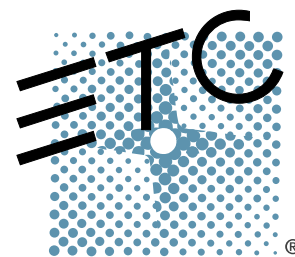


emphasisTM



Lighting Control System User Manual

Version 1.1.0

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Introduction

This manual covers the basic installation and operation of the Emphasis Control System. It is designed to be used in conjunction with the existing user manual for the specific Facepanel type you are using.

The introduction contains the following sections:

- ***Using this Manual***2
- ***Using this Manual with the Facepanel Manuals***3
- ***Help from ETC Technical Services***4

Using this Manual

This manual is intended for use in conjunction with the manual specific to your Facepanel type. This document will cover new software features, new control console features, and how the two interact with each other.

This manual assumes that you have a basic familiarity with the Microsoft Windows® operating system, opening and closing files, closing and resizing windows, using Windows Explorer, and performing basic disk operations.

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

- **Emphasis™ Server** (hardware): the computer used to run the Emphasis applications. This is also referred to simply as the “Server”.
- **Emphasis Facepanel** (hardware): the control console hardware. This is also referred to simply as the “Facepanel”.
- **Emphasis Visualization** (software): the application that resides solely on the Server and provides WYSIWYG™-based functionality.
- **Emphasis Console** (software): the application that drives the Facepanel. The Console displays resemble the traditional Facepanel displays, and can be viewed on either the Server or Facepanel monitors. This application usually remains hidden, as the displays can be accessed through the Facepanel and Visualization.
- Menus and commands found on the Server are indicated in **bold text**. For example: In the **File** menu, click **Open**.
- Server keyboard buttons are indicated in all CAPS. For example, TAB or CTRL.
- Facepanel buttons and softkeys are indicated in bold **[brackets]**. For example, **[Stage]** or **[Enter]**.
- References to other parts of the manual are indicated in *italics*. When viewing this manual electronically, click on the reference to jump to that section of the manual.



Note: *Notes are helpful hints and information that is supplemental to the main text.*



CAUTION: *A Caution statement indicates situations where there may be undefined or unwanted consequences of an action, potential for data loss or an equipment problem.*



WARNING: *A Warning statement indicates situations where damage may occur, people may be harmed, or there are serious or dangerous consequences of an action.*

Please email comments about this manual to: **TechComm@etccconnect.com**

Using this Manual with the Facepanel Manuals

Because the Emphasis Control System may contain any of the Expression[®]-style or Express[™] consoles, this manual is designed to be used in conjunction with the existing console manuals. In some cases, information contained in this manual supersedes the information in the older console manual. The majority of these changes are listed in [Console Features, page 211](#).

Help from ETC Technical Services

If you are having difficulties, your most convenient resources are the references given in this manual and the console Help system, which is explained in the manual provided with your Facepanel. To search more widely, try the ETC web site at www.etcconnect.com. If none of these resources is sufficient, contact ETC Technical Services directly at one of the offices identified below. Emergency service is available from all ETC offices outside of normal business hours.

When calling for help, please have the following information handy:

- Console model and serial number (located on back panel)
- Emphasis Server serial number (located inside the door on the front of the Server case)
- Software version (see [How do I find the software version?, page 21](#))
- Dimmer manufacturer and installation type
- Moving light information (manufacturer, mode, data cable type)
- Other components in your system (Unison®, other consoles, etc.)

Americas

ETC International
Technical Services Department
3030 Laura Lane
Middleton, WI 53562
+1-800-775-4382
+1-608 831-4116
service@etcconnect.com

Europe

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

Asia

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

Chapter 1

System Overview

Emphasis integrates the functionality of WYSIWYG with the Expression-style control consoles to give you a powerful, but user-friendly, control system offering both a graphical, point-and-click environment and a tactile button-and-wheel interface. Emphasis ensures consistency and accuracy with total integration of data across all modes. Data input in any mode is applied through the paperwork, on the light plot, in the console patch, on reports, and on screen, in every view.

This chapter contains the following sections:

- **Emphasis Options**6
- **System Components**7
- **Installation guidelines**9
- **System Procedures**18
- **Troubleshooting**20

Emphasis Options

Emphasis systems are created by choosing the server type, maximum channel count and Facepanel type. Emphasis is offered as an upgrade to an existing Express or Expression-style console (see below for compatible facepanel types), or as a complete package.

Server Types

- 3D - Includes full console feature set and full visualization functionality: paperwork and presentation tools, data tasks, 3D CAD drafting, complete visualization and rendering. WYSIWYG Design stand-alone software is included. The 3D Server will support up to two monitors.
- 2D - Includes full console feature set and limited visualization functionality: paperwork and presentation tools, data tasks, and 2D CAD drafting. WYSIWYG Report stand-alone software is included. The 2D Server will support one monitor.

Channel Counts

- 500 channels
- 1000 channels
- 2500 channels
- 5000 channels

Channel counts refer to the maximum number of control channels you can have in a show. All channel options have 32,767 EDMX™ addresses available.

Face Panels

- Expression with Emphasis (Expression ECS), Expression 3, Expression 2x, Imagine™ 3
- Insight™ with Emphasis (Insight ECS), Insight 3, Insight 2x, Focus™
- Express (all varieties)

System Components

Emphasis Server

The Emphasis server is a Dell® computer optimized by ETC for the best performance of the Emphasis Visualization and Emphasis Console applications. The Server is provided pre-configured and should not require any software installations for its initial use. This section contains information on specific differences between your Server and a regular PC.

The Server contains all of the software required for Emphasis to run, a hard drive for show data storage, a CD-RW drive for show data storage, and a 3.5" floppy drive for Facepanel Software Disk creation.

There is a special hardware key called a “dongle” inside your Server, coded for the software features you have purchased. If this is removed, Emphasis will not run. This dongle is not usable on other computers and cannot be used with WYSIWYG stand-alone applications.



Note: *There are two USB ports located behind the door on the front of your Server. The Emphasis dongle is connected internally to the rear port of this pair, so it may not be used for other USB devices. The front port is available for your use.*

A keyboard and mouse are included with your Server. The keyboard has a number of buttons designed for use with common internet tasks. These buttons have been disabled, as the Server should not be connected to the internet at any time.

When you power up your Server, it will automatically launch the Emphasis applications. The first time you do this, the Registration dialog box will appear (see [Registration, page 15](#)).

Emphasis Servers can be configured for 2D or 3D operation. The following table illustrates the differences between the standard 2D and 3D Servers:

Feature	2D Server	3D Server
Monitors	1	Up to 2
CAD Views	Wireframe only	Wireframe, Isometric and Shaded
Emphasis Views	Wireframe only	Wireframe, Isometric and Shaded
Rendering	No	Yes

Facepanel

The Emphasis Facepanel can be any of the following consoles:

- Expression with Emphasis, Expression 3, Expression 2x, Imagine™ 3
- Insight™ with Emphasis, Insight 3, Insight 2x, Focus™
- Express (all varieties)

When used in an Emphasis system, the Facepanel becomes an input device on the network, rather than a stand-alone device. You are limited to some of the constraints of the individual Facepanel types, such as submaster quantities, channel-fader availability and monitor counts;

however, you gain cue-, channel- and dimmer-counts when connected to an Emphasis Server.

When a Facepanel has been upgraded to Emphasis operation, it will no longer operate as a stand-alone console. The Facepanel essentially becomes a keyboard with some DMX Node functionality. As such, the Facepanel cannot operate without the Emphasis Server online. In case of an emergency, you can export your Emphasis show file as a v3.1 show, reload the v3.1 software to your Facepanel and run it as a stand-alone console. The procedure for exporting your show to v3.1 format is described in [Export File, page 70](#). The procedure for returning your Facepanel to v3.1 operation is described in [Revert to v3.1 Software, page 247](#).

Emphasis Visualization

Emphasis Visualization is the software application that provides the graphic interface to the Emphasis Control System. It is based on the powerful WYSIWYG suite of software applications. This is where you patch your show, create your plot and prepare your paperwork. You can also select and control fixtures, pre-cue your show and preview recorded cues using the visualization features.

While Emphasis Visualization is based on WYSIWYG, there are some significant changes that allow for interaction with the Emphasis Console. If you are comfortable using WYSIWYG, you should read [Emphasis Mode, page 175](#) to familiarize yourself with these new features.

Emphasis Console

Emphasis Console is the software application that drives the Facepanel. This application usually remains hidden. You can access the settings and controls either from the Facepanel or from the virtual Facepanel in Emphasis Visualization.

Installation guidelines

Hooking Up the Hardware

Emphasis systems can range from a simple Server and Facepanel combination to fully integrated network systems. Regardless of the size of your system, there are some basic connections that are common to all systems.

Emphasis uses UTP (Unshielded Twisted Pair) cable and a hub or switch for communication between the Facepanel and Server. A hub or switch is required for network connections between Face Panels, Servers and other network devices such as ETCNet2™ Nodes and Unison Architectural Controls. In all cases, networking equipment and cables must meet or exceed the Cat 5 standard.

To connect your system devices:

- Step 1: Place your Facepanel and Server on a stable, flat surface. The Server may be placed flat (horizontally) on the table or on its edge (vertically). The Server's CD tray is designed to work in either orientation.
- Step 2: Connect the Facepanel Twisted Pair jack to the Server using UTP cable through a hub or switch.
- Step 3: Connect DMX cables to the Facepanel DMX outputs.



Note: You may also connect DMX cables to Nodes, if available.

- Step 4: Connect RFU cable to the Facepanel RFU connector.



Note: You may also connect your RFU cable to a Node, if available.

- Step 5: If you have ETCLink in your system, the cable **must** be connected to an ETCLink-enabled DMX Node. The ETCLink connector on your Facepanel is not supported in Emphasis.
- Step 6: Connect any MIDI or SMPTE cables to the appropriate connectors on the Facepanel.
- Step 7: Connect the Dell keyboard and mouse that came with the Server to the appropriate connectors on the Server. These connections are colour coded. You may also have a second keyboard connected to the Facepanel, if desired, for labeling items on the console, such as cues, groups and submasters. The second keyboard is not required, but may be added for convenience.
- Step 8: Connect your monitors. There will be at least one monitor on the Server and one on the Facepanel.
 - Servers configured for 2D operation will only support one monitor.
 - Servers configured for 3D operation are supplied with a dual-video card. Monitors are connected to this card using a Y-cable, provided with your Server.
 - Expression and Insight consoles support two monitors. Ex-

press consoles support one monitor only.

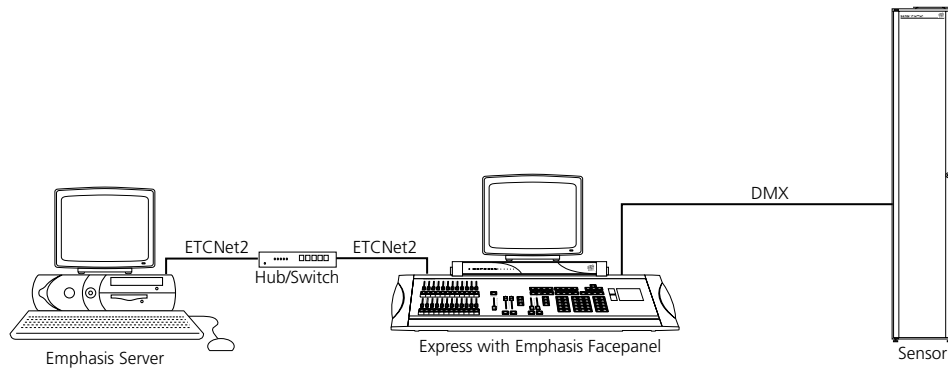
Step 9: Connect power cables to Server, Facepanel, and hubs or switches (if required).



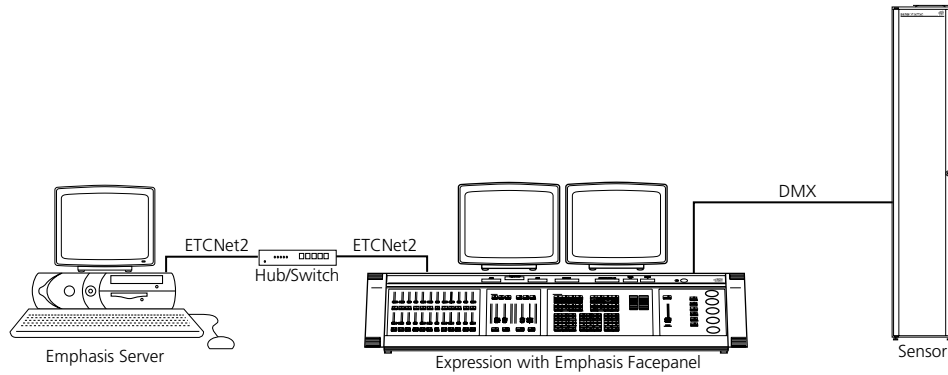
CAUTION: *If you plug in the server it may boot - it may not wait for you to press the power button. If the keyboard and/or mouse are not plugged in when your power up, they will not be recognized by the Server. You will have to force the Server to power down, plug them in, and restart.*

Typical System Riser Diagrams

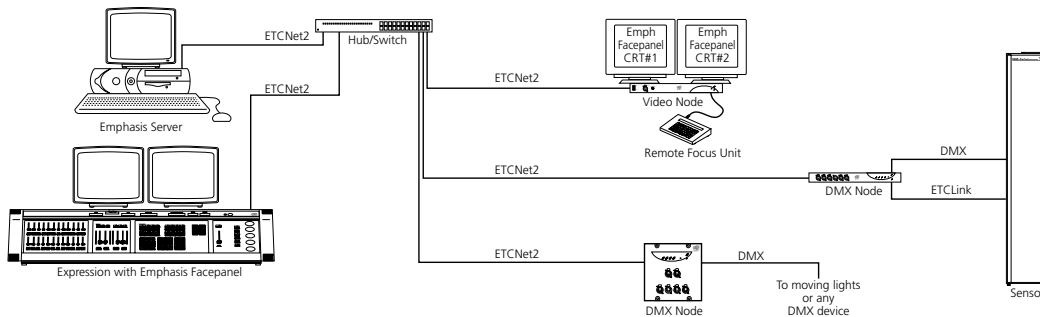
Small System - Express Facepanel



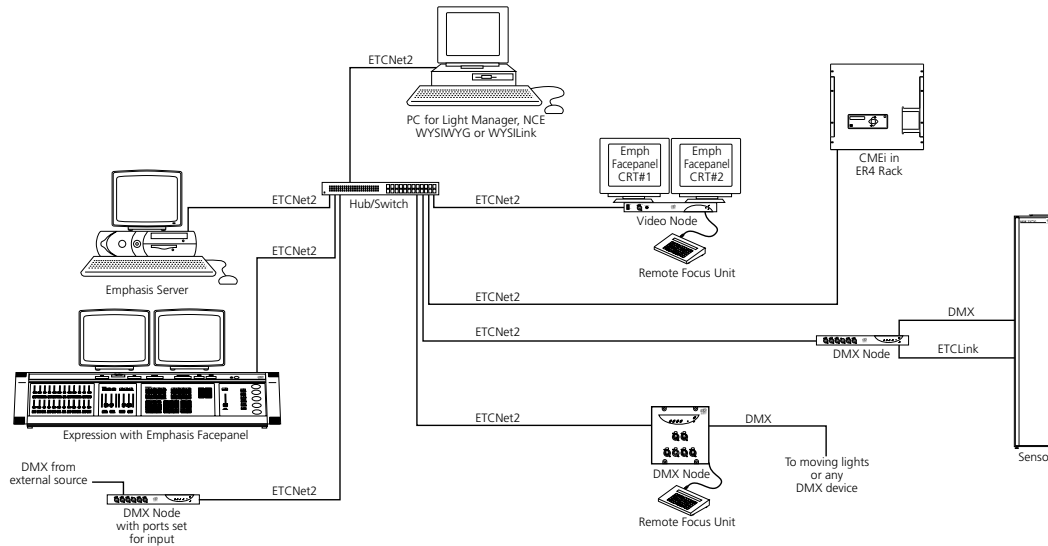
Small System - Expression-style Facepanel



Distributed DMX



Integrated System



Connecting a Printer

Connecting a printer to your Emphasis Server follows the same setup rules as any Windows computer. If your printer requires a software installation, you will need to logon as the System Manager. If you have problems connecting a printer to your Emphasis Control System, please contact ETC Technical Services (see [Help from ETC Technical Services, page 4](#)).



CAUTION: *Modification to hardware or software components or settings may affect the stability of the Emphasis Control System. Consult ETC Technical Services before making any changes. Non-authorized changes resulting in instability may require loading the operating system, which will restore defaults, remove any changes, and may result in a loss of existing show files.*

Software Installation

Your Emphasis Server will arrive with all software fully installed. If you have purchased a complete Emphasis Control System, including an Emphasis Server and a Facepanel, the Facepanel Software should also be loaded and ready to use.

If you have purchased Emphasis as an upgrade to an existing Express or Expression-style console, you will need to upgrade the software in your console.

Installing Facepanel Software

If you have purchased Emphasis as an upgrade to an existing console, or if you install a new version of software on your Emphasis Server, you will also need to update the software version in your Facepanel. If Facepanel Software disks are not provided or are lost, you can create your own Facepanel Software disk. The Facepanel Software Disk must be a 3.5" HD floppy disk.

You may also create v3.1 software disks for Express and Expression-style consoles. This provides a way to return a Facepanel to v3.1 operation as

a backup. It is recommended to keep separate disks for v3.1 and Emphasis Facepanel software on hand.

To create and install a Facepanel Software Disk:

- Step 1: Exit Emphasis.
- Step 2: Insert a 3.5" HD floppy disk into the floppy drive on the Emphasis Server.
- Step 3: Login as System Manager (See [Login as a Different User, page 18](#)).



CAUTION: *Modification to hardware or software components or settings may affect the stability of the Emphasis Control System. Consult ETC Technical Services before making any changes. Non-authorized changes resulting in instability may require loading the operating system, which will restore defaults, remove any changes, and may result in a loss of existing show files.*

- Step 4: Click OK to clear the warning screen.
- Step 5: Open the Facepanel Software folder located on the desktop.
- Step 6: Double-click the appropriate Facepanel Software file.
 - EmphExpression.exe - for Expression and Insight face panels used with an Emphasis Control System.
 - EmphExpress.exe - for Express face panels used with the Emphasis Control System.
- Step 7: Click Unzip to extract the software onto the floppy disk.
- Step 8: Click OK when completed.
- Step 9: Close the WinZip window and the Facepanel Software window.
- Step 10: In the Windows **Start** menu, click **Log Off**. Click the Log Off button in the dialog that opens. This will return you to the Emphasis Login screen.
- Step 11: Click Emphasis to login as the Emphasis User.
- Step 12: Eject the floppy disk from the Emphasis Server. Insert the floppy disk into the disk drive on the Facepanel.
- Step 13: Power up the Facepanel. The software will load automatically.
- Step 14: When completed, eject the floppy disk from the disk drive and restart the Facepanel.
- Step 15: Press [**↑**] or [**↓**] to select the Emphasis Server (processor) to connect to. You will need to arrow-down to select the processor, even if only one processor is listed.
- Step 16: Press [**Enter**]. The Facepanel will boot and the Stage displays will open on the attached monitors.

Installing Software on the Emphasis Server

If you are reinstalling a new version of software, you will be provided specific instructions for installation with the release notes for that version. When installing Emphasis software, you are given the opportunity to install only Emphasis program files (located on the C drive) or to install a full disk image for both the C and D drives.



CAUTION: *Installing a full disk image for the C and D drives will delete show files stored on the Emphasis Server.*

When installing a disk image it is always a good idea to have backups of all show files you want to keep. It is highly recommended to backup all show files before loading new software. To backup existing show files see [File structure and disk functions, page 80](#).

To install new software:

- Step 1: Power up the Emphasis Server.
- Step 2: When the Dell screen appears, press F12.
- Step 3: Insert Emphasis Software CD #1 into the CD drive on the Emphasis Server.
- Step 4: Press "4" to select **Boot from IDE CD ROM** and press ENTER.
- Step 5: A warning screen appears allowing you to choose to continue or abort:
 - If you want to **continue** with the installation process, press any key.
 - If you want to **abort** the installation process, Press CTRL+C. When prompted to "Terminate batch job (Y/N)?", press "Y". The DOS prompt will appear. You may restart the Emphasis Server (press CTRL+ALT+DELETE) at this point for normal operation.
- Step 6: The installation type screen appears. Choose the type of installation you want to perform:
 - Install Emphasis Program files only (press "E"). This option restores the disk image of the C drive only, **show files are retained**.
 - Install full disk image (press "A"). This option restores the disk image of the C and D drives, **show files are deleted**.



CAUTION: *Installing a full disk image for the C and D drives will delete show files stored on the Emphasis Server.*

- Step 7: After you press "E" or "A", the disk image begins to load from the Emphasis Software Disk #1. You will be prompted to load subsequent disks by the disk utility. Eject the first disk and load the next disk and press ENTER.
- Step 8: When completed, you will be prompted to remove the final CD from the drive and restart the Emphasis Server. You can restart the Emphasis Server by pressing the power button twice, or by pressing CTRL+ALT+DELETE.

- Step 9: After a new version of software has been installed on your Emphasis Server, you will need to install Facepanel Software. See [Installing Facepanel Software, page 12](#), for that procedure.

Registration

When you first start your Emphasis Control System, you will be prompted to register the system. Registration will enable ETC to track your system for support purposes, and will enroll your system in the software subscription included with your Emphasis Control System, providing you with software upgrades for the duration of the subscription.



You have 15 days to use the system prior to registering; however, it is recommended that you register your system as soon as possible. After 15 days have passed, you will not be able to use Emphasis Visualization until you enter the registration code. You may register your Emphasis Control System by phone, fax or email.

To register by phone:

- Step 1: Power up the Emphasis Server. If the system is unregistered, the Registration dialog should open. You can also open the Registration dialog using the **Help** menu **Registration** command.
- Step 2: In the Register dialog, click the Phone button.



- Step 3: Call ETC at one of the given phone numbers and speak to a Customer Service Representative. You will need to provide them with the Registration Request Code. They will provide you with a Registration Validation Code to enter in the dialog.
- Step 4: Enter the Registration Validation Code in the dialog. Make sure to use all capital letters when you enter the code.
- Step 5: Click Register.

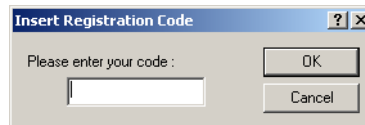
To register by fax:

- Step 1: Fill out the registration form included with your Emphasis Server. Fax it to the appropriate fax number based on your location. You will be sent a Registration Validation Code within a full business day.
- Step 2: If you cannot find the form, you can print a new copy from the Emphasis Server. Ensure you have a printer connected to your Emphasis Server. See [Connecting a Printer, page 12](#), for more information.
- Step 3: Power up the Emphasis Server. If the system is unregistered, the Registration dialog should open. You can also open the Registration dialog using the **Help** menu **Registration** command.
- Step 4: In the Register dialog, click the Fax button.
- Step 5: Print the form, fill in all the information and fax it to the appropriate number indicated on the form. You will be sent a Registration Validation Code within a full business day.



Note: *Alternatively, you can email the registration information to registeremphasis@etccconnect.com. Make sure that all information required on the fax form is included in the email.*

- Step 6: When you receive your Registration Validation Code, take it to your Emphasis Control System. Power up the Emphasis Server. If the system is unregistered, the Registration dialog should open. You can also open the Registration dialog using the **Help** menu **Registration** command.
- Step 7: In the Register dialog, click the “I have my validation code” button. Enter the Registration Validation Code in the dialog. Make sure to use all capital letters when you enter the code.



- Step 8: Click OK.

Upgrades

To upgrade your Emphasis Control System, contact the ETC dealer who provided your Emphasis Control System to purchase the upgrade. When purchased, you will receive an Upgrade Code that will unlock the new features you have purchased.

You can upgrade from a lower channel count to a higher channel count, and/or from 2D to 3D operation. You can also purchase an upgrade for

WYSILink™. If you want to upgrade from a 2D single monitor system to a 3D dual monitor system to expand your desktop area, you may need to send the Emphasis Server back to ETC for that hardware upgrade. This hardware upgrade does not affect any functional abilities of the Emphasis Control System, only the available monitor space. Emphasis 3D will operate the same on single and dual monitor systems.

To upgrade your Emphasis Control System:

- Step 1: Contact your ETC dealer to purchase your Upgrade Code. When you have your Upgrade Code, continue to Step 2.
- Step 2: Power up your Emphasis Server.
- Step 3: In the **Help** menu, click **Upgrade**.
- Step 4: Enter your Upgrade Code in the dialog box. Make sure to use all capital letters when you enter the code.
- Step 5: Verify that the code you have entered is correct.
- Step 6: Click the Upgrade button.
- Step 7: Close and restart Emphasis. Your upgrade will take effect on the restart.

System Procedures

Power-up Procedure

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

- Step 1: Turn on the hub(s) and/or switch(es).
- Step 2: Turn on the Server and monitor(s). Wait for the Emphasis application to start up completely before proceeding to the next step.
- Step 3: Turn on the Facepanel(s) and monitor(s).
- Step 4: Turn on any ETCNet2 Nodes.
- Step 5: Turn on accessories such as Remote Focus Units.



Note: *The order in which multiple Face Panels are initially turned on sets the Fader priority. See [Fader Priority, page 213](#), for more information.*



Note: *When you power-up your Emphasis Control System, the system will default to opening the last valid show file. If the show file is no longer available in the Shows directory, Emphasis will open a new show called "Untitled". You may setup the system to open a new show on startup if you wish. See [Create a Default Show, page 82](#) for more information.*

Login as a Different User

There are a number of different user accounts contained in the Emphasis system. When the system is turned on, it will open using the Emphasis User settings. To gain access to the other user accounts, exit Emphasis.

- **Emphasis User:** This user account is not password protected, and is the default user when Emphasis launches on startup. When this user type is selected, access is limited mainly to Emphasis. Other applications and computer components are hidden. When this user type is selected, no other software may be installed. When this user account is selected, critical program files may not be deleted (this does not include show files) and no other software may be installed.
- **NCE User:** This user account is primarily for adjusting settings in the Network Configuration Editor (NCE) application. There is no password protection for this user type. When this user account is selected, critical program files may not be deleted (this does not include show files) and no other software may be installed.
- **System Manager:** The System Manager has access to set the password for this user account, as well as partial Administrative rights, installation of software, system maintenance, Facepanel code, and all Emphasis and NCE user privileges.
- **Technical Services:** This user type is reserved for ETC Technical Services and is password protected.

To change the System Manager password:

- Step 1: Exit Emphasis and login as the System Manager.
- Step 2: In the Windows **Start** menu, click **All Programs**, then click **User Accounts**. The User Accounts dialog will open.
- Step 3: Under “Pick a task...”, click “Create a password”.
- Step 4: Follow the directions in the dialog to create a password and a password hint for the System Manager account. When complete, click the Create Password button at the bottom of the dialog box.

Shut-down Procedure

To shut-down your Emphasis Control System:

- Step 1: Save your show file (see [Save Show, page 69](#)).
- Step 2: In the Emphasis Visualization **File** menu, click **Exit**. You may also click the Exit button at the top-right corner of the Emphasis Visualization window.
- Step 3: In the lower-left corner of the Login screen, click **Shutdown Emphasis Server**. The “Turn off computer” dialog opens.
- Step 4: Click **Turn Off** to shut the Server down completely. Alternatively, click **Stand By** to place the Server in stand by mode or click **Restart** to cause the Server to re-boot. Click **Cancel** to return to the Login screen without shutting down the Server.
- Step 5: Turn off any peripheral equipment, such as Nodes and Remote Focus Units.
- Step 6: Turn off the Facepanel at the power switch located on the rear panel.

Troubleshooting

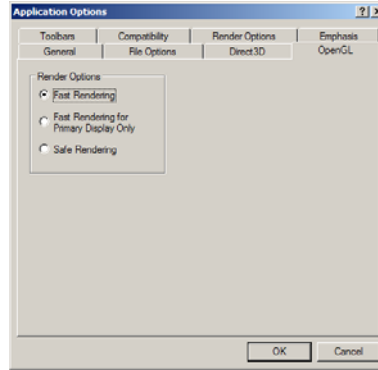
The Emphasis Facepanel type defaults to the Expression 3 console. This affects the video output of your Facepanel. If you have an Express console as your Emphasis Facepanel, or if you swap Facepanels from an Expression-style to an Express, you will need to change the default settings to reflect this in the Emphasis Visualization Emphasis mode **Setup** menu. See [Emphasis Visualization and Console Defaults, page 220](#) for more information.

The Emphasis Server is provided fully configured from the factory. It should not be treated as a regular desktop computer. The following modifications to the factory setup are known to cause problems of varying severity:

- Screen savers. Do not enable screen savers on the Emphasis server. They can cause unexpected behavior in your system.
- Power settings are set to never turn off the monitor(s) or the hard disk. The system is also set to never go into standby mode on its own. The “Sleep” button on the keyboard is also disabled. Do not put your Emphasis Server into standby or sleep mode while running Emphasis software.
- Microsoft Windows XP appearance. Windows XP appearance settings are graphics heavy and will impact the performance speed of your system. The appearance settings are set to minimize the impact of the operating system on performance.
- View contents while dragging windows. This setting is also graphics-heavy and will impair the performance speed of your system.
- Wallpaper on the desktop. Wallpapers are graphics heavy and will impact the performance speed of your system. The wallpaper is set to “None” as a default.
- Additional software applications (games, internet browsers, word processors, etc.). It is not advisable to load additional applications onto your Emphasis Server. Conflicts may occur between applications that could severely impact your system’s performance. The Emphasis Server should not be connected to the Internet.
- On a 3D Server with dual monitors, you may experience problems with shaded views, especially on the second monitor. If your shaded views appear to refresh incorrectly (especially after shaded view windows have been overlapped), you may want to change the OpenGL options to “Safe Rendering”.

To change the OpenGL settings:

Step 1: In the Emphasis Visualization **Options** menu, click **Application Options**.



Step 2: Click the OpenGL tab.

Step 3: Click the button for the following settings:

- **Fast Rendering:** This is the ideal setting.
- **Fast Rendering for Primary Display Only:** This sets the primary monitor to Fast Rendering and the second monitor to Safe Rendering and will solve the incorrect refresh problem on the second monitor.
- **Safe Rendering:** This sets both monitors to “Safe Rendering”.

If you have problems using your Emphasis Control System, please refer to this manual for additional information.

If you do not find the answer in the manual, please call your local dealer or ETC Technical Services (see [Help from ETC Technical Services, page 4](#)). Please have the following information available before you call:

- Console model and serial number (located on back panel)
- Emphasis Server serial number (located inside the door on the front of the Server case)
- Software version (see below)
- Dimmer manufacturer and installation type
- Moving light information (manufacturer, mode, data cable type)
- Other components in your system (Unison, other consoles, etc.)

How do I find the software version?

Emphasis is actually a suite of software, all with different version numbers. In general, all you need to provide to Technical Services is the suite version number.

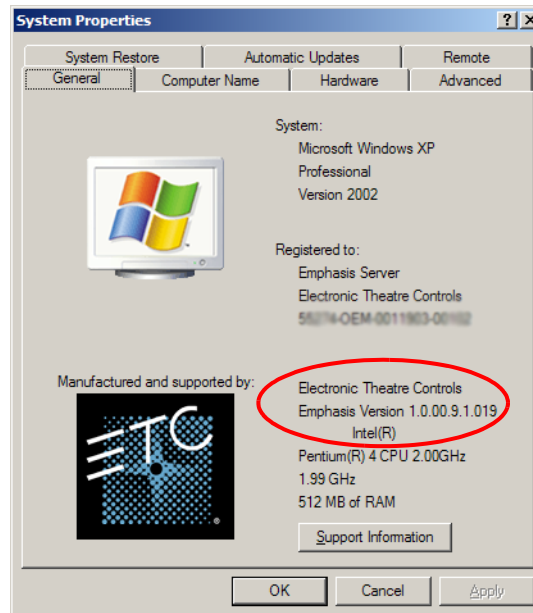
To find the Emphasis Control System suite version number:

Step 1: In the Emphasis Visualization **Help** menu, click **About Emphasis**. The About... dialog box will open.

Step 2: Find the Emphasis Visualization Version number at the top of the dialog box. The suite version number is indicated in parentheses at the end of the full version number.

To find the suite version number outside Emphasis Visualization:

- Step 1: Minimize Emphasis Visualization and right-click on **Start** menu on task bar and click **Explore**. Alternatively, you can press **Win+E** to launch Windows Explorer at any time.
- Step 2: Right-click My Computer and click **Properties**.
- Step 3: Click the General tab. You will find the Windows version information as well as the Emphasis system version. The Support Info button also displays the version number, as well as the phone numbers for ETC Americas, ETC Europe and ETC Asia.



If you are asked to provide specific component version numbers, it is recommended that you use the first method to find all the version numbers at the same time. If that is not possible, use one of the other methods to find the specific information you are looking for.

To find the complete list of version numbers on the Server:

- Step 1: Minimize Emphasis Visualization and right-click on **Start** menu on task bar and click **Explore**. Alternatively, you can press **Win+E** to launch Windows Explorer at any time.
- Step 2: Navigate to this location: C:\Program Files\ETC
- Step 3: Double-click the Emphasis Component Report. This report contains version information for all the installed Emphasis components.



Note: Note that this will not update version information if you have upgraded individual components rather than the whole disk image.

To find the Emphasis Visualization version number:

In the **Help** menu, click **About Emphasis**.

To find the Emphasis Console version number:

- Step 1: Minimize Emphasis Visualization and maximize Emphasis Console.
- Step 2: In the **Help** menu, click **About.7**



Note: *You can also find the Emphasis Console version number from the Facepanel. Press **[Setup]**. The Emphasis Console version number appears in the lower-right corner of the Setup display.*

To find the Facepanel version number:

Restart the Facepanel and watch CRT1. The Facepanel version number appears on the bottom of the screen just after the boot screen and before the ETC logo.

Chapter 2

Emphasis User Interface

Emphasis Visualization provides a graphic user-interface designed to facilitate smooth transitions from mode to mode, and to keep the data organized and easy to find. For information on the basic operation of your Facepanel, please see the console User Manual.

This chapter includes the following sections:

• Mode Buttons	26
• Layout Tabs	27
• Shortcut Bar	28
• The Menu Bar	29
• Toolbars	30
• Status Bar	31
• Popup Frames	33

Mode Buttons

The mode buttons are used to access the different modes available within Emphasis Visualization.

CAD is where you draw venues, set pieces, hang structures and fixtures. In Emphasis 2D, you are limited to 2D views (wireframe) of your plot. In Emphasis 3D, isometric and shaded views are available.

Data is the spreadsheet mode. In this mode, you can view and edit information about your fixtures, including the patch.

Presentation is where documents to be printed are designed and stored, including plots, reports and renderings.

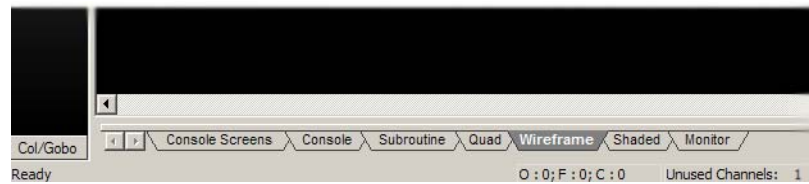
Emphasis is where you select and control fixtures. You can do this through the graphic interface by clicking fixtures in a wireframe view, or by using the virtual console displays.

Link is where you can view WYSILink messages.



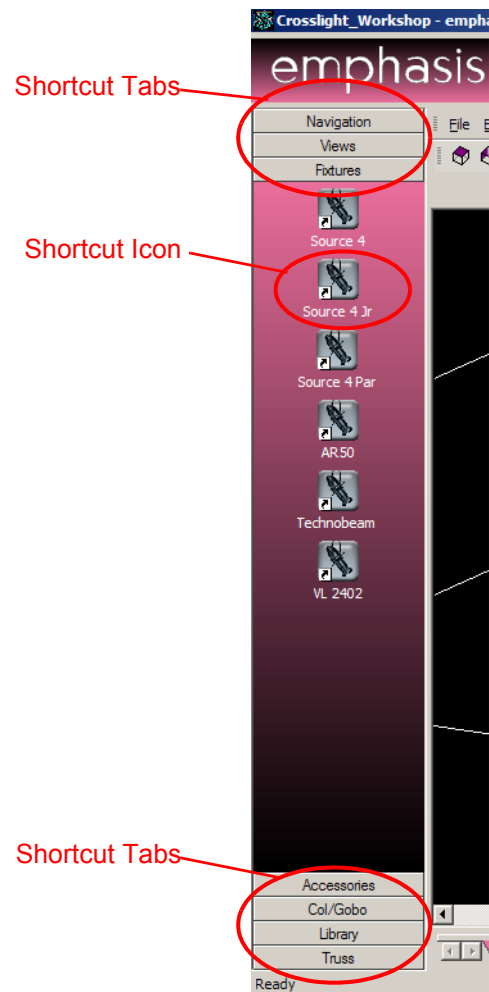
Layout Tabs

Beneath the work area in each mode is a series of layout tabs. These layouts provide various ways to view the data you are working with. To change layouts, click on the tab that corresponds to the layout you wish to use.



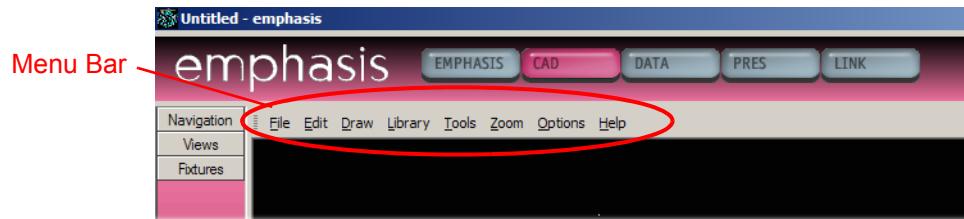
Shortcut Bar

Shortcuts are available on the left-hand side of the screen. Each mode has different types of shortcuts. To change the visible shortcuts, click on the tab that corresponds to the shortcut type you wish to use. There are some built-in shortcuts, mainly for different views. You can make new shortcuts as needed.



The Menu Bar

The menu bar is located within the Emphasis Visualization screen, below the mode buttons and above the work area. The available menus will change as needed when moving from mode to mode. The individual menus will be explained within the context of each mode.



Menu commands can be accessed using a pointing device, such as a mouse, by clicking on the menu name and then clicking on the command name. Commands can also be accessed using the keyboard by using shortcuts and hot keys. Hot keys are defined throughout the manual. To view all the hot key settings, see [User Options, page 77](#). Keyboard shortcuts follow the Windows® convention below.

To access menu commands using the keyboard:

- Step 1: Press ALT+*n*, where *n* is the underlined letter in the menu name. The menu will drop down.
- Step 2: Press the key corresponding to the underlined letter in the command you want to execute.

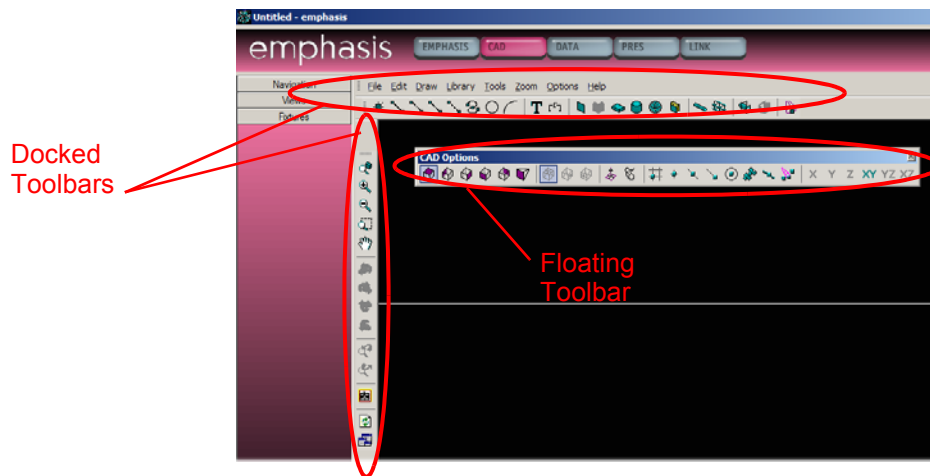
Some commands have shortcuts that do not require menu selection. In those cases, the shortcut keys are listed to the right of the command in the menu.

Example: To undo the last command, press CTRL+Z.

Toolbars

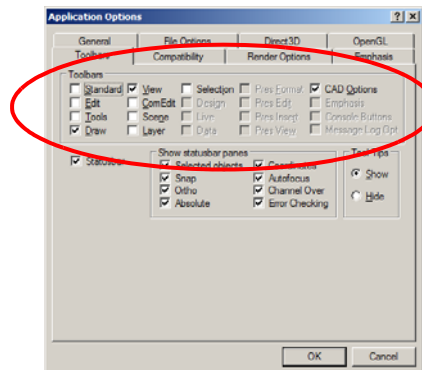
Toolbars are available that provide button access to frequently used commands. You can customize how the toolbars are displayed and which toolbars are open in the different modes. Toolbars that are unavailable in the toolbar list are not used in the selected mode.

Toolbars are typically found directly under the menu bar. Toolbars have a grab bar on the left that is used to move the toolbar around the screen. Toolbars may be placed on the edges of the work area; top, bottom, left or right. They may also be dragged off the edge of the work area and into their own window. This window remains on top of the Emphasis Visualization screen and may be dragged anywhere on your display.



To hide and display toolbars:

Step 1: In the **Options** menu, click **Application Options**.



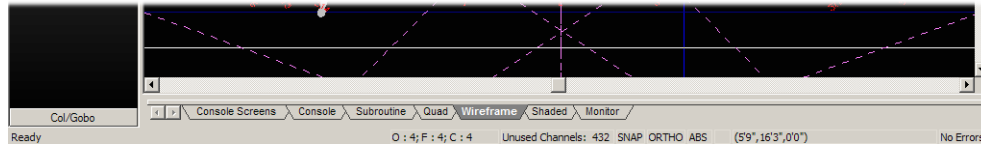
Step 2: Click the Toolbars tab.

Step 3: Click to display or hide available toolbars. Unavailable toolbars are not valid for the current mode.

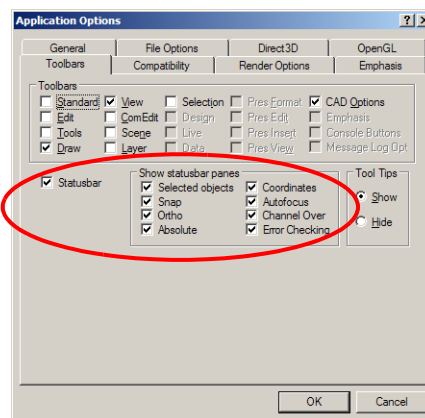
Note: You can also right-click on a toolbar to see the toolbar list. A checkmark to the left of a toolbar name indicates it is currently visible. Click the toolbar's name to change its visibility.

Status Bar

The status bar is displayed along the bottom of the Emphasis Visualization screen, below the layout tabs. The status bar displays the prompt line, the number of unused channels remaining available in your patch, selected object information, if snap, ortho and absolute are enabled. It also tracks and displays the coordinates of the cursor.

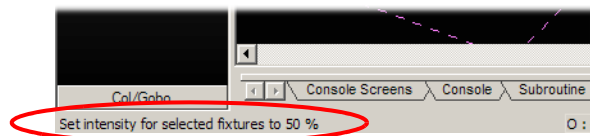


Display of the status bar is optional, and can be turned on or off from the toolbar list. You can also customize the contents of the status bar in the Toolbars tab of the Application Options window.



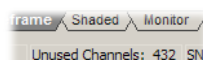
Prompt Line

The prompt line displays the current status of an action within your drawing. If you are currently working with a command that requires multiple pieces of information, (the placement of a pipe, for example), the prompt line displays a message indicating the next piece of information required to accomplish that task. The prompt line will also display a short description of a command when you point to it with the cursor.



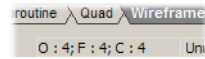
Unused Channels

The status bar can display the number of unused channels remaining available in your show. This number depends on the maximum channels you have purchased. You may patch channels above the maximum channel limit of the system; however, you will not be able to control those fixtures. When patched channels exceeds the maximum available channels, this indicator will display a negative number in red.



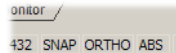
Selected Object

In this display, “O” stands for the number of objects currently selected. The “F” stands for the number of fixtures selected and the “C” stands for the number of circuits currently selected.



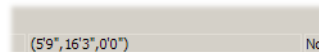
Snap, Ortho and Absolute

The status of object snap, ortho movement and absolute is indicated on the status bar. If the indicator is black, it is showing that a snap or ortho setting is active. If the indicator is gray, snap and ortho are not active. Absolute coordinates is the default setting; however, you can change this to the Relative mode. This setting determines how coordinate information is displayed mid-command. In ABS, which is the default mode, the coordinates display will always show the coordinates currently under your cursor. In REL, the coordinates display will show the distance and direction you have moved since the last point.



Coordinates

Coordinates are displayed in the order of X, Y and Z. The coordinates display the position of the cursor as a distance from the origin of the drawing (see [The Missing Coordinate, page 90](#) for more information). The following descriptions are given in terms of a theatrical space for clarity.



X (left-right)

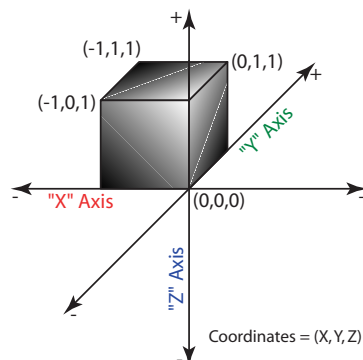
- Positive values are to the right (stage left) of the origin.
- Negative values are to the left (stage right) of the origin.

Y (up-down)

- Positive values are upstage of the origin.
- Negative values are downstage of the origin.

Z (height above or below stage)

- Positive values are above the origin.
- Negative values are below the origin.



Popup Frames

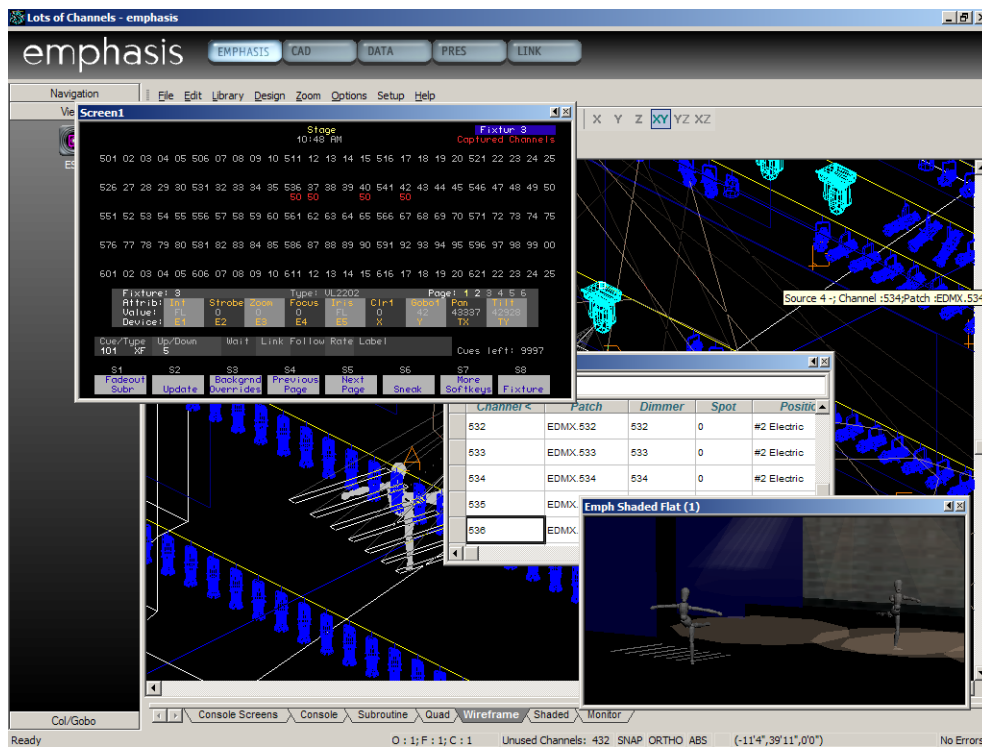
It is possible to place views in a “popup frame”. Popup frames remain active across modes. For example, if the patch view is placed in a popup frame, it will remain visible, even if the mode is changed from Data to CAD.

To place a view in a popup frame:

- Step 1: Make the desired window active.
- Step 2: In the **View** menu, click **Open in Popup Frame**.

You can also use the right-click menu:

- Step 1: Right-click anywhere in the active window to display the shortcut menu.
- Step 2: Click on **Open in Popup Frame**.



Chapter 3

Quick Start

This chapter provides a guide to this manual for new Emphasis users with WYSIWYG experience, and a short tutorial for new Emphasis users with little or no WYSIWYG experience.



Note: *This chapter takes you quickly through many of the basic functions of your Emphasis Control System. All the features in the tutorial are explained in greater detail in the chapters following this one.*

This chapter contains the following sections:

- ***Emphasis for Experienced WYSIWYG Users***36
- ***Basic Show Creation for New Emphasis Users***37

Emphasis for Experienced WYSIWYG Users

Emphasis Visualization is based upon the levels of WYSIWYG software. If you have used these applications, you will find the user interface very familiar. Emphasis Visualization replaces the Design and Live modes of WYSIWYG Design and WYSIWYG Perform with the new Emphasis mode. CAD, Data and Presentation (PRES) modes all operate as in the WYSIWYG applications.

EDMX

In an Emphasis Control System, the patch you create in Data mode is the actual show patch. This patch is created by using EDMX addresses. EDMX is ETC's proprietary protocol for distributing DMX information over an Ethernet network (ETCNet2). There are 32,767 available EDMX addresses in a single system, which is equivalent to about 64 universes of DMX512.

EDMX addresses are assigned to various output ports on DMX Nodes, Face Panels, and Obsession® II Processor Units within the ETCNet2 network. EDMX is also used by Unison CMEi units. You may assign an entire DMX universe (512 addresses) to a port, or only a small number of addresses. This setup is achieved using the ETCNet2 Network Configuration Editor software application on the Emphasis Server, or on another computer within the network.

In a simple Emphasis Control System, you may have only the Facepanel generating DMX. In this example, each DMX output port on the Facepanel may be assigned to EDMX addresses as follows:

DMX Output Port	EDMX Addresses	DMX Addresses
Port 1	1-512	1-512
Port 2	513-1024	1-512
Port 3	1025-1536	1-512
Port 4	1537-2048	1-512

You can change the assignment of EDMX addresses on your Facepanel. See [DMX Output Port Configuration, page 231](#), for more information.

Basic Show Creation for New Emphasis Users

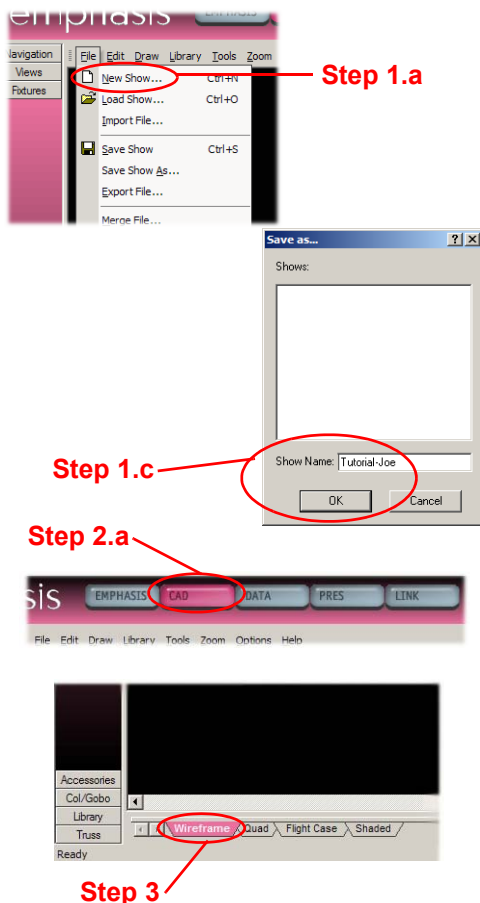
This tutorial will take you through many of the basic steps in creating a show file:

- Create a CAD drawing for a small show
- View and modify your data in DATA mode
- Create show paperwork
- Control fixtures and store basic cues
- [Emphasis 3D] Create a rendering

This tutorial assumes that you have already turned on your system, following the [Power-up Procedure, page 18](#). It also assumes you have read Chapter 2: [Emphasis User Interface, page 25](#).

If you prefer to use metric units, see [Metric vs. Imperial, page 92](#).

A completed version of this tutorial (named “**Tutorial**”) is provided with your system software in the Show directory. If you have upgraded from a previous version of Emphasis, and you did not install both C and D drives, follow the instructions in the readme file in the “Demo Files” folder on the desktop to install the demo shows.



Tutorial

Step 1: Create a New Show.

