



GV I/O

Live Ingest & Playout Using COTS Hardware with GV STRATUS

GV I/O is a high-performance, cost-effective, COTS (commercial off the shelf) ingest and playout platform tailored for fast-turn production workflows on a 1 RU server, with SMPTE ST 2110 support and up to four SD or HD channels. It seamlessly integrates with Grass Valley products to provide a highly flexible and scalable end-to-end solution.

For the past three decades, Grass Valley has established itself at the forefront of video production server technology. From the beginning, Grass Valley was first to market with the Profile Disk Recorder (PDR) and has continued to lead the market, today with our latest innovation: GV I/O. Grass Valley is committed to providing innovative solutions that are future-proof and simplify users' workflows in the evolving broadcast environment.

Simplicity — GV I/O is designed with a streamlined workflow and seamless integration in mind. Built on a COTS ingest and playout platform with an evolving feature set, GV I/O offers integration with IT-based storage via GV ION AMS and can playback and record content over traditional SDI, SMPTE ST 2110 and web streams, all on COTS hardware.

Flexibility — Built for the future with limitless flexibility, GV I/O offers the agility to power your broadcast workflow. With flexibility through licensing, while offering industry leading codec versatility, GV I/O answers the call for today's workflows, while providing a future proof solution for tomorrow.

Scalability — GV I/O can scale to meet the workflow demands of newsroom productions regardless of the scope or complexity.

