

# EDIUS SP Series

## Outstanding Real-Time Editing System for Analog, DV, and HDV



The Grass Valley™ EDIUS® SP Series system supports the real-time editing of all popular standard-definition (SD) and high-definition (HD) formats, including Canopus® HQ, Canopus Lossless, DV, DVCAM, HDV, MPEG-2, and uncompressed video.

### Outstanding Real-Time Editing for Analog, DV and HDV

The EDIUS SP Series solution is a software/hardware system that is the most advanced professional nonlinear editing system in its class, one that seamlessly integrates into existing studio environments.

On the software side, the system uses EDIUS nonlinear editing software to deliver true real-time editing and full-

quality, full-resolution output of HD and SD materials—as well as multi-track, mixed-format editing, compositing, chroma keying, titling, and timeline output capabilities. In addition to the standard formats of the EDIUS family, the software supports Infinity™ JPEG 2000, P2, DVCPRO HD, AVC-Intra, VariCam, XDCAM, and GFCAM video. It also supports all DV and HDV cameras and decks.

On the hardware side, the EDIUS SP Series system features hardware-based video overlay and high-quality video I/O circuitry. It interfaces with professional and consumer video equipment including HDV, DV, and all analog cameras and decks. And it supports professional video equipment

with component video and XLR balanced audio I/O, as well as frame-accurate RS-422 VTR control and external reference sync input connections. A 19-inch 1 RU breakout box is also available as an option (sold separately).

### Ready For HD When You Are

With EDIUS nonlinear editing software, you can move from SD to HD whenever you're ready. It can edit DV content in HD resolutions, providing automatic, real-time upscale conversion from SD to HD—and apply all project titles, graphics, and effects in HD resolution. Ensuring a painless transition to the world of HD, you can work in and output HDV content to hard disks or DVD-R drives without the need for an HDV camera or deck.

## KEY FEATURES

- Real-time, mixed-format editing of analog, DV, HDV, and SD-SDI input/output for connectivity with a broad range of devices, and real-time monitoring from the EDIUS editing software (included)
- Real-time SD/HD resolution, aspect ratio, and frame-rate conversion and output, including 16:9 to 4:3 and NTSC to PAL
- Real-time HD/SD effects, keyers, transitions, and titles
- High-quality proprietary software codecs, including award-winning Canopus HQ software codec
- Extensive analog and digital video equipment inputs/outputs, including RS-422 control and external reference sync input
- Hardware-based line scaling for pristine HD video output
- Real-time, full-resolution, full-quality component HD and SD video output
- Filtering and noise-reduction technology for analog input
- High-speed HDV timeline export, built for multi-core and multi-CPU technology
- Supports newer file-based formats, including Infinity JPEG 2000, XDCAM and XDCAM EX, P2 (DVCPRO and AVC-Intra), and GFCAM
- Bi-directional analog/DV conversion from any Windows NLE
- Compatible with Windows XP and Windows Vista operating systems

## PRODUCT DATA SHEET

### Player/Recorder Monitor View

Player side controls capture and source trimming. Recorder side controls timeline operation and trimming.



### Jog/Shuttle Control

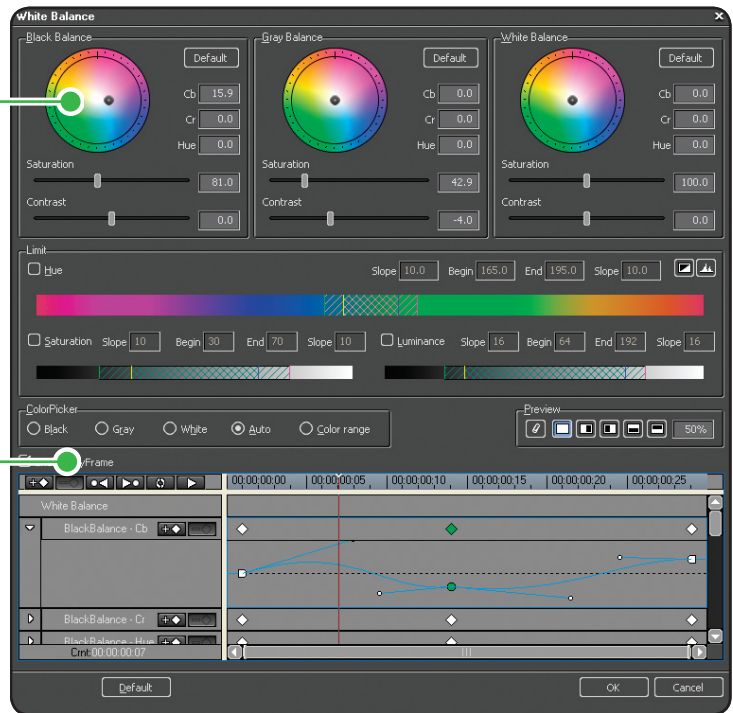
Jog/shuttle control via slider, mouse scroll-wheel, or mouse motion.

