

TOPAZ VIDEO ENHANCE AI™

Upscaling AI, Upscaling Performance.



New to Topaz Labs

Topaz Labs provides a toolkit of AI-powered applications that excel in various aspects of image and video enhancing. The hardware-accelerated video and image editing tools cover the most essential needs of both amateur and professional workflows - from effective noise reduction, intelligent sharpening to RAW-like JPEG processing, photo and video upscaling. Based on deep learning AI algorithms, Topaz Labs Video Enhancement AI (VEAI) software is available for both Windows® and macOS® based systems.

topazlabs.com

Professional GPUs

Topaz Labs recommends the GPU over the CPU for accelerating AI processing in Topaz VEA1. The Radeon™ PRO W6800, the latest large workflow GPU from AMD, has a gigantic 32 GB of dedicated high performance memory, which allows you to run multiple instances of VEA1 on the same GPU, optimizing your workflows even further. Typically, only one instance running is recommended.

The latest AMD graphics architecture gives you the freedom to work with bigger projects, faster.

AI Accelerated Solutions

Topaz Video Enhance AI™ software uses the latest deep learning techniques to increase video quality and detail for complex workloads, such as HD to 4K video upscaling, denoising or restoration. Traditional image processing techniques “filter” your photo or video through math operations, typically removing details and boosting visual artifacts. The development, training and deployment of AI models opens a way to approach image enhancement while maintaining crisp video details and preserving image definition. With trained models, AI can improve image quality while keeping your image natural. AI operations are, however, computationally expensive and require high performing hardware to run, and the results are worth it.

“For high resolution videos VEA1 eats GPU RAM, the more you can get the better.”

Dr. Suraj Raghuraman,
Head of AI Engine Dev, Topaz Labs



Accelerating Topaz Labs Software

Topaz Labs applications heavily rely on the performance of the local hardware, including dual GPUs. The GPU acceleration requirements for Topaz VEA1 are focused on DirectX® 12 (DX12) compatible GPUs with at least 6 GB of dedicated memory. The latest generation of AMD Radeon™ PRO W6000 series graphics cards significantly enhance performance in common VEA1 tools with their support of DX12 Ultimate, high performing GDDR6 memory and all new graphics architecture that helps remove common data transfer bottlenecks, helping improve workflow efficiencies further.

Images kindly provided by Topaz Labs.



Professional Graphics for Exceptional Performance with Reliability, Stability and Software Certifications at its Core.

Enhance Your Current Pipeline

Topaz Labs software is designed to directly plug into your existing post-processing workflow. You may continue working within your existing tools and access Topaz software as a plug-in from within your existing image editor. With AMD Radeon PRO graphics accelerating all stages of your image or video processing pipeline and the Topaz proprietary AI Engine further optimizing the performance behind the scenes, your creative masterpiece will be ready to make impact in no time.



Removing Common Bottlenecks

The AMD RDNA™ 2 graphics architecture is even more efficient with the introduction of AMD Infinity Cache, an all-new additional cache level that enables high bandwidth performance at low power and low latency, helping to remove data bottlenecks. This global cache is seen by the entire graphics core, capturing 'Temporal Reuse' (optimized, iterative same data reuse) and enabling data to be accessed instantaneously. Leveraging the best high frequency data processing approaches from "Zen" architecture, AMD Infinity Cache enables scalable performance.

This established architecture is the basis for the graphics that power the leading, visually rich next-generation gaming consoles

Learn more about VR capabilities of Radeon PRO Graphics at amd.com/PRO-VR

Light to Medium Workloads



RADEON PRO W5700 GRAPHICS

FIRST GENERATION AMD RDNA ARCHITECTURE
8 GB of Fast GDDR6 Memory.
Six Display Outputs. 8K Support.
USB-C Output Ready.

amd.com/RadeonPROW5700

Medium to Heavy Workloads



RADEON PRO W6600 GRAPHICS

LATEST AMD RDNA 2 GPU FOR COMPLEX TASKS
8 GB of High Performance GDDR6 Memory.
Four Display Outputs. 8K, HDR Support.
Available for Mobile Systems.

amd.com/RadeonPROW6600

Heavy to Extreme Workloads



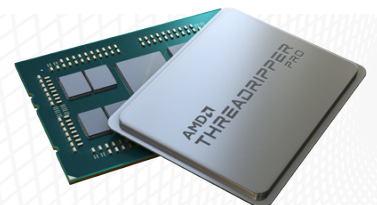
RADEON PRO W6800 GRAPHICS

THE GPU TO CRUSH AI AND VIDEO INTENSE PROJECTS
Gigantic 32 GB of GDDR6 Memory.
Error Correction Code (ECC) Support.
Six Display Outputs. 8K, HDR Support.

amd.com/RadeonPROW6800

Additional Performance Power

Choosing the right CPU means addressing the bottlenecks of your most common workflow tasks. AMD Ryzen™ Threadripper™ PRO Processors offer exceptional single and multithreaded performance along with support for up to 2TB of memory.

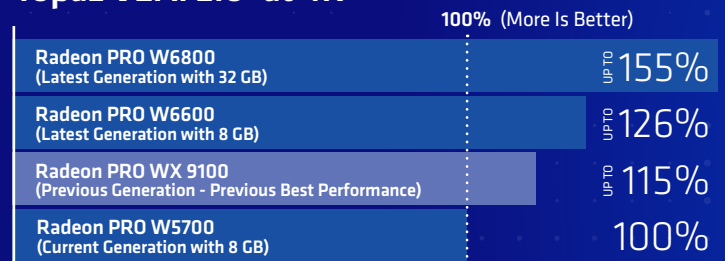


amd.com/Workstation

Powerful AI Performance

Engineered from the ground up, the award-winning AMD RDNA™ 2 graphics architecture found within the latest Radeon PRO W6000 graphics family introduces significant GPU advancements in the form of an enhanced Compute Unit, new visual pipeline, and all new AMD Infinity Cache. Combined, these advanced AMD technologies help remove common GPU and system bottlenecks. These significant progressions support higher software resolutions, incorporating superior performance and power efficiency. The established AMD RDNA 2 architecture helps deliver the enhanced, but affordable, performance you can see within the opposite bar chart.

Relative GPU AI Processing Speed in Topaz VEA1 2.0² at 4K



To learn more about AMD professional graphics visit: amd.com/RadeonPRO

¹Topaz Recommendation Source <https://help.topazlabs.com/hc/en-us/articles/360054547152-Video-Enhance-AI-GPU-Settings>

²Testing as of March 16, 2021 by AMD Performance Labs on a test system comprised of an AMD Ryzen™ 5950X with AMD Radeon™ PRO W5700 / AMD Radeon™ PRO WX 9100 / AMD Radeon™ PRO VII / AMD Radeon™ PRO W6600 / AMD Radeon™ PRO W6800, at 3840x2160 display resolution. Benchmark Application: Topaz Video Enhance AI 2.0.0 tasks Artemis-HQ, Gaia-HQ and Thela-Detail. Performance may vary based on factors including driver version and system configuration. RPW-360

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