down; cyan is tracking and blue is changed attribute info. Remember that attributes can never be off so up or down don't relate to attributes. We only want to know if the attribute info is the same (cyan) or different (blue).

Part Cues

Part cues are a fabulous way to have channel levels get to the completed results of a cue in different times. Many people find part cues confusing but I hope to clear up any issues and convert any non-believers in part cues because there are huge advantages over using multiple cues and assigning autofollows. In this example, we will have the color move in its own part at a different rate and to come up later than the other attributes.

First, a few rules about part cues...

There is a limit of 12 parts per cue.

Each part goes toward your total capacity of 2000 cue parts per show on a 500 series console. All parts start at the same time. They don't start after the previous part completes. If you start by building Part 2, then Part 1 will be the base part. (Previous desks like LightPalette and Obsession use Part 8 as the base.)

Each part can have its own time, delay, effect, macro and text assigned to it.

Advantages...





When I need to edit a part cue, I just make my changes and Update the cue. I don't have to worry about tracking my changes through multiple cues.

Some designers use part cues in a consistent format for automated fixtures. For example Part 5 is always pan and tilt, Part 6 is always color, Part 7 is always gobo...that sort of thing. If the show is programmed like this, then one can always tell when live moves and color are happening simply by looking at the cue sheet. This is great for stage managers.

The most popular and easiest way to write a part cue is to first record the cue as a regular cue. Then create the parts in preview. Then assign certain channels (or attributes) to the appropriate part. After that, just adjust the time and you've got it.

Creating the Part

Let's get into the appropriate cue and create the parts.

{PREVIEW} CUE 11 ENTER

CUE (PART) 2 ENTER ENTER

6 1	27.0.0.	1 User 1	Screen 2 Logir	1				
18:	06:11	3/11/0	<u>, </u>	CUE SHEE	T 11 *		GM	
	0.11		0001 VL5-1	5 0002 VL5-16	0003 VL5-16	0004 VL5-16	0005 VLS-	-16
1	Inten	sity	90	FL	FL	50		1
3	Pan		Cafe	DSC	Top R	Cafe		3
	T .14		Cafe	DSC	Top R	Cafe		
4	ΠIT		Cafe	030	TOP N	Cafe		<mark>4</mark>
10	Frost		0	0	0	0	ŏ	10
11	Cyan		Ō	YEW MIX	Ō	Ō	Ō	11
12	Magen	ta	0	YLW MIX	0	0	0	12
13		ω	0		0	0	0	13
18	ColSm	eed	l X	ŭ	Ň	Ň	N N	18
19	BeamS	peed	ŏ	ŏ	ŏ	ŏ	ŏ	19
20	Reset		Ō	Ō	Ō	Ō	Ō	20
			0006 VL5-1	5 0007 VL5-16	0008 VL5-16	0009 VL5-16	0010 VL5-	-16
1		sity	30					1
J	ran			U A				
4	Tilt		CI	ŏ		ŏ		4
—			ČĹ	ŏ				
10	Frost		0	0	0	0	0	10
11	Cyan		BLUE MIX	0	0	0	0	11
12	Nagen	ta 		N N	N N	N N	N N	12
17	Sneed	ω		Ň	ň	Ň	Ň	13
18	ColSp	eed	ŏ	ŏ	ŏ	ŏ	ŏ	18
19	BeamS	peed	0	0	0	0	0	19
20	Reset		0	0	0	0	0	20
CHE	11 PA	RT 2: C	IE 11 PART	2 *				
You	are a	bout to	create a n	ew item				
Hit	aga i n	to con	firm or CLR	to cancel				

Note: The screen shot is taken prior to the final ENTER.

Once you have created the additional part, use the NEXT and LAST keys to look at the differences in data between the two parts.

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Notice that all the data is in a background color in the newly created part. This indicates that the data resides in another part. Now we need to place the correct data in the new part.

To place conventional channels into a part, it is simply CHAN LIST ENTER. (51 THRU 55 ENTER) But with attributes it's more specific.

Assigning Attributes to a Part: Manually

To assign attributes of a channel to a part manually, just type the channel info and then press enter.

2.11 THRU .13 ENTER

CLR



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127.0.0.1 User 1	Screen 2 Login					
18:21:38 3/11/0)5 >>	CUE SH	EET 11	×		GM=FL/FL
1 Intensity 3 Pan	0001 VL5-16 90 Cafe	0002 VL5- FL DSC	16 0003 V FL Top R	L5-16 0004 \ 50 Cafe	JL5-16 0005 0	VL5-16
<mark>4</mark> Tilt	Cafe Cafe Cafe	DSC DSC DSC	Top R Top R Top R	Cafe Cafe Cafe	0 0 0	4
10 Frost 11 Cyan 12 Magenta 13 Yellow	0 0 0 0	O <mark>Ylw Mix</mark> Ylw Mix Ylw Mix		0 0 0 0	0 0 0 0	10 11 12 13
17 Speed 18 ColSpeed 19 BeamSpeed 20 Reset	0 0 0 0	0 0 0 0	0000	0 0 0 0	0 0 0 0	17 18 19 20
1 Intensity <mark>3</mark> Pan	0006 VL5-16 30 CL	0007 VI5	16 0008 V 0	16 0009 v	JL5-16 0010 0	VL5-16
<mark>4</mark> Tilt		0	0	0	0	4
10 Frost 11 Cyan 12 Magenta 13 Vellou	BLUE MIX BLUE MIX BLUE MIX	0	0	0	0 0 0	11
17 Speed 18 ColSpeed 19 BeamSpeed		0	0 0 0	0 0 0	0 0	17 18 19
20 Reset	0 11 THRU 2 13	0	0	0	0	20
Select a cue or TRACKBALL to edi	part, then S t an item	HÎFT +	7GOBO 8 CLR	HARD 91RIS G1 OPEN	1HOME 1CL 0 1	.ear 1macro 2lcd6
Note	the screer	nshot wa	s taken	before pre	ssing CLF	2

