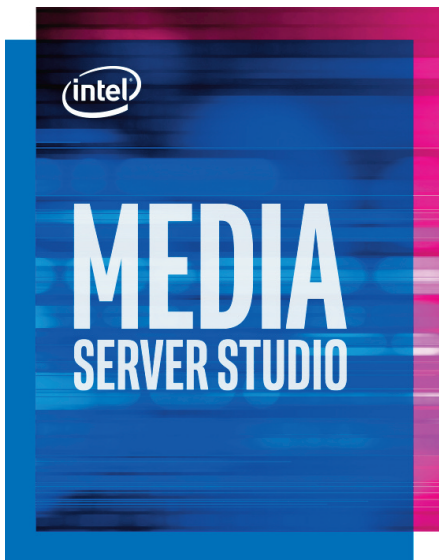


Ultra HD Experiences Made Ultra Simple

Intel® Media Server Studio 2016

Community, Essentials, and Professional Editions



Supports Linux* and Windows Server*

Develop Enterprise-Grade Media Solutions for High Performance and Quality

Intel® Media Server Studio can help developers of software-based media solutions streamline development cycles, improve performance and quality, reduce costs, and keep up with changing media formats and distribution infrastructures.

- **Develop** media solutions and optimize applications to maximize high performance and quality
- **Accelerate** the transition to 4K and HEVC
- **Reduce** infrastructure costs with high-density video transcoding
- **Cut product time to market**, writing once and running anywhere, with forward and backward compatibility.

With video the fastest-growing category of Internet traffic¹, video solution providers need fast, high-quality transcoding to reduce infrastructure and support costs. And to stay competitive and meet consumer content demands, it's essential for the industry to transition to HEVC/4K ultra-high definition (UHD) support.

Using Intel Media Server Studio with the latest Intel® processors in standard, off-the-shelf servers is a great choice for accelerating media-processing solutions and applications. Intel-powered systems can perform significantly better than custom hardware architectures—at a far lower cost—and adapt more easily to evolving standards.

Deliver Fast, High-Density Video Transcoding and Accelerate 4K and HEVC Transitions

Create high-performance datacenter and embedded media solutions for over-the-top (OTT) video streaming, virtual desktop infrastructure (VDI), video conferencing, and television broadcast. Intel Media Server Studio provides a Media SDK, runtimes, graphics drivers, advanced analysis tools, and more to accelerate media processing running on Intel® Xeon® and Intel® Core™ processor-based platforms. Developers have access to the hardware acceleration capabilities of Intel® CPUs and graphics processors for blazing fast media performance.

Intel® Media Server Studio At a Glance

Build High-Performance Media Pipelines at Low Cost

- Access hardware acceleration capabilities of Intel® Xeon® and Intel® Core™ processors for premium performance.**
- Reduce infrastructure and support costs.

Stay Competitive, Transition to 4K and HEVC

- Deliver real-time 4K HEVC on Intel Xeon processor E5 platform-based servers
- Coming soon: Use HEVC software and GPU accelerations to tune for specific scenarios

Embed Enterprise-Grade Codecs for Quick Time to Market

- HEVC, AVC, MPEG-2 decode, encode, transcode, and video conferencing
- AAC, MP3, and MPEG-audio codec

**Hardware technical specifications apply

Choose the Edition that Meets Your Needs

- **Community Edition** is the Essentials Edition without Intel® Premier Support. Support is provided via [forums](#) and the [Support site](#).
- **Essentials Edition** includes access to Intel platform media features and hardware acceleration through a Media SDK for servers, runtimes, media and graphics drivers, OpenCL* Code Builder, and Metrics Monitor (Linux* only). Includes Intel® Premier Support with direct access to Intel technical experts.
- **Professional (Pro) Edition** includes the Essentials Edition, plus enterprise-quality HEVC and audio codecs, expert-grade performance and quality analyzers (Intel® VTune™ Amplifier, Video Quality Caliper), plus audio codecs, Premium Telecine Interlace Reverser, and more.
- **Coming Soon: New HEVC software** helps you develop next-gen video contribution and distribution solutions using improved HEVC 10-bit 4:2:2/4:2:0 encode quality and performance. Achieve real-time HEVC 4K on Intel® Xeon® processor E5 and E3 platforms by using Intel's high-quality HEVC software as well as a hardware-accelerated solution. Connect business meetings and people more quickly via video conferencing with specially tuned, low-delay HEVC mode.

