grass valley

Encore
CONTROL SYSTEM

User Manual

SOFTWARE VERSION 1.5

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Grass Valley Web Site

The www.thomsongrassvalley.com web site offers the following:

Online User Documentation — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

FAQ Database — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

Software Downloads — Software updates, drivers, and patches can be downloaded.

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Encore Overview

About This Manual

This Encore User Manual provides operational information for the Grass Valley Group Encore Control System. This manual is designed for facility engineers and operators of Encore systems.

Documentation Set

The standard Encore documentation set consists of a:

- User Manual,
- Installation and Service Manual, and
- Release Notes.

The *User Manual* contains background information about the Encore Control System, and describes operating procedures. This manual can be used while learning about Encore, and for enhancing your basic knowledge of the system.

The *Installation and Service Manual* contains information about installing, configuring, and maintaining the system.

The *Release Notes* contain information about new features and system enhancements for a specific software version, and will typically include software installation procedures. Always check the release notes for your current system software before you begin operating your system.

Encore Facility Control System

System Overview

The Encore system architecture takes advantage of industry standard Ethernet IP networking while addressing interface and control requirements from a simple audio/video routing system to extensive control integration with Grass Valley products and many other third-party products.

Encore can be as simple as a dedicated personal computer controlling an audio/video routing system. Encore can also grow into a sophisticated system supporting multiple hardware controllers. These controllers run the real-time VxWorks Operating System which is designed to meet the on-air demands of redundancy, through-put processing, fast boot times and interoperability with other manufacturers' products, including automation systems, sophisticated tally systems, and under monitor display systems (UMDs). Hardware and software requirements are detailed in *Section 1-Setting up Encore and Configuring Your Network*.

The Encore system supports all Series 7000 matrices, 7500 Series matrices, Concerto matrices, and many third party systems either directly to the matrix or through their associated control system. Router engine configuration requirements differ for specific matrix types. Third party support is typically through a serial link. Encore interfaces to Grass Valley matrices are typically through a high-speed 100Base-T Ethernet interface. The Concerto and 7500 Series have this Ethernet interface as a standard feature, older Series 7000 matrices will require an upgrade.

Encore has enhanced security features including user ID-based access privileges. It supports both serial and Ethernet interfaces for integrated machine control.

Redundancy

The Encore system supports multiple levels of redundancy. Control hardware redundancy is supported in the matrix interface by a dual wire connection to the Matrix controllers, which are the router crosspoints' interface to the control system. Additionally, Encore controller hardware, signal paths, AC power, DC power, and Ethernet LAN connections can be made fully redundant. The Encore system also offers the ability to run multiple copies of the software applications to increase throughput processing.

System Functionality

Basic Functionality

The Encore system supports any number of users at any given time, each with user-specific, system-wide access privileges setup by the system administrator through the Encore System Manager application. It is important to note that for any configuration activity the Encore Sharer application, running on a PC, is required. The Sharer application does not have to be running for control panel operations, but we recommend that you always leave it running and online.

All configurations using the Encore Router Engine support at least the following:

- User ID based access privileges
- Fast Ethernet matrix interface to Grass Valley matrices
- 32 control levels. Levels are system wide and are used for different formats
- 64 Areas. The ability to have source destination groups allowing, for example, the name "VTR#1" to appear in multiple places.
- Matrix level audio attributes for the Concerto AES/AA and 7500 NB audio matrices. The ability to sum, swap, duplicate and invert paired audio signals.
- RCL and Series 7000 Native protocol interfaces to M-2100, Kalypso, and other manufacturer's devices
- LAN and WAN control
- Machine control

Dedicated PC-Based Control System

This system is recommended for applications such as corporate and industrial accounts and small graphics or post facilities (non play-to-air applications) that do not require the robustness or redundancy offered by a dedicated controller configuration.

This system supports:

- Up to 8 frames consisting of Concert, Series 7000, or 7500 Series matrices
- Maximum of 32 Encore control panels
- Serial interfaces via the PC comm ports

This system does not support

- Software application redundancy
- Series 7000 GSC control panels

Hardware Controller Based System

This system is recommended for play-to-air applications including broadcast, satellite, and live production.

This system supports:

- Controller hardware redundancy
- Power redundancy
- Software application redundancy
- External serial interfaces via the SIO Serial Interface module
- Selected Series 7000 GSC control panels via the GSC module

Machine Control

Standard with the Encore system software is the Local Machine Control Panel application (LMCP). This application can be used to drive machines with the purchase of any of the following:

- KAL-IF-PROFILE, this is the VDRCS software on a CD ROM
- KAL-IF-VTR, a floppy disk driver for the serial engine
- KAL-SERIAL, Serial Control Engine

Encore Control Panels

Refer to the Encore Installation and Service Manual for information on Encore control panels.

Software Applications

Encore consists of a suite of software applications, including the System Manager, Panel Server, Router Engine, Tie Line Manager, Local Machine Control Panel, Pager, and Filer, all of which are accessed through the Encore user interface.

Application Functionality

Local applications accessed from the Encore User Interface include:

- **Start** — User log-on button
- **Pager** — Used for electronic messages between users
- **Filer** — database access window
- **Local router panel** — Configurable full function soft panels
- **Local machine control panel** — Soft machine control panel, requires external engine

Remote applications are the backbone of the entire system. Remote applications are accessed by users once they log into the Encore system. To access an application, the user selects a blank button and then selects the desired application from the pop up menu. Each authorized application appears an additional button in the Encore User Interface so the application can be configured by the user:

- Panel Server Application

  This application services up to 128 control panels. Through the Encore User Interface, the user sets the personality of the control panels. The Panel Server application also services all RCL clients, such as an M-2100 Master Control system, Kalypso Video Production Center, or a third-party automation system.

- Router Engine Application

  This application receives switching requests from the panel server application and send them on to the matrices for execution. Through the Encore User Interface, the user establishes crosspoint functionality, such as levels, sources, destinations and protocol drivers.

- Tie line Manager Application

  This application controls the tie lines in the system. Tie lines provide transparent routing of signals between local matrix levels and remote matrices. Through the Encore User Interface, the user creates and manages tie lines.

- System Manager Application

  The system administrator uses this application to set the permissions and system access for all users. It is also used to configure the hardware supporting the Encore Control System software.

Naming Conventions

Follow the naming conventions in this section to ensure the best Encore functionality.

Eight Character Names

Limiting names of sources, destinations, levels, salvos, areas, panel names and other names intended for display on Encore hardware panels to 8 characters is strongly recommended. Names longer than this will be truncated and the extra characters will not appear to the panel operator. If names exceed 8 characters, names should be carefully selected so that the first 8 are always unique for a given item. Otherwise ambiguity, confusion and operator error are likely to result.

Spaces in Names

While it is permissible to use a space character in a name, we advise against their use for usability and compatibility reasons. Try using upper and lower case letters to indicate separate words/abbreviations in a name LikeThis.

Panel and Template Names

All panel and template names *must* be unique; no panel name should be the same as a template name or vice-versa.

RCL Client Names

All RCL clients (up to 17 are allowed) *must* have unique names to prevent unpredictable behavior.

RCL Client names must not begin with any form of "com."

Encore Terminology

Areas

Areas create hierarchies within the Encore system and makes it easier to group sources and destinations in a large system. Once an area is defined, an area prefix is automatically assigned to each source and destination in the area by the router engine. This allows, for example, VTR_1 in the master control area to be named the same as a VTR_1 in the production area. The area prefix is part of the system name and can be displayed on certain panels. A user can configure up to 64 areas in a Encore system. Typically, in most installations, a single area is used

Levels

Levels are used during source configuration to setup up different signal formats, such as SD video, analog video, analog audio, digital audio, time code, and data. Levels are linked to logical matrices. Up to 32 levels are available within the Encore system. These levels are global across all areas.

Channels

This is the communication path which is used to control the crosspoint group by the Router Control Engine over a selected protocol such as Serial or Ethernet paths.

Crosspoint Group

A defined input/output block of crosspoints. This group can be made up of crosspoints within a single frame or on multiple frames.

Segment

A contiguous subset of crosspoints within a crosspoint group. Two different segment types are available: blocked and interleaved. Blocked segments make it simple to configure blocks of the same signal type. Blocked segments are often used to establish a block of HD signals and a block of SD signals within a crosspoint group. Interleaved segments simplify configuration of repetitive, linked signal types; for example, Red, Green and Blue signals can be easily configured using an interleaved factor of three.

Logical Matrix

Logical matrices tie a single segment or multiple segments together into a single level. A logical matrix that ties multiple segments together makes it possible to switch multiple signals at the same time, such as switching Red Green and Blue interleaved segments simultaneously.

Rules

Enables global, destination-oriented attributes with the ability to always disable specific sources from going to specific destinations. These rules can be applied to a single destination or to several destinations. Additionally, source and destination exclusions can also be configured via the panel server application for specific control panels.

Section 1

Setting up Encore and Configuring Your Network

Before You Start

All Encore systems require some degree of customer-furnished equipment (CFE) in order to complete the system. This equipment typically includes one or more personal computers (PCs), an Ethernet switch or switches, category 5 UTP Ethernet cabling with RJ45 connectors, serial interconnection cables and WAN connectivity devices.

Note Hubs are not supported in the Encore system.

Hardware and Software Requirements

Depending on the system deployed, the PC can be used to accomplish many tasks. These tasks range from running a simple client application to complete control and configuration of an entire routing system. A PC is required to be on-line and active with the Encore Sharer application running in order to enable system level configuration changes. We recommend that you always leave the Sharer running and online. Multiple workstation PC's can be on-line and operational as long as one PC is running the Encore Sharer application.

The simplest Encore system, the dedicated PC controlled system, requires a powerful, workstation-class PC. PC requirements for the Dedicated PC Controlled System include:

- 100% dedicated operation as a router controller "engine"
- On-network and running the Encore Sharer application for system level configuration changes
- 800MHz CPU
- 256 Mb RAM
- 10 Gb available hard disk space
- 100BaseT Ethernet Network Interface Card
- 17-inch monitor with a screen resolution of 1024 x 768
- NT 4.0 (SP 6) or Windows 2000 operating system
- Internet Explorer version 5.5 or later

Note The Internet Explorer version which comes on the Windows NT CD-ROM is not recent enough. Update the application from the Microsoft web site.

The PC requirements are scaled back somewhat when the control system processing is moved to the Encore Controller platform. PC requirements for running the Encore Sharer and the Encore User Interface (UI) applications include:

- On-network (and running the Encore Sharer application if you want to system level configuration changes)

Note Only one Encore Sharer can be running on the network, but we do recommend that you always leave that one running and online.

- 800MHz CPU
- 256 Mb RAM
- 10 Gb available hard disk space
- 100BaseT Ethernet Network Interface Card
- 15-inch monitor with a screen resolution of 1024 x 768
- NT 4.0 (SP 6) or Windows 2000 operating system
- Internet Explorer version 5.5 or later

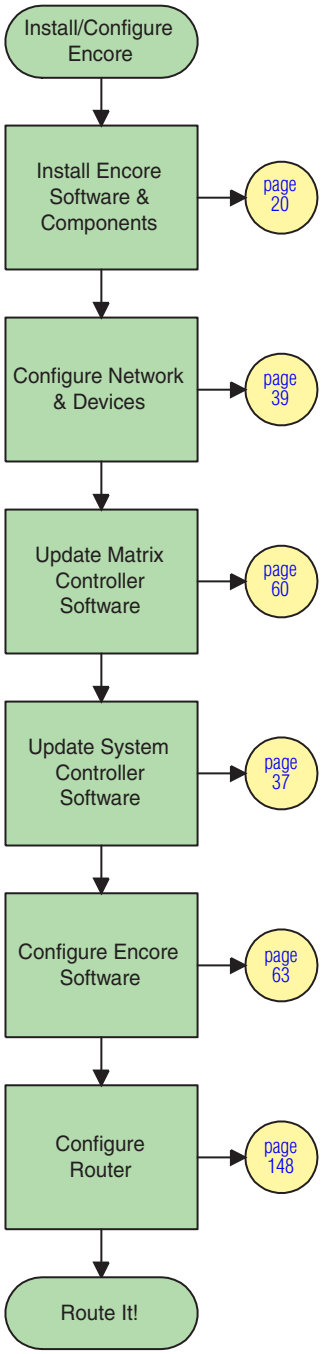
Note The Internet Explorer version which comes on the Windows NT CD-ROM is not recent enough. Update the application from the Microsoft web site.

Note You must log in as Administrator to install Encore software.

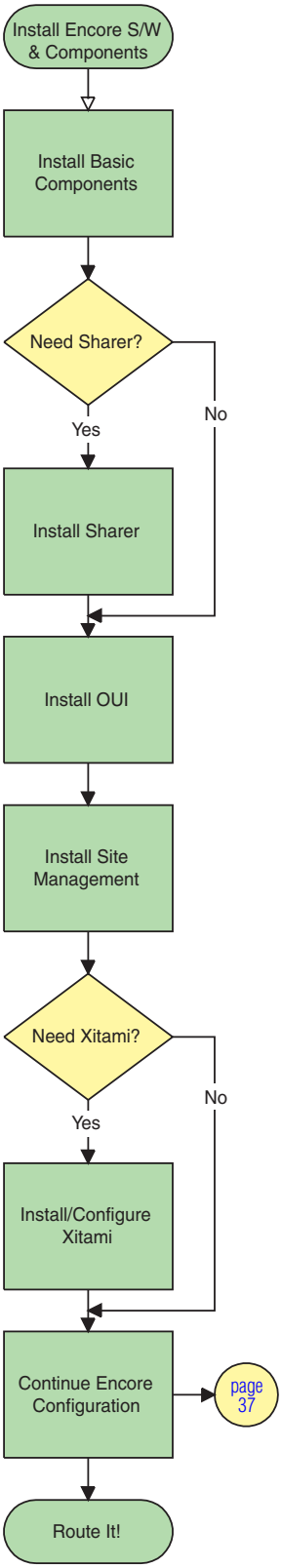
What You'll Need to Have Available During the Installation

- The IP address of your configuration PC
- Administrator privileges and appropriate passwords
- If this is an update or reinstallation, the hard disk location of the Encore and Omnibus components you installed last time

Figure 1. Installation/Configuration Overview.



Installing Encore Software



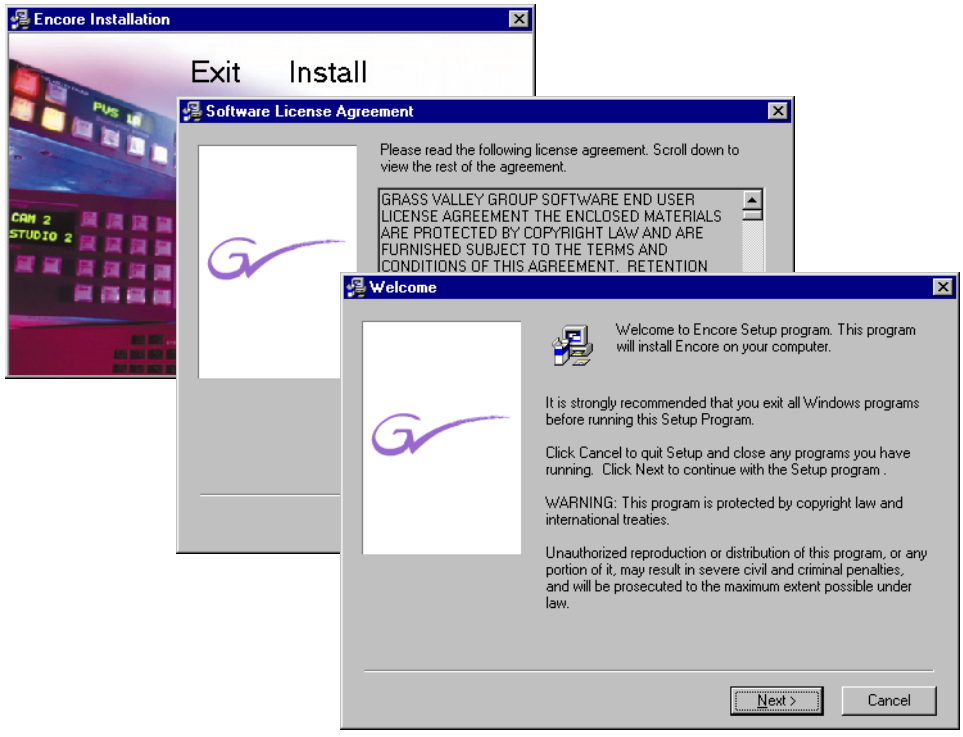
This process is actually comprised of a series of several smaller installations (see flow chart in margin). You will be moved from one to the next automatically and in the proper sequence. Do not Exit the installation until you've completed the entire procedure. The installation sequence is: Basic Components, OmniBus Sharer (if applicable), OUI, Site Manager, and (optional) Xitami.

Note If this is an update or reinstallation, you can install over the existing software. You do not need to uninstall the old software first. Do ensure that you install all of the components you installed last time on this computer.

1. Ensure that you are logged onto your PC as Administrator or have administrative privileges on it.
2. Insert the Encore Installation CD and click **Install** when the Encore splash screen appears.

   If the Installation Program doesn't start up automatically, double-click `Setup.exe` on the CD.
3. If you agree with the terms of the Software License Agreement, click **Yes** to proceed and after ensuring that no other Windows programs are running, click **Next** on the subsequent Welcome window (Figure 2).

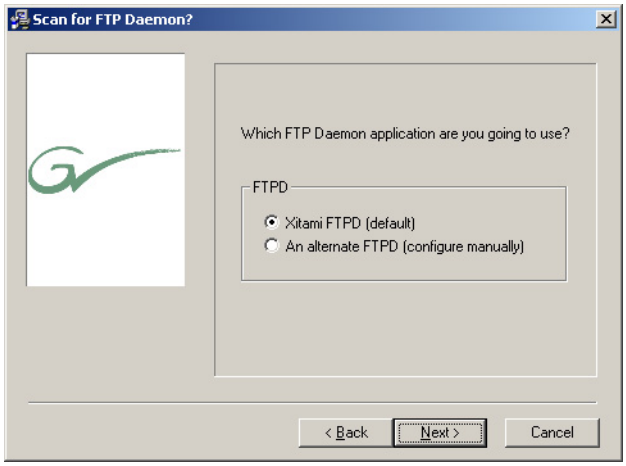
Figure 2. Beginning the Installation Procedure



4. Unless you are installing this software on a system which must support the 7500WB or control an SMS7000, ensure that you choose not to use the Xitami FTP application as shown in Figure 3, then click **Next**.

Note Xitami must be installed and configured if you plan to use this PC to support and/or control either a 7500WB or an SMS7000.

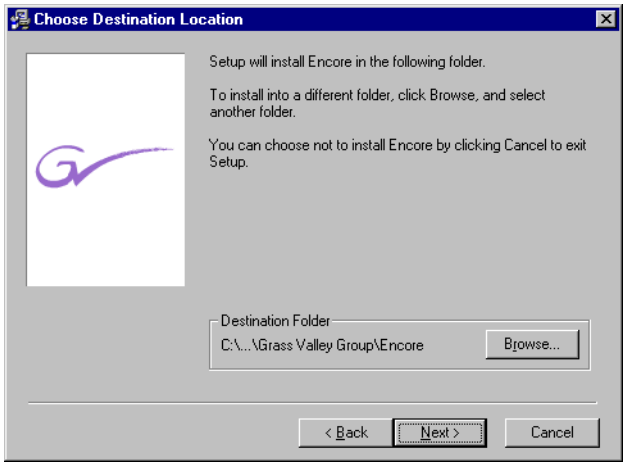
Figure 3. Choosing an FTP Application



5. If you chose to use Xitami in Step 4, Xitami is not detected on your system, and you're asked whether to proceed with a Xitami installation, select **Yes** and click **Next**.

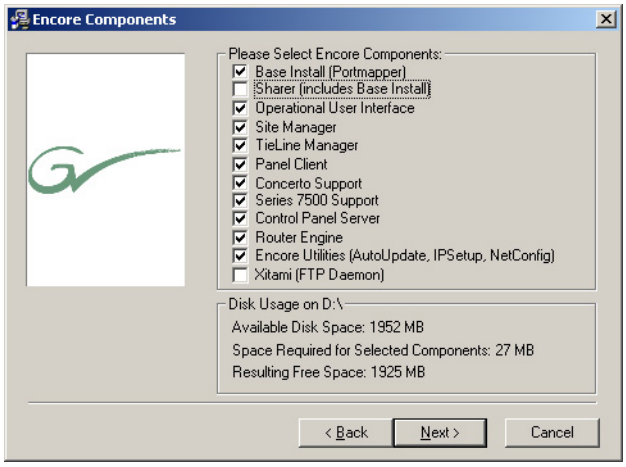
6. When prompted for an Encore installation location, accept the default, or if you want to change it, click the **Browse** button, and specify or browse to the desired installation location. When you're happy with the installation location, click **OK** to approve the directory change, and click **Next** to continue the installation (Figure 4).

Figure 4. Specifying an Installation Location



7. Ensure that the appropriate components are selected, then click **Next**.

Figure 5. Selecting Components to be Installed



CAUTION There must be one, but only one Sharer running in an installation. Select/de-select the Sharer component accordingly.
Also, note that the default setting here is *not* to install the Sharer application. However, if you're reinstalling or upgrading your Encore software and you installed Sharer before, ensure that you reinstall it to be certain you have the latest version.

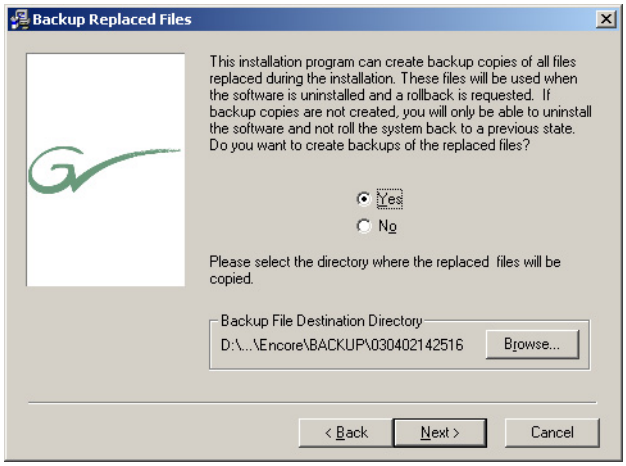
Note Remember, Xitami must be installed and configured if you plan to use this PC to support and/or control either a 7500WB or an SMS7000.

Note If you're installing the VxWorks version, TieLine Manager will not be an option here.

8. When prompted to select a Program Manager group, accept the default setting and click **Next**.

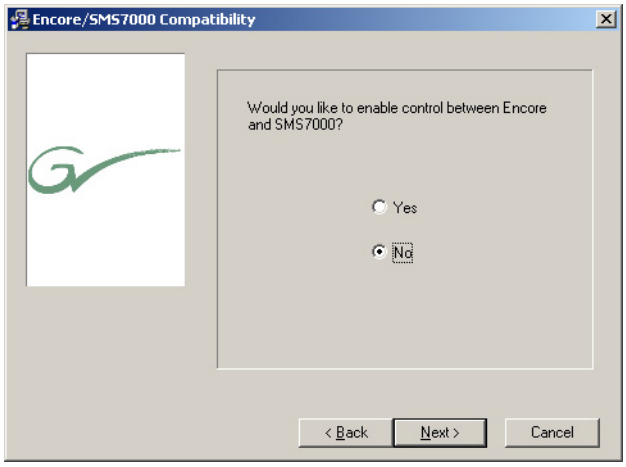
9. If you've previously installed Encore or OmniBus, and you're asked whether you want to back up your previous installation (Figure 6) select **Yes** and accept the proposed backup directory location, otherwise select **No**, then click **Next**.

Figure 6. Choosing to Back Up Replaced Files



10. If you will use Encore to control SMS7000 equipment, select **Yes** when Figure 7 appears, otherwise select **No** and then click **Next**.

Figure 7. Choosing Not to Enable Encore - SMS7000 Control



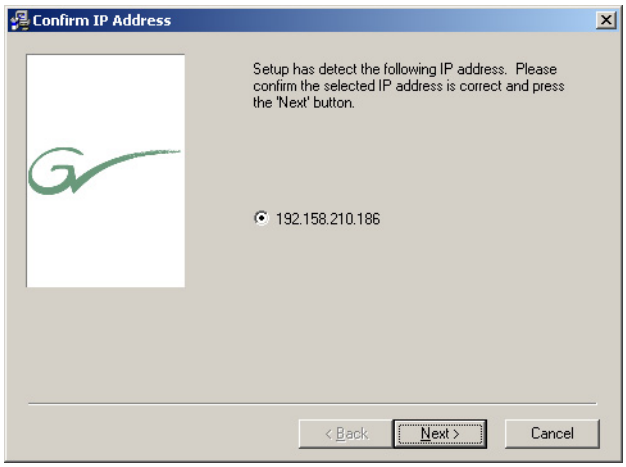
11. When prompted, specify whether you want the installation to place program shortcuts on your desktop or not, then click **Next**.

12. Click **Next** in the Start Installation window.

13. If you're installing the Windows version of Encore, you'll be prompted to confirm the IP number (Figure 8) of the Network Interface Card (NIC) you want to use to communicate with Encore.

This dialog (Figure 8) reports the IP Address of every configured NIC in the PC on which you're installing. Choose the IP Address for the NIC connected to the Encore network, then click **Next**.

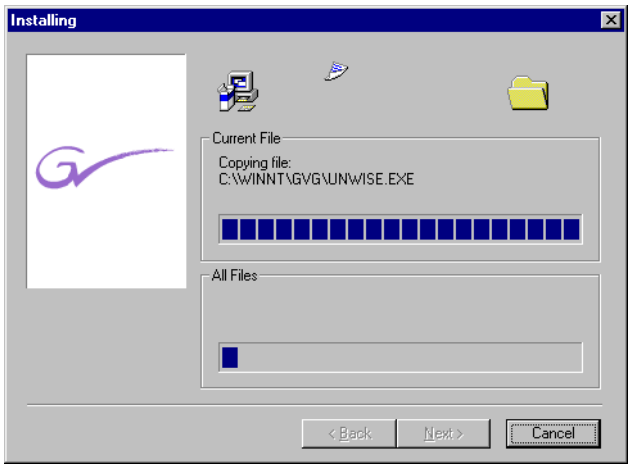
Figure 8. Confirm IP Address Dialog



14. A progress window will appear (Figure 9), possibly hiding other windows; do not wait for the indicated installation to complete; proceed to Step 15.

The progress window reports on the installation of all Encore components so it will remain on the screen during the entire procedure.

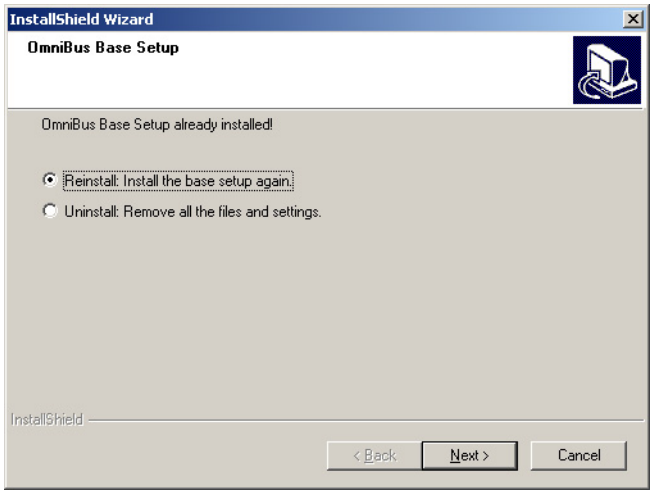
Figure 9. Installation Progress Window



Note If some of the following windows do not appear, they may be hidden behind the Encore Installation Progress window, which covers the whole screen. To see the hidden windows, click on the **InstallShield Wizard** icon in the task bar at the bottom of your screen.

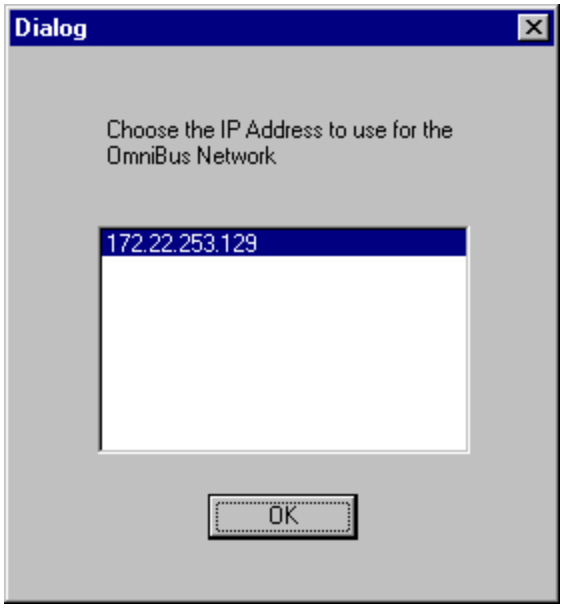
15. If the large window shown in Figure 10 appears (only if Encore was previously installed on this PC), choose to Re-install the base setup and click **Next**, then click **OK** in the subsequent windows.

Figure 10. Reinstalling Base Setup



16. If you're prompted to choose an IP Address to use for the OmniBus Network, ensure that you choose the proper one for the Configuration PC from which you're installing Encore.

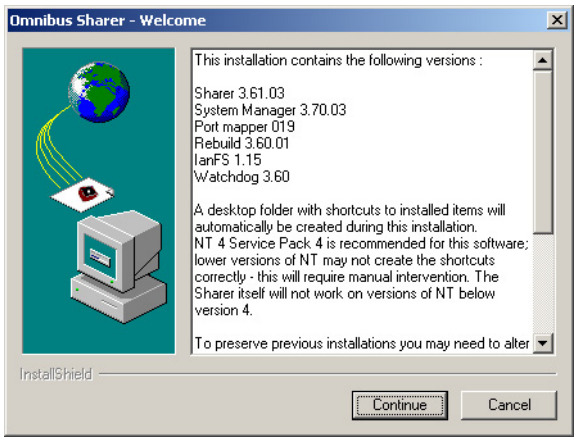
Figure 11. Choosing an IP Address



17. When you're notified that the base installation is complete, click **OK** to proceed to the next installation phase.

18. If the Sharer Welcome window (Figure 12) appears — only if you elected to install the Sharer — click **Continue** to allow the install program to carry on.

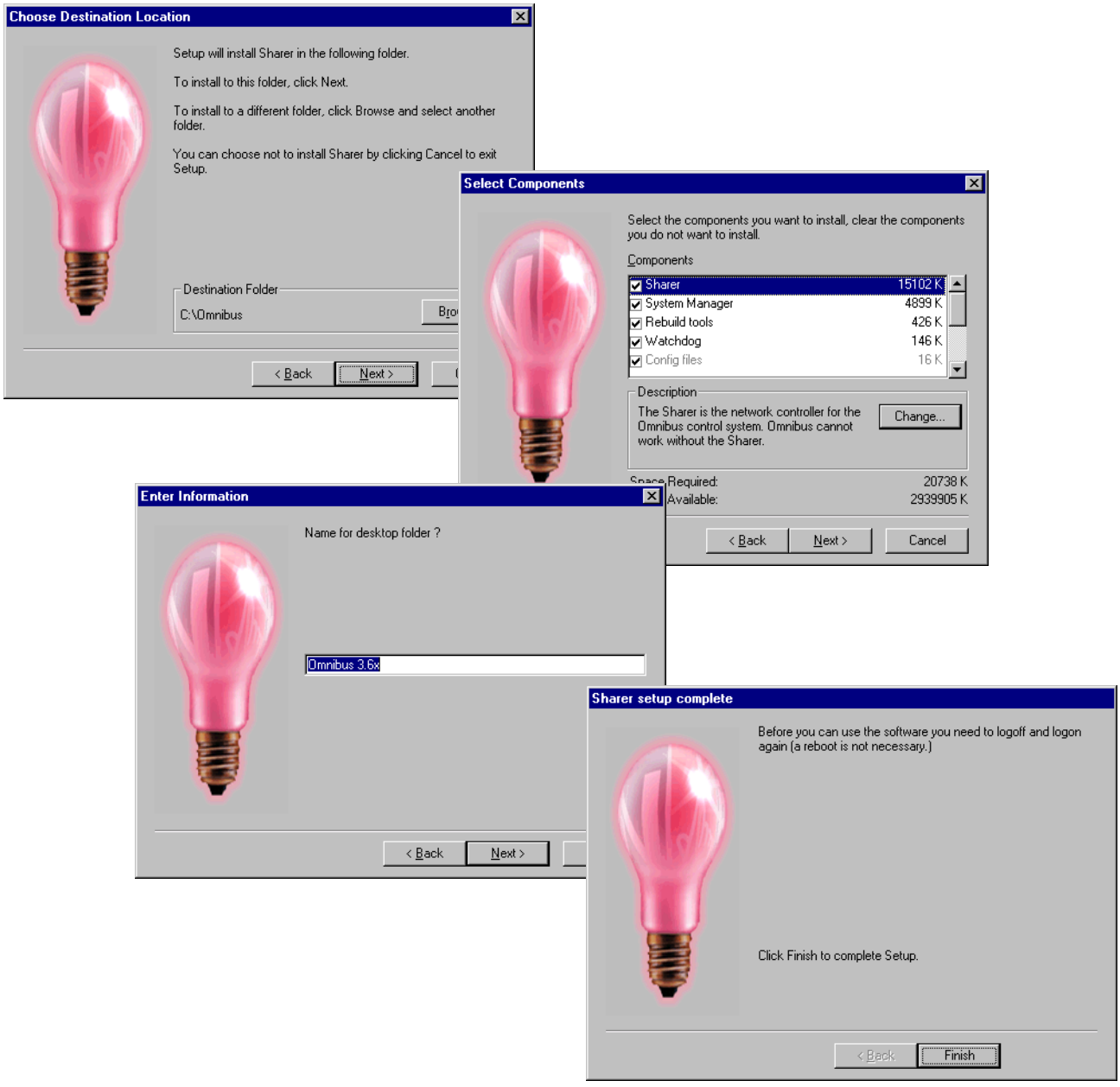
Figure 12. The Sharer Welcome Window



Note The following portion may take awhile to appear. Be sure to wait until you see that the small Sharer Setup status bar indicates the process is 100% complete. You'll then be taken to the next step.

19. Click **Next** to accept the default settings in the Destination Location, Component Selection, and Desktop Folder windows, then click **Finish** (Figure 13).

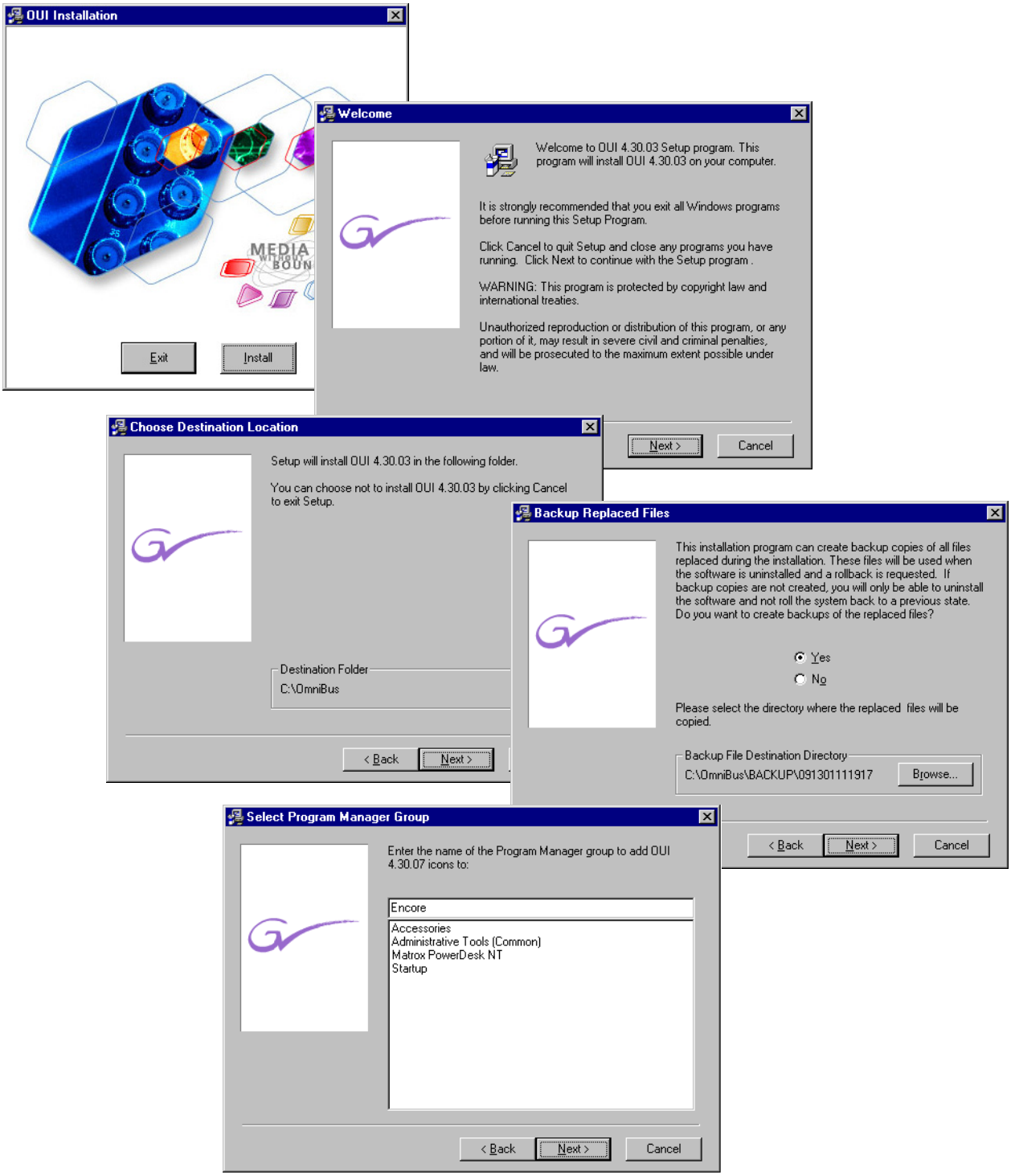
Figure 13. OmniBus Sequential Installation Windows



Note The OUI Installation window (Step 20) may take considerable time to appear.

20. When the OUI Installation window is displayed, click **Install**, then click **Next**, accepting the default settings in the Destination Location, Backup Replaced Files, and Program Manager Group windows (Figure 14).

Figure 14. OUI Installation Windows



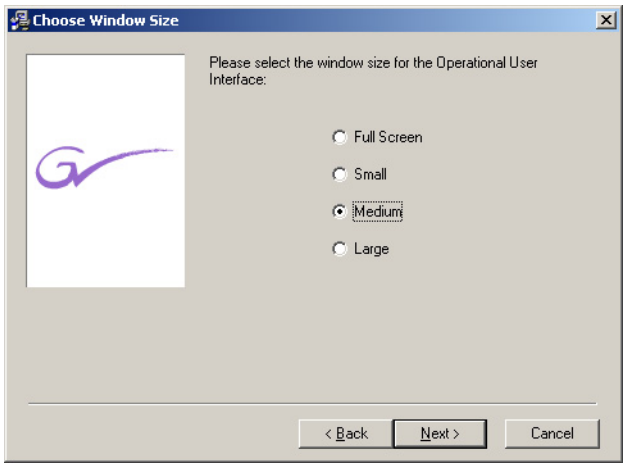
21. Select the size of the OUI window you want and click **Next**. We recommend **Medium** for most situations.

    If you're using a touch screen, make sure that you select a window size which will display usable button sizes. You can not pan or scroll the OUI window if you select a size larger than what will fit on your monitor.

    Full Screen will fill your monitor, regardless of its size or resolution, up to 1024 x 768.

Note You may experience unpredictable results with some combinations of screen sizes and graphics cards if you specify **Full Screen** and your screen resolution is greater than 1024 x 768.

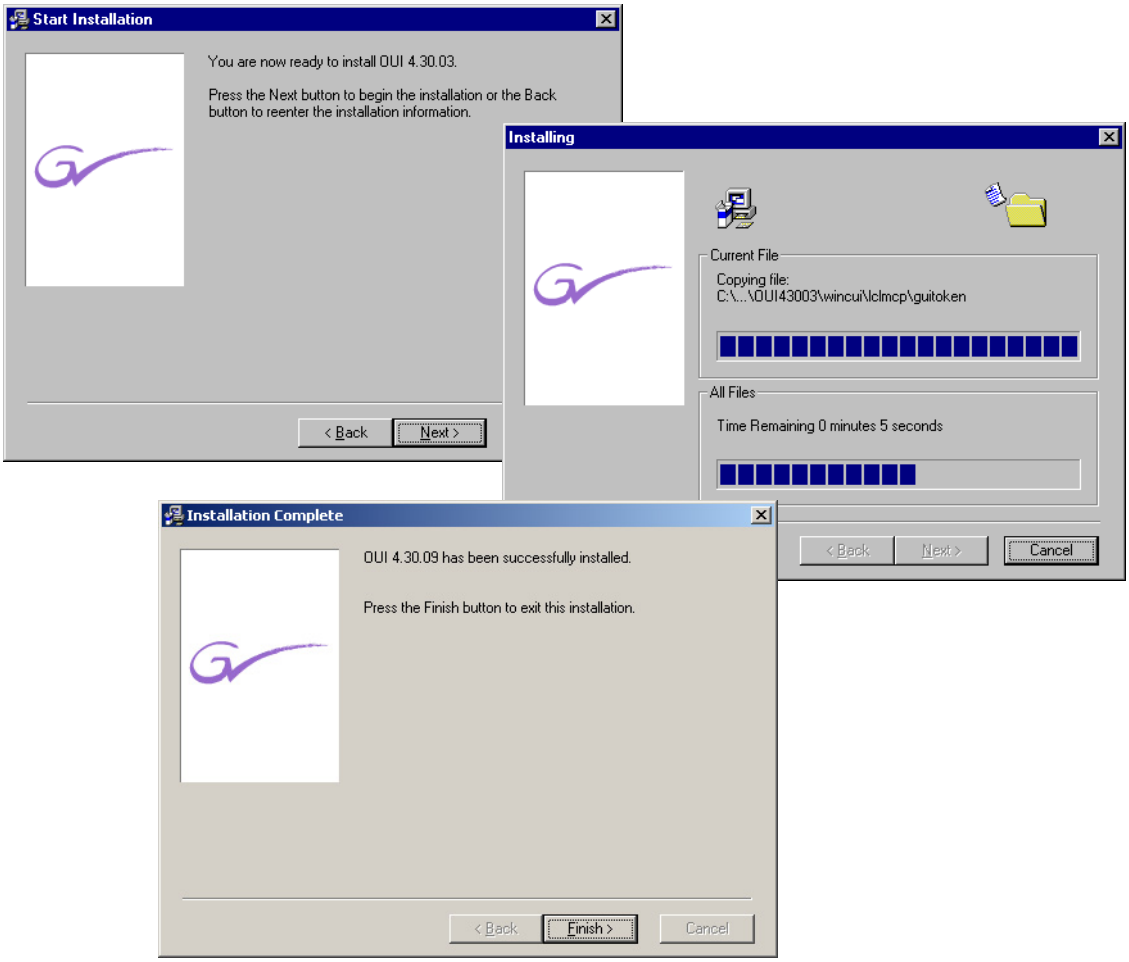
Figure 15. Screen Resolution Selection Window



You may want to change the size of the OUI window after you've worked with it for awhile. For example, you may want change to or from using a touch screen and therefore change the size of the buttons. Use the procedure documented in *Changing the Size of Your Encore OUI* *on page 257* to modify the OUI window size without re-installing Encore.

22. When notified that you're ready to begin installing the OUI (Encore's Operator User Interface), click **Next** to begin the installation, wait for the program files to be installed, then click **Finish** to complete the installation of this application.

Figure 16. Continuing the OUI Installation



23. When the Site Management Welcome window appears, read the ReadMe file, then click **Continue**.

For reinstallations, proceed to Step 24. For first installations jump to Step 27.

Note There may be a considerable wait before this procedure begins.

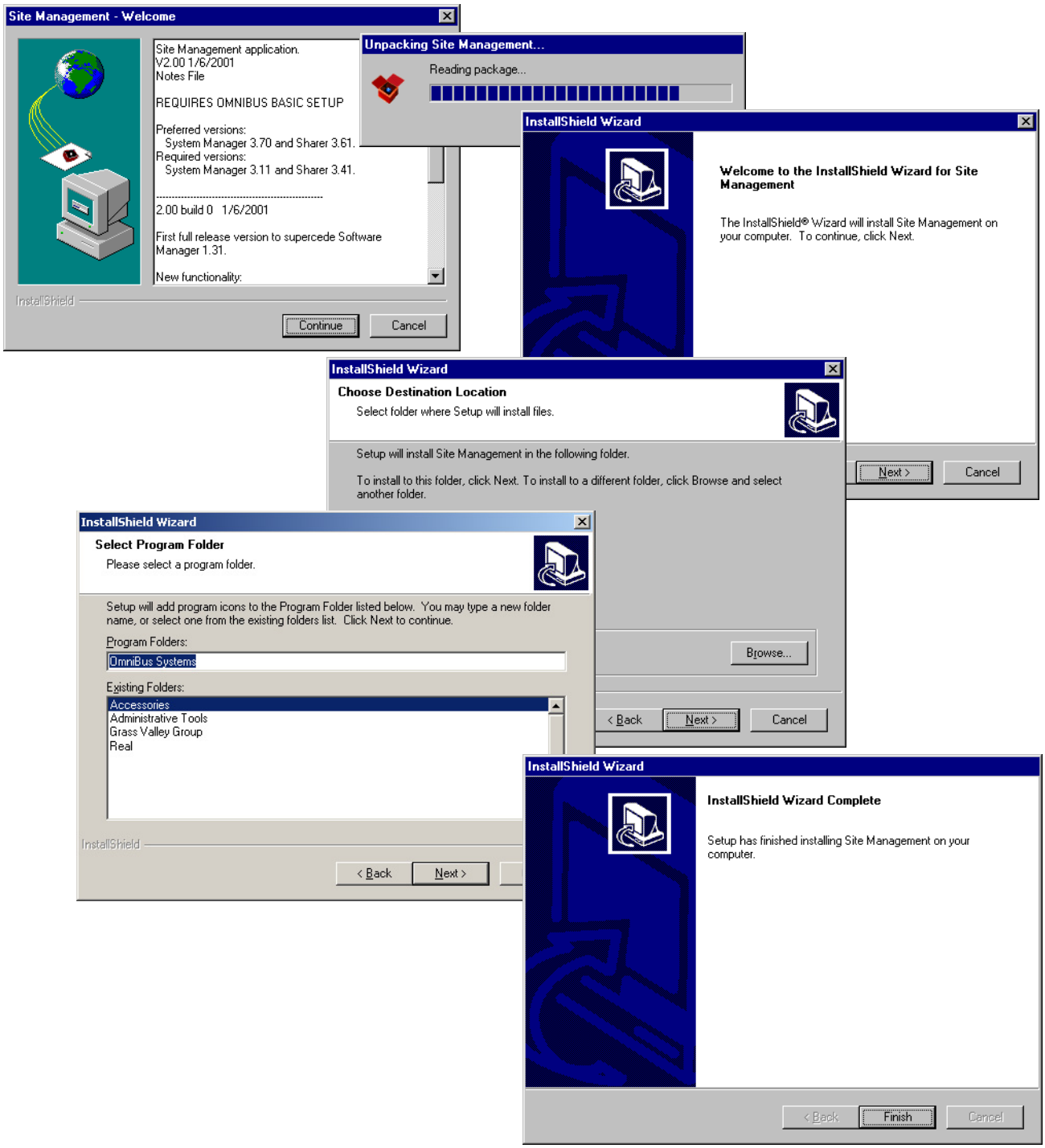
24. If you've installed Encore or OmniBus in the past, you'll be prompted to remove the Site Management application before reinstalling the updated version. Click **OK** to allow the removal.

25. If this is a reinstallation, you'll be notified when this maintenance operation is complete and then prompted to reinstall Site Management. Click **Continue**.

26. If Encore has been installed on this PC in the past, you may be asked whether you want to allow some Read Only files to be over-written. Click **Yes**.

27. If this is the first Encore installation, click **Next** to accept the default settings in the Welcome, Destination Location, and Program Folders windows, finally clicking **Finish** when you're notified that Site Management has been successfully installed (Figure 17).

Figure 17. Site Management Installation



28. When you're notified that the installation is complete, click the **Next** button.

You'll need to proceed in one of three ways:

- Even if you chose not to install Xitami and it's never been installed on your Configuration PC, you'll still be prompted to configure Xitami and notified that Encore has been successfully installed.
  - Select **No, do not configure Xitami** and click the **Next** button.
  - Finally, when you're notified that Encore has been successfully installed, click the **Finish** button to complete the installation.
- If you chose not to install Xitami, but it is already on your Configuration PC, you'll be asked whether you want to configure Xitami.
  - Click **Yes, configure Xitami**, then click **Next**.
  - Click **Finish** to complete the installation.
- If you chose to install Xitami earlier in this procedure because you have a 7500WB or SMS7000 equipment, read the Welcome notes which appear then click **Next>**.

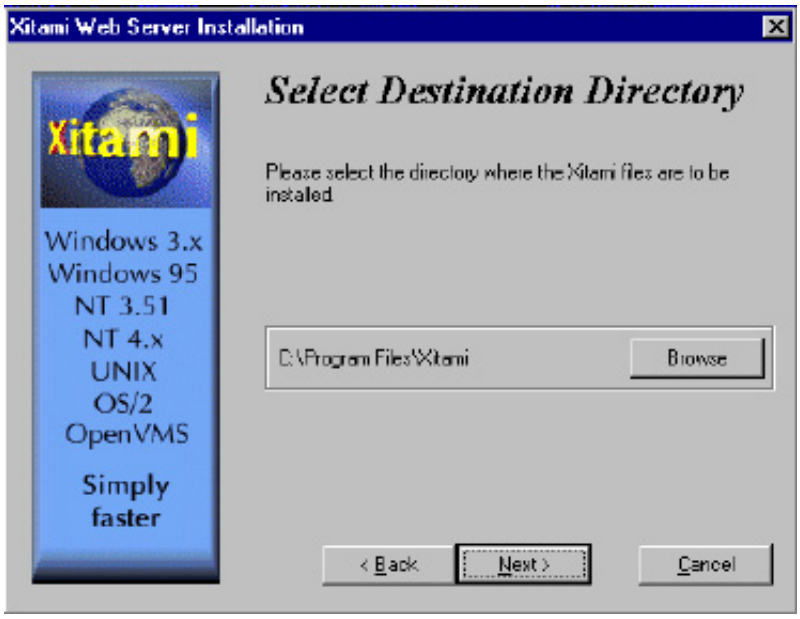
29. Proceed to Step 41 unless you're installing Xitami.

Installing and Configuring Xitami

30. Read the Xitami installation notes and click **Next>**.

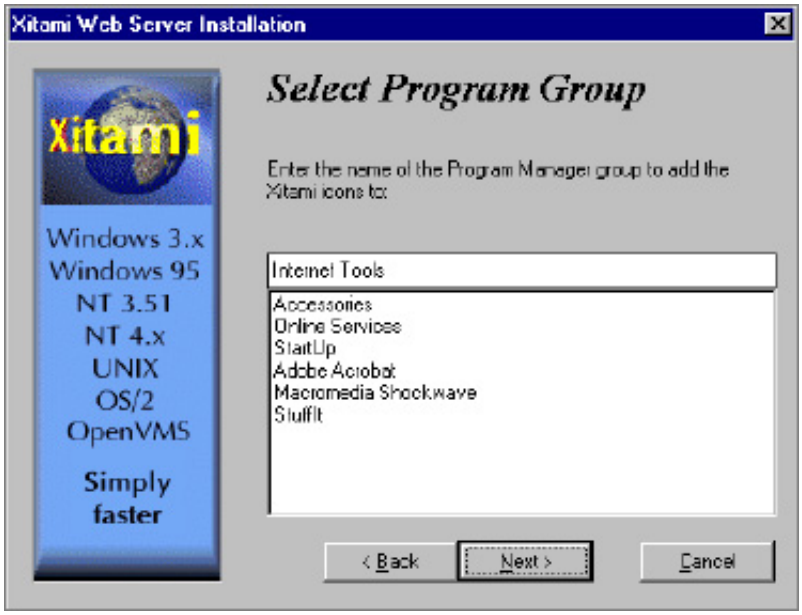
31. When the Installation window appears (Figure 18) accept the default installation destination or specify your preference, then click **Next>**.

Figure 18. Destination Directory Selection Window



32. Accept the default program group — don't change this — and click **Next>**.

Figure 19. Program Group Selection Window



33. When asked whether you want to start Xitami automatically, select **No** (don't start Xitami automatically) and click **Next>**.

Xitami can be started whenever it is needed.

34. We recommend that you enter neither a user name nor password when prompted to choose an admin password. Click **Next>**.

Figure 20. User Name and Password Selection Window

35. For the server profile, select **Tiny - never block another task** (see Figure 21), then click **Next>**.

Figure 21. Server Profile Selection Window

36. When notified that you're ready to install Xitami, click **Next>**.

    An Installation Meter will appear, and an Icon will be created in the Program Group window that was selected earlier.

37. Click **Finish** when you're notified that the installation has been completed.

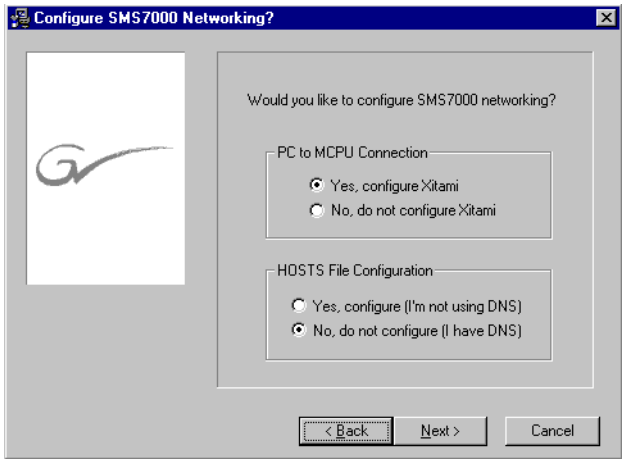
    Even though the FTP Daemon has been installed, it must be configured before it can be used. The CD-ROM contains two configuration files (defaults.cfg and ftpusers.sms) located in the /ftpd/config directory. These files must be installed from the CD-ROM to the Xitami program folder before running FTP Daemon. Configuration performs this task.

38. In the configuration window (Figure 22) which appears, select **Yes, configure Xitami** in the **PC to MCPU Connection** (first) section. Your choice in the (second) **HOSTS File Configuration** section is dictated by your environment.

    - If you're not using DNS, you'll need to do some configuration here, so choose **Yes, configure (I'm not using DNS)**.
    - If you are using DNS (Domain Name Server or Service), your job here is almost done; choose **No, do not configure (I have DNS)**.

    Once you've made the appropriate selections for your environment, click **Next>**.

Figure 22. Configure SMS7000 Networking Window



If you chose No in the **Host File Configuration** section, proceed to Step 18. If you chose Yes, the HOSTS File Configuration window (Figure 23) will appear and you'll need to continue to the next step.

39. Using the HOSTS File Configuration (Figure 23) and HOSTS File Conformation (Figure 24) windows, confirm or change the IP address assignments as needed, then click **Next**.

Note The HOSTS file is used as a lookup table by Windows for associating a Host name to a Host IP address. The HOSTS file is in the Windows directory on Windows95 or in /Winnt/System 32/drivers/etc. directory for WindowsNT.

Figure 23. HOSTS File Configuration Window

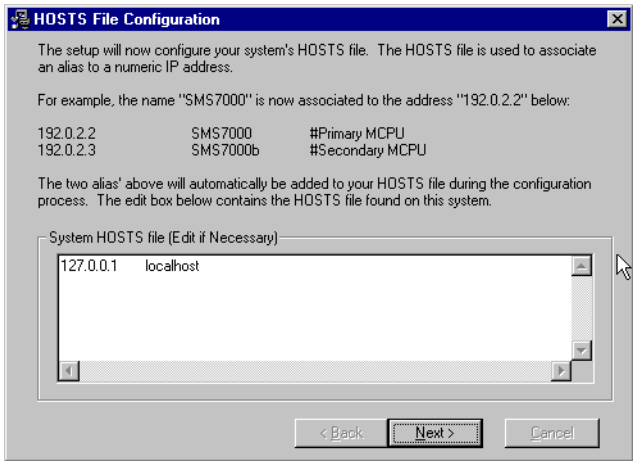
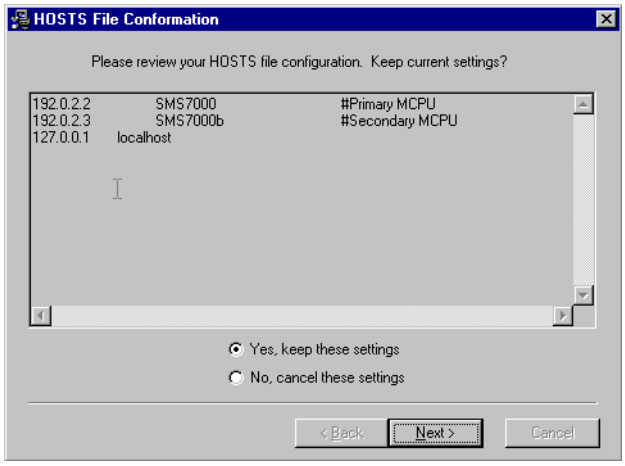


Figure 24. HOSTS File Conformation Windows



CAUTION These are the default host names and IP addresses. If there are additional host names and IP addresses the HOSTS file can be modified manually. When the HOSTS file is modified manually, the text editor (Notepad, for example) will usually add the txt extension to the file name. If the file has an extension it must be renamed to HOSTS.

40. When you're prompted that the installation and configuration are complete, click **Finish**.

If yours is an installation for Windows NT, congratulations, you're done!

If you're installing the VxWorks version, you've got a little more to do.

Completing a VxWorks Installation

The Encore software is now installed on your Configuration PC, but you need to load some software on the System Controller in your Encore frame. To do so, you must map the System Controller's flash memory as if it were a hard disk, then simply copy the files to it.

41. Confirm that there is a shortcut on your Configuration PC's Desktop named **Encore Image**.

The actual file location is `C:\Program Files\Grass Valley Group\Encore\Encore Image` Where C is the drive on which you installed Encore (but not necessarily OmniBus).

42. Open Windows Explorer if it's not already open.

43. Choose **Map Network Drive** from the Windows Explorer **Tools** menu.

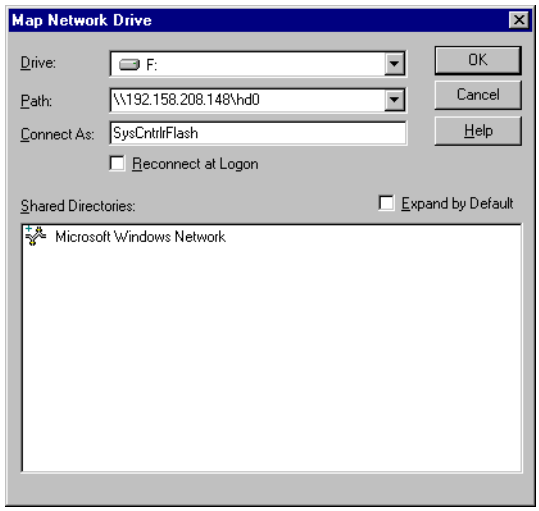
44. Accept the default drive letter in the Drive field.

45. In the Path field, type two backslashes, the IP address of the System Controller (not your Configuration PC unless you're installing Encore NT and installing everything on the Configuration PC), a single backslash, and hd0, using this syntax:

SysCntrlrIPAddress\hd0

192.158.208.148\hd0

Figure 25. Mapping the System Controller Flash as a Network Drive



Note Remember that this IP address is associated with the board *slot* in the frame, not the board itself. A replacement board inserted in the same slot will inherit the same IP address.

46. Click the **OK** button.

The System Controller's flash is now mapped as a network drive and visible in Windows Explorer.

47. From the Windows Desktop, open the Encore Image Folder and copy all of the files **except** `encore.zip and Iscript.txt` to the System Controller you mapped.

Configuring Your Network and System for Encore

Once Encore software and supporting components have been installed, you must configure your system and network before you can use Encore. We provide tools — primarily NetConfig — to do most of the necessary tasks, but you may also need to use some tools provided with your network switch.

CAUTION As is the case with other networks, duplicate IP addresses will cause problems. You can use NetConfig to look for, and resolve duplicate IP addresses (see *Changing a Control Panel IP Address* *on page 54* for instructions).

Optimizing Panel Performance

Optimize control panel performance by placing all panels in an isolated local area network. With managed switches, VLANs are the preferred method to accomplish this. You can use similar logic with two separate switches. The tools and exact procedures for setting up your switch and VLANs may vary from one manufacturer and/or product to another, but the goal is to create an exclusive VLAN for control panels on port two (E-Net2) of the Encore System Controller. Then assign all port switches to which control panels and port two (E-Net2) of the System Controller are connected to that VLAN.

Managed switches normally come with a single default VLAN. Create a second VLAN for the control panels and E-Net2. Each VLAN and its associated components must be on a separate subnet. In other words, VLAN2 and the control panels will be on one subnet; VLAN1 and the other Encore components (usually System Controller, Configuration PC, and Concerto Matrix Controller) will be on the other subnet. Follow this sequence:

1. Use the switch configuration application to create a second VLAN.
2. Assign all switch ports for control panels to VLAN2.
3. Assign the port to which System Controller port 2 (E-Net2) is connected to VLAN2.
4. Assign the port to which System Controller port 1 (E-Net1) is connected to VLAN1.
5. Assign all other Encore device ports to VLAN1.

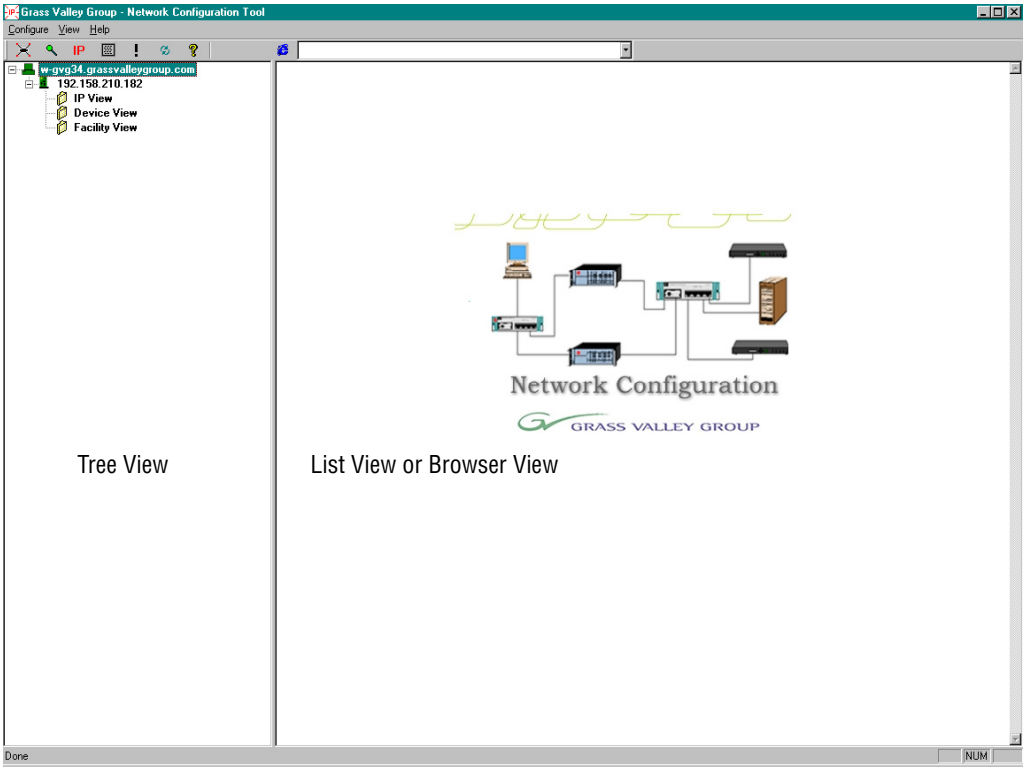
Note When using NetConfig, set up E-Net1 (port 1) as the gateway. This port should contain the Configuration PC, and matrices.

