

colorfront 

Transkoder 2016



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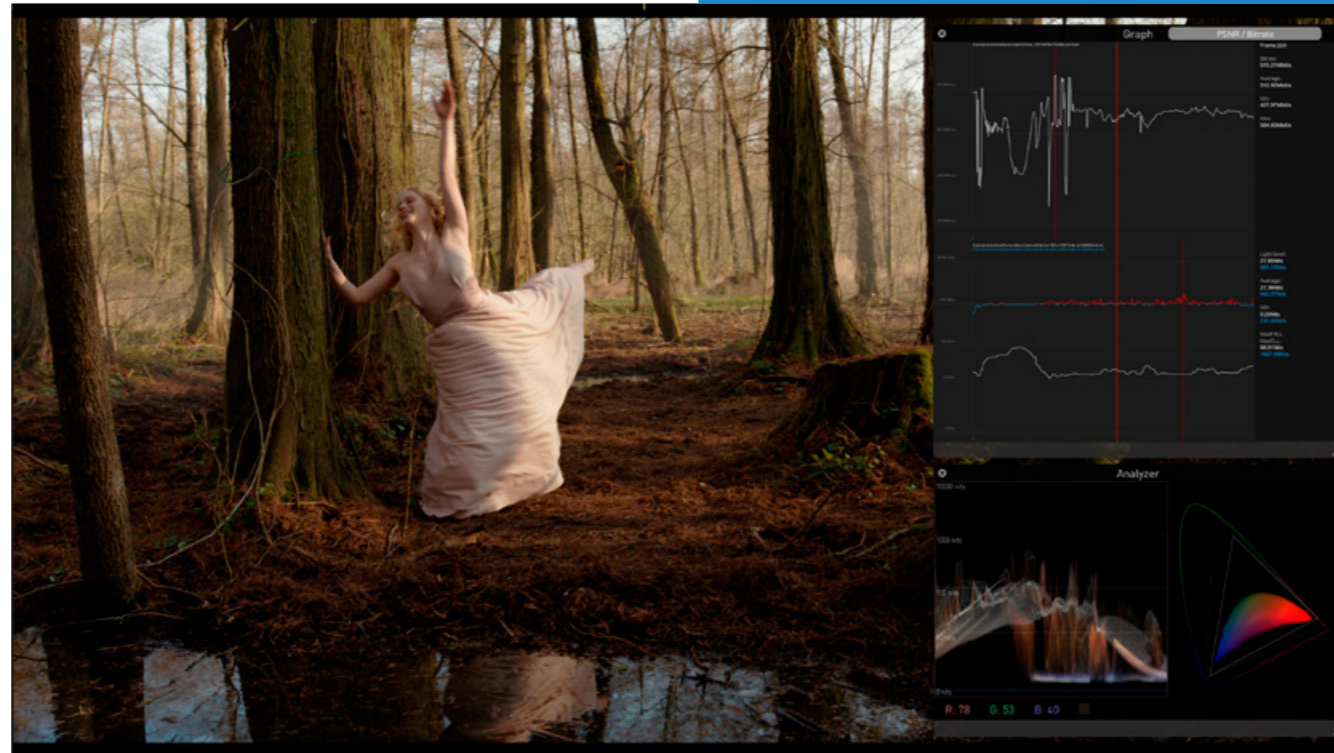
Transkoder 2016

TRANSKODER IS BASED ON COLORFRONT'S AWARD WINNING ON-SET DAILIES ARCHITECTURE AND USES COST-EFFECTIVE, COMMODITY HARDWARE TO DELIVER FASTER-THAN-REAL-TIME PROCESSING TO TRANSCODE, DECODE, CONVERT, WRAP AND PROCESS FILES TO VARIOUS HIGH-END FORMATS.

Transkoder 2016 is the latest release of Colorfront's mastering system for digital cinema and high-end UHD TV 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 2016 adds features such **Dolby Atmos audio** and **Dolby Vision HDR** encoding, per frame metadata to OpenEXR, **Civolution NexGuard forensic watermarking**, **AS-11-DPP** output, **audio level meter** and **vectorscope**, **CIE XY HDR** analyzer, automatic calculation of **MaxFALL / MaxCLL** values to be inspected in a graph window for **SMPTE ST 2086:2014**.

Advanced DCP/IMF mastering features include **Time Text format (SMPTE-TT)**, **closed caption and subtitles**, including keyframe animated PNG/text based subtitles, **insert editing**, **bitrate and PSNR analysis**, two pass encoding with PSNR and bitrate targeting, **package validation** with logging and reporting and international language support.



TRANSKODER 2016 IS THE LATEST RELEASE OF COLORFRONT'S STANDALONE MASTERING SYSTEM FOR DIGITAL CINEMA AND HIGH-END UHDTV PRODUCTION, BASED ON COLORFRONT'S AWARD WINNING ON-SET DAILIES ARCHITECTURE.

Running on the latest Mac and PC platforms, including the latest Supermicro and HP Z840 workstations and the Mac Pro, Transkoder 2016 allows online editing of RAW camera data, converting to various output formats, color grading and mastering for HDR and rendering various 2K/4K/UltraHD high-end delivery and mezzanine formats.



KEY FEATURES OF TRANSKODER 2016 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 support and 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
- MXF wrapping for video and audio
- Checksum calculation
- Supplemental DCPs / versioning
- Validation tools with reporting
- Package naming based on DCI convention
- Stereoscopic 3D support
- High Frame-rate support
- PNG/timed text animated subtitles
- Closed caption support
- Dolby Atmos and D-BOX support
- Insert Editing for IMF / DCP / AS-11 MXF
- Bitrate and PSNR analysis tools
- Dolby Vision metadata support
- App2E+ IMF with HDR support
- Automatic trans-wrapping engine

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, SI2K, Aaton, Indicom 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

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, JPG2000, JPG
- WAV broadcast wave audio files, stereo and multi-channel

For more information, please visit: www.colorfront.com.

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