User Manual

May 2005

MAIN LIGHT®

This user manual is designed to help the operators and owners of Soft-LED products use, troubleshoot, and utilize all of the product's potential.

Customers seeking additional help not mentioned in this user manual should contact Main Light Industries. Please use the "Contact Us" page in the back of this manual or your Soft-LED contact.

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Table of Contents

Getting Started

Curtains and Power Racks

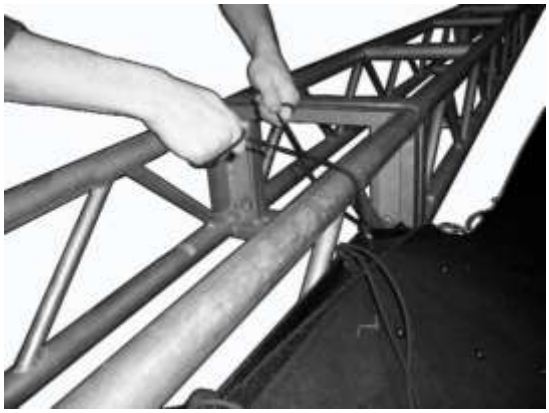
1. Before connecting any part of the system, visually check for loosening of any cables, etc. from shipping vibration.

2. Remove curtain from case by removing lid and flipping case up on end. Handle by the edges only.

Properly remove the curtain from the case

3. Tie drapery onto support system.

Secure drapery tightly



4. Remove caps from Multipin connector by pulling back on the metal part of the connector and pushing down on the cap.

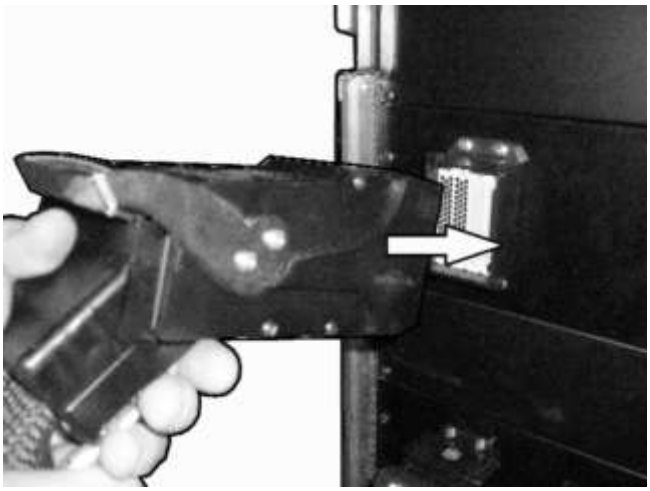
Pull bracket back

Remove cap

5. Place connector on mating connector of the rack. Before pressing metal bracket forward, make sure the connector is fully seated by pressing down on the front of the connector.

Note: The curtain connector with the blue tape goes on the bottom connector

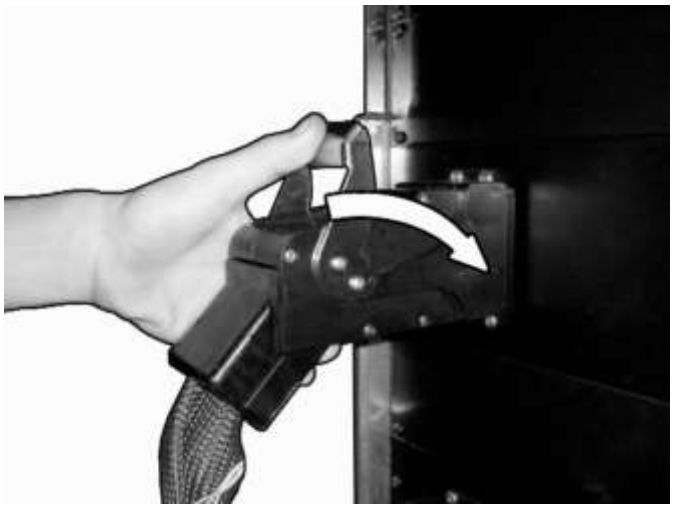
Place connector on mate



Push on front of connector

6. Press the metal bracket forward. There should be very little resistance. Stop and check for proper seating of connector if in doubt.

Push bracket forward



7. Connect power cable into the rack and proper voltage source.

Rack Types

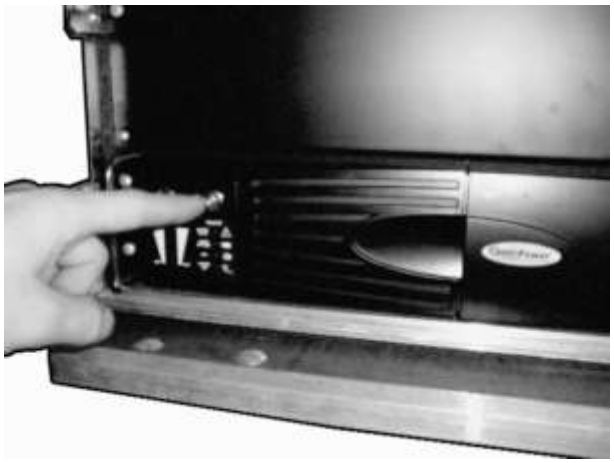
US Power Rack

International Power Rack

⚠The next 2 steps apply to US Power Racks ONLY

8. Push Power button on Cyber Power unit (UPS).

Power on Cyber Power UPS



9. Press Power switch on Furman unit.

Power on Furman

Note: You should see a power on test pattern on the curtain.

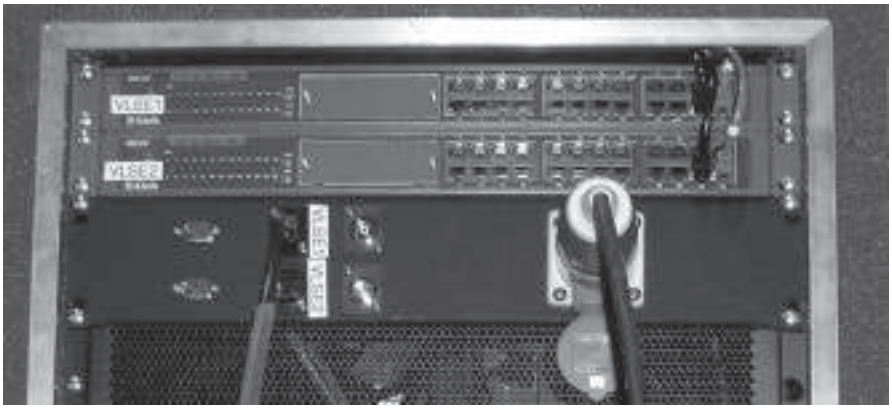
VLSE Rack

1. Connect a ethernet cable into one of the rack's front panel ethernet jacks.

Plug ethernet in Power Rack

2. Connect the other end of the ethernet cable to the Video Light System Engine.

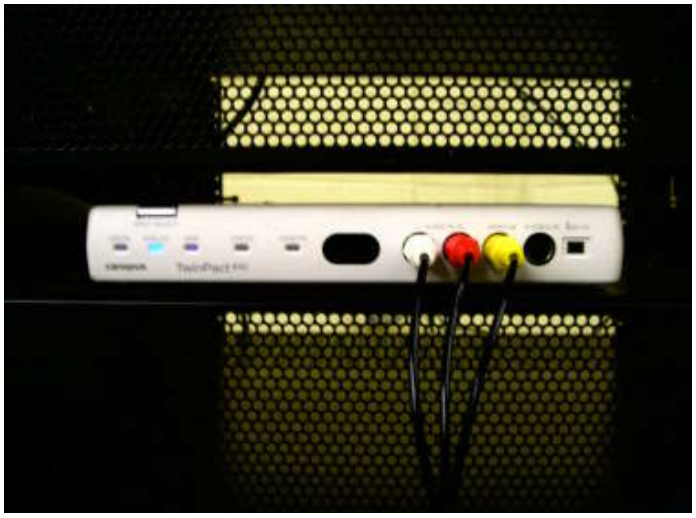
Connect ethernet to VLSE



3. Connect the white canopus box to the video signal. If you need to change the input signal, press the grey button on the left side of the canopus.
Note: There should already be a firewire cable between the VLSE and the rear of the canobus box

Choosing your Video Source

Analog



SVGA(RGB)

4. Ensure that all connects are secure.

5. Push Power switch on Furman or Cyber Power (UPS) unit. (Varies according to configuration)

⚠**Applies to US VLSE Racks ONLY**

US Power On

Cyber Power UPS

Furman

Note: If you are sending a proper video signal, you should see the video on the reference monitor and the curtain.

Video active on reference monitor

⚠If you do not see the video input on the curtain, please refer to the troubleshooting section of this manual.

VLSE Adjustments

If the image does not fill the entire curtain, press the overscan button on the canopus remote.

Canopus Remote

You may need to tweak the settings for RGB on the canopus via the remote also. There are settings for Brightness, Contrast, Color, Sharpness, Flicker, and RGB gain.

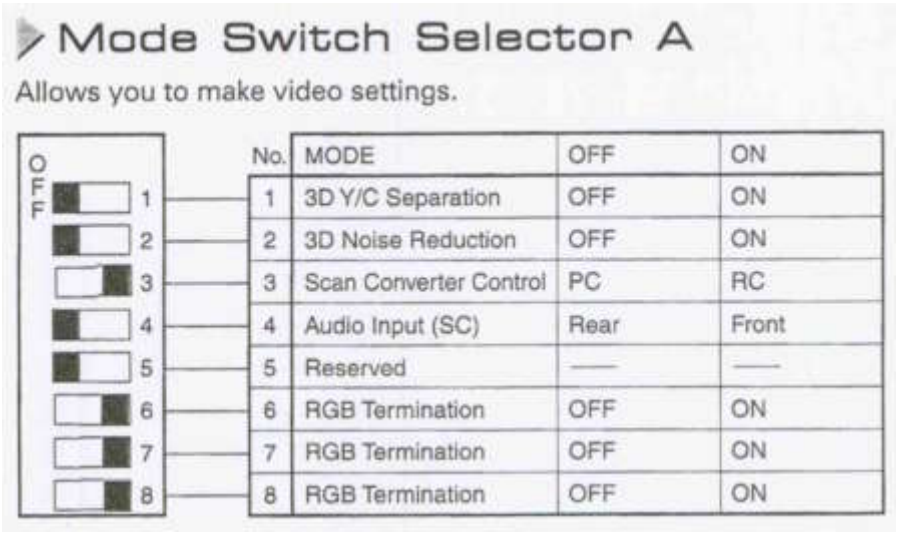
Use the up and down arrows to change the settings accordingly.
When you are finished, press OK to save the settings.
If you have a signal connected, press the test button to display a test pattern.
Press OK when done.

Note: Analog signals may require the map to be adjusted.

The dip switches on the bottom of the canopus should already be configured.

Switch 3 on block A enables the remote control.
Switches 6/7/8 on block A provide RGB termination.
Switch 5 on block B enables 7.5 or 0 IRE.
Note: The US video signal is 7.5 IRE and NTSC Format

Block A

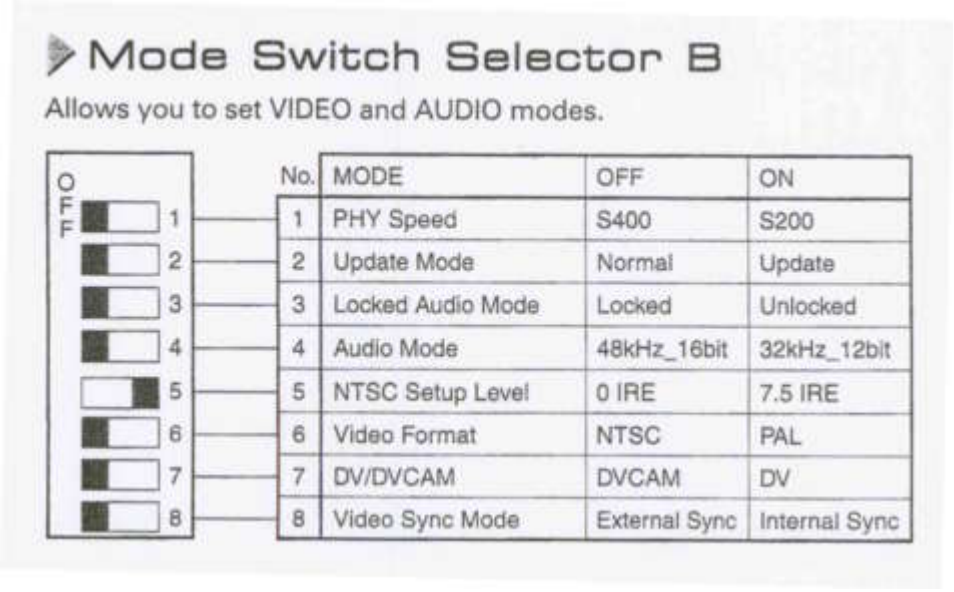


Mode Switch Selector A

Allows you to make video settings.

No.	MODE	OFF	ON
1	3D Y/C Separation	OFF	ON
2	3D Noise Reduction	OFF	ON
3	Scan Converter Control	PC	RC
4	Audio Input (SC)	Rear	Front
5	Reserved	—	—
6	RGB Termination	OFF	ON
7	RGB Termination	OFF	ON
8	RGB Termination	OFF	ON

Block B



Mode Switch Selector B

Allows you to set VIDEO and AUDIO modes.