Pressing CLR will show you the actual data. While some attributes may be white (for hard values) and some may be blue (for changed values) that's normal. This is because going from one color mix to another may not change all attributes. If they don't change then the attributes will be in white. If they do change, the attributes will be blue.

Now let's change the color for channel 6 using the attribute filters.

Assigning Attributes to a Part: Using Attribute Filters

Here we use the *Softblock* command to move data around in part cues by taking advantage of the attribute filters.

This is the command if you are on a 550 or 530...

6 @ATT (Colour) (SOFTBLOCK)

... and this is the command if you are on a 520...

6 @ATT (Colour) REC MODE (SOFTBLOCK)

The difference in syntax is because the 520 doesn't have a center LCD screen and pressing REC MODE brings up the *Softblock* softkey on the softkey LCD screen.

Ŧ

12

18 19 20

10

12

UE 11 PART 2:6 @ATT Colour

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While in Preview and in the right part (the current part is always listed at the beginning of the command line on both screens) it's easy to change time and add a delay if you want.

SOFTBLOCK * 7COLOR 8G0B0

-CLR

-CLR

9HARD

-G1

1IRIS

OOPEN

1HOME

1CLEAR

TIME 8 DELAY 3 ENTER

腾 LightPalette	- CIOS				_ 8 ×
Tar 6 x 10 <u>▼</u>] 🛄 🖻 🛍	1 🔂 🖻			
8:38AM 11/04,	/05 X Play	LI back 1 - Th	IVE is Cue Only	*Democracy Brooks /	GM=FL/FL Rotary
Q 0 AF Q 0.5 Q 1 P1 BL	Time O Time 8 Time 7				VL5-16E M4 Vari-lite
Q 2 Q 3 Q 3,5 Q 4 Q 4,5 Q 5 Q 6 Q 7	Time 5 Time 5 Time 3 Time 3 Time 3 Time 3 Time 3 Time 3	/5		bld chair top r add MSL pool add DL shift to top ge X to MSL shift to chair shift to SL & t build gen bot 1	i Pan 194 Tilt 174 n 255 t 127 a
Q 9 Q 9.5	Time 1 Time 1 Time 1	/3 A	ttTime	2 X to down left add desks & ste SR desk & bars	Page 53/93 Wheel
Q 11 P1 P2	Time 7 Time 5 Time 8	710 De	elay 3	X to bright bot	
Q 13 Q 14 Q 14.5 Q 14.7 Q 14.7	Time 5 Time 5 Time 0 Time 0 Time 5			add SR & top de lose top bld ge add door sp lose sp focus to desk S	s 111 e 30 1
0 16 0 17 0 18 0 19	Time 0 Time 1 Time 3 Time 2	/5 A/ /2 A/ /4 A/	ttTime ttTime ttTime	1 X to DSL table 0 shift to chair shift to DSL ta 0 shift to top ri	t
0 20 LIVE: CUE 11 P/	Time 2 ART 2 DELAY 3	/3 A1	ttTime 1 2	0 return 3 4 5	GTHRU



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Remember; just repeat this process for all the parts that you want for the cue up to the maximum of 12. When you return to the cue during the rehearsal process and make changes to any part cue, Update rather than Record. Update will only take changed values (levels in red) while Record will always store the entire state of the rig. This will record into the part that the karat is on and corrupt your part cue.

Of course, if that mistake gets made, you can always UNDO RECORD ENTER and then update as is appropriate.

Updating

Updating Cues

The general practice that I use is to *Record* the cue the first time and then *Update* after that. The main reason is that record always takes the entire state of the system and stores it. Update only takes changed values. This means that update ignores subs, FX and other cues that are running.

Let's talk about updating moving lights by looking at a cue that contains attribute content.

