MAINCONCEPT

MainConcept AVC Broadcast Encoder Plugin for FFmpeg
Professional AVC/H.264 10-bit 4:2:2 Encoding Ideal for Broadcast Workflows

MainConcept has made it simple to integrate AVC/H.264 encoding support for up to 4:2:2 10-bit (plus 4:2:0 8-bit) and up to level 6.2 (8K) into the FFmpeg framework with a plugin. It now includes the MainConcept MXF Multiplexer to create Canon XF, Sony XAVC and Panasonic P2 compliant content. The plugin also works with FFmpeg's built-in multiplexers like MP4 and MXF directly and brings a bevy of features that enable professional broadcast workflows.

PRE-CONFIGURED ENCODING PROFILES

The MainConcept plugin provides pre-configured encoding profiles, including file format creation using the MainConcept MXF Multiplexer, for professional Sony and Panasonic camera content creation such as:

- Sony XAVC-Intra and XAVC LongGOP
- Panasonic P2 AVC LongG, P2 AVC-Intra and P2 AVC-ULTRA
- MXF Multiplexer profiles for Sony XDCAM HD and XDCAM IMX using FFmpeg's built-in MPEG-2 video encoder

It also includes ready-to-use presets for OTT content creation, MPEG-DASH & Apple HLS.

HARDWARE ENCODING OPTIONS: THE CHOICE IS YOURS TO MAKE

With the MainConcept AVC Encoder Plugin, you have the option to use hardware encoding powered by AMD AMF, Intel Quick Sync Video (IQSV) or NVIDIA NVENC AVC. Whichever you choose, you can relax knowing that MainConcept has thoroughly tested both options to ensure you get the customer experience you deserve.

> ⓘ The MainConcept AVC Broadcast Encoder also comes as part of the full-featured *AVC/H.264 Encoder SDK*.

MORE EFFICIENT ENCODING THAN X264*

EASY TO INTEGRATE

Simple plugin approach to bring MainConcept encoders into your new or existing FFmpeg 4.4 (Rao), 6.0 (Von Neumann) or 7.0 (Dijkstra) environment

BETTER PERFORMANCE THAN OPEN SOURCE

Proven up to 2X faster encoding than with x264*

INTEGRATED MXF MUXING

Gain access to the MainConcept MXF Multiplexer to create Sony XAVC and Panasonic P2 AVC-ULTRA compliant content as well as other MXF formats
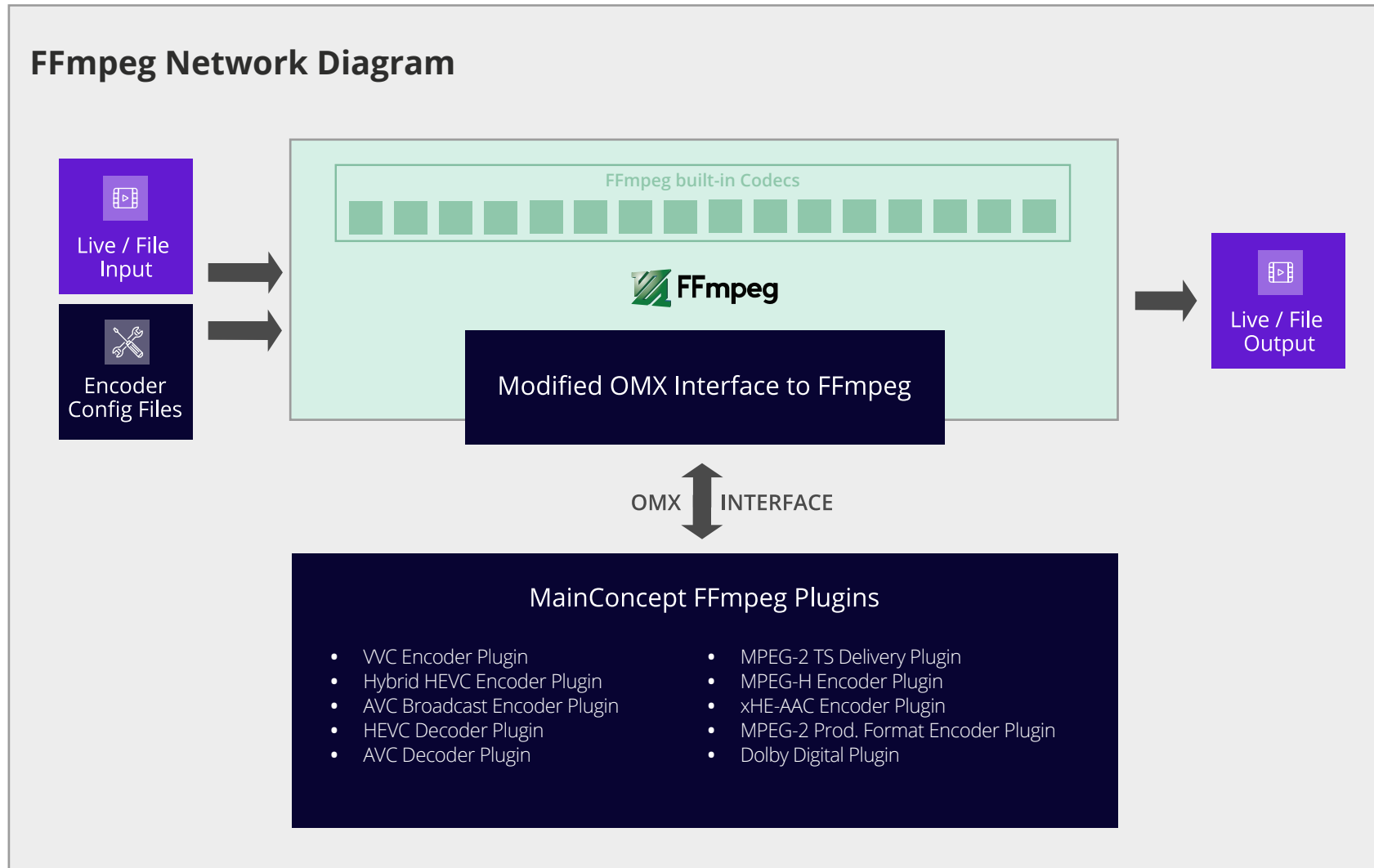
KEY FEATURES