Reset the Panel Server for each panel to the IP address for E-Net2. This is required so that the panels on the new VLAN can find the panel Server.

The Network Configuration Tool

NetConfig (Network Configuration Tool) is a multipurpose application for managing Encore devices. You can launch it a number of ways, but you'll find it in the Encore group under Grass Valley Group on the Start menu. When you launch the NetConfig for the first time (or there are no devices connected for the tool to auto-detect and there are no logical trees under the Facility View created by the user previously) the initial window looks much like it does in Figure 26.

Figure 26. Network Configuration Window

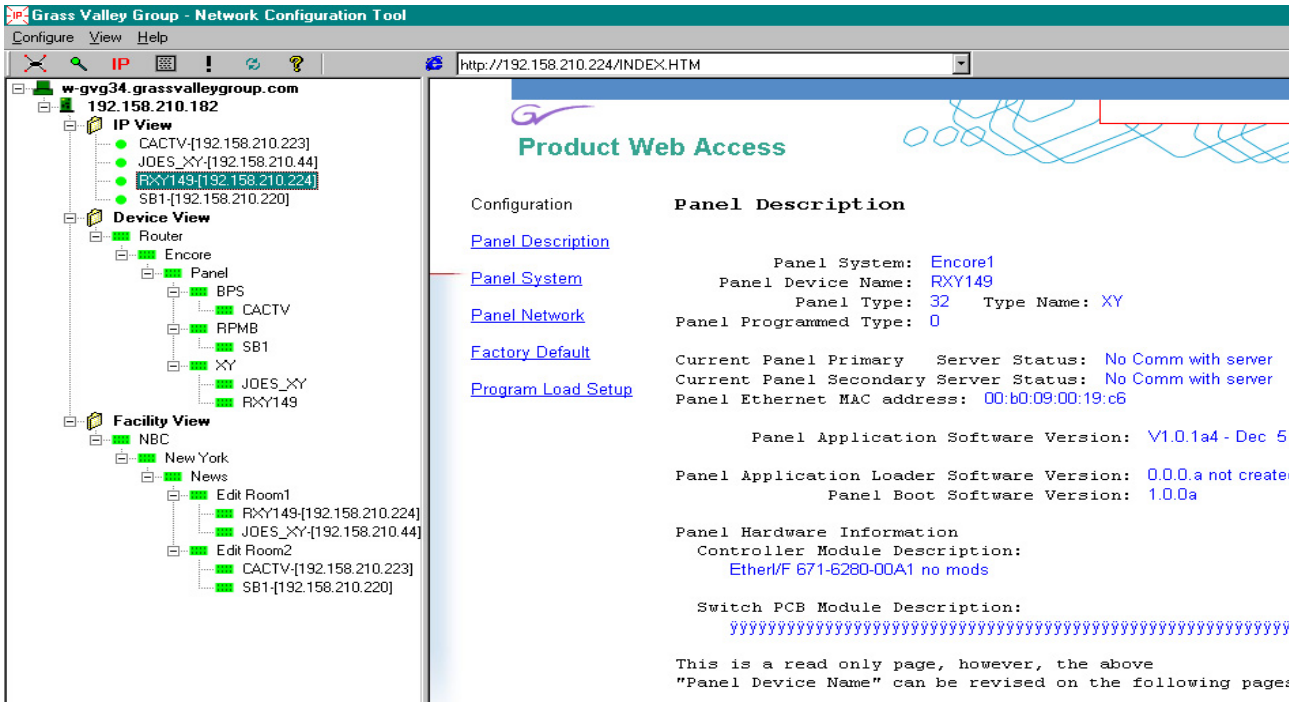


The main screen allows the user to access, display and configure the devices to which the Network Configuration Tool caters to in different ways:

- The left portion of the screen has a Tree view. The root of the tree is the name of the host on which the server is running. The network interface addresses of the host are displayed on expanding the root, which can be expanded to see three different logical views. The names of the devices connected to the network and their current IP addresses will be listed under IP View. The IP addresses of the devices would be enclosed in a pair of braces next to the device names. The Device View will list under it the names of the devices connected to the network, the type of the device and the family to which they belong in a hierarchical tree structure. This view will not display the IP addresses of the devices. The Facility View is to create user defined hierarchical tree structures, representing the location of various devices in the facility where the Network Configuration Tool is being executed.
- The right portion of the screen is the web browser view. When the user clicks on a device listed under any of the logical views in the Tree view or any of the node in the Facility View which has an embedded link, the home page for the device or the embedded link is displayed respectively in the web browser.

Once you've set up and configured your Encore sytem, the Network Configuration window will look more like the one in Figure 27.

Figure 27. NetConfig Window After Configuration

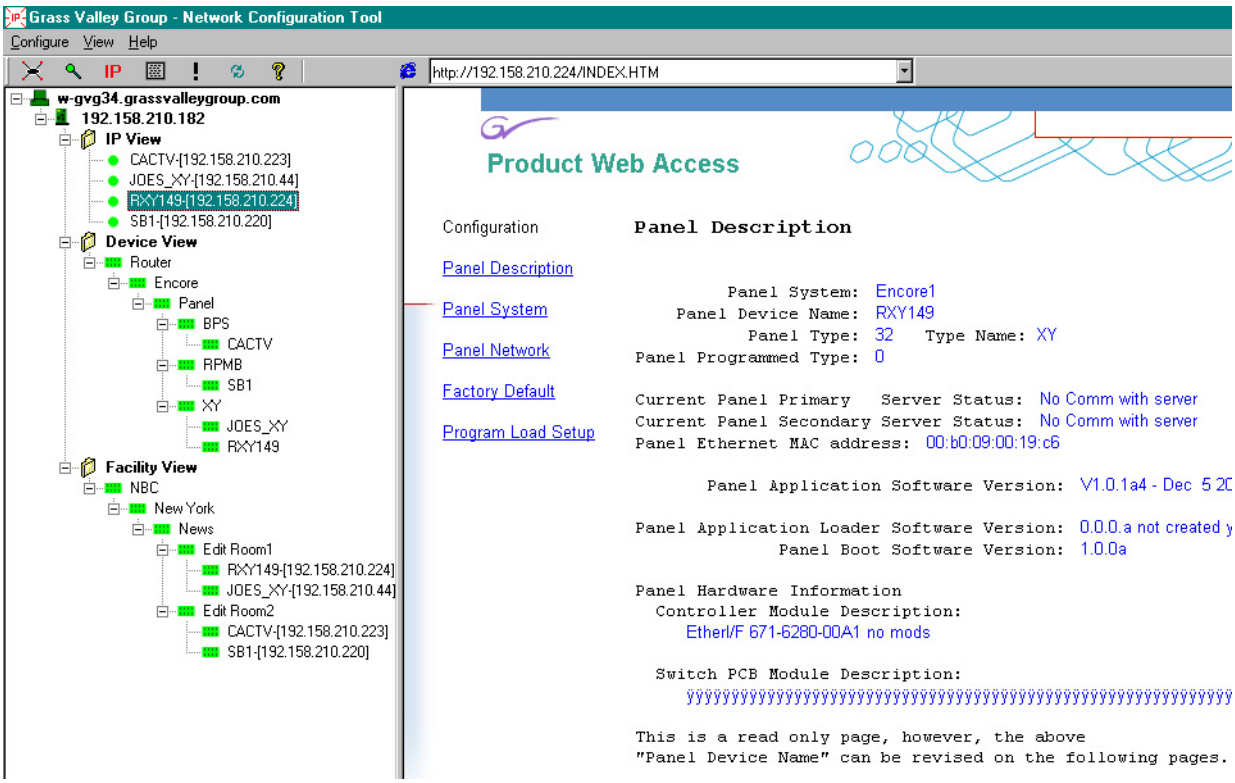


Accessing Device Web Pages

To access the web page of a device, click the desired device under the IP View, Device View or the Facility View. The right side of the main screen will display the web page for the device. The view will change automatically from the List View to the Browser View if the current view on the right side of the main screen is displaying the list of subnets at the time of clicking on the device.

Figure 28 shows the home page of the RXY 149 ... device which has been selected in teh IP View on the left. You get the same view by selecting the device in any of the logical views - IP View, Device View, or the Facility View.

Figure 28. Device Home Page



The Grass Valley Group - Network Configuration Tool logo will appear in the Browser view of the main screen if you clicks ...

- Any other node apart from the devices in Device View,
- The root (having the Host Name) of the Tree View,
- The host IP address under the root of the Tree View,
- The roots of the logical views - IP View, Device View and the Facility View.

If, in the Facility View, you click on a node which doesn't have an associated link, you'll also see the reminder:

```
No link associated with this node currently - right
click on the node and select Edit Link to set a link for
this node.
```

Creating Facility View Tree Structures

The user can create under the Facility View his hierarchical tree structures, representing the location of various devices in the facility where the Network Configuration Tool is being executed. For example, if the user has his control panels in Edit Room 5, the location of the room is News section, the location of the building is in New York, and New York is a location for the division/branch of a company called NBC, Then the user would create a logical structure under Facility View like

NBC - New York - News - Edit Room2 - Panels - <Control Panel 1> <Control Panel 2> …

NBC - New York - News - Edit Room2 - Panels - <Control Panel 1> <Control Panel 2> …

Creating/Inserting New Tree Nodes

To insert/add a tree node to the Facility View, select the node under which the new tree node has to be inserted and right click. On the context menu that appears, choose **Insert Node**. A new node will be inserted and you can type in your label/text for the new node. Alternately, you may choose to type in the label for the new node at a later stage, in which case the new node would be named New Node.

Renaming Tree Nodes

To rename the nodes under Facility View, select the node to be renamed and right click. On the context menu that appears, choose **Rename Node**. An edit window will appear on the node in which you can type in the new label/name for the node.

Deleting Tree Nodes

To delete any of the nodes in the Facility View, select the node to be deleted and right click. On the context menu that appears, choose **Delete Node**. A warning window will appear asking for confirmation to delete the node. If you confirm deletion, the selected node and the nodes/devices (if any) under the selected node will be deleted.

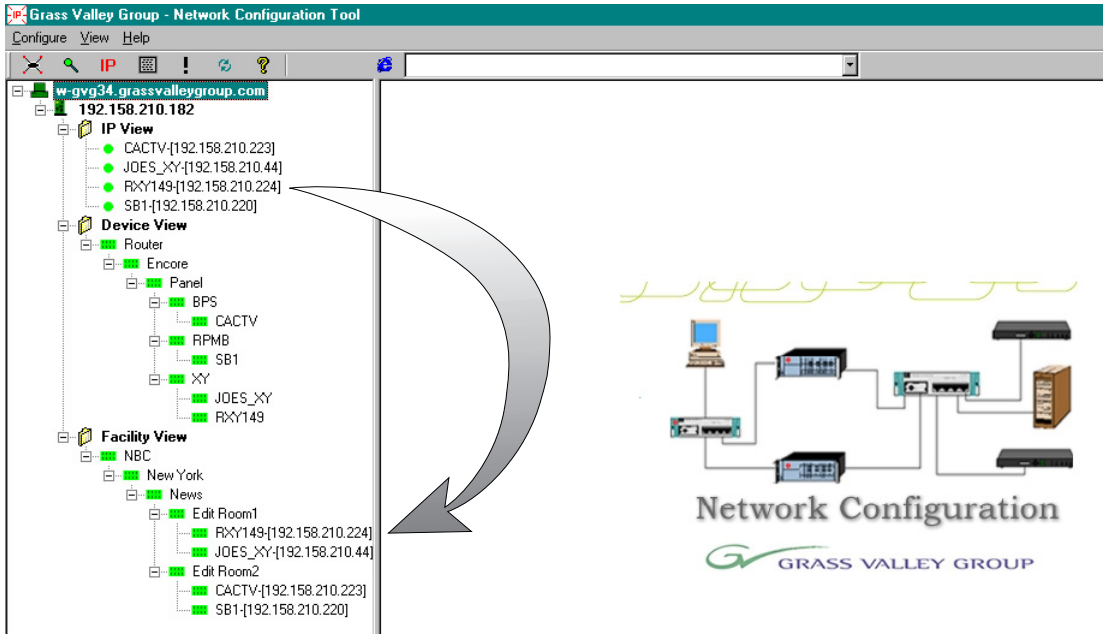
Placing Devices in the Facility View

To place devices under the desired nodes in the Facility View, select and drag them from the IP View or the Device View and drop them over the node under the Facility View below which they are to be placed. Note that

only devices can be dragged and dropped into the Facility View. The drag and drop makes a copy of the dragged device(s) under the selected location. The device(s) is/are not be deleted from the previous location.

For example: To place the device labeled RXY149-[192.158.210.224] in the IP View to NBC - New York - News - Edit Room1 - Panels of the Facility View, drag the device from IP View and drop it over the node Panels under the hierarchy NBC - New York - News - Edit Room1 of the Facility View.

Figure 29. Placing a Device in the Facility View



Note A device cannot reside in multiple locations under the Facility View. If the user tries to drag and drop a device into more than one location in the Facility View, an error message appears.

Rearranging Devices in the Facility View

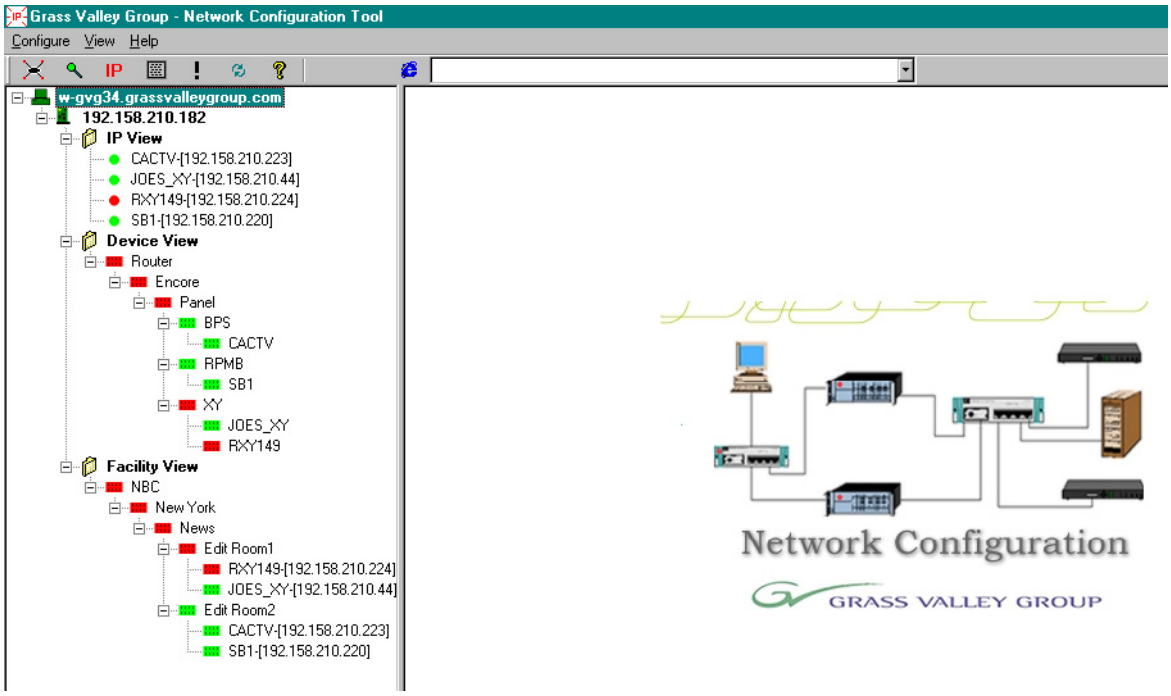
Devices can be moved from one location to another within the Facility View. To move a device from one location to another, drag and drop it in the new location. Since a device can be in only one location in the Facility View, it is moved from the previous location to the new location.

Deleting Devices in the Facility View

To delete a device from the Facility View, select the device to be deleted and right click. On the context menu that appears, choose **Delete Device**. A warning window will ask for confirmation for device deletion. If you confirm device deletion, the device is deleted from the Facility View.

As explained earlier, the user-defined hierarchy under the Facility View behaves the same way for Refresh (health check polling) as in the Device View i.e., the icons of the device that is not accessible and the entire hierarchy until the Facility View branch would be shown in red (Figure 30).

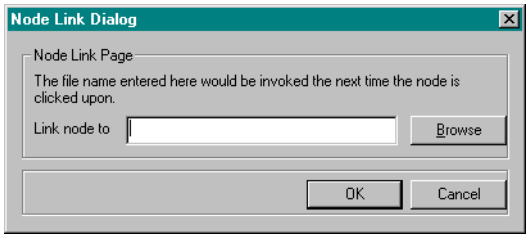
Figure 30. Inaccessible Devices



Associating a Branch in Facility View with a User-Defined Link

Any branch in the facility view can be associated with a link to an HTML page, a GIF file or a JPEG file. To associate a page or file with a branch, right click on the desired branch and select **Edit Link** on the context menu that appears. In the Node Link dialog (Figure 31) which appears use the Browse button to navigate to, and select the HTML page, GIF file, or JPEG file you want to associate with the branch selected in the facility view.

Figure 31. Node Link Dialog



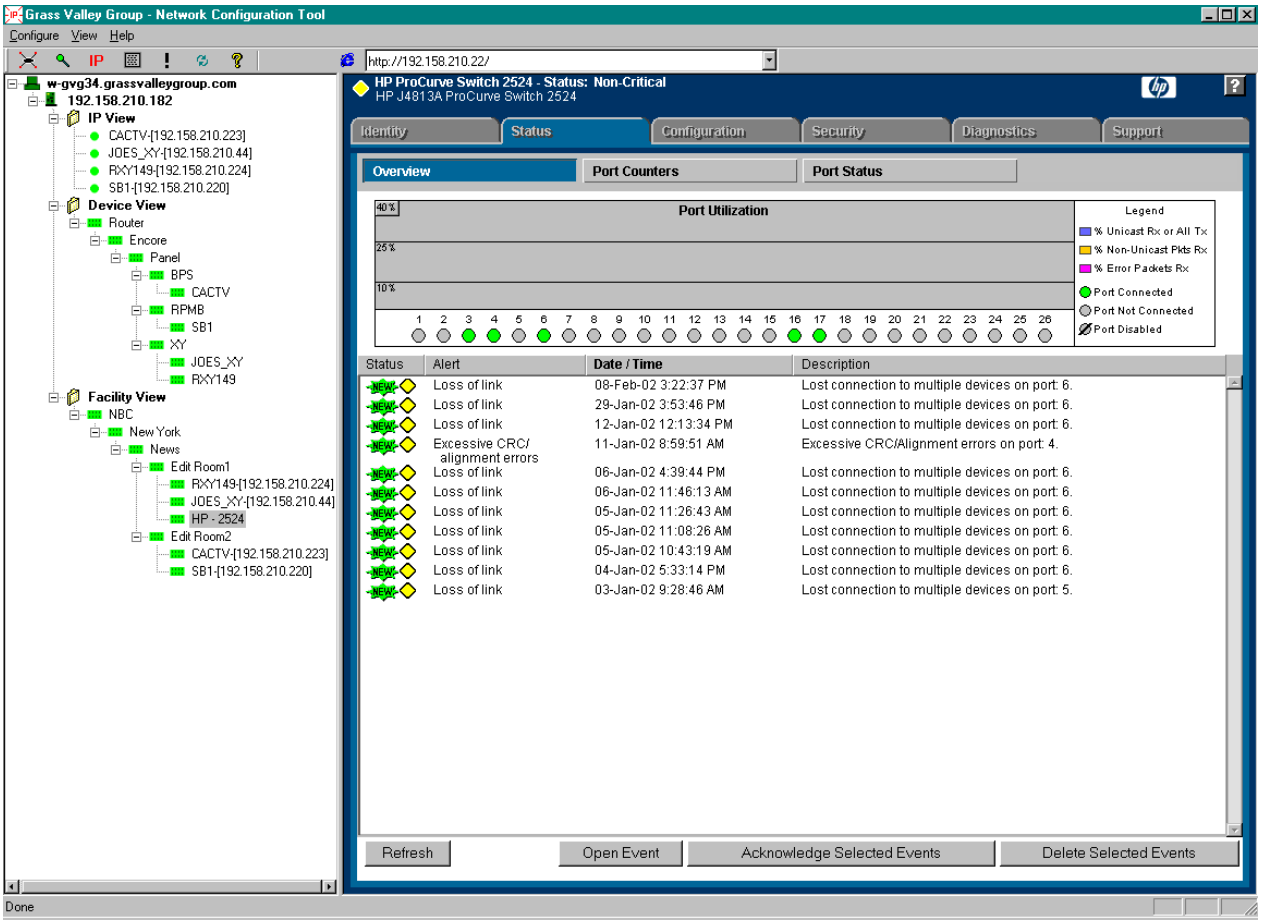
When the desired link/file has been entered, click **OK** to save and link it to that branch. Clicking Cancel will discard any changes to the existing link properties for the branch.

Once a link has been set for a branch, it will open in the right side of the main screen when the associated node is selected. For example, if the set link for a particular node was a web link to 'www.grassvalleygroup.com' and the node is selected, the home page of Grass Valley Group will appear in the right side of the main screen if the system were connected to the Internet.

Note Links can be associated only with the branches, not with leaves (devices) of the Facility View.

This feature can be used to enter user-defined nodes for the other devices not listed in the logical views and associate the nodes to the web pages of the devices. This enables you to control all of your equipment from a single control point. Figure 32 illustrates an HP switch added as a node in the Facility Veiw and linked to a web page from that switch.

Figure 32. Link to an HP Switch



Expanding Nodes

Any node under the Device View or the Facility View can be expanded to show the entire tree structure beneath that node by right clicking it and selecting **Expand Node** on the context menu that appears.

Configuring Subnets

The DHCP service of the NetConfig Tool can cater to different subnets on the network. This service of the Network Configuration Tool leases out IP addresses configured by the user depending on the device/client types. To add/configure IP ranges and other network parameters ...

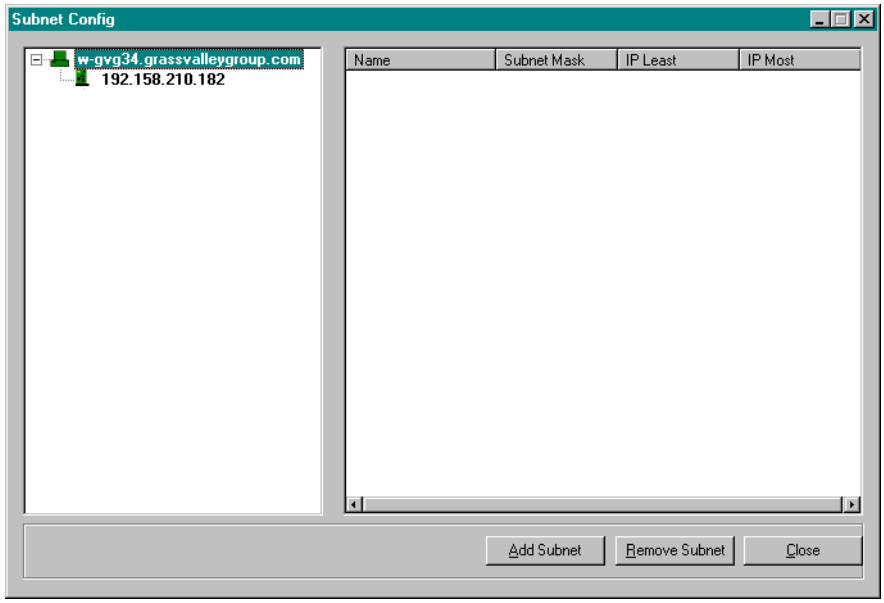
1. If it's not already running, launch NetConfig by choosing it from the Encore group under Grass Valley Group on the Start menu.

2. Choose the menu option **Configure > Subnets**, or

Click the **Subnets** icon in the Toolbar.

   The Subnet Configuration window (Figure 33) appears.

Figure 33. The Subnet Configuration Window



The initial subnet configuration window is practically empty because no subnets have been configured by the user. A subnet is a range of IP addresses for a particular kind of device and their associated network parameters. It can be defined using the Network Configuration Tool. This screen displays the configured subnet information in two ways.

- The left portion of the screen has a Tree View that displays all the subnet names configured in the Network Configuration Tool.
- The right portion of the screen has a List view that displays all the subnets to which the Network Configuration Tool leases out IP address along with the range of IP addresses which can be allocated and the subnet mask address for each of the subnet.

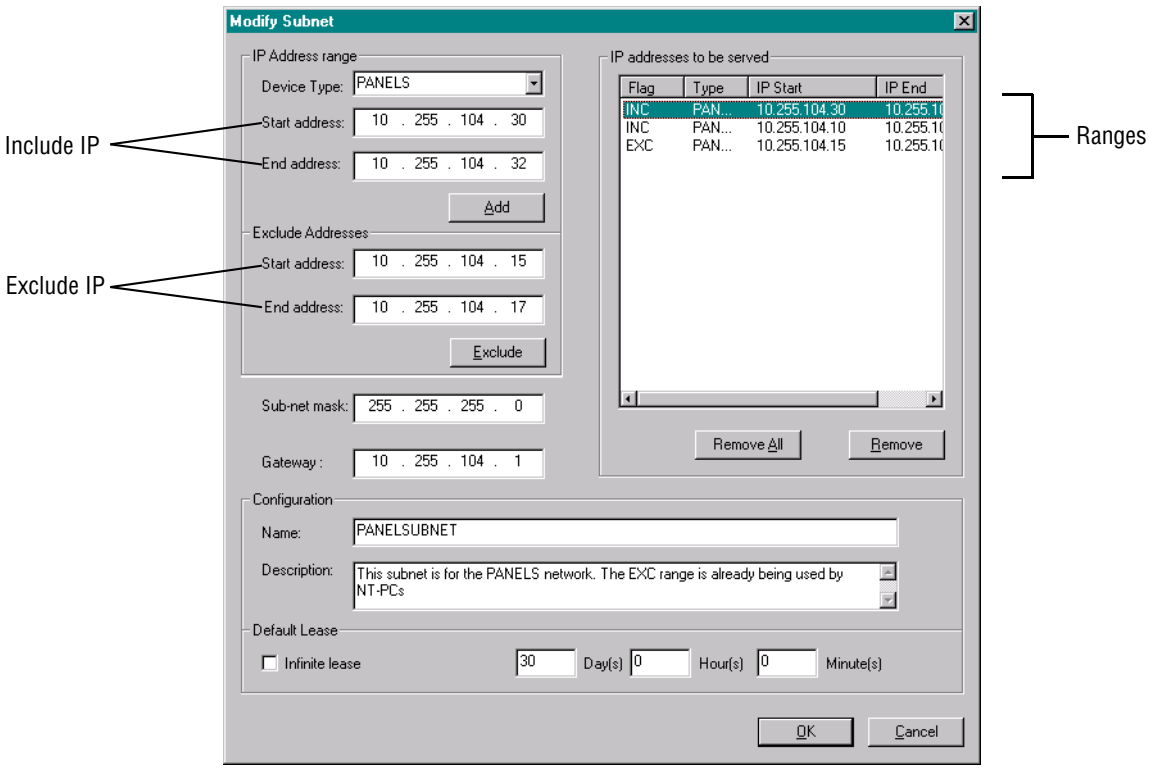
Adding a Subnet

To add a subnet ...

1. Click the **Add Subnet** button, or
   Right click on the mouse while the pointer is placed on an existing subnet name in the tree view area. From the context menu that appears as Select 'Add Subnet'.

   The **Modify Subnet** dialog appears as shown in Figure 34. The **Modify Subnet** dialog enables the user to easily configure the subnet by specifying ranges of IP addresses to be included and excluded, the subnet mask name, and other related information.

Figure 34. Modify Subnet Dialog



2. **IP Address range** — Enter the range of IP addresses to be included in the subnet and click the **Add** button.

   The IP ranges added are immediately reflected in the **IP Addresses to be served** list box with the tag **INC** to indicate that this address range will be used to cater to clients on this subnet. Multiple IP ranges can be entered as include-IP addresses.

   Device Type — Choose from the drop down list to specify the type of device for which the IP range is being added. Your choices are: Matrices, Panels, System Controllers, and Others.

   Start Address — The first IP address for the new include-IP range.

   End Address — The last IP address for the new include-IP range.

3. If an include-IP address has to be removed from the **IP Addresses to be served** list box (i.e., this include-IP range should not be made available to the clients on this subnet), select the include-IP range to be removed from the **IP Addresses to be served** list box and click the **Remove** button. Alternatively, the **Remove All** button can used to remove all the IP ranges (both include-IP and exclude-IP ranges) at once.

4. **Exclude Addresses** — Enter the range of IP addresses to be excluded from the subnet and click the **Exclude** button.

   The excluded IP address range(s) will be reflected in the **IP Addresses to be served** list box with the tag **EXC** to indicate that this IP address range will not be used to cater to clients on this subnet. Multiple IP ranges can be entered as exclude-IP addresses.

   Start Address — The first IP address for the new exclude-IP range.

   End Address — The last IP address for the new exclude-IP range.

5. If an exclude-IP address has to be removed from the **IP Addresses to be served** list box (i.e., if this exclude-IP range should not be made available to the clients on this subnet), select the exclude-IP range to be removed from the **IP Addresses to be served** list box and click the **Remove** button. Alternatively, the **Remove All** button can used to remove all the IP ranges (both include-IP and exclude-IP ranges) at once.

6. **Sub-net mask** — Enter the subnet mask for the subnet.

   Validations are provided to ensure the user does not enter an incorrect subnet mask inadverently. For class-A IP addresses entered as include-IP range the first octet of the subnet mask should be 255, for class-B IP addresses the first two octets should be 255 and for class-C IP addresses the first three octets should be 255.

7. **Gateway —**

8. **Configuration: Name** — Enter the name of the subnet.

   Only alpha-numeric characters are allowed in this field. Since subnets are identified by their names, subnet names cannot be repeated.

9. **Configuration: Description** — Type a description of the subnet.

   This is used for entering any relevant information about the subnet. Maximum of 255 characters allowed.

10. **Default Lease** — Specify the lease period for the IP address assigned to a client from this subnet.

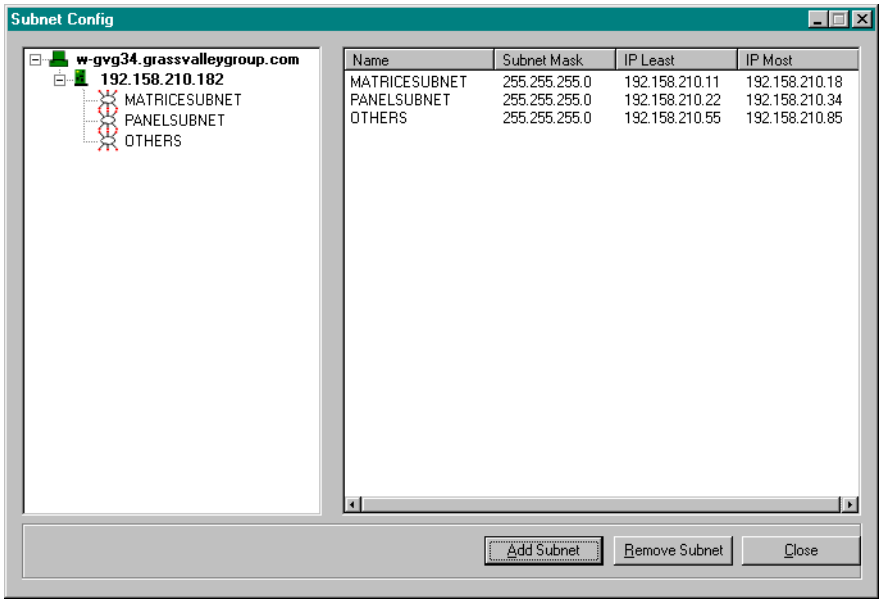
    The lease time can be entered in terms of an infinite lease, or a lease limited to days, hours and/or minutes. The IP address allocated to a client is valid for the lease period entered here. Checking the 'infinite lease' check box specifies an infinite lease period.

11. To save the added or modified subnet details, click the **OK** button.

    Clicking the **Cancel** button discards all the details entered or modified.

Figure 35 shows the subnet configuration window with some subnets added and listed in the Tree View and the List View.

Figure 35. Subnet Config Window Listing Subnets



Modifying or Viewing Subnet Details

To modify or to view an existing subnet's details follow these procedures.

1. Right-click the appropriate subnet in the Subnet Config window.

2. On the context menu that appears, choose **Properties** and a dialog appears with all the details of the subnet where its configurations can be modified.

   Alternatively, double-click the desired subnet in the List View on the right side of the Subnet Config window to pen the same dialog box.

3. Apply any modifications desired and click the **OK** button to save the changes, or **Cancel** to discard any changes.

The rules and validations for modifying a subnet are the same as explained for the **Add Subnet** dialog box on page 48.

Deleting A Subnet

To delete a subnet ...

1. Right-click the appropriate subnet in the (left) Tree View.
2. On the context menu that pops up, choose **Remove Subnet** to delete the subnet.

Alternatively, in either the Tree View or List View, select the subnet to be deleted. Click the **Remove Subnet** button in the bottom right section of the window to delete the subnet.

In both removal procedures, a warning window will appear asking for confirmation before proceeding with the deletion.

CAUTION Once a subnet that has its IP addresses leased out to devices is deleted and a client/device having a lease from that subnet requests an IP address, the client/device will not get the same IP address leased to it. If there are no other subnets configured for that kind of client/device it will not get an IP address at all.

Configuring Devices

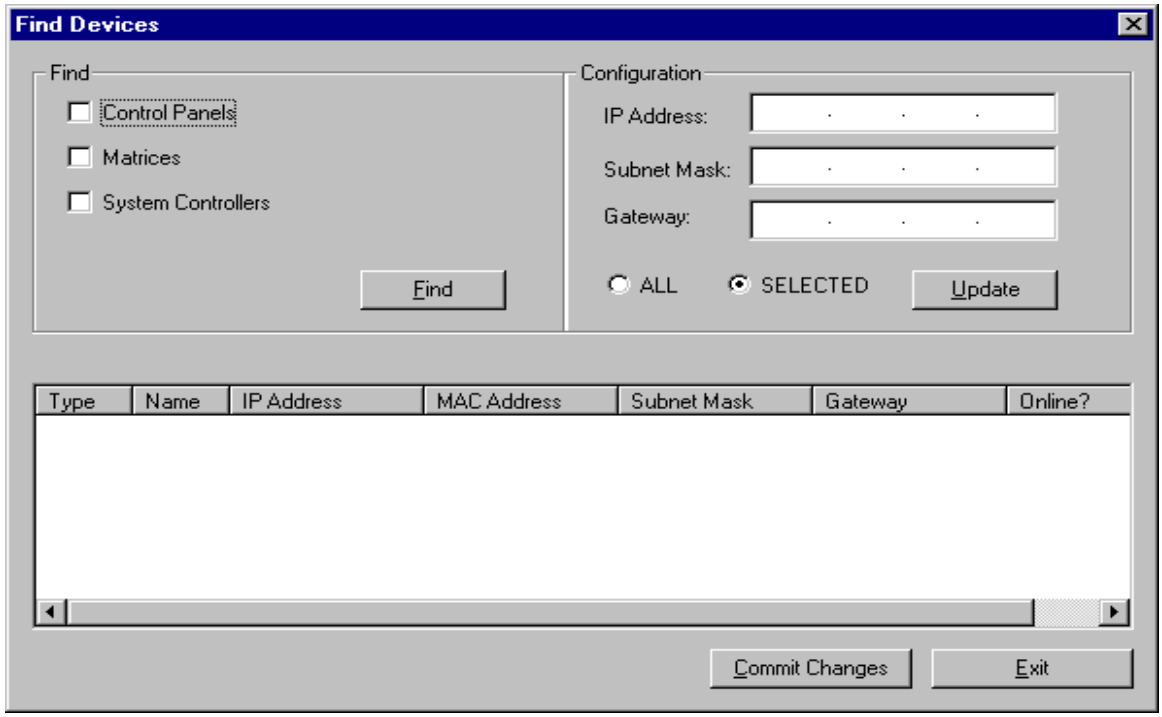
This dialog of the Network Configuration Tool is used to manually assign static IP Addresses to the devices connected to the network. These devices are automatically detected and displayed in the list box when the dialog is launched. Figure 36 shows the dialog when no devices are connected to the network.

To access this dialog, Choose the menu option **Configure** > **Devices**, or

 Click the **Devices** icon in the Toolbar.

The Find Devices dialog (Figure 36) will open.

Figure 36. Find Devices Dialog



Find — Clicking the **Find** button displays all of the MAC addresses along with the other details of the devices on the network in the list box, depending on the device types checked (control panels, Matrices and System Controllers). Clicking the **Find** button also discovers the changes, if any, made (through web page, DHCP, etc.) to the network parameters of the devices listed and refreshes both the list box in the Find Devices dialog as well as the Tree View in the main NetConfig window.

Configuration — The edit boxes in this frame display the IP address, Subnet Mask and Gateway addresses corresponding to the item selected in the list box (i.e., the selected item's details in the list box will be reflected in these edit boxes).

IP Address — The IP Address of the device

Subnet Mask — The Subnet Mask IP address of the device

Gateway — The Gateway address of the device

The user can change the IP address, Subnet Mask, and Gateway if the radio button **Selected** is selected. After changing, on clicking **Update**, the modified details will be updated in the list box (The modified details

will not be sent to the client at this point!). Only once the user has finished all his modifications and clicks on **Commit Changes**, will the changes be reflected in the client(s).

If the radio button **All** is selected, the edit box **IP Address** will be grayed out and the IP address cannot be changed. Using this option, you can change the Subnet Mask and the Gateway address for all devices you select in the List box at the same time and avoid having to change each of them individually.

Update — Click this button to refresh the network status of the device(s) listed in the List box manually if the health checker is not enabled.

Online? — This column of the List box displays YES or NO next to each device depending on whether the device is accessible or not. This is refreshed at the rate set for the health checker pooling frequency.

Clicking the **Exit** button discards the changes made, if any (before clicking on **Commit Changes**) and exits from the dialog.

Clicking **Commit Changes** sends the modified/updated information to the clients.

Figure 37 shows the Find Devices dialog displaying discovered devices.

Figure 37. Find Devices

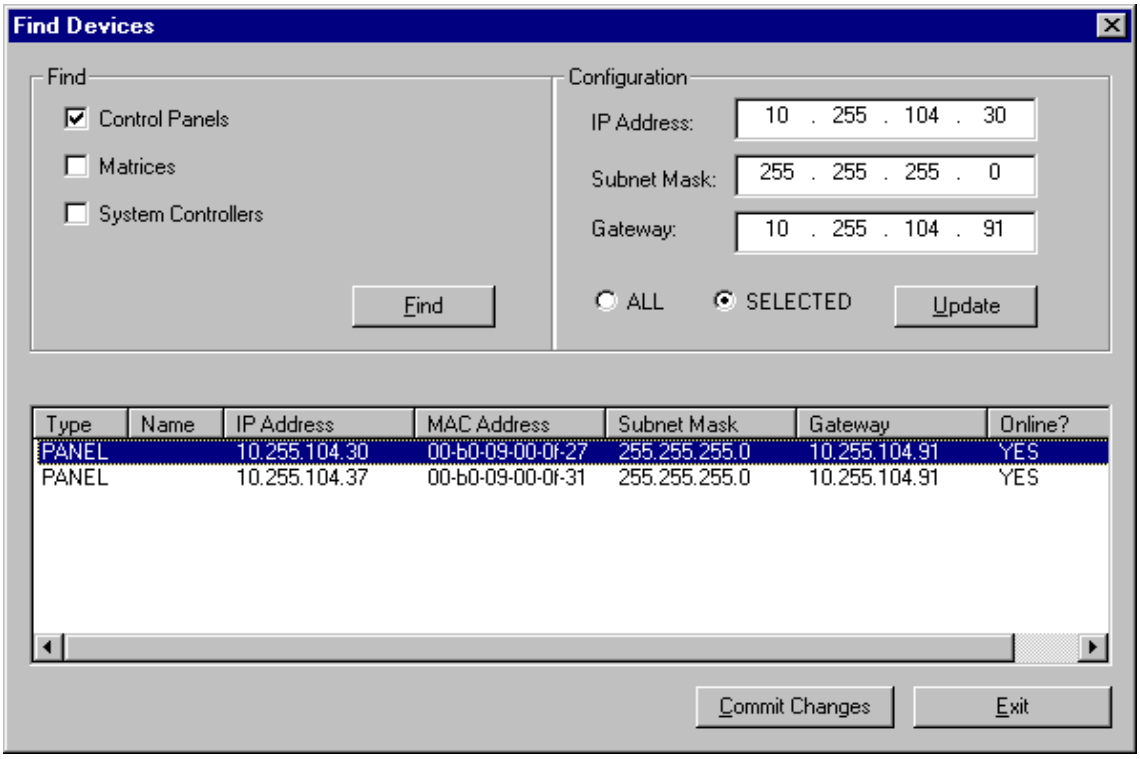
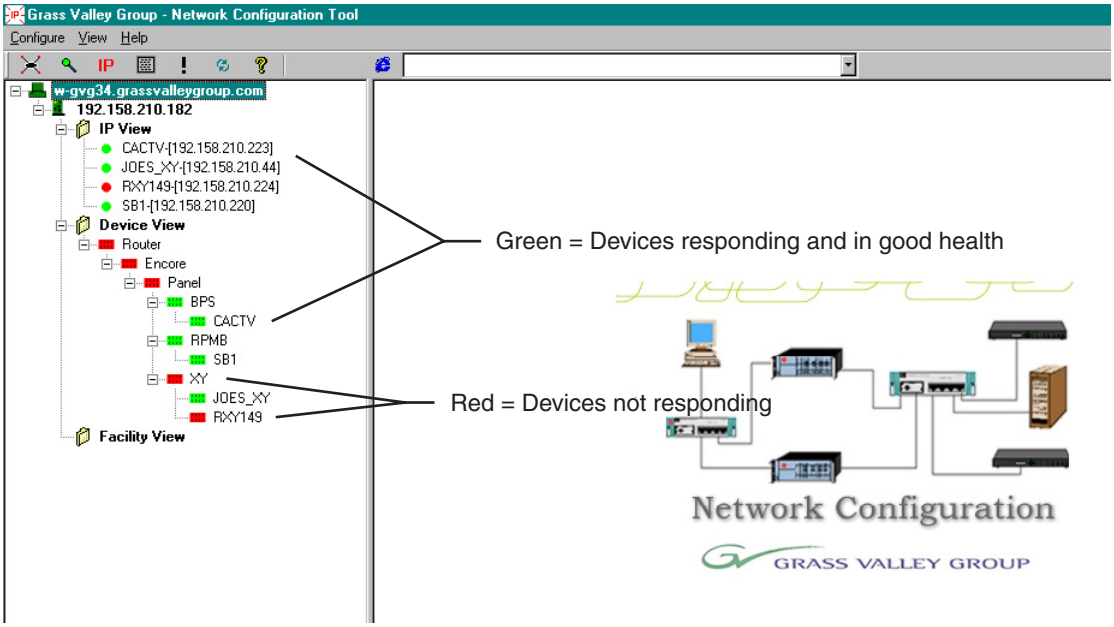


Figure 38 shows the main window with the IP addresses of the discovered devices displayed as part of the tree view. Depending on the poll time interval specified in the **Configure > Server Configurations** menu option, the devices shown in the tree view will be polled for the health check. If the Network Configuration Tool is unable to connect to the device, the icon beside the device's IP address in the tree view will be shown in red. Otherwise the icon will be displayed as green to indicate that the device is in good health. When device icons are red in the Device View, the icons for their entire device family will also be red.

If devices are present in the Facility View, it would work the same way as in the Device View to indicate the network status of the devices. The icons next to the device in the Facility View would turn red or green depending on the accessibility of the devices. The nodes/branches above the device in the Facility View would also be red if a device were not accessible again enabling the user to track down the faulty device in the facility.

Figure 38. Device Health Indicators



Changing a Control Panel IP Address

You may need to change a control panel's IP Address from its factory setting. The tool you must use is dictated by the subnet in which the control panel resides.

...On the same subnet as the Configuration PC ...

1. Launch the NetConfig application.
2. Navigate down the tree in the left windowpane and double-click the control panel you want to change.

3. When control panel's Panel Description page appears in the right windowpane, click the Panel network link in the left margin of the page.
4. In the Ethernet IP field of the Panel Network Configuration window, type the new IP address you want to specify.
5. Place a check mark in the Do reset checkbox toward the bottom left of the page.
6. Click the **Save New Settings** button at the bottom of the page.

The control panel you specified is reset and its new IP address is applied.

...On a different subnet from the Configuration PC ...

1. Launch the NetConfig tool.
2. From the main window in NetConfig, click the magnifying glass icon in the tool bar.
3. In the Find Devices window which appears, check Control Panels and click the **Find** button.
4. In the list which appears at the bottom of the Find Devices window, select the control panel you want to change.

   Its settings will appear in the fields on the right of the Find Devices window.
5. Change the IP Address entry as desired.
6. Click the **Commit Changes** button.
7. Click the **Refresh** button to confirm your changes have been made.
8. Click the **Exit** button to return to the main NetConfig window.

The control panel you specified is reset and its new IP address is applied.

Configuring Reserved IP Addresses

Reserved IP addresses are specified to ensure some specified clients on the network always obtain the same IP address. To reserve an IP address for a client:

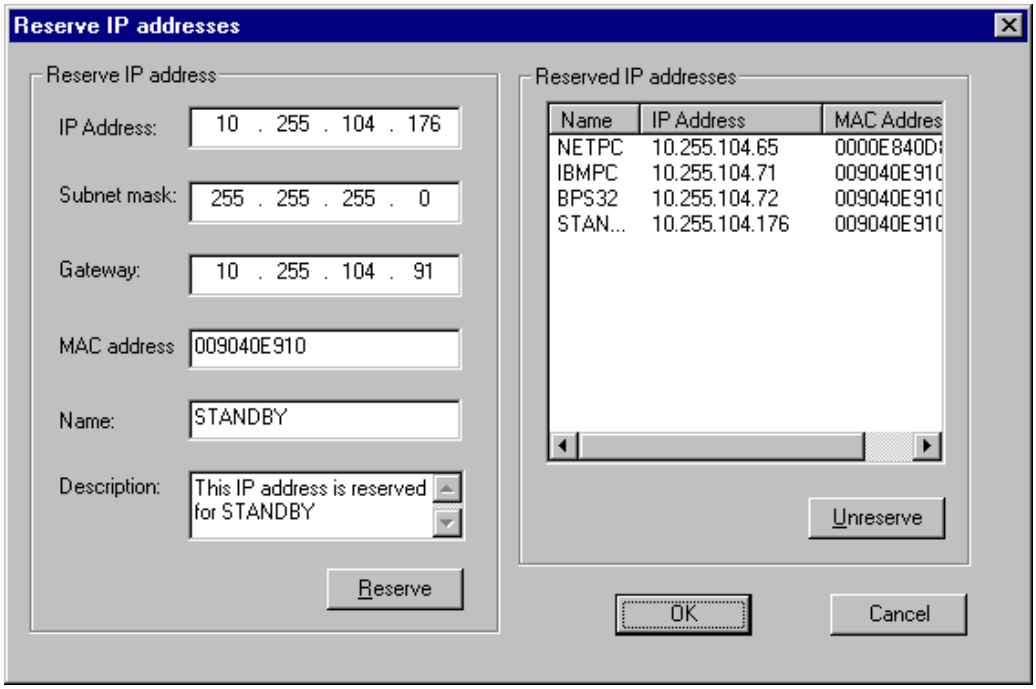
Choose the menu option **Configure > Reserve IP Address**, or

Click the **Reserve IP Address** icon in the Toolbar.

The **Reserve IP Address** dialog pops up. The procedure to add a reserved IP address is explained in the next section.

Adding a Reserved IP Address

Figure 39. Reserve IP Address Dialog



Reserve IP Address — Enter the details of the reserved IP address in this area.

IP Address — Enter the reserved IP address that has to be allocated to a specific client on the network

Subnet Mask — Enter the subnet mask for the reserved IP address.

Gateway — Enter the gateway address for the reserved IP address.

MAC address — Enter the hardware/MAC address of the client for whom the reserved IP is being entered. Since hardware/MAC addresses are unique, the field does not accept duplicate MAC addresses.

Name — Enter the name for the reserved IP address. The name should be composed only of alphanumeric characters.

Description — Enter any relevant information about this reserved IP address in this field. Maximum of 255 characters allowed.

After entering the details of the reserved IP address, click the **Reserve** button. The new reserved IP address is immediately reflected in the **Reserved IP Address** list box. Click the **OK** button to save the additions and exit. Clicking on the **Cancel** button discards any additions.

To remove a reserved IP address, select the appropriate reserved IP address and click the **Unreserve** button.

Note If a client already has a dynamically-assigned IP address allocated to it, you can not reserve an IP address for the client's MAC address.

Modifying a Reserved IP Address

To modify an existing reserved IP address, right click on the tree view of the DHCP configuration tab and choose **Reserve IP Address** from the context menu to pop up the **Reserve IP Address** dialog box.

Select the appropriate reserved IP address from the **Reserved IP Addresses** list on the right. The relevant details are reflected in the **Reserved IP Address** area on the left. Click **Unreserve** to unreserve the IP Address or make the necessary changes and click **Reserve** to save the changes. Click **Close** to exit the dialog.

Server Configurations

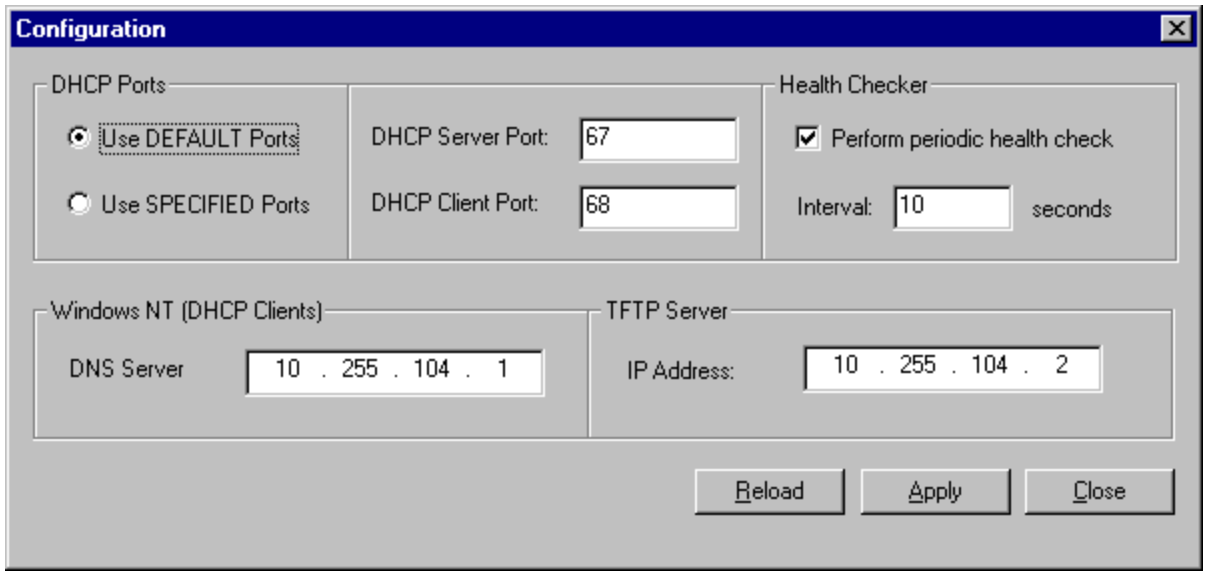
This dialog of the Network Configuration Tool is used to configure port numbers, IP addresses of the DNS (Domain Name Service) server and the TFTP server. You can also configure the polling interval to test device connectivity.

To configure the server:

Choose the menu option **Configure > Server Configurations**, or

 Click the **Server Configurations** icon in the Toolbar.

Figure 40. Server Configuration Dialog



DHCP Ports — This area is to configure the port numbers through which the Network Configuration Tool and the DHCP client communicate to each other.

DHCP Server Port — Enter the port number on which the Network Configuration Tool listens to the clients on the network.

DHCP Client Port — Enter the port number on which the DHCP client receives data from the Network Configuration Tool.

If the user selects the radio button **Use default Ports** the DHCP Server Port and the DHCP Client Port are automatically configured as the standard ports 67 and 68 respectively. By clicking on the **Use Specified Ports** radio button, the user can configure ports with the desired port numbers.

Health Checker — This area is to enable/disable the periodic health check and to configure the polling time interval for the periodic health check. The polling interval is set in milliseconds, the default interval being .10 milliseconds.

The check box **Perform periodic health check** when selected (checked), the user can fill in the polling interval for the periodic health check. When the check box is not selected (unchecked) the periodic polling is disabled.

Windows NT (DHCP Clients) — This area is used to configure the IP addresses of the Domain Name Server (DNS). This is applicable only to clients running on the Windows-NT platform. The stored address will be sent to DHCP clients and stored until the lease period is valid.

DNS Server — Enter the IP address of the DNS server.

TFTP Server — This area is used to configure the TFTP server IP address.

Clicking the **Apply** button saves the entered information for the Network Configuration Tool.

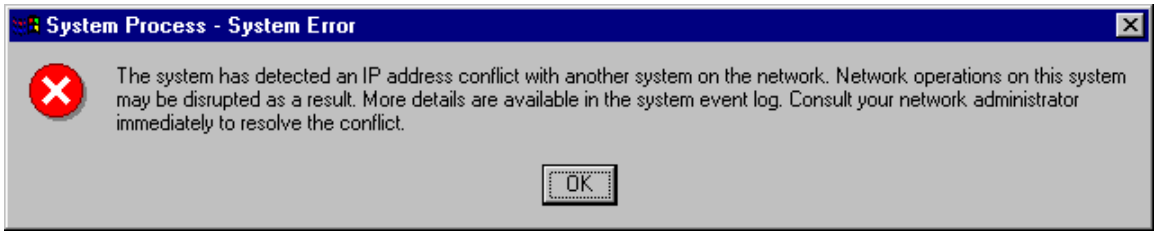
Clicking the button **Reload** reloads the previously saved information (if any).

Clicking the **Close** button closes the dialog box.

DHCP Client (WindowsNT) Messages

The DHCP client is responsible for discovering potential IP address conflicts among the IP address being assigned to it. If the DHCP client (for example, Device-A) discovers that the IP address being offered to it is already assigned to some other device (Device-B), it immediately displays a System Error message as shown in Figure 41:

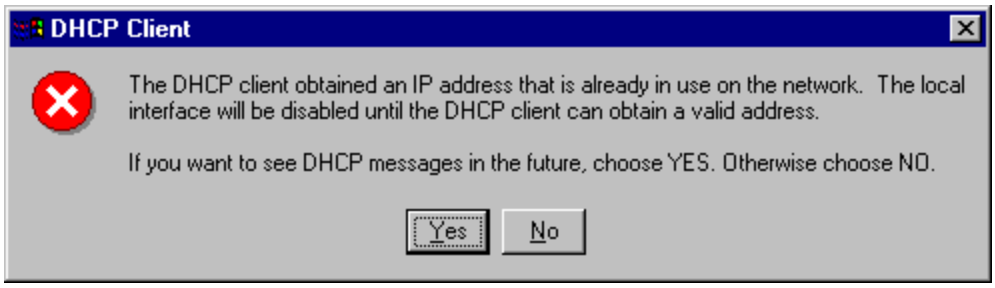
Figure 41. IP Address Error Message



Device-B also knows there is an IP address conflict on the network, and reports a System Error also.

If the DHCP client manages to somehow obtain an IP address already assigned to a device on the network, it reports the error as shown in Figure 42.

Figure 42. DHCP Client Error Message



Choosing the Applications Your System Controller Will Run

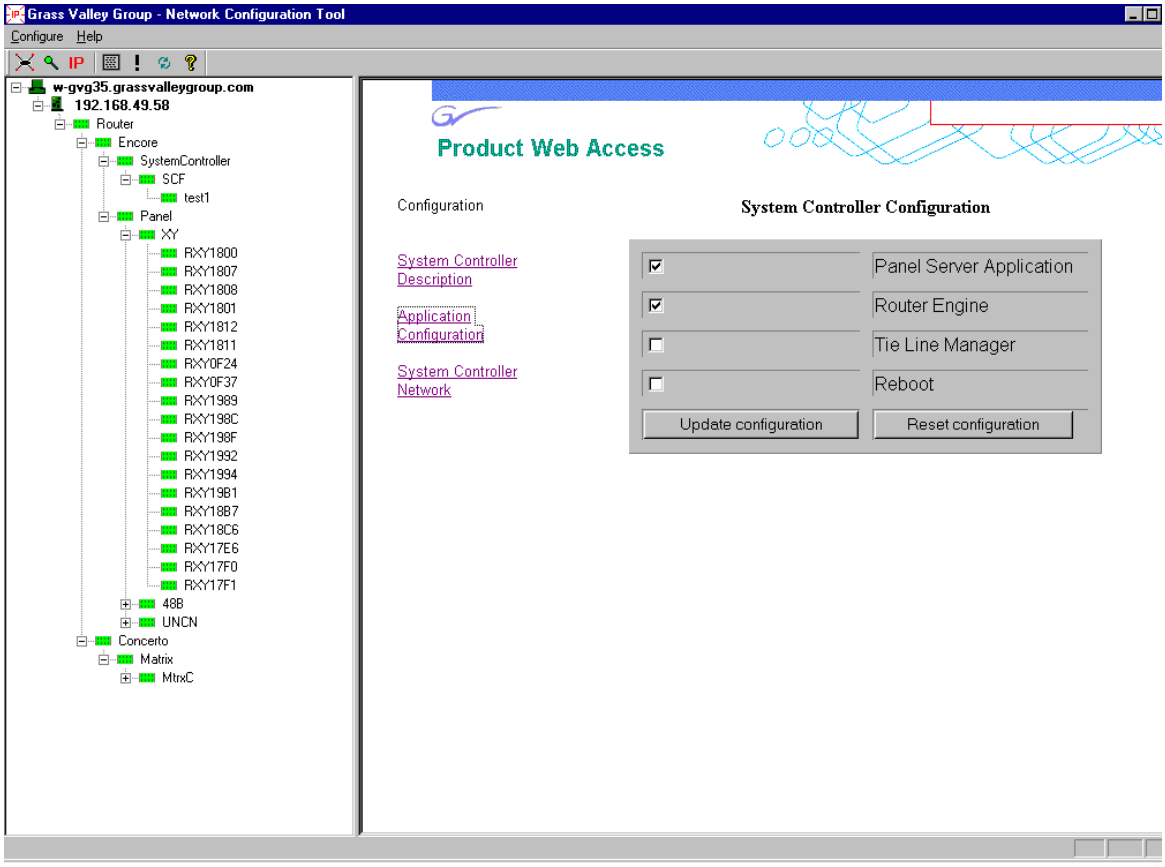
Complete this procedure to enable your System Controller.

1. Find and double-click the System Controller in the left pane of the NetConfig window.
2. When the home page for the device opens in the right pane of the NetConfig window, click the Application Configuration link.
3. When the Application Configuration page (Figure 43)opens, check the applications you want it to run.

Note Do not select TieLine Manager.

4. Check **Reboot** to restart the System Controller and load (or quit) the applications you've specified.
5. Click the **Update configuration** button to propogate the new information.

Figure 43. The System Controller Application Configuration Page



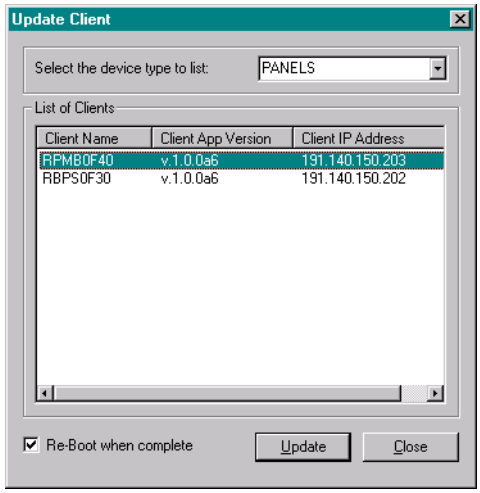
Loading or Updating Panel and Concerto Software

After installing Encore software for the first time, both control panel software and Concerto software must be loaded using the procedures in this section. You'll also need to follow these procedures for control panel or Concerto software updates.

CAUTION Do not perform these tasks while on the air. The reboot procedure takes your Encore system off-line briefly.

1. Launch the Network Configuration application if it's not already running.
2. Choose **Update Client** from the **Configure** menu or click the exclamation point icon in the toolbar.
3. In the dialog box (Figure 44) which appears, choose Panels or Matrices from the drop down list.
4. When NetConfig populates the window in the dialog box, use standard Windows selection techniques to select the control panels or matrices you want to load or update — we suggest selecting all of them.

Figure 44. Update Client Dialog



5. Check the **Reboot when complete** option in the bottom left corner of the screen.

6. Click the **Update** button to complete the procedure.

7. If this is a new installation, repeat Step 3 through Step 6, choosing the other type of device.

8. Click the **Close** button to exit the Update Client window.

To confirm that the devices have been successfully upgraded with the new software, choose **Find Devices** on the Configure menu. Then click the **Find** button in the Find Devices dialog to refresh the list. Alternately, you can access the web page of the device to verify its software version.

View Menu Options

Show IP View

This is a toggle menu to enable and disable the display of the IP View. If the check mark is present to the left of the menu item Show IP View, the IP View is displayed.

Show Device View

This is a toggle menu to enable and disable the display of the Device View. If the check mark is present to the left of the menu item Show Device View, the Device View is displayed.

Show Facility View

This is a toggle menu to enable and disable the display of the Facility View. If the check mark is present to the left of the menu item Show Facility View, the IP View is displayed.

Refreshing Device Network Status

The network status of the devices connected to the network and listed in the Tree View can be determined by clicking toolbar button. Doing so forces the Network Configuration Tool to check for the accessibility of all listed devices listed. If a listed device cannot be reached or the device is not accessible, that device's icon on the Tree View will be shown in red to indicate a connect failure. The device icon will be green if the device is accessible.

Alternately you can refresh the device network status by clicking **Refresh** in the Find Devices dialog after selecting the appropriate device types.

Web Address (URL) Field

You can use the web address field in the toolbar to navigate to other web links.

Figure 45. Web Address (URL) Field

This address bar will automatically refresh to show the current link being displayed in the Browser View of the main screen. You can type or choose the link you want, then press **Enter** to go to the link.

Help > About Network Configuration Tool

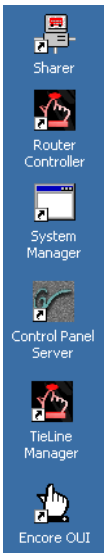
Use this command or it's toolbar equivalent to learn the version of NetConfig that you're running.

NetConfig Pointers

- The PC on which the Network Configuration Tool is loaded must have Internet Explorer 5.0 or later loaded on it. This is necessary to access the web pages of the devices.
- When the IP address of a Panel is changed manually using the Find Devices dialog, the device may intially be reported as inaccessible (red) even though you commited the changes and clicked the **Refresh** button. This is due to the time required for devices to bind to the new IP address. The status will change back to accessible (green) on the next polling cycle if the health checker is enabled.
- Do not delete any files under the directory where the Network Configuration Tool resides. This may lead to abnormal behavior of the tool.

Configuring Encore Software on Your Routing System

Before you can actually begin using Encore, and after you've installed Encore components and completed other necessary procedures, you must add and configure some Encore components. This section walks you through that procedure. For more detail on the Encore OUI, its functions and features, see *Section 2-Using the Encore Operational User Interface (OUI)*.