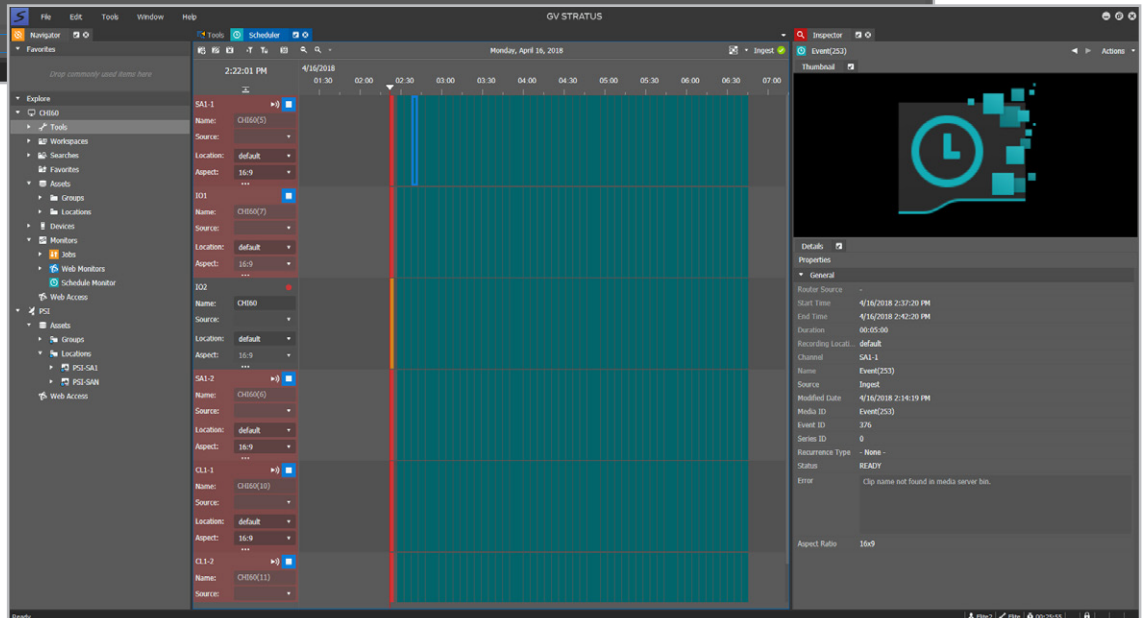
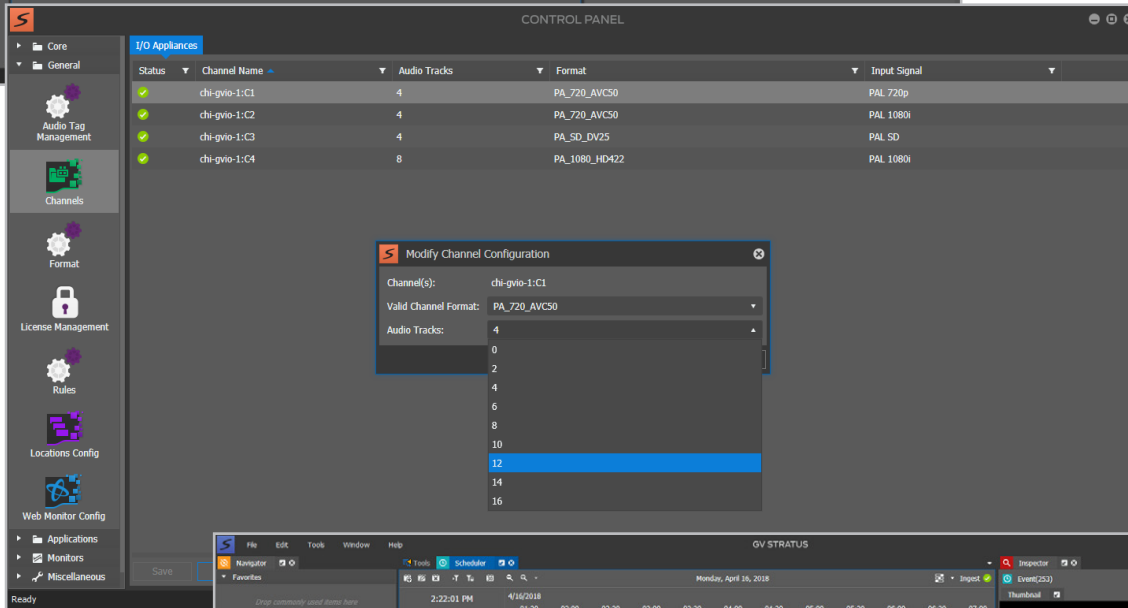
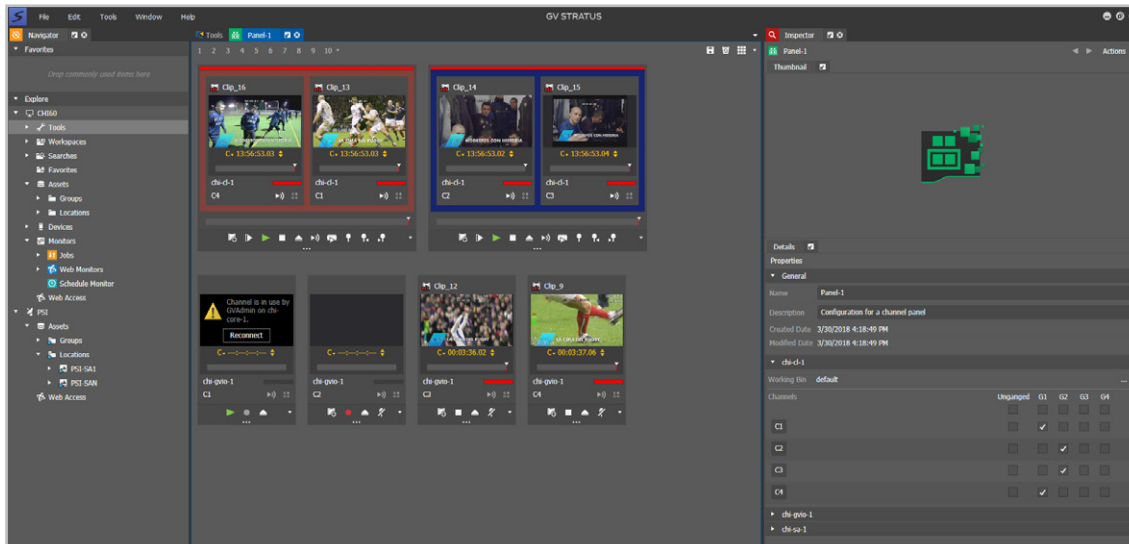
Reliable and Cost-Efficient — With redundant power supplies, hot-swappable drives, flash-based storage and RAID-5, GV I/O is designed for on-demand reliability. CPU utilization is roughly 50% of other servers in the market, giving you valuable cost-efficiency in an easy to deploy solution.

