## **Event Master family**

Modular screen management systems



# Bringing 4K to all shows

the late sections

Today's events require specialized, high-performance display technology. There's a growing demand for extremely high-resolution video-based shows to wow audiences with an exceptional experience.

Image processing, screen management, and show control are key for video-based presentations. In this rapidly evolving market, you need reliable technology – both now and into the future. If you want to stay up-to-date with the latest and greatest, the Event Master range has you covered with modular solutions that scale with your requirements.

#### **Unmatched performance**

Excelling in low latency, high image quality, high I/O density, expandability, and durability, the Event Master series processors manage all your 4K 60p requirements and beyond. They combine integrated distribution, switching, scaling, and screen management (PiPs) for all your shows. Barco's state-of-the-art Athena™ based image processing technology is renowned for its exceptional image quality and low processing latency. With native 4K 60p 4:4:4 input and output, the E2 and S3-4K processors provide impressive pixel processing power. The E2 and the S3-4K can manage multiple 4K projectors blended, with refresh rates up to 60 Hz, without compressed color.

#### **Future-proof investment**

The Event Master processors can be tuned to your show size and the configuration you need. You can choose from our pre-populated boxes – such as the E2 and S3-4K – or you can link additional boxes, like the Ex, as your needs grow. Thanks to their modular design, you can gradually expand with new software and I/O cards or boxes to support bigger, more complex shows. You only invest when you need to, and in the gear you need most.

We are blown away by the groundbreaking revolutionary features of the E2 system. Its modularity, ease of use and build quality – along with the future-proof, 4K native switching capability – are all reasons why we love it.

> **Clint Foweler,** Sound Stylists' Head of AV





### Did you know?

Most of the world's events can be managed with a single E2 processor.

### The right box for your show

With our wide range of versatile event tools you simply pick and choose the right combination of boxes for your event – from simple events to the most challenging setups. By keeping all of your processors busy, you minimize the time your Event Master systems spend on the shelf. You can now support multiple small events or one large event with the same equipment.

### **Ultimate reliability**

With reliability and ease of use as core features, setting up and executing your show becomes effortless. Event Master brings you peace of mind when managing a live event. Setup time is not only faster, there are also fewer points of failure. What's more, the systems provide more situational awareness. All inputs and outputs are monitored in the Multiviewer. And the user interface gives you a clear overview of all your system resources.

### **Designed for the road**

The rugged Event Master products feature a steel chassis that withstands the challenging conditions of life on the road. We not only designed them to survive, we have tested them for G-shock, vibration, and extreme temperatures. What's more, they come in a compact form factor, which makes them easy to ship and install. And thanks to their modular cards and dual redundant power supplies, the Event Master systems are extremely reliable and easy to service or upgrade in the field.

## **Built to expand**

The Event Master series excels in versatility and flexibility. Their link cards allow you to expand your system by linking E2 to E2, S3-4K to S3-4K, or E2 to S3-4K. If you only need to expand inputs or outputs, you can also link the Ex processor to the E2 or S3-4K, increasing inputs and outputs in even smaller increments. This enables easy expansion beyond the standard amount of inputs and layers, without additional external processing or routing to distribute the signals.



### The choice is yours

Growing as you add, the Event Master series offers all the tools you need to manage all your shows – even the most impressive events – with absolute ease. Future software releases will increase the combinations of linking to make the system even more powerful and flexible.

### Modularity for the future

Event Master features modular I/O cards you can use across the product family. The cards not only bring newer interfaces, but also new features. The portfolio provides all of the advanced features and future upgradeability you need. As new signal interfaces become reality, you simply add a new card to your E2 or S3-4K system.





### HDMI/DisplayPort input card

- HDMI 1.4a and DisplayPort 1.1
- Supports up to 4x 1200p@60, or 1x 4K@60p/UHD per card (dual cable)
- HDCP compliant
- EDID support for Vesa/CEA, and custom timings
- Automatic input acquisition and configuration





### Dual link DVI input card

- Single link and dual link digital DVI formats (analog not supported)
- Supports up to 2x 3840x1080(single cable), or 1x 4K@60p/UHD per card (dual cable)
- HDCP compliant
- EDID support for Vesa/CEA, and custom timings
- Automatic input acquisition and configuration

#### SDI input card

- SD/HD/3G SDI Level A/B
- SMPTE 259M, 292M, 296M, 2048-2, 425-1
- Supports up to 4x 1080p@60 or 1x 4K@60p (4 quadrant or 2Si formats) per card
- Automatic input acquisition and configuration

We had a total of 26 HD inputs, and four at 4K, so the E2 was the natural choice for the event, as it could natively handle these large inputs without the need for additional external scaling.