- In the **File** menu, click **New Show**. A dialog opens asking if you want to save changes to the current show. Click Yes or No.
- In the **File** menu, click **Save Show As**.
- Type “**Tutorial-Your Name**” as the show name and click OK.

Step 2: Enter CAD mode.

- Click the CAD mode button at the top of the Emphasis Visualization screen.

Step 3: Click Wireframe layout tab at bottom of work area.

Step 4: Open toolbars.

Toolbars give you quick access to commands at the click of a mouse. You can move toolbars around the screen, or you can dock them at the top, bottom or sides of the work area. We will use the toolbars listed below for some

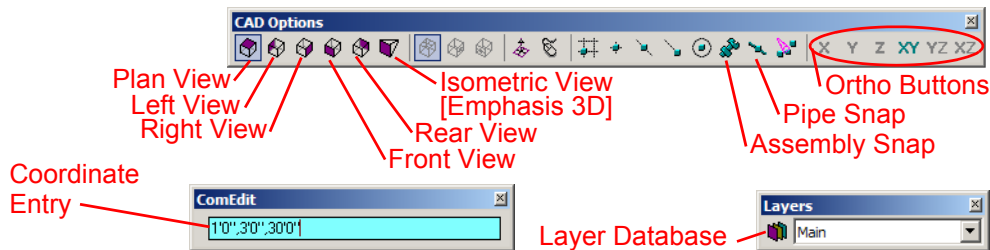
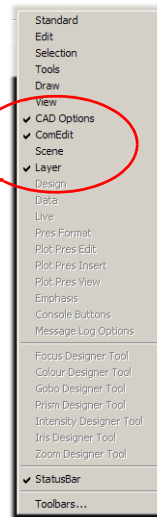
commands in this exercise, and menu commands for other functions. Most menu functions do have a toolbar equivalent. These are described more fully in the rest of this manual.

- Right-click in the gray area below the mode buttons. The toolbar menu will open. Checkmarks next to the toolbar names indicate open toolbars.
- Use the toolbar menu to open the following toolbars: ComEdit, Layers and CAD Options. Make sure all other toolbars are off.



Note: The ComEdit toolbar is used to enter coordinate values for placement or editing of objects. You can simply type the position coordinates instead of using the mouse to drag and drop objects.

Step 4.b

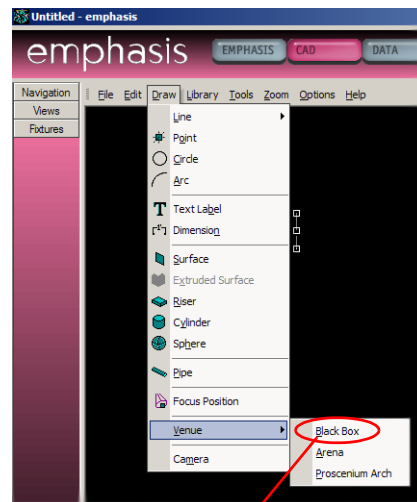


Step 5: Insert a Venue.

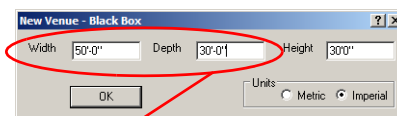
The Venue is a representation of your theatre space. Emphasis provides you with three basic venue shapes: Black Box, Arena and Proscenium Arch. All of these venues can be customized.

- In the **Draw** menu, click **Venue**, then **Black Box**.
- In the dialog that opens, enter 50'-0" for the width and 30'-0" for the Depth.
- Click OK.

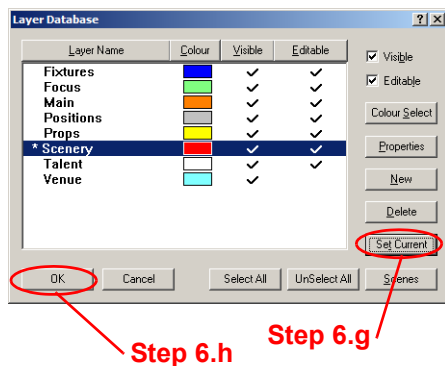
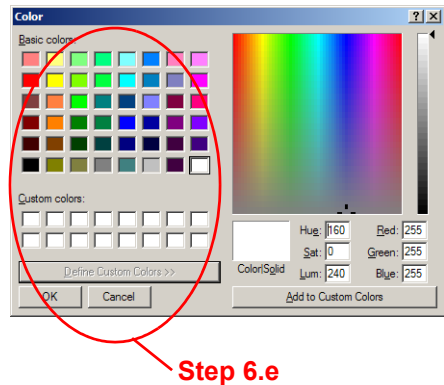
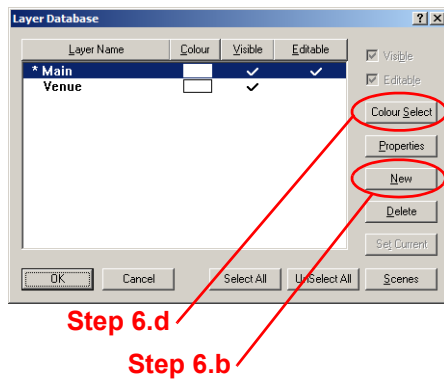
Note: If you have an Emphasis 3D system, you can place a popup window on your second monitor of another view. See [Popup Frames, page 33](#).



Step 5.a



Step 5.b



Step 6: Create Layers.

Layers are very useful in CAD drawings. You can think of layers as being different sheets of acetate or tracing paper stacked on top of one another. As you create your drawing, put things like scenery on one layer, pipes on another, props on yet another, and so on. Then you can pick and choose which layers you want to see, edit or print at any given time.

- Click the Layers Database icon on the Layers toolbar. The Layers Database will open.
- Click New.
- Type "Fixtures" and click OK.
- Click Colour Select.
- Click a colour for this layer and click OK.

Note: Layers in black will be drawn in white when the background colour is also black. Be careful, the cursor crosshair lines are displayed in the layer colour. A layer in black may cause the cursor crosshairs to "disappear" against a black background.



- Repeat steps c-f for the following layers: Focus, Scenery, Props, Positions, Talent.
- Click on Scenery and click Set Current. This sets the Scenery layer as the current layer. All objects drawn will be placed on the Scenery layer.
- Click OK.
- In the **File** menu, click **Save Show**.

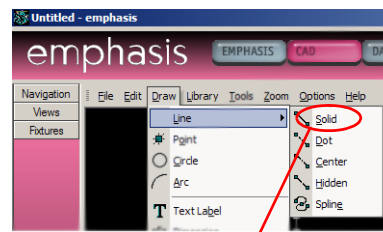
Step 7: Draw a Cyc by extruding a line.

- In the **Draw** menu, click **Line**, then click **Solid**.
- Place the first end of the line at -20'-0", 14'-0" by moving the mouse to that point (watch the coordinates display in the status bar). You can also type "-20',14'" ENTER in the ComEdit toolbar.

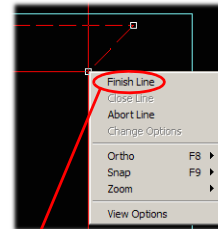


Note: You don't have to click on the ComEdit toolbar, just start typing.

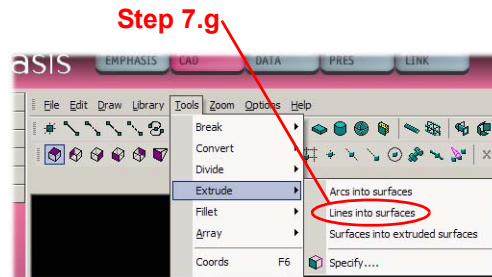
- Place the other end of the line at 20'-0", 14'-0" by moving the mouse to that point (watch the coordinates display in the status bar). You can also type "20',14'" ENTER in the ComEdit toolbar.
- Right-click and select **Finish Line**.
- Click on a side view to check the line. It should appear as a dot on the screen.
- Click on the Plan View button on the CAD Options toolbar. Click on the line you drew if it is not currently selected.
- In the **Tools** menu, click **Extrude**, then click **Lines into Surfaces**.
- Change the height to 25'-0" and click OK.
- Click the Front View button on the CAD Options toolbar to see your new cyc.



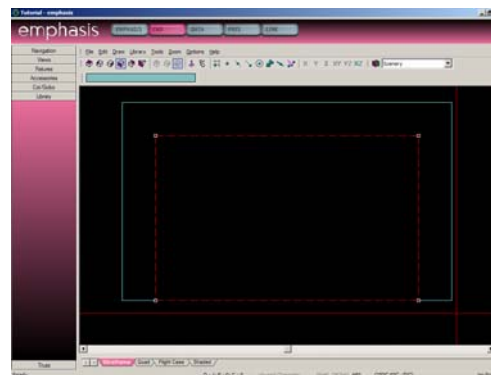
Step 7.a



Step 7.d



Step 7.g

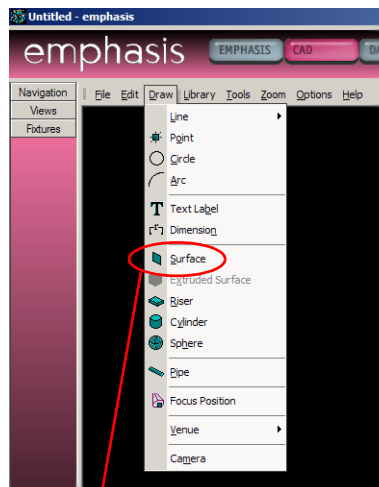
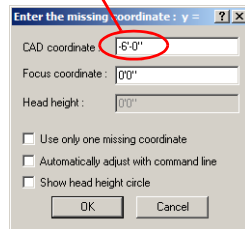


Step 7.i

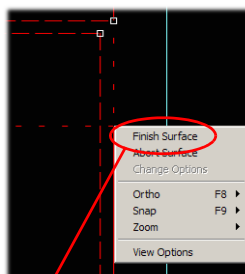
Step 8: Draw a Border using the Surface tool.

In this step, we're going to draw a border curtain in the front view. To do this, we will need to set the "missing coordinate" value to set the upstage/downstage position of the curtain. The missing coordinate is the dimension you cannot see in a 2D drawing of a 3D space. In the case of a front view, you can see how wide and how high an object is, but you cannot see how deep the object is, or how far upstage or downstage it sits.


Step 8.b



Step 8.d



Step 8.i

- Change to the front view, if you're not already there.
- Press TAB and change missing coordinate to -6'-0".
- Click the XZ Ortho button on the CAD Options toolbar to constrain the surface to vertical and horizontal sides. 
- In the **Draw** menu, click **Surface**.
- Place the mouse at -21'-0", -6'-0", 18'-0" and click to place the first corner of the surface.
- Place the mouse at 21'-0", -6'-0", 18'-0" and click to place the next corner of the surface.
- Place the mouse at 21'-0", -6'-0", 26'-0" and click to place the next corner of the surface.
- Place the mouse at -21'-0", -6'-0", 26'-0" and click to place the last corner of the surface.

Note:

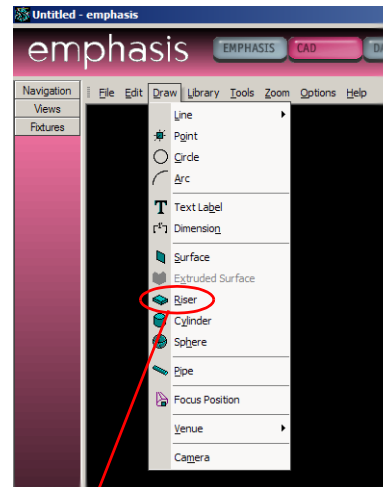
Drawing the surface counter-clockwise from the bottom-left places applied textures on the side of the surface facing you.

If you want to use the ComEdit toolbar to enter the points manually, don't type in the missing coordinate value (-6'-0").

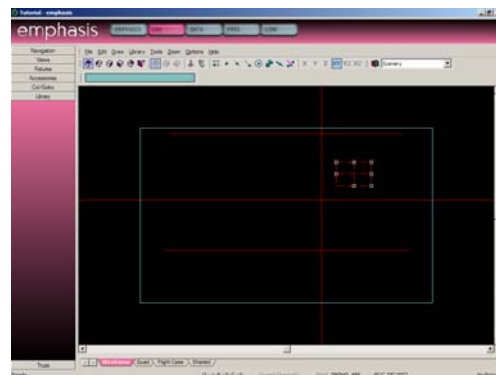
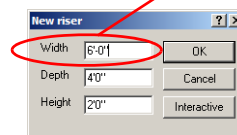
- Right-click and click **Finish Surface**.

Step 9: Draw a Riser.

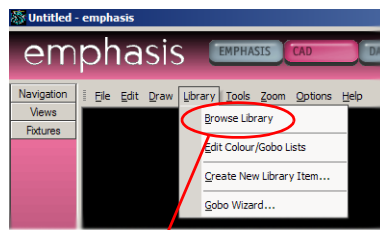
- Change to the plan view.
- In the **Draw** menu, click **Riser**.
The Riser dialog will open.
- Change the width to 6'-0" and click OK.
- Drag the riser to the upstage-left corner and click to place it.
- In the **File** menu, click **Save Show**.



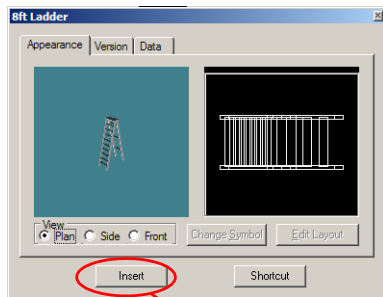
Step 9.b Step 9.c



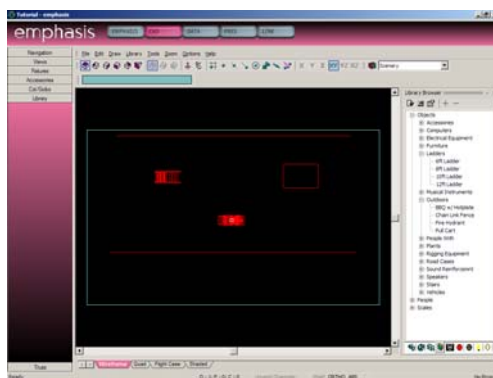
Step 9.d



Step 10.a



Step 10.d



Step 10.h

Step 10: Insert props.

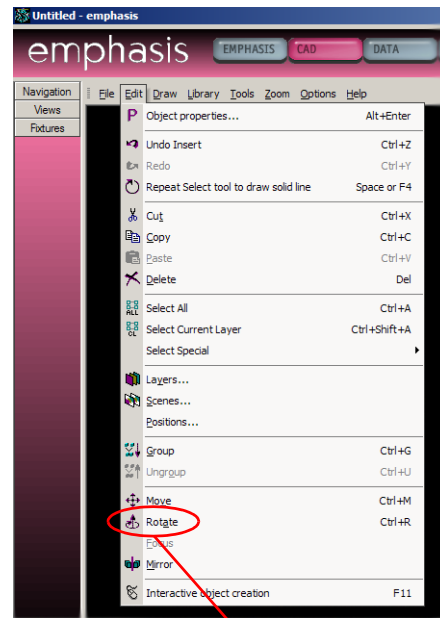
Emphasis contains a Library of thousands of objects. You can insert these objects into your drawing to represent scenic objects, seating and props.

- In the **Library** menu, click **Browse Library**.
- Click the "+" next to Ladders.
- Right-click the 8' Ladder and click **Property**. This allows you to view the object before you place it in your drawing.
- Click Insert.
- Drag the ladder to the upstage-right corner and click to place it.
- Click the "+" next to Outdoors.
- Double-click "BBQ w/Hotplate". Double-clicking the BBQ executes the Insert command without having to open the Properties window for the object. The BBQ will attach to the cursor.
- Drag the BBQ to down-center and click to place it.

Step 11: Rotate objects.

Objects are initially inserted into your drawing parallel to the X-axis (typically stage left to stage right). If you want the object to be placed at an angle, you will need to Rotate it.

- Click the XY Ortho button on the CAD Options toolbar to turn off Ortho constraints.
- Click on the BBQ to select it.
- In the **Edit** menu, click **Rotate**.
- Click on the object to set the base point for the rotation.
- Drag the mouse to rotate the object. Click when the object is rotated to the position you want.

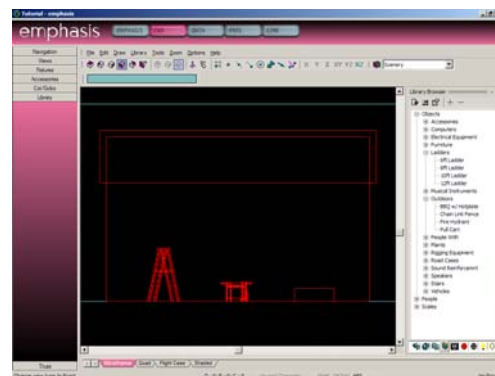
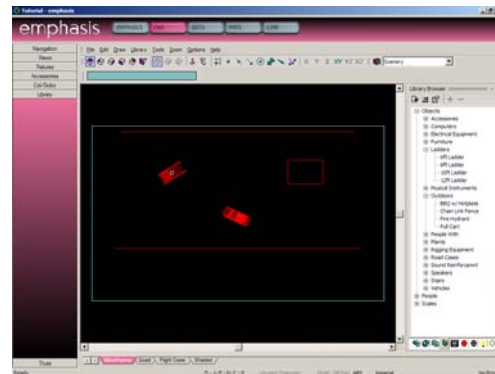


Step 11.c



Note: You can also type in the rotation angle in the ComEdit toolbar. 90 degrees is to the top of the screen in all views except isometric [Emphasis 3D Only], where it is dependent on the working plane.

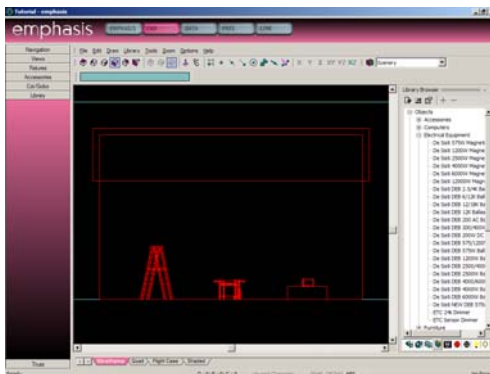
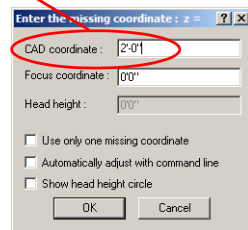
- Click on the ladder to select it.
- Follow steps b-d to rotate the ladder.



Step 12: Place objects on the Riser.

So far, you have placed objects directly on the stage floor. The stage floor has a height (Z-coordinate) of 0'-0" in this drawing. If you want to place objects above the floor, such as on top of the riser you have drawn, you will need to tell *Emphasis* to draw at a different height in the plan view. This new height is the "missing coordinate" for the plan view. Again, it's the value for the coordinate you can't see in a 2D representation of a 3D space. In this case, in plan view, you can see how wide and how deep an object is, but you can't see how high (or how high off the ground) it is. This step shows you how to set the missing coordinate to draw objects above the stage floor while in the plan view.

Step 12.a

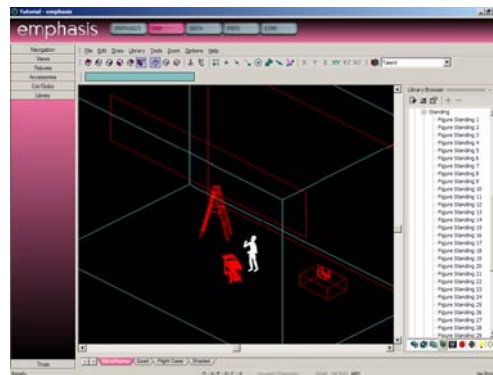


- In the plan view, press TAB and set the missing coordinate to 2'-0".
- In the Library Browser, click the "+" next to Electrical Equipment.
- Scroll down to find the "ETC Sensor Dimmer".
- Double-click ETC Sensor Dimmer. A dimmer pack will attach to the cursor.
- Drag the dimmer pack to the riser and click to place it.
- Change to a side or front view to see how everything is placed.

Step 13: Place a human figure in the drawing.

Emphasis contains a library of hundreds of human figures in various poses.

- In the Layers toolbar, click the down-arrow and click Talent. This sets Talent as the current layer.
- Press TAB and set the missing coordinate to "0".
- In the Library Browser, click the "+" next to "People".
- Click the "+" next to "Standing".
- Double-click Figure Standing 6. The figure will attach to the cursor.
- Click to place the figure behind the BBQ.

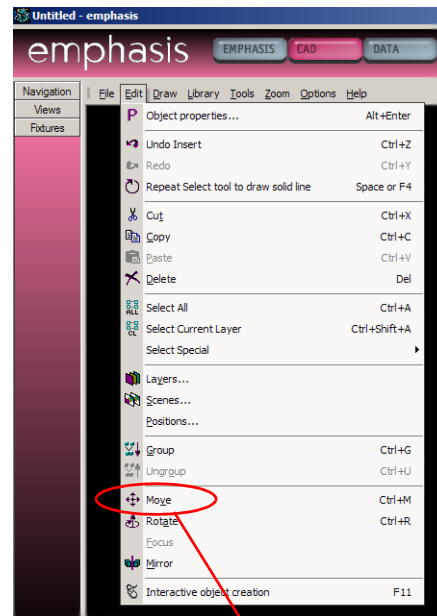


Step 14: Move Objects.

- Click on the object you want to move. If you want to move multiple objects, use CTRL+click to select them together.
- In the **Edit** menu, click **Move**.
- Drag the object(s) to their new position and click to place them.



Note: You can also use the ComEdit toolbar to enter the new coordinates for the selected object(s). These can be absolute (move to this point) or relative (move this far in this direction). Use F6 to toggle between absolute and relative movement.

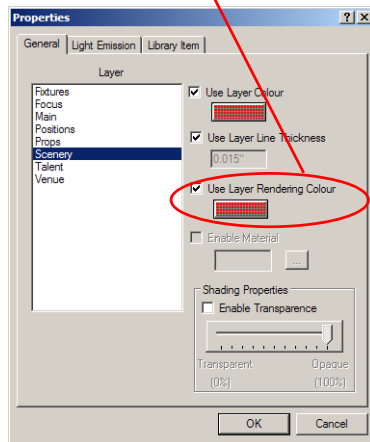


Step 14.b

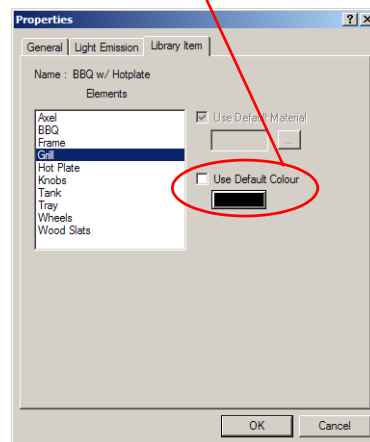
Step 15: Change the colour of objects.

Objects are drawn in the colour of their layer. Sometimes this is just what you want, sometimes you might want to customize objects individually. You can change the colour of individual objects in their Properties. For some library objects, you can change the colour of individual parts of that object as well. The colours you set for those parts will be visible in shaded views and renderings (Emphasis 3D only).

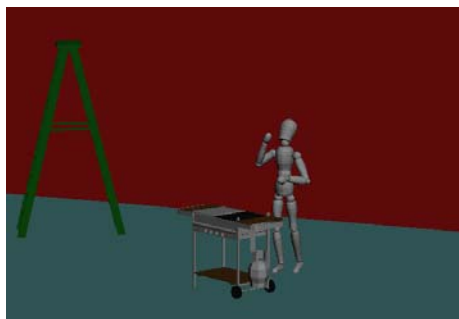
Step 15.c



Step 15.i



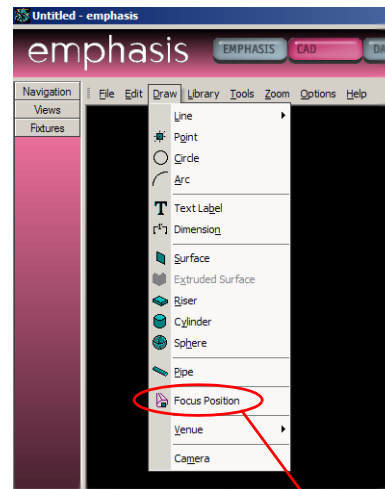
- Click on the ladder to select it.
- Right-click and click **Properties**.
- Uncheck "Use Layer Rendering Colour" and click on the colour box below it.
- Click the new colour for the ladder.
- Click OK.
- Emphasis 3D: Some objects can be multi-coloured. Click the BBQ to select it.
- Right-click and click **Properties**.
- Click the Library Item tab. Each of the elements listed on the left can have a different colour.
- Click on an element and uncheck "Use Default Colour".
- Click on the colour box and select the colour for that element.
- Repeat for as many elements as you would like to change. The colours you set will be visible in the shaded view and in renderings.



Step 16: Place focus positions in your drawing.

Focus positions are useful for focussing fixtures at a specific place in your plot. A focus position defines a point in space at which fixtures are pointed. You can place focus positions anywhere in your drawing, and assign those focus positions to fixtures. If you move the focus position, the fixtures will automatically update their focus information.

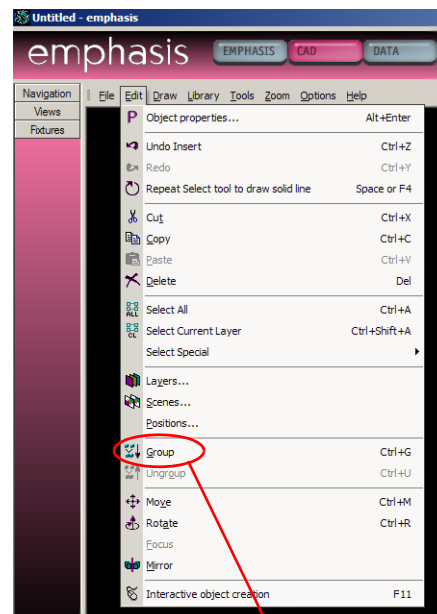
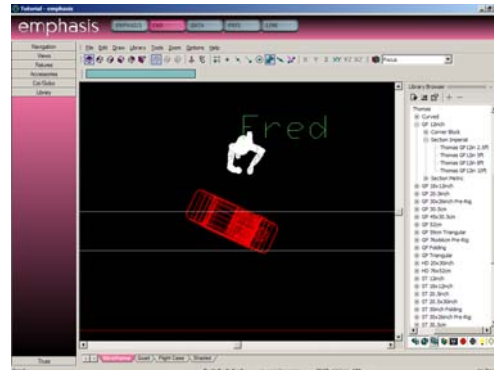
- In the Layers toolbar, click the down-arrow and click Focus. This will set Focus as the current layer.
- In the **Draw** menu, click **Focus Position**.
- Type in "Fred" as the name for the focus position and click OK. The new focus position will attach to the cursor.
- Press TAB to set the missing coordinate. Type in "5'-0"" and click OK.
- Click to place the focus position on the head of the figure standing behind the BBQ.
- Repeat and create focus positions for the ladder, the BBQ and the dimmer pack, resetting the missing coordinate to the correct height.
- Click and drag a box around Fred and his focus position to select them together.
- In the **Edit** menu, click **Group**. This will group the focus position and the object together. If you select one, the other is also selected. If you move one, the other will move with it.
- Repeat grouping the other objects with their focus positions.
- In the **File** menu, click **Save Show**.



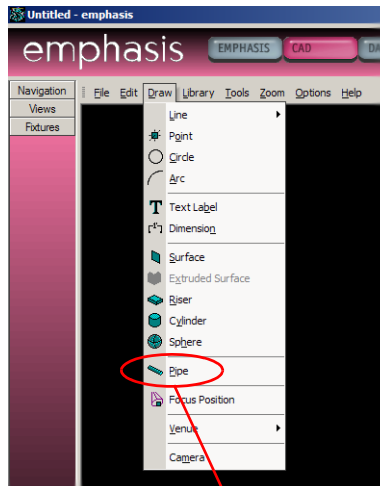
Step 16.b



Step 15.c

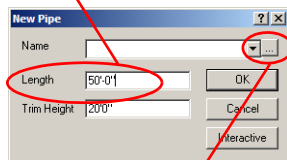


Step 15.h



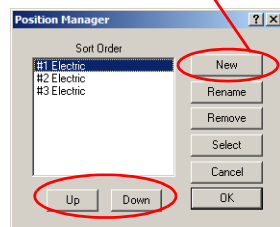
Step 17.b

Step 17.c

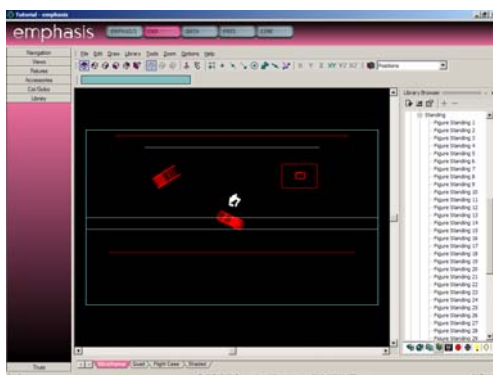


Step 17.d

Step 17.e



Steps 17.h-j




Step 17: Add lighting pipes to your venue.

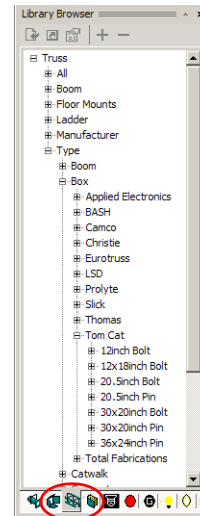
When you hang lights in your drawing, they must be placed on a hang structure, such as a pipe or a truss. The main difference between pipes and trusses is that pipes are drawn and trusses are library items. Other hang structures, like floor bases, ladders and booms are also found in the truss library.

- In the Layers toolbar, click the down-arrow and click Positions.
- In the **Draw** menu, click **Pipe**.
- Set the pipe length to 50'-0". The height for the pipe is set in the Draw Pipe dialog. We'll use the default height of 20'-0".
- Click the Position Manager button [...] to the right of the position name list.
- Click New.
- Type in "**#1 Electric**" and click OK.
- Repeat steps d-e for "**#2 Electric**" and "**#3 Electric**".
- Click on #1 Electric and click UP twice.
- Click on #2 Electric and click UP once. This changes the sort order so that in reports the #1 Electric is listed first, #2 Electric is listed next, etc.
- Click #1 Electric to select it and click OK.
- Drag the #1 Electric to 0'-0", -2'-0".
- Click to place the pipe.
- Press the SPACE bar to repeat the last command (in this case, Draw Pipe).
- Click the down-arrow to access the position name list. Click to select #2 Electric and click OK.
- Using the ComEdit toolbar, type "**0,0**" and press ENTER. This places the pipe at 0,0,20'-0".
- Press the SPACE bar to repeat the Draw Pipe command.
- Click the down-arrow to access the position name list. Click to select #3 Electric.
- Set the pipe's length to 30'-0" and click OK.

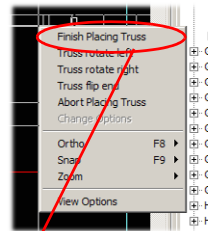
- s. Place the pipe at 0'-0", 12'-0" using the mouse or the ComEdit toolbar.

Step 18: Add a lighting truss to your venue.

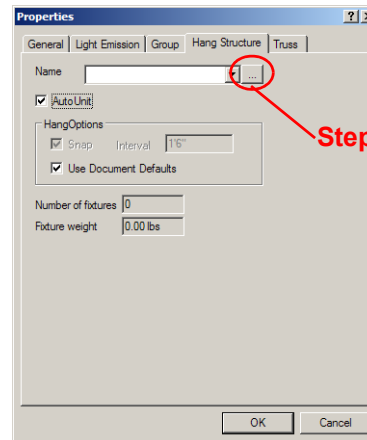
- a. In the CAD Options toolbar, click the Assembly Snap button. This will group the pieces of truss together as you place them, just as you would bolt them together in reality. 
- b. Press TAB and set the missing coordinate to 20'-0". Because truss is not drawn like pipes, you must set the trim height using the missing coordinate.
- c. In the Library Browser, click the Truss icon. Unlike pipe, truss is built from library objects.
- d. Find the following type of truss in the library: Thomas> GP 12inch>Section Imperial> Thomas GP12in 8ft.
- e. Double-click on the truss name. A piece of truss will attach to the cursor.
- f. Place your truss starting on the left side of the screen. Build a 40'-0" long truss (five sticks) above the ladder and riser. Make sure to place the pieces of truss on the snap points. You can tell where the snap point is because the piece of truss you are placing will automatically snap to that point when you drag the truss close by.
- g. Right-click and click **Finish Placing Truss**.
- h. Right-click on the truss and click **Properties**. Click on the Hang Structure tab.
- i. Click on the Position Manager button [...] and create the "Truss" position. Move it to the end of the sort list.
- j. Click on "Truss" and click OK.
- k. In the **File** menu, click **Save Show**.



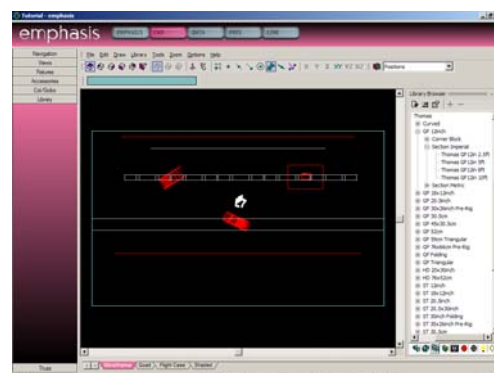
Step 18.c



Step 18.g



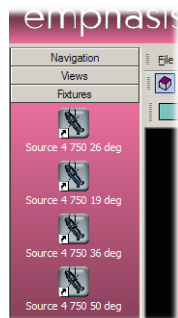
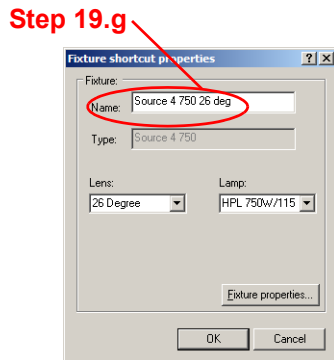
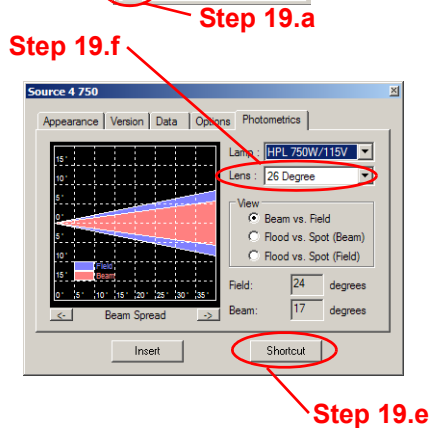
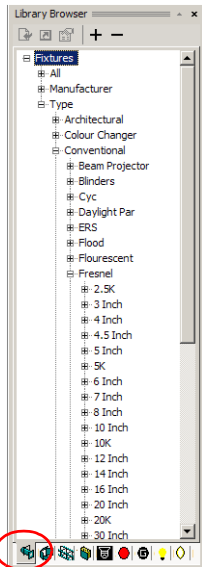
Step 18.i



Step 19: Create fixture shortcuts.

Fixture shortcuts give you quick access to fixtures you want to use in your plot.

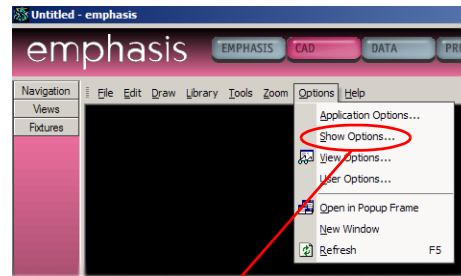
- In the Library Browser, click the Fixture icon to view available fixtures.
- Find the ETC Source 4 750.
- Right-click the ETC Source 4 750 and click **Property**.
- Click the Photometrics tab. Check the lens setting. The default setting is “26 Degree”.
- Click Shortcut. This will create a shortcut named “Source 4 750” with the 26 degree lens.
- Repeat, changing the lens setting before creating the shortcut, for 19 degree, 36 degree and 50 degree lenses. This will create three additional shortcuts for Source 4 750 luminaires with each lens type. They will be named “Source 4 750 1”, “Source 4 750 2”, and “Source 4 750 3”.
- Right-click each shortcut and click **Properties**. Rename each shortcut to be more descriptive of their lens settings.



Step 20: Set an interval for placing fixtures on pipes.

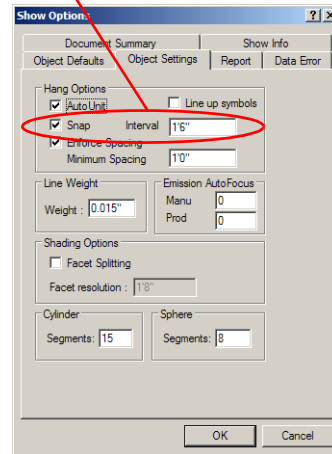
There is a feature that constrains placement of fixtures on pipes to a specific hang interval. This feature is called Pipe Snap. You can set a default interval for all pipes and trusses, or by individual hang structures.

- In the **Options** menu, click **Show Options**.
- Click the Object Settings tab. The default setting is for all pipes to have a snap interval of 1'-6", which is a typical distance for hanging conventional fixtures. If you make a change here, all pipes in your drawing will use that interval.
- If you want specific pipes to have interval settings different from the default, right-click the pipe and click **Properties**.
- Click the Hang Structure tab.
- In the Hang Options box, uncheck Use Document Defaults.
- Click the Snap box and type in the new value in the Interval box.
- Click OK.

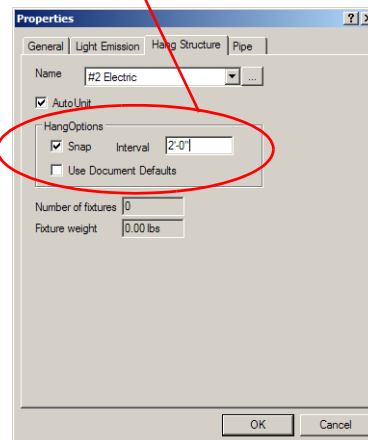


Step 20.a

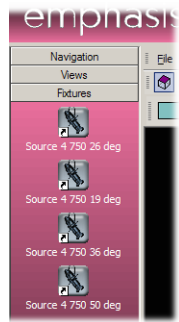
Step 20.b



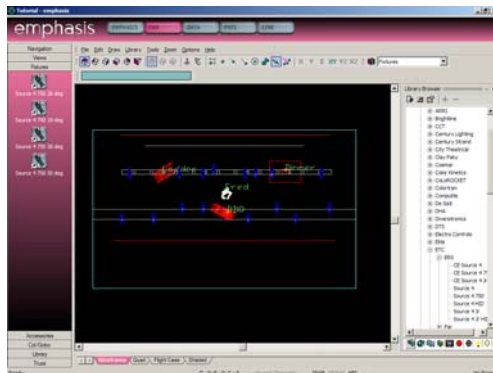
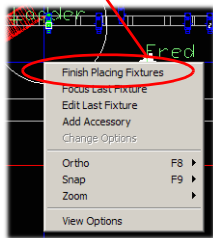
Step 20.c-g




Note: *Changing the interval properties, either in the Show Options dialog, or for an individual pipe, after fixtures have been placed will not move those pre-existing fixtures. Fixtures placed after that will use the new interval setting.*



Step 21.f



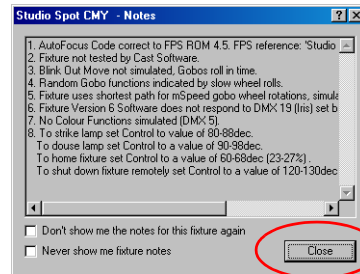
Step 21: Place fixtures on your pipes using shortcuts.

- In the Layers toolbar, click the down-arrow and click Fixtures.
- Click the Pipe Snap button on the CAD Options toolbar. 
- Click on a fixture shortcut. This will execute the insert command for that fixture type.
- Drag your cursor over pipes in your drawing. Note that you must place fixtures on hang structures. Emphasis will not allow you to place fixtures in your drawing unless they are placed on hang structures.
- Click on the pipes and truss to place fixtures of that type. Place a total of four fixtures for each focus position. They don't all have to be the same type of fixture.
- When done with that fixture type, right-click and click **Finish Placing Fixtures**.
- Repeat for all Source 4 fixtures you want to place.

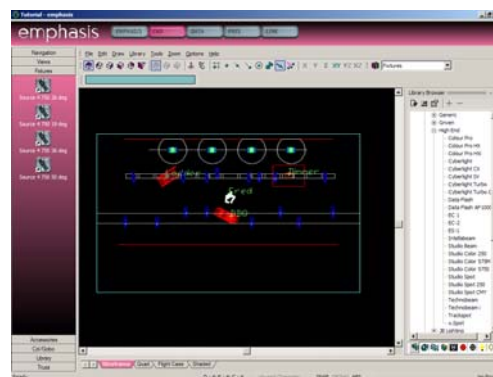
Step 22: Place fixtures on your pipes from the Library.

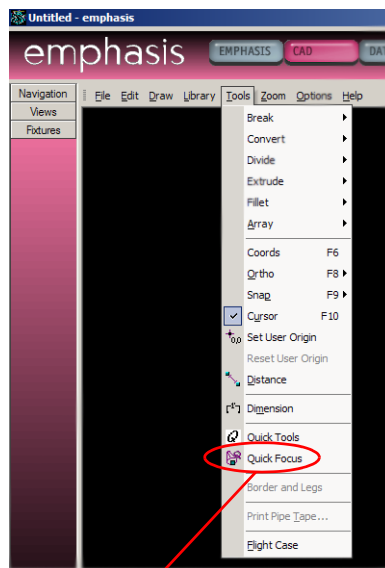
You can place fixtures directly from the Library Browser if you like. For fixtures you use frequently, you may want to create a shortcut.

- In the Library Browser, click the Fixture icon.
- Find the High End Studio Spot CMY and double-click its name. A fixture will attach to the cursor.
- Click to place the first fixture on a pipe or truss. A notes dialog will open, describing pertinent information about the fixture's profile. Click Close.
- Click to place three more Studio Spot CMY fixtures in your plot.
- When done, right-click and click **Finish Placing Fixtures**.

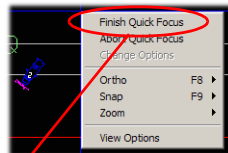
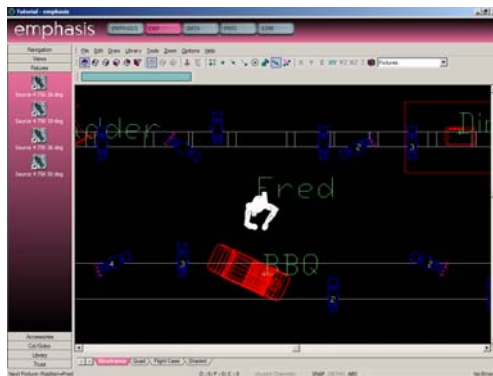


Step 22.c

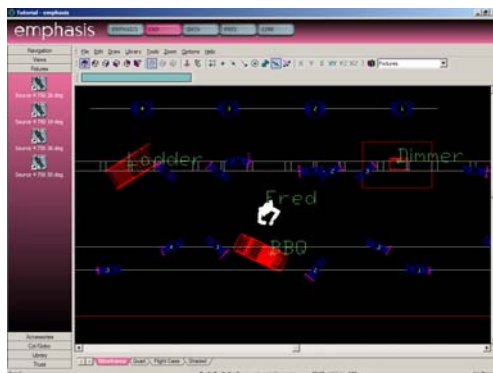




Step 23.a



Step 23.f



Step 23: Focus your lights using Quick Focus.

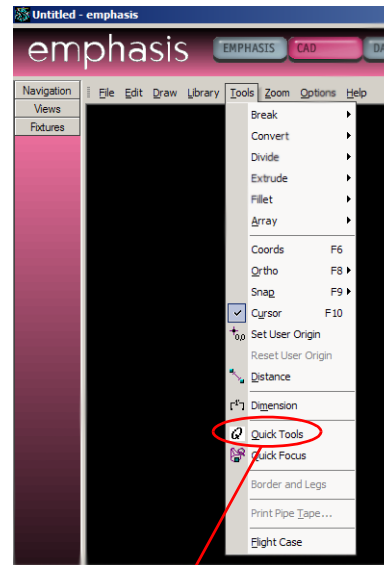
Quick Focus is a tool that automates setting the focus positions for conventional fixtures like your Source 4 luminaires.

- In the **Tools** menu, click **Quick Focus**.
- Click on Fred's focus position.
- Click on the lights you want to use to light Fred. Each one will adjust to point at Fred, and they will indicate "Fred" at the back of each fixture symbol.
- Click on the ladder's focus point, and then click on the lights you want to use to light the ladder.
- Repeat for the other focus positions in your drawing until all the Source 4 750 fixtures are focussed.
- Right-click and click **Finish Quick Focus**.
- Click on the ladder to select it and use the Move command to adjust its position on the stage. Watch the lights focussed at the ladder update to the new focus information.
- In the **File** menu, click **Save Show**.

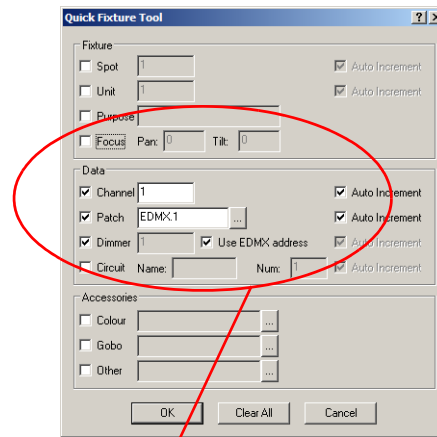
Step 24: Patch your fixtures using Quick Tools.

Quick Tools is a feature that lets you quickly set fixture properties like patch, colour and gobos. All of the data you set with Quick Tools can also be set or edited in Data mode.

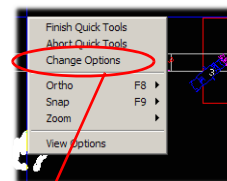
- In the **Tools** menu, click **Quick Tools**. The Quick Tools dialog will open.
- Uncheck the Focus box and check the Channel and Patch boxes. The Dimmer box will automatically become checked when you check Patch. All of these settings default to “Auto Increment”, which will allow you to just click on fixtures in the order you want to patch them. Quick Tools will assign them the next available Channel, Patch and Dimmer numbers.
- Click OK. A “Q” will appear beside the cursor, indicating that Quick Tools are active.
- Click on the Source 4 750 fixtures in the following order: Fred’s lights, BBQ lights, ladder lights, pack lights.
- When you are done with the Source 4 750 fixtures, right-click and click **Change Options**. This will reopen the Quick Tools Dialog, allowing you to change the settings.
- Check the Spot box. The Spot number is required for fixtures that are moving lights. It corresponds to the Fixture number on the Facepanel.
- Click OK. The “Q” should still be beside the cursor.
- Click on each of the Studio Spot CMY fixtures in your plot.
- Right-click and click **Finish Quick Tools**.



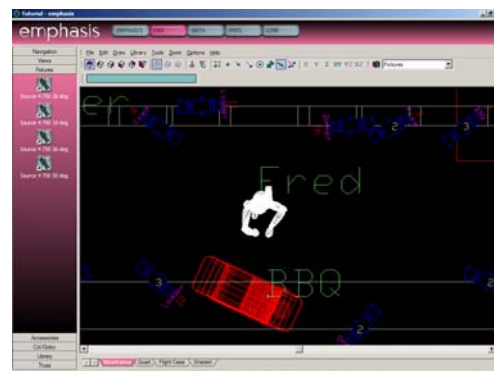
Step 24.a



Step 24.b



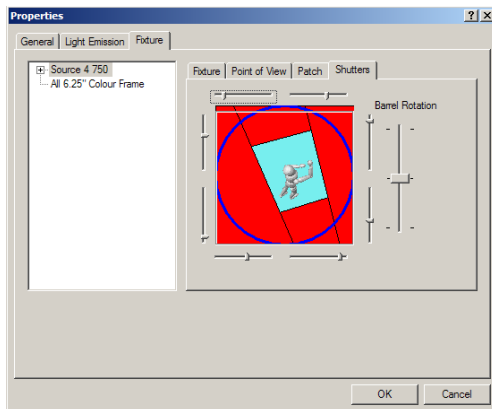
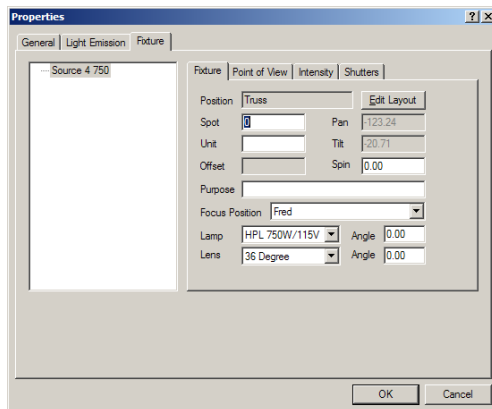
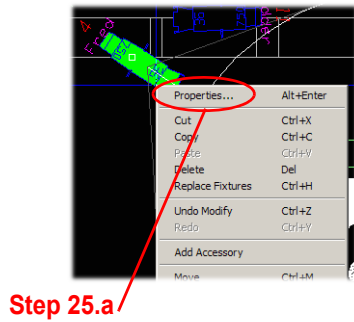
Step 24.e



Step 25: View your fixtures' properties.

Each fixture now has specific focus and patch information associated with it. You can view this data, as well as other fixture information, in CAD mode by viewing the fixture's properties.

- Right-click on a Source 4 750 fixture and click **Properties**.
- Click the Fixture tab. The Fixture tab displays a number of other tabs, which you can use to view specific information about that fixture.
- Click the Shutter tab. The Shutter tab displays the point of view of the selected fixture and gives you sliders to move the shutters. Shutter cuts are visible in the beam of the fixture in wireframe and shaded views, and renderings.
- In the **File** menu, click **Save Show**.



Step 25.c

Step 26: Edit fixture data in Data mode.

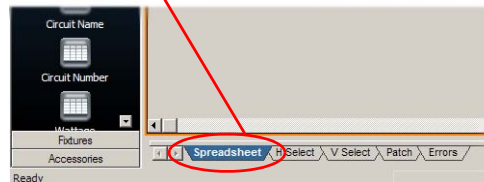
Data mode provides you a spreadsheet view of all the data associated with fixtures and controllable devices (such as colour scrollers, gobo rotators and other DMX-controlled devices) in your plot. You can enter and edit all the data you set with Quick Tools here as well.

- Click on the Data mode button at the top of the Emphasis Visualization screen.
- Click on the Spreadsheet layout tab at the bottom of the work area, if it is not already selected. Use the Columns shortcuts to change to commonly used views of your show data.
- Click on the All Data (Sortable) shortcut.
- Scroll to find the Focus column. Click on "Focus" at the top of the column to sort by the focus position.
- Select the Colour cells for the Source 4 750 fixtures lighting Fred by clicking in the first cell and dragging to select subsequent cells.
- Type "**R65**" and press ENTER. All the Source 4 750 fixtures will be given the colour R65.
- Select the Colour cells for the Source 4 750 fixtures lighting the ladder.
- Right-click and click **Pick value from the list**. A dialog opens with a scroll-down list of the colours already used in your plot.
- Click the Library button. A Library browser opens with the available colour manufacturers listed.
- Find GAM987 and click Select. The selected fixtures will be given the colour GAM987.
- Repeat to assign colours of your choice to the remaining conventional fixtures in your plot.
- In the **File** menu, click **Save Show**.

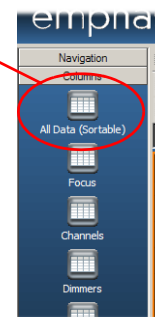
Step 26.a



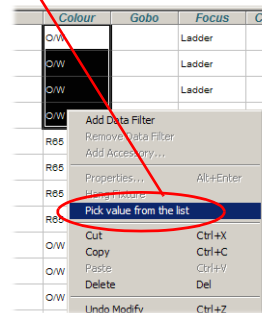
Step 26.b



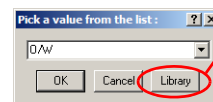
Step 26.c



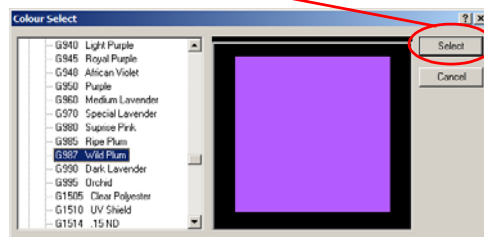
Step 26.h



Step 26.i



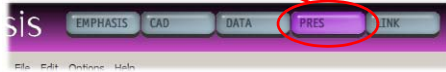
Step 26.j



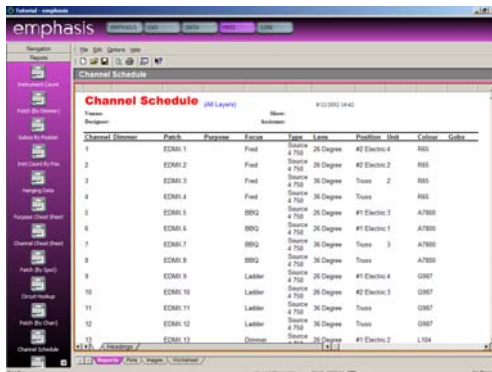
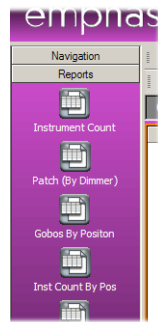
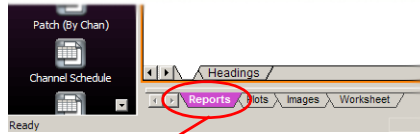
Step 27: Create reports.