No.	MODE	OFF	ON
1	PHY Speed	S400	S200
2	Update Mode	Normal	Update
3	Locked Audio Mode	Locked	Unlocked
4	Audio Mode	48kHz_16bit	32kHz_12bit
5	NTSC Setup Level	0 IRE	7.5 IRE
6	Video Format	NTSC	PAL
7	DV/DVCAM	DVCAM	DV
8	Video Sync Mode	External Sync	Internal Sync

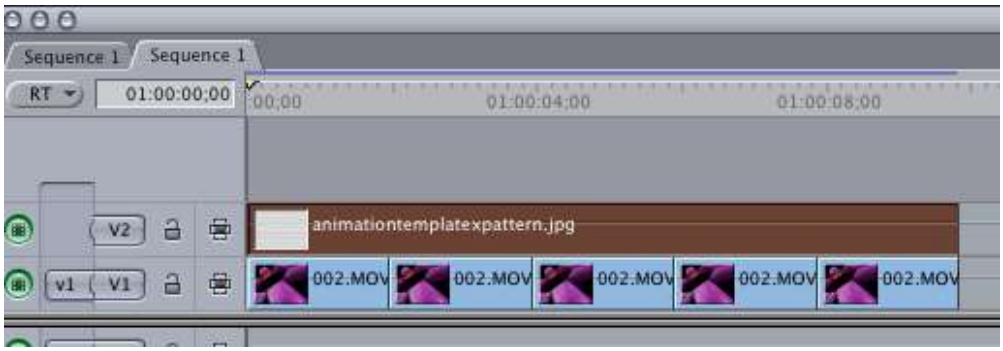
Previsualization Guide

Final Cut Pro

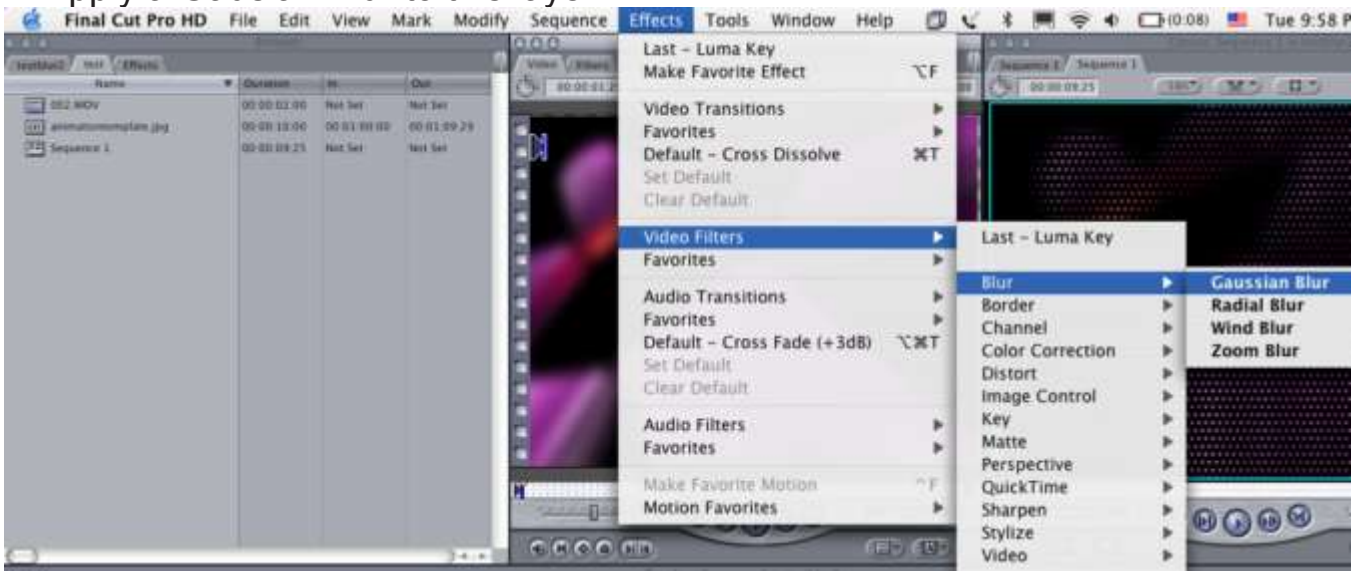
Here is a quick overview of setting up a movie in Final Cut Pro for usage on the Soft-LED curtain. Other video editing programs should have similar settings available.

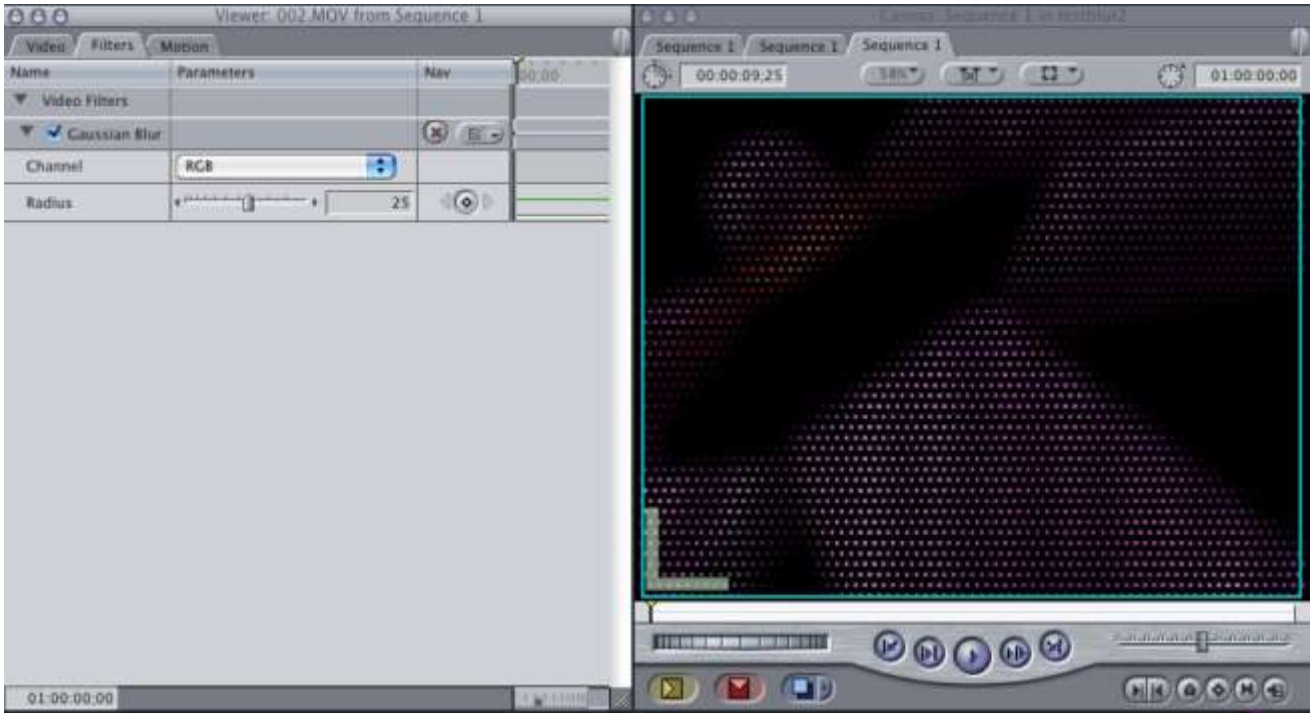
Note: The screenshots represent approximate settings.

1. Create a layer with your original video and place your video on this layer.



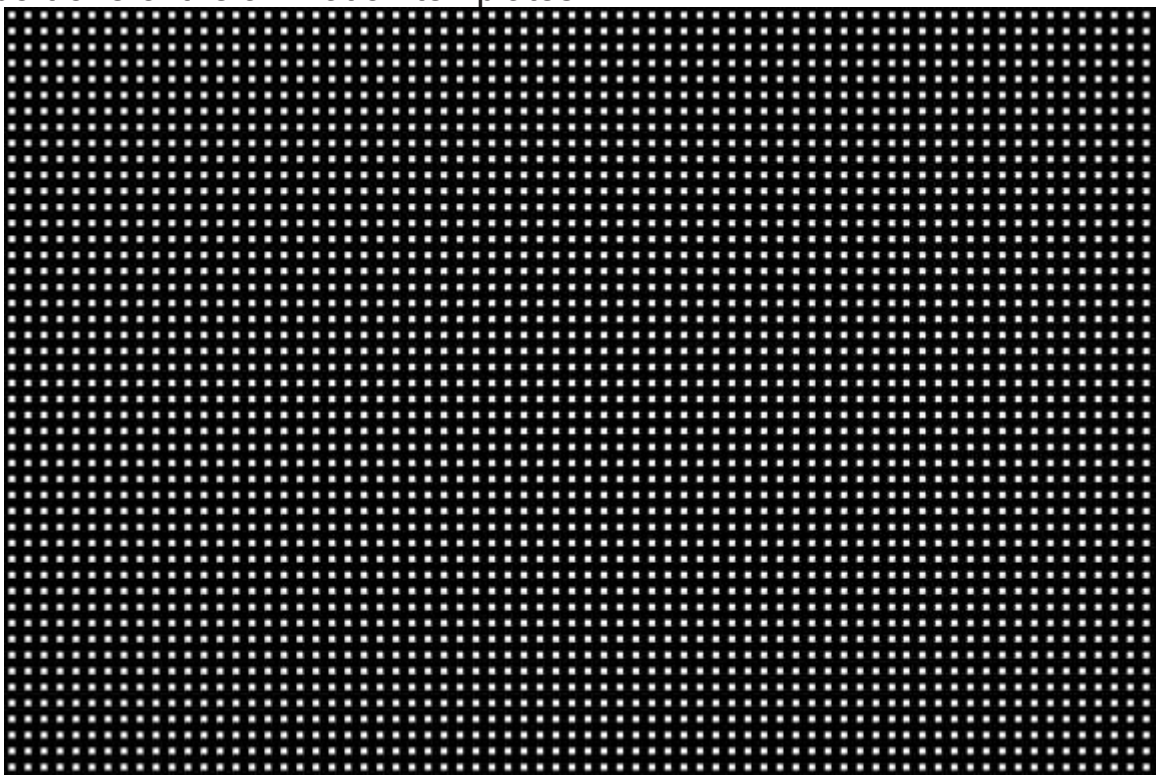
2. Apply a Gausian Blur to this layer.

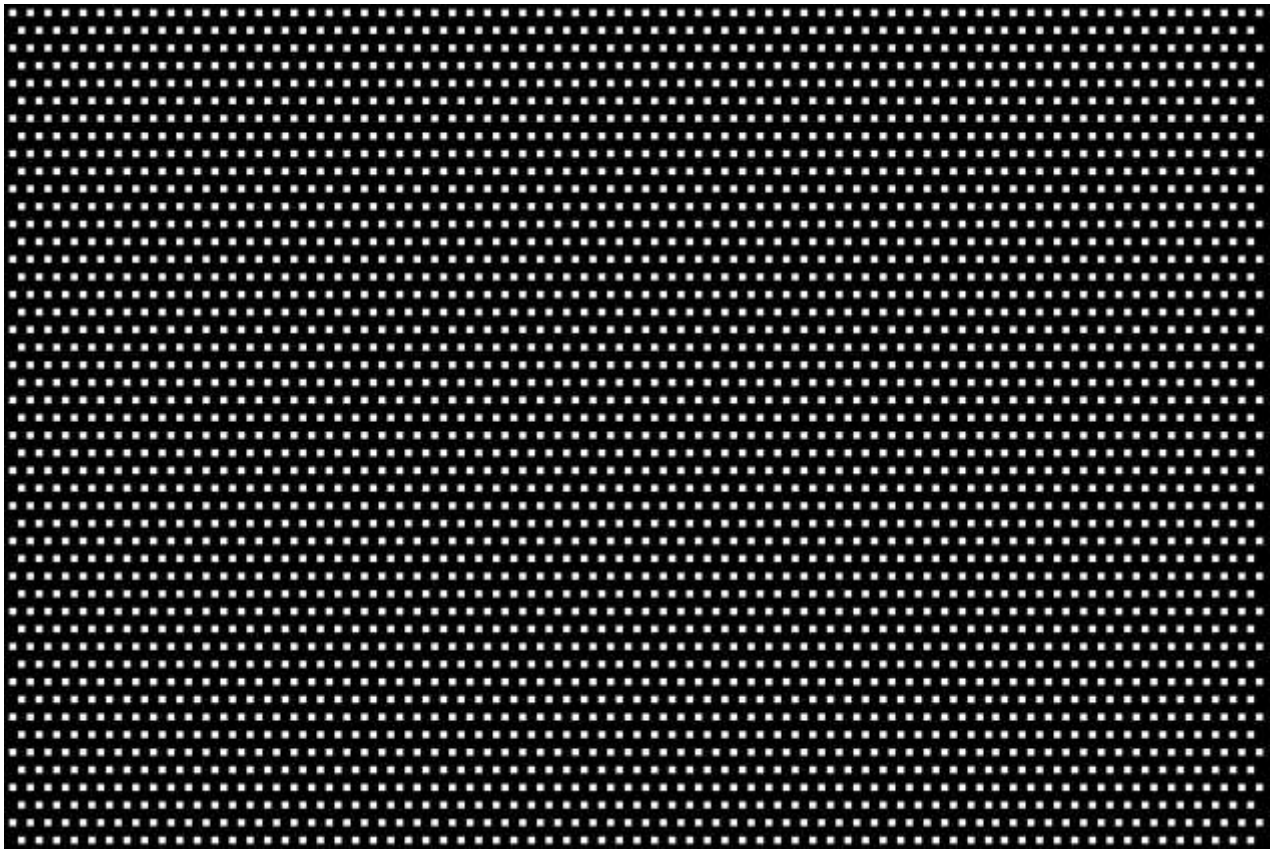




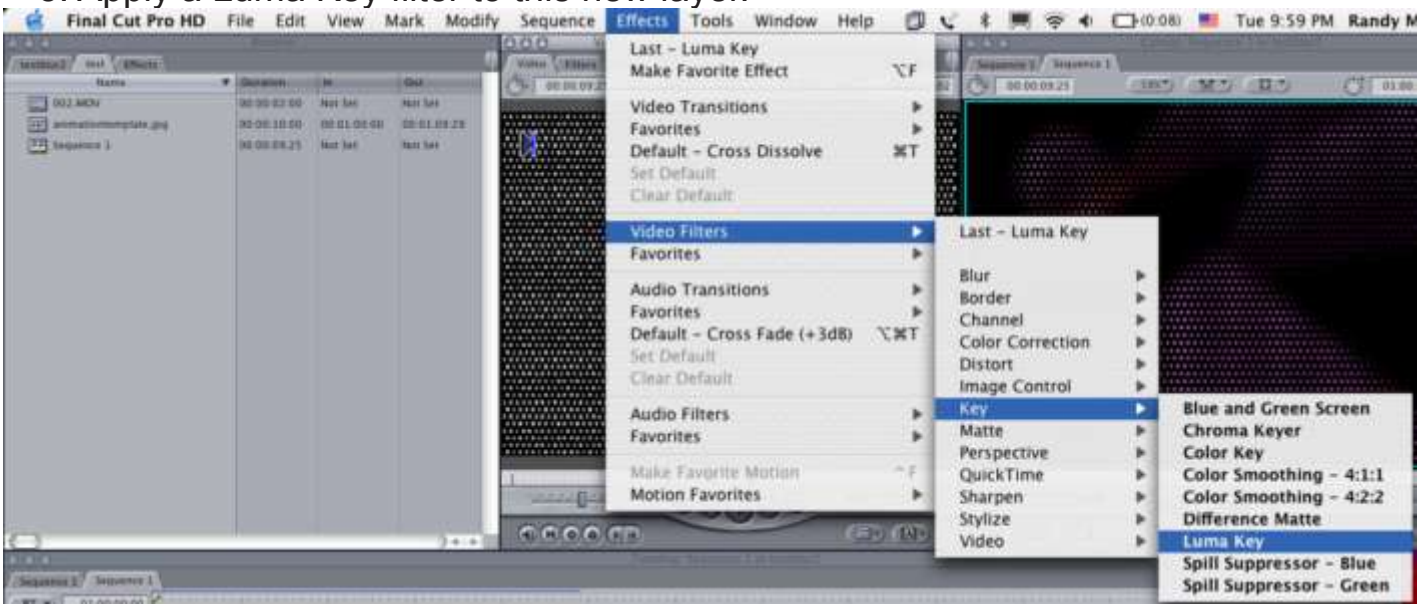
3. Create a layer above your video layer.