### Unlimited Video, Audio, and Title Tracks

Edit with unlimited video, audio, and title tracks.

### Real-Time Color Correction

Use real-time color correction with an interactive split-screen display and secondary controls. Stack multiple filters for even greater control.



### Keyframeable Color Correction

Color correction filters are keyframeable for precise, subtle changes over time.

### Unsurpassed Image Quality and Performance

EDIUS software features the revolutionary Canopus HQ codec. Designed with scalable technology, this innovative codec offers the highest image quality and performance available in any HD editing platform. The Canopus HQ codec not only provides superior luma and chroma sampling of HD video, but features an adjustable bit rate for increased video quality when capturing and encoding on high-performance systems.

### Flexible Bin Structure

Organize, search, and manage assets with folders and dynamic search results.

### Real-Time Audio Mixer and Waveform/Vectorscope

Use the real-time audio mixer for audio adjustments and the real-time waveform/vectorscope to ensure legal output.



### GPU-Accelerated 3D Transitions

Harness the power of your graphics card to create real-time, stunning quality transition effects in SD and HD, featuring uniquely native YUV 4:2:2 processing for improved image quality and performance. Using the GPU as an additional, parallel source of computation means that the CPU does not become a bottleneck.

### Tapeless Workflow Support

Support for tapeless workflows with metadata preservation for modern file-based production.

### Superior Integration for Tapeless Workflows

EDIUS software provides excellent support for today's tapeless digital workflows including those that use Grass Valley K2 media server/media client systems, as well as Panasonic P2 and VariCam, Sony XDCAM, Ikegami GigaFlash, and popular direct-to-edit (DTE) devices. It doesn't matter whether assets come from tape, disk, network, or a mixture of them all, with EDIUS software, you spend less time worrying—and less time editing, too.





PCI-e Version (showing main board and HD component output board in a stacked orientation)

PCI-X Version (showing main board and HD component output board in a side-by-side orientation)

## PACKAGE CONTENTS

### PCI-X Version:

- EDIUS SP (SHX-E1) PCI-X bus card
- HD/SD component output PCI bus card
- 1 x FireWire (IEEE 1394) cable (4-pin to 4-pin)
- 1 x multi-I/O cable
- 1 x 6-pin connector cable for HD component card
- 1 x 4-pin internal video connector cable
- 1 x 4-pin internal audio connector cable
- EDIUS installation (DVD-ROM)
- EDIUS bonus disk (DVD-ROM)
- TitleMotion Pro installation disk (CD-ROM)
- USB security dongle
- EDIUS QuickStart guide
- EDIUS hardware setting guide

### PCI-e Version:

- EDIUS SP (SHX-E2) PCI Express x1 bus card
- HD/SD component output PCI bus card
- SDI I/O bracket and cables (SP-SDI version only)
- 1 x FireWire (IEEE 1394) cable (4-pin to 4-pin)
- 1 x multi-I/O cable
- 1 x 6-pin connector cable for HD component card
- 1 x 4-pin internal video connector cable
- 1 x 4-pin internal audio connector cable
- EDIUS installation (DVD-ROM)
- EDIUS bonus disk (DVD-ROM)
- TitleMotion Pro installation disk (CD-ROM)
- USB security dongle
- EDIUS QuickStart guide
- EDIUS hardware setting guide

