

VIDEO SYSTEM MANAGER

User Guide Release 1.0

VIDEO WITH LIGHT"

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CHAPTER 1

Introduction

Welcome to Video System Manager

Color Kinetics introduces *Video With Light*[™], a new concept for using video-based content to control Color Kinetics intelligent solid-state lighting installations. *Video With Light* is made possible by Video System Manager—an integrated hardware/software system comprised of Video System Engine, a hardware video processing device, and Video Management Tool, a software mapping tool. Video System Manager allows you to display video-based content onto Color Kinetics Ethernet-based lighting installations. Using Video System Manager, each light or light node in the installation acts as a pixel in the video display. Therefore, the more densely populated the installation, the better the resolution.

Video Management Tool is a software tool designed specifically for presenting video streams with the full line of Color Kinetics lights. Video Management Tool's graphic user interface lets you easily map your lighting installation, set up regions, and create custom fixture and supply templates.

Key Features of Video Management Tool

Video Management Tool is an easy-to-use graphic interface that lets you create a map of your installation using drop and drag templates. The most common fixture and supply templates are provided for you. However, for custom or unusual configurations, Video Management Tool lets you create custom templates to match your installation. Once you have mapped your installation using Video Management Tool, you will download the map to the Video System Engine via a webpage.

Video Image Area

The **VIDEO IMAGE AREA** is located in the main window of Video Management Tool. This grey area defaults to 720 x 480 and represents the canvas size of the video display. It is within this area that you create your installation map.

Editors

From the editors menu located on the menu bar, are the fixture editor, supply editor, interface editor, and region editor. These editors allow you to create and define custom templates to reflect unique fixture and supply installation.

Mapping the Installation

The first step toward playing video on your Color Kinetics lighting system is to create a map of the installation. The map sets the sampling parameters for the graphic display. To achieve satisfactory graphic presentation, it is necessary that the map exactly match the lighting installation. Video Management Tool uses templates to create the maps.

Light templates define how individual nodes of light relate to each other within the fixture. Supply templates define how the light templates relate to each other on the power/data (PDS) or Data Enabler supply. Supply templates that represent the lighting configuration of your installation are used to build a map of the installation.

Video Management Tool provides templates for Color Kinetics' fixtures and supplies that are most commonly used in video installations. If the lighting arrangement for your installation is unique, VMT lets you create custom templates.

Contacting Color Kinetics

Contact Color Kinetics Technical Support if you experience problems with Video Management Tool software; phone: 617.423.9999, email: technicalsupport@colorkinetics.com, web: www.colorkinetics.com/support.



CHAPTER 2

Hardware Setup

Video System Manager enables your Color Kinetics Ethernet lighting installation to display video, both analog or digital. This chapter describes how to setup your system and configure your computer.

Ethernet Setup

Necessary Hardware

Your Color Kinetics Ethernet lighting system must include an Ethernet switch, a dedicated network, and a personal computer with a Pentium processor, or equivalent, with Windows 2000 or XP or Mac OS X and an Ethernet card. Additionally, you must have a DV Converter box (Canopus or equivalent) configured for your video input. The following block diagram shows a typical configuration.



Dedicated Network

A dedicated network is required for a Color Kinetics Ethernet system. The bandwidth required for the Video System Manager is too high for a shared network. Using a shared network for your Video System Manager installation can cause poor performance or failure of other network functions.

Cables and Connectors

Always use Category 5e unshielded twisted pair (UTP) cables, or better. Ethernet limits the maximum cable run to 328 feet (100m).

Color Kinetics power/data supplies and Ethernet-ready Data Enablers are fitted with RJ45 data connections. Therefore, RJ45 connectors are required for terminating CAT 5e data cables.

Switches

Video System Engine communicates through Ethernet switches which are used to connect all components of a Color Kinetics Ethernet installation and route information between all equipment connected to the network. For extremely large installations, a gigabit Ethernet switch can be used to increase the bandwidth of the Ethernet network. Refer to *Set Up for Interfaces and Lights* for a typical installation.

Because Ethernet uses a star topology, every component of the network must be connected directly to a switch. Therefore, daisy chain connections cannot be made between supplies.

Set Up for Interfaces and Lights

Using CAT 5e data cable with RJ45 connectors connect each supply to a 10/100 Base-T switch. When needed, use gigabit switches to increase the size of the network.

Note: Ethernet cannot be daisy-chained. Each PDS or Data Enabler supply must be connected directly to an Ethernet switch port.

The following illustration shows a example of a network connection. Depending on the size of your installation, your network can be very simple or very complex. Video Management Tool can accommodate network trees up to three switches deep between the Video System Engine and the farthest interface.



Configuring Your PC Ethernet Network

Video System Engine (VSE) is capable of assigning an IP address to your computer automatically. If your computer is connected to the VSE, follow the steps below to set the IP address. If you computer is not connected to the VSE, for example, when creating pre-installation maps, refer to *Manual IP Configuration* on page 15.

Note: If you have a firewall, or firewall software, on your system, it must be disabled to use Video Management Tool software.

Automatic Configuration for Windows 2000

Follow the instructions below to configure your Windows 2000 OS PC for the network dedicated to your Color Kinetics installation.

- 1. From the start menu select settings>control panel. In the control panel double click the network and dial-up connections folder. From the network and dial-up connections window double click Local area connections. The Local area connection status window appears.
- 2. In the LOCAL AREA CONNECTION STATUS window click PROPERTIES. The LOCAL AREA CONNECTION PROPERTIES window appears.

Local Area Connec	tion Status	? ×
General		
Connection		
Status:		Connected
Duration:		00:05:22
Speed:		100.0 Mbps
Activity	Sent — 🕮 1 -	- Received
Packets:	621	557
Properties	Disable	
		Close

3. Click to highlight INTERNET PROTOCOL (TCP/IP), then click PROPERTIES. The INTERNET PROTOCOL (TCP/IP) PROPERTIES dialog appears.

Local Area Connection Properties	? ×
General	
Connect using:	
3Com EtherLink XL 10/100 PCI For Complete P	C Manage
Components checked are used by this connection:	Configure
Client for Microsoft Networks Section 2 - Client for Microsoft (TCP/IP)	;
Install Uninstall Pr	roperties
Description Allows your computer to access resources on a Mic network.	rosoft
Show icon in taskbar when connected	
ОК	Cancel

4. Click the radio buttons to select OBTAIN AN IP ADDRESS AUTOMATICALLY and OBTAIN DNS SERVER ADDRESS AUTOMATICALLY.

Internet Protocol (TCP/IP) Properties		? ×
General		
You can get IP settings assigned automatica this capability. Otherwise, you need to ask yo the appropriate IP settings.	IIy if your network support our network administrator f	s for
Obtain an IP address automatically		
C Use the following IP address:		
IP address:		
Subnet mask:		
Default gateway:		
Obtain DNS server address automatica	ally	_
Use the following DNS server addresse	es:	
Preferred DNS server:		
Alternate DNS server:		
	Advanced	1
	OK Ca	incel

- 5. If an IP and DNS address is present, record these numbers for future reference.
- 6. Click ok to return to the LOCAL AREA CONNECTION PROPERTIES window. From there, click ok to return to the LOCAL AREA CONNECTION STATUS window. Click cLose to exit.
- 7. Restart your computer to accept the new network settings.
- **8.** To verify the configuration, select **START>PROGRAMS>ACCESSORIES>COMMAND PROMPT**. At the prompt enter **IPCONFIG** and press **ENTER**. The IP Address will be within the range of 10.1.3.20 to 10.1.3.50. The Subnet Mask will be 255.0.0.0.



Automatic IP Configuration for Windows XP

1. From the start menu select settings>control panel. In the 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.

🕹 Local Area Co	nnection Status	? 🛽
General Support		
Connection		
Status:		Connected
Duration:		14:38:47
Speed:		100.0 Mbps
Activity	Sent — 🛃 ·	- Received
Packets:	13,744	16,870
Properties	Disable	Close

5. In the LOCAL AREA CONNECTION STATUS window click PROPERTIES. The LOCAL AREA CONNECTION PROPERTIES window appears.

🗕 Local Area Connection Properties 🛛 🔹 💽
General Authentication Advanced
Connect using:
Broadcom 440x 10/100 Integrated Controller
Configure
This connection uses the following items:
Glient for Microsoft Networks Brile and Printer Sharing for Microsoft Networks Brile and Printer Sharing for Microsoft Networks Bos Packet Scheduler Tritemet Protocol (TCP/IP)
Install Uninstall Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK Cancel

6. Click to highlight INTERNET PROTOCOL (TCP/IP), then click PROPERTIES. The INTERNET PROTOCOL (TCP/IP) PROPERTIES dialog appears.

