

Pixel Xstream® Network Transcoder 2.0

Capture, Transcode and Stream

- Capture MPEG-2 TS / WMV streams
- Real-time output up to 1080p30 with MPEG-2 TS and WMV streaming from streams or files
- Simultaneous output to file for future On-Demand use

Repurpose and Monetize Content

- Ingest User Generated Content and Professionally produced media files
- Hands-free operation using multiple Watch Folders
- Deliver files to distribution servers and web publishing points

Extensive Format Support

- Ingests all popular web, mobile and broadcast file formats
- HD and SD
- Output H.264, Flash, MPEG-4/MP4, 3GPP, MPEG-2, WMV/VC-1 and more
- **PLUS** optional MXF broadcast formats including JPEG2000 and DNxHD

Intelligent, On-the-Fly, Adaptive Video Enhancement Engine

- Delivers superior video quality at reduced bit rates
- Monitors source video and applies enhancement filters when and as needed, to deliver optimal quality
- Patented, low latency, low overhead allows always-on operation

Powerful Tools Reduce Setup Times to Just Minutes

- Intuitive user interface
- Simple access to codec settings
- Always-on, adaptive video enhancement mode
- Unique side-by-side preview
- Pre-defined profiles

Scalable from Single Workstation to Server Farm

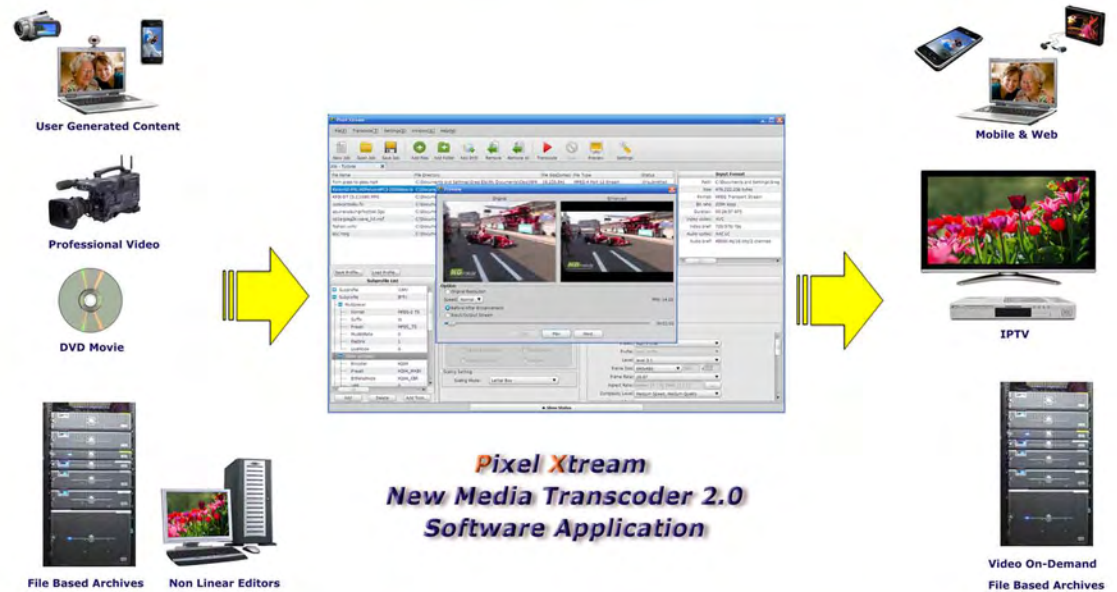
- Monitored and controlled with the optional NetCommander applications

Work Flow Integration

- Easily integrated using XML API or simple command script

Ingest, Transcode, and Stream live IP video streams and file-based content

PLUS – intelligent, on-the-fly video enhancement optimized for video quality and performance



The **Pixel Xstream Network Transcoder 2.0** is an HD + SD streaming media transcoding software application with the ability to ingest live streams and video files. It can transcode and stream in real time, save to a file, or both. It is also a high volume multi-format, file-based video transcoder delivering best-in-class speed, throughput and video quality.

The **Pixel Xstream Network Transcoder 2.0** allows you to deliver superior visual quality at all bitrates while automating ingest and delivery of content to new media platforms. Using Ipera's patented intelligent video enhancement engine, it analyzes the source video and automatically removes noise, distortion, and artifacts that are the result of earlier compression attempts. This results in lower bitrates while boosting visual quality with sharper contrast, improved brightness, vibrant color, and sharper edges and details.

The **Pixel Xstream Network Transcoder 2.0's** intuitive interface gives you complete control. Capture and transcode an IP video stream, stream it out and simultaneously save it to a file. Convert a single file into multiple streams or to any number of target files. The extremely low latency of the video enhancement engine enables an always-on adaptive enhancement mode thereby eliminating the need for manual adjustments for scene changes or varying source video quality while still delivering real-time HD performance. Select from pre-defined job templates or create your own to specify capture and transcode settings, video and audio processing functions, and delivery options.

Run **Pixel Xstream Network Transcoder 2.0** as a stand-alone application or use Ipera's optional **NetCommander** application to manage multiple nodes or channels in high density applications such as mobile TV, IPTV, or TV Anywhere.