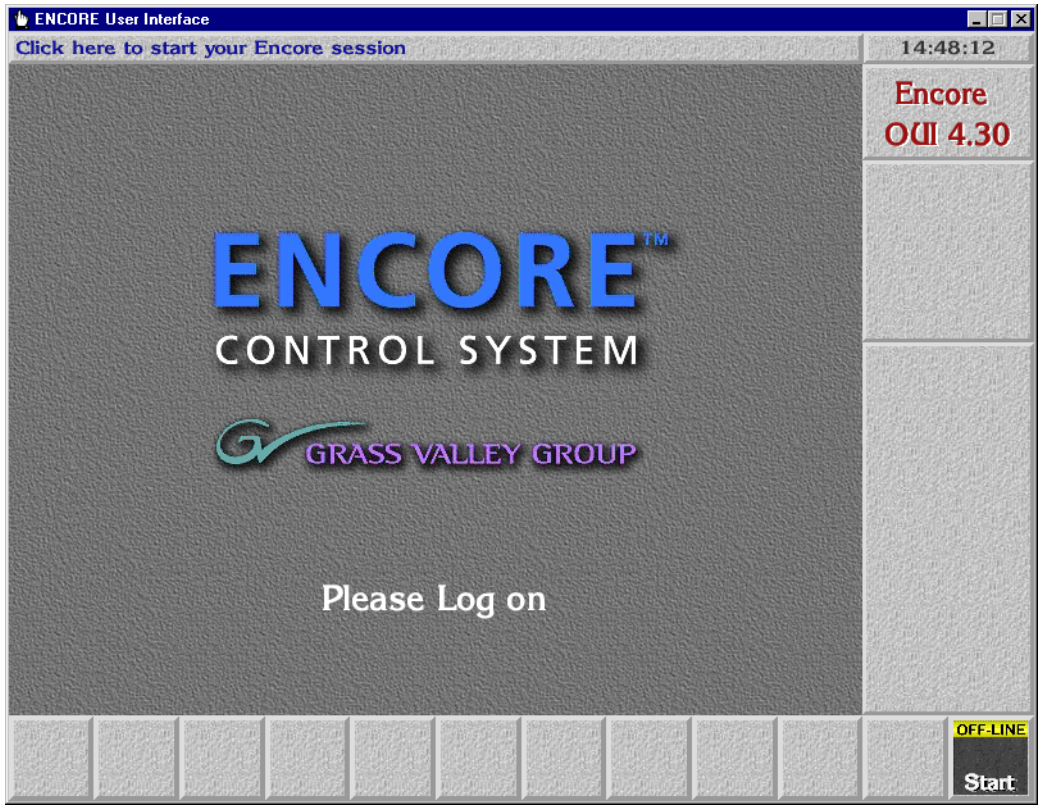


1. Launch the following applications in the order listed:
   a. Sharer

CAUTION Only one Sharer can be running on your network.

   b. Router Controller if you're running Encore NT
   c. System Manager (Manager Service)
   d. Control Panel Server if you're running Encore NT
   e. TieLine Manager if needed
   f. Encore OUI
2. Minimize the Sharer and System Manager (Manager Service) windows for the time being, leaving the Encore OUI desktop (Figure 46) open and maximized.

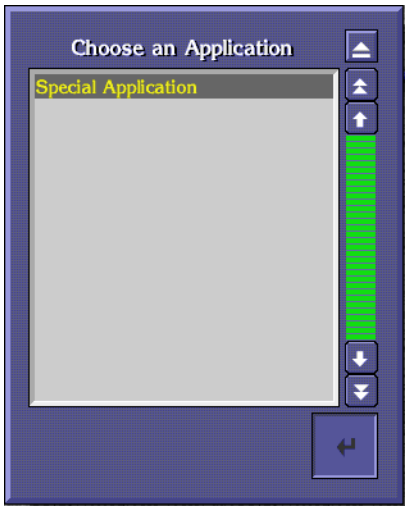
Figure 46. The Initial Encore OUI Desktop



3. Press the **Shift** key and click the **Off-Line Start** button in the bottom right corner of the window.

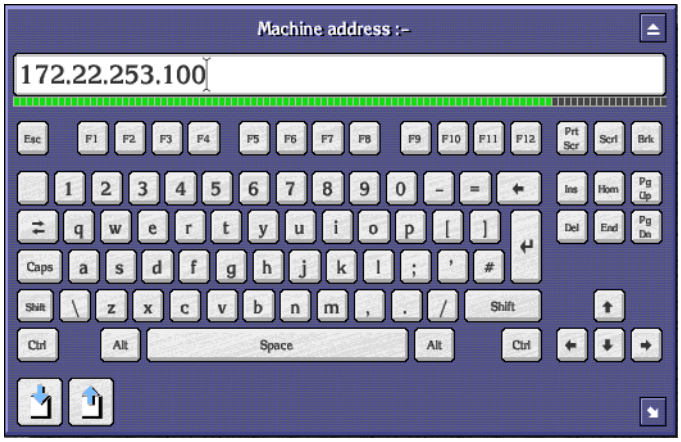
4. Select **Special Application** in the Choose an Application list window (Figure 47) which appears, then click the **Enter/Return** button in the bottom right corner of the list window.

Figure 47. Special Application List Window



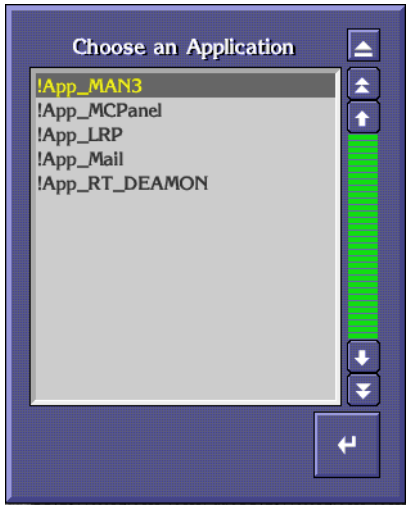
5. When the Machine address window (Figure 48) appears, type the IP address of your configuration PC and click the **Enter/Return** key in the Machine address window.

Figure 48. Machine Address Window



6. When the Choose an Application list window (Figure 49) reappears, select !App_MAN3 and click the **Enter/Return** button in the bottom right corner of the list window.

Figure 49. Special Choose an Application List Window



7. When you're prompted to enter a user ID, select any existing character(s) and replace them with `sys` in the user ID field, then press **Enter/Return**.

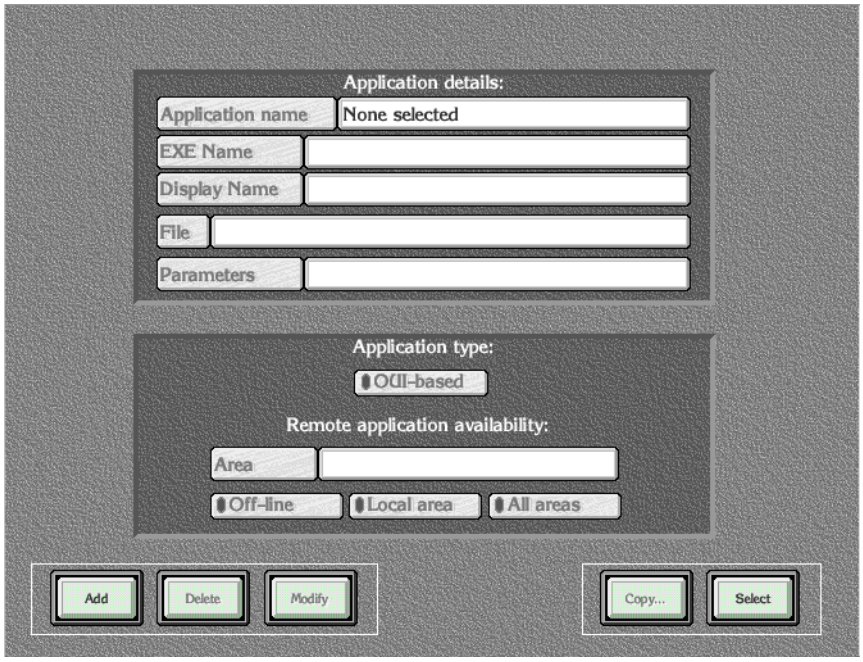
Figure 50. Enter User ID Window

Registering Your Applications

8. In the Manager Service (System Manager) window which appears, click the **Applications** button in the Main Menu section.

9. Click the **Add** button at the bottom left of the Application details window (Figure 51) which appears.

Figure 51. Application Details Window



10. When the Enter New Application Executable Name window appears, type the application's executable name, `!APP_Route`, and click the **Enter/Return** key.

11. When the **Enter new application name** window appears, type `Router Control`, and press the **Enter/Return** key.

    This entry becomes the application name users will see in the **Select Application** list window in the future when they want to launch an application.

12. When the Application details window appears displaying the Exe(cutable) Name and Application Name you entered in Step 10 and Step 11 respectively, click in the **Display Name** field and type `Rtr Cntrl` in the ensuing **Enter new text** window.

    The Display Name will be the name you see in both the Title Box and the Task Bar when you're running the application.

13. Press the **Enter** key to finalize your entry and dismiss the Application Details window.

14. Click the **All areas** button to make the application you're registering available in all Areas.

15. Click the **Modify** button to save your entries.

16. Repeat Step 9 through Step 15, substituting the executable, application, and display names for each of your remaining applications as indicated in Table 1.

Table 1. Software Executable, Application, and Display Names

Full Name	User Can't Change	User Can Change With Manager Service (System Manager)	
	EXE Name	Application Name	Display Name
Control Panel Server	!APP_CPServer	Control Panel Server	CP Svr
(Software) Site Management (aka Software Manager)	!APP_SoftMan	Site Management	Site Mgt
Manager Service (aka System Manager)	!APP_Man3	Manager Service	Mgr Svc
(Router) Tie-Line Management	!APP_TLM	Tie Line Manager	TLM

17. When you're done adding applications, remember to click the **Modify** button, then click the **Main Menu** button on the Menu Bar to return to the Main window in Manager Service (System Manager).

Adding Engines

Once you've registered the application(s) you want to run somewhere in the Encore environment, you must identify the the engine(s), host(s), or server(s) which will run those applications. For example, the Encore System Controller must always be running the Control Panel Server application, but it is frequently also the engine running Site Management, Manager Service, and the TieLine Management applications; the Configuration PC would be the engine running Sharer. Remember, however that Encore's architecture allows you to distribute applications between multiple engines to balance the load.

Follow these steps to add engines.

Note Before you proceed, you'll need to know the IP address of the engine(s) you want to add.

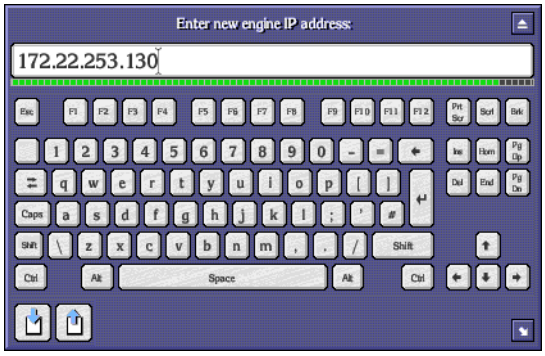
18. From within Manager Service (System Manager), and logged in as an administrator (for example, sys), click the **Engines** button on the Main Menu.

19. In the Engines window (Figure 52) which appears, click the **Add** button in the bottom left corner of the window.

Figure 52. Engines Window

20. When the **Enter new engine IP address** window (Figure 53) appears, type the IP number of the engine you're adding and press **Enter/Return**.

Figure 53. Entering the Engine IP Address.

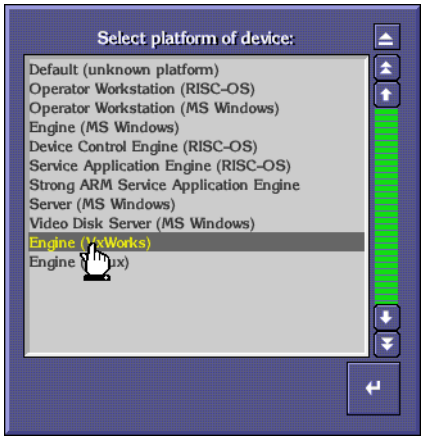


21. In the **Enter new engine name** window which appears, type the name you want to call the engine and press **Enter/Retun**.

    For example, in the case of a System Controller (a single board computer in the Encore frame), you might want to call it SysCntrlr-1.

22. Back in the Engines window click the **Platform** field and choose the type of engine from the **Select platform of device** list window, then click the **Return** button.

Figure 54. Selecting the Platform of the Device



    In the case of a system controller, choose `Engine (VxWorks)`.
    If you're running everything on a PC, choose `Engine (MS Windows)`.

23. Click the **All areas** button in the Availability portion of the window to make the engine and the applications it's running available in all Areas.

24. Now click the **Add app.** button beneath the **Useable applications** scrolling list.

25. In the **Select application(s) to add to list** window which appears, select all of the applications you want this engine to run.

    In the case of a System Controller, you must run the Control Panel Server application on it. You may also want to run Router Control and Tie Line Manager on this engine or distribute them on other engines in your system.

26. Once you've selected all of the applications you want this engine to run, click the **Return** button and the applications you've chosen will appear in t he Usable applications list in the top right portion of the Engines window.

27. Click the **Modify** button to save your changes.

28. If you want to add more engines, repeat Step 18 throughStep 27.

29. Click the **Main Menu** button to return to System Manager's main window.

Adding Stations

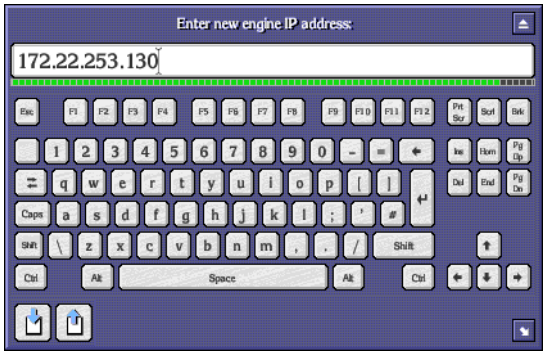
Use this procedure to add workstations to your Encore environment. You must have at least one workstation — even if it's also the Configuration PC — on your Encore network. As you might guess, they will be able to run the applications you assign to them, but will not be able to run administrative tools or perform administrative tasks. Average, day-to-day operations should be performed from a workstation.

30. From within Manager Service (System Manager), and logged in as an administrator, click the **Stations** button on the Main Menu.

31. In the Stations window which appears, click the **Add** button in the bottom left corner of the window.

32. When the **Enter new station IP address** window (Figure 53) appears, type the IP number of the workstation you're adding and press **Enter/Return**.

Figure 55. Entering the Engine IP Address.

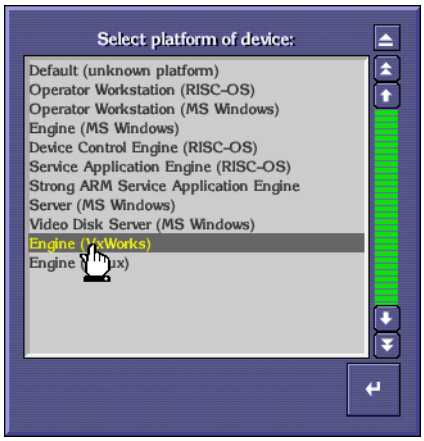


33. In the **Enter new station name** window which appears, type the name you want to call the workstation and press **Enter/Retun**.

    For example, you may want to name the workstation by it's physical location (e.g. Suite A) or it's function (e.g. Technical Director).

34. Back in the Stations window click the **Platform** field and choose the type of engine from the **Select platform of device** list window, then click the **Return** button.

Figure 56. Selecting the Platform of the Device



In the case of a system controller, choose `Engine (VxWorks)`.
If you're running everything on a PC, choose `Engine (MS Windows)`.

35. Click the **Public** button in the Availability portion of the window to make the engine and the applications it's running available to everyone.

36. Now click the **Add app.** button.

37. In the **Select application(s) to add to list** window which appears, select all of the applications you want this engine to run.

    In the case of a system controller, you must run the Control Panel Server application on it. You may also want to run Router Control and Tie Line Manager on this engine or distribute them on other engines in your system.

38. Once you've selected all of the applications you want this engine to run, click the **Return** button and the applications you've chosen will appear in t he Usable applications list in the top right portion of the Engines window.

39. Click the **Modify** button to save your changes.

40. If you want to add more workstations, repeat Step 30 through Step 39.

Adding Users

In addition to adding engines and stations, you must add users to your Encore system. This procedure allows you to assign their privileges, the applications they can use, and the Areas they can "see."

41. From within Manager Service (System Manager), and logged in as an administrator, click the **Users** button on the Main Menu.

42. In the Users window which appears, click the **Add** button in the bottom left corner of the window.

43. In the **Enter new user name** window which appears, type the name you want and press **Enter/Retun**.

44. Back in the Users window, click the **Add app.** button.

45. In the **Select application(s) to add to list** window which appears, select all of the applications you want this user to be able to use.

46. Once you've selected all of the applications you want this user to use, click the **Return** button and the applications you've chosen will appear in t he Usable applications list in the top right portion of the Users window.

47. Click the **Modify** button to save your changes.

If you want to add more users, repeat Step 41 through Step 47.

Accessing the Electronic Documentation

A complete set of product documentation is included on the *Documentation CD* in .pdf format. The Adobe Acrobat Reader application required to view these files is included on the CD. The electronic documentation can be viewed on screen, printed out, or installed onto a computer.

Note Hardcopy versions of these manuals are available from Grass Valley Group Customer Service.

Browse Documentation on CD

1. Insert the CD into any PC. The installer/browser application will auto run.
2. Click on **Browse CD**. An Acrobat Reader index page will appear with a list of documentation.
3. Click on a document name. It will open in Acrobat Reader. Opened documents can be printed out, if desired.
4. To return to the index so you can select another document, click the back arrow in the Acrobat Reader tool bar, or drop down the **File** menu and select **MANUALS.PDF**.

Complete instructions on how to navigate and search the electronic documentation is available on the CD under the link: **Click Here for Instructions**.

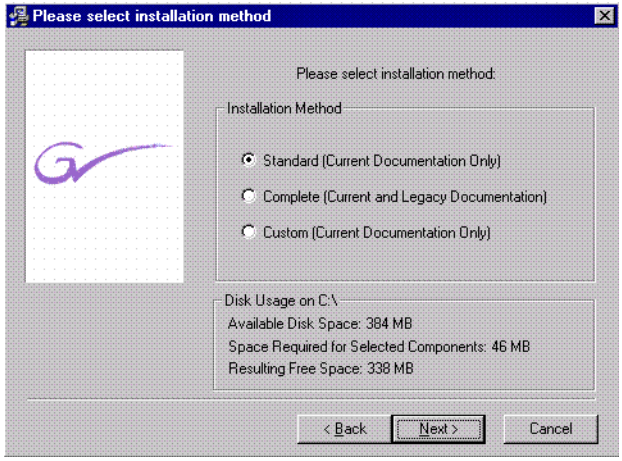
Install Documentation on PC

The .pdf files can also be installed onto a computer, for use without the CD.

1. Insert the CD into any PC. The installer/browser application will auto run.
2. Click on **Install** and follow the instructions. Files install by default in the C:\Program files\Grass Valley Group\[product] Documentation directory, but you can choose a different install location if you wish.

3. Standard, Complete, or Custom install options are available (Figure 2)

Figure 2. Documentation Installation Options.



- **Standard** — Installs only the document files to the selected location.
- **Complete** — Installs the entire directory contents, including the MANUALS. PDF file to the selected location.
- **Custom** — Permits selection of individual documents to install.

Section 2

Using the Encore Operational User Interface (OUI)

This section is for users of the Encore Operational User Interface (OUI).

To get the most out of this section, you should:

- Have a basic understanding of media clips,
- Know how files are organized and maintained on the Encore network,
- Be aware of the sources and destinations available for routing on the network, and
- Know how to use any remote applications you select.

This section describes how to:

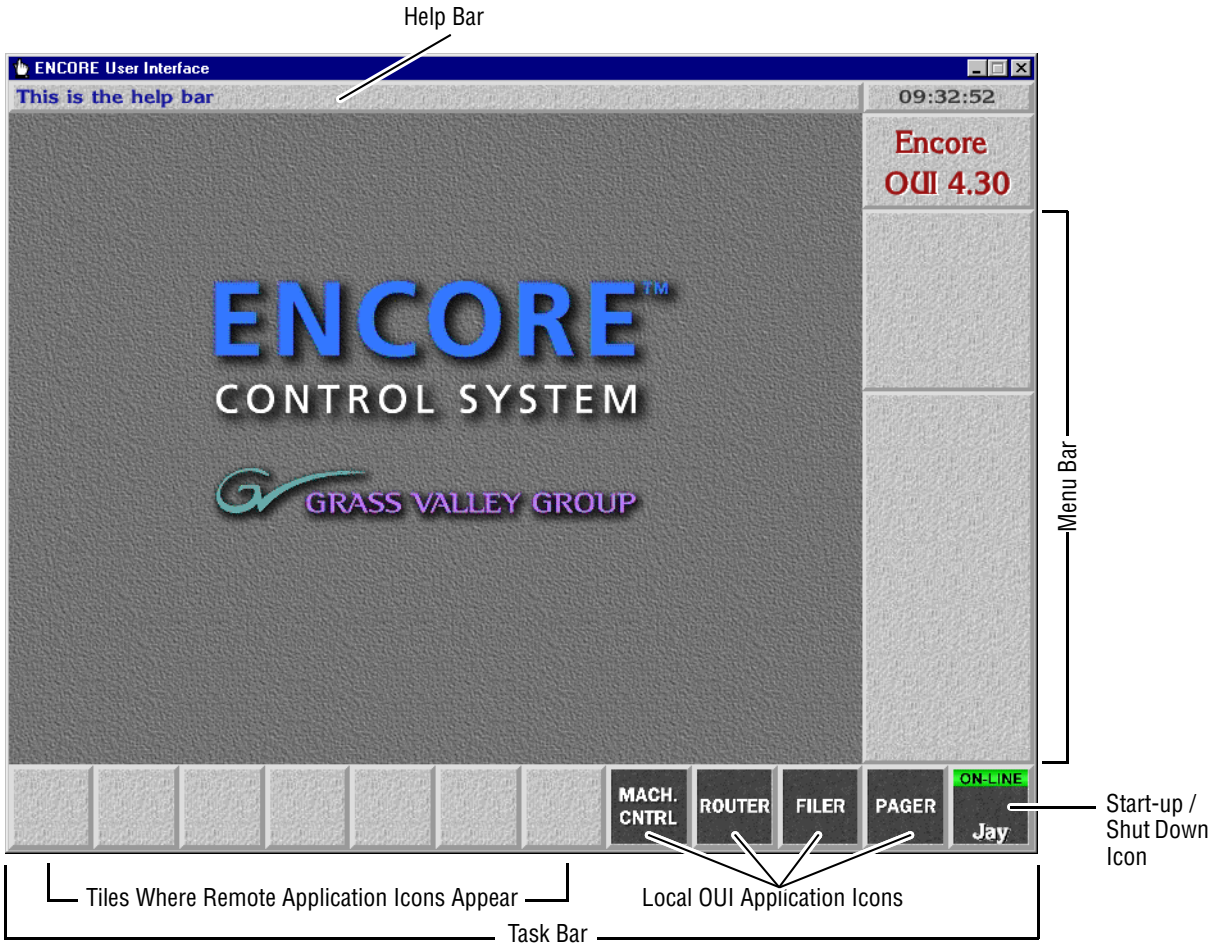
- Use the Encore Operational User Interface (OUI) and local applications,
- Use the Local Machine Control Panel to work with clips on networked devices,
- Use the Local Router Panel to route sources to destinations,
- Use the Filer-Fax to manage files,
- Use the OmniPager to send short messages around the network, and
- Load remote applications for use at the OUI workstation.

Common Display Features

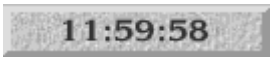
Encore Desktop

When you logon to the system, the Encore Desktop appears (Figure 57).

Figure 57. The Encore Desktop



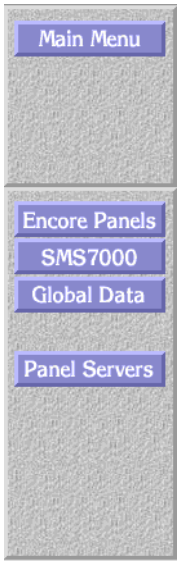
Help Bar — As you move the mouse pointer around the screen, the Help Bar displays information on the areas it passes over.



Clock — Click the Clock in the top right corner of the Desktop to show or hide the Menu Bar. The Menu Bar appears to the right on the Desktop.

Title Box — The Title Box displays the name of the currently active application. Click the Title Box to view the status information your workstation.

Task Bar — When an application is open, its icon shows on the Task Bar. To load an application, click its icon. You can switch between applications by clicking different icons.



Menu Bar — The Menu Bar has an upper and a lower section. The lowest button in the upper section acts as a heading for the lower section. The buttons on the Menu Bar may be different, depending on the application you're viewing/using at the moment.

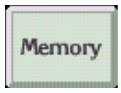
There may be two types of buttons on the Menu Bar:

- Light-blue buttons represent categories; click one to display a further level of options.
- Dark-blue buttons control a specific action.
  The Menu Bar contents change depending on the category you select from the Main Menu.

Buttons

Indicator Button — An indicator button has an indicator which changes color when you click the button. The indicator may be a small rectangle or the whole button.

Greyed-out Button — You cannot select greyed-out buttons.



Active Button — You can select a button that is not greyed out.

Icons and Windows

Re-Size Icon — Use the Re-size icon to alter the size of a window. The icon is in the bottom right corner of the window.

To re-size a window, click the icon and drag the mouse while holding the mouse button down.

To move a window without affecting the size, click-hold on the window edge and drag the mouse.

Enter/Return Icon — Click this icon to confirm information you enter. You can also use the **Enter/Return** key on your keyboard for this purpose.

Eject Icon — Click this icon to close a window. This icon is located in the top right corner of windows. You can also use your keyboard **Esc** key for the same purpose.

Alphanumeric Keypad — You can use the Alphanumeric Keypad to enter text and numbers. Click the keys on the Keypad or use the keyboard of your workstation.

List Window — A List window contains a list of items which you can search, view or select.

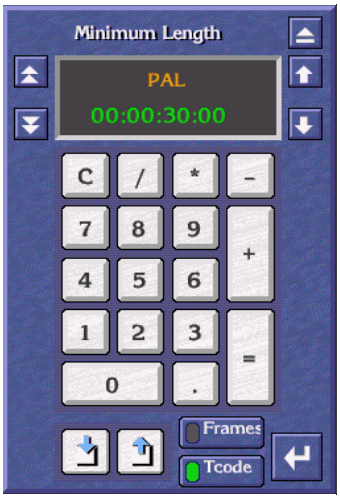
Click the Single Arrow icons ( ) to scroll up and down the list by one line at a time

Click the Double Arrow icons ( ) to scroll up and down the list by one page at a time

Click and move the green slider bar ( ) to scroll through a list window.

If you press a character on your workstation keyboard, the list scrolls until the first item that starts with that character appears at the top. For example, press M to move to the first item beginning with the letter M.

You can also use the arrow keys and the **Page Up/ Page Down** keys on the keyboard to search.



Numeric Keypad — Use the Numeric Keypad to enter time codes.

To enter time codes in frames, click the **Frames** button.

To enter time codes in hours, minutes, seconds and frames, click the **Tcode** button.

Click the double arrow icons ( ) to the left of the window to increase or decrease the time code in one-second steps.

Click the single arrow icons ( ) to the right of the window to increase or decrease the time code by one frame at a time.

Clicking the decimal point ( ) causes a colon (:) to appear in the timecode display so that:

15 enters as **00:00:00:15** (15 frames)

15. enters as **00:00:15:00** (15 seconds)

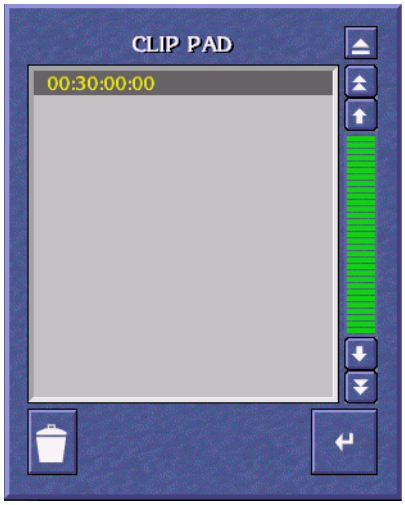
15.. enters as **00:15:00:00** (15 minutes)

To enter a Keypad number or function, click a key on the Numeric Keypad graphic, or use your keyboard.

Use the / * - + keys to perform simple calculations.

Copy To Clip Pad — Use the **Copy To Clip Pad** icon to copy text or numbers to the **Clip Pad** list window.

Retrieve From Clip Pad — Use the **Retrieve From Clip Pad** icon to select the **Clip Pad** so that you can retrieve information.



Clip Pad — Use the **Clip Pad** to store useful information. To retrieve a Clip Pad item, highlight it in the list window, then click the **Enter/Return** icon.

Dustbin Icon — To remove an entry from the Clip Pad, highlight the item and click the **Dustbin** Icon.

Messages

Message Window (with options)

A Message Window may appear when you are using an Encore application. The message may ask you to confirm an action by clicking one of the buttons in the Window.

To continue, click a button; or, using your keyboard, press the first letter of the button name (for example, press the **Y** key instead of clicking the **Yes** button).

Figure 58. Message Window With Options

Message Window (without options)

If there are no options, click the window or press the **Enter/Return** key on your keyboard.

Figure 59. Message Window Without Options

Selecting options

You can usually select options in two ways:

- Double click the required option, or
- Click once to highlight the option, and then press the **Enter/Return** key on your keyboard.

Procedures

This section describes how to:

- Logon to the OUI,
- Load an application,
- Request an application from another user, and
- Log off the OUI.

Logging onto the OUI

When you switch on your OUI workstation, the system displays the OUI Logon Screen. From this screen you can logon to your OUI workstation and load the applications you want to use.

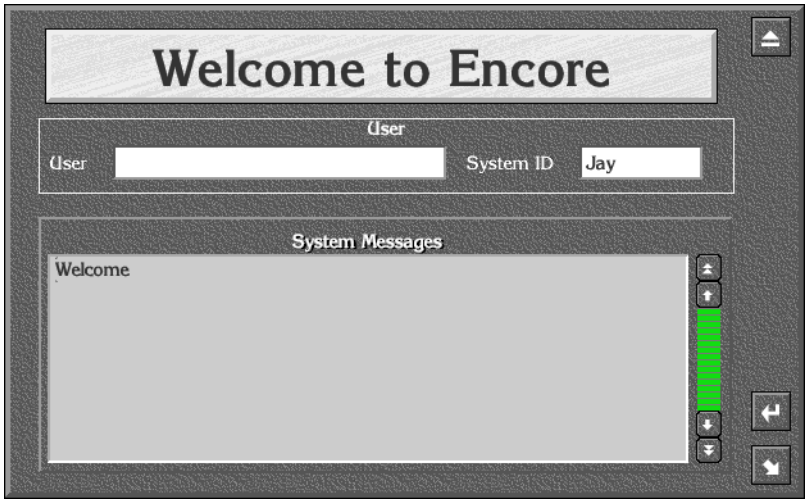
1. Click the **Start** button on the right of the task bar. The Logging-On User Identity Box appears.
2. Type your **User Identity** (given to you by the System Administrator) into the User ID Window; then press the **Enter/Return** key or click the **Enter/Return** icon.

   You can use either your workstation keyboard or the on-screen Alpha-numeric Keypad. Type either upper or lower case characters — the ID detector is not case-sensitive.
3. Type your password (given to you by the System Administrator); then press the **Enter/Return** key or click the **Enter/Return** icon.

Note Password entry is an optional feature, determined by the system configuration; a password-entry window appears only if the option is chosen. The password is case-sensitive — you must type it exactly as it was given to you by the System Administrator.

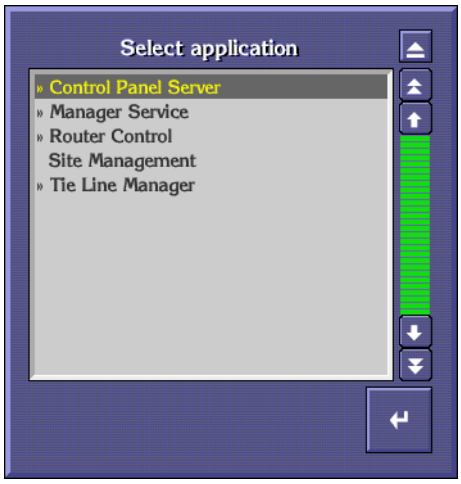
A Welcome to Encore message is displayed, in addition to your user information and any messages entered via the Manager Service (System Manager) application or the System Administrator. Your User Name (or the first part of it) appears on the **Start** button. Icons that enable you to access local OUI applications are displayed on the Task Bar.

Figure 60. Typical Log-On Welcome Screen



4. Press the **Enter/Return** key on the keyboard or click the **Enter/Return** icon. A list of remotely configured (i.e., server-based) Encore applications is displayed in the center of the screen.

Figure 61. Typical Select Application List



Note Before you can use a remote application, the necessary hardware and software must be suitably configured and accessible (subject to routing arrangements and password) from your OUI workstation. Refer to your System Administrator if you are having system-configuration problems.

Loading an Application

After you logon to the OUI workstation, you can load any available and suitably configured Encore application programs.

Loading a Local Application

The four OUI local applications are available at all times. To load an application, click its icon in the Task Bar. The icons are shown below with a brief description of the application.

Local Machine Control Panel — Provides local control of devices available on the Encore Network and information on the status of selected devices.

Local Router Panel — Provides routing facilities between available source and destination devices.

Filer-Fax — Provides management facility for all clips on the Encore system as it accesses the Sharer. It is used to filter and select clips to load via the LMCP.

OmniPager — This application provides a messaging service between all workstations on the Encore network.

Note You can load more than one local application. If you exit an application when more than one is loaded, the screen reverts to the application previously displayed. You can toggle between local applications by clicking the icons in the Task Bar.

Loading a Remote Application

1. Click a blank button on the taskbar. A list of remote applications is displayed (See Figure 61 on page 84); those that are available are marked with a double arrow (>>).

2. If the application you require is available, double-click its name in the list (or click once and then click the **Enter/Return** icon).

Note If the application you require is not available, you must request it from another user before you can load it (see *Requesting an Application from Another User* on page 86)

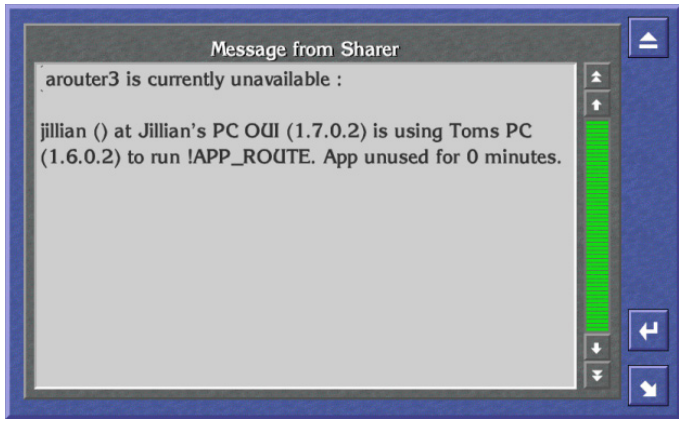
Once the remote application is loaded, its main screen is displayed and its icon appears in the Task Bar. Refer to the application's Reference Guide or Tutorial for information on how to use it.

Note You can toggle between remote applications by clicking the icons in the Task Bar.

Requesting an Application from Another User

1. From the list of remote applications, select the one you require by double clicking its name. (You know the application is in use since it is not marked with a double chevron.) The Application Sharer Message Screen is then displayed.
2. Click the **Enter/Return** icon to send a message to the current user, requesting use of the application. The Message Screen disappears.
3. The other user acknowledges the Application Request Message by clicking the **Enter/Return** icon. When the user exits the application, the system sends you a message indicating that the application is available.
4. You can load the application as described in *Loading a Remote Application* on page 85.

Figure 62. Typical Application Message Sharer Screen

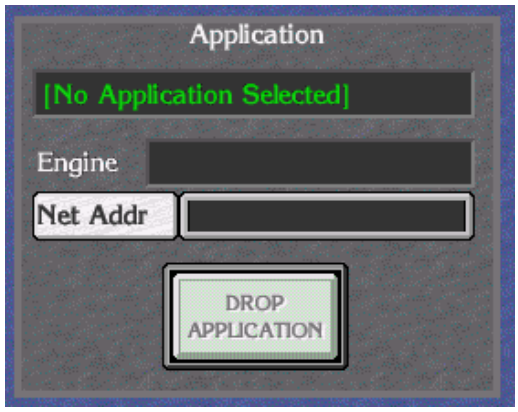


Note If you do not need the application urgently, click the **Eject** icon - no Application Request Message is sent.

Dropping an Application

1. Click the Title Box to display the OUI Station Status Window. The OUI shows the application currently in use in the Application Area.
2. Click the **Drop Application** button. If more than one application is open, then the OUI shows the last application used. Continue to click the **Drop Application** button until you close the applications you want to.
3. Close the window by clicking the **Eject** button.

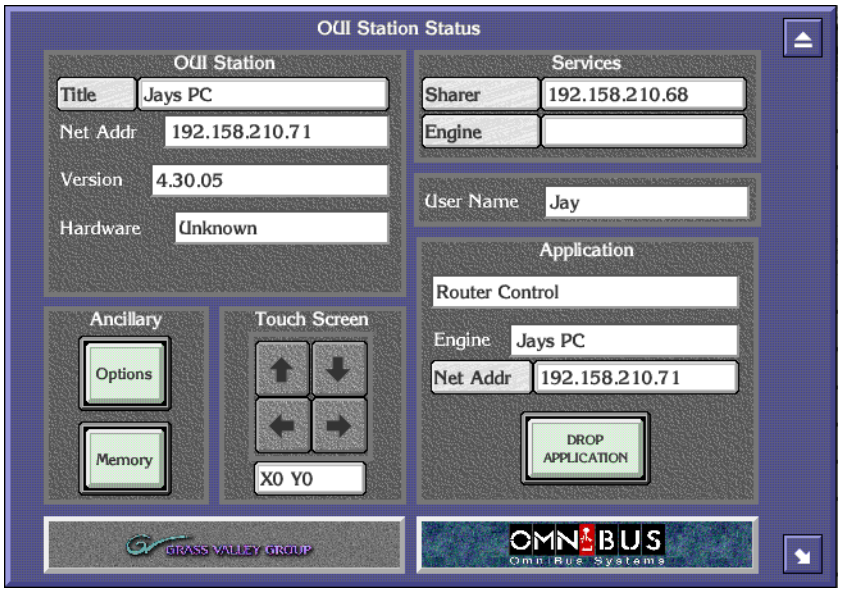
Figure 63. Application Section of the OUI Station Status Dialog Box



OUI Station Status Window

To display the OUI Station Status Window from the Encore Desktop, click the Title Box toward the upper right corner of the screen.

Figure 64. OUI Station Status Window



The OUI Station Status Window has five areas:

OUI Station — The OUI displays the name of the workstation that you are logged onto, its IP address and the version number of the OUI that is running.

Ancillary — This has two buttons, **Memory** and **Options**. If the OUI is running on an Acorn workstation, click the **Memory** button to view memory-usage details. For more information about the **Options** button, see *Ancillary Options*.

Touch Screen — This enables you to adjust the settings of an attached touch screen.

Services — Click the buttons in this area to confirm that the Sharer and a specific engine are online.

Application — In this area, the OUI displays details of the remote application currently highlighted on the Task Bar.

Ancillary Options

To access this dialog, click the **Options** button in the bottom left section of the OUI Station Status window.

Figure 65. Ancillary Options

Click the appropriate button to change your settings. When you're done, click the **Eject** icon in the top right corner of the dialog to save your settings and then the **Eject** icon in the upper right corner of the OUI Station Status window to finalize them.

Prompts to help bar — Display error prompts and messages on the Help Bar.

Swipe Menu Bar — Switch off the Menu Bar if it overlaps other items on the screen. Otherwise, the OUI permanently displays the Menu Bar. With the option chosen, you can cause the Menu Bar to appear and disappear by clicking the Clock in the top right corner of the Desktop.

Number dialogues show days — Show time codes, if they are longer than 24 hours, in the format days:hours:minutes:seconds:frames. For example, 1:16:32:19:10. Otherwise, the system shows time codes as hours:minutes:seconds:frames. For example, 40:32:19:10.

Enable direct text entry— Allows you to type entries directly into fields in the OUI. When this feature is disabled, clicking those same fields opens a separate dialog for data entry.

Layout1, Layout2 — Choose different keyboard layouts. The OUI displays a list of keyboard options.

ARC Serial, Serial Port 1, Serial Port 2 — Set up Encore hardware devices on the serial ports of your workstation. The OUI displays a list of hardware devices.

Shortcut List — Record one or more actions to replay later. When you click this button, the OUI displays the Shortcut Key Editor. See *Shortcut Key Editor* and *How to Create a Shortcut or Macro* *on page 91* for more details.

Shortcut Key Editor

Use the Shortcut Key Editor to create and maintain shortcuts and macros.

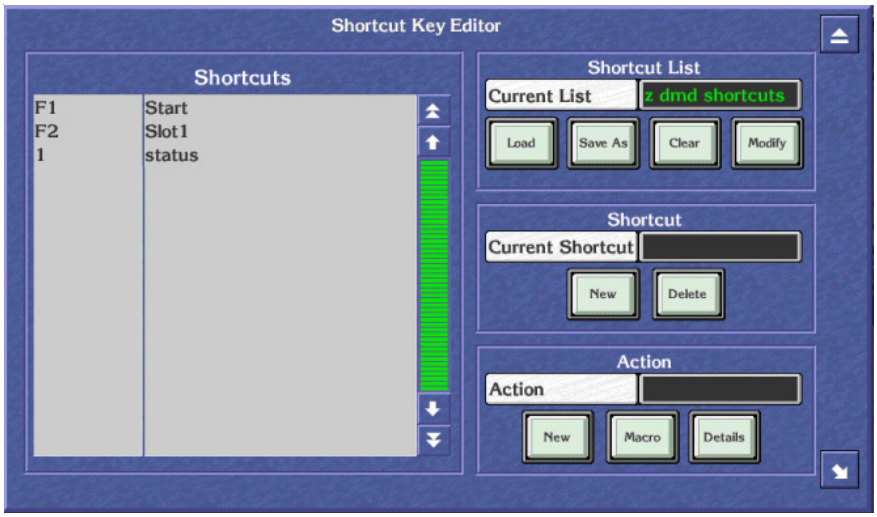
- A shortcut is a single action you record to replay later.
- A macro is a sequence of actions you record to replay later.

You can replay shortcuts and macros as many times as you want.

To display the Editor from the Encore Desktop, follow these steps:

1. Click the Title Box. The OUI Station Status Window appears.
2. Click the **Options** button.
3. Click the **Shortcut List** button. The OUI displays the Shortcut Key Editor.

Figure 66. Shortcut Key Editor



The list on the left shows the shortcuts and macros currently assigned to function keys.

Shortcut Key Editor Buttons

Use the Shortcut Key Editor buttons to perform tasks:

Shortcut List

Load — Load a shortcut list. The system displays shortcut lists from which you can select the one you want to load. Note: The OUI saves this setting when you switch off your workstation.

Save As — Save the current shortcut list with a new name.

Clear — Delete the current list.

Modify — Save changes to the list.

Shortcut

Current Shortcut — Assign a function key to a shortcut or macro.

New — Create a new shortcut or macro.

Delete — Delete the highlighted entry in the shortcut list.

Action

Action — Change the name of the shortcut or macro. Warning: If you change the name of a macro, make sure you change the name to that of an existing macro.

New — Record a new shortcut or macro.

Macro — Load a previously saved macro. The OUI displays the currently loaded macros in the Shortcut list in the left of the window.

Details — Displays a list of the actions in a shortcut or macro.

How to Create a Shortcut or Macro

1. In the Shortcut Area, click the **New** button. A blank entry with the name "None" appears in the Shortcut list on the left.
2. Click the **Current Shortcut** button. Enter the function key you want to assign to the shortcut or macro (for example, F1, F2 etc.). Alternatively, press the appropriate function key on your keyboard.
3. In the Action Area, click the **New** button. The system displays the Action Box which has four buttons — from left to right, **Record**, **Stop**, **Play** and **Enter**.
4. Click the **Record** button to start recording.
5. Perform the action (or actions) you want to record.
6. When you finish, press the **Stop** button.

Note If you want to replay your shortcut or macro to check it, press the **Play** button.

7. When you are satisfied with your shortcut or macro, press the **Enter/Return** button.
8. Enter a description for your shortcut or macro.

Note If you performed more than one action, the system displays the Save Macro Filer-Fax to allow you to save your sequence of actions as a macro. Click the **Name** button and enter a name for your macro. Press the **Enter/Return** key; then press the **Save** button.

9. In the Shortcut List Area, click the **Modify** button to save the shortcut or macro to the currently loaded list. To save the shortcut to a new list, click the **Save As** button.

Logging off the OUI

1. Click the **Start** button on the right of the Task Bar.
2. The system displays a warning message.
3. Do one of the following:
4. Click **YES** (or press **Y** on your keyboard) to log off.
5. Click **NO** (or press **N** on your keyboard) if you do not want to log off.
6. Click **HELP** (or press **H** on your keyboard) if you require help.
7. If you select **YES** the system exits all the applications you have been using, leaving remote applications free for other Users. The workstation returns to the OUI Logon Screen.

Figure 67. Log Off Warning Message

CAUTION Before you turn off your workstation you must close down each remote Encore application by selecting either the **Disconnect** or **Drop Application** option to allow other Users access to those applications.

Local Machine Control Panel (LMCP)

The Local Machine Control Panel provides local control of the devices that are available on the Encore Network. It also provides information on the status of selected devices.

Note To use the LMCP you must have the proper software, and in some cases hardware components or peripherals, properly installed and configured on the device you wish to control. For example, to control a Grass Valley Group Profile, you must purchase, install, and configure the optional VDRCS application. Similarly, to control a VTR you must purchase, install, and configure the Serial Control Engine peripheral, the VSVC application, and an RS-422 serial (machine control) cable.

Figure 68. Main Screen

The LMCP Main Screen has five areas:

- Device Selection area,
- Device Control area,
- Cue Points area,
- Clip area, and
- Ancillary area.

Opening the LMCP

Click the Local Machine Control Panel icon on the Task Bar.

Clip Area

The Clip Area displays information about the current clip, and enables you to work with clips. The information shown is **Clip Name**, **Duration**, **In Point** and **Out Point**.

Click the **Hold Duration** indicator button (to the right of the **Dur** Window) to toggle it on or off. When the button shows green, the clip duration remains constant. When the button shows black, the clip duration changes if the In/Out-Points change.

Creating a New Clip on a Video Disk Server

1. Load a disk device into the Devices panel.
2. Click the **Create** button. The system displays the Clip types list window.
3. Select the type of clip you require.
4. Click the **Enter/Return** button.
5. The window disappears and the system displays the Filer-Fax in save mode. You can name the clip, categorize and save it (see *Filer-Fax on page 117* for more information).

Note If the selected device is a VTR, or if no device is selected, then the **New Clip** button is displayed in place of the **Create** button (see *Creating a New Clip on a VTR*).

Creating a New Clip on a VTR

1. Load a VTR device into the Devices panel.
2. Click the **New Clip** button. The system displays the Clip types list window.
3. Select a type for the new clip; then press the **Enter/Return** button.
4. The system shows the default values for the selected clip type.

Loading a Clip

1. Click the **Load** button. The Filer-Fax appears.

2. Highlight the clip you want to load.
3. Click the **Enter/Return** button. The clip information appears in the Clip Area.

Note Step 4 applies only if no device is selected in the Devices panel.

4. When the Select a Device list window appears showing devices that can load a clip, select one of the devices.

   The Select a Device list window disappears. The system adds the device to the Devices panel and loads the clip.

Note If you select 'No Device: Clip Data Only' from the list, a device is not added to the Devices panel but the clip data is still displayed. You can therefore alter the clip information rather than the media. Use this method of selecting a clip if you do not know whether a clip is on a tape or a disk.

Modifying Clips

1. Click the **Mark In** button to change the in-point of the clip. The in-point will be changed to the time code reached at the moment you press the **Mark In** button.
2. Click the **Mark Out** button to change the out-point of the clip. The out-point will be changed to the time code reached at the moment you press the **Mark Out** button.
3. To rename a clip, click the **Clip Name** window and enter a new name on the displayed Keypad.
4. To save a clip, see *Saving a Clip*.

Note New in-points and out-points are not recorded unless you modify or save the clip.

Saving a Clip

Either:

1. Click the **Modify** button to save over the current clip.

Or:

2. Click the **Save** button to save a new instance of the clip.

Device Selection and Control

The Device Selection Area consists of an 8-slat panel for selecting and displaying the names of up to eight devices, and two buttons to add or remove devices to or from the list.

Setting options

Before you can select options for a device, you must add them to the Devices panel.

Adding a device

1. Highlight an empty slat.
2. Click the **Add** button to display the devices list window.

   If **Use Object Database** is switched off in the Ancillary Options window (the Button indicator shows black), the list shows all devices (Video Disk Servers and VTRs) currently available on the network.
   If **Use Object Database** is switched on (the Button indicator shows green), the listed devices will be ones which are configured within the object database; any given one of these may or may not be available on the network — the system will check when you select one.
3. Select the device you require by highlighting it and pressing return.
4. Once a device is selected, the list window disappears and the new device name is shown in the Devices panel.

Removing a Device

1. Highlight the slat displaying the device you want to remove.
2. Click the **Remove** button.
3. The button then becomes blank and is free for another device.

Automatic control

Using automatic control it is possible to record from a live feed to more than one destination at once, or to transmit several clips simultaneously. It is also a useful way of copying a clip to different locations.

Playing and recording clips

1. Add the devices you require to the Devices panel and lock them.
2. Route the required sources to the correct destinations.
3. To record, you must create a clip for each device; to play, load a clip to each device. You can execute both operations together providing the resources required are available.
4. Click the **Record** button to record, or the **Play** button to transmit.
5. Click the **Auto Start** button to automatically start all devices. The button text changes to **Auto Stop**.

6. Click the **Auto Stop** button to automatically stop all devices.

Copying (dubbing) a clip to a new location

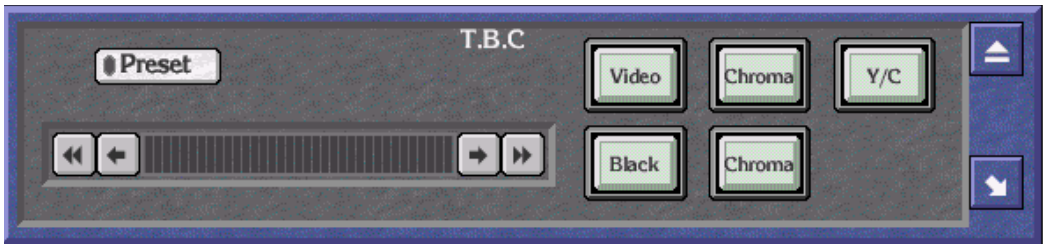
1. Add the destination and source devices to the Devices panel and lock them.
2. Load a clip onto the source device and set the play flag.
3. Create a clip on the destination device (see *Creating a New Clip on a Video Disk Server* *on page 94*), give the clip an appropriate duration and set the record flag.
4. Ensure that you route the source to the correct destination.
5. Click the **Auto Edit** button to automatically start the devices. The button becomes yellow while devices are cueing. The button becomes green once cueing is complete.
6. When the edit is complete, click the **Auto Edit** button.

Note You can execute this action by using the **Auto Start** button. The LMCP always refers to the currently selected device, even if another user has locked the device.

Time Base Correction Panel

If the currently selected device is a VTR, click the **T.B.C.** button (Time Based Corrector) to display the **T.B.C.** window. You can adjust the output levels of the signals by using this panel. Click the scroll bar or the arrows on either side. Move the bar to the right to increase the level. Move the bar to the left to decrease it.

Figure 69. Time Base Correction window



Setting Time Base Correction

1. The **Preset** indicator button shows if the default setting is on (indicator shows green) or off (indicator shows black) and can be selected for individual signals. If a signal is using the preset value, changing this value automatically switches off the preset option.

2. Click the **Video** button to adjust the output level of the video signal. This can be regarded as adjusting the brightness.

3. Click the **Chroma** button to adjust the output level of the chrominance signal. This can be regarded as adjusting the color.

4. Click the **Y/C Delay** button to adjust the Y/C delay. This can be regarded as adjusting the synchronization between the luminance and chrominance.

5. Click the **Black Level** button to adjust the black level. This can be regarded as adjusting the darkest part of the picture, which has reference 'Black'.

6. Click the **Chroma Phase** button to adjust the chroma phase. This can be regarded as adjusting the hue.

Using the Device Control Area

This area of the screen is used to control the device currently selected in the Devices panel. The identity of the device is shown in the label at the top of the Control Area.

The **Guard** button disables all the control buttons. It prevents you operating the controls accidentally; for example, pressing **Stop** when a clip is playing to air. While the button is activated the control buttons are greyed out. The indicator shows green if the device is guarded, and black if it is not.

The **No Media** indicator button shows if a VideoDisk has a clip currently loaded or if a VTR device has a tape loaded. The indicator shows green if the device is empty, and black if it is loaded.

The **Rec Inhibit** button shows if the currently loaded clip can be recorded into or edited. The indicator shows green if recording is inhibited; it shows black if you are able to overwrite or edit the clip.

The **Local** button shows if the currently selected device can only be operated locally. The LMCP enables you to operate a device remotely, but circumstances may be such that a device must be operated locally. For example, an engineer may require it for maintenance purposes. The indicator shows green if the device can only be operated locally; it shows black if you can operate it remotely.

The **Time code Display** window shows the time code status of the currently selected device, even if another user has locked it.

You can use the Clip Progress Bar (located directly below the Time code Display) to move quickly to an approximate position in the clip that is currently playing and pause the clip there.

Transport Control Buttons

The transport control buttons represent the buttons of a video tape recorder: clicking the **Pause** button pauses the currently selected device, clicking the **Play** button plays the loaded clip, and so on. When you click a button it shows white. The button is automatically deselected and shows grey if you click another button. There are shortcut keys for Record, Play, Rewind, Fast-Forward and Stop, which are equivalent to clicking the buttons — see *Shortcut Keys* *on page 142*.

How to Record Using the Transport Control Buttons

CAUTION The procedure you should follow depends on the device you have installed. We describe a typical procedure below, but it may not apply to your installation.

1. From the Devices panel select a device to record to (destination device).
2. Select which tracks to record with the **Recording Mode Selection** indicator buttons.
3. Click the **Lock** indicator button to lock the device if this is required.
4. Click the **Create** button. The system displays a list of clip types.
5. Choose a clip type. The system displays the Filer-Fax.
6. Select the categories you require. See *Filer-Fax* *on page 117* for more information.
7. Save the clip by pressing the **Save** button.
8. Click the **Preview** indicator button to switch it on (button becomes green), or off (button becomes grey) as required.
9. The currently selected device is ready to record. Click the **Record** button to start recording.
10. The LMCP records into the clip you created using whatever source is routed to the destination device.

How the other controls respond

Clicking the **Eject** button ejects what is loaded in the currently selected device; the button shows white. Any information referring to the clip in the Clip Area disappears. If the selected device is a VTR, the tape is ejected.

Clicking the **Rewind** button rewinds the clip that is loaded in the currently selected device; the button shows white. Once rewinding is complete, the **Rewind** button shows grey and the **Pause** button is automatically selected and shows white.

Clicking the **Play** button plays the clip in the currently selected device — the button shows white. Once play-out is complete, the **Play** button shows grey and the **Pause** button is automatically selected and shows white.

Clicking the **Fast Forward** button fast-forwards the clip that is loaded in the currently selected device; the button shows white. Once fast-forwarding is complete, the **Fast Forward** button shows grey and the **Pause** button is automatically selected and shows white.

Clicking the **Stop** button stops the currently selected device; the button shows white.

The **Shuttle Bar** provides incremental control of the currently selected device.

Cue Points Area

The Cue Points Area enables you to recall a clip at relevant points within the clip. The functions of the different buttons are described below.

Using the Cueing Control Buttons

1. Load a clip.
2. Play the clip.
3. Click the **Set** button so it becomes green.
4. Click one of the **Cueing Control** (**M1** to **M6**) buttons to store the time code of a point in the clip. The **Set** indicator button becomes grey.
   (You can pause the clip at the point before storing the time code if you want to.)
5. Click the **Set** button (so it becomes green) and then a **Cueing Control** button for each time code you want to store.
6. While the **Set** button is grey, clicking a **Cueing Control** button pauses the clip at the stored time code.
7. Click the **GoTo** button and enter a time code in the Keypad displayed. The clip pauses at that time code.
8. Click the **In** button or the **Out** button to pause the clip at the marked-in or marked-out point.

Note The Cueing Control buttons store the time codes you allocate to them. The time codes are not stored with the clip, and are only retained during the LMCP session in which you define them. They are lost if you overwrite them or if you switch the OUI workstation off. If you load a new clip, the stored time codes apply to this also.

Ancillary Area

The buttons in the Ancillary Area are used to access specific functions of the LMCP application.

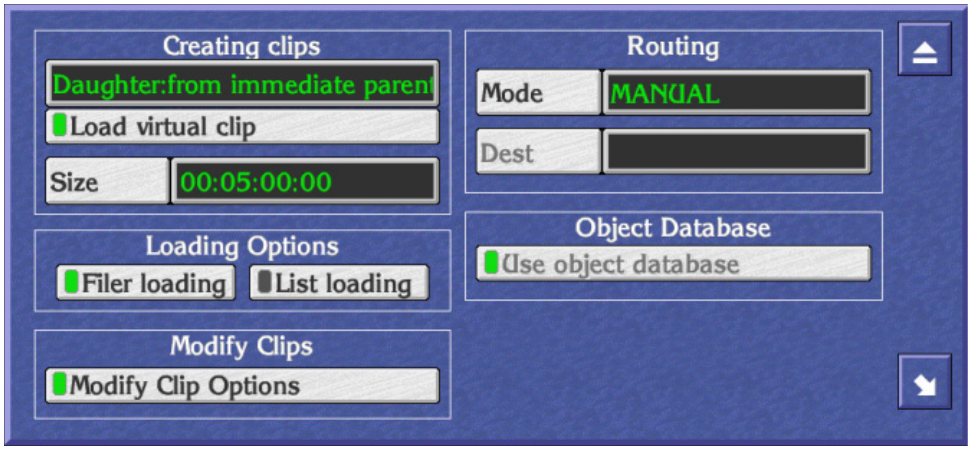
Routing

If any devices in the device panel are loaded with the object database and have their routing information correctly configured, pressing the **Routing** button displays the Local Router Panel; the devices are displayed as Router destinations. A warning message appears if no such devices are loaded.

Options button

1. Click the **Options** button to display the Options window.
2. Click the first button bar to select the option for creating daughter and clone clips.
3. Switch on the **Load virtual clip** indicator if you want to activate this option.
4. Click the **Size** button to set the default duration of a new clip.
5. Select either the **Filer Loading** or **List Loading** option by clicking the respective indicator buttons; an indicator shows green to highlight your choice. (See *Filer-Fax* *on page 117*).
6. Switch on the **Modify Clip Options** button (so its indicator shows green), if you want the system to update the current clip options when you change the clip type. If you do not switch it on, the system leaves the clip options unchanged.
7. Click the **Mode** button to select the routing option required; the selected option is displayed in the button bar.
8. If you select Auto Mode, click the **Dest** button to display the Router Destinations list window and select one of the available router destinations. The one you select is shown next to the **Dest** button. If you select Manual Mode, the **Dest** button is unavailable.
9. Select **Use object database** if you want the LMCP to use the object database — you need special system privileges to change this setting.

Figure 70. Options window

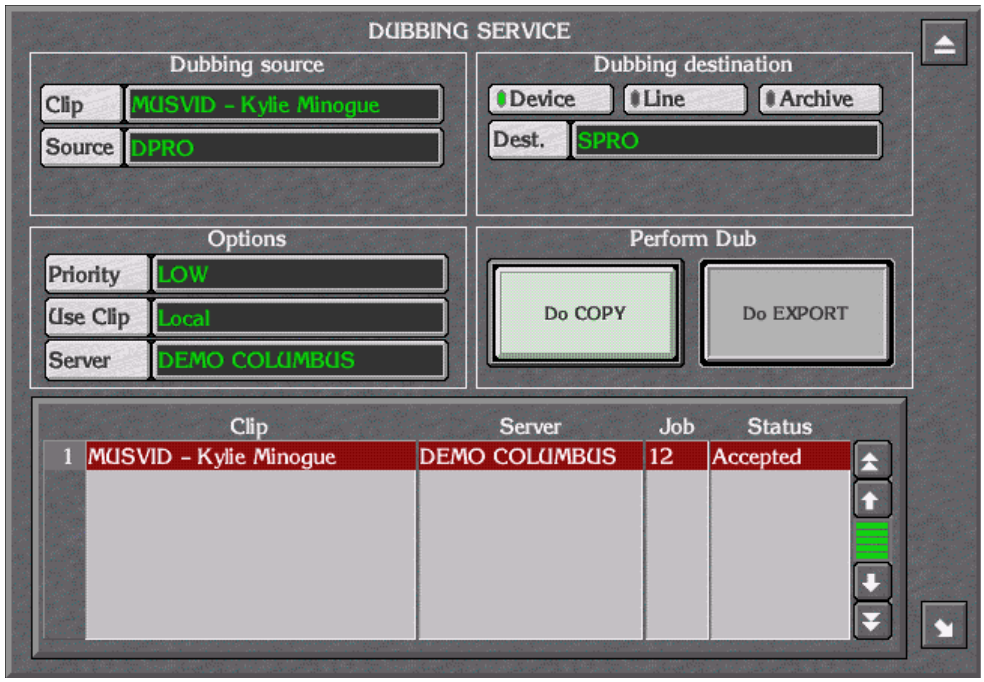


Dubbing Button

The LMCP provides a dubbing function that is only available if dubbing servers (e.g., Transfer Manager) are configured on the Encore system. The Dubbing Service acts as a central coordinator for the automatic transfer of material from one device to another; for example, from a Cart Machine to a VideoDisk Server, or from disk to an archive medium.

The **Dubbing** button shows green if there is a Dubbing Server configured on the Encore system. If there is no Dubbing Server, this button shows grey.

Figure 71. Dubbing Service Window



Use the Dubbing Service window to dub the clip that is loaded on the current device or to dub any other Encore clip.

Selecting a clip and source

1. To dub a clip currently loaded onto an LMCP device:
   In the LMCP Devices panel, select the device from which you want to dub the clip; then set the **Use Clip** button to "From Device". Go to Step 3.

2. To dub any other clip:
   Click the **Clip** button. Filer-Fax displays a list of clips; select one. The system shows the new clip name on the **Clip** button, and its **primary location** in the source field. The **Use Clip** button automatically changes to "Local". If you want to select a different source, click the **Source** button and select one from the displayed list.

3. If the clip is on tape, click the **Group (Source)** button and select the VTR group from the displayed list.

4. Select where you want to dub the clip by clicking one of the buttons:
   Device
   Line
   Archive
   Selecting **Device** displays a list of all devices on the system; select one.

5. Click the **Dest**. button and select a destination.

   If you click the **Archive** button, the system automatically configures the destination.

   a. If you select a VTR device, the **Tape** button appears; click the button and select from the displayed list the tape you want to dub to.

   The system automatically chooses a dubbing server and displays its name next to the **Server** button.

   a. To change the server, click the **Server** button and select from the displayed list.

      If there are no suitable servers or if the source and destination are not fully set up, the system displays "None Suitable" next to the **Server** button.

6. Click the **Priority** button to select the degree of importance of the dub.

7. Click the **Do COPY** button to perform the dub and log the existence of the clip in its new location. The system displays a message window confirming the job number and time when the dub should take place.

   Or

8. Click the **Do EXPORT** button to perform the dub without keeping a record of the dubbed clip.

9. The job list at the bottom of the Dubbing Service box shows details of all current jobs. Jobs automatically disappear from the list as they are completed.

Deleting a Dubbing Job

1. Click the name of the clip in the job list to display the Delete Dub window.
2. Click the **YES** button to delete the job.

Note Once the system executes a dub, the dubbing server cues up and routes the different devices to copy the clip. If you use **Do COPY**, the system updates the Location List to show both the old and new locations of the clip.

Clip Assistant

The Clip Assistant application is an additional feature of the Local Machine Control Panel (LMCP). It allows you to register new tapes in the system, to modify information about existing clips, and to acquire new clip information from tape without the need to claim a device.

Clicking the **Clip Assistant** button displays the Clip Assistant screen. If the **Clip Assistant** button is greyed out, the Clip Assistant is not available on your version of the LMCP.

About Clips

Every piece of media (or stored information), regardless of its duration, is known as a **clip** within the Encore environment. For example, a clip can be moving pictures with sound, a still, a caption, a piece of audio, even a camera position recall. Once a clip has been created, it is stored in the Encore Database, and can be edited and managed using Encore applications. The LMCP is an application designed to deal with moving video and audio. It can be used to create and modify clips.