- AVC/H.264 encoding support for up to 4:2:2 10-bit (plus 4:2:0 8-bit) and up to level 6.2 (8K)
- Pre-configured encoding and multiplexer profiles for professional Canon, Sony and Panasonic camcorder content creation
- 2-pass encoding for enhanced quality

OPTIMIZE WITH MAINCONCEPT PROFESSIONAL SERVICES

* According to recent encoder test data comparing MainConcept AVC against x264 for a specific use case

OPERATING SYSTEM

- Microsoft Windows 10, Windows 11 (64-bit)
- Linux x86 Ubuntu 20.04 LTS glibc 2.31, Rocky Linux 8 glibc 2.28 (64-bit)
- Linux ARM Ubuntu 20.04 glibc 2.31 (64-bit)
- Works with FFmpeg 4.4 (Rao), FFmpeg 6.0 (Von Neumann) or FFmpeg 7.0 (Dijkstra)

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FFmpeg Network Diagram

Live / File Input

Encoder Config Files

FFmpeg built-in Codecs

FFmpeg

Modified OMX Interface to FFmpeg

Live / File Output

OMX INTERFACE

MainConcept FFmpeg Plugins

- VVC Encoder Plugin
- Hybrid HEVC Encoder Plugin
- AVC Broadcast Encoder Plugin
- HEVC Decoder Plugin
- AVC Decoder Plugin

- MPEG-2 TS Delivery Plugin
- MPEG-H Encoder Plugin
- xHE-AAC Encoder Plugin
- MPEG-2 Prod. Format Encoder Plugin
- Dolby Digital Plugin

MAINCONCEPT FFMPEG PLUGINS

The MainConcept FFmpeg Plugins are a highly flexible product line that enable you to use the industry-leading MainConcept libraries seamlessly in FFmpeg-based use cases and environments. The simple plugin approach for fast integration into FFmpeg leads to quick results without the need to change your workflow. Full parameter control of the MainConcept SDK libraries in combination with FFmpeg's built-in components brings world-class video and audio quality to your solution or service. MainConcept FFmpeg Plugins are free to try and easy to integrate into your workflow.

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 software development kits, 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, AVID, Autodesk, Corel, Dalet, Endeavor Streaming, Globo, Grass Valley, Intel, MAGIX, Nikon, PlayBox, Soliton, Sony, Telestream, V-Nova and Wowza. For more information, visit www.mainconcept.com.