INTEL® MEDIA SERVER STUDIO 2015

Product Brief

Media Tools to Develop Enterprise Grade Media Applications and Solutions

- Develop and innovate screaming-fast media encode and decode; video pre- and post-processing; and media applications and solutions.
- Use advanced tools to optimize and maximize performance and quality.
- Get faster time to market, write once run anywhere, forward and backward compatibility.
- Effectively transition to next gen video formats.

Note: This product brief is for the Intel® Media Server Studio 2015 Community, Essentials and Professional Editions. It does not include details for other tools in the Intel® Media Server Studio Tools Suite (Intel® Video Pro Analyzer and Intel® Stress Bitstreams and Encoder). For more details on those tools, see p. 3.

Video is the largest and fastest-growing category of internet traffic, according to *Cisco Visual Networking Index*. And with that, economical, fast, and high-quality transcoding is critical, especially as the industry moves to the HEVC video compression standard and 4K ultra-high definition television, with four times the processing demands of present-day HDTV.

Using Intel® Media Server Studio with the latest Intel® processors (see tech specs p. 3), standard off-the-shelf servers can now support media-intensive applications. And the performance of these software-based systems can be significantly better than custom hardware architectures, at a far lower cost—and certainly more adaptable to evolving standards.

INTEL® MEDIA SERVER STUDIO

Community Edition
Essentials edition but without Intel Premium Support.

Essentials Edition
- Media SDK for servers
- Media and graphics drivers for Linux* and Windows Server*
- Performance, power and correctness analyzers
- OpenCL™ Code Builder
- Intel Premium Support

Professional Edition
- Essentials edition
- Expert-grade performance and advanced quality analyzers
- Intel® VTune™ Amplifier
- HEVC and audio codecs
- Premium Telecine Interlace Reverser
- Metrics Monitor tool and GPU Assist API

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In a competitive environment, developers of software-based media solutions need ways to streamline development cycles, improve performance and quality, and keep up with changing media formats and distribution infrastructures.

Intel Media Server Studio: Empowering Developers with Enterprise-grade Media Solutions

Create high-performance datacenter and embedded media solutions for over-the-top (OTT) video streaming, virtual desktop infrastructure (VDI), video conferencing, and television broadcast with Intel Media Server Studio. It provides the software development tools, runtimes, and advanced analysis tools to develop media solutions on platforms running on Intel® Xeon® and Intel® Core™ processors. Developers have access to the **hardware acceleration capabilities** of Intel® CPUs and graphics processors for blazing fast media performance. Editions available include:

- ***Community Edition***—Is the Essentials edition without Intel Premium Support.
- ***Essentials Edition***—Provides the Media SDK for servers, media and graphics drivers, and performance, power, and correctness analyzers to accelerate performance and fast media processing. Includes Intel Premium Support.
- ***Professional Edition***—Includes the Essentials edition and adds expert-grade performance and advanced quality analyzers, plus HEVC and audio codecs. With these tools you can identify performance bottlenecks, and get the best performance, quality and conversion of interlaced formats to HEVC. Includes Intel® VTune™ Amplifier, Video Quality Caliper tool, Premium Telecine Interlace Reverser, GPU Assist API, and more.

Key Benefits of Media Server Studio

High performance, cost-efficient media solution tools

Maximize processing power by taking advantage of hardware acceleration. Intel-specific optimizations enable developers to access the hardware acceleration features in Intel® CPU and through Intel® Iris™ Pro and Intel® HD Graphics, and Intel® Quick Sync Video for premium performance.

Streamline the development cycle with support for multiple Intel® processor-based platforms Rather than cobbling together tools and runtimes from different sources, developers have one toolset to rapidly develop and analyze media apps and solutions.

Accelerate time to market. Intel-optimized tools can reduce development time, and significantly speed time to market and reduce costs—key factors for differentiation in an ever more fragmented and commoditized marketplace.

Use a familiar programming language with an OpenCL™ Code Builder for Linux and Windows.

*Access advanced quality analyzers—transition to new formats with the **Professional Edition***

Ensure advanced product quality and performance with tools that provide deep visual quality analysis, including efficient sequence-level inspection of encoded or decoded video streams, and quickly find visual anomalies. Fine-tune for best processing performance; access GPU Assist API for HEVC encoders on Intel graphics.