Internet Protocol (TCP/IP) Prope	rties 🛛 🛛 🔀
General Alternate Configuration	
You can get IP settings assigned autor this capability. Otherwise, you need to the appropriate IP settings.	natically if your network supports ask your network administrator for
 Obtain an IP address automatical 	ly 🛛
-OUse the following IP address:	
IP address:	
Subnet mask:	
Default gateway:	
Obtain DNS server address autor	matically
OUse the following DNS server ad	dresses:
Preferred DNS server:	
Alternate DNS server:	
	Advanced
	OK Cancel

- 7. Click the radio buttons to select OBTAIN AN IP ADDRESS AUTOMATICALLY and OBTAIN DNS SERVER ADDRESS AUTOMATICALLY. Click OK.
- 8. If an IP and DNS address is present, record these numbers for future reference.
- **9.** To turn off the firewall protection, click the advanced tab from the local area connection properties window. Deselect **PROTECT MY COMPUTER AND NETWORK BY LIMITING OR PREVENTING ACCESS TO THIS COMPUTER FROM THE INTERNET**.

🔟 Local Area Connection Properties 🛛 🔹 🔀
General Authentication Advanced
Internet Connection Firewall
Protect my computer and network by limiting or preventing access to this computer from the Internet
Learn more about Internet Connection Firewall.
If you're not sure how to set these properties, use the <u>Network Setup Wizard</u> instead.
OK Cancel

- **10.** Click ok to return to the LOCAL AREA CONNECTION STATUS window, then CLOSE.
- **11.** Restart your computer to accept the new network settings.
- **12.** To verify the configuration, select **START>PROGRAMS>ACCESSORIES>COMMAND PROMPT**. At the prompt enter **IPCONFIG** and press **ENTER**. The IP Address will be within the range of 10.1.3.20 to 10.1.3.50. The Subnet Mask will be 255.0.0.0



Automatic IP Configuration for Mac OS X

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 is selected.

	Network	
Show All Displays	Sound Network Startup Disk	
	Location: Automatic	
	Show: Built-in Ethernet	
	TCP/IP PPPoE AppleTalk Proxies Ethernet	
Configure I	Pv4: Using DHCP	
IP Addr	ress: 10.1.3.50 Renew D	HCP Lease
Subnet M	ask: 255.0.0.0 DHCP Client ID:	
Rou	uter: 10.1.1.1 (If requir	ed)
DNS Serv	vers:	(Optional)
Search Doma	ains:	(Optional)
IPv6 Addr	ress: fe80:0000:0000:0000:020a:95ff:fed9:7c14	
	Configure IPv6	0

3. From the **configure iPv4** drop down list, select **using DHCP**. The system automatically obtains IP address and subnet mask.

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

4. Click APPLY NOW. Your Mac OS X system is configured.

Manual IP Configuration

If your computer is not connected to the Video System Manager—for example, when you are creating pre-installation maps—you must manually configure an IP address.

Windows 2000

- 1. From the start menu select settings>control panel. In the control panel double click the network and dial-up connections folder. From the network and dial-up connections window double click LOCAL AREA CONNECTIONS. The LOCAL AREA CONNECTION STATUS window appears.
- 2. In the LOCAL AREA CONNECTION STATUS window click PROPERTIES. The LOCAL AREA CONNECTION PROPERTIES window appears.

Local Area Conne	ction Status	? ×
General		
Connection		
Status:		Connected
Duration:		00:05:22
Speed:		100.0 Mbps
- Activity	Sent — 🕮 –	- Received
Packets:	621	557
Properties	Disable	
		Close

3. Select INTERNET PROTOCOL (TCP/IP), then click PROPERTIES. The INTERNET PROTOCOL (TCP/IP) PROPERTIES dialog appears.

Local Area Connection Properties				
General				
Connect using:				
3Com EtherLink XL 10/100 PCI For Complete PC Manage				
Configure				
Components checked are used by this connection:				
Client for Microsoft Networks P. File and Printer Sharing for Microsoft Networks Internet Protocol (TCP/IP)				
Install Uninstall Properties				
Description Allows your computer to access resources on a Microsoft network.				
Show icon in taskbar when connected				
OK Cancel				

4. 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. Click ok.

Note: If an IP and DNS address is present, record these numbers in case you need it for future use.

5. To verify the manual configuration, select **START>PROGRAMS>ACCESSORIES>COMMAND PROMPT**. At the prompt enter **IPCONFIG** and press **ENTER**.

Internet Protocol (TCP/IP) Propertie	5						<u>?</u> ×
General							
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.						r	
Obtain an IP address automatically	y						
Use the following IP address: —							- I
IP address:	10 .	1		3	. 20	1	
Subnet mask:	255 .	0		0	. 0]	
Default gateway:]	
C Obtain DNS server address autom	ratically						_
┌ ● Use the following DNS server add	resses:-						-
Preferred DNS server:						1	
Alternate DNS server:]	
Advanced							
			ОК			Can	cel

6. Your IP address is correctly configured if the IP Address and Subnet Mask in the Command Prompt window matches what you entered in the INTERNET PROTOCOL (TCP/IP) PROPERTIES dialog box.

🖾 Command Prompt 📃	
Microsoft Windows 2000 [Version 5.00.2195] (C) Copyright 1985-2000 Microsoft Corp.	
U:\>ipconfig Windows 2000 IP Configuration	
Ethernet adapter Local Area Connection:	
Connection-specific DNS Suffix .: IP Address 10.1.3.20 Subnet Mask	
U:<>_	-

Windows XP

1. From the start menu select settings>control panel. In the control panel click the network and internet connections.

Control Panel 🛞	Pick a category	
See Also 🛞	Appearance and Themes	Printers and Other Hardware
	Network and Internet Connections	User Accounts
	Add or Remove Programs	Date, Time, Language, and Regional Options
	Sounds, Speech, and Audio Devices	Accessibility Options
	Performance and Maintenance	

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.

📥 Local Area Co	nection Status	? 🛛
General Support		
Connection		
Status:		Connected
Duration:		14:38:47
Speed:		100.0 Mbps
Activity	-	
	Sent — 🛃	
Packets:	13,744	16,870
Properties	Disable	
		Close

5. In the LOCAL AREA CONNECTION STATUS window click PROPERTIES. The LOCAL AREA CONNECTION PROPERTIES window appears.

🕹 Local Area Connection Properties 🛛 🔹 💽				
General Authentication Advanced				
Connect using:				
Broadcom 440x 10/100 Integrated Controller				
Configure				
This connection uses the following items:				
Client to microsoft Networks Client to microsoft Networks Client to microsoft Networks Client to microsoft Networks Install Install Properties				
Description				
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.				
Show icon in notification area when connected				
OK Cancel				

Internet Protocol (TCP/IP) Prope	rties 🤶 🔀				
General Alternate Configuration					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
🔘 Obtain an IP address automaticall	Obtain an IP address automatically				
Our of the following IP address: −−					
IP address:	10 . 1 . 3 . 20				
Subnet mask:	255.0.0.0				
Default gateway:	· · ·				
Obtain DNS server address autom	natically				
─⊙ Use the following DNS server add	resses:				
Preferred DNS server:	and a second				
Alternate DNS server:	· · · ·				
Advanced					
	OK Cancel				

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. Click οκ.
- 8. If an IP and DNS address is present, record these numbers in case you need them for future use.
- **9.** To verify the manual configuration, select **START>PROGRAMS>ACCESSORIES>COMMAND PROMPT**. At the prompts enter **IPCONFIG** and press **ENTER**.



10. Your IP address is correctly configured if the IP Address and Subnet Mask in the Command Prompt window matches what you entered in the INTERNET PROTOCOL (TCP/IP) PROPERTIES dialog box.

