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| **Joint Collaborative Team on Video Coding (JCT-VC)**  **of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC 29/WG 11**  33rd Meeting: Macao, CN, 6–12 Oct. 2018 | Document: JCTVC-AG0027-v1 |

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| *Title:* | **SVT-HEVC open source HEVC encoder** | | |
| *Status:* | Input document to JCT-VC | | |
| *Purpose:* | Information | | |
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| *Source:* | Intel | | |

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# Abstract

A new open source HEVC encoder project has been launched, called SVT-HEVC. The encoder has been optimized for Intel Xeon processors. The encoder provides a mode option to optimize for either subjective quality or objective quality. 8-bit and 10-bit YUV 420 formats are supported.

# Information

The SVT-HEVC open source project is hosted at <https://github.com/intel/SVT-HEVC>

A user guide is available at <https://github.com/intel/SVT-HEVC/blob/master/Docs/SVT-HEVC_Encoder_User_Guide.pdf>

The open source license is available at <https://github.com/intel/SVT-HEVC/blob/master/LICENSE.md>

The Scalable Video Technology for HEVC Encoder (SVT-HEVC Encoder) is an HEVC-compliant encoder library core that achieves excellent density-quality tradeoffs, and is highly optimized for Intel® Xeon™ Scalable Processor and Xeon™ D processors.

This encoder has been optimized to achieve excellent performance levels using 13 density-quality presets (please refer to the user guide for more details) on a system with a dual Intel® Xeon® Scalable CPU targeting:

* Real-time encoding of up to one 8Kp60/10-bit streams on the Platinum 8180 with M11 in the subjective quality mode
* Real-time encoding of up to two 8Kp50/10-bit streams on the Platinum 8180 with M12 in the subjective quality mode
* Real-time encoding of up to four 4Kp60/10-bit streams on the Gold 6148 with M12 in the subjective quality mode
* Real-time encoding of up to six 4Kp60/10-bit streams on the Platinum 8180 with M12 in the subjective quality mode

SVT-HEVC Encoder also supports 2 modes:

* A Subjectively optimized mode (-tune 0)
* An Objectively optimized mode for PSNR / SSIM / VMAF benchmarking (-tune 1 (Default setting))