

# VC-1

## Comprehensive A/C Codec Library

Largest video codec libraries on earth, supporting nearly every major format in use today in both consumer and professional markets.



SMPTE (Society of Motion Picture Television Engineers) VC-1 has been adopted as a mandatory video format for HD DVD and Blu-ray®. The MainConcept VC-1 Codec Packages offer fast encoding and decoding speeds in the Simple, Main as well as Advanced Profiles and all levels supported by the standard. In addition, it features MainConcept's extraordinary encoding quality. It encodes VC-1 sequences, making it easy to add support for this exciting new format to existing applications.

The corresponding VC-1 Decoder SDK is a software-only playback solution for SMPTE 421M-2006 (VC-1) video streams. The filter can process VC-1 video streams produced by the MainConcept MPEG Demultiplexer or any other compliant filter, such as the Microsoft® ASF Reader.

## MAINCONCEPT VC-1 SDK PACKAGES

### VC-1 ENCODER SDK

Complete VC-1 Encoder with Windows Media & Blu-ray Disc support.

### VC-1 DECODER SDK

Complete VC-1 Decoder with Windows Media & Blu-ray Disc support.

## STREAM TYPES & FORMATS

### Elementary Stream:

Generic VC-1 Elementary Streams

### Transport Stream:

Blu-ray Disc

### ASF:

Windows Media (WMV), Microsoft Silverlight

# FEATURES

## ENCODER:

- Fully compliant with SMPTE 421M-2006 specification.
- Strict HRD compliance.
- Advanced compression algorithms - high rate-distortion efficiency.
- Profile-driven configuration.
- Configurable encoding complexity.
- Full control over encoding parameters from application level.
- Parameter compatibility validation features.
- Simple, Main and Advanced profile, all levels.
- Interlaced and progressive coding.
- CBR and VBR, single pass and dual pass rate control.
- Full pel, half pel and quarter pel motion estimation.
- Variable-sized transform.
- AC prediction.
- 1MV and 4MV modes.
- Loop filter.
- Bitplane coding.
- Adaptive VLC table selection.

## DECODER:

- Software-only SMPTE 421M-2006 stream decoding.
- DXVA 1.0 and 2.0 GPU Hardware acceleration for DirectShow and Low Level.
- All features of Advanced profile support.
- Full-resolution, full-quality decoding/playback.
- Post-processing (deinterlacing, fields reordering, chroma upsampling).
- Optimized for the most efficient CPU usage – takes advantage of MMX™ Extensions, SSE2™, SSE3™, and 3DNow® SIMD extensions when available.
- Optimized for symmetric multiprocessing (Hyper-Threading Technology, multiple CPUs and multiple cores).
- VC-1 / WMA / ASF support in Media File Importer.
- Auto deinterlace mode.

# COMPONENTS

## VC-1 ENCODER SDK

VC-1 Video Encoder  
 WMA Encoder (LL)  
 ASF Multiplexer (LL)  
 MPEG Multiplexer

## VC-1 DECODER SDK

VC-1 Video Decoder  
 WMA Decoder (LL)  
 ASF Demultiplexer (LL)  
 MPEG Demultiplexer

## TECH SPECS

- Microsoft® Windows® 7, Windows 8, Windows 10 (32-bit/64-bit)
- Apple Mac OS X 10.6 or higher (Mac/Intel), (32-bit/64-bit)
- Linux Ubuntu 10.04 LTS (32-bit/64-bit)

For Windows, Mac OS X and Linux, the codec package consists of a Low Level API (in the C programming language). Under Windows, it additionally includes DirectShow® filters for decoding and encoding.

**MORE INFORMATION:**  
[MAINCONCEPT.COM](http://MAINCONCEPT.COM)

**EMAIL:**  
[SALES@MAINCONCEPT.COM](mailto:SALES@MAINCONCEPT.COM)

**REQUEST YOUR DEMO SDK:**  
[WWW.MAINCONCEPT.COM/LICENSING-FORM.HTML](http://WWW.MAINCONCEPT.COM/LICENSING-FORM.HTML)