Intel® Media Server Studio 2017 R2 – Essentials Edition for Linux* Release Notes

Overview

The **Intel® Media Server Studio – Essentials Edition for Linux*** provides software development tools and libraries needed to develop enterprise grade media solutions on Intel® Server Products. The studio is designed for optimizing datacenter and embedded media applications for Linux server operating systems to utilize Intel® Iris™ and Intel® HD Graphics hardware acceleration capabilities. The suite includes:

- *Intel® Media Server Studio 2017 – Graphics driver*

- *Intel® Media Server Studio 2017 – SDK* (hereinafter referred to as "SDK") is designed for optimizing datacenter and embedded media applications for Linux server operating systems to utilize Intel® Iris™ and Intel® HD Graphics hardware acceleration capabilities.

- *Intel® Media Server Studio 2017 – Flexible Encode Infrastructure* is an extension of Intel® Media SDK that gives more control over encoding process compared to the standard Media SDK API with the following caveats:
  - Only AVC encode supported
  - Intel does not provide technical support for the FEI through forum or Intel Premier Support
  - Building an application with FEI may take significantly more effort compared to the standard Media SDK API
  - FEI validation is limited. Some combinations of encoding parameters may lead to unstable application behavior, crashes and hangs.
  - FEI API is not backward compatible
  - FEI is subject to the same EULA terms as Intel® Media Server Studio. Some FEI components are distributed as "pre-release materials" which restricts their usage according to EULA.

- *Intel® Media Server Studio 2017 – Samples*

  show how to use different SDK features.

- *Intel® Media Server Studio 2017 – SDK for OpenCL™ Applications*

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assists with creating, building, debugging, and analyzing OpenCL applications.

- *Intel® Media Server Studio 2017 – Metrics Monitor*

  provides access to a set of GPU metrics.

What's New

The Intel® Media Server Studio 2017 R2 – Essentials Edition for Linux* includes the following components:

- Intel® Media Server Studio 2017 R2 – Graphics driver, version 16.5.1.59511
- Intel® Media Server Studio 2017 R2 – SDK, version 7.0.16053633
- Intel® Media Server Studio 2017 R2 – Flexible Encode Infrastructure, version 7.0.16053633; contains PRE-RELEASE Materials
- Intel® Media Server Studio 2017 R2 – SDK for OpenCL™ Applications 2016 R3
- Intel® Media Server Studio 2017 R2 – Metrics Monitor, version 1.1.0
- Intel® Media Server Studio 2017 R2 – Samples, version 7.0.16053634. The latest version of samples package (with all samples binaries and corresponding source code) could be downloaded from [Intel(R) Media Server Studio Support](#).

For information on what is new in each component, please read the individual component release notes:

- the Intel® Media Server Studio 2017 R2 – SDK Release Notes
  ```
  <studio-extract-dir>/<sdk-extract-dir>/
  media_server_studio_sdk_release_notes.pdf
  ```
- the Intel® Media Server Studio 2017 R2 – Flexible Encode Infrastructure Release Notes
  ```
  <studio-extract-dir>/<fei-extract-dir>/
  media_server_studio_fei_release_notes.pdf
  ```
- the Intel® Media Server Studio 2017 R2 – SDK for OpenCL™ Applications Release Notes

  https://software.intel.com/en-us/articles/opencl-code-builder-release-notes
- the Intel® Media Server Studio 2017 R2 – Metrics Monitor Manual

  ```
  <studio-extract-dir>/<sdk-extract-dir>/metrics_monitor/doc/metricsmon-
  man.pdf
  ```

System Requirements

Hardware

Intel® Media Server Studio supports the following platforms with the integrated graphics:

- Intel® Xeon® E3-1200 v4 Family with C226 chipset
- Intel® Xeon® E3-1200 and E3-1500 v5 Family with C236 chipset
- 5th Generation Intel® Core™

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- 6th Generation Intel® Core™

Additionally, for Intel® Xeon® E5 v4 and v5 processors, support of software-only (CPU) HEVC decode and encode, select video pre-processing (Color Space Conversion, Scaling), and virtualization (KVM*, Xen*) is available.

Note: Individual components could have specific requirements, please read the corresponding release notes.

Software

Please see the individual component release notes to know about supported operating systems and required software list.