Pixel Xtream®

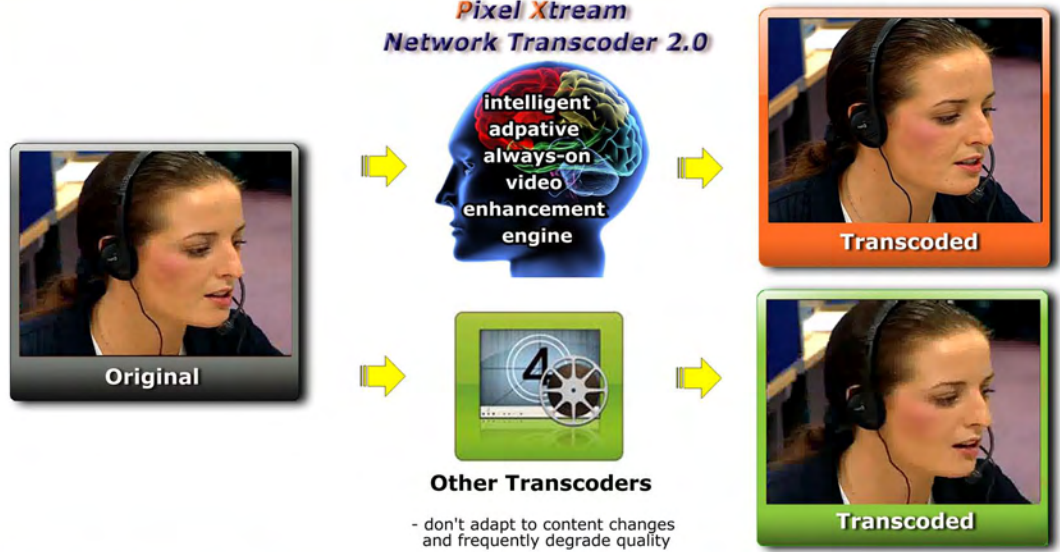
Network Transcoder 2.0

Features

- Real-time transcoding from IP streams
- Stream from source files
- Capture/transcode to file from streaming video
- Archive to files during live streaming
- Batch file processing
- Multiple target outputs
- Multiple watch folders
- Multi-threaded:
 - automatically detects system resources and configures to maximize throughput
 - supports simultaneous transcodes
- Side-by-side preview
- Settings templates for common targets
- Motion compensated de-interlacing
- Multi-pass VBR and CBR encoding
- Logo/watermark insertion
- Open caption/Subtitle insertion
- Frame size conversion
- Frame rate conversion
- Color space conversion
- Aspect ratio conversion
- PAL/NTSC conversion
- SD/HD conversion
- Direct DVD import

PLUS

- Intelligent, adaptive video enhancement with always-on mode:
- De-blocking
 - De-ringing
 - De-mosquito
 - Contrast and brightness adjustment and balancing
 - Color and skin tone adjustment and balancing
 - Edge and detail enhancement
 - 3D noise reduction and removal



Formats Supported

Streaming Video

- In: MPEG-2 TS, WMV
- Out: MPEG-2 TS, WMV

Video Codecs

- MPEG-1, MPEG-2*, MPEG-4*
- H.263*, H.264*, Flash*
- Windows Media*, VC-1*, DivX, XviD
- DV, DV25, DV50, DV100, DVCPro, DVCPro50, DVCPro HD
- AVC-Intra, JPEG 2000*, D10 (IMX)
- DNxHD*, RAW/RGB*, YUV*

Audio Codecs

- AAC*, AAC+*, AMR*
- MP3*, MPEG Layers 1/2*
- Windows Media*
- PCM*, WAV

Media Containers

- 3GPP, 3GP*, 3G2*
- MP4*, FLV*, F4V*, M4V
- MPEG-2 TS*, MPEG-2 PS, M2V,
- WMV*, ASF, AVI*, MKV
- MXF*, MOV, VOB

* output supported

Benchmark Data

Faster than Real-Time File Processing with Intelligent Video Enhancement Active

Use Cases	Target Format	Source Format	
		25 Mbps DV/AVI	5 Mbps SD MPEG-2TS
Mobile	3GPP H.264 320 x 240 128 kbps	12.6 X	13.7 X
	iPhone 640 x 480 kbps	5.1 X	5.9 X
Web	Flash 9 480p 2 Mbps	4.3 X	5.1 X
	MP4 H.264 640 x 480 700 kbps	5.1 X	5.9 X
	WMV VC-1 480p 1.5 Mbps	0.9 X	1.2 X
Broadcast IPTV	MPEG-2TS H.264 480p 800 kbps	5.5 X	5.8 X

note: all data is expressed as multiples of real-time using dual Xeon E5450 3GHz CPUs with 4GB RAM

System Requirements

- OS: Windows Server 2003/2008
 Windows 7, Windows XP/Vista
- CPU: 2.0 GHz min, dual core
 (quad core recommended for HD streaming)
- RAM: 512 MB min (> 2 GB recommended)
- Microsoft DirectX 9.0c or later