Mac OS X

1. From the APPLE menu select SYSTEM PREFERENCES. The SYSTEM PREFERENCES screen appears.



2. Under INTERNET & NETWORK, click the NETWORK icon. The NETWORK screen appears. From the LOCATION drop down list, select AUTOMATIC. From the SHOW drop down list, select BUILT-IN ETHERNET. Ensure that TCP/IP is selected.

000	Network	
1		
Show All Displays Sou	nd Network Startup Disk	
Le	ocation: Automatic	
	Show: Built-in Ethernet	
ТСР/	IP PPPoE AppleTalk Proxies Ethernet	
Configure IPv4:	Manually	
IP Address:	10.1.3.20	
Subnet Mask:	255.0.0.0	
Router:	10.1.1.1	
DNS Servers:		
Search Domains:		(Optional)
IPv6 Address:	fe80:0000:0000:0000:020a:95ff:fed9:7c14	
	Configure IPv6	?
Click the lock to p	revent further changes. Assist me	Apply Now

3. From the **configure IPV4** drop down, select **MANUALLY**. In the **IP ADDRESS** field, enter 10.1.3.20. In the **SUBNET MASK** field, enter 255.0.0.0. Click **APPLY NOW**.

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



CHAPTER 3

Installation

Video Management Tool works with the Video System Engine, an Ethernet based video processor. This chapter describes how to install Video Management Tool software and upgrade Video System Engine firmware.

Before you install the Video Management Tool software, close all running applications, disable virus protection, and ensure your computer has enough memory and free disk space.

System Requirements	
Windows	 PC with Pentium 4, or equivalent, processor with Ethernet card Windows 2000, XP 128 MB RAM 35 MB free disk space
Macintosh	 G5 processor MacOS X 1.3 or greater 128 MB RAM 5 MB free disk space

Installing Video Management Tool

To install Video Management Tool for Windows 2000

- 1. Insert the Video Management Tool software CD into the CD ROM drive. Using Windows Explorer, navigate to your CD ROM and double click setup.exe to launch the Installer Wizard.
- 2. The video management tool setup wizard appears. Click next.

🙀 Video Management Tool 1.0				
Welcome to the Video Ma Setup Wizard	nagement T	ool 1.0		
The installer will guide you through the step on your computer.	s required to install V	′ideo Management T	ool 1.0	
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.				
	Cancel	< <u>B</u> ack	<u>N</u> ext >	

3. The **LICENSE AGREEMENT** window appears. Select **I AGREE** to agree to the terms of the license agreement, and then click **NEXT** to continue the installation.



4. When the **SELECT INSTALLATION FOLDER** window appears, a default installation folder is selected for you. To select another installation folder, click **BROWSE**.

Select EVERYONE or JUST ME to specify the software user. Then click NEXT to continue.

🙀 Video Management Tool 1.0	
Select Installation Folder	
The installer will install Video Management Tool 1.0 to the following folder.	
To install in this folder, click "Next". To install to a different folder, enter it be	low or click "Browse".
<u>F</u> older:	
C:\Program Files\Color Kinetics Incorporated\Video Management Toc	Browse
	Disk Cost
Install Video Management Tool 1.0 for yourself, or for anyone who uses the	nis computer:
C Everyone	
• Just me	
Cancel < Back	Next >

5. The **CONFIRM INSTALLATION** screen appears. Click **NEXT** to start the installation.

🙀 Video Management Tool 1.0	
Confirm Installation	
The installer is ready to install Video Management Tool 1.0 on your computer.	
Click "Next" to start the installation.	
Cancel < Back	Next >

6. The INSTALLING VIDEO MANAGEMENT TOOL screen appears during the installation.

🙀 Video Management Tool 1.0	
Installing Video Management Tool 1.0	
Video Management Tool 1.0 is being installed.	
Please wait	
Cancel Sack	Next >

7. Once the installation is complete the **INSTALLATION COMPLETE** screen appears. Click **CLOSE** to exit.



Video Management Tool is now installed on your computer.

Note: The Video System Engine is shipped with the latest version of the Video Management Tool firmware. See To Upgrade Video System Engine Firmware From CD on page 31 for updating versions.

To Install Video Management Tool for Windows XP

 Insert the Video Management Tool software CD into the CD ROM drive. When the D: DRIVE window appears (Drive letter may differ.), double click the SETUP.EXE to launch the VIDEO MANAGEMENT TOOL WIZARD.



2. The VIDEO MANAGEMENT TOOL SETUP WIZARD appears. Click NEXT to begin the installation.

🛃 Video Management Tool 1.0	
Welcome to the Video Management Tool 1.0 Setup Wizard	
The installer will guide you through the steps required to install Video Management T on your computer.	ool 1.0
WARNING: This computer program is protected by copyright law and international tr Unauthorized duplication or distribution of this program, or any portion of it, may resull or criminal penalties, and will be prosecuted to the maximum extent possible under th	eaties. c in severe civil e law.
Cancel	Next >

3. The License Agreement screen appears. You must click I AGREE and NEXT to proceed.

🚏 Video Management Tool 1.0	×
License Agreement	9.0
Please take a moment to read the license agreement now. If you accept the terms below, click "I Agree", then "Next". Otherwise click "Cancel".	
COLOR KINETICS INCORPORATED SOFTWARE LICENSE AGREEMENT	^
NOTICE TO USER DO NOT INSTALL THIS SOFTWARE UNTIL YOU HAVE READ THIS AGREEMENT	
As the original purchaser of this software you agreed to the license agreement	~
O I Do Not Agree 💿 I Agree	
Cancel < Back Next >	

4. When the **SELECT INSTALLATION FOLDER** screen appears, a default installation folder is selected for you. To select another installation location click **BROWSE**.

🕫 Video Management Tool 1.0
Select Installation Folder
The installer will install Video Management Tool 1.0 to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
<u>F</u> older:
C:\Program Files\Color Kinetics Incorporated\Video Management Toc Browse
Disk Cost
Install Video Management Tool 1.0 for yourself, or for anyone who uses this computer:
O Everyone
⊙ Just me
Cancel < Back Next >

Select **EVERYONE** or **JUST ME** to specify the software user. Then click **NEXT** to continue.

5. The **CONFIRMATION INSTALLATION** screen appears. Click **NEXT** to start the installation.

🛃 Video Management Tool 1.0	
Confirm Installation	
The installer is ready to install Video Management Tool 1.0 on your computer. Click "Next" to start the installation.	
Cancel (Back	Next >

6. The INSTALLING VIDEO MANAGEMENT TOOL screen appears during the installation.

📸 Video Management Tool 1.0	
Installing Video Management Tool 1.0	
Video Management Tool 1.0 is being installed.	
Please wait	
Cancel	Next >

7. Once the installation is complete the installation complete screen appears. Click **CLOSE** to exit.

😼 Video Management Tool 1.0	
Installation Complete	
Video Management Tool 1.0 has been successfully installed. Click "Close" to exit.	
Cancel < Back	Close

Video Management Tool is now installed on your computer. The next step to present video data on your Color Kinetics lights is to run Video Management Tool.

Note: The Video System Engine is shipped with the latest version of the Video Management Tool firmware. See the section on updating firmware and software for installing later versions.

To install Video Management Tool for Macintosh OS X

1. Insert the Video Management Tool software CD into the CD ROM drive. The drive icon displays on the desktop. Double click the icon to expand the folder.



2. Double click on the **VIDEO MANAGEMENT TOOL INSTALLER.PKG** icon to start the installation process.



3. Click **CONTINUE**. The Software Licensing Agreement screen appears.



4. Before proceeding with the installation, you must click **AGREE** to indicate you agree to the terms of the software license agreement.

🔿 😑 🔿 Install Color Kinetics Video Management Toc		
	To continue installing the software, you must agree to the terms of the software license agreement.	6
⊖ int	fuction SOFTWARE LICENSE AGREEMENT	
e Lic	Click Agree to continue or click Disagree to cancel the installation.	
• Sel	Destination Destination OPTION OF THIS SOFTWARE	2
• Ins	Disagree Agree	
- Inc	As the original purchaser of this software you agreed to the license agreement printed on the ou	

5. Then click **CONTINUE**. Select a destination volume to install the VMT software. Select a folder in which the software will reside.

