



TRANSFORMATION IN TRANSIT

The Gold Standard for frame rate/resolution/color conversions is now available for live, IP streaming.

Tachyon LIVE

Frame rate, resolution, scan type, and color conversions are a critical requirements for international distribution of live video signals. The quality of these conversions is paramount, particularly for coverage of high-profile sporting events. Until recently, high quality, live conversions required dedicated hardware connected to specialized video transmission infrastructure.

Tachyon LIVE is a disruptive technology that resides within our IPx LIVE transcoder. Tachyon LIVE enables high-quality frame rate, resolution, and color space conversions to take place in nearly any compute configuration. Providing the same best-in-class motion-compensated frame rate adjustments, de-interlacing, and color space conversions found in our file-based Tachyon, Tachyon-LIVE has instantly set the standard for live IP streaming standards conversion.

IPx LIVE

IPx LIVE is Cinnafilm's live-stream transcoding solution that provides a flexible platform for Tachyon LIVE to operate on.

IPx is a CPU-based, real-time IP transcoder that can be quickly spun up in virtual environments, can be deployed on on-premises compute systems, and is incorporated into solutions like swXtch.io's cloudSwXtch and NVIDIA's Holoscan.

Flexibility is in IPx LIVE's DNA. Broadcasters can deploy on-premises as a robust, reliable engine or in the cloud for the ultimate in scalability and convenience. All that is needed is a fast network connection and IPx LIVE can be leveraged to unify multi-format feeds into a single standard - from anywhere on the globe.



SRT Input Stream: 1080i 29.97

SRT Output Stream: 1080p 50

Tachyon LIVE Features

- Frame rate conversion: phase correlation-based motion compensation render engine, 6th gen
- Frame synthesis: ability to synthesize unlimited, new and clean temporal frames to preserve natural motion
- Advanced deinterlacing: two-stage conversion that eliminates nearly 100% of aliasing in SD content and extracts every possible detail from interlaced HD sources
- Subtitle and bug aware motion compensation to prevent artifacts on static overlays
- Scaling: interlace-aware advanced unlimited resolution interchange between SD and 4K.
- Scene-by-scene optimization: fully automated conversion for best quality playout end-to-end
- Intelligent sharpening
- Output speeds of real-time or faster (UHD 50/60) with a single Nvidia GPU

IPx LIVE Features

- Software (Linux) only implementation. No specialized hardware required.
- NMOS Session Control (SMPTE 2110)
- Live IP Protocol Conversion
 - 2110 (JPEG XS, Uncompressed)
 - SRT (H.264, HEVC, not switchable)
 - NDI (Switchable)
 - Transport Stream (H.264/HEVC)
 - TR07 (JPEG XS, not very switchable)
- Implementable on any on-premises or cloud-base (AWS, Azure, Google, Oracle, Alibaba, etc.) infrastructure.

Specifications

Supported conversions

- Frame Rate: convert any frame rates between 23.976 and 60 FPS
- Resolution: SD to UHD/4K
- Scan Type: Interlaced to progressive, progressive to interlaced
- Color Space: 601/709/2020
- Transfer Functions: 501/709/2020/PQ, HLG, User specified LUT

Compute Requirements & Interfaces

- CPU: 16+ cores (depending on workflow)
- GPU: NVIDIA Pascal series or newer
- OS: Windows or Linux
- REST & JASON RPC configuration and monitoring APIs

THE GOLD STANDARD

The world's most trusted standards and frame rate conversion and correction system

Features

- Frame rate conversion: phase correlation-based motion compensation render engine, 6th gen
- Frame synthesis: ability to synthesize unlimited, new and clean temporal frames to preserve natural motion
- Advanced deinterlacing: two-stage conversion that eliminates nearly 100% of aliasing in SD content and extracts every possible detail from interlaced HD sources
- Pattern correction: Search and correct all telecine and/or broken pattern for live action or cartoon content
- Scaling: interlace-aware advanced unlimited resolution interchange between SD and 8K
- Mixed-mode normalization: identifies and corrects disparate video essences and corrects difficult composite and combing artifact errors
- Motion blur: realistic blur insertion when converting from high frame rates to lower "filmic" rates
- Creative intent kept: analysis and processing to maintain filmic look when converting to higher frame rates
- Output options for all standard telecine / pattern insertion, if required
- Scene-by-scene optimization: fully automated conversion for best quality playout end-to-end
- Intelligent sharpening
- Precision runtime prediction – last frame accuracy and precision
- Output speeds of real-time or faster (UHD 50/60) with a single Nvidia GPU

