

Encore

CONTROL SYSTEM

Release Notes

SOFTWARE VERSION 1.7

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the most watched worldwide

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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 Release Notes

CAUTION The Encore software update procedure has changed from previous releases. Redundant SCBs must be updated separately. Other parts of the procedure have also been simplified. Read the installation instructions later in this document carefully before you update your Encore system.

Introduction

This document describes the product enhancements provided by Encore software release 1.7.

Also described is the installation procedure (which has changed) used to upgrade the system from 1.6.5.x to 1.7 ([page 57](#)).

New Features in Encore Release 1.7

Additional Control Panel Support

- SMS 7000 control panels (UCP, EDP, P48, MB8, and BPS32) can be used with Encore (see [page 12](#)).
- Acappella remote panels can be used with Encore (see [page 18](#)).
- KAL32AUX1 and KAL32AUX2 Kalypso style Remote Aux panels can be used with Encore (see [page 21](#)).

Control Panel Enhancements

- Joy Stick Override with 48B-GPI, BPS-GPI, P48, P32, KSD, and KMD control panels (see [page 25](#)).
- Panel Enable Button (see [page 28](#))
- Auto Take Button (see [page 28](#))
- Auto Level Latching (see [page 30](#))
- Preset Swap (see [page 29](#))

- Self Configuration (see [page 29](#))
- Monitor Only Destination (see [page 30](#))
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- Scrolling Take (see [page 34](#))
- Dynamic Preset Hold (see [page 35](#))
- Output Monitor Control (see [page 35](#))
- Assignable Buttons (see [page 35](#))
- Destination Ganging (see [page 36](#))

Panel Server Enhancements

- Configuration Load and Save by Name (see [page 37](#))
- Rapid Configuration (see [page 40](#))
- Simple Panel Server Event Logging (see [page 40](#))
- Filing Mode Indication (see [page 41](#))

Router Control Engine Enhancements

- Native Protocol Matrix Driver (see [page 41](#))
- DataTek Matrix Support (see [page 51](#))

System Controller Enhancements

- SCB Time Date Synchronization (see [page 51](#))
- 230 Baud SIO Support for Native Protocol/RCL

Tie Line Manager Enhancements

- Rooms Support (see [page 52](#))

Concerto Enhancements

- Concerto Matrix Mono Audio Support (see [page 53](#))

- Concerto Matrix Web Pages (see [page 53](#))
- TDM Expansion Destination Monitoring (see [page 54](#))

Encore SNMP Enhancements

- New parameter reporting and traps are available for Encore components (see [page 54](#))

Additional Applications

- The Encore Salvo Editor is a stand-alone software application that can be used to create Salvos off-line, test them, save and load them, and execute them from a PC. The Salvo Editor is an option that requires license registration for full functionality (see [page 56](#)).
- The Soft Panels application has been updated to be able to emulate the SMS UCP, EDP, P48, MB8 and BPS32 control panels. Note that the current Soft Panels version (1.1a3) also includes the MB4 and MCO panels but these are not supported in Encore 1.7.
- The RCL (Router Control Language) NP (Native Protocol) Client Application is a software tool that can be used to communicate with any Controller implementing the RCL/NP protocol, and can be used to control routers that implement either the RCL or NP protocol. Contact Grass Valley Customer Service for more information.

Changes in Encore Release 1.7

- The Encore installation process have been simplified.
- The Encore OUI Keypad Set configuration for the XY and PMB panels have been moved to the button configuration screen.
- When the Sharer Watchdog program is launched it now detects whether a Sharer is already running on the network, and if found terminates the launch with the message “Sharer is already running on the network at IP ADDRESS”.
- Destination Exclusion Sets now sort alphabetically on the configuration OUI.

Other General Information

Large Salvos and Console Logging

If you intend to use large salvos, we recommend the “Log to Console” option on the RCE be turned off. Leaving this option on will make salvos log each element to the console, which can slow down the Encore controller and, in extreme cases, even make it crash. Using a telnet session instead of a serial interface for console logging reduces this possibility.

Salvo Button Configuration

When changing button type assignments from the OUI for salvo select buttons, you must be sure to select a valid salvo for the button. Otherwise, during configuration the button is assigned a NO_BUTTON type to avoid the possibility of triggering an unwanted Salvo Take operation.

Tie Lines and Mismatched Level Takes

When using Tie Lines, for every destination level involved there must be a corresponding source level. If this is not the case, the Take will fail and none of the levels will switch. A Tie Line cannot switch an unspecified level.

One work around is to manually disable any mismatched destination levels before issuing a Take involving Tie Lines. Another more comprehensive work around is to add all levels to all source definitions even if there is no actual input on the additional levels. These missing inputs should be connected to the Black connector for video, a Silence connector for audio etc. This approach fixes the undesired Tie Line Manager behavior and, more importantly, in the case where a switch is made from a three-level source to a two-level source (on a three-level destination), it eliminates the break-away asterisk from being displayed on the destination after the take.

Encore Routing Area Recommendation

Routing Areas partition large systems, which allows the re-use of the same source and destination names in different areas. Each name is prefixed with its Area name, making it unique. Each active Area requires a Router Controller application running on an Encore System Controller, and only one Router Controller (or redundant pair) is allowed in a given Area.

In systems with only one routing Area, the Default Area should be used.

In systems using multiple Areas, or systems planned to grow from a single Area to multiple Areas in the future, the Default Area should NOT be used for routing. This is because when a new Router Controller is added, it uses the default Area until configured otherwise. Not using the Default Area prevents conflicts from occurring (i.e. two Router Controllers in the same Area) when a new Router Controller is added. On these systems, use the

System Manager to create and name a new area for each Router Controller, then log on to the Router Controller application and change the routing area from the default to the new Area, using the main configuration screen.

RCL Server NP Protocol OUI LED Status

On the RCL Server OUI Screen, for serial clients configured for NP protocol, the green LED will only indicate that the specific serial port has been opened. Thus, the LED may have a green status even if the automation client itself is not successfully communicating.

Additional Control Panel Support

Several different types of control panels can now be used with an Encore control system.

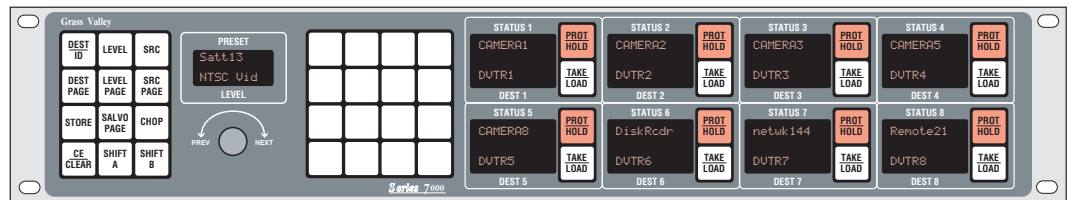
SMS 7000 GSC Control Panels

SMS7000 EDP, P48, UCP, MB8, and BPS32 Global Serial Channel (GSC) control panels can be used with an Encore 1.7 system. The control panel's internal software needs to be updated for use with Encore, and a GSC mezzanine must be installed in the Encore System Controller. SMS7000 GSC control panels connect to Encore via the GSC BNC connectors on the rear panel of the Encore System Controller frame. Each of the four GSC busses support up to 16 SMS7000 control panels for a total of 64 per Encore System Controller.

In general, SMS7000 panel functionality under Encore does not mimic functionality under SMS7000 control; rather it is based on the existing functionality of the equivalent Encore control panel type.

Eight Destination Paging (EDP) Control Panel

Figure 1. EDP -Eight Destination Paging Control Panel



3388-3

The EDP (Eight Destination Paging) Control Panel controls eight assigned output busses (Destinations). Destinations are front-panel selectable so the EDP can switch any Source to any Destination. For any Source Take, any combination of the available levels can be preset for Breakaway takes. A 16-button keypad provides prefix/suffix access to frequently used names of Sources, Destinations, Levels, and Salvos. To scroll through complete name lists use the **PREV/NEXT** control knob. The EDP panel can also execute configured Salvos.

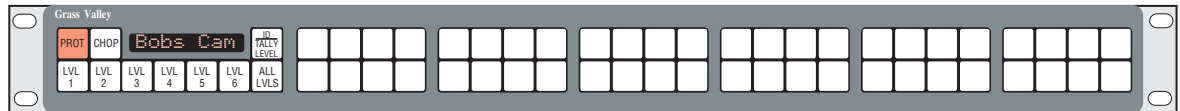
Eight Dest and eight Status displays provide Sources and Destinations for 8 busses, as well as breakaway status for eight levels at a time.

A Shift button provides expanded Keypad access to 32 prefixes and 32 suffixes. The paging feature allows pages of eight Destinations and pages of eight Salvos to be created during configuration. These pages can be accessed by entering the appropriate page mode and using the **PREV/NEXT** knob to scroll. Panel access to levels, destinations and salvos are subject to

any destination and salvo exclusion sets applied to it. By default, all salvos are excluded. To access salvos, the user needs to configure an exclusion set wherein the required salvos are not-excluded and apply that set to the panel.

48 Button-Per-Source (P48) Control Panel

Figure 2. P48 - 48 Button-Per-Source Control Pane

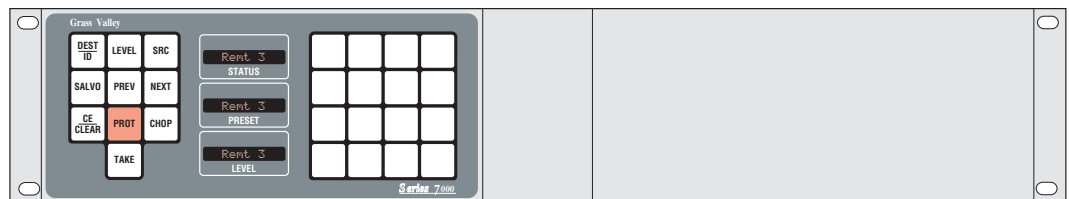


The P48 Control Panel is a 48 button-per-source panel that performs a source-take with the single push of a button. It functions the same as an Encore BPS panel. The P48 also provides six programmable Level Keys for easy breakaways. For any source-take, any combination of the available levels can be made active (or inactive) for breakaway switching. The P48 also offers Protect, Joystick Override, and other functions.

Panel Configuration determines the sources, levels, destinations, and salvos that the panel can control. Multiple destinations can be made available for takes on the panel by configuring buttons with destination select functions and assigning destinations to those buttons. Panel Configuration also determines how the panel performs in terms of Tally, Locks, Defaults, etc. It is possible for some of the operations to be limited by System or Panel configuration constraints. Panel access to levels, destinations and salvos are subject to any destination and salvo exclusion sets applied to it. By default, all salvos are excluded. To access salvos, the user needs to configure an exclusion set wherein the required salvos are not-excluded and apply that set to the panel.

Universal (UCP) Control Panel

Figure 3. UCP - Universal Control Panel



3388-12

The Universal Control Panel (UCP) switches any Source to any Destination and also performs Salvos. For any Source-take, any combination of the available Levels can be preset for Breakaway Takes. A 16-button keypad

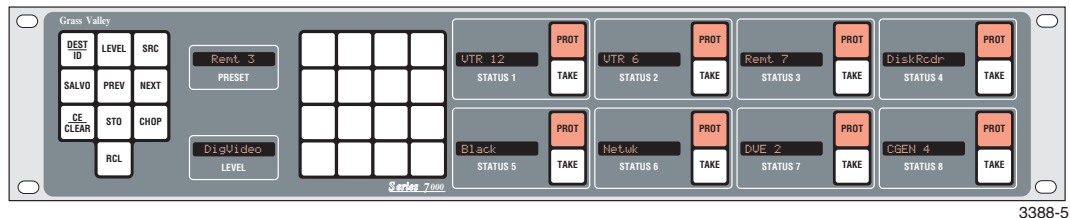
provides access to frequently used names through prefix/suffix selection. The UCP panel also allows you to rapidly scroll through complete name lists using the **PREV** and **NEXT** buttons.

Panel access to levels, destinations and salvos are subject to any destination and salvo exclusion sets applied to it. By default, all salvos are excluded. To access salvos, the user needs to configure an exclusion set wherein the required salvos are not-excluded and apply that set to the panel.

Note The Prev and Next buttons are not equipped with LEDs and so will not tally if programmed for a different function.

Programmable Multibus 8 (MB8) Control Panel

Figure 3-1. MB8 - Programmable Multibus 8 Control Panel



The Multibus Control Panel (MB8) controls eight assigned output buses (Destinations). Destinations are front-panel selectable so the MB8 can switch any Source to any Destination. For any Source-take, any combination of the available Levels can be preset for Breakaway Takes. A 16-button keypad provides prefix/suffix access to frequently used names. You can also scroll through complete name lists using the **PREV** and **NEXT** buttons. The MB8 panel can execute Salvos assembled during system configuration.

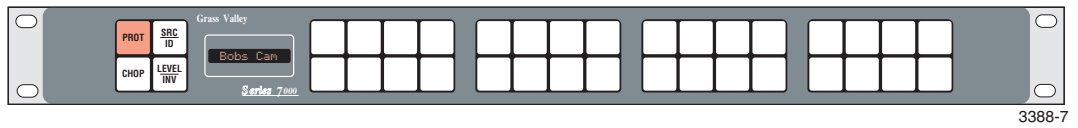
Eight Dest and eight Status displays provide Sources and Destinations for 8 busses, as well as breakaway status for eight levels at a time.

The Shift function, if configured on a button, provides expanded Keypad access to 32 prefixes and 32 suffixes. Panel access to levels, destinations and salvos are subject to any destination and salvo exclusion sets applied to it. By default, all salvos are excluded. To access salvos, the user needs to configure an exclusion set wherein the required salvos are not-excluded and apply that set to the panel.

Note The Prev and Next buttons are not equipped with LEDs and so will not tally if programmed for a different function.

32 Button-Per-Source (P32) Control Panel

Figure 3-2. BPS32 - Programmable Button-Per-Source Control Panel



The Programmable 32 (P32) Control Panel is a button-per-Source panel that performs a Source-take with the single push of a button. The panel controls a single Destination and from one to all system Levels. For any Source-take, any combination of the available Levels can be made active (or inactive) for Breakaway switching. The P32 also offers Protect, Joystick Override, and other functions.

The SMS 7000 Compatibility Mode flag can be used on the P32 panel to retain some SMS7000 functionality. When the flag is disabled, the Level Select buttons are used exclusively. When the flag is enabled, the use of Level Mode with Level Inversion is supported.

Global Serial Channel Mezzanine

GSC Control Panels are controlled by an Encore System Controller with an GSC ISA mezzanine installed. The GSC ISA mezzanine controls four sets of BNC connectors found on the back of the frame. Two GSC mezzanines can be installed in redundant SCBs for redundant GSC operation. A GSC and an SIO mezzanine can be installed stacked for simultaneous operation.

Figure 4. GSC Control Panels, Redundant Operation SCB Cabling

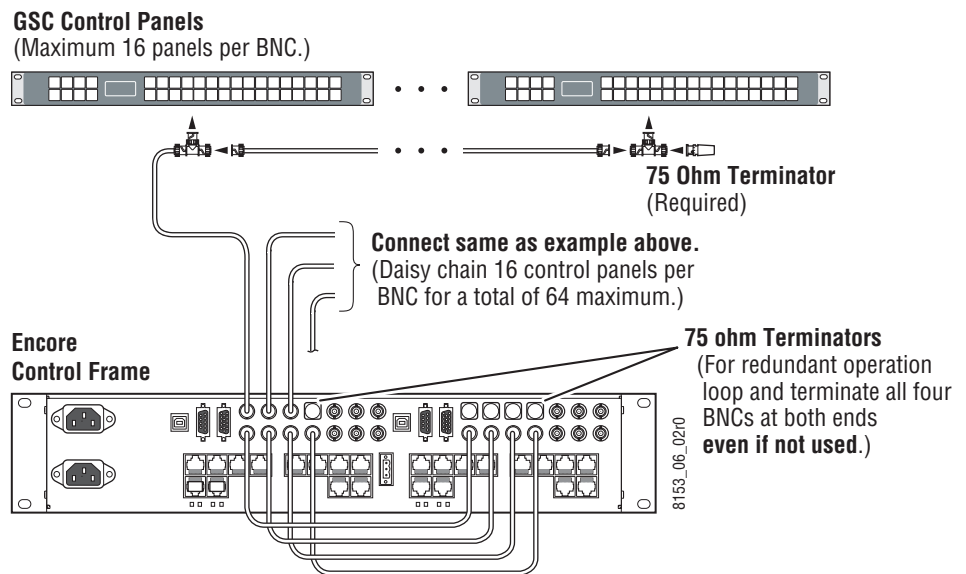
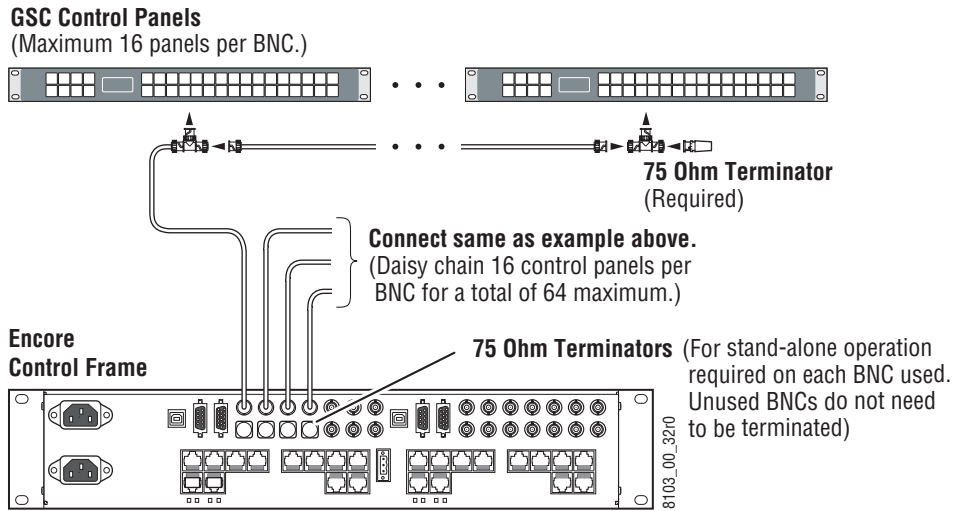


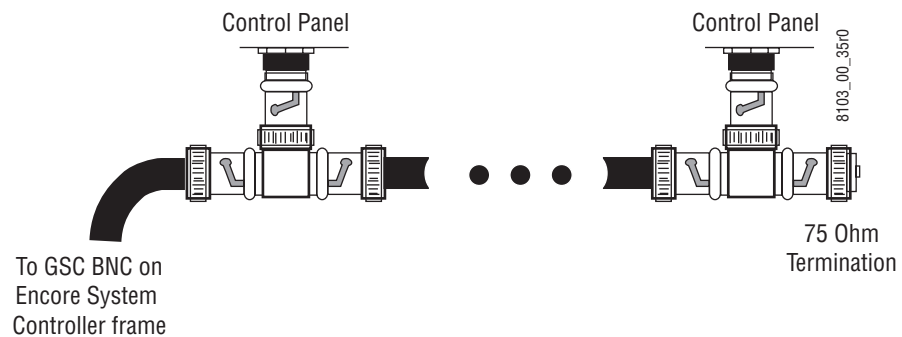
Figure 5. GSC Control Panels, Stand Alone SCB Cabling



The CP (Control Panel) Bus port supports a maximum of 16 control panels (or devices) on each coaxial cable branch. There are four coaxial cable branches, so the maximum number of GSC panels allowed is 64. An Encore System Controller can control a total of 128 control panels so you could have a maximum of 64 GSC control panels and still control up to 64 Encore control panels via Ethernet.

