MainConcept MPEG-H Encoder Plugin for FFmpeg
Next-Generation Audio for Live OTT and Broadcast Workflows using FFmpeg

The MainConcept FFmpeg Plugins enable users to create highly flexible decoding, encoding and transcoding workflows or services based on FFmpeg. The plugins can be deployed using on-premise servers, in the cloud or with hybrid solutions to significantly boost both performance and quality of your audio as well as video content.

MPEG-H 3D AUDIO FOR PROFESSIONAL USE CASES

The MPEG-H Encoder Plugin allows content producers and broadcasters to use Fraunhofer's industry-leading MPEG-H 3D Audio technology natively within an FFmpeg workflow or service. Developed by Fraunhofer IIS and the Moving Picture Experts Group, MPEG-H—an immersive, object-based audio format for numerous markets such as broadcast, streaming and VR—is destined to be the next-generation audio codec. It has already been evaluated and incorporated into TV standards worldwide like ATSC 3.0, DVB, SBTVD (Brazil), ISDB (Japan) and TTA (South Korea).

CHOOSE THE BEST FROM MAINCONCEPT & FFMPEG

The easy-to-integrate FFmpeg Plugin offers MPEG-H 3D Audio stream content creation. It seamlessly integrates with other MainConcept Video Encoder Plugins for FFmpeg, plus FFmpeg's built-in components. It is fully compatible with GPAC's MP4 multiplexer, including fragmented MP4 file format generation.

PROFILE & FALLBACK MODE SUPPORT FOR LIVE USE CASES

The MainConcept MPEG-H Encoder Plugin for FFmpeg is intended for live content delivery workflows up to 16 channels, configured using a control track that was created by dedicated MPEG-H authoring tools. The Control Track—which is a separate PCM audio track that includes all required information to enable the advanced features of MPEG-H Audio—provides broadcasters with the opportunity to precisely program each interactive feature they want to share with the consumers. MPEG-H 3D Audio offers both Baseline and Low-Complexity profiles for full compliance with the latest generation of set-top boxes, Smart TVs and OTT solutions as well as TV broadcast standards. It also comes with a fallback mode that automatically switches the audio if the control track gets lost or is interrupted for a seamless audio delivery.

BRINGING AUDIO EXCELLENCE TO THE FFMPEG PLATFORM

EASY TO INTEGRATE

A simple plugin approach brings Fraunhofer's latest MPEG-H 3D Audio software encoder into new or existing FFmpeg 4.4 (Rao), 6.0 (Von Neumann) or 7.0 (Dijkstra) environments

APPROVED FUTURE AUDIO STANDARD

MPEG-H 3D Audio has already been adopted by ATSC, DVB, TTA (South Korean TV), SBTVD (Brazilian TV) and ATSC 3.0 (South Korea) consortiums

OTT & BROADCAST FORMAT SUPPORT

Encoding for OTT-compliant streaming use cases like MPEG-DASH and HLS, but also for TV broadcasting content creation
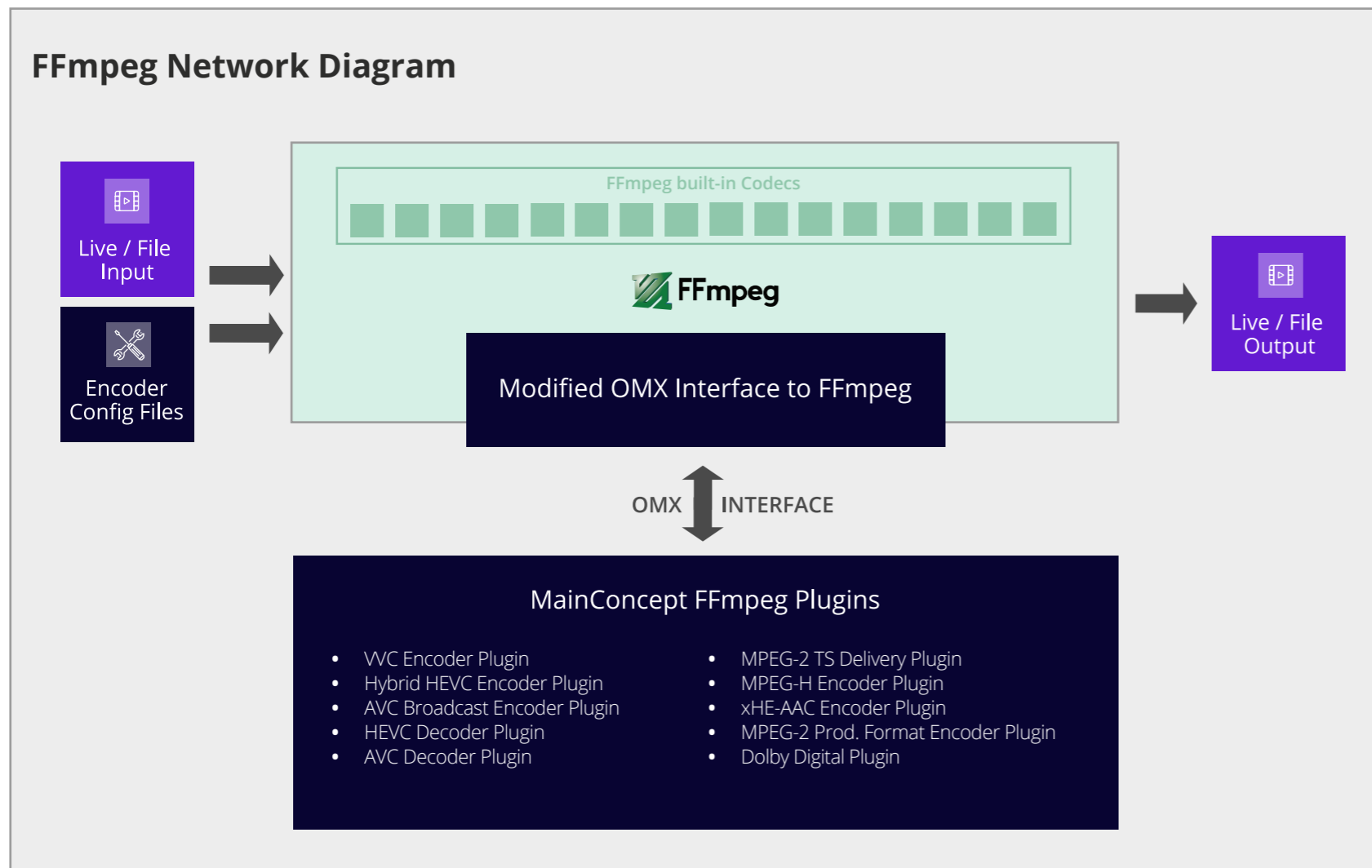
KEY FEATURES

- Support for object-based MPEG-H Audio
- Optimized for live MPEG-H Audio encoding scenarios
- Full compliance with MPEG-H 3D Audio Baseline and Low-Complexity Profiles
- Automatic Fallback mode switch in case of Control Track loss or interruption
- Straightforward integration with MainConcept Video Encoder Plugins for FFmpeg plus FFmpeg's built-in components

OPTIMIZE WITH MAINCONCEPT PROFESSIONAL SERVICES

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)
- Works with FFmpeg 4.4 (Rao), FFmpeg 6.0 (Von Neumann) or FFmpeg 7.0 (Dijkstra)

MainConcept MPEG-H Encoder Plugin for FFmpeg

Next-Generation Audio for Live OTT and Broadcast Workflows using FFmpeg

FFmpeg Network Diagram

FFmpeg built-in Codecs

Live / File Input

Encoder Config Files

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.