

# VEGA H264

Analyze • Debug • Refine • Optimize

New

- Multicore support for video stream analysis
- Hierarchical view of SVC Layers and MVC views
- Additional standard support:
  - H.264 SVC, H.264 MVC, AVS, ISDB-T, Teletext, Subtitles, Close Captions, PCAP, HDV, MJPEG 2000, Dolby-E, and more...

## Key Product Benefits

- Extensible architecture to support audio, video, and system formats
- Powerful debug capabilities to analyze picture-by-picture
- Quick forward/backward navigation; also, vertical navigation down to macroblock level
- Detailed display of coded information along with quick-to-capture summary information: average MB size, quantizer, and frame statistics
- Extraction of individual SVC layers
- Stereo Video player for MVC
- Quality comparison between two SVC layers
- Customized trace output to find out syntax-by-syntax data values
- Messages in XML format for ease of distribution
- Extraction of video and audio from system streams for future debugging purposes
- Facility to store analyzed data for future reference
- Fast analysis and Partial analysis mode for large streams
- Interactive buffer analysis capabilities
- Powerful YUV Diff utility to evaluate video quality
- Video Comparator utility to assess the performance of encoders

## Comprehensive Media Analysis to Reduce Debug Cycle

Addressing the needs of media professionals to debug and optimize digital video products, Interra's Vega H264 provides detailed analysis of video and audio streams.

Reducing development time and costs, and increasing productivity, Vega H264 enables media professionals to quickly bring to market high quality, standard-compliant digital video products.

Vega H264 is an ideal tool for media professionals who need to:

- Verify a stream's compliance with the defined standard
- Debug an encoded stream, or optimize a stream's buffer requirements
- Evaluate and compare the performance and quality of video compression/decompression tools
- Optimize and refine video compression CODEC
- Check interoperability issues

## Standards Supported

Video	H.264, H.264 SVC, H.264 MVC, H.263, H.263+, MPEG-4, MPEG-2, MPEG-1, AVS
Audio	AAC, Dolby AC-3, Dolby Digital Plus, Dolby-E, AMR, MP3, PCM, LPCM, MPEG-1/MPEG-2 Audio
System Streams	MPEG-2 Transport, MPEG-2 Program/DVD VOB, QuickTime, MPEG-1 Systems, MP4, 3GPP/3GPP2, AVC, AVI, HDV
Broadcast Standards	ATSC, DVB, DVB-T/DVB-H, DTS 101-154, ISDB-T
Other formats	JPEG, JPEG 2000, Teletext, DVB-Subtitle, XDS, CC608, CC708



Vega has been adopted worldwide as the de facto standards compliance tool. 250 plus licences currently in use.



With Dolby certified AC-3, DD Plus, Dolby-E analysis



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## Video Analysis

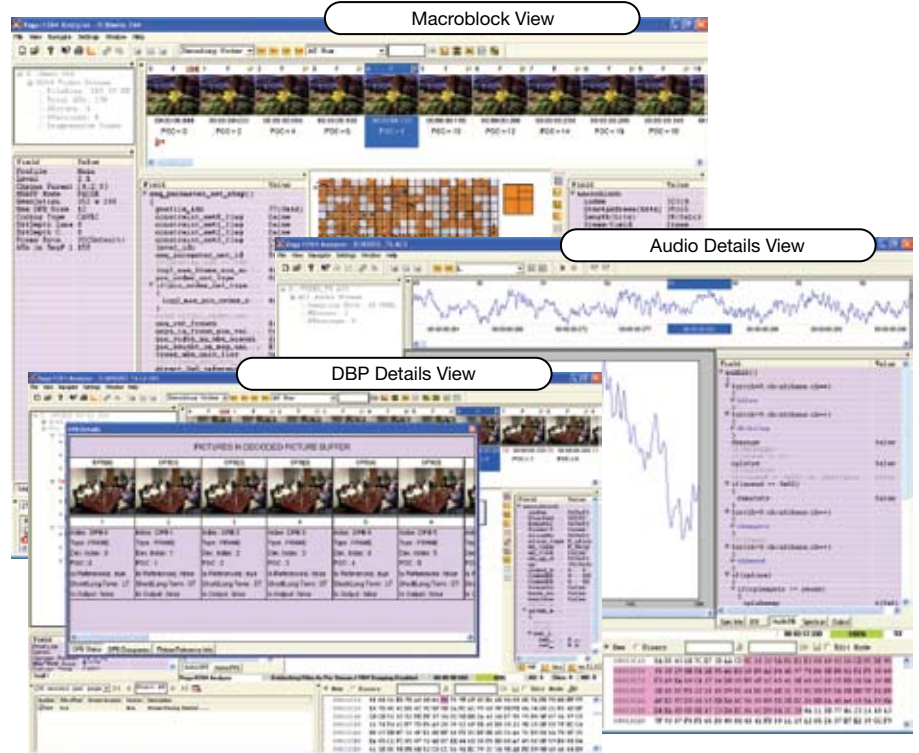
- Supports all Profiles and Levels
- Displays Sequence, VOL, Picture, VOP, Macroblock, Slice, NAL unit, and binary data for each picture
- Displays frame statistics to analyze interpolation, prediction mode, coded bits, and frame size
- Generates encoder performance and quality metrics graphs
- Performs buffer analysis: CPB, VBV, VMV, VCV
- Displays hierarchy for SVC layers
- Displays multiple views for H.264-MVC

