

Video Compression Tools



Douglas Dixon
Manifest Technology® LLC

May 2005

www.manifest-tech.com

Automated Video Processing Tools

Video Compression and Conversion

- **Video Processing**
 - Video compression and conversion
 - Automated batch processing
- **Processing Steps**
 - Select source files
 - Define video and audio pre-processing
 - Define target formats and compression
 - Select target locations and filters
 - Convert, compress, output

Canopus
ProCoder



Discreet
cleaner



Sorenson
Squeeze

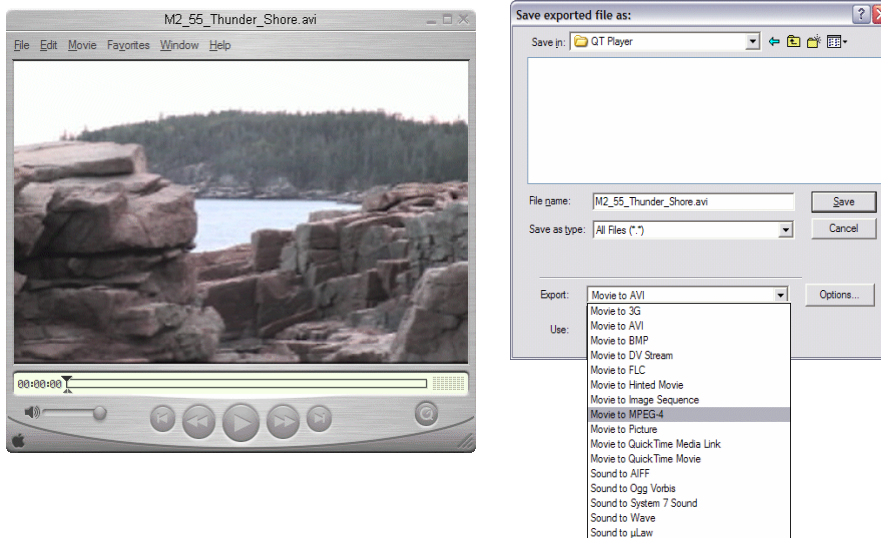


Video Compression Tools

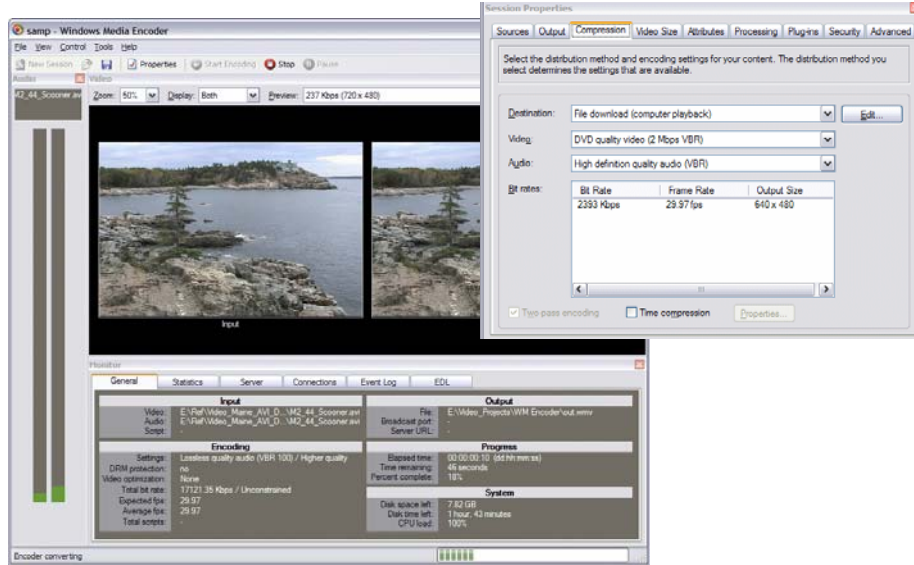
Video Editing to Compression Tools

- **Consumer Video Editors**
 - Automated, w/ DVD – \$50 - \$150
 - Clips: Capture, organize, export
 - Apple iMovie, Windows Movie Maker
 - Adobe Premiere Elements
 - Sony Vegas Movie Studio
 - Pinnacle Studio
 - Roxio VideoWave, Ulead VideoStudio
- **Format-Specific**
 - Downloads
 - QuickTime Player Pro, \$29
 - Win Media Encoder
 - RealProducer, Plus \$199
- **Professional Video Editors**
 - Compositing, motion, effects
 - Projects – \$300 - \$1700
 - Apple Final Cut Pro
 - Adobe Premiere Pro, Sony Vegas
 - Avid Xpress, Pinnacle Edition
 - Ulead MediaStudio Pro
- **Video Processing**
