MainConcept Transcoding SDK is an all-in-one production tool offering developers the ability to manage multiple codecs and parameters in one place. This streamlined SDK supports the latest encoders and decoders from MainConcept, including HEVC/H.265, AVC/H.264, DVCPRO, and MPEG-2. The latest officially approved Dolby Digital libraries enable decoding, encoding and transcoding of AC-3 and E-AC-3 audio, including Dolby Evolution Framework and metadata processing support.

The transcoder generates compliant streams across different devices, media types, and camcorder formats, and includes support for MPEG-DASH and Apple HLS adaptive bitstream formats. Compliance ensures content is delivered that meets each unique specification.

Transcoding SDK simplifies the workflow for developers who frequently move between codecs and output to a multitude of configurations.

### How Does It Work?
- **Transcoding SDK** works as an additional layer above MainConcept codecs.
- The easy-to-use API replaces the need to set conversion parameters manually by allowing you to configure the encoders with predefined profiles, letting the transcoding engine take care of the rest.
- If needed, manual control of the conversion process is supported, including source/target destinations, export presets, transcoding, and filter parameters.

### Key Features
- Integrated SDKs for fast deployment of transcoding tools
- Hardware encoding powered by Intel and NVIDIA
- Ready-to-use processing filters
- HDR conversion to multiple formats
- Pre-defined AS-11 UK DPP presets

### All-in-One Production Tool

#### Packages
- **HEVC/H.265 Encoder Package**
  HEVC encoder to create HLS, DASH-265, and other generic 8-bit/10-bit 4:2:0 HEVC streams in ES, MP4 and TS file formats. Includes hardware encoding using Intel Quick Sync Video and NVIDIA NVENC (incl. Hybrid GPU) for Windows & Linux.

- **HEVC/H.265 SABET Encoder Package**
  HEVC Codec SDK plus our Smart Adaptive Bitrate Encoding Technology (SABET). Includes hardware encoding using Intel Quick Sync Video and NVIDIA NVENC (incl. Hybrid GPU) for Windows & Linux.

- **AVC/H.264 Encoder Package**
  AVC encoder to create HLS, DASH-264, and many more 8-bit 4:2:0 streams in ES, MP4, TS, etc. Includes hardware encoding using Intel Quick Sync Video and NVIDIA NVENC for Windows & Linux.

- **AVC/H.264 Broadcast Encoder Package**
  Encoding up to AVC 10-bit High 4:2:2 profile support, incl. AVC-Intra 50/100/200, AVC-Ultra and XAVC presets. Includes hardware encoding using Intel Quick Sync Video and NVIDIA NVENC for Windows & Linux.

- **JPEG 2000 Encoder Package**
  DCP compliant frames generation

- **MPEG-2 Encoder Package**
  MPEG-1 and MPEG-2 compliant stream generation

- **MPEG-4 Part 2 Encoder Package**
  MPEG-4 Part 2 and H.263 compliant stream generation

- **VC-1 Encoder Package**
  WMV encoding

- **Dolby Digital Plus Pro Encoder Package**
  AC-3 and E-AC-3 audio for up to 7.1 channels, incl. Dolby Evolution Framework for intelligent loudness measurement and adjustment

### System Requirements
- Microsoft Windows 10 or higher (64-bit)
- Apple macOS 10.11 or higher (64-bit)
- Linux CentOS 7.9, Ubuntu 14.04 or higher; glibc version: 2.17 (64-bit)
MAINCONCEPT TRANSCODING SDK
Combine your encoding presets into a single tool

FEATURES

Powerful & easy-to-use API
Comes with the MainConcept API, allowing you to easily create your own transcoding software via graphical user interface.

Flexible conversion tool development & usage
Fast development of conversion tools that can be controlled via command line or act as a server-side transcoding application.

Integrated SDKs
Preconfiguring the industry-leading MainConcept SDKs means developers do not need to focus on the codec settings and parameters, enabling fast deployment of file-based transcoding tools.

Pre-defined AS-11 UK DPP presets
Ready-to-use presets for AS-11 UK DPP SD (MPEG-2) and HD (AVC/H.264) for broadcast workflows, including the ability to load external XML metadata files for encoding and processing UK-shim compliant MXF files.

Input source ➔ transcoding preset ➔ output file
Set the encoders using predefined profiles, the transcoding engine takes care of the rest.

