

Encore Control System

An Open, Scalable System for Multi-Facility Routing Control

Grass Valley™ products offer the most comprehensive, multiformat solutions for acquisition, production, storage, and playback—and a strong foundation for centralized, proactive status and activity monitoring.

A Scalable Control System that Grows with Your Needs

The Encore™ system is an open, scaleable platform for full router and facility control. Featuring tight integration with automation systems, third-party routers, and other equipment, the Encore system makes it easy to consolidate media assets under a single, unified control system. Its modular design lets broadcasters and other high-quality content creators select just the level of control they need. At its most basic level, the Encore system can configure the crosspoints of a single routing matrix—and easily expand that control up to 4096x4096. Users can also add tally and machine control via Ethernet or serial interfaces. And a selection of hardware and PC software control panels that work across the room or across the country via IP LAN/WAN connections offers centralized or distributed management of all devices under Encore system control.

Robust Feature Set

The Encore system offers complete configuration and robust control capabilities. Up to 32 router (or matrix) levels can be configured. It can also set up tie-lines for transparent inter-matrix operations, and support multiple users with unique access privileges and restrictions. With software control panels, users can control sources and destinations right from their PCs. Encore introduces the concept of Areas to routing allowing identical names to be assigned to different areas. This simplifies name definition such that eg. VTR1 can exist in a production area, and a distinct editing suite each controlling a different VTR named VTR1.



Encore controls a wide range of Grass Valley routers by means of its high speed Ethernet network including Trinx™, Apex™, Concerto™, 7500 WB, and 7500 NB. Legacy 7000 Series and Horizon routers are serially controlled. In addition, the Encore can control the popular Grass Valley Venus™ routers with a serial interface to a VM-3000 protocol translator. A wide range of third party routers can also be controlled through a number of supported serial interfaces.

Encore interfaces to our various master control and production switcher products, including M-2100, Saturn™, Kalypso™, Zodiac™, and XtenDD™ systems. This allows these products to control routers, and access router source and destination names for source selection and name display.

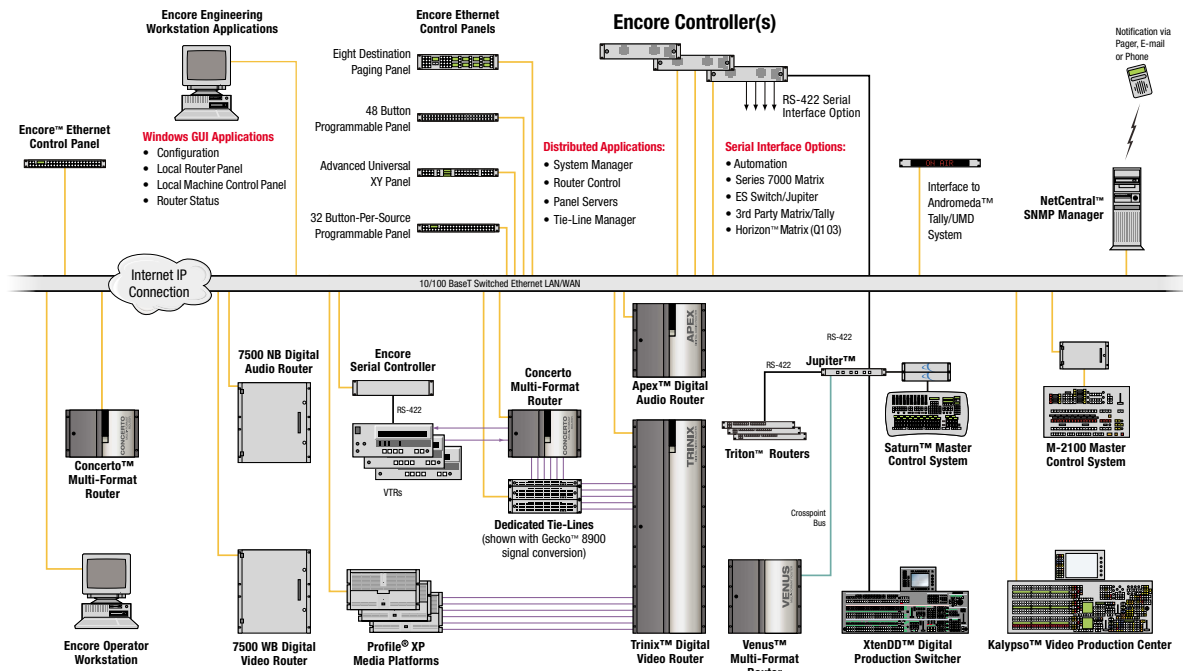
In addition, the Encore system supports audio attribute processing on Grass Valley Apex, 7500 NB, and Concerto Series digital audio matrices; users can swap two audio channels, invert either channel, sum the channels, or duplicate a channel to feed mono input to both channels.