The coaxial cable must be 75 ohm (Belden 8281 or equivalent) terminated into 75 ohms at both ends of the bus. For redundant operation all four buses must be looped and terminated. The maximum length of a CP Bus is 1500 ft. (300 m.). The CP Bus is a 1 MBit data bus and will not allow pigtail extensions between the BNC T-connector and the control device (see [Figure 6](#)).

Figure 6. Control Panel Bus T-Connections and Termination



SMS7000 GSC Panel Update for Encore

GSC control panel software must be updated before these panels can be used in an Encore Control System.

Setting up GSC Control Panels with Encore:

The EDP, P48, UCP, MB8, and P32 control panels are supported by the Encore 1.7 release.

1. Ensure the System Controller Board (SCB) has the GSC mezzanine installed.
2. Verify the control panels are connected to the encore frame on the side the SCB with GSC mezzanine is installed.
3. Ensure the SCB has been updated with Encore 1.7 or later software using NetConfig.
4. Using a console interface (serial or telnet interface into the SCB) type either 'ls' or 'll' to display the list of files on the flash card. Verify that the `gscPanel.mot` file is located on the flash.

CAUTION Do not type 'ls -l' on the console interface, as it will stop the SCB from functioning.

5. Next type in the following command, followed by the return key, which will reprogram all GSC control panels connected to the SCB:

```
lcpProgram
```

6. Once the panels are programmed they will automatically reboot and sign onto the Encore system. At this point the GSC control panels should connect and be given the default configuration defined for each panel type within the Panel Server.
7. Configure these control panels using the standard method described for Encore control panels. Remember all configuration changes are live changes and do not require a panel reboot, but to make the changes persistent the user must select **Modify** to save the configuration changes.

CAUTION When renaming a GSC control panel from the Encore OUI, exit and re-enter the OUI edit select screen before editing the renamed GSC panel. This allows the OUI to update active panel configuration chevrons appropriately. Make sure there are active chevrons (>>) for the GSC panel to be edited after re-entering the OUI screen.

SMS7000 GSC control panels use older technology and are inherently slower than the Encore network interface control panels. The GSC control panel takes a longer time to reboot and sign-on to the system after a rename operation. The OUI edit select screen is not dynamically updated, so the panel configuration may incorrectly show active chevrons (>>) when the panel is actually offline. If the OUI attempts to edit a GSC panel in this special condition, the OUI will prevent the GSC panel from signing onto the master panel server because the configuration is in active edit mode. When the edit is completed the panel will then sign-on but the master and mirror panel server will be out of sync.

If this special condition GSC panel rename and edit does occur, the recovery method is to edit the same again of this now active GSC panel configuration from the OUI, modify the configuration, and then exit OUI panel configuration screen. This puts the panel server back in sync.

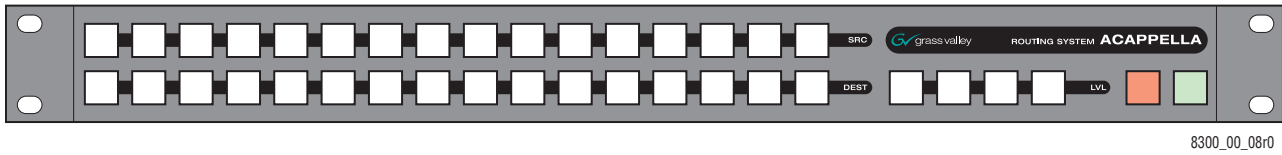
Acappella Remote Panel Support

Acappella remote panels can be used by an Encore 1.7 system, by installing Encore software on these panels.

Acappella Remote Panel Types

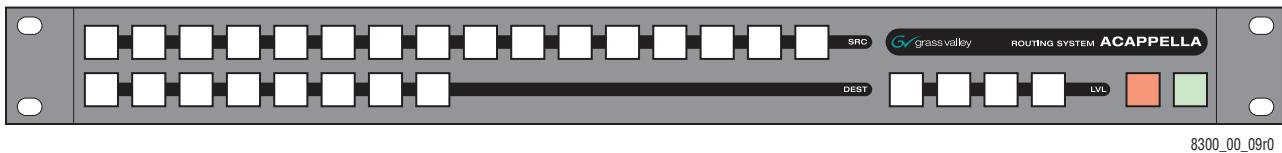
Several different types of Acappella remote panels exist that are equipped with different sets of source and destination buttons. All Acappella remote panels have four Level buttons, a green Enable button, a red Protect button. Three representative panels are shown below. [Figure 7](#) is a panel with 16 Sources and 16 Destinations.

Figure 7. 16x16 Remote Panel



[Figure 8](#) is a panel with 16 Sources and 8 Destinations.

Figure 8. 16x8 Remote Panel



[Figure 9](#) is a panel with 8 Sources and 1 Destination.

Figure 9. 8x1 Single Destination Remote Panel



Acappella remote panels are treated as the ENC-48B panels by the Encore system. On-line Acappella remote panels are listed in the Panel Server GUI as ENC-48B panel types. The existing 48B panel configuration editor graphics and templates are used to program these panels, which will

display the maximum number of buttons. Buttons not present on a given Acappella panel can be programmed, but obviously will not be usable since the buttons won't actually exist. You will need to know which buttons are available on a particular Acappella remote panel when you program it.

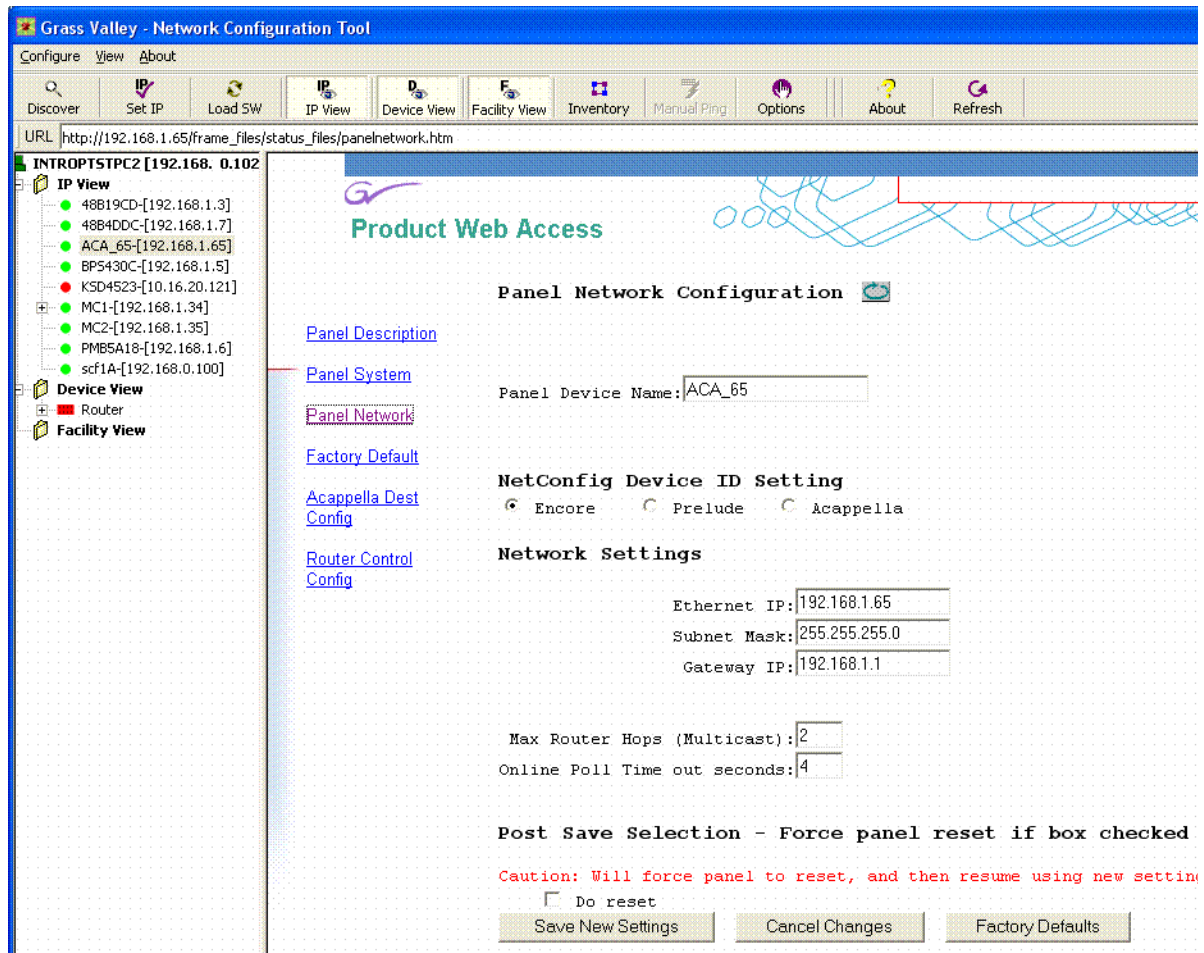
It may be useful to create control panel templates (from the basic 48B template) for each type of Acappella panel used. The appropriate functions can be assigned to buttons present on the panel, and buttons that do not exist would be configured as Not Assigned.

Acappella Remote Panel Update for Encore

Acappella remote panels can be updated to 1.7 software using NetConfig with the following procedure. See *Update Control Panel Software on page 71* for more information.

1. Connect a configuration PC with Internet Explorer and NetConfig installed to the Acappella remote panel over the network.
2. Launch NetConfig and select the Acappella panel from the listed hierarchy. It may have a red status if its network address isn't on the same subnet as the PC. If necessary, change the panel's IP address to be compatible with the Encore system using the NetConfig Set IP feature.
3. Go to the Panel Network web page for that Acappella panel and select the **Encore** NetConfig Device ID Setting ([Figure 10](#)).

Figure 10. Acappella Panel Identified as Encore



4. Save the new identity by clicking on **Save New Settings**.
5. Re-discover the devices in NetConfig.
6. Go to NetConfig's Load Software pane. The Acappella panel will now be listed under the Encore control panels.
7. Select the converted Acappella panel and load Encore software to it.

Once loaded with Encore software, the converted Acappella panel will appear in the OUI as an Encore 48B panel.

Converting a Remote Panel Back to Acappella Operation

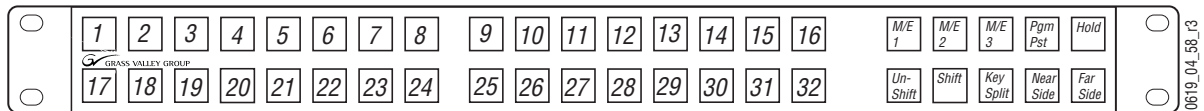
To convert a panel back for use with an Acappella system, follow the steps above, but change the NetConfig Device ID Setting to **Acappella**. Then it will appear under Acappella for software loads, and the Acappella software will be able to be loaded back in.

Kalypso Remote Aux Panel Support

The Kalypso Ethernet Remote Aux panels (KAL-32AUX1 and KAL-32AUX2) can be used with an Encore 1.7 system. The Aux panels need to be updated with the latest Encore software before they can be used in this manner. The Encore Panel Server OUI identifies Kalypso panels as KSD (Kalypso Single Destination) and KMD (Kalypso Multi Destination).

KAL-32AUX1

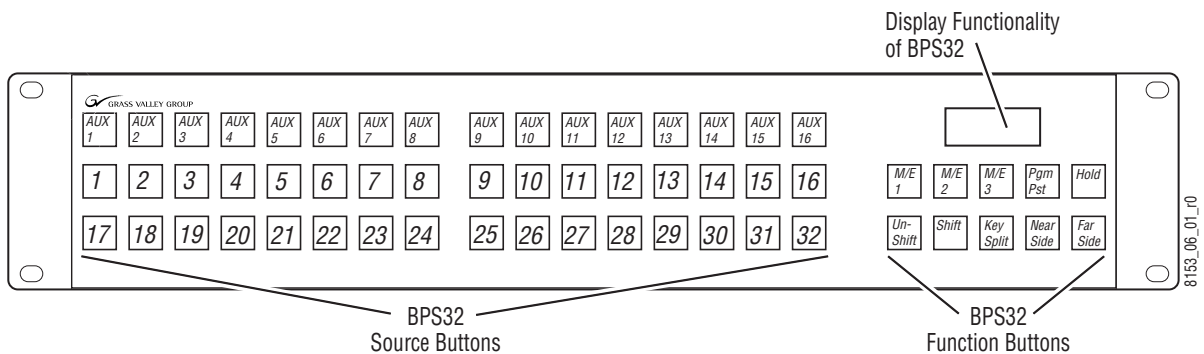
Figure 11. Kalypso 1RU Ethernet Remote Aux Panel



The control panel button functionality for the one rack unit KAL-32AUX1 is modelled on the Encore 48-button panel. All buttons are configurable in the same way as they are on the 48B, including applicable control panel flags and attributes and Joystick Override. The KAL-32AUX1 also supports control panel grouping in the same way as an Encore 48B control panel. It can be configured as a panel group master or a panel group expansion panel.

KAL-32AUX2

Figure 12. Kalypso 2RU Ethernet Remote Aux Panel



The control panel button and display functionality for the two rack unit KAL-32AUX2 is modeled on the Encore BPS32. The applicable control panel flags and attributes are the same as the Encore BPS32 panel, and Joystick Override is also supported.

The KAL-32AUX2 supports control panel grouping in the same way as an Encore BPS32 (or XY) control panel. It can be configurable as a panel group master only, not a panel group expansion panel.

Kalypso Remote Aux Panel Update for Encore

Kalypso Remote Aux panels running V1.6.5.3 software can be updated using NetConfig (see *Update Control Panel Software on page 71*). Kalypso panels on an Encore network are identified and can be loaded with Encore 1.7 software, and will then behave like 48B Encore panels.

Note Kalypso Remote Aux panels running older software must first have V1.6.5.3 software installed before they can be updated to 1.7. This can be accomplished using the separate Kalypso/Zodiak Remote Aux Panel Update package. Contact Grass Valley Customer Service for more information.

1. Connect a configuration PC with Internet Explorer and NetConfig installed to the Kalypso remote panel over the network.
2. Launch NetConfig and select the Kalypso panel from the listed device hierarchy. It may have a red status if its network address isn't on the same subnet as the PC. If necessary, change the panel's IP address to be compatible with the Encore system using the NetConfig Set IP feature.
3. Re-discover the devices in NetConfig.
4. Go to NetConfig's Load Software pane. The Kalypso panel will be listed under the Encore control panels.
5. Select the Kalypso panel and load Encore software to it.
6. After the software is loaded, use NetConfig to view the Kalypso remote panel's Panel Network web page and set the Encore Master Controller IP (and Slave IP if operating redundant SCBs) to the IP addresses of the SCBs. Select **Do Reset** and save the new settings.

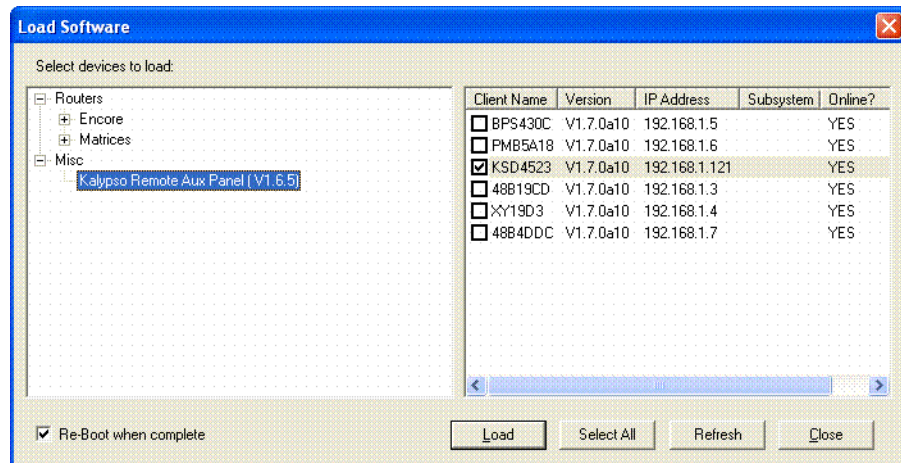
Once loaded with Encore software, the converted Kalypso panel will appear in the OUI as either a KSD or KMD panel.

Converting a Remote Panel Back to Kalypso Operation

To convert a panel back for use with a Kalypso system, use the Kalypso Remote Aux Panel Update CD to load the Kalypso software back into the panel and set the IP addresses back to Kalypso system settings.

1. Load the Kalypso Remote software onto a PC on the network with the converted Kalypso remote panel from the Kalypso Remote Aux Panel Update CD. If NetConfig is not already installed on the PC it will need to be loaded too.
2. Open NetConfig and navigate to the Misc folder, and load the Kalypso software onto the Kalypso remote aux panel ([Figure 13](#)).

Figure 13. Kalypso Software Selected for Load



- Set the IP address of the Kalypso Remote Aux panel back to settings compatible with the Kalypso system you will use it with.

Encore OUI Configuration of Kalypso Panels

The Control Panel Server uses graphical representations of the KMD and KSD panels for configuration, like Encore panels. Because of the larger panel layout, the KMD panel is displayed on the OUI in two parts ([Figure 14](#) and [Figure 15](#)). Click on the right or left arrow to access the other part of the panel, and click on the time display to show or hide the navigation buttons.