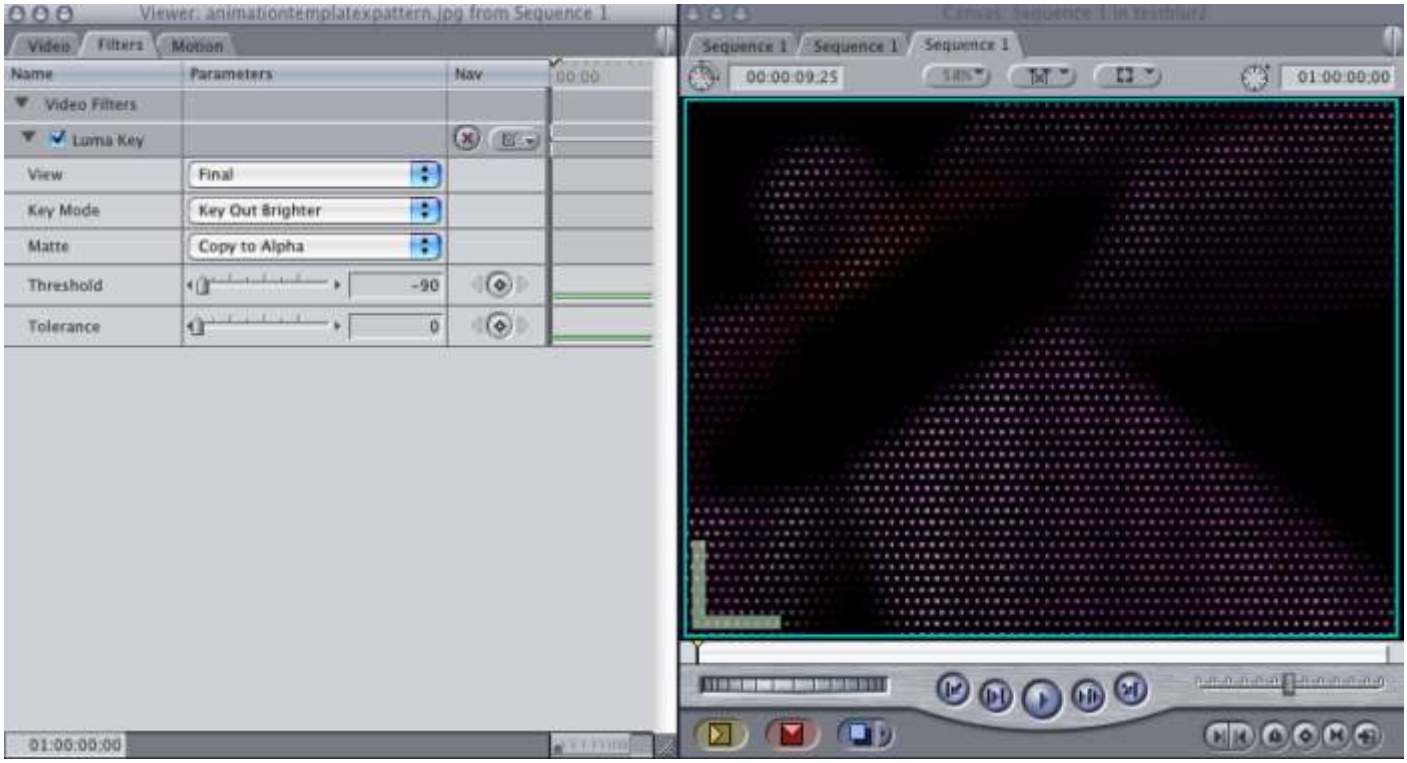
4. Import one of the animation templates.





5. Apply a Luma Key filter to this new layer.



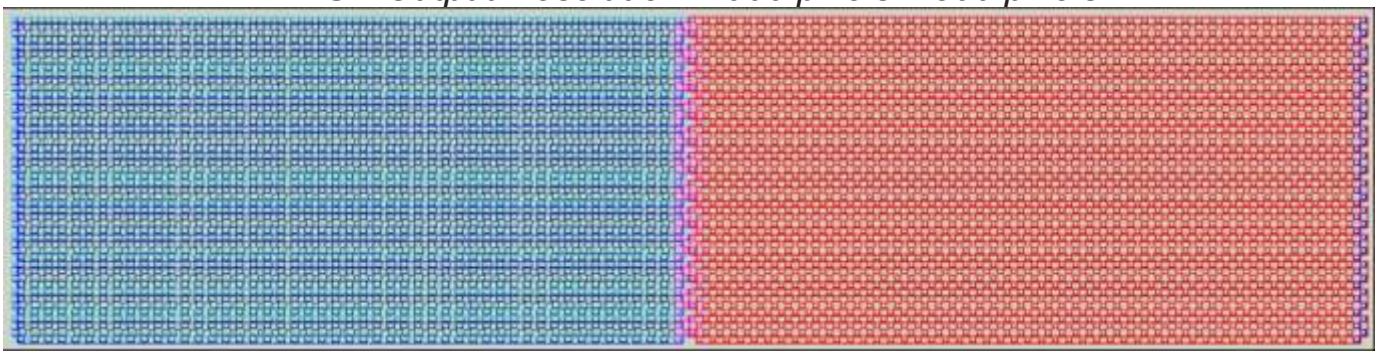

Viewer: animationtemplatexpattern.jpg from Sequence 1
Video
Filters
Motion
Name
Parameters
Nav
Video Filters
Luma Key
View
Final
Key Mode
Key Out Brighter
Matte
Copy to Alpha
Threshold
-90
Tolerance
0
01:00:00:00
Sequence 1
Sequence 1
Sequence 1
00:00:09:25
01:00:00:00

Video Resolution Guide

2 Medium-X Resolution Curtains

Medium-X Res Panels (16’1”H x 33’5”W)
2 Panels combined for 16’1H x 66’10”W

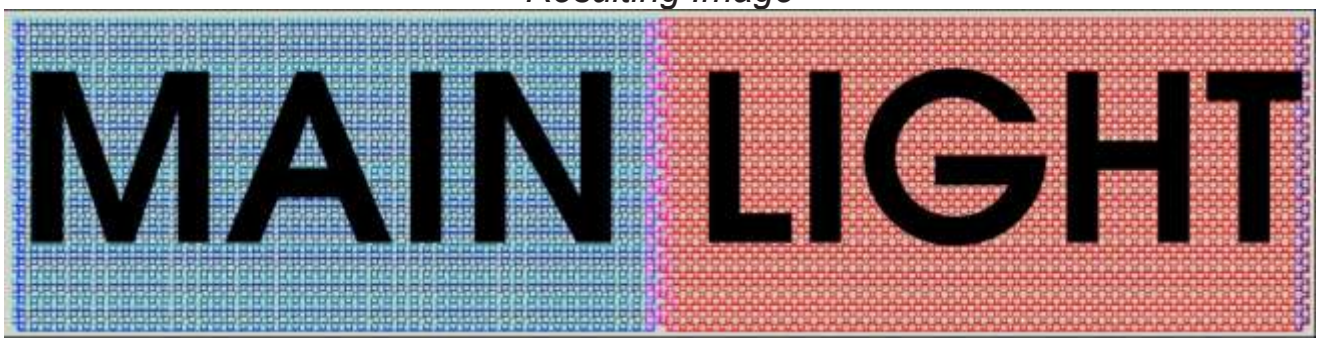
VLSE Output Resolution: 2000 pixels x 500 pixels



Desired Image

Required 720x480 input to VLSE for properly scaled image

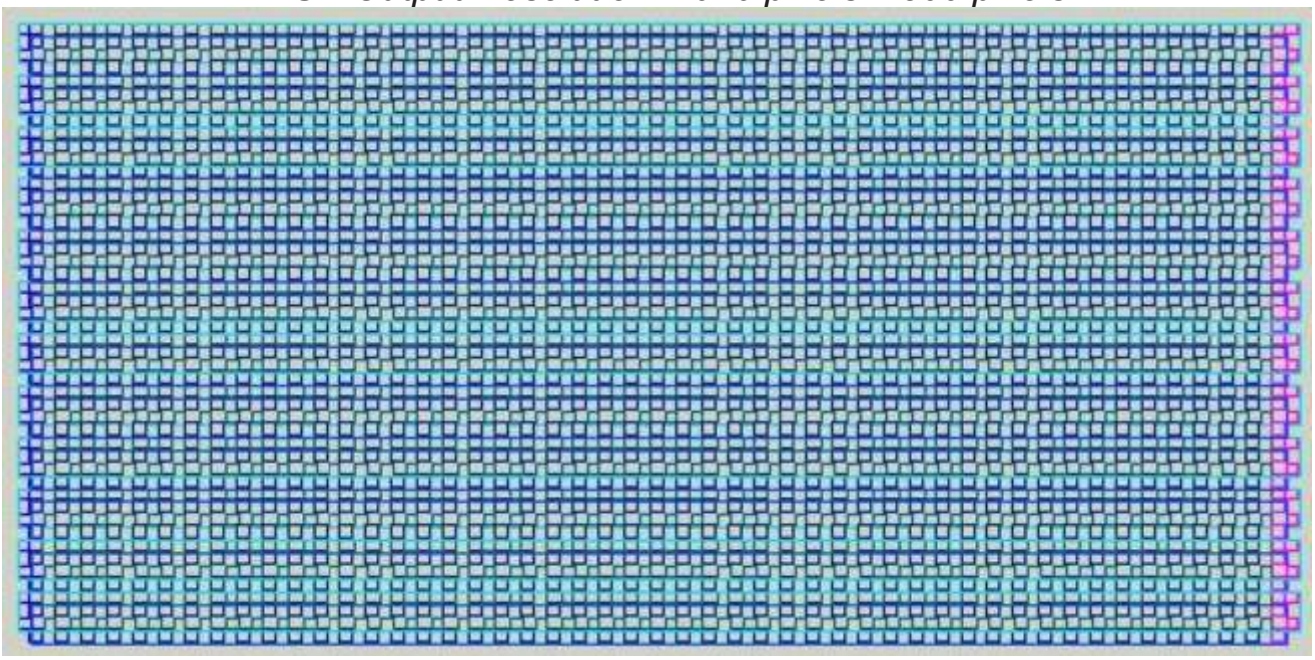
Resulting Image



1 Medium-X Resolution Curtain

Medium-X Res Panel (16’1”H x 33’5”W)
1 Panel for 16’1H x 33’5”W

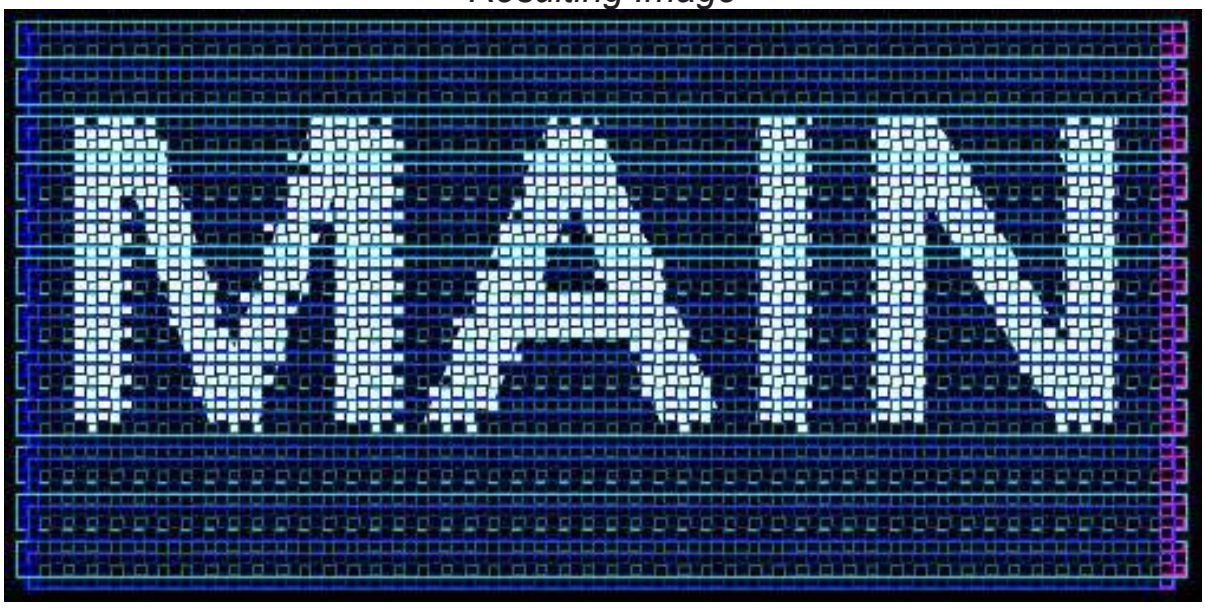
VLSE Output Resolution: 1010 pixels x 500 pixels