Clips can be classified as a **Clone**, a **Parent** or a **Daughter** clip.

Clone Clips

Also known as a Copy clip, this is a duplicate of a clip, or part thereof, and can be saved under a different name to that of the original. The original clip can be deleted from the system leaving the clone intact.

Parent Clips

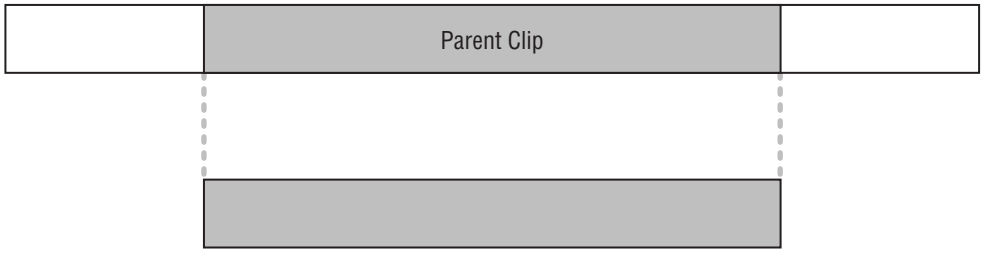
A Parent Clip is the original recorded material (pictures or audio) found on tape or disk. When a Parent Clip is logged into the Encore system, its name has to be specific and unique in order to identify it for future use.

Daughter Clips

There are two types of Daughter Clip.

Type A Daughter Clips are defined by specifying a certain piece of a Parent Clip. This is done with the LMCP by marking a start point (In-Point) and an end point (Out-Point), and saving this information with a new name. The Parent Clip is not re-recorded; only the new In/Out-Points relative to the original Parent Clip are saved along with a new name. If the Parent Clip is subsequently modified or deleted, the Type A Daughter Clip may be lost.

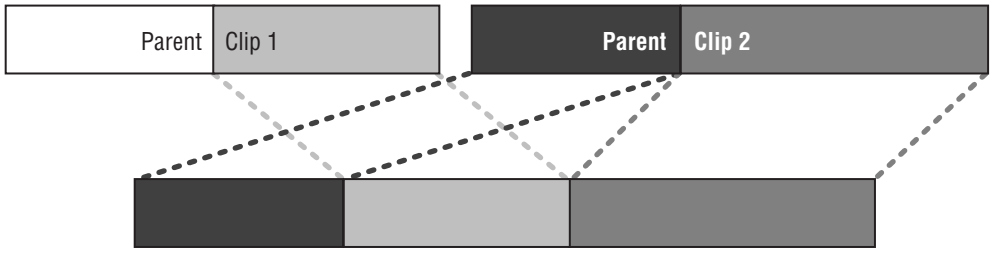
Figure 72. Type A Daughter Clips



Type B Daughter clips are edited pieces of media, made up of a series of different daughter clips sourced from the same, or from different, parent clips. If you delete or modify a parent clip, the daughter clip may be lost.

Note You can't create Type B daughter clips on the LMCP.

Figure 73. Type B Daughter Clips

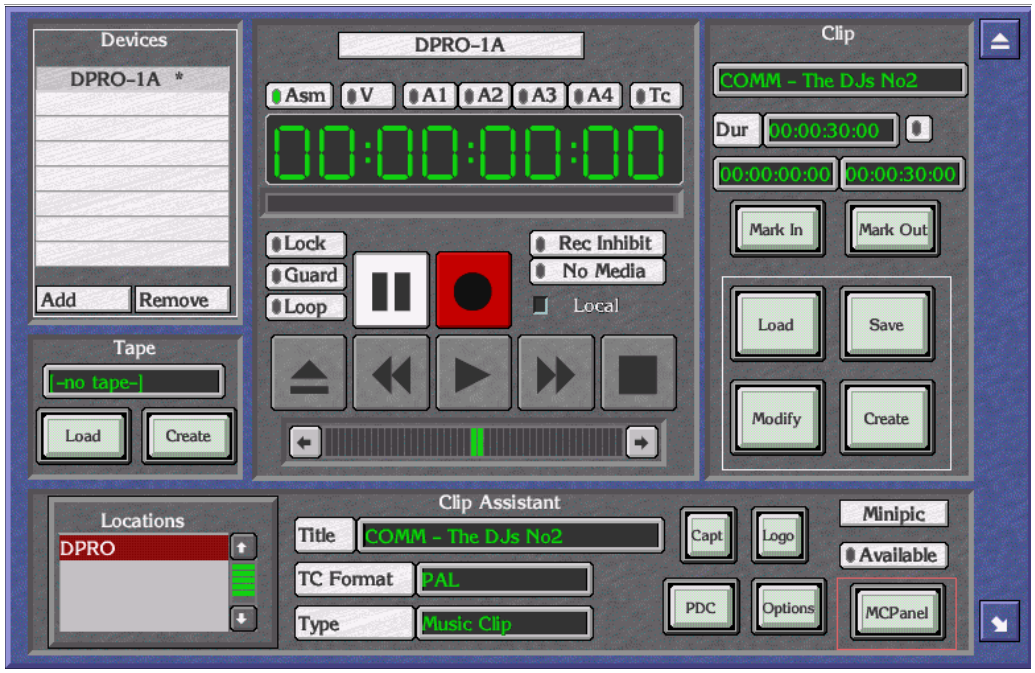


You can access the Clip Assistant from the LMCP; switch between the two applications to use the functions that are appropriate to your work session.

The LMCP Screen with Clip Assistant Active

The Local Machine Control Panel is slightly different when Clip Assistant is activated. The Device Selection Area is reduced to make room for a Tape Area, and the Cue Points and Ancillary Areas are replaced with the Clip Assistant Panel.

Figure 74. Local Machine Control Panel Showing the Clip Assistant active



The Clip Assistant Main Screen has five areas:

- Clip Assistant Devices Area,
- Device Control Area,
- Clip Area,
- Tape Area, and
- Clip Assistant Area.

Note The Device Control Area and Clip Area are identical in appearance and functionality to those areas of the same name on the LMCP Main Screen (see *Clip Area* on page 94).

Clip Assistant Device Selection

The Device Selection Area reduces when you press the **Clip Assistant** button. The area consists of the 8-slat panel for selecting and displaying the names of the devices, and the **Add** and **Remove** buttons. These operate in the same manner and are detailed in *Device Selection and Control* on page 95.

Note The Clip Assistant always refers to the currently selected device, even if another user locks it.

Tapes

Use the Tape Area to select tapes (from the tape database) onto which you can record or mark up additional clips. You can also register new tapes. This window shows the ID of the currently loaded tape.

Loading Registered Tapes

1. Click the **Load** button. The system displays the Filer-Fax in Load Mode. The Filer-Fax shows all tapes that exist in the system.
2. Select a tape in the usual way. The system shows the tape ID in the Tape ID window.

Note The system does not load a tape into a device, just the tape information.

Each VTR device can have a tape loaded. If you switch between VTR devices, the system may show a different tape in the Tape ID field.

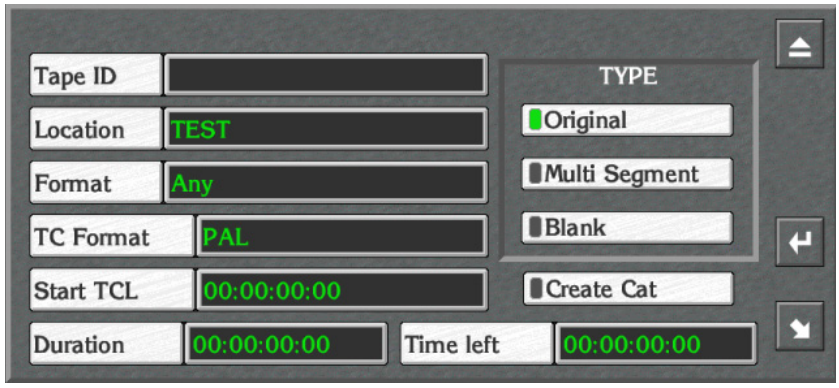
You cannot load tapes onto non-VTR devices. In the case of non-VTR devices, the system displays **[- no tape -]** in the Tape ID field.

The LMCP can process tapes without loading them onto a VTR device. If you want it to do this, select an empty slat (on the device panel) and click the **Load** button. You can then access the tape from any of the blank slats. This tape becomes the primary location for any clips that you save if you don't select a specific device.

Registering a New Tape

1. Click the **Create** button to display the **Register Tape** window

Figure 75. Typical Register Tape Window



2. Click the **Tape ID** button to display the Alphanumeric Keypad. Enter the tape name (max. 31 characters).
3. Click the **Location** button to display the Alphanumeric Keypad. Enter the name of the physical location.

4. Click the **Format** button and select a format from the options displayed.
5. Click the **TC Format** button and select the timecode format to be used.
6. Click the **Start TCL** button and enter the timecode at the start of the tape.
7. Click the **Duration** button and enter the length of the tape.
8. The **Time Left** button shows the amount of time left on the tape.
9. Click **Create Cat** to create a category for the tape.

   The category name will be the same as the tape name. The clips associated with the tape will also have this category. If you do not click this button, the tape and its clips will not have a category.
10. Select the type of tape by pressing the **Original** button, the **Multi Segment** button, or the **Blank** button.

Clip Assistant Area

The Clip Assistant Area contains various parameters associated with the clip — these relate to its later transmission.

Figure 76. Typical Clip Assistant Area

The **Locations** List shows all the locations where the currently loaded clip exists. At the top of this list is the primary location for the clip; i.e., the first location registered for the clip by the Encore system.

Note You cannot delete the primary location. No warning message window is displayed if you click this. If the location is secondary, a warning message window gives the option of deleting the clip from the chosen location.

Amending the details of a clip

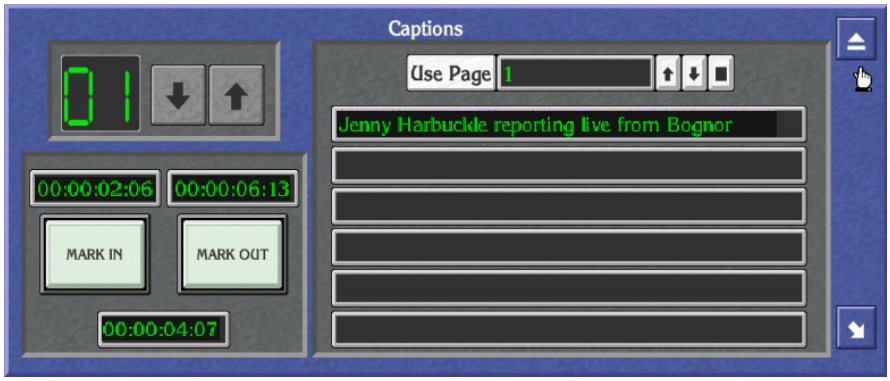
1. Click the **Title** button to change the name of a clip.
2. Click the **TC Format** button and select a timecode format from the options displayed.
3. Click the **Type** button to display the Clip types list window, which allows the type to be changed.

Note Each clip type is associated with a pre-defined set of attributes, which can be viewed and changed by clicking the **Options** button (see *Options button on page 101*).
If the Modify Clip Options button is set to "On" in the LMCP Ancillary Options screen, the system changes all clip options to reflect those of the new clip type.

Captions (Capt.) Button

Clicking the Captions (Capt.) button displays the Captions window.

Figure 77. Captions Window



The Captions window has the following three areas:

- Title Page Selection,
- Mark In / Mark Out Area, and
- Text Area.

Each clip can have up to twelve captions. Click the **Up** and **Down Arrow** icons to scroll through the captions. The green number to the left of the arrows indicates the number of the caption currently displayed.

The window underneath the **Mark In** and **Mark Out** buttons displays the duration of the currently selected caption. The Text Area consists of the **Use Page** controls (at the top), and six text windows for the caption text.

Changing the properties of a caption

a. Click the **Mark In** window to display the Caption In-Point Keypad which enables you to change the in-point of the caption.

Or

Click the **Mark In** button to change the mark-in point to the timecode shown in the large Timecode Display window.

b. Click the **Mark Out** window to display the Caption Out-Point Keypad which enables you to change the out-point of the caption.

Or

Click the **Mark Out** button to change the **Mark Out** point to the timecode shown in the large Timecode Display window.

c. Select a number with the **Use Page** controls to select the corresponding page in the Caption Generator.

d. Click any of the six **Text** windows to display a Keypad that enables text to be added.

PDC Information

The **PDC** button allows Programme Delivery Control category information to be associated with a clip. Each clip has two categories: a Major Category and a Minor Category (which is a subdivision of the Major Category).

Clicking the **PDC** button displays the Current PDC Type window.

Figure 78. Typical Current PDC Type Window

Categorizing Clips

a. Click the **Major Category** button to display the Select Major Category list window.

Once the Major Category has been selected, it is shown on the **Major Category** button. The Select Major Category list window is replaced by the Minor Category list window appropriate to the Major Category selected.

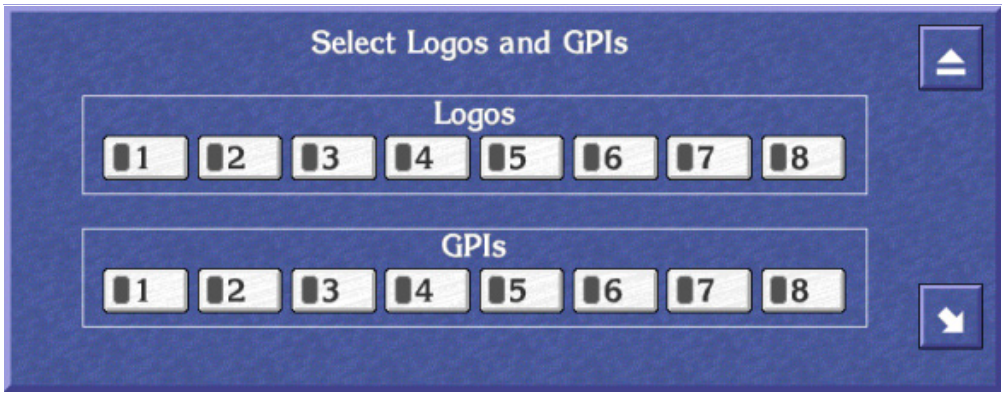
b. Select the required Minor Category. Once selected, it is shown on the **Minor Category** button.

Note If you click the **PDC** button and there is no PDC information associated with the clip (this is set using the **Options** button), the OUI displays a warning message.

Logos

The **Logos** button is used to define set points in a clip for the displaying of Logos or the triggering of General Purpose Interfaces (GPIs). Clicking the **Logos** button displays the Select Logos and GPIs window.

Figure 79. Select Logos and GPIs Window



This window shows eight numbered **Logo** indicator buttons, and eight numbered **GPI** indicator buttons. Each button can be clicked to toggle it on (indicator shows green) and off (indicator shows black). Each numbered button represents a pre-configured logo or GPI, which will be assigned to the current clip if the button has been toggled on. For example, **Logos1** button may be configured to display the station logo for five seconds commencing three seconds after the start of the clip. When the clip is loaded into Columbus, the selections made in the Select Logos and GPIs window are recognized and activated at the required points.

Clip Options

The **Options** button allows various attributes to be associated with the clip. Most of these options are activated when the clip is used by Columbus for transmission. Clicking the **Options** button displays the Select Clip Options window.

Figure 80. Typical Select Clip Options Window

Setting Clip options in Clip Assistant

1. Click the **Use Group** button and select the device group from where the clip is to be played out; e.g., a Video Disk Server or a group of VTRs.
2. Click the **Loop** button to toggle it on (indicator shows green) or off (indicator shows black).
3. Click the **Suppress Logos** button to toggle it on (indicator shows green) or off (indicator shows black).
4. Select the cache option you require: click the **Always Cache**, **Never Cache** or **Hold Cache** indicator button.
5. Click the **Pre Compile** button to mark the clip with the Pre Compile flag.
6. Click the **Delete After Use** indicator button to toggle it on (indicator shows green) or off (indicator shows black).
7. Click the **Archive After Use** indicator button to toggle it on (indicator shows green) or off (indicator shows black).
8. Click the **Mirror** button if you require this option.
9. Click one of the **Audio** buttons (**A1**, **A2**, **A1/A2** or **Mono**) to select the audio option you require.

10. Click the **Use Before** indicator button to toggle it on (indicator shows green) or off (indicator shows black).
    If you switch the button on, a date appears underneath. Click the date and change it to the one you want using the Alphanumeric Keypad.

11. Click the **Use After** button to toggle it on (indicator shows green) or off (indicator shows black).
    If you switch the button on, a date appears underneath. Click the date and change it to the one you want using the Alphanumeric Keypad.

12. Select the **Use Captions** indicator button to use any captions assigned to the clip.

13. Select the **Use Subtitles** indicator button to use any subtitles that have been assigned to the clip.

14. Click the **Widescreen** button to choose the widescreen picture format.

15. Click the **Aspect Ratio** button and select a ratio from the list offered.

16. Select the **PDC** indicator button to transmit this information to Columbus with the clip.

17. Click the **Clip Quality** button and select the quality to be used from the list window displayed.

18. The **Daughter Clip** indicator shows if the clip is a virtual clip.

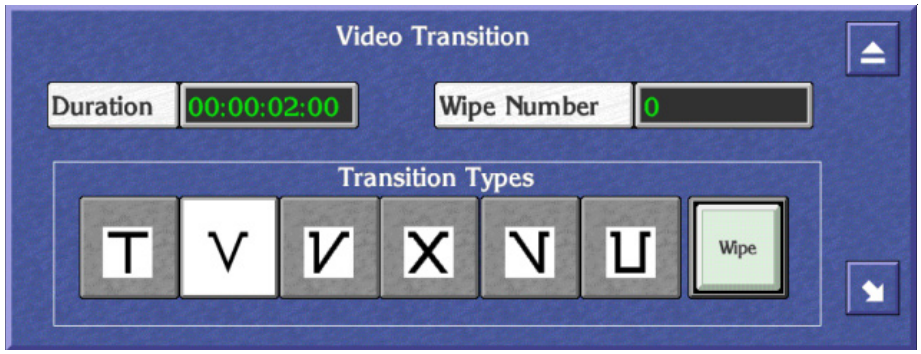
Note The clip quality referred to as 'NORMAL' is the default, and is configured by an engineer to a pre-determined value.

Video Transitions

The Video Transition Area handles the visual way in which the clip begins and how the previous clip ends. The **Video Transition** button shows the type of transition and the small window to its right shows the duration.

Clicking the **Video Transition** button displays the Video Transition window:

Figure 81. Video Transition window



Selecting Video Transition Options

1. Click the **Duration** button to display the Default Duration Keypad. Enter a value for the duration of the video transition.
2. Click the **Wipe** button to activate this option; the button becomes green.
3. Click the **Wipe Number** button to display the Wipe Number Keypad. Enter the number of the wipe effect you want to use with the transition. **Note:** You can only do this if the **Wipe** button is green.
4. Click one of the six **Transition Type** buttons to select a type of transition.

Audio Transitions

The Audio Transition Area handles the way in which the audio tracks on the clip begin and how the audio tracks on the previous clip end. The **Audio Transition** button shows the type of transition and the small window to its right shows the duration.

Clicking the **Audio Transition** button displays the Audio Transition window.

Figure 82. Audio Transition

Selecting Audio Transition Options

1. Click the **Duration** button to display the Default Duration Keypad. Enter a value for the duration of the audio transition.
2. Click one of the six **Transition Type** buttons to select a transition.

Other Transition Options

1. Click the **No video** button to enable or disable the video signal in a transition.
2. Click the **No audio** button to enable or disable the audio signal in a transition.

3. Click the **Split** button to display the numeric Keypad; enter a value for the delay between the in-points of the audio and video signals in a transition.

Available Button

Use the **Available** indicator button to mark a clip as being available for transmission. Click the button to toggle it on (indicator shows green and the clip is available), or off (indicator shows black and the clip is unavailable).

Minipic Button

Use the **Minipic** button to display a still of the current clip at the current timecode. (A minipic server must be available.)

Returning to the standard LMCP layout

Click the **MCPanel** button to return to the standard Local Machine Control Panel display.

Acquiring Media By Scanning

The Clip Assistant can acquire media by scanning barcoded tapes. Two formats are supported: Long Sony Barcode and Odetics.

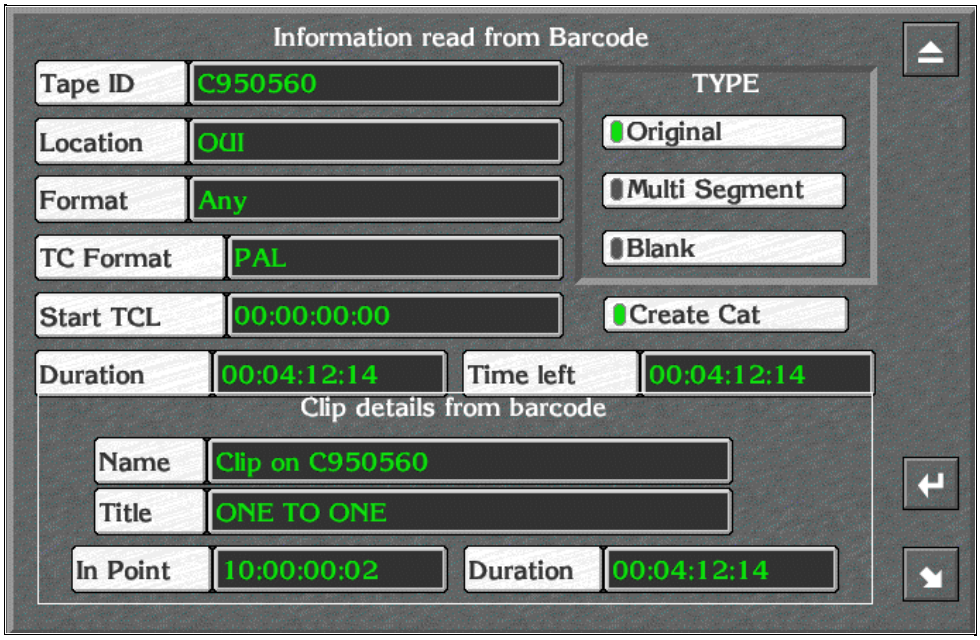
Odetics barcode format only contains the ID number of the tape on which it is located. Thus, only the tape information will be registered by the Clip Assistant.

Long Sony Barcode, as printed by a BVBP-12/14 barcode printer, enables the following information to be acquired by the system:

- Tape ID,
- Tape type (e.g., Multi-segment / Single segment / Other …),
- In-Point, and
- Duration.

Scanning the tape causes the following window to appear.

Figure 83. Typical Information Read From Barcode Window



The top area of this window is identical to the Register Tape window in both appearance and functionality. Relevant information from the barcode scan is shown on the buttons. The bottom area, labelled Clip details from barcode, shows the registered clip details (this only applies if the tape is single segment).

Changing the Clip Details

1. Click the **Name** button to display the Enter New Clip ID Alphanumeric Keypad; using this you can change the clip ID.
2. Click the **Title** button to display the Enter New Clip Title Alphanumeric Keypad; using this you can change the title.

Exiting the Clip Assistant

You may exit the Clip Assistant or the LMCP at any time by clicking the Eject icon in the top right corner of the screen.

Memory of the Clip Assistant and the LMCP

When you switch off the OUI workstation the system saves all of the LMCP settings.

Exiting the Local Machine Control Panel

You may exit the LMCP at any time by clicking the **Eject** icon in the top right corner of the screen.

Memory of the LMCP

When you switch off the OUI workstation, the system saves all of the LMCP options.

Remote control of the LMCP

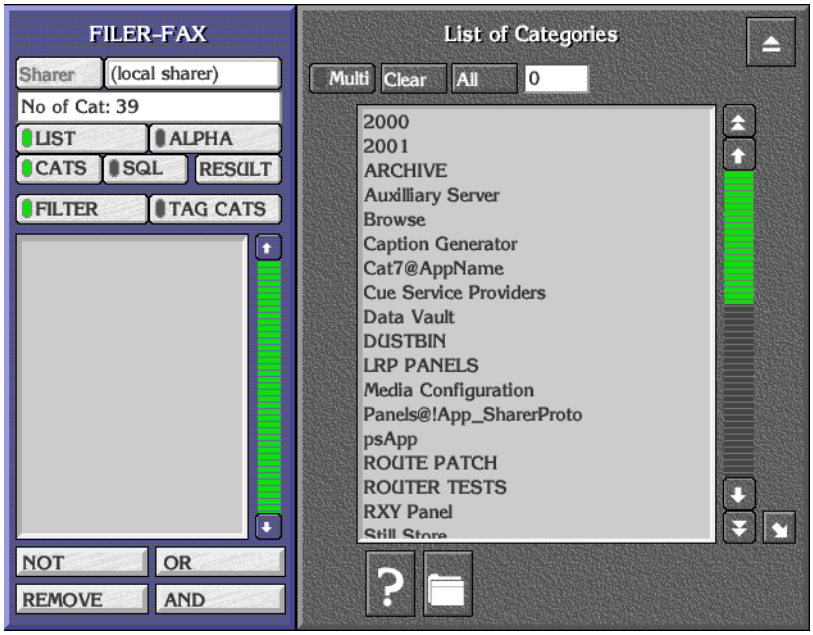
Another application such as Lines Record may remotely open an LMCP display with devices that it chooses. When it does, it displays an **alt** LED at the top of the device selection panel and disables the Add button. Devices already in the LMCP are not removed. You can return the original LMCP display either by clicking the LMCP icon on the Task Bar or by pressing the up arrow key on the keyboard.

Filer-Fax

Filer-Fax Overview

The Filer-Fax enables you to manage clips and other files on your Encore System. Use the Filer-Fax to filter and select clips to load via the LMCP.

Figure 84. Typical Main Screen



The Filer-Fax Main Screen has:

- A filter window and control buttons on the left.
- A list window (showing either categories or files) on the right.

Opening Filer-Fax

Click the Filer-Fax icon on the OUI Task Bar to load the Filer-Fax.

Multi-Domain Networks

A multi-domain network is a network with more than one Sharer. In a multi-domain network, you can use Filer-Fax to manage the files that reside on Sharers other than your local Sharer; that is, files in other domains.

To work with the files on a particular Sharer, click the Sharer button. Select a Sharer from the list displayed by the application.

File-Maintenance Mode

The Filer-Fax opens in file-maintenance mode. It displays a screen which is used to show files from selected categories and to perform file-management tasks; for example, tagging files to certain categories. Through the use of filters it is possible to select files with similar properties.

Filtering

You can view certain types of file by specifying categories. This is known as filtering and is done by applying Boolean Logic to the categories. You use the Boolean operators AND, OR, and NOT to define the filter; these appear in the filter window between '<' and '>' symbols. The following example illustrates filtering.

Suppose only three files and three categories exist, and the files are tagged to the categories as shown in this file categorization example.

		News	Sport	1997
Files	Clip A	X	X	X
	Clip B	X		X
	Clip C		X	X

The following table shows examples of filters you could create and the corresponding files which would be displayed.

Filter Applied	Files Displayed
1997	Clip A, Clip B, Clip C
News <AND> Sport	Clip A
News <OR> Sport	Clip A, Clip B, Clip C
News <NOT> Sport	Clip B

An example of a more complex filter is:

```
News <AND> 1997 <NOT> Sport <OR> Travel
```

This displays all News stories from 1997, apart from Sport, and all Travel stories.

Note The application interprets the filter logic from left to right (or from top to bottom as the categories appear in the filter window).

The simplest filter is a single category. From the List of Categories, you select one by: either double-clicking it; or highlighting it and pressing the **Enter/Return** key on the Keyboard. The files tagged to that category appear in the File Maintenance window.

You can modify the filter by displaying the List of Categories, highlighting the required category, and clicking a **Logic** button.

Note The system automatically tags some files to certain categories, depending on the file type and the application used to create the file. It is not possible to remove a system category from the filter if it has been added by an application.

Automatic Filters

The **DUSTBIN** and **ARCHIVE** categories are used in a special way. They are automatically added to every filter by default, and are preceded by the logical flag <NOT>. So the filter always requests the files not dustbinned and not archived. Archived files appropriate to the filter can be added to the File List by switching on the **ARCHIVE** button in the File Maintenance window.

Note The **DUSTBIN** and **ARCHIVE** categories can also be added to the filter by explicit instructions from you; e.g., if you wish to view only the archived files which match the filter, you must add <AND> ARCHIVE to the filter.

Filter and Tag-Cats Modes

You can toggle the **FILTER** and **TAG CATS** buttons to show two different views of the database; this enables you to tag and untag files to and from different categories.

Logic Buttons

When you select a category and add it to the filter using the **NOT** button, <NOT> precedes the category in the filter. (You can also use the '-' key on the Keyboard as a shortcut.)

When you select a category and add it to the filter using the **OR** button, <OR> precedes the category in the filter.

When you select a category and add it to the filter using the **AND** button, <AND> precedes the category in the filter. (You can also use the '+' key on the Keyboard as a shortcut.) By default the first category added to the filter is preceded by <AND>.

The **REMOVE** button removes any categories highlighted in the filter window. Double clicking this button clears the filter window.

The **LIST** and **ALPHA** buttons change the viewing format of the file and category lists. Selecting **LIST** formats each list in a plain alphabetical sequence. Selecting **ALPHA** adds **Alpha-Selection** buttons to help you navigate through the list. You can toggle between the two formats by clicking the **LIST** or **ALPHA** button; the button indicator shows green to highlight your choice.

Note Clicking an **Alpha-Selection** button displays items beginning with the letters on that button; e.g., the **CD** button displays an alphabetical list of items beginning with the letters 'C' and 'D'. You can also use the Keyboard to navigate through the list.

Managing Categories with Filer-Fax

Use the Filer-Fax buttons to manage categories:

CATS — select the categories you require from the List of Categories. Use the logic buttons (**NOT**, **OR**, **REMOVE**, **AND**) when you select multiple categories.

Clear — cancel all selections.

Multi — highlight more than one item in the list.

All — highlight all items in the list. The system displays the number of items you've selected in the window next to the button.

Request Information icon (**F2**) — display the File Information window (single selection only).

Create Category icon (**F6**) — name a new category (Category List Window only).

Archive button (indicator shows green) — add archived files to the file list.

Tag/UnTag icons — tag selected files to/from categories.

Searching for Files Using Filters

1. Click the **FILTER** button.
2. Click the **CATS** button to show the List of Categories.
3. Select categories to include in the filter; combine them by clicking logic buttons.

   The File Maintenance window appears showing the file list that results from applying the filter.
4. Click the **CATS** button and the **RESULT** button to toggle between the List of Categories and the File Maintenance window on the display.

Note If you only want to use one category in the filter, double-click its name in the List of Categories while there is no other category in the filter. The File Maintenance window appears automatically, showing the files tagged to that category.

Tagging Files to Categories

When you select the filter mode (the **FILTER** button indicator shows green), Filer-Fax uses the filter shown in the filter window to produce a list of files in the File Maintenance window. You can then select files from this list and tag them to the categories included in the other filter (which you define for the *tag-cats mode*).

1. Click the **TAG CATS** button.
2. Click the **CATS** button to show the List of Categories.
3. Select one or more categories to which you want to tag files. These appear in the filter window on the left.
4. Click the **FILTER** button.
5. Click the **CATS** button to show the List of Categories.
6. Select categories and use logic buttons to define a filter; this should give you a list of files in the File Maintenance window that includes the one(s) you want to tag.
7. Select one or more file(s).

Note Clicking the **Multi** button enables you select more than one file.

8. Click the **Tag** button.

Note Each time a filter definition changes, the File Maintenance window appears showing the file list that results from applying the filter. Click the **CATS** button if you want to see the List of Categories; click the **RESULT** button to show the file list.

Untagging Files from Categories

When you select the tag-cats mode (the **TAG CATS** button indicator shows green), the File Maintenance window shows a list of files tagged to the categories shown in the filter window. You can select files from the list and untag them from these categories.

1. Click the **TAG CATS** button.
2. Check the File Maintenance window appears; if necessary, click the **RESULT** button.
3. Select one or more files you want to untag.

Note clicking the **Multi** button enables you to select more than one file.

4. Click the **Untag** button.

Finding File Information

1. Select a file.
2. Click the **Request Information** button (the one with the question-mark icon) to display the File Information window; alternatively, press **F2** on your keyboard.
3. Use your keyboard if you want to enter information in the Notes window.

Previewing a File

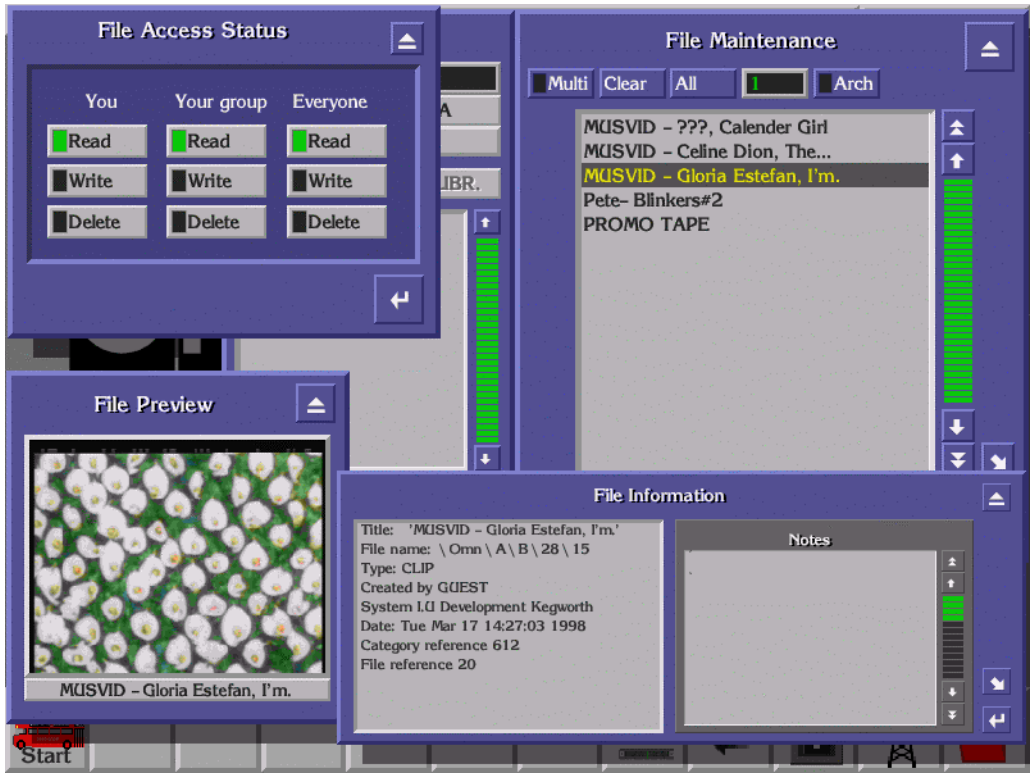
1. Select a file.
2. Click the **Preview** button (the one with the screen icon) to view a MiniPic in the File Preview window; alternatively, press **F4** on your keyboard.

Security

1. Select a file.
2. Click the **File Security** button (the one with the padlock icon) to display the File Access Status window; alternatively, press **F5** on your keyboard.
3. Click the **Delete** buttons to select deletion rights for the file.

You can view the File Information, File Preview and File Access Status windows simultaneously by sizing and moving the windows to suitable positions on the screen. The information changes as you highlight different files in the File Maintenance window.

Figure 85. Typical Screen Showing Simultaneous Viewing



Deleting Files

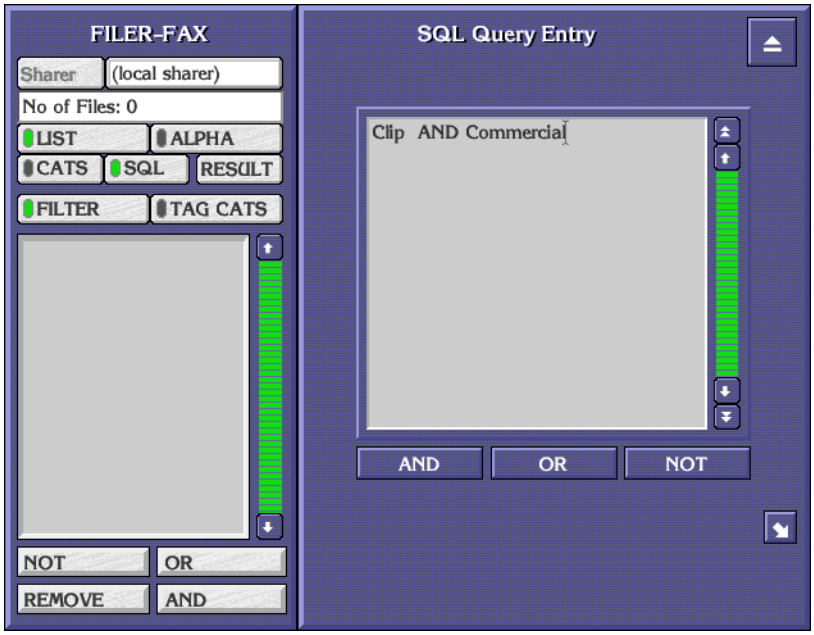
1. From the file list select the file(s) you want to put in the dustbin.
2. Click the DUSTBIN icon (or press **F1**).

SQL Search

Use the **SQL** button to perform a keyword search. The system searches for and displays files that match a keyword that you enter. You can use the AND, OR and NOT buttons to narrow the search.

1. Select the filter mode: click the **FILTER** button.
2. In the filter window define the filter you want to use for the search.
3. Click the **SQL** button to display the SQL Query Entry window.

Figure 86. SQL Query Entry Window



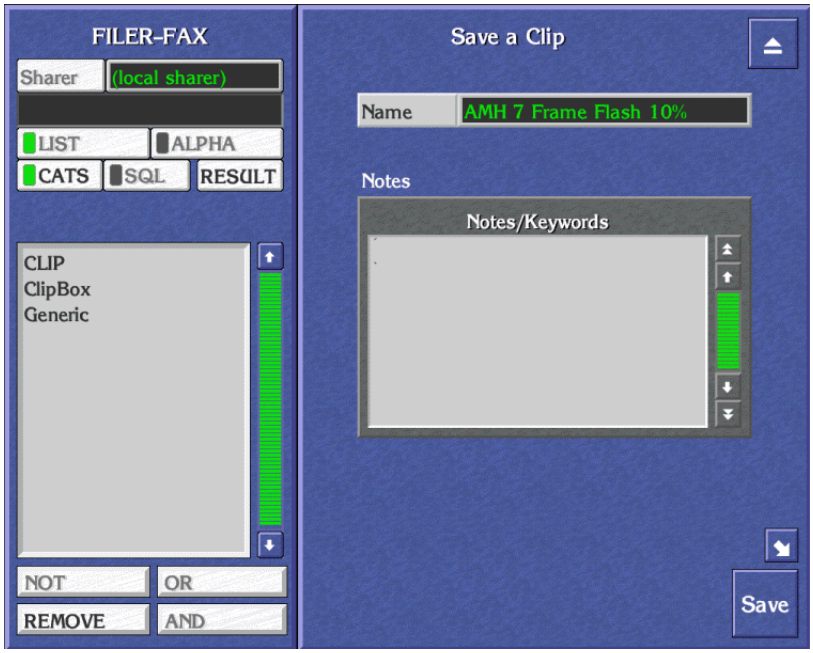
4. Enter one or more keywords in the window; link them with the logic operators (AND, OR, NOT).

5. Click the **RESULT** button. Filer-Fax performs the search and displays the result in the File Maintenance window.

Save Mode

When saving a file from within another application, the Filer-Fax displays the Save Screen. The filter window shows the categories to which the file is tagged; the Save Area is displayed on the right.

Figure 87. Typical Save Screen



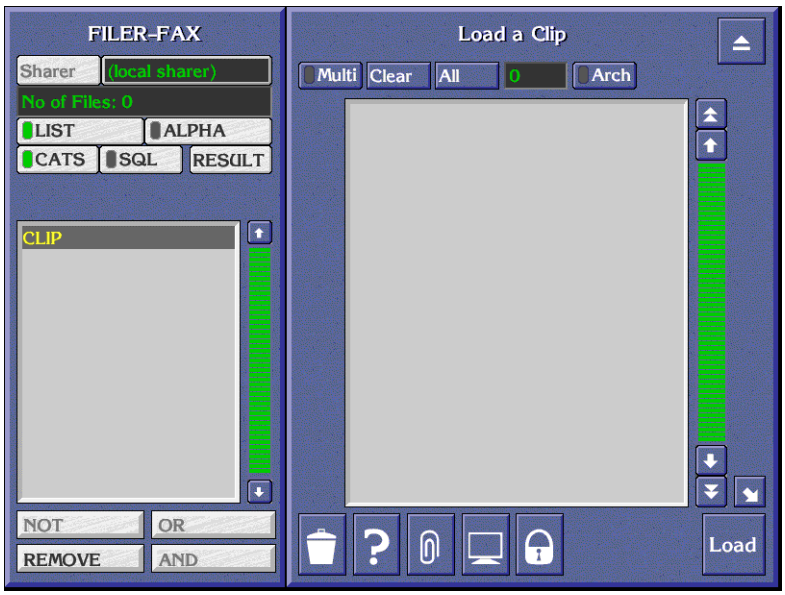
Saving a file

1. Click the **Name** button.
2. Enter a name on the displayed Keypad. The system displays the name on the **Name** button.
3. In the Notes Area, enter any useful information you want to associate with the saved file. You can tag further clips to the category if you want.
4. Click the **Save** button to save the file. The Filer-Fax Save Screen disappears.

Load Mode

When you load a file while using an application the Filer-Fax Load Screen is displayed.

Figure 88. Typical Load Screen



Loading a file

1. Find the file you want to load using the filter if necessary (see *Filtering on page 118*) and highlight it.
2. Click the **Load** button.

Exiting the Filer-Fax

You may exit the Filer-Fax at any time by clicking the Eject icon in the top right corner of the screen.

Filer-Fax Memory

If you exit the Filer-Fax or switch to another application, some details are remembered by the Filer-Fax (unless the OUI workstation is switched off):

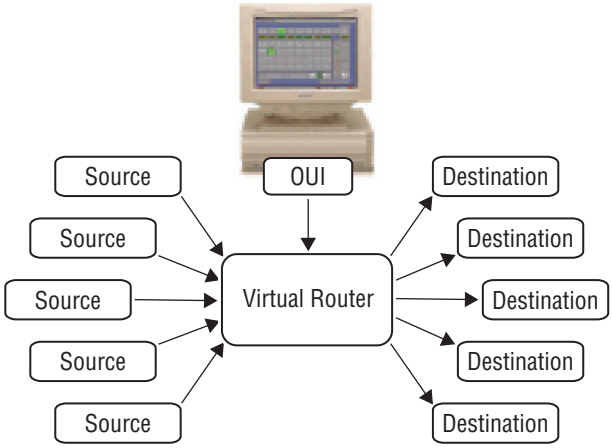
1. If the List of Categories or the File Maintenance List is displayed, and the items in the list.
2. If the **ALPHA** indicator button is selected and an **Alpha-Selection** button.
3. Whether the **FILTER** or **TAG CATS** button is selected.
4. The categories displayed in the filter.

Local Router Panel (LRP)

Routing Overview

The routing diagram in Figure 89 illustrates how the LRP on an OUI workstation is used to determine Source-to-Destination routes via a Virtual Router.

Figure 89. Simplified Routing Diagram



Tie Lines

Tie Lines are dedicated communication channels, which may include, as an example, signal conversion equipment for analog-to-digital conversion. Sources and Destinations which are connected to different Area Routers have to be connected Source-to-Destination via Tie Lines. Connections may involve more than one Tie Line, especially if signal conversion is required. Allocation of Tie Lines and any associated conversion requirements is dealt with automatically by the Router Tie Line Management Service Application.

When a Destination is selected, the Ultimate Source currently routed to that Destination is shown on the **Under Monitor Display (UMD)**, and the Source Bank containing that Source is displayed. The signals (levels/layers) routed are shown in the Breakaways Area.

Note The Ultimate Source is the origin of the route path, rather than the identity of some intermediate Tie Lines that are being used to convey the routing.

If the Source shown on the **UMD** is green, the signal is being routed directly from Source to Destination, (i.e., there is no need for any signal conversion).

If the Source shown on the **UMD** is yellow, a Tie Line is being used to make the route. Clicking the selected **Destination** button will highlight in yellow the Tie Line used on the Source Bank; you can toggle between the Source and Tie Line(s) used by repeatedly clicking the **Destination** button.

The number of available Tie Lines is often small, and the yellow highlighting on the **UMD** serves to remind the user to release the route (and make it available to other users) when it is no longer required.

Greyed-out Source Buttons

Sources which are not on the same Router Control Device as the destination are shown on the **Source Bank** buttons as dimmed grey in color, as are sources which are being used at other OUI workstations. Tie Lines are therefore required to make the route in these cases.

Breakaways and Interlevel Routing

Breakaways route levels when a destination requires more than one source. For example, the video signal can be routed from one source, and the audio signal from a different source. All the types of levels (e.g., SDV, Audio 1/2) which are provided by all available sources are listed in the Breakaways Area.

Local Router Panel Overview

The Local Router Panel (LRP) allows the user to 'route' video and/or audio signals from devices on the network to monitors, or to other devices. A route is made between a Source (e.g., a camera, a VTR, or a down-the-line feed) and a Destination (e.g., another VTR, a monitor, or an external broadcast system). Sources and Destinations can be configured by a System Administrator to suit the needs and roles of specific users.

Figure 90. Typical Local Router Panel - Main Screen

The design of the Local Router Panel mimics a traditional Multi-Destination Hardware Panel. It can be accessed from a workstation, and can therefore be used in conjunction with other applications running on the workstation. There are two versions of the LRP.

- The Standard LRP allows one of four 8-Destination screen panels to be displayed at any one time, with valid Sources for the specific Destinations being displayed as pages of 32 Source buttons. The Destinations are configurable from the Encore Network's Virtual Database.
- The Enhanced LRP also allows the Source banks to be configured, thus allowing a particular OUI workstation to be restricted to a limited set of Sources within the Encore Network. Route Salvos, Interlevel Routing, Park and Preview are also options available on the Enhanced version.

Opening the Local Router Panel

Click the **Local Router Panel** icon on the OUI Task Bar.

Using the Local Router Panel

Destinations and Sources

Once the LRP has been set up, the destination panel displays the names of up to eight destinations on a row of indicator buttons. Below each **Destination** button there is an Under Monitor Display (UMD), which shows the ultimate source currently connected to that particular destination.

The source bank is a block of thirty-two indicator buttons that display sources; the source currently routed to the selected destination is highlighted in green.

Move the mouse pointer over a **Source** or **Destination** button to view the full name on the help bar at the top of the screen. Any **Source** buttons that are blank are not applicable to the currently selected destination.

Setting up the LRP

1. Click the **Option** button at the bottom of the screen and select the Config mode.
2. Left click on the **Destination** button you want to configure and open the folder in the list window displayed.
3. Select the destination from the list offered and click the **return** icon.
4. Repeat for each button you wish to set up.
5. Close the config window and the options window.

Selecting a Destination and Source

1. Click the appropriate **Destination** button; the button will be highlighted green.
2. Click the required **Source** button.
3. Or click the **UMD** and select a Router Source from the list window displayed.

Note Certain destinations may be configured as being 'protected' by the System Administrator. A warning message window is displayed if you attempt to route a Source to a protected destination, and you are required to either confirm or abort the route.

Each destination can be locked to its current source by clicking the **LOCK** button, which is then highlighted green. The route to the destination cannot be changed until the lock is removed; this is achieved by clicking the green highlighted **LOCK** button. The **LOCK** indicator button serves only as a

warning to other users that a destination is in use, and locked destinations should be unlocked as soon as they are no longer required. The destination can be unlocked by any user.

Destination/Source Navigation Controls

An OUI workstation can be configured to show up to four destination panels. These can be selected using the **Destination Panel Selection** buttons, the button indicator showing green to highlight your choice.

Different source banks can be displayed by using the **Source Bank Navigation Controls**, the number of banks depending on the overall system configuration. These controls are used primarily to find and select destinations and sources.

Finding and Selecting Destinations and sources

1. Click the **Up** and **Down Arrow** buttons to scroll through the **Source Banks**.

   Or

2. Click the Bank Display window and select the bank you require by name.

3. Click the Router Area window and select a specific router from the list window displayed.

The Breakaways and Interlevel Routing Panel

The Breakaways Area allows you to do the following:

- Monitor which route paths are connected to the currently selected destination and from which source.
- Establish Breakaways, i.e., select the levels and route them through the channels required.

The **Show Sources** indicator button allows you to identify the source of each of the levels connected to the selected destination. When the button is toggled on (indicator shows green), the names of the sources currently connected to the selected destination are shown on the **Next State** indicator buttons; the levels which are not connected are greyed out.

When the button is toggled off (indicator shows black), the **Next State** indicator buttons show the names of the levels.

The **Current State** indicators show the status of the levels of the currently selected destination. These indicators are highlighted in different colors as follows:

Green — The level is connected between the source and the selected destination.

Red — The level is broken away, i.e., the level is being provided by a source other than that shown on the UMD below the selected destination.

Black — The selected destination does not provide for the input of this level type.

Yellow — An interlevel routing has been established.

The **Next State** indicator buttons display the names of the levels. They can be toggled (by clicking them) and are highlighted in different colors with the following significance:

Green — Connect this level to the selected destination when the next source is selected; the current destination supports it.

Red — Connect this level to the selected destination when the next Source is selected; the current destination does not support it.

Black — Do not connect this level to the selected destination when the next source is selected.

Clicking the **Up** and **Down Arrow** buttons allows you to scroll through up to sixteen levels. If the arrow button is grey, then you can scroll no further in that direction.

Interlevel routing is only available on the Enhanced LRP. It provides the ability for Source levels to be swapped when routing to a destination. The Interlevel routing panel is operated in the same way as the Breakaways.

Note The **Next State** indicator buttons in the Breakaways Area reflect the status of the **Destination Interlevel** buttons.

Activating Interlevel Routing

1. Select the Config mode from the Options window.
2. Click the **Inter** indicator button and enable the option in the window displayed.
3. Clicking the **Inter** indicator button toggles it on (indicator shows green), and off (indicator shows black). When this button is toggled on, clicking a **Source** button will display the **Interlevel Routing** window.
4. The **Interlevel Routing** window displays all the source and destination levels applicable to the routing in two columns. The levels that are connected to one another are shown side by side in the columns.
5. Once the levels have been set, clicking the **Route** button causes the Interlevel Routing window to disappear and executes the routing. The **Current State** indicator buttons in the Breakaways Area show yellow to reflect the interlevel route.

Figure 91. Interlevel Routing Window; Sources in the Left Column, Destinations in the Right

Global Routing

Global routing provides a quick and simple way of selecting a destination and source from the entire list of those available.

Using the Global X Button to Set a Route

1. Click the **Global X** button to display the Router Destinations list window, select a destination. Once selected, this destination then appears on the **Global X/Y** indicator button, highlighted in green.

2. Click the Under Monitor Display (UMD) below the **Global X/Y** button to display the Router Sources list window from which a source can be selected. The Source then appears on the UMD. The X/Y routing remains established until it is changed or until the OUI workstation is switched off.

Options Bar

The Options Bar allows the user access to functions available only on the Enhanced LRP.

Note Moving the mouse pointer over the center of the Options Bar displays the version number of the Enhanced LRP on the Help Bar. This version number has no relevance to the OUI version number of this Reference Guide.

To Preview a Route

1. Click the **Preview** button to toggle it on (button shows green).
2. Click and hold a new **Source** button to route to the new source. The source button will turn red whilst in preview mode.
3. Release the new **Source** button to revert to the initial source.

Note You cannot preview a protected source. Attempts to do so will cause a message window to be displayed, informing you that previewing is not possible.

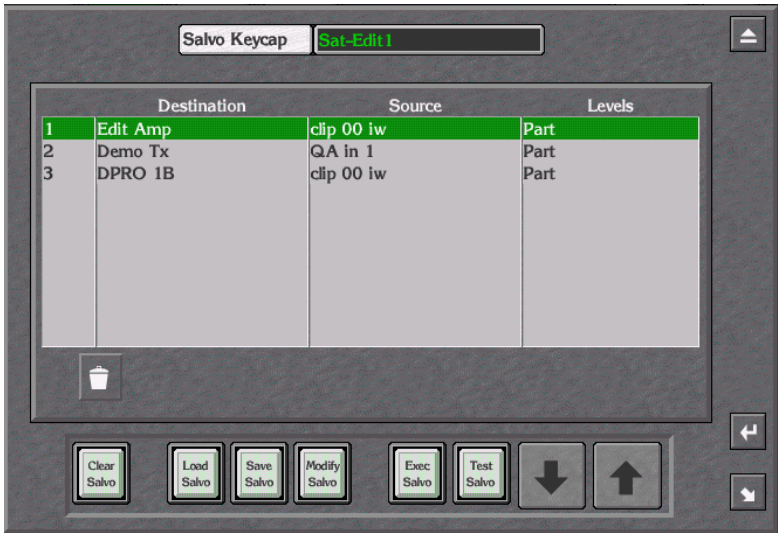
Using the Park option

1. With the destination selected, click the **Park** button.
2. The destination will be parked, and the UMD below will display **Parked** thus freeing the source without losing the destination.
3. To route a source to a parked destination, select the source.
4. Left click the UMD display relevant to that destination and select new source from the list window displayed.

Setting up Salvos

1. Click the **Salvos** button to display the Salvos window.

Figure 92. Salvo window



2. Click **Load Salvo** to edit an existing salvo; **Delete Salvo** to delete the currently loaded salvo; or **Clear Salvo** to clear any loaded salvo and create a new one.

3. Click the **name** label and enter the new name on the Keypad displayed. Press the return key when finished.

4. Click the **Dest** column and select the destination required. You may need to open the folder to see the entire list of destinations available.

5. Click the **Source** column and select the source required. Again, you may need to open the folder to view all the sources available or scroll back to the top of the list window.

6. Click in the **Levels** column of the Salvos window and select the level required from the window displayed.

7. Click the **Save Salvo** button to save new salvo, or the **Modify Salvo** button to save any amendments that have been made.

Assigning a Salvo to a Button

1. From the LRP select options and load **Config Mode**.

2. Click the button to represent the salvo.

3. Select salvo from list and press the **Return** icon, or select **Load new local salvo** and select, using the Filer-Fax window displayed, in the usual way.

4. Repeat for each salvo you want to load.

5. Close Configuration window and LRP configuration window.

Updating Salvos

Salvos are not dynamically updated. If you change a salvo in the router configuration, you must update the Sharer's database manually using the following procedure.

1. In the Router Control application, click the Config button on the Main Menu.

2. Click the Modify button in the Load Save section of the window.

3. Click the Commit Changes in the Network section (on the left) of the window.

4. Click the Re-Sync Comms button in the Hardware section (on the right) of the window.

5. Click the Router button in the Hardware section (on the right) of the window.

6. Click the Matrix button in the Hardware section (on the right) of the window.

Other Operations for Salvos

Clicking the **Execute Salvo** button causes all the routes defined in the Salvo to be connected.

Clicking the **Test Salvo** indicator button toggles it on (button shows green), and off (button shows grey). When the button is green, all the routes defined in the Salvo are connected - the routes defined in the Salvo are returned to the previous state when the button is grey.

Clicking the **Page-Down** and **Page-Up Arrow** button scrolls down and up through the pages of routes defined in the Salvo. If the **Arrow** button is grey, then you can scroll no further in that direction. A white **Arrow** button signifies that more pages exist.

Using Salvos for Frame-Accurate Takes

For frame-accurate Takes, you can send a Salvo with a timestamp to the router controller. This can be made even more deterministic by supplying both the router controller and clients with a VITC time-code reference. A routing client can send a Salvo of Takes to a router controller up to 512 frames before the Takes should occur. Advanced scheduling capabilities require an automation system.

Requirements

- Matrices attached to the router controller must support at least 38,400 baud serial connections for any degree of determinancy; 115K baud is recommended.
- For the highest degree of determinancy, the router controller must have a VITC card connected to a stable VITC feed. The router controller supports PAL, NTSC, and NTSC drop-frame formats.
- All Router Controller and Tie Line Manager logging options must be disabled for optimal deterministic performance. Enabling logging to disk will seriously degrade deterministic performance and can fill up a hard disk quickly.

  To Disable Router Logging...

  a. Open the Router application in the Encore OUI.

  b. Click the **Config** button on the Main Menu.

  c. Click the **Logging** button.

  d. In the Logging Options dialog which appears, toggle the logging options off and close the dialog.

  To disable Tie Line Manager logging...

  a. Open the Tie Line Manager application in the Encore OUI.

  b. Click the **System** button on the Main Menu.

  c. Click the **Full Logging** button.

d. In the Logging Options dialog which appears, toggle the logging options off and close the dialog.

Limitations

These limitations are dependent on third-party matrices attached to the router controller. Limitations will vary by manufacturer, model, and configuration. Field tests should be performed on third-party equipment if maximum loading parameters are required.

- The number of takes that can be executed in a single frame is limited by the bandwidth of the serial communications channel between the router controller and the attached matrix.
- The number of takes that can be executed in a single frame is also limited by the speed with which an attached matrix can respond to, and acknowledge Take commands.
- If the router controller is heavily loaded with Take commands, determinism of timestamped Takes may be affected, although timestamped takes do take priority over non-timestamped Takes.

LRP Options

Clicking the **Options** button displays the LRP Options window. This window contains two indicator buttons which can be toggled on and off by clicking them. The indicator shows green when the button is on, and black when the button is off.

Setting LRP options

If the **Alpha Sort Lists** button is on, all the list items in list windows subsequently displayed can be ordered alphabetically.

Selecting **Expand All** will expand all Router areas when a list window is opened. Selecting **Expand Local** will expand only the router Area for the currently selected destination.

The Source alias options display the alias names as selected. This can be either on the Keycaps or the UMD's, neither or both.

Clicking the **Config Mode** button will display the LRP configuration window.

Source Aliases

The **Aliases** button allows you to give the source buttons alternative names.

Naming Sources with Aliases

1. Click the **Alias** button, scroll down to find the source to name.
2. Select the source and click the **Return** icon.

3. Enter alias name and click return icon to action changes.

Remote control of the LRP

Another application running on the same OUI workstation may remotely open an LRP display. When it does, the LRP behaves normally but with a different set of router destinations. To return to the standard LRP set-up, click the LRP icon on the Task Bar.

Exiting the Local Router Panel

You may exit the Local Router Panel at any time by clicking the Eject icon in the top right corner of the screen.

OmniPager

Overview of OmniPager

The Local OmniPager is a standard feature on every Encore Operational User Interface (OUI) workstation. It is a very simple mailing system that enables OUI workstation users to send and receive short messages via the Encore Network. Messages can be sent according to the category of the required destination(s): Station, User, Area or Broadcast.

Station — message is sent to a specific OUI workstation, regardless of who may be currently logged on there.

User — message is sent to an individual user at whichever OUI workstation that user is logged on.

Area — message is sent to all users at OUI workstations within a predefined or pre-configured work area.

Broadcast — message is sent to all OUI workstations on the Encore Network.

The configuration of OUI workstations according to their specific work areas and their individual identities is established by the System Administrator.

Note The Local OmniPager does not use mailboxes and does not keep a record of transmitted and received messages. It does not advise the sender if the destination OUI workstations are switched on or if the intended recipients are logged on. Furthermore, messaging is restricted to the Encore Network; it does not encompass the Internet or any other mailing system.

Opening OmniPager

Click the Local OmniPager icon on the OUI Task Bar.

Messaging

When you load the Local OmniPager application, the Send Message screen is displayed.

Figure 93. Send Message Screen

Sending a message

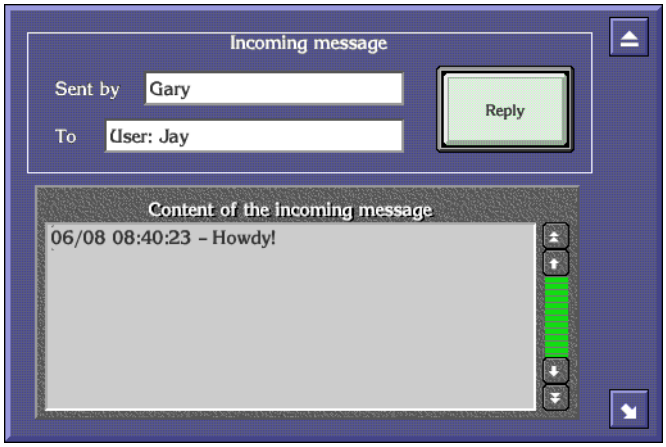
1. Select the destination category from **BROADCAST** (Default), **AREA**, **USER** and **STATION.**
2. If you select the **AREA**, **USER** or **STATION** button a list window is displayed so that you can select the exact destination: the destination appears in the **To** window.
3. Type your message using the Keyboard; the text appears in the Message Area.
4. Click the **Send** button. The Send Message screen disappears.

Note If at any stage you wish to abort without sending a message, click the **Eject** icon in the top right of the OmniPager screen.

Receiving A Message

If you receive a message at an OUI workstation, the Incoming Message screen appears and overlies whatever is currently displayed.

Figure 94. Typical Incoming Message Screen



The **Sent by** window shows the origin of the message; the **To** window shows the destination category.

Replying To A Message

1. Click the **Reply** button.
2. The Send Message screen appears with the destination already displayed in the **To** window.
3. Type your reply using the Keyboard; the text appears in the Message Area.
4. Click the **Send** button.

Shortcut Keys

Shortcut keys are keys on your workstation keyboard which you can press instead of using the mouse to click certain buttons on the screen. The position and functionality of these keys for the LMCP and the Filer-Fax are shown in Figure 95 and Figure 96 respectively.

Note If you are not using a UK Keyboard, the keys found in the same position as those detailed have the same shortcut functionality.