Figure 14. Left Side of KMD Panel, with Navigation Buttons

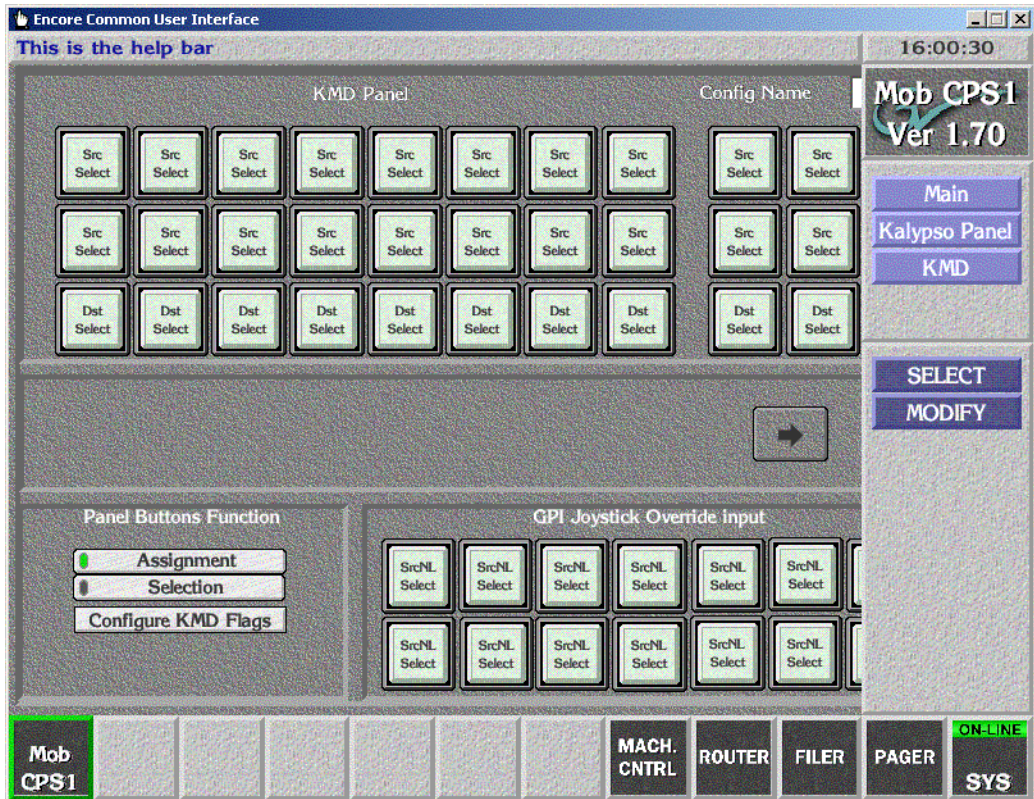
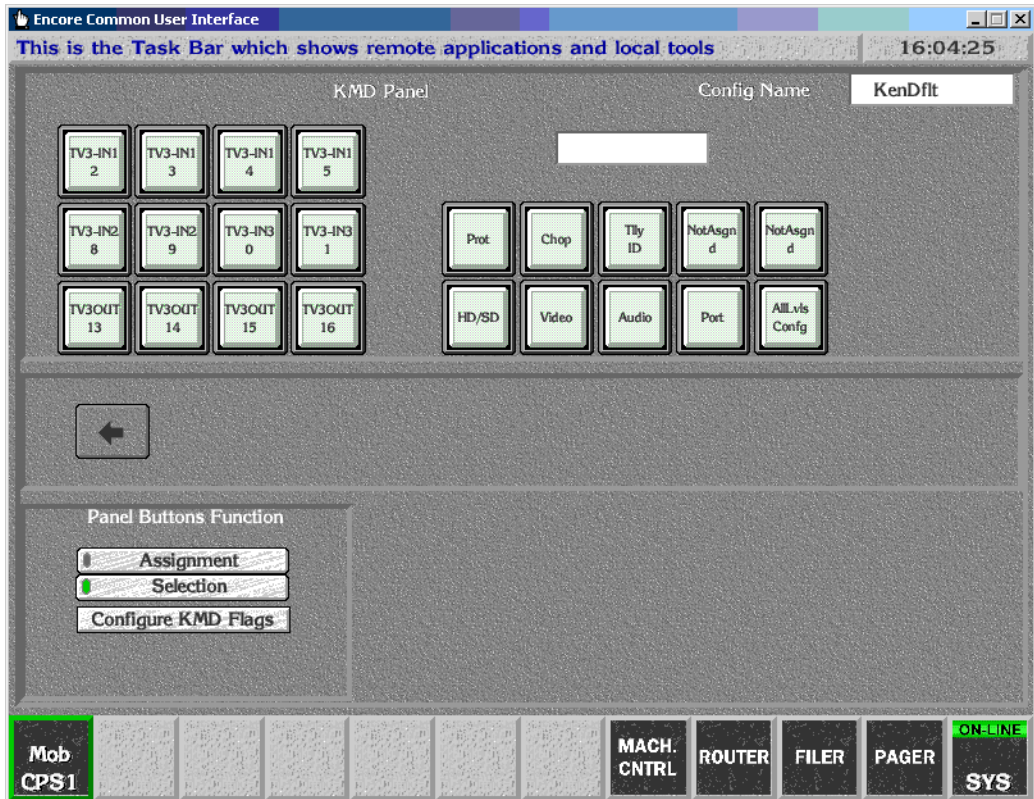


Figure 15. Right Side of KMP Panel, with Navigation Buttons Hidden



Joystick Override

48B-GPI, BPS-GPI Control Panels

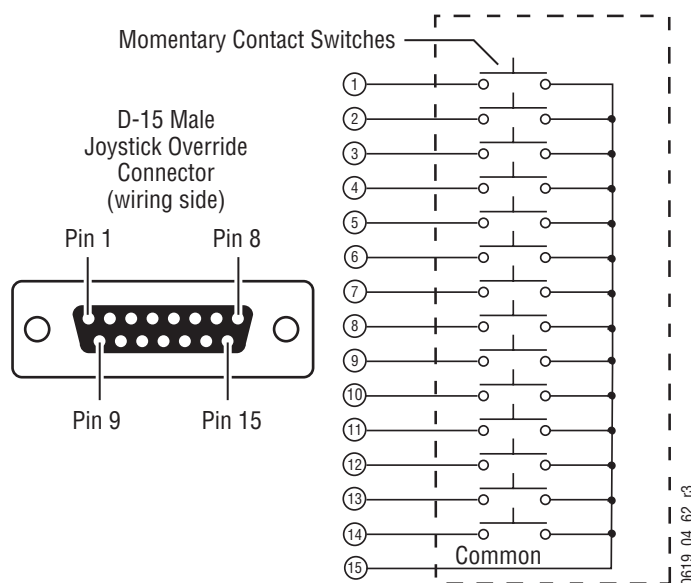
Two new control panels (ENC-48B-GPI and ENC-BPS-GPI) are available that support Joystick Override (JSO). Joystick Override is commonly used to switch crosspoints from a switch mounted at the top of the joystick (Iris and Black Level control) on a television camera remote control unit (RCU). This function is used by the camera video engineer to rapidly switch the outputs from multiple cameras to his monitoring station.

The ENC-48B-GPI and ENC-BPS-GPI control panels are equipped with a 15-pin D-connector mounted on their rear panels, used for joystick override inputs. The camera RCU usually has a GP output (contact closure) that can be connected to one of the 14 GP inputs accessible on the control panel's 15-pin D-connector.

48B-GPI, BPS-GPI JSO Pinouts

The pin-outs of the 15-pin D-connector are identical to that used in the Kalypso Ethernet remote AUX panels (KAL-32AUX1, KAL-32AUX2).

Figure 16. Joystick Override Pinouts



JSO Configuration

The GP inputs appear in the control panel configuration as additional control panel configurable inputs. The GP inputs support the following configuration modes (assignment/selection):

Source Select (latching)/Source Name

When a GP input configured for source select (latching) initiates a contact closure, the selected source switches to the control panel's active destination. The selected source will remain connected to the active destination after the GPI contact closure is removed.

Source Select (non-latching)/Source Name

When a GP input configured for source select (non-latching) initiates a contact closure, the selected source switches to the control panel's active destination. The selected source will revert to the previously connected source (to the active destination) after the GPI contact closure is removed.

Salvo Select/Salvo Name

When a GP input configured for salvo select initiates a contact closure, the selected salvo shall be executed.

JSO On Updated KAL32UX1, KAL32UX2 Control Panels

KAL32AUX1 and KAL32AUX2 Kalypso style Remote Aux panels can be used with Encore systems after updating their panel software. The Joystick Override capabilities described above is also available with these updated control panels.

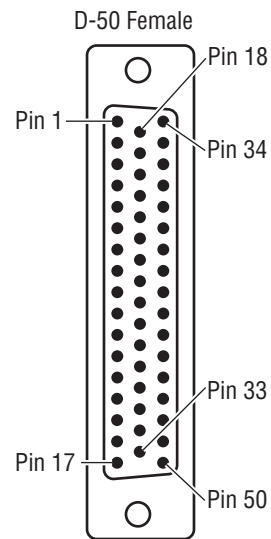
JSO On Updated SMS7000 GSC Control Panels

SMS7000 P32 and P48 panels can be equipped with Joystick Override as an option., by installing a ribbon cable, board and connector assembly. Encore supports Joystick Override on these panels (up to 24 inputs).

Joystick Override Connector

The installation of the Joystick Override uses shielded cable and a 50-pin D connector. The pin outs for the 50-pin D connector is in [Table 3](#).

Table 3. 50-Pin D Connector

	Pin #	Signal	Pin #	Signal
	1	Input 1	26	Input 13
	2	Input 1	27	Input 14
	3	Input 2	28	Input 14
	4	Input 2	29	Input 15
	5	Input 3	30	Input 15
	6	Input 3	31	Input 16
	7	Input 4	32	Input 16
	8	Input 4	33	Input 17
	9	Input 5	34	Input 17
	10	Input 5	35	Input 18
	11	Input 6	36	Input 18
	12	Input 6	37	Input 19
	13	Input 7	38	Input 19
	14	Input 7	39	Input 20
	15	Input 8	40	Input 20
	16	Input 8	41	Input 21
	17	Input 9	42	Input 21
	18	Input 9	43	Input 22
	19	Input 10	44	Input 22
	20	Input 10	45	Input 23
	21	Input 11	46	Input 23
	22	Input 11	47	Input 24
	23	Input 12	48	Input 24
	24	Input 12	49	not used
	25	Input 13	50	not used

The current limiting range for the opto-isolators gives the widest range of acceptable voltage values. The pads of the Current Limiting resistors are larger than normal to allow non-destructive modification of their resistance values. See [Table 4](#).

Table 4. Opto-Isolator Current Limiting Resistors

Input Voltage Range	Resistor Value, 1/2 W
+2V to 10.5V	470 Ohm (minimum)
+3V to 21.5V	1000 Ohm
+5V to 34.5V	2200 Ohm (default)

Control Panel Enhancements

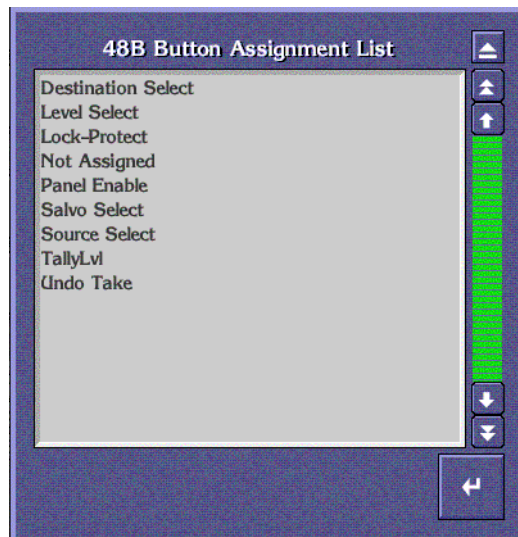
Panel Enable Button

The Panel Enable function enables and disables a control panel. The Panel Enable function is assignable to any programmable button on all control panel types (Figure 17).

Pressing the programmed Panel Enable button toggles that panel between the panel enabled and panel disabled states. When enabled, all panel functions operate normally and the panel enable button is illuminated.

When a panel is disabled, button and display tally operate normally but all button presses (except for the panel enable button, destination select buttons and level select buttons) have no effect. When the panel is disabled the Panel Enable button goes dark.

Figure 17. Panel Enable and Undo Take Button Configuration



Undo Take Button

The Undo Take function is available on all control panel types and can be assigned to any programmable button (Figure 17). Pressing the Undo Take button when it is illuminated will restore the last source connected for the current destination. Pressing this button repeatedly toggles between the two sources, and so can be used as a manual Chop operation.

When a Take is executed on a control panel (e.g. SRC1), the previously selected source (e.g. SRC2) on the active destination is stored and the Undo Take button (if present) is illuminated. If the active destination is changed, any source stored in the Undo Take register is cleared and the Undo Take

button is turned off. The Undo Take button is only illuminated and available for use if the panel is in Source Mode and a previous source has been stored.

The Undo Take function cannot be used with a Destination Gang.

Preset Swap

This feature is available on XY, PMB, UCP, MB8 and EDP control panels.

When a valid source is in the Preset display, pressing releasing the TAKE button will now display the previous source in the Preset window. This permits rapid switching back and forth between the current and preset sources by repeatedly pressing the TAKE button.

This is similar to using the Undo Take button, but does not require a dedicated Undo Take button. However, it does require a Preset display and so will not work on the BPS or 48B panel. The user must also manually clear the Preset display before entering another source.

Self Configuration

The Self Configuration feature allows re-configuration of any available Source/Destination/Salvo/Level select buttons from the panel itself. This feature is available on Encore BPS, KMD, and P48 panels.

Pressing the **AiILvl/CFG** button for 5 seconds puts the control panel in Self configuration mode. In this mode Source/Destination/Salvo/Level select buttons can be reconfigured for any available source/destination/salvo/level using the Level/Previous and Level/Next buttons to scroll through available items on the control panel.

1. Using the Encore UI, configure a panel button with **AiILvl/CFG** and two other panel buttons as **Level/Prev** and **Level/Next**.
2. Press and hold the **AiILvl/CFG** button for 5 seconds. That button will go high tally and the panel displays SRC CONFIG.
3. Press a **Source**, **Destination**, **Salvo**, or **Level Select** button to be configured. That button will flash, and the panel displays the current selection for that button.
4. Press the **Level/Prev** and **Level/Next** button to browse through the available items. Leave the desired item displayed on the panel.
5. Press the previously selected **Source**, **Destination**, **Salvo**, or **Level Select** button to configure the displayed item for that button.

Only the **AllLvl/CFG**, **Level/Prev**, and **Level/Next** buttons are active in Self Configuration mode. The panel reports NOT USED if any other buttons are pressed.

Auto Level Latching

In earlier software, when levels are selectively disabled for breakaway takes (using PMB level or level page mode, XY level mode, or XY/BPS/48B level buttons if they are programmed), the disabled levels were always persistent. All subsequent takes (on any destination) would occur on only the previously enabled levels. The Auto Level Latching function permits the automatic clearing of a breakaway after a take or a change of active destination. A new Auto Level Latching configuration flag has been added for control of this feature.

When the Auto Level Latching flag is on, all levels of the current active destination are enabled after a take or change of active destination, irrespective of the previous level enable states(s).

When the Auto Level Latching flag is off, the current enabled/disabled levels state is applied to any subsequent takes or changes of active destination.

Monitor Only Destination (for a QC Station)

A destination on a panel can now be configured as Monitor Only. Monitor Only is typically for a QC station that has a dedicated router destination driving video and audio monitoring equipment. The QC destination is an additional field in the destination monitor select pop-up screen.

In earlier software, when a panel was configured for monitor only control, it was not possible to perform takes to any destination. With the Monitor Only destination feature, it is possible to setup a QC destination on a panel configured as monitor only and the panel can be used to perform takes to that QC destination.

Destination Monitor control is also available to Automation systems (and any other NP or RCL Clients).

Level Exclusion Sets

Level Exclusion Sets restrict control panel access to specific levels. Only non-excluded levels are active on a control panel that has a Level Exclusion Set applied to it. When a control panel is in All Level mode, only non-excluded levels shall be active.

Level Exclusion Set configuration methods are similar to RCL Level Exclusions.

Exclusion sets are also applicable to Automation systems (and any other NP or RCL clients). Each client can have an exclusion set applied.

Note Level Exclusion Sets require a minimum of one level to always be available (not excluded). Attempts to exclude all system levels will be rejected by the OUI with a warning message. The Exclude All button by default excludes all Levels (for faster configuration) except the panel's default Tally Level. For RCL Clients the OUI excludes all Levels by default except Level 1.

Area Exclusion Sets

This feature is available on XY, PMB, UCP, MB8, and EDP control panels.

Area Exclusion Sets restrict control panel access to specific routing areas. Only destinations in non-excluded areas are active on a control panel that has an Area Exclusion Set applied to it.

Area Exclusion Set configuration methods are similar to RCL Level Exclusions.

Exclusion sets are also applicable to Automation systems (and any other NP or RCL clients). Each client can have an exclusion set applied.

Salvo Exclusion Sets

Salvo Exclusion Sets are available on XY, BPS, UCP, PMB, MB8, and EDP panels.

Salvo Exclusion Sets provides a means of limiting a control panel's access to a specific subset of the salvos available on a given system. Only non-excluded salvos are displayed and executed in SALVO MODE.

Salvo Exclusion Set configuration methods are similar to Destination Exclusion Sets. The default Salvo Exclusion Set excludes all salvos. To perform salvo operations on a panel, you will need to create and apply a new Salvo Exclusion Set with the desired salvos not excluded. Note also that when new salvos are created, they are automatically excluded from all control panels; they must be manually added to the list of permitted salvos in the Salvo Exclusion list for any panel that is to use the new salvo(s).

Salvo Page Sets

This feature is available on PMB, EDP and MB8 control panels.

Salvo Page Sets provides quick access to salvos, via Salvo Page Mode operation. Salvo Page Mode is entered by pressing the SALVO PAGE button on the control panel. Salvo Pages are scrollable using the PREV and NEXT but-

tons. The TAKE button associated with a display containing a valid non-excluded salvo name will illuminate, and then pressing that TAKE button executes the salvo.

Salvo Page Set configuration and assignment to a control panel is accomplished using methods similar to those used for Destination Page Sets.

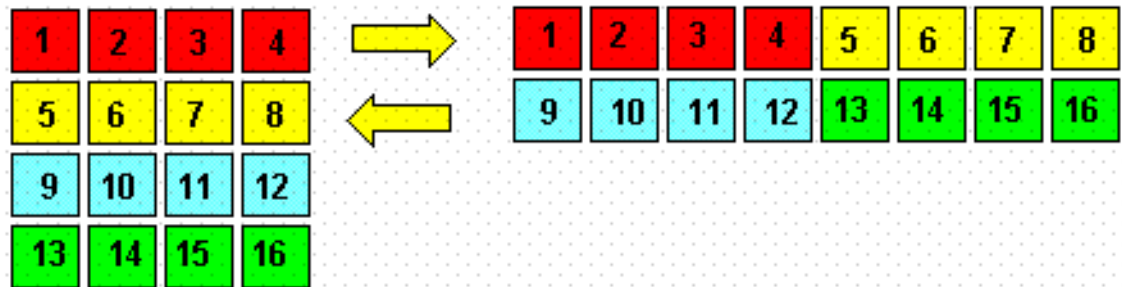
Keypad Set Conversion

Keypad Set button arrangements on control panels have two different physical layouts:

- Four rows with 4 buttons in each row (4x4), or
- Two rows with 8 buttons in each row (2x8).

Before this release users had to create and assign keypad sets based on this physical layout. For example, an Encore XY panel would require a 2x8 keypad set, but a PMB panel would need a separate 4x4 set, which would have to be created separately. With Encore V1.7, any keypad set can be assigned to any control panel type regardless of the button layout. Keypad sets are automatically converted for use with the other physical layout (Figure 18).

Figure 18. Keypad Set Conversions



During the conversion, if any 2x8 and 4x4 keypad sets have the same name, the 4x4 keypad sets are retained and 2x8 keypad sets are deleted. If your configuration uses identical names for 2x8 and 4x4 keypad sets and if their contents are different, rename them with unique names before attempting to upgrade.

Changing a keypad set can affect more than one panel. From the OUI you can see all the panels using the current keypad set being configured by selecting the **Where Used** button on the keypad set configuration screen.

Exclusion, Page, and Keypad Set Cautions

Exclusion Sets, Page Sets, and Keypad Sets are designed to be shared and used by multiple control panels and/or RCL automation clients for easy configuration of the system. Since these items can be shared by multiple device configurations, it is important to ensure any change made to any of these sets is desired by all device configurations sharing the set. The Encore OUI warns the user about the number of device configurations and which device configurations are sharing any of the above sets.

In large facilities or wide area networks (WAN), where devices are physically located great distances apart, this feature should be used carefully and with coordination so as not to adversely affect other system users who are sharing the same exclusion/page/keypad set.

Changes to a set are sent to all device configurations sharing the set when the user selects the **Modify** button on the OUI screen for the type of set being edited.

