

# Intel® Media Server Studio 2016 – Professional Edition for Linux\* Release Notes

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## Overview

The **Intel® Media Server Studio – Professional Edition for Linux\*** provides software development tools and libraries needed to develop enterprise grade media solutions on Intel® Server Products. The suite includes:

- *Intel® Media Server Studio 2016 – Graphics driver*
- *Intel® Media Server Studio 2016 – 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 2016 – OpenCL™ Code Builder* assists with creating, building, debugging, and analyzing OpenCL applications.
- *Intel® Media Server Studio 2016 – Metrics Monitor* provides access to a set of GPU metrics.
- *Intel® Media Server Studio 2016 – Audio Decoder and Encoder* (hereinafter referred to as "Audio") is a dedicated library for audio codec software processing.
- *Intel® Media Server Studio 2016 – HEVC Decoder and Encoder* (hereinafter referred to as "HEVC") is a set of software development libraries (plug-ins) and tools that expose the HEVC (ISO\*/IEC\* 23008-2 MPEG-H Part 2 or ITU-T\* H.265 standard) decode and encode acceleration capabilities of Intel® platforms.
- *Intel® Media Server Studio 2016 – Premium Telecine Interlace Reverser* (hereinafter referred to as "PTIR") is a development library that exposes the media acceleration capabilities of Intel platforms for video deinterlacing/inverse telecine processing.

- *Intel® Media Server Studio 2016 – Video Quality Caliper* is a graphical utility for objective and visual quality inspection of encoded or uncompressed videos
- *Intel® VTune™ Amplifier XE* is a powerful threading and performance optimization tool for developers who need to understand an application's serial and parallel behavior to improve performance and scalability.
- *Intel® Media Server Studio 2016 – Samples* show how to use different SDK features.

## What's New

The Intel® Media Server Studio 2016 – Professional Edition for Linux\* includes the following components:

- Intel® Media Server Studio 2016 – Graphics driver, version 16.4.4.47109
- Intel® Media Server Studio 2016 – SDK, version 6.0.16043361.361
- Intel® Media Server Studio 2016 – OpenCL™ Code Builder 2015 R6
- Intel® Media Server Studio 2016 – Metrics Monitor, version 1.1.0
- Intel® Media Server Studio 2016 – Intel® Media Server Studio 2016 – Samples, version 6.0.16043361.361. The latest version of samples package (with all samples binaries and corresponding source code) could be downloaded from [Intel\(R\) Media Server Studio Support](#).
- Intel® Media Server Studio 2016 – Audio Decoder and Encoder, version 6.0.1604345.45
- Intel® Media Server Studio 2016 – HEVC Decoder and Encoder, version 1.0.8
- Intel® Media Server Studio 2016 – Premium Telecine Interlace Reverser, version 1.2.0
- Intel® Media Server Studio 2016 – Video Quality Caliper, version 1.8.1
- Intel® VTune™ Amplifier XE 2016 Update 2

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

- the Intel® Media Server Studio 2016 – SDK Release Notes  
`<studio-extract-dir>/<sdk-extract-dir>/media_server_studio_sdk_release_notes.pdf`
- the Intel® Media Server Studio 2016 – OpenCL™ Code Builder Release Notes  
<https://software.intel.com/en-us/articles/mss-code-builder-release-notes>
- the Intel® Media Server Studio 2016 – Metrics Monitor Manual  
`<studio-extract-dir>/<sdk-extract-dir>/metricsmon-man.pdf`

- the Intel® Media Server Studio 2016 – Audio Decoder and Encoder Release Notes:  
<studio-extract-dir>/<audio-extract-dir>/release\_notes\_audio.pdf
- the Intel® Media Server Studio 2016 – HEVC Decode & Encode Release Notes:  
<studio-extract-dir>/<hevc-extract-dir>/media\_server\_studio\_hevc\_release\_notes.pdf
- the Intel® Media Server Studio 2016 – Premium Telecine Interlace Reverser Release Notes:  
<studio-extract-dir>/<ptir-extract-dir>/plugins/media\_server\_studio\_ptir\_release\_notes.pdf
- the Intel® Media Server Studio 2016 – Video Quality Caliper Release Notes:  
<studio-extract-dir>/<caliper-extract-dir>/Video\_Quality\_Caliper\_Release\_Notes.pdf
- the Intel® VTune™ Amplifier XE Release Notes:  
<studio-extract-dir>/<vtune-extract-dir>/release\_notes\_amplifier\_linux.pdf

