

MPEG-4 AVC / H.264 ENCODER PC SUITE



*HIGH-END VIDEO QUALITY
AT LOW BITRATE*



APPLICATIONS

- ▶ **MPEG-4 AVC production** for Video-on-demand asset creation, content delivery to TVs and mobiles
- ▶ **Video archiving**, with MPEG-2 content re-encoding for storage cost reduction
- ▶ **News gathering**, with simultaneous (low bandwidth) transmission while encoding
- ▶ **Interoperability testing**, by test files generation with fine tuning of all parameters (tools, resolution, profile, bitrate), for Set-Top Box manufacturers, decoder manufacturers and integrators



OEM: Distribute your own product

ATEME is your technology partner. In addition to our high-end products offer, our engineering services can adapt our off-the-shelf hardware and software with specific functions, or build complete custom solutions from the ground up to fit your specific design requirements, including form factor, performances, time and cost target.



KEY FEATURES

- MPEG-4 AVC H.264
Baseline, Main, High Profiles
- Full interlacing support (MBAFF, PAFF)
- HD ready: All 8x8 resolutions
QCIF, D1, 720p, 1080i/p, 4kx2k
- Full control of encoding
parameters
- Professional pre-processing
- Configurable trade-off speed
versus quality
- Strictly ISO-Standard



COMPETITIVE ADVANTAGES

- Save storage** space and bandwidth: smaller bitrate for high-quality picture
- Benefit from all **ATEME latest research techniques** for video quality enhancements (patents pending)
- Reduce production cost:** Easy management and automation of large encoding jobs, fast encoding, smallest file size
- Ease integration** in existing production environment: Remote encoding via IP network, dropping directories and associated profiles
- Save time:** Simultaneous encoding and (low bandwidth) transmission for news gathering

FILE INPUT

- .YUV, .H264 elementary video files
- MP4 files (MPEG-4 ASP and AVC)
- MPEG-2 TS file
- Any file format with third party DirectShow filter:
wmv, avi, mpeg, mov, dv, mpeg-1, mpeg-2, MPEG-2 TS, MXF, VOB, etc...
- QCIF to D1 and HD (720p, 1080i, 1080p), NTSC/PAL,
with any resolution by multiple of 8, up to 4kx2k and 4096x2304.

VIDEO COMPRESSION

- MPEG-4 AVC / H.264 (ISO/IEC 14496 - 10)
up to Level 5.1
Baseline, Main, High Profiles
- Slice I, P, B, configurable GOP
Scene change detection with I Frame insertion
- Multi B-frame support
- Up to 16 reference frames
- Interlaced or progressive encoding, with MBAFF, PAFF
- Macro block/sub block partitioning:
16x16, 16x8, 8x16, 8x8, 4x4
- All intra prediction modes
- 4x4 integer transform
- Pixel, 1/2 and 1/4 pixel motion estimation
- In-loop deblocking filter
- CAVLC, CABAC
- DCT 8x8 (High Profile)
- Accurate CBR/ VBR/ dual pass
- Bitrate from 20kbps to 100 Mbps

VIDEO PRE-PROCESSING

- Image cropping, resizing
- De-interlacing, noise filtering
- 3:2 pulldown inverse telecine
- Frame rate subsampling

AUDIO COMPRESSION

- AAC-LC
- MPEG-1 layer I / II
- AMR
- Channels (Modes): stereo or two mono
- Bitrates (per channel): 8 to 384 kbps
- CBR, VBR modes

FILE OUTPUT

- MP4 MPEG-4 AVC file
- MPEG-2 TS file
Configurable parameters: PIDs, packet size, interbyte stuffing mode, ...
- Hinted file for streaming, compliant with ISMA streamers and players
- Time code capture from input files
- Simultaneous transmission over Ethernet to FTP News gathering client (option)

FEATURES

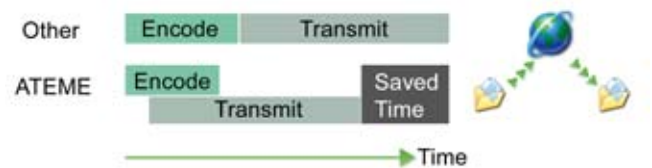
- Batch encoding manager
- Includes ATEME latest research techniques
for video quality enhancements,
- Fully multithreaded, to take advantage of multiprocessors
- Full configuration of encoding parameters
- One-click encoding with presets
- Custom user profiles management
- Source preview
- Encoding real-time statistics
- Really fast encoding, by design
- Dropping directory encoding server, enabling farm encoding
on remote servers, with encoder and presets sharing

PLATFORM MINIMUM REQUIREMENTS

- Intel Pentium PIV 2GHz, 512 MB
- Windows 2000 SP4 or XP SP2, DirectX 9,
third-party DirectShow decoder filter as needed

OPTION

- News gathering, with FTP transmission in parallel with encoding,
for time saving



COMMERCIAL REF

- H264-PC-ENC : Off-line Encoding Suite - Seat license.
Possible yearly support extension
- H264-PC-SITE : Off-line Encoding Suite - Site license
- H264-PC-NGC : News Gathering Client (option)



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