KORG Fraunhofer IIS

News Release

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For Immediate Release

KORG's Live Extreme Announces Support of MPEG-H Audio
Exclusive Demonstration to take place at the OTOTEN 2024 Exhibition in Tokyo

Tokyo, Japan - - June 18, 2024 - - KORG, Inc, a legendary innovator in creating musical instruments has announced the support for MPEG-H Audio with the newest version of their revolutionary internet video streaming system, Live Extreme.

Live Extreme's encoding technology delivers the highest quality audio and video in the industry, including multitudes of high resolution and immersive audio formats, allowing audiences to hear every nuance of a performance. KORG has signed a license agreement with Fraunhofer IIS, the globally leading audio research institute from Germany, to add support for the MPEG-H Audio live stream inside KORG's Live Extreme Encoder v1.14 to be released in August 2024.

MPEG-H Audio is a Next Generation Audio technology delivering immersive experiences that can be personalized. The object-based system powers Sony's 360 Reality Audio music streaming which is available on major platforms. It is the only audio system of the terrestrial UHD TV service in South Korea, and the only mandatory audio system for Brazil's TV 3.0 broadcast service. It was also adopted for inclusion in Japan's next-generation terrestrial digital broadcasting specification. The addition of MPEG-H Audio to the Live Extreme's supported codecs is expected to further promote high-quality audio and immersive audio format streaming.

"The mission of Live Extreme is to deliver the highest quality audio that other streaming systems can't," says Koji Oishi, Director of KORG Inc. "Features like 22.2 channel-based audio and streaming of pure object-based productions wouldn't be possible without MPEG-H Audio capabilities, and I can't wait to see many streaming shows to be delivered in this supreme quality soon." "Integrating MPEG-H Audio into KORG's Live Extreme is a significant step towards streaming highest quality next-generation entertainment experiences into more and more homes," agrees Yannik Grewe, Senior Engineer Media Technologies at Fraunhofer IIS. "The partnership with KORG was driven by a shared passion for perfection that will show in unforgettable experiences for global audiences."

Live Extreme internet streaming system was launched in September 2020. Its audio-first concept, such as prioritizing audio clock for sound quality, and support for lossless / hi-res audio have gained an enormous amount of positive feedback. As of today, more than 150 concerts have been streamed with Live Extreme. In 2023, it added support for immersive audio formats such as "Dolby Atmos" and "AURO-3D".

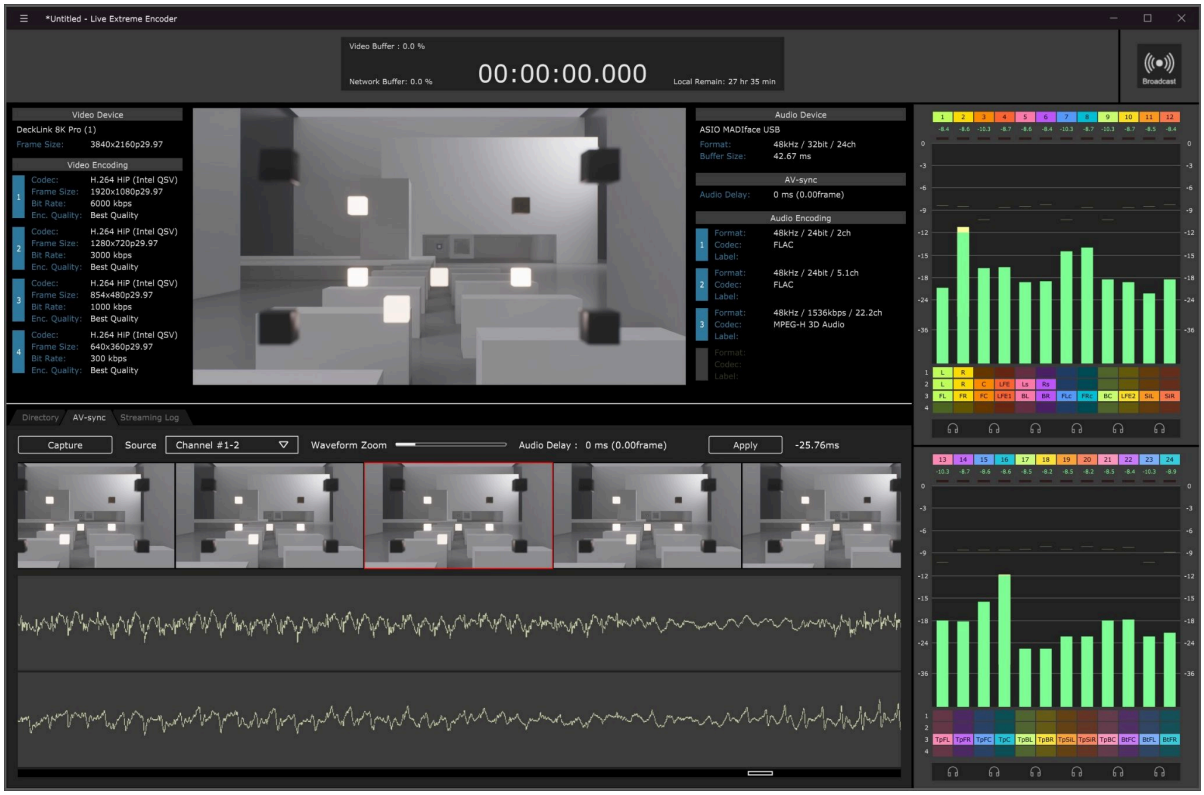
For more information visit https://live-extreme.net.
Learn more about MPEG-H Audio on www.mpegh.com.