 - Batch compression
 - \$500 - \$600
 - Sorenson Squeeze
 - Canopus ProCoder
 - Discreet cleaner

QuickTime Player Pro



Windows Media Encoder



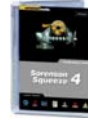
Automated Video Processing

Individuals and Workgroups

- **Sorenson Squeeze**
 - Squeeze 4 (4.1) - Aug. 2004 - Win/Mac
 - Suite \$449, Macromedia Flash MX \$119, MPEG-4 \$199
 - www.sorenson.com
- **Canopus - ProCoder**
 - ProCoder 2.0 - April 2004, \$499
 - ProCoder Express - Nov. 2003, \$59
 - www.canopus.com
- **Discreet - cleaner**
 - Cleaner XL for Windows - March 2003, \$599
 - Cleaner 6 for Max OS X - Oct. 2002, \$599
 - www.discreet.com/products/cleaner



Squeeze: Features

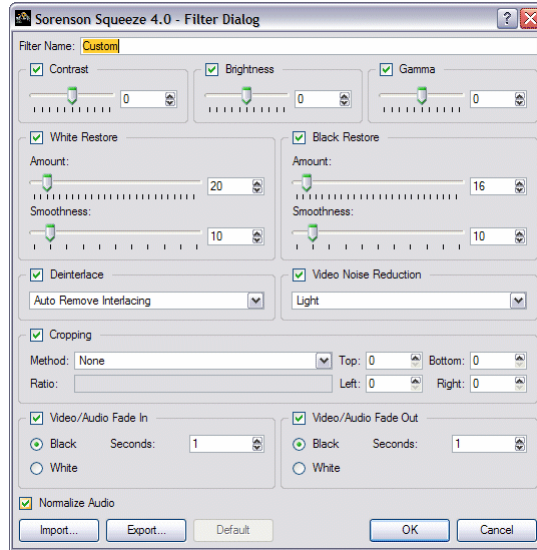


- **Sorenson Squeeze 4**
 - Source Trim, Crop – Preview and Zoom
 - Intelligent Presets, Save Filter Settings
 - Batch Processing – Job, Source, and Output Levels
 - Multiple Watch Folders, Multiple Outputs
 - One- and Two-Pass Variable Bit Rate (VBR) compression
 - Constrain Output File Size
- **Video Output Support**
 - High Definition encoding for MPEG-1, MPEG-2, MPEG-4, QuickTime, RealMedia, and Windows Media 9
 - MPEG-4 AVC (H.264) – 70% data rate of MPEG-4
 - Flash (SWF) – Playback action controls, Player templates, Stitching