	Select a Destination
Introduction License Select Destination	Select a destination volume to install the Color Kinetics Video Management Tool VI.0 software.
Installation Type Installation Finish Up	Macintosh HD 76.3GB (65.6GB Free)
	Installing this software requires 12.2MB of space. You have selected to install this software in Applications on the volume "Macintosh HD."
	You can choose the folder to install into. Destination folder: Applications Choose

6. Click **CONTINUE**. The installation screen appears. Click **INSTALL** to start the installation.

	Install Software	
Introduction		
License		
Select Destination		
Installation Type		
• Installing	Optimizing System Performance	
Finish Up		
	Optimizing volume "Macintosh HD": 11% complete	



7. When finished, the system prompts to indicate the installation is complete.

8. Click CLOSE to exit the installation program.

After the installation is complete the Video Management Tool application resides in the Applications directory on your Macintosh hard drive. You can create a shortcut by dragging the Video Management Tool icon to the Dock.

Installing Upgrade CDs

Occasionally Video System Engine firmware and Video Management Tool software are upgraded to provide feature improvements and bug fixes. Color Kinetics makes these upgrades available on CD and from the Color Kinetics website.

To Upgrade Video System Engine Firmware From CD

- **1.** With the Video System Engine running, insert the CD into the CD-ROM drive on the Video System Engine.
- 2. Power cycle the Video System Engine.
- **3.** When the Video System Engine reboots, the CD will automatically install. This process will take several minutes.
- 4. Once the installation is complete, the CD will eject.
- 5. Remove the CD.
- 6. Power cycle the Video System Engine.

To Upgrade from Downloaded File

To upgrade the Video System Engine firmware from the Color Kinetics website, you must have a writable CD-ROM drive with CD creation software.

- 1. From the Color Kinetics website www.colorkinetics.com/support/download/ navigate to the latest firmware/software upgrade file and click the link.
- 2. When the file download screen appears, click **SAVE** to download the ISO file to your computer. Select a location on your computer and click **SAVE**.
- **3.** After the download is complete, use a CD creation software with a CD writable drive burn the ISO file to a CD. Follow the instructions for the CD creation software.

Note: The CD creation software should expand the ISO file into the CD image. The upgrade will not work if the ISO file is simply copied onto the CD.

- **4.** Once the CD is created, follow the instructions above—*To Upgrade Video System Engine Firmware From CD*—to update the Video System Engine.
- 5. If the CD you created is valid, the firmware will install and the CD will eject. If the CD is invalid, the Video System Engine will continue running with no interruption.

To Upgrade Video Management Tool software

- Before upgrading your Video Management Tool software in Windows, you must uninstall the current version. To uninstall the current Video Management Tool version, select START>SETTINGS>CONTROL PANEL. From the control panel use the ADD/REMOVE PROGRAM tool to uninstall the current version. On a Macintosh OS X system, it is not necessary to uninstall the current version, but you can uninstall it by simply dragging the application to the trash barrel.
- 2. After the uninstall is complete, refer to "Installing Video Management Tool" for installation instructions.

Verify Firmware/Software Versions

After upgrading the Video System Engine firmware and the Video Management Tool software, you can verify that the software upgrade was successful by matching the current version number to the version listed on your CD, or from the web, if downloaded.

To Verify Firmware Version

1. Launch you internet browser and enter http://10.1.3.101. The following screen appears with the version of your Video System Engine firmware.

🖉 Video System Engine - Microsoft Internet Explorer									
File Edit View Favor	ites Tools Help								
Back Forward	Stop Refresh H	십 Q Iome Search	Favorites	🐨 Media	🌀 History	»			
Address 🥘 http://10.1.3.10	đ				- (∻Go			
Google -	💌 👸 Search	Web 👻 🚭 Search	Site Pagel	Rank 💮	🛛 - 🛛 🔁	Opti »			
🛛 Links 🏾 🥘 Customize Links	🥘 Free Hotmail 🛛 🍯 Window	ws Media 🛛 🍯 Windo	ows						
COLOR	THE PIONEER OF INTELL	ligent led illumin	VATION TEC	HNOLOG	IES	<u> </u>			
Main	Video System E Welcome to the Color F	<mark>ngine</mark> <inetics syste<="" th="" video=""><td>em Engine v</td><td>1.0</td><td></td><td></td></inetics>	em Engine v	1.0					
Load Map Set Region	<u>System Status</u> Video System Engine (Active Region: All Regi Frame Rate: 45.1659	10.1.3.101) is runn ons	ing						

To Verify Software Version

1. Select **HELP>ABOUT** from the Video Management Tool screen. A list of the current versions of software appears.

About Video Management Tool									
COLOR									
			Color Kinetics Vid	eo Managemer	it Tool				
			Version:		1.0				
			Build Number:		1				
		Library							
	1	CommLibra	ry v1.7.0						
	2	Qt v3.3.3							
						OK			

CHAPTER 3



CHAPTER 4

Quick Start Guide

This section of the Video System Manager User Guide is intended to introduce and explain the basic concepts of creating a video display using Video Management Tool, including creating a map, using templates, and downloading.

Mapping the Installation

To display video on your Color Kinetics Ethernet lighting system, you must first create an exact scale map of the installation. It is necessary that the map match the installation in order to achieve the desired video results. Video Management Tool (VMT) provides templates for Color Kinetics' fixtures and supplies that are most commonly used in video installations. If the lighting arrangement for your installation is unique, VMT lets you create custom templates. This Quick Start Guide takes you through creating maps using the provided templates.

Understanding Templates and Maps

In order to achieve satisfactory video display, you must create and exact map of your installation. Light templates and supply templates are used in creating maps.

Light Templates

Light templates define how individual nodes of light relate to each other within the fixture. Default templates for the Color Kinetics fixtures most often used in video displays are provided for you. If your installation uses a unique fixture arrangement, you can create a custom light template. For example, if your installation uses shortened lengths, less than 50 nodes per string, of iColor Flex, or if your installation uses "U" shaped or wrapped strings of iColor Flex, then you define your fixture size and/ or shape by using the **FIXTURE EDITOR**.

Supply Templates

Supply templates define how light templates relate to each other on the power/data (PDS) supply or the Data Enabler (DE) supply. For example, with typical iColor Flex installations, each PDS supply supports two runs of 50 nodes on outputs one and two. If your installation uses shortened, or unequal node lengths on each output, you can create a custom supply template to reflect your installation by using the **SUPPLY EDITOR**. Another example of custom supply template is when your fixtures are installed in non-typical runs. For example, if your iColor Module installation is in a staggered, back-and-forth run instead of typical grid or linear runs.

Maps

The map defines how supply templates relate to each other in the installation. For example, an installation grid of 16 iColor Modules, where there are 4 modules per supply requires adding 4 iColor Module supply templates to the maps. Once the templates are added to the map, drag and drop them into position to match the installation.


Video Management Tool Environment

To launch Video Management Tool on your PC, select **START>PROGRAMS>COLOR KINETICS>VIDEO MANAGEMENT TOOL**. From a Mac, click the **VIDEO MANAGEMENT TOOL** icon located on the dock.

Main Screen

MENU BAR	A list of on-screen functions or operations.
STATUS BAR	Displays the current area, canvas size and aspect ratio selection.
VIDEO IMAGE AREA	A scrollable viewing area that lets you view a virtual representation of your installation.

File Edit View Editors Help	Bar			
Current Region Base Region Can	vas Width 720 🛔	Canvas Height 480	Preserve aspect ratio	Status Bar
				<u> </u>
	_	_		
	Video Im	nage Area		
•				

The Menus

File

New	Ctrl+N	
Open	Ctrl+O	
Load Image.		
Remove Ima	ge	
Save	Ctrl+S	
Save As		
Import Temp	lates	
Export Templates		
Exit	Ctrl+Q	

Edit

Сору	Ctrl+C
Paste	Ctrl+V
Select All	Ctrl+A
Select All In Region	
Delete Selection	
Smart Associate	
Auto-resize canvas	
Add Supply Template	
Add Multiple Supply Templates	x
 Preferences	

View

Zoom In	Ctrl+=
Zoom Out	Ctrl+-
Snap to Grid	
Show Grid	
Change Grid	
Display item struc	ture
Sample backgrou	und

Editors

Fixture Template Editor... Supply Template Editor... Interface Editor... Region Editor... Always on top

<u>H</u>elp

About Video Management Tool...