Desired Image

Required 720x480 input to VLSE for properly scaled image

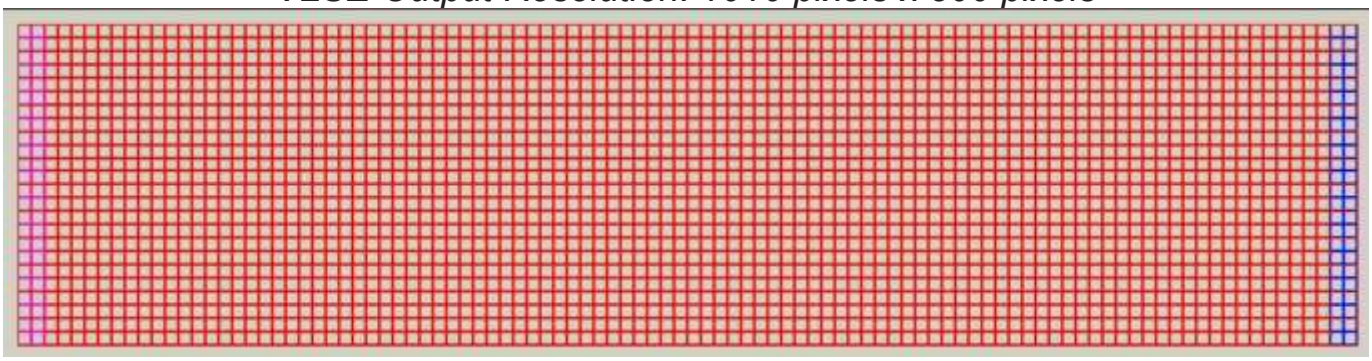
Resulting Image



1 High Resolution Curtain

High Res Panel (8’1”H x 33’5”W)
1 Panels for 8’1H x 33’5”W

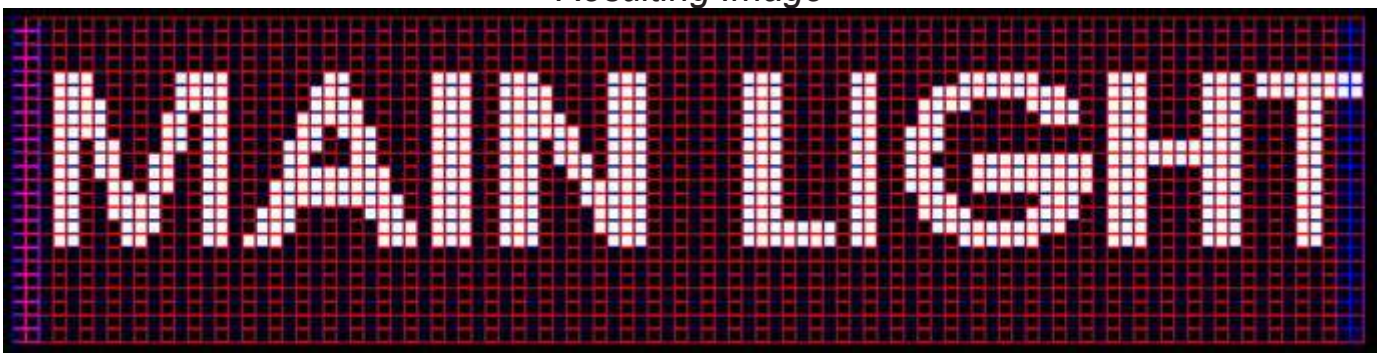
VLSE Output Resolution: 1010 pixels x 500 pixels



Desired Image

Required 720x480 input to VLSE for properly scaled image

Resulting Image



How To:

Address Power Supplies

Main Light uses the following naming conventions:

MLI SoftLED [Complete Rack Number][4 digit power supply number]
Example: “MLI SoftLED 43120001”

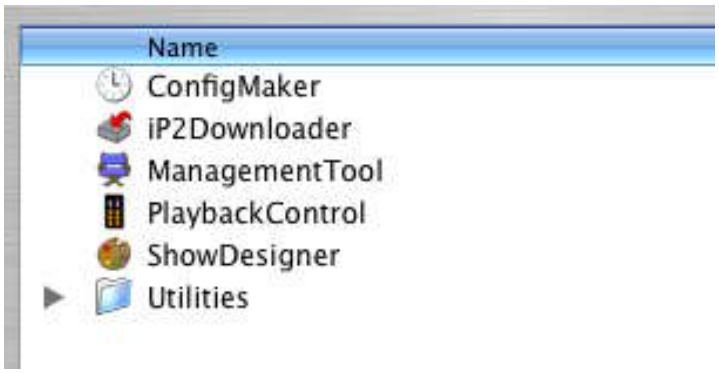
10.[Rack Series].[Rack Number].[Power Supply Number]
Example: “10.43.12.1”

Low Density Racks are 4000 series
High Density Racks are 4100 series
International Racks are 4200 series
Broadway Boxes are 4300 series
Customer Specials are 4500 series.

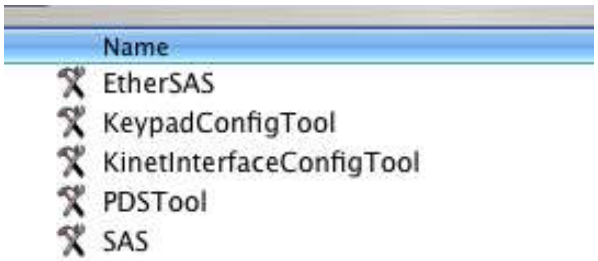
⚠**For more information, consult the Sample Rack Matrix in the Troubleshooting section of this manual.**

1. Launch “KinetInterfaceConfigTool” program located in the Light System Composer/Utilities directory.

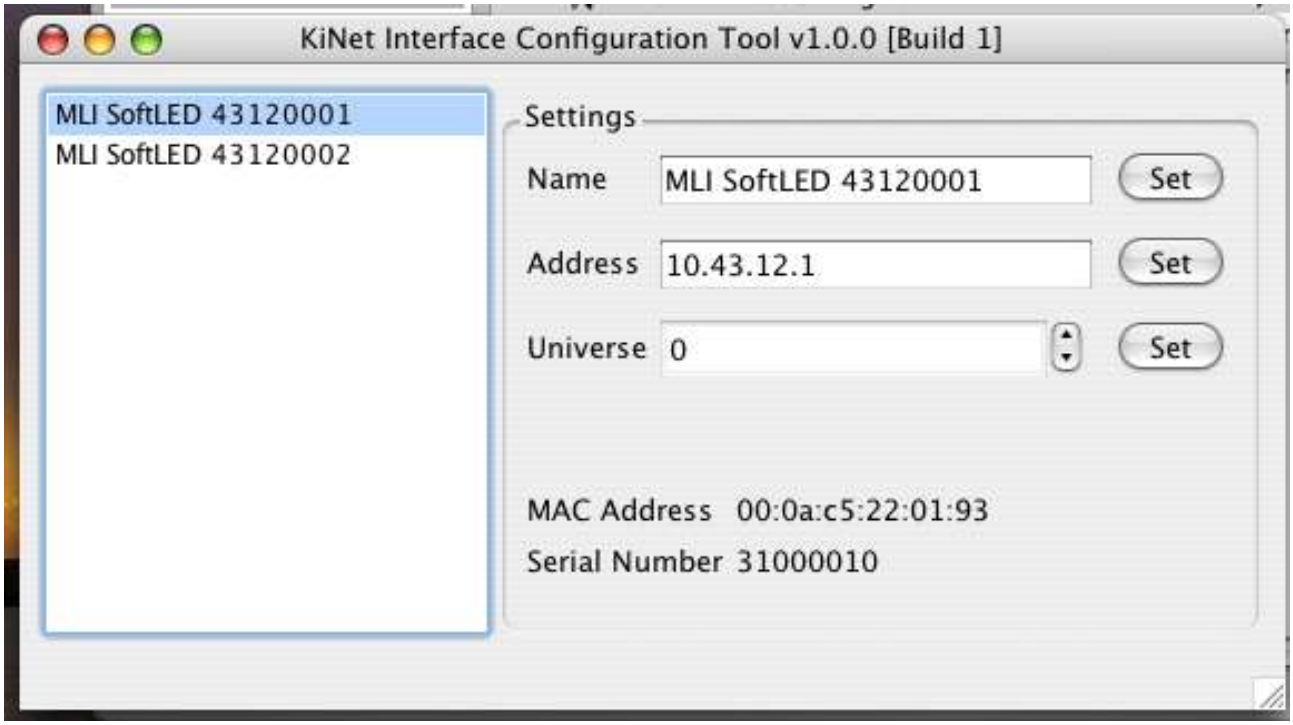
Light System Composter directory



Utilites directory



This screen should appear



2. Select a power supply, type in a new name, and click Set beside the name.
Note: The display will automatically refresh

3. Type IP address and click on Set beside the address.
⚠**Remember to use the proper IP address naming convention**
Note: The display will NOT refresh

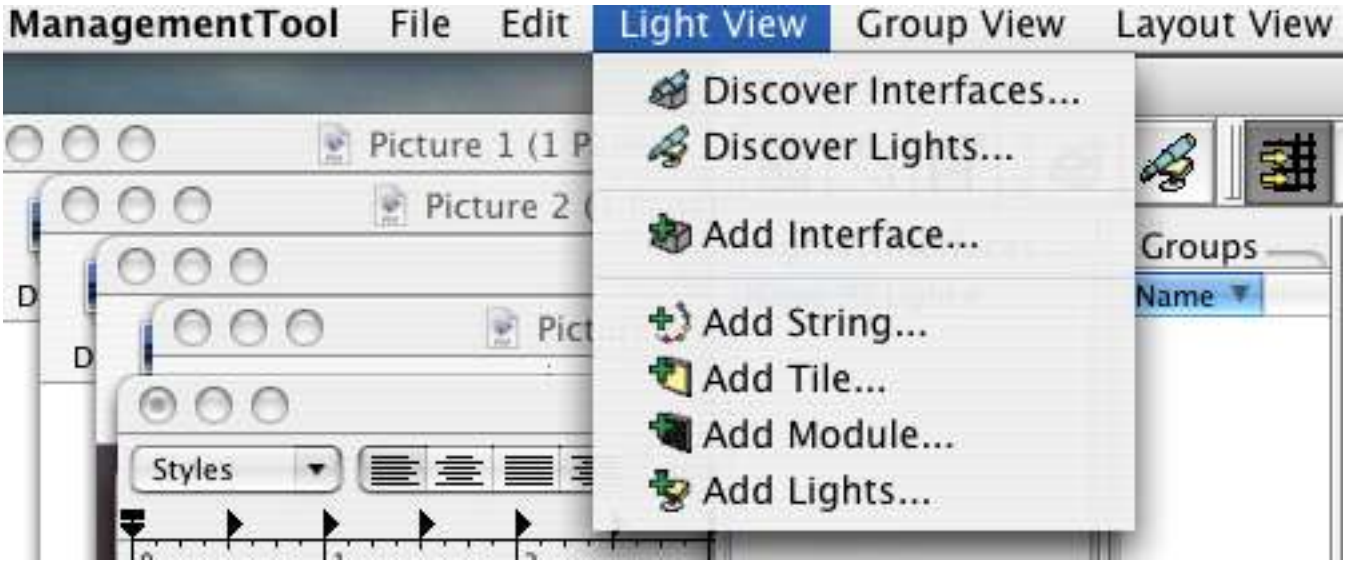
4. Use File > Refresh to make the power supply reappear with the new address.

File > Refresh will make the power supply reappear

5. Launch the Management Tool.

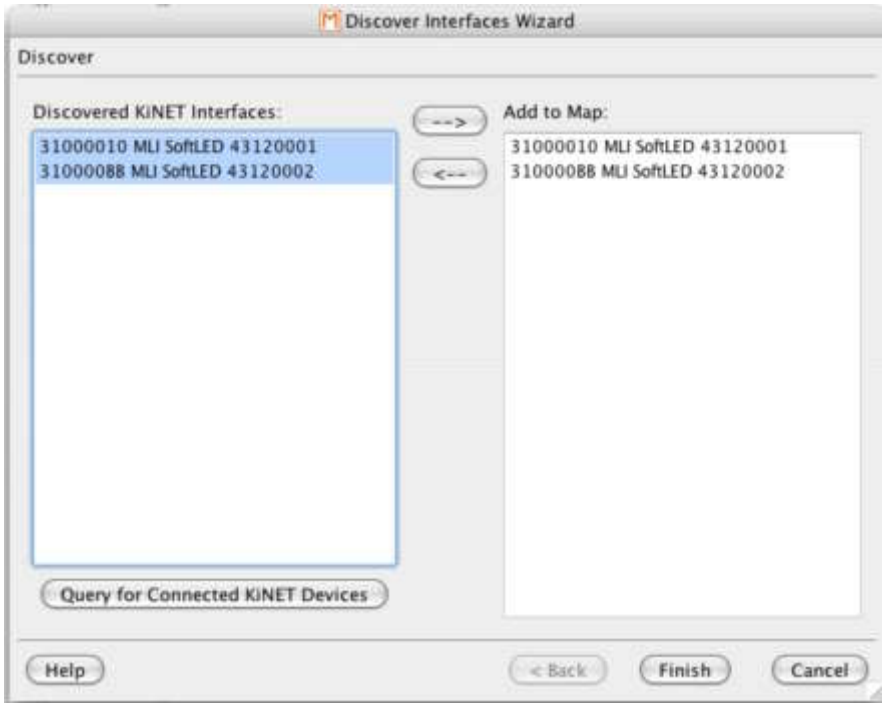
6. Select Light View > Discover Interfaces.