Squeeze: Interface



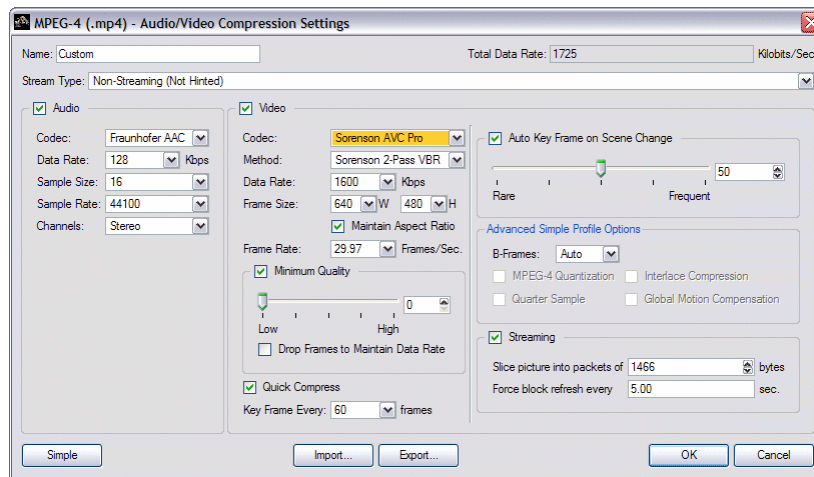
Squeeze: Filters



Audio/Video Filters

- Contrast/brightness
- White/black restore
- Smoothing
- Telecine removal
- Deinterlacing
- Video noise reduction
- Cropping
- Fade in/out
- Audio Normalization

Squeeze: Compression Settings



Canopus ProCoder

- **Canopus Corp.**
 - High-quality multi-format video creation
 - www.canopus.com
- **Releases**
 - ProCoder - May 2002, \$699
 - ProCoder 1.2 - Oct. 2002
 - ProCoder 1.5 - April 2003
 - ProCoder Express - Nov. 2003, \$59
 - ProCoder 2.0 - April 2004, \$499



ProCoder: Products

- **Canopus ProCoder Express - Nov. 2003, \$59**
 - Create video files for DVD, VCD, Web streaming and emailing
 - Convert almost any video source to popular formats
 - MPEG-1, MPEG-2, Windows Media, QuickTime, RealVideo, DivX
 - Wizard, Watch folder
- **Canopus ProCoder 2.0 - April 2004, \$499**
 - MPEG-4 through DivX Pro
 - Flash export - convert video formats to Flash graphics
 - New wizard simplifies transcoding process
 - New job queuing - schedule transcoding jobs to run in succession
 - Watch folders