Once the data has been entered for all your fixtures, you will probably want to create paperwork for the Electricians who will hang the show. This is done in the Presentation (PRES) mode. For more information, see [Reports, page 163](#).

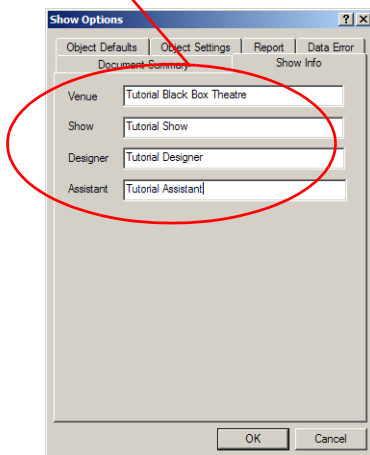
Step 27.a



Step 27.b



Step 27.f

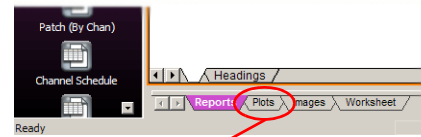


- Click on the PRES mode button at the top of the Emphasis Visualization screen.
- Click on the Reports layout tab at the bottom of the work area. Many typical types of show paperwork are already provided in the Reports shortcuts.
- Scroll to find the report shortcuts for "Channel Schedule" and "Instrument Schedule". Click on each one to view the report layout. You will notice that the report headings are blank.
- In the **Options** menu, click **Show Options**.
- Click the Show Info tab.
- Type in the names of your venue, show, designer and assistant.
- Click OK.
- Look at the report headings now. They will now show the names you entered in the Show Info dialog.
- Use the shortcuts to view some of the other reports that are provided. You can customize your own reports, if you like.
- If you have a printer attached to your Emphasis Server, you can print these reports using the **Print** command in the **File** menu.

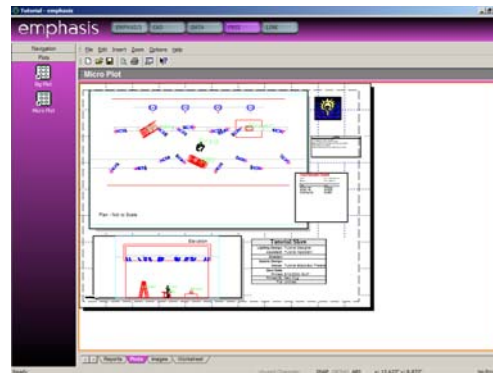
Step 28: Create a plot.

PRES mode is also where you create the printed light plot layouts. You can create as many different plot layouts as you like. For information on customizing your plot, see [Plots, page 167](#).

- a. Click the Plots layout tab at the bottom of the work area. Two basic plot layouts are provided for you. Micro Plot is designed for letter/A4 sized paper. Big Plot is designed for E/A0 sized paper (36"x48" or 840mm x 1188mm)
- b. Click the shortcut of the plot you want to view.

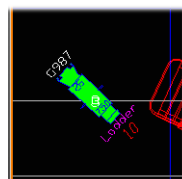
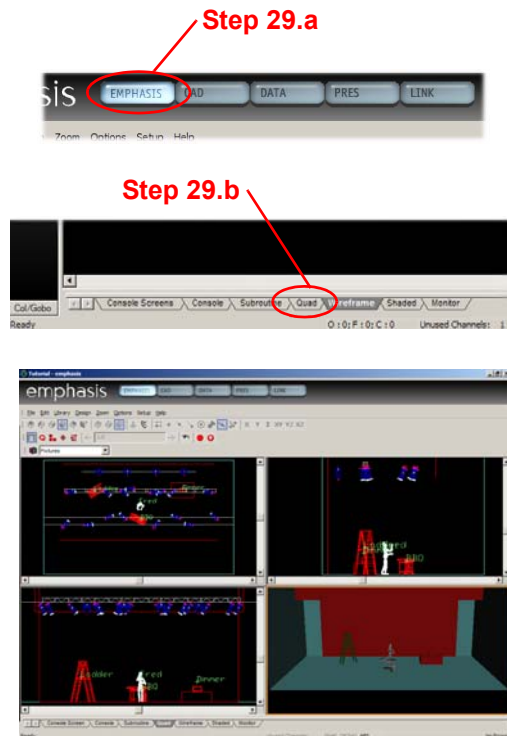


Step 28.a

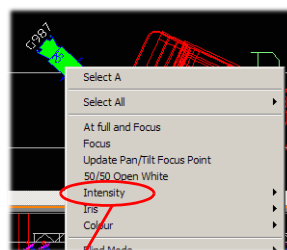


Step 29: Select and control lights.

You can select and control lights by using the Facepanel, or from within Emphasis mode.



Step 29.f

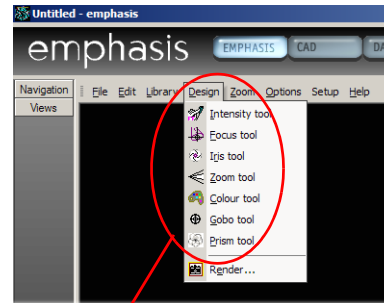


Step 29.g

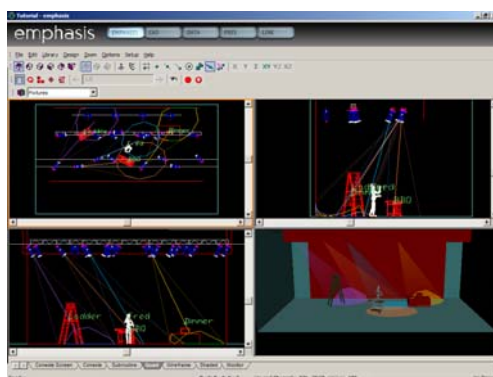
- Click on the Emphasis mode button at the top of the Emphasis Visualization screen.
- Click on the Quad layout tab.
- Click on the top left window in the Quad view and set it to the plan view.
- Click on the top right window in the Quad view and set it to a side view.
- Click on the bottom left window in the Quad view and set it to the front view.
- Click on a Source 4 750. It will turn green to indicate it is selected.
- Right-click on the fixture and click **Intensity**. You can choose one of the default levels, or use the Specify command to open a slider window. Set the level with the slider, or type the level into the % box and click OK. You can also use the Facepanel keypad, level wheel (Expression/Insight consoles only) or touch pad (Express consoles only) to set the level.
- Click on a Studio Spot CMY. It will turn green to indicate it is selected.
- Right-click on the fixture and click **50/50 Open White**. This will prepare the fixture for control by placing it at its “home” position at zero intensity. You can also select the fixture and prepare it for use by pressing **[S8-Fixture] [#] [Focus Point] [Enter]** on the Facepanel. Use the Facepanel encoders (Expression/Insight console only) or the arrow keys (Express consoles) and the fixture window to set levels for the fixture.
- [Emphasis 3D] Right-click the fixture and click **At level and Focus**. The level will either be

full, or the last level set with the Specify command described above.

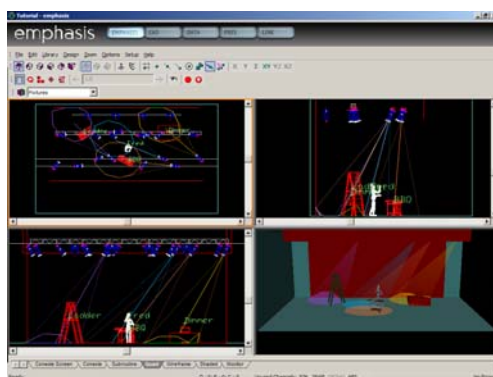
- k. [Emphasis 3D] Click on the screen to place the beam of the fixture. If you place the cursor near a focus position, you will notice that it snaps to that point. You can use this feature to focus beams directly at focus positions.
- l. [Emphasis 3D] Open the design tools in the **Design** menu. Use these tools to change the parameters of the fixture. You can also use the right-click menu to change some of the fixture's parameters. See [Using the Design Tools, page 179](#).



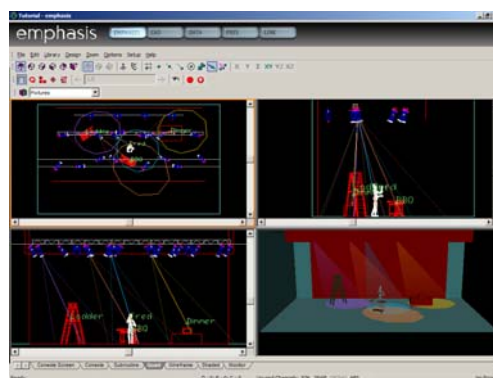
Step 29.l



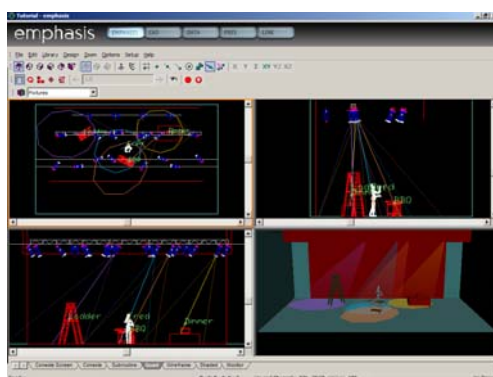
Cue 1



Cue 2



Cue 3



Cue 4

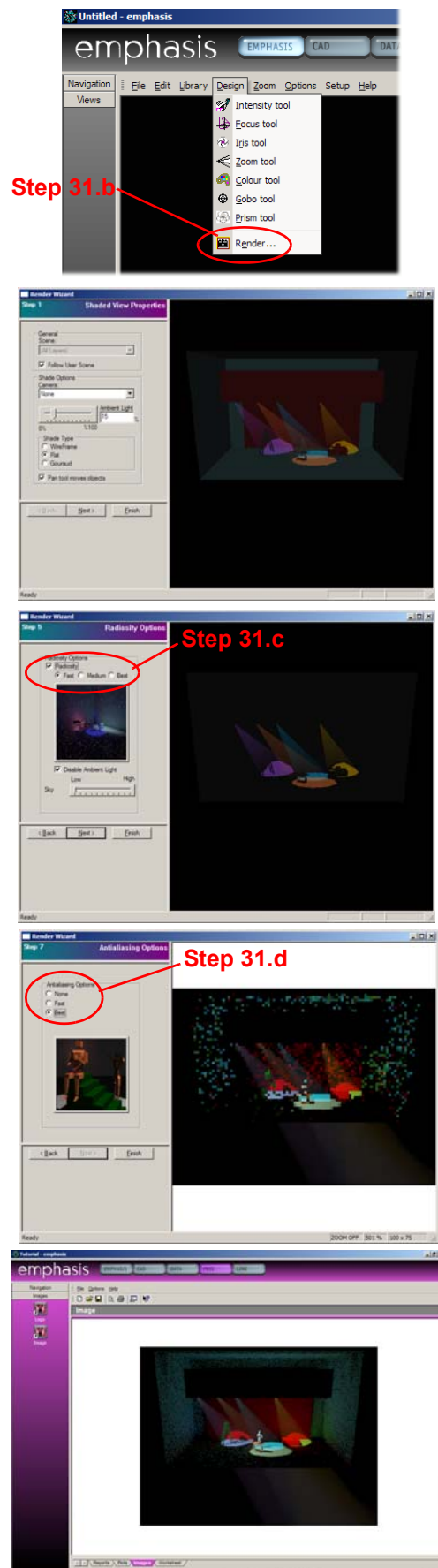
Step 30: Create a look and store cues.

- Using the control methods described above, create a look using one light on each focus position at full intensity.
- Press **[Record] [Cue] [1] [Enter]** on the Facepanel.
- Create another look, using a different light on each focus position.
- Press **[Record] [Cue] [2] [Enter]** on the Facepanel.
- Repeat, creating cues three and four using the remaining lights for each focus position. You should end up with four cues, each one using a different light on each focus position.
- Play back your cues to verify they look all right.
- In the **File** menu, click **Save Show**.

Step 31: Emphasis 3D: Create a Rendering.

In Emphasis 3D, you can create photo-realistic renderings of your lighting cues. There are many different settings you can play with to find the best look for your own renderings. Be aware that the size of your rendering, and the more realistic you want it to look, will affect the amount of time it takes to generate the image. Some renderings can take more than a day to complete. You can continue working while your rendering is “cooking”, but you may experience some performance slow-down. It is not recommended to process a rendering during show playback.

- Press **[Cue] [1] [AB Go]**. This plays cue #1 on the AB fader pair. If you have a cue active in the CD fader pair, press **[Clear]** above those faders.
- In the Emphasis mode **Design** menu, click **Render**. The Render Wizard will open.
- Click Next until you reach Step 5 - Radiosity Options. Click to enable radiosity.
- Click Next until you reach Step 7 - Antialiasing Options. Click to enable Best Antialiasing.
- Click Finish. Emphasis will begin to create the rendering.
- Make more renderings of the same look. Play with different settings to see how they affect the image quality of your rendering. By default, renderings are stored in PRES mode, in the Images layout tab.
- In the **File** menu, click **Save Show**.



Chapter 4

Managing your Show File

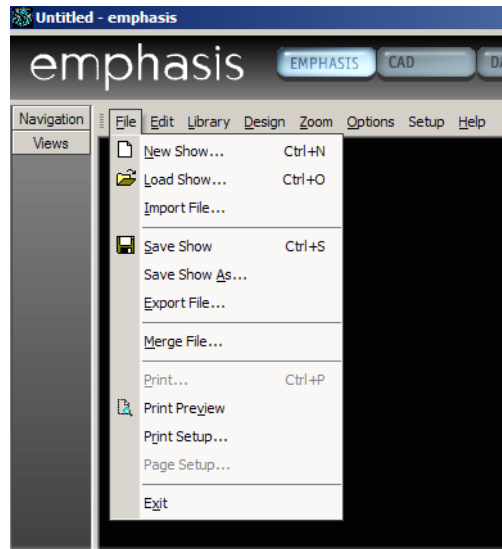
An Emphasis show file is, at its most base level, a database of lighting rig information combined with patch and cueing information. Your show file contains data that correspond to your CAD drawing of the venue, set and lighting rig; the patch data for your console; the cues, groups, submasters, subroutines and effects that make up your show; the images you have imported and the renderings you have created; the plots and reports you have designed, and various other types of information. This chapter covers the basic commands for working with your show file.

This chapter includes the following sections:

- ***File Menu***68
- ***Special File Menu Commands***72
- ***Options***76
- ***Saving your Work***79
- ***Create a Default Show***82

File Menu

The File menu contains the basic commands required to manipulate your Emphasis show file. The following commands can be found in every mode.



New Show

The New command creates a new show file. If another show file is currently open, you will be prompted to save changes to that show file before a new untitled file is created. Only one show file may be open at a time.

To create a new document:

- Step 1: In the **File** menu, click **New Show**. You will be prompted to save changes to the current show.
- Step 2: Click Yes to save changes to the current show and open a new untitled show file. Click No to not save changes to the current show and open a new untitled show file. Click Cancel to return to the current show without creating a new show file.

Load Show

The Load Show command opens a previously created show file. If another show file is currently open, you will be prompted to save changes to that show before another show file is opened. Only one show file may be open at a time.

To Load an existing show file:

- Step 1: In the **File** menu, click **Load Show**.
- Step 2: Click the file name in the list and click **Open**.

Import File

You can import a variety of file formats including new WYSIWYG file formats, Express/ion v3.1 show files, Emphasis Console files, DWG/DXF drawing formats, ASCII and others.

Import creates a new show file with the contents of the imported file.



Note: *The imported WYSIWYG file must be compatible with your version of Emphasis Visualization. If you have trouble importing a WYSIWYG document, you should save it to a previous release of WYSIWYG and try again.*

To import a file:

- Step 1: With the show file open, in the **File** menu, click **Import File**. You will be prompted to save the existing file. The 'Open' dialog will open.
- Step 2: Use the 'Look in' box to find the location of the file to import.
- Step 3: Select the type of file you want to import in the File Type box. The Open dialog will display only files of the selected type in the browser.
- Step 4: Click the file name to highlight it and click Open. You can also double-click the file name to begin the import. Emphasis will create a new show file named "untitled" with the contents of the imported file.

Save Show

The Save Show command saves the open show to the same file name in the Shows directory. If the document is being saved for the first time, this command will perform the Save Show As function.

To save your document:

In the **File** menu, click **Save Show**.



Note: *You may also use **[S3-Save Show]** in the Facepanel Setup menu, if the show has been stored previously using the Save Show As command.*

Save Show As

The Save Show As command is used to save the currently open show to a new file name in the Shows directory.

To Save Show As:

- Step 1: In the **File** menu, click **Save Show As**.
- Step 2: In the dialog that opens, type the name of the file in the Show Name box.
- Step 3: Click OK.

Export File

When you save a show file using the Save Show and Save Show As commands in the File menu, they are stored as complete “.ecs” files, which contain the Visualization and Console data combined. It is also possible to extract portions of the file and save them separately, for use in v3.1 consoles, or in WYSIWYG Report, Design and Perform. You can also extract the data into an ASCII show format for transfer to other compatible consoles.

To export from the current show file:

- Step 1: With the show file open, in the **File** menu, click **Export File**. The ‘Save show to file’ window will open.
- Step 2: Use the ‘Save in’ box to find the destination for the exported file.
- Step 3: Type the name of the exported file in the ‘File name’ box.
- Step 4: Select the type of file you want to export in the File Type box. There are the following different file types:
- .shw - This allows the show data to be read by Expression and Express v3.1 consoles. Show files MUST be named exactly “exp2.shw” in order to be read by v3.1 consoles. For more information on using an Emphasis show file with v3.1 software, please see [Revert to v3.1 Software, page 247](#).
 - .asc - This allows export to ASCII format.
 - .wyg - This will extract the WYSIWYG elements of the file to be used in stand-alone WYSIWYG Report, Design and Perform. If the file is comfortably under 1.4MB you can save to floppy on the A: drive. If the .wyg file is larger, you can save it to CD, using the method described in [File structure and disk functions, page 80](#). On ejecting the CD, choose the “Close to read on any computer” option. This closes the session so it can be read by a CD-ROM drive on any PC.



Note: *In order to maintain backward-compatibility with older versions of WYSIWYG, you have the option of exporting to the most recent version of WYSIWYG, or to previous releases. Make sure you export to the proper release of WYSIWYG.*

- Step 5: Click the Save button to export your data to the selected file name and type.

Merge

You can merge a variety of file formats including new WYSIWYG file formats, Express/ion v3.1 show files, DWG/DXF drawing formats, ASCII and others.

Merge selectively inserts data into an existing show file. Merge will add the contents of the source file to the current file. For example, if you have drawn a venue and other plot items in the CAD mode, and then merge in a DWG file, the DWG will be added to the drawing you created in CAD mode.

To merge a file:

- Step 1: With the show file open, in the **File** menu, click **Merge File**. The 'Merge' dialog will open.
- Step 2: Use the 'Look in' box to find the location of the file to merge into the current show file.
- Step 3: Select the type of file you want to merge in the File Type box. The Open dialog will display only files of the selected type in the browser.
- Step 4: Click the file name to highlight it and click Open, or double-click the file name. Emphasis will add the contents of the merged file to the current show file.

Print

The Print command varies from mode to mode. In general, this command prints the current view in the work area to the currently selected printer. Depending on the mode you are in, this may print directly or it may open a dialog box if options must be set before printing can happen. Special printing circumstances are described later in this manual.

Print Preview

Print Preview displays a window on-screen that displays how the document will look when printed. This gives you the option to double-check that the printed output is exactly what you want.

Print Setup

The Print Setup dialog box allows you to choose the print destination, the page orientation and size, and paper tray (if applicable). The print destination may be a physical printer, or it may be a file type. Paper size and source options will correspond to the printer type selected.

Exit

Use the Exit command to exit Emphasis. If you have made changes to your document but have not saved yet, you will be prompted to save your changes before exiting.

To exit Emphasis:

- Step 1: In the **File** menu, click **Exit**.
- Step 2: When prompted to save changes to the current show document, click Yes to save changes and exit Emphasis. Click No to skip saving and exit Emphasis. Click Cancel to skip saving and not exit Emphasis.



Note: *You can also use the close button in the upper-right corner of the Emphasis Visualization screen.*

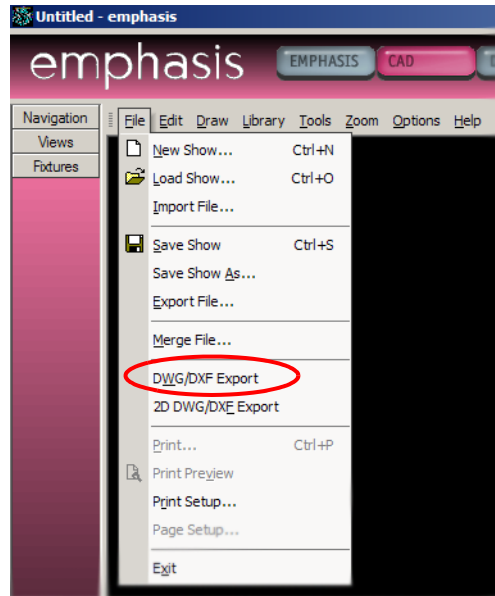
Special File Menu Commands

DWG/DXF Export (3D, CAD Mode)

This command exports the CAD contents of the current show file to a 3D DWG or DXF formatted file. DWG and DXF formats are used to transfer documents to Autodesk AutoCAD® software or other compatible drafting applications.

To export to DWG or DXF format:

Step 1: In the **File** menu, click **DWG/DXF Export**.

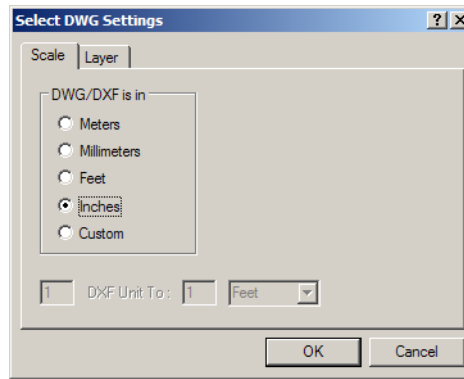


Step 2: In the dialog that opens, use the browser to find the destination of the exported file. Ensure that the destination appears in the Save in box.

Step 3: Type the name of the exported file in the Save in box.

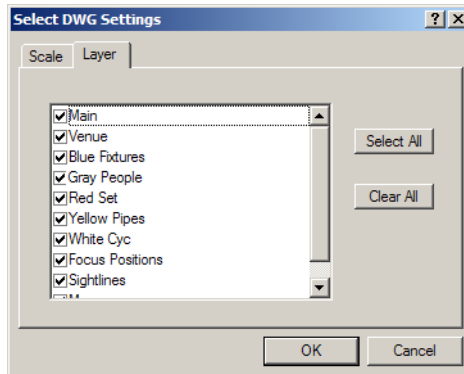
Step 4: Choose the exported file type in the File type box. There are a number of choices available for file type, based on AutoCAD software versions.

Step 5: Click the Save button. The DWG Settings box will open.



Step 6: Click the Scale tab. Click to select the units to be used in the DWG/DXF drawing.

Step 7: Click the Layer tab. Select the layers you want to include in the DWG/DXF drawing.



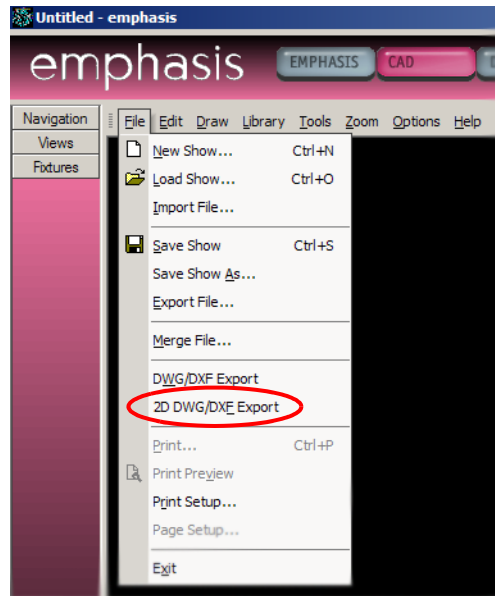
Step 8: Click OK.

2D DWG/DXF Export (3D and 2D, CAD Mode)

This command exports the CAD contents of the current show file to a 2D DWG or DXF formatted file. DWG and DXF formats are used to transfer documents to AutoCAD software or other compatible drafting applications.

To export to 2D DWG or DXF format:

Step 1: In the **File** menu, click **2D DWG/DXF Export**.



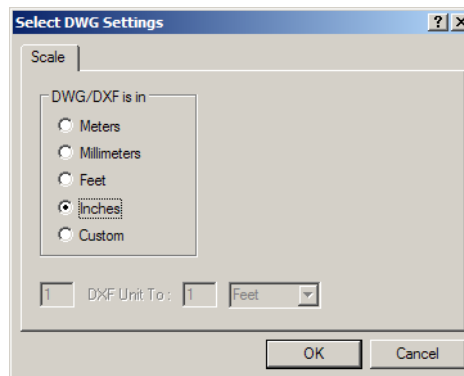
Step 2: In the dialog that opens, use the browser to find the destination of the exported file. Ensure that the destination appears in the Save in box.

Step 3: Type the name of the exported file in the 'Save in' box.

Step 4: Choose the exported file type in the 'File type' box. There are a number of choices available for file type, based on AutoCAD software versions.

Step 5: Click the Save button. The DWG Settings box will open.

Step 6: Under the Scale tab, click the radio button for the units to be used in the 2D DWG/DXF drawing.



Step 7: Click OK.

Export Spreadsheet and Export Report

The Export Spreadsheet (Data Mode) and Export Report (PRES mode) commands perform the same function. They will export data from the current spreadsheet or report to a file of the following types:

- Formula One (.vts)
- Excel 5 or 7 (.xls)
- Tabbed Text (.txt)
- Tabbed Text Values only (.txt)
- HTML (.htm)
- HTML Data only (.htm)
- Formula One 2.x (.vts)
- Excel 4 (.xls)

To export a spreadsheet:

- Step 1: In Data mode, open the spreadsheet view you want to export.
- Step 2: In the **File** menu, click **Export Spreadsheet**. The Export dialog will open.
- Step 3: Use the 'Save in' box to find the destination for the exported file.
- Step 4: Type the name of the exported file in the 'File name' box.
- Step 5: Select the type of file you want to export in the 'File type' box.
- Step 6: Click the Save button to export your data to the selected file name and type.

To export a report:

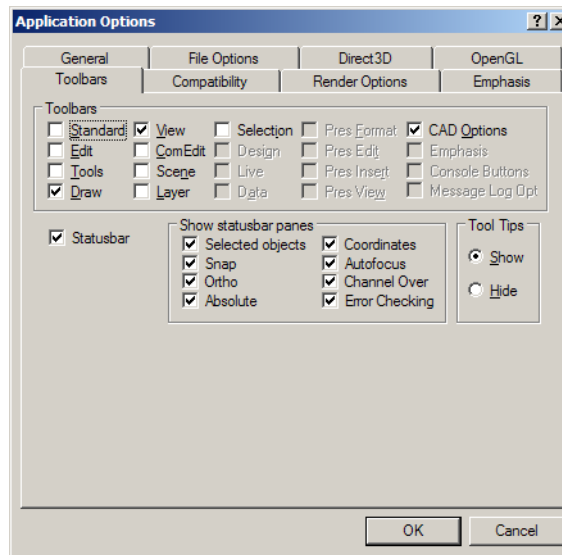
- Step 1: In PRES mode, open the report view you want to export.
- Step 2: In the **File** menu, click **Export Report**. The Export dialog will open.
- Step 3: Use the 'Save in' box to find the destination for the exported file.
- Step 4: Type the name of the exported file in the 'File name' box.
- Step 5: Select the type of file you want to export in the 'File type' box.
- Step 6: Click the Save button to export your data to the selected file name and type.

Options

Emphasis offers you many options to customize the functionality of the software. Options are viewed and set in the Options Menu.

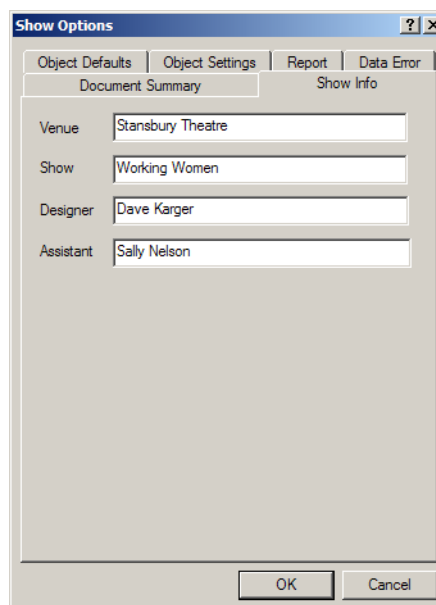
Application Options

The Application Options settings are for general settings of the Emphasis software. This includes General settings, File Options, Direct 3D and OpenGL settings, Toolbar visibility, Compatibility and Render Options.



Show Options

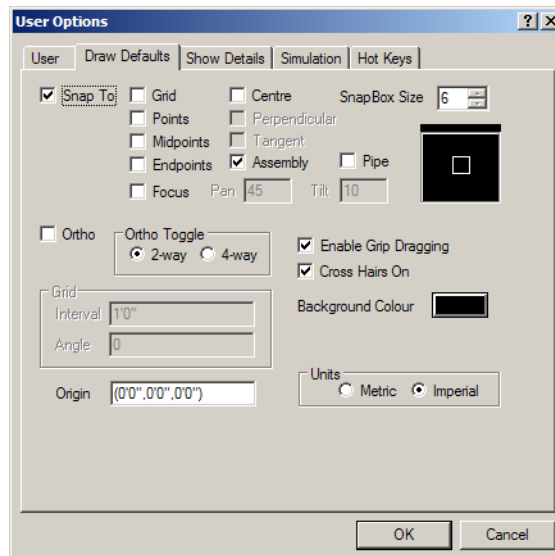
Show Options settings are specific to the current show document. These include Document Summary, Show Info, Object Defaults, Object Settings, Report settings and Error settings.



- Document Summary allows you to enter the name of the person who created the document, the name of the person who last modified the document and any comments you want to include with the file. The date stamps are not editable, but will track the creation and modification dates of the file.
- Show Info is where you enter the venue, the show, the Designer and Assistant's names.
- Object Defaults contains default settings for the Regional Profile which determines things such as which lamps are used in which fixtures. This also sets how points will be displayed.
- Object Settings gives you the option of changing how various objects are placed or drawn in CAD mode.
- Report settings allows you to set default values for empty or non/applicable cells in spreadsheets.
- Error settings control what types of data errors will trigger notification boxes.

User Options

User Options set your preferences for how you want Emphasis to work. Many of the settings here are directly connected to commands in the modes. You can use the User Options dialog box to set or change many of these at one time. User Options include User settings, Draw Defaults, Show Details, Simulation and Hot Keys settings.



- User settings include Current Scene selection, Options, Pipe drawing mode, Missing Coordinate and Focus mode settings.
- Draw Defaults include snap, ortho, grid and units settings.
- Show Details is where you set the amount of information shown on your drawing. This includes how much data is shown on the plot.
- Simulation settings are only set for Emphasis 3D. These settings determine how detailed simulation views are and can affect the speed of beam rendering in simulation views.

- Hot Keys shows the available hot key settings for the various modes. Hot keys speed access to commonly used commands. For example, when you are working in a wireframe view in CAD mode, you can insert a riser by pressing the R key on your keyboard, instead of clicking on the Riser command in the Draw menu. You can change the hot key settings by clicking on the command you want to change and typing the new hot key into the box to the right of the list. Tabs above the hot key list allow you to view the hot key settings for the different views.

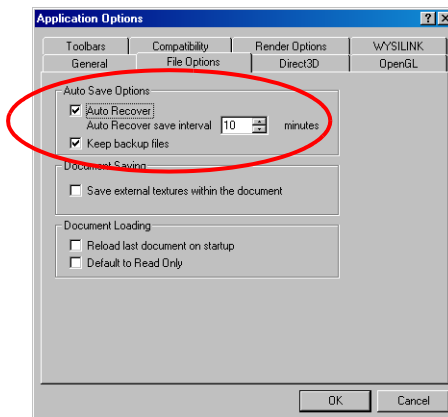
Saving your Work

It is important to save your work often during your work session. Emphasis has an Auto Save function that will help to keep your data safe, however it is always a good idea to get in the habit of saving your show document to an external disk periodically during your work session.

To set the Auto Save options:

Step 1: In the **Options** menu, click **Application Options**.

Step 2: Click on the File Options tab.



Step 3: In the Auto Save options box, you have the following choices:

- Auto Recover will save your document at intervals. If for some reason Emphasis closes unexpectedly, such as in the case of a power loss, your file can be recovered. This recovery will only be up-to-date as of the last Auto Save, so it is recommended that you do not set this interval to be too long.
- Keep Backup Files will save a backup copy of your document. If Emphasis exits unexpectedly, this file will restore your work when you restart the system.
- The default settings for these options are: Auto Recover enabled with an interval of 10 minutes and Keep Backup Files enabled.




Note: *When you create a new show, use the Save Show As command right away. This not only allows you to name your show at the beginning, but it also makes Auto Recover active from the beginning of your work session.*

File structure and disk functions


Emphasis stores show data in a “show file”. You must always work within a show file. When booting, Emphasis will open to the last valid show file used in the system, if available. If that show file is not available, Emphasis will open to the default 'Untitled' file. It is recommended that you begin by saving the show file to the name you intend to use, rather than work in the “untitled” file. Shows are saved to the hard drive on the Server. You may copy show files to external media, such as to CD or to a floppy disk. Be careful using floppy disks, as show files can exceed the maximum capacity of the disk. It is recommended that you use CD-R disks for show file storage.

Unlike many traditional Windows applications, Emphasis limits you to one directory for saving and loading shows. There is no browsing. Browsing is only available when importing, merging and exporting files (see [Import File, page 69](#), [Merge, page 70](#) and [Export File, page 70](#)).

To save a show file to floppy disk (if it is small enough):


- Step 1: In the **File** menu, click **Save Show** to save as the current show name, or **Save Show As** to save to another name. This saves your show to the Server hard drive.
- Step 2: Minimize the Emphasis application.
- Step 3: Right-click on **Start** menu on task bar and click **Explore**. Alternatively, you can press +E to launch Windows Explorer at any time.
- Step 4: Find your show file name in D:\ETC\Shows.
- Step 5: Insert a 3.5” floppy disk into the drive and copy your show file to the A: drive.
- Step 6: Click Emphasis on the Windows Task Bar to maximize Emphasis Visualization.

To save a show file to CD:

- Step 1: In the **File** menu, click **Save Show** to save as the current show name, or **Save Show As** to save to another name. This saves your show to the Server hard drive.
- Step 2: Minimize the Emphasis application.
- Step 3: On the desktop, double-click on **Easy CD Creator 5 Basic**.
- Step 4: Follow steps to complete the initial license agreement (first time only).
- Step 5: Click ‘make a data cd’ button and choose ‘directCD’.
- Step 6: Insert new CD-R and choose to format CD.
- Step 7: When completed, right-click on **Start** menu on task bar and click **Explore**. Alternatively, you can press +E to launch Windows Explorer at any time. Find your show file name in D:\ETC\Shows.
- Step 8: Copy your show file to the E: drive.
- Step 9: Eject the CD. You are offered 3 options for how you want to use the CD.
- Step 10: Choose the “Leave as is” option. This leaves the read/write session on the CD open and gives you multiple use for multiple file storage.

Step 11: Click Emphasis on the Windows Task Bar to maximize Emphasis Visualization.

To read a show file from floppy or CD:

- Step 1: Minimize the Emphasis application and right-click on **Start** menu on task bar and click **Explore**. Alternatively, you can press +E to launch Windows Explorer at any time.
- Step 2: Copy the file from the A: or E: drive to D:\ETC\Shows.
- Step 3: Click Emphasis on the Windows Task Bar to maximize Emphasis Visualization.
- Step 4: In the **File** menu, click **Load Show**. The show file list will open.
- Step 5: Click the show file name to highlight it, then click Open. You can also double-click the show file name to open it.

Create a Default Show


A Default show behaves like a template for basic information you may not want to re-enter every time you create a new Emphasis show file. The Default show could contain things like a drawing of your venue with hanging positions, a listing of your stock inventory of fixtures and accessories, and default report types and plot layouts. If your venue keeps a repertory plot hung, you may also want to include the fixtures in their rep hanging positions and patch information.

If a show named "Default" exists in your show directory, Emphasis can automatically open an untitled copy of that show on startup, if you wish. The Default show is also the base for any new show. This saves you the time and work of re-entering all the basic information for your venue and your preferences for report and plot layouts every time you create a show file for that system.

To create a Default show:

- Step 1: Create your show file as normal. Include as much (or as little) information as you want.
- Step 2: In the File menu, click Save Show As.
- Step 3: Enter "Default" as the show name in the Save As dialog.
- Step 4: Click OK.

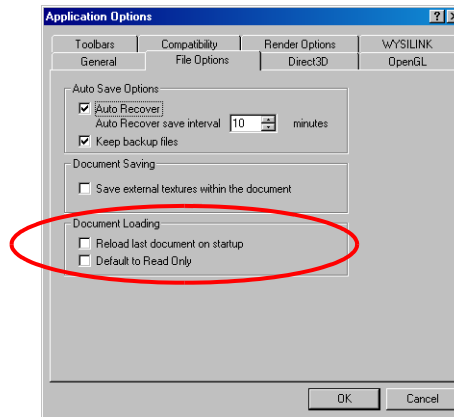
To delete a Default show:

- Step 1: If Emphasis is running, ensure that the Default show is not the currently loaded show file. Look in the upper-left corner of the Emphasis window to see the currently loaded show.
- Step 2: Press +E to launch Windows Explorer.
- Step 3: Navigate to the D:\ETC\Shows folder.
- Step 4: Right-click the Default.ecs file and click **Delete**.
- Step 5: Click Yes to send the file to the Recycle Bin. Click No to abort the delete command.
- Step 6: Close Windows Explorer.

To change the default start-up behavior:

Step 1: In the Options menu, click Application Options.

Step 2: Click the File Options tab.



Step 3: In the Document Loading section of the dialog, uncheck “Reload last document on startup” to cause an untitled copy of the Default show to open every time Emphasis starts up.



Note: *If “Reload last document on startup” is checked, and the last document is no longer available, Emphasis will open an untitled show instead. If the Default show exists in the Shows directory, this untitled show will be a copy of the Default show. If “Reload last document on startup” is unchecked, and the Default show does not exist in the Shows directory, Emphasis will open an empty untitled show on startup.*

Chapter 5

CAD Mode

CAD mode is where you create your show drawings. This includes drawing your venue, set pieces, lighting positions, focus positions and lighting fixtures. CAD mode operates like many other CAD programs, so many of the concepts will be familiar to those who have used a computer-aided drafting program. Emphasis adds features that are specific to the entertainment industry, such as a comprehensive library containing 3D symbols for truss, lighting equipment and accessories, as well as props, musical instruments and various human figures.

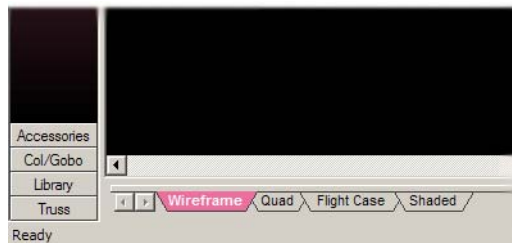
This chapter includes the following sections:

• Layout Tabs	86
• Wireframe Views	87
• Shaded Views (Emphasis 3D Only)	139
• The Flight Case	141
• Printing from CAD Mode	144

Layout Tabs

Beneath the work area in each mode is a series of layout tabs. These layouts provide various ways to view the data you are working with. To change layouts, click on the tab that corresponds to the layout you wish to use. The CAD screen contains layout tabs specific to the CAD mode.

- Full screen - work area displays full screen wireframe view
- Quad - The work area is divided into quadrants that may be modified individually to show plan, front, back, or side wireframe views. In Emphasis 3D, the lower-right quadrant contains a shaded view instead of the fourth wireframe view.
- Flight Case - Flight Case is displayed in a section of the work area along with a plot view.
- Shaded - Available in Emphasis 3D, the work area displays full screen shaded view.



Wireframe Views

When you first create a new show file and enter CAD mode, Emphasis will default to the Wireframe view. In a wireframe view, you can draw shapes, objects and place library items. In Emphasis 3D, you can use the Quad view to display three wireframe views and a shaded view of your drawing.

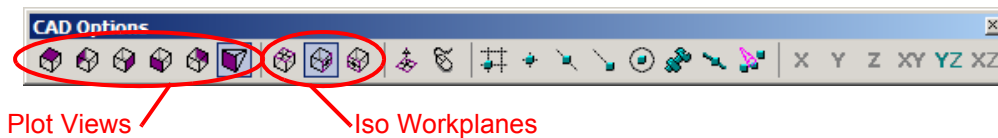
The Plot

All objects are shown as three-dimensional objects in all wireframe views with their appropriate faces displayed in each type of view.



Note: *There is one exception to this in Emphasis 2D. Fixtures will be shown as symbols rather than 3D objects. In Emphasis 3D, fixtures may be shown as symbols or 3D objects.*

There are six types of plot views, accessible from the CAD Options toolbar. Each of these views indicates a “missing coordinate”. This is the coordinate that cannot be seen in a two-dimensional representation of three-dimensional space. For more information on the missing coordinate, see [The Missing Coordinate, page 90](#).



Plan View

Plan views display the plot from above looking down. This is similar to a plan view drawing on paper. In plan views the missing coordinate is Z.



Left View

Left views display the plot looking from the left side through the venue. This is similar to a section on paper. In left views the missing coordinate is X.



Right View

Right views display the plot looking from the right side through the venue. This is similar to a section on paper. In right views the missing coordinate is X.



Front View

Front views display the plot looking from the front of the stage. This is similar to an elevation on paper. In front views the missing coordinate is Y.



Back View

Back views display the plot looking from the back side through the venue. This is similar to an elevation on paper. In back views the missing coordinate is Y.



Isometric View [Emphasis 3D Only]

Available in Emphasis 3D, Isometric views display the plot looking from a view point. To adjust the view point hold down the CTRL (Control) key and press an arrow key in the direction you wish to move the viewpoint. In isometric views the missing coordinate is dependent upon the type of workplane selected.

XY Workplane



YZ Workplane



XZ Workplane



Keyboard and Mouse Control

To modify the point of view:

- Use the arrow keys to pan around any wireframe view.
- Use the PAGE UP/PAGE DOWN keys to zoom in and out of a view.
- On pointing devices equipped with a scroll wheel, use the scroll wheel to zoom in and out of a view.

The CAD Environment

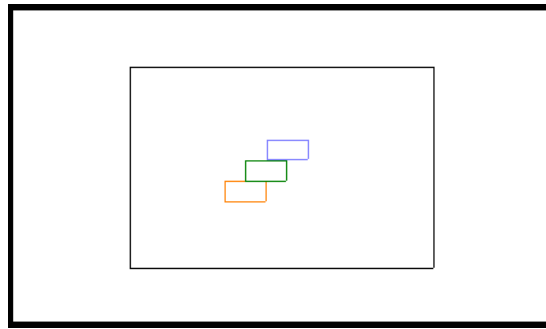
When you create a drawing in CAD, you are generating a virtual representation of your real venue, set and lighting rig. If you were to do this by hand on paper, you would need to draw a scaled-down version of your space. Because the computer doesn't have the spatial limitations of a sheet of paper, you can draw your venue, sets, pipes and trusses and lighting fixtures in real scale. This allows you to print your drawings in whatever scale is necessary, without having to redraw anything.

Working in CAD is working in a 3D environment, even when running Emphasis 2D. Objects are drawn as 3D objects, with width, depth and height. This allows you to change views (top, side, front) of the same drawing to get your plan, section, and elevation. Each of these views only allows two dimensions to be visible at one time. For example, a plan view of your drawing only shows objects' width and depth, but not their height. Three risers at 4'-0" x 8'-0", but at different heights, will appear exactly the same in plan view. To get a better idea of the risers' true size and position in the venue, you will need to change from a plan view to a side view. See the images below for a demonstration of this.

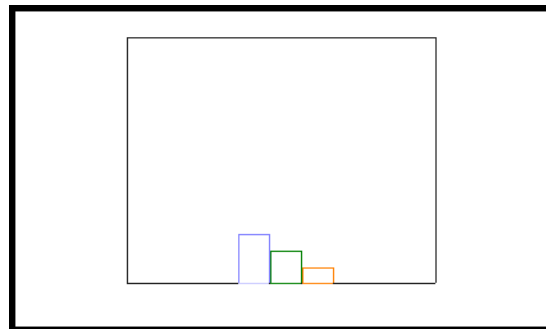


Note: *Although you do not have access to 3D views (isometric and shaded) in Emphasis 2D, 3D information is stored with your drawing. This information is required to create your section and elevation views.*

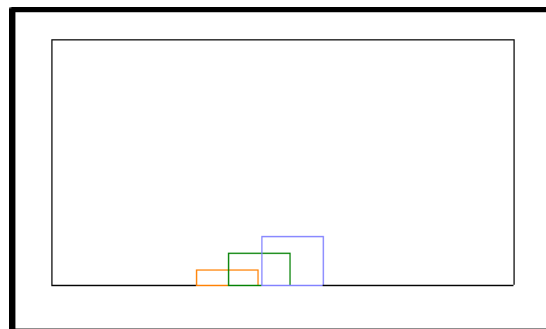
Plan view of three risers.



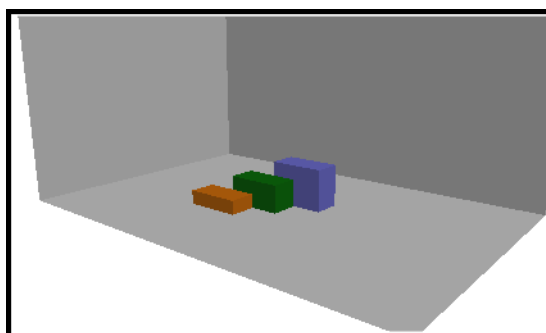
Side view of risers.



Front view of risers.



Shaded view of risers.

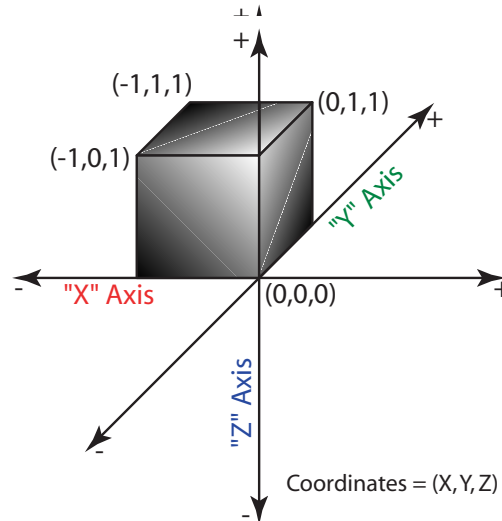


The Missing Coordinate

When you draft your venue, set and lighting rig, you are creating a virtual representation of the way the sets and lights will ultimately be setup in your venue. The power of Emphasis comes from the ability to create highly accurate drawings of your show, enabling you to create lighting cues before you actually have the set and lights placed in the real theatre. When you draft in the CAD environment, you will need to place your objects in the same positions in the virtual venue as they will be in the real theatre.

This is done with three coordinates: X, Y and Z. Using theatrical terms, the X coordinate is the placement left or right of the origin. The Y coordinate is the placement upstage or downstage from the origin, and the Z coordinate is the height above or below the origin. Using these three coordinates, you can place objects exactly where they need to be in your drawing.

Placement of objects is based upon the origin of the drawing. This is a point in the drawing that is designated 0'0", 0'0", 0'0". All drawings have an origin, and the default venues provided with Emphasis have the origin placed in a logical position. For example, the origin of the Proscenium Arch venue is at the intersection of the plaster line (X), centerline (Y) and the stage level (Z). You can keep the origin at its default position or you can place the origin anywhere in the drawing (see [page 92](#)).



When placing objects or drawing shapes in a 2D representation of 3D space, it is important to remember that you typically cannot see all the dimensions of a 3D object all at once. The dimension you cannot see in a specific wireframe view is called the *missing coordinate*.

The missing coordinate is the coordinate whose data cannot be entered just by clicking on the screen. Which dimension is set by the missing coordinate (X,Y, or Z) is dependent on the type of plot view, or the workplane selected in an isometric view. For example, in the case of a plan view, the missing coordinate is Z for the height above or below the stage floor.

In Emphasis, you can enter a value for the missing coordinate at any time by pressing the TAB key or by clicking the missing coordinate button on the CAD Options toolbar (see below). Once entered this value applies to all objects (except fixtures) drawn or placed in the current view.





Note: *If you are unsure which coordinate is the missing coordinate, select the a view or workplane and move the mouse around. Look at the status bar at the bottom of the working area. You will see only two values changing. The value that is not changing is the missing coordinate for that view or workplane.*

(47'1", -12'1", 0'0")
X ✓ Y ✓ Z ✓

To enter a value for the missing coordinate:

- Step 1: Press the TAB key on your keyboard or click the Missing Coordinate button on the CAD Options toolbar.
- Step 2: Enter the new value for the missing coordinate.
- Step 3: Click OK.



Example:

- Step 1: Change to the plan view in your drawing.
- Step 2: Press the TAB key and enter a value of 0" for the missing coordinate.
- Step 3: Insert a few objects on the stage, all of these objects are drawn are resting on the stage.
- Step 4: Change the missing coordinate to a height of 10'0".
- Step 5: Insert a riser. The riser has been drawn ten feet above the stage floor.
- Step 6: Change to a side view and you will see that the riser has been placed above the stage.



Note: *You can use separate missing coordinates for focusing fixtures if you choose the option when hitting TAB. The advantage of this is you can be adding pipes and other CAD elements at a height, but still focus the fixtures at a specific elevation.*

To set the origin:

- Step 1: Open the wireframe view.
- Step 2: Set the missing coordinate to the appropriate value.
- Step 3: In the **Tools** menu, click **Set User Origin**, or click the Origin button on the Tools toolbar.
- Step 4: Click the new origin position in the wireframe view. Alternatively, you can type the new position of the origin into the ComEdit toolbar and press Enter. The coordinate display will reflect the new origin.



Metric vs. Imperial

Emphasis allows you to use metric or imperial units at any time. You may choose to set a default type of unit, and you may switch unit type on the fly. Manually entered coordinates without any unit indicator (" or cm, for example) will be taken as the default unit: feet in Imperial units, or meters in metric units.

To set the default unit type:

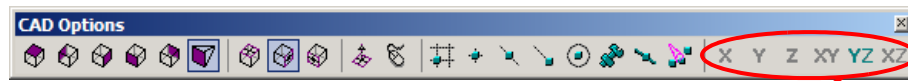
- Step 1: In the **Options** menu, click **User Options**.
- Step 2: Click on the Draw Defaults tab.
- Step 3: Click on the button beside metric or imperial units.

To switch unit types on the fly:

Double-click the coordinates display on the status bar.

Ortho

When ortho mode is inactive, objects can be drawn or moved in any direction on the workplane. You can draw diagonal lines, or move objects anywhere in the working area of the screen. Ortho mode constrains objects to movement parallel to a workplane axis. For example, you want to draw a line in plan view. With ortho activated, you can only draw lines at 90 degree angles.



Ortho Buttons

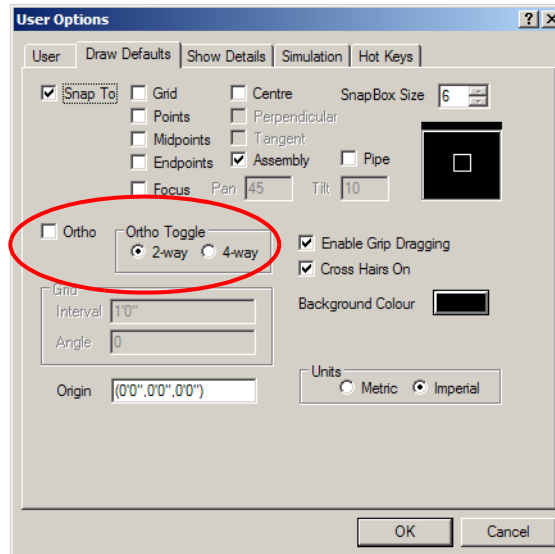
Ortho can be activated by clicking on the ortho buttons on the CAD options toolbar, or during a draw or move operation using the Ortho command on the right-click menu. You can also activate Ortho using the F8 key on the keyboard, or by double-clicking the ortho indicator on the Status bar.