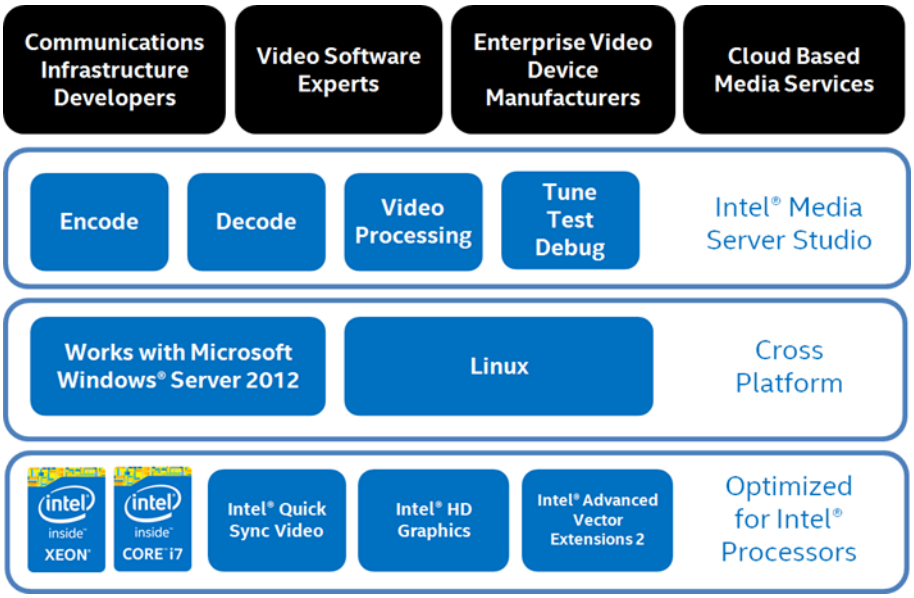
Work with enterprise-quality video codecs. The included video encoders—H.264 (AVC), H.265 (HEVC), MPEG-2, VC-1, MVC, and MJPEG—and an audio codec are stressed for more than 500 hours (60,000+ separate qualification tests) to ensure the highest product quality in a variety of usage models.

Adapt to future industry directions. Intel is committed to supporting current and upcoming industry codec standards. The solutions that developers build today will scale on future platforms as well, such as VP9 and 8K ultra-high definition (UHD) standards. The Professional edition also helps lead transitions to HEVC and VP9 formats.

Media Server Studio Supported Features (all editions)

- **Video Decoders:** H.264 (AVC), H.265 (HEVC, 8-bit and 10-bit, software), MPEG-2, VC-1, MVC (Windows Server* OS only), MJPEG
- **Video Encoders:** H.264 (AVC), H.265 (HEVC, 8-bit and 10-bit, software and GPU accelerated), MPEG-2, MVC (Windows Server* OS only), MJPEG (software)
- **Video Processing Filters:** Deinterlacing, Resizing, Cropping, Composition and Alpha Blending, Color Conversion, Denoising, Frame-rate conversion
- **Audio Formats:** Encode and decode AAC LC and HE AAC V1, decode AAC LTP, AAC PS, HE-AAC V2, and MPEG-Audio (including "MP3")
- **Available Code Samples:** Samples for decode, encode, multi-session transcode, VPP

Fig. 1: **Media Server Studio Industry Users and Tool Capabilities**



Start Taking Advantage Today

Get the most out of most out of Intel® Architecture for enterprise-grade media solutions: OTT video streaming, VDI, video conferencing, and television broadcast.

Quick Links

- **Get a Free Trial or Purchase Media Server Studio now**
- What customers say
- Technical details
- Learn more: **software.intel.com/intel-media-server-studio**

Technical Specifications	Essentials & Community Editions	Professional Edition
Hardware Requirements	Intel® Xeon® Processor E3-128x v3 product family with C226 chipset • Intel® Xeon® Processor E3-1284 v3 • Intel® Xeon® Processor E3-1285 v3 • Intel® Xeon® Processor E3-1285L v3 • Intel® Xeon® Processor E3-1286 v3 • Intel® Xeon® Processor E3-1286L v3 4th and 5th generation Intel® Core™ processors with Intel Iris™ Pro and HD Graphics, and Intel® Quick Sync Video	Same as Essentials
Operating Systems	• Microsoft Windows Server* 2012 • 64-bit Windows* 8 (development only) • Microsoft Visual C++* 2005 with Service Pack 1, and later versions • SUSE Linux Enterprise Server* (SLES) 11 • Ubuntu* 12.04 LTS (official support of Ubuntu* is discontinued, however, it is still possible to run on with Generic OS model) Linux Kernel Supported Distributions • Linux: SLES and CentOS are preferred OSs. Versions and kernels supported vary based on the release. Review Release Notes to find the correct kernel for the release you are using. See also individual component tools release notes for supported OS and required software. • OpenCL™ Code Builder	Same as Essentials See also individual component tools release notes for supported OS and required software. • Intel® VTune™ Amplifier
Known OEM/ODM Functional Platforms	• Intel® Server Board S1200V3RPM (NOTE: only M version of S1200V3RPx board family supports integrated graphics!) • Supermicro* X10SLH-F, X10SAE, X10SAT server boards • Kontron SYMKLOUD* MS2900 Media • Quanta* S910-X31E • HP Moonshot* ProLiant* m710 Server Cartridge • Artesyn SharpStreamer* PCIE-7207	Same as Essentials
Languages	C++	Same as Essentials

Intel® Media Server Studio Tools Suite

Along with the Media Server Studio editions, two companion tools of the Intel Media Server Studio tools suite give developers and validation engineers even more power and control for analyzing their VP9 and HEVC solutions.

Intel® Video Pro Analyzer 2015
Advanced video analysis software tools for HEVC, VP9, AVC, and MPEG2 video coding standards allow you to perform deep visual inspection of the complete decoding process, extract statistics, debug, and more.

Intel® Stress Bitstreams and Encoder 2015
Validate and debug enterprise-grade media products, including VP9/HEVC decoders, transcoders, players, and streaming solutions. Bitstreams have highly redundant syntax coverage in a small footprint—which speeds the validation process and reduces time to market.

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