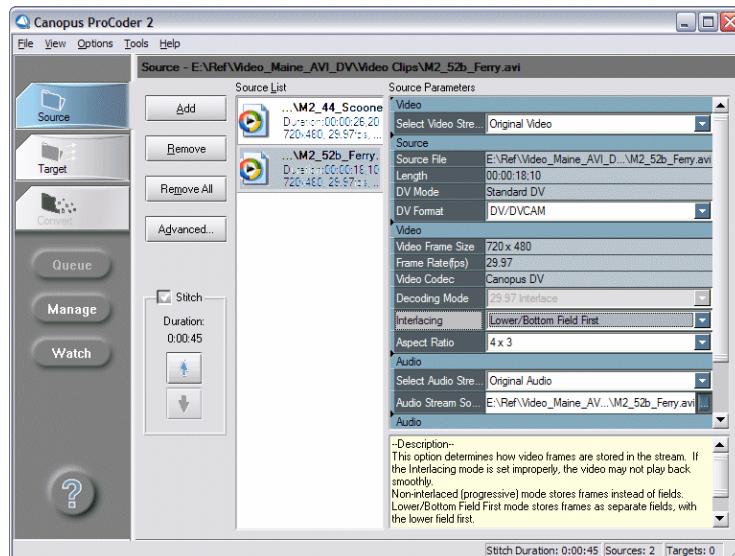


ProCoder: Advanced Features

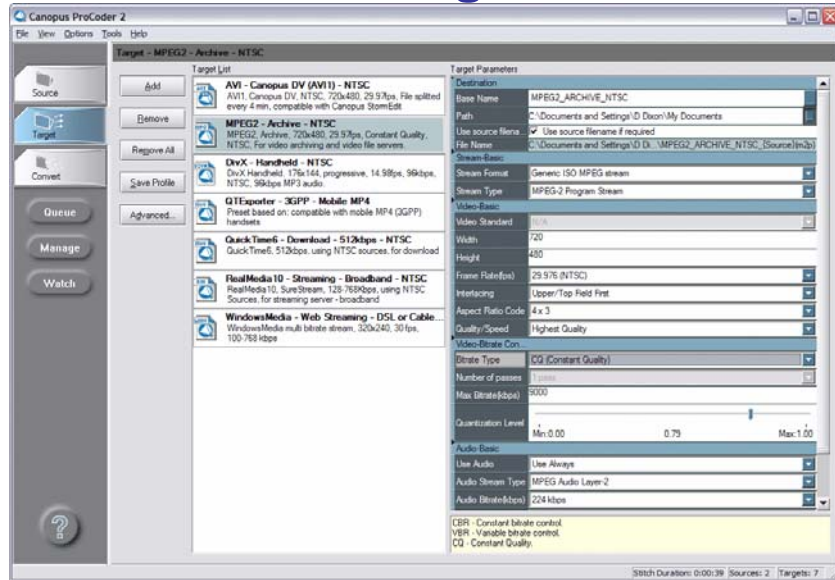


- **Conversions**
 - Aspect ratio conversion
 - Frame rate interpolation and conversion
 - NTSC/PAL conversion
 - 3:2 pulldown
 - Automatic adaptive deinterlacing
- **Processing**
 - Multi-pass VBR processing
 - Save droplets for drag-and-drop conversion
 - Export plug-in for Canopus EDIUS and Adobe Premiere Pro
 - Job queuing manager with priority functions
 - Network source/destination support
 - Multiple colorspace support - YUV, RGB
 - Multiprocessor and Hyper-Threading support
 - Timecode and Closed Caption preservation

