

# OpenCL™ Plug-in Sample

[Overview](#)

[Features](#)

[Software Requirements](#)

[Package Contents](#)

[How to Build the Application](#)

[Running the Software](#)

[Known Limitations](#)

[Legal Information](#)

## Overview

**OpenCL™ Plug-in Sample** works with **Intel® Media Server Studio 2017 for Linux Server**.

It demonstrates how to use **Media Server Studio – SDK** (hereinafter referred to as "**SDK**") API to implement a video-processing filter through Intel® OpenCL™ technology and make the filter available to participate in an **SDK** pipeline.

## Features

- The **OpenCL™ Plug-in Sample** implements 180-degree picture rotation using Intel OpenCL technology.
- Sample supports both CPU and GPU OpenCL devices.

## Software Requirements

- Intel® SDK for OpenCL™ Applications  
<http://software.intel.com/en-us/vcsource/tools/opencl-sdk>
- See <install-folder>/Media Samples Guide.pdf

## Package Contents

**OpenCL™ Plug-in Sample** package contains the following:

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Page 1 of 5

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<install-folder>/sample_user_modules/rotate_opengl/	
readme-opengl-rotate-plugin.pdf	This file
CMakeLists.txt	CMake* configuration file
include	Header files for the sample
src	Source files for the sample

<install-folder>/sample_user_modules/plugin_api/	
rotate_plugin_api.h	Header file for the rotation interface (defines rotation parameters structure)

<install-folder>/sample_user_modules/rotate_opengl/include	
sample_plugin_opengl.h	Header file for the rotation plugin class

<install-folder>/sample_user_modules/rotate_cpu/src/	
sample_plugin_opengl.cpp	Source file for the rotation plugin class
ocl_rotate.cl	OpenCL kernel file

## How to Build the Application

Refer to <install-folder>/Media Samples Guide.pdf for general build instructions.

Make sure to install Intel® SDK for OpenCL™ Applications prior to building this sample.

## Running the Software

**OpenCL™ Plug-in Sample** is a shared library which is invoked from the **Encoding Sample** or **Transcoding Sample** with options `-opencl -angle 180`.

While running **Encoding Sample** or **Transcoding Sample** with options `-opencl -angle 180` the file `sample_plugin_opencl.so` and `cl_rotate.cl` must be available.

See `<install-folder>/sample_encode/readme-encode.pdf` or `<install-folder>/sample_multi_transcode/readme-multi-transcode.pdf` for details.

## Known Limitations

- This sample supports only picture width aligned at 4.

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