The ortho mode(s) you have available will depend on two things. First, the view determines the axes of movement, XY for plan view, YZ for side views, XZ for front and back views. Second, you have the option of enabling two-way or four-way ortho. In two-way, you always have the option of moving parallel to both axes (XY, YZ, XZ). In four-way, you can also constrain to only one axis, (for example, X only, Y only, or XY together).

To set two-way or four-way toggle:

- Step 1: In **Options** menu, click **User Options**, or right-click in the working area of the screen and click **View Options**.
- Step 2: Click the Draw Defaults tab.
- Step 3: Click the radio button for two-way or four-way toggle.
- Step 4: Click OK.



Snaps

Snaps are used to assist in the placement of objects. When a snap setting is active, the cursor will be drawn to a snap point when you place the cursor close to a valid object. You can have multiple snaps active at the same time. Snap selections can be made on the CAD Options toolbar or window. In all cases, the F9 key on the keyboard, or double-clicking Snap on the Status bar, will toggle the snap state.



Grid Snap

Constrains placement of objects to grid points. You can set the grid interval and angle in the Draw Options page of the View Options window.



Midpoint Snap



Endpoint Snap



Centrepoint Snap

Constrain placement of objects to the mid- and end-points of other objects. Centrepoint snaps constrain to the centrepoint of circles or cylinders.



Assembly Snap

Use assembly snap to group multiple truss objects together as you insert them. This enables you to put pieces of truss together as you would in the real world.



Pipe Snap

Constrains fixtures to placement on a pipe at a specific interval.



Focus Snap

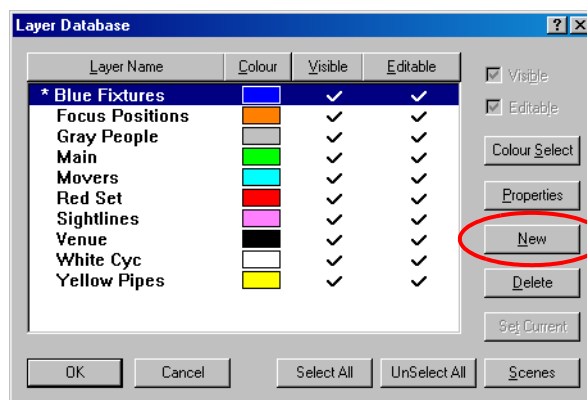
Constrains fixture focus to placement at a focus position. It also locks beam dragging to 45 degree increments of pan and 10 degree increments of tilt.

Layers

Layers are an easy way to organize your drawing, so if you begin by giving each component (pipes, fixtures, etc.) its own layer, you will keep things arranged logically for later manipulation. You can make individual layers visible or invisible, and you can also turn layer editing on and off to prevent unintended changes to a layer's contents.

To create new layers:

- Step 1: In the **Edit** menu, select **Layers**.
- Step 2: To create a new layer click on the New button on the right-hand side of the dialog.



- Step 3: Enter a new name for your layer.
- Step 4: Click on the Colour Select button to pick a different colour for the new layer.
- Step 5: While the Layer Database is open, you can create more layers you may use later.
- Step 6: Select the layer you want to draw on and click Set Current. Any object that you draw will be placed on this layer and assume the layer's default properties when it is drawn.
- Step 7: Click OK to close the Layers dialog.

Note: If you begin a layer name with a colour, the layer colour will be set to match. For example, if you name the layer "Red Set", red will automatically be chosen as the layer colour.



Note: There is a toolbar named “Layer” that gives you quick access to all visible layers and the Layers database. Click the button on the left end of the Layer toolbar to access the Layer database.



Use the layer list in the Layer toolbar to quickly set the current layer.

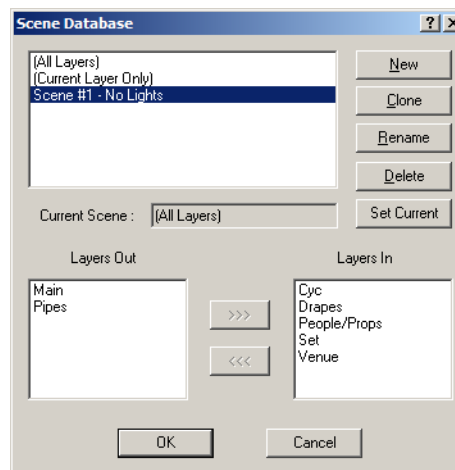
Use the Layer toolbar to change the layer assignment of ungrouped selected objects. Selected objects not contained in a Group will be moved to the selected layer, without changing the current layer.

Scenes

Scenes are collections of layers. You can use scenes to quickly change the visible layers in a view. Scenes are very useful if your show has different scenic layouts for each act. Simply make a layer for each act's ground plan, and create a scene for each act with the correct ground plan layer and all the lighting layers.

To create a new scene:

Step 1: In the **Edit** menu, click **Scenes**. The Scene Database will open.



Step 2: Click New to create a new scene. Select an existing scene and click Clone to copy that scene.

Step 3: Type the name of the new scene.

Step 4: Select the name of your new scene.

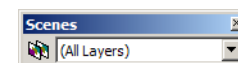
Step 5: Use the layer lists to select which layers will be included in the scene. You must have created some layers in order for this to be useful.

Step 6: Click Set Current to activate your new scene.

Step 7: Click OK.



Note: There is a toolbar named “Scene” that gives you quick access to all existing scenes and the Scenes database. Click the button on the left end of the Scene toolbar to access the Scene database.



Working with WYG and DWG/DXF Files

You can import and merge a variety of file formats including new WYSIWYG file formats and DWG/DXF drawing formats.

Import creates a new show file with the contents of the imported file.

Merge inserts data into an existing show file, adding the contents of the source file to the current file. For example, if you have drawn a venue and other plot items in the CAD mode, and then merge in a DWG file, the DWG will be added to the drawing you created in CAD mode.

To import a file:

- Step 1: In the **File** menu, click **Import File**. You will be prompted to save the existing file. The 'Open' dialog will open.
- Step 2: Use the 'Look in' box to find the location of the file to import.
- Step 3: Select the type of file you want to import in the File Type box. The Open dialog will display only files of the selected type in the browser.
- Step 4: Click the file name to highlight it and click Open. You can also double-click the file name to begin the import. Emphasis will create a new show file named "untitled" with the contents of the imported file.

To merge a file:

- Step 1: With the show file you want to merge into open, in the **File** menu, click **Merge File**. The 'Merge' dialog will open.
- Step 2: Use the 'Look in' box to find the location of the file to merge into the current show file.
- Step 3: Select the type of file you want to merge in the File Type box. The Open dialog will display only files of the selected type in the browser.
- Step 4: Click the file name to highlight it and click Open. You can also double-click the file name to begin the merge. The Merge dialog opens.
- Step 5: Choose to use the origin of the Emphasis drawing as the insertion point, or choose to select the basepoint with the mouse. If you choose to select the basepoint with the mouse, you will need to click the wireframe drawing at the insertion point of the merged drawing. Emphasis will add the contents of the merged file to the current show file at your chosen insertion point.



Note: *If the origin of the Emphasis drawing is different from the origin of the merged drawing, and you choose to use the origin as the insertion point, the merged drawing may appear to be offset in the Emphasis drawing. To avoid this, ensure that the origins in both drawings are placed in the same position, or use the Select Basepoint with mouse option.*

If you need to send your Emphasis drawings to someone using another drafting program, you can export your file to the WYG, DWG or DXF file types. WYG is used to transfer the Emphasis Visualization portion of your show file to WYSIWYG. DWG and DXF formats are used to transfer the drawing portion of your show file to Autodesk AutoCAD[®] software or other compatible drafting applications.

To export the drawing as a WYG file:

- Step 1: With the show file open, in the **File** menu, click **Export File**. The 'Save show to file' window will open.
- Step 2: Use the 'Save in' box to find the destination for the exported file.
- Step 3: Type the name of the exported file in the 'File name' box.
- Step 4: Select the .wyg type in the File Type box. Make sure to select the correct release of WYSIWYG for your exported file.
- Step 5: Click the Save button to export your data to the selected file name and type.



Note: *This will extract the WYSIWYG elements of the file to be used in stand-alone WYSIWYG Report, Design and Perform. If the file is comfortably under 1.4MB you can save to floppy on the A: drive. If the .wyg file is larger, you can save it to CD (see [File structure and disk functions, page 80](#)). On ejecting the CD, you will need to choose the "Close to read on any computer" option. This closes the session so it can be read by a normal CD-ROM on your WYSIWYG PC.*

To export to DWG or DXF format:

- Step 1: In the **File** menu, click **2D DWG/DXF Export**. In Emphasis 3D, you also have the option to click **DWG/DXF Export** to export 3D information.
- Step 2: In the dialog that opens, use the browser to find the destination of the exported file. Ensure that the destination appears in the Save in box.
- Step 3: Type the name of the exported file in the File Name box.
- Step 4: Choose the exported file type in the File type box. There are a number of choices available for file type, based on AutoCAD software versions.
- Step 5: Click the Save button. The DWG Settings box will open.
- Step 6: Click the Scale tab. Click the type of units to be used in the DWG/DXF drawing.
- Step 7: If you are exporting 3D information, click the Layer tab. Select the layers you want to include in the DWG/DXF drawing.
- Step 8: Click OK. The file will be exported to the destination you chose in Steps 2-3.

Drawing Objects

Emphasis offers a number of tools to ease the creation of your drawing. These include tools to quickly create basic theatrical spaces, libraries of pre-drawn objects such as human figures, props and lighting equipment, and drawing tools specifically designed for creating set pieces. This section describes these tools.

Inserting a Venue

To begin your drawing, you will want to insert a representation of your venue. Emphasis provides three basic venue shapes that you can modify to more closely resemble your own venue.

To insert a venue:

- Step 1: From the **Draw** menu, select **Venue**. A sub-menu will appear prompting you to choose the type of venue to be inserted.
- Step 2: Click on **Black Box**, **Proscenium Arch** or **Arena**. A dialog will appear in which you can modify the properties of the room.
- Step 3: Click OK. The wireframe view will now contain a drawing of your venue.

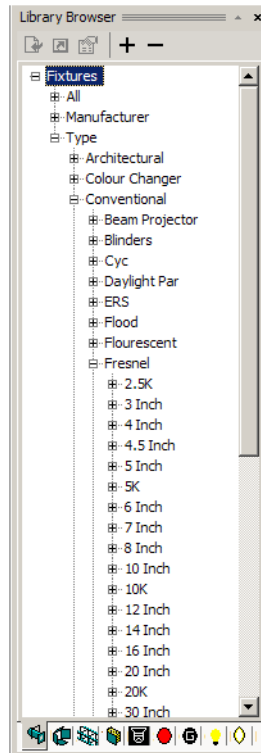
The Library Browser

One of the most helpful features of Emphasis is the library. The library contains pre-built objects such as fixtures, accessories, gobos, colour media (gel), trusses, floor mounts, props, human figures, musical instruments, vehicles, and many other objects for insertion into your drawing.

Many of these objects contain specific information regarding the object. For example, a fixture will contain the photometric information for beam rendering, the lamp types compatible with the fixture, its weight and dimensions, among other pieces of data.

By using library objects in your show file, Emphasis can generate reports automatically. You can view the fixture weight of a hanging position, calculate the rental cost of a show, and create a lamp count list, among other reports. See [Reports, page 163](#) for more information on Emphasis reports.

You can view the contents of the library in the Library Browser. The Library Browser contains a series of menus that may be collapsed and expanded to show their contents. Along the bottom of the browser are buttons for viewing the different sections of the library.



To open the Library Browser:

- Step 1: In the **Library** menu, click **Browse Library**, or you can click on one of the Library buttons in the Draw toolbar.
- Step 2: Click on the buttons along the bottom of the browser window to view the contents of different sections of the library. The library is divided into the following sections:



Library sections are divided into sort criteria. These criteria may be alphabetical, by manufacturer, by type, or by other pertinent classifications. This allows you to choose the path to the object.

For example, to find the ETC Source Four you can use the following paths:

- Fixture > Manufacturer > ETC > ERS > Source 4
- Fixture > Type > Conventional > ERS > Changeable Lens > Source 4
- Fixture > All > Source 4

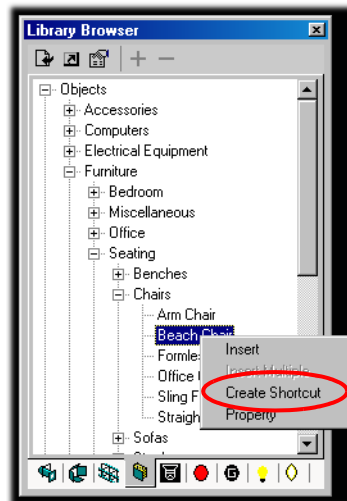
To insert a library object:

- Step 1: Open the Library Browser.
- Step 2: Navigate to the object using the section buttons and the expandable menus.
- Step 3: Double-click the object's name. The object will attach to the cursor.
- Step 4: Press TAB to set the missing coordinate, if required.
- Step 5: Click on the wireframe view to place the object. If you are inserting fixtures, see [Hanging Fixtures, page 125](#), [Adding Accessories, page 129](#), and [Placing Colour and Gobos, page 130](#).

You can create Shortcuts for frequently used objects. Shortcuts are buttons found in the various Shortcut bars to the left of the working area. Clicking a shortcut for an object is the same as finding the object in the Library Browser and using the Insert command.

To create a shortcut for a library object:

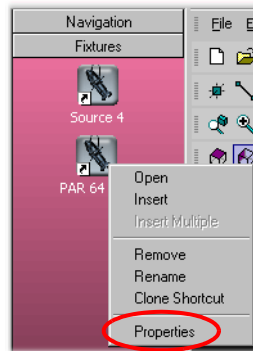
- Step 1: Open the Library Browser.
- Step 2: Navigate to the object using the section buttons and the expandable menus.
- Step 3: Right-click the object's name and click **Create Shortcut**. A shortcut to the selected object will appear in the shortcut bar. The type of object the shortcut links to determines which category the shortcut is placed in.



Note: You can also create a shortcut by right-clicking in the Shortcut bar and clicking **New Shortcut**. This will open the library for the currently selected Shortcut tab. For example, using this method, if you right-click in the Fixtures shortcut bar, the Fixture Library will open. To create an accessory shortcut, you need to change to the Accessories Shortcut tab and repeat the process.

To modify a shortcut:

Step 1: Right-click the shortcut button and click **Properties**.



Step 2: Modify the shortcut in the Properties dialog. The type of object the shortcut links to determines the types of modifications you can make.

Step 3: Click OK.

Interactive Mode

Interactive mode is an alternative method for drawing objects. Objects are typically drawn using a dialog box to set the object's size (width, depth and height). The full-size object is then attached to the cursor so you can place it in the drawing. There is an Interactive button in that dialog box to allow you to switch modes if you want to.

Interactive mode allows you to click an insertion point for the object first, then drag to create the extents of the object as allowed by the view (XY for plan view, XZ for front view, etc.). Once those dimensions are set, a dialog box may open to allow you to set the third dimension, if required.

Interactive mode works with Risers, Cylinders, Circles, Arcs and Pipes. There are some special considerations when drawing pipes in interactive mode (see [Drawing Pipes, page 121](#)).

To set Interactive as the default object drawing mode:

Step 1: In the **Options** menu, click **User Options**.

Step 2: Click the User tab.

Step 3: Click the Interactive object creation check box in the Options area of the window.

To set Interactive mode on the fly:

Press the F11 key on your keyboard or click the Interactive button on the CAD Options toolbar.

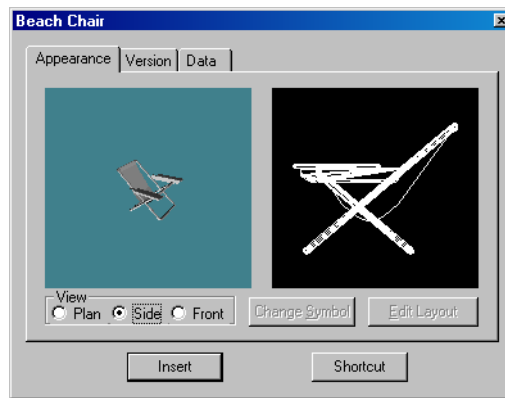


Inserting Props

Emphasis has an exhaustive library of pre-drawn items including musical instruments, stairs, furniture and people.

To insert props and people:

- Step 1: In the **Library** menu, click **Browse Library**. The Library Browser appears.
- Step 2: Click on the Library icon at the bottom of the browser.
- Step 3: Navigate to the object you want to insert. To view the object before insertion, right-click on the object's name and click **Property**. A dialog box with a rotating, shaded view of the object will appear, with a symbolic representation displayed in a box to the right of that.



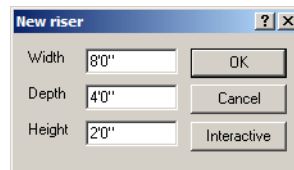
- Step 4: Click on Insert and the dialog will close. A line drawing symbol of the object will follow the cursor.
- Step 5: Hit the TAB key to set the missing coordinate value, if required.
- Step 6: Click on the drawing to place the object.
- Step 7: Repeat steps 3-6 to insert other objects in the drawing.

Drawing Risers, Cylinders and Spheres

Risers, cylinders and spheres are solid 3D objects. Risers can be used for creating platforms, square columns, or any other box-shaped objects. Cylinders are useful for columns, or round platforms. You can place risers, cylinders and spheres in intersecting positions to create more complex shapes.

To draw a riser:

- Step 1: In the **Draw** menu, click **Riser**.
- Step 2: In the dialog box that opens, type in the dimensions of the riser.



- Step 3: Click OK. The riser will be attached to the cursor.
- Step 4: Drag the new riser to its position and click to place it in the drawing.

To draw a riser using the Interactive mode:

- Step 1: In the **Draw** menu, click **Riser**.
- Step 2: In the dialog that opens, click the Interactive button.
- Step 3: Click the starting point of the riser on the drawing. The insertion point is the lower left corner of the riser, so drag up and to the right to stretch out the riser's shape. Click to place the upper right corner of the riser.
- Step 4: In the dialog box that opens, type in the missing dimension of the riser.
- Step 5: Click OK.

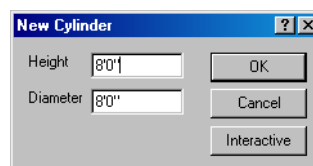


Note: You can use the Riser button on the Draw toolbar, or the Riser hot key (R), instead of the Draw menu to start drawing a riser.



To draw a cylinder:

- Step 1: In the **Draw** menu, click **Cylinder**.
- Step 2: In the dialog box that opens, type in the dimensions of the cylinder.



- Step 3: Click OK. The cylinder will be attached to the cursor.
- Step 4: Drag the new cylinder to its position and click to place it in the drawing.

To draw a cylinder using the Interactive mode:

- Step 1: In the **Draw** menu, click **Cylinder**.
- Step 2: In the dialog that opens, click the Interactive button.
- Step 3: Click the starting point of the cylinder on the drawing. The insertion point is the centerpoint of the cylinder's base, so drag the cursor to set the radius of the base. Click to set the radius.
- Step 4: In the dialog box that opens, type in the height of the riser. If you are drawing the riser in a side, front or back view, the height corresponds to the length of the cylinder.
- Step 5: Click OK.

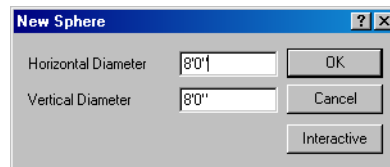


Note: You can use the Cylinder button on the Draw toolbar instead of the Draw menu.



To draw a sphere:

- Step 1: In the **Draw** menu, click **Sphere**.
- Step 2: In the dialog box that opens, type in the dimensions of the sphere.



- Step 3: Click OK. The sphere will be attached to the cursor.
- Step 4: Drag the new sphere to its position and click to place it in the drawing.
- Step 5: Click OK.



Note: You can use the Sphere button on the Draw toolbar instead of the Draw menu.



Drawing Lines, Arcs, Circles and Points

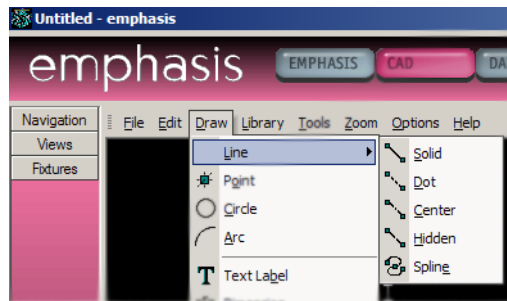
Lines, arcs and circles are 2D objects. Lines are drawn continuously, allowing you to create shapes made up of multiple vertices. Lines also come in five types: Solid, Dot, Center, Hidden and Spline (splines are curved lines). Lines and arcs can be extruded into surfaces (see [Extrude, page 117](#)). To create an extruded circle, use the Cylinder command (see [Drawing Risers, Cylinders and Spheres, page 103](#)).

Points are single-dimension objects. You can place points as markers or as alignment tools.

To draw a line:

Step 1: In the **Draw** menu, click **Line**.

Step 2: In the sub-menu, click **Solid**, **Dot**, **Center**, **Hidden** or **Spline**.



Step 3: Click on the drawing at the starting point of the line

Step 4: Drag the line to its end point and click.

Step 5: Drag the next vertex to its end point and click.

Step 6: Continue to place vertices of the line as needed.

Step 7: To end the line, right-click to access the sub-menu. Click on Finish Line to end the line at its last end point. To abort the line entirely, click Abort Line. This will erase the whole line from the drawing.

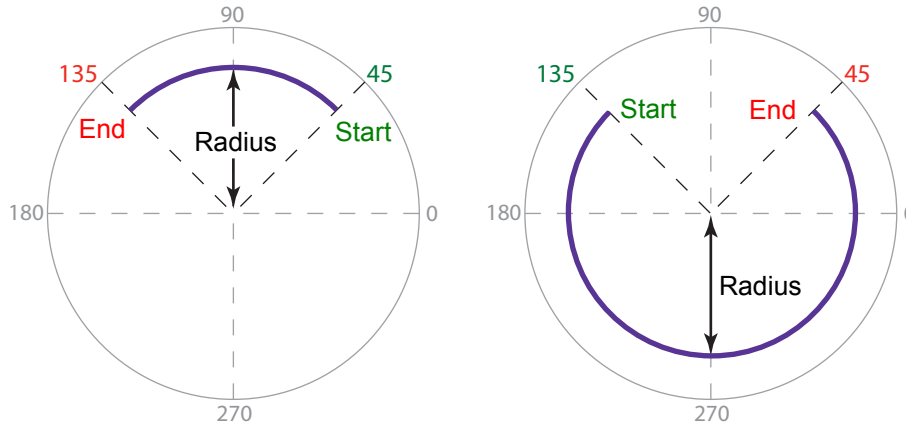
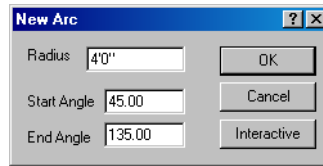


Note: You can use the Line buttons on the Draw toolbar, or the line hot key (L), instead of the Draw menu to start drawing a line.



To draw an arc:

- Step 1: In the **Draw** menu, click **Arc**.
- Step 2: In the dialog that opens, enter the radius, the start angle and end angle. The start and end angles determine the length and orientation of the arc. In all views, 90 is at the top of the screen.



To draw an arc using interactive mode:

- Step 1: In the **Draw** menu, click **Arc**.
- Step 2: In the dialog that opens, click **Interactive**.
- Step 3: Click on the drawing at the starting point of the arc
- Step 4: Drag the arc to its end point and click.
- Step 5: Drag cursor to set the centerpoint of the arc and click.

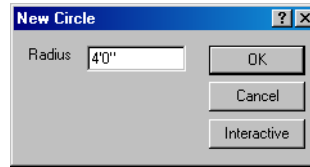


Note: You can use the Arc button on the Draw toolbar instead of the Draw menu.



To draw a circle:

- Step 1: In the **Draw** menu, click **Circle**.
- Step 2: In the dialog that opens, type in the radius of the circle.



- Step 3: Click OK. The circle is now attached to the cursor.
- Step 4: Click to place the circle.

To draw a circle using interactive mode:

- Step 1: In the **Draw** menu, click **Circle**.
- Step 2: In the dialog that opens, click Interactive.
- Step 3: Click the position of the centerpoint of the circle.
- Step 4: Drag the cursor to set the radius of the circle and click.



Note: You can use the Circle button on the Draw toolbar instead of the Draw menu.



Drawing Surfaces

Surfaces are 2D objects that are drawn continuously, stretching out behind the cursor. Surfaces can be used to create backdrops or other flat objects. Surfaces can be extruded to create odd shaped risers, or other custom shaped objects (see [Extrude, page 117](#)). Textures (see [Textures, page 112](#)) can be applied to surfaces to make them appear to be real objects like brick, wood, stone, tile, or other types of patterns.

To draw a surface:

- Step 1: In the **Draw** menu, click **Surface**, or you can click the Surface button on the Draw toolbar.
- Step 2: Click on the drawing at the starting point of the surface.
- Step 3: Drag to the next point on the surface and click.
- Step 4: Drag the surface to its next point and click.
- Step 5: Continue to place points for the surface as needed.
- Step 6: To end the surface, right-click and click **Finish Surface**. To abort the surface entirely, click **Abort Surface**. This will erase the whole surface from the drawing.

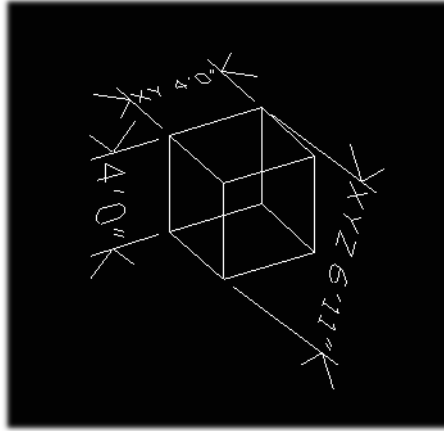


Note: The view, starting-point and direction in which a surface is drawn determines the orientation of applied textures.

Dimensions

Placing dimensions in a 3D environment can pose some challenges. Emphasis has a dimensioning tool that allows you to display the dimensions between points for any of the ortho settings, X, Y, Z, XY, YZ, XZ or XYZ. In most cases you will want to display the dimensions that

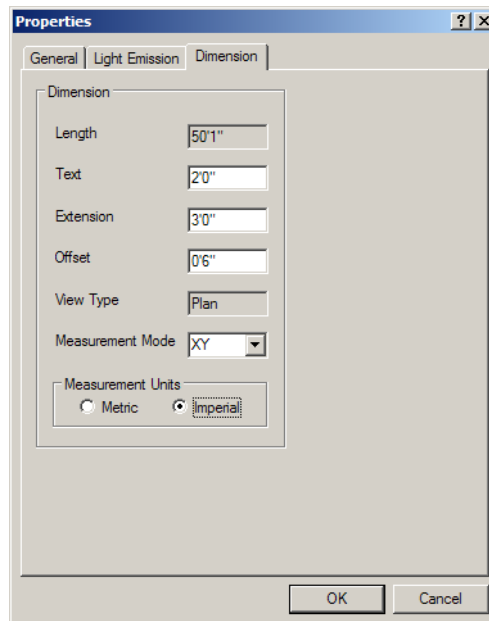
correspond to the current view.



To place a dimension on the drawing:

- Step 1: In the **Draw** menu, click **Dimension**.
- Step 2: Click on the starting point of the dimension.
- Step 3: Right-click to set the ortho settings of the dimension, if desired.
- Step 4: Click on the end point of the dimension.
- Step 5: Click and drag the grab point in the center of the dimension text to drag the text to the correct side of the object, if required.

If the dimension displays axis information before the distance value, it is indicating a dimension across axes, such as on the diagonal through a riser from top to bottom and front to back (XZ, if viewed from the front). To change this setting, use the dimension's Properties window.



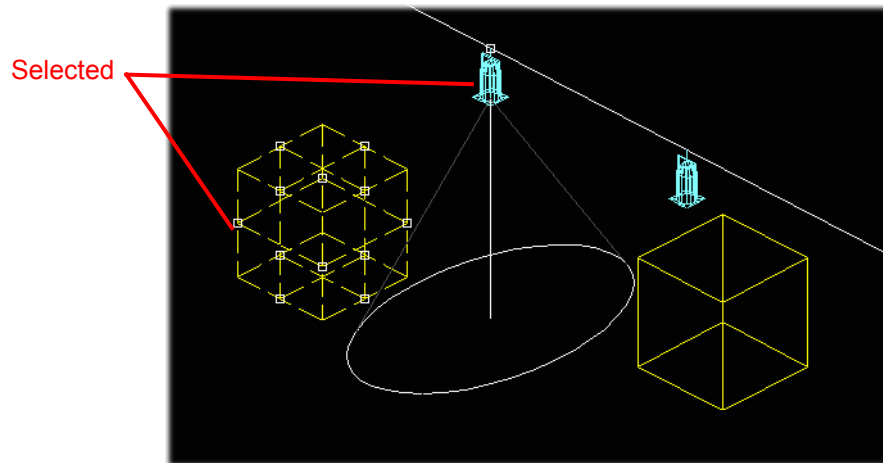
Note: You can use the Dimension button on the Draw toolbar, or the dimension hot key (D), instead of the Draw menu to start drawing a dimension.



Editing Objects

Select

Before you can manipulate objects, they must be selected. Selected objects are easily identifiable. A white box appears at the insertion point and the lines of the object become dotted. When a fixture is selected, it displays its beam.



To select a single object:

To select a single object, click on its outline.

To select multiple objects:

- Press and hold the CTRL key while clicking the outlines of desired objects.
- Draw a box from left to right to select all objects fully within the box.
- Draw a box from right to left to select all objects fully within the box, as well as the objects partially contained in the box.

To select all objects on the current layer:

- In the **Edit** menu, click **Select Current Layer**.
- Use the Select Current Layer button on the Selection toolbar.
- Use the shortcut CTRL+SHIFT+A.



To select all objects:

- In the **Edit** menu, click **Select All**.
- Use the Select All button on the Selection toolbar.
- Use the shortcut CTRL+A.



To restore the previous selection:

- In the **Edit** menu, click **Select Special**, then click **Restore previous selection**.

- Use the Restore Previous Selection button on the Selection toolbar.



To select the last object created:

- In the **Edit** menu, click **Select Special**, then click **Select last object created**.
- Use the Select Last Object button on the Selection toolbar.



To specify layers to select:

- In the **Edit** menu, click **Select Special**, then click **Specify layers to select**.
- Use the Specify Layers button on the Selection toolbar.



Group/Ungroup

Grouping objects together ensures that they will always be selected as one. For example, you may want to group an object and its corresponding focus position (see [Insert a Focus Position, page 135](#)). If you relocate the object in the drawing, the focus position will automatically follow, as will all the light beams pointing at it, saving you time and work.

To group objects:

- Step 1: Select the objects to be grouped.
- Step 2: In the **Edit** menu, click **Group**. You may also use the Group button on the Tools toolbar.



To ungroup objects:

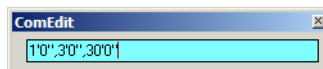
- Step 1: Select the grouped objects.
- Step 2: In the **Edit** menu, click **Ungroup**. You may also use the Ungroup button on the Tools toolbar.




Note: You can use the keyboard shortcuts **CTRL+G** to group and **CTRL+U** to ungroup objects.

Move


You can move objects using a pointing device by dragging, or you can use a move command based on coordinate entry. Emphasis supports two types of move commands based on coordinate entry: absolute and relative. Absolute coordinates are relative to the origin of the drawing. An absolute move is defined as moving an object from one specific point to another. A relative move is defined as moving an object to a destination relative to its original position. Coordinates typed in will appear in the ComEdit toolbar.




To move an object using the mouse:

- Step 1: Select the object(s) to be moved.
- Step 2: In the **Edit** menu, click **Move**. You may also use the Move button on the Tools toolbar. 
- Step 3: Click on the object to set the base point for the move.
- Step 4: Drag the mouse to the new position and click to finish the move.

To move an object using absolute coordinates:

- Step 1: Select the object(s) to be moved.
- Step 2: In the **Edit** menu, click **Move**. You may also use the Move button on the Tools toolbar. 
- Step 3: Click on the object to set the base point for the move, or type in the coordinates of the base point and press ENTER.
- Step 4: Type the new coordinate location for the base point and press ENTER.


To move an object using relative coordinates:

- Step 1: Select the object(s) to be moved.
- Step 2: In the **Edit** menu, click **Move**. You may also use the Move button on the Tools toolbar. 
- Step 3: Type @ and the distances to move the object and press ENTER. For example, to move an object 2'-0" stage right (X axis) and 3'-0" off the floor (Z axis), type @2',0,3' and press ENTER.



Note: When you enter coordinates, you can enter null values for coordinates you aren't changing. For example, if you are changing the X and Z value, but not the Y value, you can enter "@1,,3".

To move an object using distance and direction:

- Step 1: Select the object(s) to be moved.
- Step 2: In the **Edit** menu, click **Move**. You may also use the Move button on the Tools toolbar. 
- Step 3: Type @, the distance, the < sign and the direction (as an angle, positive or negative) to move the object and press ENTER. For example, to move an object 3'-6" to the left, type @3'6"<180 and press ENTER.




Note: You can use the keyboard shortcut CTRL-M to activate the Move command. You can also right-click on an object and click **Move**.

Rotate

Objects may be rotated around a base point. This allows you to place objects at angles in your drawing.

To rotate an object:

- Step 1: Select the object(s) to be rotated.
- Step 2: In the **Edit** menu, click **Rotate**. You may also use the Rotate button on the Tools toolbar. 
- Step 3: Click on the object to set the centerpoint for the rotation, or type in the coordinates of the centerpoint and press ENTER.
- Step 4: Enter the rotation angle and press ENTER, or drag the mouse and click to enter the rotation angle. For example, to rotate an object 45 degrees, type 45 and press ENTER.




Note: You can use the keyboard shortcut **CTRL-R** to activate the Rotate command. You can also right-click on an object and click **Rotate**.

Mirror

The Mirror command duplicates and reverses an object, inserting it the same distance from an axis line as the original.

To insert a mirrored object:

- Step 1: Select the object(s) to be mirrored.
- Step 2: In the **Edit** menu, click **Mirror**. You may also use the Mirror button on the Tools toolbar. 
- Step 3: Click on the drawing to enter the first axis point, or type in the coordinates of the first point and press ENTER.
- Step 4: Click on the drawing to set the second axis point, or type in the coordinates of the second point and press ENTER. The mirrored object will appear, reversed from the original.



Note: You can also right-click on an object and click **Mirror**.

Object Properties

Properties include things like colour, texture, layer, rendering colour, translucency, light emission, etc. All objects in your drawing have properties, from simple lines to complex objects. To view the properties for an object, right-click on the object and click on Properties. You can also use ALT+ENTER or the **Object Properties** command in the **Edit** menu to view the Properties of an object.

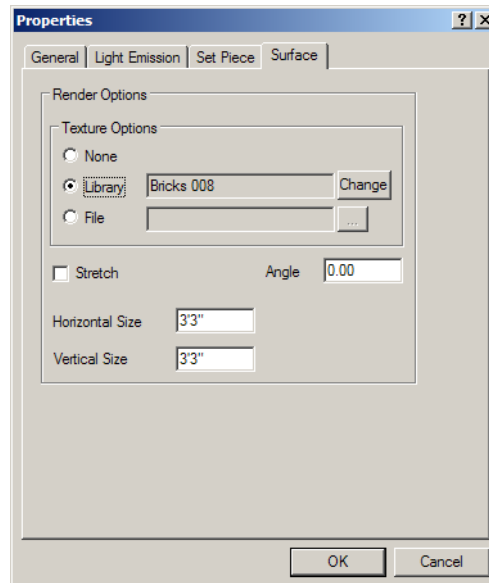
Textures

You can apply textures to surfaces in the Properties window. Textures are provided with Emphasis that emulate various types of surfaces, like brick or cloth. You can also use your own bitmap files as textures, to emulate projection screens, or to cover a surface with a texture specific to your show.

To apply a texture to a surface:

Step 1: Right-click the surface you want to texture and click **Properties**.

Step 2: Click the Surface tab.



Step 3: Select a texture by clicking the Library radio button. Click Change to pick a different texture from the library.



Note: Select your own bitmap file by clicking the File radio button. Use the browser [...] to find the file you want to use.

Step 4: Click the Stretch check-box to stretch the texture over the entire surface. Otherwise, the texture will be tiled to cover the surface area.

Step 5: If the texture has text or another recognizable image in it, you may need to rotate the image to get it right-side up. Enter the rotation angle in the Angle box.

Step 6: Click OK.

CAD Tools

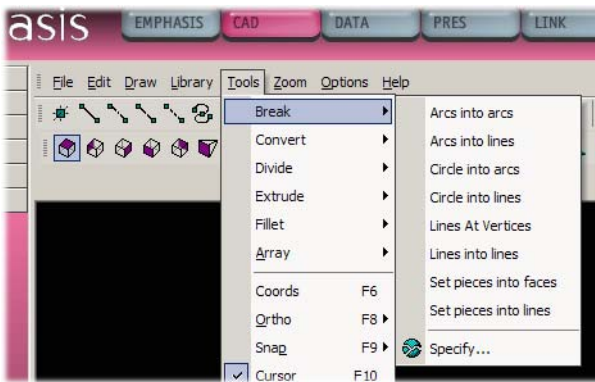
CAD tools allow you to modify existing objects in your drawing, or duplicate objects along a linear or radial path.

Break

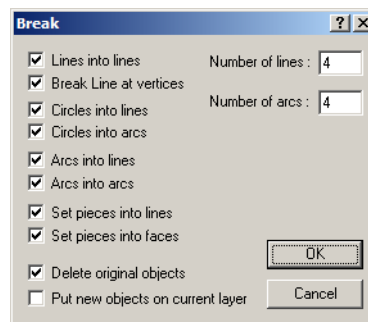
The Break command takes a larger object and “breaks” it into component parts. For example, you can break an arc into a number of smaller, equal arcs, or into a number of lines along the path of the original arc.

To break an object:

- Step 1: Select the object to break.
- Step 2: In the **Tools** menu, click **Break**. Then click on the type of break you want. When breaking circles into lines, you will need to enter the number of lines of the final shape because the circle will be converted to a polygon. The more sides you enter, the more circular the polygon will appear.



You may also work in the Specify dialog to set all the options for the Break command at one time. The default settings for the Break command are shown below:



Note: You can also right-click on an object and click **Tools**, then click **Break** to access the break options. Or, you may also use the Break button on the Tools toolbar.

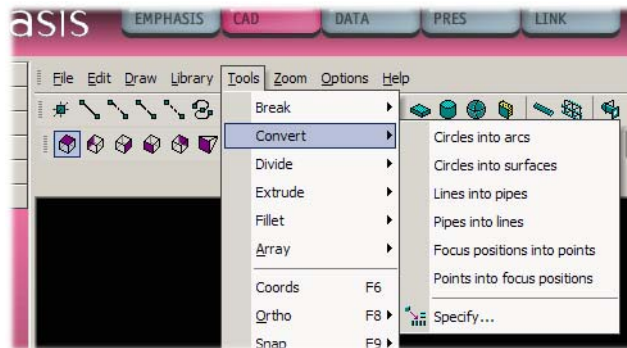


Convert

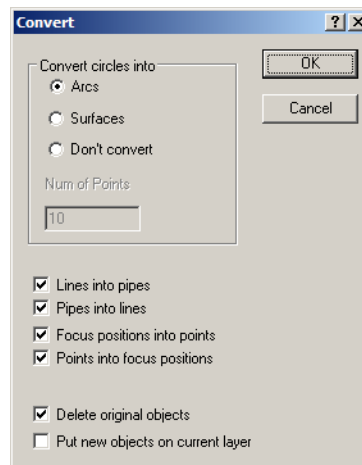
The Convert command turns an object into a different kind of object. For example, you can convert a drawn circle into a circular surface, you can convert lines into pipes, and vice versa, and you can convert points into focus positions, and vice versa.

To convert an object:

- Step 1: Select the object to be converted.
- Step 2: In the **Tools** menu, click **Convert**, then click the conversion you want. When converting circles into surfaces, you will need to enter the number of sides of the final surface because the circle will be converted to a polygon shape. The more sides you enter, the more circular the surface will appear.



You may also work in the Specify dialog to set all the options for the Convert command at one time. The default settings for the Convert command are shown below:



Note: You can also right-click on an object and click **Tools**, then click **Convert** to access the conversion options. Or, you may also use the Convert button on the Tools toolbar.

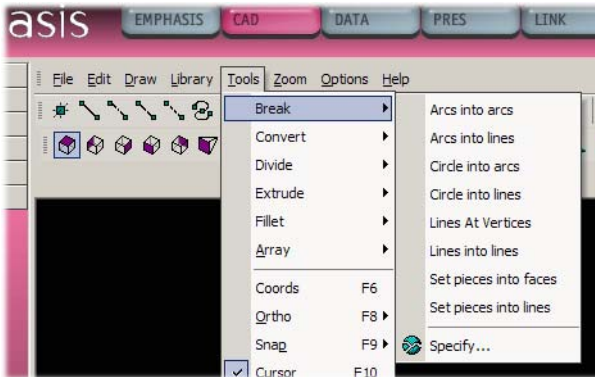


Divide

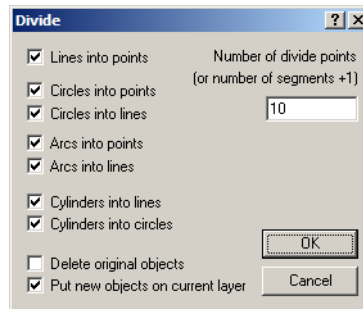
The Divide command takes a larger object and “divides” it with other objects. For example, you can divide an arc with a number of points, or with lines along radial paths. You can use this command to help create guides for drawing complex shapes.

To divide an object:

- Step 1: Select the object to divide.
- Step 2: In the **Tools** menu, click **Divide**, then click the type of division you want.



You may also work in the Specify dialog to set all the options for the Divide command at one time. The default settings for the Divide command are shown below:



Note: You can also right-click on an object and click **Tools**, then click **Divide** to access the division options. Or, you may also use the Divide button on the Tools toolbar.

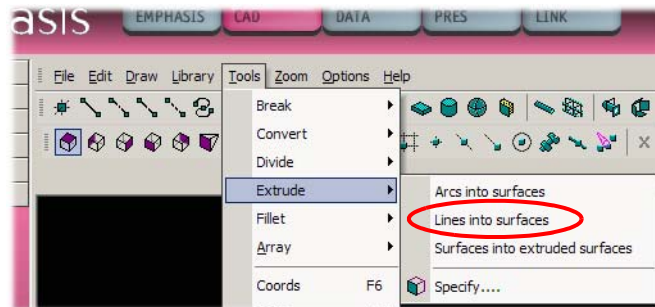


Extrude

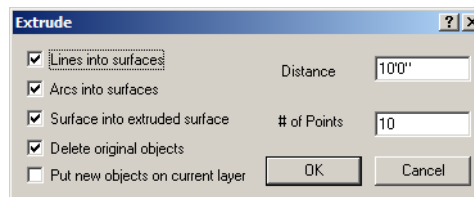
The Extrude command allows you to turn a 2D object like a line or an arc into a surface, or turn a surface into an extruded surface (which can look like a riser or a cylinder, but has the properties of a surface).

To extrude a line:

- Step 1: Select the line you want to extrude.
- Step 2: In the **Tools** menu, click **Extrude**, then click **Lines into Surfaces**.
- Step 3: Enter the distance to extrude the line. The extrusion will occur parallel to the axis of the missing coordinate. For example, a line shown in plan view will extrude vertically (along the Z axis).



You may also work in the Specify dialog to set all the options for the Extrude command at one time. The default settings for the Extrude command are shown below:

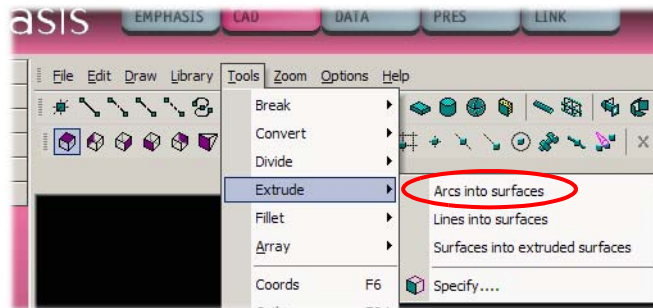


Note: You can also right-click on an object and click **Tools**, then click **Extrude** to access the extrusion options. Or, you may also use the Extrude button on the Tools toolbar.



To extrude an arc:

- Step 1: Select the arc you want to extrude.
- Step 2: In the **Tools** menu, click **Extrude**, then click **Arcs into Surfaces**.



- Step 3: Enter the distance to extrude the line. The extrusion will occur parallel to the axis of the missing coordinate. For example, an arc shown in plan view will extrude vertically (along the Z axis).

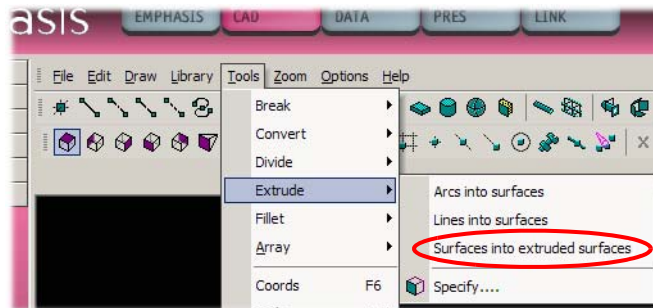


Note: You can also right-click on an object and click **Tools**, then click **Extrude** to access the extrusion options. Or, you may also use the Extrude button on the Tools toolbar.



To extrude a surface into an extruded surface:

- Step 1: Select the surface you want to extrude.
- Step 2: In the **Tools** menu, click **Extrude**, then click **Surface into Extruded Surface**.



- Step 3: Enter the distance to extrude the surface. The extrusion will occur parallel to the axis of the missing coordinate. For example, a surface shown in plan view will extrude vertically (along the Z axis).



Note: You can also right-click on an object and click **Tools**, then click **Extrude** to access the extrusion options. Or, you may also use the Extrude button on the Tools toolbar.



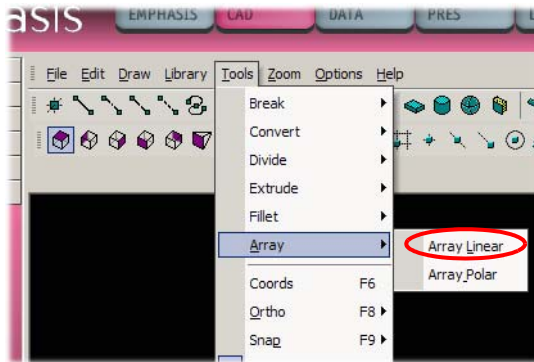
Array

The Array command is used to make multiple copies of an object distributed evenly along a line or arc.

To perform a linear array:

Step 1: Select the object you want to array.

Step 2: In the **Tools** menu, click **Array**, then click **Array Linear**.



Step 3: Click on the object to set the interval for the objects in the array, or type in the coordinates of the base point and press ENTER. This will open a dialog box.

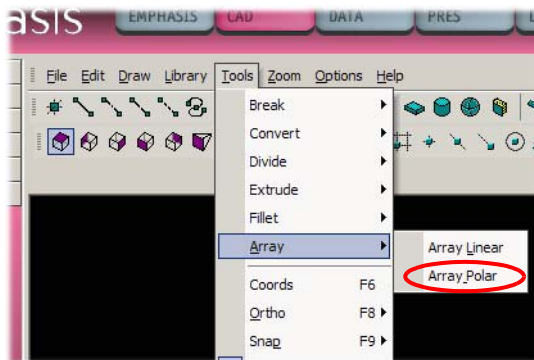
Step 4: Enter the total number of objects in the array (this will include the original object). You may also change the interval value here if needed.

Step 5: Click OK.

To perform a polar array:

Step 1: Select the object you want to array.

Step 2: In the **Tools** menu, click **Array**, then click **Array Polar**.



Step 3: Click on the object to set the centerpoint for the objects in the array, or type in the coordinates of the centerpoint and press ENTER. This will open a dialog box.

Step 4: Enter the total number of objects in the array (this will include the original object). You may also change the interval value here if needed, and choose whether or not the arrayed objects should rotate about the center of the array.

Step 5: Click OK.



Note: You can also right-click on an object and click **Tools**, then click **Array** to access the array options.

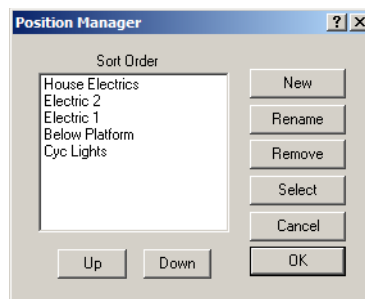
Hang Structures

Hang structures are a very important part of creating a light plot in Emphasis. All fixtures must be placed on a hang structure - either a pipe or a truss. This includes fixtures on set mounts or floor mounts. Hang structures are not only a place to hang fixtures, but also a means to organize your paperwork. Some general facts about hang structures:

- Hang structures can be pipes or trusses. Pipes are drawn, trusses are placed from the truss library. There are many different types of truss symbols in the truss library, including box, triangle and curved. Truss includes floor mount, boom and ladder positions as well.
- Hang structures can have the same name, even if they are not connected. For example, you can use this for set mounts, where you have many small pipes attached to the same piece of scenery. It is not advised to name every truss in your rig "truss". It is better to name individual hanging positions with something more specific, such as "FOH Truss" or "#1 Electric".

Position Manager

The Position Manager organizes all the available position names in your show file. It also sets the sort order of your positions. You can use the Position Manager to change the sort order of the position names, which is important for printed paperwork like instrument schedules. The Position Manager is accessible from the Properties window of a hang structure and from the **Positions** command in the **Edit** menu.



To add names to the position manager:

- Step 1: In the **Edit** menu, click **Positions**.
- Step 2: Click New.
- Step 3: Type the name of the new position and click OK.

To rename positions in the position manager:

- Step 1: In the **Edit** menu, click **Positions**.
- Step 2: Click the name of the position to highlight it.
- Step 3: Click Rename.
- Step 4: Type new name.
- Step 5: Click OK.

To remove a position name:

- Step 1: In the **Edit** menu, click **Positions**.
- Step 2: Click on the name of the position to highlight it.
- Step 3: Click Remove.
- Step 4: Click OK.

To change the sort order of the position names in the list:

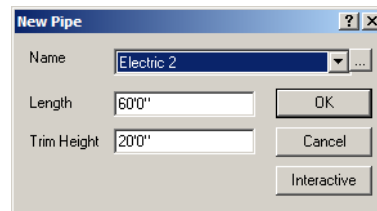
- Step 1: In the **Edit** menu, click **Positions**.
- Step 2: Click the name of the position you want to move.
- Step 3: Click Up or Down to move the name in the list.
- Step 4: Repeat for all the names you want to reorder.
- Step 5: Click OK.

Drawing Pipes

In Emphasis, there are two methods of drawing objects. One method is to use a dialog box to describe the object you want before you place it in the plot and the other is to draw the object's shape with the mouse (Interactive).

To draw pipes using a dialog box:

- Step 1: In the **Draw** menu, click **Pipe**.
- Step 2: In the New Pipe dialog, find the name of the pipe. If you need to create the name of the pipe, click on the Position Manager button [...]. Click New and type in the name of the pipe.



- Step 3: Enter the Length of the pipe, if different from the default.
- Step 4: Enter the Trim Height of the pipe, if different from the default.
- Step 5: Click OK.



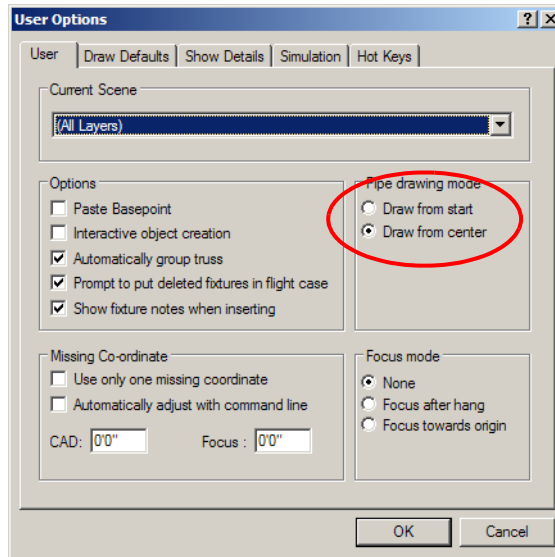
Note: You can use the *Pipe* button on the *Draw* toolbar, or the *Pipe* hot key (*P*) instead of the *Draw* menu to start drawing a pipe.



There are two types of interactive drawing modes for pipes (see [Interactive Mode, page 101](#)). The first pipe drawing mode is called Draw from Start and it describes pipes using endpoints. The second is called Draw from Center and it describes pipes using the distance from centrepoint of one end of the pipe.

