

AGISOFT METASHAPE

Boosting Intelligent Photogrammetry.



New to Metashape

Agisoft Metashape is an intelligent photogrammetry software used to process digital images, generating highly accurate 3D spatial data, textured 3D models, and visuals. Typical uses include media production, visual effects, cultural and archaeological studies, landscape and interior design, geographic information systems and many more.

Agisoft Metashape supports a wide variety of visual source data, georeferencing techniques and includes a wealth of tools for model editing, measuring and exporting.

[agisoft.com](https://www.agisoft.com)

Speeding Up Photogrammetry

Agisoft Metashape utilises most of the resources within a modern desktop workstation to speed up the intense operations needed to produce accurate models. Metashape supports high-end graphics card (GPU) hardware acceleration for the most resource-intensive processing steps. Using advanced OpenCL™ based GPUs it is possible to significantly speed up these time consuming and compute intensive steps. To balance the needs of complex reconstruction algorithms, a fast, multi-core processor (CPU) is also highly recommended. Rounding out a complete system with large amounts of RAM will provide a platform that is well suited to processing the vast amounts of data needed for typical photogrammetry workloads.

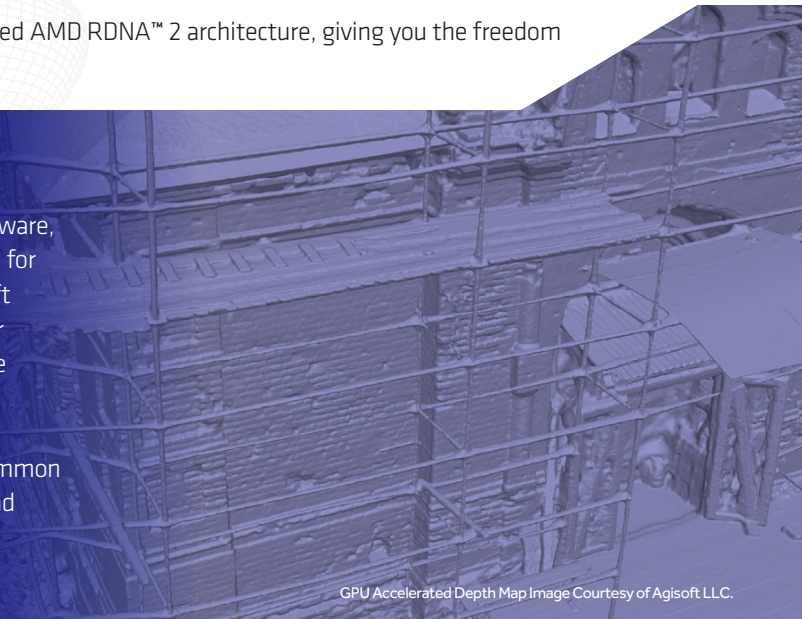
Multi-GPU Configurations

The Radeon PRO™ W6800 is the latest large workflow GPU from AMD with a gigantic 32 GB of dedicated high-performance memory, and usually one GPU is fast enough for most compute tasks, however photogrammetry is significantly more intense. To combat this, Metashape allows multiple GPUs to be used in support of these numerous processing steps. A dual GPU setup is often considered to give the optimum value for money and reduction of data transfer bottlenecks. Going beyond two GPUs may not give you an added value on return, even with the high-end, yet affordable Radeon PRO W6800 GPU.

This latest AMD Radeon PRO W6000 series is powered by the advanced AMD RDNA™ 2 architecture, giving you the freedom to work with bigger Metashape projects, faster.

Don't Waste Time

Agisoft Metashape heavily relies on the performance of the local hardware, including multiple high-end GPUs. The GPU acceleration requirements for Metashape are focused on modern GPUs. The suggestion from Agisoft is 1,920 graphics Stream Processors (SP's) provides a good baseline for "Advanced Configurations!" The Radeon PRO W6800 GPU goes above and beyond this with 3,820 SP's, offering affordability, but without sacrificing performance. The entire generation of AMD Radeon PRO W6000 series graphics cards significantly enhance performance in common photogrammetry tools with their high-performing GDDR6 memory and all new graphics architecture helping remove common data transfer bottlenecks, improving workflow efficiencies further.