> **David Barton,** Group Head of Video at Hawthorn



### Custom-made models

Can't find an off-the-shelf model that suits your needs? A built-to-order (BTO) processor allows you to specify your exact system requirements. BTO allows you to:

- Choose layer capacity and number of pips/keys
- Decide whether you will link or not
- Select your input/output mix



### HDMI 1.4 output card

- HDMI 1.4a (connectors 1&2 support high speed HDMI)
- Supports up to 4x 1200p@60 4:4:4, 2x 4K/UHD@30 4:4:4, or 1x 4K@60p/UHD 4:4:4 per card (dual cable)
- HDCP compliant
- Custom Area of Interest (AOI)
- SMPTE, VESA, CEA, and custom resolutions supported
- Supports automatic output configuration



### 3G SDI output card

- SD/HD/3G SDI Level A/B
- SMPTE 259M, 292M, 296M, 2048-2, 425-1
- Supports up to 4x 1080p@60 or 1x 4K@60p (4 quadrant or 2Si formats) per card
- Custom Area of Interest (AOI)



### Expansion link card

- Used for linking Event Master processors for expansion
- Uses CXP cable for connections
- Can be converted to MTP fiber optic cable to 100m
- More detailed info can be found on www.barco.com/mybarco



### DisplayPort 1.2 output card (Gen2)

- DisplayPort 1.1 and 1.2
- Supports 4x 1200p@60 4:4:4, 2x 4K/UHD@30 4:4:4, or 1x 4K@60p/UHD 4:4:4 per card (single cable)
- SMPTE, VESA, CEA, and custom resolutions supported
- Custom Area of interest (AOI)
- Supports automatic output configuration
- Output splitter mode
- Rotation and HDCP supported in a future software release



### Key features - standard configuration

The E2 is a ground-breaking 4K screen management system that offers video professionals unparalleled flexibility to manage the most awe-inspiring visuals. Excelling in image quality, I/O density, expandability and durability, it is the most comprehensive system of its kind.

If the standard configuration packages don't suit your requirements, the E2 and S3-4K can be ordered in custom input and output configurations using our built-to-order configurator.

Due to the modular nature of Event Master, inputs, outputs, layers and linking can all be customized to suit your event or installation requirements.

- Up to 32 inputs, 14 outputs<sup>1</sup>
- Dedicated Multiviewer
- Up to 12 program outputs or scaled AUX outputs
- 4K 60p 4:4:4 scaling
- Each I/O card supports 4K
- Up to 16 mixer or up to 32 single layers
- HDCP 1.4 compliant
- EDID 1.3 compliant
- Hardware controllers available
- Live native resolution background
   mixer per destination

- Front-to-back forced air cooling
- Dual redundant power supplies
- Field-installable cards
- Expansion via integrated link cards
- Easy-to-use GUI control
- Widescreen blending support
- Seamless AUX switching
- Roadworthy design
- Luma, chroma, and alpha keying
- Independent scaling mode per layer
- PNG logo import
- Link E2 and S3-4K
- Links with Ex

<sup>1</sup> Software currently allows for two E2s to be linked together for up to 64 inputs and 28 outputs

### **Typical applications**

Rental and staging • Touring • Broadcast studios • Simulation • High-end corporate venues • House of Worship





### Key features S3-4K

TheS3-4KisE2'smorecompactsidekick, but one that can hold its own in most situations. Unparallelled flexibility, excellent image quality, incredible I/O density and durability to create moments that last, all in a compact and road-worthy enclosure.

The S3-4K utilizes the same modular cards as the E2. In addition to being serviced in the field, this feature makes the S3-4K ready for future signal interfaces.