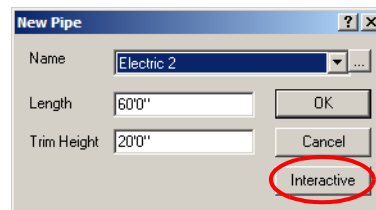
To set the default mode:

- Step 1: In the **Options** menu, click **User Options**.
- Step 2: Click the User tab.
- Step 3: Select the Draw from Center or Draw from Start in the Pipe Drawing Mode section.

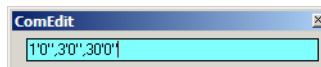


To draw a pipe from center:

- Step 1: In the **Draw** menu, click on **Pipe**.
- Step 2: If the default setting is not Interactive object creation, click Interactive in the Pipe dialog box.



- Step 3: If the default setting is not Draw from Center, right-click on the plan view to change this setting.
- Step 4: Press TAB to set the missing coordinate, if required.
- Step 5: Move the cursor to the required insertion point of the center of the pipe. You can also type the required coordinates into the ComEdit toolbar.



- Step 6: Click to begin the pipe and drag it to the proper length. The new pipe will extend in both directions from the centrepoint.



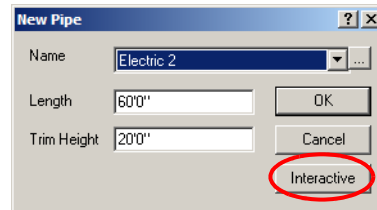
Note: You can type values directly into the ComEdit toolbar each time you begin a new point on your pipe. Press ENTER to set the point.

- Step 7: Click to finish the pipe.

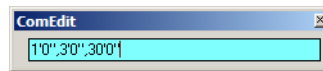
- Step 8: Right-click on the pipe you have just drawn and click **Properties**.
- Step 9: Click Hang Structure and scroll to find the name for this new pipe. If the name is not already in the list, use the Position Manager [...] to enter the new name.
- Step 10: Repeat to draw more pipes.

To draw a pipe from start:

- Step 1: From the **Draw** menu, click on **Pipe**.
- Step 2: If the default setting is not Interactive object creation, click Interactive in the Pipe dialog box.



- Step 3: If the default setting is not Draw from Start, right-click on the plan view to change this setting.
- Step 4: Press TAB to set the missing coordinate, if required.
- Step 5: Move the cursor to the required insertion point of the endpoint of the pipe. You can also type the required coordinates into the ComEdit toolbar.



- Step 6: Click to begin the pipe and drag it to the proper length. The new pipe will extend away from the endpoint.



Note: You can type values directly into the ComEdit toolbar each time you begin a new point on your pipe. Press ENTER to set the point.

- Step 7: Click to finish the pipe.
- Step 8: Right-click on the pipe you have just drawn and click **Properties**.
- Step 9: Click Hang Structure and scroll to find the name for this new pipe. If the name is not already in the list, use the Position Manager [...] to enter the new name.
- Step 10: Repeat to draw more pipes.



Note: You can toggle in and out of interactive mode using the F11 key on your keyboard or by clicking the Interactive button on the CAD Options toolbar.

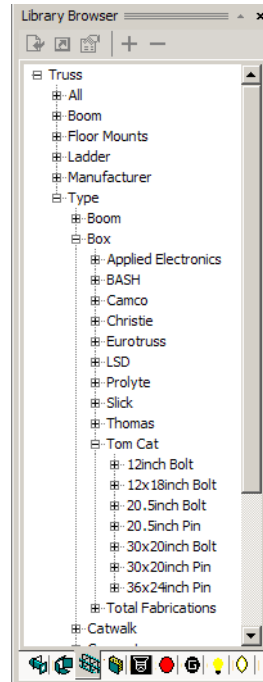


Hanging Truss

Truss is different from pipes. Trusses are library objects, designed to match the sizes of a variety of manufacturers' products. Truss is also a classification of generic specialty hanging structures like ladders, booms and floor mounts.

To hang truss:

- Step 1: Open the Library Browser and click the truss button at the bottom of the browser.
- Step 2: Click through the classifications to find the type of truss you want to use.



- Step 3: Double-click on the truss name. A piece of truss will attach to the cursor.
- Step 4: Click on the drawing to place the first piece of truss.
- Step 5: Continue placing pieces of truss as needed.
- Step 6: Right-click and click **Finish Placing Truss**. To abort the truss, click **Abort Placing Truss** and all truss placed since the **Insert** command (or the double-click on the truss name) will be erased from the drawing.
- Step 7: Right-click on the truss you have just inserted and click **Properties**.
- Step 8: Click Hang Structure and scroll to find the name for this new pipe. If the name is not already in the list, use the Position Manager [...] to enter the new name.




Note: You can use the Truss button on the Draw toolbar or the truss hot key (T) instead of the Draw menu to start inserting trusses.



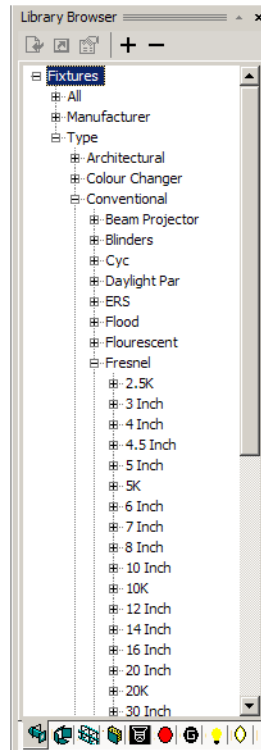
Using Assembly snap with truss:

Assembly snap will group truss pieces together as you place them, if you place them at the snap point. This is especially useful for long trusses made up of many individual pieces. You can use Assembly snap in two ways.


- Enable Assembly snap in the View Options window or by clicking the assembly snap button in the CAD Options toolbar *before* inserting truss to group all snapped objects into one group. 
- Enable Assembly snap *after* inserting the first piece of truss to group selectively. Assembly snap will disengage after you place the next piece of truss, grouping only the first truss (or group of trusses) with the second piece.

Hanging Fixtures

Emphasis has an extensive library of pre-built fixtures to choose from. Inserting fixtures into your drawing is as easy as pointing and clicking. You can place fixtures directly from the Library Browser, or you can create shortcuts for your most-used fixtures.



To insert fixtures:

Step 1: In the **Library** menu, click on **Browse Library**. Click on the Fixture icon at the bottom of the browser. 




Note: You can also use the Fixture hot key "F" to open the fixture library.

Step 2: Using the expandable menus, navigate to the fixture you want to insert.

- Step 3: Double-click on the fixture name you want to insert. A fixture with default settings for this type will attach to the cursor.
- Step 4: To change the properties of the fixture before inserting, right-click on the fixture name and click **Property**. A dialog box will open with a shaded view of the fixture on the left and an image of its symbol on the right. Use the Photometrics tab to change the lamp and lens settings for the fixture, if applicable. Click on Insert and the dialog will close.
- Step 5: Move the cursor over a pipe or truss and click to place the fixture. Continue placing this type of fixture by clicking on the other required positions.
- Step 6: Right-click anywhere in the wireframe view and click **Finish Placing Fixtures** from the menu that appears.
- Step 7: To place other fixture types, repeat steps 2-6 for each type.

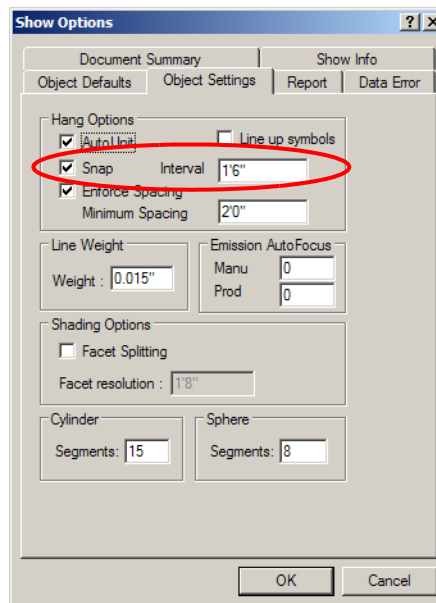
Pipe Snap and Interval

Pipe snap will place fixtures on a hang structure at a specific interval. This ensures that you don't place fixtures too close together, and that fixtures are placed uniformly along the pipe. You can use Pipe snap in two ways.

- Enable Pipe snap in the View Options dialog or by clicking the Pipe snap button on the CAD Options toolbar *before* inserting fixtures to constrain each fixture inserted to the interval. 
- Enable Pipe snap *after* inserting the first fixture to enforce the interval selectively. Pipe snap will disengage after you place the next fixture.

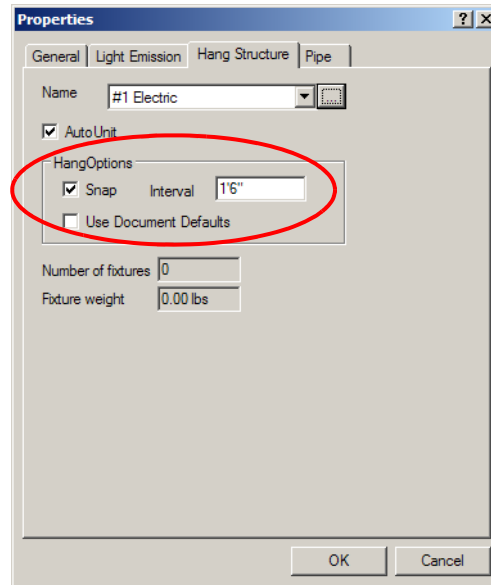
To set a new default interval:

- Step 1: In the **Options** menu, click **Show Options**.
- Step 2: Click the Object Settings tab.
- Step 3: Check the Snap box if it is unchecked, and type the new value in the Interval box.
- Step 4: Click OK.



To set an interval for a specific hang structure:

- Step 1: Right-click the pipe or truss and click **Properties**.
- Step 2: Click the Hang Structure tab.
- Step 3: Uncheck the Use Document Defaults box.
- Step 4: Enter a new value in the Interval box.
- Step 5: Click OK.



AutoUnit

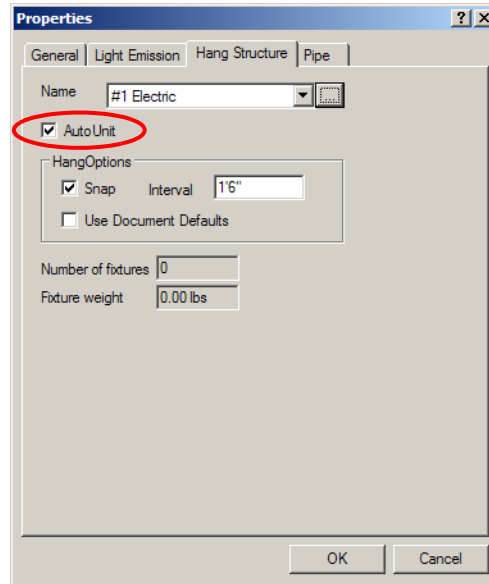
AutoUnit will create and adjust unit numbers for fixtures on a pipe as you add, move or delete them. AutoUnit does not apply to truss positions, you will need to place unit numbers manually (see [Quick Tools, page 136](#)).

Unit numbers set by AutoUnit adhere to the following conventions:

- AutoUnit creates a unique unit number for each fixture on a pipe. Each pipe starts at Unit #1.
- Unit numbers generally start on the stage left end of pipes running along the X axis (stage left to stage right).
- Unit numbers generally start on the upstage end of pipes running along the Y axis (upstage to downstage).
- Unit numbers generally start on the top of pipes running along the Z axis (top to bottom).
- Unit numbers on diagonal pipes may default to a convention above that does not fit the way you want the position numbered. In this case, turn off AutoUnit for that position and renumber the units manually or with Quick Tools (see [Quick Tools, page 136](#)).

To change the AutoUnit setting for a pipe:

- Step 1: Right-click the pipe and click **Properties**.
- Step 2: Click the Hang Structure tab.
- Step 3: Click the AutoUnit box. A check indicates AutoUnit is active.
- Step 4: Click OK.

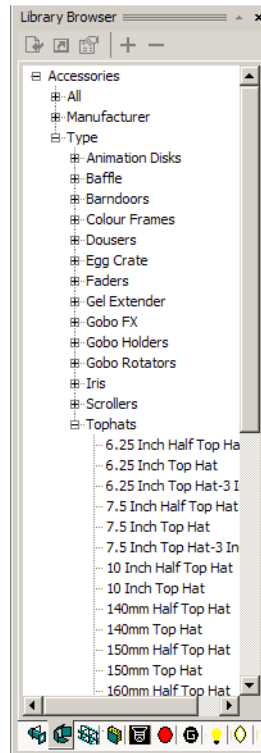


Adding Accessories

You can add accessories to fixtures such as barndoors, tophats, colour scrollers, doublers, etc. Accessories have their own section in the Library Browser and can be inserted just like other objects. In the case of accessories, however, you insert them onto a fixture that's already been placed.

To insert an accessory:

- Step 1: In the **Library** menu, click on **Browse Library**. Click on the Accessory icon at the bottom of the browser.
- Step 2: Using the expandable menus, navigate to the accessory you want to insert.



- Step 3: Double-click on the accessory name. An accessory (with the default settings for this type, if applicable) will attach to the cursor.
- Step 4: Click the fixture(s) that require this accessory.



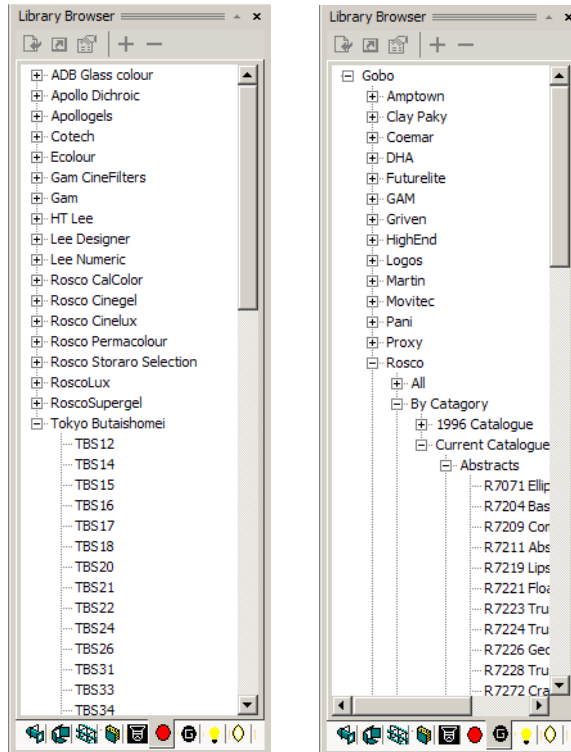
Note: To place an accessory on a selected fixture, right-click on the fixture and click **Add Accessory**. Use the browser to find the accessory you want to insert.

To place an accessory on a group of selected fixtures, use the Accessory library. With the fixtures selected, find the accessory in the Library Browser. Right-click on the accessory name and click **Insert**.



When placing colour and accessories such as tophats or barndoors on a fixture, place the accessory first, then add the colour.

Placing Colour and Gobos

You can place colour and gobos on fixtures by using the Library Browser. Colours and gobos from many manufacturers are included in the library, and you can preview the colour or gobo by double-clicking the name, or by right-clicking the name and clicking **Properties**.



To insert colours and gobos using the Library Browser:

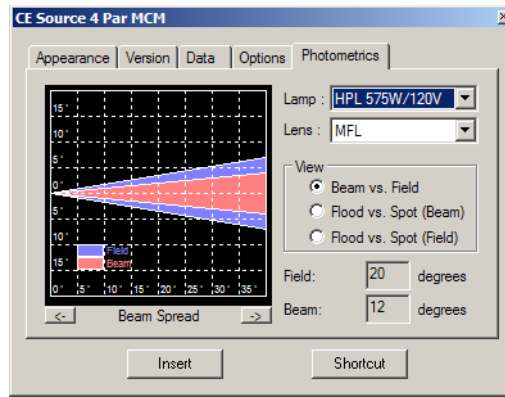
- Step 1: In the **Library** menu, click on **Browse Library**.
Click on the Colour or Gobo icon at the bottom of the browser.  
- Step 2: Using the expandable menus, navigate to the color or gobo you want to insert.
- Step 3: Double-click on the color or gobo name. The cursor will show a "Q".
- Step 4: Click on the fixture(s) you want to add the colour or gobo to.
- Step 5: Right-click and click **Finish Quicktools** to finish placing the colour or gobo.



Note: When placing colour and accessories such as tophats or barndoors on a fixture, place the accessory first, then add the colour.

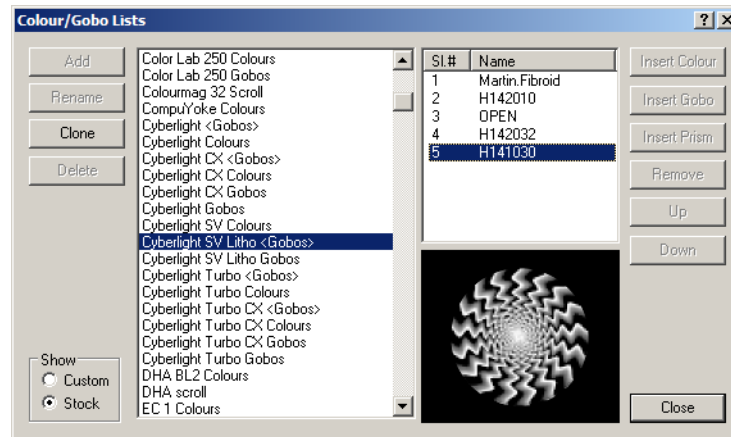
Fixture Properties

Fixture properties are those pieces of information that define a fixture in your plot, such as channel, dimmer, lens type, colour, focus, etc. The fixture properties are the items that are listed on hookups, instrument schedules and other reports. You can enter data for fixtures in the Properties window, shown below, or in the Data mode (see [Data Mode](#), page 147).



Colour/Gobo Lists

Colour and Gobo lists are created for automated lighting fixtures when the library object is created. These are typically the standard or “stock” colours and gobos provided by the fixture manufacturer. If you are using a custom set of colours or gobos, or want to generate a scroll for a colour scroller, you will need to create a custom colour/gobo list.



To view an existing library list:

- Step 1: In the **Library** menu, click **Edit Colour/Gobo Lists**.
 - Step 2: Click Show Stock lists.
 - Step 3: Scroll to find the list you want to view.
 - Step 4: Click on the list name. The contents of that list will be displayed in the slot window.
 - Step 5: Click on a slot to see the preview of that colour or gobo.
- Click Close when you are done.



Note: *It is recommended that you use the Clone button to create a copy of the stock wheel or list associated with a fixture and then edit the cloned list. Once a list is cloned, you can skip to Step 5 below.*

To create a custom colour/gobo list:

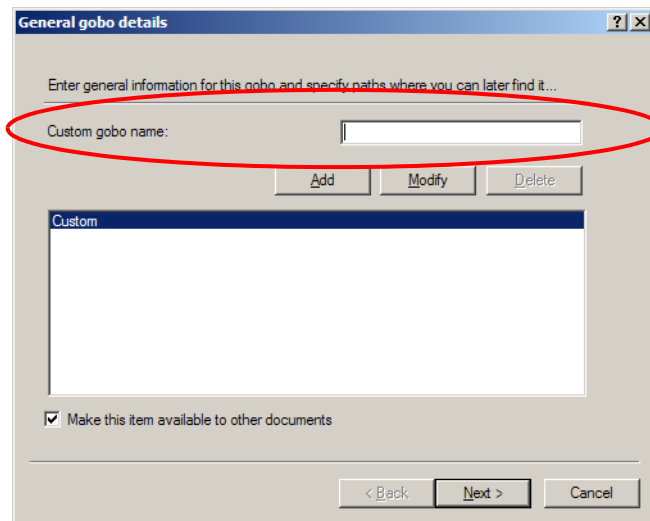
- Step 1: In the **Library** menu, click **Edit Colour/Gobo Lists**.
- Step 2: Click Show Custom lists.
- Step 3: Click Add.
- Step 4: Type in the name of the new list and the number of slots and click OK.
- Step 5: Click on the slot you wish to edit.
- Step 6: Click Insert Colour, or Insert Gobo, or Insert Prism. Make sure if you are inserting different types of media into the same list that this is actually possible for that fixture or accessory.
- Step 7: Click on the item you want to insert and click Select.
- Step 8: Repeat for the remaining slots.
- Step 9: To reorder the items in the slots, click on the slot and click Up or Down to move that item to a new position.
- Step 10: Click Close when you are done creating lists.

Custom Gobo Wizard

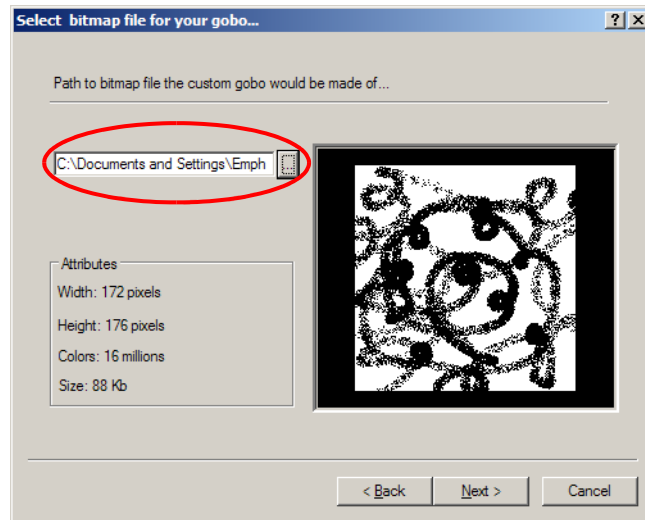
If you have custom gobo artwork for conventional fixtures, you can add it to the Gobo library using the Gobo Wizard. The Gobo Wizard walks you through the steps of designating the file that contains the custom artwork, and which gobo to display as a substitute in those cases where the actual artwork cannot be displayed. Custom gobos are accessed in the gobo library, under the Custom classification.

To use the Gobo Wizard:

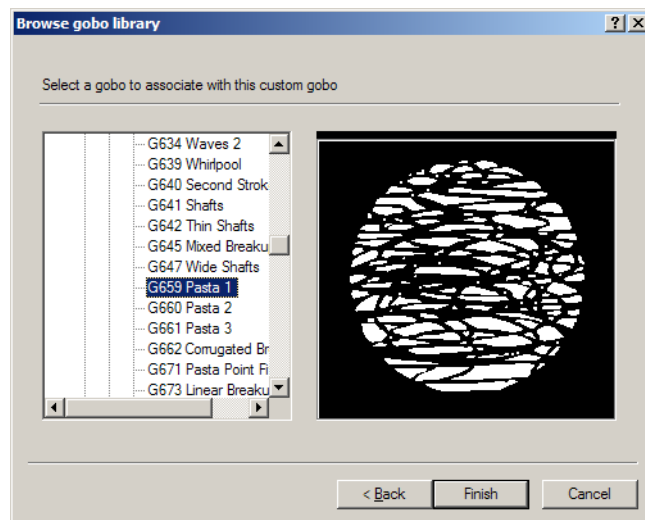
- Step 1: In the **Library** menu, click **Gobo Wizard**.
- Step 2: Type in the custom gobo name and click Next.



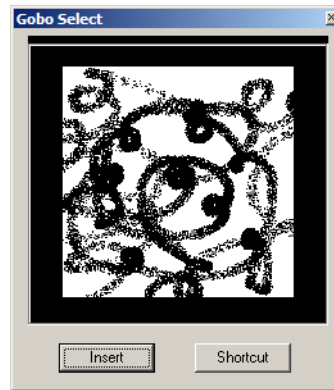
- Step 3: Type the path to the custom artwork file or use the browser [...]. A preview of the image will appear, as well as information about the image.



- Step 4: Click Next. A short description of the next step appears. You will need to choose an existing library gobo to be displayed when the custom artwork cannot. Click Next.
- Step 5: Click the name of the substitute image you want to use and click Finish.



- Step 6: When you complete the wizard, your custom gobo will appear in the Gobo library, under the classification “Custom”. You can insert and view your custom gobo just like any other gobo.



Focus Conventional Fixtures

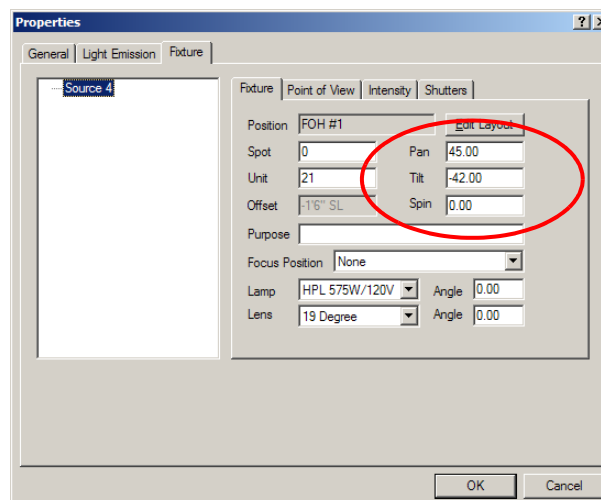
You can focus the conventional fixtures in your plot in three ways. First, you can click and drag the beam of a selected fixture. Second, you can enter the pan and tilt values for the fixture in its Properties box. Lastly, you can assign a focus position to the fixture.

To focus using click and drag:

- Step 1: Select the fixture you want to focus. The beam will be shown.
- Step 2: Click on the beam and drag it to its new position. When you are done, release the mouse button.
- Step 3: You can also right-click the fixture and click **Focus** to drag the beam without having to hold the mouse button down continuously. Click to finish when the beam is focussed where you want it.

To focus a fixture using pan and tilt:

- Step 1: Right-click the fixture you want to focus and click **Properties**.
- Step 2: Click the Fixture tab.
- Step 3: Enter the pan and tilt values in the appropriate boxes.





Note: The Spin value describes the fixture's placement on the pipe or truss. A spin value of zero (0) hangs the fixture straight down from a horizontal hang structure (or straight out on a vertical structure). A spin value of 90 would place the fixture in a "yoked-out" position, and a spin value of 180 would cause the fixture to be "overhung" on the pipe or truss.

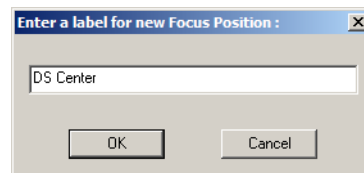
Insert a Focus Position

Focus positions allow you to quickly attach a focus value to each fixture in your drawing. When you assign a focus position to a fixture, the fixture symbol will automatically update, pointing its beam at the focus position. If there are scenic conflicts in the beam path, you will be able to see those as well.

Focus positions may be linked to Emphasis Console Focus Points. If you move the focus position in CAD mode, you can update the Emphasis Console Focus Point to the new values as well.

To insert focus positions:

Step 1: In the **Draw** menu, click on **Focus Position**. The "Enter a label for new Focus Position" dialog appears.

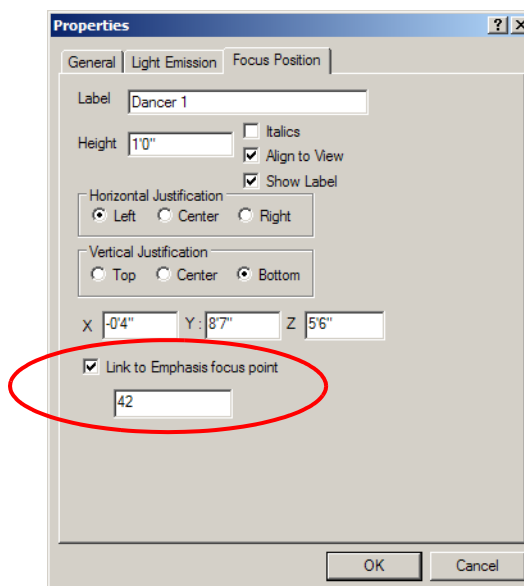


Step 2: Enter the label for this focus position and click OK.

Step 3: Press TAB to set the missing coordinate, if necessary.

Step 4: Place the cursor where you want the focus position. Click to insert the focus position.

Step 5: If you intend to link the focus position to an Emphasis focus point, right-click the focus position and click **Properties**. Place a check-mark beside "Link to Focus Point" and enter the Emphasis focus point number below.





Note: You can also click the *Focus Position* button on the *Draw* toolbar to place focus positions.



Quick Focus

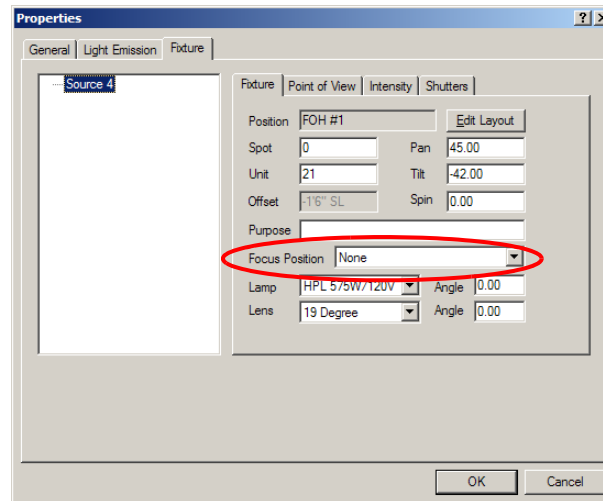
Assigning focus positions to fixtures can be done in two ways. Quick Focus automates setting fixtures to focus positions. You can also set the focus position in the fixture Properties box.

To use the Quick Focus tool:

- Step 1: In the **Tools** menu, click on **Quick Focus**.
- Step 2: Click on a focus position on the plot view. This will set that position as the destination for the next fixtures you select.
- Step 3: Click on each fixture you want focussed to that position.
- Step 4: Right-click anywhere in the wireframe view and click **Finish Quick Focus**.

To individually modify a specific fixture's focus position settings:

- Step 1: Right-click on the fixture and select **Properties** from the menu that appears.
- Step 2: Click on the **Fixture** tab in the dialog that appears and select the new position from the combo box beside "Focus Position."
- Step 3: Click OK.



Note: You can use the *Quick Focus* button on the *Tools* toolbar, or you can right-click on a fixture and click on **Tools**, then click **QuickFocus** to access the Quick Focus command.



Quick Tools

Quick Tools allow you to quickly enter data for fixtures without having to switch to the Data mode or open the Properties box for each individual fixture. Quick tools will enter repetitive information, as well as incremental

information for each fixture as you click on it.

Quick Fixture Tool

Fixture

☒ Spot 1 ☒ Auto Increment

☒ Unit 1 ☒ Auto Increment

☐ Purpose

☐ Focus Pan: 0 Tilt: 0

Data

☒ Channel 1 ☒ Auto Increment

☒ Patch EDMX.1 ☒ Auto Increment

☒ Dimmer 1 ☒ Use EDMX address ☒ Auto Increment

☐ Circuit Name: Num: 1 ☒ Auto Increment

Accessories

☐ Colour ...

☐ Gobo ...

☐ Other ...

OK Clear All Cancel

To use Quick Tools:

- Step 1: In the **Tools** menu, click on **Quick Tools**. The “Quick Fixture Tool” dialog box will open.
- Step 2: To activate a tool, click a check mark in the box to the left of the tool. You can activate as many as you want at a time. See below for explanations of the different data types.
- Step 3: Enter the initial value for the tool in the box to the right of the tool name. If you want the value to auto increment, make sure that the Auto-increment check box is checked.
- Step 4: When the dialog box is setup the way you want it, click OK.
- Step 5: The cursor will show a “Q”, indicating that Quick Tools have been activated. Click on each fixture in the order you want any auto-incrementing values to be placed.
- Step 6: When complete, right-click on the wireframe view and click on **Finish Quick Tools**.



Note: You can use the Quick Tools button on the Tools toolbar, or right-click on a fixture and click on **Tools**, then click **QuickTools** to access the Quick Tools command.



Quick Tools Data Types

- **CHANNEL** - This is the control channel you will use at your Emphasis Facepanel to control this fixture. For moving lights, the channel number recorded in Emphasis is the starting channel number. Emphasis will automatically increment the number of channels that a fixture uses for control. This setting is required for Emphasis to control your fixtures (conventional and moving lights).
- **PATCH** - This is the EDMX address for this fixture. The patch field will also automatically increment the appropriate number of EDMX addresses for the fixture selected. This setting is required for Emphasis to control your fixtures (conventional and moving lights).



Note: *EDMX addresses are assigned to specific DMX output ports within your network. Consult your specific network configuration to determine how the EDMX addresses have been assigned in your system.*

- SPOT - Each moving light in your show needs a Spot number for identification. This number is used by Emphasis to keep track of the moving lights in a show, and corresponds to the Facepanel's Fixture number for selection. This setting is required for Emphasis to control moving light fixture types.
- UNIT - The unit number is specific to the hanging position.
- PURPOSE - The purpose is a note that signifies how this fixture is being used in your show. Examples: "SL Side", "Diagonal Backs".
- FOCUS - This is the focus position you want to assign to your fixtures. Focus positions are specific objects in an Emphasis show file, not unlike hanging positions.
- DIMMER - This is a convenience setting in cases where the EDMX value is not the same as the Dimmer name. It is not required for Emphasis to control your fixtures; however, it is required for WYSILink. In systems using WYSILink, this corresponds to the Sensor[®] Unique Dimmer number (UD#).
- CIRCUIT - Circuit can have both a name and a number. For example, this is useful in a show using multi-cables. The letter could designate the individual multi-cables and the number could designate the circuit number in that multi-cable.
- COLOUR - This is the colour you want to place on the fixtures.
- GOBO - This is the gobo you want to place in spot fixtures.
- OTHER - This allows you to choose another accessory.

Shaded Views (Emphasis 3D Only)

Shaded Views display the objects of your wireframe views “filled in” or solid. This is a very fast way to allow you to see the shape and perspective of your set without having to render it. Shaded views will follow Layer and Scene settings just like any other view, so you can be very specific about how much information is displayed.

Keyboard and mouse control

To change your point of view within a shaded view:

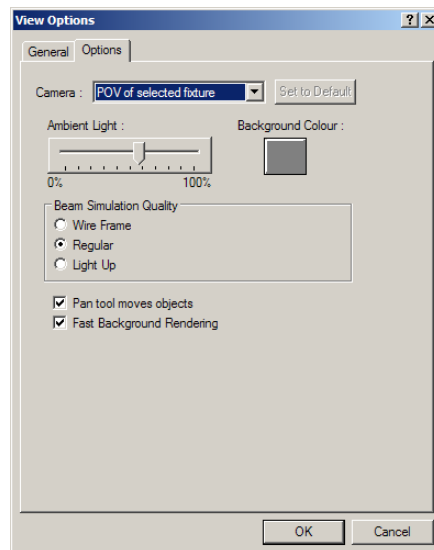
- Use the arrow keys to move the position of the virtual target. PAGE UP/PAGE DOWN will zoom you in and out.
- Holding down CTRL and using the arrow keys or the PAGE UP/PAGE DOWN will actually move the camera (see [Cameras, page 140](#)). If you also hold down the SHIFT key, the movements will be smaller.
- Using the mouse, click and drag in the view. This will move the camera position.
- You can also use the mouse wheel to zoom in and out. The arrow keys will continue to move the target position as you do this.

Modifying Shaded Views

There are many different options for modifying a shaded view. You may want to change settings if the system doesn't generate the view quickly enough for your purposes.

To modify a shaded view:

- Step 1: Right-click on the shaded view and click **View Options**.
- Step 2: The Shading tab is where you can set the camera (see below), ambient light amount, and the type of beam simulation you want to use. You can also change the background colour of the shaded view. Click OK.



Cameras

You can insert multiple “cameras” into your drawing to create points of view you can return to easily. In Emphasis 3D, you can use the camera to set the point of view in shaded views and renderings.

To insert a camera into the drawing:

- Step 1: In a wireframe view, in the **Draw** menu, click on **Camera**.
- Step 2: Type in the name of the camera and the angle it covers.
- Step 3: Click on the drawing to place the camera (don't forget the missing coordinate for height and focus of the camera, see [The Missing Coordinate, page 90](#)).
- Step 4: Drag the cursor to aim the camera.



Note: *Once the camera is named and set, you can modify the shaded view to use that camera. If you click and drag the camera in the Plot View, you will see the results immediately in the Shaded View. If you click and drag in the Shaded View, you will be moving the camera in the Plot View.*

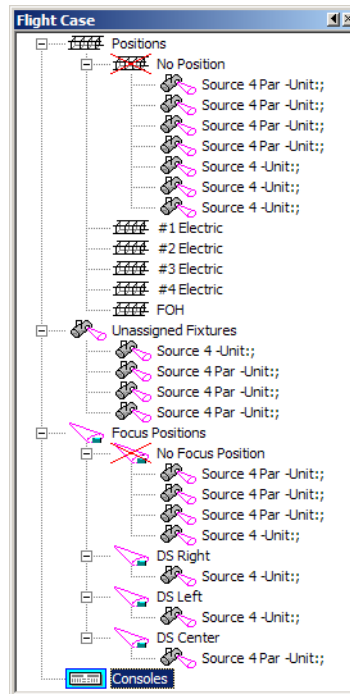
Instead of choosing a camera, you can choose POV of Selected Fixture. This only works when a single fixture is selected. The shaded view will give you the perspective from that fixture's hanging position.

The Flight Case

Emphasis has a tool called the Flight Case. The Flight Case is a holding place for all the equipment before it is hung in the venue. If you started inserting fixtures and hanging positions in DATA mode, there is no way of telling where they will line up in your venue. You can view the fixtures, positions and focus positions you entered in the spreadsheet view in the Flight Case window. You can also use the Flight Case layout tab to view a wireframe view with the Flight Case window built-in.

To open the Flight Case:

Step 1: In the **Tools** menu, click on **Flight Case**. The Flight Case will open and will display Positions, Unassigned Fixtures, Focus Positions and Consoles.




Note: Positions entered in the spreadsheet will be listed under positions.
Unassigned fixtures shows fixtures without hanging position or focus information.
Focus positions entered in the spreadsheet will be listed with the fixtures aimed there.

Insert Hang Structures

You can place pipes in your plot directly from the Flight Case.

To place pipes using Interactive mode:

- Step 1: Click the Flight Case layout tab and select the appropriate wireframe view.
- Step 2: Press TAB to set the missing coordinate, if necessary.
- Step 3: If Interactive mode is not currently active, press F11 or the Interactive button on the CAD Options toolbar. 
- Step 4: Click and drag the pipe from the Flight case to the plan view.
- Step 5: Right-click to open the pipe menu.
- Step 6: Click on **Pipe - Draw from Center** or **Pipe - Draw from Start** to choose how the pipe will be drawn.
- Step 7: Click on the plan view at the center- or start-point of the pipe.
- Step 8: Drag the pipe to its required length and click to place the endpoint.
- Step 9: Repeat for all the hang structures in the flight case.



Note: *Once you have selected Draw from Center or Draw from Start, you need not reselect it every time.*

Insert Fixtures

Getting the fixtures from the flight case is just as easy as selecting them from the library. If you have assigned fixtures unit numbers and hanging positions in the spreadsheet, they will be placed when you initially draw the position. If you have not assigned your fixtures to positions already, you will have to drag them from the Flight Case to the pipes.



Note: *You cannot place fixtures in your drawing unless there is a hang structure to place them on.*

To place fixtures from the Flight Case:

- Step 1: Open the Flight Case.
- Step 2: Click on the “+” symbol to the left of Unassigned Fixtures to view available fixtures without hanging position or focus information. If you have assigned focus positions, but not a hanging position, Click on the “+” symbol to the left of Focus Positions to see those available fixtures.
- Step 3: Click and drag the fixture onto the plan view and place it on the pipe. Release the mouse button to place the fixture.
- Step 4: Repeat for the remaining fixtures.



Note: *If a fixture has been created and assigned to a position after the position has been created in the drawing, you will only be able to drop that fixture on a hang structure that has the same position name.*

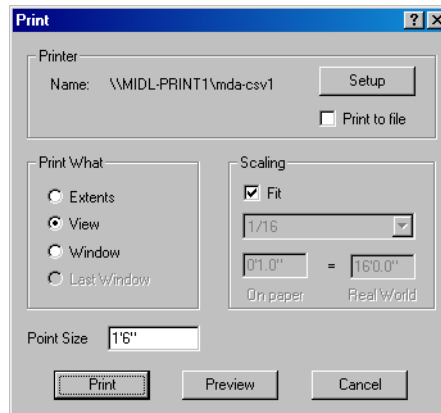
Insert Focus Positions

To place focus positions from the Flight Case:

- Step 1: Click the Flight Case layout tab and open the appropriate wireframe view.
- Step 2: Press TAB to set the missing coordinate, if necessary.
- Step 3: Click and drag the focus position from the Flight case to the wireframe view.
- Step 4: Position it where needed and click to place it.
- Step 5: Repeat for all the focus positions in the flight case.

Printing from CAD Mode

The Print command opens the Print dialog box. The Print command will print the current contents of the work area. The Print dialog box displays the currently selected printer, the scope of the print area in the “Print What” option box, and scale information in the “Scaling” box. There are also buttons for the Print Preview and Print Setup dialog boxes.



“Print What” options:

- Extents prints the whole drawing.
- View prints the currently displayed view in the work area.
- Window allows you to draw a window around the area you wish to print.
- Last Window prints the portion contained in the last window you drew for a Window print. If you have not used or previewed a Window print yet, this option is unavailable.

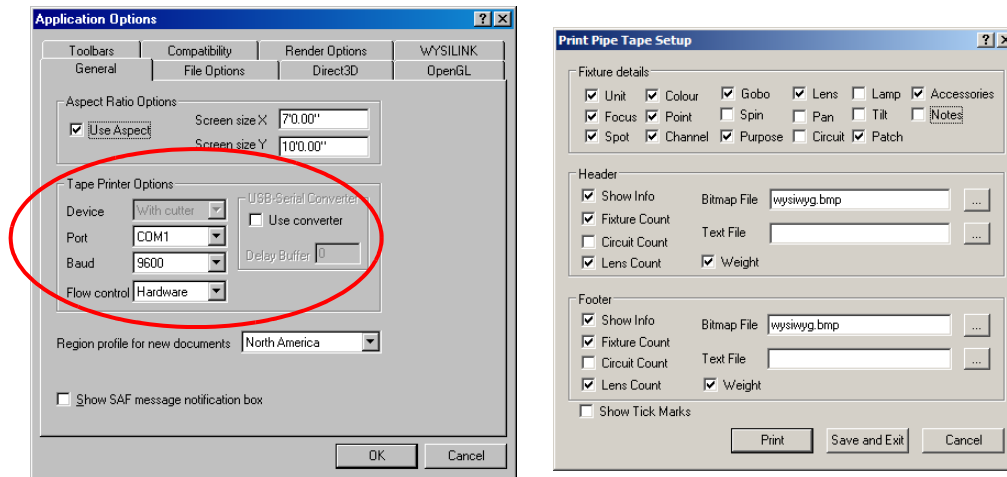
“Scaling” options:

- Fit will print the drawing in the scale required to fill the available print area with the image selected in the Print What option box. When the check-box is checked, the drawing will print to fit.
- When the Fit check-box is unchecked, you must select the scale from the drop-down menu. Standard scales are displayed in this menu. If the scale you want to use is not displayed, choose Custom.
- When Custom is selected, you must enter the ratio. Type the ratio in the On Paper and Real World boxes.

While it is possible to print your drawing directly from the CAD mode, it is preferable to print plots from the Presentation mode (see [Plots, page 167](#)). Presentation mode includes the ability to layout your plot with multiple views, reports, borders and title blocks.

Pipe Tape Printing

Emphasis supports a feature that allows you to print “pipe tapes”. Pipe tapes are attached to a pipe at the beginning of a lighting load-in. The pipe tape indicates to the electricians where to hang a fixture. It also indicates the type of fixture, its required accessories, colour and focus information. A “point of purchase” (POP) receipt printer is used to print pipe tapes, which are printed on 3-inch thermal paper. You can adjust the settings for the POP printer in the Application Options window.



To print a pipe tape:

- Step 1: Open a wireframe view of your drawing.
- Step 2: Click on the pipe you want to print.



Note: You cannot print pipe tapes for truss.

- Step 3: In the **Tools** menu, click **Print Pipe Tape**, or right-click on the pipe and click **Print Pipe Tape**.
- Step 4: Click the Fixture details you want to include or remove from the tape.
- Step 5: Click to include or remove items from the header and footer of the tape.
- Step 6: Click Show Tick Marks if you want to display a mark at the snap interval of the pipe.
- Step 7: Click Print to send the pipe tape to the POP printer. Click Save and Exit to save the pipe tape settings. This allows you to save the settings and use them for printing pipe tapes for other pipes in your drawing. Click Cancel to exit the Pipe Tape Setup without making any changes.

Chapter 6

Data Mode

Data mode is where you can view and edit the data for all your fixtures. Data mode operates like many other spreadsheet programs, so many of the concepts will be familiar to those who have used a spreadsheet program. Emphasis adds features that are specific to the entertainment lighting industry, such as fixed column headings for the data specific to lighting fixtures and accessories.

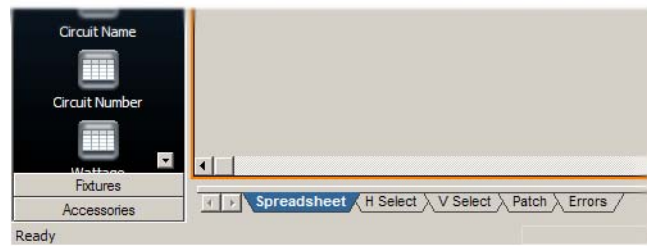
This chapter includes the following sections:

- **Layout Tabs**148
- **Spreadsheets**149
- **Select-only Wireframe Views (HSelect and VSelect)**155
- **Patch Views**156
- **Error Views**158

Layout Tabs

Beneath the work area in each mode is a series of layout tabs. These layouts provide various ways to view the data you are working with. To change layouts, click on the tab that corresponds to the layout you wish to use. The Data screen contains layout tabs specific to the Data mode.

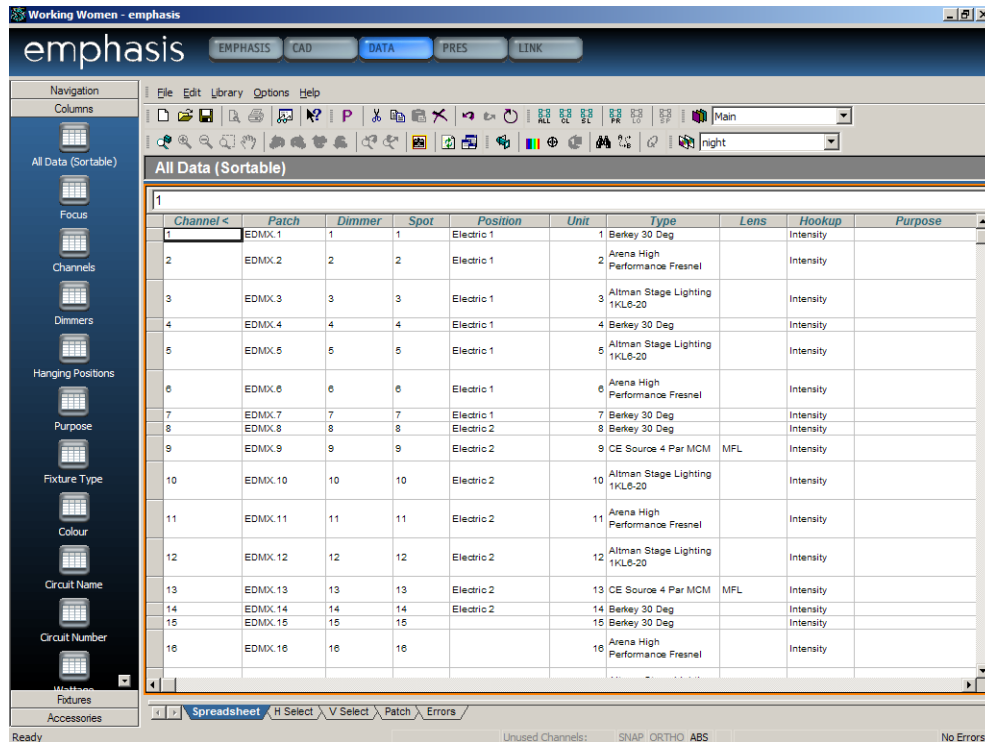
- Spreadsheet - work area contains a spreadsheet of data currently in the show database.
- H Select - work area is split, with a wireframe view above and a spreadsheet view below.
- V Select - work area is split, with a wireframe view on the left and a spreadsheet view on the right.
- Patch - work area is split, with a wireframe view on top above and the patch window below.
- Errors - work area contains a spreadsheet displaying fixtures with errors.



Spreadsheets

A spreadsheet displays data in rows and columns. The Emphasis Spreadsheet view displays data specific to your show file. When you are working in the Spreadsheet, Emphasis provides columns for all the data you can generate about a fixture. Some of this data is entered by you, and some of this data is generated by Emphasis.

Emphasis provides a number of preset views of the Spreadsheet in the Views shortcut bar. These are commonly used views, such as a listing by channel or by hanging position. You can create your own views, as well.



Insert Fixtures

Insert Fixtures

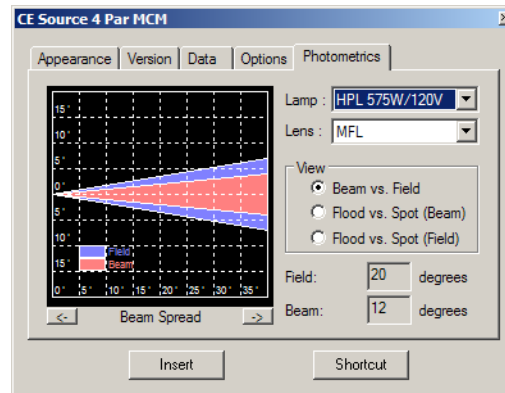
You can insert fixtures directly into the Spreadsheet using the Library. See [The Library Browser, page 98](#), for more information on using the Library Browser.

To insert fixtures one at a time:

- Step 1: In the **Library** menu, click **Browse Library**.
- Step 2: Navigate to the fixture you want to insert.
- Step 3: Double-click on the fixture name you want to insert. The fixture will be inserted at the bottom of the list of fixtures in the Spreadsheet.

To change the properties of the fixture before inserting

- Step 1: In the **Library** menu, click **Browse Library**.
- Step 2: Navigate to the fixture you want to insert.
- Step 3: Right-click on the fixture name and click **Property**. A dialog box will open with a shaded view of the fixture on the left and an image of its symbol on the right.
- Step 4: Use the tabs to modify various settings of the fixture.
- Step 5: Click Insert.



To create a shortcut for this fixture:

- Step 1: In the **Library** menu, click **Browse Library**.
- Step 2: Navigate to the fixture you want to insert.
- Step 3: Right-click the fixture name and click **Create Shortcut**.
- Step 4: Right-click on the newly created Shortcut button and click **Properties**.
- Step 5: Set the fixture properties as desired and click OK.

To insert multiples of a fixture:

- Step 1: In the **Library** menu, click **Browse Library**.
- Step 2: Navigate to the fixture you want to insert.
- Step 3: Right click on the fixture name.
- Step 4: Click on **Insert Multiple**.
- Step 5: Enter the number of fixtures you want to insert and click OK.

Enter and Edit Data

Entering data into the Spreadsheet is as simple as selecting the cell or cells you want to edit and typing in a new value. For data that is generated by the fixture library, you may be asked to select a value from a list. The list contains valid choices for the type of fixture you have inserted. In some cases, the data shown in the Spreadsheet is generated by Emphasis, and may not be edited.

Data Types

The spreadsheet view contains all the data that can be associated with individual fixtures. It is not necessary to always have all the data filled in, but for control of fixtures you must have at least Channel and Patch assigned, and for moving lights, a unique Spot value must also be

assigned. A description of all data types can be found in [Data Types, page 241](#). The following data types may be set using the Quick Tools command in CAD mode (see [Quick Tools, page 136](#)):

- CHANNEL - This is the control channel you will use at your Emphasis Facepanel to control this fixture. For moving lights, the channel number recorded in Emphasis is the starting channel number. Emphasis will automatically increment the number of channels that light uses for control. This setting is required for Emphasis to control your fixtures (conventional and moving lights).
- PATCH - This is the EDMX address for this fixture. The patch field will also automatically increment the appropriate number of EDMX addresses for the fixture selected. This setting is required for Emphasis to control your fixtures (conventional and moving lights).



Note: *EDMX addresses are assigned to specific DMX output ports within your network. Consult your specific network configuration to determine how the EDMX addresses have been assigned in your system.*

- SPOT - Each moving light in your show needs a Spot number for identification. This number is used by Emphasis to keep track of the moving lights in a show, and corresponds to the Fixture number for selection. This setting is required for Emphasis to control moving light fixture types.
- UNIT - The unit number is specific to the hanging position.
- PURPOSE - The purpose is a note that signifies how this fixture is being used in your show. Examples: "SL Side", "Diagonal Backs".
- FOCUS - This is the focus position you want to assign to your fixtures. Focus positions are specific objects in a Emphasis document, not unlike hanging positions.
- DIMMER - This is a convenience setting in cases where the EDMX value is not the same as the Dimmer name. It is not required for Emphasis to control your fixtures; however, it is required for WYSILink. In systems using WYSILink, this corresponds to the Sensor Unique Dimmer number (UD#).
- CIRCUIT - Circuit can have both a name and a number. For example, this is useful in a show using multi-cables. The letter could designate the individual multi-cables and the number could designate the circuit number in that multi-cable.
- COLOUR - This is the colour you want to place on the fixtures.
- GOBO - This is the gobo you want to place in spot fixtures.

