Transkoder 2017 is the latest release of Colorfront’s mastering system for digital cinema and high-end UHDTV production. Colorfront Transkoder is the ultimate tool for DCP and IMF mastering, offering the industry’s highest performance JPEG2000 encoding and decoding, 32-bit floating point processing on multiple GPUs, MXF wrapping, accelerated checksums, encryption & decryption, IMF/IMP and DCI/DCP package mastering, editing and versioning.

Transkoder 2017 adds features such as Dolby Vision HDR encoding and soft-CMU, Samsung HDR10+ Dynamic Tone Mapping support, Dolby Digital Plus audio encoding, up to 24 channel audio output and support for Civolution NexGuard Manager for forensic watermarking.

Advanced DCP/IMF mastering features include a new automatic trans-wrapping engine, IMSC1 timed text rendering and conversion, HDR brightness control for subtitles, package validation with integrated Photon, multi-channel audio labeling and flexible naming templates.

Key Features of Transkoder 2017 Include:

- **DCP, IMF & AS-11 DPP**
  - Industry-leading IMF, DCP, AS-11 DPP mastering, authoring, validation, and QC tool

- **Performance**
  - 4K DCP/UHD IMF and HEVC encoding at 100+ FPS

- **Raw Support**
  - Highest quality RAW deBayering from any camera including ALEXA65, VariCam 35, Red Weapon 8K

- **Colorfront Engine**
  - 32-bits per channel managed look pipeline built on ACES 1.0

- **Watermarking**
  - NexGuard forensic watermarking from Civolution with extreme performance even in 4K

- **High Dynamic Range**
  - Dolby Vision, HDR10 and HLG 1.2 support with industry leading HDR mastering tools

- **Dolby Atmos**
  - Transkoder is certified to create DCPs with Dolby Atmos audio

- **Dual UHD/4K Output**
  - 2x simultaneous real-time 4K video outputs for concurrent HDR / SDR mastering

- **PC, Mac and Cloud Platforms**
  - Running on off-the-shelf workstation, no obsolescence-prone, proprietary hardware
TECHNICAL SPECIFICATIONS

ULTRA HIGH PERFORMANCE AND OPEN ARCHITECTURE

Native 64-bit application
Real-time 4K60P playback of most RAW camera formats
32 bits per channel, floating point image processing
Python scripting for flexible customization
Watch folders and full featured REST API
Automatic QC tools and PDF report generation
SMPTE ST 2086:2014 Dynamic metadata support

DCP AND IMF MASTERING

InterOP and SMPTE packages
Encryption and KDM generation
Supplemental DCPs / Transwrapping
Validation tools with reporting
Stereoscopic 3D support
High Frame-rate support
PNG/timed text animated subtitles
Dolby Atmos and D-BOX support
Insert Editing for IMF / DCP / AS-11 MXF
Bitrate and PSNR analysis tools
IMF presets for major studios
Dolby Vision metadata support
App2E+ IMF with HDR support
Automatic trans-wrapping engine
IMSC1 rendering and conversion
Integrated Photon validation

COLOR CORRECTION AND IMAGE PROCESSING

Full ACES 1.0 workflow support with IDT, RRT, ODT
ASC-CDL import / export in CMX EDL, ASC CCC
1D and 3D LUTs in .cube and .3dl formats
Resizing and anamorphic squeeze
UltraScaler - high quality resize engine for HD to UHD scaling
DVE - reposition, resize, rotation, flip & flop
Burn-in - text burn-in of multiple metadata including KK, TC, user text, watermark, logo, and spoiler, letterboxing
Advanced monitor calibration including probe support
High Dynamic range expansion
Advanced Look Design tools

SUPPORTED FORMATS

SOURCE MEDIA & CAMERA FORMATS

Uncompressed media (DPX, TIFF)
OpenEXR uncompressed 16bit format support
Sony F65RAW/F55RAW/F5RAW, XAVC 4K
Canon C500 RAW, 4K XF-AVC INTRA
Panasonic Varicam 35 AVC-Intra and VRAW
Alexa ARRIRAW, including Mini, MXF (RAW), SXT and ALEXA65 RAW
ProRes 422 and 4444, including XQ
Phantom, S12K, Aaton, Indicam etc.
Blackmagic Cinema Cameras, Cinema DNG
Red (R3D) support with GPU deBayer including 8K Weapon
Panasonic Varicam 35, AVC-Intra 422,444,LT (4K, 2K, HD) and VRAW XDCAM
JPEG2000 MXF and J2K/J2C
DSLR RAW (CR2, NEF, ARW)
Various H264 formats
YUV 422 uncompressed AVI
SONY XAVC 4K and SRFile SSTP encoding and playback

ENCODING FORMATS

High Efficiency Video Codec (HEVC)
VFX export in DPX and OpenEXR format with per-frame metadata
Digital Cinema Package (DCP) with subtitles, CC, encryption
Interoperable Mastering Format (IMF)
3:2 pull-down for Quicktime ProRes deliverables
AS-11 DPP MXF, AS-02, Dolby Vision MXF
Apple ProRes (444, 422, Lt, Proxt, HQ) PCM / AC3 audio
Avid DNxHR and DNxHD MXF and DNxHD Quicktime files, SD codecs
MPEG4 H.264 for broadcast and web delivery including 10-bit / x264
MPEG2 for authored DVDs, chaptered Blu-ray, etc.
MPEG TS H.264 10bit at various bitrates with AC3 audio
XDCAM
DPX, TIFF, OpenEXR, JPEG2000, JPG
WAV broadcast wave audio files, stereo and multi-channel