ClearView Player

High Capacity 4K Recorder-Player with Venue Player

Video Clarity

Tools for Video Analysis

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A professional, highly reliable recorder-player with multi-format output capabilities. The ClearView Player with Venue Player is ideal when uncompressed video sources are needed for highest quality synchronized digital video playback in a venue or lab environment.

The ClearView Player with Venue Player provides uncompressed recording, file importing, and playback of up to three 4K outputs on separate monitors or fixed side-by-side comparisons may be applied up to the output capacity of each system configuration.

Applications:
- Encoder/decoder subjective testing
- Lab facility uncompressed A/V player/server
- Long-haul network test source
- Multiple output subjective video quality analysis
- Highest quality multi-screen venue playback
- Display calibration and signal path integrity checking
- Dolby Vision® format playback and reference versus additionally processed version comparisons

The ClearView Player includes several uncompressed test sequences and also allows for easy recording of additional video sequences. A new sequence can be input and automatically decoded from IP stream, imported from compressed or uncompressed media file formats shown on the right, or it can be recorded from serial digital inputs. Each sequence may be trimmed with in and out points set. Using the play list feature, any test sequence can be grouped with other test sequences and played in a defined order.

The audio or vertical ancillary data (VANC) record and playback can be optionally turned on or off to allow complete video sequence structural freedom.

The ClearView Player 4K with Venue Player comes in various capacity configurations with the following capabilities:
- Each 3RU system with has the ability to record up to two 4096X2160p/60Hz videos with embedded audio and VANC.
- Play up to three 4096X2160p/60Hz video sequences on included 12G-SDI interfaces or via three HDMI 2.0 outputs with optional interfaces applied.
- Multiple HD videos are playable based on number of output interfaces installed in each system.

ClearView Importer

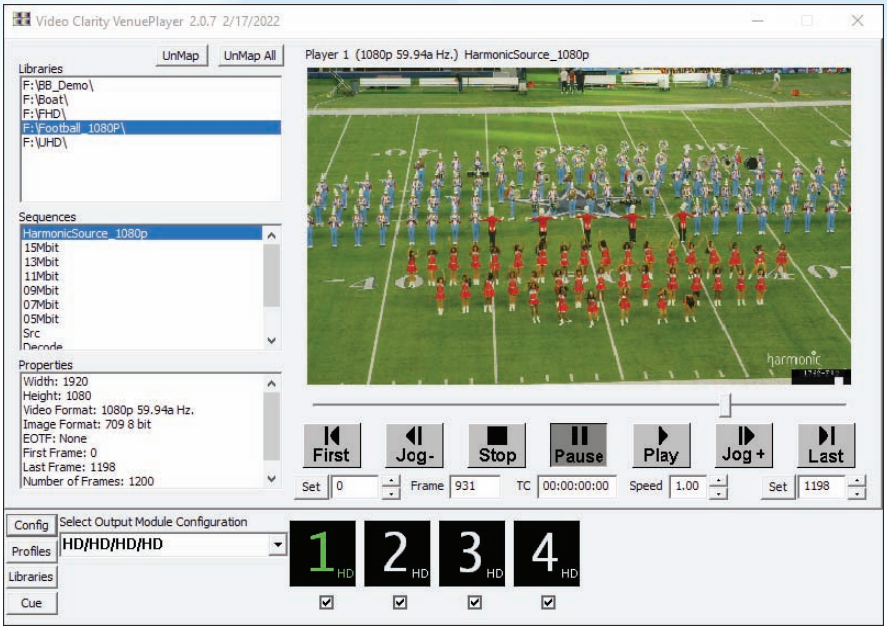
File Formats Supported (partial list)
Accom YUV CCIR 601 8-bit
ARI Raw Bayer Pattern
Avid AVR, DS HD/SD, DV (*.gen), DNxHD
Avid Meridian, Y'CbCr, OMFI (*.omf, *.omfi)
AV1, AVC, AVC-HD, AVR, AVS
Cineon (*.cin), CineWave
DPX RGB 8, RGB 10, Y'CbCr 4:2:2
DV (*.dv, *.dif), Digital Negative (*.dng)
DVS Direct File Format (*.dvs)
DVSD, DV25, DV50, MPEG-I, mJPEG, DigiSuite
GXF Format/SMPTE-360 (*.gxf)
H.261, H.263, H.264, H.265, HDV
Headerless/Raw (*.hdr, *.yuv, *.rgb, *.raw)
HiCon SLB32 RFB format (*.slb)
Image (*.gif, *.jpg, *.png), Jaleo (*.js), JFIF, JPED
JPEG, JPEG2000, LXF, Meridian, Media 100 MJPEG
Microsoft AVI (*.avi), BMP, DIB Files (*.dps)
MJPEG, MPEG 1 4:2:0 (*.mpg, *.mpeg)
MPEG-2 Elem. Stream, (4:2:0/4:2:2), MPEG2 (*.m2v)
MPEG-2 Program Stream, (4:2:0/4:2:2)
MPEG-2/4 in Transport Stream, (4:2:0/4:2:2)
MPEG-2/4 in MPTS (4:2:0, 4:2:2), MPEG-4 (*.m4v)
MPEG-4 AVC Elementary Stream 4:2:0/4:2:2, (*.h264)
MPEG-H HEVC/H.265 4:2:0 Main Profile (*.h265)
MXF Format (DCP, DV, DVCPro50, MPEG, IMX, OP1a)
Newtek Video Toaster (*.rtv)
Phantom Support (*.cine), PhotoShop FilmStrip (*.flm)
Photo CD PCD, Photoshop PSD, Portable anymap PNM
Portable Bitmap Format PBM DPS
Portable graymap PGM
Portable pixmap PPM
QuickTime Movies (*.mov)
QuickTime formats w/proper codec, ProRes, etc...
RealVideo (*.ra, *.rm, *.ram), Red Camera Stream (*.r3d)
Run-Length encoding (rle)
Sony XDCam, SGI Movie Format (*.mv), SGI RGB
Silicon Image Bayer (*.siv), Sun Raster (*.ras)
Targa TGA, ICB, VDA, VST, Targa 3000, TIFF, TIF
v210 Y'CbCr 10 Bit, VC-1 Pro, VP8, VP9, Viewstore (*.vsr)
vcap, vcap10, Windows Media (*.asf, *.wmf, *.wmv)
Y'CbCr 8/10, Y'CbCr, RGB, YCrCb 8/RGBA

