

## Hydra file-based player



Hydra is the frame accurate file-based player that smoothly and consistently plays back more file formats than any other product in its class and can also integrate with Aurora to provide an efficient manual review workflow...

- Frame accurate video
- Audio waveforms and peak meters
- Captions, subtitles and text display
- Metadata visualization
- Widest format support
- HDMI or SDI (SD, HD, 4K) output
- GPU acceleration for 4K playback
- Adaptive bit rate file playback

Hydra Player is the easy-to-use and intuitive file player that you can rely on to consistently, frame accurately and smoothly playback more file types than other players in its class.

Playback nearly any file using Hydra's powerful universal de-multiplexer and decoder engine that offers support for almost all video codecs, audio codecs, containers and text formats used in the broadcast and media sector.

Hydra Player supports full resolution payout to the PC monitor or HDMI output, and supports high quality SDI output (with a suitable video card installed).

Visualize your audio using Hydra's audio waveform view and audio loudness meters. Use the audio service map to assign a layout for mono or AES wrapped audio tracks, ensuring the correct program is being monitored.

View on-screen text from captions, subtitles and/or text formats, from embedded in the wrapper or as side-car text files sources. Easily read the container metadata by toggling the metadata view, Hydra allows selection of any program, video essence track, audio essence track or ancillary/text available in the container. and supports adaptive bit rate and reference file playback

### Hydra Standalone Player

Hydra is a standalone frame accurate player with reliable and smooth playback of more broadcast and media industry file formats than any other player in its class. Install this software application on industry standard IT hardware, with an optional video card for SDI output. Hydra utilizes GPU acceleration for high resolution files (like 4K) and complex codecs, plus supports frame-accurate shuttle control.

### Hydra Integrated QC Review

Hydra integrates with the Aurora file-based QC platform to become a fully event driven player, speeding up manual review by up to 8 times compared to traditional linear processes. Click on a test report issue and instantly view the exact frame in Hydra. Use the Hydra Review Bar to list all QC issues and jump to each with a single click. Manually review with shuttle control, enter QC decisions and add annotations. Even add non-technical issues. All this information is automatically added to the Aurora QC Report.

## Hydra Standalone file player and integrated QC review tool

### Broad Codec and Wrapper Support

Tektronix is an active editor for EBU standardizing QC test definitions, as well as AMWA and SMPTE. This intimate working knowledge of new or evolving standards provides Tektronix customers with a distinct advantage when working with the latest formats and standards. See the back page for a list of current formats supported.

### Frame Accurate Real-time Playback

Hydra Player provides frame accurate real time playback with no chunking or delays even at 4K (requires GPU). Scrub using keyboard short-cuts or a Shuttle USB controller. Play, pause, jog and shuttle playback are fully supported.

### HDMI or SDI Output

Hydra Player supports full resolution playback to the PC monitor/HDMI output and supports AJA Corvid or Kona card (3G models preferred) for high quality SD or HD SDI output, or even 4K playback to external broadcast quality monitors.

### GPU Acceleration

Hydra Player can playback higher resolution files and process more complex wrappers than most other players as it uses GPU acceleration (any NVIDIA Kepler GPU with at least 1.5GB of memory), including handling IMF CPLs with real time HD or 4K playback.

### Scaling & View Options

Hydra Player will default playback video essence at 100% of the pixel density, but is scalable both manually and automatically if the monitor resolution is less than the file image.

### Adaptive Bit Rate Playback

Hydra Player supports playback from Adaptive Bit Rate filesets (HLS, HSS, HDS and DASH), including any of the codecs or text referenced in the playlist. Bitrate variations are presented as Programs in Hydra, so playback or review with manual bitrate switching is available.

### Reference File Handling

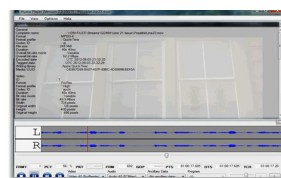
Hydra Player supports playback using reference files such as MXF OP-1b, MOV and IMF, allowing selection of any program, video essence track, audio essence track or ancillary/text available in the container. Where reference files are not present Hydra has a generic XML container that can be customized to enable synchronous playback.