Specifications

Supported conversions

- NTSC, PAL, 525, 625
- DCI and Broadcast: 2K, 4K, 5K, 6K, 8K
- Frame rate: any to any

Telecine & patterns removed (clean or edit-broken):

- 5:4 ratio telecine (AA, BB, BC, CD, DD)
- 2:2:2:4 pattern (A, B, C, D, D)
- Euro pattern
- Repeated progressive frames

Specifications *(Continued)*

File-based integrations:

- Dalet Amberfin
- Encoding.com
- Evertz Mediator-X
- HS-ART Diamant
- Imagine Selenio-Flex File
- Root6 Content Agent
- SDVI Rally
- Telestream Vantage Lightspeed

Compute requirements:

- NVIDIA GPU – Kepler class or newer
- Preferred GPU class – Pascal or newer
- CPU – not a factor other than ensuring the decoder can supply GPU with enough frames to fill the pipeline

Live stream integrations:

- Telestream Lightspeed Live Stream

Overview

Cinnafilm's passion for picture quality is no better represented than by its flagship product, Tachyon. Installed at hundreds of facilities around the globe, Tachyon's superlative frame generation engine delivers results that are second to none. This didn't happen overnight, but with over 17 years of passion-driven research, amazing customer feedback, and a nearly unhealthy level of quality obsession to ensure that every conversion variation ensures the most fluid playback visually perceptible. Combining the best technological research in the areas of motion compensation, deinterlacing, scaling, and pattern recognition, we have honed a product that can automatically adjust itself, scene-by-scene for perfect playback end-to-end, regardless of target format. From salvaging telecine-damaged cartoon footage for OTT to delivering stunning PAL ↔ NTSC conversions for broadcast, Tachyon is a crowning achievement of what is capable if you stick to your vision.

Tachyon is an app available within Cinnafilm's full conversion SaaS (cloud/on-prem), PixelStrings™. Tachyon is available as both a power app for enterprise transcoders and as a live on-prem box for live signal.

BENDING THE SPACE-TIME CONTINUUM

Simply the finest program retiming and slow motion conversion solution

Features

- Adjust run time of file-based assets with no perceivable difference in playback quality
- Smooth-looking video leverages Cinnafilm's patented, 6th generation, motion-compensated algorithms to create optimized frames. No dropped frames or blended frames avoids stuttering, jumping pans, and jitter during playback.
- Skywalker Sound™ Tools audio processing provides automatic loudness adjustment and pitch correction that maintains sync with all speed-adjusted video segments and associated captions. Invoking downmixing and audio channel remapping, at the same time the audio is processed for pitch and length, enables optimal total workflow efficiency.
- Use global settings or create a segmented cut sheet for precise control
- Scene-by-scene creative adjustment and on-the-fly recalculation for total target length

Specifications

- Video, audio, and caption retiming up to $\pm 20\%$.
Picture only: $\pm 50\%$ ramp up/ $\pm 300\%$ ramp down
- Resolution / frame rate support
 - Spatial: PAL, NTSC, 720p, 1080i, 1080p, 2K, 4K(UHD)
 - Frame Rate: 23.976p, 24p, 25p, 29.97p, 25i, 29.97i, 50p, 60p
- Color: up to 16-bit 4:4:4
- Multi-function, single render processing pipeline

Retime Methods:

- Retime entire clip with single global setting
- Retime scenes / segments with explicit settings
- Retime based on timecode range
- Automatic adjustment of closed-captions for the new run length
- Super Slow Motion from 50 field and 59.94 field assets (up to 900%)
- Ignore (hold) segment
- Exclude (remove) segment
- Automatically "fit-to-fill" segment (to meet the target asset duration)
- Detect-and-pass "black/silence" slug



IMAGE OPTIMIZATION AND RESOLUTION SCALING MAGIC

The industry's leading noise, grain, artifact, texture, and resolution control system for image excellence

Features

- Automatically remove or adjust film grain or signal noise from moving pictures without image degradation.
- Scale your images with the latest NVIDIA ai technology that does not hallucinate and does not turn images and textures into lifeless plastic.
- Advanced conventional and ai-based sharpening algorithms developed for cinematic quality, minimizing artifacts
- Dark Energy's grain simulator has been trusted by over a decade for the most pronounced film and television restoration projects in the world – leverage this killer grain modeler to create the exact right texture for compression and delivery optimization
- Combined with TachyonTM, Dark Energy provides the fastest, most automated path for updating legacy libraries for modern delivery specifications, ensuring the best and most fluid playback experience possible
- Remove dust and other single frame anomalies with ease
- Remove pesky chroma noise from tape transfers
- Simplified interface for enterprise volume applications ensures optimal outputs with minimal setup

