

# ClearView Player 8K

with Venue Recorder and Player



Video **Clarity**



Tools for Video Analysis

ClearView Player 8K, a professional, highly reliable recorder-player for all 4K and 8K formats.

An ideal solution when an uncompressed video source is needed for all types of manual or programmed playback.

ClearView Player 8K provides uncompressed recording and playback for venues and also review, analysis and performance testing from standard definition up to 8K resolutions and frame rates.

Applications:

- Highest quality programmed venue playback
- Encoder/decoder testing
- Display calibration
- Signal path integrity checking
- Lab facility uncompressed A/V player/server
- Long-haul network test source
- On-location 4K or 8K uncompressed recorder
- On-air broadcast player

The ClearView Player includes many of the popular uncompressed test sequences and also allows for easy recording of additional test sequences. A new sequence can either be input from an 8K or 4K camera or automatically imported from any of the file import formats shown on the right or it can be recorded from digital inputs.

Each sequence may be trimmed with in and out points set. Using the Venue Player application or command line interface, any video sequence can be grouped with other sequences and played synchronously or in a defined order.

The VANC and audio can be optionally turned on or off to allow complete sequence structural freedom.

The ClearView Player 8K:

- An uncompressed video player with four 12G-SDI interfaces programmable for recording or playback.
- Capable of playing up to one 8K video or four 4K, HD, or SD video sequences at the same time.
- Can be optionally equipped with two additional video interfaces that are specified for 4K and lower formats including IP media for ST 2110 and ST 2022-7, HDMI inputs, or additional 12G-SDI with HDMI output.

## ClearView File Importer

### Imported File Formats (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)  
AVR, JFIF, JPED, Meridian, RGB, Y'CbCr  
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  
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 Direct Format (\*.js)  
JPEG, JPEG2000, 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  
Profile GXF Format/SMPTE-360 (\*.gxf)  
QuickTime Movies (\*.mov)  
QuickTime formats w/proper codec, ProRes, etc...  
RealVideo (\*.ra, \*.rm, \*.ram), Red Camera Stream (\*.r3d)  
Run-Length encoding (\*.rle)  
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, Viewstore (\*.vsr)  
vcap, vcap10, Windows Media (\*.asf, \*.wmf, \*.wmv)  
Y'CbCr 8/10, Y'CbCr, RGB, YCrCb 8/RGBA

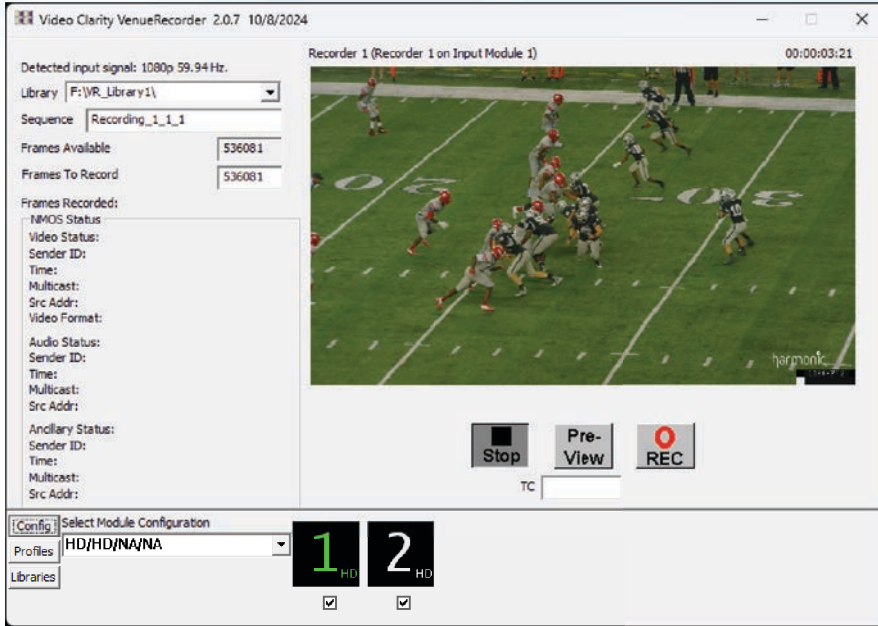
### Audio Import Formats

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)