<u> 1</u>	27.0.0.1 User 1	Screen 2 Login					
10:1	14AM 11/06/0	5 >>	LIV	*			GM=FL/FL
		0001 VL5-16	0002 VL5-16	0003 VL5-16	0004	VL5-16 0005	VL5-16
1	Intensity	0	0	0	0		1
3	Pan	Cafe	DSC	Top R	Cafe	0	3
		Cafe	DSC	Top R	Cafe	0	
4	Tilt	Cafe	DSC	Top R	Cafe	0	4
		Cafe	DSC	Top R	Cafe	0	
10	Frost	0	0	0	0	0	10
11	Cyan	CYAN MIX	YLW MIX	0	0	0	11
12	Magenta	CYAN MIX	YLW MIX	0	0	0	12
13	Yellow	CYAN MIX	YLW MIX	0	0	0	13
17	Speed	0	0	0	0	0	17
18	ColSpeed	0	0	0	0	0	18
19	BeamSpeed	0	0	0	0	0	19
20	Reset	0	0	0	0	0	20
		0006 VL5-16	0007 VL5-16	0008 VL5-16	0009	VL5-16 0010	VL5-16
1	Intensity		50				1
3	Pan	CL	0	0	0	0	3
		CL	0	0	0	0	
4	Tilt	CL	0	0	0	0	<mark>4</mark>
		CL	0	0	0	0	
10	Frost	0	0	0	0	0	10
11	Cyan	BLUE MIX	0	0	0	0	11
12	Magenta	BLUE MIX	0	0	0	0	12
13	Yellow	BLUE MIX	0	0	0	0	13
17	Speed	0	0	0	0	0	17
18	ColSpeed	0	0	0	0	0	18
19	BeamSpeed	0	0	0	0	0	19
20	Reset	0	0	0	0	0	20
LIVE	E: GUX1 ★		_		01010		
> Ci	ie: 11 : X	to bright b	ot level	Subo 8hard Clr G1	OPEN	0 1	2LCD6

I can easily see what my fixtures are doing because of my group data. If I need channel 1 to be in my DSC group instead of the Café group then I just place the light in my DSC group and update.

1*0N*

@ TEXT "D" ENTER

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127.0.0.1 User 1	Screen 2 Login							
10:196M 11/06/0	15 >>		LIUF	¥			6	M=FLZEL
		0002 11	5-16 0003	1115-16	0004	111 5-16		
1 Intencitu			.5 10 0003 0	VLJ IU	0001	VLJ IU	0003 013	, 10
3 Pan	DSC.	080	Ton	R	Cafe		0	3
3 1 an	000	020	Тор	R	Cafe		ň	J
4 Til+	030	000	Тор	R	Cafe		ň	4
	000	020	Тор	R	Cafe		ň	
10 Frost	0	0	100		n ourc		ň	10
11 Cuan	CVAN MIX	уйы мтя	ł ň		ň		ň	11
12 Magenta	CYAN MIX	VIN MIS	i č		ň		ň	12
13 Yellow	CYAN MIX	YEL MIS	č		ň		ň	13
17 Speed		0	Ň		ň		ň	17
18 ColSpeed	ň	ň	ň		ň		ň	18
19 BeamSpeed	ň	ň	ň		ň		ň	19
20 Recet	ŏ	ň	ň		ň		ň	20
LV neset	0006 015-16	0007 01	5-16 0008	UI 5-16	nňng	UI 5–16	กก้าก บเร	-16
1 Intensitu	VVVO VES 10	0	.5 10 0000	¥L3 10	~~~	¥L3 10		1
3 Pan	CL	ň	0		0		0	3
	ĊĹ	ŏ	ŏ		ŏ		ŏ	
4 Tilt	ČĹ	ŏ	ŏ		ŏ		ŏ	4
	ČĨ	ŏ	ŏ		ŏ		ŏ	
10 Frost	Õ	ŏ	ŏ		ŏ		ŏ	10
11 Cvan	BLUE MIX	ŏ	ŏ		ŏ		ŏ	11
12 Magenta	BLUE MIX	Ō	Ō		Ō		Ō	12
13 Yellow	BLUE MIX	Ō	Ō		Ō		Ō	13
17 Speed	0	Ō	Ō		Ō		Ō	17
18 ColSpeed	Ō	Ō	Ō		ō		Ō	18
19 BeamSpeed	Ō	Ō	Ō		0		Ō	19
20 Reset	Ō	Ō	Ō		Ō		Ō	20
LIVE: 0 TEXT d	×							
			7G0B0	8HARD	91R18	: 1HOME	1CLEAF	1 MACRO
Text: DSC			CLR	G1	OPEN	0	1	2LCD6

When the lights are set, just Update...

UPDATE ENTER

Update will update the cue that has the karat. This will be the current cue that you are in. Update will update to Track or Cue Only depending on the default mode that you are in. Look at the top of the cue list for this information.

Now let's talk about editing the group data through cues.

Updating Groups

Live

To update a group live, just alter the info and update the group calling out the channel number and group number...

TRACKBALL TO MOVE THE FIXTURE HEAD

1 UPDATE GROUP 2 @ATT (Position) ENTER

This will update channel 1's position info into group 2.

Preview



If you want to change info in Preview, just go into Preview and change the info manually. Let's say that you need to add 2 points of Cyan to the Cyan Mix group which is Group 101.