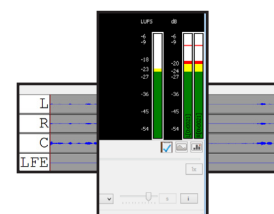
Hydra is the frame accurate file-based player that smoothly and consistently plays out more file formats than any other product in its class, complete with tools for video, audio, captions/subtitles/text and metadata visualization, and tightly integrates with Aurora for manual QC review.



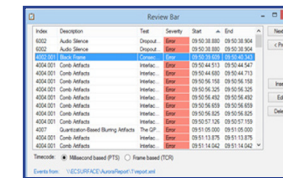
SD/HD/4K output option



File header metadata view



Audio Monitoring



Review Bar



GPU acceleration



Captions/Subtitles/Text



Shuttle Control

### Audio Service Mapping

Hydra Player includes an Audio Service Mapping function that enables playback of multiple or alternative audio mixes. Specify how the mono or AES wrapped audio tracks are allocated into programs and which of those services should be available for playback.

### Audio Visualization

Hydra Player enables selection of specific audio channels from multiple programs (or within a single program) for playback with visual monitoring in a frame-accurate waveform view and/or built-in audio loudness meter to display audio peaks and average levels.

### Caption/Subtitle/Text Playback

Hydra Player supports the display of captions, subtitles and/or text overlaid on the video frame, using correctly timed video timestamps. Any available text data will play. Text can be in side-car files (linked through a reference file) or embedded.

### Metadata View

Hydra Player enables toggling between the video and the declared header metadata associated with the file. Tektronix is the sponsor of MediaInfo (mediaarea.net/mediainfo) an open source project that provides industry wide development tools for parsing and displaying the most relevant technical and tag data for a video/audio file.

### Aurora QC Integration

Hydra seamlessly integrates with Aurora Auto QC platform, becoming a fully event driven player. Simply click on Aurora QC test report issues and instantly jump to the exact frame, with the ability to jog and shuttle to review the issue.

### Up to 8x Faster Manual QC Review

Hydra Player's Review Bar lists all QC issues identified by an Aurora QC review providing instant, frame-accurate access to any flagged anomaly. Immediate workflow decisions, actions and annotations can be applied with all actions saved to the QC report XML.

# Supported Formats

As of April 2015 Hydra supports the following file formats. Please contact Tektronix for latest listing.



## Container Wrappers

MXF (All OP, including AMWA defined AS, RDD-9, P2, SxS), Transport Stream, Elementary Stream, Program Stream/VOB, AVI, WMV/ASF, QuickTime/ MOV, GXF, MP4, 3GPP, LXF, R3D, DPX, DXW, HLS, DASH, Smooth Streaming, IMF, DCP (unencrypted).



## Video Codecs

H.264 (AVC/AVC-Intra/MVC 3D), MPEG-2 (including XDCAM, IMX and D-10), ProRes, JPEG 2000, DNxHD (VC-3), Cineform (VC-5), VC-1 (and WMV), DV/DVCPPro, Flash VP-6/7, RAW (Huffman, YUV, RGB, Blackmagic), EXR, DPX, Canopus, H.265 (HEVC).



## Audio Codecs

PCM Audio (WAV/AES/BWF), Dolby Digital (AC-3), DD+ (EAC-3), Dolby TrueHD (MLP), Dolby E, AAC, HE-AAC, WMA Standard/Pro, MPEG-2 (L1,2,3), MPEG-1.



## Captions/Subtitles/Text

Line 21, CEA-608, CEA-708, Timed Text / DFXP, STL, SRT, SCC.

## Ordering information

Please contact your Tektronix Sales Representative to understand how Hydra can be integrated into your specific workflow.



Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.

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For Further Information. Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit [www.tektronix.com](http://www.tektronix.com).

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