Audio Release Notes

(version 6.0.0.1)

Overview

Audio for Windows* (part of **Intel® Integrated Native Developer Experience 2015**) and **Intel® Media Server Studio 2015 Audio Encoder & Decoder (**hereinafter **Audio)** contains decoder and encoder implementations of several formats and targets general application developers who want to integrate audio encoding and decoding into their applications.

Audio requires **Intel® Media SDK for Windows* (**part of **Intel® INDE)** or **Intel® Media Server Studio – SDK** (hereinafter **SDK**) to be installed. **Audio** uses the API similar to **SDK** API for video processing library.

Features

Audio has API version 1.13.

The following audio formats are supported:

Decoding

- AAC, supported profiles:
  - Low Complexity (LC);
  - Long Term Prediction (LTP)
  - Parametric Stereo (PS)
  - Spectral Band Replication (SBR)/HE AAC v1
  - HE AAC v2 (SBR + PS)

- Mpeg audio, supported standards, profiles
  - MPEG-1 Audio Layer I, Layer II and Layer III (ISO*/IEC* 11172-3)
  - MPEG-2 Audio Layer I, Layer II and Layer III (ISO/IEC 13818-3)

Encoding

- AAC supported profiles:

- Low Complexity (LC)
- Spectral Band Replication (SBR) /HE AAC v1
- Output formats for AAC – ADTS, RAW, ADIF
- Stereo mode – LR, JOINT, MS

What's New

- Custom user plugins support was added to **Audio** API 1.13. The following new API functions were implemented:

  - `MFXAudioUSER_Register`
  - `MFXAudioUSER_Unregister`
  - `MFXAudioUSER_ProcessFrameAsync`
  - `MFXAudioUSER_Load`
  - `MFXAudioUSER_UnLoad`

  Details on this API could be found in ***SDK*** *API Reference Manual (Extensions for User-Defined Functions).*

System Requirements

Hardware

- IA-32 or Intel® 64 architecture processors with support for Intel® Streaming SIMD Extensions 2 instructions.

Software

- Microsoft* Windows* 7 or Microsoft Windows 8 or Microsoft Windows 8.1.
- Microsoft Visual C++* 2005 with Service Pack 1, or later version of Microsoft Visual C++.
- **Intel® Integrated Native Developer Experience (Intel® INDE) 2015** or **Intel® Media Server Studio 2015 for Windows* Server**.

Package Contents

Note: The suffix `<arch>` indicates 32- or 64-bit Microsoft* Windows* (either "`win32`" or "`x64`").

`<install-folder>`	**Audio** Release Notes (this file)
`<install-folder>\bin\<arch>`	**Audio** dynamic Library: `libmfxaudiosw32.dll` for IA-32 architecture `libmfxaudiosw64.dll` for IA 64 architecture

<install-folder>\doc	**Audio** documentation: • Reference Manual for Audio Processing audio-man.pdf • Reference Manual for Plugins API mediasdkusr-man.pdf
<install-folder>\include	**SDK** headers: • Audio header mfxaudio.h

Installation

- Add the full path to <install_folder>\bin\<arch> to the PATH environment variable so that audio dynamic library can be found with standard DLL search mechanism.
- Replace mfxaudio.h file delivered with **SDK** package with ones delivered with this package.

Known Limitations

Audio has the following known limitations:

- Loading of **Audio** library libmfxaudiosw32.dll/libmfxaudiosw64.dll not through the **SDK** Dispatcher is unsafe.
- Bitrate calculation routine in MFXAudioENCODE_Init may work incorrectly for some AAC High Efficiency (HE) profile streams. As a result MFXAudioENCODE_Init function returns an error.
- Bitrate values for AAC HE profile vary from 96 Kbit/s to 265 Kbit/s.
- The following profile and mode values are not supported:
    - MFX_PROFILE_AAC_SSR
    - MFX_PROFILE_AAC_ALS
    - MFX_PROFILE_AAC_BSAC
    - MFX_AUDIO_MP3_LFE_FILTER_ON always disabled
- AAC decoder may handle streams with multiple (more than 2) channels incorrectly.

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