ScreenPRO-II™

High-Resolution Seamless Switcher

The ScreenPRO II Seamless Switcher is a multi-layer video display system that combines seamless switching with a variety of flexible video effects to provide a versatile video production tool for live event staging and fixed installation applications.

ScreenPRO II uses four image layers (Unscaled Background, up to two scaled PIPs or Keys, and an unscaled Downstream Key) to produce sophisticated effects, including transitioning backgrounds, transitioning PIPs, wipes, dissolves and keys.

Folsom

BARCO

Visibly yours

System Overview

The ScreenPRO II Seamless Switcher is a multi-layer video display system that combines seamless switching with a variety of flexible video effects to provide a versatile video production tool for live event staging and fixed installation applications. Two inputs are scaled and mixed to provide mixing within a PIP (Picture-in-Picture) or, alternately, two independent PIPs or Keys displayed on a Background. In addition, two unscaled high-resolution input channels provide seamlessly transitioning backgrounds, or alternately, a high resolution background and high resolution Downstream Key (DSK). An internal 8X2 analog video router provides universal analog sources to each scaler channel. In addition, two optional SD/HD SDI inputs are available for the scaled channels.

ScreenPRO II supports input and output resolutions up to 1920 x 1200. High quality motion adaptive de-interlacing is performed on Standard Definition and High Definition video sources. ScreenPRO II features a low video processing delay of three input fields maximum.

ScreenPRO II is packaged as a 3RU rack-mount unit.

Features

- Transitioning PIP or KEY on a transitioning Background
- Native High Resolution Background channels independent of the PIP/KEY processing channels
- PIP Effects
  - PIP size from 0 to 8X source resolution
  - Adjustable PIP Aspect Ratio
  - PIP Borders, including Drop Shadows and Soft Edge
  - Video color and strobe effects
  - PIP windows can move on screen (pre-programmed keyframes and linear moves)
- Keying
  - Luminance Key
  - Split Key (Key Alpha and Fill)
- Video Processing
  - 10-bit Processing
  - 1:1 Pixel Sampling
  - Motion Adaptive De-interlacing (SD & HD)
  - 3:2 and 2:2 Pull Down Detect
  - Image Cropping
  - Aspect Ratio Correction
- Native High Resolution Down Stream Key channel independent of PIP/KEY processing channels
- Numerous Mix and Wipe effects
- Low Video Delay – Less than 3 Input Fields
- Programmable Matte Background
- Z-order Control (Priority layers) for overlapping PIPs or KEYs
- Mixer dynamically re-assignable as a mixing (transitioning) PIP or as two individual (SPLIT) non-transitioning PIPs or Keys
- Capture and Storage of two images for use as full-screen LOGO, background image or Down Stream Key source
- Look-ahead Preview
- Output Synchronization: Free-Run or Vertically Locked to NTSC/PAL Blackburst, CSync or HD tri-level sync
- Easy initial setup from factory preset

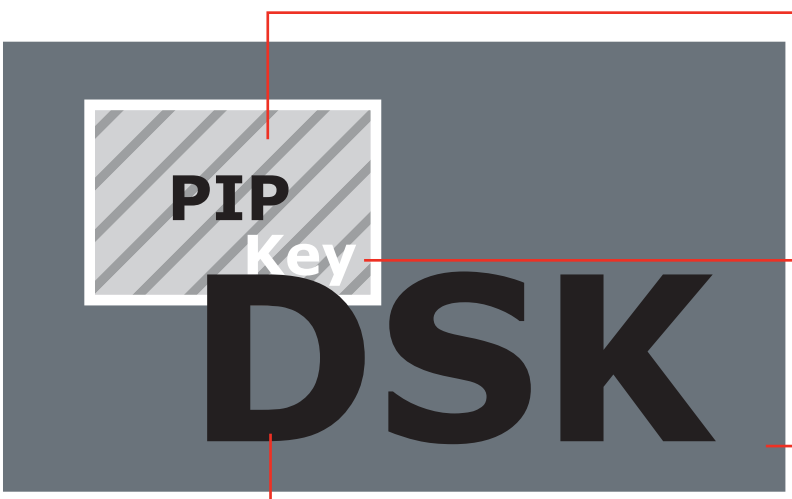
Multiple screen user interface (optional)

Event control is available using multiple ScreenPRO-II High Resolution Seamless Switchers and the Encore SC/LC Controller. All ScreenPRO functions (including system set-up) are supported via the Encore SC/LC. The multi-screen controller is equipped with easy to use menus, t-bar transition control and joystick for intuitive adjustments.
Set-up and operation is a breeze.

