

# MainConcept xHE-AAC Encoder Plugin for FFmpeg

Revolutionize Audio Encoding for VOD & Live OTT Production Workflows

Content creators and service providers are constantly looking for ways to reduce the overall bandwidth for adaptive bitrate streaming workflows without sacrificing audio or video quality—both of which are key for VOD and OTT production workflows. This is true whether using a proprietary solution or open-source software, such as FFmpeg.

## THE NEW DE FACTO STANDARD FOR AUDIO STREAMING

The Fraunhofer IIS team developed the xHE-AAC standard—the successor of AAC that is already available on the majority of Android and iOS devices—to provide an unprecedented audio experience even under low-bandwidth network conditions (e.g., in public transportation, in the field and in all areas where online connectivity is limited). It has quite quickly become the de facto standard for audio streaming.

So, when Fraunhofer IIS developed the industry-leading xHE-AAC standard, MainConcept—with the cooperation of the Fraunhofer team—designed a new encoder plugin to bring it to the FFmpeg platform.

## AUDIO EXCELLENCE FOR VOD & LIVE OTT PRODUCTION WORKFLOWS

The MainConcept xHE-AAC Encoder Plugin for FFmpeg is suitable for all content types where low bitrates are required. It comes packed with features ideal for VOD and live OTT production workflows to lift the user's audio experience to the next level.

The xHE-AAC format delivers impressive audio at bitrates as low as 12 kbit/sec for stereo all the way up to 500 kbit/sec for crystal clear audio quality. And with the saved bits from audio encoding, you may also notice improvements in the overall video quality. xHE-AAC mandates Loudness Metadata processing and Dynamic Range Control (DRC), which helps to create an unrivaled listening experience for the audience.

The MainConcept xHE-AAC Encoder Plugin for FFmpeg supports both xHE-AAC as well as legacy AAC and allows you to pass encoding parameters with available codec settings using the FFmpeg command line. It is ideal for creating content suitable for streaming such as MPEG-DASH and Apple HLS formats. It is compliant with FFmpeg's built-in MP4 multiplexer, including fragmented MP4.

The xHE-AAC Encoder Plugin allows file-to-file as well as live encoding into streams with xHE-AAC audio using either MainConcept's video encoder plugins for FFmpeg or the built-in encoders natively supported by FFmpeg. For legacy AAC, users can create AAC-LC (AAC Low Complexity), HE-AAC v1 and HE-AAC v2 (High Efficiency AAC) bitstreams in both on-demand and live workflows.

## 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)

## BRINGING AUDIO EXCELLENCE TO FFMPEG

### EASY TO INTEGRATE

A simple plugin approach brings MainConcept® encoders into your new or existing FFmpeg 4.4 (Rao), 6.0 (Von Neumann) or 7.0 (Dijkstra) environment

### COMPLETE AAC PORTFOLIO COVERAGE

Encode to xHE-AAC as well as legacy LC AAC, HE-AAC v1 and HE-AAC v2 audio formats

### DYNAMIC RANGE & LOUDNESS METADATA

Mandatory loudness and dynamic range control (MPEG-D DRC)

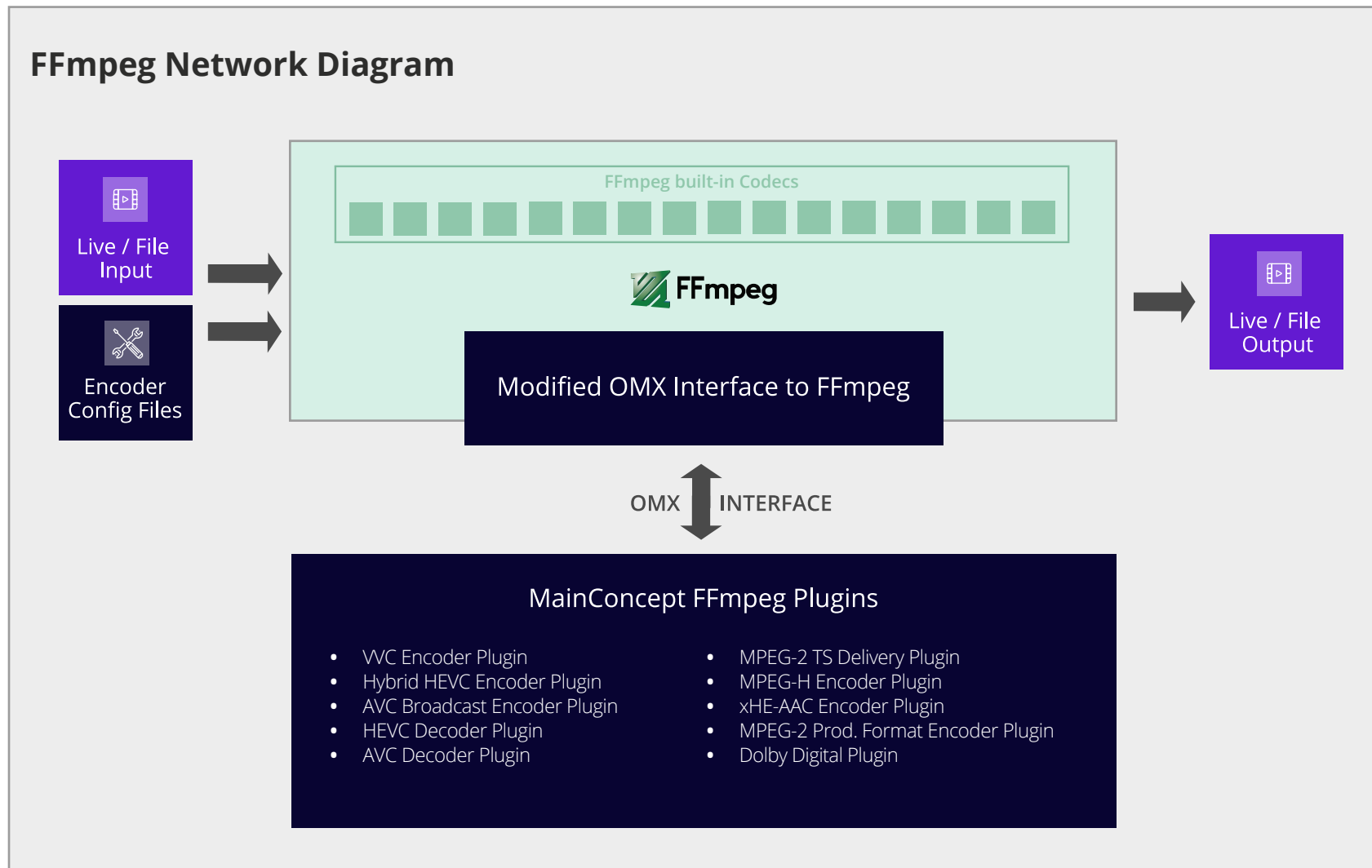
### KEY FEATURES

- Bitrates of 12-500 kb/s for stereo
- On-demand and live xHE-AAC and AAC encoding workflows
- Seamless audio bitrate switching for MPEG-DASH and Apple HLS
- Straightforward integration with MainConcept Video Encoder Plugins for FFmpeg plus FFmpeg's built-in video encoders and muxers

### OPTIMIZE WITH MAINCONCEPT PROFESSIONAL SERVICES

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## 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](http://www.mainconcept.com).

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### MORE INFORMATION

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