Complete user control
Control every aspect of the conversion process, including source/target destinations, export presets, transcoding, and filter parameters.

Ready-to-use quick start tutorials
Use the tutorials for direct, on-server content creation. Tutorials include ready-to-use quality and performance presets.

Closed caption support
Pass-through of CEA-608 and CEA-708 (aka EIA-608/708) captions from sources containing ATSC A/53 or A/72 captions.

Subtitle support
Subtitle visibility improvements, such as adjustable font type, color and outline features (*.srt and *.sub files).

HLS production compliant with latest iOS and macOS specs
HLS Presets using HEVC/H.265 and AVC/H.264, including hybrid playlist generation with support for MPEG-2 TS and fMP4 segments fully compliant with encoding recommendations and specs from Apple.

Video & audio processing filters
Includes ready-to-use video and audio filters for a variety of production environments and occasions, or work with your own filters by using the powerful Transcoding SDK Filter API for easy integration.

Batch list transcoding
Execute multiple tasks efficiently by setting up a batch process for files that use specified encoding presets and output formats.

Watch folder support
Configure folders with predefined encoding parameters, leaving it to the application to automatically process incoming media whenever it is added.

Smart rendering & remuxing support
Time-saving smart rendering and remuxing support for various codecs and multiplexers.

High Dynamic Range (HDR) conversion
Allows PQ / HDR-10 to HLG conversion and vice versa. Moreover, Transcoding SDK provides PQ / HDR-10 and HLG to SDR conversion to create content compliant with non-HDR devices.

Hardware encoding powered by Intel and Nvidia
Support for AVC and HEVC hardware encoding using Intel Quick Sync Video and NVIDIA NVENC on Windows and Linux. Hybrid GPU-accelerated HEVC encoding is available on NVIDIA RTX, GTX and Quadro boards, delivering hardware performance in software quality.
MAINCONCEPT TRANSCODING SDK

Combine your encoding presets into a single tool

SPECIFICATIONS

Core API
- Transcoding process control
- Management of processing modules
- Utility functions
- Built-in processing modules

Input Formats
- DirectShow import (Win)
- QuickTime import (Win + Mac)
- GStreamer import (Win + Linux)
- MPEG-1/2, MPEG-4 Part 2, VC-1, HEVC/H.265 & AVC/H.264
- DV / DVCPRO
- JPEG 2000
- Apple ProRes
- Avid DNxHD and DNxHR

Video Output Formats
- HEVC/H.265 (incl. IQSV & NVENC)
- AVC/H.264 (incl. IQSV & NVENC)
- MPEG-1/2
- DV / DVCPRO 25/50/100 (HD)
- VC-1
- JPEG 2000
- MPEG-4 Part 2
- RAW/YUV

Audio Output Formats
- PCM / LPCM
- MPEG Layer 1/2 Audio
- AAC, HE-AAC
- WMA
- AMR
- Raw
- DV
- Dolby Digital Plus Pro (AC-3 & E-AC-3)

Muxer Output Formats
- Elementary Streams
- MPEG-2 Program Stream / Transport Stream
- MP4
- 3GP
- F4V
- ASF
- DV
- DIF
- MJ2
- MXF
- RAW

ABOUT MAINCONCEPT

Since 1993, MainConcept has provided best-of-breed video/audio codec solutions that fuel creativity and business globally for professional video production, multimedia, broadcast, digital signage, gaming, medical and security industries. Our SDKs, transcoding applications and plugins are used across industry verticals to meet an ever-expanding list of use cases. With world-class engineering, exquisite attention to detail, and best-in-class support and professional services, we are constantly innovating to deliver you the simplicity you need with the customer experience you deserve. MainConcept codecs are engineered to surpass the challenges of even the most demanding use cases and are used by organizations such as Adobe, Dalet, Nikon, Intel, MAGIX, Playback, Soliton, Cinnafilm and Endeavor Streaming.

CONTACT
info@mainconcept.com

MORE INFORMATION
www.mainconcept.com/transcoding

MAINCONCEPT GMBH
Elisabethstr. 1
52062 Aachen, Germany

MAINCONCEPT LLC
16767 Bernardo Ctr. #27970
San Diego, CA 92198, USA

MAINCONCEPT JAPAN
Building 2, Nippo Shin-Osaka
1-8-33 Nishimiyahara, Yodogawa-ku, Osaka 532-0004, Japan