

HEVC/H.265

Bandwidth-friendly Encoding and Decoding

MainConcept HEVC SDK comes equipped with powerful new features you won't get from open source, including 8K/60fps live video encoding, Canon XF HEVC 4:2:2 10-bit decoder support, and advanced GPU acceleration to maximize video encoding performance on low-cost hardware, saving time and money!

AVAILABLE PACKAGES

HEVC/H.265 ENCODER SDK	HEVC encoder with supported multiplexers and audio encoders	HEVC/H.265 Video Encoder AAC Encoder Fraunhofer AAC Encoder MP4 Multiplexer MPEG Multiplexer
SABET FOR HEVC ENCODER	Add-on package to enable SABET™, Smart Adaptive Bitrate Encoding Technology, for Intelligent ABR	HEVC/H.265 Encoder SDK, plus SABET HEVC Encoder License
HYBRID GPU ACCELERATED ENCODING	Add-on package to enable GPU Accelerated Encoding on NVIDIA RTX boards	HEVC/H.265 Encoder SDK, plus Hybrid HEVC GPU Encoder License
HEVC/H.265 DECODER SDK	HEVC decoder with supported demultiplexers and audio decoders	HEVC/H.265 Video Decoder AAC Decoder MP4 Demultiplexer MPEG Demultiplexer
CANON XF-HEVC INGEST FOR HEVC/H.265 DECODER SDK	Add-on package to enable Canon XF-HEVC in MXF ingest	HEVC/H.265 Decoder SDK, plus Canon XF-HEVC Ingest License File MXF Demultiplexer
HDR CONVERSION FOR HEVC/H.265 DECODER SDK	Add-on package to enable PQ / HDR-10 to HLG, HLG to PQ / HDR-10 and PQ / HDR-10 to SDR conversion	HEVC/H.265 Decoder SDK, plus HDR HEVC Decoder License MXF Demultiplexer
WEBASM FOR HEVC DECODER	Add-on package to enable WebASM decoding across internet browsers supporting the standard	HEVC/H.265 Decoder SDK, plus WebASM HEVC Decoder License

20%

more efficient
THAN OPEN SOURCE

SAVE TIME

- 20% better bitrate encoding efficiency than open source ⁽¹⁾
- 2.5x encoding performance increase with Hybrid GPU acceleration ⁽²⁾
- 30% encoding time savings with MainConcept SABET™ technology ⁽³⁾
- Fast integration

KEY FEATURES

- 8K live
- 4:2:2 10-bit chroma support for professional video encoding
- 8K60 Hybrid GPU accelerated 10-bit live video encoding
- HDR decoder with support for HLG/ PQ and SDR conversion

CODEC OPTIMIZATION WITH MAINCONCEPT PROFESSIONAL SERVICES

⁽¹⁾ Source: Moscow State University 4K codec performance comparison, ⁽²⁾ Compared to MainConcept HEVC encoder without hybrid GPU acceleration, ⁽³⁾ Compared to MainConcept HEVC encoder without SABET.

OPERATING SYSTEM

- Microsoft® Windows® 7, Windows 8, Windows 10 (64-bit)
- Apple® macOS 10.9 and newer (64-bit)
- Linux Ubuntu 14.04 LTS or CentOS 7.2 and newer (64-bit)

STREAM TYPES & FORMATS

ELEMENTARY STREAMS:

Generic HEVC/H.265 ES up to 4:2:2 10-bit

TRANSPORT STREAMS:

Ultra HD, UHD; Generic HEVC/H.265 TS up to 4:2:2 10-bit

MP4:

DASH-265, Ultra HD, UHD; Generic HEVC/H.265 MP4 up to 4:2:2 10-bit

MXF:

Canon XF-HEVC (decode only)

SPECIFICATIONS

ENCODER

- Main, Main10 and Main422 profiles
- Intel Quick Sync Video and NVIDIA NVENC hardware encoding
- Hybrid GPU accelerated encoding*
- SABET™* intelligent ABR for efficient encoding of adaptive formats
- 2-pass encoding
- Encoding to SMPTE 2084 based HDR-10 including SMPTE 2086 mastering display metadata and MaxFALL, MaxCLL
- HLG transfer characteristics signaling in accordance with ITU-R BT.2100-0
- Intelligent, real-time parameter adjustment to ensure live encoding at best quality
- Optimal retention of film-grain to preserve cinematic look-and-feel
- I-, P-, B-Frames, Pyramid B-Frames, and fixed or adaptive GOP structure with scene change detection, adaptive B-Frame count
- ConstantQ, CRF (Constant Rate Factor), RDOQ, ABR

DECODER

- 4:2:0 8-bit (Main), 4:2:0 10-bit (Main 10), 4:2:0 12-bit (Main 12) and 4:2:2 8-bit (Main 4:2:2), 4:2:2 10-bit (Main 4:2:2 10) and 4:4:4 10-bit (Main 4:4:4 10), 4:4:4 12-bit (Main 4:4:4 12) profiles
- Progressive and interlaced support, including deinterlacing
- DXVA 2.0 hardware accelerated video decoding
- Decoder fills a dedicated HDR-10, HLG and PQ-10 data structure provided by UCC
- Real-time PQ / HDR-10 to HLG, HLG to PQ / HDR-10 and PQ / HDR-10 to SDR conversion*
- Slices and tiles decoding support
- Fast Preview Modes for enhanced decoding speed in video editing, surveillance and monitoring
- Decoder HM 11, 14, 16.2 and 16.9 compliant
- Demultiplexing only support for Canon XF-HEVC in MXF*
- WebASM support for decoding on supported internet browsers

* SABET, Hybrid GPU Encoding, HDR Conversion and Canon XF-HEVC decoding are optional features which can be purchased as an add-on to your existing HEVC/H.265 encoder or decoder license.