- 12 inputs
- Up to 8 PGM outputs or 8 scaled AUX outputs
- 2 Dedicated Multiviewer outputs
- Genlockable
- 4 mixable 2K PIPs
- Up to 4 mixing layers or up to 8 single layers
- HDCP 1.4 compliant
- EDID 1.3 compliant
- 4-projector blend from a single box
- Hardware controllers available

- Live native resolution background
   mixer per destination
- Front-to-back forced air cooling
- Dual redundant power supplies
- Field-installable cards
- Expansion via integrated link cards
- Easy-to-use, cross platform GUI control
- Widescreen blending support
- Seamless AUX switching
- Roadworthy design
- Links with other S3-4K, E2, and Ex

### **Typical applications**

Rental and staging • Touring • Broadcast studios • Simulation • High-end corporate venues • House of Worship • Mid-sized performance venues



## What E2 can do for you

As show producers can get really creative, you need to be ready to support the most challenging setups. E2's versatility enables you to meet the wildest creative requirements. Get inspired by these examples of display lay-outs supported by E2.

## Application 1

### 2 PGM outputs supporting

• 2 4K 4:4:4 @60Hz displays (also supports blending)

### 1 AUX output supporting

• 1 4K downstage monitor

#### **Dedicated Multiviewer**

• User configurable for inputs and outputs

## Application 2\*

### 8 PGM outputs supporting

- 1 center screen 4-projector blend
- 2 side single projector screens
- 1 on-stage confidence monitor
- 1 record output

### 4 AUX outputs supporting

- 1 record output
- 3 DSM monitors

### **Dedicated Multiviewer**

- User configurable for inputs and outputs
- \* Assuming each output is 1080p format

## E2 Jr application\*

#### 4 PGM outputs supporting

- 1 center screen 2-projector blend
- 2 side single projector screens

### 4 AUX outputs supporting

- 1 record output
- 3 downstage confidence monitors

#### **Dedicated Multiviewer**

- User configurable for inputs and outputs
- \* Assuming each output is 1080p format







## What S3-4K can do for you

Unbridled creativity and ultimate ease-of-use: that's what the S3-4K is all about. Thanks to its powerful features, E2's trusted sidekick can handle the most complex setups. The only limit is your imagination. Get inspired by these examples of display lay-outs supported by S3-4K.





## Application 1

### PGM output supporting

• 1 4K 4:4:4 @60 Hz display

### 1 AUX output supporting

• 1 4K downstage monitor

### **Dedicated Multiviewer**

• User configurable for inputs and outputs

## Application 2

### 4 PGM outputs supporting

• 2 center screens, each with a 2-projector blend

### 4 AUX outputs supporting

- 1 record output
- 1 confidence monitor
- 2 downstage monitors

### **Dedicated Multiviewer**

• User configurable for inputs and outputs

## S3-4K Jr application

### 2 PGM outputs supporting

• 2-projector blend with 4 HD pips

### 2 AUX outputs supporting

- 1 record output
- 1 downstage confidence monitor

### **Dedicated Multiviewer**

• User configurable for inputs and outputs

## **Expansion simplified**

With Event Master, expanding your system is as simple as connecting a few cables and an additional processor. If you only need a little, use a single link cable and the Ex expansion unit. If you need more, you can add an extra E2 with four link cables or an S3-4K with two cables. No additional routers or splitters are required.



### **Ex expansion unit**

The Event Master Ex processor provides more possibilities to expand the scaling and switching power of your Event Master system. The Ex extends I/Os for applications up to 100 meters away. By linking the Ex with other Event Master processors (E2 or S3-4K), you add input and output capacity. For standalone applications, two Ex processors can be linked to each other without another Event Master processor.

### **Flexible and simple**

Because the Ex shares its modular I/O cards and software with the other Event Master products, you can flexibly configure your systems and service your units in the field. This also makes your cabling and systems simpler – replacing up to eight fiber extenders between I/O devices and Event Master boxes.

## Expand your inputs and outputs

Two Ex processors with a total of two input cards and two output cards, can be connected to each E2/S3-4K link connection. This enables 8 inputs and 8 outputs per link connection. For the E2, this means up to 32 additional inputs and outputs; and for the S3-4K, this adds up to 16 inputs and outputs – all without adding a full-sized processing chassis.