The File Menu

The **FILE** menu commands apply to the map design. From this menu, you open and save maps, access background images, and import/export templates.

The Edit Menu

The **EDIT** menu commands apply to the templates within you video image area. You can copy and paste, add and delete templates, associate supplies, and resize the canvas of the video image.

The View Menu

The **view** menu commands control the on-screen appearance and actions of the map.

The Editors Menu

The **EDITORS** menu operations access the various editors for defining creating fixtures and supply templates, associating interfaces, and creating new regions.

The Help Menu

The **HELP** menu gives you version and build information about Video Management Tool

The Information Bar

Current Region Base Region	Current Region The CURRENT REGION shows you the color of the fixtures in the region that you are editing.
Canvas Width 🛛 720 🏾 🚔	Canvas Width and Canvas Height
Canvas Height 480 🚊	The CANVAS WIDTH and CANVAS HEIGHT give you the current values of width and height. You can edit either value from these fields.
Preserve aspect ratio	Preserve Aspect Ratio The PRESERVE ASPECT RATIO option, when turned on, retains the canvas width to canvas height ratio as you build your map.

Creating a Map

Launch Video Management Tool. The **NEW MAP** window appears. The default 720 X 480 video image area is displayed in gray and the **CURRENT REGION** is set to **BASE REGION**.



Add Supply Templates

The first step in creating a new map is to add the supply templates. Supply templates represent the light fixture(s) and how it is powered and controlled by the supply. For example, one iColor Tile 2x2 is powered by one PDS-60ca 7.5V. Output one sends power and data to the nodes on the left side of the tile while output two sends power and data to the nodes on the right side of the tile.

Adding a Single Supply Template

1. To add supply templates one at a time, **SELECT EDIT>ADD SUPPLY TEMPLATE**. The **ADD SUPPLY TEMPLATE** dialog box appears.

🐞 Add Supply Template			<u>? ×</u>
Select a supply template:			
iColor Tile FX 2:2			_
		OK	Cancel

2. From the drop down menu, select **ICOLOR TILE FX 2:2**. Click **OK**. The iColor Tile FX 2:2 supply template appears on the video image area.



3. Drag the template into position and click to drop.

Adding Multiple Templates

1. To add multiple supply templates at once, select EDIT>ADD MULTIPLE SUPPLY TEMPLATES. The ADD MULTIPLE SUPPLY TEMPLATE dialog box appears.

🏂 Add Multiple Supply Templates		? ×
Supply Template: iColor Tile FX 2:2 Number across: 6 💌 Number down: 4 💌	▼ Preserve aspect ratio	
	OK Cano	el

- 2. Select ICOLOR TILE FX 2:2 from the drop down list. In the NUMBER ACROSS and NUMBER DOWN fields, enter the number of fixtures across and down to form a grid.
- 3. Ensure that SIZE IMAGE TO FIT and PRESERVE ASPECT RATIO are selected. Click OK.



The **video image area** is populated with a 6 x 4 grid of iColor Tile FX 2:2 supply templates.

Loading Image

For a visual representation of how your video will appear on the installation, you can load an image into the **VIDEO IMAGE AREA**.

To import an image, select **FILE>LOAD IMAGE...** Navigate to and select an image, then click **OPEN**. The image is displayed on the **VIDEO IMAGE AREA** behind the template grid.



Associate Supplies

Once you have created a map that matches your lighting installation, you must associate each supply template in the map to the actual supply or interface in the installation.

Note: Your map must match the actual installation both visually on-screen and physically by associating the real-world supply with the mapped supply template.

Maps can be created prior to installation. However, to associate actual supplies to the appropriate supply template in the map you must be connected to the installation; therefore, this step must happen post-installation.

 To associate the supplies, select EDITORS>INTERFACE EDITOR. The INTERFACE EDITOR screen appears. (A KINET interface is any Color Kinetics PDS power/data supplies or Data Enabler that uses the KINET Ethernet protocol.) The mapped interfaces are marked with blue squares and are labeled FAKE SUPPLY. To associate the supplies, you must replace the FAKE SUPPLY with the realworld supply.

2. Click to highlight an actual supply. The interface information appears in the **INTERFACE INFO** box on the right and the lights attached to that supply in the actual installation are highlighted in red.

- 🦌 Video Manageme Tool 1.0 (Build 5) - New M - U × File Edit View Editors Help Current Region 📕 Base Region 💌 Canvas Width 726 🚔 Canvas Height 484 🚔 Preserve aspect ratio 🏂 Interface Editor Interfa ٠ Fake supply Fake supply Name Fake supply IP Add Fake supply MAC A Fake supply Fake supply Serial Fake supply Eake supply Fake supply Hall Tiles Lower Left Hall Tiles Lower Right Hall Tiles Upper Left Hall Tiles Upper Right Mike is an Enabler PDS 150e Tile Wall Lower Left Tile Wall Lower Right Tile Wall Upper Left Tile Wall Upper Right • • •
- **3.** To replace a **FAKE SUPPLY** with an actual supply, click and drag the real supply onto the video image area. As you drag the supply across the map, each supply template is highlighted. Drop the real supply onto the template that represents the actual fixture-to-supply installation.

- **4.** When you drop the real-world supply onto the supply template, one fake supply is removed from the list and the associated real-world supply has a blue box preceding it in the list.
- **5.** Continue associating the real supplies with the mapped supply templates until all fake supplies are removed.
- 6. Close the INTERFACE EDITOR screen.
- 7. Select FILE>SAVE to save your map as a .fap (East Map) file.

Downloading the Video Map to the Video System Engine

The final step in the process is to download the .fap file and activate your Video System Engine.

- 1. Launch your internet browser and enter the address http://10.1.3.101 to access the Video System Engine webpage.
- 2. Click LOAD MAP from the web page.
- 3. Click **BROWSE** and navigate to the map you created. Click **OPEN**.
- 4. Click LOAD to download your map.

Note: Note: If a .fap file currently resides on your Video System Engine, it will be overwritten during this process.

	Load Video Map
Load Map	Upload Map: Browse Load
	No USB drive present
	No CD present

- 5. You will obtain a confirmation screen that your program has been accepted and is running.
- **6.** Plug your video source into the DV Converter box. When properly attached to you Video System Engine, your lighting fixtures will present the video data stream.

CHAPTER 4



CHAPTER 5 Mapping Installations

Video System Manager lets you use your Color Kinetics Ethernet lighting installation as a video display, where each light, or light node, acts as an individual pixel. The first step to streaming video onto your lighting installation is to create an exact map of the installation. It is necessary that the map match the actual installation, including multiple regions, in order to achieve satisfactory video results.

Note: Video System Manager does not "discover" or address lights in your installation. You must address your lights prior to installation and map your installation using defined supply templates.

While you are working through this chapter, it will be useful if you understand the following terms:

- Map the map you create defines how supply templates relate to each other in an installation.
- Supply Template defines how light templates relate to each other on the supply.
- Light Template the light template defines how each light node relates to others in a fixture.

For example, an installation grid of 16 iColor Modules, where there are 4 modules per supply requires adding 4 iColor Module supply templates to the maps.



Creating Maps

Launch Video Management Tool by selecting **START>PROGRAMS>COLOR KINETICS>VIDEO MANAGEMENT TOOL** from a PC or by clicking the **VIDEO MANAGEMENT TOOL** icon on the dock from a Mac.

A grey **VIDEO IMAGE AREA** is displayed. The default canvas size is 720 wide by 480 high and the **PRESERVE ASPECT RATIO** is selected. As you create your map, the canvas size will change to assure a video-to-display best fit. **PRESERVE ASPECT RATIO** must be selected to ensure that the video does not appear stretched or distorted on the installation.

