



EAGLE 300

Multi-Layer Seamless Switcher



FSR

Video Products Group

EAGLE 300

PRELIMINARY

FEATURES

Athena Proprietary High-Performance Scaling Engine

- Low Video Delay - Less than 3 Input Fields
- 10-bit Processing
- 1:1 Pixel Sampling
- Motion Adaptive De-interlacing (SD & HD)
- 3:2 and 2:2 Pull Down Detect

Supports up to 6 Independent effects layers

- Complete Look-ahead Preview
- On-Screen Display (Preview monitor) of Layer Information
- Full Z-order Control
- Cut, Dissolve and Wipe Transitions

Picture in Picture (PiP)

- User defined Size and Placement
- True Crop
- Aspect Ratio Correction

User Adjustable Border Attributes

- Style and Color
- Softness
- Drop Shadow Size, Placement and Opacity

Animation

- Position & Sizing controlled via Key Frames
- PIP Clone (Mirror and Offset)

Key

- 10 bit Luminance Key
- Split Key (Key Alpha and Fill)
- Reverse Key (Key on Background)
- Color Key (Graphics)
- Alpha Mixing

Native Resolution Down Stream Key

- Independent of PiP and Key Processing Channels

Edge Blending

- 10 bit Processing
- Variable Overlap Region
- Support for Pre-Overlapped and Standard Backgrounds
- Edge Feathering for True Seamless Appearance

Output Synchronization

- Free-Run or Vertically Locked to NTSC/PAL Black burst

DESCRIPTION

The Eagle 300 is a multi-layer seamless switcher intended for live event applications. FSR has accumulated 8 years of experience with seamless switchers and the Eagle 300 is the result of that experience and our commitment to answer our customer's needs.

The Eagle 300 is based on a modular concept allowing the system to be matched to the customer's application while maintaining an affordable upgrade path. The three primary components are the System Controller, Video Processor and a Matrix Switch. Each Video Processor can be populated with up to 3 Mix / Effects cards allowing up to 6 layers of Picture-in-Picture and Key effects with a native resolution background and a down stream key on screen at any one time.

Up to 6 Video Processors can be used with a single controller for multi-screen applications as well as ultra-wide screen edge blended displays.

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LIT1076

THE VIDEO PROCESSOR

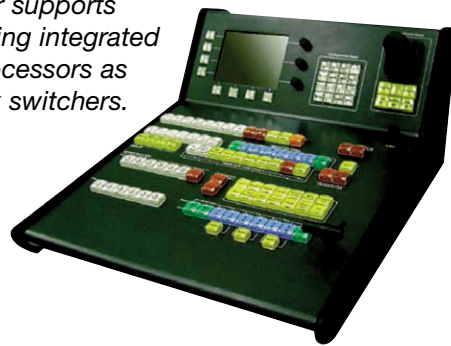
The Eagle 300 Video Processor is packaged as a 3RU rack-mount unit and is sold with one, two or three Mixer/Effect (M/E) boards to meet different application requirements. Models ordered with one or two M/E boards can be easily upgraded with additional M/E boards (up to a total of 3).

Each M/E board accommodates 2 HD/ SD SDI Inputs, 2 universal analog inputs and 2 DVI-D native resolution inputs. The SDI and analog inputs are sent to the 2 Athena scalar channels for use as PiP's or Key's. The DVI-D inputs can be used as native resolution backgrounds or as a background and a down stream key.

On the Output side, the Eagle 300 has a full look ahead preview output, and 2 program outputs (mirrored). This allows a local program output and a main display feed without the need for an external distribution amplifier. An optional HD SDI output is available and must be ordered with the initial purchase.

THE CONTROLLER

The controller supports events by giving integrated control of processors as well as matrix switchers.



THE MATRIX

One or more matrix switchers can be used with the Eagle 300 simultaneously. This allows task specific matrix units (units with genlock), signal specific units (SDI or DVI) to be mixed with general purpose RGBHV units in a seamless manner that is invisible to the operator.