In the case of Level Exclusion sets users should also be careful when excluding levels to ensure the desired Tally Level is not excluded. In the case of control panel default tally levels the OUI indicates the default tally level by turning the appropriate level button indicator yellow. The hover help also indicates which level is the configured default tally level. If users desire, they may exclude the default tally level and the OUI will display a choice to cancel or accept the suggested system change of reconfiguring the default tally level to the first lowest (1-32) level not excluded. This will only change the default tally level on the panel configuration being edited; it will not change the default tally level on the other panel configurations sharing this exclusion set.

After saving the exclusion set change, users must also save the panel configuration change of default tally level (the OUI will prompt users and provide an option to save the panel configuration if they forget to save these changes to the panel configuration).

Level Exclusion Sets are unique in that they require a minimum of one level to always be available (not excluded). Users will be warned and prevented, by the OUI, if they attempt to exclude all system levels. The 'Exclude All' button will by default exclude all Levels (for faster configuration) except the panels default Tally Level. In the case of RCL Clients the OUI will exclude all Levels except Level 1 by default.

Destination Alias Names

The Router Controller now supports Destination Alias Names. Destination alias names are viewable and editable on the RCE destination configuration screen, in a manner similar to Source Aliases on the source configuration screen. The allowable destination alias name length is the same as source alias name length.

Unlike Source Alias Names, Destination Alias Names are not viewable or editable on the OUI Local Router Panel.

Source and Destination Alias Name Display

This feature is available on all control panels equipped with 8-character displays.

Source and Destination alias names can now be displayed on control panels. The Display Alias Names button function has been added to the list of available functions for all panels equipped with displays.

When a Display Alias Names button programmed on a panel is pressed, it toggles all of that panel's preset source and destination displays between showing Source /Destination IDs and showing Source/Destination Alias names. When displaying Alias names, the Display Alias Names button is illuminated.

A Display Alias Names flag is also available for panel configuration. Enabling this flag makes the panel always display alias names. This flag makes it not necessary to dedicate a panel button to toggle this function if the display of alias names is always desired on the panel.

Backspace Button Enhancement

This feature is available on XY, PMB, UCP, MB8 and EDP control panels, enhancing the functionality of their existing C/CE buttons.

This enhancement allows recovery from keypad entry errors without having to clear the Preset display and re-enter the entire name. When a prefix or prefix/suffix combination has been entered into the PRESET display (in either Source or Destination mode), a single press of the C/CE button now removes the last prefix or suffix entry from the Preset display, e.g. if VTR-1-2 has been entered as a prefix-suffix-suffix combination, pressing the C/CE button once will result in the PRESET display showing VTR1. Only the "2" has been removed.

Pressing the C/CE button twice completely clears the PRESET display, which is equivalent to a single press of that button with pre 1.7 functionality.

Scrolling Take

This feature is available on XY, PMB, UCP, MB8, and EDP control panels, and enables the user to quickly view and Take sources on the controlled destination.

A Scrolling Take is executed by placing the panel in SOURCE, holding down a TAKE button, and then pressing and the PREV or NEXT buttons. Each press and release of the PREV or NEXT button displays the previous or next source in the PRESET display and simultaneously execute a take of that source to the destination whose TAKE button is being held down. Pressing and holding down the PREV or NEXT button (while holding down a TAKE button), steps the PRESET display backwards or forwards through the source list, executing takes at a constant rate of one per second. The rate will not accelerate as usually occurs when the PREV or NEXT buttons are pressed and held down in other modes.

Dynamic Preset Hold

This feature applies to PMB, EDP, and MB8 panels.

Dynamic Preset Hold enables the user to take a source to multiple destinations on a PMB panel when the Preset Hold flag is turned off for that panel.

When a valid source is in the Preset display and the user presses and holds down a TAKE button, the TAKE is executed and the source remains in the Preset Display until the user releases the TAKE button.

If the user presses and releases additional TAKE buttons (while still holding down the first TAKE button), the source in the Preset display will be taken to the appropriate destination(s).

Output Monitor Control (BPS)

This feature, previously available on XY and 48B panels, is now available on BPS and P32 GSC panels.

When configured for Output Monitor control, the output monitor switches to the currently active destination on the panel. If the active destination is changed (i.e. the panel has buttons configured for destination select), the output monitor will switch to the new active destination.

Output Monitor configuration methods are similar to those used for other single destination panels (XY and 48B).

Assignable Buttons (BPS)

This feature, previously available on XY, PMB, and 48B panels, is now available on BPS and P32 GSC panels.

The buttons on the left side of the BPS panel now have user-defined functionality. In software versions earlier than 1.7 these buttons had fixed functions. The list of assignable functions includes all functions necessary to replicate the existing BPS functionality (i.e. LVL/PREV, LVL/NEXT, ALL LVL/CFG, TALLY LVL/ID).

Destination Ganging

This feature is available on 48B panels, and allows the operator to direct actions to multiple destinations with the panel. The multiple destinations involved in this activity are considered ganged together (in a GANG condition).

While holding down an active destination button, pressing and releasing a different destination button creates a Destination GANG condition. That additional destination will be added (or dropped) from the Destination GANG.

When an additional destination is added to the Destination GANG, if it is connected to the same source (on all active levels) as the primary destination it will be illuminated at High Tally. If the additional destination is connected to a different source (on any active level) it will be illuminated at Low Tally (or flash if the Flashing LED flag is enabled). All active level button tally will also be updated to indicate breakaway as Low tally, or no breakaway as High tally.

If a Protect or Lock is active on the primary destination being held down, attempts to create a Destination GANG condition will be ignored.

If a Protect or Lock is active on an additional destination, that destination will not be added to the GANG.

Destination GANG is canceled by pressing and releasing any destination button (which will become the sole active destination).

If Destination GANG is active, and all levels are active, pressing and releasing a source button connects that source to all the destinations in the GANG. All destinations buttons in the GANG, and all the level buttons, will also go High Tally.

If Destination GANG is active, but all levels are not active, pressing and releasing a source button connects that source to only the active levels of all the destinations in the GANG. The individual destination buttons (in the GANG) will illuminate at Low Tally to indicate breakaway or High Tally to indicate no breakaway. All active level buttons will go Low Tally to indicate breakaway or High tally to indicate no breakaway.

Protect or Lock conditions can also be applied (or removed) to all the destinations in a GANG.

Panel Server Enhancements

The Encore Control Panel Server application can configure and control up to 127 Encore Panels (this includes hardware panels and soft panels). Enhancements to the Panel Server are designed to add functionality.

Configuration Load and Save by Name

The Control Panel Server (CPS) has changed to allow multiple configurations to be saved in the Sharer database and easily reloaded by selecting the desired configuration name from the list of saved configurations.

Definitions

Files are where data is kept. They are best thought of as folders, rather than actual files in themselves, and may sometimes be referred to as folders.

Data Files are the actual files where physical data is stored. These are placed inside Files, allowing many different Data Files to exist in a single File.

Categories are key words, used to ensure that Files are properly defined and easily found. Multiple categories may be tagged to a File. This ensures that single Data Files may be found in large databases of Files, using Categories as filters in the search.

A new category called CPS CONFIG is created in the Sharer. Control Panel Configurations are automatically tagged with the CPS CONFIG and DATABASE categories.

Panel Server Configuration Screen

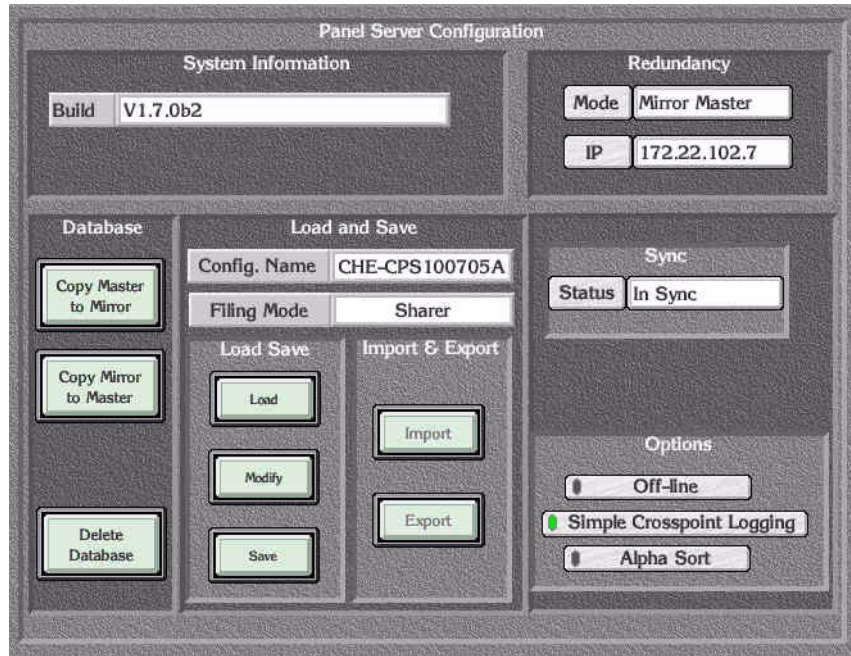
The **Save** button is added to the screen to save the current configuration to the Sharer database with a new name.

The **Reload** button is renamed to the **Load** button to load a named configuration set from the Sharer database.

The **Modify** button is unchanged and is used to save changes to the current configuration without changing the name.

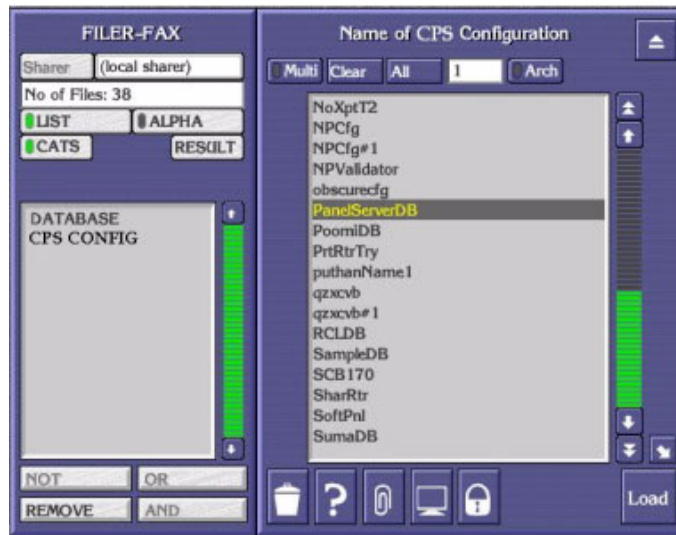
The **Export** and **Import** buttons remain disabled but have been relocated on the screen. See [Figure 19](#).

Figure 19. Figure 1: Panel Server Configuration Screen



The **Load** button opens a Filer-Fax window as shown in [Figure 20](#)

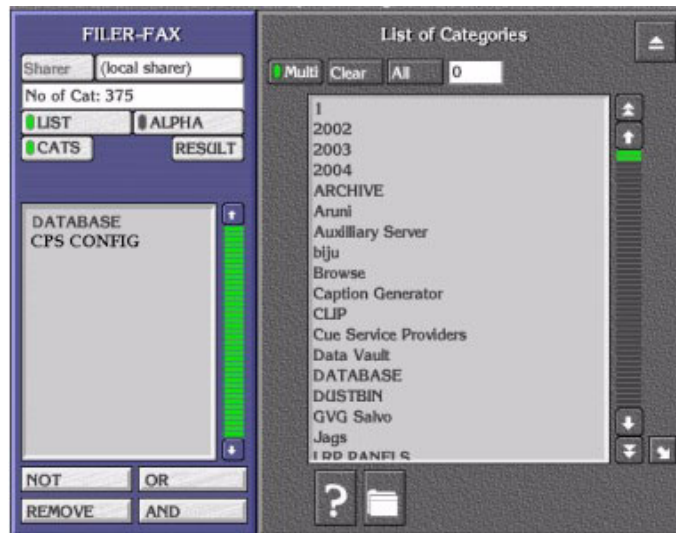
Figure 20. Filer-Fax



The user chooses the Category and the file to load. All the files in category CPS CONFIG are shown by default.

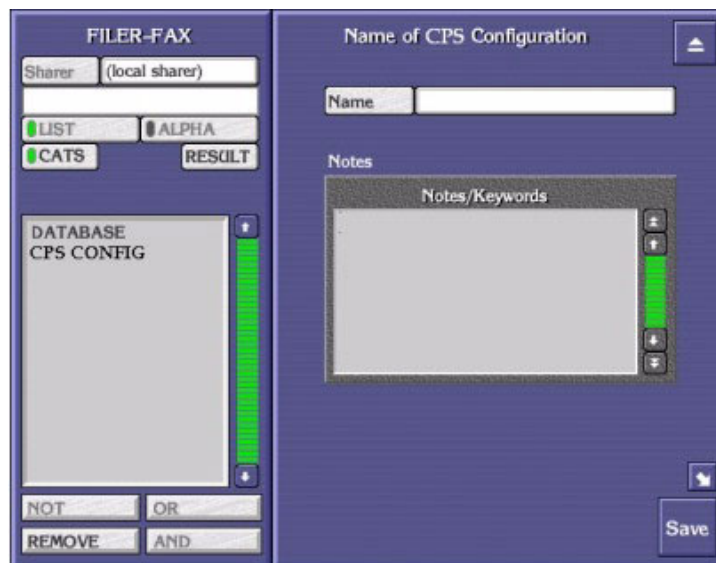
Selecting CATS will access a list of categories. Selecting one of these categories will access the files, see [Figure 21](#).

Figure 21. Filer-Fax Categories



The **Save** button accesses a Filer-Fax save window as shown in Figure 22.

Figure 22. Filer-Fax Save popup screen



The text field is used to give the configuration a name. Use the CPS CONFIG or DATABASE as categories because these are the categories with files that can be loaded into the Control Panel Server.

The **Modify** button saves the current configuration under the currently chosen name.

Rapid Configuration

During panel configuration, you can now assign a range of Sources or Destinations to several panel buttons in left to right order at the same time. Rapid configuration can be used to assign button Selections, but is not available for button Assignments.

1. Open the Panel Server application, select the panel type you are configuring, and choose **Selection**.
2. Click on the leftmost panel button of the range of buttons you wish to configure.
3. In the popup, click on the folder icon of the desired Area, which opens a list of items to choose from.
4. After opening the Area folder, click on that folder icon once more to de-select the Area Name.
5. With the **Multi** button lit, select a range of items by clicking on them individually.
6. When you click to accept, all the items you selected will be assigned to a range of panel buttons from left to right in the order they were selected.

Simple Panel Server Event Logging

Panel server event logging is enabled or disabled by the Simple Logging configuration flag.

Control panel take requests are now logged to the system controller console in the format:

```
<date> <time> <source name> to <destination name> from <panel name>
```

Control panel protect/lock requests are logged to the system controller console in the format:

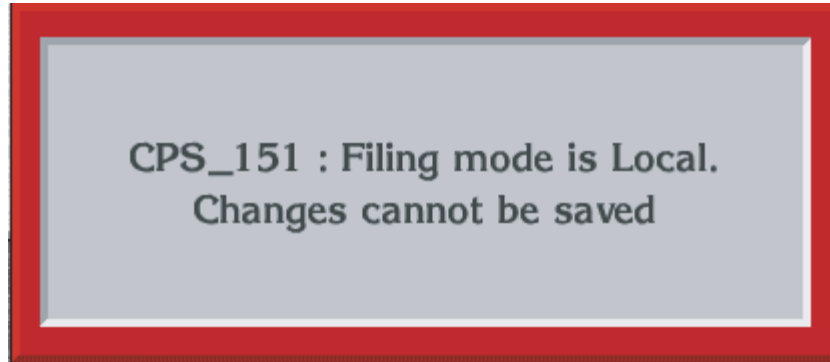
```
<date> <time> <protect/lock type> on <destination name> from <panel name>
```

The event log will also record when a salvo is executed from a panel (although the name of the actual salvo executed is not included in the log

Filing Mode Indication

Configuration changes are only permitted when the filing mode is **Sharer**, and are not allowed in **Local** filing mode. Now, if the filing mode changes to Local at any time (for example, if contact with the Sharer is lost), a warning message is posted on the OUI announcing that fact (Figure 23).

Figure 23. Local Filing Mode Warning Message



You will need to return to Sharer mode to make any change. Returning to Sharer filing mode is accomplished by either saving the existing configuration (using the Modify or Save buttons), or by loading a configuration (using the Load button).

Router Control Engine Enhancements

Native Protocol Logical Matrix

Overview

Encore 1.7 supports a logical Native Protocol Matrix (NP Matrix). This matrix type allows an Encore Router Control Engine (Encore RCE, acting as the Local System) to interact with another control system (referred to as the Remote System) as an automation client. The Local System is then able to control cross points belonging to the Remote System.

The Remote System can be any control system that supports a Native Protocol server. An SMS7000 systems (software release 7.3 or higher) is one such system, and main purpose of the NP Matrix is to allow an Encore system to control legacy matrixes via a legacy control system like the SMS7000. However, an NP Matrix can also be used to make one Encore Control System communicate with another Encore Control system (which could be located in a different site) and switch crosspoints on the second control system.

The NP matrix can be used to issue takes, protects, unprotects, and take monitor commands to the Remote System. It displays the current status of the Remote System at any point of time. In case of loss of connection to the Remote System, the NP Matrix attempts to reconnect automatically. If the connection cannot be regained, the user will be notified when takes, protects, or other operations are attempted.

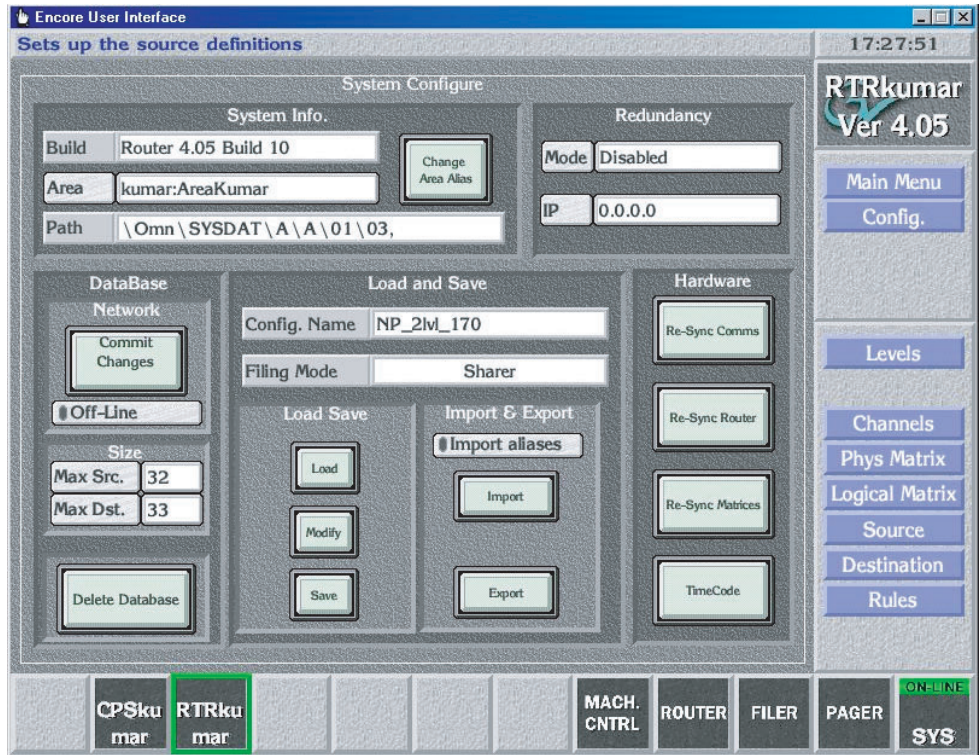
Features

- The NP Matrix facilitates Encore communication with legacy matrices via the SMS7000 control system. The NP matrix driver enables matrix control of matrices hosted by other Encore systems also.
- The Encore control system (the Local System) identifies the cross points controlled by the Remote System by either their names/indices as configured in the native control system. Each of these names or indexes can be given a new name in the remote control system. The translation from Local System name to the Remote System name is done automatically by the NP matrix driver.
- The Local System can be configured to identify the Remote System's sources and destinations either by name or by index
- The Local System can control the sources and destinations on the Remote System, either on a level by level basis or on an all level basis.
- The NP Matrix configuration details including the native to local name/index translations are saved persistently.
- Crosspoint changes made from the Remote System (SMS7000/Encore) are received by the NP matrix and the same is updated on the panels, automation clients, LRPs connected to the Local System. Note that the Local System polls the Remote System for changes every 5 seconds. Consequently there can be a tally latency (on the Local System) of up to 5 seconds when a Take is executed on the Remote System.
- The NP matrix driver facilitates the following operations on the Remote System.
 - Cross point control (Takes).
 - Protect / Unprotect a SMS7000 destination.
 - Take Monitor.
 - Refreshing Connection and protect.