{PREVIEW}

GROUP 101 ENTER

1.11 @ 57 ENTER

CLR

<u> 9</u> 1	27.0.0.1 User	1 Screer	1 2 Login									
10:4	10AM 11/06	/05	>>		GROUI	P 101	×				GM:	=FL/FL
		0001	VL5-16	0002	VL5-16	0003	VL5-16	0004	VL5-16	0005	VL5-1	16
1	Intensity											1
3	Pan	0		0		0		0		0		3
		0		0		0		0		0		
4	Tilt	0		0		0		0		0		4
		0		0		0		0		0		
10	Frost	0		0		0		0		0		10
11	Cyan	57		55		55		55		55		11
12	Magenta	0		0		0		0		0		12
13	Yellow	0		0		0		0		0		13
17	Speed	0		0		0		0		0		17
18	ColSpeed	0		0		0		0		0		18
19	BeamSpeed	0		0		0		0		0		19
20	Reset	0		0		0		0		0		20
		0006	VL5-16	0007	VL5-16	8000	VL5-16	0009	VL5-16	0010	VL5-1	16
1	Intensity											1
3	Pan	0		0		0		0		0		3
		0		0		0		0		0		_
4	Tilt	0		0		0		0		0		4
		0		0		0		0		0 0		
10	Frost	_0		_0		_0		_0		_0		10
11	Cyan	55		55		55		55		55		11
12	Magenta	Ū,		0		0 0		0 0		0 0		12
13	Yellow	<u> </u>		0		0 0		0		0 0		13
17	Speed	0 0		0 0		0 0		0 0		0 0		17
18	Colspeed	Ŭ		Ň		Ň		Ň		Ň		18
19	BeamSpeed	Ň		Ň		Ň		Ň		Ň		19
20	Keset	U		U		U		U		U		20
epor	IP 101 1 11	0 57 -										
Sele	n IVI.I.II	+ han	SHIFT +	TRAC		2080	SHARD	91819	2 1HOM	- 10	FAR 4	MACRO
toe	dit an ite	, then . m	51111 T	rnnu		2000 21 R	LG1	LOPER		- 10	2280 S	21 CD6
Leo e				,				Torr				2000

<u>Note: This screen shot was taken prior to pressing CLR.</u>

Preview with Live

Another option for updating in Preview, is to make the changes Live, go into Preview, and then pull the info from Live.

{LIVE}

1 ENTER

ROLL THE BLUE ENCODER (CYAN ATTRIBUTE) TO A LEVEL OF 59

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See that the Cyan attributes is no longer referencing the preset focus group? You can tell by the numerical data vs the text data shown on the Live screen. Now let's go in the Preview screen and pull the info live.

1.11 @ {LIVE} ENTER

6 1	27.0.0.1 User	l Screen	2 Login									
10:4	166M 11/06/	05	>>		GRO	IIP 101	×				GM	=FLZFL
		0001	ÚI 5-16	0002	UI 5-1	6 0003	UI 5-16	0004	VI 5-16	0005	VI 5-	16
1	Intensitu		120 .0				120 10		120 .0		120	. 1
3	Pan	0		0		0		0		0		3
⁻		ŏ		ŏ		ŏ		ŏ		ŏ		-
4	Tilt	ō		Ō		ō		ō		ō		4
l .		ŏ		ŏ		ŏ		ŏ		ŏ		
10	Frost	ō		ō		ō		ō		ō		10
11	Cyan	59		55		55		55		55		11
12	Magenta	0		Ō		Ō		Ō		Ō		12
13	Yellow	Ō		Ō		Ō		Ō		Ō		13
17	Speed	0		0		0		0		0		17
18	ColSpeed	0		0		0		0		0		18
19	BeamSpeed	0		0		0		0		0		19
20	Reset	0		0		0		0		0		20
		0006	VL5-16	0007	VL5-1	6 0008	VL5-16	0009	VL5-16	0010	VL5-	16
1	Intensity											1
3	Pan	0		0		0		0		0		3
		0		0		0		0		0		
4	Tilt	0		0		0		0		0		4
		0		0		0		0		0		
10	Frost	0		0		0		0		0		10
11	Cyan	55		55		55		55		55		11
12	Magenta	0		0		0		0		0		12
13	Yellow	0		0		0		0		0		13
17	Speed	0		0		0		0		0		17
18	ColSpeed	0		0		0		0		0		18
19	BeamSpeed	0		0		0		0		0		19
20	Reset	0		0		0		0		0		20
	10 404.4											
GKUL	JP_101:1.11		*	TRAD						- 40	EAD	4144.000
Se le	ect a group,	then a	SHIFT +	TRACI	BALL		BHARD	91KI			LEAR	THACKU
το α	edit an item					GLK	61	TUPE	1 0	1		ZLCV6





This example pulled just one attribute but you can pull any channel, combination of channels or combination of attributes this way.

Magic Update: Overview

This is one of my favorite new features...Magic Update. Magic Update remembers all attributes references to preset focus groups. When you change the attributes live using the trackball and the encoder wheels, it keeps a reference to the last preset focus group that it was in so that updating groups is intelligent and easy.

Magic Update: By Channel List

Let's go Live and into Cue 11 and see what we have on screen. You're cue content will vary from mine.