Package Contents

Intel® Media Server Studio 2017 R2 – Essentials Edition for Linux* package includes the following components:

Component	Description
`SDK2017Production16.5.1.tar.gz`	Intel® Media Server Studio – Driver & SDK & Metrics Monitor package.
`FEI2017_16.5.1.tar.gz`	Intel® Media Server Studio – Flexible Encode Infrastructure header, manual, sample.
`intel_sdk_for_opencl_<ocl-version>.tgz`	Intel® Media Server Studio – SDK for OpenCL™ Applications package.
`MediaSamples_Linux_<id>.tar.gz`	Intel® Media Server Studio – Samples package.

`media_server_studio_essentials_release_notes.pdf`
`Intel(R)_Media_Server_Studio_EULA.pdf`
`redist.txt`
`site_license_materials.txt`
`third_party_programs.txt`
	Intel® Media Server Studio – Essentials Edition for Linux documentation: this file, EULA, EULA's accompanying files.

Installation

Installation of Intel® Media Server Studio 2017 R2 – Essentials Edition for Linux* requires full administrative rights.

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Extract files from the `MediaServerStudioEssentials2017R2.tar.gz` file to the target hard drive.

Intel® Media Server Studio 2017 R2 – Driver & SDK installation procedure is described in the corresponding Getting Started Guide `<studio-extract-dir>/<sdk-extract-dir>/media_server_studio_getting_started_guide.pdf`. Please refer to the document for details.

Before installation of Intel® Media Server Studio 2017 R2 – Flexible Encode Infrastructure, the following components should be installed:

- Intel® Media Server Studio 2017 R2 – Driver & SDK
- Intel® Media Server Studio 2017 R2 – Samples

To enable Flexible Encode Infrastructure (FEI) interface support in SDK please extract files from `FEI2017_16.5.1.tar.gz` to a temporary location, then copy extracted files in the folder where SDK installed:

```
<FEI-extract_dir>/include/* into <sdk-install-dir>/include/
<FEI-extract_dir>/doc/* into <sdk-install-dir>/doc/
```

FEI Encoding Sample files should be copied in the folder where Samples were installed (by default /opt/intel/mediasdk/samples):

```
<FEI-extract_dir>/samples/* into <samples-install-dir>/
```

NOTE: FEI Encoding Sample package doesn't include Samples common and build files so the simplest way to build this sample is to copy it to the tree of the main Samples package.

Intel® Media Server Studio 2017 R2 – Metrics Monitor will be installed together with Intel® Media Server Studio 2017 R2 – Driver & SDK.

To install Intel® Media Server Studio 2017 R2 – Samples you need to extract corresponding tar.gz file to the target hard drive.

To install Intel® Media Server Studio 2017 R2 – SDK for OpenCL™ Applications you need to extract corresponding tar.gz file and run install.sh. Installer will guide installation process, please follow it.

Installation Folders

Intel® Media Server Studio 2017 R2 – Essentials Edition for Linux* components will be installed in the following locations by default:

Component	Description
/opt/intel/mediasdk	Default location of Intel® Media Server Studio – SDK.

`/opt/intel/opencl-1.2-sdk-<ocl-version>`	Default location of Intel® Media Server Studio – SDK for OpenCL™ Applications.
`/opt/intel/mediasdk/tools/metrics_monitor`	Default location of Intel® Media Server Studio – Metrics Monitor.

Intel® Media Server Studio 2017 R2 – Driver has multiple installation layouts. Please refer to the corresponding Intel® Media Server Studio 2017 R2 – Driver & SDK Release Notes for details.

Limitations

Media Server Studio 2017 R2 – Essentials Edition compatibility with Media Server Studio 2017 – Professional Edition:

- Media Server Studio 2017 R2 – Essentials Edition is fully compatible with Media Server Studio 2017 – HEVC Decoder and Encoder plugins (that provides interface to SW decoder/encoder and GPU accelerated encoder) from Media Server Studio 2017 – Professional Edition (hereinafter referred to as "HEVC SW"). The only limitation is that after Media Server Studio 2017 R2 – Essentials Edition installed customers have to re-install HEVC SW plugins from Media Server Studio 2017 – Professional Edition. To install **Intel® Media Server Studio 2017 – HEVC Decoder & Encoder** you need to extract HEVC2017.tar.gz file from MediaServerStudioProfessional2017.tar.gz and run install.sh. Installer will guide installation process, please follow it. HEVC SW installer creates backup copy `plugins.cfg.bak` for `<sdk-install-dir>/plugins/plugins.cfg` (if any); after HEVC SW installed you need to copy backup content to a new `<sdk-install-dir>/plugins/plugins.cfg`.

For information on known limitations in each component, please read the individual component release notes.

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