## Audio Analysis

- Supports different audio object types and profiles
- Displays separate data for different channels e.g. L, R, C, SCE, CPE, LFE, CCE, etc.
- Displays top-level header e.g. ADIF, ADTS, Sync Info, BSI, WAV, etc.
- Displays Spectrum and Output data for all RDBs, Audio Block, Core Frame, etc.
- Supports playback of decoded audio channels

## System File Analysis

- Supports detailed analysis of audio/video stream carried over MPEG-2 Transport /Program/PES/DVD VOB/ HD DVD EVOB/ File Formats
- Displays hierarchy in a tree view
- Displays Pack/Package Header, PES Packet Header, and PSI/PSMap fields
- Performs STD buffer analysis



## Input Formats & Standards Supported

### Video Formats

- H.264: ISO/IEC 14496-10
  - Fidelity Range Extensions Amendment to ITU-T Rec. H.264 | ISO/IEC 14496-10
- H.263 ITU-T Video coding for low bit rate communication: ITU-T Series H - Recommendations H.263
- H.263+: H.263v2, 1998, Video coding for low bit rate communication
- MPEG-4: Part 2 ISO/IEC 14496-2
- MPEG-2: ISO/IEC 13818-2:1995 and Amendment - 1999-03-01
- H.264 SVC (ITU-T Rec. H.264(11/2007) Advanced video coding for Generic Audiovisual Services, Annex G)
- AVS - Advanced coding of audio and video - Part 2 : Video (GB/T 20090.2 - 2006)
- H.264-MVC (ITU-T Rec H.264 (3/2009) Advanced video coding for Generic Audiovisual Services, Annex H)

### Audio Formats

- AAC: ISO/IEC 14496-3 sub part 1 and 4, Amendment 1
- Dolby AC-3: A/52, A/52A
- AMR: 3GPP TS 26.101 V5.0.0
- MP3: 1172-3 and 13818-3
- LPCM
- Dolby-E

### System Formats

- MP4/AVC: ISO 14496-1, ISO 14496-12, ISO 14496-14, ISO 14496-15
- 3GPP: TS 26.244 V6.0.0, 3GPP2: C.S0050-0 V1.0
- MPEG-2 Transport/Program: ISO/IEC 13818-1 and ISO/IEC 13818-1: 2000/Final Draft Amendment 3
- DVD VOB: DVD Specifications for Read Only Disc/Part 3: Video Specifications Version 1.0
- MPEG-1 Systems: ISO/IEC 11172-1
- AVI
- HDV

### Broadcast Formats

- ATSC/DVB
- DVB-T/DVB-H: ETSI EN 301 192 version 1.4.1, DVB Specification for Data Broadcasting
- DTS 101-154: Specification for use of Video and Audio Coding in Broadcasting Applications
- ISDB-T Japanese Broadcasting Standard

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