🚳 127.0.0.1 User 1	Screen	2 Login									
11:03AM 11/06/0	5>	>		LIVE	=	×				GM	=FL/FL
	0001	VL5-16	0002	VL5-16	0003	VL5-16	0004	VL5-16	0005	VL5-	16
1 Intensity	FL				50		50				1
3 Pan	Cafe		DSC		Тор	R	Cafe		0		3
	Cafe		DSC		Тор	R	Cafe		0		
4 Tilt	Cafe		DSC		Тор	R	Cafe		0		4
	Cafe		DSC		Top	R	Cafe		0		
10 Frost	0		0		0		0		0		10
11 Cyan	CYAN	MIX	YLW M	118	0		0		0		11
12 Magenta	CYAN	MIX	YLW M	118	0		0		0		12
13 Yellow	CYAN	MIX	YLW M	118	0		0		0		13
17 Speed	0		0		0		0		0		17
18 ColSpeed	0		0		0		0		0		18
19 BeamSpeed	0		0		0		0		0		19
20 Reset	0		0		0		0		0		20
	0006	VL5-16	0007	VL5-16	0008	VL5-16	0009	VL5-16	0010	VL5-	16
1 Intensity	30		0								1
<mark>3</mark> Pan	CL		0		0		0		0		3
	CL		0		0		0		0		
4 Tilt	CL		0		0		0		0		4
	CL		0		0		0		0		
10 Frost	0		0		0		0		0		10
11 Cyan	BLUE	MIX	0		0		0		0		11
12 Magenta	BLUE	MIX	0		0		0		0		12
13 Yellow	BLUE	MIX	0		0		0		0		13
17 Speed	0		0		0		0		0		17
18 ColSpeed	0		0		0		0		0		18
19 BeamSpeed	0		0		0		0		0		19
20 Reset	0		0		0		0		0		20
LIVE: GOTO <u>CUE</u>	11 ×										
				70	SOBO	SHARD	91R18	S 1HOME	E 10	LEAR	1MACRO
Text: X to brigh	t bot	level		(CLR	G1	OPEN	0	1		2LCD6

So here we have a cue that has 5 VL5s accessing 5 different position groups and 3 different color groups. I'll turn them on one at a time and make adjustments as needed.

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Here I've adjusted channel 1's position and the cyan wheel of the color group CYAN MIX. Now I'll adjust the other fixtures.

											_	
- 69 1	27.0.0.1 Use	r 1 Screen	2 Login								_	
11.1	11206 11206	<u>205 \</u>			1 111	-	~				CM	
		″ ````````````````````````````````````	III 5_16	0002	LIVI 111 5_16	0003	1115-16	0004	111 5-16	0005	111 5-	.16
1	Intensitu	F	VLJ IU	0002	VLJ IU	5000	VLJ IU	50	VLJ IU	0003	VLJ	1
2	Pan	60		080		58		45		0		ר ר
– – –	run	14		000		91		45		ň		J
4	Til+	72		030		Ton		60		ň		4
		91		DSC		Ton		60		ň		
10	Frost	- Ó		0		0		ň		ň		10
11	Cuan	54		YĨW M	18	ň		ň		ň		11
12	Magenta	CYAN	MIX	YI W M	ix	ň		ň		ň		12
13	Yellow	CYAN	MIX	YIN M	ix	ň		ň		ň		13
17	Speed	0		0		ŏ		ŏ		ŏ		17
18	ColSpeed	ŏ		ŏ		ŏ		ŏ		ŏ		18
19	ReamSpeed	ŏ		ŏ		ŏ		õ		ŏ		19
20	Reset	Ō		Ō		Ō		Ō		Ō		20
		0006	VL5-16	0007	VL5-16	0008	VL5-16	0009	VL5-16	0010	VL5-	-16
1	Intensity	30		0								1
3	Pan	81		0		0		0		0		3
		40		0		0		0		0		
4	Tilt	73		0		0		0		0		4
		48		0		0		0		0		
10	Frost			0		0		0		0		10
11	Cyan	95		0		0		0		0		11
12	Magenta	45		0		0		0		0		12
13	Yellow	BLUE	MIX	0		0		0		0		13
17	Speed			0		0		0		0		17
18	ColSpeed			0		0		0		0		18
19	BeamSpeed			0		0		0		0		19
20	Reset	0		0		0		0		0		20
LIVI	*										-	
					. 70	JOBO	SHARD	9TRIS	THOM	= 1CL	.EAR	1MACRO
2 Ci	ie: 11 :	X to br	right be	ot lev	el (JLK	61	UPEN	U	1		ZLCD6

So all the channels that are in red have been selected and we know they have been adjusted by seeing the attributes that have numerical data vs showing us the text data. With the labels showing, we are seeing that the fixtures are referencing the preset focus groups. Once we adjust the information live with the trackball and encoders, the data is no longer referencing the preset focus groups. We could update





the cue here but then the cue would have raw data rather than group references and that's not what we want to do here. What we want is to update the groups that have been adjusted but this can get complicated. Channels 1 and 6 alone have adjusted references for 4 groups (1 position group and 1 color group each) and we still have other units. This is where the magic part comes in with magic update.



Now look at your screen, all attributes are back to referencing the same preset focus group. The difference is that the groups now have the new data in all of the groups!

