

# WohlerConverter™

Intelligent Media Transformation



World's fastest file-based solution for standards conversion, frame rate conversion and transcoding

The WohlerConverter is the world's most robust transformation engine for file-based standards conversion and frame rate conversions while transcoding. Built on advanced technology from RadiantGrid™ and Cinnafilm®, it enables quality management and advanced algorithmic processing within video and audio streams during content preparation or transcoding.

Using both temporal and spatial image re-sampling, source video and image files are converted to any new frame rate or resolution. With the motion compensated engine delivering incredibly accurate motion vector data, the ability to interpolate new frames for any desired delivery specification or standard is unmatched in the industry. Improve your transcoding output quality when moving between standards or frame rates, easily handle content that needs to convert from MXF 29.97 format to 25 (PAL) ProRes for iTunes®, and even apply automatic detection of mixed cadence within the source for 3:2 pulldown repair on outgoing files.

Powered by RadiantGrid



Leveraging built-in frame pumps that offer load balancing between internal CPU and GPU resources, WohlerConverter's workers are utilized to handle parallel processing of files for maximum volume. Alternately, RadiantGrid's exclusive TrueGrid™ parallel processing can be invoked to further accelerate the process. For example a user can convert swiftly between 1080i EVS 50 (PAL) to 720p QT DVC ProHD 59.94 (NTSC) with a 6 worker configuration at two times faster than real time speed. Simply select a flag in your profile setting to divide concurrent reading processes against native video essences into multiple jobs or "VirtualSlices™". TrueGrid proprietary technology optimizes the number of available workers to handle intensive processing tasks at speeds never before experienced.

#### Features/Benefits:

- Turnkey file-based solution for accelerated media transformation
- Run concurrent multiple frame rate conversions and/or transcodes
- Resolution scaling: Mobile device to 4K
- Frame rate conversion: Any to Any
- Standards conversion: 525, 625, 720, 1080, 2K, 4K
- Automatic Cadence Correction
- Interlaced/progressive/pulldown interchange
- Mixed Pulldown (60i + 24p) and broken pulldown repair
- Accurate motion blur modeling
- Timecode preservation (drop frame/non drop frame)



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Additional Features include:

## Process On-Demand

Move beyond watch folders and leverage the embedded content management and storage management policies to optimize re-use or re-try requests by selecting your asset or assets and going directly to Transcode.

## Basic Content Management

Includes both metadata and asset management with a robust object-based repository that drives workflow and enables search, browse and management of aging policies for assets and renditions.

## Ancillary Data Handling (Subtitles/Captions)

Ancillary data is extracted into a mezzanine XML data format called RadiantGrid CaptionXML™ and can be converted (SMPTE 334M, EIA-608, EIA-708, SCTE-20, AFD, timecode), embedded (MPEG-2, H.264), muxed (SMPTE 360M - GXF or SMPTE 436M - MXF), or exported as an independent caption output file (SCC, SMPTE-TT/DFXP, or SAMI).

## Production Management

Asset rich management leverages auto indexing of metadata and metadata insertion against thumbnail and proxy combinations, including the ability to mark in and out points, create clips, assemble and generate new file output types.

Optional Plug-Ins:

## Cinnafilm® Dark Energy®

Enables post production and quality assurance users to enhance to extraordinary image quality from some unlikely sources, including when going from SD to HD. Whether it is video, film, or CGI, all images are easily conformed to one texture making compositing and coloring easier.

## Linear Acoustic® AERO.file® Module

Upmix/Downmix and maintain loudness standards compliance in the file domain, in parallel with conversion processes. The uncompressed PCM audio mezzanine is measured, scaled, and processed, then re-inserted in time without disturbing other video or data processes.

Supported File Types

### Video

- 3GPP(SD)
- 3GPP2(SD)
- Apple iPhone H.264(SD)
- Avid DNxHD (HD)
- Avid DV100 (HD)
- Avid DVCPR050 (SD)
- Avid IMX50 (SD)
- Cineon (HD)
- DivX (SD)
- DPX (HD)
- DV/DVCPR025/50 (SD)
- DVCPR0-HD/100 (HD)
- EVS MXF(HD/SD)W
- Flash 8 (On2 VP6) (SD)
- H.264/AVC (HD/SD)
- JPEG2000 (HD)
- MPEG-1/2 (HD/SD)
- MPEG-4 Part.2 (HD/SD)
- Quicktime (HD/SD)
- QT ProRes( HD)
- Real Helix (SD)
- RED R3D (HD)
- VC-1/Silverlight (HD/SD)
- Windows Media Video
- Xvid (SD)
- XDCAM

### Audio

- AAC
- AC3 (Stereo,5.1ch)
- ACELP
- AIFF
- AMR
- BWF
- Dolby E
- FLAC
- MP3
- MPEG Layer II
- Ogg Vorbis
- PCM
- Real Audio
- WAV
- WMA(Stereo, 5.1ch)

### Containers

- 3GPP
- AVI
- EVS MXF
- GXF
- LXF
- Omneon QT (MPEG-2, DV)
- PINNACLE (READ ONLY)
- QUICKTIME
- Windows Media (ASF)
- CABLELABS 1.1/2.0
- DVB (MPEG-2)

Available in 3 worker or 6 worker configurations

### Tall (3 Workers)

Dual Hex-core Sandybridge (24 Logical)
32 GB RAM
3 Tesla Fermi GPU cards
2 or more 10 Gbps Ethernet Connectivity NICs
Windows Server 2008 R2 64 bit
Local Storage: Multi TB RAID Array
Optional: Fiber Channel HBA card

### Grande (6 Workers)

Quad Hex-core Sandybridge (48 Logical)
32 GB RAM
6 Tesla Fermi GPU cards
2 or more 10 Gbps Ethernet Connectivity NICs
Windows Server 2008 R2 64 bit
Local Storage: Multi TB RAID Array
Optional: Fiber Channel HBA card

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