

Intel[®] Media SDK Tutorials Release Notes

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1 Overview

The Intel Media Software Development Kit (Intel Media SDK) Tutorials show you how to use Intel Media SDK by walking you step-by-step through use case examples from simple to increasingly more complex usages.

The Tutorials are divided into few parts (sections):

- 1 introduces the Intel Media SDK session concept via a very simple sample
- 2-4 illustrates how to utilize the three core SDK components: Encode, Decode and VPP (video pre/post processing)
- 5 showcases transcode workloads, utilizing the components described in earlier sections
- 6 showcases more advanced and compound usages of the SDK

For simplicity and uniformity the Tutorials focus on the H.264 (AVC) video codec. Other codecs are supported by Intel Media SDK and can be utilized in a similar way.

2 System Requirements

This version of Media SDK Tutorials requires Media SDK of API 1.8 or higher installed on the system. The provided package was tested with the following distributions of Intel® Media SDK:

- Intel® Media SDK 2014 for Clients
- Intel® Media SDK 2014 for Linux Servers

Please, make sure that Media SDK is properly installed on your system and configured for development. To be able to build Tutorials from this package it is needed to have the following components installed:

Windows Microsoft Visual C++ 2012 or higher

Linux GCC/G++ 4.6 or higher
GNU Make

Please, refer to the Release Notes of your specific Media SDK distribution to find out Software and Hardware requirements to be able to run Tutorials executables you've built.

2.1 Supported Operating Systems

Here is list of the supported Operating Systems by the Media SDK distributions mentioned above:

Media SDK 2014 for Clients Microsoft Windows* 7

Microsoft Windows* 8

Microsoft Windows* 8.1

Media SDK 2014 for Linux Servers Ubuntu* 12.04 LTS for 64-bit

SUSE* Linux* Enterprise Server 11 for 64-bit

Please, be aware that the list may be incomplete - please, refer to the distribution documentation for the full one.

2.2 Supported Hardware

Here is list of the supported Hardware by the Media SDK distributions mentioned above:

Media SDK 2014 for Clients IA-32 or Intel 64 architecture processors with support for Intel® Streaming SIMD Extensions 2 instructions. [to use sw codecs]

2nd, 3rd, and 4th generation Intel Core processor-based platforms, a limited set of Intel® Xeon E3 processors, and Intel Atom™ processor-based tablets. [to use hw codecs]

Media SDK 2014 for Linux Servers Intel® Xeon® Processor E3-1285 v3 and E3-1285L v3 (Intel® C226 Chipset) with Intel® HD Graphics P4700

4th Generation Intel® Core™ Processors with Intel® Iris™ Pro Graphics, Intel® Iris™ Graphics or Intel® HD Graphics 4200+ Series

Intel® Xeon® Processor E3-1285 v2 and E3-1285L v2 (Intel® C216 Chipset) with Intel® HD Graphics P4000

3rd Generation Intel® Core™ Processors with Intel® HD Graphics 4000/2500

Please, be aware that the list may be incomplete - please, refer to the distribution documentation for the full one.

3 Build and Run Instructions for Windows

Microsoft* Windows* SDK

Intel Media SDK Tutorials depend on Microsoft* Windows* SDK include and library files. Set up your Microsoft Visual Studio* environment with Microsoft Windows SDK include and library directories.

INTELMEDIASDKROOT environmental variable

- Intel Media SDK samples depend on Intel Media SDK external headers and Intel Media SDK dispatcher library which are searched in folders 'INTELMEDIASDKROOT\include' and 'INTELMEDIASDKROOT\lib\<arch>' respectively.
- 'INTELMEDIASDKROOT' is set by Intel Media SDK installer and points to the Intel Media SDK installation folder.

Building with Microsoft Visual C++*

Use provided with each Tutorial solution file .sln with Microsoft Visual C++ version 2012 or later to build the respective sample. Locate the resulting executable file in the folder:

<install-folder>\.._build\<PlatformName>\<ConfigurationName>

4 Build and Run Instructions for Linux

MFX_HOME environmental variable

- Intel Media SDK samples depend on Intel Media SDK external headers and Intel Media SDK dispatcher library which are searched in folders ‘\$MFX_HOME/include’ and ‘\$MFX_HOME/lib/lin_<arch>’ respectively.
- ‘MFX_HOME’ should be set explicitly and point to the Intel Media SDK installation folder. Execute in the shell you are going to build:
`export MFX_HOME=/opt/intel/mediasdk # or /mediasdk/installation/folder`

Building with GNU Make

Go to the samples directory and execute `make` to build the sample. Locate the resulting executable file in the folder:

`<install-folder>/../_build`

Ensure that the Media SDK library can be found. By default, the dispatcher searches for `libmfxhw<arch>-p.so.<version>` in ‘/opt/intel/mediasdk/lib64/8086/<device_id>’ folder.

5 Known Limitations

- Working with SW Media SDK library `simple_6_decode_vpp_postproc` tutorial may produce artifacts (no artifacts should be observed on HW library).
- `simple_6_transcode_opeq_lowlatency` tutorial may produce artifacts.