The Encore System Controller SC

Creating effects with ScreenPRO-II

Four image layers are possible with the ScreenPRO II: Unscaled Background, up to two scaled PIPs or Keys, and an unscaled Downstream Key. In addition to live sources, a stored LOGO image can be used as a full-screen Background source or Downstream Key source. Image layers are defined as follows:



PIP Effects
- Numerous Mix and Wipe effects
- Smooth Moves/Resizing
- Adjustable Aspect Ratio
- Borders, Drop Shadows and Soft Edge

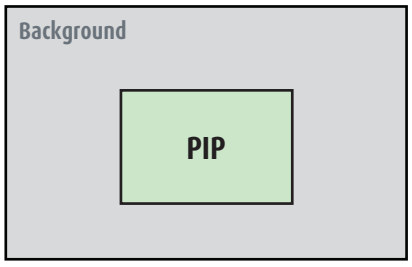
Keying
- Luminance Key
- Split Key (Key Alpha and Fill)
- Color Key (Graphics)

Background
- Native resolution transitioning background

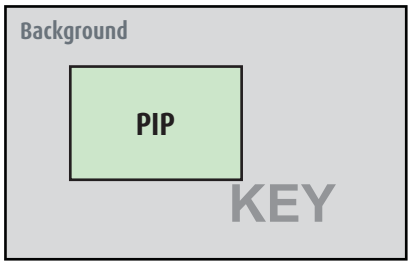
DSK
- Native Resolution Downstream Key

Effects

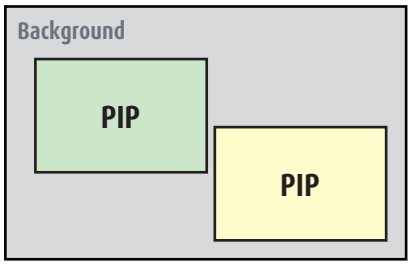
-Transitioning Background (unscaled)
-Transitioning PIP (scaled)



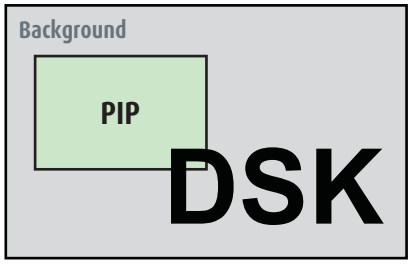
-Transitioning Background (unscaled)
-1 Scaled PIP with scaled Key



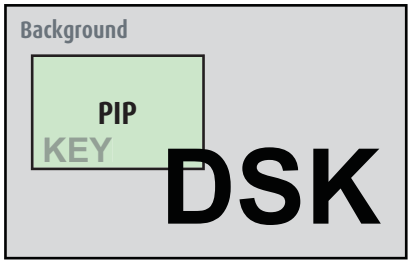
-Transitioning Background (unscaled)
-2 Scaled PIPs



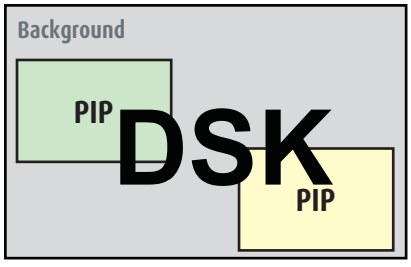
-Non-Transitioning Background (unscaled)
-1 Transitioning PIP (scaled)
-Downstream Key (unscaled)



-Non-Transitioning Background (unscaled)
-1 Scaled PIP with scaled Key
-Downstream Key (unscaled)



-Non-Transitioning Background (unscaled)
-2 Scaled PIPs
-Downstream Key (unscaled)



ScreenPRO-II Specifications

INPUTS	
Input Types	·Analog Inputs (8 ea) - RGBHV/RGBS/RGsB computer video, YPbPr video (SD or HD), S-video, or Composite video on 15-pin HD connectors ·SD and HDSDI Input (2 each) – per SMPTE 259M-C (NTSC/PAL resolution) SMPTE 292M (HDTV) on BNC connector (optional)
Input Resolutions	·NTSC/PAL ·Computer Resolutions VGA (640 x 480) through UXGA (1600 x 1200) ·HDTV Resolutions up to 1920 x 1080 (720p, 1080I, 1080p) ·2048 x 1080p (Digital Cinema format)
Frame Lock Input	NTSC/PAL black burst reference on BNC Connector
UNSCALED BACKGROUND/DSK CHANNEL INPUT	
Un-Scaled Background/DSK Channel Inputs (2 each)	DVI Input: Digital DVI per DDWG 1.0 on DVI-I connector
Background/DSK Input Resolutions:	·Computer Resolutions VGA (640x480) through UXGA (1600 x 1200) ·HDTV Resolutions, progressive up to 1920 x 1080(1080p) ·2048 x 1080p (Digital Cinema format) ·Plasma Display Resolutions
OUTPUTS	
Analog Outputs	RGBHV/RGBS/RGsB (non-interlaced) on 15-pin HD connectors (Preview and two Program monitor/projector Outputs)
Digital Output	Digital DVI per DDWG 1.0 on DVI-I connector (one Program Output)
Output Resolutions:	·Computer Resolutions VGA (640x480) through UXGA (1600 x 1200) ·HDTV Resolutions, progressive up to 1920 x 1080(1080p) ·2048 x 1080p (Digital Cinema format) ·Plasma Display Resolutions
USER CONTROL	
Front Panel Control	Intuitive Front Panel User Interface incorporating lighted push buttons and LCD touchscreen. Most control functions common with the Encore Presentation System.
Remote Control	The unit may be controlled from a computer or external controller via LAN or an RS-232 serial link. Control functions include: ·Source Input Configuration ·Output Format Selection ·Test Pattern Selection ·Video Source Selection for PIPs or Keys ·Transition Effect Selection and Control ·Video Effect Selection (PIP size/position, Keying, Borders, etc)
Mechanical	3 RU Rackmount Chassis
Power	100-240 VAC - 50/60 Hz., Autoselecting 1.0A maximum

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