NP Matrix Configuration

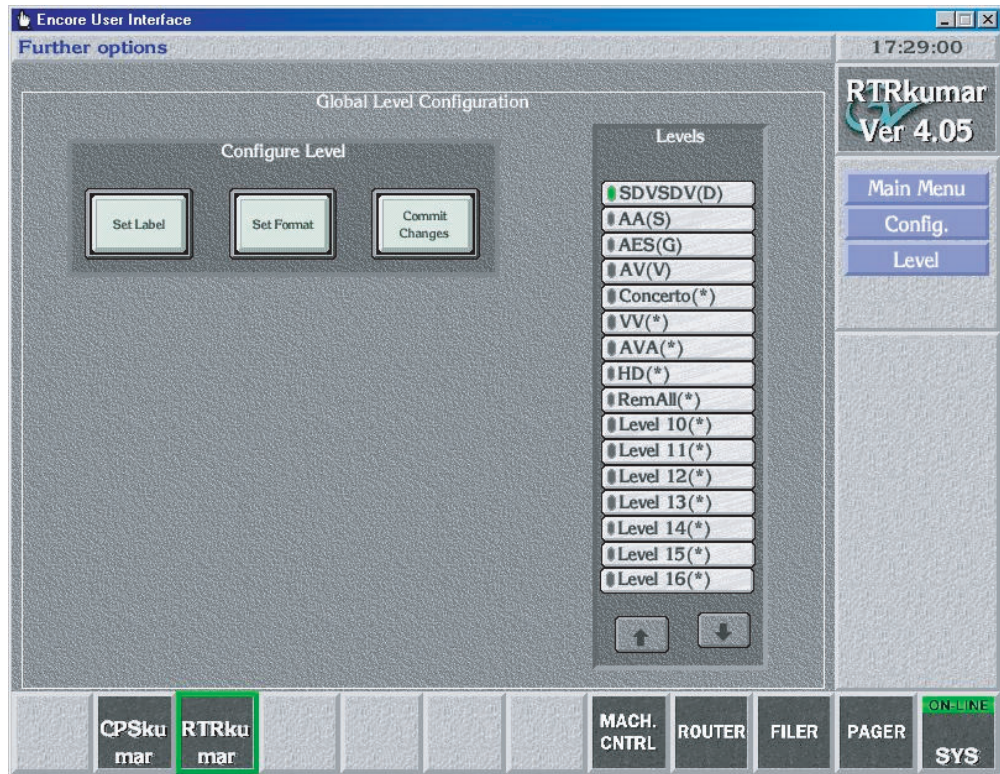
- Using the Encore OUI launch the router controller application (Figure 24) on the Encore system (this will be the Local System).

Figure 24.



2. Navigate to the **Levels** button and select it, configure the required levels (Figure 25).

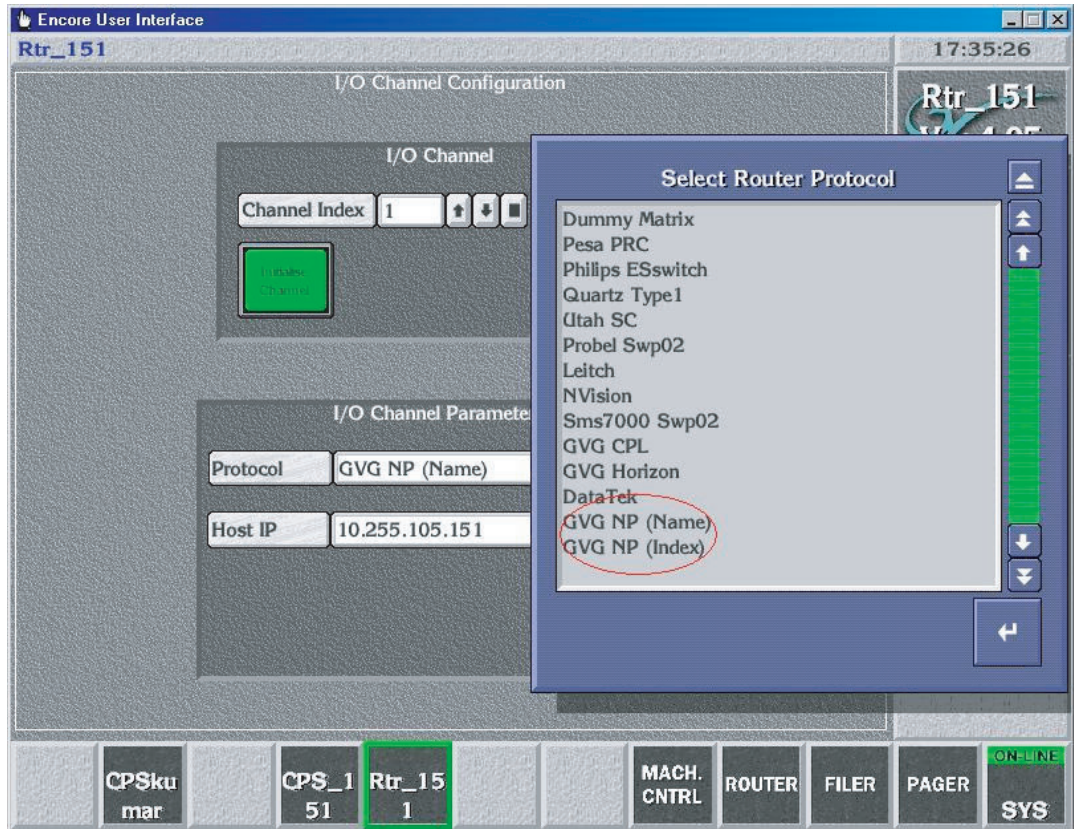
Figure 25.



3. Click on the **Config** button.

4. Navigate to the **Channels** button and select it. Choose the protocol as either **GVG NP (Name)** or **GVG NP (Index)** (Figure 26). Press the **Initialize Channel** button.

Figure 26.



5. Click on the **Config** button.
6. Navigate to the **Phys Matrix** and select it. Navigate to the **Cross Point Group** section, set the required fields like Name, No. Inputs, No. Outputs, No. Monitors, No. Controllers, No. Segments. While choosing the Matrix Type, choose **NP Matrix**.

7. Navigate to the Controller section, choose the Channel as **GVG NP (Name)** or **GVG NP (Index)** (Figure 27).

Figure 27.



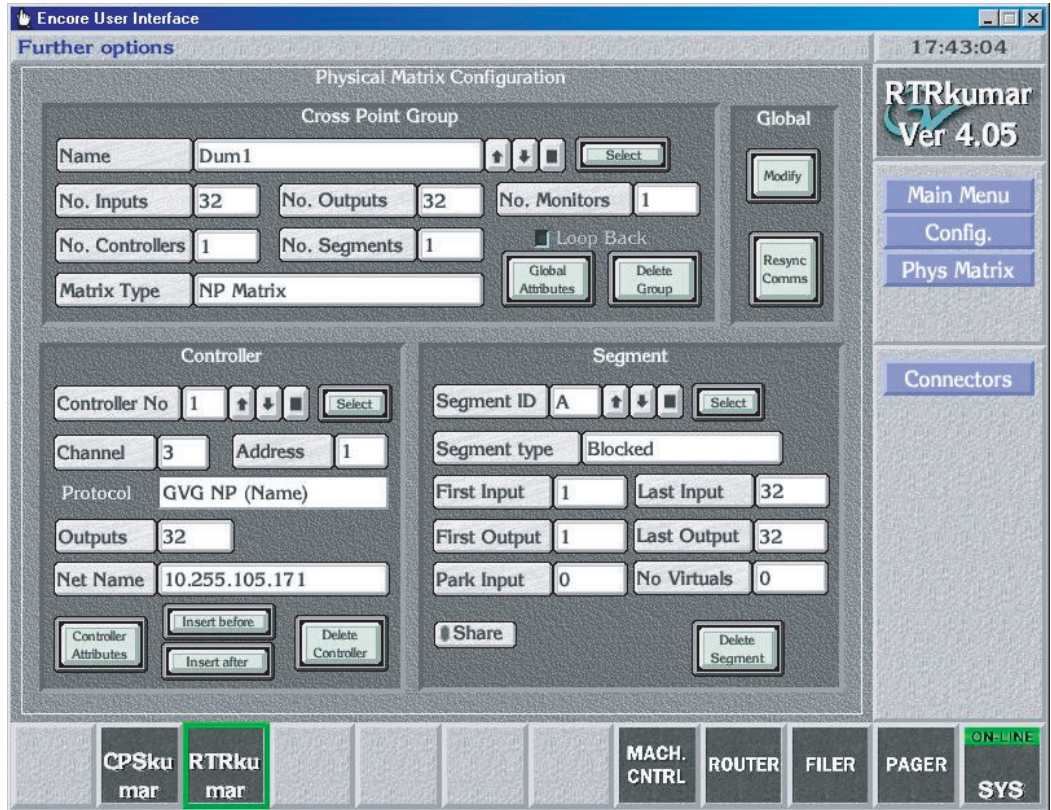
8. Specify the Address as the level that exists on the remote system, for which the source(s)/destination(s) are to be controlled. This field accepts hexadecimal values only. If we want to control the sources and destination on level 10 of the Remote System then we need to enter 'a' as the address. Values of 0 and FF are used to indicate all levels. In the Net Name field specify the IP address of the NATIVE CONTROL system (SMS7000/Encore).

Matrix size differences between the SMS7000 (remote) and the Encore RCE must be accounted for in the configuration. In order to ensure matrix size matching is sufficient, it is recommended that users configure the Encore RCE physical matrix and segment size to be 1024 maximum size. Users must be careful to ensure that only the matrix and segment sizes are increased and not the number of sources and destinations.

CAUTION The number of sources and destinations on the RCE should be determined by actual customer needs on the Encore RCE configuration side. Unconfigured sources or destinations will result in blank name sets. Blank Name sets can adversely affect automation systems retrieving name sets (some automation systems will fault if a blank name is received). Also blank names can potentially slow down panel search operations to filter through these additional unconfigured sources or destinations

- Navigate to the Segment section and specify the appropriate values for all the required fields.

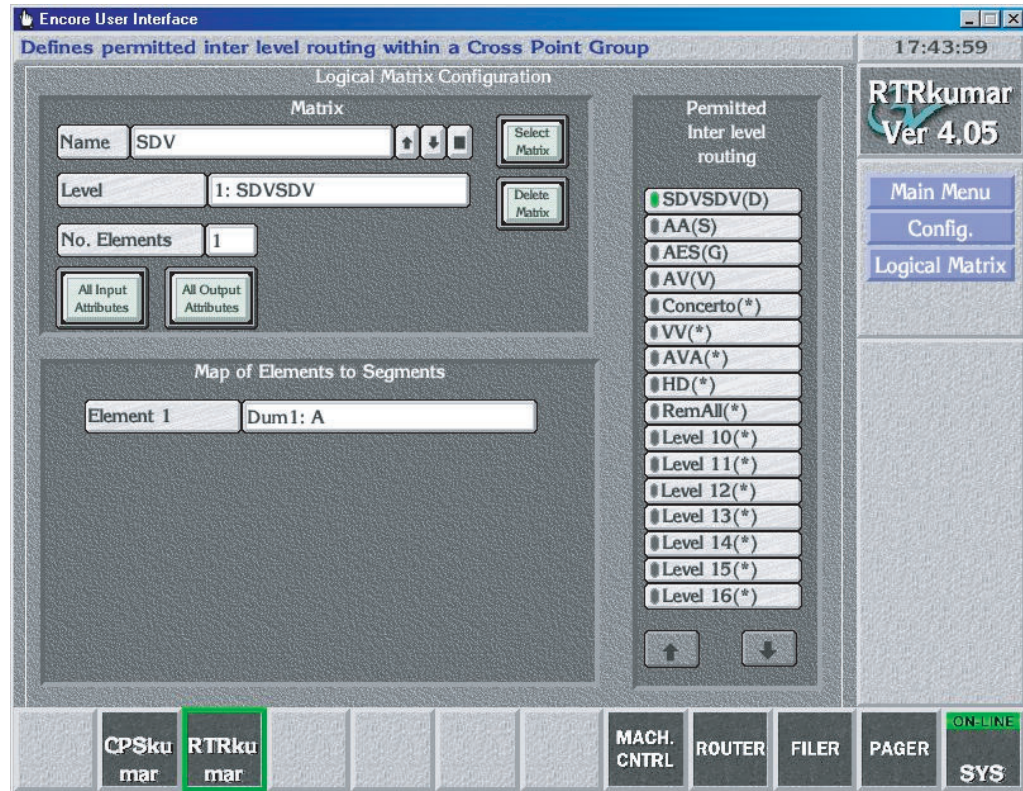
Figure 28.



- Click on the **Config** button.

11. Navigate to the **Logical Matrix** and select it. Configure the appropriate levels for the configured physical matrices.

Figure 29.



12. [Step 6](#) through [Step 11](#) can be repeated to create more Cross point groups and logical matrixes. Note that, even if “all level” is chosen for the Remote System (by specifying the address field as 0 or 255), each of these logical matrixes map on to a single level on the current router engine (that is the Local System).

Note that, a single Encore router can be configured with multiple cross point groups (physical matrixes), each connecting to a different Remote System (that is multiple SMS 7000 systems).

13. Click on the **Config** button, then click on the **Modify** button, and then click on the **Re-Sync Comms**, **Re-Sync Router** and **Re-Sync Matrices** buttons respectively. The Remote System must be running and have Ethernet connectivity for these operations be successful.
14. Navigate to the **Source** button and select it. Enter appropriate values for the ID and Name fields. Note that, all panels, automation clients connected to the this Control system will use the ID and the name specified here.

15. Navigate to the **Matrix Allocation** section. Select the appropriate Name and Type. While selecting the I/O value, the list of remote source names is popped-up. Select the remote source that has to be associated with the local source. The **Copy & Inc** button can be used to fill in the rest of the sources to be configured if appropriate. Click on the Config button.

Figure 30.

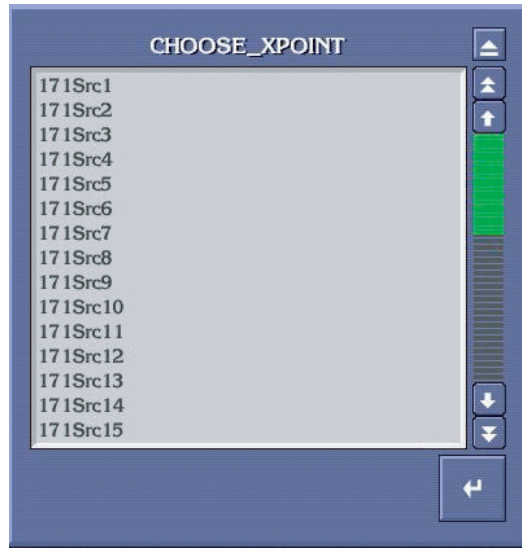
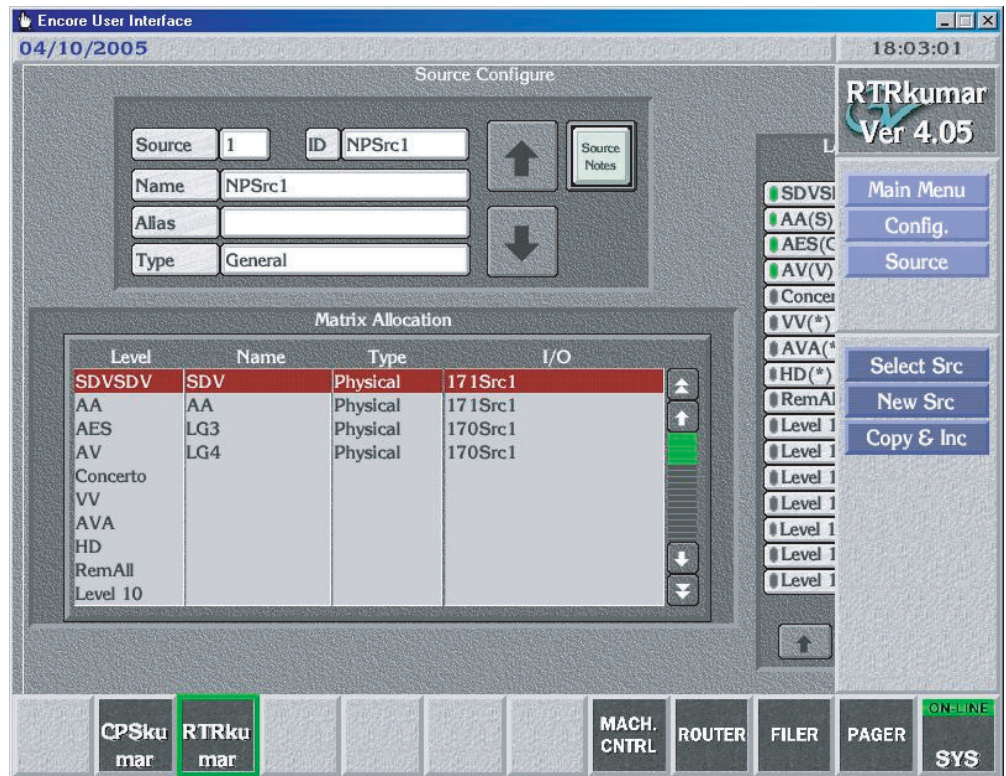
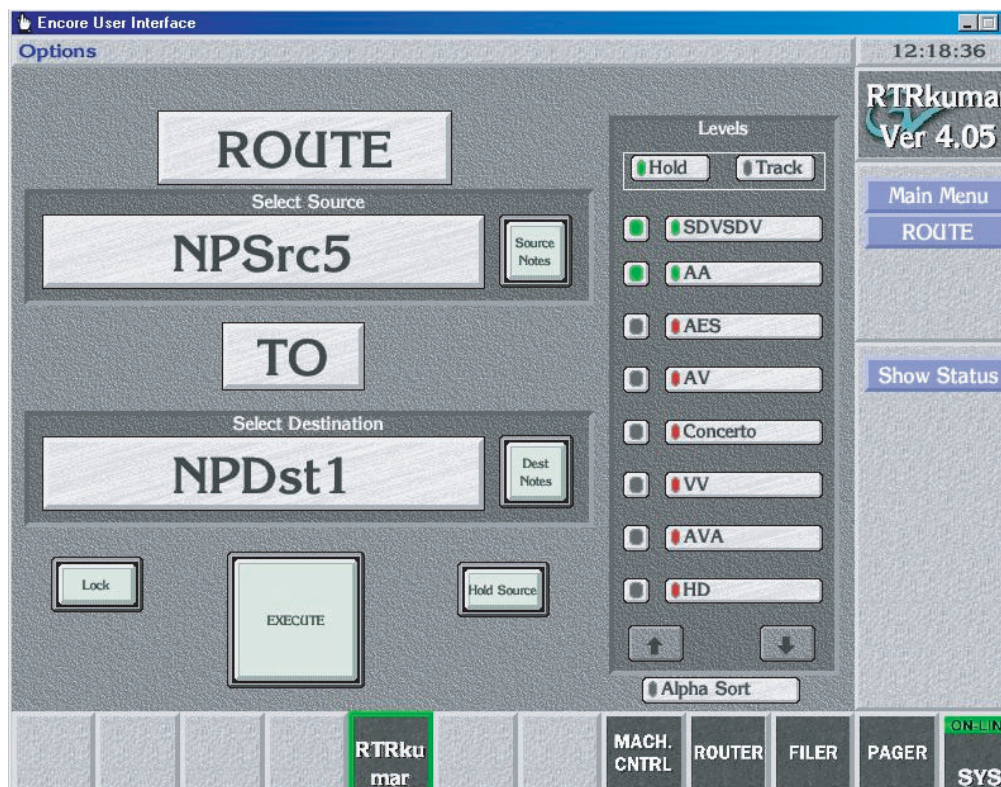


Figure 31.