Benefits

- **High-performance**, cost-efficient media solution tools
- **Maximize processing power** by taking advantage of hardware acceleration of Intel® Iris™ Pro and Intel® HD Graphics for premium performance. Coming soon: Advanced 5th generation graphics and media accelerators, plus custom drivers unlock upwards of 10 HD AVC streams per socket of HD H.264 on 5th generation Intel Xeon processors E3 platform.
- **Work with enterprise-quality video codecs.** H.264 (AVC), MPEG-2, VC-1, MVC, and MJPEG are stressed for more than 500 hours to ensure the highest product robustness in a variety of usage models.
- **Streamline the development cycle** with support for multiple types and generations of Intel® processor-based platforms. Write once and run anywhere. Rather than cobbling together tools and runtimes from different sources, use a consistent set of SDKs, runtimes, and drivers to rapidly develop and analyze media apps and solutions.

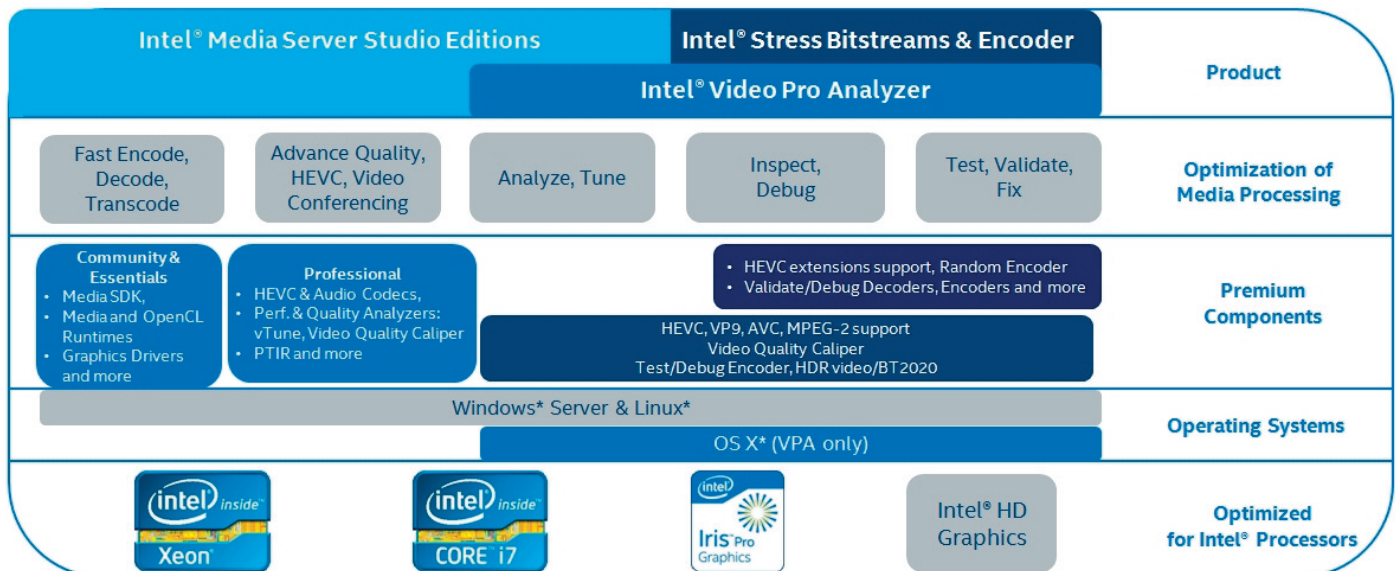


Figure 1. Intel Media Server Studio: An Inside Look

- **Accelerate time to market.** Intel Media Server Studio can reduce time to market and development, support, and infrastructure costs—key factors for differentiation in an ever more fragmented and commoditized ecosystem.
- **Build and debug OpenCL applications** with an OpenCL Code Builder and respective CPU and GPU runtimes for Linux and Windows.
- **Transition to 4K and HEVC** and access advanced tools with the Professional Edition
- **Coming soon: Use HEVC software** to deliver real-time 4K HEVC on Intel Xeon processor E5 platforms for a software-based, highly scalable solution, and on Intel Xeon processor E3 platforms by using a GPU hardware-accelerated solution as well. Improve video conferencing experience with specially tuned low-delay HEVC mode.