#### Affordable scaler

As a stand-alone processor, the Event Master Ex is an affordable scaler with the same processing power as four ImagePROs. The system can be configured to provide a 4x4 scaling matrix of HD sources. And you can link two processors for up to an 8x8 scaling matrix.



## Linking examples



### Ex to E2

- Up to 8 Ex processors
- Adds up to 32 inputs and 32 outputs to the E2
- Inputs and outputs viewed in the main processors's MVR
- Ex processors can be up to 100 meters away from the E2 via fiber extensions.
- Outputs create additional scaled AUX outputs or follow a screen destination from main processor.



## Ex to S3-4K

- Up to 4 Ex processors
- Adds up to 16 inputs and 16 outputs to the S3-4K
- Inputs and outputs viewed in the main processor's MVR
- Ex processors can be up to 100 meters away from the S3-4K via fiber extensions.
- Outputs can either follow a screen destination in the main processor or create additional scaled AUX outputs.



### Ex to Ex

- Up to 2 Ex processors
- 8x8 HD, 4x4 4K@30p, 2x2 4K60p scaling matrix switcher
- Outputs are configured as AUXes.
- Uses same software and external commands as E2 and S3-4K
- Ex processors can be up to 100 meters away from the each other.

As early adopters of Encore and E2, we have enjoyed the high performance, scalability, and modularity of the Event Master technology platform.

#NoBarcoNoShow

Stephen Gray, Chief Operating Officer for Creative Technology

## Take control...

The Event Master screen management systems come with the Event Master Toolset, a cross-platform GUI-based user interface that provides touchscreen ergonomics and ease-of-use. The Event Master Toolset enables users to interface with E2 or S3-4K from a PC or Mac via an Ethernet connection. The program provides a step-by-step approach to configuring, programming presets, setting up the dedicated Multiviewer, and managing system functions.

## ...in 3 easy steps

The 3 key screens of the GUI include:

### **1. System configuration**

The System configuration screen is the first to appear when you launch the GUI software. Here you can add or remove devices to the selected systems and modify their parameters (inputs, backgrounds, outputs and destinations).



### 2. Programming screen

Use the Programming screen to bring the different elements together and build your show. Define sources for inputs, modify layer attributes like size and border, and create user keys and presets.



### 3. Multiviewer

In the Multiviewer screen, you can configure the dedicated Multiviewer, which enables multiple sources (inputs, backgrounds and destinations) to be displayed on one or two monitors. Up to 4 custom layouts can be created for the Multiviewer.



## **Event Master event controllers** Full control at your fingertips

An innovative take on the classic video controller, the Event Master event controllers give operators instant access to resources and great situational awareness for a wide range of shows, from a tradeshow booth, to a large corporate event, to a music tour. Running the same Event Master toolset as the Mac or PC, the EC-200 adds a syntax-based programmer that dramatically speeds up the ability to create large show layouts quickly and efficiently. For full-sized events, the EC-200 provides the operator with everything needed to program and execute the biggest shows possible. The small footprint of the EC-50 makes it a perfect fit for smaller events.

## EC-50 & EC-200 common features

- Finger-tip control of the Event Master video processors
- 36 user-programmable buttons with customizable LCD displays and multi-page selection
- High-resolution T-bar for manual transitions
- 8 dedicated layer selection buttons with multi-page selection and dedicated BG layer button
- 12 user-definable destination buttons with multi-page selection
- Internal 15.6 inch touchscreen display (full HD)

### EC-200 features

- Advanced control of the Event Master video processors with live source selection on program
- An additional 15.6 inch wide-screen touchscreen (full HD)
- Dedicated programming section with new syntax-based commands
- Stand-alone controller featuring a custom operating environment and built-in processing
- Backlit trackball with rotary encoder for the third axis, 4 configurable buttons for cursor and position control, and rotary encoder wheels for common layer adjustments (position, size etc.)



1

#### Order numbers:

	R90046
	R90047

<ul> <li>DVI input card</li> </ul>
<ul> <li>SDI input card</li> </ul>
<ul> <li>HDMI-DP input card</li> </ul>
<ul> <li>SDI output card</li> </ul>
• UDMI output card

K9004/
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R90047

layPort 1.2 output card

card

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