Data Entry and Editing

To enter data in the spreadsheet:

- Step 1: Click in the cell you want to modify.
- Step 2: Type the value and press ENTER, or double-click the cell to choose from a list of valid or previously entered values. Click your selection from the list and click OK.



Note: Press the **ENTER** key on the keyboard to move to the next cell in the column.
Use the **TAB** key or the arrow keys to move from column to column within a row.

Entering Data in Bulk

You can enter the same value across a number of cells in a column.

To enter data in bulk:

- Step 1: Select multiple cells in a column.
- Step 2: Type the value and press **ENTER**, or double-click the selection to choose from a list of valid or previously entered values. Click your selection from the list and click **OK**.

Incremental Data Entry

If you are entering sequential whole-number values in a column, such as channels or patch values (“next available”), you can use incremental data entry to speed your work.

To use incremental data entry:

- Step 1: Type in the first value in the appropriate cell.
- Step 2: Press and hold **ALT** and press the down-arrow for each incremental entry you want to make.
- Step 3: Press **ENTER** to complete incremental data entry.



Note: You can only enter data in this way from the top down, you can’t start at the bottom of the list and use the up-arrow

Creating a New View

Emphasis provides you with a series of frequently used views in the Columns shortcut bar. You can create your own views, as well.

To create a new view:

- Step 1: Click on the Columns tab in the shortcut bar.
- Step 2: Right-click in the shortcut bar and click on **New Spreadsheet**.



Note: If you want to start with an existing spreadsheet as a base, right-click the existing spreadsheet’s shortcut and click **Clone Shortcut**.

- Step 3: Name the new spreadsheet and click **OK**. Your new spreadsheet will be displayed.
- Step 4: Scroll to the bottom of the list of Column shortcuts. Your new spreadsheet name should be at the bottom of the list. Click on the shortcut to view your spreadsheet.

Customizing a View

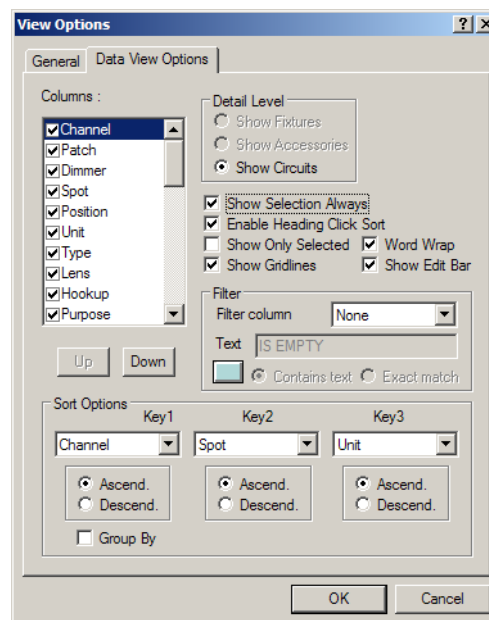
Customizing a view allows you to change how data is displayed and sorted. There are many ways to customize a view.

- If the view is open, right-click in it and select **View Options**.
- Right-click on a view's icon in the Shortcut bar, then select **Properties**.
- Click the View Options button on the Standard toolbar.
- In the **Options** menu, click **View Options**.



To modify a view:

- Step 1: Right-click on the spreadsheet.
- Step 2: Click on **View Options**. This will open the View Options window.
- Step 3: Click on the Data View Options tab.



- Step 4: To move a heading to a different column in the view, highlight the heading by clicking on it, then click on the Up or Down button to relocate it in the Data View.
- Step 5: To hide a heading in your view, deselect it by clicking on the box to its left in the dialog so that the check mark disappears. Clicking again on that box will reinstate it in your view.
- Step 6: To enable or disable the ability to sort your Data View by clicking on the column heading, click on the Enable Heading Click Sort option.
- Step 7: When you have completed your modifications, click OK.

Data Filters

Data filters are very useful for viewing your data more selectively. A data filter will show only the data you have chosen. You apply filters to columns of data.

To apply a data filter:

- Step 1: In the Spreadsheet, right-click on the column heading you want to filter, or on a cell containing the value you want to filter.
- Step 2: Click **Add Data Filter**.
- Step 3: A dialog box will appear, showing the column name and the available filters.
- Step 4: Select the value you want to filter. You can also type in a value and choose whether you want to filter that specific text, or filter to fixtures that contain that text.
- Step 5: The spreadsheet will refresh, displaying only fixtures that meet the filter criteria.

To remove data filters:

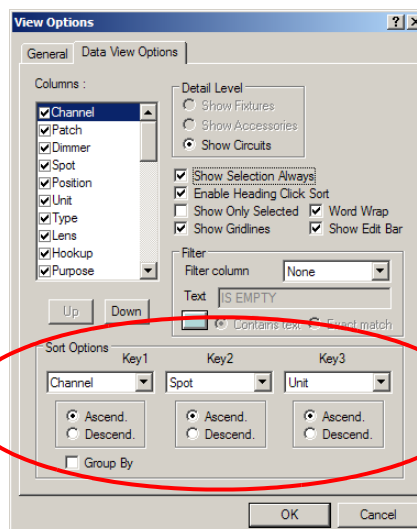
- Step 1: Right-click on a column heading.
- Step 2: Click **Remove Data Filter**.
- Step 3: The Spreadsheet will return to its unfiltered state.

Sorting your Document

There are different ways to sort and view your data. In the All Data (Sortable) view, you can sort the spreadsheet by clicking on the name of the column you want to sort by. This will not change the order of the columns, it will just change the order of the fixtures.

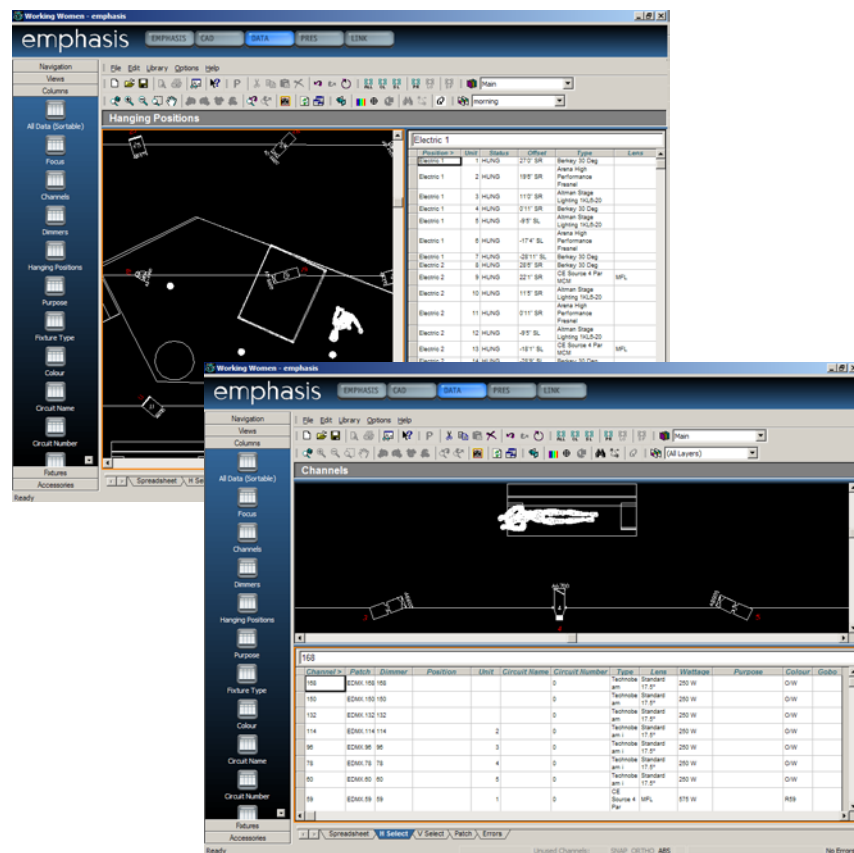
You can use the Column shortcuts to sort as well. In most cases, the order of the columns will change, bringing the “sort by” column to the far left side of the spreadsheet, and will change other columns as needed. Click on the shortcut to change to that view, or you can create your own (see [Creating a New View, page 152](#)).

You can also modify a view or create a custom spreadsheet using the View Properties box (see [Customizing a View, page 153](#)). Use the Sort Keys to determine your custom sort.



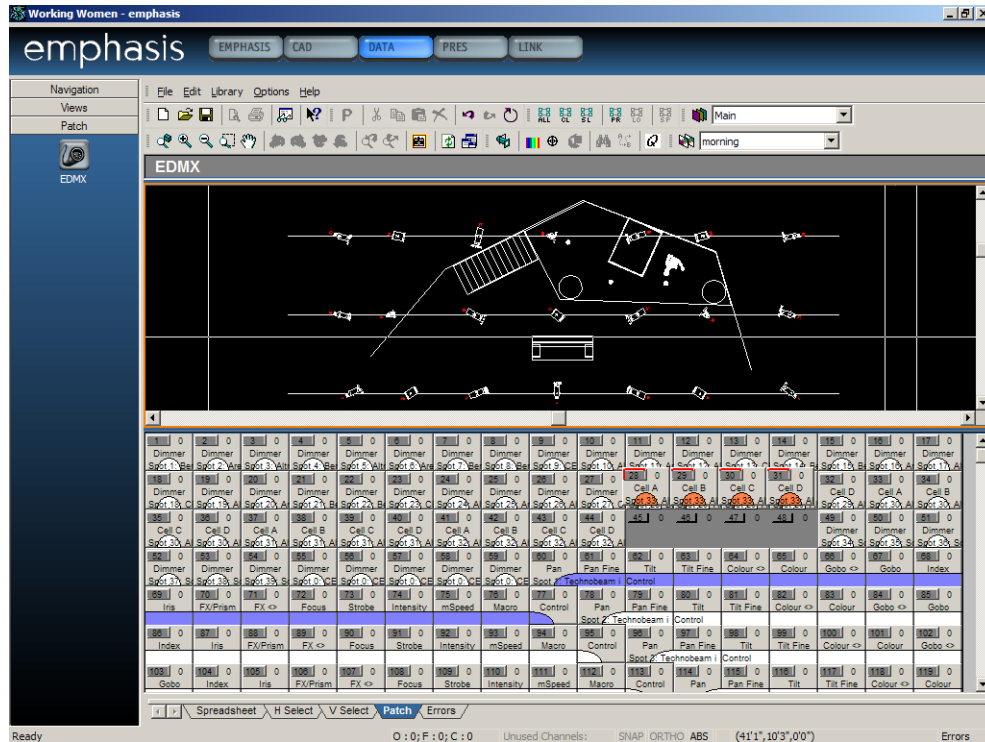
Select-only Wireframe Views (HSelect and VSelect)

Two data views are provided, HSelect and VSelect, that split the working area into two frames. One frame contains a wireframe view of your drawing. The other frame contains a spreadsheet view of your data. HSelect splits the working area horizontally (top-bottom) and VSelect splits the working area vertically (left-right). You can use the wireframe view to select lights in the spreadsheet and vice versa. This way you can be sure you are entering the proper data for that light in the spreadsheet, or check focus information. You can modify the wireframe and data views the same way you would modify the full screen versions.



Patch Views

The Patch view is a graphical representation of the EDMX universe. It is used for two purposes. You can create the EDMX patch for the lights in your drawing using this view. You can also use this view to monitor the EDMX levels. The patch view is very useful for editing, re-patching and troubleshooting.



Working in the Patch View

The patch view will display the fixtures you have assigned to EDMX (Patch) addresses in the spreadsheet or using the Quick Tools in CAD mode. You can patch fixtures directly to EDMX addresses in the Patch view by dragging their icon from the wireframe view onto the Patch view. You can also adjust the EDMX assignment of fixtures in the Patch view by dragging their Patch box(es) to a new position.



Note: Patching moving light fixtures by dragging in the Patch view does not set the Spot number for the fixture. You will need to set the Spot number either using Quick Tools in CAD mode or in the Spreadsheet view in Data mode for Emphasis to be able to control the fixture.

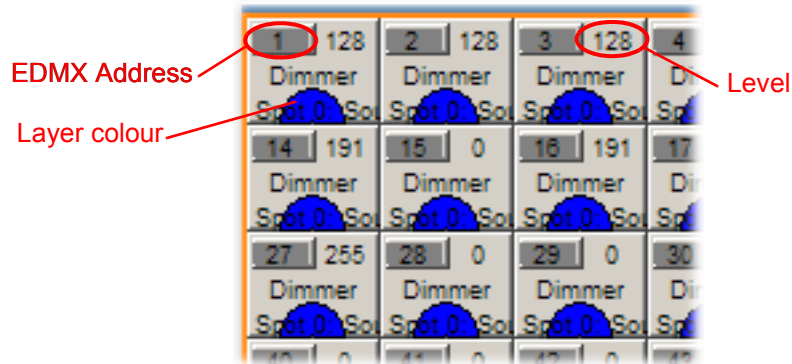
To patch fixtures in the patch view:

- Step 1: Click and hold the desired fixture in the CAD view.
- Step 2: Drag the fixture to the desired patch location. For moving light fixtures, drag the first EDMX assignment and the rest will follow.
- Step 3: For re-patching, repeat the above steps, or click and drag the fixture patch box(es) to the new location.

Reading the Patch

Each box in the patch universe represents one EDMX address. Fixtures are represented by colored bars that span the number of required EDMX addresses. The color of the bar is the same as the fixture's CAD layer.

If there are levels for those EDMX addresses on the ETCNet2 network, either from Emphasis or from another console inputting DMX to the network, the incoming EDMX levels are displayed in the top right corner of each box.



Error Views

Error views display fixtures in various error states. An error state is usually caused by a mis-entered piece of data, such as two fixtures trying to occupy the same unit number on a pipe or truss, or two different moving lights trying to occupy the same Spot number. You can choose the error state you want to view by selecting the appropriate shortcut in the Errors shortcut bar.

Error reports that have errors displayed will have an "!" after their name. There is also an error indicator in the bottom right corner of the status line which says "Errors" or "No Errors" depending on which types of errors you have set to trigger an error status. As soon as you fix an error in an error display, the entries will be greyed out to show that it is fixed.

To set error triggers:

- Step 1: In the **Options** menu, click **Show Options**.
- Step 2: Click the Data Error tab.
- Step 3: Select the errors you want to trigger an error state.
- Step 4: Click OK.

Error View Properties

Error views may be modified, sorted and filtered like other spreadsheet views. See [Customizing a View, page 153](#) and [Data Filters, page 154](#).

Errors

Dimmers > Circuit indicates if there are fixtures assigned to the same Circuit but different Dimmers.

Patches > Circuit indicates if there are fixtures assigned to the same Circuit but different Patches.

Channels > Circuit indicates if there are fixtures assigned to the same Circuit but different Channels.

Patches > Dimmer indicates if there are fixtures assigned to the same Dimmer but different Patches.

Channels > Dimmer indicates if there are fixtures assigned to the same Dimmer but different Channels.

Channels > Patch indicates if there are fixtures assigned to the same Patch but different Channels.

Spots > Patch indicates if there are fixtures assigned to the same Patch but different Spots.

Missing Position

Missing Unit

Missing Circuit #

Missing Patch

Missing Colour

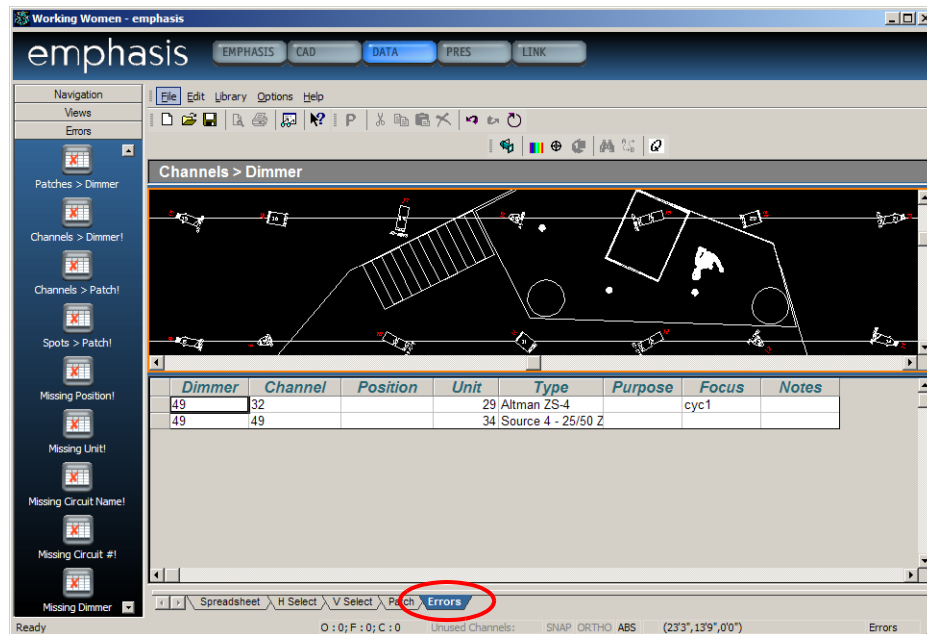
Missing Channel

Missing Circuit Name

Missing Dimmer

Missing Spot

Missing Gobo



Chapter 7

Presentation (PRES) Mode

The Presentation (PRES) mode contains all the tools for creating professional printouts of your show document including reports, plots and images. For Pipe Tape printing, see [Pipe Tape Printing, page 145](#).

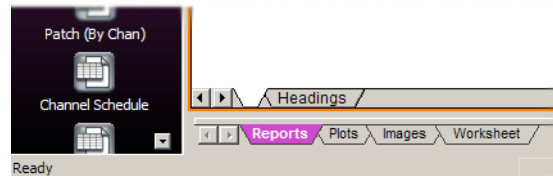
This chapter includes the following sections:

- [Layout Tabs](#)162
- [Reports](#)163
- [Plots](#)167
- [Images](#)171
- [Worksheets](#)173

Layout Tabs

Beneath the work area in each mode is a series of layout tabs. These layouts provide various ways to view the data you are working with. To change layouts, click on the tab that corresponds to the layout you wish to use. The PRES screen contains layout tabs specific to the PRES mode.

- Reports - work area displays reports formatted for printing.
- Plots - work area displays available plots for printing.
- Images - work area displays bitmap images stored with the show file.
- Worksheet - work area contains a spreadsheet editable by the user.

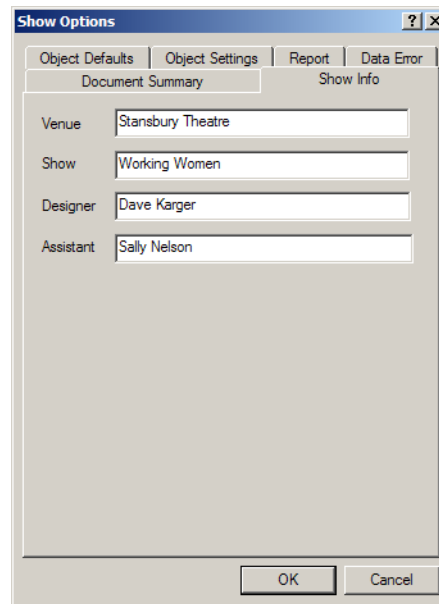


Reports

The Reports tab opens views of reports generated by Emphasis, containing the data entered in the CAD and Data modes. There are many default reports available in the reports shortcuts, or you can create your own reports.

Show Information

To customize the contents of the heading with your show, venue and designer's names, use the Show Options window. This information will automatically be entered into report headings and plot title blocks.



To modify the show information:

- Step 1: In the **Options** menu, click **Show Options**.
- Step 2: Click the Show Info tab.
- Step 3: Enter all the pertinent information in the boxes.
- Step 4: Click OK. Your reports will be updated.

Report Views

Emphasis provides a number of commonly used reports in the Reports shortcut bar. These reports are generated from the data you entered in the CAD and Data modes. If a column appears empty in a report view, you will need to enter that data for your fixtures in the Spreadsheet view (or you may be able to use the CAD Quick Tools, depending on the data type. See [Data Types, page 241](#) for more information.)

If the provided reports do not generate the report you need, you can build your own. If you want to redesign the look of a new or existing report, you can modify it using the View Options window.

To create a new report:

- Step 1: Click the Reports shortcut tab.
- Step 2: Right-click in the Reports shortcut area and click on **New Report**.

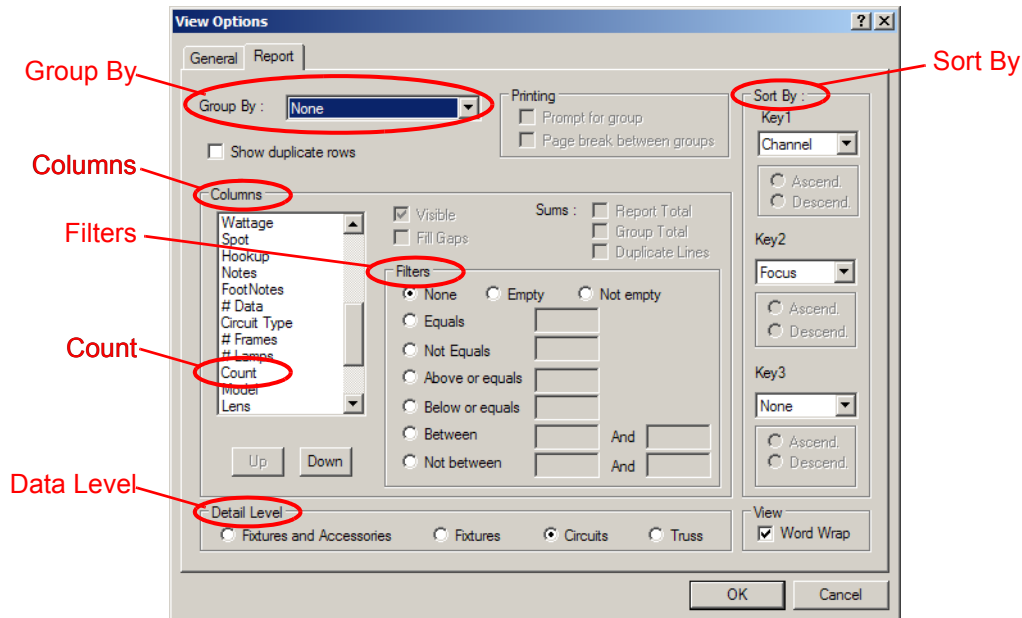


Note: If you want at start with an existing report as a base, right-click the existing report's shortcut and click **Clone Shortcut**.

- Step 3: Type in the name of your new report.
- Step 4: Click OK. Your report shortcut will be placed at the bottom of the list.

To modify a report:

- Step 1: In the **Options** menu, click **View Options**.
- Step 2: Click the General tab. You can name the report here, and you can change the visible layers by using a scene setting. Only fixtures on the active layers will be displayed in the report.
- Step 3: Click the Report tab.



- Step 4: You may change the following:
- The **Group By** pull-down menu allows you to select a data field for grouping the data. These groups appear as separate tabs at the bottom of a report. When printing, you have the option to start a new page for every group. For example, in an Instrument Schedule, fixtures are grouped by hanging position. Each position is given a tab at the bottom of the report.
 - The **Columns** list displays the columns available for inclusion or exclusion in a report. You can display the columns in any order by arranging the order in this list. The top of the list represents the left-hand column on the page and the bottom of the list represents the right-hand column. To

move a column up or down in the list, click its name and then use the Up and Down buttons.

- The **Filters** box contains settings for the columns selected (highlighted) in the Columns list. The filters can be used to extract specific information from reports. For example, you can create a report that displays all fixtures that have notes. To do this, select the Notes column and make it visible, then select the filter “Not Empty”. You will also have to make Position, Unit and Channel visible so that you know which fixtures have these notes.



Note: *There is a special column in the Columns list called **Count**. The Count column will display a count of all fixtures that meet the unique requirements of all the filters applied to all columns.*

For example, the standard report called Colour Count displays the colour column with the filter “Not Empty”. If this report is grouped by Position, we get the Colour by Position report. If the Count’s Sum - Group Total is selected the total number of all colours will be reported on each report page.

The Reports Totals option creates a separate tab to report totals for all the groups. Costing can be done by checking Duplicate Lines when the Cost field is highlighted.

- The **Sort By** box contains the settings for how the report will be sorted. The key sorts fixtures in alphabetical or numeric order. When fixtures have the same value in the first sort key the report is then sorted by the values of the second sort key and so on for the third sort key. For example, the standard Instrument Schedule sorts fixtures by position as Key 1, and unit number as Key 2. When a column is selected as a key, it will be set to visible. Columns used as sort keys must be visible in a report.
- In the **Detail Level** box, you can specify how many rows each fixture spans. For example, if you check Fixtures, a three-cell cyc light will take up one row. If you check Circuits, that same fixture will take up three rows, one for each cell/circuit. To issue a report for truss, select Truss in the Detail Level box.

Step 5: When done, click OK. The report will refresh and display any changes immediately.

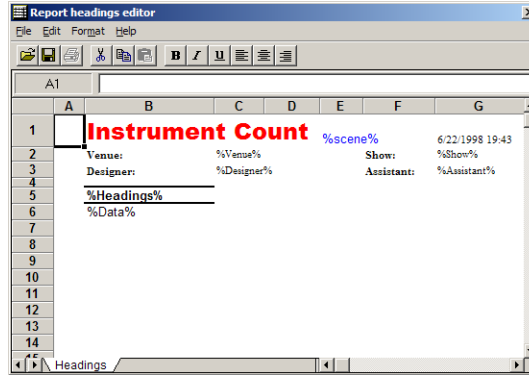


Note: *Alternatively you can right-click in the report and click **View Options** to open the View Options dialog.*

*You can also modify a report by right-clicking the report’s shortcut and clicking **Properties**.*

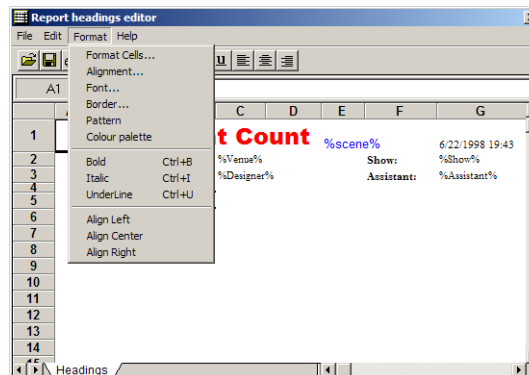
Redesigning Headings

You can customize the fonts and styles used in the headings of your reports. This allows you to personalize your report style. The report heading contains references to a number of variables. These correspond to information entered in the Show Information tab of the Show Options dialog. If you remove these variables, you will lose the link to the Show Information you have entered.



To change the heading format:

- Step 1: Right-click the report and click **Redesign Headings**. The Report headings editor opens.
- Step 2: Click the cell you want to edit. You can also click and drag to select multiple adjacent cells.
- Step 3: In the Format menu are a series of commands for editing cells. You can also use the toolbar for direct changes to alignment and text format.



- Step 4: In the File menu, click Save. You can also save your changes as an Excel spreadsheet using the Save As command.
- Step 5: Close the editor by clicking the Close button at the top-right of the editor window.



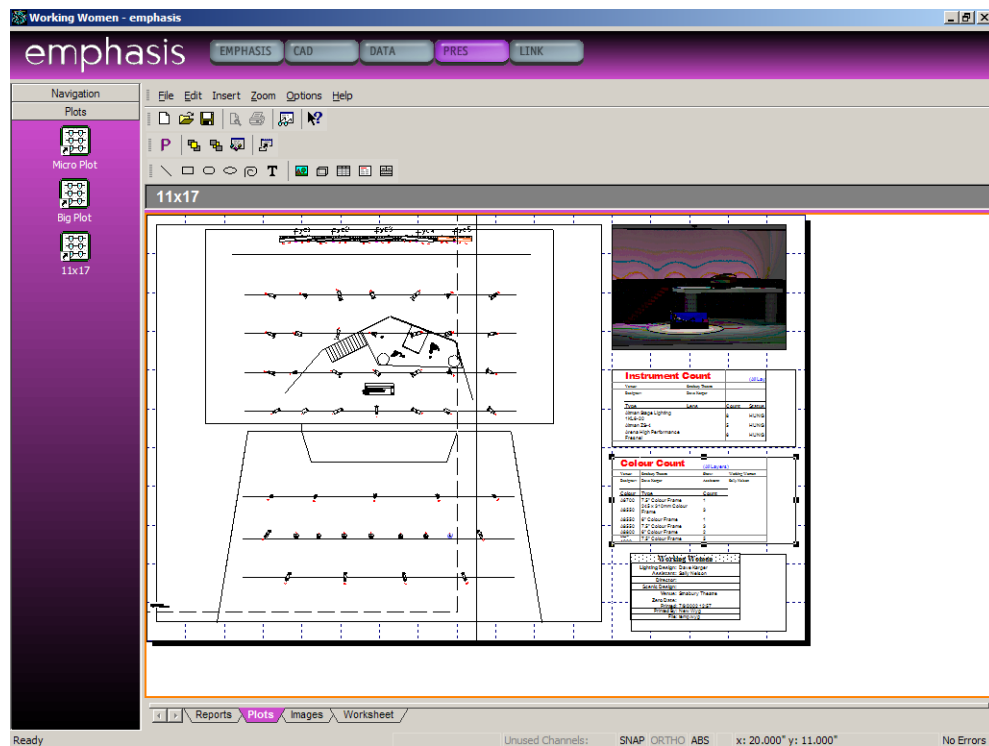
Note: Changes to column-width in the headings editor do not transfer to the whole report. Change the column widths in the report itself. A double-headed arrow will appear when you float the cursor between the column separations at the very top of the report.

Plots

The Plots layout is the plot design and storage area. There are two ways of printing out a completed drawing. The first way is to print it directly from a plot view in the CAD mode. This method will only print the drawing as it is displayed in the Wireframe view. It will not include things like borders, title blocks and keys.

The second way is to use the tools available in the Presentation mode to arrange various perspectives of the rig, reports and a title block all on one piece of paper. Using presentation views to effectively organize and present all of your data offers you a much more flexible way of producing very professional and impressive looking output.

There are two default plot views included in the Plots shortcuts: Micro Plot and Big Plot. You can make your own plot layouts by creating new plot shortcuts and modifying the view.



To create a new plot:

- Step 1: Click on the Plots shortcut tab.
- Step 2: Right-click in the Plots shortcut area and click **New Plot**.
- Step 3: Type in the name of the new plot.
- Step 4: Click OK.

To modify a plot view:

- Step 1: With the plot open, right-click in the working area.
- Step 2: Click on **View Options** to change the plot name, and the paper size. After choosing the paper size, the presentation view's grid lines will display how large the work area is. The large solid line shows your current Windows printer drivers paper size. The dashed line inside of that shows the printable area for the default printer.
- Step 3: When done, click OK.



Note: *The paper size does not necessarily have to be the same as the printer that your computer supports. You can change the size to any of the standard paper sizes, or even create your own custom size.*

If you want to use a printing service to produce large plots, print the drawing to a file and take the file to them.

Inserting items into plots

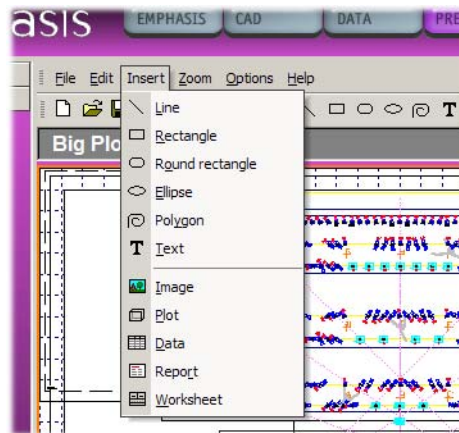
Now that you have created a “blank sheet of paper”, you will need to insert objects to create the plot layout. Objects can be inserted from the following categories: basic shapes (lines, rectangles, ellipses, polygons and text), bitmap images, plot items, data items, report items, and worksheet items. You can use the Insert menu or the Insert toolbar to facilitate the process.



Note: *When you are placing objects, work within the grid lines. The grid lines are for reference only, and will not be printed on your plot.*

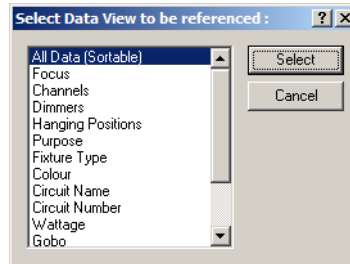
To insert basic shapes into plots:

- Step 1: In the **Insert** menu, click the appropriate command (**Line**, **Rectangle**, **Round Rectangle**, **Ellipse**, **Polygon** or **Text**). With the Insert toolbar open, click the appropriate icon.
- Step 2: Draw the item the same way you would in CAD mode (see [Drawing Lines, Arcs, Circles and Points, page 105](#)).



To insert items other than basic shapes into plots:

- Step 1: In the **Insert** menu, click the appropriate command (**Image**, **Plot**, **Data**, **Report** or **Worksheet**). With the Insert toolbar open, click the appropriate icon.
- Step 2: Click and drag a window (placeholder) on the “page” where you want the item to appear.
- Step 3: If a dialog box appears (as in the case of image, data, report and worksheet items) specify the desired item and click Select. The object will be placed on the page in the placeholder window.



Content and Item Properties

As with all objects in Emphasis, the objects you have placed on your plot have unique properties. There are two types of properties: Content properties and Item Properties.

Content Properties affect the content of the plot item. Opening these properties will open similar or identical dialog boxes as “View Options” does when you are working on the original item. In this dialog, you can modify the information to be displayed and control how it is displayed.

Item Properties affect the placeholders and the scaling of the contents. Options here include the outline’s weight and colour, and various printing options for the contents (scale, angle).

Working with Content and Item Properties:

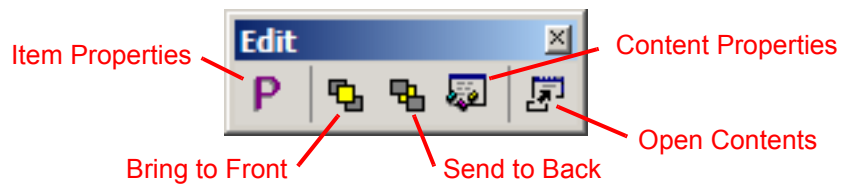
- Step 1: Select the plot item you want to modify.
- Step 2: Right-click the item and click **Content Properties**. The View Options dialog will open.
- Step 3: Click the General tab. Select the scene you want to display for this plot item.
- Step 4: Click the Plot Rotation tab. Enter a value in degrees if you want the drawing in the plot item to be printed on an angle.
- Step 5: Click the Plot Printing tab. Specify the scale for the selected drawing. There are three types of scaling: Fit, Fixed and Variable.
- Fit - The entire CAD drawing will be scaled to fit inside this placeholder.
 - Fixed - The plot will be printed at the specified scale. To determine which portion of the plot is displayed inside the placeholder, click the Open Contents icon on the Edit toolbar. Inside that view, move the white rectangle that represents the placeholder to the portion of the drawing you want to display.
 - Variable - In this case, when you click Open Contents, you will be able to change the size of the placeholder.

Step 6: Click the Plot Type tab. Choose the view type for the drawing in this window: Plan, Right, Left, Front, Back and Isometric. Note that Isometric/Perspective views are available only in Emphasis 3D and they cannot be scaled.

Step 7: Click the Show Details Tab.

- Fixture data shown on plot - Select the attributes you want displayed around fixture symbols on the plot.
- Show text labels - Labels entered in CAD mode and the names of Focus Positions are printed when this setting is active. Turn this setting off to inhibit the printing of labels and Focus Position names.
- Draw Symbols - In Emphasis 3D, this toggles between symbols and objects in drawings.

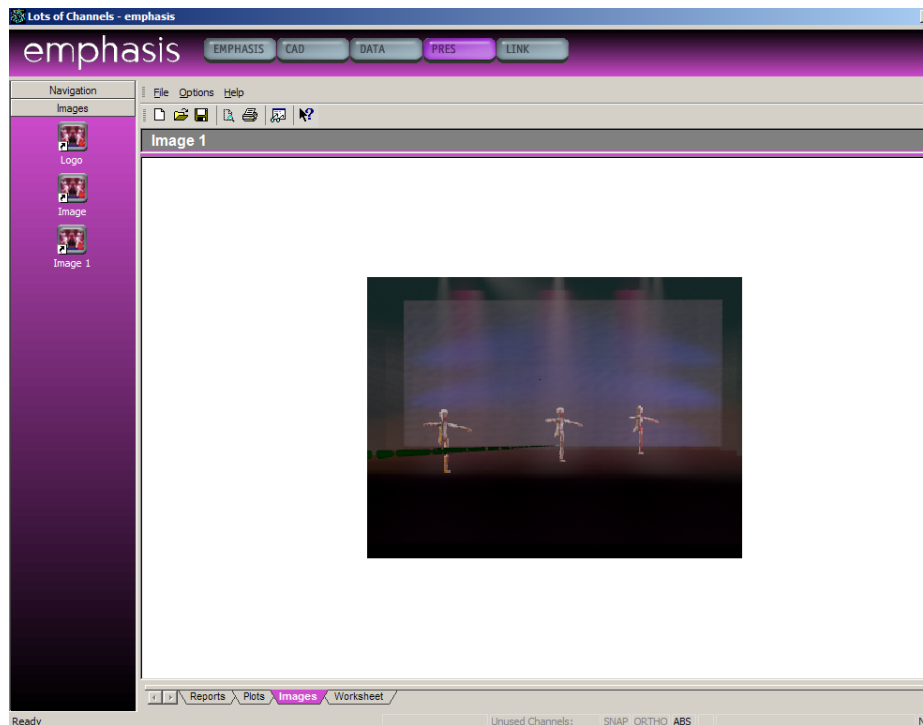
Note: You may also use the *Edit* toolbar to arrange objects and access the Content and Item Properties. Use the “Bring to Front” and “Send to Back” buttons to change the stack order of objects placed on top of one another.



Images

The Images tab opens the storage place for image files. When you create a rendering in Emphasis 3D set as an internal image, this is where that rendering is stored. These may also be bitmaps of shaded views, corporate logos or other bitmaps you want to insert in plots. You can import and export bitmap files.

Note: *Files stored as images become a part of your show file. If your show file contains a lot of image files and is excessively large, you may want to export some of the image files as separate bitmaps.*



To import bitmaps:

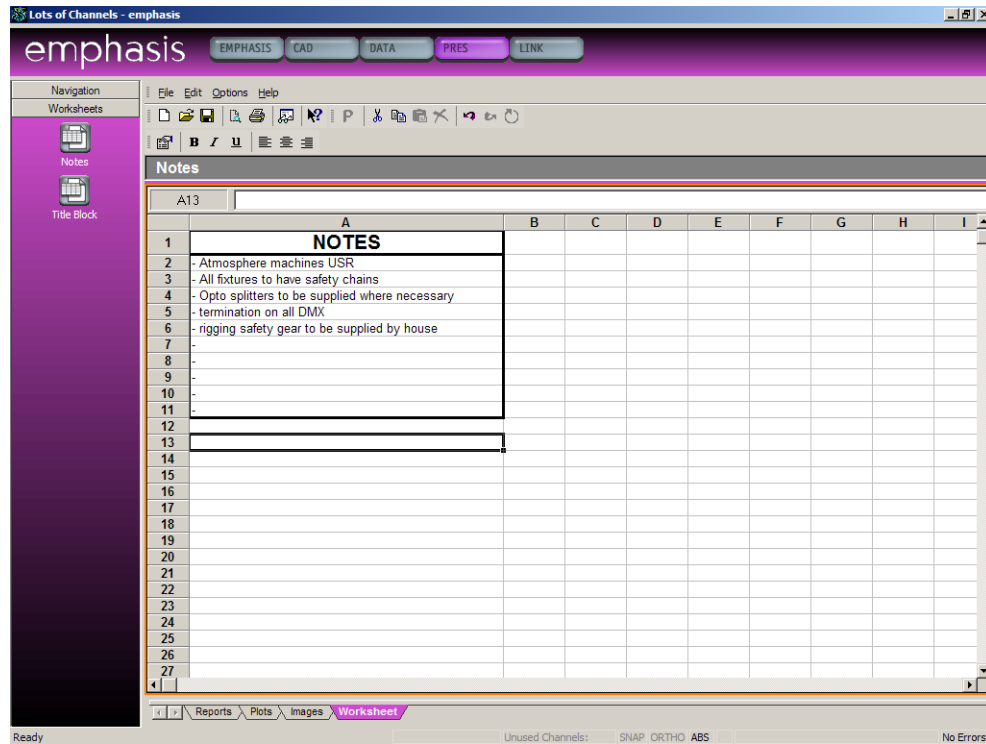
- Step 1: Right-click on the images shortcut tab and click **New Shortcut**.
- Step 2: Type in the name of your image.
- Step 3: Click OK.
- Step 4: Click on the shortcut for your new image. You should see "No Image Available" in the working area of the screen.
- Step 5: In the **File** menu, click **Import**. You can also right-click in the image area and click **Import**.
- Step 6: Use the browser to find the image file you want to import.
- Step 7: Click Open.

To export bitmaps:

- Step 1: In the **File** menu, click **Export**. You can also right-click in the image area and click **Export**.
- Step 2: Use the browser to select a destination and a name for the image file you want to export. Ensure that bitmap (.bmp) is selected in the Save As Type box.
- Step 3: Click Save.

Worksheets

The Worksheet tab opens a spreadsheet not unlike many other spreadsheet programs. You can enter data and create mathematical functions here, as well as import and export data to other spreadsheet programs. This is useful for creating spreadsheets for crew requirements, schedules, budgets or any other show specific data.



To create a new worksheet:

- Step 1: Right-click on the worksheets shortcut tab and click **New Worksheet**.
- Step 2: Type in the name of your worksheet.
- Step 1: Click OK.

To import data:

- Step 1: Open the worksheet you want to import data into.
- Step 2: Right-click on the worksheet view and click **Import**.
- Step 3: Use the browser to find the file containing the data you want to import.
- Step 4: Click Open.

To export data:

- Step 1: Open the worksheet you want to import data into.
- Step 2: Right-click on the worksheet view and click **Export**.
- Step 3: Use the browser to name the file.
- Step 4: Click Save.

Chapter 8

Emphasis Mode

Emphasis mode is where you can view console displays on the Emphasis Server, and select and control fixtures. In Emphasis 2D, you can view real-time representation of intensity and color in wireframe views. In Emphasis 3D, you can view 3D representation of the lighting in wireframe, isometric, and shaded views, and create renderings of lighting looks.

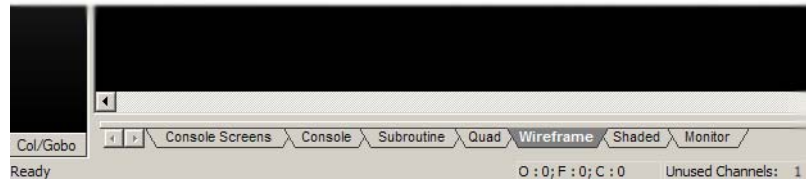
This chapter contains the following sections:

- [*Layout Tabs*](#)176
- [*Controlling Fixtures*](#)177
- [*Preview*](#)188
- [*The Subroutine Display*](#)190
- [*Shaded Views \(Emphasis 3D Only\)*](#)191
- [*Rendering \(Emphasis 3D Only\)*](#)193

Layout Tabs

Emphasis mode has the following layout tabs:

- Console Screens - work area is divided into quadrants, containing console display(s), and two Visualization displays (wireframe in Emphasis 2D, or wireframe and shaded view in Emphasis 3D).
- Console - work area contains console display(s) and virtual Facepanel.
- Subroutine - work area contains windows describing subroutines currently residing on submasters. See [Subroutines on Submasters, page 215](#), for more information.
- Quad - work area is divided into quadrants, three may be modified individually to show different wireframe views. In Emphasis 3D, the lower-right quadrant contains a shaded view.
- Wireframe - work area contains a full screen wireframe view.
- Shaded - Available in Emphasis 3D, the work area displays full screen shaded view.
- Monitor - Work area displays the contents of CRT1 on the Facepanel.



Controlling Fixtures

Fixtures can be controlled directly through design tools and menu commands in Emphasis mode. Design tools are toolbars that control specific functions of a fixture. Not all parameters of moving lights are available through design tools. You will need to use Facepanel controls for parameters unavailable through the design tools.

Select Fixtures

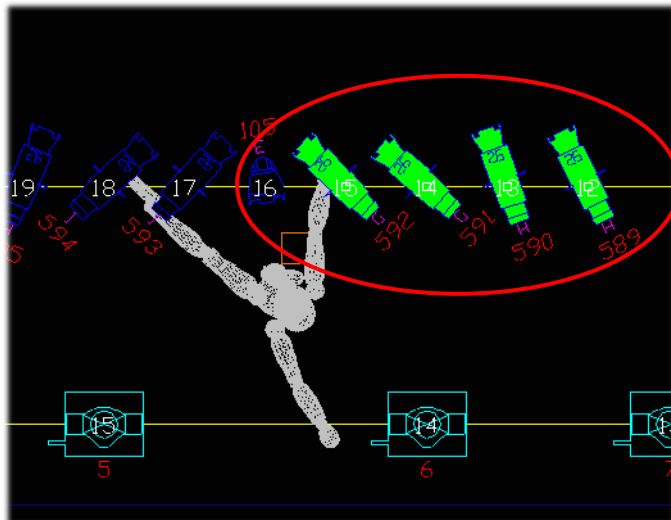
Selected fixtures are those fixtures you want to control through the design tools and commands, or with the Facepanel controls. When you select a fixture, it becomes highlighted in green. You may select fixtures individually or in groups.



Note: *If you have fixtures patched above your maximum channel limit, you can select those fixtures, but you cannot control them either through Emphasis Visualization or through the Facepanel controls. Check the Unused Channels indicator in the status bar for a negative value if you have trouble controlling selected fixtures.*

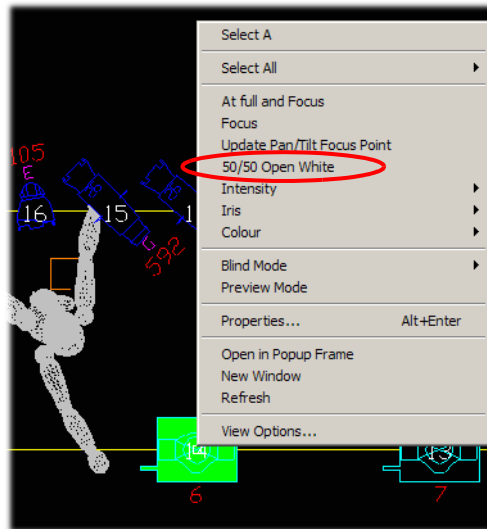
To select fixtures:

- Step 1: Click a fixture or fixtures in a wireframe view. You can select multiple fixtures by holding the CTRL key while clicking on the fixture symbols. If a fixture has intensity above zero, you can also click the beam to select a fixture.
- Step 2: Alternatively, you can right-click and drag a box around a section of your drawing to select fixtures. This will bring up a context-sensitive menu displaying all the fixture types contained within that box. You can then easily select the type of fixture you want to work with. Selected fixtures will be highlighted in green.



- Step 3: For conventional fixtures, you can right-click and click **Intensity** to change the level of selected fixtures. You can also use the **Facepanel** keypad or level wheel/touch pad to set intensity levels.

Step 4: For moving lights, right-click a selected moving-light fixture and click **50/50 Open White** to set the fixtures to their 50/50 (or “Home”) position and open white. You can also press **[Focus Point] [Enter]** on the Facepanel to set the home position.



When you want to move on to another fixture or fixtures, deselect the fixtures you have finished working on. When you deselect a fixture, it will remain in the position (level) you last set and will no longer be available to the design tools and commands and the Facepanel controls until it is reselected.



CAUTION: *Deselecting fixtures is not the same as using the [Release] command on the Facepanel. Releasing a conventional fixture will cause the intensity to revert to the last active recorded level and deselect the fixture. Releasing a moving light will cause the intensity to revert to the last active recorded level and close the fixture window, but the fixture will remain green in the wireframe view. The console will ask if you want to release all “independent” channels, which are typically all parameters other than intensity. If you press [Release] again, all the parameters will revert to their last active recorded level and the fixture will deselect.*

To deselect fixtures:

- Click on the next fixture you want to work on. The originally selected fixture(s) will be deselected.
- Click on the background area of the wireframe view. Any selected fixtures will be deselected.
- Press **[Clear]** on the Facepanel.

Concepts

There is a special type of group called a *Concept* that is used for fixtures. Concepts are groupings of fixtures you can name and recall from the Shortcut bar.

To create a Concept:

- Step 1: Select the fixtures you want to include in the Concept.
- Step 2: In the Shortcut bar, click the Concept tab.
- Step 3: Right-click in the Shortcut bar and click **New Concept**.
- Step 4: Type the name of the Concept and click OK. The selected fixtures will be stored in the new Concept.



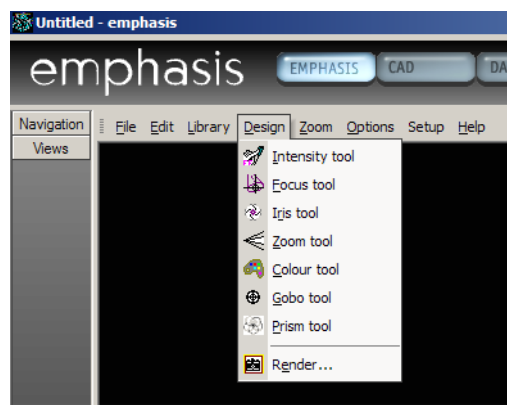
Note: Right-click the Concept shortcut and click **Rename** to rename the Concept.

Using the Design Tools

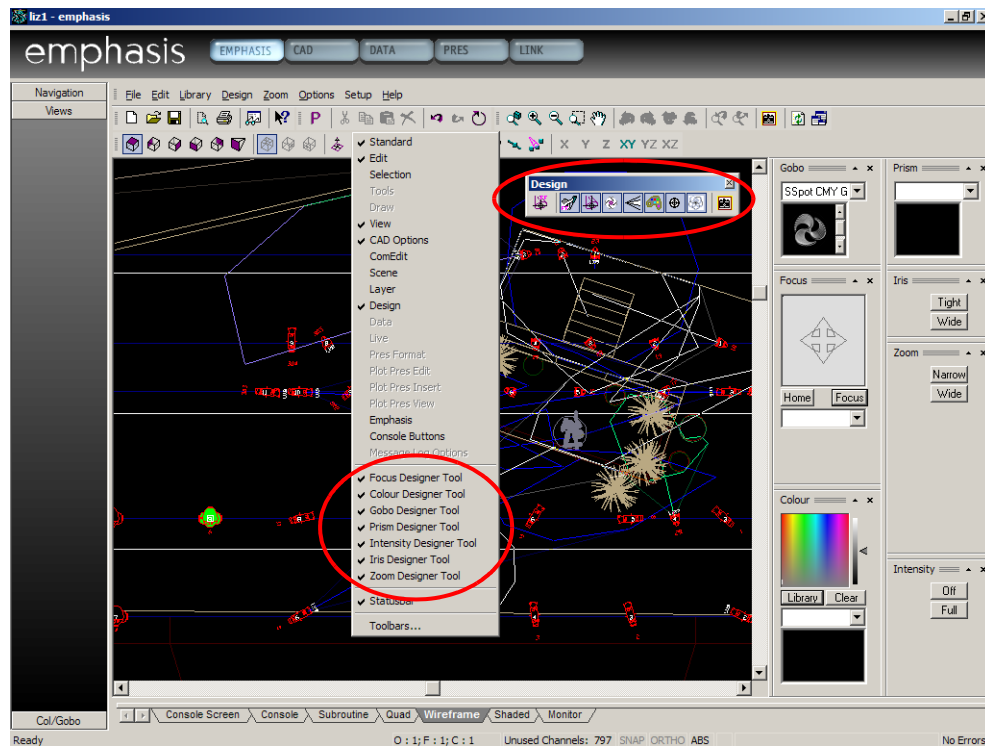
The design tools are available through the Design menu and the Design toolbar. Some of the design tools are available through the right-click menu of selected fixtures.

To turn the design tools on:

- In the **Design** menu, click on the tool name to activate or deactivate the desired design tool.



- Alternatively, you can right-click on the tool bar area of the screen. You can open the Design toolbar, which has buttons for each design tool, or the tools are listed individually at the bottom of the tool bars menu. A check mark next to the tool's name indicates it is already open. You can click the name to open or close that tool.



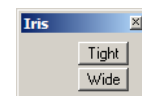
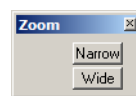
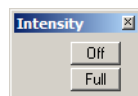
The design tools can be rearranged on the screen to improve the layout of the working area. You can also resize the tools by stacking them into columns so that they take up less space on the screen.

