

Solution Brief

High-Performance Video Editing
Visual Computing



VEGAS Pro Brings Out the Best of the New Intel® Core™ Ultra Processors

Powered by Intel® Core™ Ultra processors, VEGAS Pro activates hardware-accelerated, AI-assisted video editing, taps the 2X boost in graphics performance and offers integral support for HDR visuals.

“Our apps heavily use the GPU for demanding media processing workloads. MAGIX appreciates the integration of an NPU in the new Intel Core Ultra processor as the next logical step towards an even more energy-efficient heterogenous compute environment. In addition to running optimized AI workloads on CPU and GPU, as we are doing currently, we are excited to explore the NPU capabilities.”¹

– Hagen Hirche,
CTO, MAGIX



Smooth video editing with unparalleled power efficiency

For generations of video producers, VEGAS Pro has excelled at taming difficult video production challenges. And now, VEGAS Pro can tap into the revolutionary 3D performance architecture of the Intel Core processor, which delivers unprecedented power per watt, ideal for laptops.

The well-deserved acclaim VEGAS Pro has earned for streamlining and simplifying tasks associated with video work — such as masking and color-grading — is complemented by hardware features of Intel Core Ultra processors. A low-power island in the SoC tile contains a neural processor unit (NPU) accelerating AI operations at a low power cost and providing local inferencing on the PC.

VEGAS Pro benefits from the performance improvements built into the individual components of the multi-tiled Intel Core Ultra processor. For example, the graphics tile, based on updated Intel Arc technology, provides up to twice the performance of prior generations, which makes it well suited for video editing operations.

Integrated Thunderbolt™ 4 connectivity cuts import and export time when dealing with massive 8K video files. Architectural advances streamline multitasking and boost productivity. For example, users can effectively perform file exports while simultaneously editing an audio file or doing research on the internet.

Hardware acceleration to supercharge AI-assisted editing

VEGAS Creative Software took advantage of the [OpenVINO Execution Provider for ONNX Runtime](#) to boost inferencing for the AI-powered effects in VEGAS Pro. This effectively prepares them to utilize the Core Ultra NPU extensively in future releases.

VEGAS Pro increasingly uses AI to perform numerous compute-intensive functions. Strengthened by the hardware acceleration delivered by the Intel Core Ultra processor, as well as Intel Arc graphics, VEGAS Pro incorporates a number of innovative visual effects.

This includes creating a depth map for compositing, smart masking specific objects, adding realistic color to black-and-white images and upscaling to improve low-resolution images.

Gary Rebholz, CPO Professional Video at VEGAS Creative Software, commented, “Some creative operations are completely impractical or virtually impossible to

accomplish by hand, but AI changes things dramatically. Z-Depth compositing and AI Smart Masking are perfect examples. AI/ML enables these tasks to be done in a fraction of the time it would take to implement them manually, if manual implementation were even possible.”

Empowering VEGAS Pro capabilities

The powerful video stabilization tool — a key feature of VEGAS Pro — benefits from the workload distribution delivered by the hybrid architecture. Basic and professional stabilization modes are available to optimize results.

With integral support for high dynamic range (HDR) visuals, VEGAS Pro can transform RAW HDR video source material into striking imagery. Extensive color correction and grading, control of RGB color curves, professional HDR video scopes and fluid import and export of lookup tables (LUTs) bring a level of polish appreciated by those who are doing serious video editing.

VEGAS Pro is video-enabled for Intel Quick Sync Video (Intel QSV). Using the dedicated media processing capabilities of Intel Graphics Technology, Intel QSV accelerates decoding and encoding operations to free the processor to perform other tasks. Ultimately, this improves the overall responsiveness of the system.

Intel QSV provides improved HDR playback, wider support for color spaces and improved media engines. This all contributes to a better visual computing experience.

The addition of support for the royalty-free AV1 codec offers a useful option for creatives seeking powerful encoding that meets high-end technical demands.

New architecture heralds a modular future

As the first major architecture redesign by Intel in 40 years, the Intel Core Ultra processor foreshadows a future in which purpose-built processing units can be rapidly created and configured to focus on certain capabilities and strengths.

VEGAS Pro features now include:

- **AI image analysis** with Z-Depth builds a depth map from 2D imagery, which enables separate editing of foreground and background.
- **Automatic voiceovers** enable you to generate commentary automatically using text-to-speech with power to choose the right emotional tone and translate to dozens of languages.
- **Smart masks** identify and track moving objects in clips and create masks accordingly.
- **Powerful color-grading tools** include RGB color curves, range-limited color wheels, professional HDR video scopes, use of LUTs, log color correction and grading, and more.
- **Extensive use of hardware-accelerated AI assists** bring productions alive with a vast range of creative choices.

The disaggregated architecture of the Intel Core Ultra processor includes individual tiles for compute, graphics, SoC and I/O.

The Intel Thread Director works with the operating system to ensure that the right workloads are assigned to appropriate cores for maximum responsiveness and power efficiency. Communications between chiplets are enhanced by supporting direct access to memory for each chiplet.