Audio Import Formats
Dolby® Digital Plus Professional Decoder (included)
MPEG-2 Layer 1 (*.mp1)
MPEG-2 Layer 3 (*.mp3)
Waveform Audio (*.wav)
Adaptive Multi-rate (*.amr)
Audio Interchange File Format (*.aiff)
Windows Media Audio (*.wma)
Advanced Audio Coding (*.aac)

Exported File Formats
BMP, Headerless/Raw (*.yuv, *.rgb, *.raw), MXF (v210), QuickTime (.mov) with up to 16 audio channels

ClearView Player 4K with Venue Player

Venue Player GUI



ClearView Player GUI with 12G-SDI and IP Record Function

12G-SDI recording and IP capture/decoding are provided with the ClearView Player application on all systems. For playback, four 12G-SDI interfaces with one HDMI 2.0 output are included. Up to two additional video interface modules with varying capabilities may be applied as listed on page 4.

Control, Ingest, and Play

Applications included:
Venue Player
ClearView Player
ClearView Importer
Command Line Interface
- with easy to use play list function

Uncompressed dual input recording with:
- Video (8, 10, or 12 bit)
- Audio (up to 16 channels)
- VANC (all lines record)
- Timecode via 12G-SDI or analog LTC

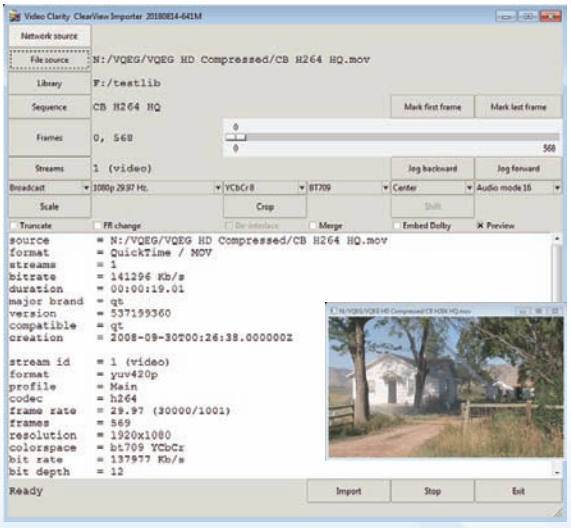
Record from MPEG IP stream up to UHD:
- Automatic decode to uncompressed video and audio for playback by either player app