Functionality	K2 Summit 3G	GV I/O
Supported on COTS hardware	✗	✓
Codecs offered as standard option	✗	✓
Up/down/crossconversion	✓	✓
16 channels of audio	✓	✓
Real-time proxy generation	✓	✓*
Direct read/write to/from SAN	✓	✓
Growing file support	✓	✓
2x real-time jog/shuttle	✓	✓
3G 1080p	✓	✓
IP with SMPTE ST 2110	✗	✓
Recording of web streams	✗	✓
Supports AMP control	✓	✓

* NAB 2019

KEY FEATURES

- Four-channel configurations:
 - SD: DV and D10 (IMX)
 - HD: XDCAM, XDCAM HD, XDCAM EX, XDCAM 422, DVCPRO HD, AVC-Intra, DNxHD
- Network resiliency through low-bandwidth
- Import/export all formats as MXF OP1a, SMPTE ST 360 (GXF) or QuickTime
- Preservation of ANC data
- Full multichannel audio support —16 audio tracks per video channel



SPECIFICATIONS

Video I/Os

4 SD/HD/3G-SDI channels record channels DIN 1.0/2.3 connectors

SD-SDI: SMPTE ST 259, ITU R601, 525/625 line, 10-bit

HD-SDI: SMPTE ST 292, 10-bit

3G-SDI:

SMPTE ST 424, 10-bit

SMPTE ST 2110-20 Uncompressed Video over IP

SMPTE 2110-30 PCM Audio over IP

SMPTE ST 2110-40 Ancillary Data over IP

Formats

(SD) 525i59.94

(SD) 625i50

(HD) 720p50/59.94

(HD) 1080i50/59.94

(3G Level A) 1080p50/59.94

Compression Types

SD:

DVCAM, DVCPRO25, DVCPRO50

D10 (IMX) 30/40/50 Mb/s

HD:

XDCAM HD (18, 25, 35 Mb/s)

XDCAM HD 4:2:2 (50 Mb/s)

XDCAM EX

DVCPRO HD

AVC-Intra 50/100

AVC-Intra Class 100 1080p50/60 Level A (optional)

DNxHD 115, 120, 145, 175, 185, 220 Mb/s

Audio

Up to 16 tracks per channel

Input: 48 kHz, 16- or 24-bit digital audio=PCM

Reference Genlock

Blackburst analog and tri-level sync

Single DIN 1.0/2.3 connector

Media Exchange

MXF OP1a and GXF (SMPTE ST 360)

Power Requirements

Dual 750W power supplies

ORDERING

GVIO-SV-01-IP

GV I/O Turnkey server supporting IP workflows — includes Dell server and Dual 25G/10G Mellanox IP interface card. Requires GV I/O-SW and 10G or 25G SFP modules

GVIO-SV-01-SDI

GV I/O Turnkey server supporting SDI workflows — includes Dell server and AJA Corvid 88 SDI interface card. Requires GVIO-SW

GVIO-ISCSI

SNFS Connection required to add GV I/O to a K2 SAN

GVIO-IP-CH

GV I/O per channel IP license (4 max. per server)

GVIO-SDI-CH

GV I/O per channel SDI license. 4 licenses per device mandatory for 6.0

GVIO-WEB-CH

GV I/O per channel web license (4 max. per server)

GVIO-SW

GV I/O software license. Required for the GVIO-SV-01-SDI/IP

Options

GVIO-SFP-10G-HW

10 GbE SFP (x2) modules required for Mellanox card (GVIO-SV-01-IP is a prerequisite)

GVIO-SFP-25G-HW

25 GbE SFP (x2) modules required for Mellanox card (GVIO-SV-01-IP is a prerequisite)

GVIO-SSD-5-960R5

Internal SSD storage (960 GB drives) — provides ~4 TB RAID-5 (~79 hours @ 100 Mb)

GVIO-SSD-5-1920R5

Internal SSD storage (1.92 TB drives) — provides ~7.6 TB RAID-5 (~157 hours @ 100 Mb)

GVIO-IP-UPG

GV I/O IP NIC upgrade for SDI server (replaces AJA card). Requires 1 or more IP channel license per server and 10G or 25G SFP modules



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