key features

- Scalable design for selecting just the right level of control
- Controls routing matrices ranging from 16x2 to 4096x4096
- 10/100Base-T interfaces
- Supports multiple controller frames for simultaneous control processing in large or complex systems
- Supports NetCentral™ software for SNMP-based status monitoring and diagnostics
- LAN/WAN support enables inter-, intra-facility control
- Assortment of dedicated hardware and computer-based software control panels
- Ethernet-based control of Trinx, Apex, Concerto, 7500 WB, and 7500 NB routers
- Serial control of Venus and 7000 series routing systems
- Interfaces with many third-party routing, tally and automation systems
- Interfaces with Grass Valley master control and production switcher products
- Powerful tie-line management
- User access control with powerful security layer
- Full redundancy

Sophisticated Control of Large and Diverse Systems

The Encore Control System adds new levels of functionality with many options for integrating Encore into existing routing systems.



Scale Up to 4096x4096 with Encore Controllers

Using dedicated and compact 2 rack unit (RU) controller frames, users can scale an Encore system to support large, multi-matrix, multi-location configurations. Each controller frame supports up to two controller boards and two redundant power supplies. Users can combine multiple Encore controller boards on an Ethernet facility network to increase throughput by dividing tasks—and program the controllers to function as dedicated control panel servers, tie-line managers, or as additional system controllers to speed overall system response.

For mission-critical applications users can add redundant power supplies and controller modules or even redundant controller frames, each fitted with redundant controller modules, to increase system reliability. Adding redundant Encore controllers to the network provides an extra level of redundancy for mission critical applications. Each Encore controller frame can support two groups of eight serial I/O ports for applications such as automation interfaces.

Multi-Facility System Control

Because the Encore system uses standard RJ-45 10/100Base-T Ethernet connections, users can expand control across multiple locations using standard IP networking techniques. From providing a journalist on the Encore system's network with a PC control panel for selecting sources to complete control of remote facilities with extensive routing matrices, the Encore system uses standard Ethernet routers, switches, and WAN/LAN equipment.

Machine and Tally Control

Extensive and sophisticated machine control is available within the Encore architecture. Augmenting conventional serial control, the Encore system allows for Ethernet-based machine control for devices such as Profile® XP Media Platform systems. This control makes it possible to issue commands to applications across a network, such as those that oversee the transmission of programming and commercial spots to remote locations.

The Encore system supports both Router Control Language (RCL) and Grass Valley's popular SMS-7000 Native Protocol with the addition of commands to support Encore's added feature set. Since virtually every major automation system and tally system vendor offer Native Protocol interfaces, these interfaces work seamlessly with Encore as well as SMS-7000.

Global Tie-Line Management

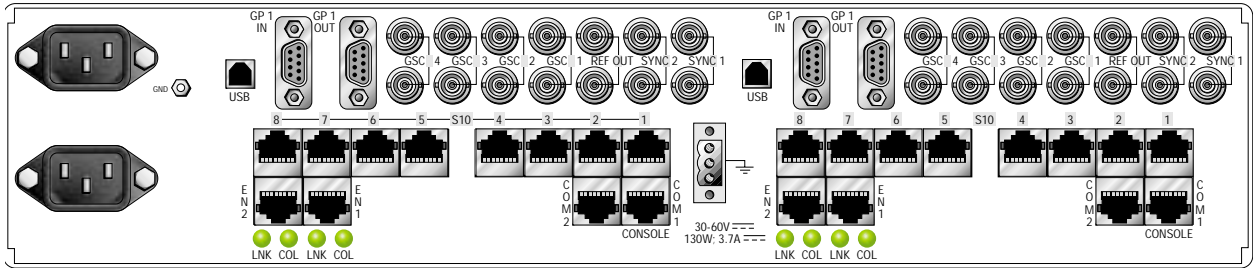
Tie-Line management, first introduced in the Series 7000 control system, allows for the transparent routing of signals between levels. Tie-lines make all the sources on a remote routing matrix available to users on a local matrix through software-controlled interconnections. When a user requests a source that is not found on the local matrix, the request is automatically assigned to a tie-line and acquired from the remote matrix. Placing conversion equipment on tie-lines between matrices with dissimilar signal types eliminates the need for a dedicated converter for each source. The Encore system adds to this proven technology the ability to configure tie-lines globally from a central location for all matrices in the system, including those located remotely.