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						_						
6 1	27.0.0.1 User 1	Screen	2 Login									
11.1	186M 11/06/0	5 5			1 111	-	~				CM	-ELZEL
		ັດດດາ໌	// III 5–16	0002 1	15-16	0003	111 5-16	0004	111 5-16	0005	111 5-	-1 L/1 L 16
1	Intencitu	F	VLJ IU	0002 1	'LJ 10	50	VLJ IU	5001	VLJ IU	0000	ΥLJ	1
2	Pan	Cafe		0		Top		Cafe		0		2
	i un	Cafe		ň		Top		Cafe		ň		J
4	T; I+	Cafe		ň		Top		Cafe		ň		4
	1110	Cafe		ň		Top		Cafe		ň		
10	Front			ň		0		- A		ň		10
11	ruan	CYAN	MIX	уйы мт	x	ŏ		ŏ		ň		11
12	Magenta	CVAN	MIY	VILMI	Ü.	ŏ		ŏ		ň		12
13	Vellou	CVAN	MIY		ŷ	ŏ		ŏ		ň		13
17	Speed			1LW 111	n	ŏ		ŏ		ň		17
18	ColSpeed	ŏ		ň		ă		ŏ		Ň		10
19	BeamSpeed	Ă		ň		ă		ŏ		Ň		10
20	Deamoyeeu Rooot	X		Ň		ă		Ä		X		20
20	neset	0006	111 5-16	0007 1	15-16	0000	111 5-16	nnna	111 5-16	0010	III 5_	16 20
1	Intonaitu	20	VL3-10	0001 0	'LJ-10	0000	VLJ-10	0005	VLJ-10	0010	VLJ-	10
2		30 CL		X		•		•		•		
_	ΓαΠ			X		X		X		X		J
4	T:14			X		×		X		X		4
4	IIIT			×.		×.		×.		×.		4
10	Ff	UL A		×.		×.		v v		×.		4.0
10	Frost	NULLE I	MILL	Ň		Ň		v.		Ň		10
11	Cyan	BLUE		Ň		Ň		V.		Ň		11
12	Magenta	BLUE		Ň		Ň		Ň		Ň		12
13	Yellow	BLUE	ПIХ	Ŭ,		Ŭ,		Ŭ,		Ŭ,		13
11	Speed	U		U O		U V		U O		U.		11
18	Collopeed	U		Ŭ,		U.		U.		Ŭ,		18
19	BeamSpeed	0		0		0 0		0		0		19
20	Reset	0		0		0		0		0		20
	-											
LIV	L: *				_					- 10		
					. ?	SUBU	SHAKD	ALKIS	THOM	E 1CI	-EAK	THACRU
> Ci	ue: 11 : X	to br	<u>ight</u> bo	ot leve		JER	G1	UPEN	0	1		ZLCD6

The console magically keeps track of every attribute for every channel. When you change attribute info Live, it remembers the last group that it referenced so you can update globally without having to worry about which groups each attribute was last referencing.

Magic Update: By Attribute Filter

Magic Update can also be done by attribute filter.

The scenario is similar to before, you are in a cue and several moving lights need to be adjusted for position info and for color info. After you adjust, you realize that you only need to update the position info and not the color info. So the command would be...

UPDATE GROUP @ATT (Position) ENTER ENTER

There are 2 differences in this command syntax. 1. I didn't provide a leading channel list. Therefore the Update command applied to all channels that have the filtered attributes. In this case, Position. 2. I added an attribute filter so that the update process would filter out everything "except" what is in the Position filter. Therefore it updated red values (changed values) for all channels that have attributes .3 and .4.

Magic Update: Globally

There is a very powerful version of this command that works by taking everyone.

UPDATE GROUP ENTER ENTER



But beware. In certain situations, this command can be TOO powerful because it doesn't discriminate between preset focus groups and non-preset focus groups. Therefore, if you have taken one fixture to *Home* and or *Clear*, and you move to another fixture that is referencing a preset focus group and then you use the global version of this command, it could contaminate your preset focus groups with the *Home* and or *Clear* group data. Because of this, I recommend NEVER using the global version of this command. Be selective. It will serve you better in the long run.

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Shape Generator

The Shape Generator will create shapes of movement for automated fixtures. The shape generator adds additional attributes to the chosen fixtures. These new attributes allow you to apply values to the fixtures that enable them to move in prebuilt patterns. The attributes that are added are...

PProfile (.91) – assigns a profile to pan. See profile display for specific profiles.

TProfile (.92) – assigns a profile to tilt. See profile display for specific profiles.

PSize (.93) – determines the size of the pan movement in a percentage value.

TSize (.94) – determines the size of the tilt movement in a percentage value.

PSpeed (.95) – determines the speed of the pan movement.

TSpeed (.96) – determines the speed of the tilt movement.

PPhase (.97) – multiple fixtures can act on a different point for pan while running a shape.

TPhase (.98) - multiple fixtures can act on a different point for tilt while running a shape.

PTRotate (.99) – rotates the current movement clockwise from 0 (12 o'clock) to Full (clockwise to 12 o'clock)

Now for a little explanation...

Profile – assigns a specific profile to either pan or tilt. Just look at your profile display to see what each profile is. If a shape like circle assigns pan and tile the profile 96, then the light is assigning the sine wave profile to pan and tilt.

Size – changes the range of the movement. 0 is no movement while Full is maximum movement. Speed – how fast the fixture moves.