## System Requirements

### Hardware

The following processor models are supported:

- Intel® Xeon® Processor E3-128x v4
- 5th Generation Intel® Core™ Processors with Intel Iris™ Pro Graphics, Intel Iris™ Graphics or Intel HD Graphics (5500, 6000, 6100, 6200).
- Intel® Xeon® Processor E3-128x v3
- 4th Generation Intel Core™ Processors with Intel Iris™ Pro Graphics, Intel Iris Graphics or Intel HD Graphics 4200+ Series (chipset compatibility is usually not an issue for Core™ processors.)

Chipset limitations:

- Chipset must have processor graphics enabled; make sure to check the datasheet.
- Among Intel Server Chipsets only C226 is supported.
- For platforms/motherboards based on Intel Server Chipsets, having a C226 chipset is necessary but **not** sufficient. Make sure to consult with specific platform/board vendor regarding processor graphics being supported. Check our product website for the approved/recommended platforms list at <https://software.intel.com/en-us/intel-media-server-studio/details#professional>

Note:

- Intel Core processors earlier than 4th Generation are not supported
- Intel® Celeron®, Intel® Pentium® and Intel® Atom™ processors are not supported

**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 2016 – Professional Edition for Linux\* package includes the following components:

Component	Description
<code>SDK2016Production16.4.4.tar.gz</code>	Intel® Media Server Studio 2016 – Driver & SDK & Metrics Monitor package.
<code>intel_code_builder_for_opencl_mss_&lt;ocl-version&gt;.tar.gz</code>	Intel® Media Server Studio 2016 – OpenCL™ Code Builder package.
<code>MediaSamples_Linux_bins_&lt;id&gt;.tar.gz</code>	Intel® Media Server Studio 2016 – Samples package includes the following binaries: <ul style="list-style-type: none"><li>• Decoding Sample</li><li>• Encoding Sample</li><li>• Multi Transcoding Sample</li><li>• VPP Sample,</li></ul> test streams and README file with a link to full Samples package download.
<code>Audio2016.tar.gz</code>	Intel® Media Server Studio 2016 – Audio Decoder & Encoder package.
<code>HEVC2016.tar.gz</code>	Intel® Media Server Studio 2016 – HEVC Decoder & Encoder package.
<code>PTIR2016.tar.gz</code>	Intel® Media Server Studio 2016 – Premium Telecine Interlace Reverser package.

VideoQualityCaliper2016.tar.gz	Intel® Media Server Studio 2016 – Video Quality Caliper package.
vtune_amplifier_xe_2016_update2.tar.gz	Intel® VTune™ Amplifier XE package.
media_server_studio_professional_release_notes.pdf Intel(R) Media Server Studio EULA.pdf redist.txt site_license_materials.txt third_party_programs.txt	Intel® Media Server Studio 2016 documentation: this file, EULA, EULA's accompanying files, Getting Started Guide

## Installation

Installation of Intel® Media Server Studio 2016 – Professional Edition for Linux\* requires full administrative rights.

Extract files from the MediaServerStudioProfessional2016.tar.gz file to the target hard drive.

**Intel® Media Server Studio 2016 – 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.

**Intel® Media Server Studio 2016 – Metrics Monitor** will be installed together with Intel® Media Server Studio 2016 – Driver & SDK.

To install **Intel® Media Server Studio 2016 – Samples** you need to extract corresponding tar.gz file to the target hard drive.

To install **OpenCL™ Code Builder** you need to extract corresponding tgz file and run install.sh. Installer will guide installation process, please follow it.