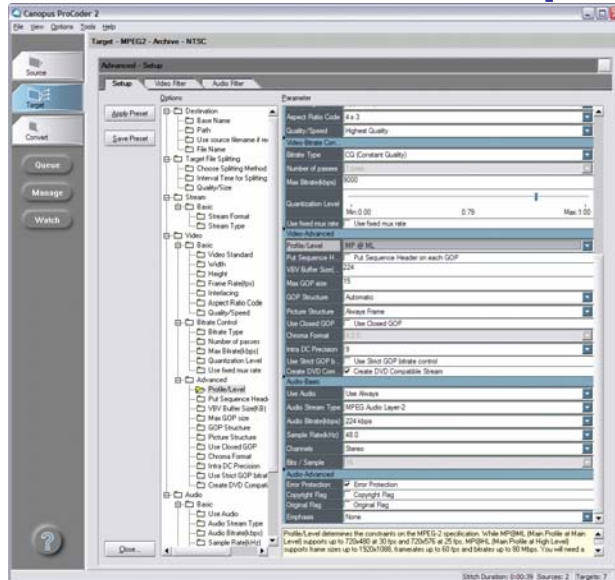
ProCoder: Source Files



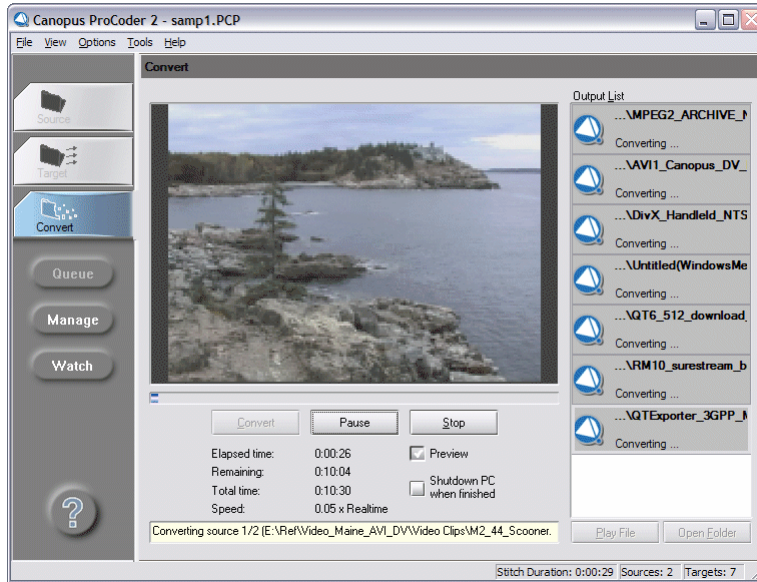
ProCoder: Target Formats



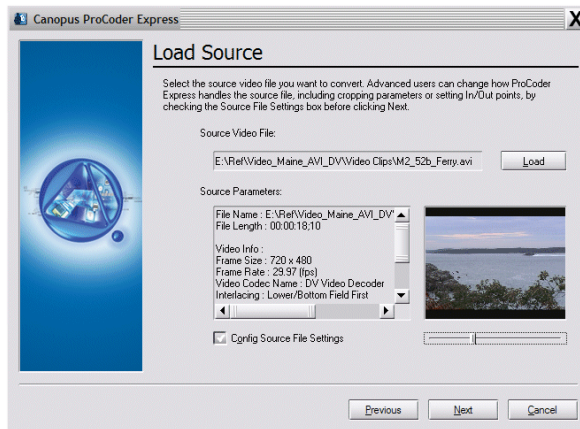
ProCoder: Advanced Options



ProCoder: Convert



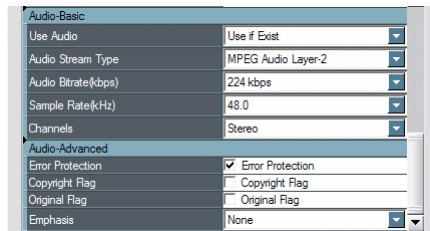
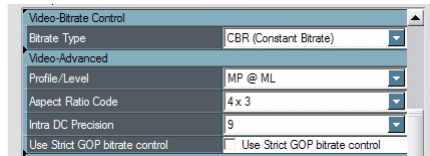
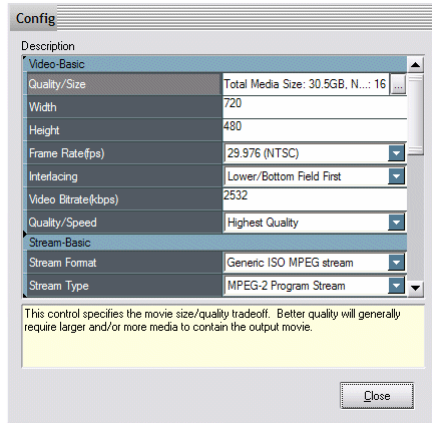
ProCoder Express: Source



Wizard

- Convert or Watch Folder
- Load Source
- In and Out Trim
- Crop
- Advanced Settings
 - Interlace, Aspect
- Format Wizard or Generic Format
- Adv. Output Format
 - Video, Bitrate, Adv.
 - Audio, Rate, Adv.
- Output Folder / File

ProCoder Express: Format



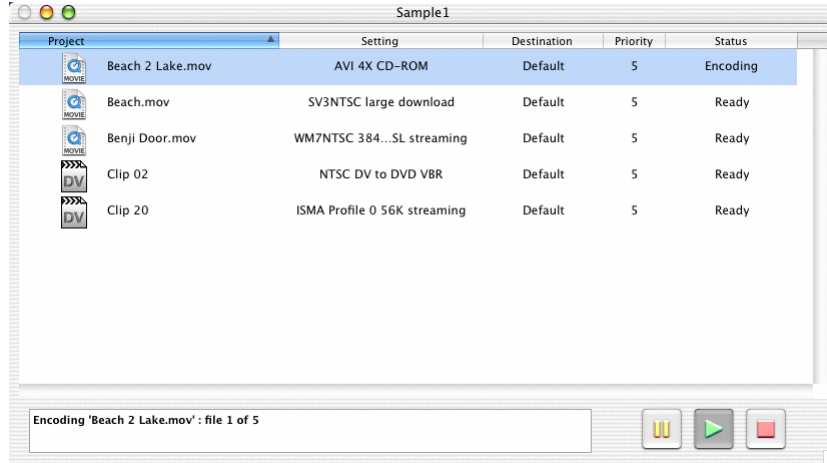
Discreet cleaner

- **cleaner 6 for Max OS X - Oct. 2002, \$599**
 - QuickTime, RealMedia, Windows Media, Kinoma (PDAs)
 - MPEG-4 and Advanced Audio Coding (AAC) via QuickTime 6
 - MPEG-2 variable bit rate (VBR) 2-pass encoding
 - Watch Folders, drag-and-drop encoding
 - Optimization for the G4 Velocity Engine and dual processor

