

Lightspeed Live Capture C3

Product Sheet



Lightspeed Live Capture 4/8-Channel Video Capture and Processing

Telestream® Lightspeed® Live Capture C3 server offers up to 8 HD or 2 UHD/4K channels for Live encoding. Live Capture C3 server is part of Telestream's portfolio of professional enterprise-class Live video products. The Lightspeed Live server family offers a unique set of Live solutions for capture or streaming.

Lightspeed Live Capture C3 can operate as a standalone capture device, a multiple server capture farm or be seamlessly added to a Vantage domain of any size.

Overview

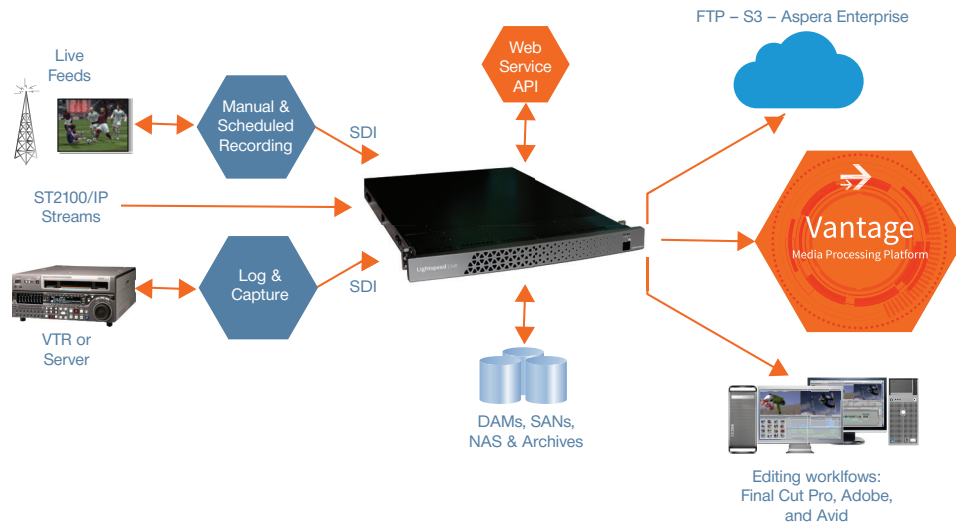
Lightspeed Live Capture C3 is a flexible and scalable video capture solution supporting 4 x 3G HD-SDI inputs with active loop through for monitoring, or 1 x UHD/4K with active loop through for monitoring. The Lightspeed Live Capture C3 is capable of > 4 HD outputs of select formats and codecs and up to 2 x UHD/4K formats of select formats and codecs. The C3 platform also supports IP sources such as RTMP, Transport streams and ST2110 (optional). Live Capture ingests into multiple video formats, creating high-resolution mezzanine concurrent H.264/AVC proxy files, and storing them to a large local media RAID or to external shared storage such as a NAS or SAN.

Standalone, Capture farm or integrated into Vantage

Live Capture servers can operate as a standalone capture device, a multiple server capture farm or be integrated directly into a Vantage domain of any size. Expanding the system is easy: to increase the channel count, simply add additional Lightspeed Live Capture servers, add their services through a common database and control them via common user interfaces. The integration of Lightspeed Live Capture with Vantage allows for unlimited workflow possibilities which makes this solution the most scalable, flexible and powerful media processing platform available today.

More choices, more flexibility

Lightspeed Live Capture offers a variety of methods to ingest video: 24/7/365 scheduled recording of live feeds, RS-422 controlled capture from a VTR, manual record including Gang control, DAI (SCTE-104) triggering, Recurring Segment creation, and automated control through a simple Web Service REST API. Lightspeed Live Capture provides direct support for capturing into MXF OP1a, QuickTime or Telestream's TIFO. For those wishing to maintain closed captions and other ancillary data, Lightspeed Live Capture can preserve this data via MXF, QuickTime, TIFO and Avid/Apple proprietary schemes.



Capture files into any workflow or editing system, for automated turnaround.

Media platform friendly

The Lightspeed Live Capture system creates growing files that directly support 3rd party Media Asset Management (MAM) and Non Linear Edit (NLE) solutions, including Avid Media Central|Production, Avid Media Composer, Adobe Premiere, DaVinci Resolve, Apple Final Cut Pro and many others!

Fast, Parallel Open Media Processing

When joined with a Vantage domain, Lightspeed Live Capture workflows support Vantage Open Workflows. This allows for transcoding, packaging, and deployment to occur through the Vantage domain while the media is being captured. This means advanced media processing workflows can complete within seconds following the end of media capture.

Native File-Based Transcoding

Lightspeed Live Capture customers may now add file-based transcoding options to allow for Vantage file based encoding *when not in use ingesting video content*. The ability to add file-based transcoding to Live Capture servers allows customers to utilize their hardware investment for both live video encoding as well as traditional Vantage file based encoding.

Workflow Features

- Seamlessly integrated with Vantage including Open Workflows
- Output multiple resolutions files from any input
- Capture to Local RAID or external shared storage
- Direct support for Avid Media Central|Production (Interplay) and ISIS/NEXIS shared storage
- Wide range of delivery options – SAN, NAS, FTP, S3, Aspera, Signiant and others
- Supports edit, transcode or copy from growing files.

Workflow Features (continued)

- Optional native file based Vantage transcoding
- Optional 24/7/365 scheduling
- Optional SDI Playback via Live Play
 - Browser-based control interface

Designed for demanding enterprise-class broadcast and professional video capture applications, Lightspeed Live Capture offers premium features and exceptional performance. Lightspeed Live Capture excels at performing demanding video ingest from similar or mixed format sources, while simultaneously creating multiple high resolution and proxy files from any of its inputs. Files are written directly to the Live Capture server's local RAID storage, NAS/SAN shared storage, or remote storage locations via Aspera, Signiant and other WAN accelerations product.