Technical Specifications - All Editions

Hardware Requirements

- Intel® Xeon® processor E3-128x v3 and v4 product family with C226 chipset (processor graphics must be enabled)
 - Intel Xeon processor E3-1284 v3
 - Intel Xeon processor E3-1285 v3
 - Intel Xeon processor E3-1285L v3 and v4
 - Intel Xeon processor E3-1286 v3
 - Intel Xeon processor E3-1286L v3
- 4th and 5th generation Intel® Core™ processors with Intel® Iris™ Pro Graphics, Intel Iris Graphics, or Intel® HD graphics 4200+ series (4th generation) or 5500, 6000, 6100, or 6200 (5th generation). (Chipset compatibility is usually not an issue for Intel Core processors.)
- Support for software-only (CPU) processing (includes HEVC decode and encode, selected video pre-processing (SCS, scaling, DI), virtualization (KVM, Xen))
 - Intel Xeon processors E5 v3 and v4

Operating Systems

- Linux*: CentOS 7.1, SUSE Linux Enterprise Server* (SLES*) 12
 - Other Linux distributions through generic OS model (Intel Media Server Studio generally works on these operating systems; however, support is not provided for Linux distributions other than Gold OS)
 - Linux: SLES and CentOS are preferred operating systems. Versions and kernels supported vary based on the release. See Release Notes to find the correct kernel for the release.
 - Installation process applies many changes to the kernel, graphics driver, libdrm and libva graphics stack. These changes would need to be reverted to request OS vendor support.
- Windows*: Microsoft Windows Server* 2012 and 2012 R2, 64-bit Windows* 8 (development only)

See also individual component tools release notes for supported OS and required software.

- [OpenCL™ Code Builder](#)
- [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](#)

Languages

C++

- **Coming soon: Virtualized environment.** Use Intel Media Server Studio software implementation on Intel Xeon processor E5 platform KVM+Xeon, Xenserver on Linux.
- **Coming soon: Screen capture.** Develop your screen capture solution targeting the gaming industry using the screen capture plug-in available in Intel Media Server Studio (Windows only).
- **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. Perform CPU and GPU analysis of Media SDK and Open CL applications with Intel® VTune™ Amplifier.

Key Features

- **Video Decoders:** H.265 (HEVC), H.264 (AVC), MPEG-2, VC-1, MVC, MJPEG
- **Video Encoders:** H.265 (HEVC), H.264 (AVC), 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:** Encode and decode AAC LC and HE AAC V1, decode AAC LTP, AAC PS, HE-AAC V2, and MPEG-Audio (including MP3)

- **Programmability:** OpenCL
- **Premium Components:** Intel VTune Amplifier, Video Quality Caliper, Premium Telecine Interlace Reverser

Build Enterprise-Grade Media Solutions

Get the most out of Intel® architecture for enterprise-grade media solutions, including OTT video streaming, VDI, video conferencing, and television broadcast, with Intel Media Server Studio.

Intel® Media Server Studio Product Family

Along with the Intel Media Server Studio 2016 Community, Essentials, and Professional editions, two companion tools give developers and validation engineers even more power and control for analyzing their solutions.

- **Intel® Video Pro Analyzer.** Advanced video analysis software tools for HEVC, VP9, AVC, and MPEG-2 video coding standards allow deep visual inspection of the complete decoding process, extract statistics, debug, and more. Learn more [here](#).
- **Intel® Stress Bitstreams and Encoder.** Validate and debug enterprise-grade media products including VP9 and 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. Learn more [here](#).



Get Started Now with Intel Media Server Studio

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- [Get technical details >](#)
- [Learn more: software.intel.com/intel-media-server-studio >](http://software.intel.com/intel-media-server-studio)

¹Cisco Visual Networking Index

For more information regarding performance and optimization choices in Intel® software products, visit <http://software.intel.com/en-us/articles/optimization-notice>.

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