To rearrange and resize design tools:

- Step 1: Open the desired design tools using the steps above.
- Step 2: Click and drag a tool on top of another. When you release the mouse, the selected tool will line up under the other.
- Step 3: Repeat step 2 for as many tools as will fit in a column.
- Step 4: If you overlay tools so that they are not completely visible, click on the triangle in the tools title bar. This will expand or contract the tool's window.
- Step 5: If you click and drag a tool's title bar off the column, it will expand into its own window.

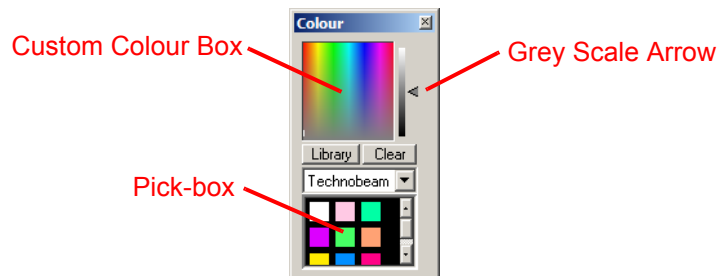
To use the design tools:

- The intensity, zoom and iris tools have buttons for the extreme settings of full open and closed.

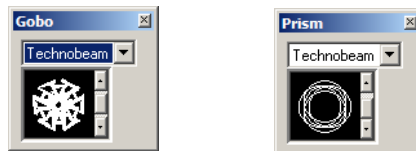


- The colour tool offers many options for colour selection for moving-light fixtures and colour scrollers. Click on the custom colour box and use the grey scale arrow to adjust your selection. Click Library to access the gel library and choose from all available gel colours. The fixture's output will depend on its capabilities. If the fixture has CMY or

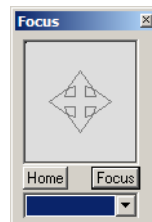
other colour-mixing capabilities, the output will be the colour you selected. If the fixture is equipped with a colour wheel or non-mixing scroller, the fixture will output the closest colour to that selected based upon the available colours in the profile. You can also use the pick-box for fixtures with colour wheels to select specific frames.



- The Gobo and Prism tools provide a graphic list of the available gobos/prisms in the selected fixture. Use the scroll bar to move from image to image. Click the image to select the gobo or prism.



- The focus tool works with fixtures that have variable pan and tilt parameters (conventional fixtures must be focused in the CAD mode). The top box is a focus trackpad. Click, hold and drag the mouse in this box to control the position of the light beam. The "Home" button will reset the fixture to pan=50% and tilt=50%. Click on the "Focus" button then click in your plot view (not the shaded view) to send the fixture's beam to a specific location. Finally, use the focus pull-down menu to focus the beam(s) of light on one of the focus positions you created in the CAD mode.



Using the Design Menu Commands:

To use design menu commands:

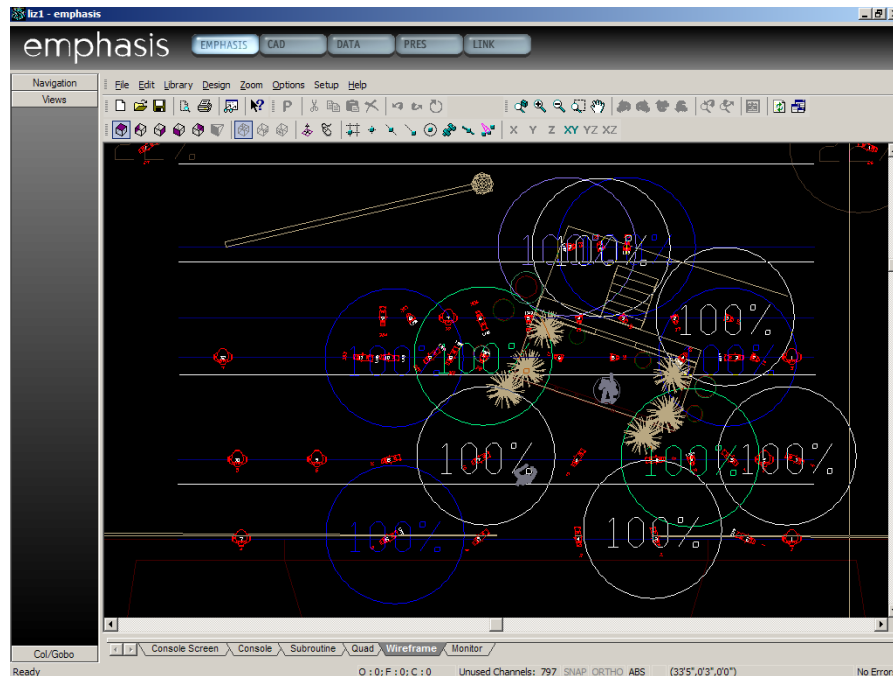
- Step 1: Right-click on a selected fixture and click **50/50 Open White**.
- Step 2: Use the following commands to set parameters of the fixture(s):
- At "Level" and Focus: Sets the intensity of the selected lights to the level last specified by the Intensity command and launches the Focus command. The Level defaults to Full.
 - Focus: When you click in a wireframe view, the selected automated fixtures will focus (if they can) to any area on stage.

Click and drag to position them in real time. Change the missing coordinate to alter the height at which you want to focus the fixtures.

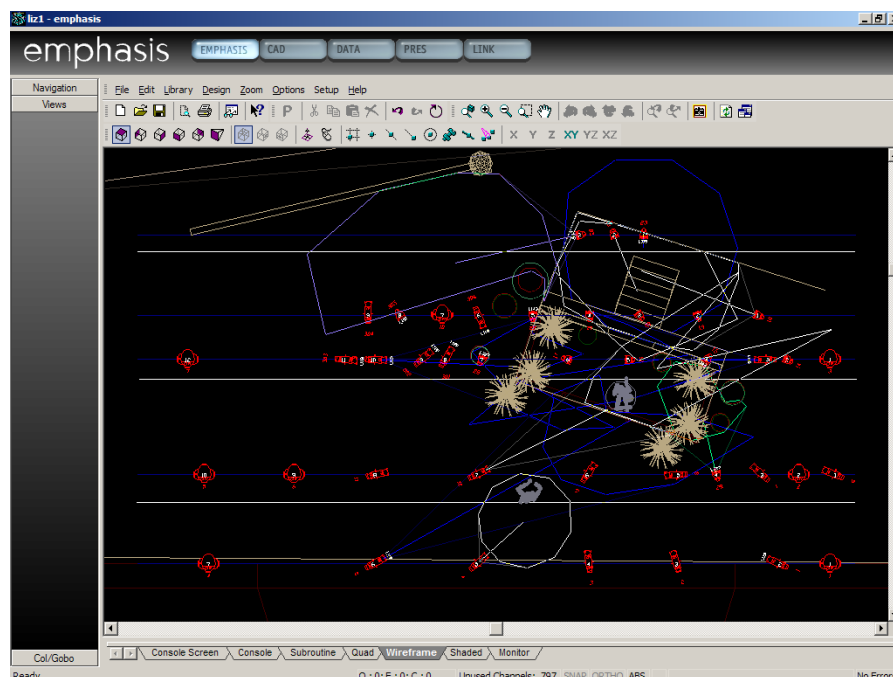
- **50/50 Open White:** Use this command just prior to using other design commands for moving lights. This will set the selected fixture(s) to the levels required for an open white beam. Pan and Tilt will be placed in the 50/50 position. Intensity is set to zero.
- **Intensity:** Reveals a sub-menu where you can specify the level to set the intensity for the selected fixtures. Use Specify to set a level between zero and full.
- **Iris:** Tells fixtures to either iris tight or wide. There is also a Specify option where you can set it to any percentage. The Specify value is remembered for the session.
- **Colour:** Fixtures that can mix colour can be directed to either a palette colour or an approximation of a manufactures gel colour. Palette colours can be specified and saved by the user using the custom colour creator.

Display Differences between Emphasis 2D and Emphasis 3D

The level of Emphasis you are running determines how fixture output is displayed in Wireframe views. In Emphasis 2D, you are limited to a circle around an active fixture, in the colour assigned to that fixture, with the current intensity level indicated. As the intensity of the fixture fades up and down, so does the circle around the fixture.



In Emphasis 3D, you will see a wireframe representation of the beam, color and gobo, without the text level indication. In Emphasis 3D, you also have access to isometric wireframe views, and shaded views.

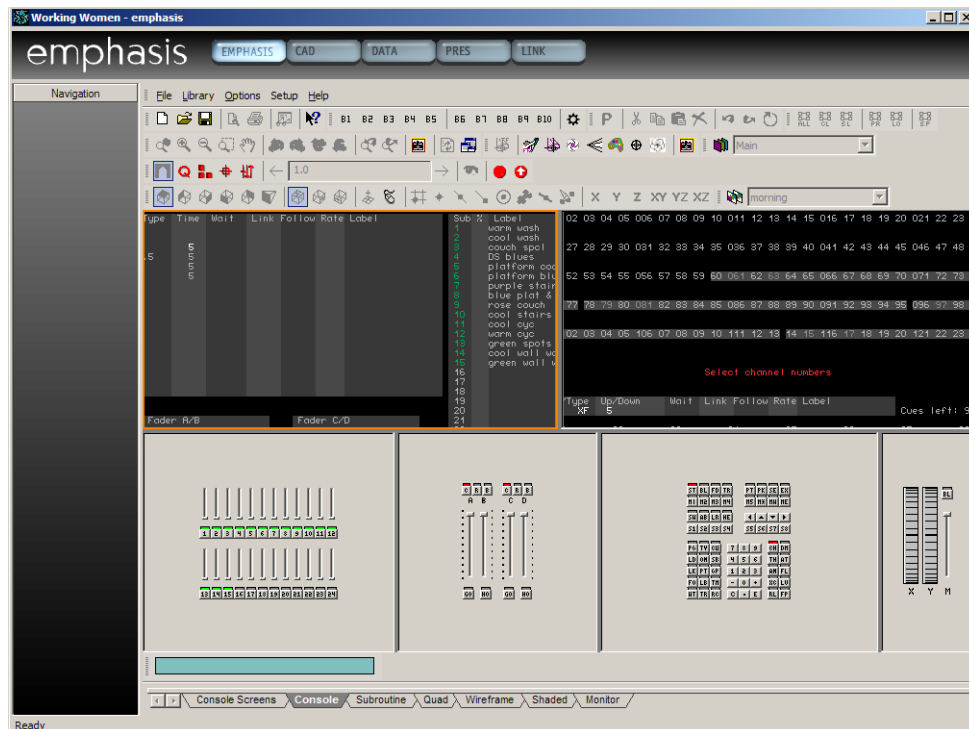


Interacting with the Facepanel

Emphasis mode contains tools for interacting with the Facepanel. You can use these tools to select fixtures, change console displays, store and recall cues and submasters, and perform other Facepanel functions. The Facepanel will mimic the actions performed on the Virtual Facepanel. For descriptions of the functions of console commands, see your console user manual.

Using the Virtual Facepanel

Access to the Virtual Facepanel is provided on the Console layout tab. The types of panels and number of displays represented here is determined by your Facepanel type (Expression is shown below). You can click on the buttons of the Virtual Facepanel just as you would press them on the actual Facepanel. The LEDs on the Facepanel are represented by red or green bars above the buttons on the Virtual Facepanel.



Any of the Virtual Facepanel displays or panels can be opened in a popup frame. See [Popup Frames, page 33](#), for more information.












Note: Submasters will display the current setting of the physical submaster faders. You cannot control lights by moving virtual submaster faders while there is a Facepanel attached. See [Fader Priority, page 213](#).

The Emphasis Toolbar

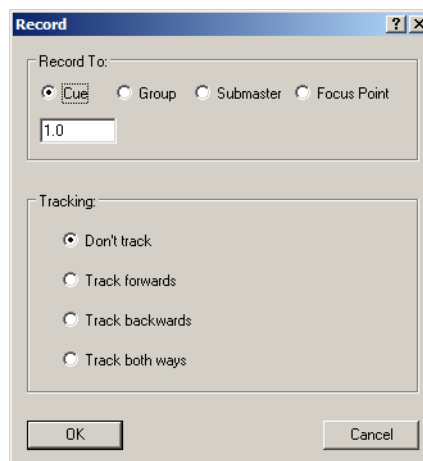
The Emphasis toolbar is available in all of the Emphasis layouts except Shaded (Emphasis 3D only) and Monitor. Many of the most common Facepanel commands are provided on this toolbar.



The Emphasis toolbar contains the following buttons:

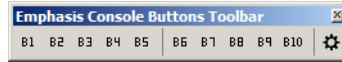
-  Stage
-  Blind Cue
-  Blind Group
-  Blind Focus Point
-  Blind Submaster
-  Value Decrement / Set / Increment
-  Preview mode
-  Record
-  Update

When you use the Emphasis toolbar to record, the Record dialog box will open. In this dialog, you can select what it is you want to record, and you can set tracking preferences.



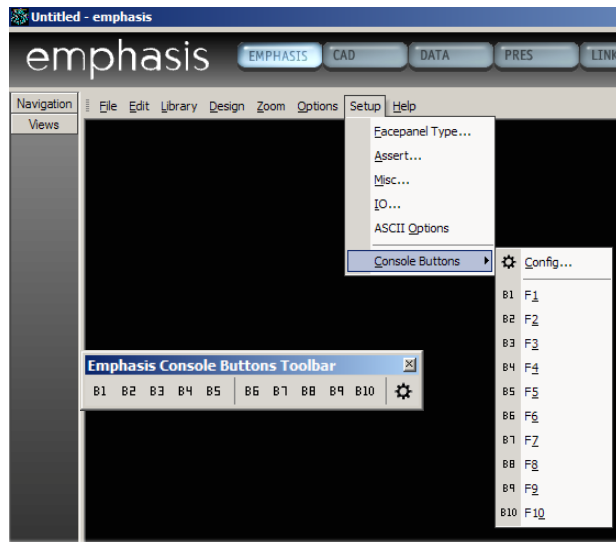
The Emphasis Console Buttons Toolbar

The Emphasis Console Buttons toolbar is available in all of the Emphasis layouts except Shaded (Emphasis 3D only) and Monitor. This toolbar provides access to any console command, or macro 1-999, from within Emphasis Visualization. The default setting for these buttons is a 1-to-1 assignment to macros 1 through 10. You may modify these settings using the Configure Console Buttons window.



To customize the Console Buttons toolbar:

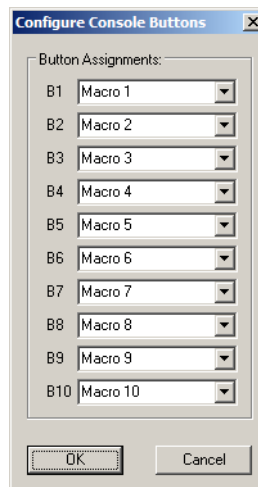
Step 1: In the **Setup** menu, click **Console Buttons**. You may also open the Console Buttons toolbar (see [Toolbars, page 30](#), for more information).



Step 2: Click **Config** in the menu, or the Config button on the toolbar.



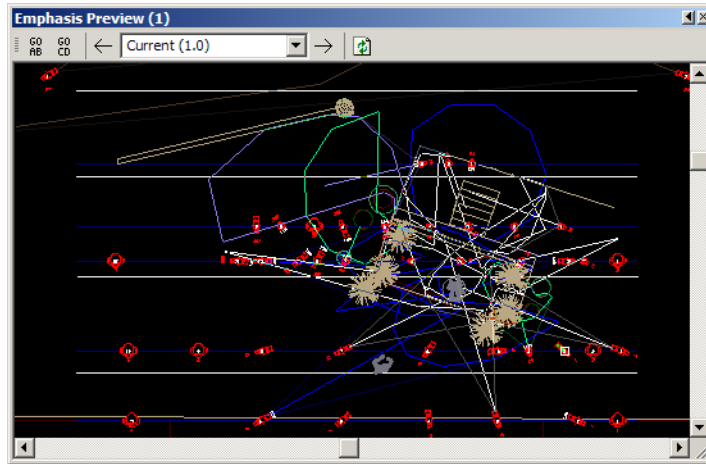
Step 3: Click the down-arrow to the right of the button you want to customize to access the menu of available commands.



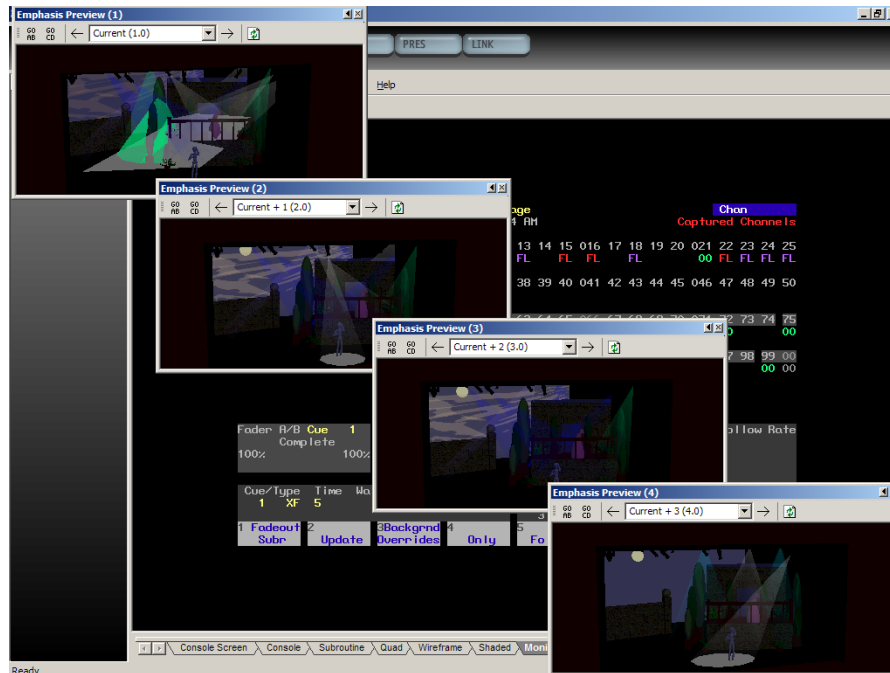
- Step 4: Click on the scroll-bar to the right of the menu to find the command you want to assign to this button. Command functions are listed above the macros.
- Step 5: Click the command name to assign it to the button.
- Step 6: Repeat for any other button(s) you want to customize.
- Step 7: Click **OK** to keep your changes. Click **Cancel** to close the window without making any changes.

Preview

Preview allows you to look at previously recorded cues in wireframe or shaded (Emphasis 3D only) views without changing to the Blind display. Preview windows open in popup frames, and will remain on screen until you close them. You can have Preview windows open while you work in other modes. You can also setup Preview windows to view any selected cue, the current cue, or specified cues after the current cue (Current+1, Current+2, Current+3).



You can create a “storyboard” effect by using Preview windows. Open multiple Preview windows and set them to specific cues, or set them to Current+1, Current+2 and Current+3. Align the windows in the proper order to look ahead at a whole series of lighting looks.



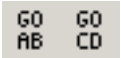


To open Preview windows:

Step 1: Click on the wireframe or shaded (Emphasis 3D only) view to activate the window you want to use as the Preview. This is not necessary if you are currently viewing the Wireframe or Shaded (Emphasis 3D only) layout.

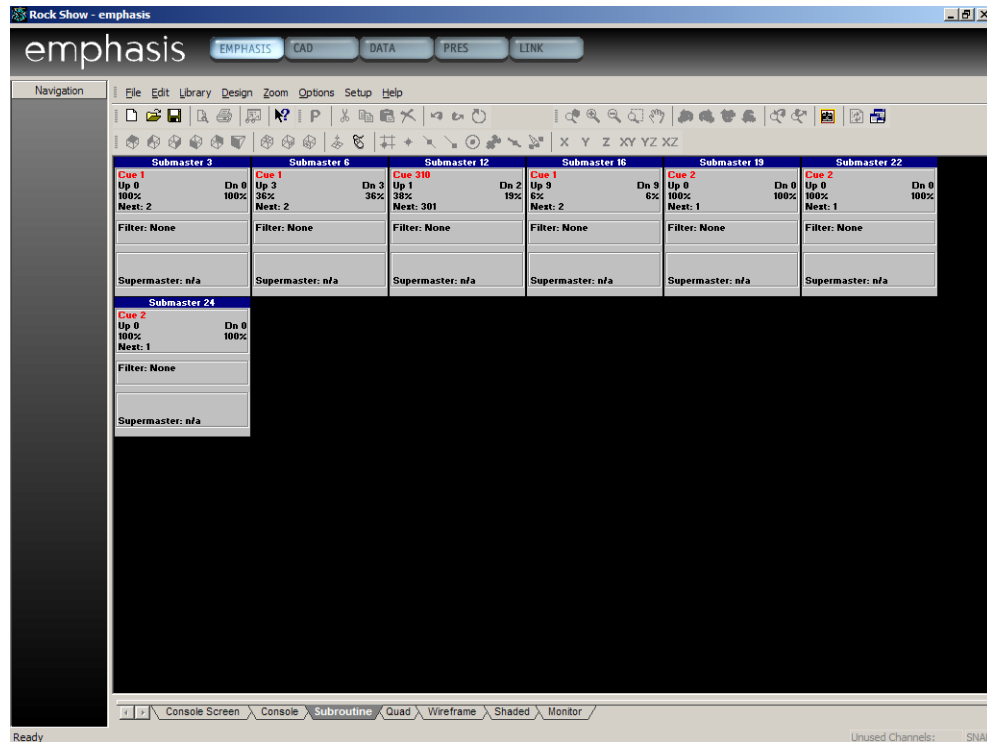
Step 2: Right-click on the active window and click **Preview Mode**. You may also use the Preview button on the Emphasis toolbar. The Preview window will open, displaying the first cue in the list.



- Use the increment and decrement buttons to step through the cue list. The Preview window will display the end-state of each cue (you cannot view timed changes in a Preview window).

- Use the cue window to type in a specific cue number, or to set the Current, Current+1, Current+2 and Current+3 assignments.
- Use the Refresh button to refresh the Preview window's contents.

- Use the GO AB and GO CD buttons to load and play-back the currently selected cue in that fader pair (you cannot use these buttons to increment through cues in the Preview window or the AB/CD fader pairs).


The Subroutine Display

The Subroutine display is used to view subroutines playing on submasters (subs-on-subs) and the AB/CD fader pairs. For information on creating subs-on-subs, see [Subroutines on Submasters, page 215](#).



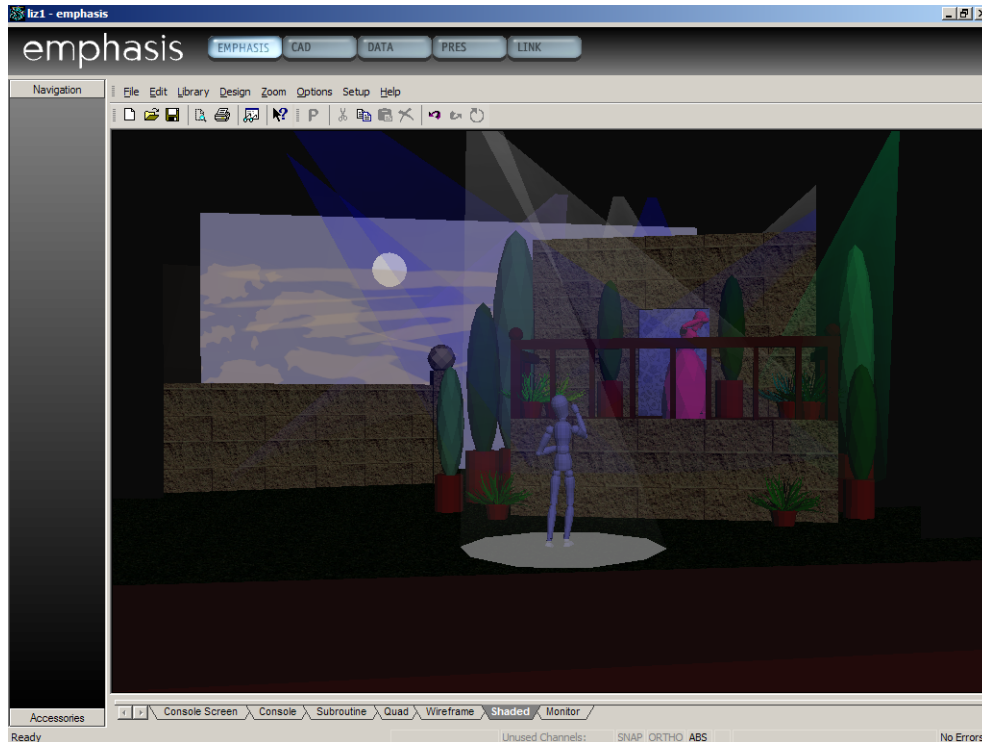
The Subroutine display will contain a box for each submaster or fader that contains a subroutine, tiled from the upper-left to the lower-right in numerical order. When the submaster is activated for the first time, the contents of the subroutine will be displayed as shown below.



As the subroutine runs, the display box will update with the current cue being played and its percentage of completion. The display box also contains a reference to the Supermaster assignment, if applicable ("n/a" indicates no Supermaster assignment). For information on creating Supermasters, see [Supermasters, page 217](#).

Shaded Views (Emphasis 3D Only)

Shaded Views display the objects of your wireframe views “filled in” or solid. This is a very fast way to allow you to see the shape and perspective of your set without having to render it. Shaded views will follow Scenes just like any other view. Shaded views in Emphasis mode display the beams of light in your look in a more realistic fashion than wireframe views.



Keyboard and Mouse Control

To change your point of view within a shaded view:

- Use the arrow keys to move the position of the virtual target. PAGE UP/PAGE DOWN will zoom you in and out.
- Holding down CTRL and using the arrow keys or the PAGE UP/PAGE DOWN will actually move the camera. If you also hold down the SHIFT key, the movements will be smaller.
- Using the mouse, click and drag in the view. This will move the camera about. You can also use the mouse wheel to zoom in and out. The arrow keys will continue to move the target position as you do this.

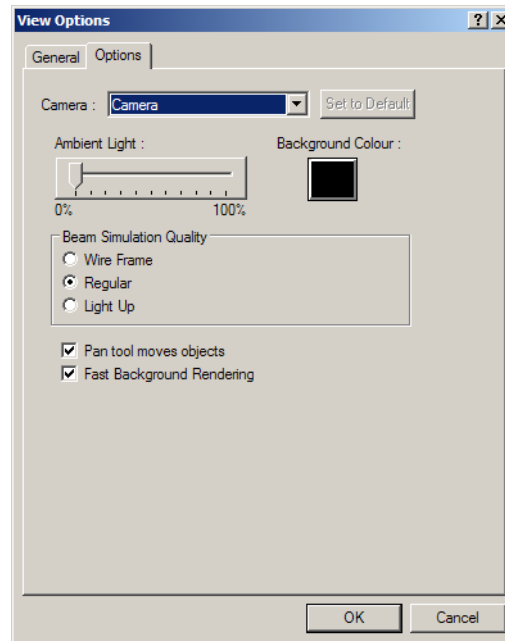
Modifying Shaded Views

There are many different options for modifying a shaded view. You may want to change settings if the system doesn't generate the view quickly enough for your purposes.

To modify a shaded view:

Step 1: Right-click on the shaded view and click **View Options**.

Step 2: The Options tab is where you can set the camera (see [Cameras, page 140](#)), ambient light amount, and the type of beam simulation you want to use. You can also change the background colour of the shaded view.



Beam Simulation Quality definitions:

- Wireframe beam simulation is the fastest to refresh, because it is the least "realistic". This is a combination of shaded and wireframe beams.
- Regular beam simulation is a fully shaded beam. Only the beam is rendered. Objects that are within the beam are not affected.
- Light Up simulation is a fully shaded beam, and objects are coloured or "lit up" when a beam hits them. This view takes the longest to refresh.

Rendering (Emphasis 3D Only)

At any time in the Emphasis mode, you can generate a rendering of a lighting cue or look. The Render Wizard will calculate the rendering based on the DMX values being generated at the moment you hit Finish.



Note: *Renderings are of static looks.*



CAUTION: *It is not recommended to perform rendering during show playback. Rendering involves a significant amount of processor activity and will affect the playback of a show.*

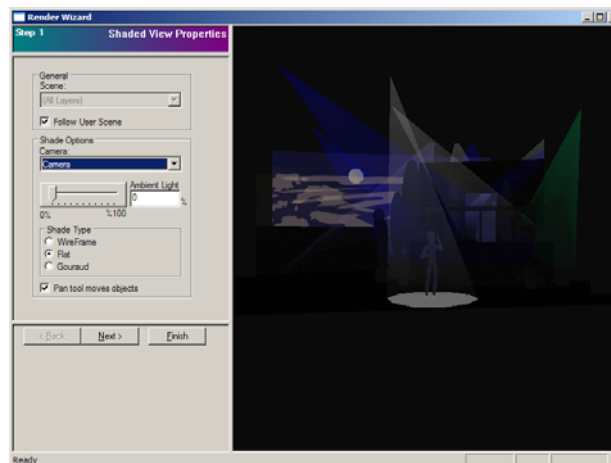
To render a lighting look:

- Step 1: Setup the lighting look you wish to render using manual control, or by playing back a cue in Stage.
- Step 2: In the **Design** menu, click **Render**.
- Step 3: The Render Wizard will open and guide you through a series of options. Use the Next and Back buttons to navigate through the Render Wizard.

Each of the steps asks you to set a number of related options and from there you can go on to the next page or press the Finish button to complete the rendering. If you back-up to change an option in a previous step, you can hit the Finish button without having to go through each of the steps again. During any step (up to step 5), you can click on the image and change the perspective (using the arrow, CTRL and PAGE UP/PAGE DOWN keys or the mouse). The Render Wizard will calculate the rendering based on the state of the image (perspective) at the moment you hit the Finish button.

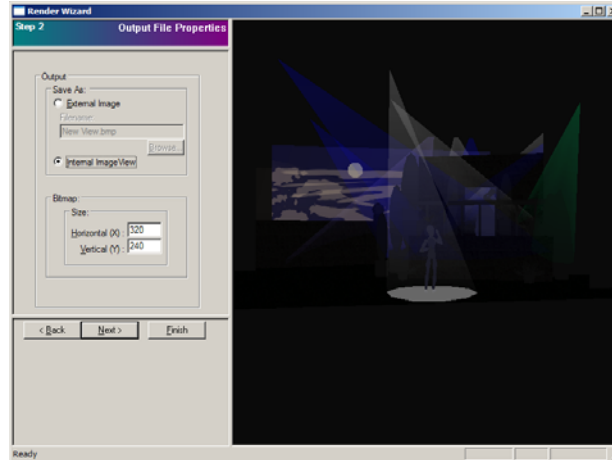
Step 1 - Shaded View Properties

Changing settings in this view will immediately affect the picture in the right-hand view. Setup your camera, light levels and scene here to begin making a rendered picture. The Shade Type and Pan Tool options will not affect the final outcome of your rendering.



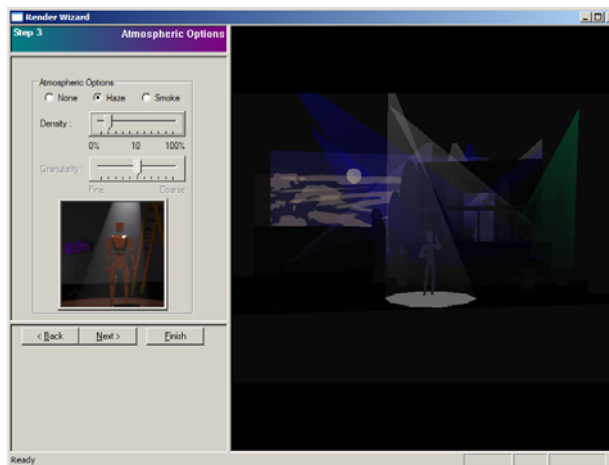
Step 2 - Output File Properties

This is where you determine where the final rendering is to be stored. If you select Internal, the rendered picture will be stored in the Presentation mode on the Images shortcuts bar. If you choose External, you can store the picture on any drive as either a bitmap (.bmp) or Targa file. The aspect ratio (Height vs. Width) is also set here. Once you hit Next, you will see the effect of the aspect ratio in the right-hand view.



Step 3 - Atmospheric Options

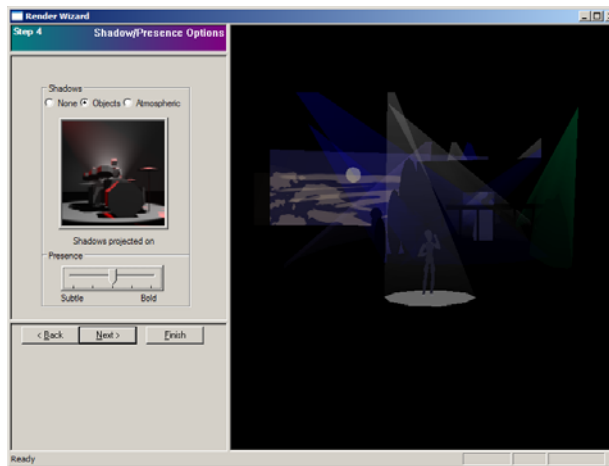
Adding a little smoke or haze in an image will greatly improve the aesthetic appeal, especially if you are lighting for entertainment purposes because the beams of light become visible. Haze is a very even atmospheric effect, where smoke shows the unevenness of the dispersed particles in the air. Of the three options, it is fastest to render with no effect, and slowest to render with smoke.



Step 4 - Shadows/Presence

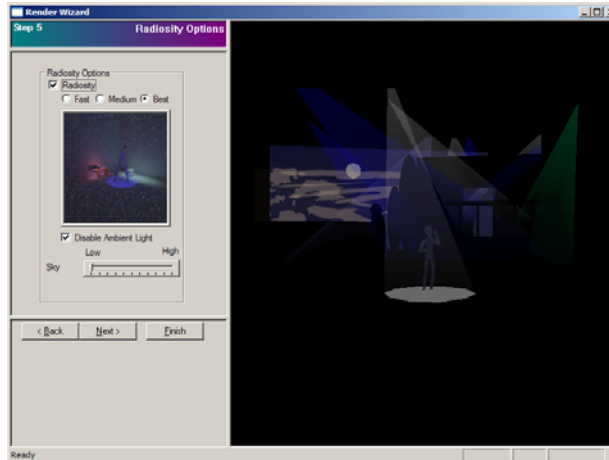
If you want to render a scene very quickly or if there are very few set pieces, you may do it without shadows. This may give you unexpected results, however; in real life, solid objects cast shadows. Atmospheric shadows are the most time-consuming to render, but can add depth if there are lights placed in and around set pieces. Shadows on Objects is probably the most common option to use as it is considerably faster to compute than Atmospheric shadows. The Presence slider adjusts how accurately Emphasis calculates the effective intensity of each fixture.

When set to Subtle, Emphasis accounts for gel transmission, colour temperature, fixture efficiency, and lamp. When set to Bold, all fixtures are given the same effective intensity.



Step 5 - Radiosity Options

Set the Radiosity level (or no Radiosity) here. Radiosity is defined as the combined processes of emission, transmission and absorption of rays or reflecting beams of light. The choices for Radiosity are fast, medium and best. Again, the choice you make here will greatly affect the quality of the image and the time needed to compute it. The Ambient Lighting setting is also found in this step. Uncheck the Disable Ambient Light box to include ambient lighting in the rendering computations. The Sky slider controls how much soft lighting is included in your rendering.



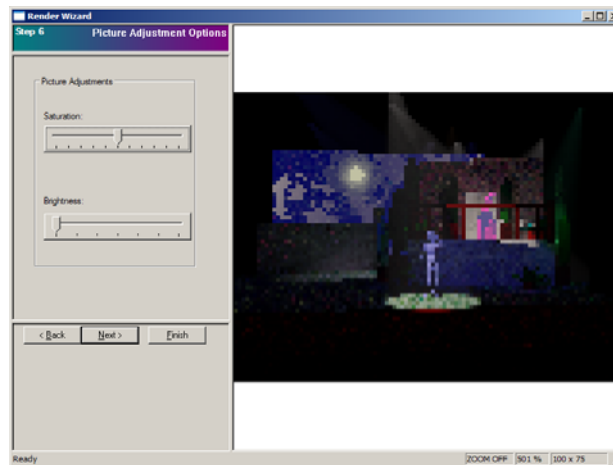
PREVIEW

When you move from step 5 to step 6, the Render Wizard will calculate a small preview of the rendering and show it in the right-hand view. It will always zoom to fit the full size of the rendered view first, but you can click in the view and zoom in and out using the PAGE UP/PAGE DOWN keys. Use the preview to fix any glaring errors in your rendering before you continue on to the final rendering.

Step 6 - Picture Adjustments

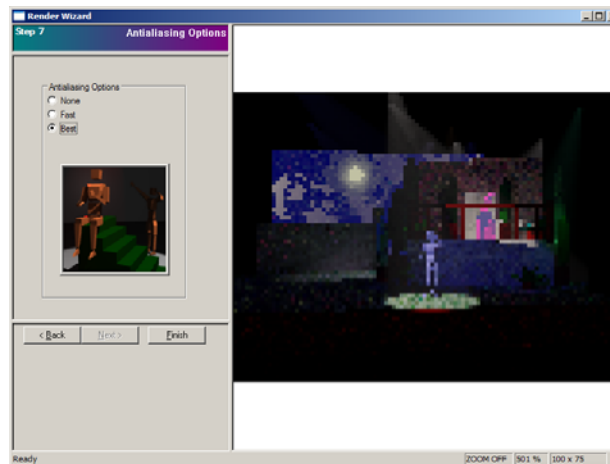
Use the two sliders in this step to adjust the picture to achieve the best results before you continue on to the final rendering. The Saturation is

comparable to the exposure on a camera, it determines which pixels are represented as pure white. The Brightness adjusts all pixels equally.



Step 7 - Antialiasing Options

A computer generated picture will often look like it is made out of blocks. Antialiasing will do more than one sample on a pixel and average the results to reduce the areas of high contrast (edges). You may not want to use smoothing on very small images. When you hit the Finish button, the real rendering will take place. Depending on the options selected and the complexity of the scenery and lighting, it may take some time to compute.



Note: You may minimize the window and continue working on other parts of your document as it works. You can use the arrow keys, PAGE UP/ PAGE DOWN, mouse or scroll bars to explore the picture as it is being produced. The final image will be saved to the destination you specified in [Step 2 - Output File Properties, page 194](#).

Rendering Tips:

- Setup your shot accurately using a camera (see [Cameras, page 140](#)).
- You can always click and drag in the right-hand view to adjust your shot before you render.
- Make sure you use the appropriate aspect ratio (height vs. width) for

the output device you will be presenting the pictures on. TV is 4x3 (normally 640x480), HDTV is 16x9.

- Use the Ambient Light sparingly (low level) as it looks rather flat and does not cast shadows.
- Always use antialiasing in your final renderings.
- While the image is rendering line by line, you can use the arrows, PAGE UP/PAGE DOWN keys, and the mouse to move around the picture. The current zoom factor is displayed in the status line of the Render view.



Chapter 9

Link Mode

Link mode is used to view WYSILink messages and perform ETCLink functions. WYSILink combines Emphasis Visualization software with ETC's Sensor Advanced Features to create the world's most sophisticated system diagnostics. When Sensor detects a problem, WYSILink logs it, posts a detailed alert and highlights the image of the affected fixture along with lamp and dimmer data.

WYSILink highlights affected fixtures in data and wireframe views in CAD, Data and Emphasis modes, giving you the most complete information about the problem. You can also use the message log to track problems by fixture over time.

WYSILink resides in the Emphasis Control System and gives you access to all ETCLink features. You can record and play backup looks, view which console is controlling which dimmers, and get information from any dimmer or dimmer rack in your system.

WYSILink mode is accessed through the LINK mode button at the top of the Emphasis screen. You can view the WYSILink Message Log, configure your WYSILink settings, record loads and record and playback backup looks from the LINK mode.



Note: *Though the WYSILink mode button is always visible, you may not have access to all the features. Critical message logging is available to all Emphasis systems. Graphical and advanced WYSILink features are available only to WYSILink-enabled systems. Contact your dealer or ETC Technical Services for further information.*

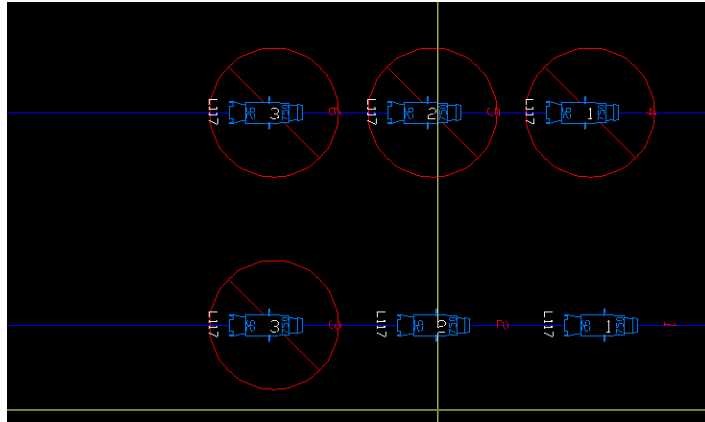
This chapter contains the following sections:

- [Message Log](#)200
- [ETCLink Functions](#)205

- Pending messages are generated at the time of the error.
- Cleared messages are generated when an error has been corrected.



Special circumstances arise when errors are generated when Emphasis (and therefore WYSILink) is offline. If an error is generated and corrected while WYSILink is offline, those messages will not appear in the Message Log. If an error has been generated when WYSILink is offline, and that message is not cleared, then that Pending message will appear in the Message Log when Emphasis and WYSILink come online.

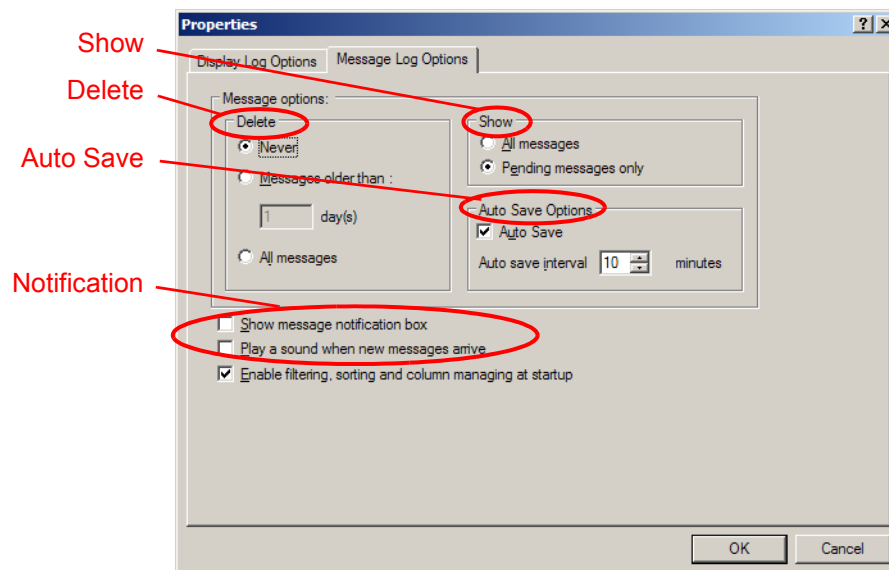


Message Log Options

You can customize the display of error messages using the Display Log Options and Message Log Options dialog boxes. You can access these by using the Message Log toolbar or the Options menu.



You can access the Message Log Options either directly through the Message Log Options button on the Message Log toolbar, or as a tab in the Properties dialog, accessible through the Display Log Options button on the Message Log toolbar.



In either case, you can use the Message Log Options to setup the basic setting of the Message Log.

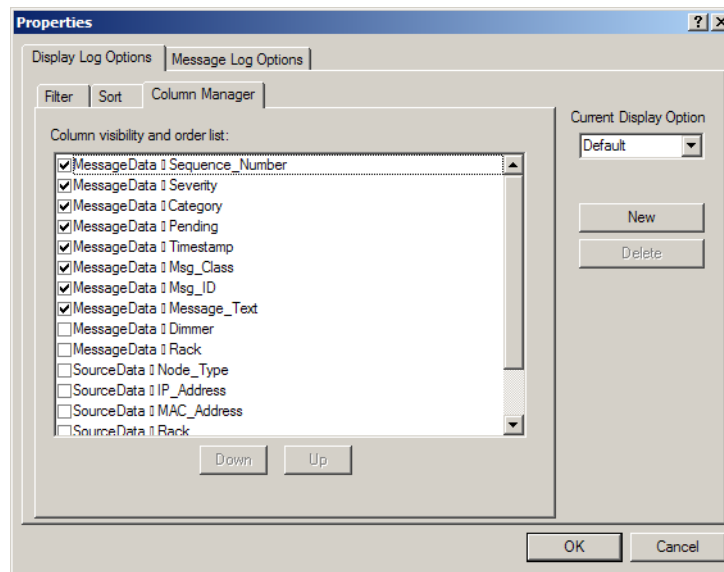
- Use the Delete settings to determine how long messages are held in the Message Log and to delete messages currently in the Message Log.
- Use the Show settings to switch between display of all messages (Pending and Cleared) or only Pending messages.
- Use the Auto Save settings to determine how often the Message Log is backed up to disk.
- Use the notification settings to setup how you want to be notified of new message arrival. You can choose to have a notification box pop-up, and/or have a sound play, as new messages arrive.

Display Log Options

In the Display Log Options tab of the Properties dialog, you can adjust column visibility, sort your error messages and setup filters.

To set column visibility and order:

- Step 1: Click the Display Log Options button on the WYSILink toolbar.
- Step 2: Click the Display Log Options tab.
- Step 3: Click the Column Manager tab.



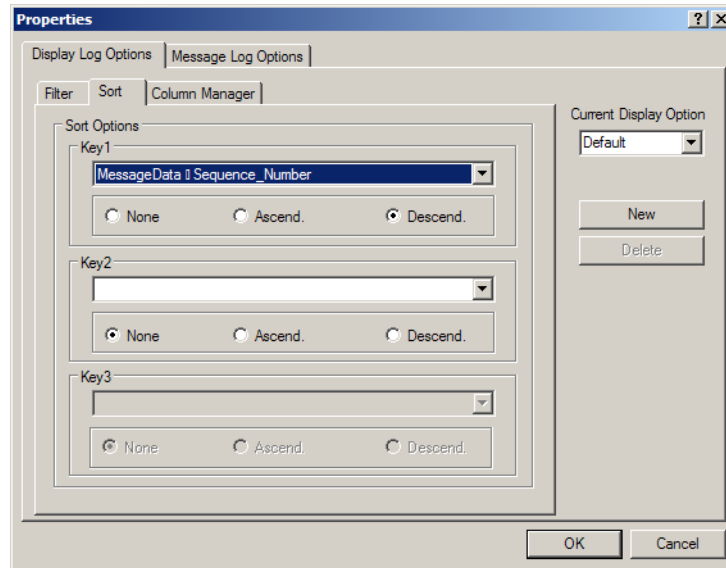
- Step 4: Click the name of the column you want to move and click Down or Up to reposition it in the listing.
- Step 5: Click the box to the left of the column name to set its visibility. A check indicates the column is currently visible.
- Step 6: Click OK.



Note: The column labeled Message Data Sequence Number may not be made invisible.

To sort messages:

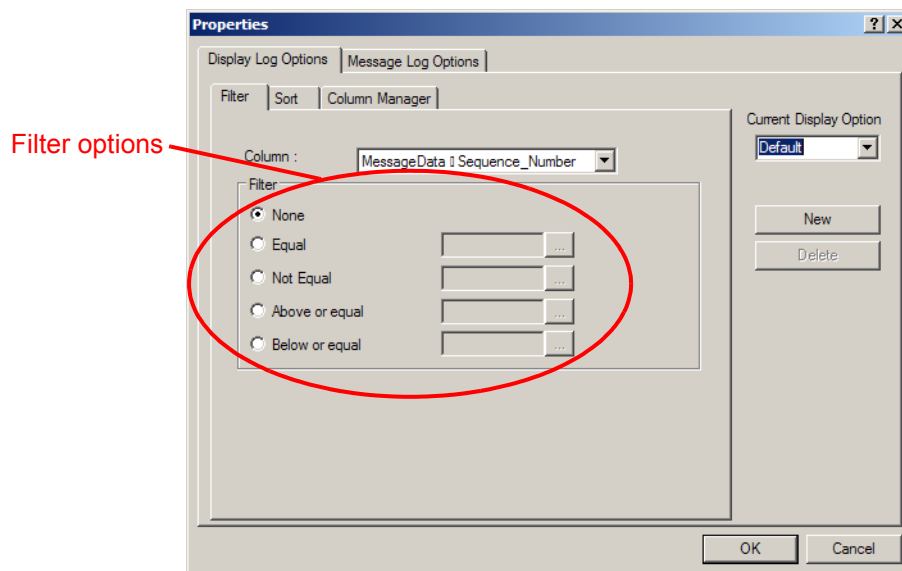
- Step 1: Click the Display Log Options button on the Message Log toolbar.
- Step 2: Click the Display Log Options tab.
- Step 3: Click the Sort tab.



- Step 4: In each Key position, select the column you want to sort by, and click Ascending or Descending to set the sort order.
- Step 5: Click OK. The Message Log will refresh with the newly sorted data.

To filter messages:

- Step 1: Click the Display Log Options button on the WYSILink toolbar.
- Step 2: Click the Display Log Options tab.
- Step 3: Click the Filter tab.



- Step 4: Select the column you want to filter.
- Step 5: Set the type of filter using the options.
- Step 6: Click OK. The Message Log will refresh with the newly filtered data.

Export the Message Log

You can export the message log to a comma-delimited text file. This file can be viewed in most spreadsheet applications. This feature is useful if you are having system problems and need to get the Message Log to ETC Technical Services.

To export the Message Log:

- Step 1: Click the Export button on the WYSILink toolbar.
- Step 2: Use the browser to set the name and destination of the exported file and click Save. The file should have the “.log” extension.

Print the Message Log

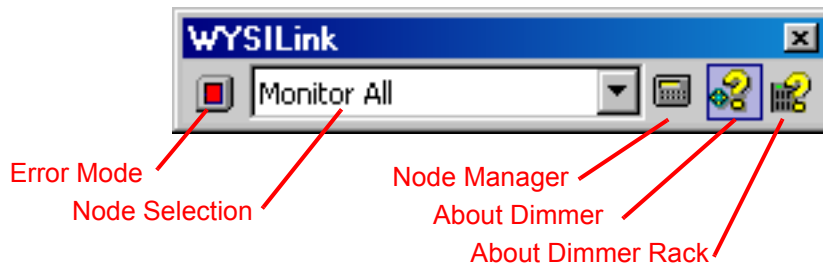
The WYSILink toolbar contains buttons to quickly access the Print and Print Preview commands. You can also access these commands in the File menu.

ETCLink Functions

WYSILink allows you to use many of the ETCLink features commonly found on ETC consoles. These features allow you to get information about your Sensor dimming system. You can access information about individual dimmers, and about entire dimmer racks. You can also record dimmer loads and record and playback backup looks from within WYSILink.

The WYSILink Toolbar

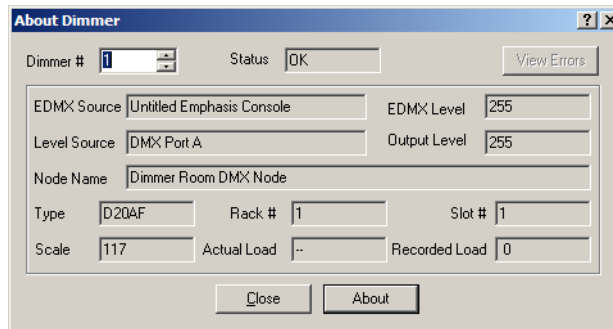
The WYSILink toolbar provides quick access to the ETCLink functions described below.



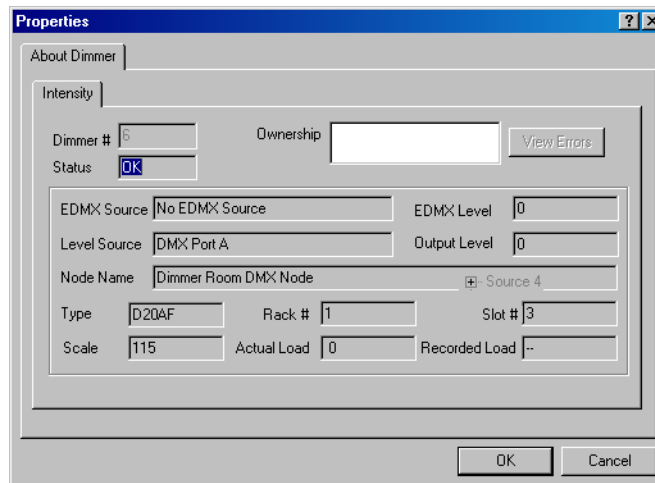
- Error Mode toggles between the currently selected node and all connected nodes.
- Node Selection allows you to view only the channels owned by that node.
- Node Manager (see [Node Manager, page 207](#)).
- About Dimmer (see [About Dimmer, page 206](#)).
- About Dimmer Rack (see [About Dimmer Rack, page 207](#)).