Play sequences with:
- Video (8 ,10, or 12 bit)
- Audio (up to 16 channels)
- VANC, and Timecode via SDI or analog LTC
- Dolby Vision® format (option)

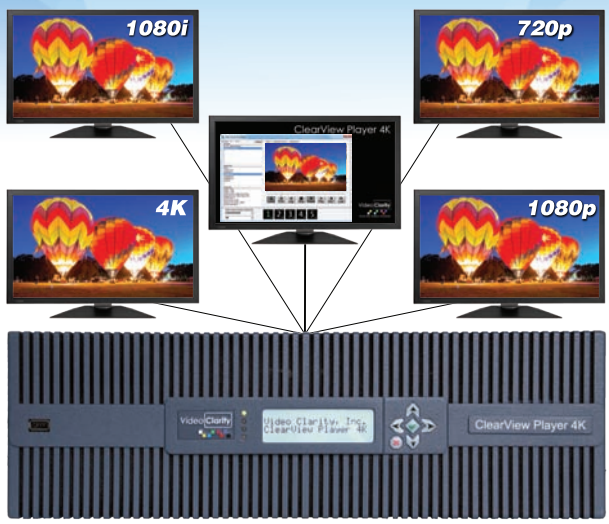
Multiple format playout:
- Mix formats with integer related frame rates
- Lock all sequences to play command

Ingest multiple file types with the included ClearView Importer:
- Uncompressed studio source files
- Compressed media files of all types

ClearView Importer GUI



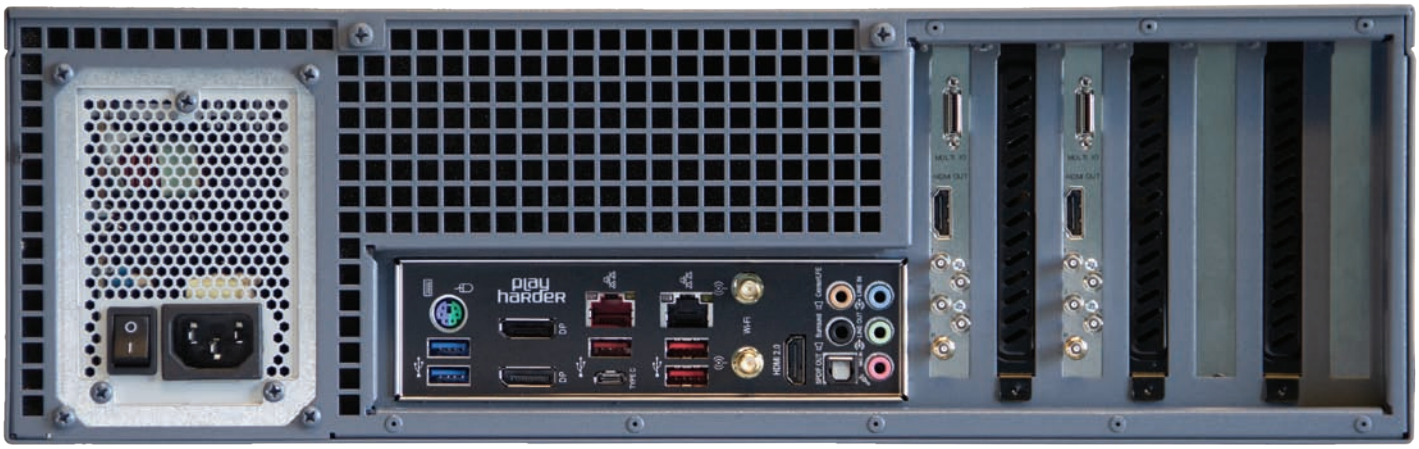
ClearView Player 4K - Specifications



The Venue Player provides the ability to playback multiple uncompressed resolutions of video with audio simultaneously. This allows source video versus differently processed sequence comparisons to be viewed within each resolution.

- Instantly access and compare different distribution formats for quality between resolutions.
- View 4K versus multiple HD resolutions to assess the effects of similar or different bit rates to quality.
- A second or third video interface may be additionally applied from listed options below.
- Compare up to three synchronized 4K HDMI outputs for a test of multiple HDR color types via compatible displays.
- Add ST 2110 with ST 2022-7 media stream networking.