16. Navigate to the Destination button and select it. Follow the same procedure as used above for Sources. Enter appropriate values for the Name, id and Alias fields. Navigate to the Matrix Allocation section and Select the appropriate Name and Type. While selecting the I/O value, the list of remote destination names is popped-up. Select the remote destinations from the pop-up menu to be associated with the local destination.
17. Click on the **Config** button, and then click on the **Modify** button.
18. Click on the **Main Menu** button. Navigate to the **Route** button and select it. Perform a few takes and verify the crosspoints change on the remote system.

Figure 32.



Redundancy

For redundancy, enter the primary IP address in the Net Name slot and the contiguous IP address is considered as the secondary IP address i.e. the secondary MCPU IP address is the primary IP address +1, the same as already done for CPL matrix controllers. The connection is in the fail-over mode.

This NP matrix driver identifies connection loss to the SMS7000 when an operation is requested or data is read back from the server. If the NP matrix driver is configured for redundancy, when a connection loss occurs, con-

nection is then established with the redundant server. This is transparent to the user. If the driver fails connecting to the redundant server, it returns an error.

Protect and Unprotect

Native Protocol supports only Protects & Unprotects. (NP does not support Soft Locks, Hard Locks, Force Unlock/Unprotect, Lock/Protect Override.) Protects can be performed on individual levels.

The protects issued to the SMS7000 from Encore are retained by the SMS7000 so long as the communications link between the two systems is active.

A SMS7000 issued protect cannot be unprotected or overridden by Encore. A SMS7000 issued protect must be removed by the SMS7000 issuing device.

An Encore issued protect to a SMS7000 controlled Destination can be unprotected by a SMS7000 GUI or Maintenance Interface or any other Native Protocol client. The encore issued protect can also be overridden by the GUI or SMS7000 control panels configured with Protect Override. Otherwise an Encore issued protect would normally be removed by the Encore issuing device or Encore control system.

Monitor Control

The NP matrix driver provides support for monitor control of the SMS7000 destination. Only one default monitor is supported at the SMS7000 end.

DataTek Matrix Support

This software version supports control of DataTek 2800 matrixes from the Encore control system.

System Controller Board (SCB) Enhancements

Time Date Synchronization

VITC

The Encore SCB Real Time Clock is synchronized to Vertical interval time code (VITC) on startup when a color black reference containing VITC is connected to the REF1 input.

Note If the VITC signal changes, the SCB must be rebooted before its clock will reflect the new time. System time is synced with VITC time at startup only.

If VITC is not present, the system controller frame counts from zero on start-up (which was the behavior for software earlier than 1.7).

System Date

The system date on the Encore SCB can be set via the system controller web page. The date is displayed on the console as part of the header for any error or event message.

The date set java applet on the Encore SCB requires the IE browser on the PC running NetConfig be equipped with the Java Virtual Machine (JVM). Due to legal issues with Sun Microsystems the Microsoft JVM has been discontinued. A JVM from Sun (for Win2k and XP Pro) is available for download from: <http://www.java.com/en/download/help/5000010400.xml>

If two SCBs are running in redundant mode, both SCBs will need to have their system dates set individually. For consistent log timestamps for both mirror and master be sure to set both SCBs to the same date.

Note Encore SCB system date changes are not reflected immediately. The SCB needs to be rebooted before the date changes will take effect.

Tie Lines Enhancements

Rooms Support

The Tie Line Manager now supports the creation and deletion of destination groups (Rooms) using the Tie Line Manager (TLM) configuration user interface (UI). Destinations in the same Encore Routing Area can be added to or deleted from a Room, and tie lines can be added to or deleted from a Room using the TLM configuration UI.

Tie lines belonging to a given Room are reserved for use by any of the destinations in that Room. Destinations not in the Room do not have access to these tie lines.

Concerto Enhancements

Concerto Matrix Mono Audio Support

A Concerto audio matrix can now be configured for monaural operation. Any mix of Concerto analog audio and AES/EBU digital audio boards are supported. Concerto TDM expansion is supported for a maximum matrix size of 512x512 (mono).

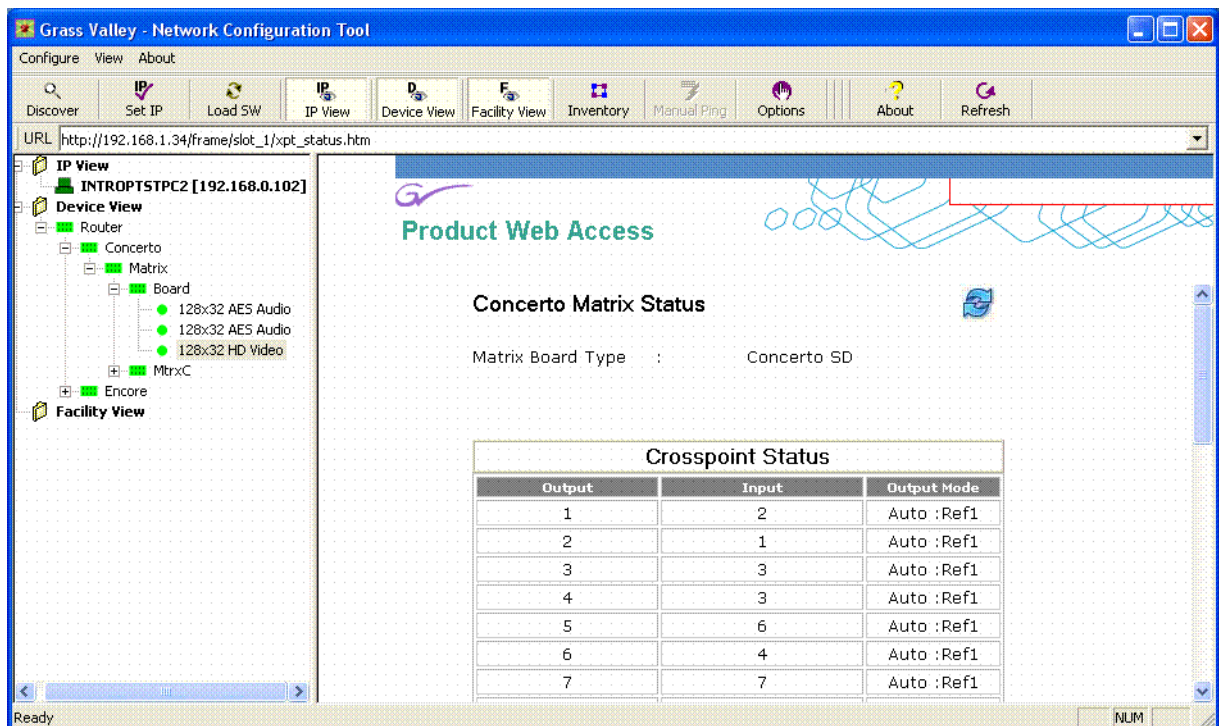
Static (input and output) audio attributes are supported. Dynamic audio attributes are not supported.

Concerto Matrix Web Pages

Concerto matrix boards now appear in the NetConfig device tree as sub-devices of the on-line Concerto matrix controller (Figure 33). Clicking on a Concerto matrix board displays web pages for that board that reports the following:

- Matrix board type
- Input and output attribute configuration
- Input and output signal presence status (if supported).
- Crosspoint status for each output.

Figure 33. Concerto Board Web Page Information



TDM Expansion Destination Monitoring

TDM Expansion Destination Monitoring is now supported on Concerto frames, except redundancy is not supported by this software release.

Board placement and cabling requirements are documented in the latest *Concerto Instruction Manual* (PN 071813805). Earlier versions of this manual listed configurations that are not supported. For Concerto systems, TDM submodules must be attached to the first module of each frame and TDM expansion frames can have only audio modules, not mixed audio and video modules.

Configuration procedures are the same for a TDM expanded matrix as any other matrix, with no additional configuration items.

The monitor for Mono Analog Audio is available on the left channel of the physical monitor output (the left 3 pins of the Phoenix connector).

Encore SNMP Enhancements

The SNMP Agents for Encore have been enhanced with new traps and attributes. The following groups of new parameters are monitored by this software. For information on how to install and configure NetCentral see *NetCentral TV Facility Monitoring System User Guide Software Version 4.1* or later.

Matrix Information

This indicates the matrices connected to Encore via Ethernet (using CPL). The following information about each Matrix is displayed:

- Matrix ID to uniquely identify the each Matrix,
- Matrix Type, values are: 7500NB, 7500WB, Concerto, Trinix, and Apex,
- Matrix Network information including IP Address, Network Mask, Gateway Address, Encore Master System Controller's IP Address and Encore Slave System Controller's IP Address,
- Matrix Controller Status, values are: Active, Redundant, or Not Available,
- Board Status information including ID (slot position), Function (Input board, Output board, Crosspoint board etc.), Type (AA, AES, SD, etc.), and Status (Present, Not Present, or Error),
- When the matrix system initializes, all the boards that are currently present in the frame and any boards that are inserted into the frame later, are monitored, if the boards are configured as part of the current configuration.

Native Protocol/Router Control Language Client Information

The status of Native Protocol/Router Control Language (NP/RCL) clients are monitored. This information includes the following parameters of each client.

- Client ID to uniquely identify the client,
- Client Name, such as M2100, Kalypso, or Encoda,
- Client IP Address / Serial Port of System Controller,
- Client Status, values are: Active or Disconnected, and
- Total Client Connection (number of Ethernet clients connected).

New SNMP System Controller Trap Messages

Table 5. System Controller Trap Messages

Trap	Description
Matrix Communication Error Trap	CPL Matrix lost the Communication from Encore
Matrix Communication Clear Trap	CPL Matrix regained the Communication to Encore
Matrix Controller Switchover Error:	CPL Matrix controller is switched from Redundant to Primary.
No Mirror Panel Server:	Mirrored Panel Server is not available.
Mirror Panel Server Present	Mirrored Panel Server is available.
NP/RCL Serial Client Disconnects:	A NP or RCL Serial client disconnects from Encore.
NP/RCL Serial Client Connects:	A NP or RCL Serial client connects to Encore.
NP/RCL Ethernet Client Disconnects:	A NP or RCL Ethernet client disconnects from Encore.
NP/RCL Ethernet Client Connects:	A NP or RCL Ethernet client connects to Encore.

Salvo Editor

The Salvo Editor is a stand-alone application that allows you to easily create salvos for use on an Encore system. Once created, the salvos are saved to the Encore database. Then control panels on that Encore system with salvo capability will be able to access and execute those salvos.

The Salvo Editor is an option that is registered by entering a license key, obtained from Grass Valley Sales/Operations once a license has been purchased. The license key is valid for only a specific PC. An unregistered Salvo Editor operates in a trial mode limited to five elements per salvo.

The Salvo Editor has the following features:

- Spreadsheet style user interface,
- On-line or off-line salvo creation,
- More than 300 elements per salvo,
- Snapshots, that report the current sources for selected destinations,
- Execute salvos with the Salvo Editor,
- Test Salvo, that allows the user to execute a salvo and immediately restore the previous source settings, and
- Database import and export.

Note The maximum supported Salvo size is 512 destinations with 4 levels. Any salvos larger than this should be split into multiple Salvos.

For more information see the separate *Encore Salvo Editor Instruction Manual*.

Software Update

CAUTION During the software update your Encore system will be taken off-line for a short time while components reset. Existing matrix crosspoints will remain selected, but source to destination changes will not be possible while some system components are off-line.

Introduction

Update Only Existing Encore Systems

This procedure is for updating an existing Encore system that has been previously installed, completely configured, and is operating correctly. New Encore systems ship from the factory with the latest version of software already installed, so these systems do not need their software updated. However, new Encore systems will need to be properly configured to operate at your facility.

Update Only from Version 1.6.5.x to Version 1.7 Software

This update procedure is only for Encore systems running the recent version(s) of software indicated above.

CAUTION If your Encore system is running an earlier software version, first update your system to the version indicated above, test that it is fully operational running that software version, and then update your system to 1.7.

Update With the Encore Sharer PC

Use the Encore Sharer PC for the software update. This PC will already be configured to operate on the Encore network and you will be able to easily access all the Encore system components.

Have Sharer On-Line When Booting SCB Running Control Panel Server

Typically the Control Panel Server application runs on an SCB. The Sharer should be on-line when the SCB running the Control Panel Server is booted when migrating from software version 1.6.5.x to 1.7. During start up the Control Panel Server loads the DataBase file from the Sharer.

The Control Panel Server must start at least once (in case of Master-mirror pairs, either the master or the mirror) before performing Save or Load operations.

Version 1.7 Software Update Procedure

CAUTION The Encore software update procedure has changed from previous releases. Redundant SCBs must be updated separately. Other parts of the procedure have also been simplified. Reading these instructions carefully and following all the steps exactly will help ensure your update goes smoothly.

If you have any questions regarding software update, contact Grass Valley Customer Support.

Ensure The Encore Database is Consistent

1. Using the Encore OUI, log onto Master Panel Server(s) and save the database to the Sharer (and the mirror, if present).
2. Log onto the Master Router Controller(s) and use MODIFY to save the database to the Sharer (and the mirror, if present).
3. Log onto the Master TLM and save the database to the Sharer (and mirror, if present).
4. Shut down Sharer, System Manager and OUI

Manually Backup the Encore Database

Because a valid Encore database is essential for system operation, a backup copy should always be available on removable media (CD ROM or floppy disk, USB stick, etc.). The Encore database consists of a series of files located in the OMN folder. Manually backing up this information before you start the software update will provide added security should a power outage or hardware failure occur.

5. Copy the entire OMN folder on the C: drive root directory of the Sharer PC onto removable media, label it, and store it in a safe location.
6. You can rename the folder to identify its version or date, but before it can be used by Encore the folder must have its original OMN name and be placed back at the C: drive root directory of the Sharer PC.

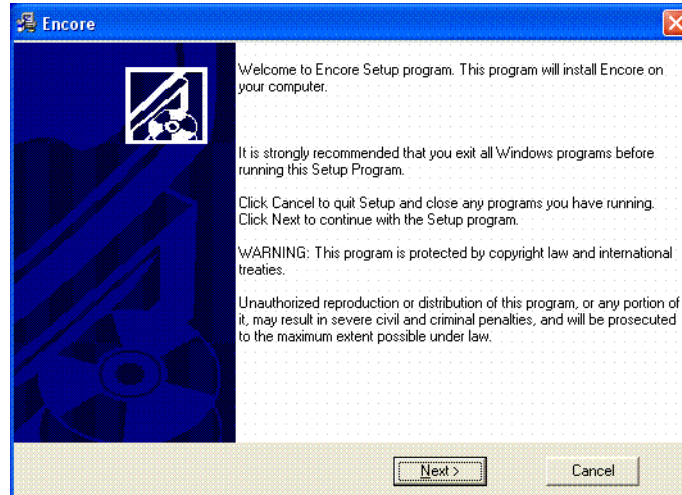
During the software update process you are given the opportunity to create a backup file. We recommend you this in addition to the manual backup.

Install Software Components On The Sharer PC

7. Quit all Encore programs on the configuration PC, **including Sharer**, and disable any virus protection programs or firewalls.

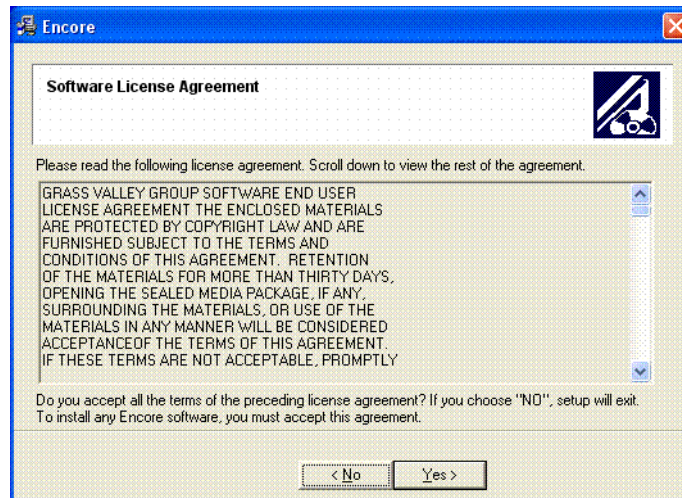
8. Insert the Encore System Software CD into the PC. If the Installation Program doesn't start up automatically, double-click **Setup.exe** on the CD. The Encore Installation Welcome screen will be displayed (Figure 34).

Figure 34. Encore Installation Welcome Screen



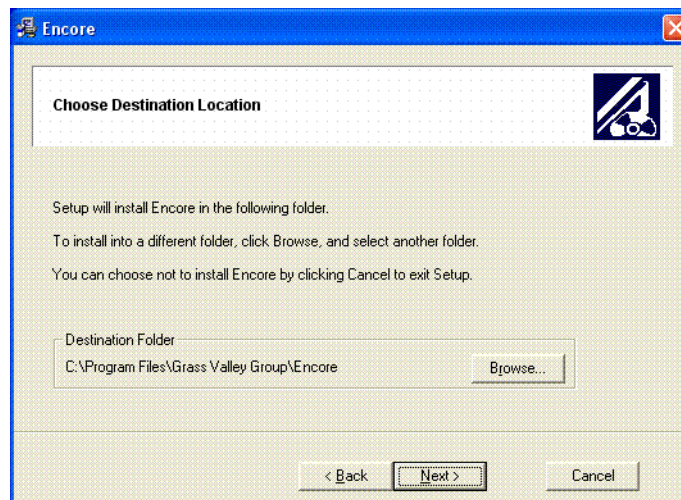
9. Click **Next >**. The Software License Agreement screen appears (Figure 35).