Figure 95. Shortcut keys for the LMCP

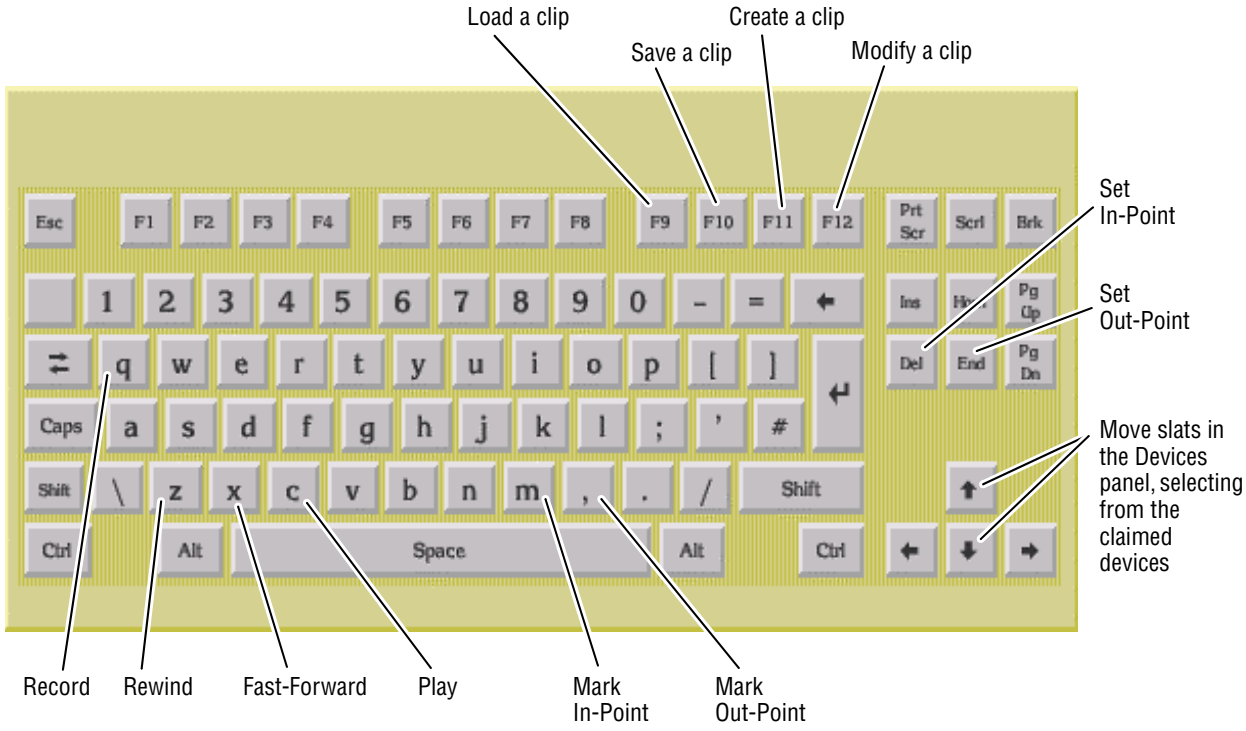
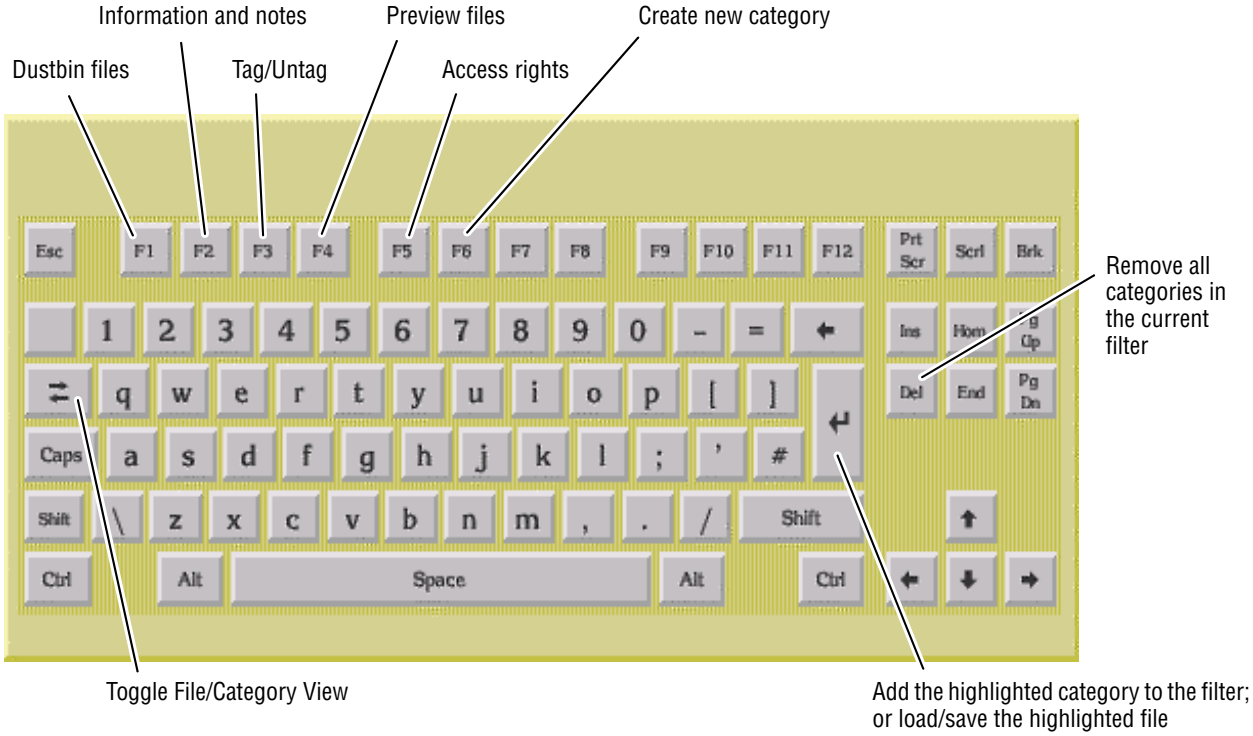


Figure 96. Shortcut keys for the Filer-Fax



Section 3

Router Control Application

Overview

The Router Control application provides an interface through which a large router database can be configured, controlled, and maintained. To do so, it must query the router database, make take requests, receive take knowledge, and make inquiries about router Sources and Destinations. The application runs on an Encore System Controller, and can control up to 32 router matrices via the engine's serial, or (for less latency and greater throughput) Ethernet ports. (A router matrix is a piece of hardware that physically switches signals such as video, audio, timecode or control signals from different physical inputs to different physical outputs.)

The application instructs a router matrix on what routes to make, and when to make them. The databases of each of the router matrices are combined by the Encore Control System into one large database.

The Router Control application provides the highest level of routing control in an Encore system, giving access to both the database and matrix configuration. For this reason, this application is not intended to be used by operational users. (The Local Router Panel allows operational users to change routes, but prevents any configuration changes.) The Router Control application can be used to make routes (via the Route Screen), but its main function is to configure and maintain the routing system.

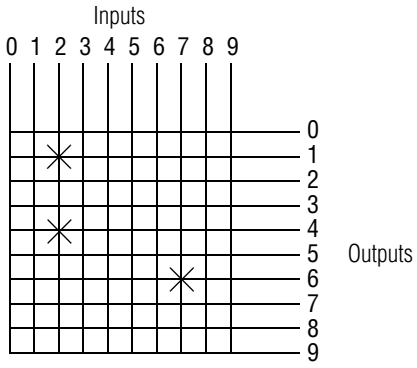
This section assumes that you understand basic OUI functionality and details the main tasks that can be performed using the Router Control application. If you need a refresher on the Encore OUI, please review *Section 2-Using the Encore Operational User Interface (OUI)*.

A Routing Primer

Each router matrix can be broken down into a number of switching matrices. A single switching matrix controls the switching (or routing) of a particular type of electrical signal (e.g. analog video, audio, etc.). These different signal formats are referred to as Levels. When a connection is made,

a path is formed between a unique Source (logical grouping of physical inputs) and a unique Destination (logical grouping of physical outputs). Figure 97 illustrates how a single switching matrix operates.

Figure 97. A Single Switching Matrix



Any of the 10 inputs (numbered 0 to 9) in Figure 97 can be routed to any of the 10 outputs (numbered 0 to 9). All the possible routes are represented by the intersections of the horizontal and vertical lines in the illustration. The points where the lines meet (cross-points) can be thought of as switches that allow the inputs to be connected to the outputs. In this example, three switches are on (as indicated by the **X** symbols), and the following routes are made:

Input 2 is routed to Output 1 and Output 4
Input 7 is routed to Output 6

Note One input can be routed to more than one output.

The Router Control application maintains a database containing a list of Sources (and the Levels that each Source provides), and a list of Destinations (and the Levels that each Destination accepts). Routes can then be made via the Router Control application's own interface, or by other applications instructing the Router Control application to make a take. The Router Control application communicates with the relevant Router Matrices and instructs them to switch the appropriate cross-points.

Encore Components

The routing component of the Encore Control System is comprised of one or more router controllers, an optional Tie Line Manager, and router clients (for example, workstations, control panels, and status displays).

Router controllers (the hardware running the Router Control application) provide the network interface to the physical matrices. A router controller's main function is to service take requests from routing client applications on the Encore Control System.

Each router controller keeps its own database of Sources, Destinations, and status map (which Source each Destination is connected to), creating a logical common view of the physical matrices connected to it.

Router controllers are isolated, that is, they don't know about any other router controllers on the network, except their mirror.

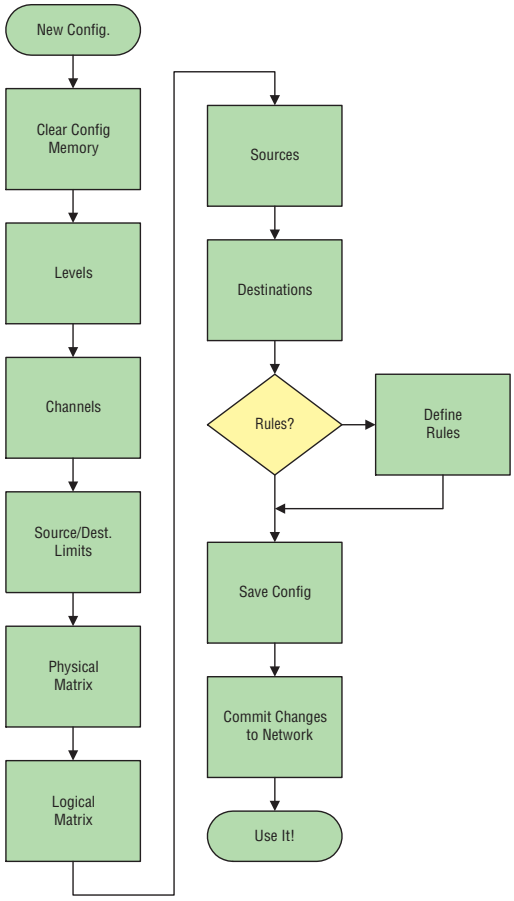
A mirrored router controller provides redundancy for a router controller. In a mirrored routing scenario, there are two router controllers in the same Area performing the same task — all actions/requests are sent to each router controller, but only one has to respond. This mirroring of router controllers is hidden from routing clients.

The Encore network can be thought of as up to 64 distinct Areas. Only one router controller can be in each Area, except for (redundant) mirrored router controllers.

Configuration Process

Figure 98 illustrates the over-all sequence in which a new configuration must be created immediately after Encore is installed. Subsequent new configurations can employ some shortcuts and advanced users can streamline the process even more.

Figure 98. Configuration Flow Chart



Main Screen

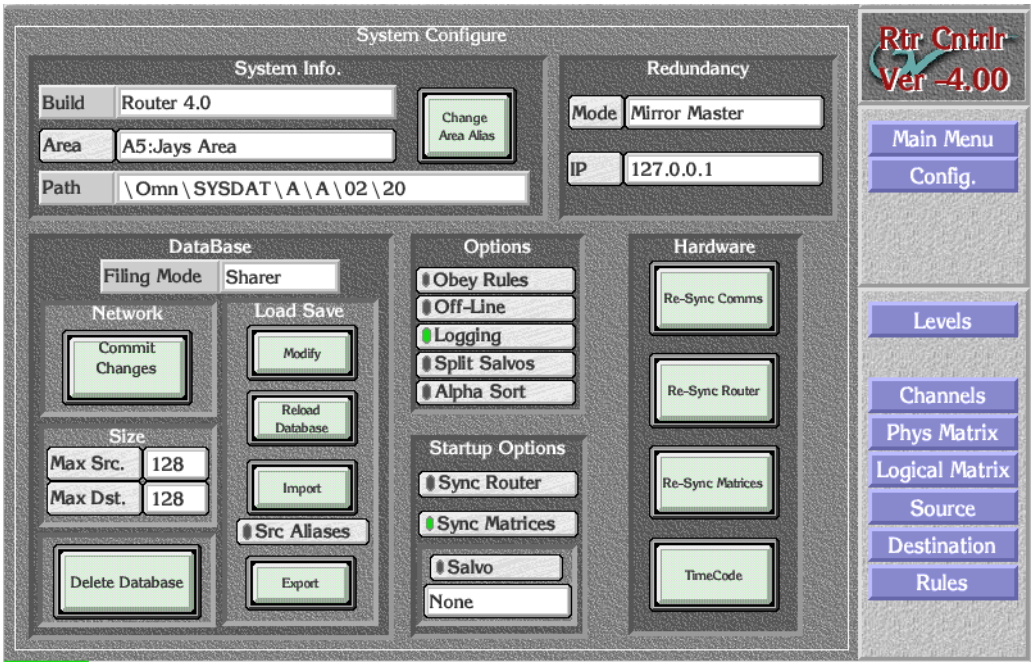
The Main Screen shows the name of the application (Router) and below it, the area that the Router Control application services. Use the buttons on the Main menu to go to the function you want: **Route**, **Names**, or **Config.** Click the **Disconnect** button at the bottom of the screen to exit the application and make it available to other users.

We'll discuss the Router Control application functions in the order they're required for router setup and configuration. Within each of those screens we'll then discuss the buttons and fields in the order they appear on the screen.

Configuration

Use the System Configure screen (Figure 99) to review or define router settings for your Encore system. The screen displays current router settings, most of which you can change. It also gives access to all of the configurable options in the Router Control application, either within the System Configure screen itself or by means of other screens accessed by the buttons on the Main menu.

Figure 99. System Configuration Screen



System Info.

Build field — Reports the software version of the Router Control application. Cannot be changed by user.

Change Area Alias — Enables you to change the Area's alias (maximum 3 characters), not its name. This alias is used by the **Local Router Panel** and other router clients such as the Panel Server. The actual name of the area, (also shown on this button), is defined in the Manager Service (System Manager) application.

Area — Click this button to change to a different Area.

Path field Displays the configuration file path for the router database. Cannot be changed by user. If filing mode is Local, the path is on the system controller. If filing mode is Sharer, the path is on the configuration PC or wherever else the Sharer application is running instead.

Redundancy

Mode Displays the mirroring mode. Click the button for a list of mirroring options: Disabled, Mirror Master, Mirror Slave, or Asymmetric Slave.

IP field In this field, specify the IP address of the device which will mirror this router controller.

DataBase

Filing Mode field Displays the source of the active database — Local or Sharer. Cannot be changed here by the user. In Local mode, the database has been loaded from the locally shared cache on the system controller. This mode is used when the Sharer is not present during Router Controller start-up. If the Sharer comes on line after the Router Controller starts, the mode will remain Local until the user presses the **Modify** button. Doing so writes the local configuration to the Sharer and switches the mode to Sharer. In Sharer mode the database has been loaded from the configuration PC.

Network: Commit Changes Notifies all Encore clients on the network that there have been changes to the database. Clients which need this information will then update their data. Press the **Commit Changes** button after saving changes made to the router database (by clicking the **Modify** button). Note that **Commit Changes** also switches the Router Controller from the off-line to the on-line state.

Size: Max Src. Use this field to define the maximum number of Source names you want the router database to contain.

Size: Max Dst. Use this field to define the maximum number of Destinations names you want the router database to contain.

Delete Database Deletes database from the configuration PC's memory, not from the Sharer. To delete the database from the Sharer — Caution! — click the Modify button to save an empty database back to the Sharer.

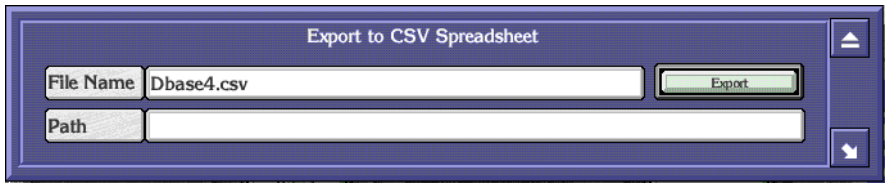
Load Save: Modify Saves the router database from the configuration PC's memory to the Sharer. You must click this button to save any configuration changes you've made. Clicking this button does not notify Encore clients that there have been changes to the database. This action also switches the **Filing Mode** from Local to Sharer.

Load Save: Reload Database Reloads the router database from the Sharer or Local machine, whichever is displayed. The router database is re-configured to the same state as it was when it was last saved.

Import Imports a CSV (comma separated values) file from the directory you choose on the drive you specify in the ensuing screens: the floppy disk (fd0) or the primary hard disk (hd0) on the controller or the floppy drive (*IP number*//fd0) or the primary hard disk (*IP number*//hd0) of the workstation running the OUI. Importing a CSV file containing Source and Destination information is an alternative way of quickly configuring the Router Controller. See *Exporting/Importing Configurations* *on page 154* for details.

Src Aliases indicator Enables/disables importing Source Aliases from CSV files.

Export Exports the current router database settings as a CSV (comma separated values) file to the target and path you choose when you click the Path button: either to the PC's floppy disk (fd0) or to the PC's primary hard disk (hd0). These exported settings can then be used to configure other Router Controllers. This is also an effective way to back up the router configuration. See *Exporting/Importing Configurations* *on page 154* for details.



Options

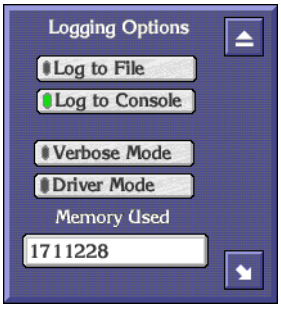
Obey Rules indicator

This button functions as a master switch to enable/disable the Source exclusion rules defined on the *Rules Configuration Screen* and applied in the *Destination Configuration Screen*. When the indicator button is green any defined and applied rules will function; when the indicator is black, none of the rules are effective, defined and applied or not.

Off-Line indicator

When the indicator is green, the Router Control application is off-line. When off-line, the routing services supported by this application are not available to the system.

Logging indicator



To enable logging, click this button to choose the type of logging. The logging option indicator buttons are toggles; click an option indicator button to reverse its state. In Windows NT you can log to a file and/or the console and determine whether the log file(s), if any, is verbose and/or driver mode. Selecting either of the top two logging options — they're not mutually exclusive — also lights the Logging indicator button. Finally the Memory Used field displays the amount of memory the Router Control application is using.

Logging Router or Tie Line Manager activity impacts performance. Logging to the terminal/console slows performance somewhat. Logging to a file affects system performance considerably and can fill up a hard disk quickly. Except during diagnostic procedures, we recommend disabling logging.

Split Salvos indicator

When this feature is enabled, each Salvo element is sent as a separate connect message. This does not affect the Grass Valley Group CPL protocol.

Alpha Sort indicator

When enabled, Alpha Sort will be the default order used to display Sources and Destinations in their list windows. When disabled, the display order is by Source and Destination index number.

Startup Options

Sync Router indicator

Toggle button. When the indicator is green, the Router Controller (on start-up) synchronizes itself to the physical state of the router matrices that it is controlling by reading back the Crosspoint status from all controlled matrices.

Sync Matrices indicator Toggle button. When the indicator is green, the Router Control application sends its Crosspoint maps to all controlled matrices. This synchronizes Crosspoint status and the matrices with the Router Controller.

Salvo indicator When the indicator is green, the Router Controller (on being booted up) sends the salvo named in the **Salvo** field below this button.

Salvo field Lists the Salvo to be sent on Router Controller boot up. Clicking on this window displays the Filer-Fax – this allows a salvo to be selected from the Sharer Salvo database.

Hardware

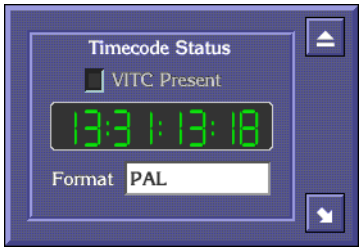
Re-Sync Comms Re-initiates all matrix communications. This button must be clicked to apply changes to I/O channel settings and for other communication-related changes.

Re-Sync Router The Router Control application synchronizes itself to the physical state of the router matrices that it is controlling.

Re-Sync Matrices The Router Control application sends the last saved state of the router Crosspoint status map to all of the router matrices that it is controlling.

TimeCode Opens the Timecode Status window (Figure 100) which displays time in the form: hours:minutes:seconds:frame. The **VITC Present** indicator will light when VITC is embedded on the reference input. Click in the timecode field to update the display. Click the **Format** button to open a list from which to choose between PAL, NTSC, or NTSC Drop Frame.

Figure 100. Timecode Status Window



Creating a New Configuration

To create a new configuration, use the procedures which follow the explanation of the buttons for each screen.

1. Click the **Config** button on the Main menu of the Router Control application.
2. When the System Configure screen appears, click the **Delete Database** button to purge any existing configuration and click OK to approve the deletion.

   This deletes the database from memory, not from the Sharer. (This step can be reversed by clicking the **Reload Database** button.)

CAUTION The next step erases the database saved on the Sharer.

3. Click the **Modify** button to save a null database to Sharer.
4. Define the maximum number of Sources and Destinations by typing in the **Max Src** and **Max Dst** fields.

   This establishes the number of Source and Destination index numbers that will be used in the configuration. These numbers can be modified after the fact. Increasing the numbers will not affect any previously entered data.

Note Reducing the numbers will remove Source and destination data outside of the new range you enter.

5. Because Levels are global, we suggest that you start by establishing them first.

To continue with a new configuration, proceed directly to *Configuring a Level* *on page 159*, or read the intervening explanatory material first.

Exporting/Importing Configurations

Encore allows you to share configurations between sites by exporting/importing comma separated values (CSV) files containing the configuration information. Microsoft Excel can open or save CSV files. This section tells you how to export and import such files.

Figure 101. Portion of Sample CSV File

Dbase4J.csv

	A	B	C	D	E	F	G	
173	Sources	128						
174								
175	Source No	Reference	Ident	Alias	Type	SD Video	Conn	Auc
176								
177	1	VTR 1	VTR 1	VTR 1	General	Washington SD	1	
178	2	VTR 2	VTR 2	VTR 2	General	Washington SD	2	
179	3	VTR 3	VTR 3	VTR 3	General	Washington SD	3	
180	4	VTR 4	VTR 4	VTR 4	General	Washington SD	4	
181	5	VTR 5	VTR 5	VTR 5	General	Washington SD	5	
182	6	VTR 6	VTR 6	VTR 6	General	Washington SD	6	
183	7	VTR 7	VTR 7	VTR 7	General	Washington SD	7	
184	8	VTR 8	VTR 8	VTR 8	General	Washington SD	8	
185	9	Server 1	PDR 3	PDR 3	General	Washington SD	9	
186	10	Server 2	PDR 4	PDR 4	General	Washington SD	10	
187	11	Server 3	SERVER 1	SERVER 1	General	Washington SD	11	
188	12	Server 4	SERVER 2	SERVER 2	General	Washington SD	12	
189	13	Ntwrk Router 1	NET 1	NET 1	General	Washington SD	13	
190	14	Ntwrk Router 2	NET 2	NET 2	General	Washington SD	14	
191	15	Ntwrk Router 3	NET 3	NET 3	General	Washington SD	15	
192	16	Ntwrk Router 4	NET 4	NET 4	General	Washington SD	16	
193	17	APTN	REM 8	REM 8	General	Washington SD	17	
194	18	Reuters	REM 9	REM 9	General	Washington SD	18	
195	19	Our NY Return	OUR 1	OUR 1	General	Washington SD	19	
196	20	Our Return 2	OUR 2	OUR 2	General	Washington SD	20	
197	21	Our Return 3	OUR 3	OUR 3	General	Washington SD	21	
198	22	Our Return 4	OUR 4	OUR 4	General	Washington SD	22	

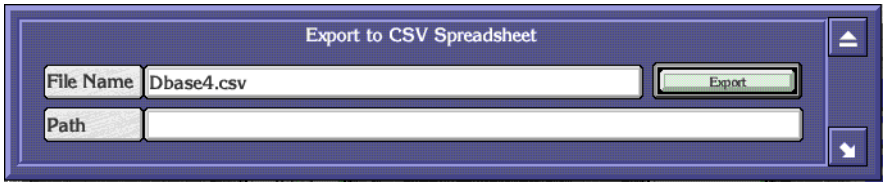
To export a configuration follow these steps

a. If you're not there already, click the **Config.** button on the Main menu to open the System Configure screen.

b. Click the **Export** button in the Load Save section of the screen.

The Export to CSV Spreadsheet window (Figure 102) will open.

Figure 102. Export to CSV Spreadsheet Window



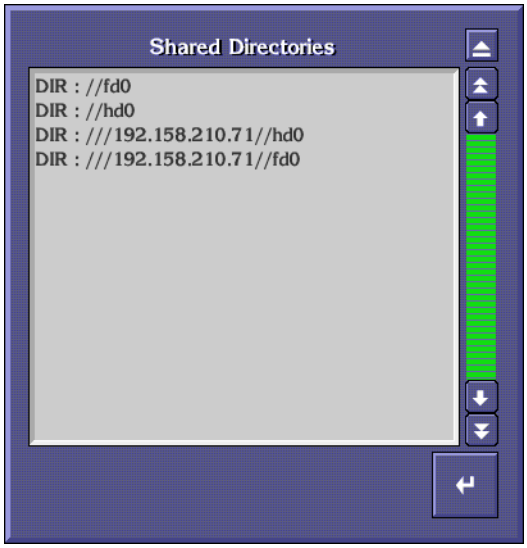
c. If you wish, change the default file name in the **File Name** field.

The CSV extension will be automatically appended if you don't enter it manually.

d. Click the Path button to browse to the storage location for your file.

The Shared Directories window (Figure 103) will open. fd0 is your PC floppy disk drive; hd0 is your PC primary hard disk.

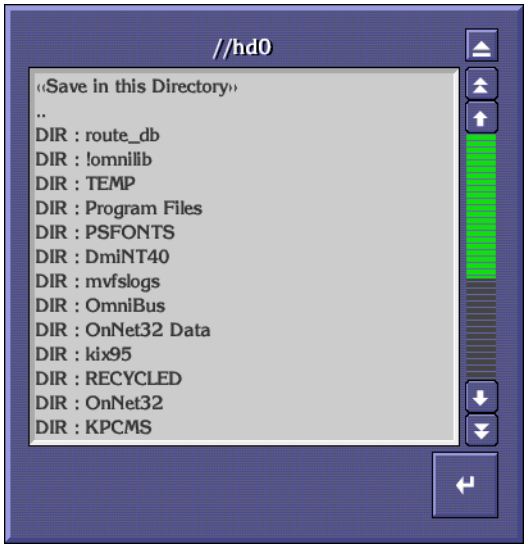
Figure 103. Shared Directories Window



Double-clicking the `hd0` entry will display the contents of the controller's hard disk. Double-clicking the `IP number//hd0` entry will display the contents of your workstation's hard disk as demonstrated in Figure 104. To navigate back up the directory structure, double-click the two periods.

Note NT workstations must have the guest account enabled (with no password required) and have a shared folder named `hd0`. The diskette must be named `fd0` and shared.

Figure 104. Hard Disk Directory



e. Choose the directory where you want to store the file.

The path will appear in the Path field.

f. Click the **Export** button to export the CSV file to your target.

An efficient way to share configurations between sites and reduce the likelihood of data entry errors is to import an existing and tested configuration which has been exported in CSV format. To import a CSV file containing a configuration:

a. Create a dummy configuration using the Router Control application's System Configure screen to define a database having at least as many Maximum Sources and Maximum Destinations as the intended import file contains, for example, 128 x 128.

b. Click the **Modify** button to save the dummy database (optional).

c. Click the **Import** button and navigate to and select the actual CSV file you want to import.

d. Once you've imported the file, make any required changes to it.

e. Click the **Modify** button to save your imported settings.

f. Click the **Commit Changes** button to update the system.

Levels

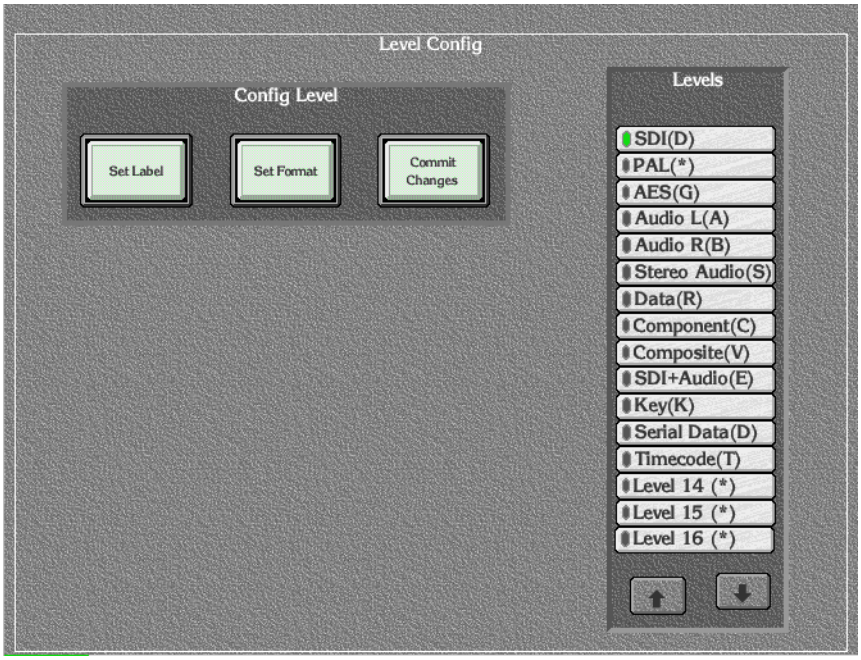
A Level is an independently controllable stratum of signals (or Crosspoints) within a Physical Matrix or a routing system. Broadly speaking, Levels correspond to signal formats, for example, audio, digital video, etc. Levels are global and apply to all Areas in a system. For this reason, we suggest that you configure your Levels, if they aren't already, before Physical or Logical Matrices, Sources or Destinations.

A Level may include more than one Logical Matrix as a slaved set. For example, a component video Level might slave the R, G, and B Logical Matrices to disallow breakaway switching. However a Logical Matrix can belong to only one Level. All Logical Matrices in a Level respond to commands addressed to that Level.

Level Configuration Screen

The name and type of each Level is configured on this screen. Any changes made here apply to all routers in all Areas of an Encore system.

Figure 105. Level Configuration Screen



Config Level

Set Label Allows naming/renaming the selected Level.

Set Format Allows specifying the format the selected Level will support. Format is indicated by the letter in parentheses following the Level name, for example the **D** in **SDI(D)** indicates a digital video signal.

Commit Changes Saves the changes you've made in the Level Configuration screen to all router controllers on the network and across all Areas. This applies to all Levels, not just the one you may have selected.

Levels

Level indicator Use these buttons to specify the Level you want to configure.

Up arrow Pages up one screen of Levels per click.

Down arrow Pages down one screen of Levels per click.

A tip about the character in parenthesis after the Level name on a button, for example: **PAL (*)**. This character is to help users know/remember what format the Level behind the button supports.

Table 3. Level Label Characters and Their Formats

Char.	Format	Char.	Format
*	Any - Any Format	K	Key
A	An AudioL - Analog Audio Left Channel	O	Other - Not Specified
B	An AudioR - Analog Audio Right Channel	?	Reserved
C	Component - Component Video	R	Data or Serial Data
D	Dig Video - Digital Video (SDI/SDV)	S	An Audio St - Analog Audio Stereo
E	SDI+Audio	T	Timecode
G	Dig Audio - Digital Audio or AES	V	Composite - Composite Video

Configuring a Level

The following procedures continue from *Creating a New Configuration* *on page 154*, but can be used to configure Levels at any time.

6. Select a Level by clicking the appropriate indicator button in the **Levels** section of the screen.

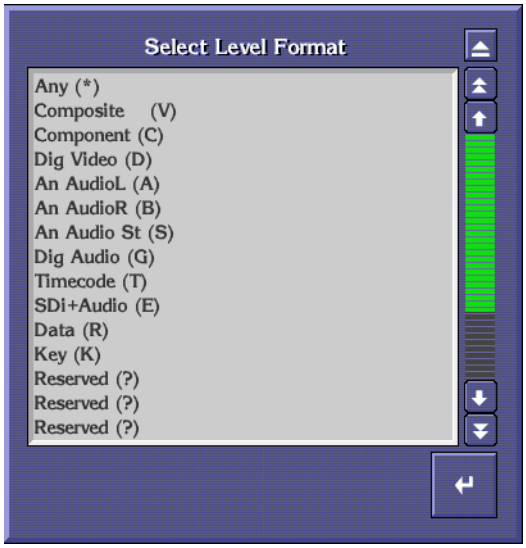
   The indicator will turn green to indicate that Level is selected.

7. Click the **Set Label** button in the **Config Level** section of the screen, and type a name for the Level using the alpha/numeric keyboard that appears on the screen.

Figure 106. Level Label Keyboard

8. Click the **Set Format** button in the **Config Level** section of the screen, and select a type for the Level from the list window that appears on the screen.

Figure 107. Select Level Format Window



9. Click the **Commit Changes** button to apply your changes to the network.

Note Any changes made on the Levels Configuration Screen are implemented system-wide, including across all Areas. They affect everyone.

10. Click the **Config** or **Main Menu** button to leave the Level Config screen.

To continue with a new configuration, proceed directly to *Configuring a Communication Channel* *on page 164*, or read the intervening explanatory material first.

I/O Channel Configuration

Before you can configure your router, you must define and select a communication channel by which the router will communicate with each matrix to be controlled. To do so, make your settings using the I/O Channel Configuration screen (Figure 108).

Note If you change an existing I/O Channel configuration, you must return to the *System Configuration Screen* and click the **Re-Sync Comms** button to activate the changes.

Figure 108. I/O Channel Configuration Screen When a Serial Protocol is Specified

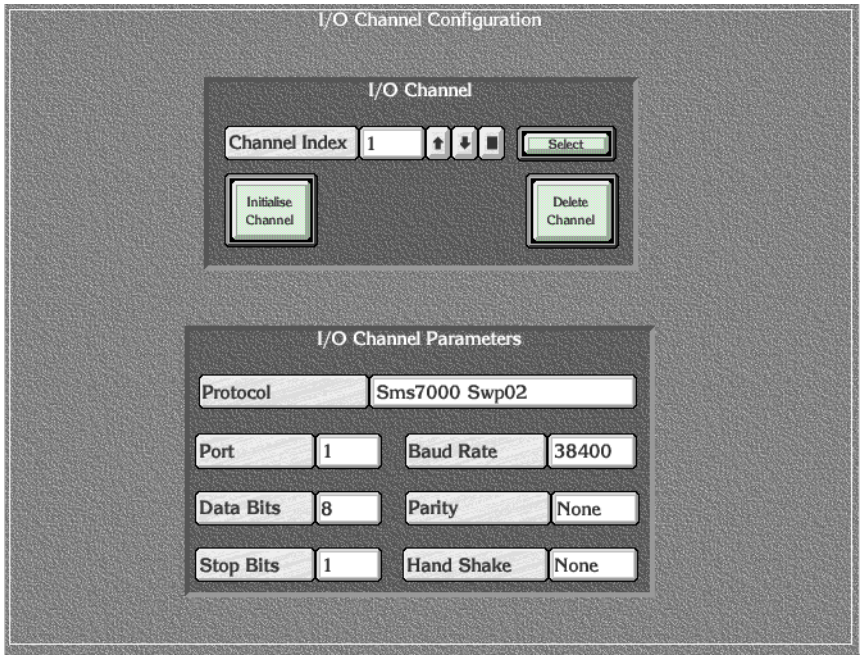
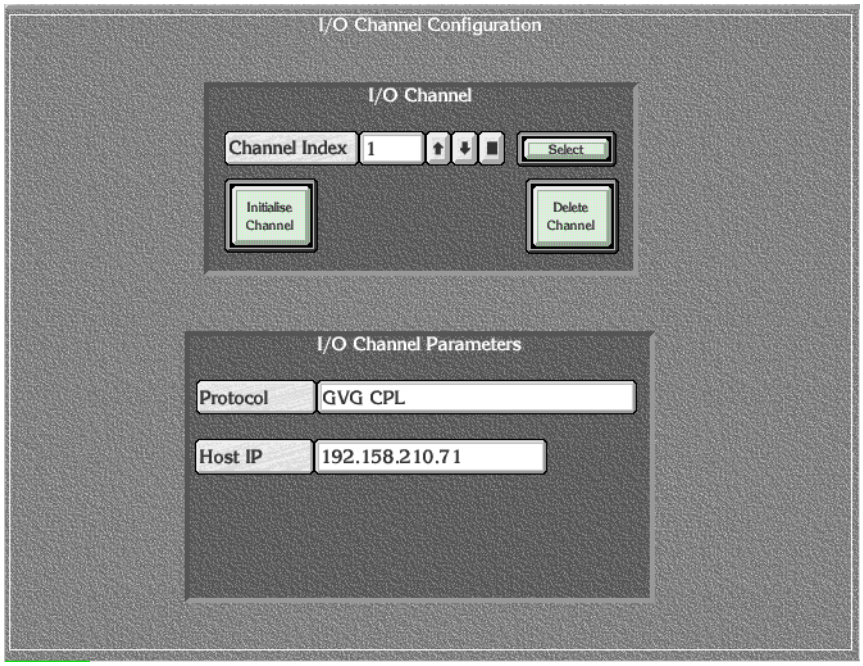


Figure 109. I/O Channel Configuration Screen When a Protocol Such as CPL is Specified



I/O Channel

Channel Index Displays the communication channel to be specified for the matrix currently being configured.

Up Arrow Increments up the list one entry per click and selects that entry.

Down Arrow Increments down the list one entry per click and selects that entry.

Reset Selects the first (top-most) entry in the list.

Select Enables a communication channel to be selected from a list window displaying both channel index numbers and their selected protocols.

Initialise Channel Initialises the communications channel displayed in the **Channel Index** field. To finalize the settings, this button must be clicked after the channel and channel parameters are set.

Delete Channel Resets the channel displayed in the **Channel Index** field, removing its associated protocol and channel parameters and freeing it to be reconfigured and reused. This button has global and permanent implications, at least until the system is reconfigured.

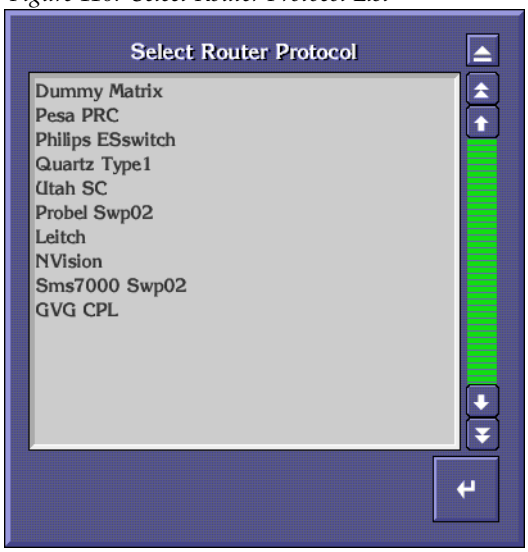
I/O Channel Parameters

Protocol

Allows a protocol (See Figure 110.) to be selected for a particular communication channel, connection to SMS 7500 Matrix Controllers, or connection to SMS 7000 Classic or DV Enhanced Node Controllers. Your choice here will also fill in the default I/O Channel Parameters for that protocol and dictate which buttons you see beneath it.

Note: Use GVG CPL protocol for Ethernet interface to Grass Valley Group matrices.

Figure 110. Select Router Protocol List



Port

Allows one of eight serial ports on the Device Control Engine to be specified for a particular communication channel. This button is only visible for serial protocols.

Baud Rate

Specifies the baud rate for a particular channel. Clicking on the button allows the value to be changed.

Data Bits

Specifies the number of data bits for the selected channel. Clicking on the button allows the value to be changed. This button is only visible for serial protocols.

Parity

Specifies the parity for the selected channel. Clicking on the button allows the value to be changed. This button is only visible for serial protocols.

Stop Bits Specifies the number of stop bits for the selected channel. Clicking on the button allows the value to be changed. This button is only visible for serial protocols.

Hand Shake Specifies the handshake type for the selected channel. Clicking on the button allows the type to be changed. This button is only visible for serial protocols.

Host IP Appears only if you choose the GVG CPL protocol and then replaces all but the Protocol button. By default, displays the IP address of the system controller's designated primary Ethernet slot, EN1. If your configuration warrants it, type the IP number for the secondary Ethernet slot, EN2.

Note The protocol you select determines which, if any of the other buttons — like **Port** and **Baud Rate** — you see in the I/O Channel Parameters portion of the screen. For example, selecting the GVG CPL protocol replaces all but the **Protocol** button with an **IP Address** button in the I/O Channel Parameters group.

Configuring a Communication Channel

The following procedures continue from *Configuring a Level* *on page 159*, but can be used to configure a communication channel at any time.

11. Click the **Channels** button on the Main menu of the System Configure screen to open the I/O Channel Configuration screen.

12. Click the **Select** button and choose the communication channel that you want to configure from the list window that appears on the screen. Or use the other controls here to specify the communication channel.

13. Click the **Protocol** button and select the desired protocol from the list window that appears on the screen. The **Data Bits**, **Stop Bits**, **Baud Rate**, **Parity** and **Hand Shake** parameters are automatically set to comply with the selected protocol. These values should be confirmed with the router manufacturers' serial communication guidelines.

Note Use GVG CPL protocol for Ethernet interface to Grass Valley Group matrices.

14. Click the **Port** button to specify a serial port on the Router Controller. All router matrices using the channel defined in Step 12 will communicate with the Router Controller via this port.

15. If necessary, change the **Data Bits**, **Stop Bits**, **Baud Rate**, **Parity** or **Hand Shake** parameters by clicking the relevant buttons and choosing from the list which appears.

16. Click the **Initialise Channel** button to finalize all the information associated with the specified communication channel.

17. Return to the *System Configuration Screen* and click the **Modify** button to save all of your settings.

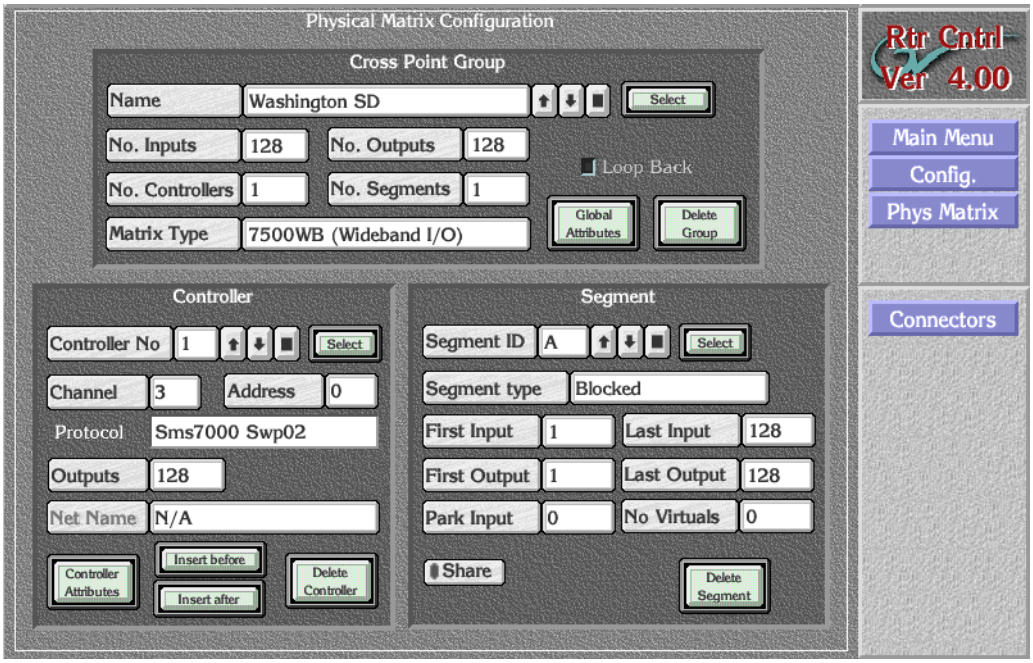
Note If you change an existing I/O Channel configuration, you must return to the *System Configuration Screen* and click the **Re-Sync Comms** button to apply your changes throughout the network.

To continue with a new configuration, proceed directly to *Configuring a Physical Matrix on page 175*, or read the intervening explanatory material first.

Physical Matrix Configuration

The Physical Matrix Configuration screen (Figure 111) is used to define the configuration parameters of the controlled matrices. Since a communication channel must be specified before you can control a matrix, the communication channels should be configured first (see *I/O Channel Configuration on page 161*).

Figure 111. Physical Matrix Configuration Screen



Common to All Groups on This Screen

Up Arrow Increments up the list for the specified group one entry per click and selects that entry.

Down Arrow Increments down the list for the specified group one entry per click and selects that entry.

Reset Selects the first entry in the list for the specified group.

Select Allows an entry to be chosen from a list appropriate to the section of the screen you're in.

Cross Point Group (See *Crosspoint Groups* *on page 170* for a definition of Crosspoint Groups.)

Name field Displays the name of the selected Crosspoint Group. Also allows a Crosspoint Group to be selected, named, or renamed.

No. Inputs field Allows the number of inputs to be defined for a particular Crosspoint Group.

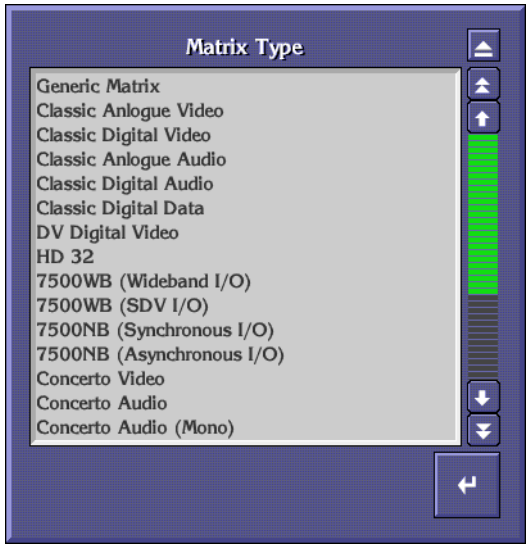
No. Outputs field Allows the number of outputs to be defined for a particular Crosspoint Group.

Loop Back indicator Indicates whether loop back functionality is enabled. Once enabled, no information is sent to the matrix. This allows a driver to simulate system operation without having a physical matrix connected. GVG CPL supports this mode. The Dummy Matrix protocol only supports Loop Back.

No. Controllers field Allows the number of controllers to be defined for a particular Crosspoint Group. Limit is 32.

No. Segments field Allows the number of Segments to be defined for a particular Crosspoint Group. Limit is eight.

Matrix Type Allows the type of matrix to be chosen from a list and displayed for a particular Crosspoint Group.



Note that this setting is required only when using Grass Valley Group's CPL protocol.

Global Attributes Retrieves global attributes for the first controller in the Crosspoint Group. It is assumed that all others have the same attributes.

Delete Group Resets the Crosspoint Group displayed in the (Crosspoint) **Name** field, removing its associated settings (e.g. controller and Segment) and freeing it to be reconfigured and reused.

Controller

Controller No. field Displays the ID number of the selected controller for the Crosspoint Group displayed in the (Crosspoint) **Name** field. (Large Crosspoint Groups may use multiple controllers.)

Channel Allows a communication channel to be chosen by name from a list of those previously defined in the I/O Channel Configuration screen. The channel selected here displays the protocol it uses in the **Protocol** field of this screen.

Address field This field is device dependent and therefore only appropriate for certain protocols. In those cases it allows the address for the specified controller to be defined.

Protocol field

Displays the protocol associated with the selected channel. Cannot be edited here; must be changed in the *I/O Channel Configuration* screen.

Outputs field

Displays the number of outputs for the selected controller. Note that legacy matrix controllers are limited to 128 Destinations whereas Enhanced Node Controllers can handle 256 Destinations.

Hardware Lock indicator

Toggles hard locking on/off. Hard locking locks crosspoints on a matrix. This button appears and this feature is available only if the protocol specified for the selected channel supports Hardware Lock. Hardware Lock is distinct from Grass Valley Group's hardware locking (requiring that the same client which locked the output must unlock it).

Net Name field

Displays the IP address of the matrix to be controlled by the selected channel. This is pertinent and can be edited only if a channel uses a protocol (such as GVG CPL) that uses a network interface for control.

Controller Attributes

If the controller selected in the **Controller No** field is a Concerto matrix, this button opens the Attribute Configuration screen where you can specify, modify, or view settings for the unit's board slots. Every populated slot must be correctly specified using the drop down menu which appears when you click in a slot field.

Insert before Allows a newly defined controller to be inserted before the one specified in the ensuing screen. Use the insert and delete buttons with caution; results have global implications.

Note: The order of controllers determines which subset of outputs are controlled by a particular controller. For example, if there are 128 outputs in a Crosspoint Group, and there are four controllers, and there are 32 outputs per controller, then
Controller 1 controls outputs 1-32
Controller 2 controls outputs 33-64
Controller 3 controls outputs 65-96
Controller 4 controls outputs 97-128.

Insert after Allows a newly defined controller to be inserted after the one specified in the ensuing screen. Use the insert and delete buttons with caution; results have global implications.

Delete Controller Removes the specified controller from this configuration. Use the delete and insert buttons with caution; results have global implications.

See *(Matrix) Segments* *on page 172* for a definition and explanation of Segments.

Segment ID field Displays the ID number for the chosen Segment. Choose a specific Segment using the buttons to the right of the field.

Segment type Allows specifying the Segment as blocked or interleaved — the latter with several options for the interleaving increment.

First Input field Enter the number corresponding to the first input for the displayed Segment here. This number must be within the specified range, but does not have to be sequential.

Last Input field Enter the number corresponding to the last input for the displayed Segment here. This number must be within the specified range, but does not have to be sequential.

First Output field Enter the number corresponding to the first output for the displayed Segment here. This number must be within the specified range, but does not have to be sequential.

Last Output field Enter the number corresponding to the last output for the displayed Segment here. This number must be within the specified range, but does not have to be sequential.

Park Input field Allows specifying the input to route to outputs which are parked by Local Router Panel users. The input is specified as a number. Use the **Names** button on the Main menu and the **Sources** button on the ensuing screen to find the required number if you know only the Source name. Parking is routing outputs to a predefined default — usually "safe" Source such as bars, black, a station logo, or silence for audio.

No Virtuals field Disallows virtual crosspoints. Note that "virtual" is different from "logical."

Share indicator Toggle to enable/disable sharing the Segment displayed in the **Segment ID** field. When shared, Segments can be used by multiple Logical Matrices.

Delete Segment Removes the Segment from the Crosspoint Group displayed in the **Name** field.

Crosspoint Groups

A Crosspoint Group is an X-Y array of crosspoints, defined by a number of inputs (X) and outputs (Y). All crosspoints implied by the group do not have to be physically present. Crosspoint Groups may contain multiple matrix frames and up to 32 Matrix Controllers for large matrices. Each Matrix Controller in the Crosspoint Group shares the inputs with all controllers within the group, and controls a number of the outputs. Hence all the Matrix Controllers within the Crosspoint Group have the same number of inputs. Each Matrix Controller adds a number of outputs so the output count for a Crosspoint Group is the sum of the outputs of all Controllers within that Group. The Router Controller uses the physical output number to determine which Matrix Controller to address for a given connect requirement.

Note If a Concerto frame contains a mixed-format board set, a different Crosspoint Group must be defined for each format. The same controller is used for all, but there are controller attributes that relate a specific Crosspoint Group to specific boards in the Concerto frame.

Crosspoint Groups also support interlevel routing for Sources and Destinations within the same Crosspoint Group. The two levels may either share the same Matrix Segment (if declared as shareable) or may be different Segments within the same Crosspoint Group. In the second case, all additional interlevel crosspoints physically exist (are populated) in the Crosspoint Group.

Each Crosspoint Group includes the settings for its Controller(s) and Segments.

Crosspoint Groups must have at least one Segment, but can be partitioned into up to eight Segments.

A Crosspoint Group is configured by defining the X-Y size and then partitioning the group into one or more Segments. Note that each segment is fully configured with all crosspoints whereas a Crosspoint Group may only be partially so. The number of controllers used to control the Crosspoint Group and the number of outputs controlled by each must also be specified.

The parameters for a Crosspoint Group are:

- Name. Must be unique for all Crosspoint Groups within a Router Controller.
- Maximum input connector. All inputs range from 1 to this maximum.
- Maximum output connector. All outputs range from 1 to this maximum.
- Number of Matrix Controllers (default is 1).
- Number of segments (default is 1).

(Matrix) Controller Parameters

Each Matrix Controller has the following parameters:

- I/O channel index (the channel parameters such as baud rate belong to the channel's configuration).
- Matrix Controller address (range 0 to 255).
- Outputs within the Matrix Controller (Range starts from the sum of outputs for previous Matrix Controllers + 1 and must not exceed the maximum for the Crosspoint Group). If only a single Matrix Controller, this is not configurable and is set to the output size of the Crosspoint Group.

Configuring Concerto Slots

Concerto slots must be configured before the Encore System can be used. The following procedure assumes that you have an existing Router configuration or are in the process of creating one.

1. Ensure that Concerto modules are in appropriate slots (see Concerto Module Positions) and properly seated.

Note Concerto modules location guidelines. A module must always be in slot 1. (Module slots are numbered from top to bottom.) Modules of the same type must be in adjacent slots. Analog and digital audio modules are, by the way, treated as if they were the same type of module.

2. Ensure that the Concerto and Router Controller are powered up.
3. Ensure that the Sharer and Router Controller applications are running.
4. Launch the Encore OUI if it's not already running.
5. Log in and open the Router Controller application.
6. Click the **Config.** button on the Main Menu.
7. Ensure that you've already created a channel, defined at least one Crosspoint Group, and assigned a System Controller to it.
8. Click the **Physical Matrix** button on the Main Menu.
9. When the Physical Matrix Configuration window appears, choose the Crosspoint Group/System Controller combination you want to address.
10. Click the **Controller Attributes** button in the bottom left corner of the Physical Matrix Configuration window.
11. When the Attribute Configuration dialog opens, start at the top and click a board slot, then select the appropriate attribute value for that board in the list which appears.
12. Press the **Return** icon after you've selected the appropriate value.
13. Repeat Step 11 and Step 12 until you've configured each of the populated slots.
14. When you've configured all of the populated slots, click the **Eject** button at the top right corner of the Attribute Configuration dialog.
15. Now click the **Config.** button and in order, click the **Modify**, **Commit Changes**, **Re-Sync Comms**, and **Re-Sync Router** buttons to save and broadcast your changes.

Repeat Step 9 through Step 15 for each configured Crosspoint Group.

(Matrix) Segments

A Matrix Segment is a unique sub-set of crosspoints within a single Crosspoint Group. All crosspoints in a Matrix Segment must be of the same signal type and all crosspoints in a Segment must be populated. A Crosspoint Group must have at least one Segment, but can have as many as eight. An input can belong to multiple Segments, but an output can belong to one, and only one, Segment. Encore Matrix Segments are similar, but not identical to Grass Valley Group SMS7000 Slices.

The **Segment type** allocation of inputs and output IDs is either as blocked or as interleaved. The blocked **Segment type** uses contiguous connectors within the range allocated to the segment. Interleaved segment types use only

every *n*th connector where *'n'* is the interleave factor, and the remaining connectors would typically be assigned to other Segment(s) so that the Elements within a Level use contiguous connectors. An Element is a crosspoint within a Logical Matrix that switches when you do a take. An Element is mapped to a Segment.

Matrix Segments are normally assigned to a single Logical Matrix, however you can configure a Matrix Segment as shareable to permit assignments to up to eight Logical Matrices. A shareable Matrix Segment is typically used to randomly allocate input and output connectors to multiple levels which can be switched using the same crosspoint type (e.g., HD and SD levels using HD crosspoints).

Each segment has the following parameters:

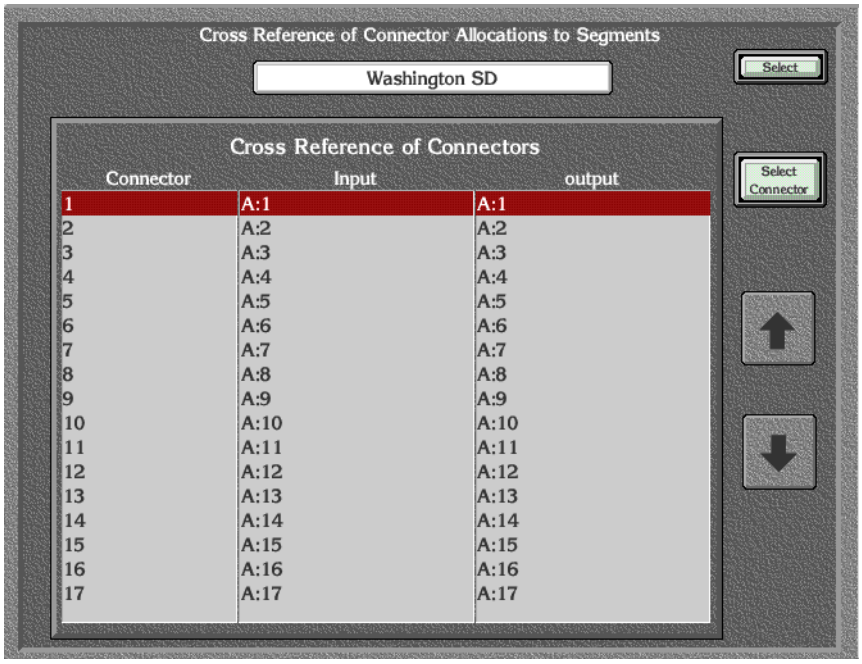
- Segment identifier (2 characters unique to the Crosspoint Group). Not required if the Crosspoint Group has only a single segment.
- Input connector start and end (constrained by Crosspoint Group max input).
- Output connector start and end (constrained by Crosspoint Group max output).
- Segment type (Blocked or Interleaved).
- Interleave factor for Interleaved segments.
- Flag for unique or multiple attachment to Logical Matrix elements. When multiple attachments are permitted, a number of logical matrix elements may share the crosspoints within this segment.

Segments are uniquely mapped to crosspoints (hence outputs). In other words, a crosspoint (hence output) belongs to one and only segment. The interleave factor for interleaved segments is automatically taken into account when determining crosspoint usage.

Connectors

Click the **Connectors** button to see a cross reference of Connector Allocations as illustrated in Figure 112.

Figure 112. Connector Allocation Cross Reference



Note For multiple Segments, unlike those in Figure 112, the numbers in any given connector-input-output row will not always be the same in each column.

Cross Reference of Connector Allocations to Segments

crosspoint group field Displays the name of the Crosspoint Group selected in the Physical Matrix Configuration screen or chosen from the list accessed by the **Select** button in this screen.

Select Allows selection of a Crosspoint Group from the list this button opens.

Cross Reference of Connectors

Connector column The physical connector number on the matrix.

Input column The Segment letter and Segment input number.

output column The Segment letter and Segment output number.

Select Connector Allows selection of a connector number by scrolling through a list or specifying a connector number.

Up arrow Pages up one page per click.

Down arrow Pages down one page per click.

Configuring a Physical Matrix

The following procedures continue from *Configuring a Communication Channel* *on page 164*, but can be used to configure a Physical Matrix at any time.

Follow these steps to configure a Physical Matrix.

16. Click the **Phys Matrix** button on the System Configure Main menu.
17. Use the **Select** button in the CrossPoint Group section of the screen to choose an undefined Crosspoint Group (~Undef Xpt Group *n*).
18. Click in the **Name** field and type a more meaningful name, for example, Washington SD.
19. Click in the **No. Inputs** field and type the number of inputs.

    This entry is copied into the **Last Input** field in the Segment section of the screen because the default configuration is one Segment in the Crosspoint Group that is the same size as the whole Crosspoint Group.
20. Click the **No. Outputs** field and type the number of outputs.

    This entry is copied into the **Last Output** field in the Segment section of the screen because the default configuration is one Segment in the Crosspoint Group that is the same size as the whole Crosspoint Group.
21. In the **No. Controllers** field, indicate the number of controllers used in this Crosspoint Group.

    The controller limit is 32. An entry for each controller will appear in the Controller Select list window when you click the **Select** button in the Controller section of the screen.
22. In the **No. Segments** field, indicate the number of Segments for this configuration.

    The limit is eight. If you indicate more than one Segment, follow these procedures through Step 33, then proceed to *To Configure Additional Segments* *on page 177*.
23. If you're using Grass Valley Group's CPL, click the **Matrix Type** button and choose the desired matrix type from the list window which appears. Otherwise you can skip this step.

24. In the Controller section of the screen, ensure that you have the appropriate controller selected.

    If you specified one controller in the **No. Controllers** field of the Cross Point Group section of the screen, you will have only one controller to choose from. Otherwise the controller list, accessed by clicking the **Select** button in this section, will contain the same number of controllers you specified in the **No. Controllers** field of the Cross Point Group section of the screen.

25. Click the **Channel** button to choose the channel you previously defined to communicate with this controller.

    Once you choose this channel, the read-only Protocol field will display the protocol associated with it during the channel definition process.

26. Click in the **Address** field to type the address you want to use for this controller. If you're configuring a Grass Valley Group product, type `0` (zero), since we do not use this.

    This field is protocol dependent, check user documentation for the product you're configuring.

27. In the **Outputs** field type the number of outputs for this controller.

28. If the **Hardware Lock** button is available (depends on the protocol and matrix), toggle it on or off to enable/disable hardware locking.

    See *Hardware Lock indicator* *on page 168* if you need an explanation of this feature.

29. If the channel you're defining uses an ethernet-based protocol (such as GVG CPL) which requires an IP address to enable control of the matrix, type the matrix IP address (recommended) or DNS name in the **Net Name** field.

    Otherwise the field is uneditable and indicates `N/A (Not Applicable).`

30. If you're using a Concerto matrix, click the Controller Attributes button to open the Attribute Configuration screen and confirm, specify, or modify attributes for Concerto's board slots as needed.

31. If you need to add a controller in a specific order in the controller list, use the **Insert before** or **Insert after** buttons to add the new controller before or after the one displayed in the **Controller No** field of the Controller section of this window.

    Note To see the existing list and order of controllers, click the **Select** button in the Controller section of the screen to see the Controller Select list window.

32. To delete the currently displayed controller, click the **Delete Controller** button.

33. Change any settings you need to in the Segment section of the screen.

    In the Segment section of the Physical Matrix Configuration screen some of the settings are inherited from those you made in the Cross Point Group section of the screen. See the button descriptions for the functions of these buttons.

    If you specified more than one Segment in the **No. Segments** field, follow the steps in *To Configure Additional Segments*, before returning to Step 34.

34. Click the **Config.** button in the Main menu to return to the System Configure screen.

35. Click the **Re-Sync Comms** button in the Hardware section of the screen to create the data structures you've defined during this procedure.

36. While you're here, and after you've completed Step 35, click the **Modify** button to save your growing configuration back to the sharer.

To Configure Additional Segments

If you've specified more than one Segment, follow these steps after creating and configuring the first one.

a. In the **Segment** section of the Physical Matrix Configuration screen, use one of the **Segment ID** button controls to select the next Segment you want to configure

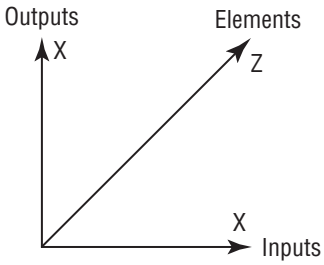
b. Type the appropriate input and output ranges for the selected Segment in the **First Input**, **Last Input**, **First Output**, and **Last Output** fields.

c. Change any other settings as required in the Segment section.

d. Repeat Step a and Step c for all other Segments you specified.

e. Go back to Step 34 to complete this portion of the configuration.

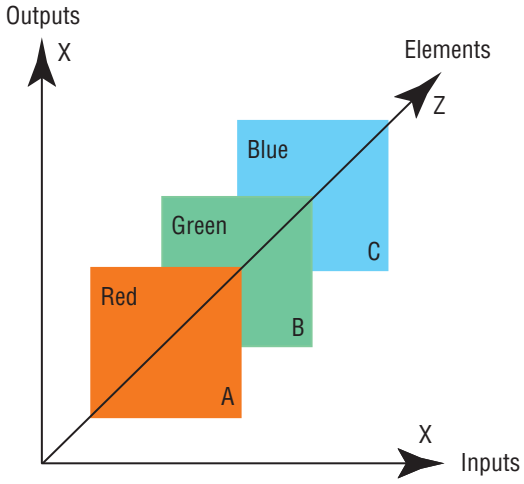
Logical Matrix Configuration



Every Physical Matrix must be assigned to at least one Logical Matrix, but can be assigned to more. A Logical Matrix is a software-defined array of crosspoints. The crosspoints need not be contiguous. Signals of the same type can be scattered through the Physical Matrix (because Inputs and Outputs are assigned to a Logical Matrix on a one–by–one basis). Generally, Logical Matrices are established to handle a specific signal group. Outputs assigned to a Logical Matrix can ONLY directly access Inputs assigned to that same Logical Matrix, but they can use TieLines to access inputs assigned to another Logical Matrix. If the Logical Matrices are within the same Crosspoint Group and the necessary crosspoint hardware is in place, Tielines are not required.

A Logical Matrix can consist of multiple Elements (default is a single Element). Each Element is attached to a Segment within a Crosspoint Group.

Figure 113. Sample Relationship Between Logical Matrices, Levels, Elements, and Segments.



Logical Matrix = Red+Green+Blue = RGB Level

Element 1 = Segment A (Red)
Element 2 = Segment B (Green)
Element 3 = Segment C (Blue)

Segments A, B, and C switch together (three crosspoints switch for every connect). Red, Green, or Blue can not be broken away from each other.
Segments A, B, and/or C can be from the same or different Physical Matrices/Crosspoint Groups.

The parameters for a Logical Matrix are:

- Name. Must be unique for all Logical Matrices within a Router Controller.
- Level for the Logical Matrix (single Level only).
- Other Levels which may be used for interlevel routing within the same Crosspoint Group (requires the necessary crosspoints to be fitted). Default is none.
- Number of elements for the Level (default is one).