Video Management Tool - New Map	- D ×
<u>File Edit View Editors H</u> elp	
🛛 Current Region 🚺 Base Region 🖉 Canvas Width 720 🚔 Canvas Height 480 🚔 🔽 Preserve aspect ratio	
	-
	1

Add a Supply Template

Video Management Tool provides supply templates for Color Kinetics' most commonly used video display fixtures. If you are using modified fixtures, such as shortened or "U" shape installed strings of iColor Flex, you can create a custom template to match your installation. Refer to *Creating Custom Templates* on page 53 for instructions for creating fixture templates.

Add a Single Supply Template

1. If your installation uses any combination of the standard video display fixtures, select EDIT>ADD TEMPLATE to add supply templates one at a time.

🐞 Add Supply Template		? ×
Select a supply template:		
iColor Module FX 6:9 (16 modules)		•
	OK	Cancel

2. From the drop down menu, select the template from the drop down list.

Click **OK**. The supply template you selected appears in the gray **VIDEO IMAGE AREA** in the main window. Drag the template to best match the actual placement in the installation and click to drop.

Note: The default condition for the template positioning is "snap to grid". To change this, select **VIEW>SNAP TO GRID**.

3. Position the template to best match the actual placement in the installation. Click to drop the template. At any time you can click to highlight a template, then drag and drop it to a new position in the **VIDEO IMAGE AREA**.



If the orientation of the template is incorrect (e.g., vertical Flex when you need horizontal Flex), right click on the template to select **ROTATE SELECTION CW** or **ROTATE SELECTION CCW**.

4. After adding all supply templates to complete the map of your installation, ensure that PRESERVE ASPECT RATIO is selected, then select EDIT>AUTO-RESIZE canvas. The video image area is resized proportionally to best fit your installation. Notice the new canvas size on the status bar.



Only the video image area within the grid is displayed on your lighting installation. For a visual representation of how the video will appear on your installation, insert an image by selecting **FILE>LOAD IMAGE...**. To remove the image, select **FILE>REMOVE IMAGE**.



5. Once you have mapped the lights in you installation, select **FILE>SAVE** to create a .fap (Fast Map) file. This saved file will be downloaded to the Video System Engine.

Add Multiple Supply Templates

1. If your installation is made up of a grid of multiple identical templates, select EDIT>ADD MULTIPLE TEMPLATES. The ADD MULTIPLE SUPPLY TEMPLATES dialog box appears.

🐞 Add Multiple Supply Templates	<u>? ×</u>
Supply Template: iColor Tile FX 2:2 Number across: 6 ♣ Number down: 4 ♣ IV Size image to fit	▼ Preserve aspect ratio
	OK Cancel

 Select the appropriate template from the drop down menu. Enter the NUMBER ACROSS and the NUMBER DOWN. Ensure that SIZE IMAGE TO FIT and PRESERVE ASPECT RATIO are selected. Selecting these options prevents the video from appearing distorted. Click OK. The fixture template you selected appears in a tiled grid in the gray VIDEO IMAGE AREA in the main window.



3. If the templates need to be moved to match the actual installation, select and drag the templates to a new location and click to drop them in place. At any time you can click to select a template or multiple templates, then drag and drop to a new position in the **VIDEO IMAGE AREA**.

4. Once you have mapped the lights in your installation, select **FILE>SAVE** to create a .fap (<u>Fast Map</u>) file. This saved file will be later downloaded to the Video System Engine.

Add a Combination of Fixtures

1. Use the **ADD SUPPLY TEMPLATE** or **ADD MULTIPLE SUPPLY TEMPLATES** dialog box to add and position single or multiple templates to match the exact configuration of your installation.

Note: If you have added individual supply templates to complete the map of your installation or you have a combination of more than one type of supply template, ensure that **PRESERVE ASPECT RATIO** is selected, then select **EDIT>AUTO-RESIZE CANVAS**. The video image area is resized proportionally to best fit the installation. Notice the new canvas size on the status bar.

Once you have mapped the lights in your installation, select FILE>SAVE to create a .fap (Fast Map) file. This saved file will be downloaded to the Video System Engine.

Now that you have created an exact map of your lighting installation, you are ready to associate the power/data supplies in your installation to the lights they control. See *Associating Templates to Supplies* on page 63.

Creating Custom Templates

If your installation includes custom fixtures such as shortened lengths of iColor Flex or "U" shaped installations of Flex, then you must create custom templates. You must first create a new fixture template to define your fixture. Next you will create a supply template to define the fixture-to-supply configuration. In this section, you will create a custom template for a non-standard Flex configuration.

Creating a Fixture Template

1. From the menu, bar select EDITORS>FIXTURE TEMPLATE EDITOR.



The **FIXTURE TEMPLATE EDITOR** screen appears. You will see the default fixture templates provided with Video Management Tool. Click on each one in the left screen to see their configurations in the right screen. If you place the cursor over a box in the fixture, it will indicate the number of that light node in the fixture.

Note: Each of the provided fixture templates has a padlock icon in front of it, indicating that it cannot be changed. You can, however, **CLONE** the locked template and **RENAME** the cloned template to create an editable template.

 Highlight the iColor Flex SL fixture and click CLONE. This creates a copy of a 50 light string. Immediately RENAME this to some name descriptive of your installation. In this case, we are creating a "U" shaped fixture.



3. Click and drag the lights until they match your installation. You can add a background grid, a fixture boundary, or lines indicating the node ordering to aid in your positioning of lights.



4. Alternately, you can create a custom fixture template by selecting NEW. A linear run of 50 light nodes appears in the layout window. You can adjust the number of light nodes using the NUMBER OF NODES field above the layout window. Click and drag the nodes to a new configuration. Click RENAME to a assign a new name to the fixture template. For example, you may have reduced the length of your iColor Flex SL strings to 24 nodes as shown here.



5. Verify the configuration of the lights by passing the cursor over each and noting the number sequence. Node number 1 is highlighted in red and the last node is highlighted in blue.

Testing Fixture Addresses

When creating post-installation fixture templates, you can test the physical addressing of installed fixtures to ensure that the template and the actual fixture match.

1. With FIXTURE TEMPLATE EDITOR window open, select EDITOR>INTERFACE EDITOR from the VIDEO MANAGEMENT TOOL window.



2. From the interface editor window, select a supply that corresponds to the fixture template you created. Drag the selected supply to the **FIXTURE TEMPLATE EDITOR** window and drop in into the layout panel.

The selected supply appears in the **ASSOCIATED WITH** field. Now that you have associated a supply to the new fixture template, as you click each node in the template, the corresponding node on your actual light turns red.



3. Close the **FIXTURE TEMPLATE EDITOR** screen when you are done. All new fixture templates are automatically saved. Close the **INTERFACE EDITOR**.

Understanding the Supply Template Editor

The **SUPPLY TEMPLATE EDITOR** lets you create a template which matches how your supplies are configured in your installation.

1. Select EDITORS>SUPPLY TEMPLATE EDITOR.

Supply Template Editor		?
Color Flex SL (100 nodes) iColor Module FX 5:36 (4 moc iColor Module FX 5:3 (16 moc iColor Tile FX 2:2	Show Grid	A
↓	Number of outputs 2 Add Output Ren	nove Output
New		
Delete	1 iColor Module FX 6:36 🔽 iColor Module FX 6:36 🔽 Out	put/Fixture
Rename	iColor Module FX 6:36 ViColor Module FX 6:36 V	Region
Clone	Add Fixture Delete Fixture	

The screen has three sections. On the left is the list of the currently defined supply templates. In the center layout window is the graphical representation of the fixtures in the highlighted template. At the bottom of the screen is the list of supply outputs and the associated fixtures for the template. All of the standard supply templates are preconfigured to typical Color Kinetics supplies. The first column indicates the outputs by number. The row next to the output number contains the fixtures powered by that output.

Numb	per of outputs 2		Add Output	Remove Output
1 2	1 iColor Module FX 6:36 iColor Module FX 6:36	2 iColor Module F> - iColor Module F> -	Rows are sup Columns are fixt	ply outputs ure templates
J Ad	ld Fixture Delete Fixture			

- 2. Click NEW. A NEW TEMPLATE is added to the template list.
- 3. Highlight **NEW TEMPLATE** and click **RENAME**. Enter a name to describe your template.

