

# THE GOLD STANDARD

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

## Features

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- 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 patterns 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

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### Supported Conversions

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

### Telecine & Patterns Removed (clean or edit-broken):

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- 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)*

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### File-Based Integrations:

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

### Compute Requirements:

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- 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:

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- Telestream Lightspeed Live Stream

## Overview

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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.