Phase – fixtures can act differently while they all are running the same shape. One example would be, if 2 fixtures are doing a circle and both are moving clockwise, one of the fixtures could take its tilt out of phase by 50% and then it would be doing the same circle counterclockwise or mirroring the other unit. Rotate - a value of 25 would rotate the movement to 3 o'clock and 75 would be 9 o'clock.

Add Shape Channels in Patch

The first step is to add the shape channels to the fixtures that need them.

{PATCH} (CHAN>)

1 THRU 10 (ADD SHAPE)

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Don't worry about seeing the attributes listed in patch, the software keeps this hidden since it's something that the fixtures don't have.

Just go back to Live and let's refresh the screen to show the new attributes.



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Now that we have the attributes patched, let's see about controlling these new attributes.

Add Shape Channels to ATC Pages

There is a very good chance that the ATC Page is already setup for the shape attributes, but let's just make sure.

(MORE) (NOTES DISPLAY) (LOAD FILE) (ATCPAGE)





🖪 АТСРИ	AGE.LIB - N	otepad					
<u>File E</u> dit	Format <u>V</u> ie	w <u>H</u> elp					
[F12][F	ilter12]						^
[D1] 1, 3 > 24 > 40	4, 2, 11 , 42 > 5	> 13, 5 2, 54 > :	> 6, 53 126	, 7 > 10	, 23, 41,	, 14 > 22	
[51][Ge 1,	n] 3,	4,	2,	5,	б,	53	
[52][Go 1,	bo] 3,	4,	8,	9,	23,	41	
[53][⊂o 1,	lor] 3,	4,	2,	11,	13,	12	
[54][s⊤ 1,	ROBE] 3,	4,	2,	41,	53,	16	
[55][RE 1,	SET] 3,	4,	20,	17,	18,	19	
[56][] 1,	з,	4,	2,	20,	21,	22	
[91][sh 1,	ape Size 3,] 4,	91,	92,	93,	94	
[92][sh 99,	ape Spee 3,	d] 4,	95,	96,	97,	98	
							~
<			1	Ш			> ,;

If not there, just set up 2 ATC pages for shapes. This example shows page numbers 91 and 92 but use what you want. There are 9 attributes for shapes and only 4 encoder wheels. Instead of setting up an additional atc page for just one encoder, I put attribute 99 (PTRotate) on the wheel. This keeps my atc pages to a minimum without losing functionality.

Add Shape Channels to Attribute Filters

While here in the ATC Page, let's make sure that there is an attribute filter setup for the shape channels. Just scroll up from here to the filter keys.



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This ATC Page has the Shape filter setup as F10. This would be the far right of the four teal macros on the 520i. The screen menus will show you the filters after you press @ATT. Again, place this on any filter that you choose.

Access the Shape Groups

As to assessing the shapes groups, all prebuilt shapes are groups. The groups are as follows...

Group 992.1 – Circle Group 992.2 – Can Can Group 992.3 – Triangle Group 992.4 – Square Group 992.8 – Figure of Eight

To apply them to the fixtures, just treat them like any other group.

1 THRU 5 @ GROUP 992.1 ENTER

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127.0.0.1 User	1 Screen 2 Lo	gin				
16:13:44 4/11/	′05 >>		LIVE	*		GM=FL/FL
	0001 VL5-	-16 0002 VL	5-16 0003 V	L5-16 0004	VL5-16 0005	VL5-16
1 Intensity	FL	FL	FL	FL	FL	1
<mark>3</mark> Pan	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	3
	0	0	0	0	0	
<mark>4</mark> Tilt	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	<mark>4</mark>
	<mark>0</mark>	0	0	0	0	
10 Frost	0	0	0	0	0	10
11 Cyan	0	0	0	0	0	11
12 Magenta	0	0	0 0	0	0	12
13 Yellow	0	0	0	0	0	13
17 Speed	Ŭ	Ŭ	Ŭ	Ň	Ň	17
	Ň	Ň	Ň	N N	N N	18
19 beamspeed	N N	N N	v v	N N	N N	13
91 PProfile	96	96	96	96	96	20
92 TProfile	20	96	96	0C 96	0C 96	92
93 PSize	20	20	20	20	20	93
94 ISize	20	20	20	20	20	94
95 PSpeed	60	60	60	60	6Ŏ	95
96 TSpeed	60	60	60	60	60	96
97 PPhase	0	0	0	0	0	97
98 TPhase	25	25	25	25	25	98
99 PTRotate	0	0	0	0	0	99
LIVE UN *			7000 0			EAR 1MACRO
	FBO			GI LOPEN		
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If you have the fixtures as do I, then you have them at their *Home* position with the *Circle* shape. But the fixtures are not doing a circle. Let me explain as there is physics involved here. In order for a yoke based fixture to do a circle, both the pan and the tilt must be able to move freely and when the light is pointed straight down only the tilt moves freely. In order for a yoke based fixture to do a circle, the head of the unit must be perpendicular to the yoke. Basically, it must be pointed straight out...not down. Just use the trackball and tilt the fixtures straight up until the head is perpendicular to the yoke and you will see what I mean.