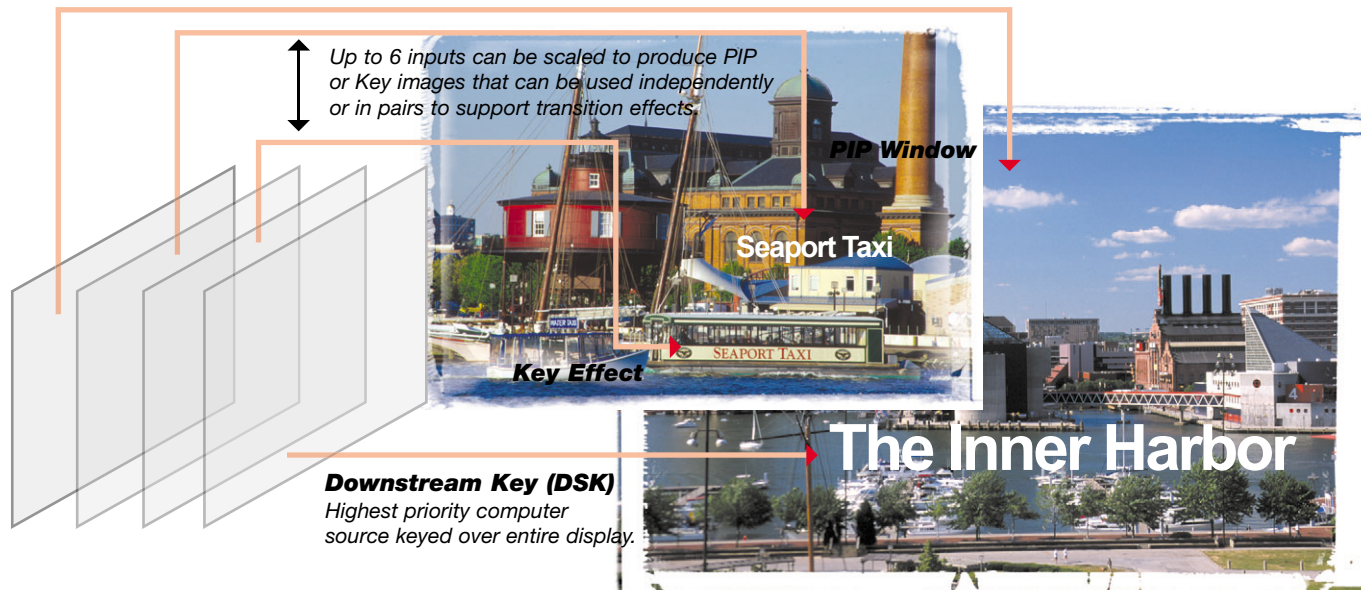
CAPABILITIES OVERVIEW

HOW LAYERS WORK

Within the EAGLE system, a Layer is defined to be an image display element, such as a Background, PIP (Picture-in-Picture) Image or Key Image.

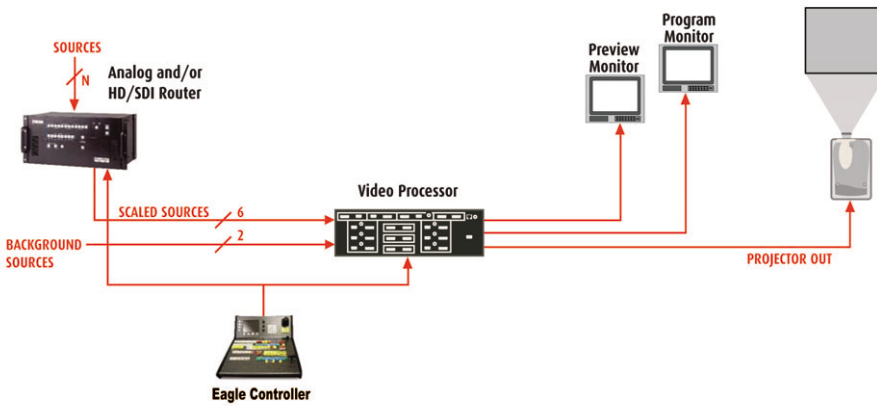
A typical application is illustrated below.

Transitioning Background Layer
(computer sources at native projector resolution)