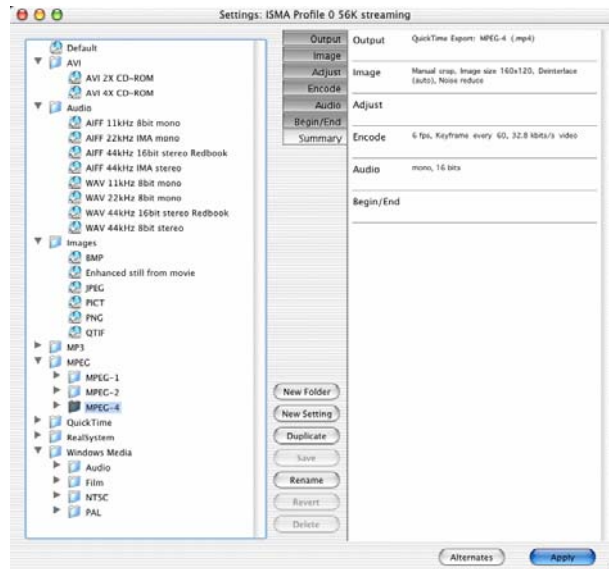
- **cleaner XL for Windows - March 2003, \$599**
 - Rearchitected for Windows XP, optimizations
 - Dramatically redesigned interface
 - Latest formats: Windows Media 9, QuickTime 6, MPEG-4
 - Save & share profiles
 - SP 1 - July 2003 - MPEG sizes and rates: high definition
 - SP 2 - Sept. 2003 - Output Macromedia Flash MX Professional 2004



cleaner 6: Batch



cleaner 6: Settings

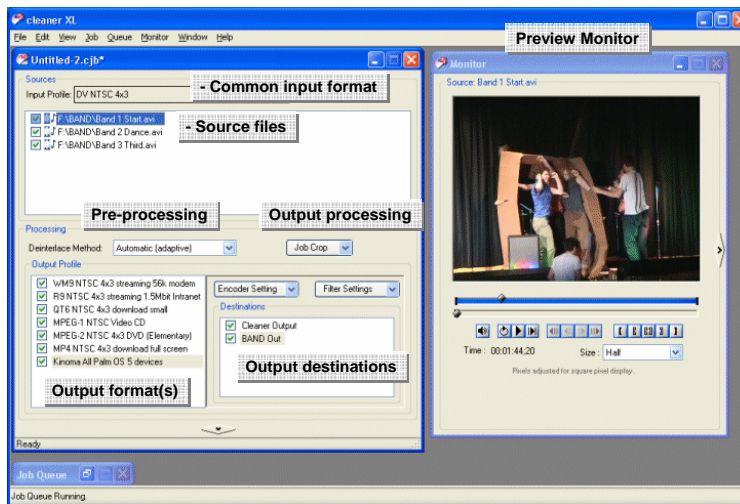


cleaner XL: Features



- **Formats**
 - Microsoft Windows Media 9, input, HD and multi-channel audio
 - QuickTime 6, including MPEG-4 video and AAC audio
 - RealSystem 9, including multi-channel audio
 - Kinoma format for Palm OS based PDAs
 - 60 media formats: MPEG (1, 2 & 4), AVI, MP3, WAV
- **Performance**
 - Optimizations for multiple processors and Hyper-Threading
 - Intelligent color space conversion
 - 100%-250% faster than cleaner 5.1.2 on same hardware
- **Productivity**
 - Job-based workflow, manage job queue, simultaneous
 - Over 180 customized output encoding profiles
 - Re-useable job templates, video & audio filter presets
 - Watch Folders for automated drag and drop encoding
 - Publish to multiple local, network, FTP / Web destinations

cleaner XL: Job Setup



For More Information



The Manifest Technology site by Douglas Dixon contains over 150 articles and technical references on multimedia technology, especially digital video editing and DVD authoring.



Manifest Technology is a registered trademark of Douglas Dixon