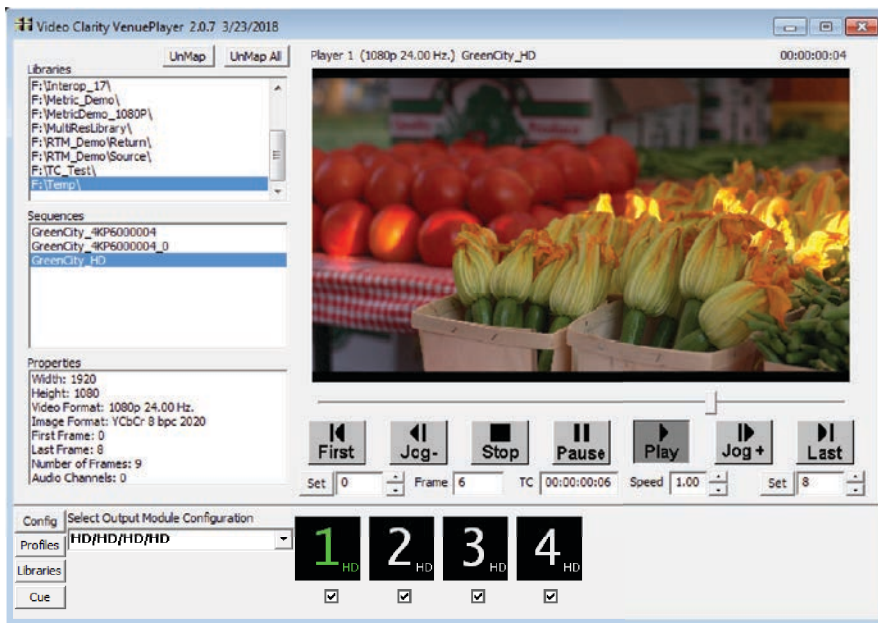
### Exported File Formats

BMP, Headerless/Raw (\*.yuv, \*.rgb, \*.raw)  
Microsoft AVI (\*.avi), MXF (v210)  
QuickTime with up to 16 audio channels

## Venue Recorder GUI



## Venue Player GUI



### Specific ST 2110 Optional Interface Features:

- Up to four 4Kp60 programs record or play with ancillary data
- High speed camera recording up to 180 frames per second
- Interweaved 4K/UHD playback of 180 fps content at 60 fps
- Up to 16 channels of audio per video program record or play
- NMOS IS-04 and IS-05
- JT-NM tested

## Control, Ingest, and Play

Applications Included:

- Venue Recorder
- Venue Player
- ClearView File Importer
- Command Line Interface

- with easy to use play list function

Uncompressed recording :

- 8K, 4K, HD, or SD video (8 or 10 bit)
- Audio (up to 16 channels SDI embedded)
- VANC (all lines accessible)
- Timecode via 12G-SDI or analog LTC

Record from MPEG IP stream up to 4K:

- Automatic decode to uncompressed video with up to 16 channels of audio

Play sequences with:

- 8K, 4K, HD, or SD video (8 or 10 bit)
- Audio (up to 16 channels)
- VANC and timecode via SDI or analog LTC
- Dolby Vision® format (option)

Multiple format playback:

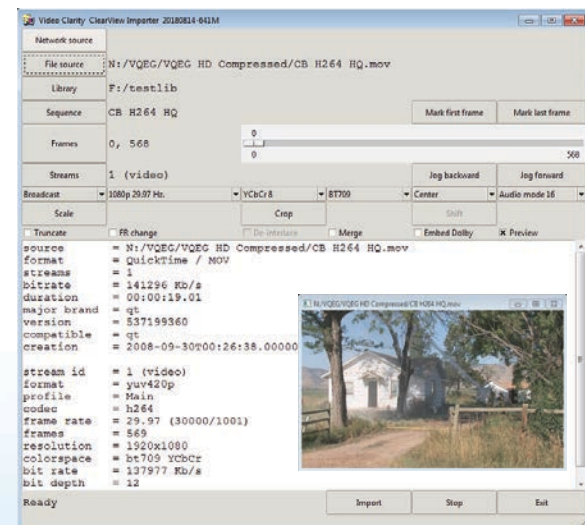
- Mix formats with integer related frame rates
- Lock all sequences to play command