Let me point something out here. You have the ability for the fixtures to do their shape around any center point. That means that you can still move the fixture live or using your position preset focus groups. Feel free to experiment with this until you get the hang of it.

Clearing Shapes from Fixtures Live

To have any fixture or combination of fixtures stop their movement. Just type...

1 THRU 5 @ATT (SHAPE) .

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6 127.0.0.	1 User 1 Screen	2 Login				
11:546M	11/06/05	<u> </u>		*		GM=EL/EL
11.5	0001	ÚI5-16 0002 U	15-16 0003	UI 5-16 0004	UI 5-16 0005	UI 5–16
1 Intens	sitv 🚺	FL	FL	FL	FL	1
3 Pan	50	50	50	50	50	3
	0	0	0	0	0	
4 Tilt	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	<mark>50</mark>	4
	0	0	0	0	0	
10 Frost	0	0	0	0	0	10
11 Cyan	0	0	0	0	0	11
12 Magent	ta O	0	0	0	0	12
13 Yellou	ω 0	0	0	0	0	13
17 Speed	0	0	0	0	0	17
18 ColSpe	eed 0	0	0	0	0	18
19 BeamS	peed 0	0	0	0	0	19
20 Reset		0	0	0	0	20
91 PProt	ile 0	0	0	0	0	91
92 IProt	ile U	0	0	0	U	92
93 PSize	U	U	U	U	U	93
9E PSpace	4 O	U	0	0	U	- 54
95 F3PEE		ů.	Ň	ů.	U O	73
97 PPhace		Ŭ	Ň	ů Na na	Ŭ	20 97
98 TPhase		ň	ň	ň	ň	98
99 PTRota	ate 0	ň	ň	ň	ň	99
33 I IIIO ((· · ·	•		~	
LIVE:1 TH	RU 5 *					
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> Cue: 14	4 : lose to	p bld gen	CLR	G1 OPE	0 1	2LCD6

Just to confirm...that was 1 THRU 5 @ATT (SHAPE) . or POINT. Using any attribute filter, you can clear out any attribute set by typing Channel List @ATT (Filter) Point.



Example: Can Can Offset

Let's say that VL5s 1 thru 5 are in a straight line on the same electric and that you want them doing the Can Can which is simply a shape that tilts the units back and forth from point a to point b based on the size. But you don't want the fixtures all doing the same shape in unison. You want them offset so that each fixture goes after the previous. Here's where the @RANGE command and the following table can help.

First, let's have the fixtures doing the Can Can.

1 THRU 5 @ GROUP 992.2

Now let's offset the tilt phase using the table below and the @RANGE command. Basically, the table tells us that if you have 5 lights that you want to offset the phase

Steps / No of Lights	2	3	4	5	6	7	8	9	10
1	0%	0%	0%	0%	0%	0%	0%	0%	0%
2	50%	33%	25%	20%	17%	14%	13%	11%	10%
3		67%	50%	40%	33%	29%	25%	22%	20%
4			75%	60%	50%	43%	38%	33%	30%
5				80%	67%	57%	50%	44%	40%
6					83%	71%	63%	56%	50%
7						86%	75%	67%	60%
8							88%	78%	70%
9								89%	80%
10									90%

1.98 THRU 5.98 SHIFT @ 0 THRU 80 ENTER

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Se 12	27.0.0.1 User	1 Screen 2 Login								
12:0	0PM 11/06/	05 >>		LIVI	Ε	¥				GM=FL/F
		0001 VL5-16	0002	VL5-16	0003	VL5-16	0004	VL5-16	0005	VL5-16
1	Intensity	FL	FL		FL		FL		FL	
3	Pan	50	50		50		50		50	
		0	0		0		0		0	
4	Tilt	50	50		50		50		50	
		0	0		0		0		0	
10	Frost	0	0		0		0		0	1
11 (Cyan	0	0		0		0		0	1
12	Magenta	0	0		0		0		0	1
13	Yellow	0	0		0		0		0	1
17 3	Speed	0	0		0		0		0	1
18	ColSpeed	0	0		0		0		0	1
19	BeamSpeed	0	0		0		0		0	1
20	Reset	0	0		0		0		0	2
91	PProfile	0	0		0		0		0	9
92	lProtile	90	90		90		90		90	9
93	PSize	0	U		0		0		U	9
94	ISize	20	ZŬ		ZŬ		20		20	9
95	PSpeed	0								9
30		60	60		B Ŭ		60		БŇ	3
97	rrnase		20		40					9
98	Irnase		20		40		БV		80	9
55	rinotate	U	U		U		U		V	5
I IUE	:1.98 THRU	5.98 PRANCE O	THRU	80 ×						
				70	GOBO	BHARD	91RI	S 1HOM	E 1C	LEAR 1MACR
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	Λ	lote [:] SHIFT @	D. will	aive vo	u the	@RAN	IGF (comma	nd	

This will now have them doing the Can Can one at a time going down the line like the Rockettes!

Time to Play

Now that you have learned automated luminaire control on the 500 series console, it's time to play. Just experiment with the shape generator library and using the @RANGE command with the phase attributes.

You'll be amazed at the complex movements that can be programmed quickly.

Good luck and happy programming!