Figure 35. Software License Agreement



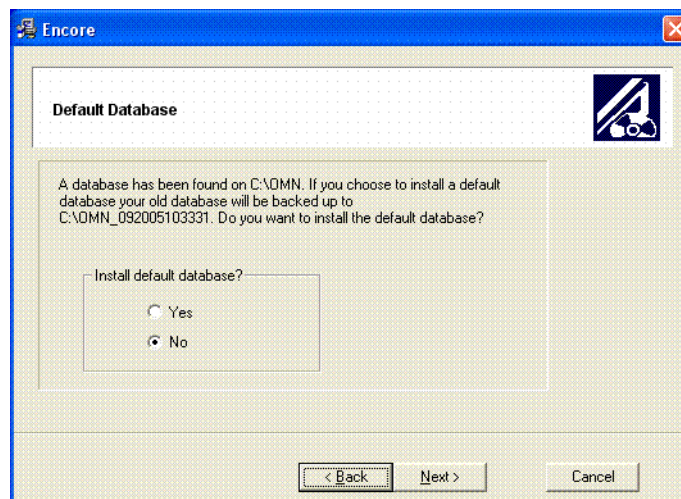
10. Click **Yes** to accept the license agreement. The Choose Destination Location screen appears (Figure 36).

Figure 36. Destination Location Screen



11. Accept the default destination and click **Next >**. Encore software should be loaded onto the C: drive of the Sharer PC.
12. If this is a reinstallation or upgrade a Default Database screen appears that asks if you want to install a default database (Figure 37).

Figure 37. Default Database Screen

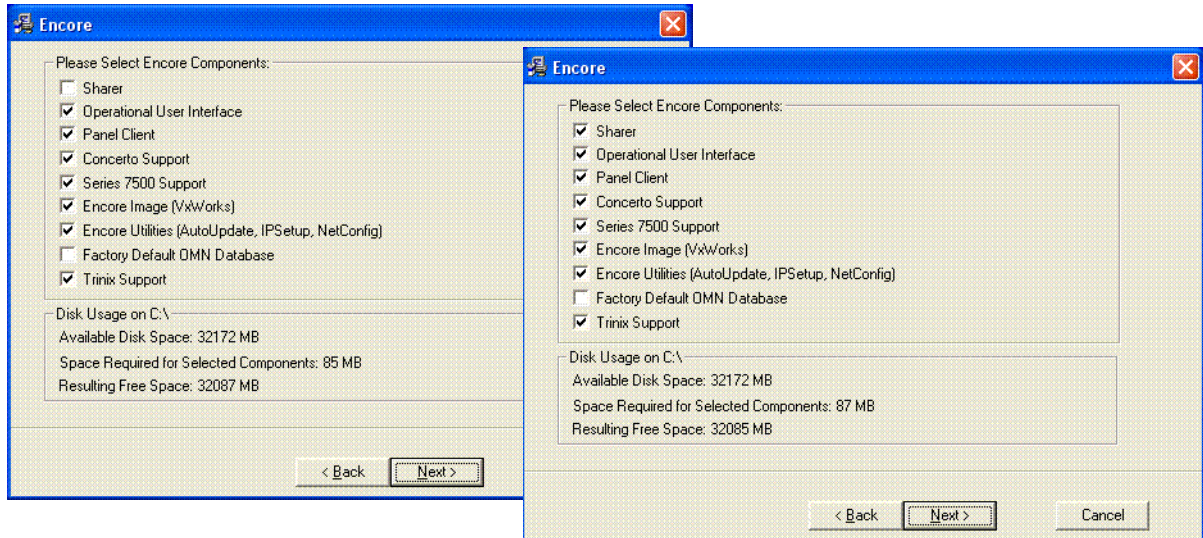


13. When updating an existing Encore system, retain the **No** default database selection and click **Next >**.

If you choose **Yes**, your existing database will be backed up to C:\OMN_<datetime> and a default database will be installed.

14. A Select Encore Components Screen appears next. By default the Sharer setting will not be selected (as shown on the left of [Figure 38](#)). This is because only one Sharer can be allowed to run on an Encore network.

Figure 38. Select Encore Components Screen

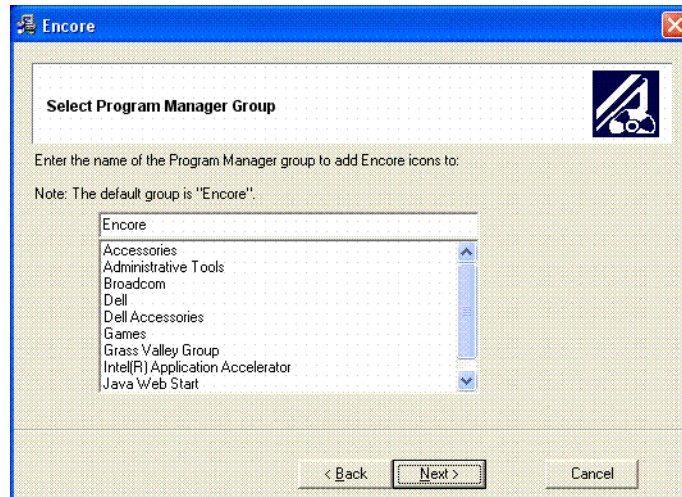


15. Because you are updating an existing encore system, select the **Sharer** box to ensure the Encore components will be running the same software version after the install. If your Encore system does not control a Concerto or SMS7000 matrix you can uncheck that box, but all the other boxes should be selected for this update EXCEPT the Factory Default OMN Database.

CAUTION Make sure the **Factory Default OMN Database** is NOT selected to retain your existing database.

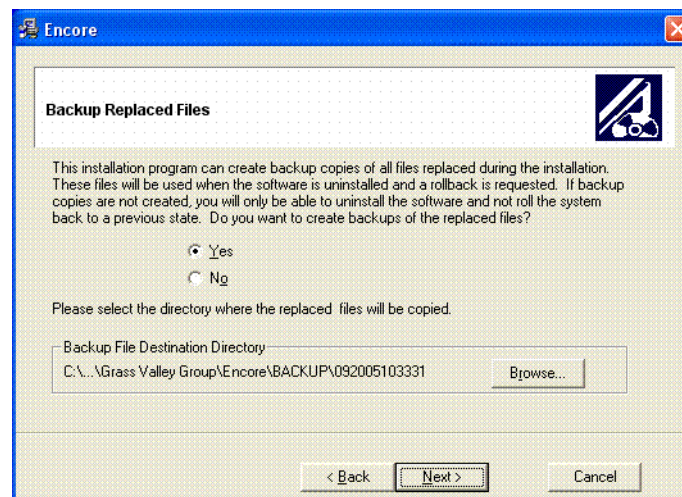
16. After selecting the correct components in [Figure 38](#) click **Next >**. The Select Program Manager Group screen appears next ([Figure 39](#)).

Figure 39. Program Manager Group Screen



17. Accept the default Encore group name and click **Next >**. The Backup Replaced Files screen appears ([Figure 40](#)).

Figure 40. Backup Replaced Files Screen.

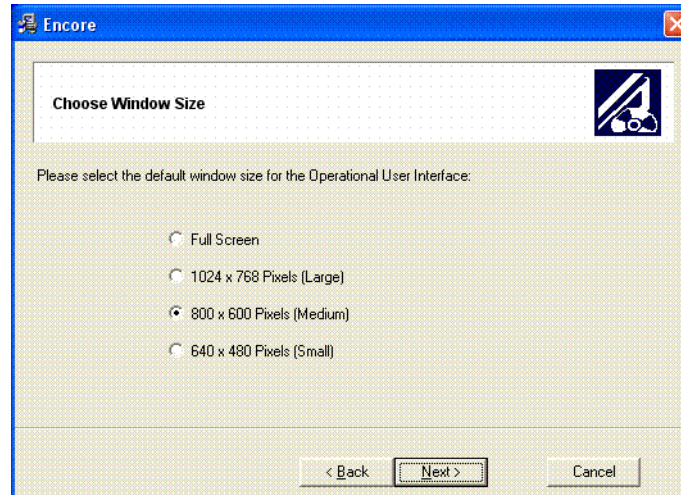


18. Select **Yes** to backup the files and click **Next >**. The backup file folder is named with the date and time. Note that Log files are not saved in this backup directory.

If you choose **No** you will be unable to rollback the system to its previous state.

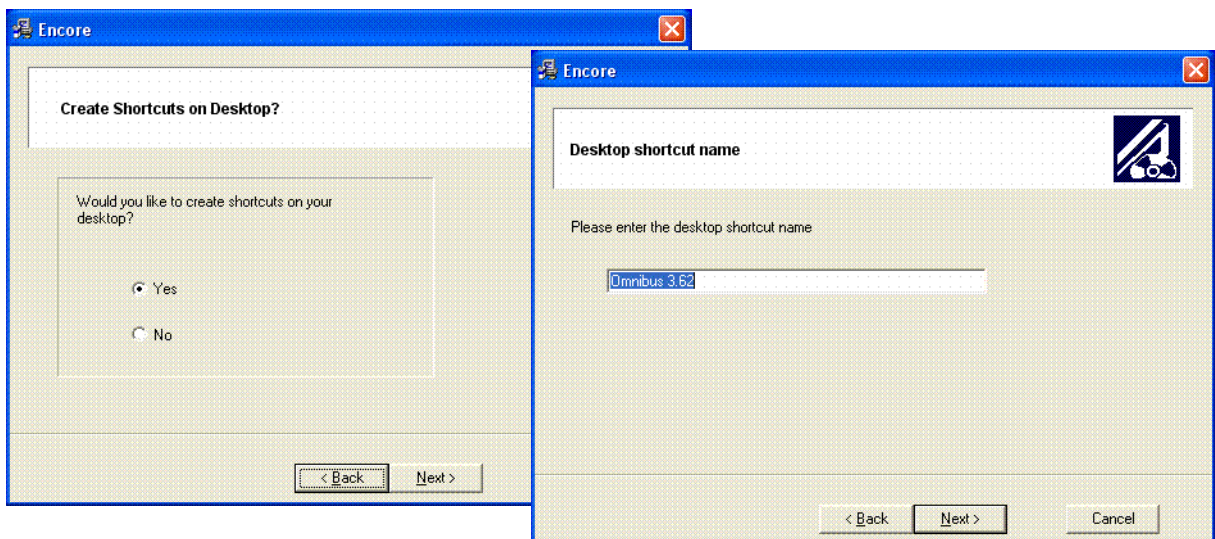
19. The Choose Window Size screen appears (Figure 41). Choose the size that best fits your PC monitor. Medium is recommended for most situations. Click **Next >** after your selection.

Figure 41. Choose Window Size Screen



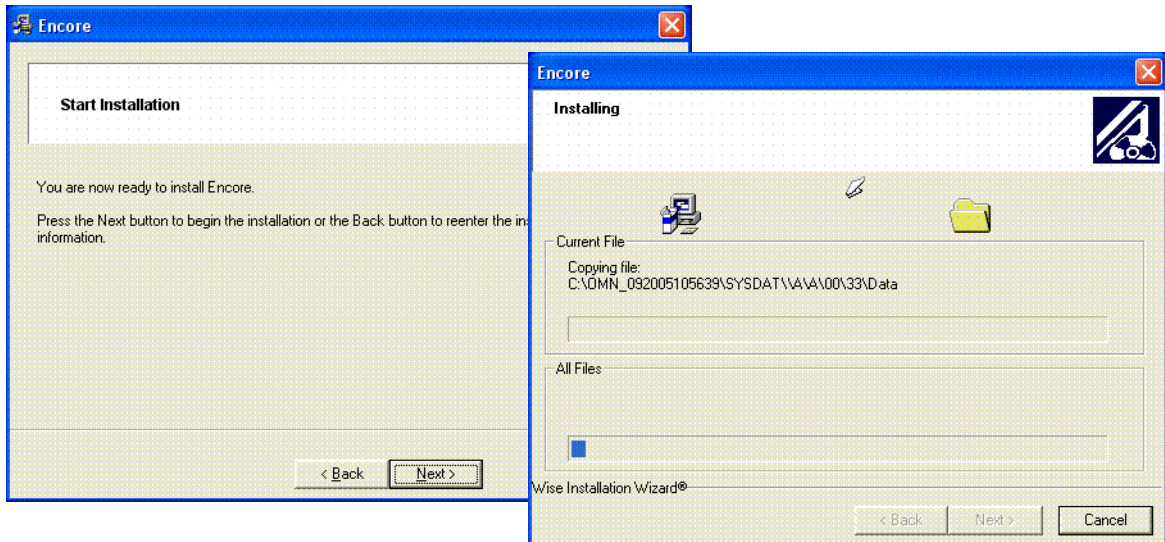
20. The Create Shortcuts on Desktop screen appears (as shown on the left of Figure 42). We recommend installing the shortcuts to make it easy to launch the Encore application. You can then name the shortcut (on right of Figure 42). Click **Next >** after making your selections.

Figure 42. Create Shortcuts on Desktop Screen



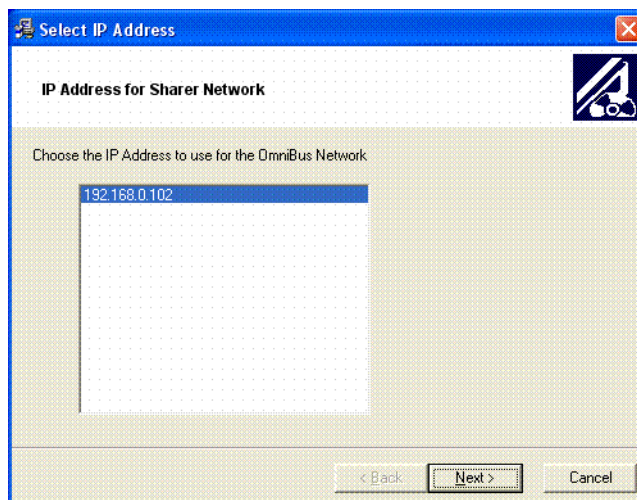
21. The Start Installation screen appears. Click **Next >** to begin copying files to the PC. The progress of the transfer is reported (Figure 43).

Figure 43. Encore Installation Screens



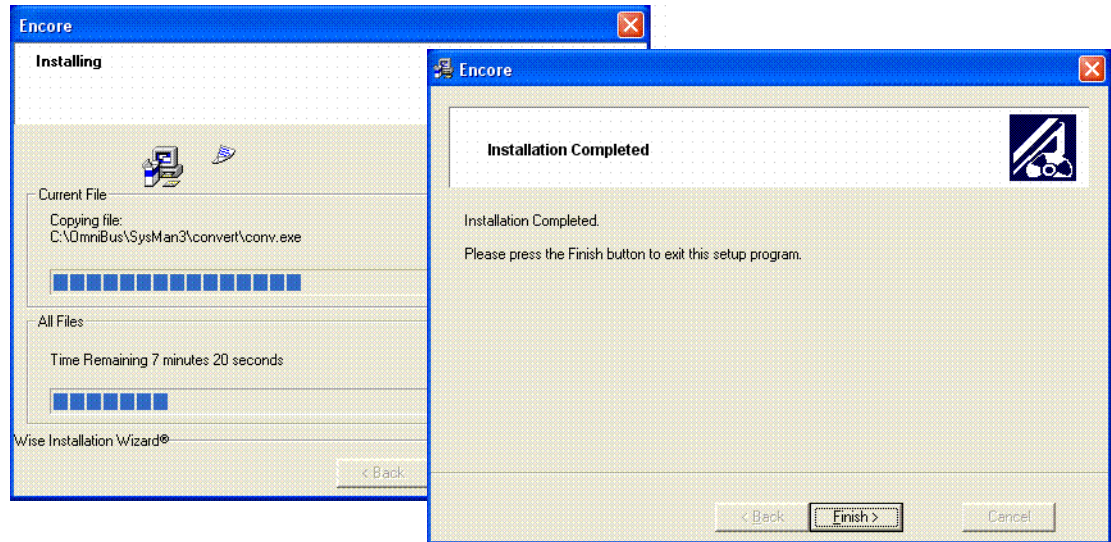
22. After the first set of files are transferred, a screen appears asking you to confirm the IP address of the Sharer Network (Figure 44). The IP address of the network interface cards (NIC) in use on that PC will be listed. If multiple NICs are installed you must select the one that will be used by Encore. Click **Next >** to continue.

Figure 44. IP Address for Sharer Screen



23. The remaining files will be copied to the PC with progress of the transfer is reported, and when done the Installation Completed screen appears (Figure 45 on right). Click **Next >** to finish this part of the installation.

Figure 45. Encore Installation Screens



24. While the installation on the local PC is done, you are not finished with the software update. The other Encore system components still need to be updated.

Restart Sharer

25. Re-start the Sharer, System Manager and Encore OUI. The Sharer is run on the Configuration PC by opening the Omnibus shortcut on the desktop and clicking on the Watchdog icon.

CAUTION The Sharer must be running when you reboot SCBs for the first time that have been updated with V1.7 Panel Server software (see [page 57](#)).

You will next use the NetConfig application to transfer the software you just installed onto the PC to the actual Encore system components.

About NetConfig

NetConfig (Networking Configuration Application) is a multipurpose software utility for managing NetConfig-enabled Grass Valley devices. The latest version of NetConfig is included on the Encore Software CD, and is installed on a PC by choosing the **Encore Utilities** checkbox.

You will use the NetConfig utility program to update the software on your existing Encore system components.

Requirements

The NetConfig program requires:

- Windows 2000 SP4 and above, or Windows XP SP2 and above operating system,
- to be logged in with Administrator-level privileges for the local machine, and
- have Internet Explorer version 5.5 or later installed.

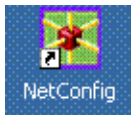
Features

Once installed on a PC configured on an Encore network, NetConfig can be used to:

- Discover devices on the network, report duplicate IP addresses, and remotely configure these devices to resolve conflicts,
- Report rudimentary health checks of these devices,
- Display web pages served by these devices on the network, and
- Install software to these devices.

For more information, see the separate *NetConfig Instruction Manual*.

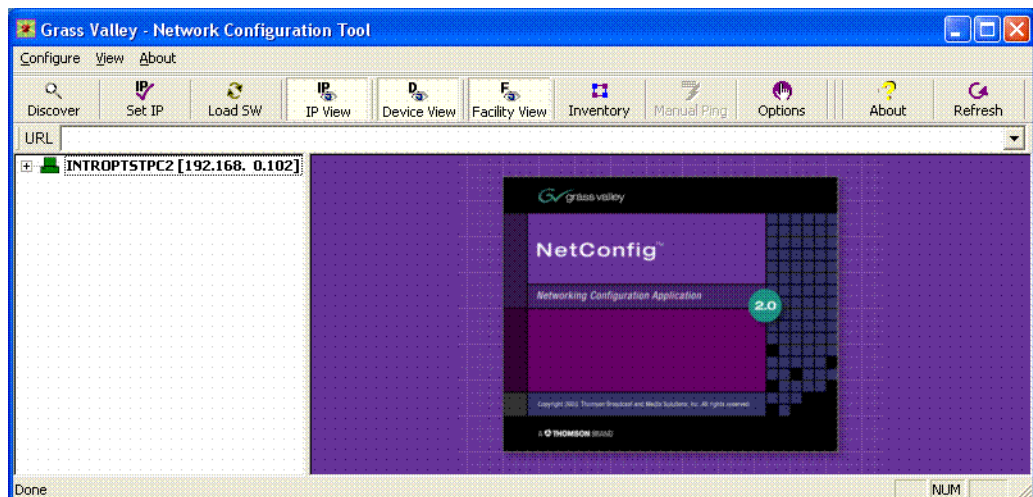
Launch NetConfig



During software installation a shortcut to NetConfig (as shown on the left) is automatically installed on the PC desktop.