Specifications

- Automated denoise/degrain with four unique filters to address:
 - Film grain
 - Gaussian noise
 - Chrominance noise
 - Luminance noise
 - Dustbusting
 - Wavelet
 - Impulse
- 32-bit per color channel processing (RGB)
- Noise analysis separated into 16 frequency ranges
 - Low 1-4
 - Medium Low 1-4
 - Medium 1-4
 - High 1-4
- 601/709/2020/2100 color space conversion
- NVIDIA RTX AI Video Processor provides fully automated, authentic looking edge and detail enhancement without typical ai hallucinations

Image texture control

- “Broadcast” image texture for crisp images at low, broadcast bitrates
- Film grain simulation
 - Vary grain structure from 8mm to 100mm film
 - Control grain size (in microns)
 - Control grain amounts

Overview

Dark Energy is the industry's leading noise reduction and texture-aware scaling solution, addressing gaussian/chroma/camera sensor/compression-based noise, film grain, and single-frame anomalies (dust, digital dropouts).

Adding NVIDIA's RTX AI Image Processing tools to Dark Energy has merged two powerful technologies that have the precision and automation to process large libraries of content like never before. Confidently process large libraries for next-gen distribution without fear of hallucinations or plasticization. NVIDIA's iterative based artificial intelligence avoid the many pitfalls of generative ai while Cinnafilm's artistic intent DNA preserves the look and feel of the original content.

Texture Management

Dark Energy's texture management tools allow users to scale video while maintaining authentic-looking texture. As operators prepare to provide premium UHD channels to their customers, the ability to repurpose existing HD content for distribution over those channels will be vital. Tandem usage of Dark Energy and Tachyon (Cinnafilm's award-winning standards conversion solution) creates UHD assets that are virtually indistinguishable from content that was shot on a UHD camera.

Noise Reduction

Reducing noise prior to encoding can significantly increase compression efficiency, giving better-looking video at lower bit rates. The ability to encode video at lower bit rates without quality loss can provide enormous cost savings to anyone distributing content via a CDN, or to cable or satellite operators trying to get maximum throughput from their distribution channels.

Working in an automated, semi-automated, and even template-based fashion, users have the following at their fingertips:

- Independent analysis per color channel and frequency ranges
- Noise is analyzed on a scene-by-scene basis and every 24 frames within a scene to ensure camera and lighting changes are always taken into account
- Upres from SD to UHD and beyond. Resolution limits are based solely on the capability of the encoder. If the encoder supports it, so does Dark Energy.
- Precise upres that is texture-aware – automatically adjusts grain structure based on target resolution
- Upres sharpening tailored and adjusted automatically given source resolution and target resolution
- Tailor the processing method to the type of footage being processed. Operators can choose from fully automated, semi-automated, or template-based modes to ensure the denoise meets customer expectations.
- Template-based processing for especially challenging projects
- Single event artifact removal that eliminates 90% of dust, scratches, and dropouts that are not in the same location on adjacent frames
- 35mm presets for cinematic material

THE FUTURE LOOKS BRIGHT

Brilliant SDR to/from HDR conversions combining Cinnafilm and Technicolor's stellar technologies

Features

- SDR-HDR automated conversions with out-of-this-world tone mapping, combining Cinnafilm's Dark Energy™ (included) with Advanced HDR by Technicolor
- HDR Intelligent Tone Management (ITM) presets that accurately tone map via a machine-learning process that mimics the color mastery of Technicolor's top colorists to create HLG, HDR, HDR10, and SLog3 automatically from SDR assets
- SL-HDR generates files that contain dynamic metadata for delivery
- SL-HDR1 encodes an SDR file with HDR-10 metadata so broadcasters can send only one signal to cover both SDR and HDR applications
- SL-HDR2 is an HDR file with dynamic adjustment allowing a higher nit asset to automatically adjust for lower HDR-capable displays
- Process via template using a Technicolor-generated JSON file
- Automated bright spot and Adaptive Light Control ensures excessive bright spots and diffuse white areas are not created during the HDR upconversion process
- Content is automatically and dynamically adjusted on a frame-by-frame, scene-by-scene basis
- Preset ITM models to match different artistic intent
- Algorithms based on a machine learning system and years of experience from Technicolor research and innovation teams
- ASTC 3.0 compliant