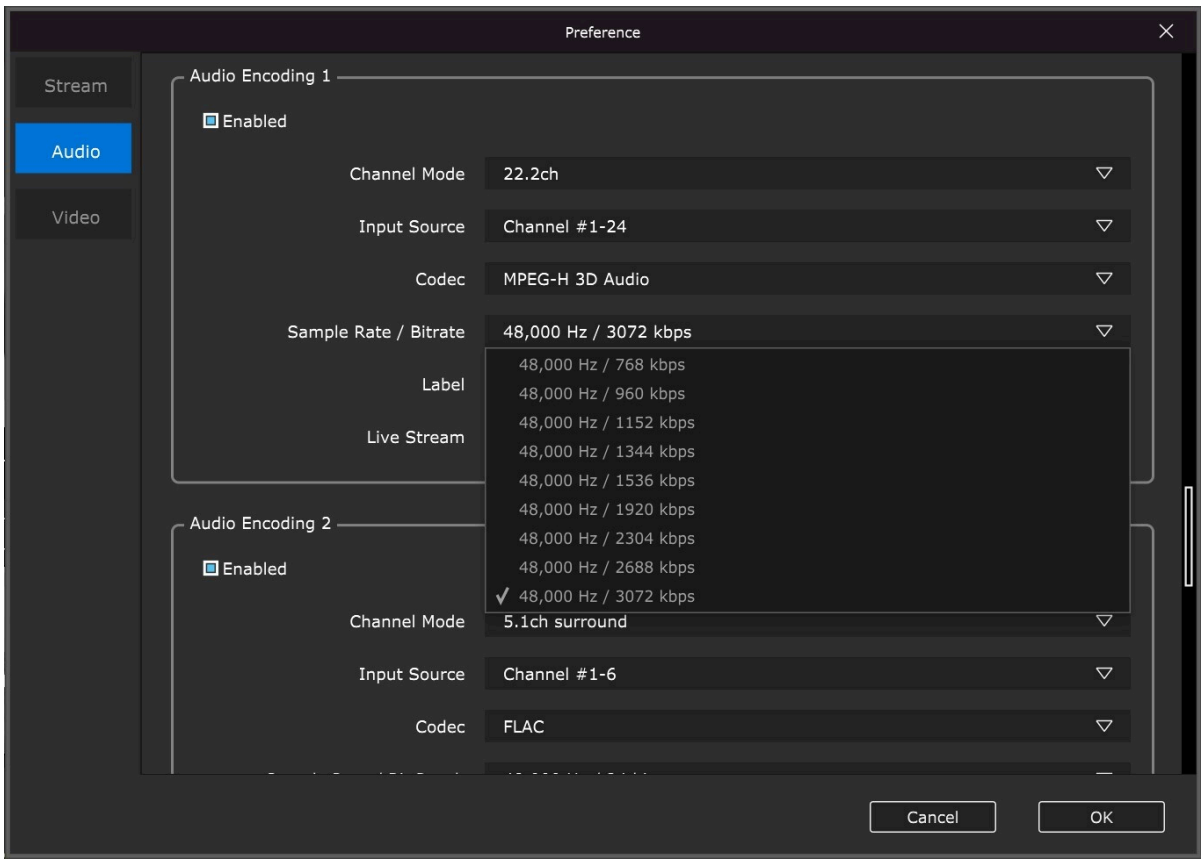
Live Extreme Encoder v1.14, with MPEG-H Audio support, will be demonstrated at the KORG booth at OTOTEN 2024 from June 22-23, 2024, held at the Tokyo International Forum. In addition, sample exhibits of Live Extreme Experience, an application for STBs (set-top boxes) that supports MPEG-H Audio and other immersive audio formats playback are also planned. The booth will be located at B1F Glass Building just opposite the Fraunhofer IIS booth.