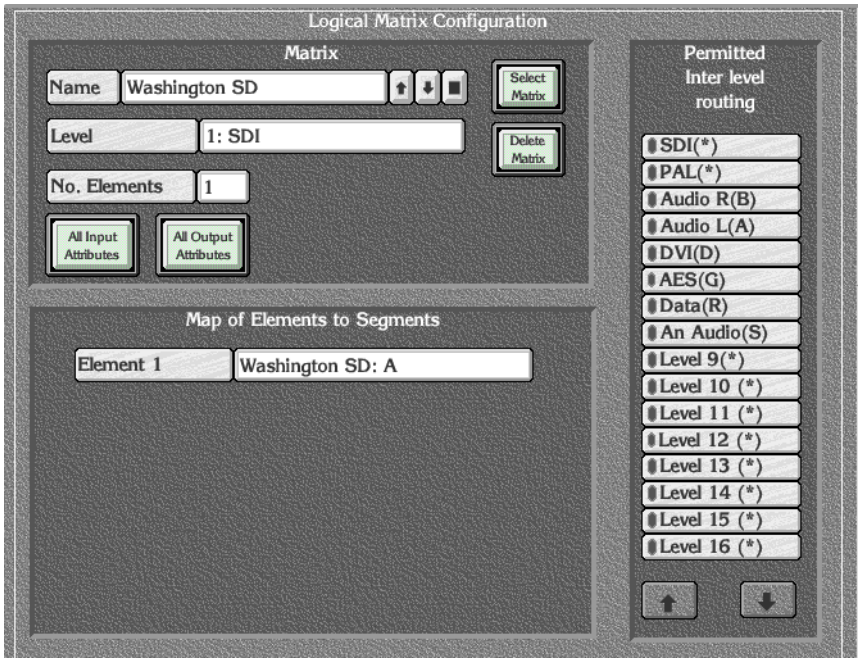
The parameters for each Element are:

- Link to a segment of a Crosspoint Group (For second and subsequent elements the quantity of inputs and outputs in the Segments must equal those for the Segment used in the first Element).

The link of a Logical Matrix element to a Segment must be unique (i.e., there is one and only one Element attached to a Segment) unless the Segment is flagged to support multiple Logical Matrices.

Sources and Destinations are configured with each valid Level attached to a Logical Matrix and a connector within the physical range for that Logical Matrix. The routable Level for the Source or Destination must match with the Level configured for the Logical Matrix. Where the Logical Matrix supports multiple Elements, only the first Element is manually configured, all other Elements are automatically assigned according to the Segment's configuration.

Figure 114. Logical Matrix Configuration Screen



Matrix

Name field Displays the name of the selected Logical matrix. Also allows naming or renaming the selected matrix.

Up Arrow Increments up the list of Logical matrices one entry per click and selects that entry.

Down Arrow Increments down the list of Logical matrices one entry per click and selects that entry.

Reset Selects the first entry in the list of Logical matrices.

Select Matrix Allows a logical matrix to be chosen from the Select Logical Matrix list.

Level	Allows selection of a Level from the Select Level for Matrix list.
Delete Matrix	Deletes the selected matrix.
No. Elements field	Displays the number of elements for the selected logical matrix.
All Input Attributes	Retrieves and displays Input Attributes for the selected logical matrix.
All Output Attributes	Retrieves and displays Output Attributes for the selected logical matrix.

Map of Elements to Segments

Element n	Allows choosing segment for the associated element in this Logical matrix.

Permitted Inter level routing

Level n indicator	Toggles Level(s) allowed for the selected Logical Matrix.
Up arrow	Pages up one screen of levels, if applicable, per click.
Down arrow	Pages down one screen of levels, if applicable, per click.

Configuring a Logical Matrix

37. Click the **Logical Matrix** button on the System Configure Main menu.
38. Use the **Select** button in the Matrix section of the screen to choose an undefined Logical Matrix (~Undef Matrix n).
39. Click in the **Name** field and type a more meaningful name, for example, Washington SD.
40. Click the **Level** button to choose the Level to which you want this Logical Matrix assigned.
41. Specify the number of Elements in this matrix by typing the appropriate number in the **No. Elements** field.

    This will generate a corresponding number of **Element *n*** buttons in the Map of Elements to Segments section of the screen.

42. Click each **Element *n*** button and choose the Segment to which you want it mapped.

43. If you want Inter Level routing, click the desired Level(s) in the Permitted Inter Level routing section to toggle them on/off.

Note Inter Level routing is only permitted within a single Crosspoint Group.

Virtual Crosspoints

Virtual crosspoints extend the physical crosspoints associated with a Logical Matrix. All virtual crosspoints are processed entirely within software and only routes with a physical input and a physical output are forwarded to the Matrix Controller via a communications channel.

Virtual crosspoints belong to Logical Matrices and are identified by a separate range of connector IDs ranging contiguously from virtual point one to the maximum virtual point for the Logical Matrix.

Where a Logical Matrix supports multiple Elements only a single virtual crosspoint is used. This virtual crosspoint is used for all Elements in the level.

Sources

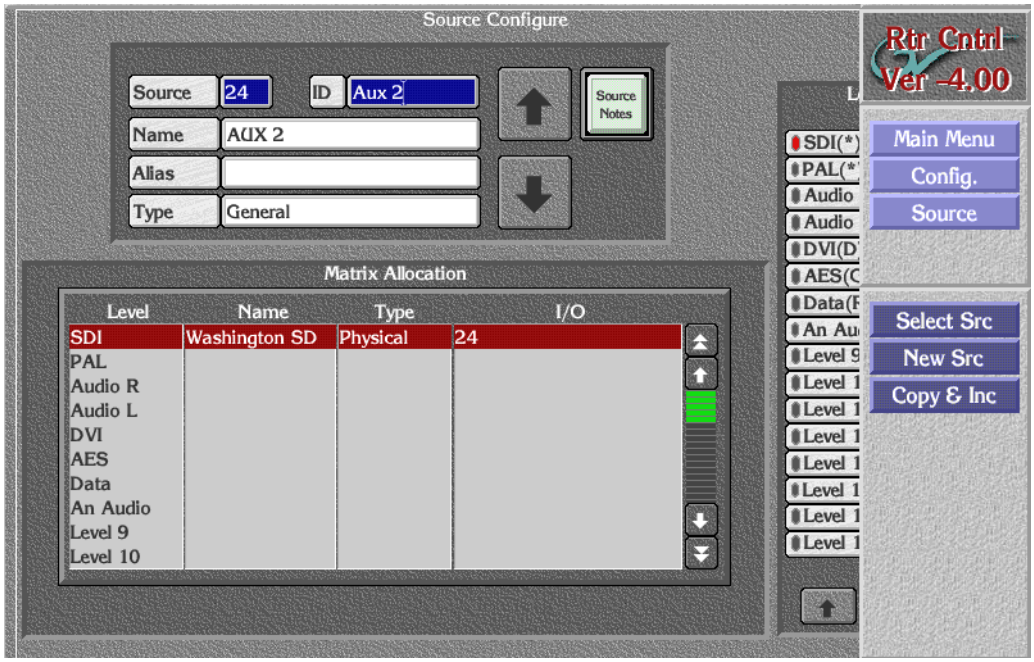
A Source is configured to contain one or more inputs, with each input residing in a different Logical Matrix. When configuring a Source, you assign specific inputs, or physical connections, to the Source name. Thereafter, when you specify that Source name, you are selecting the assigned inputs residing on Logical Matrices in Levels enabled in that Take or other operation.

The Source Name (and affected Level or Levels) is used by control panels to specify and select Sources for Take and other panel operations.

Source Configuration Screen

This screen (Figure 115) enables configuration of all Sources that can be controlled by the **Router Controller**.

Figure 115. Source Configuration Screen



Source Allows a Source to be selected by number from the router database.

ID field Allows a short form name to be given to a Source. This is the name displayed on the Encore Control Panels and in the Local Router Panel.

Up arrow Moves up the list of Sources one Source per click.

Source Notes Allows annotations for the selected Source.

Name field Allows a long form name to be given to a Source.

Alias field Allows an alias to be given to the selected Source.

Type Allows the hardware type of a Source to be chosen from the list which appears.

Matrix Allocation

Level column A list of all of the Levels in the system. For each Level that the Source has an input, you must make an entry in the Matrix Allocation Name field, that is, pick a Logical Matrix from the list which appears when you click a Level here or in the Name column.

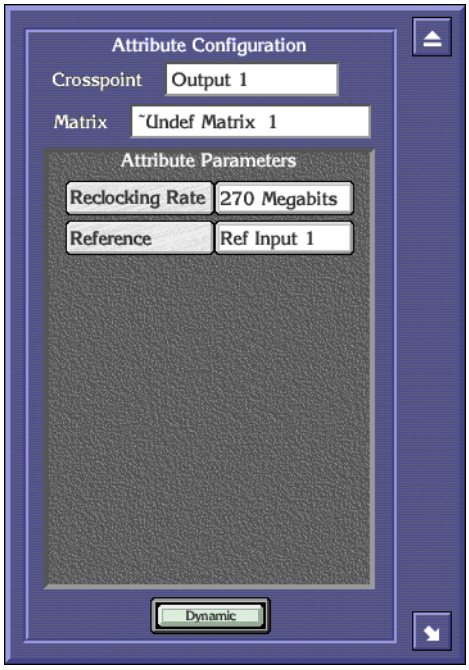
Name column Allows choosing a Logical Matrix from the list window to assign to the Level in column 1 on the same row.

Type column Click to toggle between Physical and Virtual definitions for the matrix listed on the same row in the Name column.

I/O column Specify the number corresponding to the physical connector ID on the Source's router matrix (for that Level).

Levels

Level n indicator These buttons display a green indicator light beside valid routable Levels; a yellow indicator light if you can click the Level indicator button to access and see or set attributes for a Level; and a red indicator light if the crosspoint is invalid.



Up arrow Pages up one screen of Levels per click.

Down arrow Pages down one screen of Levels per click.

Menu Bar

Select Src Allows a Source to be selected by name or number from the list of Sources.

New Src	Displays the first number in the router database that does not have a Source assigned to it.
Copy & Inc(rement)	Displays the next consecutive Source number (from that currently shown on screen), with the ID and name incremented by 1. For example, suppose the current Source is Source 11, with ID "VTR1" and name "Edit Suite VTR1". Clicking the Copy & Inc button will display Source 12, with ID "VTR2" and name "Edit Suite VTR2". Connector I/O numbers will also increment.

Configuring a Source

44. Click the **Source** button on the Main menu to go to the Source Configure screen.

45. Click the **Source** button at the top of the Source Configure screen and enter the number of the new Source. (Alternatively you can use the arrow buttons to scroll through the Sources until you reach the desired number.)

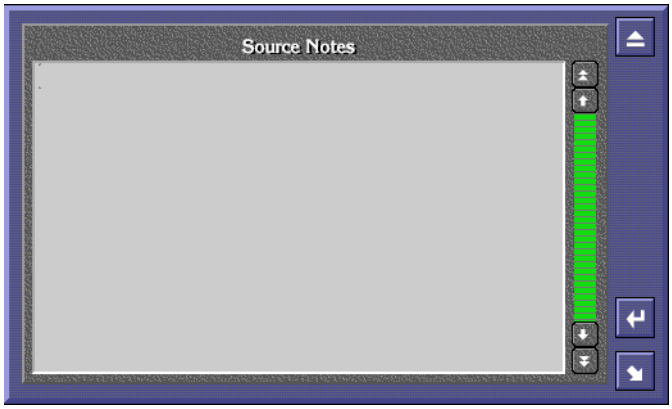
Note This number will be the logical (index) number for the Source in the router database.

46. Click the **ID** button to give the Source a unique and meaningful identity (maximum 8 characters) that appears on the control panel.

    This can be regarded as a short form name for the Source.

47. If you wish, click the **Source Notes** button to add details and other annotations about this Source.

Figure 116. Source Notes screen



Note Remember to click the return icon in the screen before exiting it or your changes will be lost.

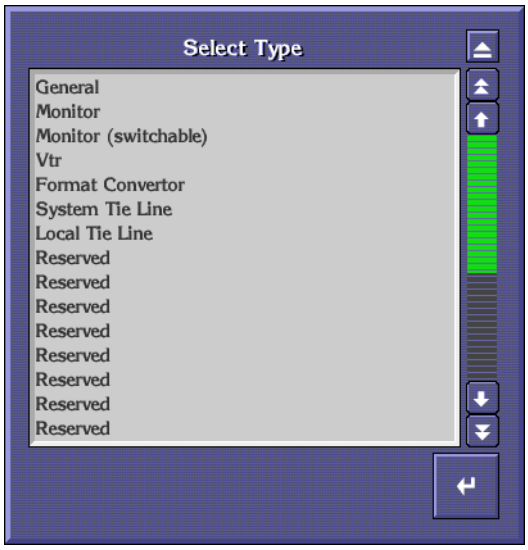
48. Click the **Name** button to give the Source a longer, more meaningful name (maximum 16 characters). This can be regarded as a long form name for the Source.

49. Click the **Alias** button to give the Source an Alias.

    A Source Alias is an additional name that can be defined and/or changed from another application such as the Local Router Panel without the potential risks associated with using Router Control application. Aliases enable operators to give more meaningful temporary names to Sources and can then be displayed on Encore Control Panels and the Local Router Panel instead of the underlying (actual) Source name. For example: Let's say you have a Source named SAT-1 (Satellite-1). If the signal on SAT-1 happens to be HBO, then a meaningful name might be HBO. If the signal changes to CNN, the alias can be changed to CNN without re-configuring the router.

50. Click the **Type** button to choose a hardware type for the Source you're configuring.

Figure 117. Select Type window — Sources



51. In the **Matrix Allocation** section of the screen, click in the **Name** column to the right of a Level that you want to be routed from your Source, and select the router matrix that you want to perform the take from the list window that appears.

52. Click in the **Type** column to toggle between Physical and Virtual definitions for the matrix listed on the same row in the Name column.

53. Click in the **I/O** column next to the same Level used in Step 51. Enter the number corresponding to the physical connector ID on the Source's router matrix.

54. Repeat Step 51 through Step 53 until you've configured all necessary levels for the Source.

A green indicator next to the name of a Level in the **Levels** section confirms that the Level will be routed from the currently selected Source.

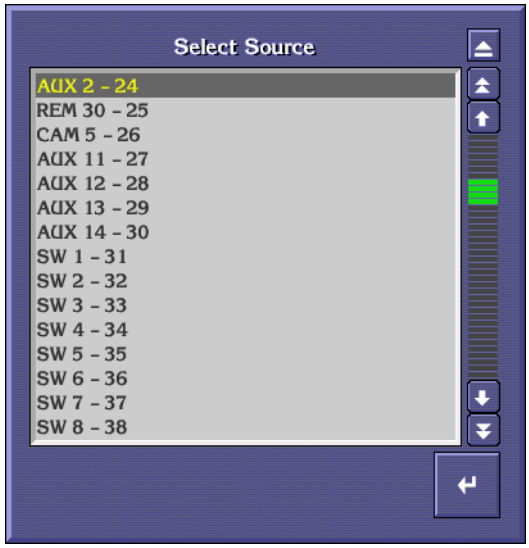
A yellow light indicates that attributes are available for a Level.

And a red light indicates that the crosspoint is invalid. Check the matrix configuration for errors and, once corrected, click the **Config.** button on the Main menu to return to the System Configure screen and click the **Re-Sync Comms** button.

The buttons on the Menu bar on the right of the screen aid the configuration process.

- Use the **Select Src** button to amend a previously configured Source. The list window that appears on the screen allows a selection to be made by name or number.

Figure 118. Select Source Screen



- Use the **New Src** button to select the first Source number in the router database that does not have a name assigned to it.
- Use the **Copy & Inc** button to copy the current Source settings and then increment the values shown opposite the **Source**, **ID**, **Name**, **Alias**, and **Type** buttons. This saves time and repetition when configuring many Sources that form a logical list. Sources can then be renamed more easily in the Names screen.

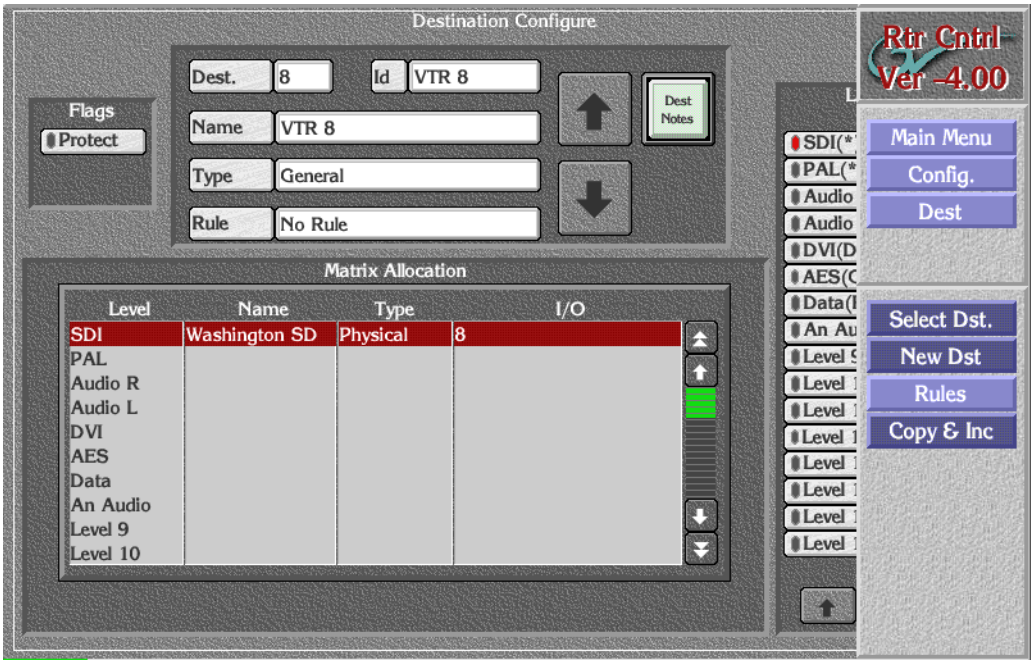
Destinations

A Destination is configured to contain one or more outputs, with each one residing in a different Logical Matrix. A single output can't be assigned to more than one Destination. Configuring the Destination associates specific outputs (Physical Matrix connections) to the Destination name; selecting a Destination name also selects the associated outputs.

Destination Configuration Screen

This screen enables all Destinations that can be controlled by the Router Control application to be configured.

Figure 119. Destination Configuration Screen



Dest. Allows a Destination to be selected by number from the router database.

ID field Allows a short form name to be given to a Destination.

Up arrow Moves up the list of Destinations one Destination per click.

Dest Notes Allows annotations for the selected Destination.

Name field Allows a long form name to be given to a Destination.

Type Allows the hardware type of a Destination to be chosen from the list which appears.

Rule Allows choosing a rule to be applied to the selected Destination.

Flags

Protect indicator Toggles protection of the Destination on/off. This locks the Destination and prevents takes from happening.

Matrix Allocation

Level column A list of Levels in the system.

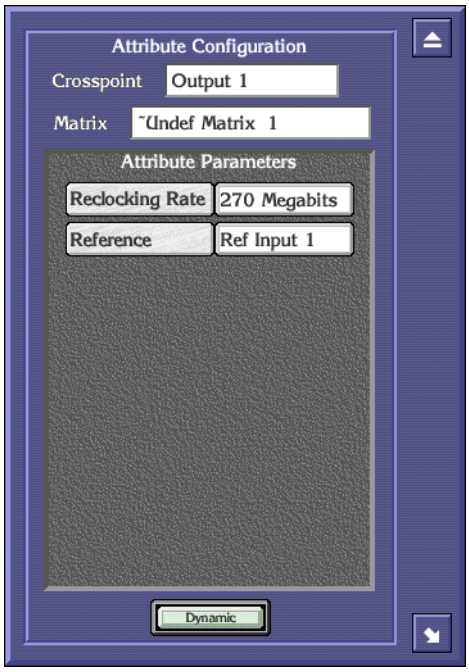
Name column Allows choosing a matrix from the list window to assign to the Level in column 1 on the same row.

Type column Click to toggle between Physical and Virtual definitions for the matrix listed on the same row in the Name column.

I/O column Specify the number corresponding to the physical connector ID on the Source's router matrix for that Level.

Levels

Level n indicator These buttons display a green indicator light beside valid routable Levels; a yellow indicator light if you can click the Level indicator button to access and see or set attributes for a Level; and a red indicator light if the crosspoint is invalid.



Up arrow Pages up one screen of Levels per click.

Down arrow Pages down one screen of Levels per click.

Menu Bar

Select Dst. Allows a Destination to be selected by name or number from the list of Destinations.

New Dst. Displays the first number in the router database that does not have a Destination assigned to it.

Rules Displays the Rules Configuration Screen. See Figure 123.

Copy & Inc(rement) Displays the next consecutive Destination number (from that currently shown on screen), with the ID and name incremented by 1. For example, suppose the current Destination is Destination 24, with ID “Mon1” and name “Monitor1”. Clicking the **Copy & Inc** button will display Destination 25, with ID “Mon2” and name “Monitor2”.

Configuring a Destination

55. Click the **Destination** button on the Main menu to go to the Destination Configure screen.

56. Click the **Dest.** button and specify the number of the new Destination.

    This number represents the logical number of the Destination in the router database.

57. Click the **ID** button to give the Destination a unique identity (maximum 8 characters).

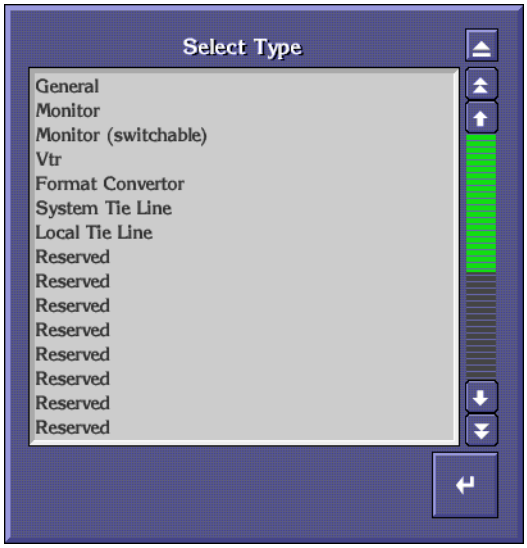
    This can be regarded as a short form name for the Destination and is displayed on the Control Panels and the Local Router Panel.

58. Click the **Name** button to give the Destination a longer, more meaningful name (maximum 16 characters).

    This can be regarded as a long form name for the Destination.

59. Click the **Type** button to choose the hardware type of the Destination from the list window that appears on the screen.

Figure 120. Select Type Window

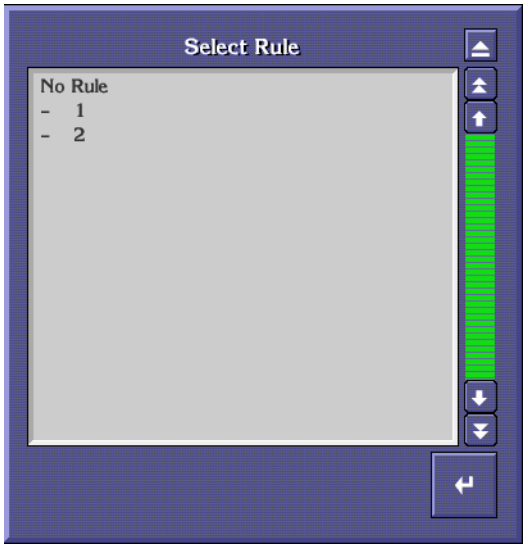


60. If you want to apply any restrictions to the Destination, then click the **Rule** button to choose a pre-configured set of restrictions.

    For example, you may want to prevent some Sources from being routed to certain Destinations.

Note Remember to return to the *System Configuration Screen* and click the **Obey Rules** indicator button to enable any rules you've applied.

Figure 121. Select Rule Window



61. In the **Matrix Allocation** section of the screen, click in the **Name** column next to a Level that you want to be assigned to your Destination, and select the Logical Matrix that you want assigned from the list window that appears on the screen.

62. Click in the **Type** column to toggle between Physical and Virtual definitions for the matrix listed on the same row in the Name column.

63. Click in the **I/O** column next to the same Level used in Step 61 and enter a number that maps to the physical connector ID for the Destination on the router matrix for that Level.

64. Repeat Step 61 through Step 63 until all necessary levels for the Destination are configured.

    A green indicator next to the name of a Level in the **Levels** Area confirms that the Level will be routed to the currently selected Destination.

    A yellow light indicates that attributes are available for a Level.

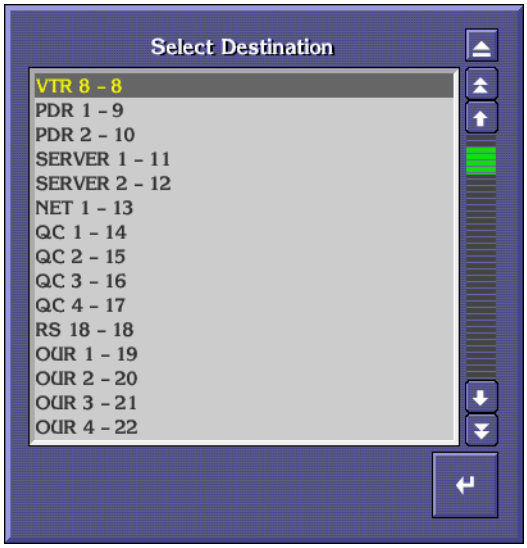
    And a red light indicates that the crosspoint is invalid. Check the matrix configuration for errors and, once corrected, click the **Config.** button on the Main menu to return to the System Configure screen and click the **Re-Sync Comms** button.

The buttons on the menu bar on the right of the screen aid the configuration process.

- Use the **Select Dst.** button to amend a previously configured Destination.

  The list window that appears on the screen allows a selection to be made by name or number.

Figure 122. Select Destination Window

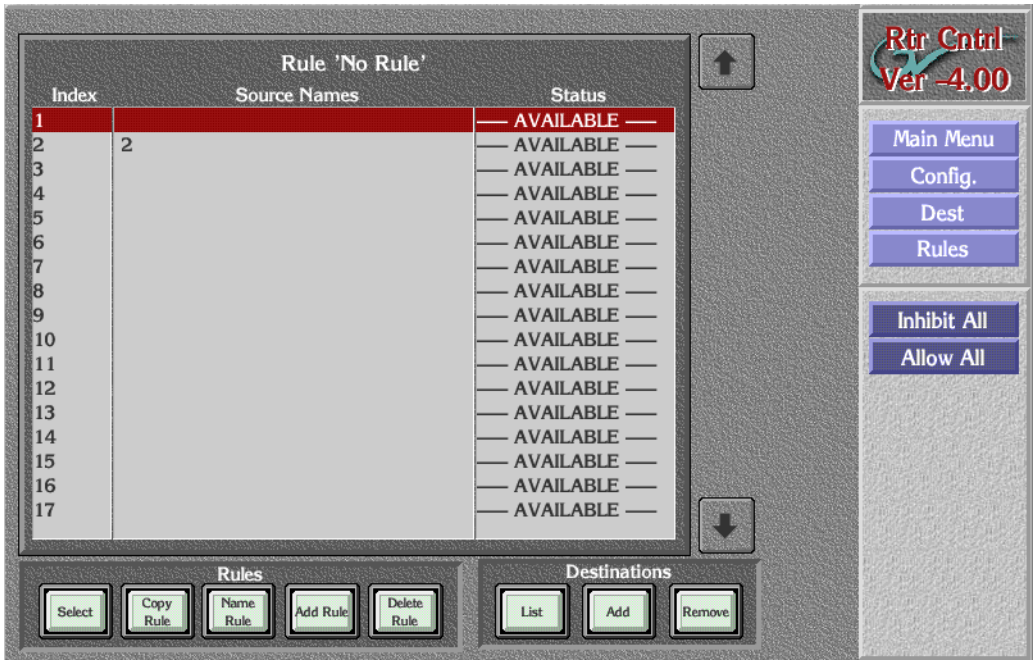


- Use the **New Dst** button to select the first Destination number in the router database that does not have a name assigned to it.
- Click the **Rules** button to open the Rules Configuration screen. See *Rules Configuration Screen* *on page 192* for more details.
- Use the **Copy & Inc** button to copy the current Destination settings and then increment the values shown on the **Dest.**, **ID**, **Name**, and **Type** buttons by one. This saves time and repetition when configuring many Destinations that form a logical list.

Rules Configuration Screen

The Rules Configuration Screen (Figure 123) allows a set of rules, often called Source exclusion sets, to be established that can be used to prevent certain Sources from being routed to certain Destinations.

Figure 123. Rules Configuration Screen



Rule ... Displays the number of the rule you're viewing or editing.

Index column

Source Names column Lists all the Sources defined in the Router Controller.

Status column Toggles whether the selected Source is **Available** or **Inhibited** for this rule.

Up arrow Pages up one screen.

Down arrow Pages down one screen.

Rules

Select Allows a pre-configured rule to be selected in the list window which appears.

Copy Rule Displays a list of rules from which you can select one and copy its settings over the currently displayed rule.

Name Rule Allows the name of the currently displayed rule to be changed.

Add Rule Adds a new unnamed rule to the list of rules.

Delete Rule Enables one or more rules, selected in the ensuing list window, to be deleted.

Destinations

List Displays a list of Destinations that obey the rule currently displayed on the screen.

Add Allows the user to select more Destinations that are to obey the rule currently displayed on the screen.

Remove Allows one or more Destinations, selected in the ensuing list window, to be removed from the list of Destinations that obey the currently displayed rule.

Menu Bar Group

Inhibit All Sets the status of all Sources to **Inhibit** for the currently displayed rule.

Allow All Sets the status for all Sources to **Available** for the currently displayed rule.

Creating and Defining a Rule

1. Click the **Add Rule** button.
2. Click the **Select** button to select the rule that you created in Step 1 – it will be the last (un-named) rule in the list window that appears on the screen.
3. Click the **Name Rule** button to give the rule a meaningful name using the alpha/numeric keyboard that appears on the screen.
4. Click a Source name in the **Source Names** column to toggle the status of that Source so it shows either **Available** or **Inhibited**. Choose **Available** or **Inhibited**, depending on whether you want to allow the Source to be routed or not if this rule is applied.
5. Repeat Step 4 until all Sources are displaying **Available** or **Inhibited** as required. Use the arrow keys if necessary to scroll through the list of Sources.

Note The **Inhibit All** button on the Menu bar provides a quick method of setting the status of all the Sources to **Inhibited.** The **Allow All** button on the Menu bar provides a quick method of setting the status of all Sources to **Available.**

6. Click the **Add** button in the **Destinations** section of the screen to select the Destinations to which this rule will apply.

   Sources with the **Inhibited** status will not be able to be routed to these Destinations.

7. Click the **List** button to see the list of Destinations to which the rule will apply.

8. If necessary add more Destinations to the list by clicking the **Add** button again, or remove Destinations from the list by clicking on the **Remove** button.

9. When you're done, click the **Config.** button on the Main menu.

10. When you arrive at the System Configure screen, click the **Obey Rules** button in the Options portion of the screen to enable your configuration to abide by any rules you've defined here and will apply in the Destination Configure screen.

11. Click the **Modify** button and then the **Commit Changes** button.

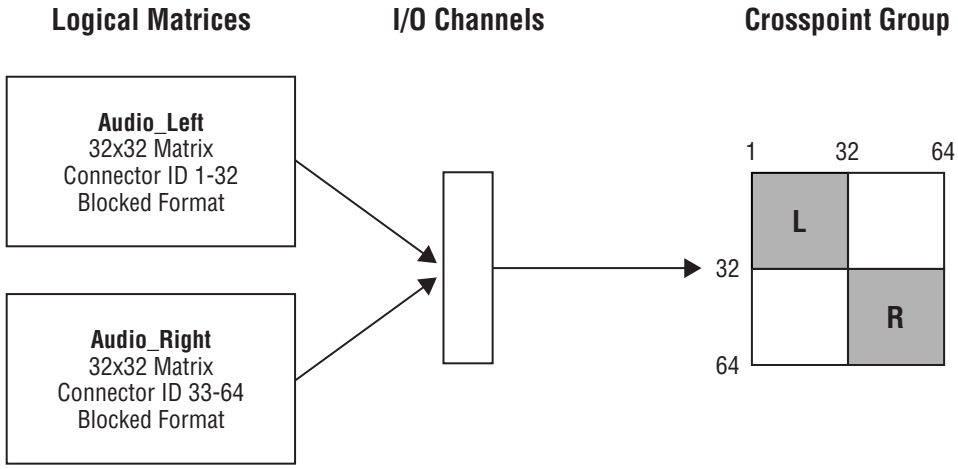
    You may now apply and use your rule(s).

Sample Configurations

Two Levels in One Blocked Crosspoint Group

This example is for two audio levels (Audio Left and Audio Right) mapped into one Crosspoint Group. The Router Controller cannot carry out inter-level routing as no inter-level crosspoints are fitted.

Figure 124. Two Levels in One Blocked Crosspoint Group



If all crosspoints were to be fitted then the Router Controller could carry out inter-level routing. In this case the matrices would be enabled to permit the required inter level routing.

Table 4. Configuration for Two Levels in One Blocked Crosspoint Group

Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Audio_phys	64	64	1	2	1	A	A	Xpt Group	L	1-32	1-32	Block	Yes	Audio_Left	Audio Left	None	1
									R	33-64	33-64	Block	Yes	Audio_Right	Audio Right	None	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Two Levels in Two Crosspoint Groups (Multi-Dropped)

This example is for two audio levels (Audio Left and Audio Right) mapped into separate Crosspoint Groups using multi-dropped serial communications. The Router Controller cannot carry out inter-level routing as the Crosspoint Group is not common.

Figure 125. Two Levels in Two Crosspoint Groups (Multi-Dropped)

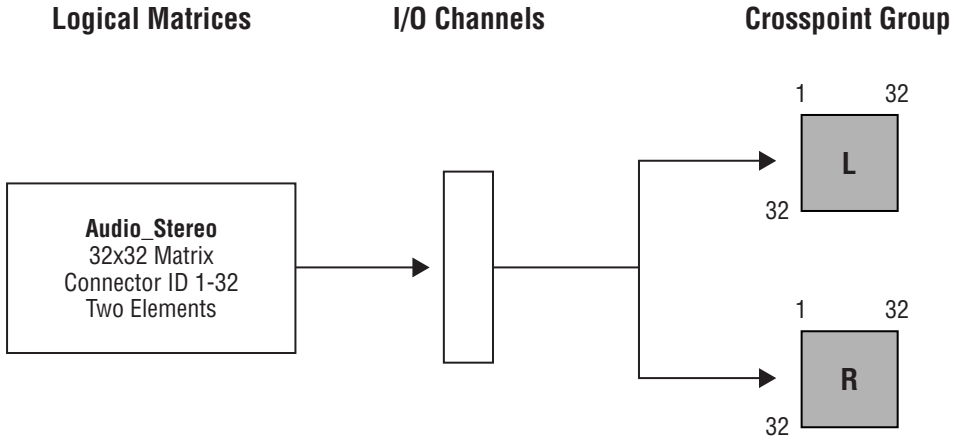


Table 5. Configuration for Two Levels in Two Crosspoint Groups (Multi-Dropped)

Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Audio_L_phys	32	32	1	1	1	S	D	Xpt Group	L	1-32	1-32	Block	Yes	Audio_Left	Audio Left	None	1
Audio_R_phys	32	32	1	1	1			Xpt Group	R	1-32	1-32	Block	Yes	Audio_Right	Audio Right	None	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Two Levels in Two Crosspoint Groups (Separate I/O)

This example is for two audio levels (Audio Left and Audio Right) mapped into separate Crosspoint Groups using separate serial communication channels. The Router Controller cannot carry out inter-level routing as the Crosspoint Group is not common.

Figure 126. Two Levels in Two Crosspoint Groups (Separate I.O)

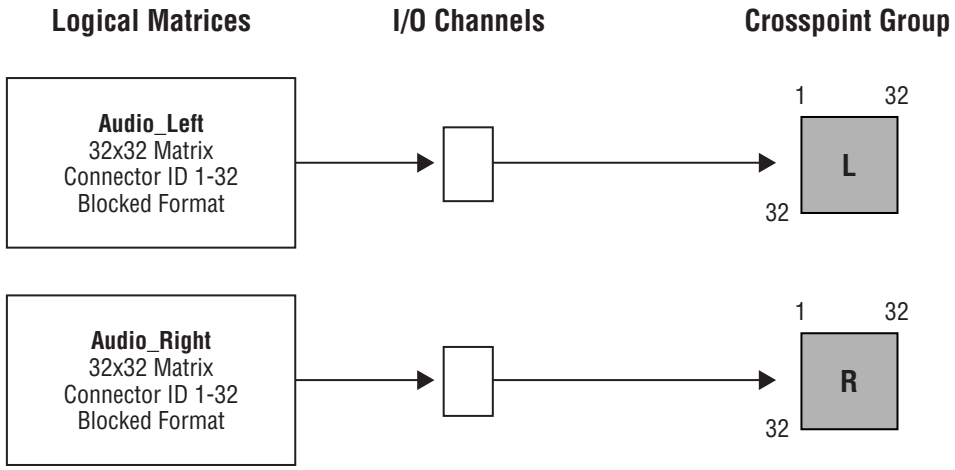


Table 6. Configuration for Two Levels in Two Crosspoint Groups (Separate I.O)

Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Audio_L_phys	32	32	1	1	1	D	A	Xpt Group	L	1-32	1-32	Block	Yes	Audio_Left	Audio Left	None	1
Audio_R_phys	32	32	1	1	1			Xpt Group	R	1-32	1-32	Block	Yes	Audio_Right	Audio Right	None	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Two Levels in One Interleaved Crosspoint Group

This example is for two audio levels (Audio Left and Audio Right) mapped into one Crosspoint Group. The Router Controller could carry out inter-level routing as the inter-level crosspoints are fitted.

Figure 127. Two Levels in One Interleaved Crosspoint Group

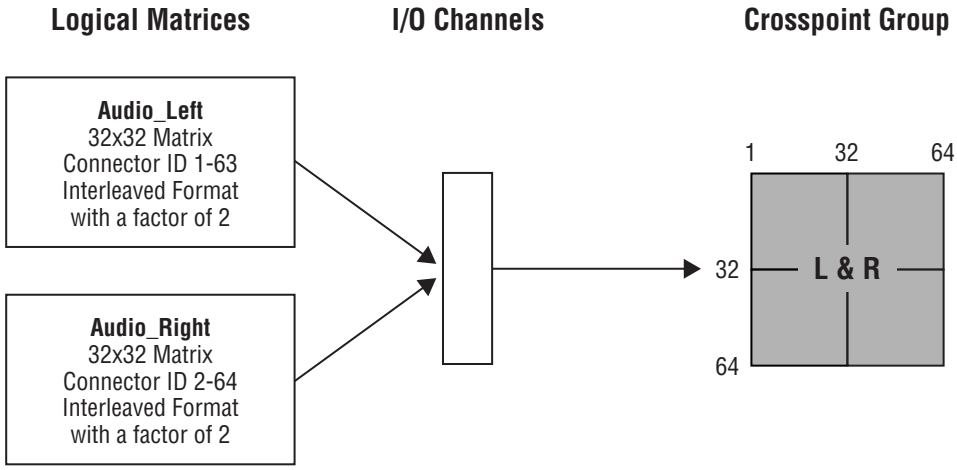


Table 7. Configuration for Two Levels in One Interleaved Crosspoint Group

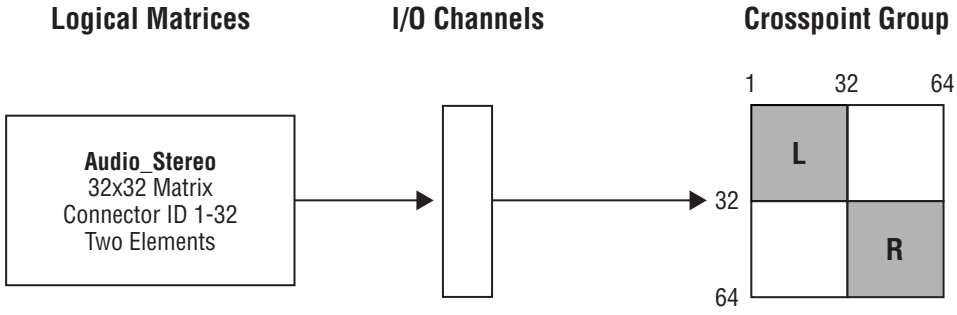
Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Audio_phys	64	64	1	2	1	A	A	Xpt Group	L	1-63	1-63	Interleave Factor 2	Yes	Audio_Left	Audio Left	Audio Right	1
									R	2-64	2-64	Interleave Factor 2	Yes	Audio_Right	Audio Right	Audio Left	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Two Elements in One Blocked Crosspoint Group

This example is for one level (Audio Stereo) containing two elements (Audio Left and Audio Right) which is mapped into one Crosspoint Group.

Figure 128. Two Elements in One Blocked Crosspoint Group



In this example the Audio Left element has connector IDs 1 – 32, and Audio Right has connector IDs 33 – 64. A source or destination using this level has the connector ID configured for the first level (Audio Left) and the Audio Right connector is calculated by adding 32.

Table 8. Configuration for Two Elements in One Blocked Crosspoint Group

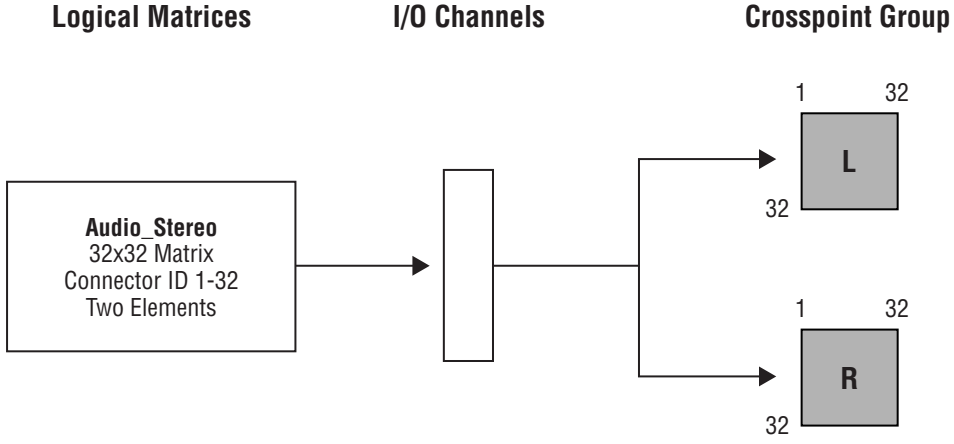
Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Audio_phys	64	64	1	2	1	A	A	Xpt Group	L	1-32	1-32	Block	Yes	Audio_Stereo	Audio Stereo	None	2
									R	33-64	33-64	Block	Yes				

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Two Elements in Two Crosspoint Group (Multi-Dropped)

This example is for one level (Audio Stereo) containing 2 elements (Audio Left and Right) which is mapped into two Crosspoint Group using multi-dropped serial communications.

Figure 129. Two Elements in Two Crosspoint Group (Multi-Dropped)



In this example the Audio Left element has connector IDs 1 – 32, and Audio Right also have connector ids 1 - 32. A source or destination using this level has the connector id configured for the first level (Audio Left) and the Audio Right connector automatically uses the same connector ID in the second Crosspoint Group.

Table 9. Configuration for Two Elements in Two Crosspoint Group (Multi-Dropped)

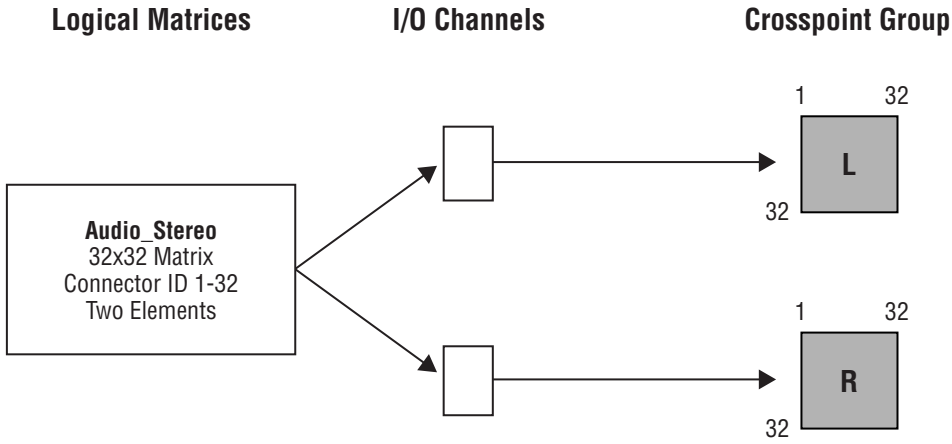
Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Audio_L_phys	32	32	1	1	1	S	D	Xpt Group	L	1-32	1-32	Block	Yes	Audio_Stereo	Audio Stereo	None	2
Audio_R_phys	32	32	1	1	1			Xpt Group	R	1-32	1-32	Block	Yes				

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Two Elements in Two Crosspoint Groups (Separate I/O)

This example is for one level (Audio Stereo) containing two elements (Audio Left and Right) which is mapped into two Crosspoint Groups using independent serial communications.

Figure 130. Two Elements in Two Crosspoint Groups (Separate I/O)



In this example the Audio Left element has connector IDs 1 – 32, and Audio Right also have connector IDs 1 - 32. A source or destination using this level has the connector ID configured for the first level (Audio Left) and the Audio Right connector automatically uses the same connector ID in the second Crosspoint Group.

Table 10. Configuration for Two Elements in Two Crosspoint Groups (Separate I/O)

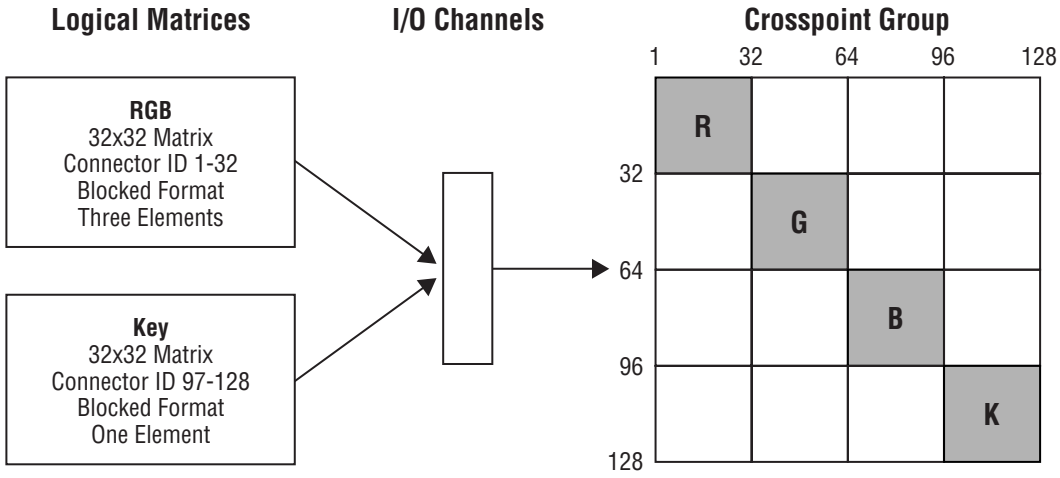
Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Audio_L_phys	32	32	1	1	1	D	A	Xpt Group	L	1-32	1-32	Block	Yes	Audio_Stereo	Audio Stereo	None	2
Audio_R_phys	32	32	1	1	1			Xpt Group	R	1-32	1-32	Block	Yes				

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

RGB and Key as Two Levels in One Crosspoint Group

This example is for two levels mapped onto the same Crosspoint Group. The first level has three elements (R, G and B) and the second level has one element (Key).

Figure 131. RGB and Key as Two Levels in One Crosspoint Group



A source (or destination) level mapped to the RGB logical matrix (on the RGB level) is configured with a connector in the range 1 to 32. Connectors in the range 33 to 64 and 65 to 96 are automatically used for second and third elements. The key logical matrix has a single element and uses connectors in the range 97 to 128.

Table 11. Configuration for RGB and Key as Two Levels in One Crosspoint Group

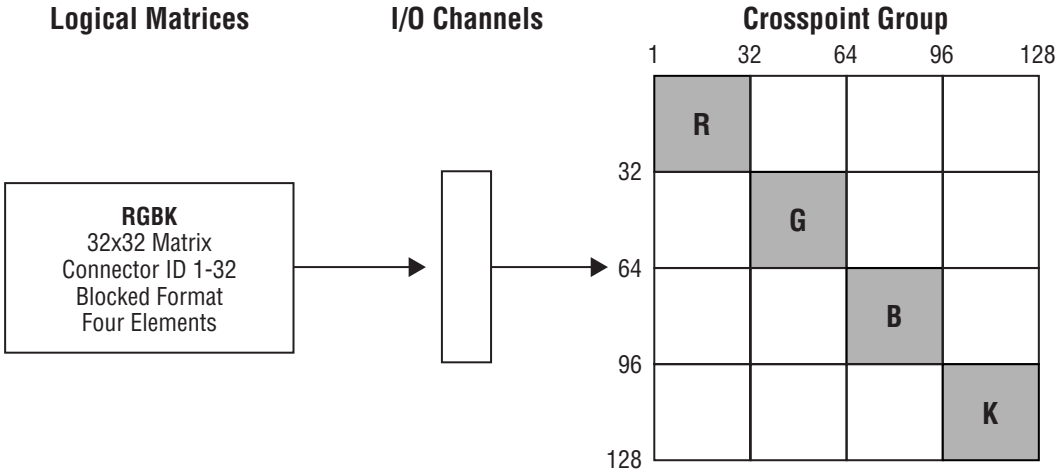
Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
RGBK_Phys	128	128	1	4	1	A	A	Xpt Group	R	1-32	1-32	Block	Yes	RGB	RGB	None	3
									G	33-64	33-64	Block	Yes				
									B	65-96	65-96	Block	Yes				
									K	97-128	97-128	Block	Yes	Key	Key	None	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

RGB and Key as One Level in One Crosspoint Group

This example is for one level mapped onto a single Crosspoint Group. This level has four elements (R, G, B and Key).

Figure 132. RGB and Key as One Level in One Crosspoint Group



A source (or destination) level mapped to the RGBK logical matrix (on the RGBK level) is configured with a connector in the range 1 to 32. Connectors in the range 33 to 64, 65 to 96 and 97 to 128 are automatically used for second, third and fourth elements.

Table 12. Configuration for RGB and Key as One Level in One Crosspoint Group

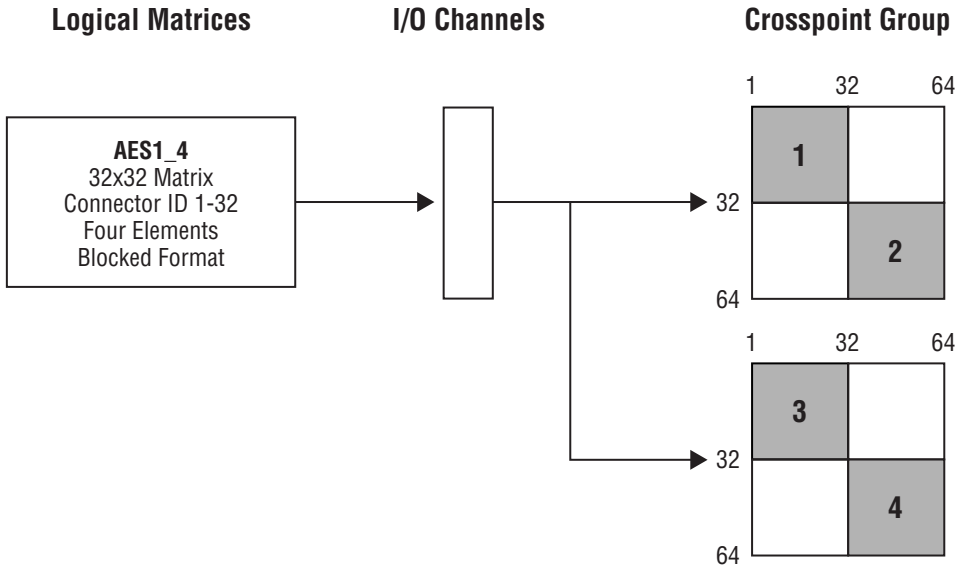
Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
RGBK_Phys	128	128	1	4	1	A	A	Xpt Group	R	1-32	1-32	Block	Yes	RGBK	RGBK	None	4
									G	33-64	33-64	Block	Yes				
									B	65-96	65-96	Block	Yes				
									K	97-128	97-128	Block	Yes				

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Four Elements in Two Crosspoint Group (Blocked)

This example is for one level (AES 1 - 4) containing 4 elements (AES 1, AES 2, AES 3 and AES 4) which is mapped into two Crosspoint Groups and uses blocked format. Multi-dropped serial communications are used.

Figure 133. Four Elements in Two Crosspoint Group (Blocked)



A source (or destination) level mapped to the AES1_4 logical matrix (on the AES 1 - 4 level) is configured with a connector in the range 1 to 32. The AES 1 element uses the first Crosspoint Group with the configured crosspoint (1 to 32). The second element (AES 2) automatically uses the first Crosspoint Group with crosspoints in the range 33 to 64 (configured crosspoint + 32). The third element (AES 3) automatically uses the second Crosspoint Group with crosspoints in the range 1 to 32 (configured crosspoint). The fourth element (AES 4) automatically uses the second Crosspoint Group with crosspoints in the range 33 to 64 (configured crosspoint + 32).

Multi-drop Serial Communications

This example is as described above.

Independent Serial Communications

This example is similar to *Multi-drop Serial Communications* above, but uses two independent I/O channels, one to each of the Crosspoint Groups, as in example *Two Elements in Two Crosspoint Groups (Separate I/O)* *on page 202*.

Table 13. Configuration for Four Elements in Two Crosspoint Group (Blocked)

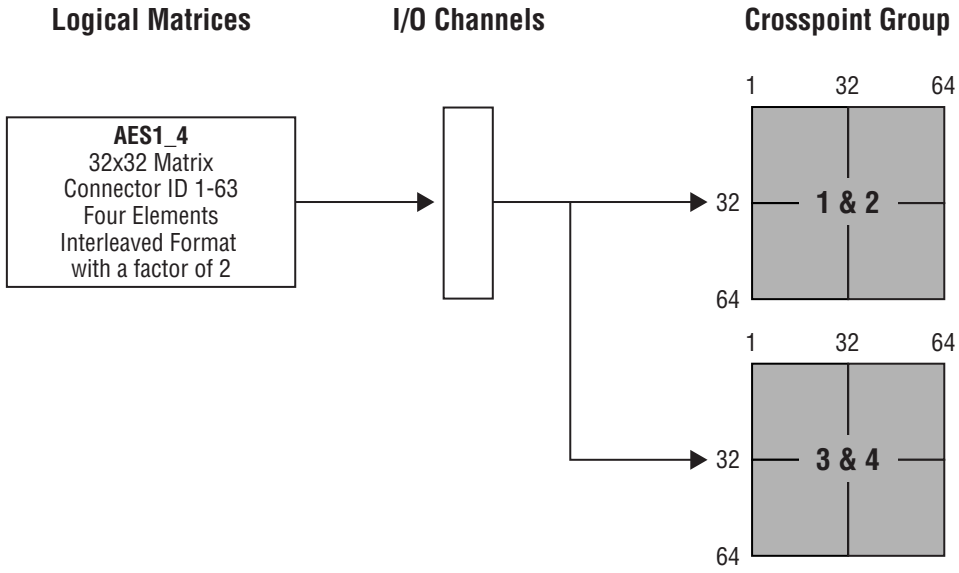
	Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
	Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Multi-drop Serial Communications	AES_12Phys	64	64	1	2	1	S	D	Xpt Group	1	1-32	1-32	Block	Yes	AES1_4	AES 1234	None	4
										2	33-64	33-64	Block	Yes				
	AES_34Phys	64	64	1	2	1			Xpt Group	3	1-32	1-32	Block	Yes				
										4	33-64	33-64	Block	Yes				
Independent Serial Communications	AES_12Phys	64	64	1	2	1	D	A	Xpt Group	1	1-32	1-32	Block	Yes	AES1_4	AES 1234	None	4
										2	33-64	33-64	Block	Yes				
	AES_34Phys	64	64	1	2	1			Xpt Group	3	1-32	1-32	Block	Yes				

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Four Elements and Two Crosspoint Group (Interleaved)

This example is for one level (AES 1 - 4) containing four elements (AES 1, AES 2, AES 3 and AES 4) which is mapped into two Crosspoint Groups and uses interleaved format.

Figure 134. Four Elements and Two Crosspoint Group (Interleaved)



A source (or destination) level mapped to the AES1_4 logical matrix (on the AES 1 - 4 level) is configured with an odd numbered connector in the range 1 to 63 (total of 32 connectors available). The AES 1 element uses the first Crosspoint Group with the configured crosspoint (1 to 63 odd). The second element (AES 2) automatically uses the first Crosspoint Group with crosspoints in the range 2 to 64 (configured crosspoint + 1). The third element (AES 3) automatically uses the second Crosspoint Group with crosspoints in the range 1 to 63 (configured crosspoint). The fourth element (AES 4) automatically uses the second Crosspoint Group with crosspoints in the range 2 to 64 (configured crosspoint + 1).

Multi-drop Serial Communications

This example is as described above.

Independent Serial Communications

This example is similar to *Multi-drop Serial Communications* above, but uses two independent I/O channels, one to each of the Crosspoint Groups, as in example *Two Elements in Two Crosspoint Groups (Separate I/O)* *on page 202*.

Table 14. Configuration for Four Elements and Two Crosspoint Group (Interleaved)

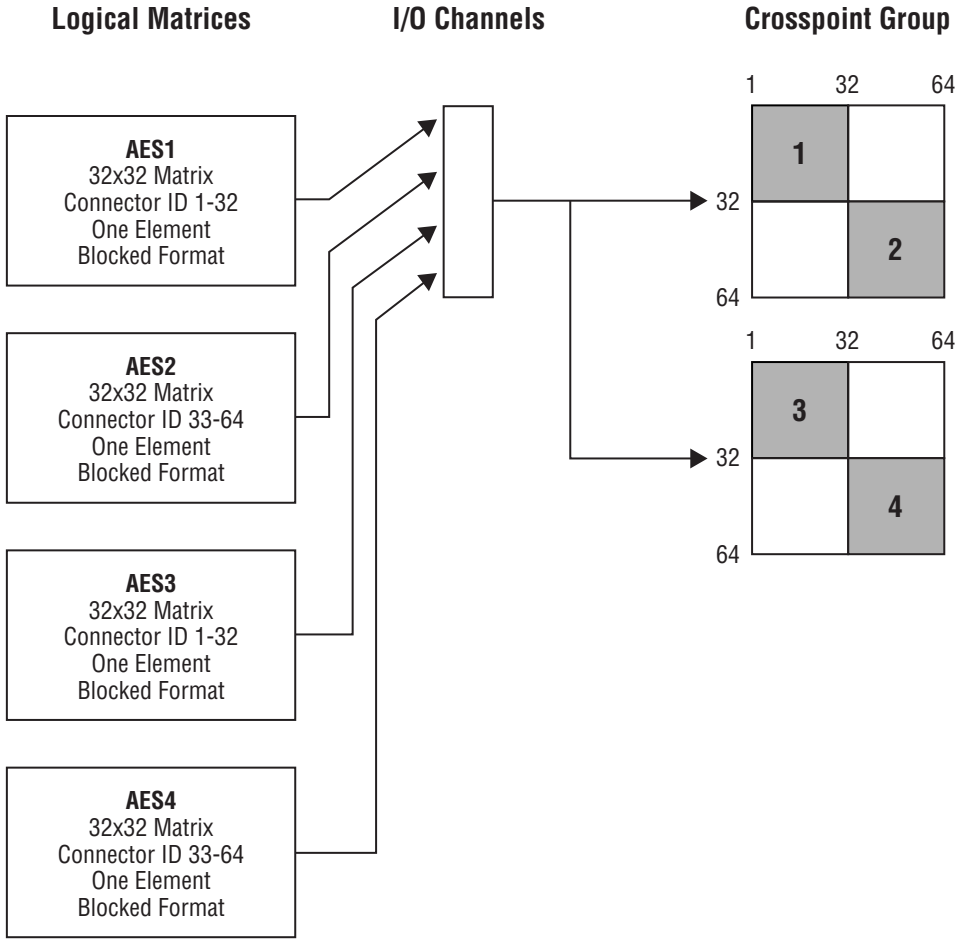
	Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
	Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Multi-drop Serial Communications	AES_12Phys	64	64	1	2	1	S	D	Xpt Group	1	1-63	1-63	Interleave Factor 2	Yes	AES1_4	AES 1234	None	4
										2	2-64	2-64	Interleave Factor 2	Yes				
	AES_34Phys	64	64	1	2	1			Xpt Group	3	1-63	1-63	Interleave Factor 2	Yes				
										4	2-64	2-64	Interleave Factor 2	Yes				
Independent Serial Communications	AES_12Phys	64	64	1	2	1	D	A	Xpt Group	1	1-63	1-63	Interleave Factor 2	Yes	AES1_4	AES 1234	None	4
										2	2-64	2-64	Interleave Factor 2	Yes				
	AES_34Phys	64	64	1	2	1			Xpt Group	3	1-63	1-63	Interleave Factor 2	Yes				
										4	2-64	2-64	Interleave Factor 2	Yes				

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Four Levels and Two Crosspoint Group (Blocked)

This example is for four levels (AES 1, AES 2, AES 3 and AES 4) each containing a single element. AES 1 and AES 2 are mapped to the same Crosspoint Group. AES 3 and AES 4are mapped to a second Crosspoint Group. The logical matrices use blocked format.

Figure 135. Four Levels and Two Crosspoint Group (Blocked)



Source (or destination) levels are independently mapped to the four logical matrices (AES1, AES2, AES3 or AES4) on the appropriate level. Logical matrix AES1 uses the first Crosspoint Group with connectors in the range 1 to 32. Logical matrix AES2 uses the first Crosspoint Group with connectors in the range 33 to 64. Logical matrix AES3 uses the second Crosspoint Group with connectors in the range 1 to 32. Logical matrix AES4 uses the second Crosspoint Group with connectors in the range 33 to 64.

Multi-drop Serial Communications

This example is as described above.

Independent Serial Communications

This example is similar to *Multi-drop Serial Communications* above but uses two independent I/O channels, one to each of the Crosspoint Groups, as in example *Two Elements in Two Crosspoint Groups (Separate I/O)* *on page 202*.