Specifications

PixelStrings™ transcode i/o:

- Input:
 - HDR input codecs: ProRes
 - SDR input codecs: see PixelStrings transcode guide
- Output:
 - SDR output codecs: see PixelStrings transcode guide
 - HDR output codecs: HDR10, HLG, HDR with SL-HDR1 and SL-HDR2 metadata; ProRes, HEVC
- Colorspace i/o:
 - 601, 709, 2020, 2100

Overview

Xenon provides an incomparable, enterprise-grade file-based solution for automated, high-quality HDR conversions from SDR source material to popular HDR standards and the integration of advanced SL-HDR metadata.

Xenon's output capabilities breathe fresh life into SDR libraries for OTT delivery and viewing on the latest home theatre technology. It also streamlines editorial and production workflows for non-HDR content to be seamlessly edited into natively-captured HDR material. Xenon converts SDR to HDR using Advanced HDR by Technicolor HDR Intelligent Tone Management technology to generate up to 2,000 nit assets from SDR sources in HDR, HDR-10, HLG, and SLog3 formats.

Technicolor also developed SL-HDR1 and SL-HDR2, a metadata encoding standard for broadcasters needing to maximize their HDR delivery into a limited amount of channels and bandwidth.

- SL-HDR1 allows cable providers to generate an SDR file, but it contains HDR-10 metadata that automatically displays the expanded HDR color and brightness range without making any set-top box or display adjustments.
- SL-HDR2 enables cable providers to encode HDR-10 with metadata that auto-adjusts the signal based on the nit capability of the television. So whether it is a 400 nit or 1,000 nit capable display, the single 1,000 nit HDR-10 asset will be seen without loss of detail if it is shown on a 400 nit capable display.

What Makes Xenon Different?

It is impossible to take an SDR asset and tone-map it to the HDR color space without addressing noise. We've all seen HDR upconverts where the dark sections of the image are crawling, or the sky has a strange pattern or shimmer that just isn't natural. Using the automated process of Xenon, users can take standard definition/dynamic range material, remove noise or grain and reapply as needed, upres to HD, UHD or beyond, and tone-map with up to 2,000 nits of HDR brilliance!

The simplicity of Xenon gives new options to efficiently convert your libraries of SDR into high-quality HDR content. Do your part to bring trillions of archived content hours into millions of living rooms equipped with HDR televisions.



AUDIO ALCHEMY

Supersonic solutions from the industry's most innovative sound engineers

Standard Features

All audio processing is guaranteed to be faster than real-time for up to 24 channels on hardware, meeting our minimum specification. The processing performance guarantee includes all dependent libraries.

- Accepts up to 48kHz, 24-bit PCM audio
- Up to 256 total channels per file
- Up to 24 hours per file
- Up to 24 files per job
- **Loudness**
 - Loudness Analysis and Correction of soundfield groups up to 7.1
 - User-defined target loudness and True Peak levels
 - ITU BS.1770-4, dialog-gated 1770 algorithms
 - Leq(m), PPM algorithms
 - Content dialog percentage
 - Look-ahead limiting with clip protection
 - Analysis-only functionality for studio specification QC
 - Loudness compliance per segment or entire program

- **Downmixing**
 - Define up to 2,000 program segments Intelligent downmixing of soundfield groups up to 7.1
 - User-specified downmix coefficients, or Skywalker Sound proprietary formulas.
 - Parallel downmixes per job
 - Headroom & digital clipping managed during downmix
- **Summing & Mapping**
 - Advanced mapping matrix allows for channel summing, swapping, exclusion and duplication, and reorganization
 - User-specified summing gain coefficients, or Skywalker Sound proprietary formulas
 - 32-bit float processing
- **Output File Handling**
 - Interleaved or mono WAV file outputs
 - RIFF or BW64 WAV file formats, dependent on length
 - 48 kHz, dither to 24-bit
 - Custom filenames, output locations
 - Sample-accurate output

Premium Features

- **Segment Building**
 - Define up to 2,000 program segments per job
 - Sample-accurate segment bounds
 - Ability to cut, move, replace, trim program
 - Generate null audio for pads and insertions
- **Retiming**
 - High-fidelity audio retiming up to +/- 50% of program length
 - Phase-accurate pitch correction/time alteration of up to 8 channels per group
 - Sample-accurate definition of time-altered segments
 - Individual retime ratios allowed per segment
 - Loudness and true peak transparent through process
 - The Skywalker Sound Tools Standard Feature set is stackable with the retiming process



Overview

Downmixing / Summing / Mapping

The Skywalker Sound Tools Mixing module will automatically detect the format of given soundfield groups and perform high-quality summing and downmixing based on the user's desired output contents and formats. The Mixing module operates in 32-bit float, allowing for proper headroom during high-gain summing scenarios, and will sequence operations intelligently according to input and output groupings. Additionally, users can swap channels with a comprehensive mapping matrix.