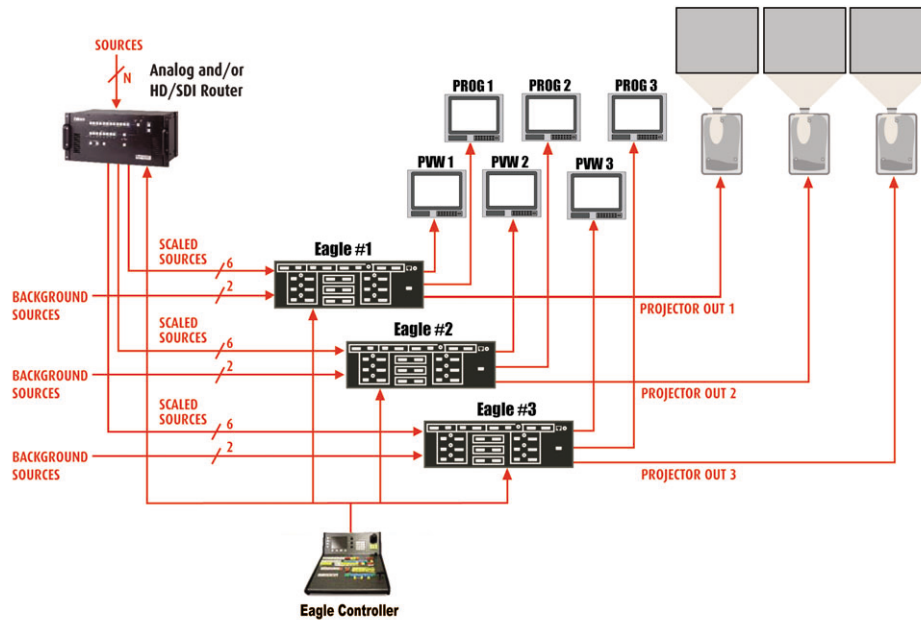


EAGLE CONFIGURATIONS

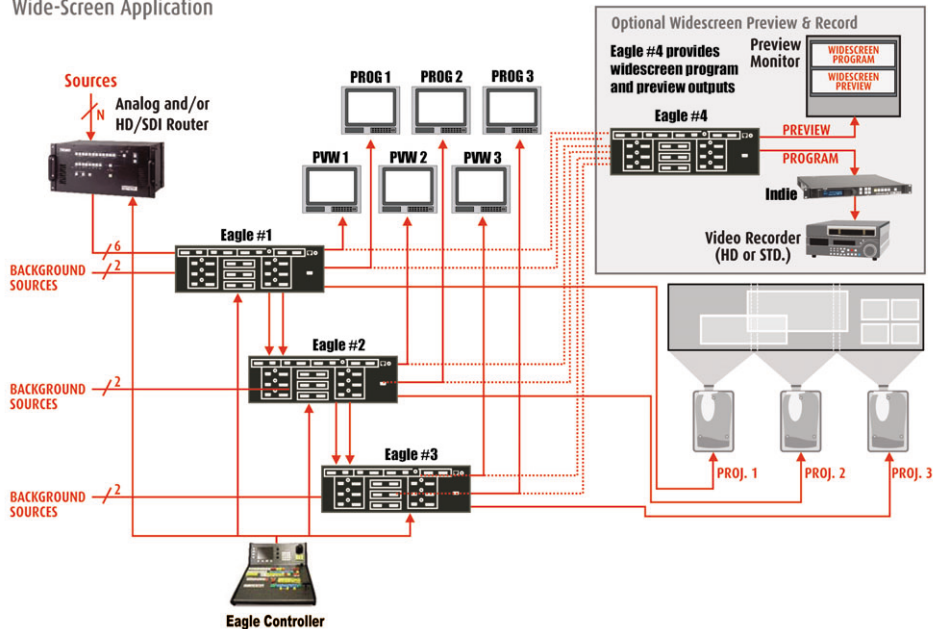
Single Screen Application



3 Screen Application



Wide-Screen Application



SPECIFICATIONS

INPUTS (per M/E Card)

Analog Inputs

Number and Connector:	2 x HD-15
Formats Supported:	Composite, S-Video, Component, RGBHV
Video Resolutions:	480i to 1080p
Video Standards:	NTSC, PAL, Secam
Computer Resolutions:	640x480 to 1600x1200 + Plasma Resolutions

Digital Inputs

Number and Connector:	2 x BNC
Formats Supported:	SD and HD SDI
Resolutions:	SMPTE 259M-C
Video Standards:	NTSC, PAK

Native Resolution Inputs

Number and Connector:	2 x DVI-I
Computer Resolutions:	800x600 to 1600x1200 + Plasma Resolutions
HD Resolutions:	720p, 1080p
Digital Cinema Resolution:	2048 x 1080p

Frame Lock

Number and Connector:	1 x BNC
Type:	Black Burst
Video Standards:	NTSC, PAL

Outputs (per Eagle Video Processor)

Preview Output

Number and Connector:	1 x HD-15 1 x DVI-I
Formats Supported:	RGB, Component
Video Resolutions:	720p, 1080i, 1080p
Computer Resolutions:	640x480 to 1600x1200 + Plasma Resolutions
Digital Cinema Resolution:	2048x1080p

Program Output # 1

Number and Connector:	1 x HD-15 1 x DVI-I
Formats Supported:	RGB, Component
Video Resolutions:	720p, 1080i, 1080p
Computer Resolutions:	640x480 to 1600x1200 + Plasma Resolutions
Digital Cinema Resolution:	2048x1080p
Optional HDSDI	

Program Output # 2

Connector:	1 x BNC
Resolutions:	SMPTE 259M-C and 292M
Number and Connector:	1 x HD-15 1 x DVI-I
Formats Supported:	RGB, Component
Video Resolutions:	720p, 1080i, 1080p
Computer Resolutions:	640x480 to 1600x1200 + Plasma Resolutions
Digital Cinema Resolution:	2048x1080p
Optional HDSDI	
Connector:	1 x BNC
Resolutions:	SMPTE 259M-C and 292M

Mechanical

Size:	3 RU
Weight:	??
Mounting	Integrated Rack Ears

Power

Voltage:	120/240, 50/60Hz Auto-select
Current:	1 Amp Max

Specifications are subject to change without notice.

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