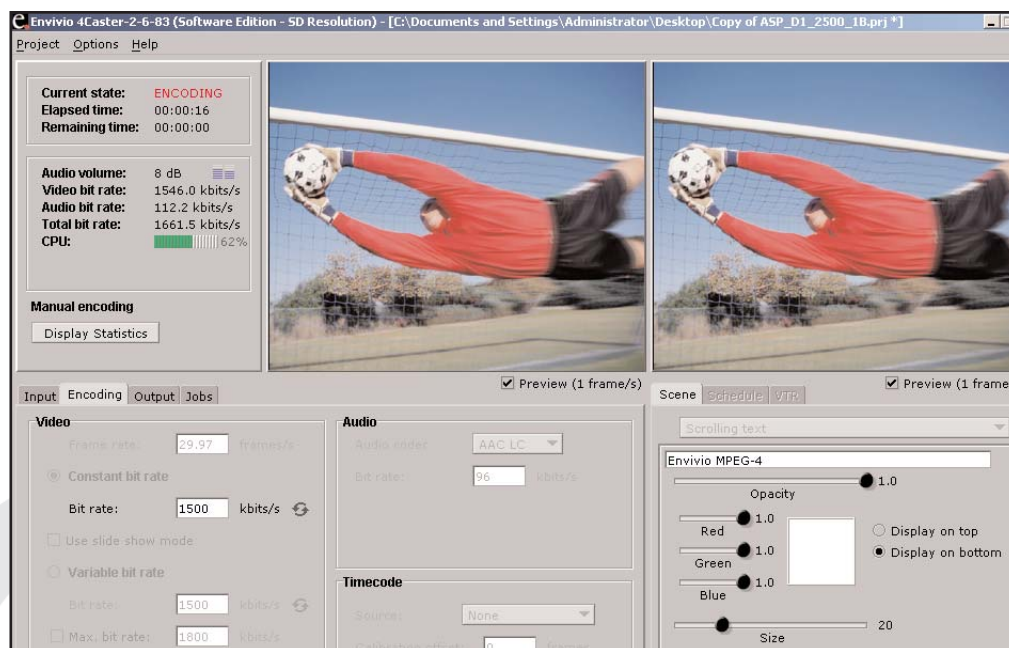# envivio®

4Caster™ - Software Edition
Real-Time MPEG-4/H.264 Encoder
for Media Transport and IPTV Solutions

Solution for encoding content in real time and simultaneously creating archive or VOD assets

- **Real-time ISMA compatible MPEG-4 encoding**

- **Live audio-video source or pre-recorded source**

- **Live broadcast session ready to go on-air**

- **Save to an MPEG-4 file for later streaming or local playback**

Applications

- Digital satellite news gathering
- Video contribution over IP and ATM networks
- Broadband IPTV distribution
- Cable TV
- Direct broadcast satellite

World's First DVD Resolution Realtime MPEG-4 Encoder

Envivio 4Caster™ SE captures one video stream and its associated audio, encodes it into MPEG-4, and streams the resulting data in RTP packets over an IP network, either in multicast or unicast mode. Envivio 4Caster SE comes in two editions - the Standard Edition and the full-featured Professional Edition.

Full-Featured Solutions

Project Management: Project management features include creating a new project, saving a project, and opening an existing project. A set of templates is provided to simplify project creation. Templates are provided for 56K modems, ISDN, DSL, T1 and broadband targets.

Media Push: Text, 2D graphics, and images can be streamed live during a session. Media push is highly flexible, and additional media types can be handled through a plug-in mechanism.

Previews: Input/encoded video previews. Input sound level monitoring.

Streaming: 4Caster SE uses RTP and RTCP on top of UDP. Streaming is performed in unicast and multicast modes.

Technical Specifications

	4Caster SE 1000	4Caster SE 3000
Resolutions Supported	ASP up to CIF (352 x 240/288)	ASP up to SD (720 x 480/576)
Video Encoder	MPEG-4 ASP levels 0-5 MPEG-4 SP levels 0-3 ISMA Profile 0 and Profile 1	MPEG-4 ASP levels 0-5 MPEG-4 SP levels 0-3 ISMA Profile 0 and Profile 1
Audio Encoder	MPEG-4 Advanced Audio Coding 8 to 384 kbps (96 kbps for CD quality)	MPEG-4 Advanced Audio Coding 8 to 384 kbps (96 kbps for CD quality)
Advanced Processing	Low delay mode Motion-compensated temporal filtering and deinterlacing Error resilience (MPEG-4) Scene change detection with keyframe (I-Frame) insertion Frame resizing from full to 3/4, 2/3, 1/2, or 1/4 resolution	Low delay mode Motion-compensated temporal filtering and deinterlacing Error resilience (MPEG-4) Scene change detection with keyframe (I-Frame) insertion Frame resizing from full to 3/4, 2/3, 1/2, or 1/4 resolution
Data Rates Supported	20 kbps to 2 Mbps	20 kbps to 6 Mbps
Minimum Hardware Requirements	Intel Pentium IV 1.7 GHz; 256 MB RAM; DirectShow 8.0 compatible video capture card (Digital Rapids 500 recommended); Ethernet adapter	Intel bipro Xeon 2.8 GHz; 256 MB RAM; DirectShow 8.0 compatible video capture card (Digital Rapids 1500 recommended); Ethernet adapter
Operating Systems Supported	Windows 2000 Professional, Windows XP Professional	Windows 2000 Professional, Windows XP Professional
Advanced Features		*Monitoring:* Allows dynamic monitoring of encoding and streaming, either locally through a graphic user interface or remotely through an SNMP interface. A simple and easy to use SNMP supervisor is also available. *Jobs Programming:* The job scheduler provides an easy way to create and launch encoding tasks at a specified time. The scheduler supports periodic task launching. *VTR Control:* Control professional VTR through an RS-422 remote protocol to synchronize play/stop on the VTR side and start/stop on the 4Caster SE side. Offers basic VTR control, such as rewind, fast forward, pre-roll, current timecode, and go to timecode. *Remote Control:* A command-line remote control is provided to remotely manage the Live Broadcast.

Standard Features

Video Formats
- NTSC-M, NTSC-J
- PAL-BDGHI, PAL-M, PAL-N
- SECAM

Audio Formats
- Mono or stereo
- PCM 16- and 8-bit sample sizes
- Supported sample rates: 48 kHz, 44.1 kHz, 32 kHz, 24 kHz, 22.05 kHz, 16 kHz, 12 kHz, 11.025 kHz, and 8 kHz

Capture Cards Supported
- Digital Rapids
- Osprey
- Pinnacle
- Winnov

Outputs and Compliance

Envivio 4Caster SE produces output that can be played by EnvivioTV and other devices that are compatible with the MPEG-4 ISMA 1.0 specification level 1 (Internet Streaming Media Alliance)

Envivio 4Caster SE outputs can be broadcast through a digital TV network (MPEG-2 Transport Stream) over an IP network, or optionally saved as MPEG-4 files

For more information, visit:
www.envivio.com