Light View > Discover Interfaces



7. Select ALL interfaces in the list and press the right arrow button to add the interfaces to the map and choose Finish.

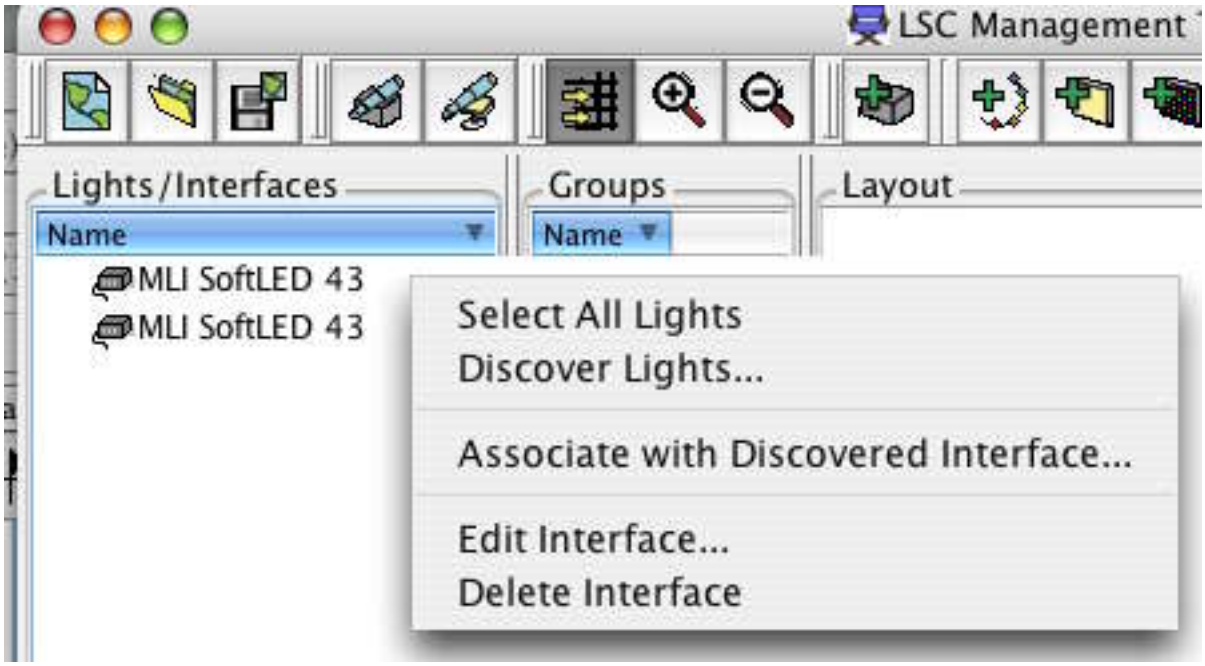
Interfaces ready to be added to the map



8. Right Click (Mac OS: Control Click) on a power supply name.

9. Select Discover Lights.

Menu w/ Discover Lights

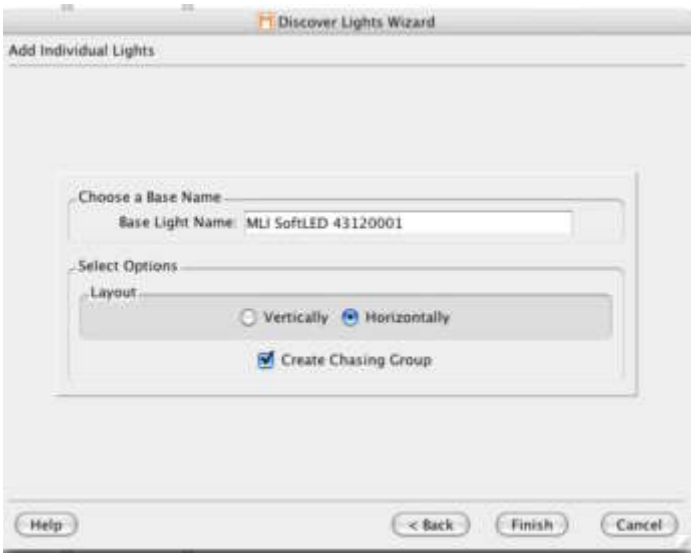


10. Make sure 100 lights were found and select Next.

Lights Discovered

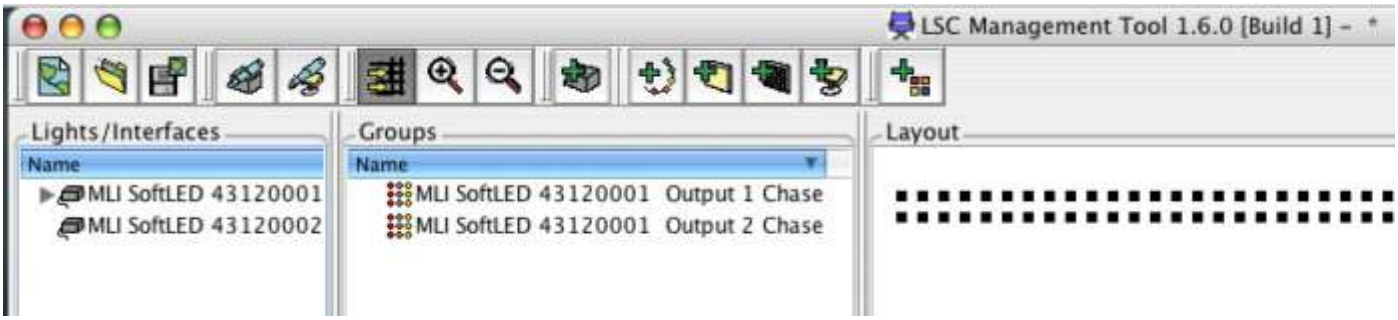
11. Check options and select Finish.

Proper Options



The tool will add 2 outputs to the power supply and the nodes

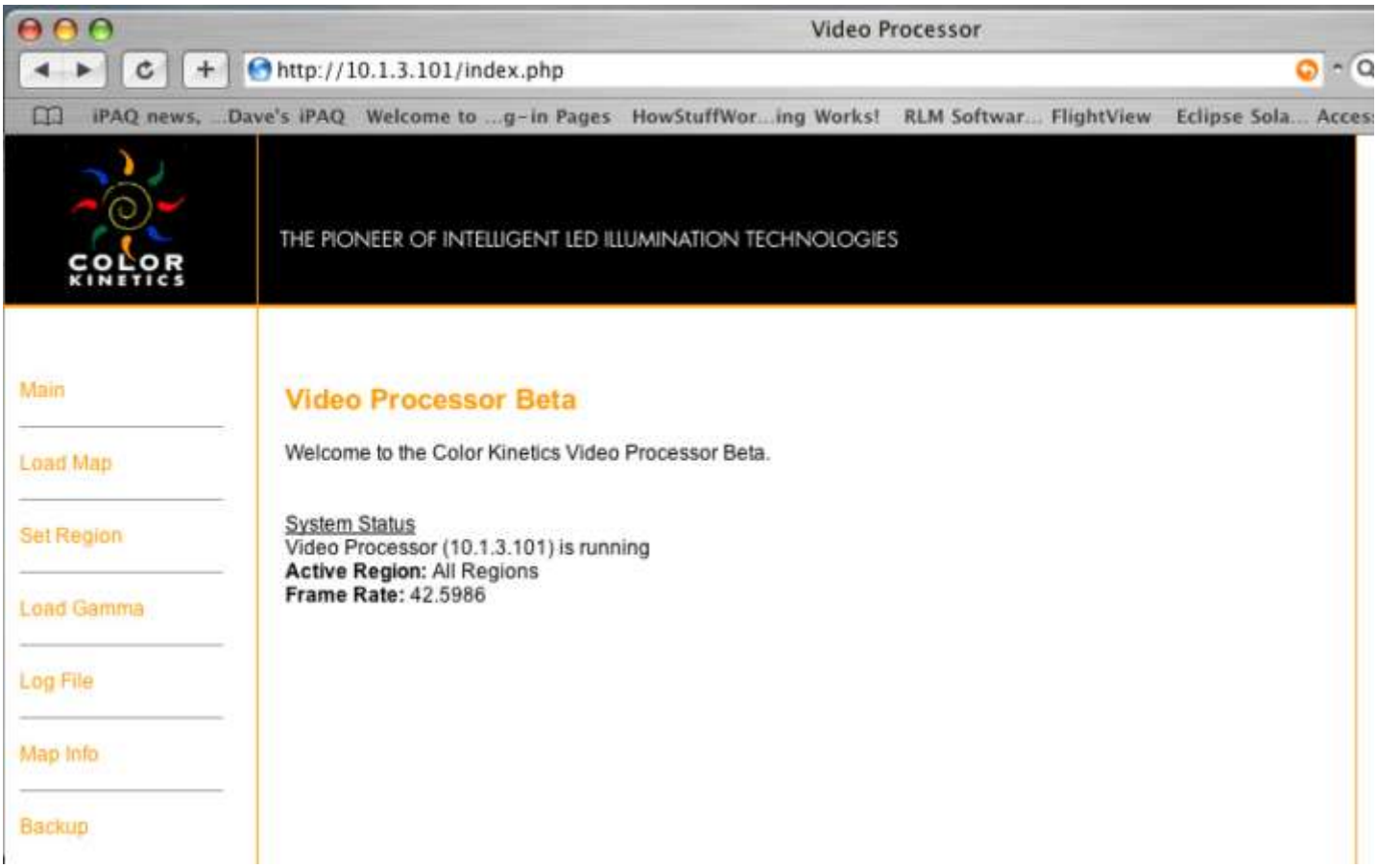
2 outputs created



Load Video Maps

1. Launch a web browser and goto “http://10.1.3.101”. (without quotes)
⚠**If you cannot access this IP, see the Network Troubleshooting section**

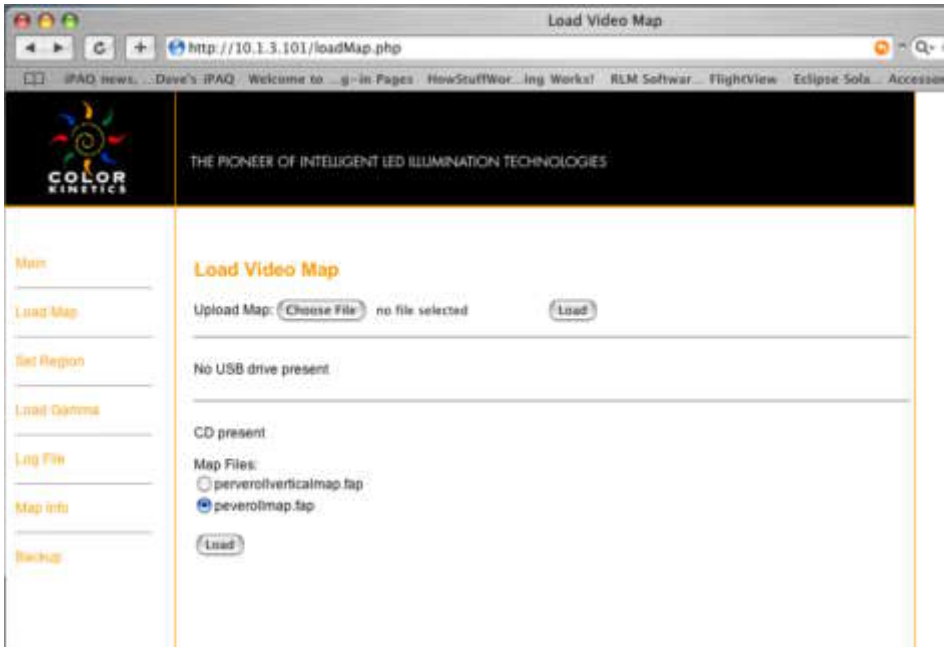
A screen similiar to this should appear



⚠**If System Status Settings shows a frame rate of “0” then there is a problem with the firewire connection**

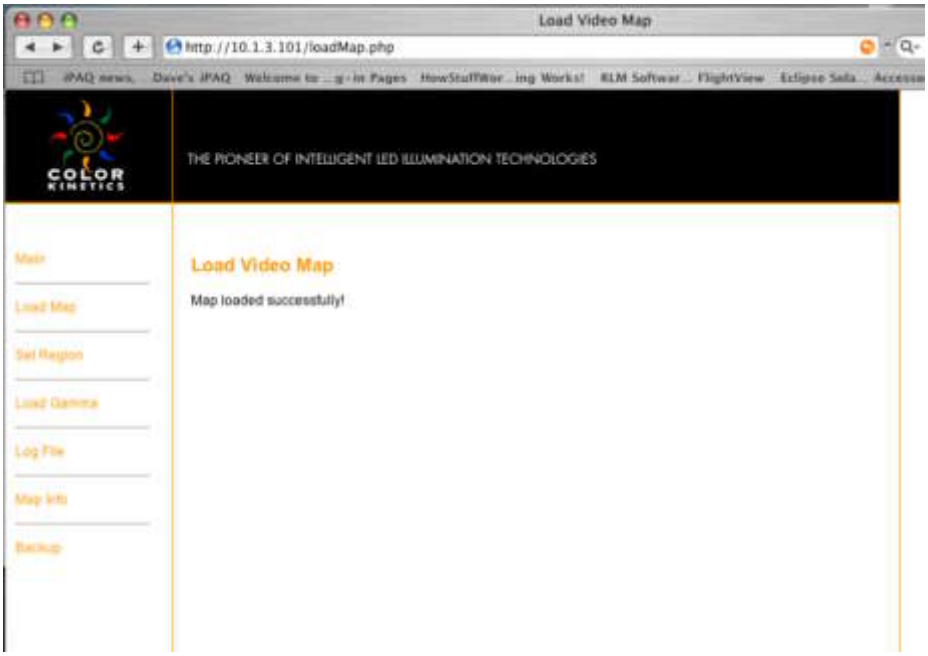
2. Select the Load Map link on the left.
Note: If you have a CD in the drive of the Video Light System Engine (VLSE), the map files will be listed.