Populate Input Groups With Assets
Select an asset

If you don't see your assets here, please go to [Assets](#) page to make sure the assets are loaded and have metadata.

Pass-Through Mapping

Define Input Groups

I.1 Mono

Input Group Channel Order: [C] [L] [R]

Map To Output Group(s): 1 2 3 4 5

I.2 Mono

Input Group Channel Order: [C] [L] [R]

Map To Output Group(s): 1 2 3 4 5

I.3 + add group

Define Output Groups

O.1 Mono 1

O.2 Mono 2

O.3 Mono 3

O.4 Mono 4

O.5 Mono 5

+ add group 6 add label / optional

Loudness Processing

The Skywalker Sound Tools Loudness module provides comprehensive analysis and correction for loudness and peak specifications for up to a 7.1 soundfield group. Current measurement algorithms include ITU BS.1770-4 and dialogue-gated detection (A/85), as well as the ability to adhere to studio-specific technical requirements. There are presets for most popular distribution platforms (Disney+, YouTube, Netflix, etc.).

Enable Loudness Analysis and Processing

Output Group 1:

Loudness Presets Netflix

Loudness Processing Option Analyze And Correct

Measurement Algorithm Dialog Gated ITU BS.1770-1

Loudness Target -27

True Peak Target -2



Overview *(Continued)*

Segment Builder

The Skywalker Sound Tools Segment Builder allows users to construct an output timeline made up of one or more clips. The clips can be time-window selections from the source file (sample accuracy) or silence. Users can identify, edit, insert, and rearrange up to 2000 segments of content within one job. This allows not only for the definition of retiming bounds but also allows the user to effectively specify pads and trims throughout the program. Skywalker Sound Tools intelligently join segments after processing, with appropriate crossfades or fade in/out, maintaining sample accuracy and phase coherence without perceptible bumps, ticks, or dropouts. Null (blank) audio may be created using the Segment Builder.

Supported Input Types

The PixelStrings transcoding engine prepares audio sources for processing within the Skywalker Sound Tools module. Skywalker Sound Tools accept 24 or 16-bit PCM WAV audio files at 48 kHz to ensure the highest quality audio fidelity processing. Each generated WAV file can contain a maximum of 24 interleaved channels and a maximum of 24 hours of content length. Each job can contain a maximum of 24 distinct WAV files, for a maximum of 576 audio channels processed per job.

Retimer

The Skywalker Sound Tools Retimer module intelligently groups channels for sample-accurate, phase-coherent time stretch from .5x to 2x of original program length. The advanced signal processing ensures no crosstalk between channels and includes the ability to match loudness and peak values to the original input program. Segment bounds within a program can also be defined for individual retime ratios.

File Writer

Processed WAV files can be interleaved or split into individual mono elements, per the user's specification.



SUPPLY CHAIN ACCELERATOR

Nuclear fusion for media workflows using the galaxy's most powerful, high-quality conversion system



Features

- **PixelStrings Enterprise Transcoder** – Next-generation transcoding engine
- **Skywalker Sound Tools** – Audio loudness correction, downmixing, channel routing, and retiming
- **Tachyon** – Standards/frame rate conversions
- Tachyon **Wormhole** – Retiming of assets to meet a runtime target
- **Dark Energy** – Denoise and image texture management
- Dark Energy **Xenon** – Automated SDR-HDR upconversion (Advanced HDR by Technicolor)
- **Video Legalization**
 - RightHue proprietary algorithm for accurate color
 - DPP compliant
 - EBU R103 Tight and Optimum
 - NTSC 7.5 IRE
 - NTSC 0 IRE
 - PAL
- **CineCert Anini** – IMF packaging
- **CodeMill** – Accurate Player playback
- For on-prem and cloud configurations, with GUI and/or API (JSON RPC)

Overview

PixelStrings contains the same industry-leading tools that international studios, production companies, and broadcasters trust on their most valuable theatrical, broadcast, and OTT content.

