EDIUS HD
Online Broadcast HD Editing Solution

Designing the Best HD-NLE System

Canopus set out to design the best HD editing system. The system had to be of the highest quality, yet affordable – a fraction of the cost of current high-end HD editing systems. It needed to provide realtime, multiplayer HD editing and effects processing with the scalable functionality for which Canopus is renowned. As current video content is still largely SD, support for editing both SD and HD simultaneously was essential.

EDIUS HD has been completely developed internally by Canopus & is comprised of three key components; EDIUS Pro application software, built with Canopus Scalable Technology for realtime HD / SD processing, high-quality software codecs, which include lossless, SD uncompressed, Canopus HD, Canopus HQ & the HDRX-E1 input / output hardware card.

Key Hardware Benefits

- Seamless realtime HD / SD mixed editing and integration with EDIUS Pro 3 software
- High-quality Canopus software codecs: lossless, SD uncompressed, Canopus HD (DVCPRO HD, SMPTE compliant), Canopus HQ, DVCPRO 50, HDV, DV25, MPEG-2/MPEG-1
- Canopus HDRX-E1 - HD-SDI / SDI input and output board
- SDI connectivity to all broadcast HD / SD VTRs
- Frame-accurate RS-422 VTR control and external reference sync input
- SDI embedded audio and embedded TC support
- Delivered within robust, high-performance turnkey workstation configurations
- Optional breakout box with extensive input / output
- Optional VTR emulation and video I/O modules for XDCAM, P2 and VARICAM
- Scalable, future-proof hardware and video codec design for unrestricted realtime capabilities and long product life

Canopus HD Software Codec

At the heart of EDIUS HD is Canopus 's proprietary HD software codec. Developed through years of experience in video editing technology, the Canopus HD software codec provides high-quality, realtime compression, realtime processing, filtering and decoding of multiple HD streams. The Canopus HD software codec is native DVCPRO HD (SMPTE 370M) compliant and supports HD signal recording and playback from the hard disk to HD-D5, HDCAM or DVCPRO HD VTRs.

Canopus HQ Software Codec

EDIUS HD also features the revolutionary Canopus HQ codec. Built with Canopus Scalable Technology, this completely new codec offers the highest image quality and performance available today in any HD editing platform. The Canopus HQ codec not only provides superior Luma and Chroma sampling of HD video, but also features an adjustable bitrate, for increased video quality when capturing and encoding on high-performance systems.

Realtime HD-SDI Output Module for MPEG Capture

The Realtime HD-SDI Output Module for MPEG Capture option takes the guesswork out of integrating 1080i HDV content into an HD-SDI workflow by adding realtime HDV to HD-SDI conversion capability to EDIUS HD.

Dub directly from 1080i HDV camcorders and decks to HDCAM, DVCPRO-HD and other HD-SDI equipment with embedded audio and the original HDV timecode. Copying footage in realtime removes time-consuming two-stage capture-then-output processes and preserves quality through a completely digital signal path, ensuring the best quality transfer.

Canopus HD Codec	Canopus HQ Codec
Video Standard	
NTSC (1080/60i) PAL (1080/50i)	NTSC (1080/60i) NTSC (720/60p) PAL (1080/50i)
Luma Sampling (pixels)	
1280 x 1080	1440 x 1080
Chroma Sampling (pixels)	
640 x 1080	720 x 1080
Bitrate	
100Mbps	Variable Bitrate

Realtime Productivity with EDIUS Pro 3

Powering EDIUS HD is Canopus EDIUS Pro, nonlinear editing software. EDIUS Pro software frees video editors from the limitations of conventional editing systems by providing a seamless realtime workflow supporting all video acquisition formats, with realtime, multi-track, mixed format HD / SD editing, compositing, chroma keying, titling and timeline output capabilities.

Canopus HDRX-E1 - HD-SDI / SDI Input and Output Board

EDIUS HD features a new proprietary hardware baseboard and input / output daughterboard. The HDRX-E1 includes an RS-422 connector to provide accurate VTR control, a HD-SDI / SDI input connector, two HD-SDI / SDI output connectors, and two reference input connectors for HD and SD video.

EDIUS Multi-I/O Processing Unit for HD / SD

Available as an option for both EDIUS SD and EDIUS HD solutions, is the HDBX1000 Multi-format Digital Interface Unit. HDBX1000 is a professional, high-quality, three-unit rackmount device, featuring every conceivable connection a broadcast studio may require. The HDBX1000 unit and included proprietary control card are common to both EDIUS SD and EDIUS HD, with the latter featuring an additional internal HD module to facilitate HD I/O and provide realtime up/down-res conversion of SD and HD footage respectively.

HDBX1000 Input / Output

Digital I/O

- SD-SDI
- HD-SDI
- SDI Embedded Audio
- AES/EBU Eight Channel
- RS-422A I/O
- SD Ref In (Black Burst)
- HD Ref In (Tri-level Sync)
- Sync Generator SD / HD
- Embedded TC
- LTC In/Out
- HD Locked BB

Analog I/O

- Composite
- S-Video
- RCA Two Channel (Monitor Out)
- Balanced Audio Four Channel
- Analog Component Out (BNC and D-connector)
- HD Component Out for HDV & HD
- RS-422A I/O

EDIUS HD / EDIUS SD Options

HDSC-1 - HD-SDI / SDI to Analog Video Converter

Display HD and SD output from an editing system to plasma TVs, analog video monitors or computer displays - HDSC-1 is an ideal addition to EDIUS HD and EDIUS SD editing systems. HDSC-1 provides SDI output to component, RGB, S-Video and composite displays, and HD-SDI output to HD component televisions and CRT displays, such as PC monitors, that feature RGB BNC input. HDSC-1 also supports conversion of embedded audio to unbalanced audio.

Optional Software Modules for EDIUS HD

EDIUS HD systems can now be further customized to incorporate support for new and emerging video equipment and formats, including Sony XDCAM and Panasonics P2 and VARICAM. Also available is a VTR emulation module, to allow an EDIUS HD system to function as an ingest source for playout servers.

Hardware MPEG Encoding Options

EDIUS HD and EDIUS SD both support Canopus 's MVRD2200 and MPEGPRO MVR MPEG encoding solutions. These cards provide fast, high-quality, hardware-based encoding of MPEG-1 and MPEG-2 directly from the EDIUS Pro HD timeline.

Techincial Specifiications

Video Format

Data Compression

- HD: Canopus HD codec (1/7 compression, SMPTE-370M compliant), Canopus HQ codec
- SD: Uncompressed YUV
- DV: Canopus DV codec (1/5 compression)

Supported Formats

- HD: 1920x1080/59.94i, 1920x1080/60i*, 1920x1080/50i 1280x720/59.94p*, 1280x720/50p*
- SD: 720x486 NTSC, 720x576 PAL (ITU-R601)

*Format to be supported in future software updates

Input/Output Signal Format

- HD: HD-SDI 10-bit (SMPTE 252M compliant)
- SD: SDI 10-bit (SMPTE 259M-C compliant)
- DV: IEEE 1394a

Internal Signal Processing

- 4:2:2 10-bit input
- 4:2:2 8-bit internal

Audio Format

- Embedded Audio - SMPTE299M/272M-A compliant

HDRX-E1

Input/Output Connectors

- 1 x BNC HD-SDI/SDI input
- 2 x BNC HD-SDI/SDI output
- 1 x BNC HD REF input (Tri-level Sync)
- 1 x BNC SD REF input (Black Burst)

Device Control

- 9-pin D-sub RS-422

Canopus Authorised Distribution Partner:

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