Encore Presentation System

Complete show control

Encore Controller SC

The Encore Controller SC is designed for applications requiring up to 24 input videos and can control shows from a single up to 6 screens.

Encore VPx

Cost effective solution for wide screen Encore destinations

MatrixPRO-II 3G/HD/SD-SDI series

High-speed 3G serial digital routers

ImagePRO-II series

All-in-one video scaler, scan converter and switcher

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Encore Controller SC version is 2.32.07

The Encore Controller SC is designed for applications requiring up to 24 input videos and can control shows from a single up to 6 screens.

Technical specifications

Encore Processors supported	6
Widescreen support	Yes
External router control	Yes
Inputs supported	24
Destinations supported	6
Available presets	64
Layers supported	1 DSK, 6 scaled inputs (PIP or Key), 1 transitioning background
User-selectable transition functions	Yes
Available destinations	4
Available user-defineable keys	None
Joystick & T-bar	Yes
Machine control	No
320 x 240 graphic displays	1
Light sticks	2
PS/2 keyboard support	Yes
Communication	Ethernet, RS-232, USB
Program sequencing	Yes

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Controller features

	Small Controller
Encore Processors supported	32
Widescreen support	Yes
External Router Control	Yes
Inputs supported	24
Destinations supported	6
Available Presets	64
Layers supported	1 DSK 6 Scaled Inputs (PIP or Key) 1 Transitioning background
User-selectable Transition Functions	Yes
Available User-defineable Keys	None
320 x 240 graphic displays	1
Joystick & T-Bar	Yes
Light sticks	2
PS/2 Keyboard support	Yes
Communication	Ethernet, RS-232
Field Upgradeable	Yes
Tally support	8

Numeric Keypad
to enter and
numeric values on the

Adjustment Panel
Joystick enables you to adjust PIPs, Keys and other parameters. Dedicated buttons allow you to change the Joystick's function.
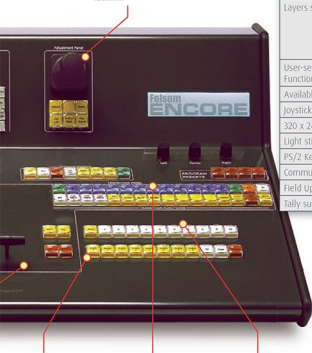
Group Control Section
To simplify destination selection process, each "Group" button can be programmed to activate one or more destinations.

Transition Functions
Buttons set parameters for the current transition and mode, such as mix source, toggle, swap, move and black preview.

User Key Section
Each button stores PIP and Key parameters, enabling you to copy between layers and mixers.

The joystick is multifunctional. Use it to size, position and crop both PIP and Keys, or use it to adjust the value of a highlighted parameter on the Touch Screen.

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Technical specifications

Video inputs

(1) DVI Input (on DVI-I connector) on each M/E

Program/Source Links

1) Input (on DVI-I connector) on each M/E
(1) output (DVI-I connector)

Video outputs

Program 1:
   HD/SDI on BNC connector
   Analog on HD-15 connector
   DVI on DVI-I Connector

Program 2:
   HD/SDI on BNC connector
   Analog on HD-15 connector
   DVI on DVI-I Connector

Preview:
   Analog on HD-15 connector
   DVI on DVI-I Connector

MatrixPRO-II 3G/HD/SD-SDI series

High-speed 3G serial digital routers

Technical specifications

Supported signal formats	DVB-ASI, SMPTE 259M, SMPTE 292M, SMPTE 424M; 270M bps − 2.97Gbps; 2K, 2048x1556/23.98 and 24
Inputs	Standard: SMPTE 259M / SMPTE 292M / SMPTE 424M Data rate: 270Mbps − 1.485Gbps / 2.97Gbps Connector: 75 ohm BNC female Impedance: 75 ohm nominal Return loss: > 15dB (5MHz-1.485Ghz); > 10dB (1.5GHz − 3GHz) > Cable equalization: Automatic up to 70m @ 2.97Gbps, typical Belden 1694A Automatic up to 100m @ 1.485Gbps, typical Belden 1694A Automatic up to 300m @ 270Mbps, typical Belden 8281
Outputs	Connector: 75 ohm BNC female Impedance: 75 ohm nominal Return loss: > 15dB (5MHz-1.485Ghz); > 10dB (1.5GHz − 3GHz) Signal level: 800mVp-p ±10% Rise/fall time: - 20% - 80% - SD limit: 0.4ns − 1.5ns, < 0.5ns rise/fall variation; - HD limit: < 270ps, < 100ps rise/fall variation; - 3G-HD limit: < 135ps, < 50ps rise/fall variation Amplitude overshoot: < 10% Signal polarity: Non-inverting electrical with respect to inputs
Signal Speed	Timing jitter: SD: < 0.2 UI; 3G-HD/HD: <1UI Alignment jitter: SD: <0.2UI; 3G-HD/HD: <0.2UI
Safety Regulations	Compliant with CE EN55103-1 and 2
Control	Serial port: RS-232, DB9 connector female Ethernet port: 10/100BaseT Ethernet bus, 1x RJ45 connector