26. Double click on the **NetConfig** shortcut icon to launch the application.
27. The NetConfig screen will appear ([Figure 46](#)).

Figure 46. NetConfig Screen



Update Encore SCB Software

CAUTION In previous Encore releases SCB software was updated by mapping their drives and copying files directly to their flash. This technique should not be used with Encore 1.7 and later software.

Redundant SCB Update Procedure

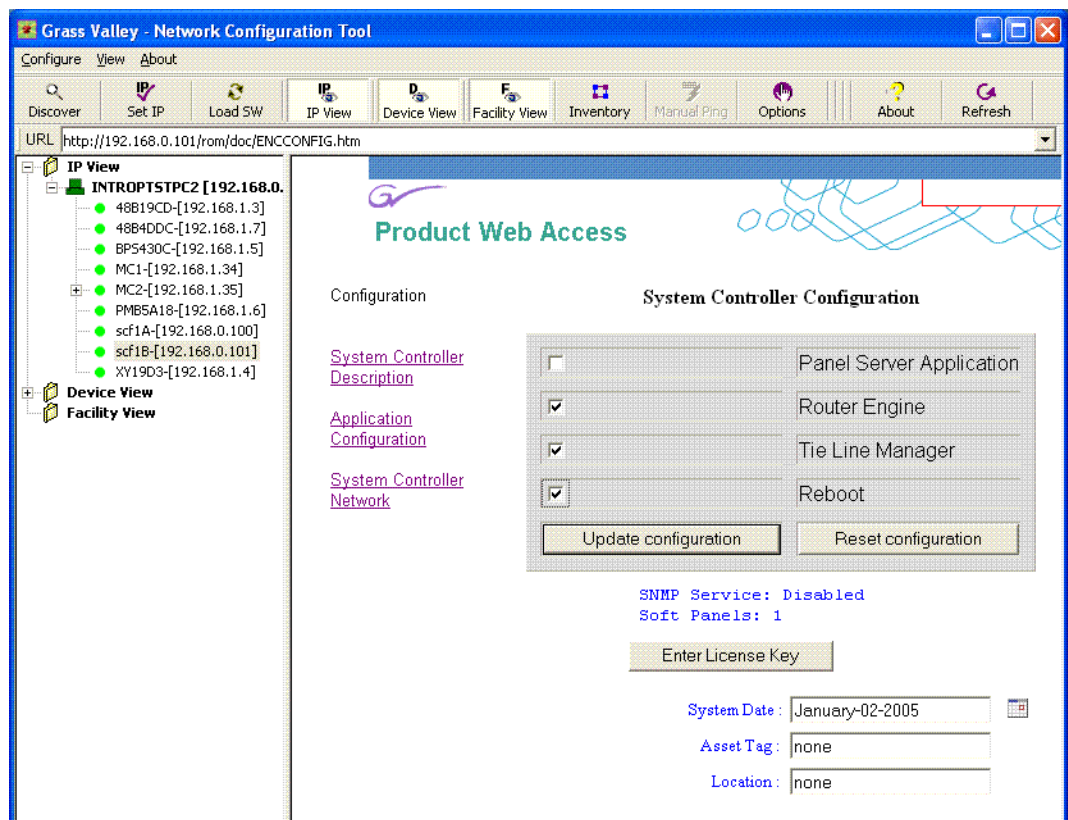
CAUTION Redundant SCBs must be updated separately when going from Encore 1.6.5.x or earlier software to the 1.7 version. Software incompatibilities do not support earlier and later versions running simultaneously.

28. Click on the NetConfig Device View to open a hierarchy display of the devices on the network. They should report green operating statuses.

Disable Mirror Panel Server Applications

29. For ALL Encore System Controllers running a Mirror Panel Server application, use NetConfig to access each mirrored Panel Server Application Configuration web page, uncheck the **Panel Server Application** box, check the **Reboot** box, and then click on **Update Configuration** (Figure 47).

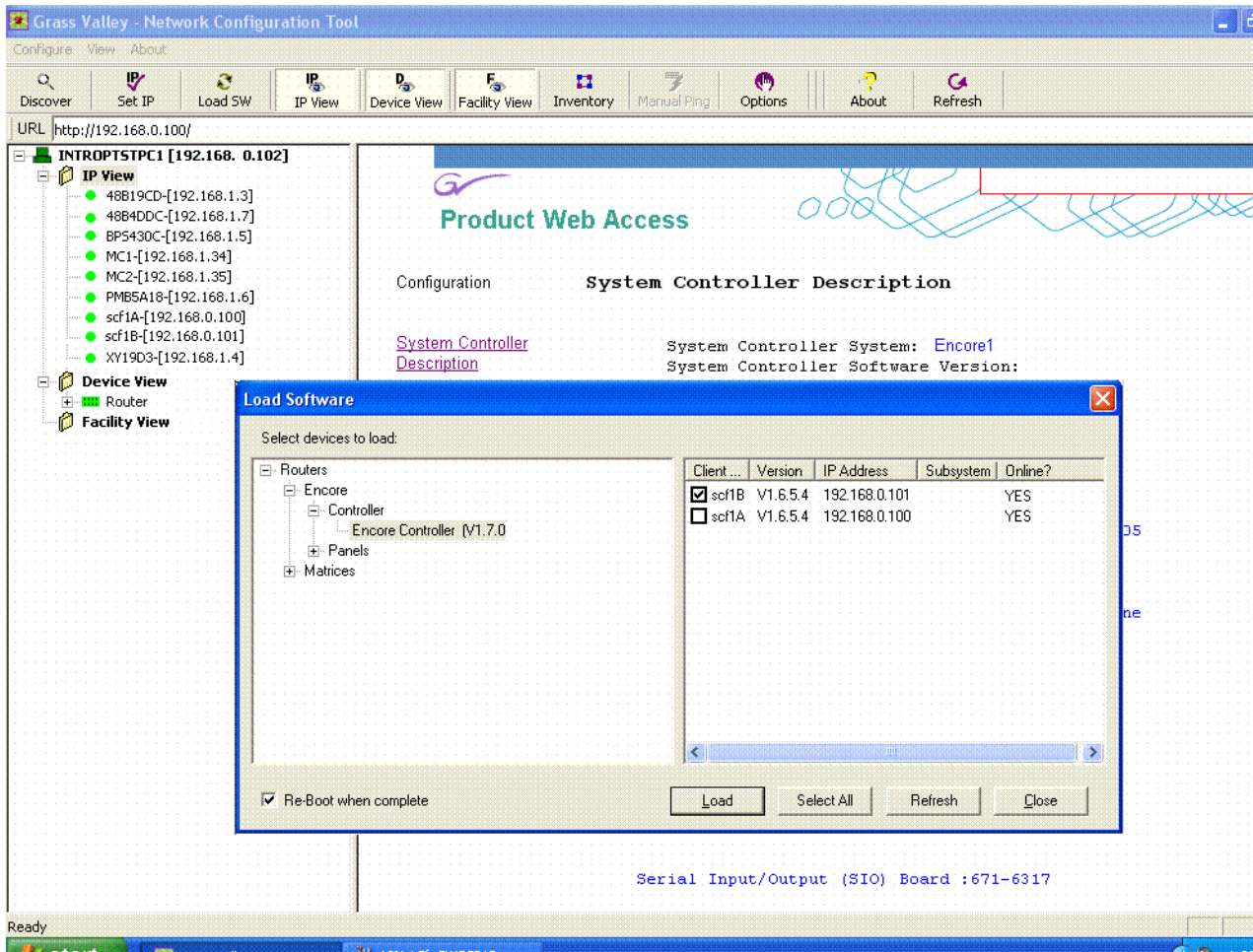
Figure 47. Disabling Mirror Panel Server



Upgrade Mirror System Controllers

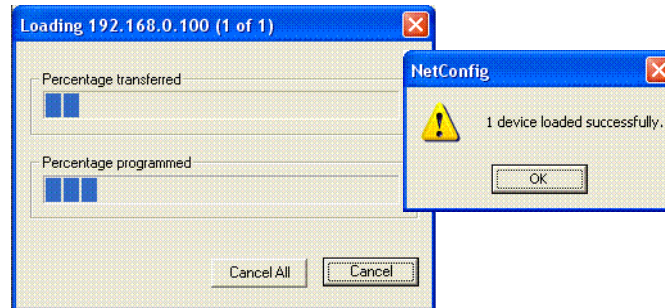
30. Using NetConfig, upgrade the Mirror system controller(s).
 - a. Click on the **Load Software** tab, or select **Configure > Load Software** to open a window showing a hierarchy of the software available.
 - b. Click **Routers > Encore > Controller** in the software hierarchy window, then select **Encore Controller (V1.7)**. This is the SCB software version we are updating the SCB to.
 - c. Select the check box of the Mirror SCB(s) ([Figure 48](#)).

Figure 48. Encore Mirror SCB Selected for Software Update



- d. Select **Re-Boot when complete** and **Load**. The software will load to the SCB and its progress will be reported. When finished, click **OK** to the loaded successfully prompt (Figure 49). The SCB will then reset and run the new software version.

Figure 49. Software Update Progress and Confirmation



31. Access the Mirror system controller(s) web page and verify that the software version now displays 1.7.0

Upgrade Master System Controllers

32. Now upgrade the Master system controller(s) by following [Step 30](#) above but selecting the Master SCB(s).

Note The Encore system will be unresponsive for approximately 2-3 minutes during this process, although existing crosspoint status will be preserved.

33. Access the Master system controller(s) web page and verify that the software version now displays 1.7.0

Update Matrix Software

Encore systems can employ Concerto, Trinix, and SMS7000 Matrices.

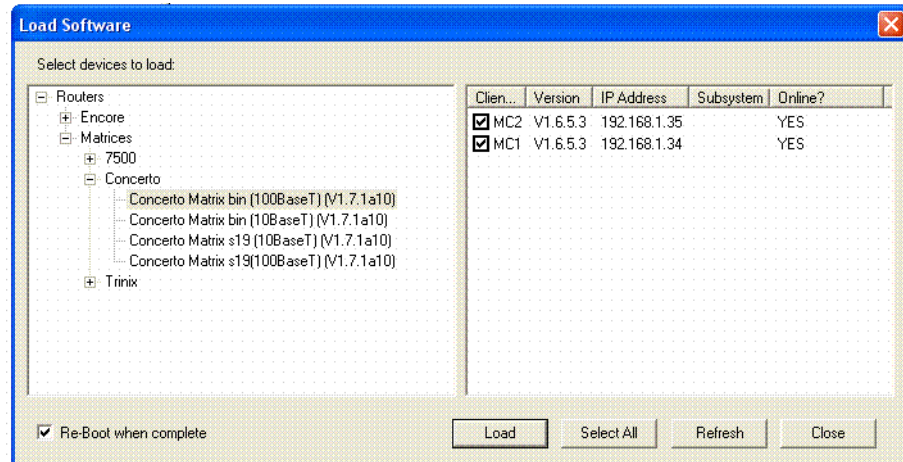
Concerto Matrix Procedure

If your system includes a Concerto matrix, the Matrix Application software is also updated using NetConfig.

34. In NetConfig, click on the **Load Software** tab, or select **Configure > Load Software** to open a window showing a hierarchy of the software available.

35. Click **Routers > Matrices** in the window, then select **Concerto**. This will display the software versions available for loading (Figure 50).

Figure 50. Concerto Matrix Software



36. Select the Concerto software to be loaded. This selection is based on the type of matrix controller board (10BaseT or 100BaseT) and the version of software presently installed on the board. Matrix controller board types are discussed in the *Concerto Instruction Manual*.

To verify which version of software is presently installed, select Device Type **Concerto Matrix s19 (10BaseT)** or **Concerto Matrix s19 (100BaseT)** as appropriate for the controller board type. In the right-hand window you should see the Client Name of the controller board(s) and the version of software presently installed.

- If the software presently installed is version 1.6.3 or newer, software type **bin** should be selected for the upgrade. For example, if version 1.6.5.4 is presently installed, and the upgrade is to version 1.7.x, **bin** should be selected.
- If the software presently installed is version 1.6.2 or older, software type **s19** should be selected for the upgrade to version 1.7.x or newer. For example, if version 1.6.1 is presently installed, and the upgrade is to version 1.7.x (the usual case), **s19** should be selected.

37. Check the boxes of the matrix controller(s) to be updated.
38. Select **Re-Boot when complete** and **Load**. The software will be loaded to the target(s) in turn with the progress reported. When finished, click **OK** to the loaded successfully prompt. The devices will then reset and run the new software version.

Trinix Matrix Update Procedure

Note Due to a compatibility issue, Trinix Broadlinx Controllers cannot be upgraded to 2.3.x using NetConfig. The upgrade must be carried out manually by either replacing the Broadlinx compact flash with one containing the new version or by using a compact flash reader/writer to upgrade the existing compact flash.

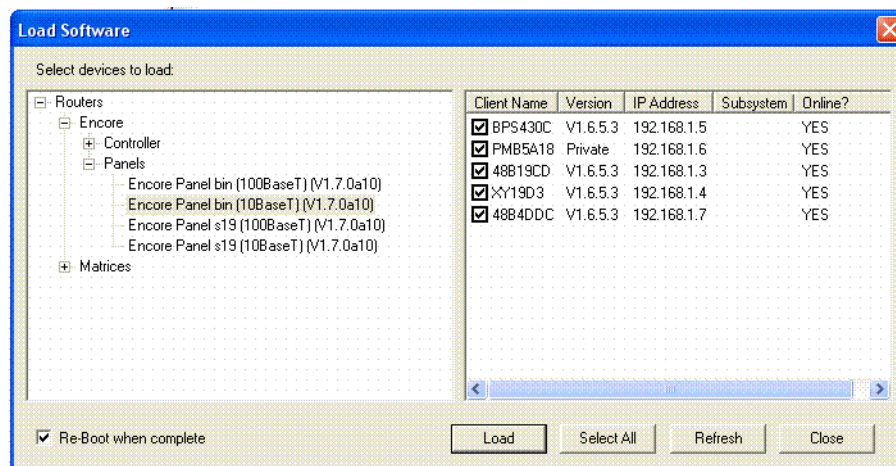
SMS7000 Matrix Update Procedure

SMS7000/7500 systems can be updated using NetConfig only if the system is already running V1.6.5 or later software. Systems running older software will need to be updated using the older procedure (Xitami).

Update Control Panel Software

39. In NetConfig, click on the **Load Software** tab, or select **Configure > Load Software** to open a window showing a hierarchy of the software available.
40. Click **Routers > Encore > Panels** in the window. This will display the software versions available for loading ([Figure 51](#)).

Figure 51.



41. Select the control panel software to be loaded. This selection is based on the type of control panel (10BaseT or 100BaseT) and the version of software presently installed on the panel.

To verify which version of software is presently installed, select Device Type **Encore Panel s19 (10BaseT)** or **Encore Panel s19 (100BaseT)** as appropriate for the panel type. In the right-hand window you should see the Client Name of the panel(s) and the version of software presently installed.

- If the software presently installed is version 1.6.5.1 or newer, software type **bin** should be selected for the upgrade. For example, if version 1.6.5.4 is presently installed, and the upgrade is to V1.7, **bin** should be selected.
- If the software presently installed is version 1.6.2 or older, software type **s19** should be selected for the upgrade to version 1.7 or newer. For example, if V1.6.1 is presently installed, and the upgrade is to version 1.7 (the usual case), **s19** should be selected.
- If panels are missing, see *IP Address Assignments* in the Encore 1.6.1 release notes before continuing. (You must see a panel in this list before you can update its software.)

42. Check the boxes for the panel(s) to be updated.

Note If you are upgrading a multi-area system (i.e., a multi-network system), and a panel is reported as offline, uncheck that panel and complete the installation for the online panels. Then, check the gateway setting for the configuration PC. The gateway setting must point to the SCB that will be used to reach the control panels being updated. In the case of redundant SCBs, you may need to try both before the panels will update. It may be helpful to check the IP View to see which panels are visible (green light) to the SCB selected as the gateway.

43. Select **Re-Boot when complete** and **Load**. The software will be loaded to the target(s) in turn with the progress reported. When finished, click **OK** to the loaded successfully prompt. The devices will then reset and run the new software version.

Note The Update Devices menu may not indicate the new version number properly. To verify the version number, close the Update Devices window, select the panel under IP View, and select **Panel Description**. The version will be shown under Panel Application Software Version.

Enable Mirror Panel Server(s) and Confirm Sharer Mode

44. For an Encore SCB running a Mirror Panel Server application, use NetConfig to access its Application Configuration web page, check the **Panel Server Application** box, check the **Reboot** box, and then click on **Update Configuration**.

45. Use the Encore OUI to log on to the Master Panel Server for that mirrored SCB and verify that the Panel Server is in **Sharer** filing mode and that, for redundant Panel Servers, the Sync Status is **In Sync**.
46. Log onto Master Router Controller for that mirrored SCB and verify that the Router Controller is in **Sharer** filing Mode.
47. Log onto the Master TLM and verify that the TLM is in **Sharer** filing mode.
48. Repeat steps [Step 44](#) through [Step 47](#) with each Master/Mirror SCB pair in your system.

Restore Full System Operation

After the software update, some items may need to be addressed to restore the Encore system with its previous functionality and activate new features.

- If after an update of a system with redundant SCBs the panels report NO ROUTER, use the Encore OUI to access the Router Controller application, go to Configure and click on Commit Changes. This updates the panels with their configurations.
- If Destination Exclusion Sets are used in your system, you must now open and re-save them. This will ensure that all panels will have control of the same destinations as before.

After installing 1.7, any destinations previously listed in the Inhibited Dst box will no longer appear in that position; instead, the destinations that were (and are) available will now appear in the Available Dst box.

This change has been made because, in most cases, using the Available Dst box simplifies the configuration process as new sources, destinations, and panels are added. For example, if a new studio is added, existing panels in other studios would likely require only a few entries (or none) to the Available Dst box.

In any case, it is still possible to exclude or include control of any destination on a panel-by-panel basis.

- If crosspoint switches are not occurring on the vertical interval or appear to be delayed in execution, check that your system is using a VITC timecode source and you have the correct format selected. The default format on new systems may be PAL. To change VITC format, go to Router Controller, Configure, click on TimeCode, then click on the name of the format and select the correct one.

This completes the upgrade process.

Installation Troubleshooting

Read Only File Problem

On your System Controller Boards, if NetConfig was NOT used to update Encore software (version V1.6.5.x), some of the files may have a “read only” attribute. In that case, attempting to update the software to V1.7.0 will fail and may cause SCB boot up failure.

Before attempting the update to V1.7.0, use one of the following methods to remove the read only attribute.

Method 1

On the console of the SCB (the console can be accessed either by Telnet OR by serial interface), execute the following two commands.

```
->xattrib "C:/*", "-R"  
->xattrib "C:/*.*", "-R"
```

Method 2

Mount the File system of SCB on to your PC. To do this on Windows, click on “Start->Run”, in the “Open” field of the dialog box, then type

```
\\xx.xx.xx.xx\hd"
```

where xx.xx.xx.xx is the IP address of the SCB.

Select all the files, right click and then click on “properties” menu item. In the resulting dialog box, “uncheck” the “Read only” check box and click on “Apply” button. Windows may pop up an another message box asking whether to apply the attribute change to folder only or the files and sub-folders also. Please chose the option to apply to files and subfolders.