Table 15. Configuration for Four Levels and Two Crosspoint Group (Blocked)

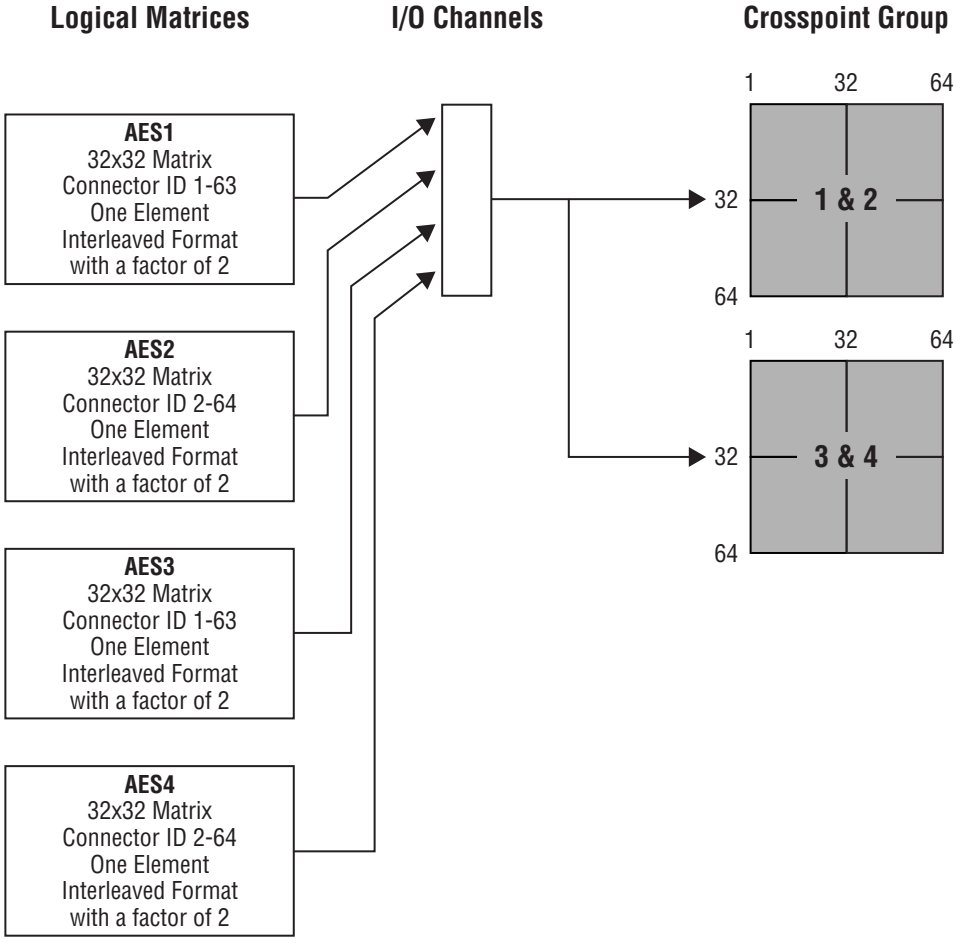
	Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
	Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Multi-drop Serial Communications	AES_12Phys	64	64	1	2	1	S	D	Xpt Group	1	1-32	1-32	Block	Yes	AES1	AES1	None	1
										2	33-64	33-64	Block	Yes	AES2	AES2	None	1
	AES_34Phys	64	64	1	2	1			Xpt Group	3	1-32	1-32	Block	Yes	AES3	AES3	None	1
										4	33-64	33-64	Block	Yes	AES4	AES4	None	1
Independent Serial Communications	AES_12Phys	64	64	1	2	1	D	A	Xpt Group	1	1-32	1-32	Block	Yes	AES1	AES1	None	1
										2	33-64	33-64	Block	Yes	AES2	AES2	None	1
	AES_34Phys	64	64	1	2	1			Xpt Group	3	1-32	1-32	Block	Yes	AES3	AES3	None	1
										4	33-64	33-64	Block	Yes	AES4	AES4	None	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Four Levels and Two Crosspoint Groups (Interleaved)

This example is for four levels (AES 1, AES 2, AES 3 and AES 4) each containing a single element. AES 1 and AES 2 are mapped to the same Crosspoint Group. AES 3 and AES 4are mapped to a second Crosspoint Group. The logical matrices use interleaved format.

Figure 136. Four Levels and Two Crosspoint Groups (Interleaved)



Source (or destination) levels are independently mapped to the four logical matrices (AES1, AES2, AES3 or AES4) on the appropriate level. Logical matrix AES1 uses the first Crosspoint Group with odd connectors in the range 1 to 63 (total of 32 connectors). Logical matrix AES2 uses the first Crosspoint Group with even connectors in the range 2 to 64. Logical matrix AES3 uses the second Crosspoint Group with odd connectors in the range 1 to 63. Logical matrix AES4 uses the second Crosspoint Group with even connectors in the range 2 to 64.

Multi-drop Serial Communications

This example is as described above.

Independent Serial Communications

This example is similar to *Multi-drop Serial Communications* above but uses two independent I/O channels, one to each of the Crosspoint Groups. Logical matrices AES1 and AES2 use the first I/O channel and the first Crosspoint Group. Logical matrices AES3 and AES4 use the second I/O channel and the second Crosspoint Group.

Table 16. Configuration for Four Levels and Two Crosspoint Groups (Interleaved)

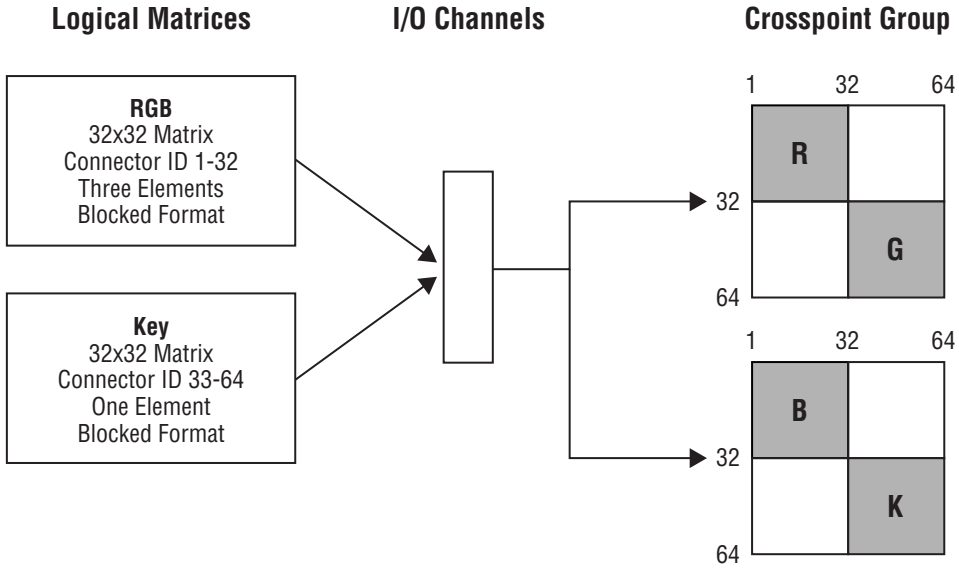
	Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
	Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Multi-drop Serial Communications	AES_12Phys	64	64	1	2	1	S	D	Xpt Group	1	1-63	1-63	Interleave Factor 2	Yes	AES1	AES1	None	1
										2	2-64	2-64	Interleave Factor 2	Yes	AES2	AES2	None	1
	AES_34Phys	64	64	1	2	1			Xpt Group	3	1-63	1-63	Interleave Factor 2	Yes	AES3	AES3	None	1
										4	2-64	2-64	Interleave Factor 2	Yes	AES4	AES4	None	1
Independent Serial Communications	AES_12Phys	64	64	1	2	1	D	A	Xpt Group	1	1-63	1-63	Interleave Factor 2	Yes	AES1	AES1	None	1
										2	2-64	2-64	Interleave Factor 2	Yes	AES2	AES2	None	1
	AES_34Phys	64	64	1	2	1			Xpt Group	3	1-63	1-63	Interleave Factor 2	Yes	AES3	AES3	None	1
										4	2-64	2-64	Interleave Factor 2	Yes	AES4	AES4	None	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

RGB and Key as Two Levels and Two Crosspoint Groups

This example is for two levels (RGB and Key) with the RGB level containing 3 elements (R, G and B) and the Key level containing one element. The R and G elements are mapped onto one Crosspoint Group. The B element and the key level is mapped onto a second Crosspoint Group.

Figure 137. RGB and Key as Two Levels and Two Crosspoint Groups



A source (or destination) level mapped to the RGB logical matrix is configured with a connector in the range 1 to 32. The R element uses the first Crosspoint Group with the configured crosspoint (1 to 32). The second element (G) automatically uses the first Crosspoint Group with crosspoints in the range 33 to 64 (configured crosspoint + 32). The third element (B) automatically uses the second Crosspoint Group with crosspoints in the range 1 to 32 (configured crosspoint). The Key logical matrix is on another level with a single element. Sources or destination levels mapped to the Key logical matrix uses connectors in the range 33 to 64 on the second Crosspoint Group.

Multi-drop Serial Communications

This example is as described above.

Independent Serial Communications

This example is similar to *Multi-drop Serial Communications* above but uses two independent I/O channels, one to each of the Crosspoint Groups.

Table 17. Configuration for RGB and Key as Two Levels and Two Crosspoint Groups

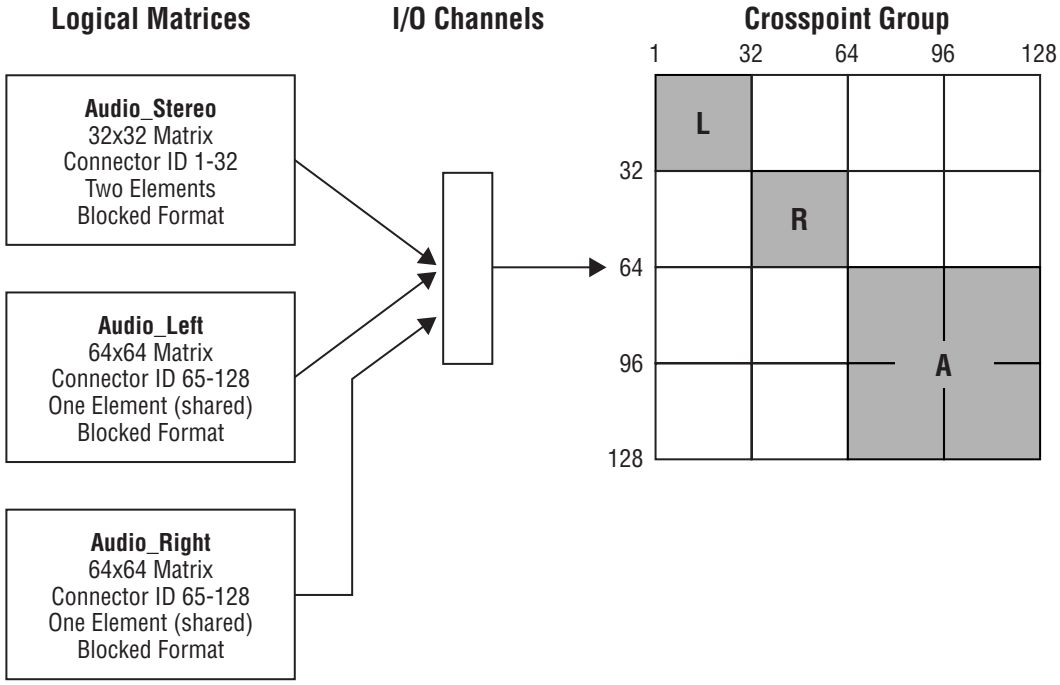
	Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
	Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Multi-drop Serial Communications	PAL1_Phys	64	64	1	2	1	S	D	Xpt Group	R	1-32	1-32	Block	Yes	RGB	RGB	None	3
										G	33-64	33-64	Block	Yes				
	PAL2_Phys	64	64	1	2	1			Xpt Group	B	1-32	1-32	Block	Yes				
										K	33-64	33-64	Block	Yes	Key	Key	None	1
Independent Serial Communications	PAL1_Phys	64	64	1	2	1	D	A	Xpt Group	R	1-32	1-32	Block	Yes	RGB	RGB	None	3
										G	33-64	33-64	Block	Yes				
	PAL2_Phys	64	64	1	2	1			Xpt Group	B	1-32	1-32	Block	Yes				
										K	33-64	33-64	Block	Yes	Key	Key	None	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Multiple Levels and Shared Elements

This example is for three levels mapped onto a single Crosspoint Group. The first level is Audio Stereo and has two elements (Audio Left and Right). The other two levels both have a single element (Audio Left and Audio Right) and share the same crosspoints.

Figure 138. Multiple Levels and Shared Elements



A source (or destination) level mapped to the Audio_Stereo logical matrix is configured with a connector in the range 1 to 32. Connectors in the range 33 to 64 are automatically used for second element. Even if all the crosspoints were fitted in the range 1 to 64, the Router Controller cannot carry out an interlevel take to swap audio channels within the Audio Stereo level (since this is a single level).

The Audio_Left and Audio_Right logical matrices share the crosspoints in the range 65 to 128. Interlevel routing can be carried out by the Router Controller between the Audio Right and Audio Left levels.

Table 18. Configuration for Multiple Levels and Shared Elements

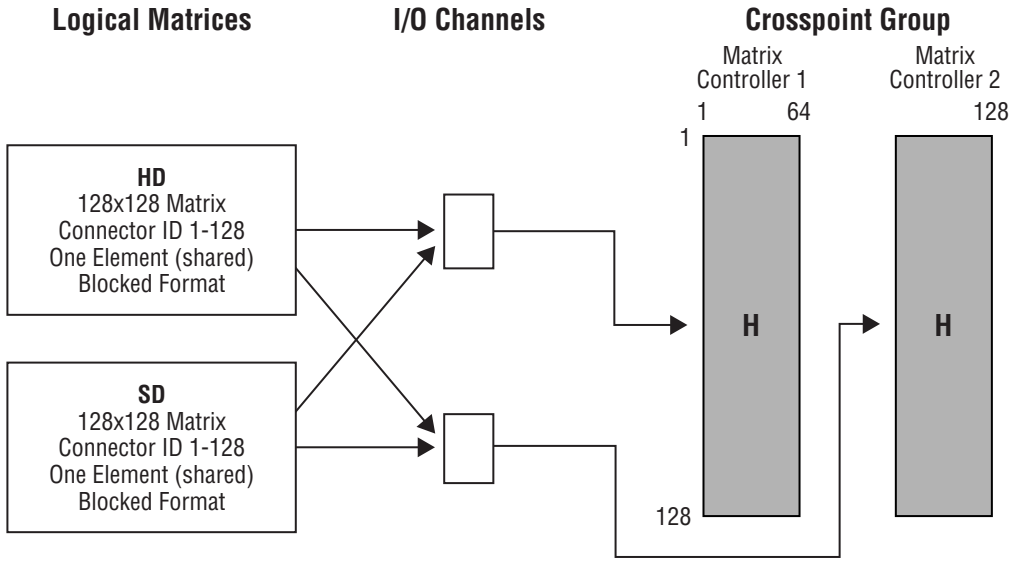
Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
Audio_Phys	128	128	1	3	1	A	A	Xpt Group	L	1-32	1-32	Block	Yes	Audio_Sterio	Audio Stereo	None	2
									R	33-64	33-64	Block	Yes				
									A	65-128	65-128	Block	No	Audio_Left	Audio Left	Audio Right	1
														Audio_Right	Audio Right	Audio Left	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Multiple Matrix Controllers and Shared Elements

This example is for two Matrix Controllers configured as a single 128 x 128 Crosspoint Group. There are two levels (HD and SD) which share all the crosspoints.

Figure 139. Multiple Matrix Controllers and Shared Elements



The HD and SD logical matrices share the crosspoints in the range 1 to 128. Interlevel routing should not be enabled to ensure that the Router Controller does not switch an SD source to an HD destination or vice versa.

Table 19. Configuration for Multiple Matrix Controllers and Shared Elements

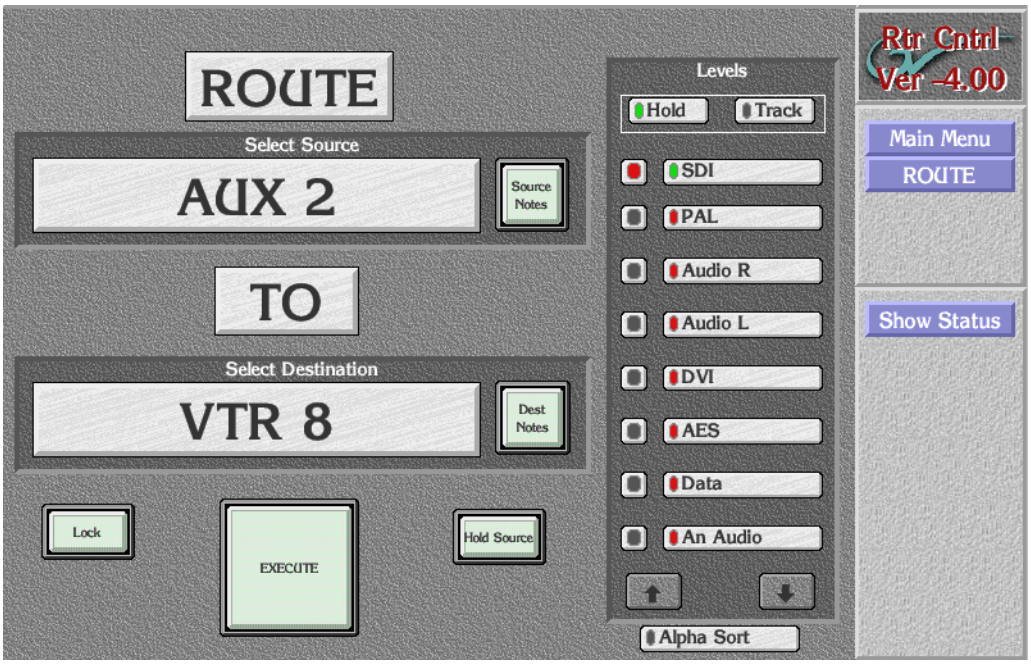
Crosspoint Group					Matrix Controllers within Crosspoint Group				Segments within Crosspoint Group					Logical Matrix			
Name	Max Input	Max Output	Matrix Controllers	Segments	Matrix Controller	I/O Channel [a]	Address [a]	Outputs	ID	Input range	Output range	Type & Factor	Unique	Name	Level	Inter levels	Elements
HD_Phys	128	128	2	1	1	D	A	64	H	1-128	1-128	Block	No	HD	HD	None	1
					2			64						SD	SD	None	1

[a] S = Same for both crosspoint groups; D = Different for each crosspoint group; A = Any channel.

Route

The Route Screen (Figure 140) enables takes to be made between Sources and Destinations.

Figure 140. Route Screen



Select Source — Allows a Source to be selected by name or number from a list.

Source Notes — Allows the entry of notes about the selected Source.

Select Destination — Allows a Destination to be selected by name or number from a list.

Dest Notes — Allows the entry of notes about the selected Destination.

Lock — Locks (indicator shows green) or unlocks the currently selected Destination.

Execute — Executes the chosen take with the currently selected levels.

Hold Source — When this button is green and a new Destination is selected, the Source is 'held' from the previous take instead of the Source that is currently connected to the new Destination from being displayed. This feature enables many takes that all use the same Source to be made quickly.

Levels

Hold indicator When the indicator is green, the selected levels in the Levels Area remain fixed for the next take.

Track indicator When the indicator is green, the current levels (and the Sources supplying these levels) are automatically selected when the next take after the current take has been executed.

Level n indicator These buttons are used to specify the Level(s) to be used in a particular take.

Up arrow Pages up one screen of Levels per click.

Down arrow Pages down one screen of Levels per click.

Menu Bar Group

Show Status Displays the Router Status Screen.

Making a Take

1. Click on the button directly below the Select Destination text and choose a Destination from the list window. The selected Destination is then shown on the button.
2. Click on the button directly below the **Select Source** text and choose a Source from the list window. The selected Source is then shown on the button.
3. In the **Levels** Area on the right of the screen, select the levels that you want to take by clicking on the long indicator buttons (i.e., the buttons that show the names of the levels). Use the arrow buttons if necessary to scroll down to reveal more levels. A green indicator signifies that a Level is selected, and a red indicator signifies that a Level is not selected.

Note A Destination must be selected prior to selecting the Levels to route, even if this means re-selecting a Destination. If a take is executed, Levels are changed, and the same take is executed again, the new Levels will not be taken.

4. Use the small indicator buttons in the **Levels** Area to check if a Level is currently routed to a Destination for the selected Source. A green indicator signifies that the Level is routed for the selected Source, and a red indicator signifies that a different Source is routed to the Destination on this particular Level. Clicking on the small button when the indicator is red shows the name of the Source currently routed on this Level (this is shown below the **Select Source** text).

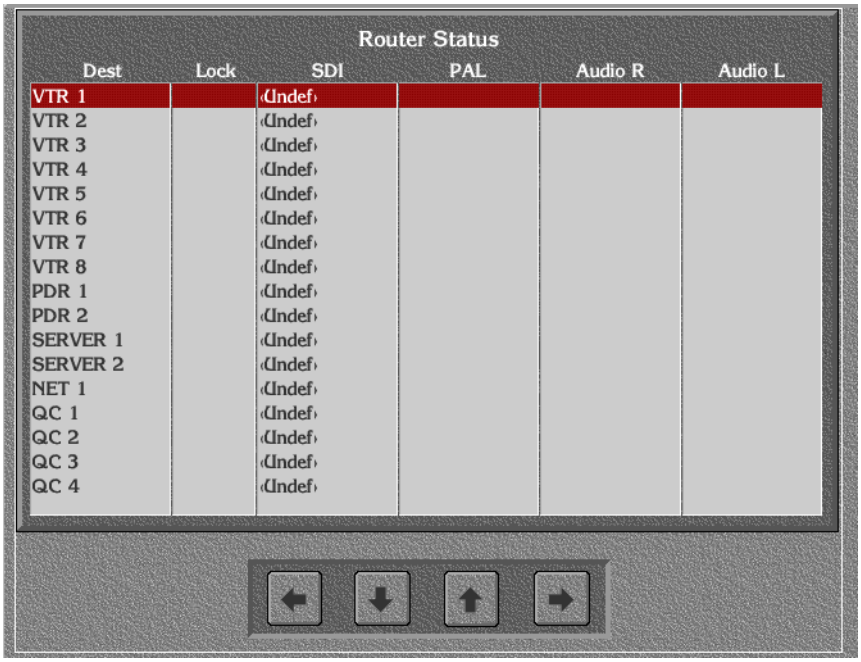
5. Click on the **EXECUTE** button to make the take.

Note The **Hold Source** button (when it is green) allows the user to hold the currently selected Source when a new Destination is selected. This feature enables the same Source to be taken to a number of different Destinations very quickly.

Router Status Screen

The Router Status Screen (Figure 141) shows the status of each Destination configured in the Router Control application. Arrow buttons are situated near the bottom of the screen to allow the user to scroll through the information.

Figure 141. Router Status Screen



Dest column Fixed column which is always visible in this screen and lists Destinations by name.

Lock column Fixed column which is always visible in this screen and indicates whether its Destination is locked.

Left arrow Scrolls columns 3-*n* one column to the left per click.

Up arrow Pages up one screen of Destinations per click.

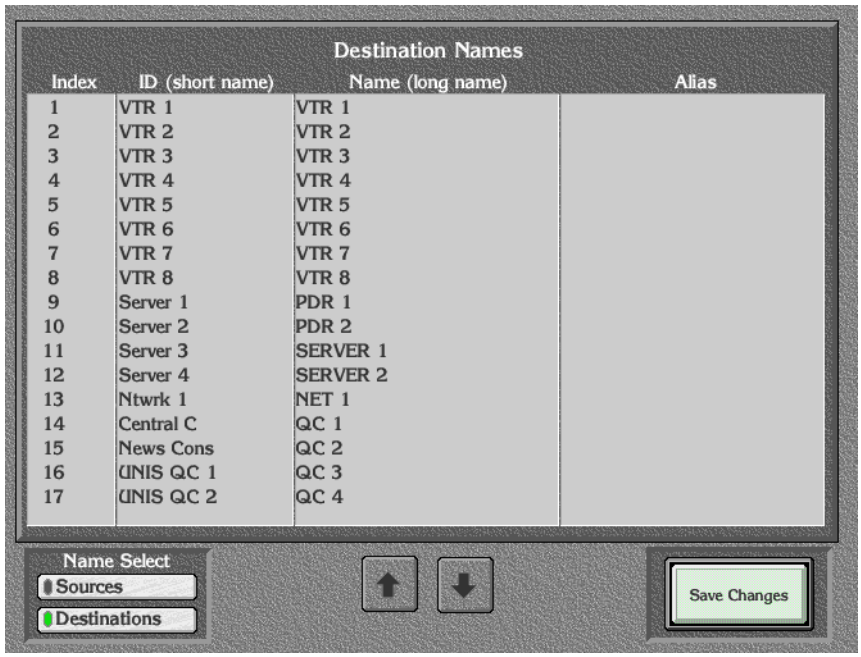
Down arrow Pages down one screen of Destinations per click.

Right arrow Scrolls columns 3-*n* one column to the right per click.

Names Screen

The Names Screen (Figure 142) shows the names (short ID names with a maximum of 8 characters, and longer more meaningful names with a maximum of 16 characters) of the Sources or the Destinations that have been configured in the Router Control application. Aliases can also be up to 16 characters long.

Figure 142. Destination Names Screen



Index column Lists a number unique to the Destination or Source to its right.

ID (short name) column Lists the short name for the Destination or Source.

Name (long name) column Lists the long name for the Destination or Source.

Up arrow	Pages up one screen of Destinations or Sources per click.
Down arrow	Pages down one screen of Destinations or Sources per click.
Save Changes	Saves any changes that have been made to either the Source or Destination names.

Name Select

Sources indicator	When the indicator is green, the Names Screen shows the Source names.
Destinations indicator	When the indicator is green, the Names Screen shows the Destination names.

Changing a Name

1. Select either Sources or Destinations by clicking on the **Sources** or **Destinations** indicator button in the bottom left corner of the screen. The screen will then display either the Source names or the Destination names (depending on your choice).
2. Use the arrow buttons if necessary to scroll through the index of names until you find the name that you want to change.
3. Click on the ID or long name that you want to change. Type the new name in the alpha/numeric keypad that appears on the screen. The new name is then shown in the index of names.
4. Repeat Step 2 and Step 3 until you have changed all the names that you want.
5. Click on the **Save Changes** button to confirm and register all the name changes.

Section 4

Control Panel Server

CP Server Overview

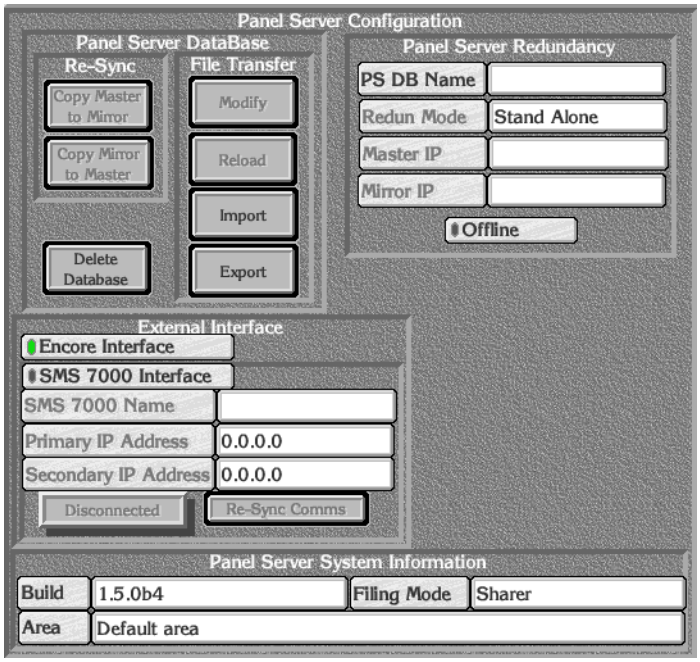
The Control Panel Server application includes the capability to configure and manage the Control Panel Server and to configure control panels.

Figure 143. The Control Panel Server Main Window

Configuring the Control Panel Server

When you first configure your Encore system, you'll probably want to tweak the factory settings for the Control Panel Server. Do so using the (Control) Panel Server Configuration window (Figure 144), accessed by clicking the **Panel Servers** button on the Main Menu.

Figure 144. (Control) Panel Server Configuraton Window



Panel Server System Information

Path field Displays the configuration file path for the control panel database. Can't be changed by the user. If the **Filing Mode** is Local, the path is to the database loaded from the locally shared cache on the system controller. This mode is used when the Sharer is not present during Router Controller start-up. If the **Filing Mode** is Sharer, the path reflects the location of the database loaded from the Sharer.

Build field Reports the software version of the Control Panel Server application. Can't be changed by user.

Filing Mode button Displays the source of the active database — Local or Sharer. Cannot be changed here by the user. In Local mode, the database is loaded from the locally shared cache on the system controller. This mode is used when the Sharer is not detected during Control Panel Server start-up. If the Sharer comes on line after the Control Panel Server starts, the mode will remain Local until the user presses the **Modify** button. Doing so writes the local configuration to the Sharer and switches the filing mode to Sharer. In Sharer filing mode the database is loaded from the configuration PC (which runs the Sharer).

Area field This is a read-only field reporting the Area settings made with Manager Service (System Manager) when adding applications.

PS DB Name button Click in this field to type a unique name for the Panel Server database. The database must have a name to function correctly. That name must be unique unless it is being mirrored in which case both the master and mirror Panel Server databases must have identical names.

Re-Sync

Copy Master to Mirror button Forces a copy of the Control Panel Server database from the master identified in the **Master IP** field to the mirror identified in the **Mirror IP** field.

Delete Database button Clears the control panel memory and forces it to be updated from the Control Panel Server. It does not delete any files. To delete the database from the Sharer — Caution! — click the **Modify** button to save an empty database back to the Sharer.

File Transfer

Modify button Saves the control panel database from the configuration PC's memory to the Sharer. You must click this button to save any configuration changes you've made. This action also switches the **Filing Mode** from Local to Sharer.

Reload button Reloads the control panel database from the Sharer. The control panel database is re-configured to the same state as it was when it was last saved.

Import button Imports files from the `PSApp` directory you choose on the drive you specify in the ensuing screens: the floppy disk (fd0) or the primary hard disk (hd0) on the controller or the floppy drive (*IP number*//fd0) or the primary hard disk (*IP number*//hd0) of the workstation running the OUI. Importing control panel configuration information is an alternative way of quickly configuring the Control Panel Server.

Export button Exports the current control panel database to a `PSApp` directory to the target and path you choose when you click the **Path** button in the ensuing screen: either to the PC's floppy disk (fd0) or to the PC's primary hard disk (hd0). These exported settings can then be used to configure other Control Panel Servers. This is also an effective way to back up Control Panel Server configurations.

Panel Server Redundancy

Master IP button Specify the IP address of the device which will act as the control panel server master.

Mirror IP button In this field, specify the IP address of the device which will mirror the master control panel server.

Offline indicator button Toggles the control panel server on-, or offline.

Note Immediately after installation, and before a configuration has been saved, the control panel server(s) will come up in the offline mode (this also generates a `No Comm` message on panels). Click this button to place the panel server online. Once a configuration has been saved, the panel server, if reset, will come up in the mode (on- or offline) specified in the configuration.

Exporting/Importing Control Panel Server System Configurations

Encore allows you to share or back up Control Panel Server configurations by exporting/importing the configuration information in a folder containing several files. This section tells you how to export and import such files from/to the Control Panel Server application.

Note These functions export/import all Control Panel Server and all control panel configuration files.

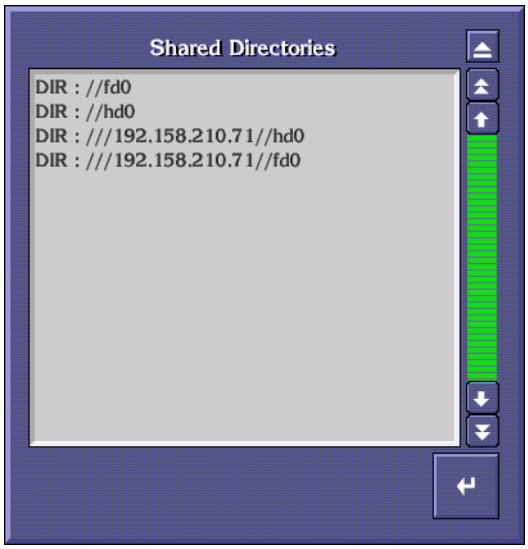
To export a control panel server configuration follow these steps

a. If you're not there already, click the **Panel Server** button on the Main menu to open the Panel Server Configuration screen.

b. Click the **Export** button in the File Transfer section of the screen.

The Shared Directories window (Figure 145) will open. fd0 is your PC floppy disk drive; hd0 is your PC primary hard disk.

Figure 145. Shared Directories Window



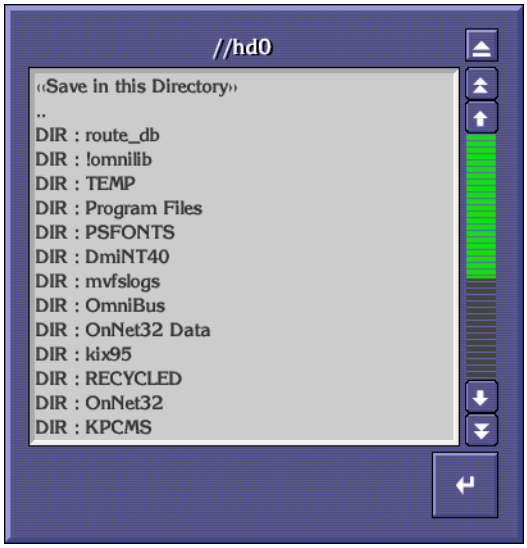
Note NT workstations must have the guest account enabled (with no password required) and have a shared folder named `hd0`. The diskette, on the other hand, must be named `fd0` and shared.

CAUTION Duplicate file names in the same PSApp folder will be over-written without warning. You may want to use Explorer to peek inside your intended destination before you proceed.

Note The folders in your intended path must already exist and can be created in Windows Explorer, but folder names must not exceed eight characters. You can not create folders "on the fly" as you might in Windows. However, Encore will automatically append a PSApp folder to the end of your path and that is where your file will be stored.

Double-clicking the `hd0` entry will display the contents of the control panel server's hard disk. Double-clicking the `IP number/ /hd0` entry will display the contents of your workstation's hard disk as demonstrated in Figure 146. To navigate back up the directory structure, double-click the two periods.

Figure 146. Hard Disk Directory List



c. Select the directory where you want to store the `PSApp` subdirectory which contains your configuration files.

The path will appear at the top of the directory list box. Remember that Encore always appends the `PSApp` directory.

d. Click **Save in this Directory** (at the top of the directory list) to export the configuration files to your target.

An efficient way to share configurations between panel servers and thereby reduce the likelihood of data entry errors is to import an existing and tested panel server configuration. To import these files containing the panel server configuration:

a. Click the **Panel Server** button on the Menu Bar.

a. When the Panel Server Configuration window opens, click the **Import** button and navigate to and select the `PSApp` directory containing the configuration you want to import.

Note Remember that your file must be in a `PSApp` directory.

b. Once you've imported the file, make any required changes to it.

c. Click the **Modify** button to save your imported settings to the Sharer.

RCL Servers

RCL commands are documented in the *Routing Products Protocol Manual*.

Interfacing with the RCL Server

The RCL Server is embedded within the Control Panel Server. The system must be configured as follows to enable full funcitonality.

Note RCL Server communication requires that the Sharer is online.The Router Controller must be online before a client can connect to the RCL Server and get proper response for the commands it sends.

1. Launch the Sharer if it's not already running on the network.
2. Launch System Manager (Manager Service) if it's not already running.
3. Launch the Router Control application if it's not already running.
4. Launch the Encore OUI if it's not already running.
5. From within the Encore OUI, open the Router Control application.
6. Change the Area on the Router Controller to Area 1.

   The RCL Server communicates with Area 1 only for Native Protocol Clients.

RCL Clients

Clients can communicate only with the Router Engine running in Area 1.

Use the instructions provided by the Client's manufacturer to configure the Client to communicate with the machine on which the Control Panel Server is running.

RCL Client Names

All RCL clients (up to 17 are allowed) *must* have unique names to prevent unpredictable behavior.

RCL Client names must not begin with any form of "com."

RCL Port Configuration

The RCL Port (COM2) comes configured from the factory. No additional configuration is normally required. However, if changes are required, an ASCII file named `rclport.txt` must be created and located on the root level of the C drive (`C:\`). The file must contain only one line in the following form:

portnumber,baudrate,databits,stopbits,parity,flowcontrol

Example:

```
2,9600,8,1,0,0
```

Permissible parameters are as follows:

- Portnumber -

  com2-2
- Baudrate

  Any one of the following values

  50,150,300,600,1200,1800,2400,3600,4800,7200,9600,19200,38400,115200
- Databits

  Any one of the following values

  5,6,7,8
- Stopbits

  Either of the following values

  1,2
- Parity

  Any one of the following values

  0-No parity,1-odd,2-even
- Handshake

  Any one of the following values

  0-None, 1-HS_XONXOFF, 2-HS_RTSCTS

Configuring Encore Control Panels

Encore control panels must be configured before they can be put in use. Each type of panel comes with a default configuration, but you'll want to adapt them to your needs.

Before configuring any control panels, confirm that you have configured your router controller. For details and procedures, see *Section 3-Router Control Application*.

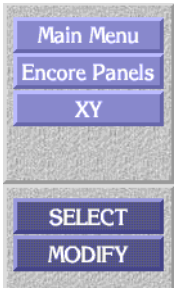
There are a couple things you'll notice as you look at the various panel screens.

- Control panel screens are, for the most part, designed to work with the Menu Bar out of the way. To hide it, you can either ...
  a. Click the **Title Box** in the upper right corner of the Encore OUI, click **Options** in the OUI Station Status window and then toggle the **Swipe Menu Bar** indicator button on. Once you exit and re-log on to Encore, this will make the Menu Bar appear and disappear as you respectively near it or leave it with the cursor.
  b. If **Swipe Menu Bar** is off, click the **Clock** in the upper right corner of the Encore OUI to alternately hide or display the Menu Bar.
- With a little imagination, you'll also notice that the upper portions of each panel window look like their physical control panel counterpart if you were to cut the actual panel in half vertically and stack the left half atop the right half. In other words, all the buttons and displays on the left half of the physical control panel are on the top of the corresponding control panel window and the buttons and displays on the right half of the physical panel are beneath the others in the control panel window.

Common Control Panel Window Buttons and Features

Some buttons and features are common to most or all of the panel screens so we'll discus them first.

Menu Bar Buttons



Main Menu Returns you to the opening "splash" screen of the Control Panel Server application.

Encore Panels button Returns to the main Encore Panels window where you're prompted to select a type of Encore panel.

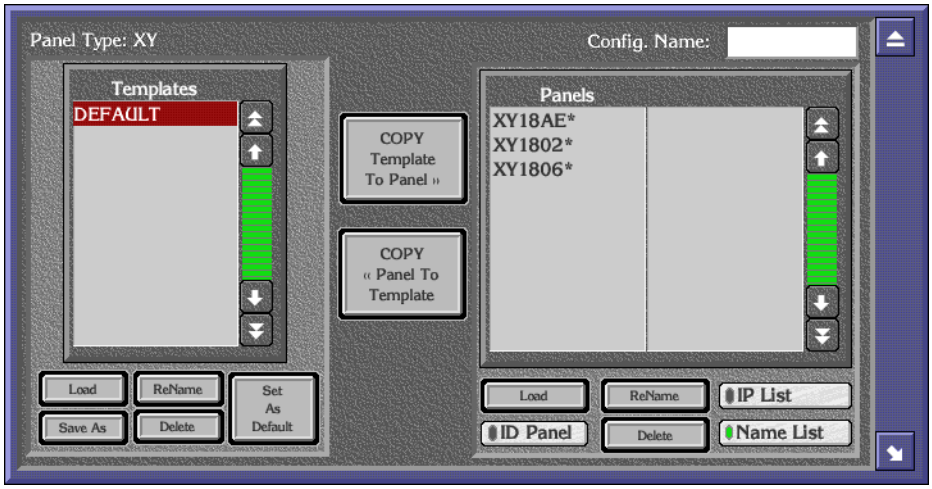
***x* panel button** Like the rest of the Encore environment, the bottom-most button on this upper section of the Menu Bar indicates the window you're viewing — in our example, we'd be viewing the XY panel window.

SELECT button Opens the *Panel Template Management Window* where you can Load a different template, Save a selected template by another name, Rename a selected template, Delete a selected template, Set a selected template as the default, or Copy a selected template to one or more control panels of the same type.

MODIFY button Saves the currently loaded template or panel configuration to the Control Panel Server database.

Panel Template Management Window

Figure 147. The Panel Template Management Window



Panel Type: Displays the type of panel you selected.

Config. Name Displays the name of the configuration when one is loaded.

Templates

Templates list window Uses a scrollable list window to display all of the templates available for the selected type of panel. Only templates appropriate for the type of panel you've selected are displayed in this list.

Load button Loads the template you select in the Templates list window. The template's name will appear in the **Config. Name:** field and the template settings will be loaded into, and reflected by the main control panel window behind the Panel Template Management window.

ReName button Opens a window where you can rename any template, except the factory default, you have selected in the Templates list window. Will not rename the factory `Default` template. The template name can be up to eight characters in length. Avoid leading spaces, angle brackets (< >) on either end of the template name, and trailing pound signs (#).

Set As Default button — Sets the template you have selected in the Templates list window as the default template. Whatever template is designated as the default will be automatically assigned to any new panels of this type (for example, 48B, BPS, PMB, or XY) installed in the system until or unless you copy a different template to the panel(s). If any template other than the factory `Default` is designated as the default template, a pound sign (#) will be appended to the template name in the Templates list window to designate its status.

Save As button — Opens a window where you can save the template you have selected in the Templates list window by another name.

Delete button — Deletes the template selected in the Templates list window.

(Mid-Section)

COPY Template To Panel button — Copies the template selected in the Templates list window to the control panel selected in the Panels list window, over-writing any existing information in the selected control panel.

COPY Panel to Template button — Copies the configuration of the control panel selected in the Panels list window to the template selected in the Templates list window, over-writing any existing information in the selected template.

Panels

Panels list window — Displays a scrollable list of all of the panels of the type you selected (for example, 48B, BPS, PMB, or XY) which are, or have been connected to the system. These names will be the factory default panel names unless you've renamed them. Note, however, that you can also display panels by their IP numbers instead. See the Name List indicator button. An asterisk (*) after a control panel name indicates that it is physically connected to the network. Those without asterisks have been connected to the network at some time and are known by the system, but are not currently connected to the system.

Load button — Loads the configuration from the control panel selected in the Panels list window into the main control panel window behind the Panel Template Management window.

ReName button Allows you to create a more user-friendly or descriptive name for the panel you select in the Panels list window. A control panel can be renamed only if it is off line (no asterisk follows its name). This name is saved to both the control panel and the Control Panel Server database. Avoid leading spaces, angle brackets (< >) on either end of the panel name, and trailing asterisks (*).

IP List indicator button Toggles between displaying panels in the Panels list window by their IP number (on - green light lit) and their name (off - green light extinguished).

ID Panel indicator button Toggles control panel identification on (green light lit)/off (green light extinguished). Causes the control panel you've selected in the Panels list window to blink all buttons and display panel identification information in the control panel's display if it has one. The selected control panel stays in the ID mode until it is toggled off by clicking the button a second time or by pressing the ID button on the panel itself (on the 48B panel, press any safe button).

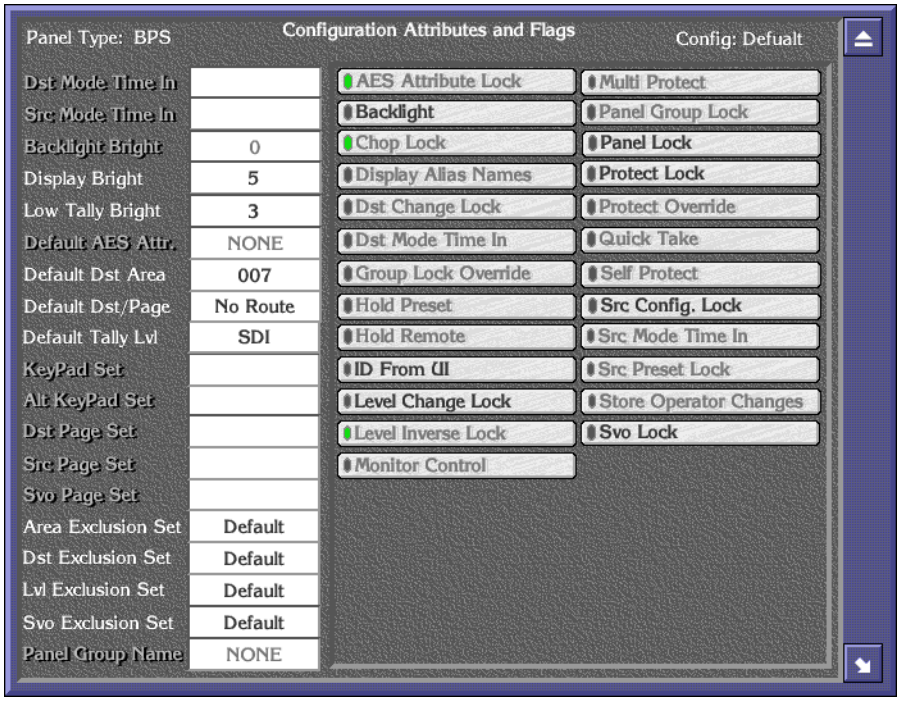
Delete button Deletes the control panel you select in the Panels list window, only if that control panel is not currently connected. Panels with an asterisk (*) after their name are connected and can not be deleted from the list.

Name List indicator button Toggles between displaying panels in the Panels list window by their name (on - green light lit) and their IP number (off - green light extinguished).

Configuration Attributes and Flags Window

The Configuration Attributes and Flags window can be accessed from each type of panel configuration screen. Some of the fields or buttons may be inactive because they are not appropriate for the kind of control panel you're configuring. The settings you make are specific to the template or configuration you save.

Figure 148. The Configuration Attributes and Flags Window



Note Field or indicator button is grayed out if it is not available to the selected panel type or with existing settings.

Panel Type: Displays the type of panel you selected.

Config. Name Displays the name of the template or configuration when one is loaded.

(Left Column)

Dst Mode Time In Specifies the length of time in seconds (from 1 to 1200) with no button activity before the panel automatically returns to Destination Mode. The **Dst Mode Time In** indicator button in the middle column of the Configuration Attributes and Flags window must also be enabled before this feature is active. Dst Mode Time In and Src Mode Time In are mutually exclusive. Enabling one disables the other, even though any existing time settings are maintained in the disabled field.

Src Mode Time In	Specifies the length of time in seconds (from 1 to 1200) with no button activity before the panel automatically returns to Source Mode. The **Src Mode Time In** indicator button in the right column of the Configuration Attributes and Flags window must also be enabled before this feature is active. Src Mode Time In and Dst Mode Time In are mutually exclusive. Enabling one disables the other, even though any existing time settings are maintained in the disabled field.
Backlight Bright	Specifies the backlight brightness of the panel buttons within a range from 0 to 9. 0 is darkest, 9 is brightest.
Display Bright	Specifies the brightness of the panel display characters within a range from 1 to 7. 1 is darkest, 7 is brightest.
Low Tally Bright	Specifies the brightness of the panel low tally display within a range from 1to 9. 3 is darkest, 1is brightest.
Default AES Attr.	Factory default is Stereo. Can can be changed by clicking in the field and selecting a different option which will then be displayed in this field.
Default Dst Area	Click this field to choose a default (starting point) Area for Destinations.
Default Dst/Page	Click this field to choose a default Destination, or in the case of the PMB control panel, a default page.
Default Tally Lvl	If several Levels are available for this configuration, click this field to choose which Level will display Tally.
KeyPad Set	Click this field to create or choose a keypad set for this configuration.
Alt KeyPad Set	Click this field to choose an alternate keypad set for this configuration. The alternate keypad set is available when you press the Shift key (assigned to one of the configurable keys).
Dst Page Set	Click this field to create or choose a Destination page set for this configuration. Available only for PMB control panel configurations.
Src Page Set	Click this field to create or choose a Source page set for this configuration. Available only for PMB control panel configurations.
Svo Page Set	Click this field to create or choose a Salvo page set for this configuration. Available only for PMB control panel configurations.
Area Exclusion Set	Future use.
Dst Exclusion Set	Future use.
Lvl Exclusion Set	Future use.
Svo Exclusion Set	Future use.
Panel Group Name	Future use.

(Center Column, Indicator Buttons)	(Green indicator light = enabled No indicator light = disabled)
AES Attribute Lock	When enabled, prevents the panel from initiating AES attribute changes.
Backlight	Enables/disables the backlight feature for the control panel keys.
Chop Lock	When enabled, prevents the panel from initiating chops.
Display Alias Names	When enabled, displays the aliases you've defined for Sources, Destinations, etc.
Dst Change Lock	Enables/disables Destination changes from the control panel you're configuring.
Dst Mode Time In	When enabled, automatically returns the panel to Destination Mode after the specified length of time with no button activity. That length of time is specified in the **Dst Mode Time In** field in the left column of the Configuration Attributes and Flags window. Dst Mode Time In and Src Mode Time In are mutually exclusive. Enabling one disables the other, even though any existing time settings are maintained in the disabled field.
Group Lock Override	Future use.
Hold Preset	When enabled, panels hold presets for additional Takes. If not enabled, Source presets are cleared after each Take.
Hold Remote	When using the Joystick Override option on the BPS panel, enabling this flag causes the Joystick-selected Source to remain when the Joystick closure is released. Otherwise, the Source would revert to the prior selection.
ID From UI	Enables/Disables the capability to ID the panel being configured from the OUI.
Level Change Lock	When enabled, prevents users from initiating a breakaway from a panel to the extent possible, although some Sources (by definition) cause a breakaway to occur due to their lower number of Levels.
Level Inverse Lock	When enabled, inhibits the invert Level feature of BPS panels.
Monitor Control	When enabled, allows the panel to control system Monitor Crosspoints while operating in Destination Mode with each Destination Take.
(Right Column, Indicator Buttons)	(Green indicator light = enabled No indicator light = disabled)
Multi Protect	When enabled, allows protects to be placed on multiple Destinations which are not active on any bus for that panel.

Panel Group Lock When enabled, prevents all panels within the select panel group from affecting crosspoint changes on the matrix. Monitor Control, if active, is not affected.

Protect Lock When enabled, prevents the panel from initiating protects.

Protect Override When enabled, allows the panel to temporarily override protects placed by other panels or devices in the system.

Quick Take Enables/disables the Quick Take function for legacy SMS7000 control panels being controlled by Encore. The Quick Take function allows you to do a Take on a legacy panel by pressing only a Select button. Otherwise you would also have to press the Take button to perform a Take.

Self Protect When enabled and used in conjunction in actively Protecting a destination, prevents the panel from affecting crosspoint changes on the matrix.

Src Config. Lock Enables/disables Source configuration from the the panel you're configuring.

Src Mode Time In When enabled, automatically returns the panel to Source Mode after the specified length of time with no button activity. That length of time is specified in the **Src Mode Time In** field in the left column of the Configuration Attributes and Flags window. Src Mode Time In and Dst Mode Time In are mutually exclusive. Enabling one disables the other, even though any existing time settings are maintained in the disabled field.

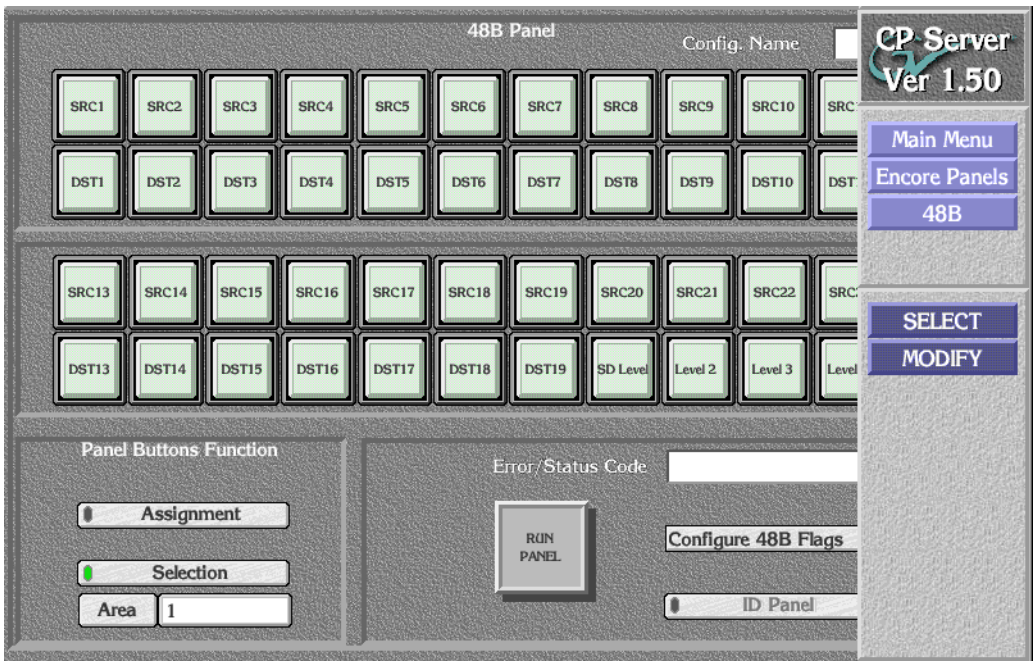
Lock When enabled, this switch prevents use of the panel's **PREV** and **NEXT** buttons for Source selection.

Svo Lock When enabled, prevents salvo operation from affected panels.

48B Panel

48B Main Window

Figure 149. The 48B Panel Main Window



Config. Name (top right section) Displays the name of the template or configuration you loaded.

(Top and Middle Rows)

48 buttons Just as with their counterparts on the physical 48B panel, each button displays its assignment (SrcSel, DstSel, etc.) or selection, depending on whether you've clicked the **Assignment** or **Selection** indicator button toward the bottom left corner of the window. In the assignment mode, click any of the 48 buttons to open a list from which you can specify the button's assignment/function: Source Select (SrcSel), Destination Select (DstSel), Salvo Select (SvoSel), Panel Lock (PnlLock), Level Select (LvlSel), Protect, and Area Select (AreaSel). In the selection mode, click any of the 48 buttons to open the list appropriate to the assignment/function you've chosen for each button by means of the **Assignment** indicator button: a list of Sources, Destinations, Salvos, Levels, or Areas. You can also specify one or more buttons to employ the Panel Lock or Protect functions.

Panel Buttons Function	
Assignment indicator button	Toggles the display of button assignments on (green light lit) or off (green light extinguished). The Assignment mode allows you to specify the function of each button; you can choose between Source Select (SrcSel), Destination Select (DstSel), Salvo Select (SvoSel), Panel Lock (PnlLock), Level Select (LvlSel), Protect, and Area Select (AreaSel).
Selection indicator button	Toggles the display of button selections on (green light lit) or off (green light extinguished). In this mode, the buttons display the Source, Destination, Salvo, Level, Area, Panel Lock, or Protect you've selected, or, if they have no selection, their assignment. To make, or change a selection for a button, click that button and choose from the list window which appears.
Area button	Click this button to choose from a list of applicable Areas for this panel.

(Lower Right Section)

Run Panel button	Not implemented in this release.
Error/Status Code field	Displays and error messages or status codes.
Configure 48B Flags	Opens the *The Configuration Attributes and Flags Window* for 48B panels. Available only when the panel is not in the Operational mode.
ID Panel indicator button	Not implemented in this release, but you can use the same function by clicking the ID Panel indicator button in the *Panel Template Management Window*.

1. If it's not already open, click the **Encore Panels** button on the Menu Bar and then click the **48B** button.

   When the 48B panel main window appears, all the buttons will be blank and the **Config. Name** field in the upper right corner will indicate `NO CONFIG.`

2. Since you must start a configuration from something, click the the **Select** button on the Menu Bar to open the Panel Template Management window. (See *Panel Template Management Window on page 233* if you need more details about this window.)

3. Select the template (in the **Templates** list window) or the configuration (in the **Panels** list window) you want to start with and click the appropriate **Load** button.

   The name of the template or configuration you load will appear in the **Config. Name** field in both the Panel Template Management window and the panel's main window behind it.

   First-time users will see only a Default template and a list of all panels of the selected type connected to the system. In this first-time visit, the template or configuration (derived from that template) will be identical. After additional templates are created and/or applied to one or more control panels (thus "graduating" to a configuration), you will have more options from which to start.

Note When you're starting from any template other than the read-only factory Default you may want to first select that template and use the **Save As** button to make yourself a copy with a name reflecting its intended distinction from the other templates. You can then load and proceed to edit your new template.

4. Click the **Eject** button in the top right corner of the window to dismiss the Panel Template Management window.

5. Now proceed to edit your template or configuration, changing button assignments and subsequently, Sources, Destinations, Salvos, Levels, Areas, Panel Lock, or Protect.

   Remember that buttons on your screen have the same capabilities or restrictions as their counterparts on corresponding physical control panels.

6. When you're satisfied with your template or configuration settings ...

   a. Click the **Modify** button on the Menu Bar to save your changes, or

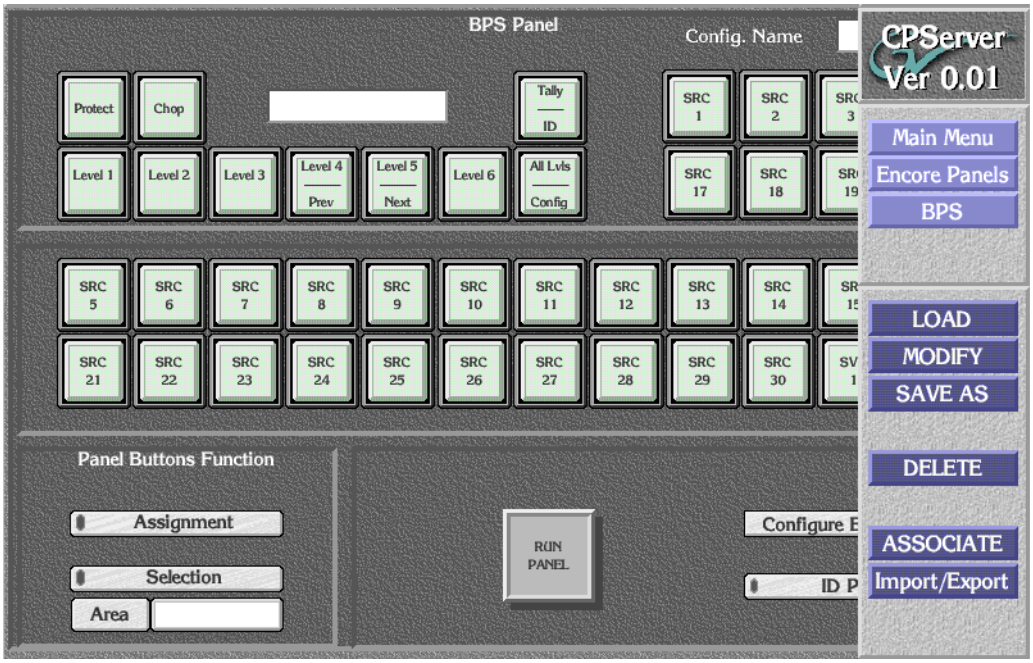
   b. If you just want to abandon your changes and start all over again, you can click the **SELECT** button on the Menu Bar, choose not to save your changes when prompted, and reload the template or configuration.

Note Remember that changes to a configuration take effect immediately. The **Modify** button saves those changes back to the database.

BPS Panel

BPS Main Window

Figure 150. The BPS Panel Main Window



Config. Name (top right section) Displays the name of the template or configuration you loaded.

(Top Row) Left group of 10 buttons — Just as with their counterparts on the physical BPS panel, these buttons are fixed and can not be configured. Each button displays its assignment or selection, depending on whether you've clicked the **Assignment** or **Selection** indicator button toward the bottom left corner of the window.

display field The Destination Status display. Limited to eight characters.

Right group of eight configurable buttons	Just as with their counterparts on the physical BPS panel, each button displays its assignment or selection, depending on whether you've clicked the **Assignment** or **Selection** indicator button toward the bottom left corner of the window. In the assignment mode, click any of the eight buttons to open a list from which you can specify the button's function: Source Select (SrcSel), Salvo Select (SvoSel), Panel Lock (PnlLock), or Level Select (LvlSel). In the selection mode, click any of the eight buttons to open the list appropriate to the function you've chosen for each button by means of the **Assignment** indicator button: a list of Sources, Salvos, or Levels.
(Middle Row) 24 configurable buttons	Just as with their counterparts on the physical BPS panel, each button displays its assignment or selection, depending on whether you've clicked the **Assignment** or **Selection** indicator button toward the bottom left corner of the window. In the assignment mode, click any of the 24 buttons to open a list from which you can specify the button's function: Source Select (SrcSel), Salvo Select (SvoSel), Panel Lock (PnlLock), or Level Select (LvlSel). In the selection mode, click any of the 24 buttons to open the list appropriate to the function you've chosen for each button by means of the **Assignment** indicator button: a list of Sources, Salvos, or Levels.

Panel Buttons Function	
Assignment indicator button	Toggles the display of button assignments on (green light lit) or off (green light extinguished). The Assignment mode allows you to specify the function of each configurable button. You can choose between Source Select (SrcSel), Salvo Select (SvoSel), Panel Lock (PnlLock), and Level Select (LvlSel).
Selection indicator button	Toggles the display of button selections on (green light lit) or off (green light extinguished). In this mode, the buttons display the Source, Salvo, or Level you've selected or **PnlLock**. If they have no selection, the buttons display their assignment. To make or change a selection for a configurable button, click that button and choose from the list window which appears.
Area button	Click this button to choose from a list of applicable Areas for this panel.
(Lower Right Section)	
Run Panel button	Not implemented in this release.

Configure BPS Flags	Opens the Configuration Attributes and Flags window for BPS panels. Available only when the panel is not in the Operational mode.
ID Panel indicator button	Not implemented in this release, but you can use the same function by clicking the ID Panel indicator button in the *Panel Template Management Window*.

1. If it's not already open, click the **Encore Panels** button on the Menu Bar and then click the **BPS** button.

   When the BPS panel main window appears, all the buttons will be blank and the **Config. Name** field in the upper right corner will indicate `NO CONFIG`.

2. Since you must start a configuration from something, click the the **Select** button on the Menu Bar to open the Panel Template Management window. (See *Panel Template Management Window on page 233* if you need more details about this window.)

3. Select the template (in the **Templates** list window) or the configuration (in the **Panels** list window) you want to start with and click the appropriate **Load** button.

   The name of the template or configuration you load will appear in the **Config. Name** field in both the Panel Template Management window and the panel's main window behind it.

   First-time users will see only a Default template and a list of all panels of the selected type connected to the system. In this first-time visit, the template or configuration (derived from that template) will be identical. After additional templates are created and/or applied to one or more control panels (thus "graduating" to a configuration), you will have more options from which to choose.

Note When you're starting from any template other than the read-only factory Default you may want to first select that template and use the **Save As** button to make yourself a copy with a name reflecting its intended distinction from the other templates. You can then load and proceed to edit your new template.

4. Click the **Eject** button in the top right corner of the window to dismiss the Panel Template Management window.

5. Now proceed to edit your template or configuration, changing button assignments and subsequently, Sources, Destinations, or Salvos.

   Remember that buttons on your screen have the same capabilities or restrictions as their counterparts on corresponding physical control panels.

6. When you're satisfied with your template or configuration settings ...
   a. Click the **Modify** button on the Menu Bar to save your changes, or
   b. If you just want to abandon your changes and start all over again, you can click the **Select** button on the Menu Bar, choose not to save your changes when prompted, and reload the template or configuration.

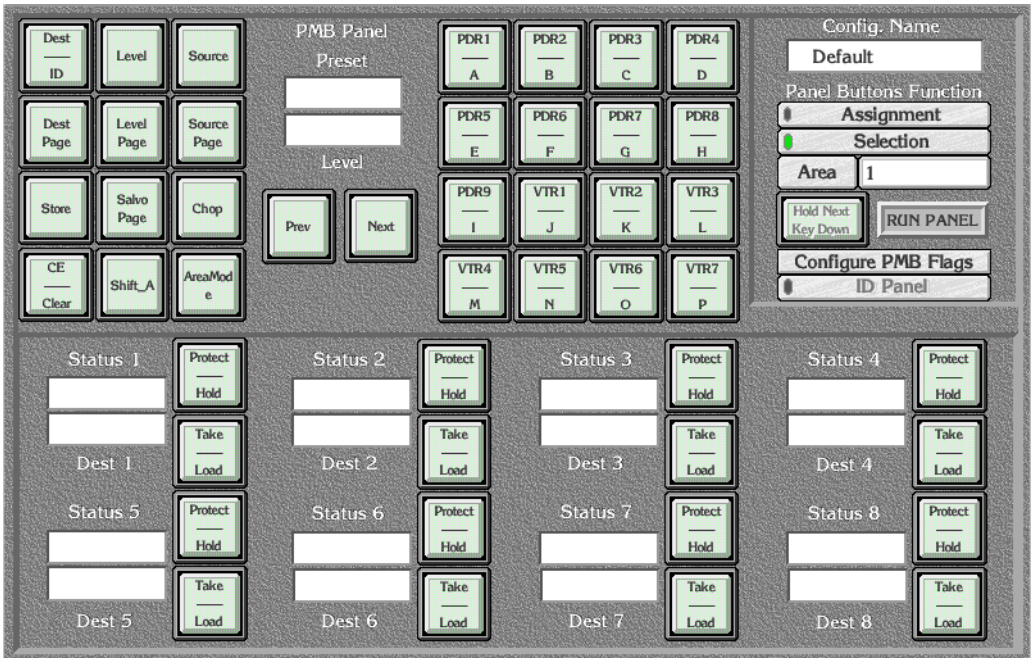
Note Remember that changes to a configuration take effect immediately. The **Modify** button saves those changes back to the database.

