

Lightspeed Live Capture C4

Product Sheet



Lightspeed Live Capture 8-Channel High Performance Capture

Telestream® Lightspeed® Live Capture C4 server offers high performance encoding for 8 HD or 2 UHD/4K channels. Live Capture C4 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 C4 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 C4 is a flexible and scalable video capture solution that offers the highest level of performance for capturing SD, HD or UHD/4K media. Live Capture C4 supports capturing from eight (8) concurrent SD/3G-HD SDI inputs or, two concurrent (2) 4K/UHD inputs, or from several Transport/RTMP IP inputs. Live Capture C4e captures into multiple video formats, including AVC-Intra, XAVC-Intra Class 100/300/480 and many more, all while simultaneously creating 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

Like all Live Capture servers, Live Capture C4 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.

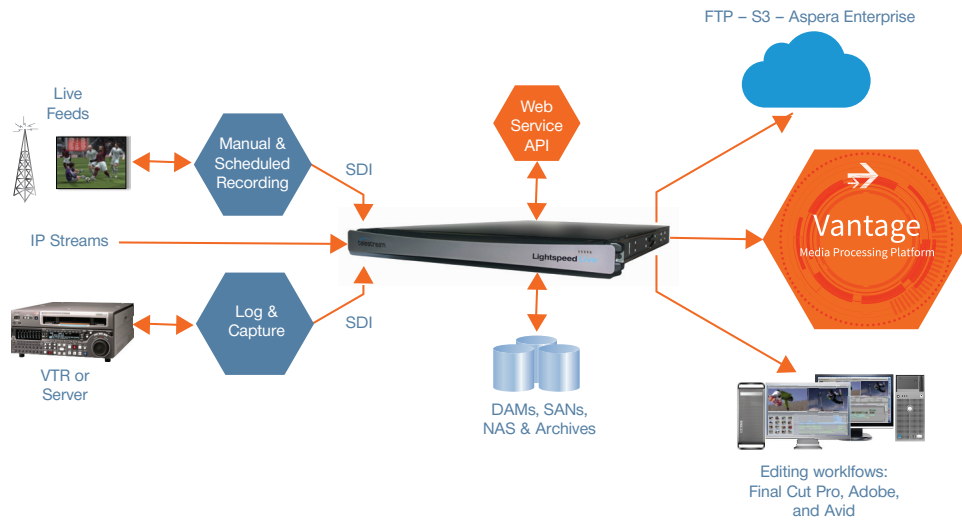
More choices, more flexibility

Lightspeed Live Capture offers six easy ways to capture your 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.

Media platform friendly

The Lightspeed Live Capture system creates growing files that directly support 3rd party media edit solutions, including Avid Interplay, Avid Media Composer, Adobe Premiere, DaVinci Resolve and Apple Final Cut Pro.





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

Fast, Parallel Open Media Processing

When joined with a Vantage domain, Lightspeed Live Capture workflows support Vantage Open Mode. 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.

System Features

- Flexible codec and container support
- Highly scalable solution - standalone or multi-server systems
- Captures up to 4K (4096 x 2160) at 60p
- High Channel Density 1RU Capture chassis

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 Interplay and ISIS/NEXIS shared storage
- Wide range of delivery options – CIFS, FTP, S3, Aspera, others
- Supports edit, transcode or copy from growing files and direct Interplay check-in
- Time Shift buffer - capture frames from up to 60 seconds in the past
- Browser based control interface

Designed for demanding enterprise-class broadcast and professional video capture applications, Lightspeed Live Capture C4 offers premium features and exceptional performance. Powered by the latest generation of Lightspeed Live server, 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 or to NAS/SAN shared storage. Live Capture also offers a wide range of delivery choices such as CIFS, FTP, S3 or Aspera using FASPStream systems.

As a standalone system, Lightspeed Live Capture acquires SDI video from up to 8 independent input channels or through IP connections to Transport Streams or RTMP. Multiple Live Capture servers can be joined together to create a multiple server capture 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 C4 – 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 3G-SDI loop-through 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

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 ProRes² – 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)
- DNxHR² – 444, HQX (10 bit), HQ, SQ, LB
- AVC Intra - 50 Mbps 4:2:0, 100 Mbps 4:2:2, 200 Mbps 4:2:2
- AVC² 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
- HEVC² (software encoding only) Bit Rate - 50 Mbps
- XAVC Class 100 HD, Class 300/480² UHD/4K
- DV - DV 25 Mbps, DVCPRO 25 Mbps, DVCPRO 50 Mbps, DVCPROHD

Primary output file formats (continued)

- x264² Baseline, Main, High, High 10, High 4:2:2, max Bit Rate 50Mbps
- x265² Main, Main 10, Main Intra, max Bit Rate 50Mbps
- MPEG-2, max bit rate 50Mbps
- Uncompressed 10-bit (SD/HD V210)
- JPEG 2000 up to 1080p60

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 files

- AVC/H.264 - MXF OP1a - High@L3, container conforms to SMPTE RDD25, max Bit Rate 10Mbps
- AVC - MP4 - High@L3, container conforms to IEC-14496-14, max Bit Rate 10Mbps
- Apple ProRes Proxy and Avid DNxHD LB

Hardware

- 1 RU chassis
- Dual hot swap Power Supplies
- 4 x 10GBase-T Ethernet ports
- Up to 15.4TB of local RAID storage

Software options

- Avid Integration
- Live Edit sub-clipping
- Live Play playback of files and playlists
- Live Schedule can schedule capture events

Hardware options

- 8Gb and 16Gb FibreChannel HBA for SAN access
- Myricom 10Gb Ethernet over Fibre for Avid ISIS/ NEXIS connectivity
- Additional 7.7TB option (Four additional enterprise class 1.92TB SSD drives)
- Up to 8 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

² 4K/UHD capable