👫 Supply Template Editor			? ×
 iColor Flex SL (100 nodes) iColor Module PX 6:36 (4 moc iColor Module PX 6:9 (16 moc iColor Tile FX 2:2 Two U shaped Flex SL 	Show Grid		×
	Number of outputs 1	Add Output	Remove Output
New	1		
Delete	1 None		
Rename			
Clone	Add Fixture Delete Fixture		

4. Click ADD OUTPUT once to create a second output for a single PDS-60ca 7.5V.

Number of outputs	2	Add Output	Remove Output
1 1 None 2 None			
Add Fixture Delete	e Fixture		

Note: Each time you click Add Output, a new output number is added to the first column. Each time you click Add Fixture, a new fixture is added to the row of the selected output.

Creating a Supply Template

You are now going to create a custom supply template using the fixture template you created.

- 1. From the **SUPPLY TEMPLATE EDITOR**, click **ADD OUTPUT** to add output 2.
- 2. From the output 1 row and fixture column 1, select the template you created from the drop down menu in this case "U shaped fixture". Repeat for the second output.

🔛 Supply Template Editor		? ×
 iColor Flex SL (100 nodes) iColor Module FX 6:36 (4 more iColor Module FX 6:9 (16 more iColor Tile FX 2:2 Six Diagonals Two U shaped Flex SL 	Show Grid	
	Number of outputs 2 Add Output Remove Outp	out
New		=
Delete	1 U shaped fixture	
Rename	2 U shaped hixture	
Clone	Add Fixture Delete Fixture	

Each time you select a fixture template from the output list, an image of it is placed on the layout window.

Note: In the layout panel, each time an output is added to the template, the fixture location for the output appears in the same location. Therefore, each time you add a fixture to an new output, it is necessary to click and drag the fixture to a new location to prevent it from being hidden by other fixtures.

- **3.** Drag and drop the fixtures into the positions that best matches your installation.
- 4. Close the window. All your changes are automatically saved.

You new supply template is complete. To create a map using this new template, proceed from *Add a Supply Template* on page 49.

Regions

A single video stream can be sent to one region of your light system or to all regions. The previous chapters have detailed the procedure for creating an individual map of lights for the video stream. If you have another system of lights that you want to use to see the same video stream or a portion of it, you can create a new region in Video Management Tool and follow the same setup procedure for the new region.

Creating a New Region for Video Management Tool

1. Select **EDITORS>REGIONS** editor.

🗖 Region Dialog	? ×
Base Region	Region Information Name Base Region Set Color
New	
Delete	

- 2. Select **NEW** to create a new region.
- **3.** Name the new region and select a color for this region.

🖬 Region Dialog	?	×
Base Region Close up area New Delete	Region Information Name Close up area Set Color	
		111

4. Close the screen to complete the region definition.

5. On the main Video Management Tool screen, scroll the CURRENT REGION drop down menu to the new region. Proceed through the Fixture, Template, and Source Editors, as necessary. Add the templates onto the video image area and save the results into the .fap file. When you go to identify the power supplies for the templates, the color marker in front of the Fake Supplies is now the color of the CURRENT REGION. In the following image, we have created supply templates of 2X5 sets of 3-by-3 modules, and added 2 across and 2 down multiple templates.



CHAPTER 5



CHAPTER 6

Associating Templates to Supplies

Now that you have mapped the supply templates, you must associate each supply template to a realworld template in your installation.

Note: Before you begin, ensure that your computer is connected to the Color Kinetics dedicated network.

Video Management Tool has created a series of Fake Supplies for each supply templates that you placed on the video image area. You must associate each of these Fake Supplies with its actual supply in your installation.

- 1. Select EDITORS>INTERFACE EDITOR. The INTERFACE EDITOR screen appears. The set of Fake Supplies are highlighted by blue boxes. Each of these must be associated to a real supply for the video image to display properly.
- Highlight a FAKE SUPPLY. Its corresponding template on the image screen is highlighted in red. Associate the correct interface from the list of supplies by selecting the actual supply (e.g., TILE WALL LOWER LEFT), dragging, and dropping it onto the appropriate template on the image screen. The image below shows the FAKE SUPPLY for the lower left corner of the image.



💈 Interface Editor ? × <u>- 🗆 ×</u> Fake supply Interface Info 726 🚔 I Preserve aspect ratio Fake supply Tile Wall Lower Right Name Fake supply IP Address 10.153.119.53 Fake supply Fake supply MAC Address 00:0A:C5:DE:ED:03 Fake supply Serial Number 997735 Fake supply E Fake supply Fake supply E Fake supply E Fake supply Č. Mike is an Enabler PDS 150e PDS 150e- Brian's (a big dork) D Tile Wall Lower Left Tile Wall Lower Right Tile Wall Upper Left Tile Wall Upper Right

When you complete this process, the applied interface is highlighted by a blue square, and one **FAKE SUPPLY** is removed from the list. The main Video Management Tool screen also highlights the specified template in red.

- **3.** Continue to associate the all other supply templates with their actual supplies until all Fake Supplies have been associated to real supplies.
- 4. Close the INTERFACE EDITOR screen.
- 5. Select FILE>SAVE into a .fap (Fast Map) file.

Smart Association of Templates to Supplies

Video Management Tool can associate supply templates to actual supplies in your installation automatically. This procedure will bypass the manual association of Fake Supplies. Your installation of supplies and fixture templates are associated according to specifications defined by you.

Note: For **SMART ASSOCIATE** to work well, you should pre-address your supplies and lay them out in an ordered pattern. An ordered layout is necessary for a successful smart associate since the order options in the **SMART ASSOCIATE** dialog are limited to row, column, and order coordinates.

1. Open the **SMART ASSOCIATE** dialog box by selecting **EDIT>SMART ASSOCIATE**.

Smart Asso	ciate							<u> </u>
Order								
Direction	R	ws Th	en Coli	imns	•			
Row Order	Le	it To R	light		•			
Column Order	To	р То В	lottom		•			
Templates								
 All Templa 	ates							
C Selected	Temp	lates						
C Tanalaha	a In B	eaion	D	- Pagi	on 🔽			
	\$ 11111	egion	JDdsi	e negi				
Skip Asso	ociate	d Tem	plates	e negi				
Skip Asso	ciate	d Tem	plates					
 Skip Asso Supplies All Supplie 	ociate	d Tem	plates	e riegi				
Skip Asso Supplies All Supplies	ociate es n Rar	d Tem nge	plates	e negi				
Skip Asso Supplies All Supplies Supplies I Start PDS-	ociate es n Ran 60pro	d Tem nge) Ether	plates	0.0.2)		<u>_</u>		
Skip Asso Skip Asso Supplies All Supplie Supplies Start PDS- End PDS-	ociate es n Rar 60pro	d Temp nge) Ether	plates net (10 net (10	0.0.2)				
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- 2. In the **ORDER** box, enter the **DIRECTION**, **ROW ORDER** and **COLUMN ORDER** to match your installation.
- 3. In the **TEMPLATE** box, define the supply templates to associate.
- 4. In the **SUPPLIES** box, select all supplies or define a start and end supply range.
- Click οκ. The supplies in your installation are automatically associated with the templates in your map.

6. Open **EDITORS**>INTERFACE and note that the list of interfaces contains no Fake Supplies. Each supply is associated with one template in the video image screen.



7. Verify that all templates are associated properly to their respective power supplies by clicking on the templates in the map. Each selected template will cause the corresponding lights in the installation to turn red.

Carves Widh 726 Carves Height 728 Preserve aspect take	Video Management Tool 1.0 [Build 5] - New Map* File Edit View Editors Heb
	Current Region Base Region Canvas Width 726 🛓 Canvas Height 494 🛓 🗹 Preserve aspect ratio
	Current Region Base Region Carvas Width 726 Carvas Height 484 Preserve aspect reto

Note: Make any necessary corrections by running **SMART ASSOCIATE** again and modifying the direction and order, ensuring that the **SKIP ASSOCIATED TEMPLATES** option is not selected, or by manually dragging and dropping the supplies from the **INTERFACE EDITOR** onto their proper templates in the map.