High Capacity 4K Player-Recorder - Pictured with One Additional CV-SDI-IO-12G Module Option



Models:
CVVP-3085-4K-8, -16, -32, or -64
Includes: One CV-SDI-IO-12G, Venue Player, ClearView Player, CV-Importer, HD-BNC to BNC cables (5), HDMI cable (1), user guide PDF, mouse, keyboard, 3RU rack kit, LTC/AES optional

Storage: 8.0, 16.0, 32.0, or 64.0 TB
Video I/O: Record or play the following
SMPTE 259,292,296,424,425a/b, 4K as 2SI
4 12G-SDI - 4 HD-BNC with BNC conv. cables
- Up to three 4096X2160p 60Hz 10-bit 4:2:2 play
- Up to four 1920X1080p 60Hz 10-bit 4:2:2 play
HDMI 2.0: 1 output on HDMI (cable included)
Timecode: SMPTE-12M on SDI, or LTC analog

Power: 100 - 240VAC, 47-63Hz, Autodetect, 600 Watts Max
Audio I/O: 24 bit, 48 KHz PCM, or DD+
- 16 ch. embedded audio per video HD-BNC
Ref In: 1 HD-BNC input - **GPI:** serial 9-pin
Options: CV-DV-1Ld - Dolby Vision license, CV-WFM - Waveform Monitor / Vectorscope, and module options described below

IP Network and USB Inputs:
1 10G IP, 1G IP, 5 USB 3.1, 1 USB Type C
Dimensions: 17" W x 5.25" H x 20.15" D
43.2 cm x 13.5 cm x 51.4 cm
Weight: 31 lbs, 14.1 Kg
Temperature: Operating 0 - +40 celsius
Storage -20 - +50 celsius
Rel. Humidity: 5 - 95%, noncondensing

CV-SDI-IO-12G Module Option:
Up to two additional interface module options may be applied
- Five HD-BNC to BNC cables and an HDMI cable is provided
- LTC/AES cable is optional

Digital Video: 4 HD-BNC input/output programmable - 12G-SDI, 3G-SDI, or SD-SDI
- Supports 8, 10, 12 bits - SMPTE 259, 292, 296, 424, 425a/b, 2082, 4K as 2SI
Digital Embedded Audio: 16 channels - SDI embedded input and output
HDMI 2.0: 1 output, up to 4096x2160p60Hz 10-bit 4:2:2 on standard HDMI connector
- HDR Infoframe metadata compatible with HDMI 2.0a/b - CTA-861.3, CTA-861-G
Reference Input: 1 HD-BNC, Black (1V), Composite (2 or 4V), or Tri-Level Sync (1V)

Digital Video Formats: 525i 59.94Hz, 625i 50Hz, 720p 60, 59.94, 50Hz, 1080i 60, 59.94 & 50Hz, 1080p 60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz, 2160p 60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz
Digital Audio Formats: 24bit, 48KHz PCM, or DD+
Timecode: SMPTE-12M on SDI, or LTC analog

CV-IP-IO-UHD Module Option:
25G IP for 4K and 8K systems, media interface module requires one SFP28 purchased separately for ST 2110 input/output operations, second SFP provides redundancy as in ST 2022-7

Video I/O: 25 Gigabit Ethernet applying SMPTE ST 2110-20 and 2022-7 media
- Up to 2 4K, UHD, or HD video/audio sequences input recording
- Up to 2 4K, UHD, or up to 8 full HD video/audio sequences as playback output
Note: More than two sequence output function with included Venue Player application
Media Transport Interface: 2 x SFP28 Cages - SFPs not included
Reference Input: Integrated hardware for network PTP according to ST 2059-2
VANC and Timecode: SMPTE ST 2110-40 record and play

Digital Video Formats:
720p 60, 59.94, 50Hz; 1080i 60, 59.94, 50 Hz
1080p 60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz
2160p 60, 59.94, 50, 30, 29.97, 25, 24, 23.98Hz
Digital Audio I/O: 16 channels input and output
- Formats - 24bit, 48KHz PCM, or Dolby Digital Plus
- According to ST 2110-30 and ST 2110-31

CV-HDMI-I-4 Module Option:
Multiple format capture interface with four programmable inputs

Digital Video: Two HDMI 2.0 or 1.4 , up to two SD, HD, or 4K/UHD simultaneous inputs
-Input image formats up to 4096x2160p60 YCbCr 4:2:2 10-bit on Type A HDMI
Digital Audio: 8 channels per program input **HDR Metadata:** CTA-861.3, CTA-861-G

Digital Video Formats: Same as CV-SDI-IO-12G
Digital Audio Formats: 16 and 24-bit, embedded HDMI audio, 48 KHz, synchronous per HDMI input