PMB Panel

Like its physical counterpart, the PMP (Paging Multi-Bus) panel window has displays for **Preset** and **Level**, eight displays for page **Status** and **Destination**, 27 pre-programmed buttons, a 16-button keypad, and three user-programmable buttons. Unlike the physical panel, the PMP panel window has configuration controls in the top right section of the window.

PMB Main Window

Figure 151. The PMB Panel Main Window



Config. Name — (top right section) Displays the name of the template or configuration you loaded.

(Top Row)

Left group of 12 buttons — Just as with their counterparts on the physical PMB panel, all except three of these buttons are pre-programmed and can not be configured. Each button displays its assignment or selection, depending on whether you've clicked the **Assignment** or **Selection** indicator button toward the top right corner of the window. In the Assignment mode, click any of the three configurable buttons to open a list from which you can specify the button's function: Salvo Select (SvoSel), Panel Lock (PnlLock), Area Mode, Shift_A, or Store. In the Selection mode, click any of the three configurable buttons to open the list appropriate to the function you've chosen for each of them by means of the **Assignment** indicator button: a list of Salvos or Areas.

Preset field — Displays the selected Preset Destination, Source, etc., as well as any error messages. Active only when in the Run Panel mode. Corresponds to the Preset display on a physical panel. Limited to eight characters.

Level field — Displays the active Tally Level for all selected Destinations. Active only when in the Run Panel mode. Corresponds to the Level display on a physical panel. Limited to eight characters.

Prev button — Moves to the Previous Destination, Level, Source, etc. relative to the one displayed in the Preset field.

Next button — Moves to the Next Destination, Level, Source, etc. relative to the one displayed in the Preset field.

16-button keypad (center group) — Just as with their counterparts on the physical PMB panel, each button displays its assignment or selection, depending on whether you've clicked the **Assignment** or **Selection** indicator button toward the top right section of the window. You can define various prefix/suffix keypad sets to be applied to, and used by this keypad.

Panel Buttons Function (Top right section of screen)

Assignment indicator button Toggles the display of button assignments on (green light lit) or off (green light extinguished). The Assignment mode allows you to specify the function of each of the three configurable buttons. For the configurable buttons, you can choose between Salvo Select (SvoSel), Panel Lock (PnlLock), Area Mode, Shift_A, or Store.

Selection indicator button Toggles the display of button selections on (green light lit) or off (green light extinguished). In the Selection mode, the buttons display the Salvo you've selected. If a particular assignment/function is available but, by its nature wouldn't offer a selection, the button displays its assignment/function instead, for example, **PnlLock** or **Shift_A**). To make or change a selection for a configurable button, click that button while in the Selection mode and choose from the list window which appears.

Area button Click this button to choose from a list of applicable Areas for this panel.

Hold Next Key Down This button enables the Shift_*x* feature available on physical panels or touch screens, but otherwise unavailable on standard computer screens and PCs using mice or other similar input devices. It's primary application would be during the use of a panel rather than during configuration. To use the Shift_*x* feature, click the **Hold Next Key Down** button first, then click the shifted button you want. The **Hold Next Key Down** button resets to the off position after that second button is clicked.

Run Panel button Not implemented in this release.

Configure PMB Flags Opens the Configuration Attributes and Flags window for PMB panels. Available only when the panel is not in the Operational (**Run Panel**) mode.

ID Panel indicator button Not implemented in this release, but you can use the same function by clicking the ID Panel indicator button in the *Panel Template Management Window*.

(Bottom Row) A stacked group of eight **Destination**/**Status** displays and their corresponding **Protect/Hold**, **Take/Load** buttons. These display information and are functional only when you select Destination, Level, Source, or Salvo Pages.

Status *n* field	Each field corresponds to a display on the physical PMB-panel and displays the status of the Destination immediately below.
Dest *n* field	Each field corresponds to a display on the physical PMB-panel and displays the selected Destination.

1. If it's not already open, click the **Encore Panels** button on the Menu Bar and then click the **PMB** button.

   When the PMB panel main window appears, all the buttons will be blank and the **Config. Name** field in the upper right corner will indicate `NO CONFIG`.

2. Since you must start a configuration from something, click the the **Select** button on the Menu Bar to open the Panel Template Management window. (See *Panel Template Management Window on page 233* if you need more details about this window.)

3. Select the template (in the **Templates** list window) or the configuration (in the **Panels** list window) you want to start with and click the appropriate **Load** button.

   The name of the template or configuration you load will appear in the **Config. Name** field in both the Panel Template Management window and the panel's main window behind it.

   First-time users will see only a Default template and a list of all panels of the selected type connected to the system. In this first-time visit, the template or configuration (derived from that template) will be identical. After additional templates are created and/or applied to one or more control panels (thus "graduating" to a configuration), you will have more options from which to choose.

Note When you're starting from any template other than the read-only factory Default you may want to first select that template and use the **Save As** button to make yourself a copy with a name reflecting its intended distinction from the other templates. You can then load and proceed to edit your new template.

4. Click the **Eject** button in the top right corner of the Panel Template Management window to dismiss it.

5. Now proceed to edit your template or configuration, changing button assignments and subsequently, Sources, Destinations, or Salvos.

   Remember that buttons on your screen have the same capabilities or restrictions as their counterparts on corresponding physical control panels.

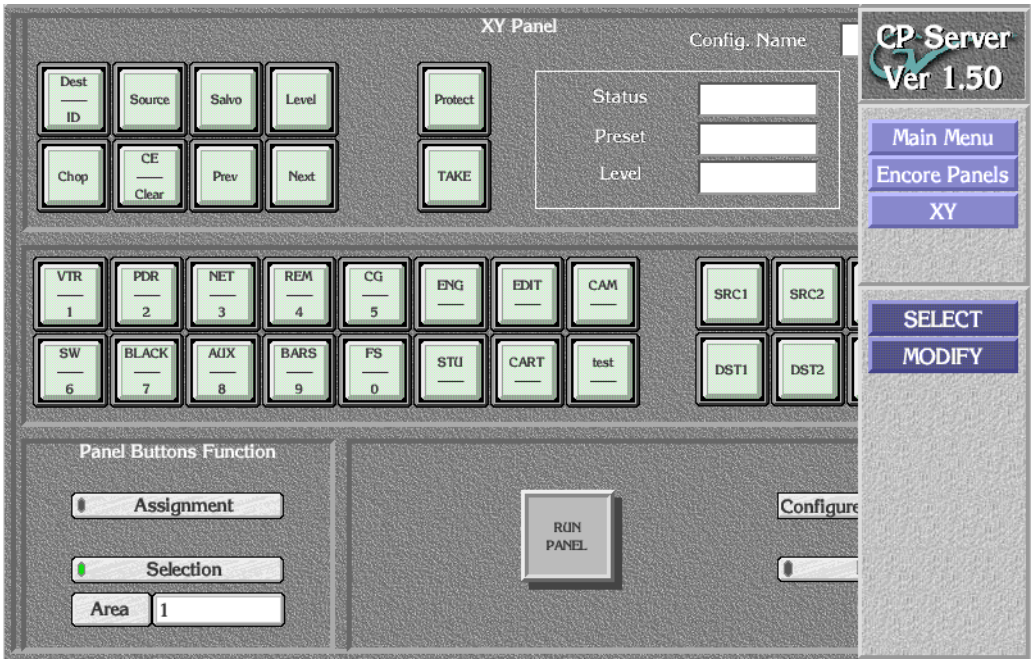
6. When you're satisfied with your template or configuration settings ...
   a. Click the **Modify** button on the Menu Bar to save your changes, or
   b. If you just want to abandon your changes and start all over again, you can click the **Select** button on the Menu Bar, choose not to save your changes when prompted, and reload the template or configuration.

Note Remember that changes to a configuration take effect immediately. The **Modify** button saves those changes back to the database.

XY Panel

XY Main Window

Figure 152. The XY Panel Main Window



(Top Row)

Config. Name	(top right section) Displays the name of the configuration you loaded.
buttons	Just as with their counterparts on the physical XY panel, these buttons can not be configured. Each displays its assignment or selection, depending on whether you've clicked the Assignment or Selection indicator button toward the bottom left corner of the window.
Status field	When in the Run Panel mode this field typically displays Source status, but may also display Destination status if the panel is in that mode.
Preset field	Displays the selected Preset Destination, Source, etc., as well as any error messages. Active only when in the Run Panel mode. Corresponds to the Preset display on a physical panel. Limited to eight characters.
Level field	Displays the active Tally Level for all selected Destinations. Active only when in the Run Panel mode. Corresponds to the Level display on a physical panel. Limited to eight characters.

(Middle Row)

left block of 16 buttons	Just as with their counterparts on the physical XY panel, these buttons can not be configured directly, but are part of a key pad set. Each displays its assignment or selection, depending on whether you've clicked the Assignment or Selection indicator button toward the bottom left corner of the window.
right block of 8 buttons	Click these buttons to open the list appropriate to the function you've chosen for each button by means of the Assignment indicator button: a list of Sources, Destinations, or Salvos.

Panel Buttons Function

Assignment indicator button Toggles the display of button assignments on (green light lit) or off (green light extinguished). The Assignment mode also allows you to specify the function of each configurable button; you can choose between Source Select (SrcSel), Destination Select (DstSel), Salvo Select (SvoSel), and Panel Lock (PnlLck).

Selection indicator button Toggles the display of button selections on (green light lit) or off (green light extinguished). In this mode, the buttons display the Source, Destination, or Salvo you've selected, or, if they have no selection, their assignment. To make or change a selection for an configurable button, click that button and choose from the list window which appears.

Area button Click this button to choose from a list of applicable Areas for this panel.

(Lower Right Section)

Run Panel button Turns Operational mode on/off. Use the Operational mode to test a configuration. If you've loaded a template, the Operational mode will, in essence, create a virtual control panel which can perform the same functions as a physical control panel of the same type. If you've loaded a physical control panel's configuration, the Operational mode will cause that panel to peform the functions you call from this control panel window. Not implemented in this release.

Configure XY Flags Opens the Configuration Attributes and Flags window for XY panels. Available only when the panel is not in the Operational mode.

ID Panel indicator button Available only when the panel is in the Operational mode (**Run Panel** button is green). Toggles control panel identification on (green light lit)/off (green light extinguished). If you've selected a control panel's configuration, this button will cause that panel to blink all buttons and display panel identification information in the control panel's display if it has one. The selected control panel stays in the ID mode until it is toggled off by clicking the button a second time or by pressing the ID button on the panel itself (on the 48B panel, press any safe button). If you've selected only a template, the virtual panel you're running on your screen will emulate the ID functions of that type of physical control panel.

1. If it's not already open, click the **Encore Panels** button on the Menu Bar and then click the **XY** button.

   When the XY panel main window appears, all the buttons will be blank and the **Config. Name** field in the upper right corner will indicate `NO CONFIG`.

2. Since you must start a configuration from something, click the the **Select** button on the Menu Bar to open the Panel Template Management window. (See *Panel Template Management Window on page 233* if you need more details about this window.)

3. Select the template (in the **Templates** list window) or the configuration (in the **Panels** list window) you want to start with and click the appropriate **Load** button.

   The name of the template or configuration you load will appear in the Config. Name field in both the Panel Template Management window and the panel's main window behind it.

   First-time users will see only a Default template and a list of all panels of the selected type connected to the system. In this first-time visit, the template or configuration (derived from that template) will be identical. After additional templates are created and/or applied to one or more control panels (thus "graduating" to a configuration), you will have more options from which to start.

Note When you're starting from any template other than the read-only factory Default you may want to first select that template and use the **Save As** button to make yourself a copy with a name reflecting its intended distinction from the other templates. You can then load and proceed to edit your new template.

4. Click the **Eject** button in the top right corner of the window to dismiss the Panel Template Management window.

5. Now proceed to edit your template or configuration, changing button assignments and subsequently, Sources, Destinations, or Salvos.

   Remember that buttons on your screen have the same capabilities or restrictions as their counterparts on corresponding physical control panels.

6. When you're satisfied with your template or configuration settings ...

   a. Click the **Modify** button on the Menu Bar to save your changes, or

   b. If you just want to abandon your changes and start all over again, you can click the **Select** button on the Menu Bar, choose not to save your changes when prompted, and reload the template or configuration.

Note Remember that changes to a configuration take effect immediately. The **Modify** button saves those changes back to the database.

Appendix A

Ancillary Encore Procedures

Configuring the 7500 for use with Encore

These procedures configure the SMS 7500 when it is to be controlled by Encore. They assume that you've already installed the Encore software on your PC.

1. Connect a PC serial port to the CONSOLE 1 port of the 7500 router.
2. Open a terminal emulation program and set the parameters to `9600,8,N,1` with `VT100 emulation`. You should get the following prompt:

   ```
   ->
   ```

   If you've already loaded Encore controller software in the 7500, the prompt will confirm that:

   ```
   encore>
   ```

3. If you're updating Encore controller software in the 7500, type:

   ```
   encore>eng
   ```

   and press Enter or Return.

4. Type the following command:

   ```
   ->bootChange
   ```

   (`encore>bootChange` if you're updating Encore controller software in the 7500)

5. Set the following parameters:

   `host name:` The name of your PC

   `file name: MtrxSE`

   `inet on ethernet:` *The IP address of Matrix controller 1:subnetinhex*

   Example: `192.168.49.197:ffffff00`

   `gateway inet:`

   `host inet:` *The IP address of the PC*

   `user: encuser`

   `ftp password: encuser`

6. With a peer-to-peer cable in place, connect the PC network connection to the MC1 ETHERNET 1 7500 network connection.

7. Ping the matrix controller from the PC to verify network connectivity.

8. Open the Xitami ftp server on your PC.

9. Go to the serial connection and type the following command:

   `->loadAppFile`

The Matrix controller software is now downloaded from the PC to the Matrix controller. To program a redundant Matrix controller, move it to slot number one and repeat the process.

Updating Encore System Controller Software

From time to time you may want to update Encore System Controller software. Follow these steps to do so.

1. Launch the Sharer if it's not already running.

2. Launch the Site Management application if it's not already running.

3. Launch the Encore OUI, log in, and open the Site Management application.

4. From within the Site Management application, click the **Install** button on the Main Menu.

   The Install window appears, listing every engine you've configured (whether currently connected or not) on this system.

5. Confirm that you can communicate with each target System Controller by individually clicking its Name or IP address.

   The Status column will indicate whether the selected System Controller was successfully contacted.

6. If communication with your target System Controller(s) was successful, click in the (left-most) column opposite each System Controller you want to update.

   You can select multiple systems.

7. Now click the **Software** button/field in the Software versions section of the Install window.

8. In the list which appears, select "Encore Image" and click the **Return** icon.

9. Click the **Versions** button/field in the Software versions section of the Install window.

10. In the list which appears, select the version you want to install and click the **Return** icon.

11. Click the **Install and Reboot** button in the Actions section of the Install window.

    The panels will display "No Comm."

12. When the panels display their proper status again, the installation and reboot is complete; exit the Site Management application.

Updating/Upgrading Matrix Controller Software via FTP

To use ftp to update/upgrade a matrix controller (7500, ENC, or Concerto), you must shut down System Manager (Manager Service) before launching Xitami. The upgrade procedure is otherwise documented in *Configuring the 7500 for use with Encore* *on page 255*. Pick up the procedure in that section at the appropriate step for your situation.

Changing the Size of Your Encore OUI

After you've installed Encore and its components and worked with the Encore OUI for awhile, you may want to change the size of the OUI window. For example, you may want change to or from using a touch screen and therefore change the size of the buttons. To change the window size, follow these steps.

1. Right-click **My Computer** on your workstation desktop.

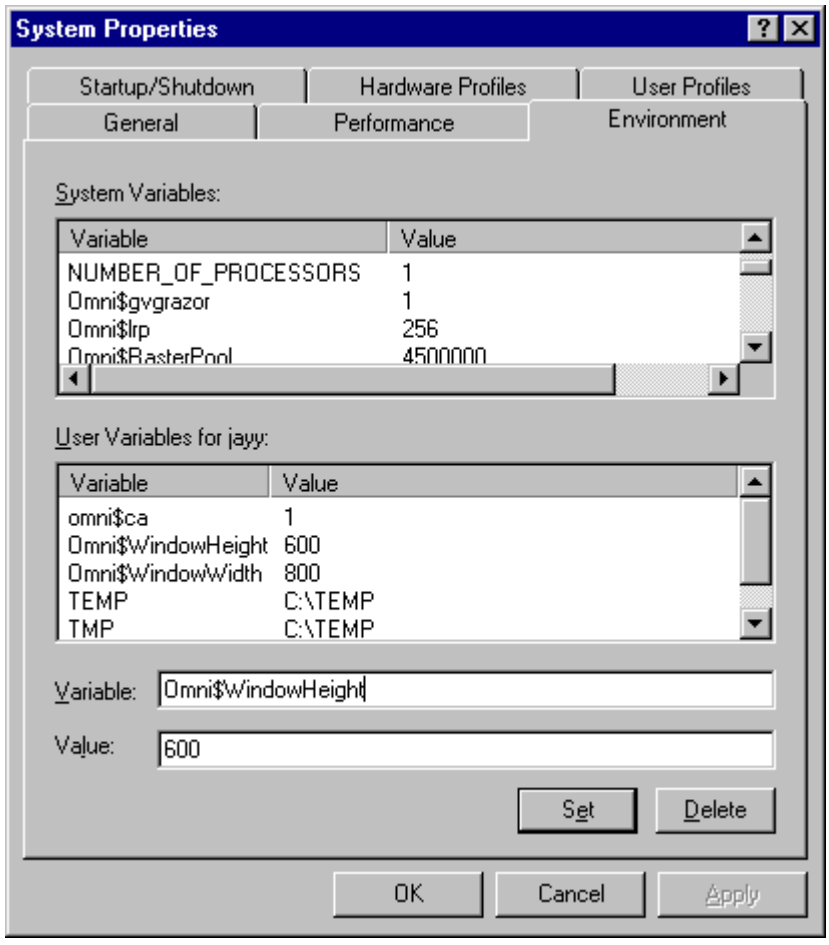
2. Click the **Environment** tab, then scroll down the list of User Variables as shown in Figure 153.

3. Select the Omni$WindowHeight and Omni$WindowWidth variables and change them to an appropriate Windows value as noted in the table below, being careful to maintain both values in *the same column*.

Variable	640x480 Values	800x600 Values	1024x768 Values
Omni$WindowHeight	480	600	768
Omni$WindowWidth	640	800	1024

4. Click the **Set** button after each entry to move it to the User Variables scrolling list area.

Figure 153. Entering User Variables and Values



Appendix B

Button Glossary

Add — Allows the user to select more destinations that are to obey the rule currently displayed on the screen.

Add Rule — Adds a new unnamed rule to the list of rules.

Address — Allows the address of the matrix (currently being configured) to be specified. This enables matrices using the same communications channel to be distinguished from each other.

Allow All — Sets the status for all sources to **Available** for the currently displayed rule.

Alpha Sort Lists — If the **Alpha Sort Lists** button is on, all the list items in list windows subsequently displayed can be ordered alphabetically. An **Alpha** indicator button will be displayed near the bottom left of all list windows. It can be toggled on (indicator shows green) and off (indicator shows black) to apply or remove the alphabetical formatting of the list.

Always Cache — The **Always Cache**, **Never Cache** and **Hold Cache** indicator buttons are used to instruct the application how to manage the clip regarding the cache, (an area of rapid retrieval). Only one of these options can be chosen; clicking any of these three buttons toggles it on (indicator shows green), while simultaneously toggling the previously selected button off (indicator shows black). Selecting the **Always Cache** option will place the clip in the cache at all times and it will therefore be accessible much faster than non-cached clips. The clip can be deleted from the cache at a later stage.

Arch. — Selecting this option will allow the clip to be dubbed to an archiving system automatically. If the **Arch.** button is toggled on, an Archive Manager can be selected by clicking the **Dest.** button. If no Archive Manager is configured on the Encore system, clicking the **Dest.** button will have no effect.

Archive — Archive is a category. If the **Archive** button is switched on (indicator shows green), Archived files appropriate to the file selection will also be displayed in the File List.

Archive After Use — If the **Archive After Use** indicator button is on, the clip will be archived after it has been played out. Clicking the **Archive After Use** button toggles it on (indicator shows green), and off (indicator shows black).

Area

Allows the alias for the area that the **Router Control Device Application** controls to be changed (maximum 3 characters). This alias is then seen on the **Local Router Panel**. The actual name of the area, (also shown on this button), is defined in the **System Manager Service Application**.

Aspect Ratio

Clicking the **Aspect Ratio** button displays the Select Aspect Ratios list window, which allows the Aspect Ratio for the clip to be selected. Once the required ratio has been selected, the list window disappears and the name of the ratio is shown on the **Aspect Ratio** button.

Assistant

Clicking this button will activate the LMCP panel with Clip Assistant running. The Clip Assistant area allows various parameters to be associated with the clip. These parameters relate to the later transmission of the clip.

Audio

These four indicator buttons are used to direct the audio channels on the clip. Only one of these options can be chosen - clicking any of these four buttons toggles it on (indicator shows green), while simultaneously toggling the previously selected button off (indicator shows black). The buttons have the following functionality: **A1**:Left channel audio to left and right outputs. **A2**:Right channel audio to left and right outputs. **A1/A2**:Stereo audio (left channel audio to left output, right channel audio to right output). **Mono**:Mono audio (left channel audio to left and right outputs, right channel audio to left and right outputs).

Audio Transition Type

The Audio Transition Types area contains six buttons for selecting the type of transition required for the clip. The six transition type buttons can be selected one at a time by clicking them. The selected button is highlighted white, and the remaining five buttons are grey. The **Transition Type** buttons represent the following transitions (from left to right): Simple Cut (Cut Out / Cut In). Fade Out / Fade In. Cut / Fade In. Cross Fade. Fade Out / Cut In. Cut / Cut.

Auto Edit

When the **Auto Edit** button is selected all devices that have been given the Record or Play flag will automatically start. If a VTR has been selected as either the player or recorder, then the VTR will spool back to the pre-roll point and then pre-roll to lock the VTR. The System Administrator sets the pre-roll point in the VTR Control Device Application. A Video Disk Server can have a pre-roll, but this is not necessary as it does not need time to become stable before recording. The **Auto Edit** button is yellow during the pre-roll period, and automatically becomes green when the Edit begins, at which point all devices will be synchronized. Clicking the **Auto Edit** button when it is yellow or green causes the devices to stop, and the button changes back to its original grey color. Auto Edit is a useful way of dubbing a clip from one location to another.

Auto Start

When the **Auto Start** button is selected all devices in the Devices area that have been given the Record or Play flag will commence recording or playing. When clicked, the **Auto Start** button disappears and is replaced by the **Auto Stop** button. (If a device is being used as a recorder, it must be set to Pause/Record prior to using Auto Start).

Auto Stop When the **Auto Stop** button is selected all devices in the Devices area that have been given the Record or Play flag will stop. When clicked, the **Auto Stop** button disappears and is replaced by the **Auto Start** button.

Baud Rate Specifies the baud rate for a particular protocol. Clicking on the button allows the value to be changed.

Black Level The five indicator buttons on the right of the T.B.C. window are used to select the level to be adjusted. Clicking one of these buttons toggles it on (button shows green), and automatically toggles any previously selected button off (button shows grey). The Level Adjustment Bar is used to adjust the selected level. Clicking the Double Arrow and Single Arrow icons at either end of the bar allows large and small incremental adjustment. The green cursor on the bar reflects the adjustment by moving right or left. Clicking the bar allows the green cursor to be dragged in order to make large adjustments. Click the **Black Level** button to adjust the black level. This can be regarded as adjusting the darkest part of the picture, which has reference Black.

Blank The Type area consists of three indicator buttons, each of which can be clicked to toggle it on (indicator shows green and any button previously selected is automatically toggled off, its indicator showing black). These buttons allow the type of tape to be chosen; clicking the **Blank** button signifies the tape is blank

Boolean operators This is one of a number of conjunctions used in constructing Boolean queries. The most common Boolean operators are AND (you're looking for all terms), OR (you're looking for at least one of the terms), and NOT (you're excluding a term). Also, the Boolean operator AND doesn't work like a normal English *and.* For example, a Boolean search through a database of rock musicians for members of the Beatles AND Wings would turn up only Paul McCartney rather than all members of Wings *and* all members of the Beatles.

Build Shows the build information of the **Router Control Device Application** software.

Channel Allows the communication channel for the matrix (currently being configured) to be specified.

Chroma The five indicator buttons on the right of the T.B.C. window are used to select the level to be adjusted. Clicking one of these buttons toggles it on (button shows green), and automatically toggles any previously selected button off (button shows grey). The Level Adjustment Bar is used to adjust the selected level. Clicking the Double Arrow and Single Arrow icons at either end of the bar allows large and small incremental adjustment. The green cursor on the bar reflects the adjustment by moving right or left. Clicking the bar allows the green cursor to be dragged in order to make large adjustments. Click the **Chroma** button to adjust the chrominance signal of the output level. This can be regarded as adjusting the color.

Chroma Phase

The five indicator buttons on the right of the T.B.C. window are used to select the level to be adjusted. Clicking one of these buttons toggles it on (button shows green), and automatically toggles any previously selected button off (button shows grey). The Level Adjustment Bar is used to adjust the selected level. Clicking the Double Arrow and Single Arrow icons at either end of the bar allows large and small incremental adjustment. The green cursor on the bar reflects the adjustment by moving right or left. Clicking the bar allows the green cursor to be dragged in order to make large adjustments. Click the **Chroma Phase** button to adjust the chroma phase. This can be regarded as adjusting the hue.

Clear

The **Clear** button removes any highlighting from the list.

Clear Salvo

Click the **Clear Salvo** button to delete all the routes shown in the Salvo window.

Clip

The button shows a clip name. The primary location of this clip appears at the top of the Location List. The system also shows other locations of the clip on the Location List (it may exist in more than one location).

Clip Name

The Clip Name window shows the name of the currently loaded clip. If the clip is located on tape, the Tape ID is displayed on the Help Bar when the mouse pointer is moved over the Clip Name window.

Clip Progress Bar

The left end of the bar symbolizes the start of the clip, and the right end of the bar symbolizes the end of the clip. A yellow line gradually increases in length from the left end of the bar as a clip is played, e.g., if the yellow line is one third of the way alone the CPB, then you are approximately one third of the way through the clip.

Clip Quality

The **Clip Quality** button displays the quality of the current clip. High quality equates to low compression, which is generally used for important clips such as commercials. Click the **Clip Quality** button to display the Select Quality list window, which allows you to change the quality. Once the required quality for the clip has been selected, the list window will disappear and the selection will be shown on the **Clip Quality** button. The clip quality referred to as Normal is the default, and is configured by an engineer to a pre-determined value.

Commit Changes

Broadcasts all the configuration changes that have been made across the network.

Config.

Displays the Configuration Screen.

Copy & Inc (Source Configuration Screen)

Displays the next consecutive source number (from that currently shown on screen), with the ID and name incremented by 1. For example, suppose the current source is source 11, with ID “VTR1” and name “Edit Suite VTR1”. Clicking on the Copy & Inc button will display source 12, with ID “VTR2” and name “Edit Suite VTR2”.

Copy & Inc (Destination Configuration Screen)

Displays the next consecutive destination number (from that currently shown on screen), with the ID and name incremented by 1. For example, suppose the current destination is destination 24, with ID "Mon1" and name "Monitor1". Clicking on the Copy & Inc button will display destination 25, with ID "Mon2" and name "Monitor2".

Copy Rule

Allows a rule to be selected that is then copied over the currently displayed rule.

Create

The **Create** button is used to register new tapes in the system. Click the **Create** button to display the Resister Tape window.

Create

The **Create** button is used to create a new clip if the selected device is a VideoDisk Server. Clicking this button displays the Clip types list window.

Cueing Control

When the **Set** indicator button is green, the Time Code shown in the large Time Code Display window will be stored by subsequently clicking one of the **Cueing Control** buttons. This process can be carried out even if the clip is being played out. When the **Set** indicator button is grey, clicking a **Cueing Control** button will pause the clip at the Time Code stored by that particular **Cueing Control** button.

Data Bits

Specifies the number of data bits for a particular protocol. Clicking on the button allows the value to be changed.

Daughter Clips

There are two types of Daughter Clip. Type A Daughter Clips are defined by specifying a certain piece of a Parent Clip. This is done with the LMCP by marking a start point (In-Point) and an end point (Out-Point), and saving this information with a new name. The Parent Clip is not re-recorded; only the new In/Out-Points relative to the original Parent Clip are saved along with a new name. If the Parent Clip is subsequently modified or deleted, the Type A Daughter Clip will be lost. Type B Daughter Clips are edited pieces of media, made up of a series of different Daughter Clips sourced from the same, or from different Parent Clips. Again, if the parent, or one of them, is deleted or modified then the daughter clip may be lost.

Delete After Use

If the **Delete After Use** indicator button is on, the clip will be deleted after it has been played out. Clicking the **Delete After Use** button toggles it on (indicator shows green), and off (indicator shows black).

Delete Rule

Enables a pre-defined rule to be deleted.

Delete Salvo

Clicking the **Dustbin** icon deletes the route shown on the green bar in the Salvos window.

Dest

The **Dest** button is used to set the Destination to which the currently selected device is automatically routed. If the **Mode** button shows MANUAL, the **Dest** button text area is blank since automatic routing is not applicable. If the **Mode** button shows MANUAL, clicking the **Dest** button has no effect. If the **Mode** button shows AUTO, the **Dest** button shows the name of the Destination to which a device is automatically routed, when it is selected from the Devices area. If, for example, the auto routing is to a monitor, then the output of each device in the Devices area will be connected to the specified monitor, as the user selects each device. If the **Mode** button shows AUTO, clicking the **Dest** button or window displays the Router Destinations list window.

Dest column

The Router Destinations list window allows a destination to be selected for inclusion in the Salvo. Once selected, the Router Destinations list window disappears and the (numbered) destination is shown on a green bar in the destination column of the Salvos window. The green bar also shows **No Router** in the Source column and **All** in the Levels column.

Dest.

Allows a destination to be selected by number from the router database.

Destination

The destination panel displays the names of up to eight destinations on a row of indicator buttons. Below each **Destination** button there is an Under Monitor Display (UMD), which shows the Ultimate Source currently connected to that particular destination. Moving the mouse pointer over a **Destination** button will cause the full name of the destination to be shown on the help bar at the top of the screen.

Destination

Displays the Destination Configuration Screen.

Destinations (Names Screen)

When the indicator is green, the Names Screen shows the destination names.

Disconnect

Disconnects the **Router Control Device Application**, making it free to other users.

Do Copy

Clicking the **Execute Copy** button executes the dub and keeps a record of the dub, i.e., the existence of the new clip in its new location will be logged on the Encore system. A message window is displayed confirming the job number and the time when the dub will take place.

Do Export

Clicking the **EXECUTE EXPORT** button executes the dub, but does not keep a record of the dubbed clip. A message window is displayed.

Dubbing Server

Choose the dubbing server to carry out a dubbing job using the **Dubbing Server** button. Clicking this button displays the Dubbing Servers list window. The Dubbing Servers list window allows a server to be selected. The list window then disappears, and the name of the selected server is shown on the **Dubbing Server** button.

Duration

The **Duration** button shows the duration of the currently loaded clip, in hours, minutes, seconds and frames. A clip's duration, in-point and out-point are all linked, such that changing any one of these values will automatically amend the other relevant value. If the duration is changed, the in-point remains constant and the out-point is amended. If the in/out-point is changed, the duration is amended unless the **Hold Duration** button is green, when the duration remains constant and the out/in-point is amended.

Duration (Audio Transition)

The **Duration** button is used to set the duration of the audio transition. Clicking the **Duration** button displays the Default Duration Keypad, which allows the duration to be set. Once the duration has been entered, the Keypad disappears and the duration is shown on the **Duration** button. This duration will also be shown in the small duration window when the Audio Transition window is closed.

Duration (Video Transition)

The **Duration** button is used to set the duration of the video transition. Clicking the **Duration** button displays the Default Duration Keypad, which allows the duration to be set. Once the duration has been entered, the Keypad disappears and the duration is shown on the **Duration** button. This duration will also be shown in the duration window when the Video Transition window is closed.

Dustbin icon

The **Dustbin** is a category. Files in the **Dustbin** will not appear in any other category. Files can be retrieved from the **Dustbin** (retaining their previous categorization) unless the **Dustbin** has been emptied by the System Administrator, when they become irretrievable. If your Log-on identity and file security status permits, you can put files in the dustbin. Select the file(s) you wish to put in the dustbin from the list, then click the **Dustbin** icon. (you can alternatively use Function key F1 on the Keyboard as a short cut).

Execute

Executes the chosen route with the currently selected levels.

Export

Exports the current router database settings (to the floppy drive on the Device Control Engine) as a csv spreadsheet file. These exported settings can then be used to configure other **Router Control Device Applications**.

File Information window

The Information window displays the name and path, type of file, name of creator, date of creation and reference number. There is also an area where useful notes can be added.

File Security icon

Clicking the **File Security** icon (F5) displays the **File Access Status** window. (You can use Function key F5 on the Keyboard as a short cut.) This window contains nine indicator buttons which are used to determine Read, Write and Delete access to the selected file. The indicator buttons show green if they apply to the selected file, and clicking them will toggle them on and off. You can set or change the Access Status of a file at any time. The default settings of a newly created file give everyone Read and Write access, but only you and your group Delete access. Information will only be displayed in the **File Access Status** window if a single file is selected. If several files are selected before clicking the **File Security** icon, all the indicator buttons will be blank. If access rights are then set, they will apply to all the selected files (if the operation is allowed).

Filer Loading

If **Filer Loading** is selected, the Filer-Fax will be displayed when the **Load** button is clicked,

Filer Loading

You can toggle between the **Filer Loading** and **List Loading** options by clicking the respective indicator buttons, the indicator showing green to highlight your choice.

GoTo

The **Goto** button allows you to jump to a specific time code point in a clip. Clicking the **Goto** button displays the Goto Keypad that allows you to enter the time code to which you want to jump. Once the time code has been entered, the Goto Keypad will disappear and the entered time code will appear in the large Time code Display window, with the clip paused at this specified point.

GPI

Each numbered button represents the pre-configured triggering of a GPI, which will be assigned to the current clip if the button has been toggled on. For example, **GPI1** button may be configured to display the station logo for five seconds commencing three seconds after the start of the clip. Each button can be clicked to toggle it on (indicator shows green), and off (indicator shows black). When the clip is loaded, the selections made in the Select Logos and GPIs window are recognized and activated at the required points.

Group (Source)

The **Group (Source)** button is redundant when using Video Disk Servers as the location is not important to the user, since nothing is loaded manually. However, when VTRs are being used, a Group that can be accessed easily, is often preferred.

Guard

The **Guard** button prevents all the control buttons from being used. This prevents any accidental operation of the controls, for example, pressing Stop when a clip is playing to air. When activated, the buttons will be greyed out until the button is pressed again to deactivate it. The indicator shows green if selected, black when not.

Handshake

Specifies the handshake type for a particular protocol. Clicking on the button allows the type to be changed.

Hold Cache	The clip is permanently held in the cache — a security measure to prevent inadvertent deletions from the cache.
Hold Cache	The **Always Cache**, **Never Cache** and **Hold Cache** indicator buttons are used to instruct the application how to manage the clip regarding the cache, (an area of rapid retrieval). Only one of these options can be chosen - clicking any of these three buttons toggles it on (indicator shows green), while simultaneously toggling the previously selected button off (indicator shows black). Selecting the **Hold Cache** option will cause the application to hold the clip in the cache at all times and it will therefore be accessible much faster than non-cached clips. The clip cannot be deleted from the cache.
Hold	When the indicator is green, the selected levels in the Levels area remain fixed for the next route.
Hold Source	When this button is green and a new destination is selected, the source is 'held' from the previous route instead of the source that is currently connected to the new destination from being displayed. This feature enables many routes that all use the same source to be made quickly.
ID (Destination Configuration Screen)	Allows a short form name to be given to a destination.
ID (Source Configuration Screen)	Allows a short form name to be given to a source.
Import	Imports a csv spreadsheet file from floppy disk. The spreadsheet file containing source and destination information is an alternative way of quickly configuring the **Router Control Device Application**.
Inhibit All	Sets the status of all sources to Inhibit for the currently displayed rule.
Initialize Channel	Initializes a communications channel.
Initialize Matrix	Initializes the router matrix parameters once they have been set.
Inter	Clicking the Interlevel indicator button toggles it on (indicator shows green), and off (indicator shows black). When this button is toggled on, clicking a **Source** button will display the Interlevel Routing window
Level	Displays the Level Configuration window.

Levels column

The **Levels** window is displayed by clicking the **Levels** column. It allows the levels to be selected for the route defined on the same line of the **Salvos** window. The names of the levels are shown on sixteen indicator buttons. The levels applicable to the routing can be clicked to toggle them on (indicator shows green and level is selected), and off (indicator shows black and level is not selected). Once the required levels are selected, either All or Part is shown on the green bar in the **Salvos** window, (depending on whether all the levels applicable to the route are selected).

Levels

These buttons are used to specify the levels to be used in a particular route.

Line

Click the **Line** indicator button if the clip is to be dubbed down a line. If the **Line** indicator button is toggled on, a Router Destination can be selected by clicking the **Dest.** button. If the **Line** button is toggled on, clicking the **Dest.** button displays the Router Destinations list window.

List

Displays a list of destinations that obey the rule currently displayed on the screen.

List Loading

If List Loading is selected, the ClipList list window is displayed when the **Load** button is clicked.

Load

Clicking this button will display either the Filer-Fax in Load Mode or the ClipList window, depending on which loading option is selected in the Options window. A shortcut key exists which is equivalent to clicking the **Load** button.

Load Salvo

Clicking the **Load Salvo** button displays the Filer-Fax that enables a Salvo to be loaded.

Load virtual clip

When this option is activated, the OUI will load the new daughter clip when it is created. If not selected, the parent clip will remain loaded, this enables several daughters to be created from the same parent without the need to re load the parent clip each time.

Location List

The Location List is a 6-slat panel. It consists of six buttons which show the names of the locations of the clip shown on the **Clip** button, (the primary location is shown on the top button). The buttons can be clicked to select the required location, the selected button being highlighted dark grey. The Group name of the location name is then shown on the Group (Source) button. The Up and Down Arrow icons and the green slider bar can be used to navigate through the list. Clicking a location in the list highlights the location on a red bar, and displays a Warning message window.

Lock (Route Screen)

Locks (indicator shows green) and unlocks the currently selected destination.

Lock

This shows the lock status of the currently selected device. If a device is locked, it can only be used on the OUI workstation where it was locked. The indicator shows different colors with the following meaning:

Black — The device is not locked by any user - clicking the button will then lock the device, and the indicator will show green. It will remained locked until you unlock it, remove the device from the Devices area, or log off the OUI workstation.

Green — The device is locked by your OUI workstation - clicking the button will unlock the device, and the indicator will show black.

Red — The device is locked by a user at another OUI workstation - clicking the button will display a message window informing you where the device is locked, but will not unlock the device.

Lock (Destination Configuration Screen)

Locks (the indicator shows green) and unlocks the current destination. A source cannot be routed to the destination until it is unlocked.

Logo

Each numbered button represents a pre-configured Logo, which will be assigned to the current clip if the button has been toggled on. For example, **Logo1** button may be configured to display the station logo three seconds after the start of the clip for a duration of five seconds. Each button can be clicked to toggle it on (indicator shows green), and off (indicator shows black). When the clip is loaded into the application, the selections made in the Select Logos and GPIs window are recognized and activated at the required points.

Loop

When activated the Loop indicator button causes the clip to play over and over, immediately starting again from the In-Point when the Out-Point is reached. (Looping is only possible if the clip is being played out on a Video Disk Server.) Clicking the **Loop** button toggles it on (indicator shows green), and off (indicator shows black).

Main Menu

Displays the Main Screen.

Mark In

Clicking the **Mark In** button changes the Time Code shown in the **Mark In** window to that shown in the large **Time Code Display** window.

Mark Out

Clicking the **Mark Out** button changes the Time Code shown in the **Mark Out** window to that shown in the large **Time Code Display** window.

Matrix

Displays the Matrix Configuration Screen.

Max Dst.

Allows the maximum number of destinations (that the router database holds) to be set.

Max Src.

Allows the maximum number of sources (that the router database holds) to be set.

MCPanel Clicking the **MCPanel** button causes the Clip Assistant screen to disappear. It is replaced with the Local Machine Control Panel.

Mirror If the **Mirror** indicator button is on, the clip will be backed up on a second Video Disk Server by the application. Clicking the Mirror button toggles it on (indicator shows green), and off (indicator shows black).

Mode This button is used to select the routing mode to be used. If Manual is selected, the routing of the currently selected device is done manually using the Local Router Panel. If Auto is selected, the currently selected device is automatically routed to the destination shown on the **Dest** button. If the **Mode** button shows Manual, the **Dest** button text area is blank since automatic routing is not applicable and clicking the **Dest** button has no effect. If the **Mode** button shows Auto, the **Dest** button shows the name of the destination to which a device is automatically routed, when it is selected from the Devices area. If, for example, the auto routing is to a monitor, then the output of each device in the Devices area will be connected to the specified monitor, as each device is selected by the user. If the **Mode** button shows Auto, clicking the **Dest** button or window displays the Router Destinations list window.

Mode area The two windows in this area allow a **Router Control Device Application** to be configured if some redundancy is required. Clicking on the upper window in this area allows a **Router Control Device Application** to be labelled as a Master (no redundancy), a Mirrored Master, or a Mirror. Clicking on the lower window in this area allows the IP address of the Mirror (or Mirrored Master) to be input, if applicable.

Modify Clicking the **Modify** button records the values of the current clip's in-point, out-point and duration. A shortcut key exists which is equivalent to clicking the **Modify** button. A message window is displayed to confirm that the clip has been modified.

Modify Saves the router database to the **OmniShare 3 Service Application**.

Modify Clip Options Selecting this option will enable the settings of the clip to be changed to the default settings of a new clip type if this is changed. If not selected, if the clip type is changes then the settings of the original clip type will be retained.

Multi The **Multi** button allows more than one item on the list to be highlighted, the order of selection being retained. The indicator shows green when the button is switched on. Up to 1000 items can be selected simultaneously.

Multi Segment The Type area consists of three indicator buttons, each of which can be clicked to toggle it on (indicator shows green and any button previously selected is automatically toggled off, its indicator showing black). These buttons allow the type of tape to be chosen. Clicking the **Multi Segment** button signifies that several clips will be marked on the tape.

Name (Destination Configuration Screen)	Allows a long form name to be given to a destination.
Name (Matrix Configuration Screen)	Allows a router matrix to be named.
Name (Source Configuration Screen)	Allows a long form name to be given to a source.
Name label	Clicking the **Name** button displays an Alphanumeric Keypad that allows you to name a file, the name then being displayed on the **Name** button.
Name Rule	Allows the name of the currently displayed rule to be changed.
Names	Displays the Names Screen.
Never Cache	The **Always Cache**, **Never Cache** and **Hold Cache** indicator buttons are used to instruct the application how to manage the clip regarding the cache, (an area of rapid retrieval). Only one of these options can be chosen - clicking any of these three buttons toggles it on (indicator shows green), while simultaneously toggling the previously selected button off (indicator shows black). Selecting the **Never Cache** option will cause the application to never put the clip in the cache, leaving the cache available for clips with a higher priority.
New Clip	Clicking the **New Clip** button displays the Clip types list window allowing a type to be selected for the new clip. Once the clip type is selected, the list window disappears and the following default values are shown at the top of the Clip area: Clip Name:New Clip Duration:00:10:00:00 In-Point: 00:00:00:00 Out-Point:00:10:00:00 The duration and out point default values are set in the LMCP. All values will be changed when the clip is saved and modified.
New Dst.	Displays the first number in the router database that does not have a destination assigned to it.
New Src	Displays the first number in the router database that does not have a source assigned to it.
No. Dests.	Allows the number of destinations to be defined for a particular router matrix.
No. Sources	Allows the number of sources to be defined for a particular router matrix.
No. Virtual	Allows the number of virtual cross-points to be defined for a particular router matrix.
Number Highlighted window	The Number Highlighted window displays the number of list items that are currently highlighted.

Obey Rules

When the indicator is green, the rules defined on the **Rules** screen are implemented. When the indicator is black, none of the rules are effective.

Off-Line

When the indicator is green, the **Router Control Device Application** is off-line. Routes can still be made using the **Router Control Device Application**, but no changes will be reflected in the **Local Router Panel** displays.

Options

The **Options** button allows various attributes to be associated with the clip. Most of these options are activated when the clip is used by the application for transmission. Clicking the **Options** button displays the Select Clip Options window.

Options window

The **Options** window allows Clip Size, Loading and Routing Options to be selected.

Original

The Type area consists of three indicator buttons, each of which can be clicked to toggle it on (indicator shows green and any button previously selected is automatically toggled off, its indicator showing black). These buttons allow the type of tape to be chosen. Clicking the **Original** button signifies the tape is a source tape, and it cannot be recorded over.

Parent Clips

A Parent Clip is the original recorded material (pictures or audio) found on tape or disk. When a Parent Clip is logged into the OmniBus system, its name has to be specific and unique in order to identify it for future use.

Parity

Specifies the parity for a particular protocol. Clicking on the button allows the value to be changed.

Park

The **Park** button allows a destination to be routed to a default parking source, where the destination can remain parked while it is not in use. This will free any tie lines used on the previous routing. Clicking the **Park** button parks the currently selected destination, and the UMD below the destination displays Parked.

Park Source

Allows a source to be selected (by its index number) – this source will be routed to a destination if the destination is 'parked'. Parking is a function of the **Local Router Panel**, and allows a known source to be routed to a destination whilst freeing any tie lines used in the previous route to that destination.

PDC

PDC (Program Delivery Control) is a signal containing information that can be interpreted by domestic video recorders, enabling them to record specified programs at the exact time of transmission. The **PDC** (Program Delivery Control) indicator button is toggled on to notify the application that PDC information is to be transmitted along with the clip. Clicking the **PDC** indicator button toggles it on (indicator shows green), and off (indicator shows black).

Port

Allows a serial port on the Device Control Engine to be selected for a particular communication channel.

Pre Compile

The **Pre Compile** indicator button enables a clip to be part of sequence of clips to be played out consecutively from one Video Disk Server channel, the sequence being treated as one long clip by the application. Clicking the **Pre Compile** button toggles it on (indicator shows green), and off (indicator shows black). Only clips that have been marked with the Pre Compile flag can be part of a sequence, (e.g., a sequence of commercials).

Preset indicator

Click the **Preset** indicator button to toggle it on (indicator shows green), or off (indicator shows black). When it is toggled on, the selected level (i.e., the level which is indicated by a green **Level** button) is set to the preset standard level. When the **Preset** button is toggled off, the levels can be adjusted manually using the Level Adjustment Bar.

Preview

The **Preview** button allows the user to preview a route, without changing the initial route. Clicking the **Preview** button toggles it on (button shows green), and off (button shows grey). When the **Preview** button is green, clicking a new **Source** button will cause the LRP to display the new route details for as long as the **Source** button is clicked - (the route is physically connected during this period). Releasing the new **Source** button causes the LRP to revert to the initial route and its settings. When previewing Sources, the **Source** button selected shows red for as long as it is clicked. The settings which may be seen to change are: **UMD** display, **Current** and **Next State** indicators.

Preview icon

Click the **Preview** icon (F4) to view Mini-pics of selected files. A Mini-pic can be a video frame, a Stills Store page, or a Character Generator page. The Mini-pic image will be the frame displayed when the clip was last modified (you can alternatively use Function key F4 on the Keyboard as a short cut). If the **Multi** button is switched on and more than one file is highlighted, more than one Mini-pic will be displayed when you click the **Preview** icon.

Primary location

The primary location of a clip is the first location registered for that clip by the Encore System. The primary location of a clip cannot be changed.

Priority

Use the **Priority** button to reflect the urgency of a dub. It shows either Low (default option) or High, and you can toggle between these two options by clicking the button. When this button shows Low, the clip will enter the back of the queue and will be dubbed in turn. When the **Priority** button shows High, the clip will enter the queue before all low priority clips, but behind any high priority clips still waiting to be dubbed.

Protect

When the indicator is green, the currently selected destination

Protocol

Allows a protocol to be selected for a particular communication channel.

Re-Sync Comms

Re-initiates all serial communications.

Re-Sync Matrices

The **Router Control Device Application** broadcasts the last saved state of the router database to the router matrices that it is controlling.

Re-Sync Router — The **Router Control Device Application** synchronises itself to the physical state of the router matrices that it is controlling.

Recording Mode Selection — Select which tracks to record with the **Recording Mode Selection** indicator buttons. These can be toggled to switch individual levels on (indicator shows green), and off (indicator shows black). Use the following information to guide you: If the **Assemble** button is switched on, all audio and video channels plus the time code track are selected, and all the other **Recording Mode Selection** buttons will be switched off. The **Assemble** button will automatically switch off if any of the other **Recording Mode Selection** buttons are subsequently selected. If the **Video** button is switched on, the video channel is selected. If any of the **Audio** buttons are switched on, the corresponding audio tracks are selected. If the **Tc** button is switched on, the time code track is selected.

Register Tape window — This window allows all the necessary details to be entered for a new tape to be registered. Clicking the Enter/Return icon (once all the details have been added) registers the new tape with the Sharer.

Reload Database — Reloads the router database from the **OmniShare 3 Service Application**. The router database is re-configured to the same state as it was when it was last saved.

Remove — Allows destinations to be removed from the list of destinations that obey the currently displayed rule.

Request Information icon — Clicking the Request Information icon displays a window containing information about a selected list item - single selection only. (You can also use Function key F2 on the Keyboard as a short cut.)

Reset Database — Clears the current router database of all source and destination information.

Route — Displays the Route Screen.

Rule (Destination Configuration Screen) — Allows a rule to be assigned to a destination. Rules (which are defined on the Rules Screen) prevent certain sources from being routed to certain destinations.

Rules — Displays the Rules Configuration Screen.

Salvo — When the indicator is green, the **Router Control Device Application** (on being booted up) fires the salvo named in the window directly below this button. Clicking on this window displays the **Filer-Fax** – this allows a salvo to be selected.

Salvos — A Salvo (or Patch) is a group of individual routes that can all be connected simultaneously.

Save — Clicking the **Save** button displays the Filer-Fax in Save Mode, allowing you to save the current clip, renaming it if necessary.

Save Changes	Saves any changes that have been made to either the source or destination names.
Save Salvo	Clicking the **Save Salvo** button displays the Filer-Fax in Save mode which enables a Salvo to be saved so that it can be recalled later.
Saved	When the indicator is green, the **Router Control Device Application** (on being booted up) broadcasts the last saved state of the router database to the router matrices that it is controlling.
Select	Allows a pre-configured rule to be selected.
Select Channel	Enables a communication channel to be selected.
Select Dst.	Allows a destination to be selected by name or number.
Select Logos and GPIs	This window shows eight numbered **Logo** indicator buttons, and eight numbered **GPI** indicator buttons. Each button can be clicked to toggle it on (indicator shows green), and off (indicator shows black). Each numbered button represents a pre-configured logo or GPI, which will be assigned to the current clip if the button has been toggled on. For example, **Logos1** button may be configured to display the station logo three seconds after the start of the clip for a duration of five seconds. When the clip is loaded into the application, any selections made in the Select Logos and GPIs window are recognized and activated at the required points.
Select Matrix	Allows a matrix to be selected by name.
Select Src	Allows a source to be selected by name or number.
Set Format	Allows a format type to be assigned to a level.
Set	When the **Set** indicator button is green, the time code shown in the large Time code Display window will be stored by subsequently clicking one of the **Cueing Control** buttons. This process can be carried out even if the clip is being played out. When the **Set** indicator button is grey, clicking a **Cueing Control** button will pause the clip at the time code stored by that particular **Cueing Control** button. Click the **Set** indicator button to toggle it on (button shows green), and off (button shows grey).
Set Label	Allows the text to be changed on a Level indicator button (only via the Level Configuration Screen).
Show Categories/Show Files	The **Show Files / Show Categories** button can be toggled to display the File List window or the Category List window on the right hand side of the Main Screen. The Show Files/Show Categories will always therefore display Show Files when a Category List window is currently being viewed, and will display Show Categories when a File List window is currently being viewed.

Show Status — Displays the Router Status Screen.

Shuttle Bar — The Shuttle Bar provides incremental control of the currently selected device. Clicking to the right or left of the central green cursor allows you to spool forwards or backwards through the clip. The distance you click from the center is proportional to the speed at which the clip spools forward or backwards. Clicking the Arrow icons at either end of the Shuttle Bar advances or rewinds the clip by one frame.

Size — Clicking the **Size** button displays the Select Default Media Size list window. The Select Default Media Size list window enables the user to select either Maximum size or Fixed size. If Maximum size is selected, the list window disappears and Maximum size is shown on the **Size** button. The default duration of a new clip will then be set to the maximum amount of free space on the Video Disk Server. If Fixed size is selected, the list window disappears and is replaced with the Default fix size numeric Keypad. This can be configured to the user's requirements for the default clip size.

Source — The Source Bank is a block of thirty-two indicator buttons that display Sources; the source that is routed to the selected destination is highlighted in green. Each Source Bank is associated with a particular OUI workstation and cannot be shared between workstations. Moving the mouse pointer over a source or destination button will cause the full name to be shown on the Help Bar at the top of the screen. Blank **Source** buttons are not applicable to the currently selected Destination. NOTE: When you make a new connection, the Source that was previously connected to the Destination is automatically disconnected, (unless you are establishing a breakaway). Sources can be routed to more than one Destination, (apart from control data Sources, which often involve dialogue between Source and Destination). For example, a video level can be used to feed a monitor and a broadcast Destination.

Source Banks — The number of the current bank is shown in the Bank Display window, e.g., "10/15" means the Source Bank currently displayed is the 10th out of 15 Banks. If the **Arrow** button is grey, then you can scroll no further in that direction.

Source (Configuration Screen) — Displays the Source Configuration Screen.

Source (Source Configuration Screen) — Allows a source to be selected by number from the router database.

Source column — The Router Sources list window allows a source to be selected which is to be routed to the destination highlighted by the green bar in the Salvos window. Once selected, the Router Sources list window disappears and the Source is shown on the green bar in the source column.

Sources (Names Screen) — When the indicator is green, the Names Screen shows the source names.

Start TCL

The **Start TCL** button displays the Set TCL numeric Keypad, which allows the Time Code at the start of the tape to be entered. If this is unknown, the tape needs to be previewed by loading into a suitable device, rewinding it and noting the start Time Code.

Stop Bits

Specifies the number of stop bits for a particular protocol. Clicking on the button allows the value to be changed.

Suppress Logos

The **Suppress Logos** indicator button prevents the transmission of logos during the play out of the clip and forces any logos that are being transmitted off air. Clicking the **Suppress Logos** button toggles it on (indicator shows green) and off (indicator shows black).

Sync Router

When the indicator is green, the **Router Control Device Application** (on being booted up) synchronises itself to the physical state of the router matrices that it is controlling.

System Info. area

The unnamed window in this area shows the path of the router database on the **OmniShare 3 Service Application**.

T.B.C.

The **T.B.C.** (Time Base Correction) window provides access to a VTR Time Based Corrector for adjustment of Video Level, Chroma Level, Y/C Delay, Black Level, and Chroma Phase. The output levels of the signals can be adjusted using this panel by clicking the scroll bar or the arrows to either side. Moving the bar to the right will increase the level and moving it to the left will decrease it.

Tag icon

Files can be tagged (or associated) with particular categories for subsequent search and retrieval purposes. When a new file is created, it is automatically tagged with the following categories: the User name, the Year, and the Week number of the current year. Once selected, files are tagged and untagged to/from categories by clicking the Tag and Untag icons.

Tape ID

The **Name** button shows the clip ID for the clip on the tape. Clicking the **Name** button displays the Enter New Clip ID Alphanumeric Keypad. This allows the clip ID to be changed. Once the new clip ID has been entered, the Alphanumeric Keypad disappears and the new clip ID is shown on the **Name** button.

TC Format

Clicking the **TC Format** button displays the Select TC Format list window, which allows the time code format used on the tape to be selected. Once the time code format has been selected, the list window disappears and the time code format is shown on the **TC Format** button. Click the **TC Format** button and select a time code format from the options displayed. The **TC Format** button shows the time code format of the clip.

Text windows

The Text windows allow each caption up to six lines of text (maximum forty-nine characters per line). Clicking each of the six Text windows displays the Edit Title Alphanumeric Keypad, which enables text to be added. Once the required text has been entered, the Alphanumeric Keypad disappears and the text is shown in the Text window previously chosen.

Time code Display

The time code is shown in hours, minutes, seconds and frames, to the nearest frame. The display is derived from time code data on the source tape or disk, or in the case of a live feed, from a time code generator.

Title

The **Title** button shows the title of the clip on the tape. Clicking the **Title** button displays the Enter New Clip Title Alphanumeric Keypad, which allows the title to be changed. Once the new clip title has been entered, the Alphanumeric Keypad disappears and the new clip title is shown on the **Title** button.

To window

Shows the destination of a message to be sent in OmniPager.

Track

When the indicator is green, the current levels (and the sources supplying these levels) are automatically selected when the next route after the current route has been executed.

Type

The **Type** button shows what type of clip is currently loaded. Clicking the **Type** button displays the Clip Types list window, which allows the type to be changed.

Type (Destination Configuration Screen)

Allows the hardware type of a destination to be specified.

Type (Source Configuration Screen)

Allows the hardware type of a source to be specified.

Ultimate Source

Tie Lines are dedicated communication channels, which may include signal conversion equipment, e.g., for analog-to-digital conversion. Sources and destinations that are connected to different Area Routers have to be connected source-to-destination via tie lines. Connections may involve more than one tie line, especially if signal conversion is required. Allocation of tie lines and any associated conversion requirements is dealt with automatically by the Router Tie Line Management Service Application. When a Destination is selected, the Ultimate Source currently routed to that Destination is shown on the UMD, and the Source Bank containing that Source is displayed. The signals (levels/layers) routed are shown in the Breakaways area.

UMD

(Under Monitor Display) This displays the source routed to the destination on the button above. Clicking a UMD display can be used to select the source for its associated destination.

Untag icon

Files can be tagged (or associated) with particular categories for subsequent search and retrieval purposes. When a new file is created, it is automatically tagged with the following categories: the user name, the year, and the week number of the current year. Once selected, files are tagged and untagged to/from categories by clicking the tag and untag icons.

Use After (button and window)

The **Use After** button and window allow a date to be assigned to the clip, and the clip must be used after that particular date. This is useful when setting embargoes on material. Clicking the Use After indicator button toggles it on (indicator shows green), and off (indicator shows black). The window below the button is blank if the button is off, and clicking the window has no effect. If the button is toggled on, a date is shown in the window. The date can be changed by clicking the text in the window, which displays the Enter End Date Alphanumeric Keypad. Once the required date has been entered, the Alphanumeric Keypad disappears and the new date is shown in the Use After window.

Use Before (button and window)

The **Use Before** button and window allow a date to be assigned to the clip, and the clip must be used before that particular date. This is useful when setting embargoes on material. Clicking the **Use Before** indicator button toggles it on (indicator shows green), and off (indicator shows black). The window below the button is blank if the button is off, and clicking the window has no effect. If the button is toggled on, a date is shown in the window. The date can be changed by clicking the text in the window, which displays the Enter Start Date Alphanumeric Keypad. Once the required date has been entered, the Alphanumeric Keypad disappears and the new date is shown in the Use Before window.

Use Captions

If captions have been defined in the clip, the application will use the captions if the **Use Captions** indicator button is on. Clicking the **Use Captions** button toggles it on (indicator shows green), and off (indicator shows black).

Use Clip

This specifies which location the clip should be sourced from when dubbing. When the **Use Clip** button shows **Local**, the clip used for the dubbing job is loaded onto the dubbing screen of the OUI, and is independent of any clip which is currently shown on the LMCP Main Screen. When the **Use Clip** button shows **From device**, the clip used for the dubbing job is that which is loaded in the currently selected device on the *LMCP* Main Screen. The Dubbing Service window automatically shows the clip name and location in this case. NOTE: It is possible to use both the above options in the same *LMCP* session.

Use Group

The **Use Group** button allows a group of devices to be selected from where the clip is to be played out, e.g., a Video Disk Server or a group of VTRs. Clicking the **Use Group** button displays the Select Device Group list window. Once a group is selected, the list window disappears and the group name is shown on the **Use Group** button. The default group is Auto, which signifies that the application will automatically select the most appropriate group to play out the clip.

Use object database

The object database is a system for centrally maintaining and configuring Encore devices and other objects. The objects are stored on the Sharer and can be accessed using standard Encore tools such as the Filer-Fax (through the system category OBJECT DATABASE). The object database is a system configuration option and must be set up by the system administrator before it can be used. This option is set up with the System Manager Application and can only be modified by a user with the appropriate level of access. When selected, all devices registered on the network will be offered via the Filer-Fax window, regardless of whether they are available. If not selected, then a list window is displayed offering only the devices that are available at the time.

Use Page controls

The Use Page controls refer to the page numbers in the configured Caption Generator (which is interfaced via the Page Recall application). Within the Caption Generator there are different styles for captions etc. arranged in pages. Selecting a number with the Use Page controls selects the corresponding page in the Caption Generator - there are up to ninety-nine pages available. Clicking the Up and Down Arrow icons allows you to scroll up and down through the page numbers, one page at a time. Clicking the Square icon (to the right of the arrows) resets the Use Page number to zero.

Use Subtitles

If subtitles have been defined in the clip, the application will use the subtitles if the **Use Subtitles** indicator button is on. Clicking the **Use Subtitles** indicator button toggles it on (indicator shows green), and off (indicator shows black). The window below the button is blank if the button is off, and clicking the window has no effect. If the button is toggled on, the subtitle file name is shown in the window. The subtitle file can be changed by clicking the text in the window, which displays the Enter Name of Subtitle File Alphanumeric Keypad. Once the required subtitle file name has been entered, the Alphanumeric Keypad disappears and the subtitle file name is shown in the Use Subtitles window.

User Identity

This is the name by which the system will recognize you.

Video

The five indicator buttons on the right of the T.B.C. window are used to select the level to be adjusted. Clicking one of these buttons toggles it on (button shows green), and automatically toggles any previously selected button off (button shows grey). The Level Adjustment Bar is used to adjust the selected level. Clicking the Double Arrow and Single Arrow icons at either end of the bar allows large and small incremental adjustment. The green cursor on the bar reflects the adjustment by moving right or left. Clicking the bar allows the green cursor to be dragged in order to make large adjustments. Click the Video button to adjust the output level of the video signal. This can be regarded as adjusting the brightness.

Video Transition Type

The **Video Transition Types** area contains six buttons for selecting the type of transition required for the clip, and one button which allows a wipe to be selected for the clip. The six transition type buttons can be selected one at a time by clicking them. The selected button is highlighted white, and the remaining five buttons are grey. The Transition Type buttons represent the following transitions (from left to right): Simple Cut (Cut Out / Cut In). Kiss Black (Fade Out / Touch Black / Fade In). Cut to Black / Fade In. Dissolve. Fade to Black / Cut In. Cut Through Black (Cut / Cut).

Wipe Number

The **Wipe Number** button is used to select the number of the wipe effect to be used with the transition. A wipe is a transition between two video signals that takes the shape of a geometric pattern. If the Wipe button is grey, clicking the **Wipe Number** button has no effect. If the **Wipe** button is green, clicking the **Wipe Number** button displays the Wipe Number Keypad, which allows the wipe to be selected. Once the required wipe number has been entered, the Keypad disappears and the number is shown on the **Wipe Number** button.

Y/C Delay

The five indicator buttons on the right of the T.B.C. window are used to select the level to be adjusted. Clicking one of these buttons toggles it on (button shows green), and automatically toggles any previously selected button off (button shows grey). The Level Adjustment Bar is used to adjust the selected level. Clicking the Double Arrow and Single Arrow icons at either end of the bar allows large and small incremental adjustment. The green cursor on the bar reflects the adjustment by moving right or left. Clicking the bar allows the green cursor to be dragged in order to make large adjustments. Click the **Y/C Delay** button to adjust the Y/C delay. This can be regarded as adjusting the synchronization between the luminance and chrominance.

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