Load Map page



3. Select the Choose File link and select the location of your saved map and click the Load button.

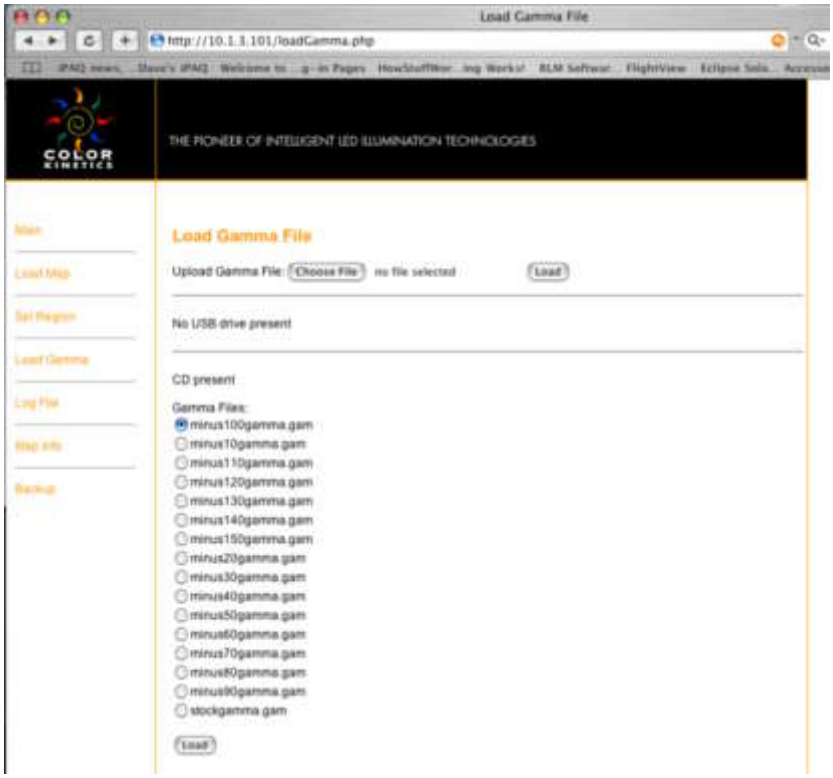
Map loaded successfully page



4. Select the Set Region link if needed.
Note: If you are using all regions, select All and choose Set

5. Select the Load Gamma link.

Page with gamma file links



6. Select the desired gamma file and click the Load button.

Note: The gamma file sets the threshold at which the VLSE will ignore data. If there is a lot of video "noise" in the system, you may need to use a higher minus gamma file

Feel free to use the Map Info and Log File links to see if there are any problems.

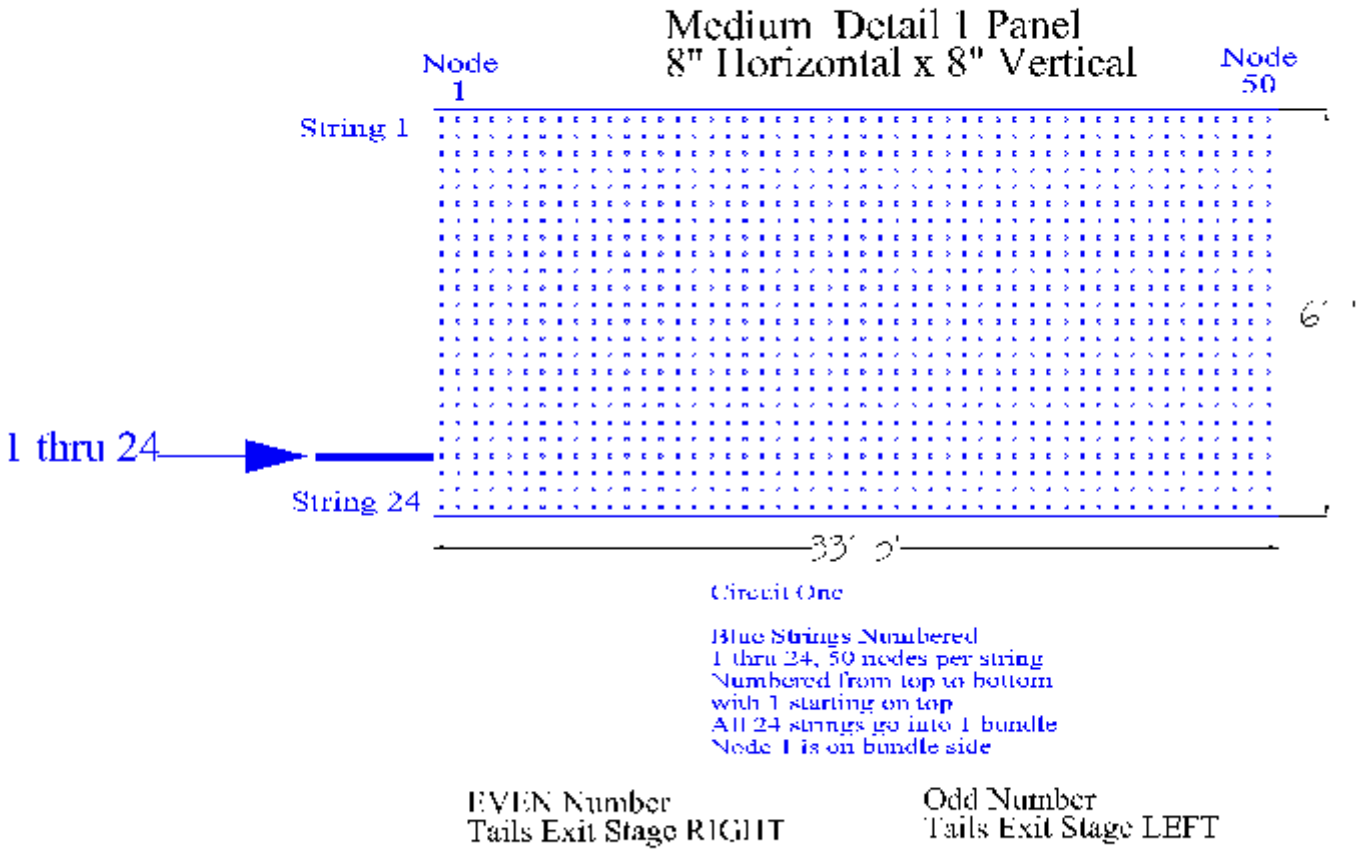
The Backup link allows you to save the map file loaded on the VLSE. Once the page loads, Right Click (Mac OS: Control Click) to save the linked file to your computer.

Troubleshooting

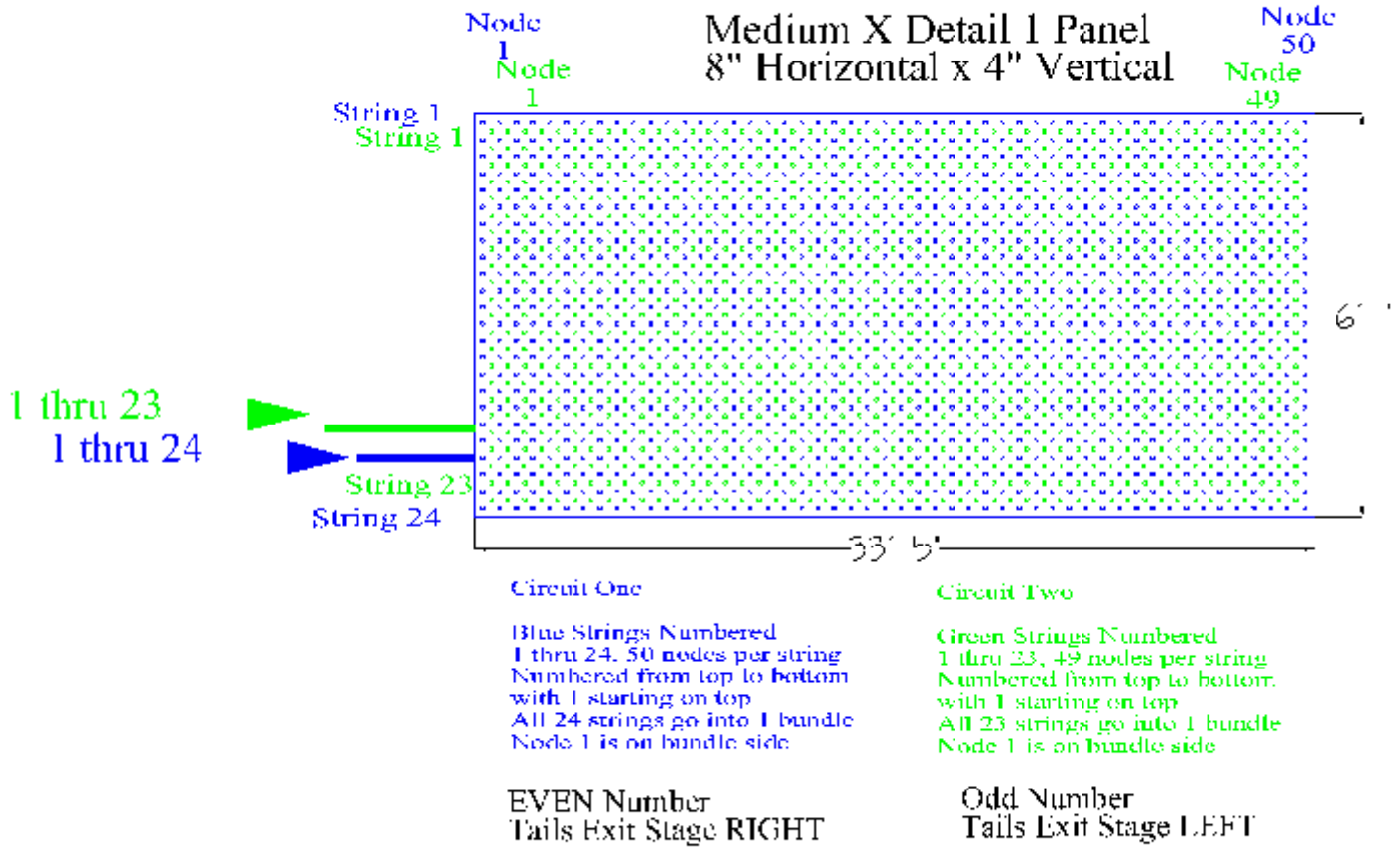
Identification

Strings and Nodes can be identified in the following way:

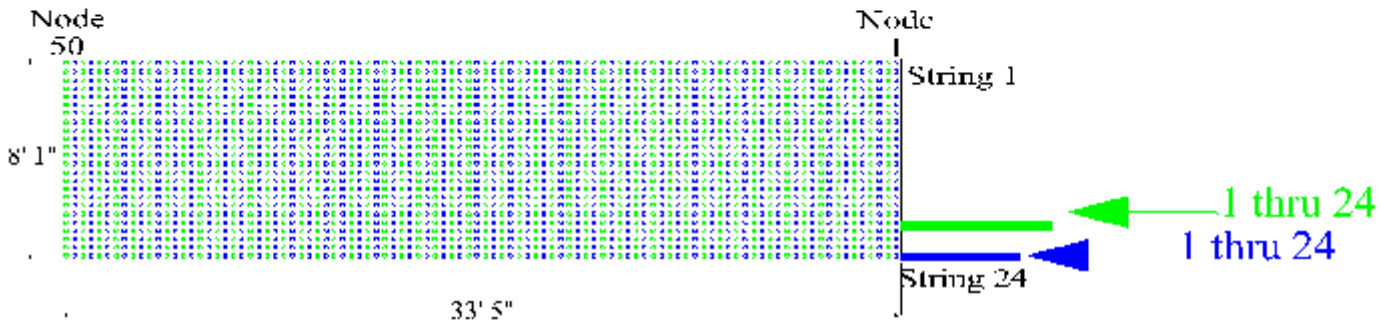
Medium Resolution Panel Detail



Medium-X Resolution Panel Detail



High Resolution Panel Detail



Circuit One

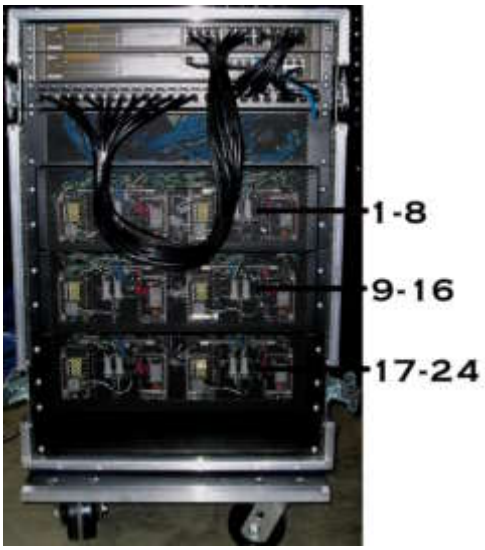
Blue Strings Numbered
1 thru 24, 50 nodes per string
Numbered from top to bottom
with 1 starting on top
All 24 strings go into 1 bundle
Node 1 is on bundle side

Circuit Two

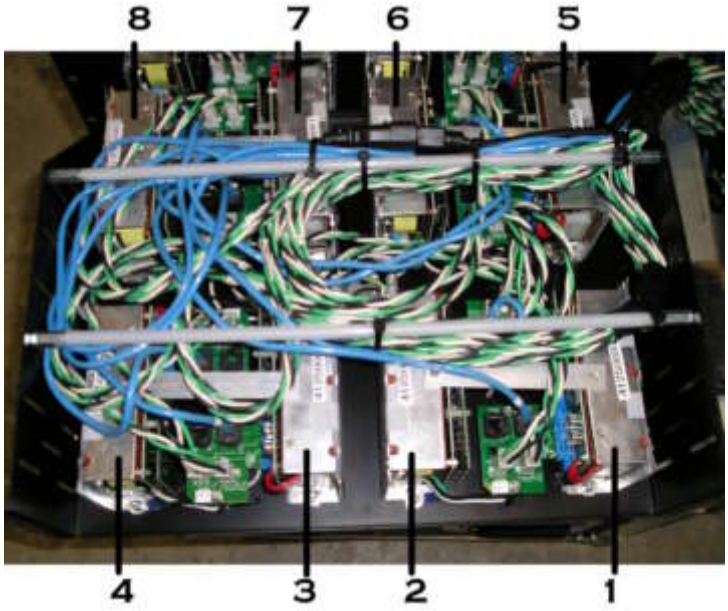
Green Strings Numbered
1 thru 24, 50 nodes per string
Numbered from top to bottom
with 1 starting on top
All 24 strings go into 1 bundle
Node 1 is on bundle side