8. Close the INTERFACE EDITOR screen to complete the association.



CHAPTER 7 Download and Video Input

Now that you have mapped your lights, associated the supplies to the templates, and confirmed the positioning of your video image, the final steps are to download the .fap file and activate your Video System Engine.

1. Launch you internet browser and enter the address http://10.1.3.101. The Video System Manager webpage appears.



Note: If a .fap file is resident on your Video System Engine, it will be overwritten during the download process. You may want to back it up before loading a new map. See Backup on page 70.

2. From the webpage, click LOAD MAP. You have the option of upload the map file you created from your computer hard drive, a CD drive, or a USB drive. The map file must have a .fap extension for it to be recongnized on a CD, USB, or hard drive. From your hard drive, click **BROWSE** to locate the file, then click LOAD. From the CD or USB drive, select the radial button next to the file, then click LOAD.

Note: If a	.fap fil	le is	resident	on y	our	Video	System	Engine,	it will	be	overwritten	during	this
process.													

Main	Load Video Map
Load Map	Upload Map: Browse Load
Set Region	USB drive present Map Files:
Load Gamma	C tiles fap
Log File	Load
Map Info	CD drive present
Backup	r tiles.fap
	Load

- 3. You will obtain a confirmation screen that your map has been accepted and is running.
- **4.** Plug your video stream into the DV Converter box. When properly attached to your Video System Engine, your lighting fixtures will present the video stream.

Other Functions Accessible from the Download Web Page

Set Region

You have a choice of activating a single region only or the entire set of regions. The **set region** option lets you select the single region.



Load Gamma

The Gamma file is a text file that relates the full-range intensity scale (0 to 255) to any range or order of colors you choose. Data is placed in column A for rows 1 through 256, and the intensity scale you set is for all three RGB lights. For example, if you wanted reverse color, you would put the numbers 255 through 0 in a column on rows 1 through 256. In some light systems, flicker occurs when you are expecting black. By mapping the first twenty or so rows to zero and then scaling the remaining 236 levels appropriately, you may be able to avoid this. Locate the appropriate gamma file by browsing and load it. The gamma file must have a .gam extension to be discovered in USB/CD volumes.

To upload the gamma file from your hard drive, click **BROWSE** to locate the file, then click **LOAD**. To upload from a CD or USB drive, select the radio botton next to the file and click **LOAD**.

Main	Load Gamma File
Load Map	Upload Gamma File: Browse Load
Set Region	USB drive present Gamma Files:
Load Gamma	InverseGamma.gam
Log File	CD drive present
Map Info	Gamma Files: © InverseGamma.gam
Backup	Load
	Remove current gamma file:

Note: You can remove the current active gamma file by clicking **DELETE**.

Log File and Map Info

Clicking on these two options provides you with information on the status of the program and a detailed listing of the map. These are typically only used as diagnostic tools if your system is not working as you expect.



Backup

When you download a map file to your Video System Engine, it automatically deletes any existing map on the system. Before doing this, if you want to save the current map, do a backup first. Click **BACKUP** and choose whether you want to back up the map or the gamma file. Browse to the folder and name the file for saving the current configuration.

File Backup
 Map file Gamma file

Backup



APPENDIX A

Glossary

- **10.1.3.101** Go to this website location for downloading your video map to the Video System Engine.
- Add Fixture/Delete Fixture Adds or removes fixtures from outputs of supply templates.
- Add Supply Templates / Add Multiple Supply Templates Place standard or preconfigured templates onto the video image area.
- Associating Supplies to Supply Templates Create the software connections on your map that specify which template is physically attached to which supply.
- **Backup** Before installing your map file onto the Video System Engine, thereby deleting the current file, backup the existing video map. You can also backup the Gamma file.
- **Base Region** Select the default region of lights that you are illuminating with your video image.
- Canvas Width/Height · The horizontal and vertical dimensions of the video image area in pixels.
- **Current Region** If you have multiple regions of lights that are all using the same video stream, the Current Region shows you which region you are editing.
- **Downloading** Take the developed map information and download it to the Video System Engine.
- **DV Converter Box** The Digital Video Converter box takes the input from the video stream source and sends it through the Firewire to the Video System Engine.

Edit Menu Commands

Copy/Paste - Standard copy and paste functions for reproducing templates on the image screen.

Select All - Select all templates in the video image area.

Delete Selection - Delete the selected templates from the screen.

Smart Associate - Searches the network for probable matches of your map configuration to real fixture templates.

Auto-resize canvas - Automatically rescales the image screen canvas to best fit your current set of templates.

Add Supply Template/Add Multiple Supply Templates - Add a single template or multiple templates to the video image canvas.

Preferences - Select colors for various parts of the templates and screen.

Editors Menu Options

Fixture Template Editor - Opens the Fixture Editor screen where you can create and edit fixtures to match your actual lighting system.

Supply Template Editor - Assigns power supplies to the fixture templates that are currently in the video image area.

Interface Editor - Associates specific physical power supplies to match the Fake Supplies defined in Supply Template Editor.

Regions Editor - Create or delete additional regions of lights that will be using the same video input signal and the same Video System Engine.

Always on Top - Toggles between two modes: (on) all open editor screens appear on top of the main screen and must be closed before returning to the main screen, (off) each editor screen is opened as a new window and each window, including the main screen, can be accessed independently.

Fake Supply - A temporary supply type that you associate with the templates in your image area. These are replaced by physical power supplies by the Interface Editor.

File Menu Commands

New/Open - Standard new and open functions for starting or continuing with a video map.

Load Image / Remove Image - Load and remove a still image in the video image area. This may benefit you in determining pixel resolution and fill of your lights.

Save /Save As - Standard save and save as functions for saving the current configuration of your map.

Import Template /**Export Template** - Import or export a template format that you have created.

Exit - Close Video Management Tool.

- Firewire The Color Kinetics required connection between the DV Converter box and the Video System Engine.
- **Fixture Setup/Design** The Fixture Template Editor screen allows you to create and edit fixtures that match your actual installation.
- **Gamma File/Loading** Select a text file that matches the standard intensity values, 0 to 255, to a user-defined set of intensities.

Help Menu Option

About Video Management Tool - Standard access to standard information on the software and hardware.

Horizontal String - A string of fifty lights strung horizontally.

- Interface A data supply associated with a fixture template either a power supply or a data enabler.
- Interface Editor Assigns specific physical power supplies to match the Fake Supplies defined in Supply Editor.
KINET Interfaces - A Color Kinetics Power/Data supply that uses Color Kinetics Ethernet protocol.

- Load Map Loads the video map you just created into the Video System Engine.
- Log File A list of information on your map and its ability to run your lights. Applications support at Color Kinetics will typically ask for a copy of the file to evaluate any problems you are having.
- Map Info A list of information on your map. Applications support at Color Kinetics will typically ask for a copy of the file to evaluate any problems you are having.
- Output/Add Output/Remove Output Create and edit or remove the connections from power supplies (Fake Supplies) to templates.
- **Preserve Aspect Ratio** Use to hold correct scaling as image size is changed.
- **Region Setting** Create, edit and delete regions in the same video image area.
- **Regions** Multiple areas of you lighting system where you may want to present part or all of the same video images data simultaneously.
- **Size Image to Fit** Scales the image size to best fit the installation.
- **Supply Templates** Sets the supply outputs and fixtures that fit within one template.
- **Templates** A structure of fixtures that are associated with an output from an individual supply.
- **Template Setup/Controller** Establishes the structure of a template, based on the individual fixtures, and associates a supply format to the fixtures.
- Video Playback Device Source of the video stream, either a direct feed or DVD stored video, which is fed to the Digital Video Converter.
- Video System Engine Processes the video stream from the Digital Video Converter, using he map and gamma files, and sends the reformatted data to the power supplies.

View Menu Commands

Zoom In/Zoom Out - Standard zoom in/zoom out functions.

Snap to Grid - Toggles between forcing and not forcing templates to snap onto the background grid structure.

Show Grid - Shows or hides the grid structure on the video image.

Change Grid - Change the dimension of the grid spacing.

Display Item Structure - Show or hide the individual lights within each fixture/template.

Sample Background - Show or hide the pixel resolution of the background image.

VMT - Video Management Tool.

Zoom In/Zoom Out - Standard zoom in/zoom out functions.

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