ImagePRO-II series

All-in-one video scaler, scan converter and switcher

Technical specifications

Inputs/outputs

- Dual-link DVI/HDCP I/O
- 3Gbit HDSDI I/O
- HDMI/HDCP I/O
- DisplayPort/HDCP I/O
- Universal analog I/O
- Loop-through on DVI, SDI & analog inputs

User interface

- ImagePRO-3G front panel control
- Web browser & tablet remote control
- Encore suite of controllers
- LED setup and configuration

Processing

- 12-bit processing
- Resolution up to WQXGA (2560x1600)
- Frame rate up to 120 Hz for 1080p
- System configuration and restore via USB

| Other	
Genlock	Analog Ref Input/Loop/Output on BNC connectors, Bi-level and Blackburst at SD and Tri-level at HD or locked to any input
Remote Control	- USB 1.1 - Ethernet RJ-45, 10/100 Mbps Autosense - Computer, tablet, smartphone, or external Encore or ScreenPRO-II Controller via Ethernet link. - Control functions include: source input configuration, output format selection, test pattern selection, transition effect selection and control
Dimensions	- Height. 1.75 in (4.4 cm) - 1 RU Rackmount - Width: 17 in (43.2 cm)- without chassis handles, 19.06 in (48.4cm) with chassis handles attached - Depth: 17.09 in (43.4 cm) from front panel to rear panel, 18.51 in (47 cm) overall
Weight	15.75 lbs (7.144 kg)
Input power	Power 100-240 VAC, 47-63 Hz, auto-selecting 2.0A maximum
Environmental temperature	0-40° Celsius
Environmental humidity	0-95% noncondensing

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**D320 or LED-PRO
LED Processors (Digitizers)**

Program

Preview

Encore Video Processor
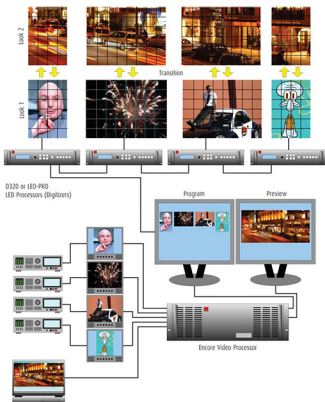
Creativity In Concert

Once your system is configured in this way, all manner of creative configurations are available using Encore's power:

• Separate sources in each display, with or without transitions.

• Wide-screen sources spread across two or more displays.

• "Moving" sources that transit from one display to another.

The full range of Encore's effects, including Alpha Cut and Fill, color imagining, borders, monochrome and strobe.

Step-by-step Pixel Mapping

To precisely assign (and align) Encore PIPs to each of your LED displays, a process called "pixel mapping" is used:

• Configure your system with one Barco Digitizer for each display.

• Configure your system with enough Encore "mixers" to handle the number of LED displays on stage. Remember that each mixer has the capability of generating one PIP if you want to transition inside it, or two PIPs if transitions aren't required. Thus, if you have five LED displays in your production, you'll need five Digitizers and five Encore mixers (if transitions are required), or only three mixers (if transitions aren't required).

• Calculate the native resolution (in pixels) for each of your displays. For this example, we'll assume that Barco ILite 6 XP tiles are used — each with a pixel density of 72 x 72. If your overall display uses 24 tiles in a 4 x 6 array, then the display's overall pixel resolution is 288 x 432.

• Configure Encore's output to a high resolution format, such as 1080p (1920 x 1080). This resolution gives you a very large "pixel palette" in which to place PIPs.

• Connect Encore's output to the first Digitizer, then loop the output to all remaining Digitizers.

• Using Encore, create PIPs that precisely match the native resolution of each LED display — in this case, 288 x 432 pixels. As standard, Encore provides total pixel accuracy when configuring a PIP's horizontal and vertical size. Fill each PIP with source video in the normal way, and ensure that the PIPs do not overlap visually.

• For each Digitizer, set the output to match native resolution of its associated display, and ensure that the input's aspect ratio matches the output. Finally, crop the input on each Digitizer to precisely isolate the desired PIP. Once complete, you'll have an exact 1:1 correspondence between each PIP and each display.

Your displays are now perfectly pixel-mapped, with each Digitizer processing only its assigned "slice" of the overall Encore output.

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