About Dimmer

About Dimmer provides specific information about an individual dimmer. The About Dimmer dialog allows you to enter a specific dimmer number or scroll through all dimmer numbers. To access dimmer information, type in or scroll to the dimmer number and click About.



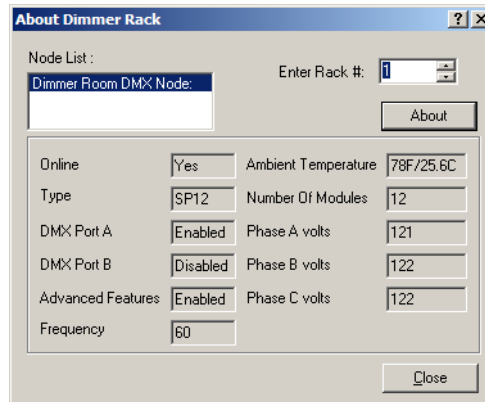
You can also access the About Dimmer command in CAD, Data and Emphasis modes by right-clicking on a fixture symbol. This will open a slightly different dialog.



Note: For further explanation of the contents of the About Dimmer dialog, please refer to your Sensor CEM User Manual.

About Dimmer Rack

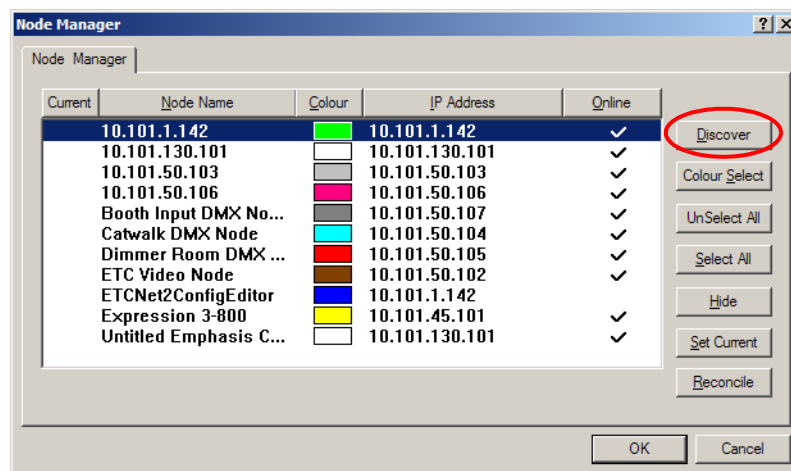
The About Dimmer Rack dialog allows you to choose a specific dimmer rack on a specific ETCNet2 DMX node. To access rack information, select a node and then select the rack number and click About.



Note: For further explanation of the contents of the About Dimmer Rack dialog, please refer to your Sensor CEM User Manual.

Node Manager

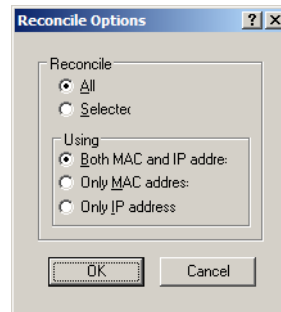
WYSILink adds the Node Manager to the Device Manager. In this dialog, you will need to “discover” connected nodes before other functions will work. Simply click the “Discover” button when you open the Node Manager. You can view the nodes that are currently online, and set a colour for the display of channels “owned” by each node. To set the colour for a node, double-click the colour field to the right of the node’s name, or click the node’s name and click Colour Select. The colour will be displayed in Patch to indicate which node is controlling each channel.



You can use the Node Manager to reconcile the configurations between your show document and the actual ETCNet2 Nodes connected to your ETCNet2 network.

To reconcile configurations:

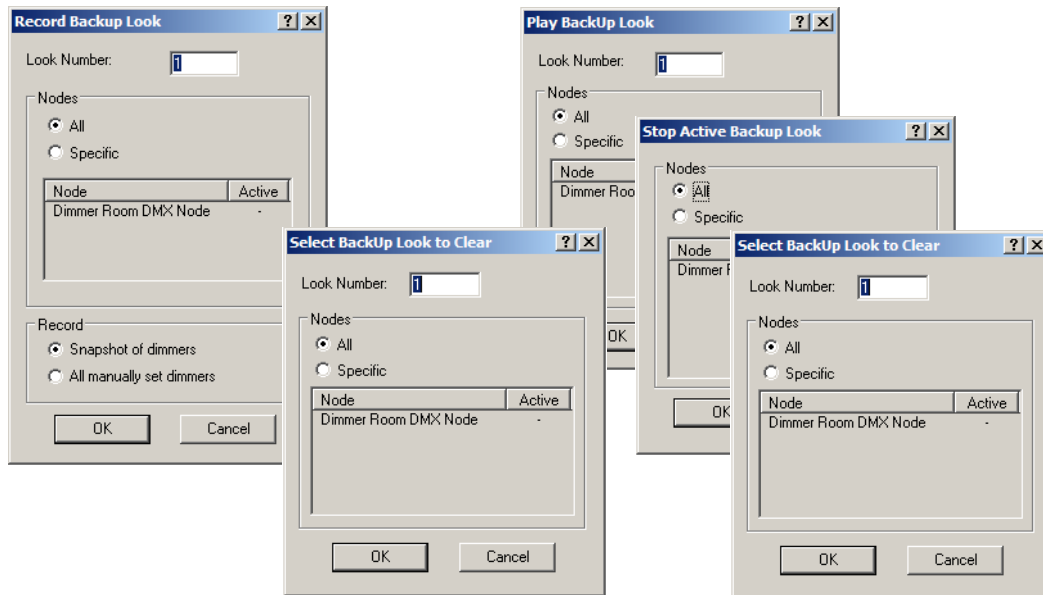
- Step 1: In the Node Manager, click Reconcile.
- Step 2: In the dialog, select whether you want to reconcile all nodes, or only currently selected nodes. Use CTRL+Click to select multiple nodes in the Node Manager.



- Step 3: Select whether you will use MAC addresses or IP addresses.
- Step 4: Click OK.

Backup Looks

You can record, playback, stop and clear backup looks from within WYSILink. You also have the option to perform these commands for all racks or only specified racks. For more information on backup looks, please refer to your Sensor CEM User Manual.



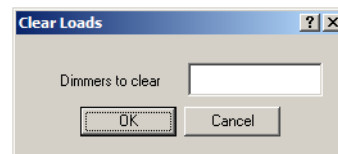
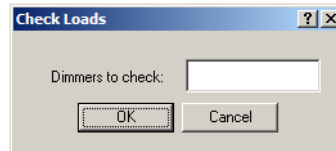
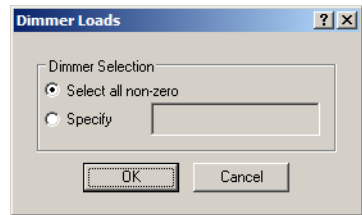
The Backup Looks Status display will show you which ETCLink-enabled DMX nodes have backup looks associated with them and if the looks are currently active.



Note: *Changes to backup looks will not be immediately visible. You may need to wait up to 30 seconds for the change to take effect.*

Load Recording

In the Record Dimmer Loads screen, you can record loads for specific or any non-zero level dimmers. Recording the load on a dimmer will enable WYSILink to notify you when that dimmer's load has changed, such as when a lamp fails.



Check Loads allows you to query a specific dimmer or dimmers and compare the recorded load to the actual load. Clear Loads allows you to clear the recorded load information for selected dimmers. For additional information on working with recorded loads, please refer to your Sensor CEM User Manual.

Chapter 10

Console Features

The Emphasis Control System adds new features and changes the operation of some existing features in Expression v3.1 software. Descriptions in this section supersede information contained in the Express and Expression-style v3.1 console user manuals.

This chapter includes the following sections:

- ***Structural Changes from Expression v3.1***212
- ***Fader Priority***213
- ***Blind vs. Preview***214
- ***Subroutines on Submasters***215
- ***Supermasters***217

Structural Changes from Expression v3.1

New Softkeys

Some new softkeys have been added or moved. The following list describes the new and moved features:

- **Sneak** has been moved to [S6] on the first page of the Stage display.
- **Park** has been moved to [S6] on the third page of the Stage display softkeys.
- **Fadeout Subr** is now [S1] on the first page of the Stage and Fader displays. Fadeout Subroutines is used to fade subroutines out either in the Subroutine Fade time imbedded in the subroutine, or if that command is not present, in the default Fader Clear Time.

To use Fadeout Subr:

1. Press **[S1 - Fadeout Subr]**.
 2. Press the bump button of the subroutine, or type in the submaster number of the subroutine you want to fade out. If you press the bump button of a Supermaster, all subroutines associated with that Supermaster will fade out in the appropriate time.
- **Assert** is now [S1] on the first page of the Patch display. This command will assert the patch of selected dimmers in an integrated ETCNet2 environment.
 - **Save Showfile** is [S1] on the Express Setup screen and [S3] on the Expression/Insight/Imagine/Focus Setup screen. This command will save the current show only after a **Save Show As** command has been given from the **File** menu in Emphasis Visualization.

Hardware Changes

Facepanel Disk Drive is for software updates and storage of configuration data only. Show files are stored and loaded via the Emphasis Server. See [ETCNet, ETCLink and Designer's Worksheet, page 228](#) for information on other hardware incompatibilities.

The Setup Menu

The Setup menu has changed significantly from Expression v3.1. Because many of the functions of the Setup menu have moved to the Emphasis Server, or have become obsolete, the menu has been restructured to avoid an excess of empty or “reserved” menu positions.



Note: *Macros imported from Expression v3.1 show files will need to be reviewed for proper operation if Setup menu commands are included.*

Setup menu commands still perform as noted in the v3.1 manual, but the numbering of those commands may have changed. Commands no longer available on the Setup menu are no longer necessary or have been moved to the Server.

Fader Priority

In an Emphasis system, you have multiple active faders to control the output of the control system. These include the submasters and cue fader pairs on the Facepanel, as well as the virtual submasters and cue fader pairs in the Emphasis Console application (visible from the Emphasis mode in Emphasis Visualization).

Fader levels are accepted only from one source. Each source has a priority. The source with the highest priority (lowest number) that is currently connected will be the accepted fader source. All fader movements on other devices are ignored. A device with a fader priority of zero (0) is disabled. More than one device can have a fader priority of zero (0). All other devices must have a unique priority setting.

The virtual faders on Emphasis Console will always have the lowest priority. The virtual faders on Emphasis Visualization will have the next higher priority. All physical Face Panels will have even higher priority or be disabled. When a Facepanel connects to a Server for the first time, it is assigned the highest (lowest number) priority not already assigned to something else. The assignments are stored when you exit Emphasis, so that the assignment will be remembered the next time you startup your system. To set priorities the first time in a multiple Facepanel system, turn on each Facepanel in order from highest priority (lowest number) to lowest priority. If you need to change the set priority order in a multiple Facepanel system, please contact ETC Technical Services.



Note: *When a Facepanel is attached to the Emphasis Server, only the Facepanel faders can control channels. Virtual faders in Emphasis Visualization will “move” to display the current levels of the physical faders, but they cannot be used to control channels directly.*

Blind vs. Preview

Emphasis has two modes for viewing stored cue data without having to playback the cue live - Blind and Preview. Blind functionality remains the same as before, and is described in detail in the v3.1 manual. In addition to the Facepanel Blind functions, all Emphasis mode displays also show the cue, group or submaster viewed in blind. Preview is a new feature of Emphasis and is described here. Preview is also described in Chapter 8 [Preview, page 188](#).

Preview is used to “look ahead” at upcoming cues. You can preview from wireframe or shaded (Emphasis 3D only) views.

To open Preview windows:

- Step 1: Click in a wireframe or shaded view to activate the window.
- Step 2: Right-click in the window and click **Preview Mode**. Alternatively, you can click the Preview icon in the Emphasis toolbar (it looks like an “eye”). A popup window will open with the Preview settings along the top.
- Step 3: Use the AB GO and CD GO buttons on the Preview window toolbar to fire the cue fader pairs from the Preview window.
- Step 4: Use the cue selection arrows and box to select the previewed cue. You can set a specific cue to preview by typing the cue number in the box, or by scrolling to the cue using the arrows. You can also set the look-ahead value to any of the following settings using the pull-down menu in the box:
 - Current - this is the most recently played cue in an active fader pair.
 - Current +1
 - Current +2
 - Current +3



Note: Use multiple Preview windows to create a storyboard of a series of cues. Preview windows will display “Error” in the cue box if the look-ahead value exceeds the number of available cues in a show. Clear the error by scrolling to a valid cue number.

The Preview windows will not refresh automatically if new cues are written within the look-ahead range. Use the refresh button on the Preview window toolbar or play a cue in an active fader pair to refresh all Preview windows.

Subroutines on Submasters

Emphasis adds functionality to subroutines by allowing them to be recorded to submasters. This feature gives you the ability to create “cue stacks” that can be fired independently using the submaster bump buttons, with intensity control of the subroutine through the submaster fader.

To build a subroutine on a submaster:

- Step 1: Press **[Blind] [Sub] [#]**, where # is the submaster you want to use.
- Step 2: Press **[Type] [4] [Enter]** to set the type to Subroutine.
- Step 3: Press **[1] [→]** to set Step 1.
- Step 4: Press **[1] [→]** to set Step 1 to Cue 1. (You can use any cue number you like.)
- Step 5: Press **[1]** to set a crossfade, **[2]** to set an Allfade, or **[3]** to set a Blocking type for this step. Press **[Clear]** to set a dynamic fade type. The dynamic fade type, displayed in purple, follows the fade type stored with the cue.
- Step 6: Press **[→]** to set the Upfade time. This can be fixed, dynamic or manual. Type a time value or press **[Clear]** to set dynamic or manual fade time. The dynamic fade time, displayed in purple, follows the fade time stored with the cue.
- Step 7: Press **[→]** to set the Down time. This can be fixed, dynamic or manual. Type a time value or press **[Clear]** to set dynamic or manual fade time. The dynamic fade time, displayed in purple, follows the fade time stored with the cue.
- Step 8: Press **[→]** to set the Follow time. This can be fixed, dynamic or manual. Type a time value or press **[Clear]** to set dynamic fade time or Hold. Hold takes the place of a “Hold for Go” command (see below).
- Step 9: Press the down arrow to move to the next step. Repeat steps 4 through 8 for each step in the subroutine that contains cue information.
- Step 10: Press **[Record] [Enter]** to record the submaster. You can also press **[Record]** and a submaster bump button to record the subroutine to another submaster.

If required, you can add a subroutine command to a step. There are five different commands you can place in a step:

- **Loop** - This style causes the subroutine to loop back to the beginning when the last step is played. You can set a subroutine to loop a specific number of times, or infinite times if you want it to run continuously.
- **Bounce** - This style causes the subroutine to run forwards then backwards through the steps. You can set a subroutine to bounce a specific number of times, or infinite times if you want it to run continuously.
- **Subroutine Fade** - This style sets the fade out time of the subroutine when it is turned off with the bump button. The subroutine will fade out its intensity channels in the Subroutine Fade time, and will complete the cue as defined in the step times.

- Hold for Go - This style remains for compatibility with v3.x show files.
- Filter - This style applies a group filter to a subroutine. Enter the Group number you want to playback the subroutine. Using Filter can simplify programming by using the same cue information repeatedly for differently built groups of channels.

To add a subroutine command to a step:

- Step 1: Select the step you want to modify and press **[S8 -Style]**.
- Step 2: Press **[1] [Enter]** for Loop and enter the number of loops you want the subroutine to perform. Loop commands are typically entered in the last step of a subroutine, unless a Subroutine Fade step is also in the subroutine. In that case, the Loop step will be the next-to-last step.
- Step 3: Press **[2] [Enter]** for Bounce and enter the number of bounces you want the subroutine to perform. Bounce commands are typically entered in the last step of a subroutine, unless a Subroutine Fade step is also in the subroutine. In that case, the Bounce step will be the next-to-last step.
- Step 4: Press **[3] [Enter]** for Subroutine Fade and enter the fade time. This step will not auto execute, rather it is an embedded command for the 'Fade Subroutine' softkey. Subroutine fade is typically entered in the last step of a subroutine.
- Step 5: Press **[5] [Enter]** for Filter settings. Enter the Group number you want to perform the subroutine. Use Group zero (0) to filter all channels. Over-arching Filter settings usually are placed in the first step of a subroutine.



Note: *You can imbed many filters in one subroutine. The later filters will reset the earlier ones. This way you can have a single subroutine affect different lights in different steps.*

Supermasters

Submasters may be set as Supermasters. A Supermaster masters a number of assigned submasters. When you press the bump button for a Supermaster, all the submasters assigned to the Supermaster will bump to full.

To create a Supermaster:

- Step 1: Press **[Blind] [Sub] [#]**, where # is the intended Supermaster.
- Step 2: Press **[Type] [5] [Enter]** to set the Supermaster type.
- Step 3: Using the number keys or the up and down arrows, highlight the submasters you want to assign to this Supermaster.
- Step 4: Press **[→] [1]** to enable the assignment. Press **[0]** to disable the assignment.
- Step 5: Repeat submaster assignments until you have assigned all the submasters you want to the Supermaster.
- Step 6: Press **[Record] [Enter]** to record the Supermaster. You can also press **[Record]** and a submaster bump button to record these settings to another submaster.

Appendix A

System Defaults

The defaults listed in this section refer to the factory settings of the Emphasis Visualization and Console software applications. While it is not necessary for these settings to remain at their default values, you may want to return to these settings if your system performance changes unfavorably.

This appendix contains the following sections:

- [*Emphasis Visualization and Console Defaults*](#)220
- [*Expression Facepanel Defaults*](#)223
- [*Express Facepanel Defaults*](#)225

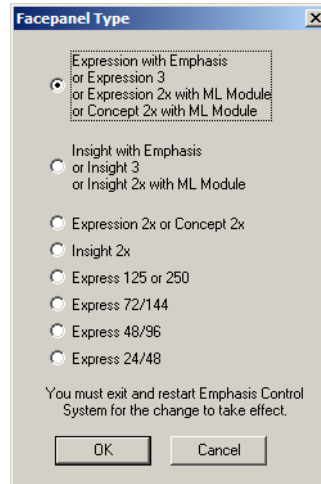
Emphasis Visualization and Console Defaults

The following can be set from either Emphasis Visualization or Emphasis Console. In Emphasis Visualization, these are set in the Emphasis mode **Setup** menu. In Emphasis Console, these are found in the main window **Options** menu.

Emphasis Visualization should be the application of choice for setting these parameters.

Facepanel Type

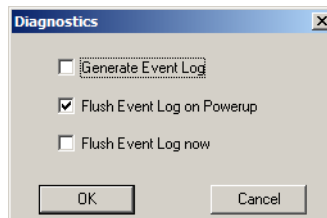
- ExpressionChecked



Note: To change the Facepanel type, click the button for the type you have and click OK.

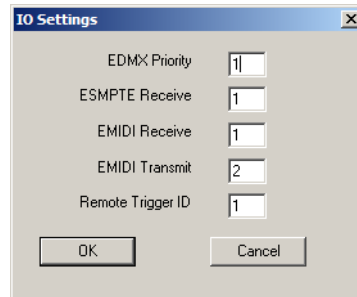
Diagnostics

- Generate Event logUnchecked
- Flush Event LogChecked



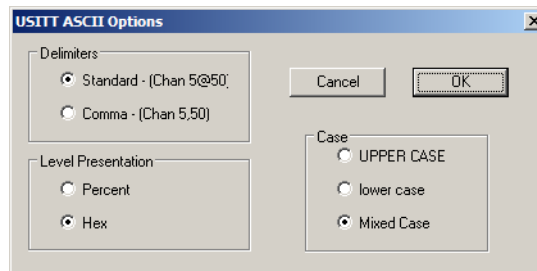
IO

- EDMX Priority 1
- ESMPTE Receive 1
- EMIDI Receive 1
- EMIDI Transmit 2
- Remote Trigger ID 1



ASCII Options

- Delimiters Standard
- Level Presentation Hex
- Case Mixed Case



Emphasis Visualization Defaults

File Options Tab

Auto Save Options

- Auto RecoverChecked
- Auto Recover Save Interval10 min.
- Keep Back Up FilesChecked

Document Loading

- Reload last document on startupChecked
- Default to Read Only.Unchecked

Emphasis Tab

- System ID0



Note: *SYS ID changes must be made in BOTH applications. If needed, change the System ID in Emphasis Console first, then Emphasis Visualization, then reboot your system.*

Emphasis Console Defaults

The following are set in Emphasis Console only. These settings are found in the main window **Options** menu.

Language

- English

System ID

- System0
- System Name.Untitled
Emphasis
Console



Note: *SYS ID changes must be made in BOTH applications. If needed, change the System ID in Emphasis Console first, then Emphasis Visualization, then reboot your system.*

Expression Facepanel Defaults

ETCNet2

- Emphasis RPU System0
- IP Address10.101.45.101
- Gateway Address.....10.101.45.101
- Subnet Mask255.255.0.0
- Display Processor ListEnabled
- Label.....Defaults to console type

DMX

- DMX Output Port TimingMax
- DMX Output Port 1 Start Channel1
- DMX Output Port 1 Channel Count512
- DMX Output Port 2 Start Channel513
- DMX Output Port 2 Channel Count512
- DMX Output Port 3 Start Channel1025
- DMX Output Port 3 Channel Count512
- DMX Output Port 4 Start Channel1537
- DMX Output Port 4 Channel Count512
- DMX Input Port Start Channel Start Number10001
- DMX Input Port Channel Count512
- DMX Input PortDisabled
- DMX Input Port Priority.....2

MIDI

- MIDI Input Port EMIDI ID1
- MIDI Output Port EMIDI ID.....2

SMPTE

- SMPTE Input Port ESMPTE ID1
- SMPTE Input Port Frames per Second30
- SMPTE Start-of-Loop (HH:MM:SS:FF)(0:0:0:0)
- SMPTE End-of-Loop (HH:MM:SS:FF).....(23:59:59:29)

Remote Macro

- Remote Macro 1 System ID.....0
- Remote Macro 1 Macro ID.....1901
- Remote Macro 2 System ID.....0
- Remote Macro 2 Macro ID.....1902
- Remote Macro 3 System ID.....0

- Remote Macro 3 Macro ID 1903
- Remote Macro 4 System ID 0
- Remote Macro 4 Macro ID 1904
- Remote Macro 5 System ID 0
- Remote Macro 5 Macro ID 1905
- Remote Macro 6 System ID 0
- Remote Macro 6 Macro ID 1906
- Remote Macro 7 System ID 0
- Remote Macro 7 Macro ID 1907
- Remote Macro 8 System ID 0
- Remote Macro 8 Macro ID 1908

Language

- English

Express Facepanel Defaults

ETCNet2

- Emphasis RPU System0
- IP Address10.101.45.101
- Gateway Address.....10.101.45.101
- Subnet Mask255.255.0.0
- Display Processor ListEnabled
- Label.....Defaults to console type

DMX

- DMX Output Port TimingMax
- DMX Output Port 1 Start Channel1
- DMX Output Port 1 Channel Count512
- DMX Output Port 2 Start Channel513
- DMX Output Port 2 Channel Count512

MIDI

- MIDI Input Port EMIDI ID1
- MIDI Output Port EMIDI ID.....2

Remote Macros

- Remote Macro 1 System ID.....0
- Remote Macro 1 Macro ID.....1901
- Remote Macro 2 System ID.....0
- Remote Macro 2 Macro ID.....1902
- Remote Macro 3 System ID.....0
- Remote Macro 3 Macro ID.....1903
- Remote Macro 4 System ID.....0
- Remote Macro 4 Macro ID.....1904
- Trigger Out System ID0
- Trigger Out Trigger ID1

Language

- English

Appendix B

Networking

The Emphasis Control System is a native ETCNet2 system. This appendix describes changes from ETCNet operation of Express and Expression-style consoles, and considerations when working within the ETCNet2 environment.

This appendix contains the following sections:

- [*ETCNet, ETCLink and Designer's Worksheet*](#)228
- [*ETCNet2*](#)229
- [*Remote Macros*](#)233
- [*Remote Trigger*](#)234
- [*DMX Output Port Configuration*](#)231
- [*DMX In*](#)232
- [*Show Control*](#)235

ETCNet, ETCLink and Designer's Worksheet

The Emphasis Control System is a native ETCNet2 system. Because of this, the following equipment is not compatible with an Emphasis system:

- ETCNet Remote Interface Unit (RIU)
- ETCNet Remote Video Interface (RVI)
- Designer's Worksheet (digitizer tablet)
- Local printer at the Facepanel (connect your printer to the Server)
- ETCLink connected to Facepanel. ETCLink must be connected to the system through an ETCNet2 DMX Node. For more information on ETCLink operation, see [Link Mode, page 199](#).

ETCNet2

In an ETCNet2 system, ownership of EDMX values is determined by a hierarchy of priority values. The rules for this hierarchy are listed below and are relevant to multiple-console systems, and systems integrated with ETCNet2 Nodes and Unison Architectural Control.

It is important to note that EDMX does not operate on a Highest Takes Precedence (HTP) basis. Only one source can have control over a given EDMX address at a time; however, several outputs may listen to a single source.

EDMX Basics (ETCNet2 v3.0.0 and above)

The following points describe the way things are, or the way things need to be to have a valid network setup.

- There are 22 discreet priority settings within EDMX. The lowest number will always be the highest priority.
- Unison with a zone's Input Mode set to Replace is equal to priority zero (0).
- DMX Node input ports and Emphasis have a modifiable priority of 1 through 20.
- Unison with a zone's Input Mode set to Pass-thru-if-Active is equal to priority 21.
- All devices (ETCNet2 nodes, Emphasis components and so on) must have unique IP addresses on the network.
- Emphasis and Obsession II systems must have unique System IDs on the network. This only applies if you have multiple control systems on the same network.
- ETCNet2 nodes don't have System IDs so they are considered to have an ID of zero (0).
- Zero is lower than one.

Arbitration. Who has control?

The following points describe "who wins" generally, and when multiple devices are set to the same priority level.

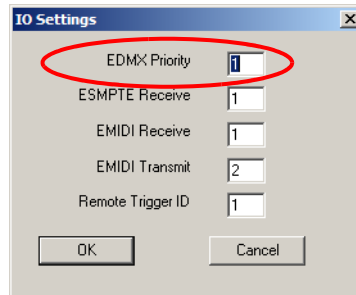
- The lowest priority value has the highest priority. (1 has a higher priority than 2)
- If multiple devices have the same priority, the lowest System ID has the highest priority.
- If two ETCNet2 DMX Nodes have the same priority (and by definition the same System ID), the node with the lower IP address will have the higher priority.
- If two input ports on a ETCNet2 DMX Node have the same priority (and by definition the same IP address), the lowest numbered port has the highest priority.

To change the EDMX Priority of your Emphasis Control System:



CAUTION: *Unexpected behavior may result from changes to the EDMX Priority of your Emphasis Control System. If you have problems with your system, please contact ETC Technical Services (see [Help from ETC Technical Services, page 4](#)).*

Step 1: In the Emphasis mode **Setup** menu, click **IO**.



Step 2: In the “EDMX Priority” field, enter the new value. This may be any value between 1-20. The default value is “1”.

Step 3: Click OK.

DMX Output Port Configuration

DMX output from your Facepanel is treated the same as DMX output ports on a DMX Node. The DMX output ports on your Facepanel can be configured locally.

To change the EDMX assignments of the DMX output ports:



Note: *If you make an error while changing any of these settings, and you want to return to the previously stored values, do not press [S8]. Simply turn the console power off and on again. The previous settings will be restored.*

- Step 1: Power up or reboot the Facepanel.
- Step 2: When the prompt appears at startup, press **[1][2][3]** to enter the configuration menu.
- Step 3: Using the down-arrow **[↓]**, scroll to DMX and press **[Enter]**.
- Step 4: Using the up- or down-arrow **[↑][↓]**, scroll to “DMX Output Port Timing” and press **[Enter]**.
- Step 5: Using the up- or down-arrow **[↑][↓]**, scroll to the new timing and press **[Enter]**. The default setting is “MAX”.
- Step 6: Using the down-arrow **[↓]**, scroll to “DMX Input Port *n* Start Channel” and press **[Enter]**. The value of *n* is the port you want to adjust.
- Step 7: Using the Facepanel numeric keypad, type the new EDMX starting address and press **[Enter]**.
- Step 8: Using the down-arrow **[↓]**, scroll to “DMX Input Port *n* Channel Count” and press **[Enter]**. The value of *n* is the port you want to adjust.
- Step 9: Enter the new channel count. The default value is “512”.
- Step 10: Press **[Enter]**.
- Step 11: Repeat steps 6-10 for each port you want to adjust.
- Step 12: Press **[S8]** to save your settings and exit the DMX configuration screen.
- Step 13: Press **[S8]** to save your settings and exit the main configuration screen.

DMX In

DMX In is treated the same as DMX Input to a DMX Node. The DMX Input port can be enabled and configured in the DMX configuration menu.

To change the DMX In settings:



Note: *If you make an error while changing any of these settings, and you want to return to the previously stored values, do not press [S8]. Simply turn the console power off and on again. The previous settings will be restored.*

- Step 1: Power up or reboot the Facepanel.
- Step 2: When the prompt appears at startup, press **[1][2][3]** to enter the configuration menu.
- Step 3: Using the down-arrow **[↓]**, scroll to DMX and press **[Enter]**.
- Step 4: Using the up- or down-arrow **[↑][↓]**, scroll to “DMX Input Port Start Channel” and press **[Enter]**.
- Step 5: Enter the new DMX In starting EDMX address. The default value is “10001”.
- Step 6: Press **[Enter]**.
- Step 7: Using the down-arrow **[↓]**, scroll to “DMX Input Port Channel Count” and press **[Enter]**.
- Step 8: Enter the new channel count. The default value is “512”.
- Step 9: Press **[Enter]**.
- Step 10: Using the down-arrow **[↓]**, scroll to “DMX Input Port” and press **[Enter]** to toggle between Disabled and Enabled.
- Step 11: Using the down-arrow **[↓]**, scroll to “DMX Input Port Priority” and press **[Enter]**.
- Step 12: Enter the new priority value. The default value is “2”.
- Step 13: Press **[Enter]**.
- Step 14: Press **[S8]** to save your settings and exit the DMX configuration screen.
- Step 15: Press **[S8]** to save your settings and exit the main configuration screen.

Remote Macros

Remote macros are accessed through the Remote Macro port on the Facepanel or the ETCNet2 Video Node. The Remote Macro port connects to switches that can be used to fire macros in your show file. See your Facepanel manual for information on recording macros, and wiring requirements for the Remote Macro switches.

Express Facepanels have access to four Remote Macros. Expression/Insight Facepanels have access to eight Remote Macros.

You can adjust the settings for each Remote Macro independently. You can assign a system ID and a macro number to each Remote Macro. This way you can have an individual remote macro panel execute macros across multiple Emphasis Control Systems on the ETCNet2 network.

To set the Remote Macro assignments:

- Step 1: Power up or reboot the Facepanel.
- Step 2: When the prompt appears at startup, press **[1][2][3]** to enter the configuration menu.
- Step 3: Using the down-arrow **[↓]**, scroll to Remote Macros and press **[Enter]**.
- Step 4: Using the up- or down-arrow **[↑][↓]**, scroll to the Remote Macro System ID you want to adjust and press **[Enter]**.
- Step 5: Enter the new system ID and press **[Enter]**.
- Step 6: Using the up- or down-arrow **[↑][↓]**, scroll to the Remote Macro Macro ID you want to adjust and press **[Enter]**.
- Step 7: Enter the new macro ID and press **[Enter]**.
- Step 8: Press **[S8]** to save your settings and exit the Remote Macros configuration screen.
- Step 9: Press **[S8]** to save your settings and exit the main configuration screen.

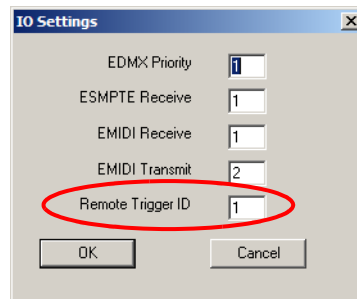
Remote Trigger

The Remote Trigger feature sends an “On” or “Off” signal to any external device that responds to a remote contact closure. The Remote Trigger commands “On Trigger” (switch closed) and “Off Trigger” (switch open) are stored in macros. You can set the Remote Trigger ID in Emphasis Visualization for mapping in multiple Facepanel systems.

Remote Trigger ports are available on Express Facepanels and on ETCNet2 Video Nodes.

To set the Remote Trigger ID:

Step 1: In the Emphasis mode **Setup** menu, click **IO**.



Step 2: In the “Remote Trigger ID” field, enter the new value. This may be any value between 1-255. The default value is “1”.

Step 3: Click OK.

Show Control

When using Emphasis with show control protocols, you will need to refer to your Facepanel manual for specific protocol information. All information in the Facepanel manuals remains valid. In most cases, show control can be used in an Emphasis Control System without having to change any settings.



Note: *MIDI In/Out is standard on all Express, Expression/Insight 2x/3/ECS variations.*

SMPTE is available as a factory upgrade for Expression/Insight 2x/3/ECS consoles only. SMPTE is not supported on Express consoles.

Verify your Facepanel has the SMPTE upgrade installed before using it with SMPTE timecode.

Show Control over the Network

In an Emphasis Control System, the Facepanel acts as a translator of the show control protocol (ETC MIDI, MIDI Show Control, MIDI Notes, SMPTE Timecode). These protocols are translated to “EMIDI” and “ESMPTE”. This simply indicates the protocol that has been translated for network transmission.

You can use EMIDI and ESMPTE ID values to establish “transmission lines” within your system. In a single Emphasis Control System, with one Facepanel and one Emphasis Server, the transmission lines are easy to map. In an Emphasis Control System with multiple Facepanels and Emphasis Servers, you can map from a Facepanel from one system ID to the Emphasis Server on another system ID.

You can also use the EMIDI and ESMPTE ID values to create broadcast areas within a multiple Emphasis Control System. For example, to have SMPTE timecode input on a console with an ESMPTE ID of “21” broadcast to multiple servers, set the ESMPTE Receive value on those servers to “21” (see [SMPTE, page 237](#)). All servers with an ESMPTE Receive value of “21” will be able to “hear” the incoming SMPTE.

MIDI

ETC MIDI, MIDI Show Control, and MIDI Timecode may be input on a node (currently the Facepanel is the only input/output option) for transmission to the Emphasis Server over ETCNet2.

The MIDI Input Port EMIDI ID (Facepanel) setting maps to the EMIDI Receive (Emphasis Visualization) setting. You cannot have multiple Facepanels with identical MIDI Input Port EMIDI ID settings, but you may have multiple Emphasis Servers with identical EMIDI Receive settings. In this case, you would have a single input source broadcasting a MIDI signal (ETC MIDI, MIDI Show Control or MIDI Timecode) to multiple Emphasis Servers.

The EMIDI Transmit (Emphasis Visualization) setting maps to the MIDI Output Port EMIDI ID (Facepanel) setting. You cannot have multiple Emphasis Servers with identical EMIDI Transmit settings, but you may have multiple Facepanels with identical MIDI Output Port EMIDI ID settings. In this case, you would have a single transmit source

broadcasting the same information (ETC MIDI, MIDI Show Control or MIDI Timecode) to multiple output ports.

To set the EMIDI ID values on the Facepanel:

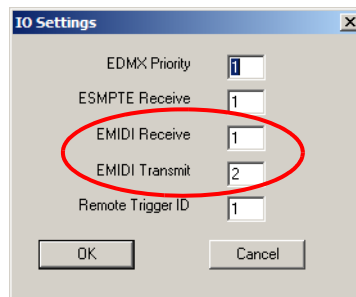


Note: *If you make an error while changing any of these settings, and you want to return to the previously stored values, do not press [S8]. Simply turn the console power off and on again. The previous settings will be restored.*

- Step 1: Power up or reboot the Facepanel.
- Step 2: When the prompt appears at startup, press **[1][2][3]** to enter the configuration menu.
- Step 3: Using the down-arrow **[↓]**, scroll to MIDI and press **[Enter]**.
- Step 4: With “MIDI Input Port EMIDI ID” highlighted, press **[Enter]**.
- Step 5: Using the console numeric keypad, enter the ID number. This may be any value between 0-255 (“0” will disable MIDI Input). The default value is “1”.
- Step 6: Press **[Enter]**.
- Step 7: Using the down-arrow **[↓]**, scroll to “MIDI Output Port EMIDI ID” and press enter.
- Step 8: Using the console numeric keypad, enter the ID number. This may be any value between 0-255 (“0” will disable MIDI Output). The default value is “2”.
- Step 9: Press **[Enter]**.
- Step 10: Press **[S8]** to save your settings and exit the MIDI configuration screen.
- Step 11: Press **[S8]** to save your settings and exit the main configuration screen.

To set the EMIDI Receive and Transmit values in Emphasis Visualization:

- Step 1: In the Emphasis mode **Setup** menu, click **IO**.



- Step 2: In the “EMIDI Receive” field, enter the new value. This may be any value between 0-255 (“0” will disable EMIDI Receive). The default value is “1”.
- Step 3: In the “EMIDI Transmit” field, enter the new value. This may be any value between 0-255 (“0” will disable EMIDI Transmit). The default value is “1”.
- Step 4: Click OK.

SMPTE

SMPTE may be input on a node (currently the Facepanel is the only input option) for transmission to the Emphasis Server over ETCNet2.

The SMPTE Input Port ESMTPTE ID (Facepanel) setting maps to the ESMTPTE Receive (Emphasis Visualization) setting. You cannot have multiple Facepanels with identical SMPTE Input Port ESMTPTE ID settings, but you may have multiple Emphasis Servers with identical ESMTPTE Receive settings. In this case, you would have a single input source broadcasting SMPTE to multiple Emphasis Servers.

To set the ESMTPTE ID value on the Facepanel:

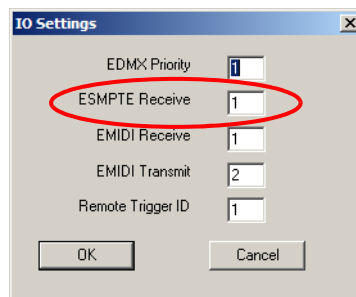


Note: If you make an error while changing any of these settings, and you want to return to the previously stored values, do not press [S8]. Simply turn the console power off and on again. The previous settings will be restored.

- Step 1: Power up or reboot the Facepanel.
- Step 2: When the prompt appears at startup, press **[1][2][3]** to enter the configuration menu.
- Step 3: Using the down-arrow **[↓]**, scroll to SMPTE and press **[Enter]**.
- Step 4: With “SMPTE Input Port ESMTPTE ID” highlighted, press **[Enter]**.
- Step 5: Using the console numeric keypad, enter the ID number. This may be any value between 0-255 (“0” will disable SMPTE Input). The default value is “1”.
- Step 6: Press **[Enter]**.
- Step 7: Press **[S8]** to save your settings and exit the SMPTE configuration screen.
- Step 8: Press **[S8]** to save your settings and exit the main configuration screen.

To set the ESMTPTE ID value in Emphasis Visualization:

- Step 1: In the Emphasis mode **Setup** menu, click **IO**.



- Step 2: In the “ESMPTE Receive” field, enter the new value. This may be any value between 0-255 (“0” will disable ESMTPTE Receive). The default value is “1”.
- Step 3: Click OK.

To customize the SMPTE settings:

The settings in the Facepanel configuration menu are reserved for future use. While you may make changes here, they will have no effect on your system. If you have to make changes to your SMPTE settings, please perform them in the Setup menu on the Facepanel:

- SMPTE Frame Rate is set in the Options Menu **[Setup][2][Enter]**.
- Loop start and end are set in the Time Code Events Menu **[Setup][7][Enter][S7-More Softkeys][S8 - Reset Loop]**.

Save your Facepanel Configuration

Once you have configured your system, you should save a copy of the configuration to a 3.5" floppy disk.

To save your configuration to a floppy disk:

- Step 1: Power up or reboot the Facepanel.
- Step 2: When the prompt appears at startup, press **[1][2][3]** to enter the configuration menu.
- Step 3: Insert a blank 3.5" floppy disk into the Facepanel disk drive.
- Step 4: Using the down-arrow **[↓]**, scroll to Backup to Floppy and press **[Enter]**. The backup process begins immediately.
- Step 5: When complete, remove the disk from the floppy drive and restart your Facepanel for normal operation.

To restore your configuration from a floppy disk:

- Step 1: Power up or reboot the Facepanel.
- Step 2: When the prompt appears at startup, press **[1][2][3]** to enter the configuration menu.
- Step 3: Insert the floppy disk containing your configuration into the Facepanel disk drive.
- Step 4: Using the down-arrow **[↓]**, scroll to Restore from Floppy and press **[Enter]**. The configuration loads immediately.
- Step 5: When complete, remove the disk from the floppy drive and restart your Facepanel for normal operation.

To restore factory default settings:

- Step 1: Power up or reboot the Facepanel.
- Step 2: When the prompt appears at startup, press **[1][2][3]** to enter the configuration menu.
- Step 3: Insert the Facepanel Software Disk into the Facepanel disk drive. See [Software Installation, page 12](#) for information on creating a Facepanel Software Disk.
- Step 4: Using the down-arrow **[↓]**, scroll to Restore from Floppy and press **[Enter]**. The configuration loads immediately.
- Step 1: When complete, remove the disk from the floppy drive and restart your Facepanel for normal operation.

Appendix C

Data Types

This Appendix describes all the data types available in the Spreadsheet view. Data can be defined by the user, by a fixture or device's library information or by the Emphasis Control System.

This appendix contains the following sections:

- *User-defined Data*242
- *Library-defined Data*245
- *Emphasis-defined Data*246

User-defined Data

Channel

This is the control channel you will use at your Facepanel to control your fixtures. For moving lights, the channel number recorded in Emphasis is the starting channel number. Emphasis will automatically increment the number of channels that fixture uses for control. This setting is **required** for Emphasis to control your fixtures (conventional and moving lights).

Patch

This is the EDMX address for this fixture. The patch field will also automatically increment the appropriate number of EDMX addresses for the fixture selected. This setting is **required** for Emphasis to control your fixtures (conventional and moving lights).



Note: *EDMX addresses are assigned to specific DMX output ports within your network. Consult your specific network configuration to determine how the EDMX addresses have been assigned in your system.*

Dimmer

Typically, this value is the same as the EDMX “Patch” number. This is a convenience setting in cases where the EDMX value is not the same as the Dimmer name. In systems using WYSILink this corresponds to the Sensor Unique Dimmer number (UD#), and is **required** for proper WYSILink operation.

Spot

Each moving light in your show needs a Spot number for identification. This number is used by Emphasis to keep track of the moving lights in a show, and corresponds to the Fixture number for selection at the Facepanel. This setting is **required** for Emphasis to control moving light fixture types.

Position

This is the hanging position for this fixture. Positions must be entered in the Position Manager. If you try to enter a position name that is not in the manager, you will be prompted to choose from the existing list. See [Position Manager, page 120](#) for more information.

Spin

The spin value indicates the orientation of a fixture on a hanging position. For example, a spin value of “0” on a horizontal hang structure indicates the fixture is hanging straight down. A spin value of “180” on that same structure indicates the fixture is hung in an “overhung” orientation.

Unit

The unit number is specific to the hanging position. It is possible for Emphasis to generate this number for pipes using the AutoUnit command (see [AutoUnit, page 127](#)).

Type

This value is initially assigned when you insert a fixture. You may change the fixture type using a pop-up menu. The menu contains all the currently used fixture types and also includes a button to access the Library.

Purpose

The purpose is a note that signifies how this fixture is being used in your show. Examples: "SL Side", "Diagonal Backs".

Colour

This field indicates the colour or colours you want to install on a fixture. This applies to gel media only. You cannot apply colour to moving lights. Use fixture Properties to assign custom colour wheels to fixtures that can accommodate them.

Gobo

This field indicates the gobo you want to install on a fixture. This applies to conventional gobos only. You cannot apply gobos to moving lights. Use fixture Properties to assign custom gobo wheels to fixtures that can accommodate them.

Focus

This is the focus position you want to assign to your fixtures.

Circuit Name

The Circuit Name can be used to define the raceway, drop box, multi-cable or other distribution method for your circuits. Example: "SL Drop Box" or "Multi A".

Circuit Number

This is the specific circuit number from your raceway, drop box, multi-cable or other method of distribution.

Pan

The Pan value defines the spin of the fixture in relation to the hanging point (hook, clamp, etc.). A Pan of zero (0) degrees indicates the yoke is parallel to the hang structure; a Pan of 90 indicates the yoke is perpendicular to the hang structure. Pan values are given in positive and negative degrees.

Tilt

The Tilt value defines the spin of the fixture within the yoke. A Tilt of zero (0) degrees indicates the fixture is parallel to the yoke; a Tilt value of 90 indicates the fixture is perpendicular to the yoke. Tilt values are given in positive and negative degrees.

Notes

You can type notes into the Spreadsheet for individual fixtures. These can be included in printed reports.

Footnotes

This feature is not yet available.

Cost

You can enter a cost value for library items such as fixtures in the Properties window. This is useful for determining rental costs of a lighting rig. Enter the cost information into the properties of an object's shortcut and the data will automatically be entered as you place those objects.

Layer

This column indicates the layer the object is drawn on. You can change the layer assignment for a fixture or fixtures using the pop-up menu.

Library-defined Data

Lens

For fixtures with lenses, this column indicates the lens type. You may select from a range of compatible lens types, if a fixture supports different lenses.

Hookup

This column indicates generally what type of parameter(s) the DMX is controlling: “Intensity” for conventional fixtures, “Control” for moving lights and other DMX devices, “Scroller” for colour scrollers, etc.

Weight

If weight information is included in a fixture’s library information, it will be displayed in this column. This value is used to calculate fixture weight by position.

Lamp Type

This column indicates the chosen lamp type for a fixture. You may select from a range of compatible lamp types, if a fixture supports different lamps.

of Data Channels

This column indicates the number of DMX channels required to control a fixture.

of Colour Frames

This column displays the number of colour frames required by a fixture.

of Lamps

This column displays the number of lamps required by a fixture.

Circuit Type

This column indicates the type of circuit required for a fixture or device. “REGDIM” for dimmers, “AC208ND” for a non-dimming 208v AC circuit, etc.

Wattage

This column indicates the total wattage of the fixture or device. In the case of multi-circuit fixtures, wattage for each circuit will be indicated.

Model

This is the same as the fixture “Type”.

Emphasis-defined Data

Offset

This column identifies a fixture's placement on a hang structure. It is a distance measurement referencing the pipe's end or center.

Status

This column indicates whether the fixture or device is "HUNG" or "UNHUNG". "HUNG" devices are found on pipes or fixtures in the wireframe views. "UNHUNG" devices are found in the Flight Case.

Console

This feature is not yet available.

Tag

This is an internal code used for importing and exporting data to/from third party programs.

Owner

This feature is not yet available.

Appendix D

Revert to v3.1 Software

This appendix describes the procedure for reverting to software v3.1 on the Facepanel. To use your Emphasis show on an Express, Expression or Insight console running software v3.1, you will need to export your show as an Express, Expression or Insight show file.



CAUTION: *Expression v3.1 software is not ETCNet2 compatible. If your system uses ETCNet2 DMX Nodes for data distribution over the network, you should contact ETC Technical Services prior to changing your system software. See [Help from ETC Technical Services, page 4](#).*

This appendix contains the following sections:

- [Export your Show File to “.shw” Format](#)248
- [Create a v3.1 Console Software Disk](#)250
- [Install v3.1 Console Software](#)251

Export your Show File to “.shw” Format

Shows created in Emphasis can be converted to v3.1 format for some backward compatibility, though there are some restrictions.

- The file name can only be read by Express/ion v3.1 if it is named “**exp2.shw**”. No other file names are valid.
- The channels and dimmers above the maximum count for the console *will be lost*. Before saving the v3.1 show file, reduce the channel and dimmer counts to fit your destination console.
- Cue, group, focus point and subs above the maximum for v3.1 software *will be lost*.
- Subs-on-sub, some subroutine steps and Supermasters *will be lost*.
- Patch and cue data will be available for moving lights, but there will be *no personalities*.
- If you require the ability to edit a moving light, use default personalities or create personalities with Expression Personality Editor to match the channels of the unit. Patch in the same location.

Exporting a show file to v3.1 compatibility gives you another level of backup. If you routinely make a floppy disk of the show in this format, and your primary, essential lighting has control numbers and patch within the restrictions of the console as listed below, your Emphasis Facepanel can be backed down to be an Express/ion v3 console by loading v3.1 code. It can then operate without the Emphasis Server, within the restrictions listed above.

Express, Expression and Insight consoles will revert to their standard maximum channel counts:

Console Type	Max Channels	Console Type	Max Channels
Express 24/48	96	Expression 2x	800
Express 48/96	192	Expression 3	400, 800, 1200
Express 72/144	240	Expression ECS	400
Express 125	125	Insight 2x	512
Express 250	250	Insight 3	512
Express ECS	125	Insight ECS	512
All Express	1024 Dimmers	All Expression/Insight	1536 Dimmers

They will also revert to their standard maximum show capacities.

- 600 cues
- 99 focus points
- 500 groups

To export from the current show file:

- Step 1: With the show file open, in the **File** menu, click **Export File**. The 'Save show to file' window will open.
- Step 2: Use the 'Save in' box to find the destination for the exported file. You may want to keep copies of this file on the Emphasis Server, however, to be useful, this show file *must be saved to a 3.5" HD floppy disk*.
- Step 3: Type "**exp2**" in the 'File name' box.

Note: *The file name can only be read by Express/ion v3.1 if it is named "**exp2.shw**". No other file names are valid.*

- Step 4: Select "Expression 2/3 Show File (*.shw)" in the File Type box.
- Step 5: Click the Save button to export your data.

Create a v3.1 Console Software Disk

It is recommended that you keep a v3.1 Console Software Disk with your Emphasis software disks in case you need to revert to v3.1 operation. If you do not already have a v3.1 Console Software Disk available, you can create one using a utility provided on the Emphasis Server.

To create and install a v3.1 Console Software Disk:

- Step 1: Exit Emphasis.
- Step 2: Insert a 3.5" HD floppy disk into the floppy drive on the Emphasis Server.
- Step 3: Logon as System Manager (See [Login as a Different User, page 18](#)).



CAUTION: *Modification to hardware or software components or settings may affect the stability of the Emphasis Control System. Consult ETC Technical Services before making any changes. Non-authorized changes resulting in instability may require loading the operating system, which will restore defaults, remove any changes, and may result in a loss of existing show files.*

- Step 4: Click OK to clear the warning screen.
- Step 5: Open the Facepanel Software folder located on the desktop.
- Step 6: Double-click the appropriate software file.
 - Expression.exe - Expression and Insight console v3.1 software.
 - Express.exe - Express console v3.1 software.
 - ExpressionRI.exe - Expression and Insight Remote Interface (ETCNet) software. For use with RIU, RVI and ETCNet2 Nodes in a v3.1 system.
 - ExpressRI.exe - Express Remote Interface (ETCNet) software. For use with RIU, RVI and ETCNet2 Nodes in a v3.1 system.
- Step 7: Click Unzip to extract the software onto the floppy disk.
- Step 8: Click OK when completed.
- Step 9: Close the WinZip window and the Facepanel Software window.
- Step 10: Eject the floppy disk from the Emphasis Server.

Install v3.1 Console Software

When the console is turned on with the v3.1 Console Software Disk inserted in the Facepanel disk drive, the software loads immediately.

To install v3.1 software:

- Step 1: Turn the console off.
- Step 2: Insert the v3.1 Facepanel Console Disk into your console's diskette drive.
- Step 3: Turn the console back on. The console displays the boot screen and automatically installs the software. This process takes approximately one minute. The console displays the following messages as the installation progresses: **Loading, Erasing Flash, Writing Flash**. Wait until the Stage display appears.
- Step 4: Press [Setup] to confirm that the new software has been successfully installed. The current software version (Express/ion 3 Version 3.1) is displayed in the lower right corner of the display.
- Step 5: Remove the diskette from the disk drive and store.

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Americas ■ 3030 Laura Lane, P.O. Box 620979, Middleton, Wisconsin 53562-0979 USA ■ Tel: +608 831 4116 ■ +800 688 4116 ■ Fax: +608 836 1736 ■ +800 555 8912

Europe ■ Unit 4, Victoria Industrial Estate, Victoria Road, London W3 6UU, UK ■ Tel: +44 (0)20 8896 1000 ■ Fax: +44 (0)20 8896 2000

Asia ■ Room 605-606, Tower III Enterprise Square, 9 Sheung Yuet Road, Kowloon Bay, Kowloon, Hong Kong ■ Tel: +852 2799 1220 ■ Fax: +852 2799 9325

Web: www.etconnect.com ■ **Email:** (US) mail@etconnect.com ■ (UK) mail@etceurope.com ■ (Asia) mail@etcasia.com

Service: service@etconnect.com ■ Toll free: 800 775 4382 ■ Comments about this document: techcomm@etconnect.com

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