Product Demonstration：
Live Extreme
・Live Extreme Encoder v1.14 (Live Streaming Encoder)
・Live Extreme Experience for Android TV (Playback Application [sample])
・Live Extreme Experience for Fire TV (Playback Application [sample])
・Live Extreme Experience for Apple TV (Playback Application [sample])
・4K TV and 5.1.4ch speaker setup for demo content playback
・Watch the "Audio Society of Japan Seminar" streaming live on Live Extreme from the OTOTEN venue

Live Extreme specification for MPEG-H Audio

Stream Protocol		HLS, MPEG-DASH
Stream Type		Live stream Pre-recorded live stream Archive on-demand stream
Audio	Inputs	Max. 25 channels
	Codec	MPEG-H 3D Audio Baseline Profile
	Sample Rate	48kHz
	Bitrate	32, 40, 48, 56 64, 80, 96, 112, 128 (kbps/ch)
	Channel Base	2ch, 5.1ch, 7.1ch, 5.1.2ch, 5.1.4ch, 7.1.4ch, 22.2ch
	Object Base	Max. 24 elements
	Metadata Input	MPEG-H Control Track


*Untitled - Live Extreme Encoder
Video Buffer : 0.0 %
Network Buffer: 0.0 %
00:00:00.000
Local Remain: 27 hr 35 min
Broadcast
Video Device
DeckLink 8K Pro (1)
Frame Size: 3840x2160p29.97
Video Encoding
Codec: H.264 HiP (Intel QSV)
Frame Size: 1920x1080p29.97
Bit Rate: 6000 kbps
Enc. Quality: Best Quality
Codec: H.264 HiP (Intel QSV)
Frame Size: 1280x720p29.97
Bit Rate: 3000 kbps
Enc. Quality: Best Quality
Codec: H.264 HiP (Intel QSV)
Frame Size: 854x480p29.97
Bit Rate: 1000 kbps
Enc. Quality: Best Quality
Codec: H.264 HiP (Intel QSV)
Frame Size: 640x360p29.97
Bit Rate: 300 kbps
Enc. Quality: Best Quality
Audio Device
ASIO MADIface USB
Format: 48kHz / 32bit / 24ch
Buffer Size: 42.67 ms
AV-sync
Audio Delay: 0 ms (0.00frame)
Audio Encoding
Format: 48kHz / 24bit / 2ch
Codec: FLAC
Label:
Format: 48kHz / 24bit / 5.1ch
Codec: FLAC
Label:
Format: 48kHz / 1536kbps / 22.2ch
Codec: MPEG-H 3D Audio
Label:
Directory
AV-sync
Streaming Log
Capture
Source
Channel #1-2
Waveform Zoom
Audio Delay : 0 ms (0.00frame)
Apply
-25.76ms


Preference
Stream
Audio
Video
Audio Encoding 1
Enabled
Channel Mode
22.2ch
Input Source
Channel #1-24
Codec
MPEG-H 3D Audio
Sample Rate / Bitrate
48,000 Hz / 3072 kbps
Label
Live Stream
48,000 Hz / 768 kbps
48,000 Hz / 960 kbps
48,000 Hz / 1152 kbps
48,000 Hz / 1344 kbps
48,000 Hz / 1536 kbps
48,000 Hz / 1920 kbps
48,000 Hz / 2304 kbps
48,000 Hz / 2688 kbps
48,000 Hz / 3072 kbps
Audio Encoding 2
Enabled
Channel Mode
5.1ch surround
Input Source
Channel #1-6
Codec
FLAC
Cancel
OK