Combining best-of-breed image processing, audio processing, previsualization, and repackaging capabilities makes PixelStrings the ultimate media conversion platform.

PixelStrings is a post-production giant in the cloud, capable of transforming digital video like camera footage, dailies, masters, mezzanines, and archives to fulfill almost any delivery requirement – all at a price that is at least an order of magnitude less than the same quality the large post facilities would charge for.

PixelStrings integrates smoothly into various modern MAM and orchestration systems for optimal operation efficiency and automation.

The
PixelStrings™
Media Engine

MORE THAN YOUR AVERAGE TRANSCODER

The transcoding engine inside the PixelStrings platform is a powerful, extensible engine that provides the utmost in flexibility and functionality. Whether in the cloud or on-prem, PixelStrings transcoding capabilities make it the most robust, automated image processing platform ever created.

Specifications

- **Six simultaneous conversions per license** (On-prem)
- **Supported input containers:**
 - MXF
 - GXF
 - QT
 - MP4
 - MPEG TS/PS
- **Supported input codecs:**
 - ProRes
 - DNx
 - DVC Pro
 - MPEG2
 - H.264
 - H.265
- **Supported output containers**
 - QT
 - MP4
 - MXF
 - MPEG TS/PS
- **Supported output codecs**
 - ProRes
 - DNx
 - MPEG2
 - H.264
 - H.265
- **Skywalker Sound Tools**
 - Audio group reordering
 - Downmixing
 - Channel routing and mapping
 - Loudness correction
 - Retiming & pitch correction
- **Closed caption support:**
 - SAMI, DXFP, SCC, HCC Caption XML
 - CEA-608, CEA-708, CEA-708 translation
 - Video essence captions
 - SMPTE 436M VANC
- **Legalize video** (Gamut legalization)
- **Compute/server requirements**
 - Minimum OS: Windows 10 Professional 64-bit
 - Preferred OS: Windows Server 2012/16 Standard, 64-bit
 - Minimum CPU: 1, Xenon E5-2670 v3
 - Preferred CPU: 2, Xenon Gold 6254
 - Minimum Memory: 32 Gigabytes, DDR4-2133, Dual Rank
 - Preferred Memory: 64 Gigabytes, DDR4-2933, Single Rank
 - Minimum Disk i/o: 300 megabytes of simultaneous read/write throughput
 - Preferred Disk: 1.2 Gigabytes of simultaneous read/write throughput

Image Processing



Included in every minute of processing is the entire Cinnafilm-created image processing library. Tachyon for standards and frame rate conversion, Dark Energy for noise reduction and superlative resolution change up to 8k, and Wormhole for making your project meet the runtime requirements your distribution channels need.

PixelStrings provides a value proposition unequalled by any other cloud-based media transformation service. In a single render, extremely high-quality image processing toolsets are automatically stacked, in an optimal order, to produce the best possible output. Eliminating multiple steps prevents render degradation and accelerates delivery times for some of the most sought-after image processing functions.

The Best in Audio

Cinnafilm has partnered with the legendary audio minds at Lucasfilm's Skywalker Ranch to provide the audio processing engine in PixelStrings. Skywalker Sound Tools was designed to provide the utmost in audio grouping and channel routing capabilities along with one of the most comprehensive audio loudness processing engines ever created. Loudness presets are included for the majority of large content aggregators, as well as the ability to customize the audio processing to meet any specification.

Wormhole retimings are also in line for the Skywalker Sound upgrade. Pitch corrections and time compression/expansion will be handled by the Skywalker Sound engine with no crosstalk, audio phasing, pops, glitches, or dropouts. It will quickly become one of the strongest audio retiming solutions available on the market.

Automated SDR-HDR Upconversion Brilliance



Xenon SDR-HDR upconversion is a partnership technology with Technicolor. Advanced HDR by Technicolor is an incredibly accurate, Intelligent Tone Management (ITM) solution that automatically generates HDR-10 and HLG assets up to 2,000 nits. No trim pass is necessary, and no need to book a colorist. Just select a preset, and your HDR asset is a short render away.

Options That Don't Break the Bank

There are times when features require significant engineering investment because of their complexity and involvement with other technology companies to deliver the best solution. When necessary, Cinnafilm charges a slight premium to ensure the economics are always kept in check for Cinnafilm and our partners.