Logical Matrix Mapping

Logical matrix mapping maximizes crosspoint utilization by subdividing a physical crosspoint matrix into multiple logical matrices, eliminating the need for dedicated crosspoint modules for different types of signals. In addition, crosspoints can be selectively assigned to ensure that input signals are only routed to appropriate output destinations. These logical matrices can be tied to a single control level for simultaneous switching (such as audio/video, video/key, or R/G/B). Logical matrix mapping also makes it possible to group device connections, simplifying system cabling. The Encore system's matrix remapping feature minimizes system recabling associated with equipment upgrades. When changing the type or format of equipment on an input or output, the Encore remapping feature requires only a modification of the logical matrix table to reassign signals to the correct inputs or outputs.

Encore Controller

Redundant power and control are available for mission-critical applications.



Sophisticated SNMP Remote Monitoring

To ensure optimal uptime, Encore system users can deploy SNMP (Simple Network Management Protocol) agents to proactively check the status of devices that reside on one or more facility networks. These agents can report status information—such as an over-temperature condition that may indicate improper air flow—to an SNMP remote monitoring and diagnostics package, such as the Grass Valley NetCentral software, to trigger an action such as the paging of a technician.

Software Control Panels Offer Desktop Convenience

For the occasional user, or a user in a remote location, software control panels can be displayed on any PC connected to the Encore system LAN/WAN. The Encore system lets administrators set a user's level of access and control to prevent unwanted operations and to grant new levels of functionality.

Growing Selection of Control Panels

For fast, push-button control in control rooms or studios, there are a variety of Encore control panels. Using an Ethernet connection, adding or relocating panels is quick and easy.



48-Button Programmable Control Panel

- Versatile, general purpose and fully configurable 1 RU
- 48 programmable push buttons to select source, level, destination, salvo or Lock/Protect
- Configurable from 48 x 1 to any XY combination with direct source destination selection



Advanced Universal XY Programmable Control Panel

- 1 RU control panel for simple source and destination selection
- Can be programmed to control single or multiple destinations
- User-programmable keypad with two sets of prefix/suffix selection to preset sources or destinations
- Separate displays for preset, status, and level
- Eight configurable buttons for sources, destinations, salvos, or access to the second set of prefix/suffix

Advanced 32 Button-Per-Source Programmable Control Panel

- Great for use in tape or disk duplication rooms and mobile applications for fast, immediate access to sources in a compact 1 RU panel
- Multiple levels to selected destination(s) with full breakaway control
- Software-enabled configuration of source-selection buttons from the panel itself
- Per-button assignment of source, level, and salvo



Eight Destination Paging Control Panel

- 2 RU panel for control and display of any 8 sources and destinations at a time
- Configurable Hard/Soft Lock or Protect with Lock/Protect or Force Unlock/Unprotect advanced features
- Two sets of sixteen prefix/suffix selectable through Shift function
- Scroll through 48 pages of levels and destinations

Ordering Information

Control Hardware and Software

ENC-CTLR-FRM Encore controller frame (2 RU)
Includes: Controller module, single power supply and Encore software for this frame

ENC-CTLR Additional controller module, Holds max. one ea. SIO

ENC-CTLR-HW Encore controller frame (2 RU)
Includes: Controller module, single power supply. Encore software is not included: Encore site software required

ENC-SW Encore software single site license on CD

ENC-SIO Eight-port serial control module – Option mounts on CTLR module. Provides RS-422/RS-485 RJ-45 ports for serial control applications

ENC-CTLPS Redundant power supply for CTLR-FRM

ENC-SR-CAB4 Encore serial redundant cable kit – for four ports

ENC-NETCEN NetCentral “SNMP” agent for Encore controller – one per site

Control Panels

ENC-BPS Encore 32 button per source control panel (1 RU) with local source configuration

ENC-XY Encore universal XY control panel (1 RU)

ENC-48B 48-button control panel (1 RU)

ENC-PMB Paging multi-bus control panel (2 RU)

* Reference the Encore Ordering Guide (2WW-9422) for a more comprehensive list.

Customer Service Commitment

The Thomson Broadcast & Media Solutions Service Team delivers complete service solutions that enhance our line of Grass Valley products. Let our experienced professional staff help you build a state-of-the art network and deliver the best content possible for your advertisers and viewers.

Our suite of SupportPRO Services provides support throughout the product life cycles:

- Networking and consulting services
- StartPRO and on-site support
- Preventative maintenance packages
- Training and educational programs
- Technical support services and centers
- Parts, kits and repair services
- Support agreement
 - TechPRO all-inclusive package with software, hardware and on-site support coverage
 - ServicePRO semi-inclusive with software and part coverage
 - PartsPRO with advance exchange of parts only
- Software and documentation

For more information contact Service Sales in your region or visit us online at www.thomsongrassvalley.com/support.

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2WW-9419-2

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