

# Full Transcoding Sample

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## Overview

**Full Transcoding Sample** works with **Intel® Media Server Studio 2015 for Linux Server**.

It demonstrates how to use **Media SDK for Windows\*** and **Media Server Studio – SDK** (hereinafter referred to as "**SDK**") build an advanced transcoding pipeline including video and audio decoders and encoders, **Splitter and Muxer Sample** components, with support of multiple audio tracks.

## Features

**Full Transcoding Sample** supports the following stream formats:

input	Container: MPEG4 Part 14 (MP4), MPEG-2 Transport Stream (M2TS) Video codec: H264, MPEG2 Audio codec: AAC, MPEG1 layer 3 (MP3)
output	Container: MPEG4 Part 14 (MP4), MPEG-2 Transport Stream ( M2TS) Video codec: H264 Audio codec: AAC

## Software Requirements

See <install-folder>/Media Samples Guide.pdf.

## How to Build the Application

See <install-folder>/Media Samples Guide.pdf for general build instructions, including how to resolve FFmpeg\* dependency.

## Running the Software

See <install-folder>/Media Samples Guide.pdf for common running instructions, e.g. resolving FFmpeg\* runtime dependency.

The executable file `sample_full_transcode` requires the following command-line switches to function properly:

<code>-i &lt;Input File&gt;</code>	Input file must be a container with supported format.
<code>-o &lt;Output File&gt;</code>	Output file will be a container (MP4 or M2TS).
<code>-hw</code>	Use hardware implementation of <b>SDK</b> (default).
<code>-sw</code>	Use hardware implementation of <b>SDK</b> . Should not be set since there is no software library for Linux platforms.

The following command-line switches are optional:

<code>-vcodec h264</code>	Video codec to use for encoding.
<code>-acodec:copy</code>	Copy audio without transcoding.
<code>-async</code>	Asynchronous depth of video pipeline.
<code>-format mp4 m2ts</code>	Container format in case of unknown output file extension.
<code>-v:b</code>	Bitrate of the encoded video stream in Kbits/second.
<code>-a:b</code>	Bitrate of the encoded audio stream in Kbits/second.
<code>-trace_level silent critical error warning info debug</code>	Set application tracing level.
<code>-loop &lt;time&gt;</code>	Transcoding in loop, during <time> in seconds.

Additionally to process audio from input container the sample uses **Intel® Media Server Studio Audio Decoder & Encoder**. If the audio library is not installed, you

can specify `-acodec:copy` to copy audio without transcoding, otherwise the output container will be with no audio.

Below are several examples of command line parameters.

```
-i in.m2ts -o out.mp4 -v:b 1000 -a:b 16 -hw  
-i in.mp4 -o out.m2ts -v:b 2000 -a:b 62 -hw  
-i in.mp4 -o out.abc -v:b 2000 -a:b 52 -format m2ts -hw
```

### Tips

1. Option “-format” can be unspecified if known file extensions for output file is used (mp4, m2ts)
2. VAAPI video memory allocator is used by default with ‘-hw’ option.

### Known Limitations

- -audiocopy feature is not fully working.

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