GPU Accelerated Depth Map Image Courtesy of Agisoft LLC.



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

Choosing the CPU

Agisoft Metashape also relies on the main system processor's computational power and will therefore benefit from a good multi-core processor. Basic CPU requirements start from 4-8 core processor running at 2.0GHz+. Third generation HEDT class AMD Ryzen™ Threadripper™ PRO processors come with up to 64 cores and can boost to up to 4GHz² making them the ultimate choice for Agisoft Metashape projects.

AMD Radeon PRO W6000 graphic series make excellent companions to AMD Ryzen and Ryzen Threadripper PRO processors, particularly for Metashape computations that utilize GPU power, such as image matching, depth map calculations or mesh generation operations.

amd.com/Workstation



Removing Photogrammetry Bottlenecks

The advanced AMD RDNA 2 graphics architecture introduces the 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.

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 W6600 GRAPHICS

LATEST GENERATION ARCHITECTURE
8 GB of High Performance GDDR6 Memory.
Four Display Outputs. 8K Support.
Remote Environment³ Ready.
Available for Mobile Systems.

amd.com/RadeonPROW6600

Medium to Heavy Workloads



RADEON PRO W6800 GRAPHICS

LATEST AMD RDNA 2 GPU FOR COMPLEX TASKS
Gigantic 32 GB of GDDR6 Memory.
Six Display Outputs. 8K, HDR Support.
Error Correction Code (ECC) Support.
Remote Environment³ Ready.
Available for Mobile Systems.

amd.com/RadeonPROW6800

Heavy to Extreme Workloads



DUAL RADEON PRO W6800 GRAPHICS

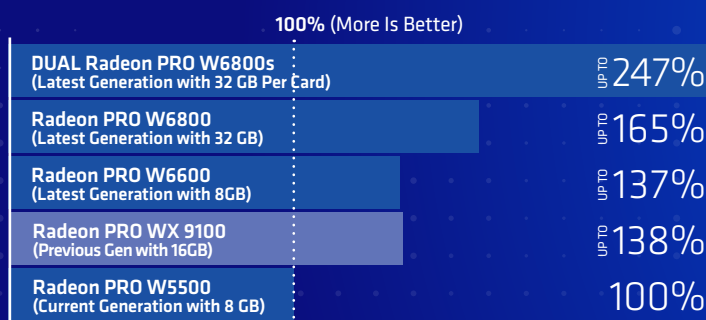
FOR INTENSE WORKLOADS DUAL GRAPHIC CARDS ARE SUPPORTED
Combine the Supreme Power of 2x High End GPUs for Tough Tasks that Require Extra Computational Performance.

amd.com/RadeonPROW6800

Professional 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, delivering more performance over previous generation AMD GPUs. 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 Acceleration in Agisoft Metashape⁴



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

Links to third party sites are provided for convenience and unless explicitly stated, AMD is not responsible for the contents of such linked sites and no endorsement is implied.

¹ Agisoft Recommendation Source <https://www.agisoft.com/downloads/system-requirements/>

² Max boost for AMD Ryzen and Athlon processors is the maximum frequency achievable by a single core on the processor running a bursty single-threaded workload. Max boost will vary based on several factors, including, but not limited to: thermal paste; system cooling; motherboard design and BIOS; the latest AMD chipset driver; and the latest OS updates. GD-150

³ Learn more at www.amd.com/en/technologies/remote-workstation

⁴ Testing as of May 9, 2021 by AMD Performance Labs on a test system comprised of a Lenovo P620, AMD64 TR 3975WX, with AMD Radeon™ PRO W5500 AMD / Radeon™ PRO W5700 / AMD Radeon™ PRO WX 9100 / AMD Radeon™ PRO W6800 (pre-production sample) / Dual AMD Radeon™ PRO W6800 (pre-production sample), at 2560 x 1080 display resolution. Benchmark Application: Puget Systems benchmark for Agisoft Metashape 1.71. Rock Model tasks Align Photos and Build Depth Maps, School Map tasks Align Photos and Build Depth Maps. Performance may vary based on factors including driver version and system configuration. RPW-384

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