## SPECIFICATIONS

### Video Capture Formats

- Canopus DV: 720x480/59.94i (NTSC), 720x576/50i (PAL)
- YUY2 (uncompressed): 720x486/59.94i (NTSC), 720x576/50i (PAL)
- Canopus Lossless: 720x486/59.94i (NTSC), 720x576/50i (PAL)
- HDV/Canopus HQ: 1080/59.94i, 1080/50i, 1080/30p, 1080/25p, 1080/24p, 720/30p, 720/25p, 720/24p, 720x480/60p, 720x576/25p, 720x576/50p
- Canopus HD: 1280x1080/59.94i, 1280x1080/60i, 1280x1080/50i, 1280x720/59.94p, 1280x720/50p

### Video Output Formats

- DV/DVCAM: 720x480/59.94i (NTSC), 720x576/50i (PAL)
- HDV: 1080/59.94i, 1080/50i, 1080/30p, 1080/25p, 1080/24p, 720/30p, 720/25p, 720/24p, 720x480/60p, 720x576/25p, 720x576/50p

- S-Video, composite: 720x480/59.94i (NTSC), 720x576/50i (PAL)
- BNC component: 1080/59.94i (NTSC), 1080/50i (PAL), 720x480/59.94i (NTSC), 720x576/50i (PAL)

### Digital Video I/O

- 1 x 4-pin FireWire (IEEE 1394)
- 1 x SDI (BNC) input (SP-SDI only)
- 2 x SDI (BNC) output (SP-SDI only)

### Analog Video Input

- 1 x component (BNC Y, Pb, Pr)
- 1 x S-Video (4-pin miniDIN)
- 1 x composite (BNC)
- 1 x ref input (BNC)

### Analog Video Output

- 2 x component (BNC Y, Pb, Pr)
- 1 x S-Video (4-pin miniDIN)
- 1 x composite (BNC)

### Analog Audio Input

- 2 x XLR-3-31 female (1-gnd 2-hot 3-cold, balanced)
- 1 x stereo (RCA, unbalanced)

### Analog Audio Output

- 2 x XLR-3-32 male (1-gnd 2-hot 3-cold, balanced)
- 2 x stereo (RCA) (unbalanced)

### Device Control

- 9-pin D-sub RS-422A
- FireWire (IEEE 1394)

### Options

19-inch 1 RU breakout box

### Minimum System Requirements

- EDIUS SP-SDI is capable of editing SD and HD content in real time. However, the system requirements for real-time HD editing are significantly higher than for SD editing. The PC components listed here assume a real-time HD editor requirement.
- Dual Intel Xeon 2.8 GHz processors or faster
  - 1 GB RAM
  - 800 MB free disk space
  - DVD-ROM drive for software installation
  - ATA100/7200 RPM or faster hard disk, capable of sustaining at least 20 MB/s data transfer. A RAID stripe set of two or more hard disk drives is required for multiple HD stream output

- Graphics card with at least 128 MB of video RAM and hardware-based DirectDraw overlay and 32-bit color display at a 1024x768 resolution
- Windows XP Home or Windows XP Professional (Service Pack 2 or later)
- DirectX 9.0 or later
- One free USB (1.1 or higher) port for security key
- Sound card

### PCI-X Version:

- One free PCI 64-bit/66 MHz slot (rev. 2.2)\*
- One free PCI 64-bit or 32-bit/66 MHz slot (rev. 2.2)

### PCI-e Version:

- One free PCIe x1 slot
- One free PCI 64-bit or 32-bit/66 MHz slot (rev. 2.2)

\* The EDIUS SP-SDI baseboard can also be used in a 32-bit PCI slot for editing in SD resolution; however, in this configuration, HD hardware acceleration and HD component output will be disabled.

## DEALERS/RESELLERS

To find your local reseller or dealer for Grass Valley professional audio video products, please visit [professional.grassvalley.com/sales/](http://professional.grassvalley.com/sales/).

## SERVICE & SUPPORT

1-year (hardware) and 90-day (software) limited warranties with service provided through local resellers. Additional support available on a contractual basis.