Power supplies can be identified in the following way:

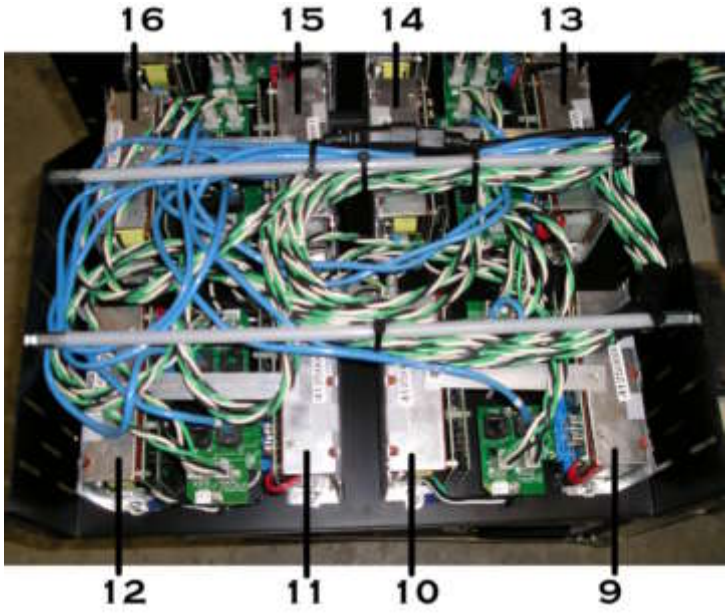
Power Supply Trays in a Rack



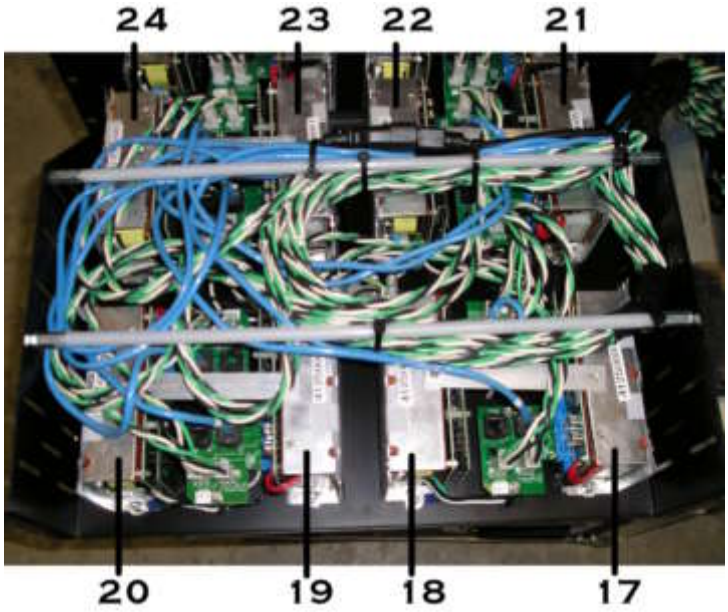
Power Supplies in Tray 1



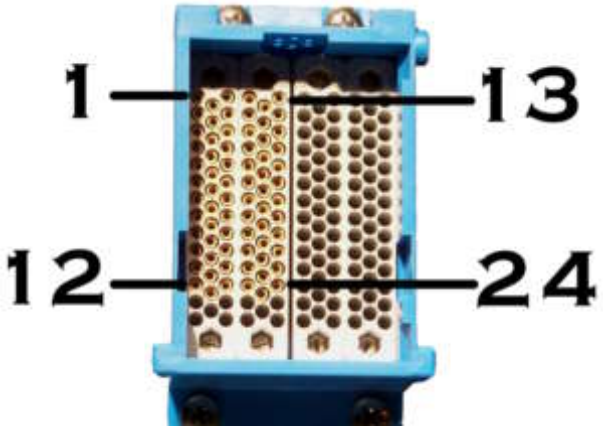
Power Supplies in Tray 2

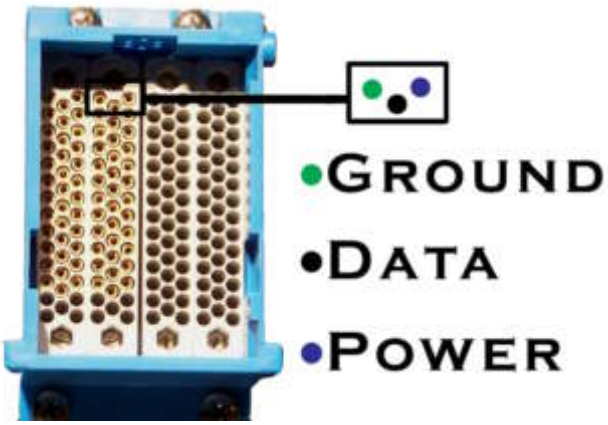


Power Supplies in Tray 3



Pins on the rack connectors can be identified in the following way:

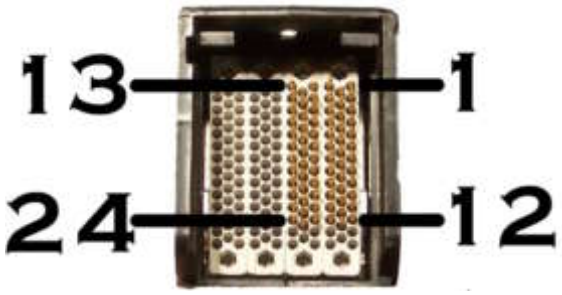


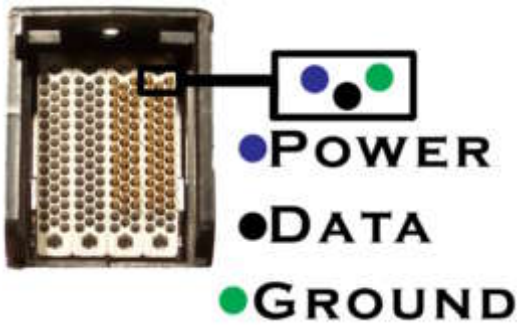


Normal voltage readings on the rack connector are:

Lead One	Lead Two	Normal Reading	Lead One	Lead Two	Normal Reading
Power	Ground	~7.5VDC	Power	Data	2.0-2.5VDC

Pins on the cable connector can be identified in the following way:

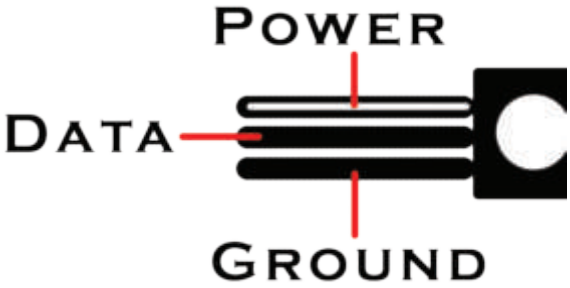




Normal resistance readings on the cable connector are:

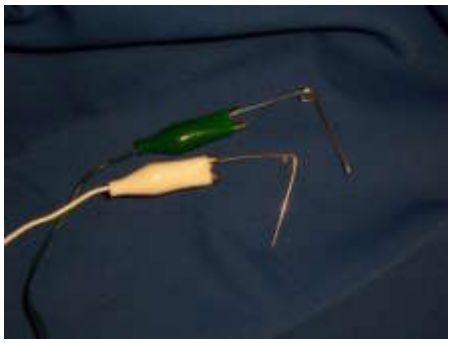
Lead One	Lead Two	Normal Reading	Lead One	Lead Two	Normal Reading
Power	Ground	~.5-.8Ω	Power	Data	~1.0-1.2Ω

In node strings, the wire types are as follows:



Wire piercing leads are needed to test node strings. If unavailable, create simple leads using alligator clips and safety pins.

⚠**Pierce insulation ONLY. Do not go through wire.**



Node replacement is necessary if there is data before the node but not after. Follow these steps to properly determine whether a node needs replacement.

1. Test Power Voltage before the first node.

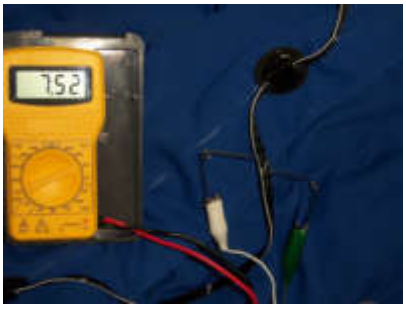
Lead One	Lead Two	Normal Reading
Power	Ground	~7.5VDC

2. Test Data Voltage before first node.

Lead One	Lead Two	Normal Reading
Power	Data	2.0-2.5VDC

3. Test Power Voltage after first node.

Lead One	Lead Two	Normal Reading
Power	Ground	~7.5VDC



4. Test Data Voltage after first node.

Lead One	Lead Two	Normal Reading
Power	Data	2.0-2.5VDC

Sample Rack Matrix

Rack	PS Number	IP Address	Outputs	Connector-Pins
4201	0001	10.42.1.1	Out1	Blue-1
			Out2	Blue-2
4201	0002	10.42.1.2	Out1	Blue-3
			Out2	Blue-4
4201	0003	10.42.1.3	Out1	Blue-5
			Out2	Blue-6
4201	0004	10.42.1.4	Out1	Blue-7
			Out2	Blue-8
4201	0005	10.42.1.5	Out1	Blue-9
			Out2	Blue-10
4201	0006	10.42.1.6	Out1	Blue-11
			Out2	Blue-12
4201	0007	10.42.1.7	Out1	Blue-13
			Out2	Blue-14
4201	0008	10.42.1.8	Out1	Blue-15
			Out2	Blue-16
4201	0009	10.42.1.9	Out1	Blue-17
			Out2	Blue-18
4201	0010	10.42.1.10	Out1	Blue-19
			Out2	Blue-20
4201	0011	10.42.1.11	Out1	Blue-21
			Out2	Blue-22
4201	0012	10.42.1.12	Out1	Blue-23
			Out2	Blue-24

Continued on Next Page...

Rack	PS Number	IP Address	Outputs	Connector-Pins
4201	0013	10.42.1.13	Out1	Green-1
			Out2	Green-2
4201	0014	10.42.1.14	Out1	Green-3
			Out2	Green-4
4201	0015	10.42.1.15	Out1	Green-5
			Out2	Green-6
4201	0016	10.42.1.16	Out1	Green-7
			Out2	Green-8
4201	0017	10.42.1.17	Out1	Green-9
			Out2	Green-10
4201	0018	10.42.1.18	Out1	Green-11
			Out2	Green-12
4201	0019	10.42.1.19	Out1	Green-13
			Out2	Green-14
4201	0020	10.42.1.20	Out1	Green-15
			Out2	Green-16
4201	0021	10.42.1.21	Out1	Green-17
			Out2	Green-18
4201	0022	10.42.1.22	Out1	Green-19
			Out2	Green-20
4201	0023	10.42.1.23	Out1	Green-21
			Out2	Green-22
4201	0024	10.42.1.24	Out1	Green-23
			Out2	Green-24

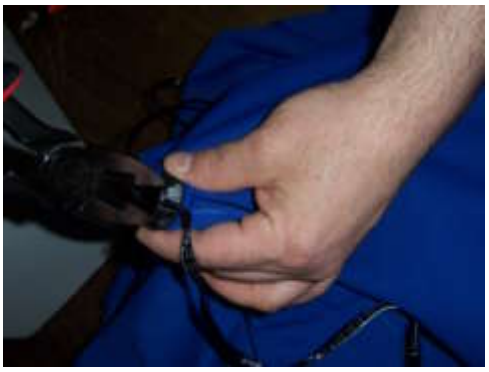
Troubleshooting Guide

Symptom	Cause	Solution
Random pattern on curtain	No VLSE signal	1. Check Ethernet connection between VLSE Rack and Power Rack 2. Ensure the VLSE is receiving a proper video signal
Only part of the curtain is working properly	Power is disconnected from either a Power Supply tray or an Ethernet switch	Check all internal power connections
There are 2 to 4 lines of LEDs around the entire image that are not working	Scan Convertor is not configured correctly	1. Adjust the overscan setting on the coverter via the remote 2. Increase the image area in the Video Management Tool
There are 2 lines of LEDs that are not working	Power Supply is not functioning correctly	1. Check the Ethernet connections for the Power Supply 2. Check that the connectors plugged into the Power Supply are working correctly 3. Check the power indicator on the Power Supply, if it is not functioning, replace Power Supply
There is 1 line of LEDs not working	Data is not going to the first LED in the line	1. Check voltage at the multipin rack connector, if there is no voltage present, check the Power Supply (see above) 2. Check the voltages (power and data) before the first node 3. Check the voltages (power and data) after the first node 4. If a voltage is not present before the first node, check all connections 5. If the voltages are correct before but not after the first node, then replace the first node
Image on curtain is reversed	The LED map is incorrect	Adjust the video map -Even numbered curtains have the LEDs run left to right -Odd numbered curtains have the LEDs run right to left

Replacing a Node

1. Score the glue holding the node to the washer with side angle cutters.

2. Use linesman pliers to grab the node by its sides and hold the washer. Gently twist to remove the node from the curtain.



