



Smart Video Evaluation Toolkit – Linux* Concurrent Video Analytic Sample Application

Release Notes

June 2021



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Revision History

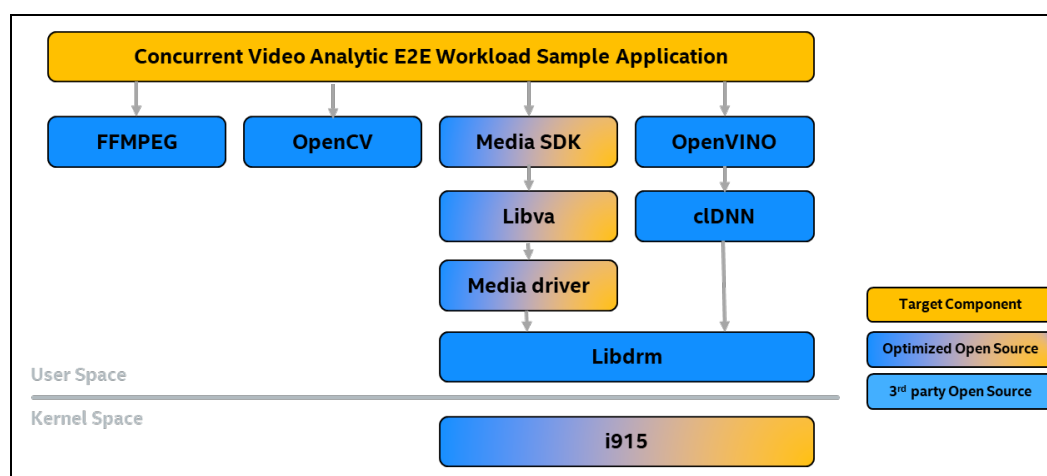
Date	Revision	Description
June 2021	21.1	Updated for 2021.1 release
December 2019	0.5	Initial release

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1.0 Introduction

The concurrent video analytic sample application **video_e2e_sample** leverages open source Intel® Media SDK for video codec support, and OpenVINO™ for inference support. Both workloads will be accelerated by Intel® integrated graphics. Meanwhile FFmpeg* is used for RTSP streaming in support and OpenCV is for bounding box drawing. The following diagram is the high-level software stack for Linux* version.

Figure 1. High-Level Software Stack for Linux* Version



Refer to the *Concurrent Video Analytic Sample Application User Guide* for system requirements, installation instructions, and example command line.

To learn more about this product, see:

- New features listed in the [New in this Release](#) section.
- Reference documentation listed in the [Reference Documents](#) section.

1.1 Terminology

Table 1. Terminology

Term	Description
E2E	End to End
Intel® OpenVINO™	A free toolkit that facilitating of deployment neural network models across Intel® platforms with a built-in model optimizer for pretrained models and an inference engine runtime for hardware-specific acceleration.

Term	Description
OpenCV	Open Source Computer Vision Library
RTSP	Real Time Streaming Protocol

1.2 Reference Documents

Log in to the Resource and Design Center (rdc.intel.com) to search for and download the document numbers listed in the following table. Contact your Intel field representative for access.

Note: Third-party links are provided as a reference only. Intel does not control or audit third-party benchmark data or the web sites referenced in this document. You should visit the referenced web site and confirm whether referenced data are accurate.

Table 2. Reference Documents

Document	Document No./Location
Smart Video Evaluation Toolkit – Linux* - Concurrent Video Analytic Sample Application User Guide	630748

1.3 Intended Audience

Software developers from OEM / ODM / SI / ISV.

1.4 Customer Support

For NDA customers, contact your corresponding FAE. For technical support, including answers to questions not addressed in this product, report issues on the [GitHub issue page](#).

2.0 New in This Release

New Features:

- Support more inference models: yolov3, MOT
- Support MCU mode
- Support building without OpenVINO™
- Upgrade the Media SDK to version 2021.1.3 and OpenVINO™ to version 2021.3.

For the par file example of these new features, refer to the Smart Video Evaluation Toolkit – Linux* - Concurrent Video Analytic Sample Application User Guide, [Document Number: 630748](#).

3.0 *Fixed Issues*

- 64 D1 video decode + display test case is not stable on TGL-U

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4.0 Known Issues

Table 3. Known Issues

Reference ID	Description	Workaround/ Resolution
1	<p>16-channel face detection stability, test failed on some of the TGL platforms.</p> <p>Issue: Run 16-channel face detection on i5-1145GRE for 24 hours and saw Linux kernel crash sometimes.</p> <p>Impact: Long hour running of 16-channel face detection might cause system to hang on some TGL hardware.</p> <p>Affected component/ module/ driver: 16-channel face detection on TGL</p> <p>Affected OS: Linux*</p>	Upgrade kernel to 5.10

4.1 Non-Intel Issues

N/A

5.0 Where to Find the Release

Use git to download the source code from git project at <https://github.com/intel-iot-devkit/concurrent-video-analytic-pipeline-optimization-sample-l>.

5.1 How to Install this Release

Follow the steps to install this release:

1. Install OpenVINO™ 21.1 release.
2. Run *build_and_install.sh* under the root directory.

Note: Refer to the Smart Video Evaluation Toolkit – Linux* - Concurrent Video Analytic Sample Application User Guide, [Document Number: 630748](#).

6.0 Release Content

Table 4. Components Revision Numbers of the Production Candidate Release

Subproject (component)	Location	Revision
video_e2e_sample	video_e2e_sample	2021.1.0

6.1 External Dependencies

- MediaSDK 2021.1.0
- OpenVINO™ 2021.3
- FFmpeg*

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7.0 *Best Known Configuration*

Note: Refer to the Smart Video Evaluation Toolkit – Linux* - Concurrent Video Analytic Sample Application User Guide, [Document Number: 630748](#).

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8.0 Hardware and Software Compatibility

Generally, all Intel Atom® & Intel® Core™ processors with HD, Iris, and Iris Pro Graphics from Gen 9 to Gen 12 are supported except for Gen 11. You can refer to [Intel Graphics Wiki](#) for the detailed processors list. The platforms that we have validated are as follows:

- Intel® Core™ i7-8700
- Intel® Core™ i7-8665U
- Intel® Core™ i7-8559U
- Intel® Core™ i7-6770HQ
- Intel® Core™ i5-1135G7
- Intel® Core™ i5-1145G7E
- Intel® Core™ i5-1185G7E
- Intel® Core™ i5-1145GRE

8.1 Supported Operating Systems

- Ubuntu* 18.04.05

9.0 *Legal Information*

Component: Concurrent video analytic sample application

License: MIT 2.0

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