The collaboration between VEGAS Creative Software and Intel is ongoing, refining the hardware and software for optimal results. The result is an exceptional video solution that meets demanding professional requirements and also gives prosumers a high-performance platform to elevate their video editing skills to new heights.

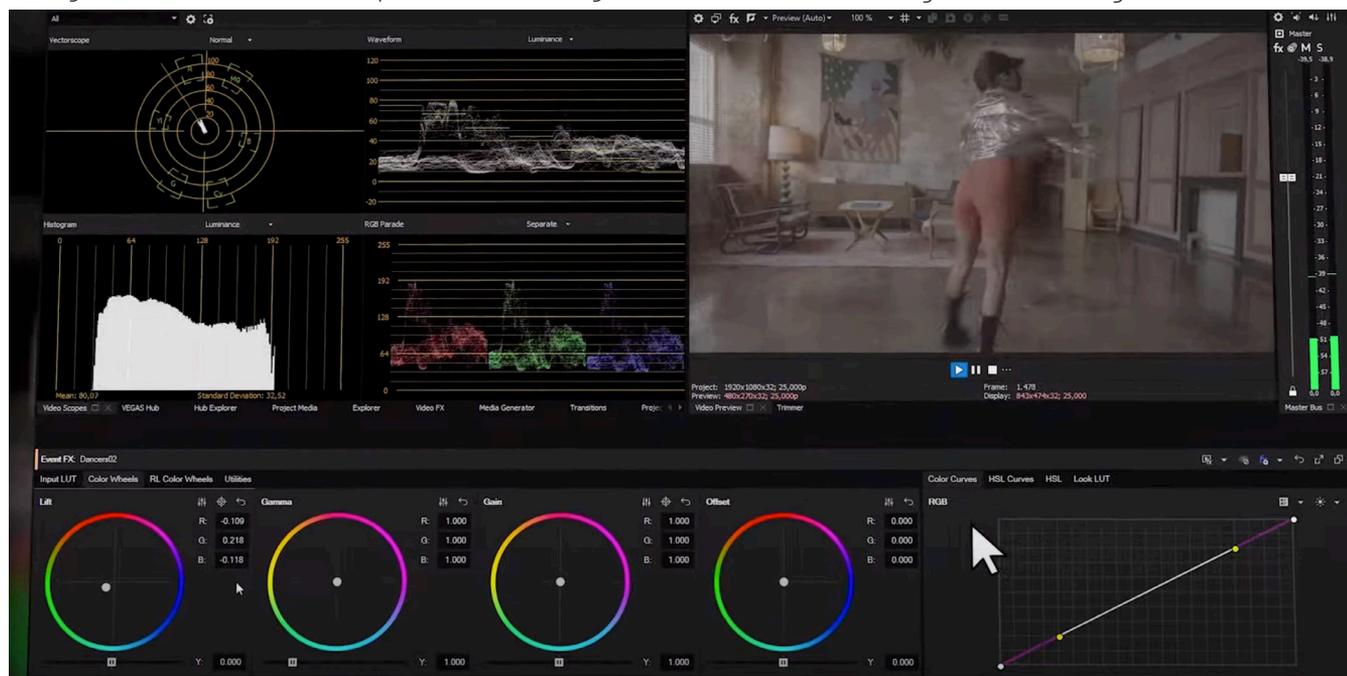


Figure 1. Advanced features, such as color grading, are easy to access and learn.

Resources

Experience VEGAS Pro with a 30-day free trial

To get a sense of the power, speed and working environment of VEGAS Pro, download the 30-day free trial version and experience the capabilities first hand. At the conclusion of the trial, you can opt for a subscription, choose additional add-on services or select other benefits.

[Learn more >](#)

Intel® Distribution of OpenVINO™ toolkit

The 2023.1 release of the OpenVINO toolkit focuses on generative AI and simplifying the tasks for getting projects into production. New features include an increased large language model and optimization choices for TensorFlow and PyTorch development.

[Learn more >](#)

In-depth survey of the Intel Core Ultra processor

Presented by Intel architects and engineers, this video goes deeper, explaining the disaggregated architecture and capabilities of this new mobile processor design. Learn how Intel's most dramatic shift in SoC design in 40 years was implementing using a unique, modular packaging method.

[Learn more >](#)

About VEGAS Creative Software

Today, millions of VEGAS Pro users benefit from global industry-leading video editing technologies. VEGAS continues to push into new territory.

With VEGAS Pro, you are ready to meet the increasing technical demands of modern video production. VEGAS continues to push the boundaries with its cutting-edge technologies. Industry-leading HDR, AI-supported editing tools and numerous improvements on the basic tools are part of the VEGAS success. We watch the industry, listen to users and work passionately to create best possibilities to manage video projects in the most effective way possible.

The VEGAS Creative Software mission: to make VEGAS software faster, more efficient and even more intuitive. Our goal: to provide users at all levels — from video editing amateurs to creative professionals — tools that are perfectly suited to their needs and demands.

vegascreativesoftware.com



1. Intel. "Intel Launches Industry's First AI PC Acceleration Program." Intel Newsroom (October 2023). <https://www.intel.com/content/www/us/en/newsroom/news/intel-launches-ai-pc-acceleration-program.html>

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