

# SVT-AV1

Next generation encoding with Scalable Video Technology (SVT)

AV1 is ideally suited for OTT content delivery to web browsers and mobile devices. MainConcept® seamlessly combines AV1 encoding with proven MPEG-DASH multiplexing and formatting technology to greatly enhance streaming quality. It leverages MainConcept's common API and adds useful features unavailable elsewhere.

Working with Intel, the SVT framework is integrated into the MainConcept AV1 encoder, allowing it to run efficiently from edge to cloud on multi-core CPUs like Intel Xeon Scalable processors and Intel Xeon D processors.

*"Integrating SVT-AV1 into MainConcept's SDK makes it easier for developers and platform providers to take advantage of cloud and edge technologies and leverage the compression efficiency of advanced codecs."*

**LYNN COMP**, Vice President, Data Platforms Group, and General Manager, Visual Infrastructure Division, Intel Corporation

## AVAILABLE PACKAGES

<b>SVT-AV1 ENCODER SDK</b>	MainConcept AV1 Encoding, combined with packaging for MPEG-DASH delivery	AV1 Video Encoder AAC Encoder Fraunhofer AAC Encoder MP4 Multiplexer MPD Generator
--------------------------------	--	--

## OPERATING SYSTEM

- Microsoft Windows 7, Windows 10 (64-bit)
- Apple macOS 10.9 and newer (64-bit)
- Linux Ubuntu 14.04 LTS, CentOS 7.2 glibc 2.17 ( 64-bit)

# 30%

**GREATER  
EFFICIENCY\***

### **SAVE TIME**

Pre-configured, ready-to-use libraries and a common API make for simple integration

### **EASY TO USE**

Seamlessly combines AV1 encoding with our proven MPEG-DASH multiplexing and formatting technology

### **INDUSTRY MOMENTUM**

SVT framework integration for efficiency across multiple Intel processors, plus backing by some of the biggest players in streaming

### **KEY FEATURES**

- Improved efficiency, scalability & performance
- Pre-configured, ready-to-use libraries for creating VOD content
- Support for MPEG-DASH multiplexing and formatting
- SVT-AV1 integration better leverages increased compression capacity
- Scaling and color space or color gamut conversion

### **CODEC OPTIMIZATION WITH MAINCONCEPT PROFESSIONAL SERVICES**

\* Industry estimates compared to HEVC

## STREAM TYPES & FORMATS

### **ELEMENTARY STREAMS:**

Generic AV1 ES in IVF and OBU formats

### **MP4:**

MPEG-DASH compliant fMP4 and manifest AAC Audio stream

## SPECIFICATIONS

- 4:2:0 8-bit (Main) and 4:2:0 10-bit profile support for 8K, 4K, 1080p and 720p
- VBR and constant QP encoding
- Scene change detection
- Ability to force Key Frames
- Automatic performance adjustment balances between speed and quality
- Input scaling and colorimetry conversion
- Scaling and color space or color gamut conversion
- IVF and OBU output formats
- MPEG-DASH compliant fMP4 and manifests
- SVT-AV1 sample configuration file support
- Parallel processing for video analysis, partitioning, encoding, and entropy coding
- Picture-based parallel processing for mini-GOPs organized into a hierarchical prediction structure
- Simultaneous segmented processing for different parts of the picture
- Human Visual System (HVS)-optimized classification
- Resource-adaptive scalability for smooth transition of imposed constraints