Ingest multiple file types with the included

ClearView Importer:

- Uncompressed import of YUV or RGB
- Decode all compressed media file types

## ClearView Importer GUI





# ClearView Player 8K - Product Specifications

## High Capacity 8K and 4K System - Pictured with Optional CV-IP-IO-UHD4 ST 2110 Module



<p><b>Models:</b> CVVP-3085-8K-12 CVVP-3085-8K-24</p> <p><b>Includes:</b> Venue Recorder, Venue Player, CV File Importer, System Guide, keyboard, mouse, 5 HD-BNC to BNC cables, 3RU rack kit. Two module options may be added to 8K CVVP systems.</p>	<p><b>Storage:</b> 12 TB or 24 TB</p> <p><b>Video I/O: Uncompressed Video Record &amp; Play</b> - 4K: 2 in or 4 out, with 8 or 10 bits on HD-BNC - 8K: Up to 8192x4320 in or out on four 12G-SDI</p> <p><b>Format I/O:</b> SMPTE 259, 292, 296, 424, 425a/b, SMPTE 2082, 4K as 2SI, 8K as Quad or 2SI</p> <p><b>Reference Input:</b> Black (1V), Composite Sync (2 or 4V), or HD Tri-Level Sync (1V) via 1 HD-BNC</p> <p><b>Timecode:</b> SMPTE-12M on SDI, or LTC on BNC</p>	<p><b>Power:</b> 100 - 240VAC, 47-63Hz, Autodetect, 700 Watts Max</p> <p><b>Audio I/O:</b> 24-bit, 48 KHz PCM, or DD+ in and out - 16 channels embedded audio in or out - Dolby® Digital Plus Input Decoder</p> <p><b>Options:</b> CV-DV-1Ld Dolby Vision license, CV-IP-IO-UHD or CV-IP-IO-UHD4, CV-HDMI-I-4, or added CV-SDI-IO-12G</p>	<p><b>IP Network Inputs:</b> 1 2.5G Ethernet (RJ45), 2 10G Ethernet SFP+ cages, SFPs not incl.</p> <p><b>Dimensions:</b> 17" W x 5.25" H x 20.15" D 43 cm x 13.5 cm x 51.4 cm</p> <p><b>Weight:</b> 36 lbs, 16.4 Kg</p> <p><b>Temperature:</b> Operating 0 - +40 Celsius Storage -20 - +50 Celsius</p> <p><b>Rel. Humidity:</b> 5 - 95%, non-condensing</p> <p><b>Ancillary Data:</b> SMPTE ST 291</p>
--	---	---	--

<p><b>CV-SDI-IO-12G Module Option:</b> One 12G-SDI module included. Up to two additional module options may be applied having five HD-BNC to BNC cables, the LTC/AES multi-cable is optional</p>	<p><b>Digital Video:</b> 4 HD-BNC connections - 12G-SDI, 6G-SDI, 3G-SDI, or SD-SDI - Up to 2 additional 4K videos playback on 12G-SDI and 1 mirrored on HDMI 2.0</p> <p><b>Digital Embedded Audio:</b> 16 channels - SDI embedded input and output</p> <p><b>HDMI 2.0:</b> 1 output, up to 4096x2160p60Hz 10-bit 4:2:2 on standard HDMI connector</p> <p>- HDR Infoframe metadata compatible with HDMI 2.0a/b - CTA-861.3, CTA-861-G</p> <p><b>Reference Input:</b> 1 HD-BNC, Black (1V), Composite (2 or 4V), or Tri-Level Sync (1V)</p>	<p><b>Digital Video Formats:</b> 525i 59.94Hz, 625i 50Hz, 720p 60, 59.94, 50Hz, 1080i 60, 59.94 &amp; 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</p> <p><b>Digital Audio Formats:</b> 24-bit, 48KHz PCM, or DD+ <b>Timecode:</b> SMPTE-12M on SDI, or LTC analog</p>
--	---	--

