

VEGA VC1



Comprehensive Video/Audio Analysis to Reduce Debug Cycle

Addressing the needs of media professionals to debug and optimize digital video products, Interra's Vega VC1 provides detailed analysis of video and audio streams.

Reducing development time and costs, and increasing productivity, Vega VC1 enables media professionals to quickly bring to market high quality, standard-compliant digital video products.

Vega VC1 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

Vega VC1 is a part of Interra's Vega family of Analyzers, which includes: Vega H264, Vega MPEG2, and Vega Audio.

Standards Supported

Video: VC1, MPEG-4, and MPEG-2

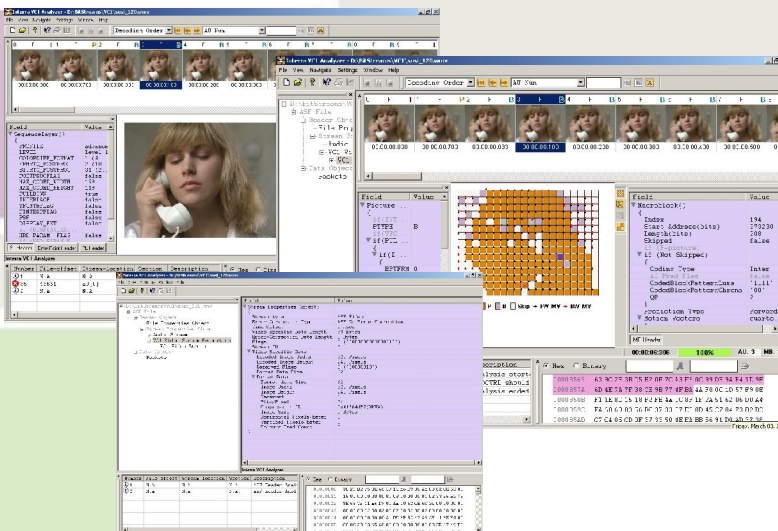
Audio: WMA Std, WMA Pro, AAC, AMR, MPEG-1/2, MP3

System streams: MPEG-2 Transport/Program/DVD VOB, MP4, 3GPP/3GPP2, and ASF

Other formats: JPEG

Runs on Windows 2000, XP (2-3 GHz CPU and 1GB RAM)

Over 250 brand name customers worldwide



Key Product Benefits

- Extensible architecture to support other audio, video, and system formats
- Powerful debug capabilities to analyze picture-by-picture
- Quick forward/backward navigation; also, vertical navigation down to MB level
- Detailed display of coded information along with quick-to-capture summary information: average bits, quantizer, and frame statistics
- Cross-reference feature that links error messages to error points in the stream
- 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
- Batch mode for regression testing
- Interactive buffer analysis capabilities
- Powerful YUV Diff utility to evaluate video quality

Potential Users

Media Product Developers and Designers working with technologies, such as:

- Video CODEC
- Semiconductor devices
- Mobile Multimedia
- Video Conferencing
- Broadcast and Network Monitoring

Media Content Providers and Enablers, such as:

- Network Operators
- Cable TV, TV, Video, and Movie companies

Backed by Interra's acclaimed pre & post sales support

Interra Systems, Inc.

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Standard-specific Highlights

VC1

- Analyzes Simple, Main, and Advanced Profile Elementary Streams
- Analyzes ASF files
- Supports Simple Profile at all levels: Low and Medium
- Supports Main Profile at all levels: Low, Medium, and High
- Supports Advanced Profile at all levels: L0 to L4
- Displays Sequence, Picture, Macroblock, Slice, and Entry-point Header, and binary data for each picture
- Fully decodes the picture with a built-in player
- Generates encoder performance and quality metrics graphs

MPEG-4 Video

- Supports Simple Profile (levels 1-3) and Advanced Simple Profile (levels 0-5)
- Performs buffer analysis: VBV, VMV, VCV
- Displays the VOL, VOP, Short Video Header, and binary data for each picture
- Generates encoder performance and quality metrics graphs, such as Quantizer distribution, Picture Size distribution.

MPEG-2 Video

- Supports Simple and Main Profiles and all levels
- Performs buffer analysis: VBV
- Displays Sequence, Picture, and Macroblock Header, and binary data for each picture
- Generates encoder performance and quality metrics, such as Quantizer distribution, Picture Size distribution

WMA/AAC/ AMR / MP3 Audio

- Fully decodes audio streams with a built-in playback facility
- Supports low bit rate and high bit rate WMA (Std) streams
- For WMA Std, displays Encoding options, Packet information, Subframe Headers, Frequency Domain, and Output values
- For WMA Pro, displays tile configuration for frames along with sub-frame header, tile header, frequency domain, and output values.
- Supports AAC-Main and AAC-LC profiles
- Supports all channel elements including SCE, CPE, LFE, and CCE
- Displays ADIF headers, PCE, Raw Data Block details
- For all RDBs, displays ICS info, spectral data, pulse data, scale factors, sections, output data
- For AMR, displays the Header, Auxiliary, and Core Frame structures

MP4/3GPP/3GPP2/AVC File Formats

- Displays the file hierarchy and tracks in a tree view
- Displays atom/descriptor list cross-linked with the hex/binary view
- Provides the facility to analyze the selected individual track from the tree view

MPEG-2 Transport/Program/PES/DVD VOB

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

Input Formats & Standards Supported

Video

- Video Codec VC-1 (WMV)
- MPEG-4 (Part 2 (ISO/IEC 14496-2))
- MPEG-2 (ISO/IEC 13818-2:1995 and Amendment -1999-03-01)

Audio

- WMA (Std), WMA (Pro)
- AAC (ISO/IEC 14496-3 sub part 1 and 4, Amendment 1)
- AMR (3GPP TS 26.101 V5.0.0)
- MP3 (11172-3 and 13818-3)

System Layer

- 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/Part3: Video Specifications Version 1.0)

Also available: Vega H264, Vega MPEG, and Vega Audio

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