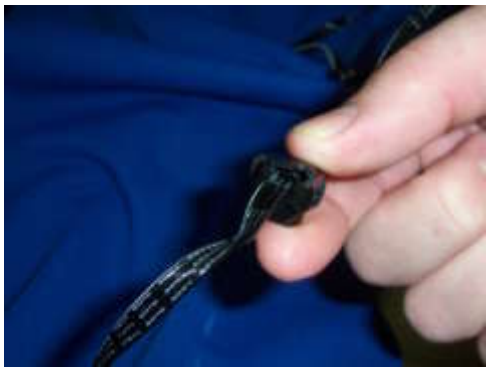
3. Remove the backing of the node by using the linesman pliers at a 30° angle to the plane of the node (1/8” from the back) and applying pressure. The node will be free to remove from the wire.

Note: There will be holes in the wire from the node.

4. Locate the “Out” label on the replacement node and make sure this faces away from the power supply.

5. Push the front half of the replacement node into the wires where you removed the node.

6. Secure one side of the backing by hand. It will make a click sound.



7. Push the other side of the backing with linesman pliers. Use as little pressure as possible.

8. Grab the washer and push the node into it.

9. Glue the node back onto the curtain.

An alternative to replacing the node is to use butt splices.

Cannot See Video on Curtain

If you do not see the video input on the curtain, check all connections and look at the back of the power rack. Every High Density power rack should have a minimum of 27 active ethernet connections on the ethernet switches.

If you are using RGB for the video input, make sure to check the settings by using the remote.

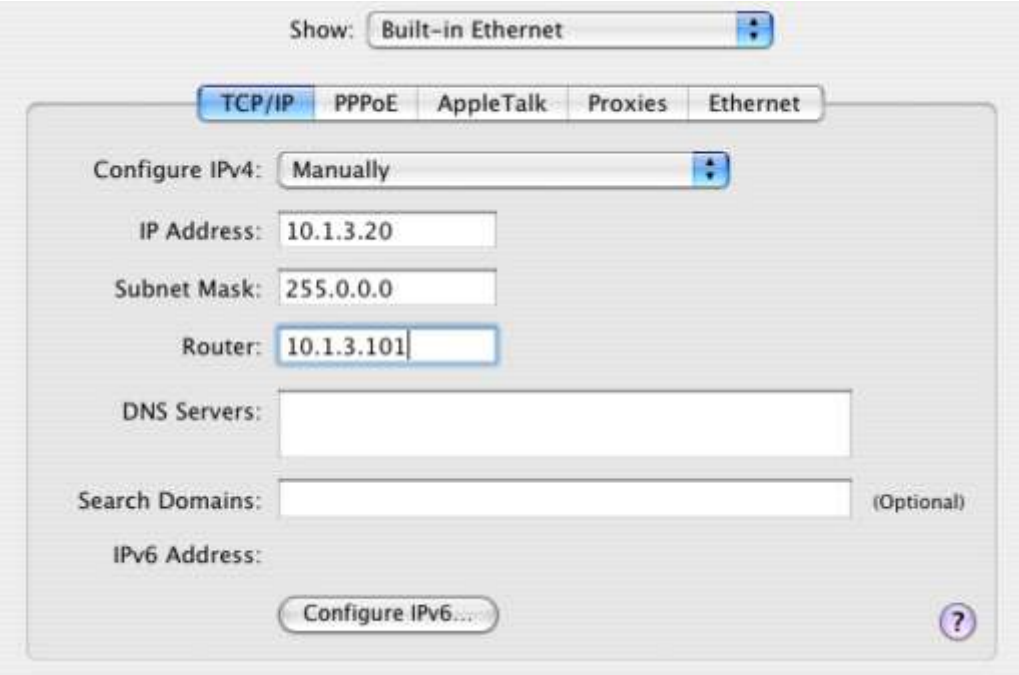
If the frame rate is reading “0” when you connect to the VLSE through the web interface, this indicates that there is a problem with the firewire connection. Ensure that the firewire cable is securely seated in both ends of the cable.

Cannot Access VLSE

If you are having problems accessing the VLSE server from your web browser, try and use the following settings in your computers network configuration:

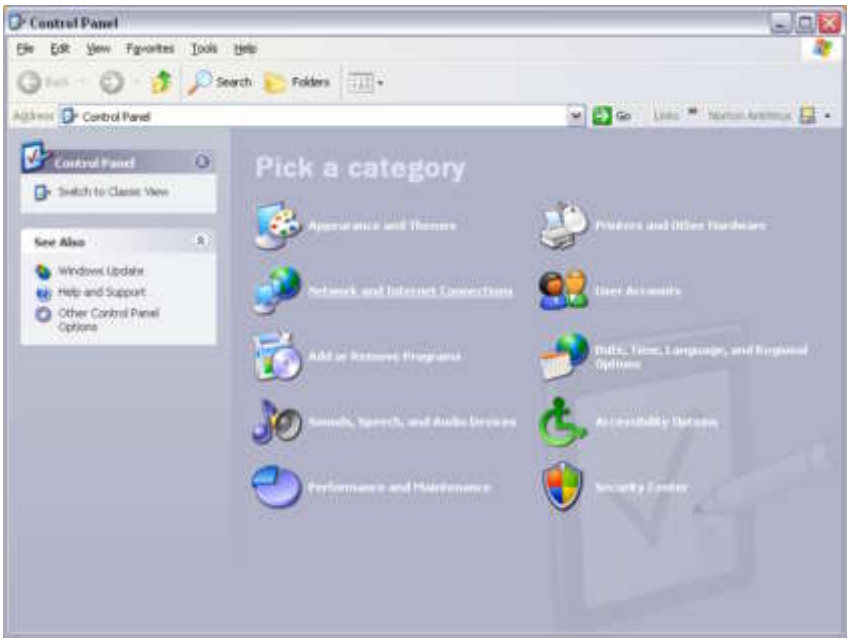
IP Address: 10.1.3.20
Subnet Mask: 255.0.0.0
Router: 10.1.3.101

Changing the router address

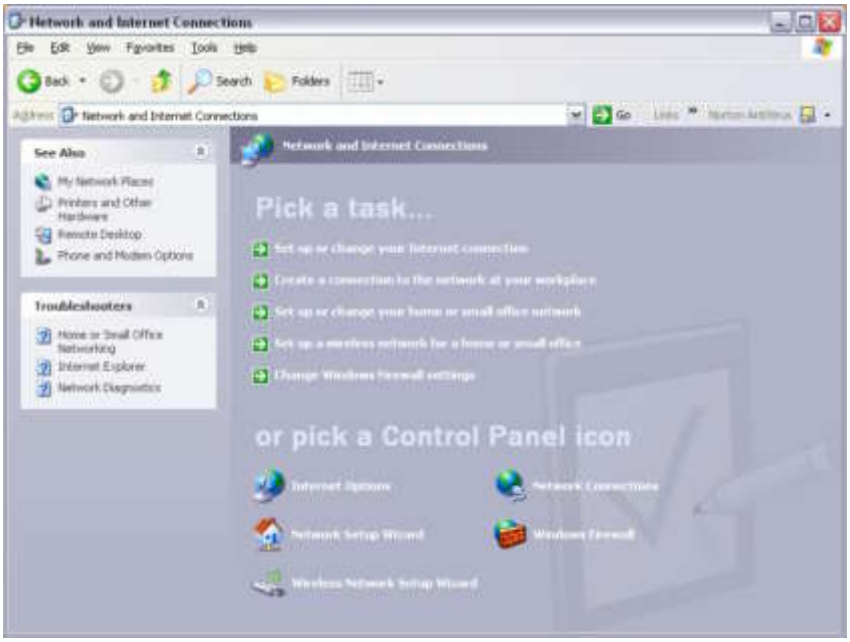


Manual IP Configuration (Windows)

1. From the Start menu select Settings>Control Panel. Click the Network and Internet Connections.

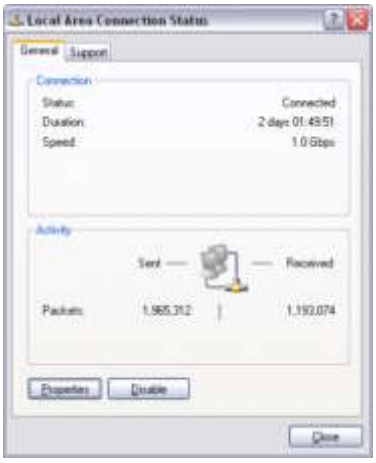


2. From the Network and Internet Connections window, click Network Connections.

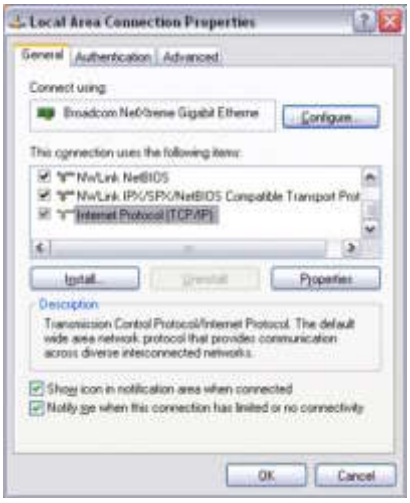


3. Double Click the Local Area Connection icon.

4. The Local Area Connection Status window appears.

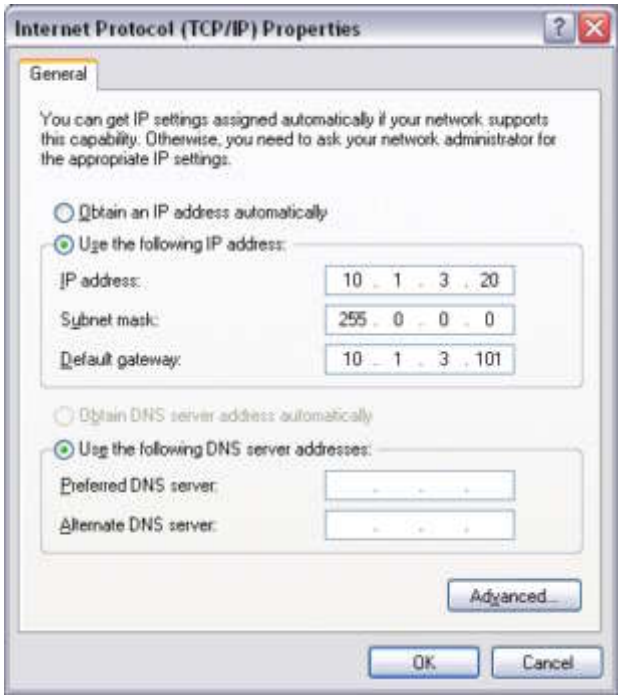


5. In the Local Area Connection Status window, click Properties. The Local Area Connection Properties window appears.



6. Click to highlight Internet Protocol (TCP/IP), then click Properties. The Internet Protocol (TCP/IP) Properties dialog appears.

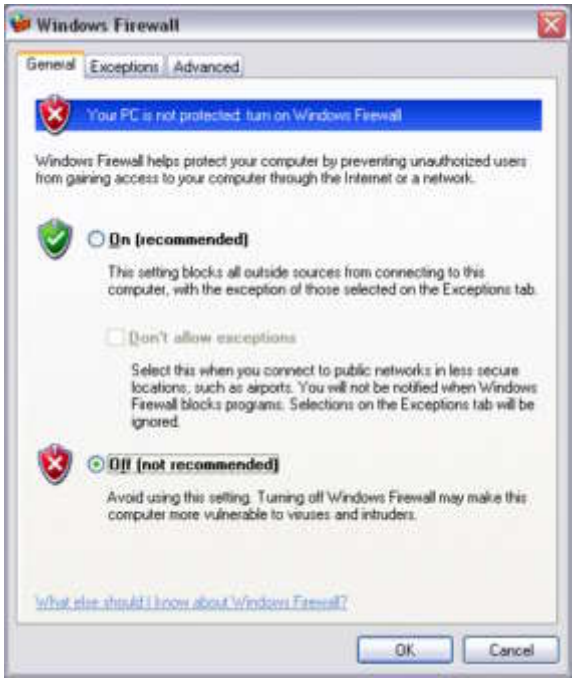
7. Select Use the Following IP Address. In the IP Address field enter 10.1.3.20. In the Subnet Mask field enter 255.0.0.0. The Router should be set to 10.1.3.101 to ensure the connection works. Click OK.



Note: If an IP and DNS address are present, record these numbers for future reference.

8. To turn off the firewall protection, click the advanced tab from the Local Area Connection Properties window.

9. Click the Settings button and the Windows Firewall Status window appears.



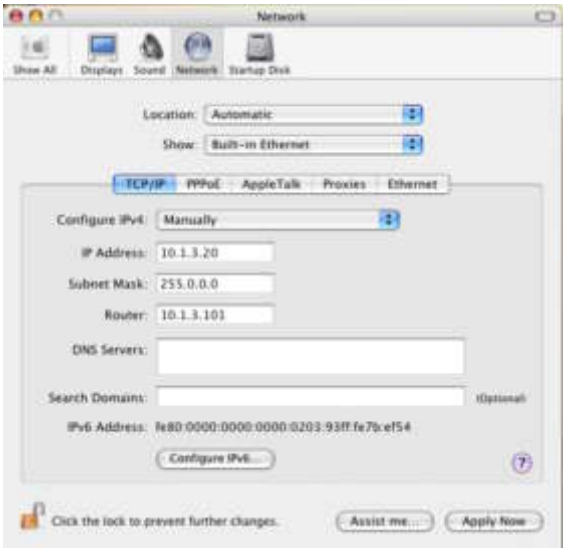
10. Click the radio button to turn Off the Windows Firewall and click OK.

11. Click OK to return to the Local Area Connection Status window, then close. The new IP address should take effect right away.

Manual IP Configuration (Mac OS)

1. From the Apple menu, select System Preferences. The System Preferences window appears.

2. Under Internet & Network, click the Network icon. The Network dialog box appears. From the Location drop down list, select Automatic. From the Show drop down list, select Built-In Ethernet. Ensure that TCP/IP tab is selected.



3. From the Configure IPv4 drop down list, select Manually. Enter in the fields: IP Address- 10.1.3.20, Subnet Mask- 255.0.0.0, Router- 10.1.3.101. Click Apply Now.

Note: Record the IP, Subnet Mask, and DNS server numbers, if available (in case you need those for future use).

Contact Us

We are here to help you, contact us if you need any assistance.

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