<p><b>CV-IP-IO-UHD Module Option:</b> 25G IP for 3RU systems, media interface module requires one SFP28 purchased separately for ST 2110 input/output. The second SFP28 cage is used for ST 2022-7 redundancy</p>	<p><b>Video I/O:</b> 25 Gigabit Ethernet applying SMPTE ST 2110-20 and 2022-7 media - Up to 2 4K or UHD, or up to 8 full HD video/audio sequences input recording - Up to 2 4K or UHD, or up to 8 full HD video/audio sequences as playback output - Redundant media flows may be applied up to capacity of primary ST 2110 interfaces</p> <p><b>Media Transport Interface:</b> 2 x SFP28 Cages - SFPs not included</p> <p><b>Reference Input:</b> Integrated hardware for network PTP according to ST 2059-2</p> <p><b>Ancillary Data and Timecode:</b> SMPTE ST 2110-40 record and play</p>	<p><b>Digital Video Formats:</b> 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</p> <p><b>Digital Audio I/O:</b> 16 channels per video program - Formats - 24-bit, 48KHz PCM, or Dolby Digital Plus - According to ST 2110-30 and ST 2110-31</p>
---	---	--

<p><b>CV-IP-IO-UHD4 Module Option:</b> Quad 25G IP for 3RU systems, interface module requires two SFP28 purchased separately for ST 2110 input/output flows. Cages 3 and 4 are used for ST 2022-7 redundancy</p>	<p><b>Video I/O:</b> 25 Gigabit Ethernet applying SMPTE ST 2110-20 and 2022-7 media - Up to 4 4K or UHD, or up to 8 full HD video/audio sequences input recording - Up to 4 4K or UHD, or up to 8 full HD video/audio sequences as playback output - Redundant media flows may be applied up to capacity of primary ST 2110 interfaces</p> <p><b>Media Transport Interface:</b> 4 SFP28 Cages - 2 are primary - SFPs not included</p> <p><b>Reference Input:</b> Integrated hardware for network PTP according to ST 2059-2</p> <p><b>Ancillary Data and Timecode:</b> SMPTE ST 2110-40 record and play</p>	<p><b>Digital Video Formats:</b> 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</p> <p><b>Digital Audio I/O:</b> 16 channels per video program - Formats - 24-bit, 48KHz PCM, or Dolby Digital Plus - According to ST 2110-30 and ST 2110-31</p>
--	---	--

<p><b>SDI Video Formats Supported:</b></p> <p><b>8K/UHD-2</b> 8192x4320p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 Hz 7680x4320p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 Hz</p> <p><b>4K/UHD</b> 4096x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 Hz 3840x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 Hz</p>	<p><b>HD</b> 720p 50, 50.94, 60 Hz 1080i 50, 59.94, 60 Hz 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 Hz</p> <p><b>SD</b> 525i 59.94 Hz 625i 50 Hz</p>	<p><b>Play/Record Duration Examples Per Product Model:</b></p> <table border="0"> <tr> <td><b>Video Standard</b></td> <td><b>12 TB</b></td> <td><b>24 TB</b></td> </tr> <tr> <td>7680x4320@60p, 10-bit, 4:2:2</td> <td>35 min.</td> <td>70 min.</td> </tr> <tr> <td>7680x4320@60p, 8-bit, 4:2:2</td> <td>47 min.</td> <td>95 min.</td> </tr> <tr> <td>3840x2160@60p, 10-bit, 4:2:2</td> <td>141 min.</td> <td>281 min.</td> </tr> <tr> <td>3840x2160@60p, 8-bit, 4:2:2</td> <td>188 min.</td> <td>376 min.</td> </tr> </table>	<b>Video Standard</b>	<b>12 TB</b>	<b>24 TB</b>	7680x4320@60p, 10-bit, 4:2:2	35 min.	70 min.	7680x4320@60p, 8-bit, 4:2:2	47 min.	95 min.	3840x2160@60p, 10-bit, 4:2:2	141 min.	281 min.	3840x2160@60p, 8-bit, 4:2:2	188 min.	376 min.
<b>Video Standard</b>	<b>12 TB</b>	<b>24 TB</b>															
7680x4320@60p, 10-bit, 4:2:2	35 min.	70 min.															
7680x4320@60p, 8-bit, 4:2:2	47 min.	95 min.															
3840x2160@60p, 10-bit, 4:2:2	141 min.	281 min.															
3840x2160@60p, 8-bit, 4:2:2	188 min.	376 min.															

Product design and specifications are subject to change without notice or obligation. Video Clarity, Inc.  
Dolby and the double-D symbol are trademarks of Dolby Laboratories