As a standalone system, Lightspeed Live Capture acquires SDI video from independent input channels or through IP connections. Multiple Live Capture servers can be joined together to create a Lightspeed Live Capture server farm under a common control interface. In addition, Live Capture can be seamlessly integrated directly into a Vantage domain enabling unlimited workflow possibilities through Vantage's Media Processing Platform.

Lightspeed Live Capture offers best in class channel density (up to 8 HD channels in 1 RU) and a broad range of control methods (Lightspeed Live Capture Web Application, Lightspeed Live Capture Web Service Application Program Interface (API), VTR control via RS-422 or Vantage Management Console) plus enterprise class system management tools including IPMI, SNMP and Windows Active Directory login.

Lightspeed Live Capture C3 – Technical Specifications

SDI Input Sources:

- 8 SD/HD/3G-SDI inputs - Supports up to 1080 50/60p (3G-SDI LEVEL A only)
- Up to 2 Quad-Link Square Division/2 Sample Interleave input – Supports UHD/4K up to 2160 50/60p
- Up to 16 channels embedded SDI audio 48Khz/16/24bit / Uncompressed
- Configurable loop-through 3G-SDI outputs

IP Input Sources:

- MPEG-2 Transport Stream (SPTS, MPTS) with MPEG-2 or AVC (h.264) Video
- SMPTE 302M, MPEG Layer2, AAC, AC-3, EAC3 Audio
- RTMP TCP protocol support for source input – including support for Wirecast RTMP input
- SMPTE ST2110 via optional Mellanox 25Gbe NIC

VTR Machine Control for each SDI Input¹

- RS-422, 9 pin Sony Protocol
- Control up to 8 VTRs per Lightspeed Live Capture system

External API Control

- Web service
- RS-422 (BVW/Sony 9-pin)¹

Time code sources

- Source SDI input (VITC/VBI)
- RS-422¹
- Analog LTC
- Computer Clock
- Free Run

Edit solutions

- Adobe Premier Pro CC
- Apple Final Cut Pro 7 and X
- Avid Media Composer 7 or later
- Others

Primary output file formats

- Apple ProRes – 422HQ, 422SQ, 422LT, 422 Proxy, 444
- DNxHD - 444, HQX, HQ (220/185 Mbps), HQ TR (145/120 Mbps), SQ (145/120 Mbps), SQ TR (100 Mbps), LB (45/36 Mbps)
- DNxHR - 444, HQX (10 bit), HQ, SQ, LB.
- JPEG2000 Lossy
- JPEG2000 Lossless
- AVC Intra - 50 Mbps 4:2:0, 100 Mbps 4:2:2, 200 Mbps 4:2:2
- AVC Ultra Log GOP 25, 50
- AVC Baseline, Main, High. Bit Rate - 50 Mbps
- XDCAM HD - 18 Mbps CBR, 25 Mbps CBR, 35 Mbps VBR
- XDCAM HD422 - 50 Mbps CBR
- XDCAM EX - 35 Mbps VBR
- IMX – 30, 40, 50Mbps
- HEVC (software encoding only) Bit Rate - 50 Mbps

- XAVC – Class 50 4:2:0, Class 100 4:2:2, Class 200 4:2:2, Class 300 4:2:2, Class 480 4:2:2, Class 25 Long GOP 4:2:2, Class 35 Long GOP 4:2:2, Class 50 Long GOP 4:2:2, QFHD Class 100 Long GOP 4:2:2, QFHD Class 140 Long GOP 4:2:2, QFHD Class 200 Long GOP 4:2:2
- DV - DV 25 Mbps, DVCPRO 25 Mbps, DVCPRO 50 Mbps, DVCPROHD
- x264 Baseline, Main, High, High 10, High 4:2:2, max Bit Rate 50Mbps
- x265 Main, Main 10, Main Intra,
- MPEG-2
- Uncompressed 10-bit (SD/HD V210)

Browser based control UI

- Manual Recording options
- 24/7/365 Scheduling
- Log and Capture with VTR control via RS-422¹
- Web Service API
- Multichannel Gang recording
- DAI (SCTE Trigger)

Container Wrappers

- MXF OP1a including RDD9 and RDD25 variants
- Avid MXF OPAtom
- QuickTime
- MP4 - complies with IEC-14496-14
- MPEG Transport Stream (with MPEG2 essence) and Manzanita multiplexing (optional purchase)
- Telestream TIFO

Proxy Output Formats

- MP4
- RDD25 MXF
- HLS (4 variant)
- TIFO (including support for Avid proprietary proxy formats via Vantage Media Creation action)

Hardware

- 1 RU chassis
- Dual hot swap Power Supplies
- 4 x 10GBase-T Ethernet ports
- Up to 8.8TB of local RAID storage

Hardware options

- 8Gb and 16Gb FibreChannel HBA for SAN access
- Myricom 10Gb Ethernet
- ATTO 10Gb Ethernet
- Mellanox 25Gb ethernet for ST2110
- Additional 4.4TB (Four enterprise class 1.2TB SATA 6Gb/s drives)
- 4 channel RS422 Kit

Environment

- Management console and system monitoring via SNMP
- Size: H 1.7" (43mm) x W 17.2" (437mm) x L 27.8" (707mm)
- Weight: 32 lbs
- AC Input: 100-127Vac, 50-60Hz; 200-240Vac, 50-60Hz
- Operating Temperature: 5°C to 40°C (41°F to 104°F)

¹ Requires optional RS422 kit