If you installed Intel® Media Server Studio 2016 – Driver & SDK using package for Generic OS you could see the following “Missing Critical Prerequisite(s)” issued by OpenCL Code Builder installer:

```
The following libraries required for installation are missing:
- libOpenCL.so.1 () (64bit)
- libOpenCL.so.1 (OPENCL_1.0) (64bit)
- libOpenCL.so.1 (OPENCL_1.2) (64bit)
To install libOpenCL* libraries, please install OpenCL™ runtime
for Intel® CPU device package.
```

First please make sure all required libraries are available on your system:

```
$ find / -name libOpenCL.so.1*
/usr/lib64/libOpenCL.so.1
/usr/lib64/libOpenCL.so.1.2
```

And then run the following command in <OCL-Code-Builder-extract-dir> folder:

```
$ rpm -ivh --nodeps rpm/*.rpm
```

To install **Intel® Media Server Studio 2016 – Audio Decoder & Encoder** you need to extract corresponding tar.gz file to the target hard drive (preferable location is <sdk-install-dir>). Please make sure you replace `mfxaudio.h` file delivered with SDK package (<sdk-install-dir>/include) with one delivered with this package.

To install **Intel® Media Server Studio 2016 – HEVC Decoder & Encoder** you need to extract corresponding tar.gz file and run `install.sh`. Installer will guide installation process, please follow it. Please ensure you installed SDK before HEVC installation. HEVC installer creates backup copy `plugins.cfg.bak` for <sdk-install-dir>/plugins/plugins.cfg (if any); after HEVC installed you need to copy backup content to a new <sdk-install-dir>/plugins/plugins.cfg.

To install **Intel® Media Server Studio 2016 – Premium Telecine Interlace Reverser** you need to extract corresponding tar.gz file to the target hard drive in the location where SDK installed. Please ensure you installed SDK before PTIR installation. Please create backup copy of <sdk-install-dir>/plugins/plugins.cfg (if any) before PTIR installation; after PTIR installed you need to copy backup content to a new <sdk-install-dir>/plugins/plugins.cfg.

To install **Intel® Media Server Studio 2016 – Video Quality Caliper** (hereinafter referred to as "VQC") you need to extract corresponding tar.gz file to the target hard drive (preferable location is `/opt/intel`).

To activate **Intel® Media Server Studio 2016 – Video Quality Caliper** after installation you need:

- If you have Intel Media Server Studio license file then put the file in the following default directory:  
as root: `/opt/intel/licenses`  
as current user: `~/intel/licenses`
- If there is no Intel Media Server Studio license file available please:
  1. Log in to the [Intel® Registration Center](#) by entering your login ID and password. You will see a list of all your products.
  2. For each product, you will see the product name, component names (if applicable), a link to the latest version available for download, and the posted date of the latest update.
  3. Clicking **Intel® Media Server Studio – Professional Edition** will take you to the subscription history page where you will be able to download

the latest version. On the bottom, you will find the serial number, support status, and links to manage the license and renew your subscription.

4. If you want to download the license file or resend it to your email account, click the Manage link under the Admin column to go to the Manage License page. You will see two icons on the License File header 'Download license file' and 'Resend license file to my email'. If you chose the second option, you will receive an email with the license file as an attachment. [Note: If you have installed a 2016 product you may have more than one license file per product].

If you have any questions on licensing, visit the [Licensing FAQ](#) page.

To install **Intel® VTune™ Amplifier XE** you need to extract corresponding tar.gz file and run install.sh. Please refer to corresponding release notes for details.

## Installation Folders

Intel® Media Server Studio 2016 – Professional 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 2016 – SDK, Audio Decoder & Encoder, HEVC Decoder & Encoder, Premium Telecine Interlace Reverser, Metrics Monitor.
/opt/intel/opencl-1.2-sdk-<ocl-version>	Default location of Intel® Media Server Studio 2016 – OpenCL™ Code Builder.
/opt/intel/vtune_amplifier_xe_2016	Default location of Intel® VTune™ Amplifier XE

Intel® Media Server Studio 2016 – Driver has multiple installation layouts. Please refer to the corresponding SDK Release Notes for details.

## Known Limitations

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

## Legal Information

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